

KJWW MASTER

PLUMBING MATERIAL LIST

by: Plumbing Committee

revised: December, 2006

Each item includes a Description and manufacturer cut sheets. The page numbering on the bottom of the page indicates the number of pages for each item.

To print an item, determine its page number(s) as indicated at the bottom of the Acrobat window and input them in the Print Range field.

The hardcopy cut sheet books will only contain up to the first two pages of each item. Please refer to the electronic format for additional pages.

If you have any questions please notify the Plumbing Committee.

Plumbing Material List Index

Sheet # _____

Ck List	Device	Description	Rev. Date
_____	AGF-1	Air Gap Fitting	Orig. Issue
_____	BFP-1	Backflow Preventer RPZ	3/04
_____	BFP-2	Backflow Preventer RPZ Watts 909 only	8/02
_____	BFP-3	Backflow Preventer Double Check	3/04
_____	BFP-4	Backflow Preventer Dual Check for Carb. Bev.	Orig. Issue
_____	BFP-5	Backflow Preventer Dual Check	Orig. Issue
_____	BLANK	Blank Template	8/02
_____	BSV-1	Bath/Shower Valve Press Balance (Low Budget)	3/05
_____	BSV-2	Bath/Shower Valve Press Balance	3/05
_____	BSV-3	Bath/Shower Valve Press Balance (ADA)	3/05
_____	BSV-4	Bath/Shower Valve Thermostatic	9/03
_____	BSV-5	Bath/Shower Valve Thermostatic (ADA)	9/03
_____	BSV-6	Bath/Shower Valve Thermostatic/Press Balance	8/04
_____	BSV-7	Bath/Shower Valve Thermostatic/Press Balance (ADA)	8/04
_____	BT-1	Bathtub/Shower Cast Iron	3/05
_____	BT-2	Bathtub/Shower Fiberglass	3/05
_____	BT-3	Bathtub/Shower Acrylic	3/05
_____	BT-4	Bathtub/Shower Access Fiberglass	12/06
_____	BT-5	Bathtub/Shower Access Acrylic	12/06
_____	BT-6	Bathtub Sitz Bath	3/05
_____	CP-1	Circ Pump High head/Low GPM	3/05
_____	CP-2	Circ Pump Small Throwaway Pump	3/05
_____	CP-3	Circ Pump Large System Pump	3/05
_____	CS-1	Clinical Sink Wall Mtd	Orig. Issue
_____	CS-2	Clinical Sink Floor Mtd	Orig. Issue
_____	DB-1	Dialysis Box With Removable Wall Flange	8/04
_____	DB-2	Dialysis Box With Lockable/Hinged Cover	8/04
_____	EE-1	Emergency Eyewash Plastic bowl	12/06
_____	EE-2	Emergency Eyewash Stainless steel bowl	12/06
_____	EE-3	Emergency Eyewash Counter top	12/06
_____	ES-1	Emergency Shower	12/06
_____	ESE-1	Emergency Shower/Eyewash Standard	12/06
_____	ET-1	Expansion Tank	12/06
_____	EWC-1	Elec. Water Cooler Wall Mtd Single	12/06
_____	EWC-2	Elec. Water Cooler Wall Mtd Double	12/06
_____	EWC-3	Elec. Water Cooler Wall Mtd Single	3/04
_____	EWC-4	Elec. Water Cooler Recessed Single Square	12/06
_____	EWC-5	Elec. Water Cooler Recessed Double Square	12/06
_____	EWC-6	Elec. Water Cooler Recessed Single Round	12/06
_____	EWC-7	Elec. Water Cooler Recessed Double Round	12/06
_____	EWC-8	Elec. Water Cooler Recessed Single	12/06
_____	F-1	Water Filter	12/06
_____	FCO-1	Floor Cleanout Standard	12/06
_____	FCO-2	Floor Cleanout Galvanized	8/02
_____	FCO-3	Floor Cleanout Stainless steel	8/02
_____	FCO-4	Floor Cleanout Acid Waste	11/02
_____	FD-1	Floor Drain Standard	3/05
_____	FD-2	Floor Drain 9 dia	3/05
_____	FD-3	Floor Drain 12 dia Medium sump	3/05
_____	FD-4	Floor Drain 12 dia Deep sump	12/06

Ck List	Device	Description	Rev. Date
	FD-5	Floor Drain 13x11	8/02
	FD-6	Floor Drain 6 dia Planting area	8/02
	FD-7	Floor Drain 10 dia Planting area	8/02
	FD-8	Floor Drain Depressed top	8/02
	FD-9	Floor Drain 7 dia w/ funnel	8/02
	FD-10	Floor Drain 4x8 Open site drain	8/02
	FD-11	Floor Drain Acid Waste	11/02
	FHW-1	Feminine Hygiene Washer	3/05
	FS-1	Floor Sink 8 dia Shallow	12/06
	FS-2	Floor Sink 8 dia	12/06
	FS-3	Floor Sink 12 dia	Orig. Issue
	FS-4	Floor Sink 8x8	Orig. Issue
	FS-5	Floor Sink 12x12	Orig. Issue
	FS-6	Floor Sink 16x16	11/02
	FS-7	Floor Sink 4x8	Orig. Issue
	FS-8	Floor Sink 6x12	Orig. Issue
	FS-9	Floor Sink Can Washer 12x12	Orig. Issue
	FS-10	Floor Sink 12x12 Stainless Steel	Orig. Issue
	FS-11	Floor Sink 12x12 Stainless Steel (Kusel)	Orig. Issue
	GD-1	Garbage Disposer 1 hp	8/04
	GD-2	Garbage Disposer 3/4 hp	8/04
	GI-1	Grease Interceptor Recessed	12/06
	GI-2	Grease Interceptor Floor Mtd	12/06
	GR-1	Gas Regulator	3/05
	HB-1	Hose Bibb Freezeless Wall Surface Mtd	12/06
	HB-2	Hose Bibb Freezeless Wall Concealed	12/06
	HB-3	Hose Bibb Indoor Brass	8/02
	HB-4	Hose Bibb Indoor Chrome plated	8/02
	HB-5	Hose Bibb Concealed Freezeless yard hydrant	4/03
	HB-6	Hose Bibb to Kitchen/Concession equipment	8/02
	HB-7	Hose Bibb Freezeless yard hydrant pump style	8/04
	L-1	Lavatory Wall Mounted	12/06
	L-2	Lavatory Access Wall Mounted	12/06
	L-3	Lavatory Wall Mtd w/ flat side decks	12/06
	L-4	Lavatory Access Wall Mtd w/ flat side decks	12/06
	L-5	Lavatory Wall Mtd w/ no backsplash	12/06
	L-6	Lavatory Access Wall Mtd w/ no backsplash	12/06
	L-7	Lavatory Access Wall Mtd Long	12/06
	L-8	Lavatory Counter Top Oval	12/06
	L-9	Lavatory Counter Top Round	12/06
	L-10	Lavatory Under Counter Oval	12/06
	L-11	Lavatory Wall Mtd Stainless Steel	12/06
	L-12	Lavatory Counter Top By G.C.	12/06
	L-13	Lavatory Pedestal Modular Wash Station	12/06
	L-14	Lavatory Wall Mtd Modular Wash Station	12/06
	L-15	Lavatory Wall Mtd Modular Wash Station (Arch.)	12/06
	LT-1	Lav Trim Two handle Wrist blade Gooseneck	9/03
	LT-2	Lav Trim Commercial Two handle	3/05
	LT-3	Lav Trim Residential Two handle	7/03
	LT-4	Lav Trim Single Lever	12/06
	LT-5	Lav Trim Sensor Gooseneck Wired	12/06
	LT-6	Lav Trim Sensor Gooseneck Battery	12/06
	LT-7	Lav Trim Sensor Wired	12/06




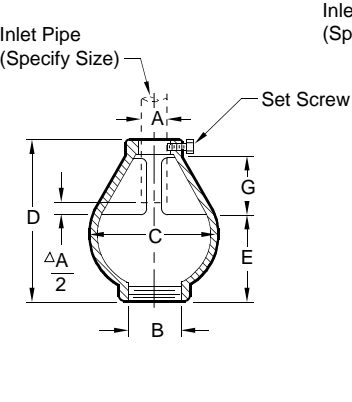
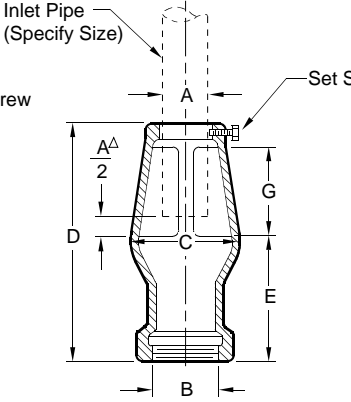
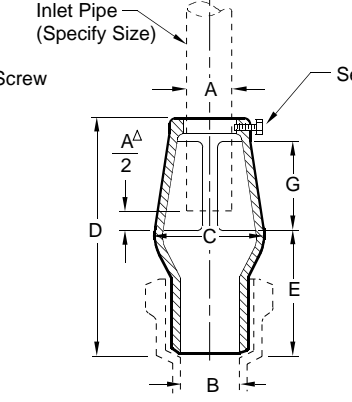



Ck List	Device	Description	Rev. Date
	LT-8	Lav Trim Sensor Battery	12/06
	LT-9	Lav Trim Sensor Battery (faucet mounted)	9/03
	LT-10	Lav Trim Self Closing Two Handle	3/04
	LT-11	Lav Trim Self Closing Single Handle	7/03
	LT-12	Lav Trim Sensor Low Flow/EcoPower NEW!	12/06
	MB-1	Mop Basin Terrazzo 24x24	11/02
	MB-2	Mop Basin Molded stone 24x24	11/02
	MB-3	Mop Basin Terrazzo 36x24	11/02
	MB-4	Mop Basin Molded stone 36x24	11/02
	MB-5	Mop Basin Terrazzo 24x24 Corner	11/02
	MBT-1	Mop Basin Trim	7/03
	MV-1	Mixing Valve @ Source Large capacity	8/04
	MV-2	Mixing Valve @ Source Small capacity	8/04
	MV-3	Mixing Valve @ Fixture group	3/05
	MV-4	Mixing Valve @ Fixture	8/04
	MV-5	Mixing Valve Emergency Shower	7/03
	MV-6	Mixing Valve Emergency Eyewash	7/03
	NT-1	Neutralization Tank Stoneware	8/02
	NT-2	Neutralization Tank Polyethylene	8/04
	OS-1	Oil Separator w/ Draw off	8/04
	OS-2	Oil Separator w/ Storage capacity	8/04
	RD-1	Roof Drain Std	8/04
	RD-2	Rood Drain Flat deck type	8/02
	RD-3	Roof Drain Lambs Tongue	8/02
	RD-4	Roof Drain Internal water dam	8/04
	RD-5	Roof Drain External water dam	8/04
	RD-6	Roof Drain Control Flow	8/04
	SH-1	Shower Terrazzo Basin	9/02
	SH-2	Shower Acrylic 36x35	12/06
	SH-3	Shower Fiberglass 36x37	3/05
	SH-4	Shower Access 39x41	12/06
	SH-5	Shower Access 64x36	12/06
	SH-6	Shower Column 5 Station	3/05
	SH-7	Shower Column 4 Station (1 Access)	3/05
	SH-8	Shower Prepped Package	3/05
	SH-9	Shower Access Prepped Package	12/06
	SHV-1	Shower Valve Press Balance (Low Budget)	3/05
	SHV-2	Shower Valve Press Balance	3/05
	SHV-3	Shower Valve Press Balance (ADA)	3/05
	SHV-4	Shower Valve Thermostatic	9/03
	SHV-5	Shower Valve Thermostatic (ADA)	9/03
	SHV-6	Shower Valve Thermostatic/Press Balance	8/04
	SHV-7	Shower Valve Thermostatic/Press Balance (ADA)	8/04
	SI-1	Solids Interceptor Sediment (in lieu of p-trap)	9/03
	SI-2	Solids Interceptor Sediment	9/03
	SI-3	Solids Interceptor Hair (in lieu of p-trap)	9/03
	SI-4	Solids Interceptor Oil/Sediment	9/03
	SI-5	Solids Interceptor Gravel/Sand	9/03
	SK-1	Sink 18ga	12/06
	SK-2	Sink 18ga Extra Deep	12/06
	SK-3	Sink 20ga	12/06
	SK-4	Sink 18ga Fixed strainer	12/06
	SK-5	Sink Dbl Bowl 18ga	12/06

Ck List	Device	Description	Rev. Date
	SK-6	Sink Dbl Bowl 18ga Extra Deep	12/06
	SK-7	Sink Dbl Bowl 20ga	12/06
	SK-8	Sink Three Compartment	12/06
	SP-1	Sump Pump Submersible Small Plug-in	5/06
	SP-2	Sump Pump Submersible Medium w/ Control Panel	5/06
	SP-3	Sump Pump Submersible Large w/ Control Panel	5/06
	SP-11	Sewage Pump Submersible Small Plug-in	5/06
	SP-12	Sewage Pump Submersible Medium w/ Control Panel	5/06
	SP-13	Sewage Pump Submersible Large w/ Control Panel	5/06
	SP-14	Sewage Pump Submersible Grinder w/ Control Panel	5/06
	SP-15	Sewage Pump Vertical w/ Control Panel	5/06
	SPA-1	Sump/Sewage Pump Accessories Alarm Panel	5/06
	SPB-1	Sump/Sewage Pump Basin Concrete By Others	5/06
	SPB-2	Sump/Sewage Pump Basin Fiberglass	5/06
	SS-1	Service Sink Cast Iron	4/03
	SS-2	Service Sink Wall Mtd Stainless steel	Orig. Issue
	SS-3	Service Sink Polypropylene Laundry tub	Orig. Issue
	SS-4	Service Sink Molded Stone Laundry tub	Orig. Issue
	ST-1	Sink Trim Single Handle Conventional Spout	8/04
	ST-2	Sink Trim Two Handle Conventional Spout	8/04
	ST-3	Sink Trim Single Handle High-Rise Spout	8/04
	ST-4	Sink Trim Two Handle Gooseneck	8/04
	ST-5	Sink Trim Single Handle Gooseneck	8/04
	ST-6	Sink Trim Foot Control Gooseneck	12/06
	ST-7	Sink Trim Sensor Operated w/ Manual Over-Ride	8/04
	SV-1	Solenoid Valve Gas	7/03
	SV-2	Solenoid Valve Water	8/02
	SV-3	Solenoid Valve Gas Auto Reset	8/04
	T-1	Tank Hot Water Storage	Orig. Issue
	TD-1	Trench Drain Stainless Steel	Orig. Issue
	TD-2	Trench Drain Cast Iron	8/02
	TD-3	Trench Drain Precast Polymer Concrete	3/05
	TD-4	Trench Drain Fiberglass	12/06
	TD-5	Trench Drain Polystyrene Pour in Place	Orig. Issue
	TP-1	Trap Primer Pressure Drop Activated	2/03
	TP-2	Trap Primer Solenoid Valve Operated	2/03
	UR-1	Urinal Std	12/06
	UR-2	Urinal Access Std	12/06
	UR-3	Urinal Access Extended Front	12/06
	UR-4	Urinal Floor Mounted	12/06
	UR-5	Urinal Blowout	12/06
	UR-6	Urinal Access Blowout	12/06
	UR-7	Urinal Sensor Low Flow/EcoPower NEW!	12/06
	UR-8	Urinal Access Sensor Low Flow/EcoPower NEW!	12/06
	VB-1	Vacuum Breaker Std	Orig. Issue
	VB-2	Vacuum Breaker Cont. Pressure High Hazard	Orig. Issue
	VB-3	Vacuum Breaker Hose Connection	Orig. Issue
	WC-1	Water Closet Access Wall Mtd Flush Valve	12/06
	WC-2	Water Closet Access Flr Mtd Flush Valve	12/06
	WC-3	Water Closet Access Flr Mtd Tank	12/06
	WC-4	Water Closet Wall Mtd Flush Valve	12/06
	WC-5	Water Closet Flr Mtd Flush Valve	12/06

Ck List	Device	Description	Rev. Date
	WC-6	Water Closet Flr Mtd Tank	12/06
	WC-7	Water Closet Flr Mtd Child Height	12/06
	WC-8	Water Closet Access Wall Mtd Bedpan	12/06
	WC-9	Water Closet Access Wall Mtd Blowout	12/06
	WC-10	Water Closet Wall Mtd Blowout	12/06
	WC-11	Water Closet Access Flr Mtd Pressure Tank	12/06
	WC-12	Water Closet Flr Mtd Pressure Tank	12/06
	WC-13	Water Closet Wall Mtd Bedpan	12/06
	WC-14	Water Closet Access Floor Mtd Bedpan	8/04
	WC-15	Water Closet Low Flow/Dual Flush NEW!	12/06
	WC-16	Water Closet Access Low Flow/Dual Flush NEW!	12/06
	WCO-1	Wall Cleanout	12/06
	WF-1	Wash Fountain 3 Station, Semi-Circle	Orig. Issue
	WF-2	Wash Fountain 4 Station, Semi-Circle, Wall mtd.	Orig. Issue
	WF-3	Wash Fountain 4 Station, Semi-circle, Floor mtd.	Orig. Issue
	WH-1	Water Heater Electric, 5/15/30 Gal	8/04
	WH-2	Water Heater Gas, 30/40/50 Gal, Atmospheric	12/06
	WH-3	Water Heater Gas, 40/50 Gal, Sealed Combustion	12/06
	WH-4	Water Heater Gas High Efficiency, Sealed Combustion	12/06
	WH-5	Water Heater Electric	3/05
	WH-6	Water Heater Gas, Atmospheric	12/06
	WH-7	Water Heater Gas, Power Burner	12/06
	WH-8	Water Heater Gas Packaged System	12/06
	WH-9	Water Heater Steam to Water	3/05
	WH-10	Water Heater Instantaneous 0.75gpm/55deg rise	12/06
	WHA-1	Water Hammer Arrestor 1-11 FU Bellows Type	9/03
	WHA-2	Water Hammer Arrestor 12-32 FU Bellows Type	9/03
	WHA-3	Water Hammer Arrestor 33-60 FU Bellows Type	9/03
	WHA-4	Water Hammer Arrestor 61-113 FU Bellows Type	9/03
	WHA-5	Water Hammer Arrestor 114-154 FU Bellows Type	9/03
	WHA-6	Water Hammer Arrestor 155-300 FU Bellows Type	9/03
	WHA-7	Water Hammer Arrestor 1-11 FU Piston Type	8/02
	WHA-8	Water Hammer Arrestor 12-32 FU Piston Type	8/02
	WHA-9	Water Hammer Arrestor 33-60 FU Piston Type	8/02
	WHA-10	Water Hammer Arrestor 61-133 FU Piston Type	8/02
	WHA-11	Water Hammer Arrestor 114-154 FU Piston Type	8/02
	WHA-12	Water Hammer Arrestor 155-300 FU Piston Type	8/02
	WM-1	Water Meter	12/06
	WMF-1	Washing Machine Fitting Standard	4/03
	WMF-2	Washing Machine Fitting w/ 1 elec. outlet	4/03
	WMF-3	Washing Machine Fitting w/ 2 elec. outlets	Orig. Issue
	WS-1	Water Softener	Orig. Issue
	YC0-1	Yard Cleanout	8/02

DESCRIPTION: AIR GAP FITTING - SIZE TO MATCH STANDPIPE AND INDIRECT WASTE LINE. CAST IRON, WITH SETSCREW.

MANUFACTURER & CATALOG NO.: SMITH 3955, WADE W-2490, ZURN Z-1025, JOSAM 88900

B	SMITH® JAY R. SMITH MFG. CO. DIVISION OF SMITH INDUSTRIES, INC. POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8920 FAX: 334-272-7396 www.JRSmith.com CUSTOMER DRIVEN	   MEMBER	LOCATION																																																																								
DRAWING NUMBER S3950	<h1>FIXED AIR GAPS</h1>																																																																										
SCALE: NONE	<p>FUNCTION: When installed between the fixture waste outlet and the plumbing drainage system, SMITH Fixed Air Gaps provide protection of fixtures such as food processing equipment, kitchen fixtures, storage tanks, etc., from contamination due to back flow in the drain line. (Air Gap fittings in plumbing waste lines are installed on the house side of the fixture trap.) SMITH Fixed Air Gaps when installed in the water supply to a fixture or appliance, such as evaporative coolers, sterilizers, etc., will prevent contamination from cross connection between the potable water supply and the fixture that handles a contaminating liquid or one that is connected to a plumbing waste line. Local codes should be checked.</p>																																																																										
DATE: 9-19-85	  																																																																										
APPROVED BY: SJM	<p>Fig. 3950T THREADED OUTLET ONLY (Specify A + B)</p> <p>Fig. 3951T THREADED OUTLET ONLY (Specify A + B)</p> <p>Fig. 3955S NO-HUB OR SPIGOT OUTLET (Specify A + B)</p>																																																																										
CHECKED BY: JD	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>G</th></tr> </thead> <tbody> <tr> <td>0250(10)</td><td>075(19)</td><td>3(76)</td><td>3(76)</td><td>1 3/4(44)</td><td>1(25)</td></tr> <tr> <td>050(15)</td><td>075(19)</td><td>4 1/4(110)</td><td>5 1/2(140)</td><td>3(76)</td><td>2(51)</td></tr> <tr> <td>050(15)</td><td>01(25)</td><td>4 1/4(110)</td><td>5 1/2(140)</td><td>3(76)</td><td>2(51)</td></tr> <tr> <td>075(20)</td><td>0150(38)</td><td>4 1/4(110)</td><td>5 1/2(140)</td><td>3(76)</td><td>2(51)</td></tr> <tr> <td>01(25)</td><td>0150(38)</td><td>4 1/4(110)</td><td>5 1/2(140)</td><td>3(76)</td><td>2(51)</td></tr> </tbody> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>G</th></tr> </thead> <tbody> <tr> <td>01(25)</td><td>02(51)</td><td>3 1/2(89)</td><td>8(205)</td><td>4 1/4(110)</td><td>3(76)</td></tr> <tr> <td>0125(35)</td><td>02(51)</td><td>3 1/2(89)</td><td>8(205)</td><td>4 1/4(110)</td><td>3(76)</td></tr> <tr> <td>02(50)</td><td>03(76)</td><td>4 1/2(115)</td><td>11 1/2(290)</td><td>6 1/2(165)</td><td>4(100)</td></tr> <tr> <td>03(80)</td><td>04(100)</td><td>6 1/2(165)</td><td>15 1/2(395)</td><td>8 (205)</td><td>6(150)</td></tr> <tr> <td>04(100)</td><td>06(150)</td><td>8 1/2(215)</td><td>20(510)</td><td>10(255)</td><td>8(205)</td></tr> </tbody> </table>			A	B	C	D	E	G	0250(10)	075(19)	3(76)	3(76)	1 3/4(44)	1(25)	050(15)	075(19)	4 1/4(110)	5 1/2(140)	3(76)	2(51)	050(15)	01(25)	4 1/4(110)	5 1/2(140)	3(76)	2(51)	075(20)	0150(38)	4 1/4(110)	5 1/2(140)	3(76)	2(51)	01(25)	0150(38)	4 1/4(110)	5 1/2(140)	3(76)	2(51)	A	B	C	D	E	G	01(25)	02(51)	3 1/2(89)	8(205)	4 1/4(110)	3(76)	0125(35)	02(51)	3 1/2(89)	8(205)	4 1/4(110)	3(76)	02(50)	03(76)	4 1/2(115)	11 1/2(290)	6 1/2(165)	4(100)	03(80)	04(100)	6 1/2(165)	15 1/2(395)	8 (205)	6(150)	04(100)	06(150)	8 1/2(215)	20(510)	10(255)	8(205)
A	B	C	D	E	G																																																																						
0250(10)	075(19)	3(76)	3(76)	1 3/4(44)	1(25)																																																																						
050(15)	075(19)	4 1/4(110)	5 1/2(140)	3(76)	2(51)																																																																						
050(15)	01(25)	4 1/4(110)	5 1/2(140)	3(76)	2(51)																																																																						
075(20)	0150(38)	4 1/4(110)	5 1/2(140)	3(76)	2(51)																																																																						
01(25)	0150(38)	4 1/4(110)	5 1/2(140)	3(76)	2(51)																																																																						
A	B	C	D	E	G																																																																						
01(25)	02(51)	3 1/2(89)	8(205)	4 1/4(110)	3(76)																																																																						
0125(35)	02(51)	3 1/2(89)	8(205)	4 1/4(110)	3(76)																																																																						
02(50)	03(76)	4 1/2(115)	11 1/2(290)	6 1/2(165)	4(100)																																																																						
03(80)	04(100)	6 1/2(165)	15 1/2(395)	8 (205)	6(150)																																																																						
04(100)	06(150)	8 1/2(215)	20(510)	10(255)	8(205)																																																																						
DRAWN BY: PJ	<p style="text-align: center;">$\frac{\Delta A}{2} = 1/2(13) \text{ Dia. of Inlet Pipe MIN}$</p>																																																																										
3950,3951,3955	<p>REGULARLY FURNISHED: Ducto Cast Iron</p> <p>OPTIONAL MATERIALS:  Cast Bronze -CB  Chrome Plated Bronze -CP  Chrome Plated Cast Iron -CPCI </p> <p>NOTE: Dimensions shown in parentheses are in millimeters.</p>																																																																										
FIGURE NUMBER	REV.	DATE	DESCRIPTION	BY	CKD. BY	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER																																																																			
								3950,3951,3955																																																																			

BFP-1

DESCRIPTION: REDUCED PRESSURE BACKFLOW PREVENTER, SPRING LOADED CHECKS WITH A DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN THE CHECK VALVES. BRONZE UP TO 2" SIZE, FDA APPROVED EPOXY COATED CAST IRON OVER 2" SIZE, WITH BRONZE, PLASTIC OR STAINLESS STEEL INTERNAL PARTS AND STAINLESS STEEL SPRINGS. UNITS SHALL INCLUDE FOUR TEST COCKS WITH SHUT-OFF VALVES AND SHALL BE BACKFLOW TESTED AT THE FACTORY. RATED FOR 175 PSI AT 33 DEGREES F. TO 140 DEGREES F. MAXIMUM PRESSURE DROP 15 PSI AT 10 FPS REGARDLESS OF SIZE. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED. ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE. WITH SHUTOFF VALVES ON BOTH SIDES OF UNIT (BALL VALVES ON SIZES 2-1/2" OR SMALLER, GATE VALVES ON SIZES 3" OR LARGER) AND AIR GAP DRAIN FITTING. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM FROM UNIT. INSTALL ADDITIONAL VALVE UPSTREAM FROM STRAINER IF REQUIRED FOR SERVICING STRAINER. APPROVED BY: USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCI LISTED. UNIT SHALL BE SAME SIZE AS PIPE IF NO SIZE IS SHOWN ON THE DRAWING.

MANUFACTURER & CATALOG NO.: WATTS 009 & 909, CONBRACO 40-200, FEBCO 860, WILKINS 975XL & 375

Notes to specifier:

- I. Verify need for valve upstream from strainer.
- II. Do not use this description for fire protection service. Refer to fire protection material list.

For Health Hazard Applications

Series 909

Reduced Pressure Zone Backflow Preventer

Sizes: 2½", 3", 4", 6", 8", 10"
(65, 80, 100, 150, 200, 250mm)

The Watts 909 Series Reduced Pressure Zone Backflow Preventers are designed to provide cross-connection control protection of the potable water supply in accordance with national plumbing codes. This series can be utilized in a variety of installations, including high hazard cross-connections in plumbing systems or for containment at the service line entrance. With its exclusive patented relief valve design incorporating the "air-in/water-out" principle, it provides substantially improved relief valve discharge performance during the emergency conditions of combined back siphonage and back pressure with both checks fouled.

FEATURES

- Replaceable bronze seats
- Stainless steel internal parts
- No special tools required for servicing
- Captured spring check assemblies
- Fused epoxy coated & lined checks
- Industrial strength sensing hose
- Field reversible relief valve

AVAILABLE MODELS

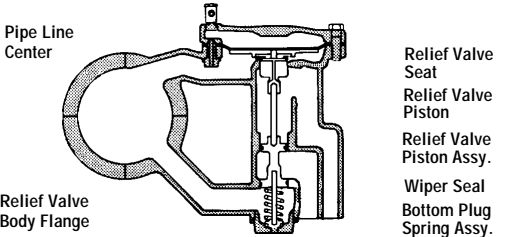
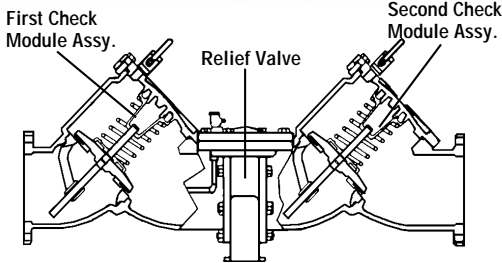
- Suffix:
- BB - with bronze body (2½", 3")(64, 76mm)
 - LF - without shutoffs
 - NRS - with non-rising stem resilient wedge gate valves
 - OS&Y - with UL/FM resilient seated outside stem and yoke gate valves
 - QT - with quarter-turn, full port, resilient seated ball valve shutoffs
 - QT-FDA - with FDA approved epoxy coated ball valve shutoffs
 - S - with non-epoxy strainer
 - S-FDA - with FDA approved epoxy coated strainer

Note: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary.

SPECIFICATIONS

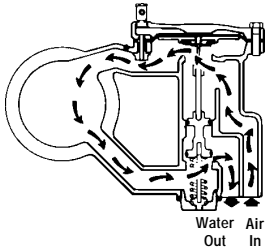
For Reduced Pressure Zone Backflow Preventers

A reduced pressure zone backflow preventer shall be installed at each cross-connection to prevent backsiphonage and backpressure backflow of hazardous materials into the potable water supply. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating check valves and captured springs. Backsiphonage protection shall include provision to admit air directly into the reduced pressure zone via a separate channel from the water discharge channel. The assembly shall include two tightly closing shutoff valves before and after the valve and test cocks. The assembly shall meet the requirements of ASSE Std. 1013; AWWA Std. C511-92; CSA B64.5; and UL Classified File No. EX3185. Listed by IAPMO (UPC). Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. The valve shall be a Watts Regulator Company Series 909.



How it Operates

The unique relief valve construction incorporates two channels: one for air, one for water. When the relief valve opens, as in the accompanying air-in/water-out diagram, the right-hand channel admits air to the top of the reduced pressure zone, relieving the zone vacuum. The channel on the left then drains the zone to atmosphere. Thus, should both check valves foul, and simultaneous negative supply and positive back pressure develop, the relief valve uses the air-in/water-out principle to stop potential backflow.



Patent #4,241,752

Now Available,
WattsBox Insulated Enclosures.
 For more information, send for ES-WB or ES-WB-T.

A LEADER IN VALVE TECHNOLOGY

WATTS
REGULATOR
 — Since 1874 — Watts Industries, Inc. —
Water Products Division • Safety & Control Valves

USA: 815 Chestnut Street, North Andover, MA 01845-6098
Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7

MATERIALS

No. 909 sizes: 2½" - 10" (65-250mm) have FDA approved epoxy coated cast iron check valve bodies with bronze seats, and 4" - 10" (100-250mm) FDA approved epoxy coated cast iron relief valve with stainless steel trim.

No. 909NRS-BB and 909OS&Y-BB have bronze body construction with stainless steel trim. Sizes 2½" - 3" (60-80mm). All sizes furnished with bronze body ball valve test cocks.

PRESSURE-TEMPERATURE

Suitable for supply pressure up to 175 psi (12 bars) and water temperatures to 110°F (43°C) continuous and 140°F (60°C) intermittent.

STANDARDS

ASSE No. 1013, AWWA C511-92, CSA B64.5
 UL Classified File No. EX3185
 IAPMO PS 31, SBCCI (Standard Plumbing Code)
 USC manual for Cross-Connection Control, 8th Edition

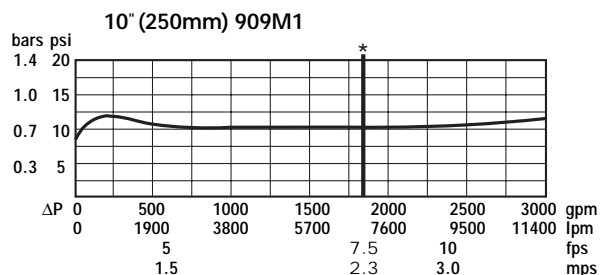
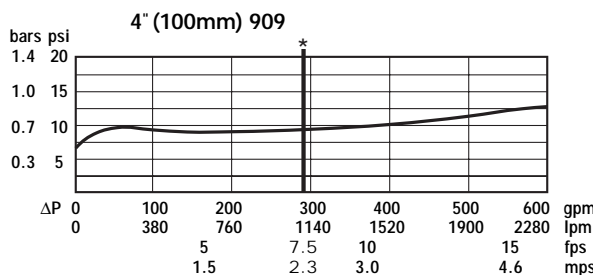
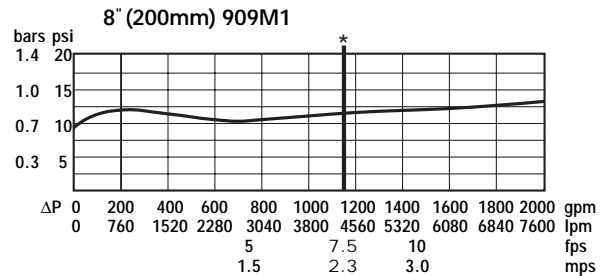
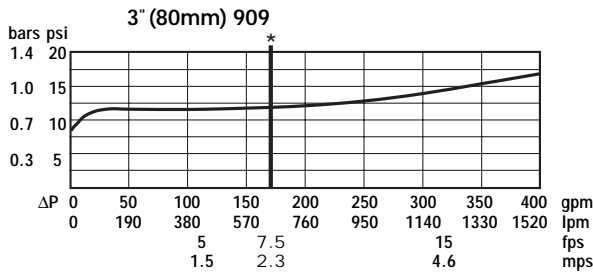
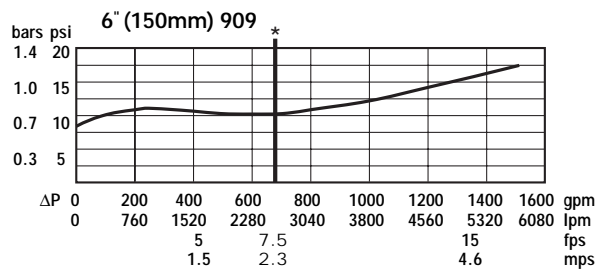
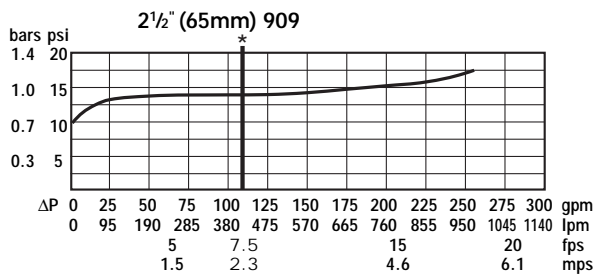
APPROVALS

ASSE, AWWA, CSA, IAPMO
 UL Classified (Sizes 2½" - 10")(65-250mm)
 Approved by the Foundation for Cross-connection Control and Hydraulic Research at the University of Southern California.
IMPORTANT: INQUIRE WITH GOVERNING AUTHORITIES FOR LOCAL INSTALLATION REQUIREMENTS.



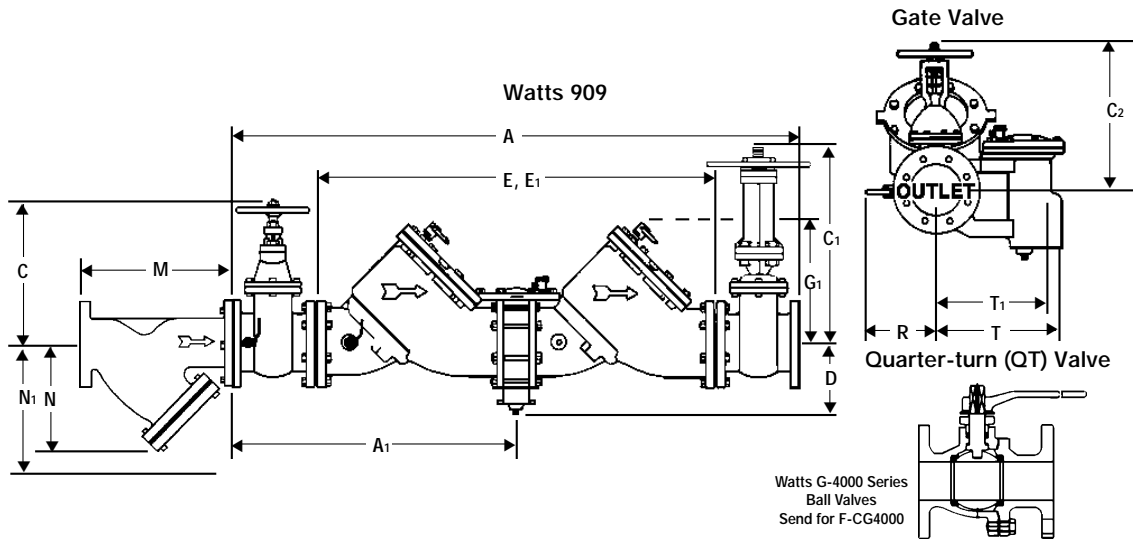
CAPACITY

*Typical maximum system flow rate (7.5 feet/sec.)



2

DIMENSIONS-WEIGHT



Size (DN)		Dimensions								Service Clearance for Gate OS&Y Open				Service Clearance for Gate NRS							
		A		A ₁		NRS		OS&Y*		C ₁		C ₂		D		E, E ₁		G ₁		M	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2½	65	41¼	1048	20⅝	524	11⅞	289	15⅞	403	16⅞	416	14	356	5¼	133	26⅞	663	11	279	10.0	254
3	80	42¼	1073	21¼	540	12¼	324	18½	470	18⅞	479	14	356	5¼	133	26⅞	663	11	279	10½	257
4	100	55⅞	1400	27⅝	702	15⅝	603	23¼	603	22¾	578	17	432	6	152	37	940	14	356	12⅞	308
6	150	65½	1664	32¼	832	19¾	825	32½	825	30⅞	765	21	533	6	152	44½	1130	16	406	18½	470
8	200	78¾	2000	39⅝	1000	24½	622	39¼	997	37¾	959	26	660	9¾	248	55¼	1403	21	533	21⅝	549
10	250	93⅝	2378	46⅞	1190	29¼	743	48	1220	45¾	1162	32	813	9¾	248	67⅞	1711	21	533	26	660

Size		Dimensions												Weight						Strainer Weight					
		N ₁ †		N		QT		R		R*		T		T ₁		NRS		OS&Y				QT			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
2½	64	10	254	6½	165	7	178	4	102	16	406	9⅞	230	7⅝	194	195	88.4	198	89.8	182	82.6	28	12.7		
3	76	10	254	7	178	7	178	5	127	16	406	9⅞	230	7⅝	194	225	102	230	104	190	86	34	15.4		
4	102	12	305	8¼	210	10	254	6	152	19¾	502	14⅞	365	12½	318	455	206	470	213	352	160	60	27		
6	152	20	508	13½	343	15	381	11	279	26	660	14⅞	365	12½	318	718	326	798	362	762	346	133	60		
8	203	22¾	578	15½	394	19	483	11¼	286	11¼	286	19¾	489	17⅞	441	1350	612	1456	660	2286	1037	247	112		
10	254	28	711	18½	470	22	559	12½	318	12½	318	21	533	19⅞	486	2160	980	2230	1011	3716	1685	370	168		

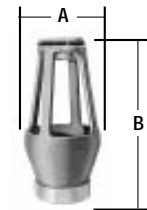
*UL, FM approved backflow preventers must include UL/FM approved OS&Y gate valves. † - Dimension required for screen removal
 ♦ - Quarter-turn (QT) Valve dimensions

Air Gap Dimensions

When installing a drain line on No. 909 backflow preventers that are installed horizontally, use 909 AG series Air Gaps.

Iron Body No.	Drain Outlet For No. 909, 990 & 009 Sizes	Size		Dimensions				Weight	
		in.	mm	A	B	in.	mm	lbs.	kg.
909-AG-F	2½" & 3" 909	2	51	4⅞	111	6¼	171	3¼	1.5
*909AG-K	4" & 6" 909, 8" & 10" 909M1	3	76	6⅝	160	9⅞	249	6¼	2.8
*909-AG-M	8" & 10" 909	4	102	7⅞	186	11¼	286	15½	7.0

NOTES: Relief valve section is reversible, therefore, dimension "F" can be on either side and is furnished standardly as shown.
 For flange size backflow preventers installed vertically, a fabricated air gap is recommended.



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

BFP-2

DESCRIPTION: REDUCED PRESSURE BACKFLOW PREVENTER, SPRING LOADED CHECKS WITH A DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN THE CHECK VALVES. BRONZE UP TO 2" SIZE, FDA APPROVED EPOXY COATED CAST IRON OVER 2" SIZE, WITH BRONZE, PLASTIC OR STAINLESS STEEL INTERNAL PARTS AND STAINLESS STEEL SPRINGS. UNITS SHALL INCLUDE FOUR TEST COCKS WITH SHUT-OFF VALVES AND SHALL BE BACKFLOW TESTED AT THE FACTORY. RATED FOR 175 PSI AT 33 DEGREES F. TO 140 DEGREES F. MAXIMUM PRESSURE DROP 13 PSI AT 10 FPS REGARDLESS OF SIZE. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED. ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE. WITH SHUTOFF VALVES ON BOTH SIDES OF UNIT (BALL VALVES ON SIZES 2-1/2" OR SMALLER, GATE VALVES ON SIZES 3" OR LARGER) AND AIR GAP DRAIN FITTING. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM FROM UNIT. INSTALL ADDITIONAL VALVE UPSTREAM FROM STRAINER IF REQUIRED FOR SERVICING STRAINER. APPROVED BY: USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCI LISTED. UNIT SHALL BE SAME SIZE AS PIPE IF NO SIZE IS SHOWN ON THE DRAWING.

MANUFACTURER & CATALOG NO.: WATTS SERIES 909

Notes to specifier:

- I. More expensive model with no equals. Use BFP-1 in most cases unless owner requests. Hospitals may require this model.
- II. Verify need for valve upstream from strainer.
- III. Do not use this description for fire protection service. Refer to fire protection material list.

For Health Hazard Applications

Series 909

Reduced Pressure Zone Backflow Preventer

Sizes: 2½", 3", 4", 6", 8", 10"
(65, 80, 100, 150, 200, 250mm)

The Watts 909 Series Reduced Pressure Zone Backflow Preventers are designed to provide cross-connection control protection of the potable water supply in accordance with national plumbing codes. This series can be utilized in a variety of installations, including high hazard cross-connections in plumbing systems or for containment at the service line entrance. With its exclusive patented relief valve design incorporating the "air-in/water-out" principle, it provides substantially improved relief valve discharge performance during the emergency conditions of combined back siphonage and back pressure with both checks fouled.

FEATURES

- Replaceable bronze seats
- Stainless steel internal parts
- No special tools required for servicing
- Captured spring check assemblies
- Fused epoxy coated & lined checks
- Industrial strength sensing hose
- Field reversible relief valve

AVAILABLE MODELS

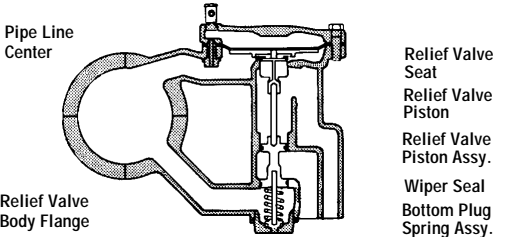
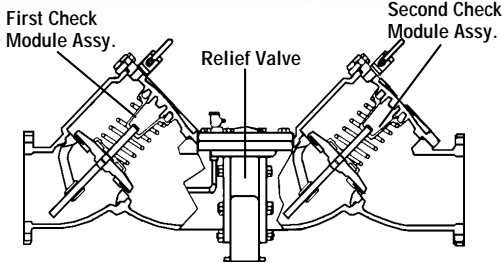
- Suffix:
- BB - with bronze body (2½", 3")(64, 76mm)
 - LF - without shutoffs
 - NRS - with non-rising stem resilient wedge gate valves
 - OS&Y - with UL/FM resilient seated outside stem and yoke gate valves
 - QT - with quarter-turn, full port, resilient seated ball valve shutoffs
 - QT-FDA - with FDA approved epoxy coated ball valve shutoffs
 - S - with non-epoxy strainer
 - S-FDA - with FDA approved epoxy coated strainer

Note: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary.

SPECIFICATIONS

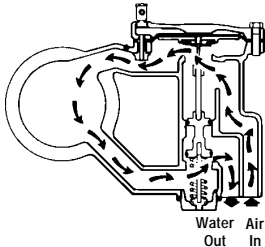
For Reduced Pressure Zone Backflow Preventers

A reduced pressure zone backflow preventer shall be installed at each cross-connection to prevent backsiphonage and backpressure backflow of hazardous materials into the potable water supply. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating check valves and captured springs. Backsiphonage protection shall include provision to admit air directly into the reduced pressure zone via a separate channel from the water discharge channel. The assembly shall include two tightly closing shutoff valves before and after the valve and test cocks. The assembly shall meet the requirements of ASSE Std. 1013; AWWA Std. C511-92; CSA B64.5; and UL Classified File No. EX3185. Listed by IAPMO (UPC). Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. The valve shall be a Watts Regulator Company Series 909.



How it Operates

The unique relief valve construction incorporates two channels: one for air, one for water. When the relief valve opens, as in the accompanying air-in/water-out diagram, the right-hand channel admits air to the top of the reduced pressure zone, relieving the zone vacuum. The channel on the left then drains the zone to atmosphere. Thus, should both check valves foul, and simultaneous negative supply and positive back pressure develop, the relief valve uses the air-in/water-out principle to stop potential backflow.



Patent #4,241,752

Now Available,
WattsBox Insulated Enclosures.
 For more information, send for ES-WB or ES-WB-T.

A LEADER IN VALVE TECHNOLOGY

WATTS
REGULATOR
 Since 1874 Watts Industries, Inc.
 Water Products Division • Safety & Control Valves

USA: 815 Chestnut Street, North Andover, MA 01845-6098
Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7

MATERIALS

No. 909 sizes: 2½" - 10" (65-250mm) have FDA approved epoxy coated cast iron check valve bodies with bronze seats, and 4" - 10" (100-250mm) FDA approved epoxy coated cast iron relief valve with stainless steel trim.

No. 909NRS-BB and 909OS&Y-BB have bronze body construction with stainless steel trim. Sizes 2½" - 3" (60-80mm). All sizes furnished with bronze body ball valve test cocks.

PRESSURE-TEMPERATURE

Suitable for supply pressure up to 175 psi (12 bars) and water temperatures to 110°F (43°C) continuous and 140°F (60°C) intermittent.

STANDARDS

ASSE No. 1013, AWWA C511-92, CSA B64.5
 UL Classified File No. EX3185
 IAPMO PS 31, SBCCI (Standard Plumbing Code)
 USC manual for Cross-Connection Control, 8th Edition

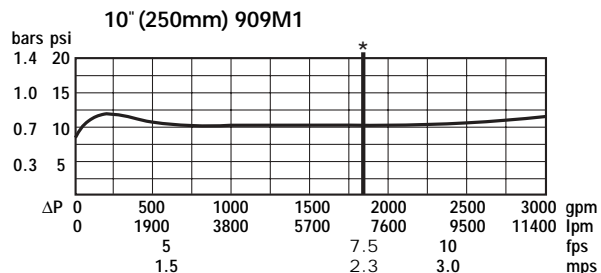
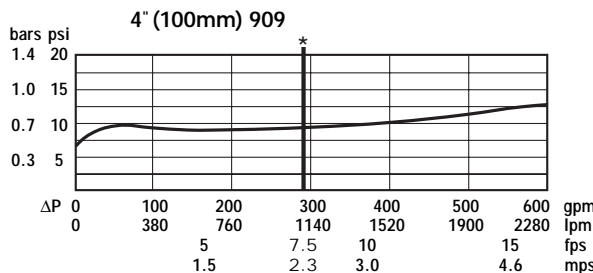
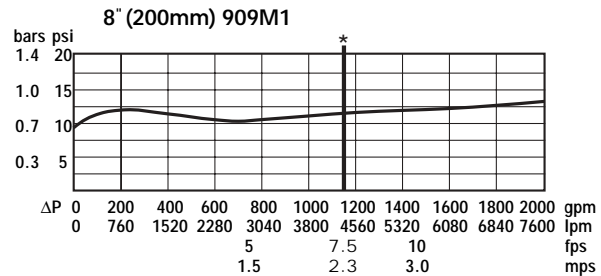
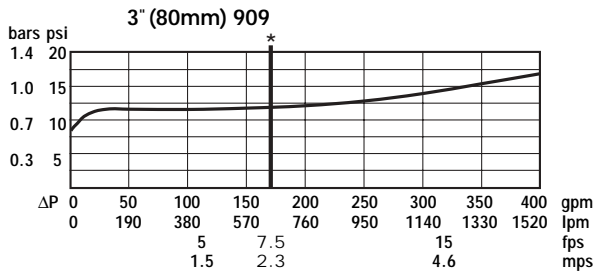
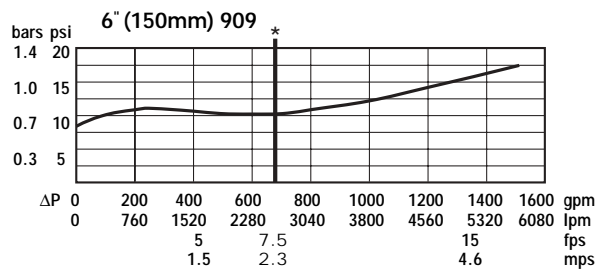
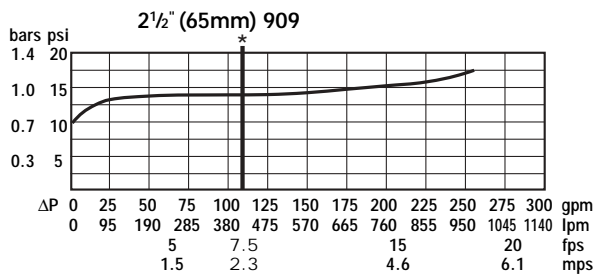
APPROVALS

ASSE, AWWA, CSA, IAPMO
 UL Classified (Sizes 2½" - 10")(65-250mm)
 Approved by the Foundation for Cross-connection Control and Hydraulic Research at the University of Southern California.
IMPORTANT: INQUIRE WITH GOVERNING AUTHORITIES FOR LOCAL INSTALLATION REQUIREMENTS.



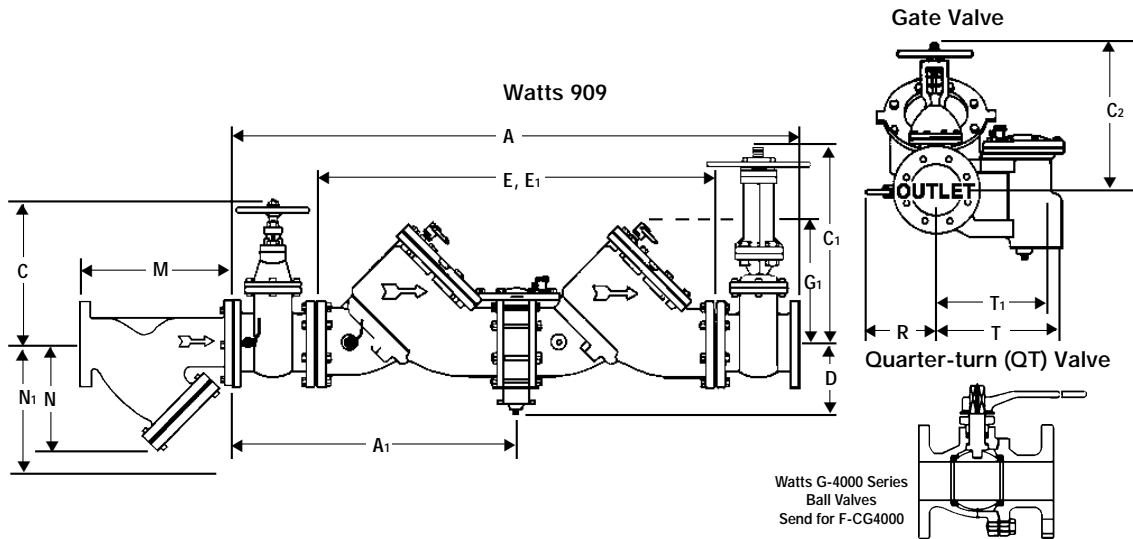
CAPACITY

*Typical maximum system flow rate (7.5 feet/sec.)



2

DIMENSIONS-WEIGHT



Size (DN)		Dimensions								Service Clearance for Gate OS&Y Open				Service Clearance for Gate NRS				Service Clearance For Check			
		A		A ₁		NRS		OS&Y*		C ₁		C ₂		D		E, E ₁		G ₁		M	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2½	65	41¼	1048	20⅝	524	11⅞	289	15⅞	403	16⅞	416	14	356	5¼	133	26⅞	663	11	279	10.0	254
3	80	42¼	1073	21¼	540	12¼	324	18½	470	18⅞	479	14	356	5¼	133	26⅞	663	11	279	10½	257
4	100	55⅞	1400	27⅝	702	15⅝	603	23¼	603	22¼	578	17	432	6	152	37	940	14	356	12⅞	308
6	150	65½	1664	32¼	832	19¾	825	32½	825	30⅞	765	21	533	6	152	44½	1130	16	406	18½	470
8	200	78¾	2000	39⅝	1000	24½	622	39¼	997	37¾	959	26	660	9¾	248	55¼	1403	21	533	21⅝	549
10	250	93⅝	2378	46⅞	1190	29¼	743	48	1220	45¼	1162	32	813	9¾	248	67⅞	1711	21	533	26	660

Size		Dimensions												Weight						Strainer Weight					
		N ₁ †		N		QT		R		R*		T		T ₁		NRS		OS&Y				QT			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
2½	64	10	254	6½	165	7	178	4	102	16	406	9⅞	230	7⅞	194	195	88.4	198	89.8	182	82.6	28	12.7		
3	76	10	254	7	178	7	178	5	127	16	406	9⅞	230	7⅞	194	225	102	230	104	190	86	34	15.4		
4	102	12	305	8¼	210	10	254	6	152	19¾	502	14⅞	365	12½	318	455	206	470	213	352	160	60	27		
6	152	20	508	13½	343	15	381	11	279	26	660	14⅞	365	12½	318	718	326	798	362	762	346	133	60		
8	203	22¾	578	15½	394	19	483	11¼	286	11¼	286	19¼	489	17⅞	441	1350	612	1456	660	2286	1037	247	112		
10	254	28	711	18½	470	22	559	12½	318	12½	318	21	533	19⅞	486	2160	980	2230	1011	3716	1685	370	168		

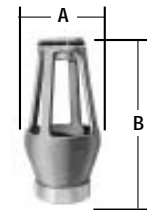
*UL, FM approved backflow preventers must include UL/FM approved OS&Y gate valves. † - Dimension required for screen removal
 ♦ - Quarter-turn (QT) Valve dimensions

Air Gap Dimensions

When installing a drain line on No. 909 backflow preventers that are installed horizontally, use 909 AG series Air Gaps.

Iron Body No.	Drain Outlet For No. 909, 990 & 009 Sizes	Size		Dimensions				Weight	
		in.	mm	A	B	in.	mm	lbs.	kg.
909-AG-F	2½" & 3" 909	2	51	4⅞	111	6¼	171	3¼	1.5
*909AG-K	4" & 6" 909, 8" & 10" 909M1	3	76	6⅞	160	9⅞	249	6¼	2.8
*909-AG-M	8" & 10" 909	4	102	7⅞	186	11¼	286	15½	7.0

NOTES: Relief valve section is reversible, therefore, dimension "F" can be on either side and is furnished standardly as shown.
 For flange size backflow preventers installed vertically, a fabricated air gap is recommended.



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

BFP-3

DESCRIPTION: DOUBLE CHECK VALVE BACKFLOW PREVENTER, WITH SPRING LOADED CHECKS. BRONZE UP TO 2" SIZE, FDA APPROVED EPOXY COATED CAST IRON OVER 2" SIZE, WITH BRONZE, PLASTIC OR STAINLESS STEEL INTERNAL PARTS AND STAINLESS STEEL SPRINGS. UNITS SHALL INCLUDE FOUR TEST COCKS WITH SHUT-OFF VALVES AND SHALL BE BACKFLOW TESTED AT THE FACTORY. RATED FOR 175 PSI AT 33 DEGREES F. TO 140 DEGREES F. MAXIMUM PRESSURE DROP 8 PSI AT 10 FPS REGARDLESS OF SIZE. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED. ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE. WITH SHUT-OFF VALVES ON BOTH SIDES OF UNIT (BALL VALVES ON SIZES 2-1/2" OR SMALLER, GATE VALVES ON SIZES 3" OR LARGER). PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM FROM UNIT. INSTALL ADDITIONAL VALVE UPSTREAM FROM STRAINER IF REQUIRED FOR SERVICING STRAINER. APPROVED BY: USC FCCC & HR, AWWA C510-92, ASSE 1015, IAPMO AND SBCCI LISTED. UNIT SHALL BE SAME SIZE AS PIPE IF NO SIZE IS SHOWN ON THE DRAWING.

MANUFACTURER & CATALOG NO.: WATTS SERIES 007 & 709, CONBRACO 40-100, FEBCO 850, WILKINS 950XL & 350

Notes to specifier:

- I. Use only if accepted by authorities having jurisdiction and only in non-toxic applications.
- II. Not a reduced pressure type unit.
- III. Verify need for valve upstream from strainer.
- IV. Do not use this description for fire protection service. Refer to fire protection material list.

For Non Health Hazard Applications

Job Name _____ Contractor _____
 Job Location _____ Approval _____
 Engineer _____ Contractor's P.O. No. _____
 Approval _____ Representative _____

Series 709 Double Check Valve Backflow Preventer

Sizes: 2½", 3", 4", 6", 8", 10"
(65, 80, 100, 150, 200, 250mm)

Series 709 Double Check Valve Backflow Preventer is designed to prevent the reverse flow of polluted water from entering into the potable water system. This series can be applied, where approved by the local authority having jurisdiction, on non health hazard installations. Series 709 features a modular check design concept to facilitate easy maintenance. Check with local jurisdictional authority as to installation requirements.

FEATURES

- ❖ Replaceable bronze seats
- ❖ Maximum flow at low pressure drop
- ❖ Design simplicity for easy maintenance
- ❖ No Special Tools Required for Servicing
- ❖ Captured spring assemblies for safety
- ❖ Approved for vertical flow up installation

AVAILABLE MODELS

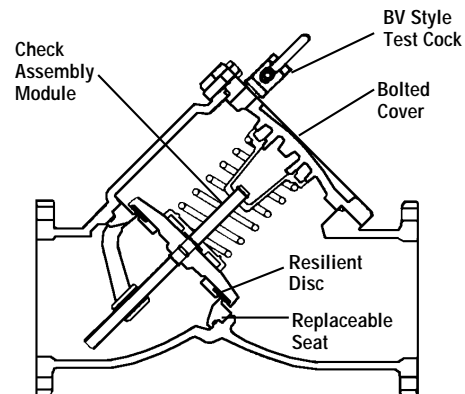
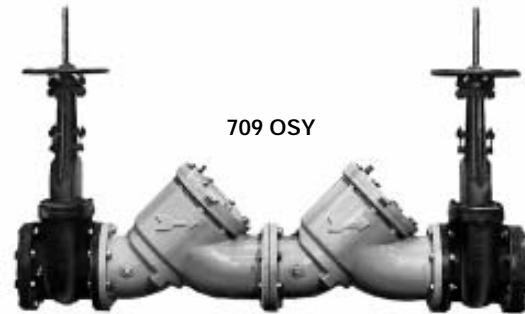
Suffix:

- NRS** - with non-rising stem resilient seated gate valves
- OS&Y** - with UL/FM resilient seated outside stem and yoke gate valves
- S-FDA** - with FDA approved epoxy coated strainer
- BB** - with bronze body - 2½", 3" (64-76mm)
- QT** - with quarter-turn, full port, resilient seated ball valve shutoffs
- QT-FDA** - with FDA approved epoxy coated ball valve shutoffs
- LF** - without shutoffs

SPECIFICATIONS

FOR DOUBLE CHECK VALVE BACKFLOW PREVENTERS

A double check valve backflow preventer shall be installed at referenced cross-connections to prevent the backflow of polluted water into the potable water supply. The cross-connections shall be determined by local inspection authority for use where a high hazard situation does not exist. Valve shall feature modular check assemblies with center stem guiding. Each check module shall have a captured spring and be accessible through a bolted cover plate. Seats shall be replaceable without special tools. It shall be a complete assembly including tight-closing resilient seated shutoff valves, test cocks, and a strainer is recommended. The assembly shall meet the requirements of ASSE No. 1015; AWWA C510-92; CSA B64.5 and UL Classified File No. EX3185. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California and shall be a Watts Regulator Series 709.



CHECK ASSEMBLY MODULE

No. 709 Series features a modular design concept which facilitates complete maintenance and assembly by retaining the spring load. Also, the first and second check module are identical and can be interchanged.

Now Available, WattsBox Insulated Enclosures.

For more information, send for ES-WB or ES-WB-T.

**IMPORTANT: Inquire with governing authorities
for local installation requirements.**

A LEADER IN VALVE TECHNOLOGY

WATTS®
REGULATOR
 Since 1874 Watts Industries, Inc.
 Water Products Division • Safety & Control Valves

USA: 815 Chestnut Street, North Andover, MA 01845-6098
 Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7

MATERIALS

Epoxy coated (FDA approved) cast iron check valve bodies with bronze seats.

PRESSURE - TEMPERATURE

Suitable for supply pressures up to 175 psi (12.1 bars) and water temperatures to: 110°F (43°C) continuous, 140°F (60°C) intermittent

STANDARDS

ASSE No. 1015, AWWA C510-92
 CSA B64.5, IAPMO PA 31
 UL Classified File No. EX3185
 USC Manual for Cross-Connection Control, 8th Edition

APPROVALS

ASSE
 AWWA
 UL

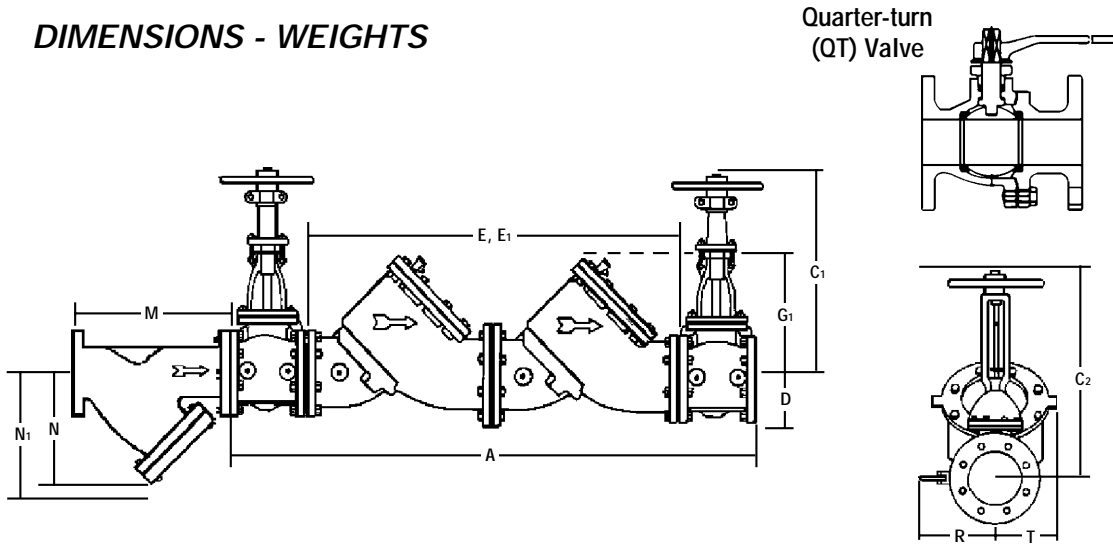


Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Sizes 4" - 10" (100 - 250mm) approved horizontal and vertical "flow up". Size 2½" and 3" (65 - 80mm) approved horizontal only. Factory Mutual approved 4"-10" (80-250mm) vertical "flow up"

Note: Model "S" not listed

NOTE: Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

DIMENSIONS - WEIGHTS



2½" - 10" (65-250mm) 709 Dimensions

Size (DN)		A				Service Clearance for Gate OS&Y Open C ₁				for Gate NRS C ₂				D		E, E ₁		Service Clearance For Check G ₁		M		N		
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
2½	65	39⅞	1000	16⅞	416	14	356	3½	89	24⅞	613	11	279	10	254	6½	165							
3	80	40⅞	1025	18⅞	479	14	356	3¾	95	24⅞	613	14	356	10⅞	257	7	178							
4	100	52⅞	1330	22¾	578	17	432	4½	114	34⅞	867	14	356	12⅞	308	8¼	210							
6	150	62⅞	1597	30⅞	765	21	533	5½	140	41⅞	1057	16	406	18½	470	13½	343							
8	200	75	1905	37¾	959	26	660	6½	165	52	1321	21	533	21⅞	549	15½	394							
10	250	90	2286	45¾	1162	32	813	8	203	64	1626	25	635	26	660	18½	470							

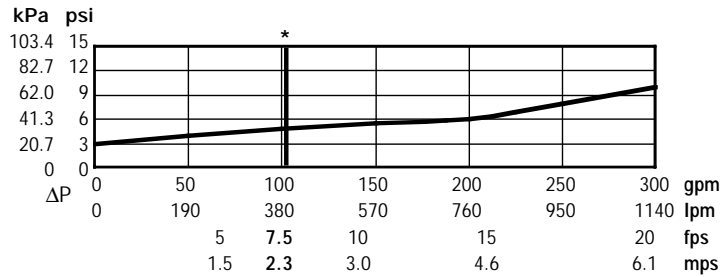
Size		N [†]		QT		R		R*		T		Weight				Strainer Weight			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
2½	65	10	254	7	178	4	102	16	406	3	76	167	76	170	77	154	70	28	13
3	80	10	254	7	178	5	127	16	406	3	76	167	76	170	77	162	73	34	15
4	100	12	305	10	254	6	152	19¾	502	6	152	368	167	383	174	275	125	60	27
6	150	20	508	15	381	11	279	26	660	7½	191	627	284	707	321	611	277	122	55
8	200	22¾	578	19	483	11¼	286	11¼	286	9	229	1201	545	1307	593	1419	644	247	112
10	250	28	711	22	559	12½	318	12½	318	10¼	260	2003	909	2073	940	2466	1119	370	168

† - Dimension required for screen removal. *Quarter-turn (QT) valve dimensions.

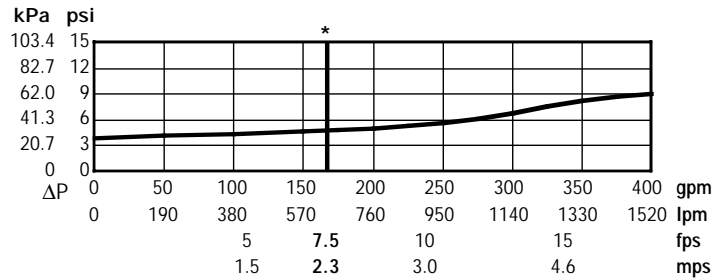
CAPACITY

*Typical maximum system flow rate (7.5 feet/sec.)

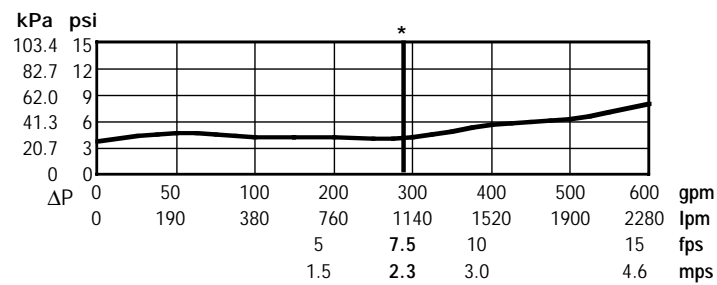
2½" (65mm) No. 709



3" (80mm) No. 709



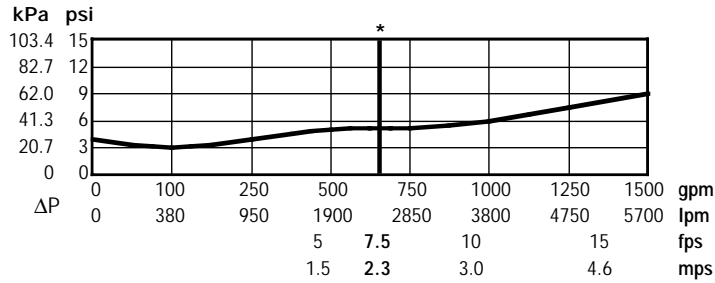
4" (100mm) No. 709



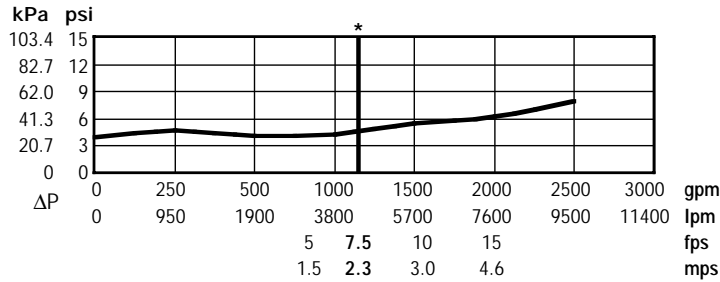
CAPACITY

*Typical maximum system flow rate (7.5 feet/sec.)

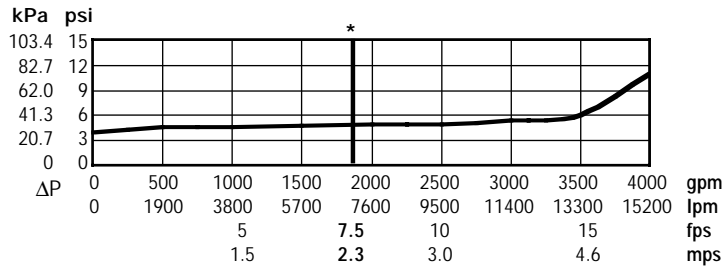
6" (150mm) No. 709



8" (200mm) No. 709



10" (250mm) No. 709



USA: 815 Chestnut Street, North Andover, MA 01845-6098
 Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7
 www.wattsind.com



BFP-4

DESCRIPTION: DUAL CHECK VALVE BACKFLOW PREVENTER FOR SUPPLY LINES TO LIQUID VENDING MACHINES. ALL STAINLESS STEEL BODY WITH HEAVY DUTY FDA APPROVED RUBBER DIAPHRAGMS. RATED FOR 150 PSI AT 33 DEGREES F. TO 140 DEGREES F. APPROVED BY: ASSE 1022. 3/8" SIZE. FOR USE ON CARBONATED BEVERAGE DISPENSERS USING CO2 GAS.

MANUFACTURER & CATALOG NO.: WATTS SD-3

Note to specifier: Verify type of BFP required with local authorities. Some locations may require a reduced pressure unit. 94 UPC requires a reduced pressure stainless steel unit. Des Moines does not require a reduced pressure unit. No copper pipe is allowed downstream from BFP.

Watts No. SD-3

Backflow Preventer for Carbonated Beverage Machines

Sizes: 1/4", 3/8" (8, 10mm)

The Watts SD3 is a dual check with atmospheric port designed for the protection of the water supply from carbon dioxide gas and carbonated water. These substances can flow from post-mix beverage systems and are very acidic. If the acidic water comes in contact with copper tubing or copper pipe, it will cause the leaching of copper salts into the water supply. The dissolved copper if ingested can cause nausea, abdominal pain, and in some cases vomiting. The SD3 prevents the reverse flow of potentially contaminated water into the potable water supply due to back pressure backflow and is used for continuous or intermittent pressure conditions. The SD3 atmospheric vent provides a visual indication of failure in the event that the downstream check fails and system backpressure exceeds the supply pressure. The Watts SD3 is recommended for use on Post-Mix Carbonated Beverage Equipment and dispensing equipment for tea and coffee.

FEATURES

- ✔ Certified to ANSI/NSF Standard 18, Manual Food and Beverage Dispensing Equipment
- ✔ ASSE 1022 Approved Dual Check with Atmospheric Vent
- ✔ 316 stainless steel body for corrosion resistance
- ✔ All rubber compounds comply with FDA food additive regulations
- ✔ Streamlined body design minimizes pressure loss and cavitation
- ✔ A wide variety of custom end connections are available
- ✔ Endurance tested for more than 500,000 pumping cycle
- ✔ Atmospheric port provides visual indication of failure of the second check
- ✔ Wye pattern strainer model for water supply installations

AVAILABLE MODELS

- 1/4" (8mm) SD3-MN: Male NPT
- 3/8" (10mm) SD3-MN: Male NPT
- 1/4" (8mm) SD3-FN: Female NPT
- 3/8" (10mm) SD3-FN: Female NPT
- 1/4" (8mm) SD3-MF: SAE Male Flare
- 3/8" (10mm) SD3-MF: SAE Male Flare

Note: The above connections are available as outlet connections only. Strainer inlet connection is always Female NPT.



SPECIFICATIONS

Backflow preventer body and adapters are of 316 stainless steel construction and all rubber components comply with FDA food additive regulations. All materials in contact with the potable water are in compliance with the requirements of the Safe Drinking Water Act, Public Law 93-523, National Interim Primary Drinking Water Regulations. Strainer manufactured from NSF approved acetal plastic.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



USA: 815 Chestnut St., No. Andover, MA 01845-6098: www.wattsreg.com
Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7: www.wattscca.com



STANDARDS

ASSE 1022

Installation: The valve can be installed horizontally or vertically (flow up or flow down). The valve should be installed so that the strainer and the valve are accessible for service and maintenance. The valve should be installed such that water discharge from the vent will not cause damage to the surrounding equipment or property.

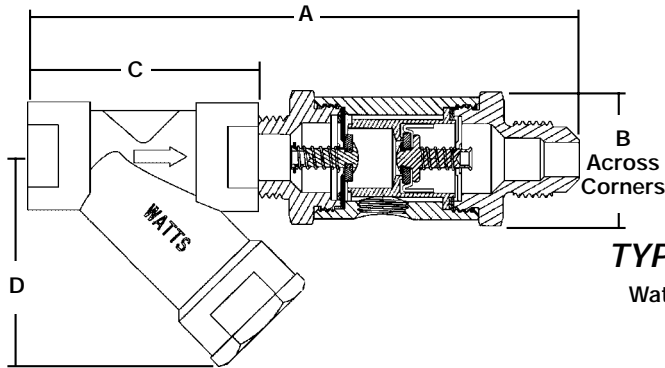
Important: The device should not be installed inside a wall or in a concealed location. Copper tubing shall not be used on the downstream side of the backflow preventer.

PRESSURE/TEMPERATURE

Max. Pressure: 150 psi (10 bar)

Max. Temperature: 130°F (54°C)

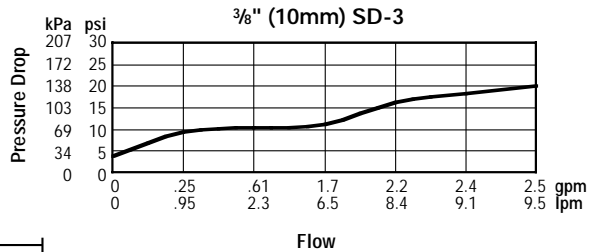
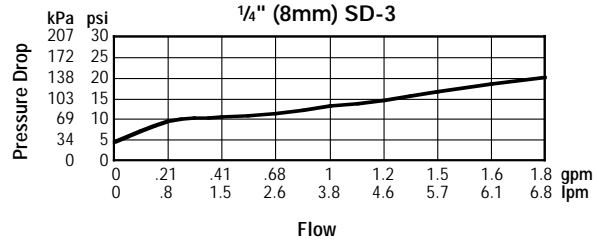
DIMENSIONS (approx.)



Valve Size	Assembly	Dimensions									
		A		B		C		D			
in	mm	Part #	Order#	in.	mm	in	mm	in	mm	in	mm
1/4"	8	SD3-MN	0061652	4 1/2	114	1 1/16	27	1 7/8	48	1 11/16	43
1/4"	8	SD3-MF	0061653	4 3/8	111	1 1/16	27	1 7/8	48	1 11/16	43
3/8"	10	SD3-MN	0061656	4 1/2	114	1 1/16	27	1 7/8	48	1 11/16	43
3/8"	10	SD3-MF	0061657	4 1/2	114	1 1/16	27	1 7/8	48	1 11/16	43
1/2"	8	SD3-FN	0061666	4 1/2	114	1 1/16	27	1 7/8	48	1 11/16	43
3/8"	10	SD3-FN	0061667	4 1/2	114	1 1/16	27	1 7/8	48	1 11/16	43
3/8"	10	SD3-MF-LS	0061671	2 5/8	67	1 1/16	27	—	—	—	—

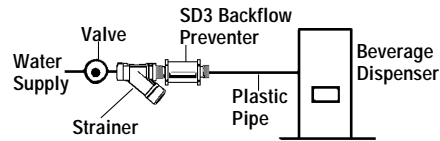
*For use on post pumping installations only.

CAPACITY

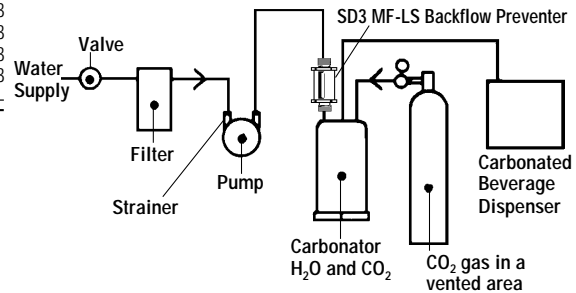


TYPICAL INSTALLATIONS

Water Supply Installations



Post Pumping Installations



USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com
Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscda.com



BFP-5

DESCRIPTION: DUAL CHECK VALVE BACKFLOW PREVENTER FOR SUPPLY LINES TO LIQUID VENDING MACHINES. ALL STAINLESS STEEL BODY WITH HEAVY DUTY FDA APPROVED RUBBER DIAPHRAGMS. RATED FOR 150 PSI AT 33 DEGREES F. TO 140 DEGREES F. APPROVED BY: ASSE 1032. 3/8" SIZE.

MANUFACTURER & CATALOG NO.: WATTS SD-2

Note to specifier: Not for carbonated beverage dispensing machines, use BFP-4. Verify type of BFP required with local authorities. Some locations may require a reduced pressure unit.

Watts No. SD-2 Backflow Preventer for Carbonated Beverage Machines

Sizes: 1/4", 3/8" (8, 10mm)



The Watts SD2 is a dual check designed for the protection of the water supply from carbon dioxide gas and carbonated water. These substances can flow from post-mix beverage systems and are very acidic. If the acidic water comes in contact with copper tubing or copper pipe, it will cause the leaching of copper salts into the water supply. The dissolved copper if ingested can cause nausea, abdominal pain, and in some cases vomiting. The SD-2 prevents the reverse flow of potentially contaminated water into the potable water supply due to back pressure backflow and is used for continuous or intermittent pressure conditions. The Watts SD-2 is recommended for use on Post-Mix Carbonated Beverage Equipment and dispensing equipment for tea and coffee.

FEATURES

- ✦ ASSE 1032 Approved Dual Check Valve
- ✦ 316 stainless steel body for corrosion resistance
- ✦ All rubber compounds comply with FDA food additive regulations
- ✦ Streamlined body design minimizes pressure loss and cavitation
- ✦ A wide variety of custom end connections are available
- ✦ Endurance tested for more than 500,000 pumping cycle
- ✦ Shock tested for more than 100,000 pumping cycle

SPECIFICATIONS

Body and adapters are of 316 stainless steel construction and all rubber components comply with FDA food additive regulations. All materials in contact with the potable water are in compliance with the requirements of the Safe Drinking Water Act, Public Law 93-523, National Interim Primary Drinking Water Regulations.

AVAILABLE MODELS

- 1/4" (8mm) SD2-MN: Male NPT
- 3/8" (10mm) SD2-MN: Male NPT
- 1/4" (8mm) SD2-FN: Female NPT
- 3/8" (10mm) SD2-FN: Female NPT
- 1/4" (8mm) SD2-MF: SAE Male Flare
- 3/8" (10mm) SD2-MF: SAE Male Flare
- 1/4" (8mm) SD2-FF: SAE Female Flare
- 3/8" (10mm) SD2-FF: SAE Female Flare

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



Water Products Division • Safety & Control Valves

USA: 815 Chestnut Street, North Andover, MA 01845-6098
Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7
www.wattsreg.com

STANDARDS

ASSE 1032

Installation: The valve can be installed horizontally or vertically (flow up or flow down). The valve should be installed such that the valve is accessible for service and maintenance.

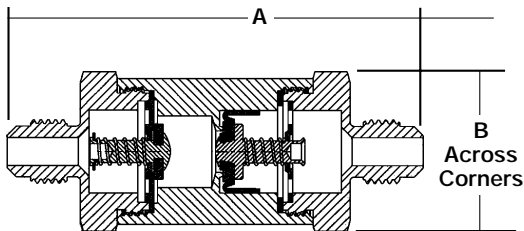
Important: The device should not be installed inside a wall or in a concealed location. Copper tubing shall not be used on the downstream side of the backflow preventer.

PRESSURE/TEMPERATURE

Max. Pressure: 200 psi (13.8 bar)

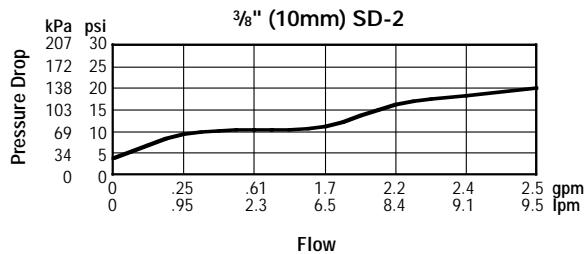
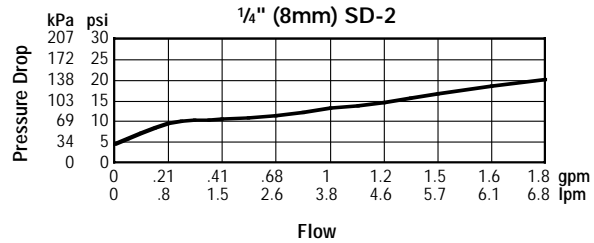
Max. Temperature: 110°F (43°C)

DIMENSIONS (approx.)

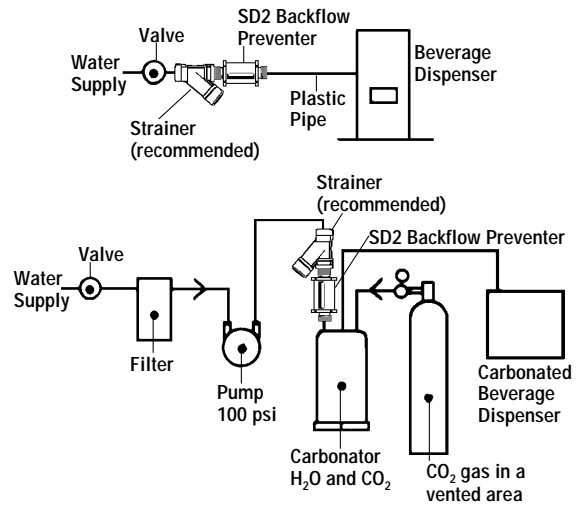


Valve Size in mm	Assembly		Dimensions			
	Part #	EDP#	A		B	
1/4"	SD2-MN	0061650	3	76	1 1/16	27
1/4"	SD2-MF	0061651	2 13/16	71	1 1/16	27
3/8"	SD2-MN	0061654	3	76	1 1/16	27
3/8"	SD2-MF	0061655	3	76	1 1/16	27
1/4"	SD2-FN	0061662	3	76	1 1/16	27
1/4"	SD2-FF	0061660	2 13/16	71	1 1/16	27
3/8"	SD2-FN	0061663	3	76	1 1/16	27
3/8"	SD2-FF	0061661	3	76	1 1/16	27

CAPACITY



TYPICAL INSTALLATIONS



A LEADER IN VALVE TECHNOLOGY

WATTS
REGULATOR
 Since 1874 Watts Industries, Inc.
 Water Products Division • Safety & Control Valves

USA: 815 Chestnut Street, North Andover, MA 01845-6098
 Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7
 www.wattsreg.com

ISO 9001
 CERTIFIED

BSV-1

DESCRIPTION: BATH/SOWER VALVE - SINGLE HANDLE PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 110 DEGREE F DISCHARGE. PLUMBING CONTRACTOR TO DEMONSTRATE ADJUSTMENT PROCEDURE TO OWNER. ASSE 1016 LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED PLASTIC SHOWERHEAD WITH SWIVEL BALL JOINT, CHROME PLATED BRASS ARM AND FLANGE, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

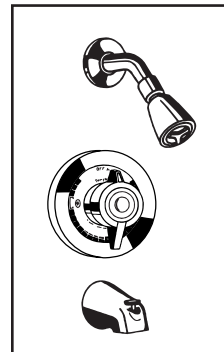
INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: SYMMONS 56-2, AMERICAN STANDARD 1495SS.502, CHICAGO FAUCETS 1760-CP, GERBER 49-730, KOHLER K-T15601-4, LEONARD 4500, POWERS P910-J1, SPEAKMAN 1630-AF

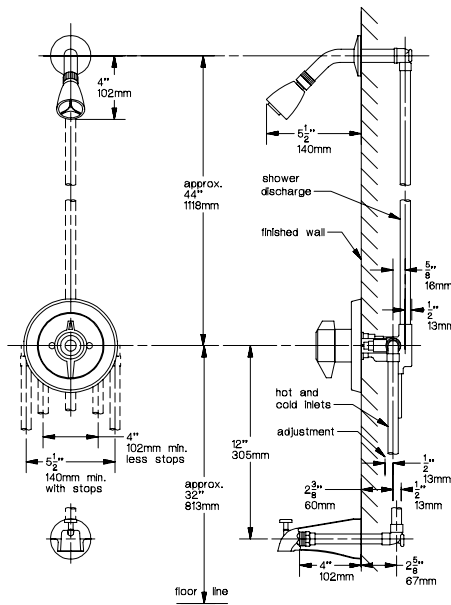
Notes to specifier:

1. Use on low budget projects only.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.

BP-56-2
Temptrol II
Tub and Shower System
 Temptrol II Pressure-Balancing mixing valve with lever handle, built-in choke and adjustable stop screw to limit handle turn. Diverter spout and Chrome shower head with arm and flange.
Modifications:
 Add:
 Suffix X: Integral ceramic stops - allow switch to shut off valve for exercise.
 Suffix SS: Slip spout



SYMMONS PRODUCTS MEET
 ANSIA112.18.1M, EPA 92
 AND ALL KNOWN FLOW RATE
 REQUIREMENTS.
 Showerheads and Hand Showers
 2.5 GPM @ 5.81 bar



Job Location

 Engineer

 Contractor

This drawing to be used for rough-in installation only. All efforts to center in ensbns optional concealed piping and fittings not furnished by manufacturer. For ADA compliance ensbns with D (ADA) consult ADAC or your state regulations for proper product choice and mounting positions. For complete installation, adjustment and service information, see installation instructions.

SYMMONS INDUSTRIES, INC.
 31 Biscuit Drive, Basking Ridge, N.J. 07184
 TEL: 1-800-SYMMONS, (761) 848-2250 FAX: 1-800-961-9621, (761) 843-3849
 website: www.symmons.com
 © 1998 Symmons Industries, Inc. Printed in U.S.A.



BSV-2

DESCRIPTION: BATH/SOWER VALVE - SINGLE HANDLE PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 110 DEGREE F DISCHARGE. ASSE 1016 LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED BRASS SHOWERHEAD WITH SWIVEL BALL JOINT, ADJUSTABLE SPRAY, CHROME PLATED BRASS ARM AND FLANGE, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: SYMMONS 1-215, LEONARD PAM-II, POWERS P413-K

Notes to specifier:

1. Higher quality valve.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified bath/shower stall and owner if different height is required.
4. For Non-ADA applications only.

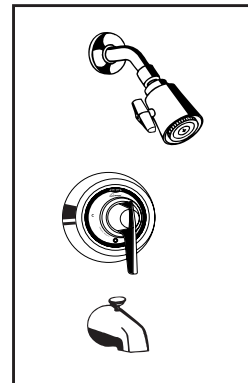
1-215-X
Safetym ix[®]
 Tub and Shower System

Safetym ix Pressure-Balancing mixing valve with lever handle, integral service stops and adjustable stop screw to limit handle turn. Supershowerhead with arm and flange. Diverter tub spout with twin ell.

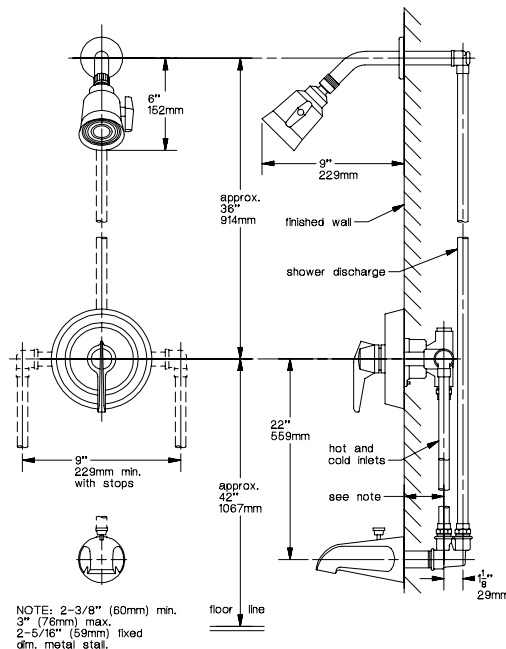
Modifications:

Add:

- Suffix X: Integral service stops - allow water shut-off at valve for service
- Suffix E: External volume control head



SYMMONS PRODUCTS MEET
 ANSI A112.18.1M, EPA '92
 AND ALL KNOWN FLOW RATE
 REQUIREMENTS.
 Showerheads and Hand Showers
 2.5 GPM @ 5 L/min



Job/Location

 Engineer

 Contractor

This drawing to be used for rough-in installation only. All floor to centerline ensions optional. Concealed piping and fittings not furnished by manufacturer. For ADA compliance An exitans with Disabilities Act) consult ADAAG or your state regulations for proper product choice and mounting locations. For complete installation, adjustment and service information, see installation instructions.

SYMMONS INDUSTRIES, INC.
 31 Brooks Drive, Baitubee, MA 02184
 TEL: 1-800-SYMMONS, (781) 848-2250 FAX: 1-800-961-9621, (781) 843-3849
 website: www.symmons.com



© 1998 Symmons Industries, Inc. Printed in U.S.A.

BSV-3

DESCRIPTION: BATH/SHOWER VALVE - SINGLE HANDLE PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 110 DEGREE F DISCHARGE. ASSE 1016 LISTED.

INSTALL ALL CONTROLS BETWEEN 38" AND 48" ABOVE FINISHED FLOOR IN COMPLIANCE WITH ADA SECTION 4.21.

ACCESSORIES - ADJUSTABLE SPRAY HAND HELD SHOWER, CHROME PLATED 24" MOUNTING RAIL, SWIVEL CONNECTOR, 60" [VINYL] [CHROME PLATED METAL] HOSE [WITH QUICK DISCONNECT], CHROME PLATED BRASS SUPPLY ELBOW WITH FLANGE, CHROME PLATED [ELEVATED] [IN-LINE] VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: SYMMONS 1-50, LEONARD PAM-II, POWERS P417

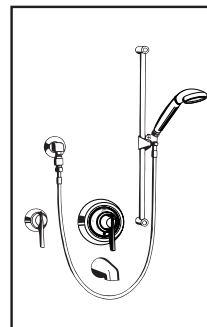
Notes to specifier:

1. Higher quality valve.
2. This unit meets ADA requirements for handicapped installation when installed per ADA section 4.21.
3. In unmonitored facilities where vandalism is a consideration a fixed shower head at 48" above the shower floor may be used in lieu of a hand held shower head. ADA 4.21.6. Modify description as required and verify with owner.
4. Verify which type of vacuum breaker is acceptable.
5. Verify with owner/architect if shower head is also required in addition to hand-held shower.
6. Verify if quick disconnect is required.
7. Not all manufacturers have vinyl hoses. Verify with listed manufacturers.

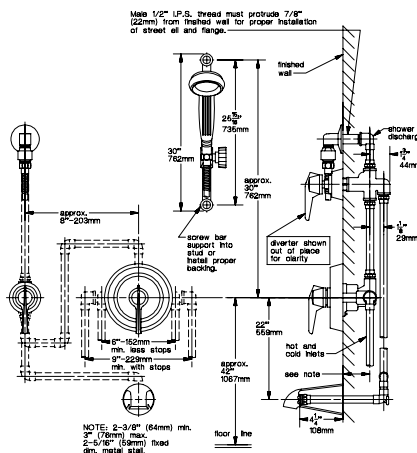
1-50-FSB
Safetym ix[®]
Tub and Shower System
 Safetym ix Pressure-Balancing mixing valve with lever handle and adjustable stop screw to limit handle turn. Leverless diverter with volume control hand spray and tub spout. Tub spout. Wall hand shower with flexible 5' metal hose with in-line vacuum breaker, wall connection and flange. 30" slide bar for hand shower mounting.

Modifications:

- Add:
- Suffix X: Integral slide stops - allow water shut off valve for size
 - Suffix VB: Elevated vacuum breaker with union and flanges in place of in-line vacuum breaker
 - Suffix G: Diverter on enter



SYMMONS PRODUCTS MEET ANSIA112.18.1M, EPA 92 AND ALL KNOWN FLOW RATE REQUIREMENTS. Show heads and Hand Showers 2.5 GPM @ 5 L/min



Job Location

Engineer

Contractor

This drawing is to be used for rough-in installation only. All floor-to-ceiling in-ensure optional concealed piping and fittings not furnished by manufacturer. Dimensions are for ADA compliance (Americans with Disabilities Act). Consult ADAAG or your state regulations for proper product choice and mounting hardware. For complete installation, adjustment and service information, see installation instructions.

SYMMONS INDUSTRIES, INC.
 31 Enclave Drive, Basking Ridge, N.J. 07184
 TEL: 1-800-SYMMONS, (911) 848-2250 FAX: 1-800-961-9621, (911) 843-3849
 website: www.symm.com
 © 1998 Symmone Industries, Inc. Printed in U.S.A.



BSV-4

DESCRIPTION: BATH/SHOWER VALVE - SINGLE HANDLE THERMOSTATIC MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOP, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016 LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED BRASS SHOWERHEAD WITH SWIVEL BALL JOINT, ADJUSTABLE SPRAY, CHROME PLATED BRASS ARM AND FLANGE, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: POWERS E425-K, GROHE 34-456, LAWLER 3800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.

POWERS
A WATTS INDUSTRIES CO.

PRODUCT SPECIFICATION
Hydroguard Series e420 - Thermostatic Mixing Valves
Model e421 (3-port)/e422 (4-port)
Model e425 (3-port)/e426 (4-port)

Form PS421 v4

DESCRIPTION

Concealed thermostatic water mixing valve for use on shower and tub/shower installations. Powerful advanced thermal actuator compensates for both temperature and pressure fluctuations. A built-in adjustable temperature limit stop reduces chances of accidental scalding due to overadjustment of handle. Heavy cast-brass body, durable stainless-steel faceplate, lucite knob-type handle, and corrosion-resistant material ensure years of trouble-free service.

See reverse for complete specification codes for valve and additional accessories.

SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

Connections:
 Type e421 and e425 1/2" NPT Inlets and 1/2" NPT Top Outlet
 Type e422 and e426 1/2" NPT Inlets, 1/2" NPT Top Outlet, 3/4" NPT Bottom Outlet

Capacity (without checkstops) 5.25 gpm [19.9 L/min]* (±0.25 gpm [0.95 L/min])

Maximum Hot Water Supply Temperature 190°F [88°C]

Minimum Hot Water Supply Temperature 5°F [14°C] above set point

Maximum Operating Pressure 125 psig [862 kPa]

Temperature Ranges:
 ASSE 1016 Type T 65-115°F [18-46°C]
 ASSE 1016 Type T/P 90-110°F [32-43°C]

Temperature Limit Stop Adjustable* factory set at 110°F [43°C]

Maximum Static Pressure 125 psig [862 kPa]

Minimum Flow and Pressure Differential: 1 gpm [3.79 L/min]

Wall Seal Gasket Furnished with Dial

Dial Plate Color-Coded Temperature Scale

Certified CSA B125

Compliance ASSE 1016-T/P

Shipping Weight 5 lbs. [2.3 kg]

All Hydroguard Series e420 thermostatic mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016-T/P (45 psi pressure differential, hot water supply between 140°-180°F [60-82°C], cold water supply less than 70°F [21°C]). If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016-T/P and CSA B125.
 *At 45 psi differential [310 kPa], with hot water supply between 140°-180°F [60-82°C].

e421

e422

e425

e426

Flow Rate in L/min - Qualifier is ±10% (without checkstops or showerhead)

Flow Rate in gpm - Qualifier is ±10% (without checkstops or showerhead)

Type A, C (19.7 cm)

Type D (235 cm)

Type E (14.9 cm)

BSV-5

DESCRIPTION: BATH/SHOWER VALVE - SINGLE HANDLE THERMOSTATIC MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOPS, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016 LISTED.

ACCESSORIES - ADJUSTABLE SPRAY HAND-HELD SHOWER WITH 60" [VINYL] [CHROME PLATED METAL] HOSE [AND QUICK DISCONNECT], SWIVEL CONNECTOR, AND 24" CHROME PLATED MOUNTING RAIL. CHROME PLATED BRASS SUPPLY ELBOW FLANGE, CHROME PLATED [ELEVATED] [IN-LINE] VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: POWERS E426, GROHE 34-436, LAWLER 3800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. This unit meets ADA requirements for handicapped installation when installed per ADA section 4.21.
3. In unmonitored facilities where vandalism is a consideration, a fixed shower head at 48" above the shower floor may be used in lieu of a hand held shower head per ADA section 4.21.6. Modify description as required and verify with owner.
4. Verify which type of vacuum breaker is acceptable.
5. Verify with owner/architect if shower head is also required in addition to hand-held shower.
6. Verify if quick disconnect is required.
7. Not all manufacturers have vinyl hoses. Verify with listed manufacturers.



POWERS
A WATTS INDUSTRIES CO.

PRODUCT SPECIFICATION
Hydroguard Series e420 - Thermostatic Mixing Valves
Model e421 (3-port)/e422 (4-port)
Model e425 (3-port)/e426 (4-port)
Form PS421 v4

DESCRIPTION

Concealed thermostatic water mixing valve for use on shower and tub/shower installations. Powerful advanced thermal actuator compensates for both temperature and pressure fluctuations. A built-in adjustable temperature limit stop reduces chances of accidental scalding due to overadjustment of handle. Heavy cast-brass body, durable stainless-steel faceplate, lucite knob-type handle, and corrosion-resistant material ensure years of trouble-free service.

See reverse for complete specification codes for valve and additional accessories.

e421/e422
e425/e426

SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

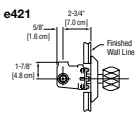
Connections:
 Type e421 and e425 1/2" NPT Inlets and 1/2" NPT Top Outlet
 Type e422 and e426 1/2" NPT Inlets, 1/2" NPT Top Outlet, 3/4" NPT Bottom Outlet

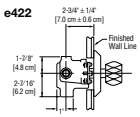
Capacity (without checkstops) 5.25 gpm [19.9 L/min]* (±0.25 gpm [0.95 L/min])

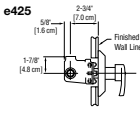
Maximum Hot Water Supply Temperature 190°F [88°C]
Minimum Hot Water Supply Temperature 5°F [14°C] above set point
Maximum Operating Pressure 125 psig [862 kPa]

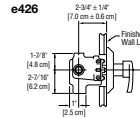
Temperature Ranges:
 ASSE 1016 Type T 65-115°F [18-46°C]
 ASSE 1016 Type T/P 90-110°F [32-43°C]
Temperature Limit Stop Adjustable* factory set at 110°F [43°C]
Maximum Static Pressure 125 psig [862 kPa]
Minimum Flow and Pressure Differential: 1 gpm [3.79 L/min]
Wall Seal Gasket Furnished with Dial
Dial Plate Color-Coded Temperature Scale
Certified CSA B125
Compliance ASSE 1016-T/P
Shipping Weight 5 lbs. [2.3 kg]

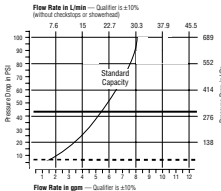
All Hydroguard Series e420 thermostatic mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016-T/P (45 psi pressure differential, hot water supply between 140°-180°F [60-82°C], cold water supply less than 70°F [21°C]). If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016-T/P and CSA B125.
 * At 45 psi differential [310 kPa], with hot water supply between 140°-180°F [60-82°C].

e421 

e422 

e425 

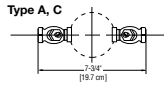
e426 



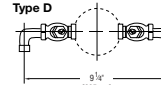
Flow Rate in GPM - Quotient is ±10% (without checkstops or showheads)

Flow Rate in L/min - Quotient is ±10% (without checkstops or showheads)

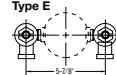
Type A, C



Type D



Type E



BSV-6

DESCRIPTION: BATH/SHOWER VALVE - SINGLE HANDLE THERMOSTATIC/PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOPS, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016-T/P LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED BRASS SHOWERHEAD WITH SWIVEL BALL JOINT, ADJUSTABLE SPRAY, CHROME PLATED BRASS ARM AND FLANGE, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: POWERS E710-K, CHICAGO FAUCETS 2500-600CP, LAWLER 7800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.
5. Cost difference is between a pressure balance valve and a thermostatic valve.



DESCRIPTION

The Series e700 HydroGuard T/P automatically mixes hot and cold water to deliver blended water within a specified range. Using an advanced thermal actuator, the Series e700 quickly compensates for temperature fluctuations induced by water temperature and pressure changes. In the event of cold water failure, the thermostatic motor virtually shuts off the flow of hot water. HydroGuard T/P meets the most stringent performance criteria for temperature and pressure changes, defined by ASSE 1016 (Type T/P).

Featuring heavy, cast-brass construction and an adjustable brass to brass high limit temperature stop, self-contained cartridge, corrosion resistant internal component, integral checks, and back to back shallow wall installation capability. All parts of the e700 Series valve are accessible from the front of the valve. All Series e700 valves open in the cold water position to ensure maximum bather safety and comfort.

The accuracy, reliability and water economy of the Series e700 HydroGuard T/P make it preferable for applications that require precise, consistent water control: showers, baths, hospital hydrotherapy and residential areas. All e700 valves meet the Americans with Disabilities Act (ADA).

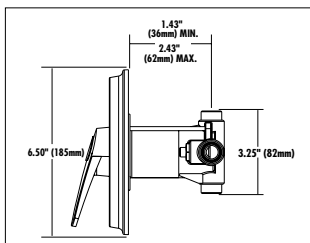
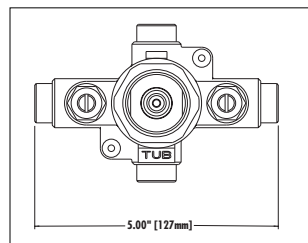
SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

Valve Construction: Combination mixing valve, with heavy cast bronze body and brass stem. Concealed adjustable high temperature limit stop. Available with ADA-compliant ABS or metal lever handle.

Connections	1/2" Sweat Inlet/Outlet
Capacity	4 gpm @ 45 psi ΔP 50/50 mix
Maximum Hot Water Supply Temperature	190°F (88°C)
Minimum Hot Water Supply Temperature (Approach Temperature)	5°F (2.8°C) above set point
Maximum Operating Pressure	125 psig (862 kPa)
Temperature Ranges	ASSE 1016 Type T/P - 90 - 110°F (32 - 43°C) ASSE 1016 Type T - 80 - 120°F (27 - 49°C)
High Temperature Limit Stop	Adjustable (factory set at 110°F (43°C))
Maximum Static Pressure	125 psig (862kPa)
Minimum Flow	0.5 gpm (3.781 L/min)
Approval	CSA B125
Listing	ASSE 1016
Shipping Weight	3.5 lbs. (1.6 kg)

All HydroGuard T/P Series e700 combination mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016 (45 psi pressure differential, hot water supply between 140°-180°F (60°-82°C), cold water supply less than 70°F (21°C)).

If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016 and CSA B125.



HOW TO SPECIFY e700 VALVES FOR SHOWER AND TUB/SHOWER SYSTEMS

	Wt.	Order Code										
Valves												
ABS Trim	3.5	e705										
Metal Trim	3.5	e710										
Showerheads												
Economizer, Chrome-Plated ABS, Adjustable	0.5	J										
Standard, Chrome-Plated Brass	0.9	K										
Deluxe, Chrome-Plated Brass	1.3	M										
Arm and Flange Kits												
Standard Arm and Flange	0.3	1										
Deluxe Arm and Flange	0.4	2										
Tub Spouts												
Diverter, Chrome-Plated Brass, 3/4" IPS	1.2	Q										
Non-Diverter, Chrome-Plated, 1/2" IPS	0.4	R										
Diverter, Chrome-Plated, 1/2" IPS	0.7	S										
Diverter, Chrome-Plated Brass, 1/2" IPS	1.3	T										
Diverter, Chrome-Plated, 1/2" Slipfit	1.0	U										
Hand Shower Systems												
24" Chrome ADA Wall Grab Bar System	4.7	1										
36" Chrome ADA Wall Grab Bar System	5.5	2										
Deluxe, Metal Hose, 30" Slide Bar	3.5	3										
Professional, Vinyl Hose, 30" Slide Bar	2.7	4										
Standard, Metal Hose, Two Wall Hooks	2.0	5										
Deluxe, Metal Hose, 24" Slide Bar	3.1	6										
Professional, Vinyl Hose, 24" Slide Bar	2.3	7										
Standard Plus, Metal Hose, 24" Slide Bar	3.0	8										
European, Metal Hose, 23" Slide Bar	2.0	9										
Diverter												
Concealed Diverting Valve, 1/2" IPS	3.0	Y										
Exposed Diverter, Shower Arm-Type, Chrome-Plated	0.5	Z										
Vacuum Breakers												
Vacuum Breaker, Elevated, Chrome-Plated	2.0	V										
Vacuum Breaker, In-Line	1.0	W										

Typical Specifications:

Valve shall meet the performance requirements of ASSE 1016, Type T/P compensating for 50% fluctuation in supply line pressure, and compensate for increases in hot water supply temperature. Valve shall be capable of supplying mixed water temperature with in 5°F of hot water supply temperature. Valve shall contain a powerful, paraffin-based thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.

Water tempering valve shall not be subject to failure due to the lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble free life, and shall not have close fitting, sliding parts, which through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 4 gpm at 45 psig. Valve shall include an adjustable limit stop, factory set at 110°F. Valve shall always open through cold water to maximize bather safety.

Valve shall be Powers # e7xx. Any alternates must have written approval prior to bidding.

ENGINEERING APPROVAL	
Project:	_____
Contractor:	_____
Architect/Engineer:	_____

<p>POWERS</p> <p>A WATTS INDUSTRIES CO.</p>	<p>© June 2003 Powers, a Watts Industries Co. USA Phone: 800.669.5430 • www.powerscontrols.com Canadian office: Phone: 888.208.8927</p>
--	---

BSV-7

DESCRIPTION: BATH/SHOWER VALVE - SINGLE HANDLE THERMOSTATIC/PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOPS, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016-T/P LISTED.

ACCESSORIES - ADJUSTABLE SPRAY HAND-HELD SHOWER WITH 60" [VINYL] [CHROME PLATED METAL] HOSE [AND QUICK DISCONNECT], SWIVEL CONNECTOR, AND 24" CHROME PLATED MOUNTING RAIL. CHROME PLATED BRASS SUPPLY ELBOW FLANGE, CHROME PLATED [ELEVATED] [IN-LINE] VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES, CHROME PLATED BRASS DIVERTER SPOUT. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: POWERS E710, CHICAGO FAUCET 2500-600CP, LAWLER 7800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. This unit meets ADA requirements for handicapped installation when installed per ADA section 4.21.
3. In unmonitored facilities where vandalism is a consideration, a fixed shower head at 48" above the shower floor may be used in lieu of a hand held shower head per ADA section 4.21.6. Modify description as required and verify with owner.
4. Verify which type of vacuum breaker is acceptable.
5. Verify with owner/architect if shower head is also required in addition to the hand held shower.
6. Verify if quick disconnect is required.
7. Not all manufacturers have vinyl hoses. Verify with listed manufacturers.
8. Cost difference is between a pressure balance and thermostatic.

PS e700 v1

POWERS

A WATTS INDUSTRIES CO.

HydroGuard® T/P

Series e700

PRODUCT SPECIFICATION

DESCRIPTION

The Series e700 HydroGuard T/P automatically mixes hot and cold water to deliver blended water within a specified range. Using an advanced thermal actuator, the Series e700 quickly compensates for temperature fluctuations induced by water temperature and pressure changes. In the event of cold water failure, the thermostatic motor virtually shuts off the flow of hot water. HydroGuard T/P meets the most stringent performance criteria for temperature and pressure changes, defined by ASSE 1016 (Type T/P).

Featuring heavy, cast-brass construction and an adjustable brass to brass high limit temperature stop, self-contained cartridge, corrosion resistant internal component, integral checks, and back to back shallow wall installation capability. All parts of the e700 Series valve are accessible from the front of the valve. All Series e700 valves open in the cold water position to ensure maximum bather safety and comfort.

e705 e710

The accuracy, reliability and water economy of the Series e700 HydroGuard T/P make it preferable for applications that require precise, consistent water control: showers, baths, hospital hydrotherapy and residential areas.

All e700 valves meet the **Americans with Disabilities Act (ADA)**.

SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

Valve Construction: Combination mixing valve, with heavy cast bronze body and brass stem. Concealed adjustable high temperature limit stop. Available with ADA-compliant ABS or metal lever handle.	1/2" Sweat Inlet/Outlet
Capacity	4 gpm @ 45 psi ΔP 50/50 mix
Maximum Hot Water Supply Temperature	190°F(88°C)
Minimum Hot Water Supply Temperature (Approach Temperature)	5°F (2.8°C) above set point
Maximum Operating Pressure	125 psig (862 kPa)
Temperature Ranges	ASSE 1016 Type T/P - 90 - 110°F (32 - 43°C) ASSE 1016 Type T - 90 - 120°F (27 - 49°C)
High Temperature Limit Stop	Adjustable (factory set at 110°F (43°C))
Maximum Static Pressure	125 psig (862kPa)
Minimum Flow	0.5 gpm (3.781 L/min)
Approval	CSA B125
Listing	ASSE 1016
Shipping Weight	3.5 lbs. (1.6 kg)

All HydroGuard T/P Series e700 combination mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016 (45 psi pressure differential, hot water supply between 140°-180°F (60°-82°C), cold water supply less than 70°F (21°C)).

If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016 and CSA B125.

5.00" (127mm)

6.50" (165mm)

1.43" (36mm) MIN.

2.43" (62mm) MAX.

3.25" (82mm)

HOW TO SPECIFY e700 VALVES FOR SHOWER AND TUB/SHOWER SYSTEMS

	Wt.	Order Code									
Valves											
ABS Trim	3.5	e705									
Metal Trim	3.5	e710									
Showerheads											
Economizer, Chrome-Plated ABS, Adjustable	0.5	J									
Standard, Chrome-Plated Brass	0.9	K									
Deluxe, Chrome-Plated Brass	1.3	M									
Arm and Flange Kits											
Standard Arm and Flange	0.3	1									
Deluxe Arm and Flange	0.4	2									
Tub Spouts											
Diverter, Chrome-Plated Brass, 3/4" IPS	1.2	Q									
Non-Diverter, Chrome-Plated, 1/2" IPS	0.4	R									
Diverter, Chrome-Plated, 1/2" IPS	0.7	S									
Diverter, Chrome-Plated Brass, 1/2" IPS	1.3	T									
Diverter, Chrome-Plated, 1/2" Slipfit	1.0	U									
Hand Shower Systems											
24" Chrome ADA Wall Grab Bar System	4.7	1									
36" Chrome ADA Wall Grab Bar System	5.5	2									
Deluxe, Metal Hose, 30" Slide Bar	3.5	3									
Professional, Vinyl Hose, 30" Slide Bar	2.7	4									
Standard, Metal Hose, Two Wall Hooks	2.0	5									
Deluxe, Metal Hose, 24" Slide Bar	3.1	6									
Professional, Vinyl Hose, 24" Slide Bar	2.3	7									
Standard Plus, Metal Hose, 24" Slide Bar	3.0	8									
European, Metal Hose, 23" Slide Bar	2.0	9									
Diverter											
Concealed Diverting Valve, 1/2" IPS	3.0	Y									
Exposed Diverter, Shower Arm-Type, Chrome-Plated	0.5	Z									
Vacuum Breakers											
Vacuum Breaker, Elevated, Chrome-Plated	2.0	V									
Vacuum Breaker, In-Line	1.0	W									

Typical Specifications:

Valve shall meet the performance requirements of ASSE 1016, Type T/P compensating for 50% fluctuation in supply line pressure, and compensate for increases in hot water supply temperature. Valve shall be capable of supplying mixed water temperature with in 5°F of hot water supply temperature. Valve shall contain a powerful, paraffin-based thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.

Water tempering valve shall not be subject to failure due to the lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble free life, and shall not have close fitting, sliding parts, which through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 4 gpm at 45 psig. Valve shall include an adjustable limit stop, factory set at 110°F. Valve shall always open through cold water to maximize bather safety.

Valve shall be Powers # e7xx. Any alternates must have written approval prior to bidding.

ENGINEERING APPROVAL	
Project:	_____
Contractor:	_____
Architect/Engineer:	_____

<p>POWERS</p> <p>A WATTS INDUSTRIES CO.</p>	<p>© June 2003 Powers, a Watts Industries Co. USA Phone: 800.669.5430 • www.powerscontrols.com Canadian office: Phone: 888.208.8927</p>
--	---

BT-1

DESCRIPTION: BATHTUB/SHOWER - WHITE ENAMELED CAST IRON WITH SLIP-RESISTANT BOTTOM, 60" X 32" X 16". LEFT OR RIGHT HAND AS SHOWN ON DRAWINGS.

BATH DRAIN - POP-UP TYPE, ALL OPERATING PARTS REMOVABLE FOR CLEANING, POLISHED CHROME FINISH, BRASS CONSTRUCTION, INTEGRAL OVERFLOW AND OPERATING LEVER, 1-1/2" 17 GAUGE BRASS TAILPIECE, 1-1/2" CAST BRASS "P" TRAP WITH CLEANOUT.

MANUFACTURER & CATALOG NO.: KOHLER K-505, ELJER 012-1170

Notes to specifier:

1. Delete "shower" from description if used for tub only.
2. If used for shower, verify need for curtain or door.



MENDOTA™

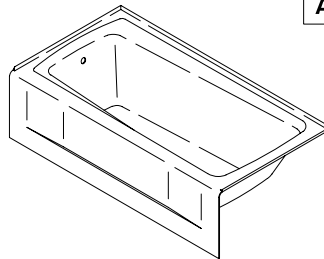
BATH

FEATURES

- 60" x 32" x 16-1/4"
- Cast iron with Safeguard® finish
- Left or right outlet
- ADA compliant when installed with seat at head end

K-505, K-506

ADA



CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ADA
- ASME/ANSI A112.19.1M
- CABO/ANSI A117.1
- IAPMO/UPC
- Canadian Standards Association (CSA)
- State of Massachusetts

COLORS/FINISHES

- 0 White
- Other Refer to Fixtures Price Book for additional colors

Accessories:

- CP Polished Chrome
- PB Polished Brass
- Other Refer to Faucets Price Book for additional finishes

SPECIFIED MODEL:

Model	Description	Colors/Finishes	
K-505	Bath with outlet at left	<input type="checkbox"/> 0 White	<input type="checkbox"/> Other _____
K-506	Bath with outlet at right	<input type="checkbox"/> 0 White	<input type="checkbox"/> Other _____

Recommended Accessories			
K-7160-TF	Drain OR	<input type="checkbox"/> CP	<input type="checkbox"/> PB <input type="checkbox"/> Other _____
K-11660	Adjustable drain	<input type="checkbox"/> CP	<input type="checkbox"/> PB <input type="checkbox"/> Other _____

PRODUCT SPECIFICATION:

The bath shall be 60" in length, 32" in width, and 16-1/4" in height. Bath shall be made of cast iron with Safeguard® finish. Bath shall have an outlet at left or right. The bath shall be ADA compliant when installed with seat at head end. Bath shall be Kohler Model K-_____.

We reserve the right to make revisions without notice in the design of fixtures or in packaging unless this right has specifically been waived at the time the order is accepted.

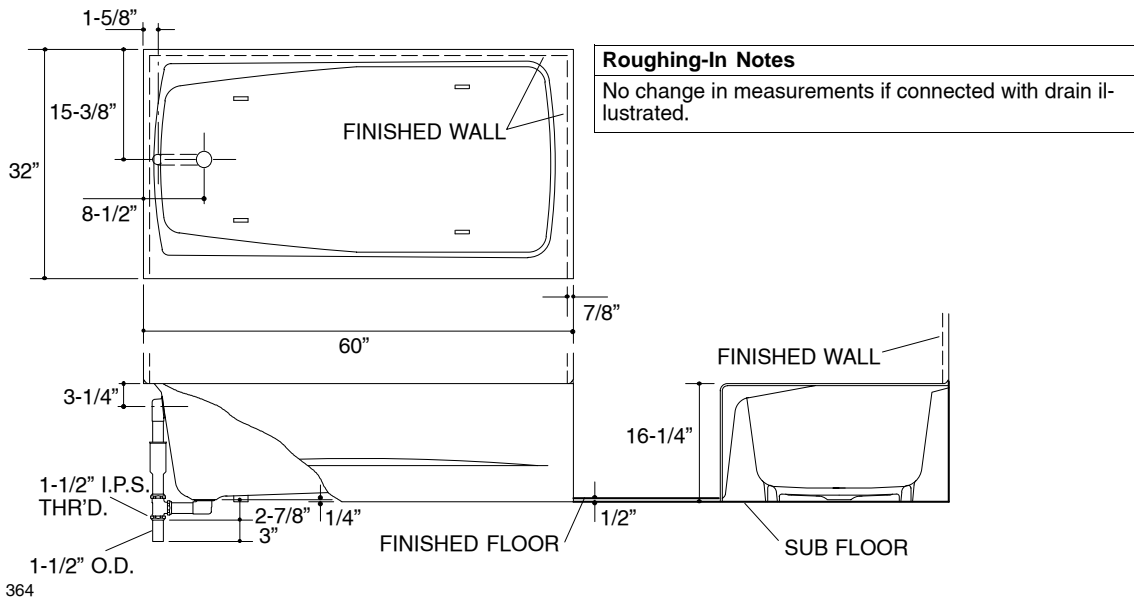
Page 1 of 2
105006-4-CA (-)

MENDOTA™

PRODUCT INFORMATION

Fixture*:	basin area	top area	weight
Bathing well	43" x 20"	54" x 24"	351 lbs.
	water depth	capacity	
To overflow	10-7/8"	45 gal.	

* Approximate measurements for comparison only.



PRODUCT DIAGRAM

K-505, K-506 Mendota™ Recess Bath
Page 2 of 2
105006-4-CA (-)



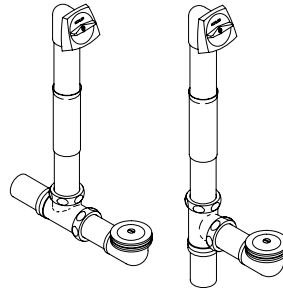
FEATURES

- 17 gauge brass construction
- For 14"-16" deep bath installations
- Available in above- or through-the-floor variations
- Adjustable trip lever pop-up drain
- 1-1/2" connection
- Brass tailpiece

CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.18.1M
- CSA B125
- IAPMO/UPC



K-7160-AF

K-7160-TF

COLORS/FINISHES

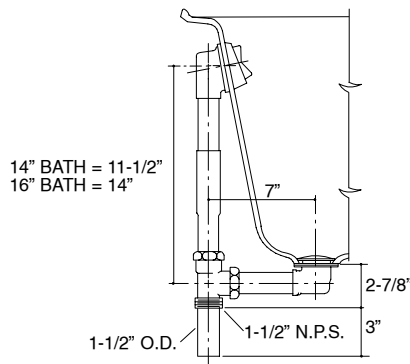
- CP Polished Chrome
- PB Polished Brass
- Other Refer to Faucets Price Book for additional finishes

SPECIFIED MODEL:

Model	Description			
K-7160-AF	For Above-The-Floor Installations	<input type="checkbox"/> CP	<input type="checkbox"/> PB	<input type="checkbox"/> Other_____
K-7160-TF	For Through-The-Floor Installations	<input type="checkbox"/> CP	<input type="checkbox"/> PB	<input type="checkbox"/> Other_____

PRODUCT SPECIFICATION:

Bath drain shall be of brass construction. Product includes an adjustable trip lever pop-up drain with 1-1/2" connection, and brass tailpiece. Product is intended for 14"-16" deep baths. Above-the-floor drain shall be Kohler Model K-7160-AF-____ OR through-the-floor drain shall be Kohler Model K-7160-TF-_____.



PRODUCT DIAGRAM

BT-2

DESCRIPTION: BATHTUB/SHOWER - ONE PIECE WHITE GELCOATED FIBERGLASS WITH CHROME PLATED OR ACRYLIC TOWEL BAR. NOMINAL SIZE OF 60" X 33" X 78". RIGHT OR LEFT HAND AS SHOWN ON DRAWINGS.

BATH DRAIN - POP-UP TYPE, ALL OPERATING PARTS REMOVABLE FOR CLEANING, POLISHED CHROME FINISH, BRASS CONSTRUCTION, INTEGRAL OVERFLOW AND OPERATING LEVER, 1-1/2" 17 GAUGE BRASS TAILPIECE, 1-1/2" CAST BRASS "P" TRAP WITH CLEANOUT.

MANUFACTURER & CATALOG NO.: AQUA GLASS 826033A, AQUARIUS G6031TS, BEST BATH STS6032, CLARION 6033-TS, LASCO 2603-SGT, NATIONAL MODEL 13, UNIVERSAL RUNDLE 6800

Note to specifier:

1. Less expensive unit.
2. Verify need for curtain or door.
3. Verify height of unit specified vs. shower head height specified with shower valve.

AQUA GLASS®

MODEL 826033A-R or L* (AG6076)

SPECIFICATIONS

GELCOAT
826033A-R/L

Shower Door Opening	55" x 58"
Weight (approx.)	140 lbs.

Rough-In Dimensions In Inches & Millimeters

A	60"	1524 mm
B	32-1/2"	826 mm
C	78"	1982 mm
D	16-1/2"	419 mm
E	8-1/2"	216 mm
F	14-1/2"	368 mm
G	3"	76 mm
H	1-1/2"	38 mm
I	55"	1397 mm
J	4"	102 mm
K	1-1/2"	38 mm
L	11"	279 mm

STANDARD FEATURES

Standard Color-White / Antique White / Medium White / Bone / Dark Bone

Chrome Towel Bar
Microban® Antibacterial Protection
Textured Bottom

OPTIONS

Decorator Colors
Designer Colors
Chrome/Polished Brass/Antique Brass/Gold Trip Waste
Polished Brass/Antique Brass/Gold Grab Bar
Aqua Shield® Doors

Available as an Aqua Whirl® Whirlpool

Aqua Glass Corporation
P. O. Box 412, Industrial Park
Adamsville, TN 38310
(901) 632-0911

Aqua Glass West
5855 Washburn Way
Klamath Falls, OR 97603
(541) 882-7711

Toll-Free 1-800-238-3940

*Right Hand Shown

REVISED 2-16-98
SUPERSEDES 10-1-97

A1

BT-3

DESCRIPTION: BATHTUB/SHOWER - ONE PIECE WHITE ACRYLIC WITH CHROME PLATED OR ACRYLIC TOWEL BAR AND TOP DOME LIGHT. NOMINAL SIZE OF 60" X 35" X 84". RIGHT OR LEFT HAND AS SHOWN ON DRAWINGS.

BATH DRAIN - POP-UP TYPE, ALL OPERATING PARTS REMOVABLE FOR CLEANING, POLISHED CHROME FINISH, BRASS CONSTRUCTION, INTEGRAL OVERFLOW AND OPERATING LEVER, 1-1/2" 17 GAUGE BRASS TAILPIECE, 1-1/2" CAST BRASS "P" TRAP WITH CLEANOUT.

MANUFACTURER & CATALOG NO.: AQUA GLASS 626035D, AQUARIUS A1000TS, AQUA BATH AB6033, CLARION AR6034TS, KOHLER K-1682, LASCO 60ACTS,

Note to specifier:

1. More expensive unit (includes top).
2. Verify dome light electrical requirements.
3. Verify need for curtain or door.
4. Verify height of unit specified vs. shower head height specified with shower valve.

AQUA GLASS®

MODEL 626035D-R or L* (AG6188)

SPECIFICATIONS

ACRYLIC

626035D-R/L

Shower Door Opening	51-1/4" x 58"
Weight (approx.)	200 lbs.

Rough-in Dimensions In Inches & Millimeters		
A	60"	1524 mm
B	35"	889 mm
C	84"	2134 mm
D	18"	457 mm
E	6-1/2"	165 mm
F	17"	432 mm
G	3-3/4"	95 mm
H	3"	76 mm
I	51-1/4"	1302 mm
J	4"	102 mm
L	12-3/4"	324 mm
BB	55-1/2"	1410 mm

STANDARD FEATURES

Standard Color-White
Chrome Towel Bar & Bracket
Textured Bottom

OPTIONS

Decorator Colors
Designer Colors
Chrome/Polished Brass/Antique Brass/Gold Trip Waste
Chrome/Polished Brass Dome Light
Acrylic/Polished Brass/Antique Brass Towel Bar & Bracket
Aqua Glass Shower Doors

Available as a Luxury Comfort Whirlpool, Aqua Steam® Unit, or Whirl/Steam Combination

Aqua Glass Corporation
P. O. Box 412, Industrial Park
Adamsville, TN 38310
(901) 632-0911

Toll-Free 1-800-238-3940

Aqua Glass West
5855 Washburn Way
Klamath Falls, OR 97603
(541) 882-7711

*Left Hand Shown


DESCRIPTION: BATHTUB/SHOWER - ONE PIECE WHITE GELCOATED REINFORCED FIBERGLASS, NOMINAL SIZE OF 60" X 33" X 80". RIGHT OR LEFT HAND AS SHOWN ON DRAWINGS. WITH REMOVABLE OR FOLD DOWN SEAT, SLIP-RESISTANT FLOOR, TWO GRAB BARS MOUNTED HORIZONTALLY ON FLAT BACK WALL, ONE GRAB BAR MOUNTED HORIZONTALLY ON VALVE WALL AND ONE GRAB BAR MOUNTED HORIZONTALLY ON END WALL. ALL GRAB BARS SHALL BE 1-1/2" OD, 18 GAUGE TYPE 304 STAINLESS STEEL, MOUNTED WITH STAINLESS STEEL NUTS AND BOLTS AND FASTENED FROM THE BACKSIDE OF THE UNIT WITH MIN. 3" X 3" METAL PLATES. 1" OD 18 GAUGE TYPE 304 STAINLESS STEEL CURTAIN ROD (INSTALLED AS HIGH AS POSSIBLE) WITH COMMERCIAL GRADE VINYL SHOWER CURTAIN. UNIT SHALL COMPLY WITH ASTM F-446, ANSI A117.1-1992, AND ADA REQUIREMENTS.

BATH DRAIN - POP-UP TYPE, ALL OPERATING PARTS REMOVABLE FOR CLEANING, POLISHED CHROME FINISH, BRASS CONSTRUCTION, INTEGRAL OVERFLOW AND OPERATING LEVER, 1-1/2" 17 GAUGE BRASS TAILPIECE, 1-1/2" CAST BRASS "P" TRAP WITH CLEANOUT.

MANUFACTURER & CATALOG NO.: AQUA GLASS 836033B, BEST BATH STS6032A17, CLARION 7911, LASCO 2603-SME, UNIVERSAL RUNDLE 6200


Note to specifier:

1. Handicapped tub/shower unit. Less expensive unit.
2. Verify height of unit specified vs. shower head height specified with shower valve.



AQUA GLASS®

Universally Designed And Engineered with the patient and homeowner in mind. Aqua Glass is committed to helping designers, specifiers, and contractors with barrier-free commercial and residential installations.



MODEL 836033B-R or L (SC6083) GELCOAT TUB/SHOWER

THIS UNIT IS DESIGNED TO COMPLY WITH:

- ANSI A117.1—1992
- ADA (The Americans With Disabilities Act-1991)

NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.

SAMPLE SPECIFICATION

Tub/shower unit shall be an Aqua Glass Model No. **836033B**. Finished surface shall be of a sanitary-grade polyester Gelcoat. The unit shall have dimensions of 60" x 32-1/2" x 79-3/4" O.D. and shall include a fold-down simulated teakwood seat. Back side of unit shall be constructed of molded reinforced fiberglass with a cellular inner core and a reinforced polyester protective exterior coating for superior overall rigidity, producing a class B fire rating and a flame spread of less than 75 by ASTM E-84 and E-162. Unit shall have a smoke density rating of less than 450 to meet ASTM E-84 and NFPA 258 specifications. The approximate weight of the unit shall be 165 lbs. A self-supported wooden base shall be attached to the sump of the unit to form an integral part with an inner and outer coating of reinforced fiberglass with polyester resin to allow for an above-the-floor installation of waste, overflow and drainage. Unit shall have two (2) grab bars mounted horizontally on flat back wall. One (1) grab bar mounted horizontally on valve wall. One (1) straight grab bar mounted horizontally on dry wall. All grab bars will be 1-1/2" O.D. 18 gauge type 304 stainless steel, mounted with stainless steel nuts and bolts and fastened from the back side of the unit with 3" x 3" metal mounting plates to meet ASTM F-446 specifications. A 1" O.D. 20 gauge type 304 stainless steel curtain rod with green commercial grade vinyl shower curtain shall be included with the unit. The unit shall comply with ANSI A117.1-1992 and (ADA) The Americans with Disabilities Act of 1991.

WARRANTY

Aqua Glass Corporation warrants to the original purchaser only that its transfer shower units are free from defects in material or workmanship for a period of five (5) years from date of installation. If any bath unit fails during this period because of defective workmanship, the original purchaser should notify the nearest Aqua Glass Distributor. The addition of grab bars or fixtures not properly installed by purchaser shall void this warranty.

STANDARD FEATURES

- Microban® Antibacterial Protection.
- Standard color—WHITE.
- Reinforced, sandwiched plastic laminated for superior overall wall rigidity.
- Phenolic simulated teakwood fold-down seat.
- Grab bars are 1-1/2" O.D. 18 gauge type 304 stainless steel.
- Accessory mounting plates are 3" x 3" metal with stainless steel nuts and bolts caulked and sealed in place.
- Self-caulking brass shower drain in showers only.
- Curtain rod - 1" O.D. 20 gauge type 304 stainless steel.
- Commercial grade vinyl shower curtain.
- Textured floor in bathing area.

OPTIONAL FEATURES

- Additional colors available (refer to Aqua Glass color chart).
- Additional grab bars with approved dimensional drawings for exact location.
- Chrome pressure balanced, temperature and volume control valve by Delta (Model #1704WSBRS).
- Hand-held shower spray package by Alsons (Model #1521) (Includes vacuum breaker by Alsons Model #4900).
- Chrome thermostatic and pressure balanced control valve by Grohe (Model #34.456).
- Chrome flow control valve by Grohe (1/2") (Model #29.076).
- Chrome (1/2") supply elbow (Model #4990F).
- Hand-held shower spray package #28.474 by Grohe (Includes hand-held champagne spray, 24" slide bar, adjustable soap dish, 60" stainless steel hose, tub filler-diverter #13.600, vacuum breaker, and union #28.463).
- Waste and overflow.
- Colored grab bars.
- Colored phenolic fold-down seat.

All options may be factory installed.

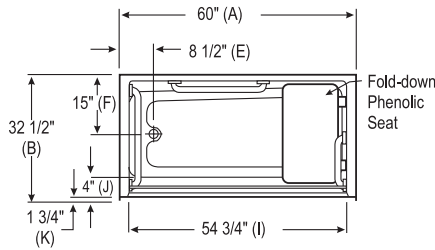
NOMINAL DIMENSIONS

WIDTH O.D.	60"
DEPTH O.D.	32-1/2"
HEIGHT O.D.	79-3/4"
WEIGHT (APPROX.)	165 lbs.

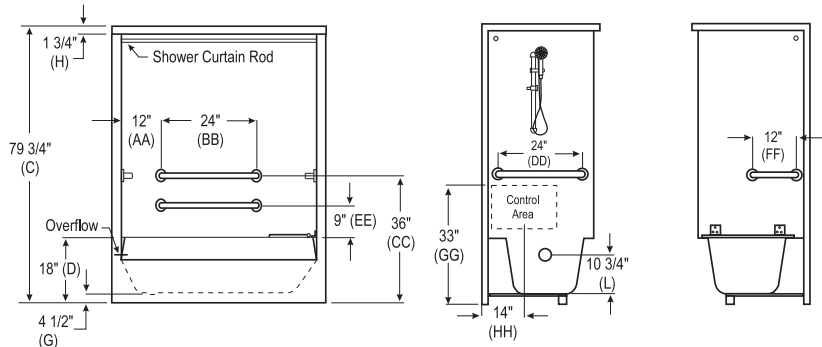
Building Code / Testing Organization Compliance

- ADA—Americans with Disabilities Act, 1991
- ANSI A 117.1—1992, Handicap Standards
- ANSI Z 124.1
- ASTM 446 (Grab Bars)
- ASTM 462 79 (Slip Resistance)
- CSA (Canadian Standards Association)
- FHA/HUD UM 73 - Use of Materials Bulletin
- NAHB Certified
- NFPA NO. 101, 258 and ASTM E 84
- Southern Building Congress Code International (SBCCI)
- Universal Plumbing Code (UPC) Administered by IAPMO

NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.



TOP VIEW



FRONT VIEW

VALVE WALL

DRY WALL

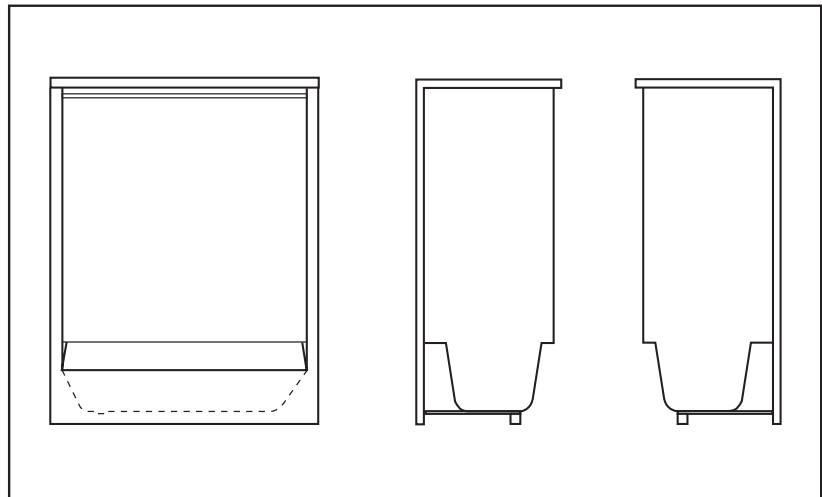
BATH FIXTURE SUBMITTAL FORM

MODEL 836033B-R or L (SC6083)
GELCOAT TUB/SHOWER
 with **Microban**[®]
 antibacterial protection

UNIT SPECIFIED

- AS IS
- WITH NOTED MODIFICATIONS:
 - NON-STANDARD COLOR _____
 - ADDITIONAL GRAB BARS
 - COLORED GRAB BARS WHITE OR BONE
 - COLORED PHENOLIC SEAT WHITE OR BONE
 - REMOVABLE TEAKWOOD SEAT
 - WHITE COMMERCIAL GRADE VINYL SHOWER CURTAIN
 - WITH DELTA VALVE & ALSONS HAND-HELD SHOWER SYSTEM
 - WITH GROHE VALVE & HAND HELD SHOWER SYSTEM
 - VACUUM BREAKER
 - OTHER _____

MODIFICATIONS



See front side for "SAMPLE SPECIFICATION"

JOB NAME _____ DATE ____ / ____ / ____

CUSTOMER _____

ARCHITECT / ENGINEER _____

AQUA GLASS CORPORATION—P.O. BOX 412—INDUSTRIAL PARK—ADAMSVILLE, TN 38310
 TELEPHONE (901) 632-0911—TOLL FREE (800) 238-3940—FAX (901) 632-4232

AQUA GLASS[®]

Making Life Better

Dimensions subject to change without notification

*Microban and the Microban symbol are trademarks of the Microban Products Company, Huntersville, NC.

REVISED 2-16-98
 SUPERSEDES 9-1-96MP

DESCRIPTION: BATHTUB/SHOWER - ONE PIECE WHITE ACRYLIC WITH BUILT-IN SOAP/SHAMPOO SHELF AND TOP DOME LIGHT. NOMINAL SIZE OF 60" X 33" X 84". RIGHT OR LEFT HAND AS SHOWN ON DRAWINGS. BACK SIDE OF UNIT SHALL BE CONSTRUCTED OF MOLDED REINFORCED FIBERGLASS. WITH REMOVABLE OR FOLD DOWN SEAT, SLIP-RESISTANT FLOOR, TWO GRAB BARS MOUNTED HORIZONTALLY ON FLAT BACK WALL, ONE GRAB BAR MOUNTED HORIZONTALLY ON VALVE WALL AND ONE GRAB BAR MOUNTED HORIZONTALLY ON END WALL. ALL GRAB BARS SHALL BE 1-1/2" OD, 18 GAUGE TYPE 304 STAINLESS STEEL, MOUNTED WITH STAINLESS STEEL NUTS AND BOLTS AND FASTENED FROM THE BACKSIDE OF THE UNIT WITH MIN. 3" X 3" METAL PLATES. 1" OD 18 GAUGE TYPE 304 STAINLESS STEEL CURTAIN ROD (INSTALLED AS HIGH AS POSSIBLE) WITH COMMERCIAL GRADE VINYL SHOWER CURTAIN. UNIT SHALL COMPLY WITH ASTM F-446, ANSI A117.1-1992, AND ADA REQUIREMENTS.

BATH DRAIN - POP-UP TYPE, ALL OPERATING PARTS REMOVABLE FOR CLEANING, POLISHED CHROME FINISH, BRASS CONSTRUCTION, INTEGRAL OVERFLOW AND OPERATING LEVER, 1-1/2" 17 GAUGE BRASS TAILPIECE, 1-1/2" CAST BRASS "P" TRAP WITH CLEANOUT.


MANUFACTURER & CATALOG NO.: AQUA GLASS 636034B, AQUARIUS S6032TS, AQUA BATH C6032TS, KOHLER K-12103/12104, LASCO 6032-ITS

Note to specifier:

1. Accessible tub/shower unit.
2. More expensive unit.
3. Verify dome light electrical requirements.
4. Verify height of unit specified vs. shower head height specified with shower valve.

**SPECIAL[®]
CARE**

AQUA GLASS[®]



**MODEL 636034B-R or L
(SC6183)
ACRYLIC TUB/SHOWER**

Universally Designed And Engineered with the patient and homeowner in mind. Aqua Glass is committed to helping designers, specifiers, and contractors with barrier-free commercial and residential installations.

STANDARD FEATURES

- Standard color—WHITE.
- Reinforced, sandwiched plastic laminated for superior overall wall rigidity.
- Phenolic fold-down simulated teakwood seat.
- Grab bars are 1-1/2" O.D. 18 gauge type 304 stainless steel.
- Accessory mounting plates are 3" x 3" metal with stainless steel nuts and bolts caulked and sealed in place.
- Self-caulking brass shower drain in showers only.
- Curtain rod - 1" O.D. 20 gauge type 304 stainless steel.
- Commercial grade vinyl shower curtain.
- Textured floor in bathing area.

OPTIONAL FEATURES

- Additional colors available (refer to Aqua Glass color chart).
- Additional grab bars with approved dimensional drawings for exact location.
- Dome light (recommended in acrylic units).
- Chrome pressure balanced, temperature and volume control valve by Delta (Model #1704WSBRS).
- Hand-held shower spray package by Alsons (Model #1521) (Includes vacuum breaker by Alsons Model #4900).
- Chrome thermostatic and pressure balanced control valve by Grohe (Model #34.456).
- Chrome flow control valve by Grohe (1/2") (Model #29.076).
- Chrome (1/2") supply elbow (Model #4990F).
- Hand-held shower spray package #28.474 by Grohe (Includes hand-held champagne spray, 24" slide bar, adjustable soap dish, 60" stainless steel hose, tub filler-diverter #13.600, vacuum breaker and union #28.463).
- Waste and overflow.
- Colored grab bars.
- Colored phenolic seat.

THIS UNIT IS DESIGNED TO COMPLY WITH:

- ANSI A117.1—1992
- ADA (The Americans With Disabilities Act-1991)

NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.

SAMPLE SPECIFICATION

Tub/shower unit shall be an Aqua Glass Model No. **636034B**. Finished surface shall be of a vacuum-formed one-piece Acrylic sheet. The unit shall have dimensions of 60" x 33-1/4" x 84" O.D. with a built-in soap/shampoo shelf and shall include a fold-down simulated teakwood seat. Back side of unit shall be constructed of molded reinforced fiberglass with an additional reinforced polyester exterior protective coating for superior overall rigidity, producing a class C fire rating and a flame spread of less than 200 by ASTM E-84 and E-162. Unit shall have a smoke density rating of less than 450 to meet ASTM E-84 and NFPA 258 specifications. The approximate weight of the unit shall be 225 lbs. A self-supported wooden base shall be attached to the sump of the unit to form an integral part with an inner and outer coating of reinforced fiberglass with polyester resin to allow for an above-the-floor installation of waste, overflow and drainage. Unit shall have two (2) grab bars mounted horizontally on back wall. One (1) grab bar mounted horizontally on valve wall. One (1) grab bar mounted horizontally on dry wall. All grab bars will be 1-1/2" O.D. 18 gauge type 304 stainless steel, mounted with stainless steel nuts and bolts and fastened from the back side of the unit with 3" x 3" metal mounting plates to meet ASTM F-446 specifications. A 1" O.D. 20 gauge type 304 stainless steel curtain rod with green commercial grade vinyl shower curtain shall be included with the unit. The unit shall comply with ANSI A117.1-1992 and (ADA) The Americans with Disabilities Act of 1991.

WARRANTY

Aqua Glass Corporation warrants to the original purchaser only that its transfer shower units are free from defects in material or workmanship for a period of five (5) years from date of installation. If any bath unit fails during this period because of defective workmanship, the original purchaser should notify the nearest Aqua Glass Distributor. The addition of grab bars or fixtures not properly installed by purchaser shall void this warranty.

All options may be factory installed.

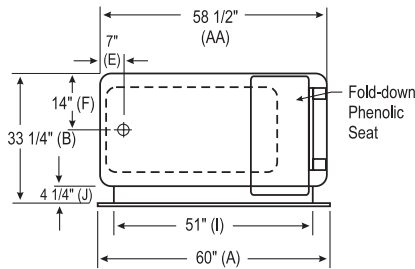
NOMINAL DIMENSIONS

WIDTH O.D.	60"
DEPTH O.D.	33-1/4"
HEIGHT O.D.	84"
WEIGHT (APPROX.)	225 lbs.

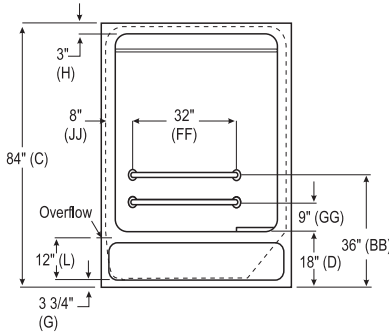
Building Code / Testing Organization Compliance

- ADA—Americans with Disabilities Act, 1991
- ANSI A 117.1—1992, Handicap Standards
- ANSI Z 124.1
- ASTM F 446 (Grab Bars)
- ASTM 462 79 (Slip Resistance)
- CSA (Canadian Standards Association)
- FHA/HUD UM 73 - Use of Materials Bulletin
- NAHB Certified
- NFPA NO. 101, 258 and ASTM E 84
- Southern Building Congress Code International (SBCCI)
- Universal Plumbing Code (UPC)

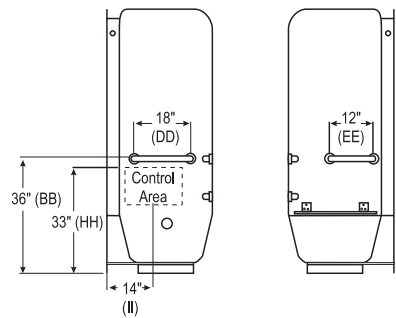
NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.



TOP VIEW



FRONT VIEW



VALVE WALL

DRY WALL

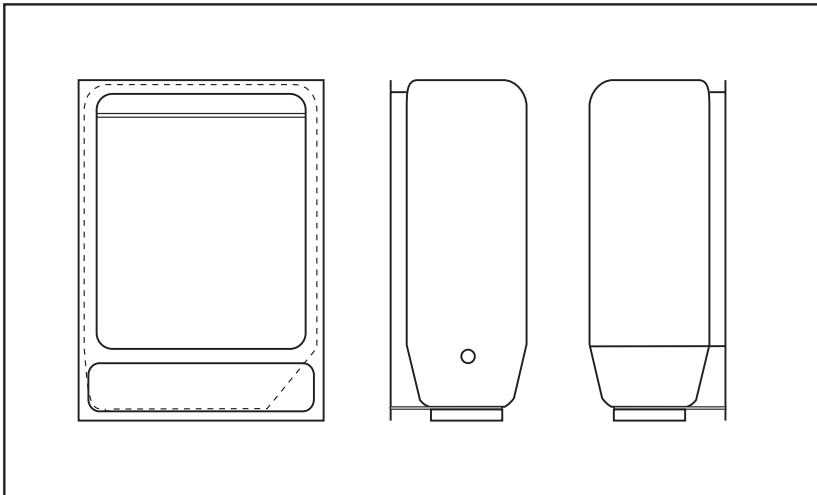
BATH FIXTURE SUBMITTAL FORM

MODEL 636034B-R or L (SC6183)
ACRYLIC TUB/SHOWER

UNIT SPECIFIED

- AS IS
- WITH NOTED MODIFICATIONS:
 - NON-STANDARD COLOR COLOR _____
 - DOME LIGHT
 - ADDITIONAL GRAB BARS
 - COLORED GRAB BARS WHITE OR BONE
 - COLORED PHENOLIC SEAT WHITE OR BONE
 - REMOVABLE TEAKWOOD SEAT
 - WHITE COMMERCIAL GRADE VINYL SHOWER CURTAIN
 - WITH DELTA VALVE & ALSONS HAND-HELD SHOWER SYSTEM
 - WITH GROHE VALVE & HAND HELD SHOWER SYSTEM
 - OTHER _____

MODIFICATIONS



See front side for "SAMPLE SPECIFICATION"

JOB NAME _____ DATE ____/____/____

CUSTOMER _____

ARCHITECT / ENGINEER _____

AQUA GLASS CORPORATION—P.O. BOX 412—INDUSTRIAL PARK—ADAMSVILLE, TN 38310
TELEPHONE (901) 632-0911—TOLL FREE (800) 238-3940—FAX (901) 632-4232

AQUA GLASS®

Making Life Better

Dimensions subject to change without notification

REVISED 3-16-98
SUPERSEDES 2-16-98

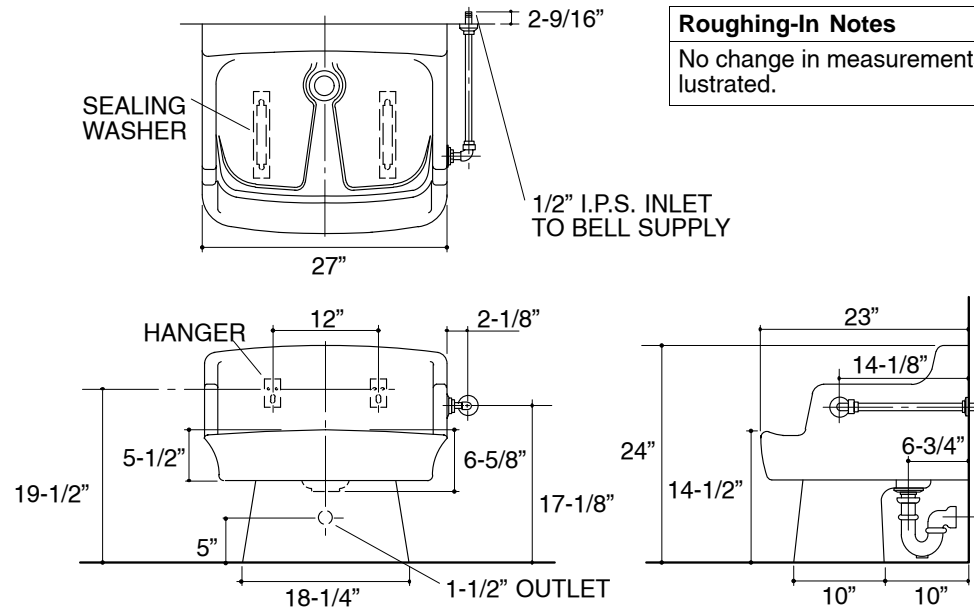
BT-6

DESCRIPTION: SITZ BATH - WHITE VITREOUS CHINA BATH WITH ARMCHAIR DESIGN, REMOVABLE MOLDED OVERFLOW, 1-1/2" 17 GAUGE BRASS TAILPIECE, 1-1/2" CAST BRASS "P" TRAP WITH CLEANOUT, FLOOR PEDESTAL, 1/2" TEMPERED WATER CONNECTION WITH INTEGRAL SUPPLY FITTING.

MANUFACTURER & CATALOG NO.: KOHLER K-12515, CRANE 2H-580, ELJER 011-0250

Note to specifier:

- 1. Institutional type tub for hospital or similar usage.
- 2. Verify if pedestal or wall mounted.



Roughing-In Notes
No change in measurements if connected with drain illustrated.

364

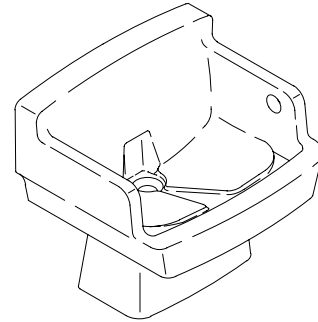
PRODUCT DIAGRAM

K-12515 Brookhaven™ Sitz Bath
Page 2 of 2
105304-4-BA (A)



FEATURES

- 27" x 23"
- Vitreous china



CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.19.2M
- Canadian Standards Association (CSA)
- State of Massachusetts

COLORS/FINISHES

- 0 White

SPECIFIED MODEL:

Model	Description	Colors/Finishes
K-12515	Sitz bath	<input type="checkbox"/> 0 White
Required Accessories		
K-12517	Pedestal	<input type="checkbox"/> 0 White

PRODUCT SPECIFICATION:

The perineal sitz bath shall be 27" in length and 23" in width. Bath shall have required pedestal. Bath and pedestal shall be made of vitreous china. Bath shall be Kohler Model K-12515-_____.

We reserve the right to make revisions without notice in the design of fixtures or in packaging unless this right has specifically been waived at the time the order is accepted.

Page 1 of 2
105304-4-BA (A)

CP-1

DESCRIPTION: CIRCULATING PUMP - [___]" FLANGED CONNECTIONS, [___] HP, 115 VOLT, 1 PHASE, [___] RPM, BRONZE CONSTRUCTION, PERMANENTLY LUBRICATED SEALED BEARINGS, MECHANICAL SEAL, OIL LUBRICATED, OPEN, DRIP-PROOF NON OVERLOADING MOTOR WITH THERMAL OVERLOAD PROTECTION, UL LISTED, RATED FOR 125 PSIG AT 225 DEGREE F. UNIT SHALL DELIVER [___] GPM AT [___] FEET OF HEAD.

MANUFACTURER & CATALOG NO.: B & G PL SERIES, TACO OO SERIES, GRUNDFOS UP SERIES

DESCRIPTION: AQUASTAT - LINE VOLTAGE, ADJUSTABLE 90-180°F, WITH STRAPON REMOTE SENSOR BULB, UL LISTED. PROVIDE WITH TRANSFORMER IF REQUIRED. INSTALL PER MANUFACTURERS INSTRUCTIONS.

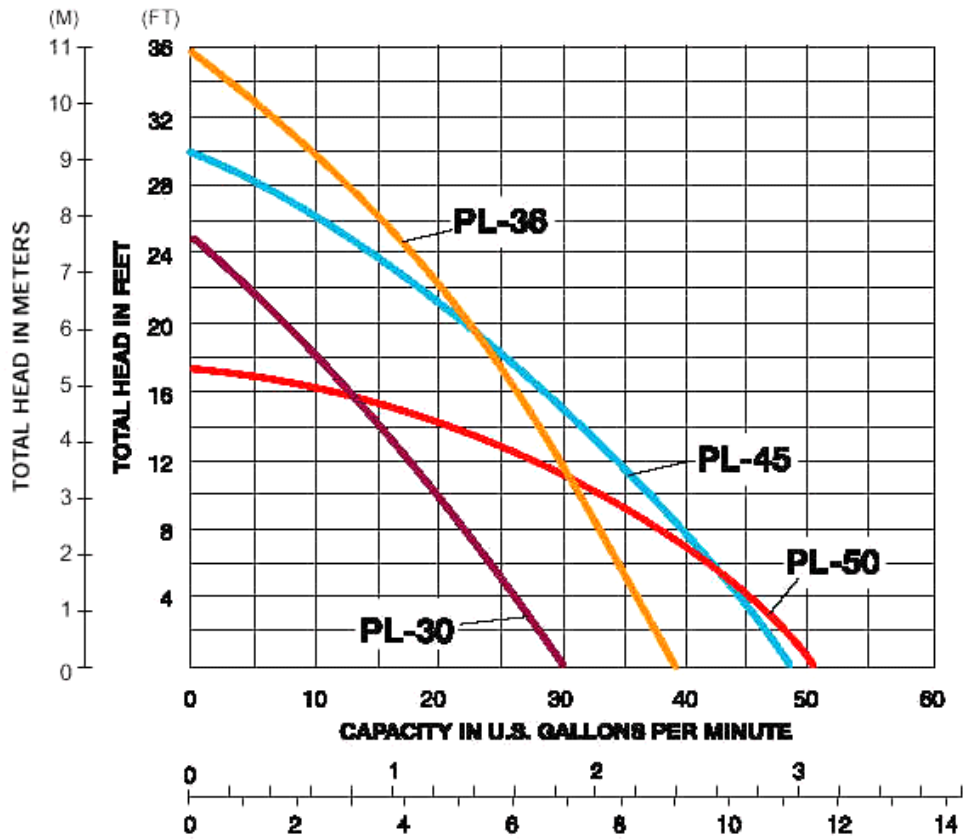
MANUFACTURER & CATALOG NO.: HONEYWELL, WHITE-RODGERS, JOHNSON CONTROLS, SAME AS PUMP MANUFACTURER

Note to specifier:

1. Application: high head, low flow, for use with mixing valves.
2. Consider deleting the aquastat where continuous circulation is desired, hospitals, nursing homes, etc.

SERIES PL B&G's powerful, dry-motor design delivers exceptional performance. . . 25% more efficient than competition. Precision-machined and balanced alloy steel rotor for superior performance. Quick-connect wire nut leads and dual knock-outs make for fast, sure hook-ups. Solid "Stiff-Shaft" design is constructed of high-strength alloy steel impervious to cracking caused by thermal stresses. XL-11™ Precision-Crafted Bearing System... is permanently oil lubricated... completely maintenance free... precisely positioned for long-life and isolated for quiet operation. Advanced close-coupled design increases pump life and efficiency, assures dependable seasonal start-ups and can easily handle difficult water conditions. Tough, durable seal system features a carbon/silicon carbide seal on a stainless steel shaft sleeve for long life and rugged operation. Double sided stainless steel neck ring for optimum efficiency.





Operating Data

Maximum working pressure150 psi (10.3 bar)

Maximum operating temperature 225°F (107°C)

CP-2

DESCRIPTION: CIRCULATING PUMP - []" FLANGED CONNECTIONS, [] HP, 115 VOLT, 1 PHASE, 3150 RPM, BRONZE CONSTRUCTION, NON-METALLIC OR BRONZE BEARINGS, CLOSE COUPLED, CERAMIC SHAFT WITH CARBON BEARINGS, OPEN, DRIP-PROOF NON OVERLOADING MOTOR WITH THERMAL OVERLOAD PROTECTION, UL LISTED, RATED FOR 125 PSIG AT 225 DEGREE F. UNIT SHALL DELIVER [] GPM AT [] FEET OF HEAD.

MANUFACTURER & CATALOG NO.: B & G NBF SERIES, TACO 00 SERIES, ARMSTRONG ASTRO SERIES, GRUNDFOS UP SERIES

DESCRIPTION: AQUASTAT - LINE VOLTAGE, ADJUSTABLE 90-180°F, WITH STRAPON REMOTE SENSOR BULB, UL LISTED. PROVIDE WITH TRANSFORMER IF REQUIRED. INSTALL PER MANUFACTURERS INSTRUCTIONS.

MANUFACTURER & CATALOG NO.: HONEYWELL, WHITE-RODGERS, JOHNSON CONTROLS, SAME AS PUMP MANUFACTURER

Note to specifier:

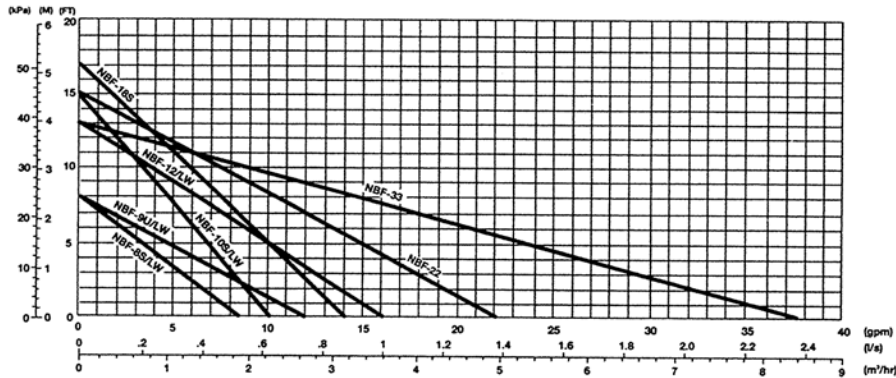
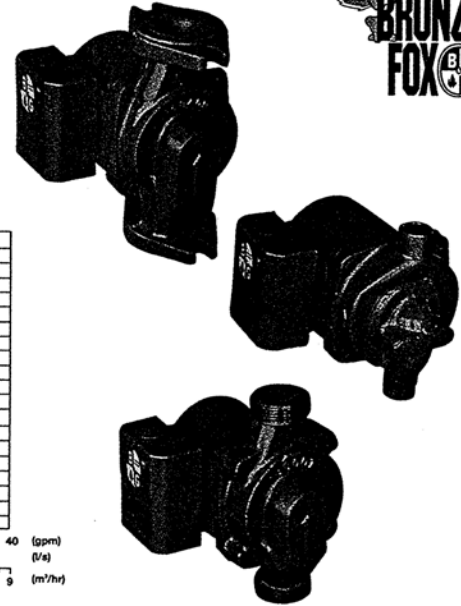
1. Less expensive throw-away type pump.
2. Consider deleting the aquastat where continuous circulation is desired, hospitals, nursing homes, etc.

Maintenance-Free Circulators 100% Lead-Free Bronze Wet Rotor/NBF



Operating Data

Maximum working pressure150 psi (10.3 bar)
 Maximum operating temperature
 NBF-33225°F (107°C)
 All Others230°F (110°C)



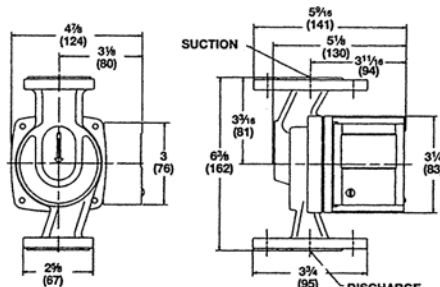
Bronze Circulators

Model No.	Part No.	Connection	Standard 60 Hz Motor Characteristics*					Approx. Shpg. Wt. lbs (Kg)
			Watts	Ø	Voltage	F.L. Amps	RPM	
NBF-8S/LW	103257	1/2" Sweat	39			0.39	2800	9.0 (4.1)
NBF-9U/LW	103258	Union**	41			0.40		9.3 (4.2)
NBF-10S/LW	103259	1/2" Sweat	55			0.46		9.0 (4.1)
NBF-12F/LW	103260	Flange 3/4, 1, 1 1/4, 1 1/2	55	1	115	0.48		9.5 (4.3)
NBF-12U/LW	103261	Union**	55			0.48		9.3 (4.2)
NBF-18S	103316	1/2" Sweat	90			0.74	3000	9.0 (4.1)
NBF-22	103252	Flange 3/4, 1, 1 1/4, 1 1/2	92			0.80		9.5 (4.3)
NBF-22U	103255	Union**	92			0.80	2940	9.3 (4.2)
NBF-33	103351	Flange 3/4, 1, 1 1/4, 1 1/2	125			1.10	2950	10.4 (4.7)

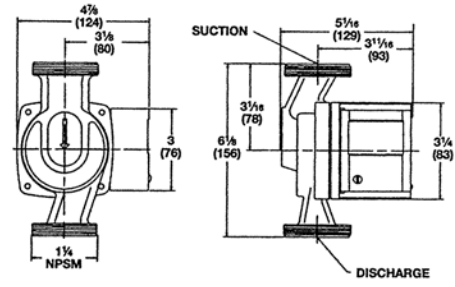
* 230/60/1 motors available upon request.
 ** Union connections available in 3/4" NPT, 1/2" & 3/4 sweat.

Dimensions

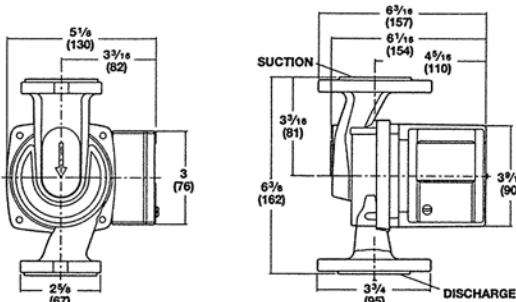
Dimensions are approximate and subject to change. Contact factory for certified dimensions.



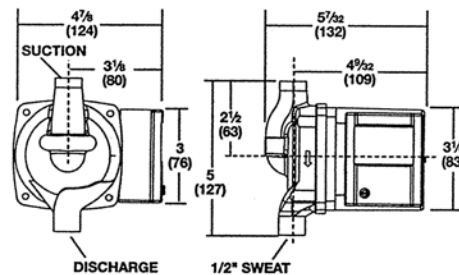
NBF-12F/LW or NBF-22



NBF-9U/LW, NBF-12U/LW or NBF-22U



NBF-33



NBF-8S/LW, NBF-10S/LW or NBF-18S

CP-3

DESCRIPTION: CIRCULATING PUMP - [___]" FLANGED CONNECTIONS, [___] HP, [___] VOLT, [___] PHASE, [___] RPM, BRONZE CONSTRUCTION, BRONZE BEARINGS, MECHANICAL SEAL, OIL LUBRICATED, FLEXIBLE COUPLING, NON-WETTED STEEL SHAFT, OPEN, DRIP-PROOF NON OVERLOADING MOTOR WITH THERMAL OVERLOAD PROTECTION, UL LISTED, RATED FOR 125 PSIG AT 225 DEGREE F. UNIT SHALL DELIVER [_____] GPM AT [_____] FEET OF HEAD.

MANUFACTURER & CATALOG NO.: B & G [___], TACO [___], ARMSTRONG [___]

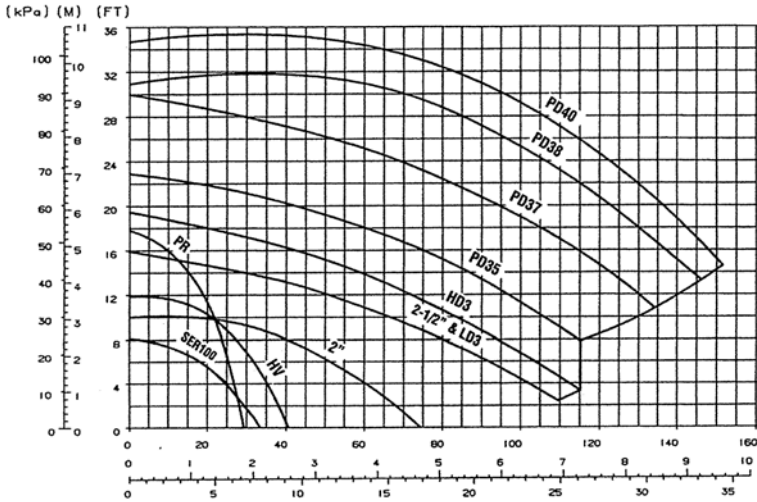
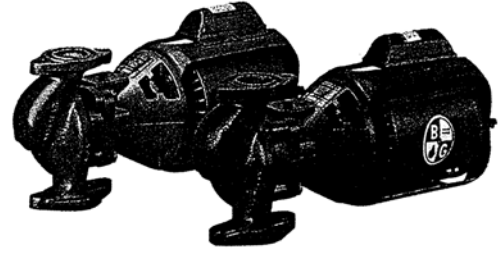
DESCRIPTION: AQUASTAT - LINE VOLTAGE, ADJUSTABLE 90-180°F, WITH STRAPON REMOTE SENSOR BULB, UL LISTED. PROVIDE WITH TRANSFORMER IF REQUIRED. INSTALL PER MANUFACTURERS INSTRUCTIONS.

MANUFACTURER & CATALOG NO.: HONEYWELL, WHITE-RODGERS, JOHNSON CONTROLS, SAME AS PUMP MANUFACTURER

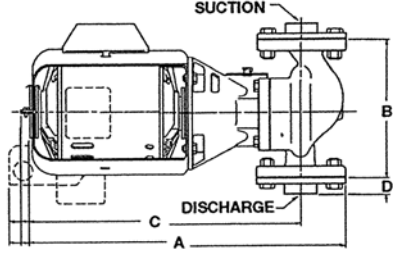
Note to specifier:

1. Large system pumps.
2. Use with B&G series 100/PR style pump, Taco 110 style, Armstrong S&H/1050&1060 style.
3. Verify exact model number & electrical characteristics with manufacturers catalog.
4. Consider deleting the aquastat where continuous circulation is desired, hospitals, nursing homes, etc.

Oil Lubricated Circulators Three-Piece



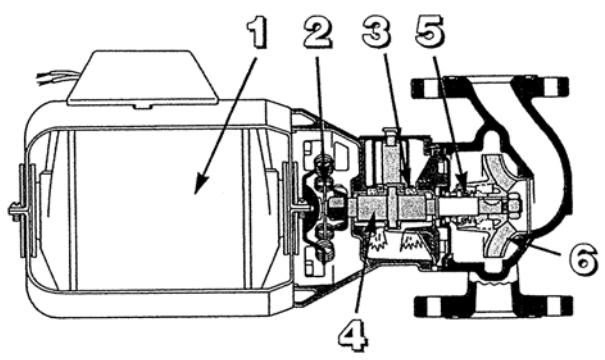
Maximum working pressure 125 psi (8.6 bar)
 Maximum operating temperature
 Standard Seal 225°F (107°C) continuous
 Special Seals 250°F (121°C) continuous



Dimensions & Weights

Model No.	Cast Iron		Bronze		Flange Size Inches (NPT)	Motor Characteristics* @ 60 Hz			Dimensions In Inches (mm) (Open Drip-Proof)				Approximate Shpg. Wt. lbs. (Kg)	
	Model No.	Part No.	Model No.	Part No.		HP	Ø	Voltage	A	B	C	D	Cast Iron	Bronze
Series 100	100 NFI	106189	100 AB	106192	3/4	1/12	115	208-230/460	14 7/8 (378)	6 3/8 (162)	12 3/4 (324)	9/16 (14)	20 (9)	21 (10)
	100 BI	106190	100 BNFI	106197	1 & 1/4				15 1/4 (387)	8 1/2 (216)	12 3/4 (324)	3/4 (19)	30 (14)	32 (15)
					1 1/2				15 3/8 (391)	8 1/2 (216)	13 (330)	9/16 (14)	28 (13)	30 (14)
Series PR	PR	102206	PR AB	102208	3/4	1/6	115	208-230/460	15 1/4 (387)	8 1/2 (216)	12 3/4 (324)	3/4 (19)	30 (14)	32 (15)
	PR BI	102207			1 1/2				15 3/8 (391)	8 1/2 (216)	13 (330)	5/8 (16)	28 (13)	30 (14)
Series HV	HV NFI	102210	HV AB	102231	1	1/6	115	208-230/460	15 3/8 (391)	8 1/2 (216)	13 (330)	3/4 (19)	30 (14)	32 (15)
	HV BI	102230	HV BNFI	102213	1 1/4 & 1 1/2				16 5/8 (422)	8 1/2 (216)	14 (356)	13/16 (21)	36 (16)	39 (18)
2"	2 NFI	102214	2 AB	102233	2	1/6	115	208-230/460	16 5/8 (422)	8 1/2 (216)	14 (356)	13/16 (21)	36 (16)	39 (18)
	2 BI	102232	2 BNFI	102217	2 1/2				17 1/4 (438)	10 (254)	14 (356)	1 1/16 (27)	54 (24)	58 (26)
2 1/2"	2 1/2 NFI	102218	2 1/2 AB	102220	2 1/2	1/4	115	208-230/460	17 1/4 (438)	10 (254)	14 (356)	1 1/16 (27)	54 (24)	58 (26)
	2 1/2 BI	102219			3				17 1/4 (438)	10 (254)	14 (356)	1 1/16 (27)	53 (24)	57 (26)
LD3	LD3	102222	LD3 AB	102224	3	1/4	115	208-230/460	17 1/4 (438)	10 (254)	14 (356)	1 1/16 (27)	53 (24)	57 (26)
	LD3 BI	102223			3				17 1/2 (445)	10 (254)	14 1/4 (362)	1 1/16 (27)	55 (25)	59 (27)
HD3	HD3	102226	HD3 AB	102228	3	1/3	115	208-230/460	17 1/2 (445)	10 (254)	14 1/4 (362)	1 1/16 (27)	55 (25)	59 (27)
	HD3 BI	102227			3				20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
PD-35S	PD35S	105089	PDB35S	105092	3	1/2	115	208-230/460	20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
	PD35S BI	105090			3				20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
PD-35T	PD35T	105093	PDB35T	105096	3	1/2	3	208-230/460	20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
	PD35T BI	105094			3				20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
PD-37S	PD37S	105097	PDB37S	105100	3	3/4	1	115	20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
	PD37S BI	105098			3				20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
PD-37T	PD37T	105101	PDB37T	105104	3	3/4	3	208-230/460	20 1/4 (514)	12 (305)	16 7/8 (429)	1 1/16 (27)	75 (34)	80 (36)
	PD37T BI	105102			3				24 (610)	14 1/2 (368)	19 1/2 (495)	1 1/4 (32)	128 (58)	138 (63)
PD-38S	PD38S	105121	PDB38S	105123	3	1	1	115	24 (610)	14 1/2 (368)	19 1/2 (495)	1 1/4 (32)	128 (58)	138 (63)
	PD38S BI	105122			3				24 1/4 (616)	14 1/2 (368)	19 3/4 (502)	1 1/4 (32)	125 (57)	135 (61)
PD-38T	PD38T	105133	PDB38T	105135	3	1	3	208-230/460	24 1/4 (616)	14 1/2 (368)	19 3/4 (502)	1 1/4 (32)	125 (57)	135 (61)
	PD38T BI	105134			3				24 5/8 (625)	14 1/2 (368)	20 1/8 (511)	1 1/4 (32)	130 (59)	140 (64)
PD-40S	PD40S	105151	PDB40S	105153	3	1 1/2	1	115	24 5/8 (625)	14 1/2 (368)	20 1/8 (511)	1 1/4 (32)	130 (59)	140 (64)
	PD40S BI	105152			3				25 1/8 (638)	14 1/2 (368)	20 5/8 (524)	1 1/4 (32)	127 (58)	137 (62)
PD-40T	PD40T	105137	PDB40T	105139	3	1 1/2	3	208-230/460	25 1/8 (638)	14 1/2 (368)	20 5/8 (524)	1 1/4 (32)	127 (58)	137 (62)
	PD40T BI	105138			3									

*Special motors available upon request. Dimensions are approximate and subject to changes. Contact factory for certified dimensions.



- 1 B&G Motor** — The heart of the Booster. The finest circulator motor available. Sleeve bearing, oil lubricated with replaceable resilient motor mounts. B&G is the only pump company to manufacture its own oil lubricated motor. Two-piece bracket makes service a snap.
- 2 Noise dampening coupler.** B&G's own flexible spring design adds to quiet operation. Do not accept a substitute.
- 3 Long bronze sleeve bearings** maintain exact shaft alignment. Provides for constant circulation of oil over bearing surfaces.
- 4 Precision ground pump shaft** is oversized to provide large bearing surfaces. Hardened integral thrust collar minimizes end-thrust to ensure long seal and bearing life.
- 5 The B&G mechanical seal** is designed to withstand the wide range of water temperatures, pressures, additives and dissolved solids common in hydronic systems.
- 6 Centrifugal impeller** prevents accumulation of air at seal faces to assure long life. Close impeller/body tolerances minimize water slippage and maximize efficiency.



CS-1

DESCRIPTION: CLINICAL SINK - WALL HUNG, WHITE VITREOUS CHINA, BLOWOUT ACTION FLUSHING RIM, 1-1/2" TOP SPUD, WITH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. BEDPAN WASHER WITH WALL MOUNTED SELF-CLOSING DOUBLE FOOT CONTROL MIXING VALVE, ELEVATED CHROME PLATED VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES. STAINLESS STEEL RIM GUARDS.

MANUFACTURER & CATALOG NO.: KOHLER K-12867 & K-13960, AMER. STD. 9512.013 & 7880.024, ELJER 241-0260

EXPOSED FLUSH VALVE - CHROME PLATED, 1" I.P.S., SCREWDRIVER STOP-CHECK VALVE, WALL AND SPUD FLANGES.

MANUFACTURER & CATALOG NO.: SLOAN REGAL 117, DELANY 418, ZURN Z-6017

SINK FITTING - SPOUT WITH 3/4" HOSE THREAD, VACUUM BREAKER, WALL BRACE, 6" WRIST BLADE HANDLES.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 815-VB, ZURN Z-842F6-LSI, DELTA 28T2985

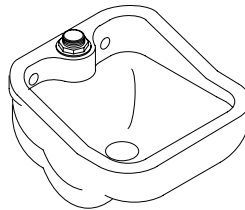


**CAMERTON™
SERVICE SINK**

K-12867

FEATURES

- 21-1/2" x 25"
- Vitreous china
- 1-1/2" top spud
- Blow-out action flushing rim



CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.19.2M
- IAPMO/UPC
- Canadian Standards Association (CSA)
- State of Massachusetts

COLORS/FINISHES

- 0 White

Accessories:

- CP Polished Chrome
- NA None Applicable

SPECIFIED MODEL:

Model	Description	Colors/Finishes
K-12867	Service sink	<input type="checkbox"/> 0 White
Optional Accessories		
K-13864	Loose sink strainer	<input type="checkbox"/> CP
K-8935	Stainless steel rim guard	<input type="checkbox"/> NA

PRODUCT SPECIFICATION:

The service sink shall be 21-1/2" in length, and 25" in width with a 1-1/2 top spud. Sink shall be made of vitreous china. Sink shall have blow-out action flushing rim. Sink shall be Kohler Model K-12867-_____.

We reserve the right to make revisions without notice in the design of fixtures or in packaging unless this right has specifically been waived at the time the order is accepted.

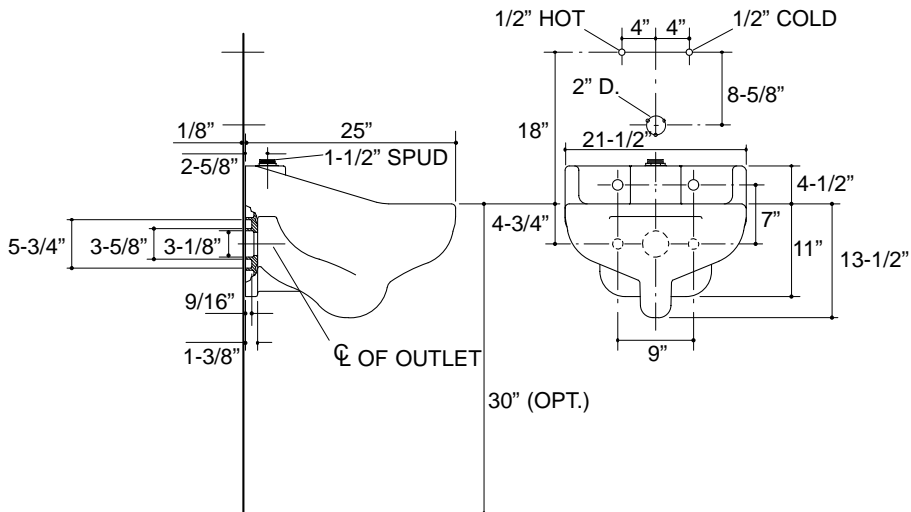
CAMERTON™

PRODUCT INFORMATION

Fixture*:		basin area	water depth
Sink		18" x 18"	6-1/4"
Water surface	15" x 16"		
Outlet	3-1/8" D.		
Spud hole	2-1/4" D.		
Passageway	2-5/8"		
Minimum running pressure required		25 p.s.i.	
* Approximate measurements for comparison only.			
Included Components:			
1-1/2" spud		18357	

INSTALLATION NOTES

Follow carrier manufacturer's installation instructions.



116

PRODUCT DIAGRAM

K-12867 Camerton™ Sink
 Page 2 of 2
 105319-4-CA (A)

THE BOLD LOOK
KOHLER



Regal® Model 117 Flushometer

► **Description**
Exposed Service Sink Flushometer, for use with top spud Service Sinks.



► **Flush Cycle**
 Model 117 (6.5 gpf/24.6 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

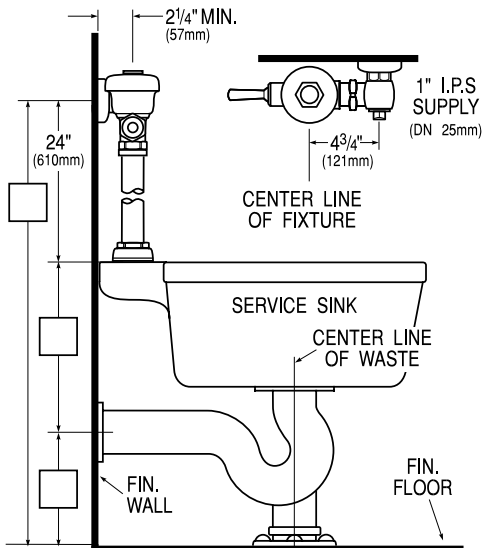
► **Variations**

- ADA** ADA Compliant Handle 
- BG** Bio-Gard™ Handle 
- H** Handle on Front of Valve
- O** Offset Vacuum Breaker Specify: 1" - 1½" - 2"
- YB** Sweat Solder Adapter Kit with Stamped Flange
- YBYC** Sweat Solder Adapter & Cast Wall Flange w/Set Screw
- YJ** Split Ring Pipe Support

REGAL XL

Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Certified

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

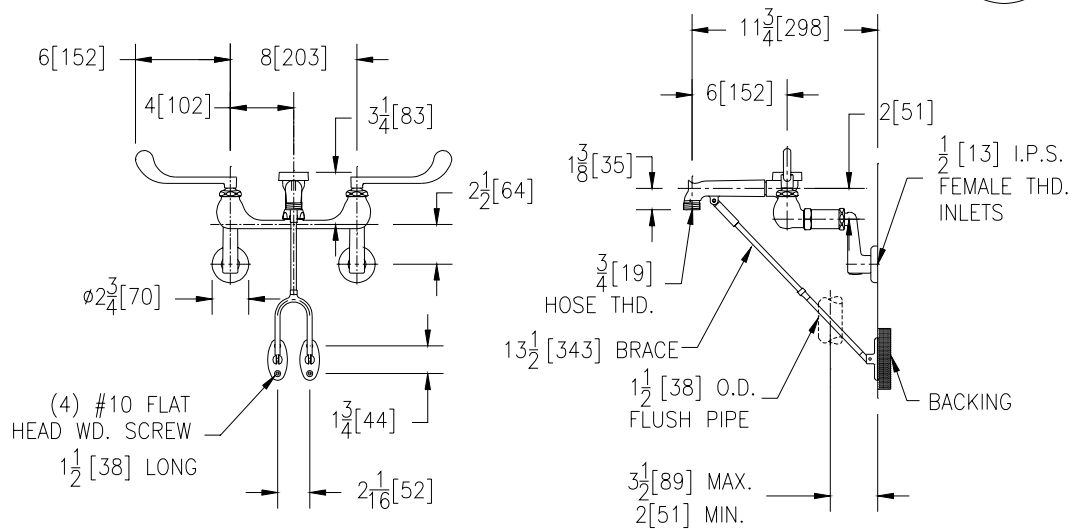
SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>



CLINICAL SERVICE SINK FAUCET Z-842D6-LSI-2XT

Engineering Specification: Zurn AquaSpec® Z-842D6-LSI-2XT

Polished chrome-plated cast brass 8" [203mm] clinical service sink faucet with quarter-turn ceramic disc cartridges, 2 1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 2 3/4" [70mm] to 13" [330mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, a pail hook and a forked bottom brace. Unit is furnished with 6" [152mm] vandal-resistant brass wrist blade color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix Description

- RC Rough Chrome Plated
- WHK Wall Hook
- 5H 5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541

In Canada:

ZURN INDUSTRIES LTD. 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/4051292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. D Date: 9/22/98 C.N. No. 81233
Dwg. No. 61439 Product No. Z-842D6-LSI-2XT

CS-2

DESCRIPTION: CLINICAL SINK - FLOOR MOUNTED, WHITE VITREOUS CHINA, SIPHON JET FLUSHING RIM, 1-1/2" TOP SPUD. BEDPAN WASHER WITH WALL MOUNTED SELF-CLOSING DOUBLE FOOT CONTROL MIXING VALVE, ELEVATED CHROME PLATED VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES. STAINLESS STEEL RIM GUARDS.

MANUFACTURER & CATALOG NO.: KOHLER K-6676 & K-13960, AMER. STD. 9504.010 & 7880.024, ELJER 241-0270

EXPOSED FLUSH VALVE - CHROME PLATED, 1" I.P.S., SCREWDRIVER STOP-CHECK VALVE, WALL AND SPUD FLANGES.

MANUFACTURER & CATALOG NO.: SLOAN REGAL 117, DELANY 625, ZURN Z-6017

SINK FITTING - SPOUT WITH 3/4" HOSE THREAD, VACUUM BREAKER, WALL BRACE, 6" WRIST BLADE HANDLES.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 815-VB, ZURN Z-842F6-LSI, DELTA 28T2985

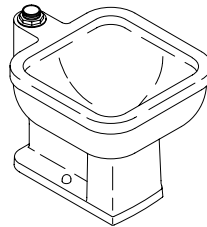


**TYRRELL™
SERVICE SINK**

K-6676

FEATURES

- 20" x 20"
- Vitreous china
- 1-1/2" top spud
- Siphon jet flushing rim



CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.19.2M
- IAPMO/UPC
- Canadian Standards Association (CSA)
- State of Massachusetts

COLORS/FINISHES

- 0 White

Accessories:

- NA None Applicable

SPECIFIED MODEL:

Model	Description	Colors/Finishes
K-6676	Service sink	<input type="checkbox"/> 0 White
Optional Accessories		
K-8935	Stainless steel rim guard	<input type="checkbox"/> NA

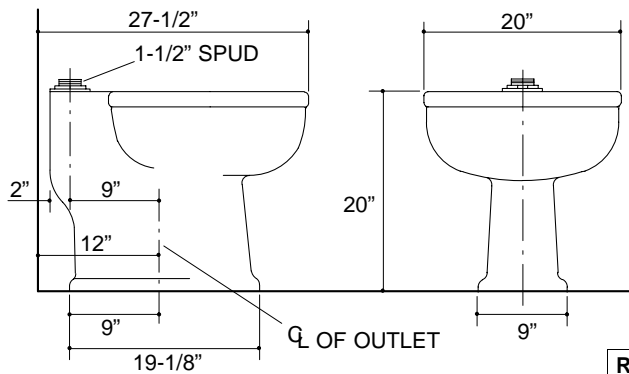
PRODUCT SPECIFICATION:

The service sink shall be 20" in length, and 20" in width with a 1-1/2 top spud. Sink shall be made of vitreous china. Sink shall have siphon jet flushing rim. Sink shall be Kohler Model K-6676-_____.

We reserve the right to make revisions without notice in the design of fixtures or in packaging unless this right has specifically been waived at the time the order is accepted.

PRODUCT INFORMATION

Fixture*:		basin area	water depth
Sink		17" x 17"	7-5/8"
Water surface	12" x 12"		
Outlet	2-3/4" D.		
Spud hole	2-1/4" D.		
Passageway	2-1/2"		
Minimum running pressure required			25 p.s.i.
* Approximate measurements for comparison only.			
Included Components:			
1-1/2" spud			18357
Bolt caps (pr.)			52048



Roughing-In Notes

Fixture dimensions are nominal and conform to tolerances in ANSI Standard A112.19.2M.

PRODUCT DIAGRAM



Regal® Model 117 Flushometer

► **Description**
Exposed Service Sink Flushometer, for use with top spud Service Sinks.



► **Flush Cycle**
 Model 117 (6.5 gpf/24.6 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

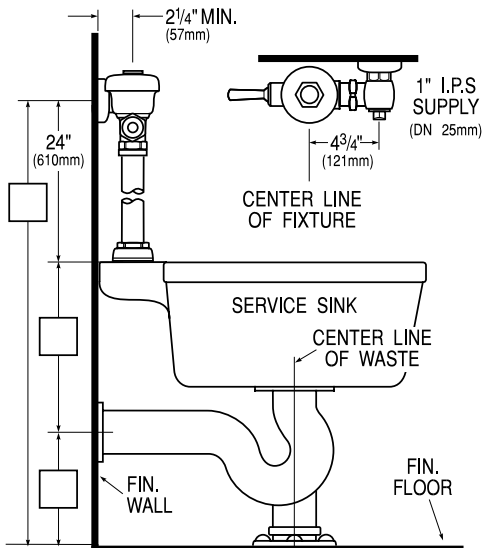
► **Variations**

- ADA** ADA Compliant Handle 
- BG** Bio-Gard™ Handle 
- H** Handle on Front of Valve
- O** Offset Vacuum Breaker Specify: 1" - 1½" - 2"
- YB** Sweat Solder Adapter Kit with Stamped Flange
- YBYC** Sweat Solder Adapter & Cast Wall Flange w/Set Screw
- YJ** Split Ring Pipe Support

REGAL XL

Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Certified

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

Made in the U.S.A.

SLOAN

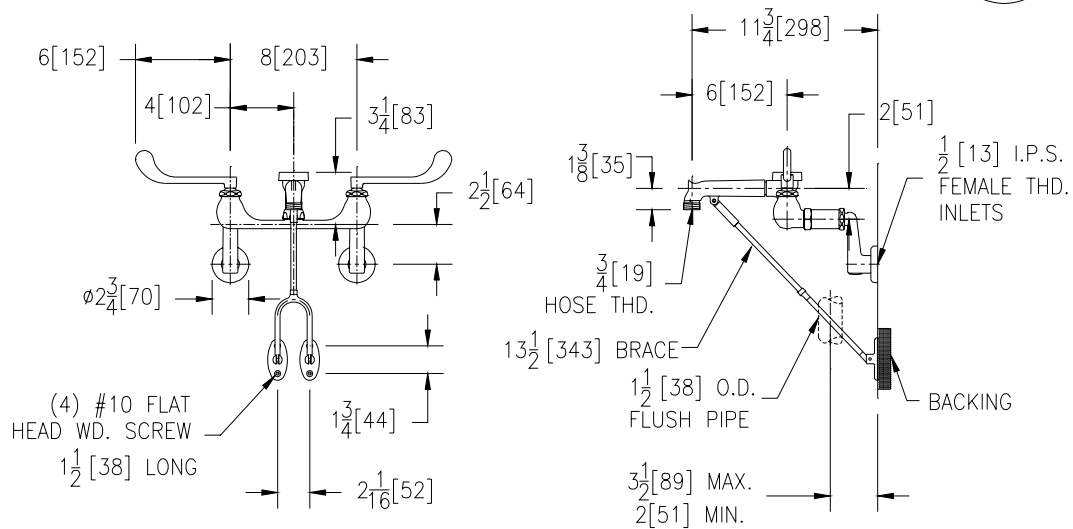
SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>



CLINICAL SERVICE SINK FAUCET Z-842D6-LSI-2XT

Engineering Specification: Zurn AquaSpec® Z-842D6-LSI-2XT

Polished chrome-plated cast brass 8" [203mm] clinical service sink faucet with quarter-turn ceramic disc cartridges, 2 1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 2 3/4" [70mm] to 13" [330mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, a pail hook and a forked bottom brace. Unit is furnished with 6" [152mm] vandal-resistant brass wrist blade color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix Description

- RC Rough Chrome Plated
- WHK Wall Hook
- 5H 5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541

In Canada:

ZURN INDUSTRIES LTD. 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/4051292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. D Date: 9/22/98 C.N. No. 81233
Dwg. No. 61439 Product No. Z-842D6-LSI-2XT

DESCRIPTION: DIALYSIS BOX - DIALYSIS AND WASTE BOX, 14 GAUGE, TYPE 316 STAINLESS STEEL ENCLOSURE WITH WELDED SEAMS GROUND SMOOTH. REMOVABLE WALL FLANGE OF TYPE 304 STAINLESS STEEL WITH SATIN FINISH. 1 1/2" DRAIN CONNECTION WITH DISCHARGE HOSE BRACKET, [ONE][TWO] 1/2" [PVC][STAINLESS STEEL] BALL VALVE(S) WITH 3/4" SUPPLY INLET CONNECTION, AND 3/4" OUTLET MALE HOSE THREAD, DISCHARGE HOSE BRACKET WITH RUBBER GROMMET. FOR USE WITH DIALYSIS MACHINES THAT USE RO (REVERSE OSMOSIS) OR DI (DIONIZED) WATER MIXED WITH DIALYSATE SALINE CONCENTRATE.

MANUFACTURER & CATALOG NO.: ACORN CARE-WARE 8190 SERIES, BRADLEY 7900 SERIES, WILLOUGHBY 8185 SERIES

Note to specifier:

1. Coordinate chemicals and water type to be used with dialysis box.
2. Coordinate that the use of PVC valves is needed/acceptable with codes.



Stainless Steel Recessed Dialysis Supply and Waste Box

Acorn Stainless Steel Recessed Dialysis Supply and Waste Boxes have been especially designed for dialysis machines which utilize RO (reverse osmosis) and DI (deionized) water, mixed with dialysate saline concentrate. This water is very corrosive and is commonly called "hungry water," because it eats away steel, some stainless steels, cast iron, copper and brass metals commonly used in supply and waste systems. There are two basic types of dialysis machines. One mixes dialysate into the RO-DI water inside the machine and the other requires pre-mixed water. When only one type is used, the single valve models are satisfactory. When both types are or may be used, the two valve models are required.

Waste Box. All parts of the Box which come in contact with waste water are fabricated from type 316 stainless steel. All seams are continuous welded and interior of the box and exposed parts of the waste receptor have a satin finish. The welded hose bracket will hold two discharge hoses. Tailpiece waste connection is 2-3/8" O.D. plain end. A stainless steel adjustable wall flange with satin finish is provided to cover space between wall and box. Wall flange is securely anchored with Phillips head screws at each corner. Waste outlet can be directly connected to 2" nominal size glass or plastic drainline with a mechanical coupling.

Door is provided with concealed hinge and Cam Cylinder Lock with Key Lock and two keys. Door can be easily removed after opening by releasing hinge pins with a screwdriver.

Valves and Fittings are PVC (polyvinyl chloride). Valves are ball type with Viton® O-ring and are securely anchored to the box. Each valve is furnished with a flushing nipple for installation in valve outlet when lines are flushed into waste receptor.

GUIDE SPECIFICATION

Provide and install Acorn Recessed Dialysis Supply and Waste Box model (specify model number). Box shall be fabricated from type 316 stainless steel with all seams continuous welded, and have a satin finish. Wall flange shall be heavy gage, type 304 stainless steel with satin finish. Ball valve and fittings shall be PVC (polyvinyl chloride) for corrosion-resistance with Viton seals. Nipples shall be provided for flushing of supply lines.

* Registered trademark of E.I. DuPont De Nemours

Page # C.8190

Acorn Engineering Co. • 15125 Proctor Ave. • P.O. Box 3527 • City of Industry, CA 91744-0527 U.S.A.
Tel: (800)488-8999 • (626) 336-4561 • (626) 961-2200 • www.acorneng.com • E-mail: info@acorneng.com

Care-Ware®: 8190 Stainless Steel Recessed Dialysis Supply and Waste Box



BASE MODEL NUMBER (Must Specify)

Product Options

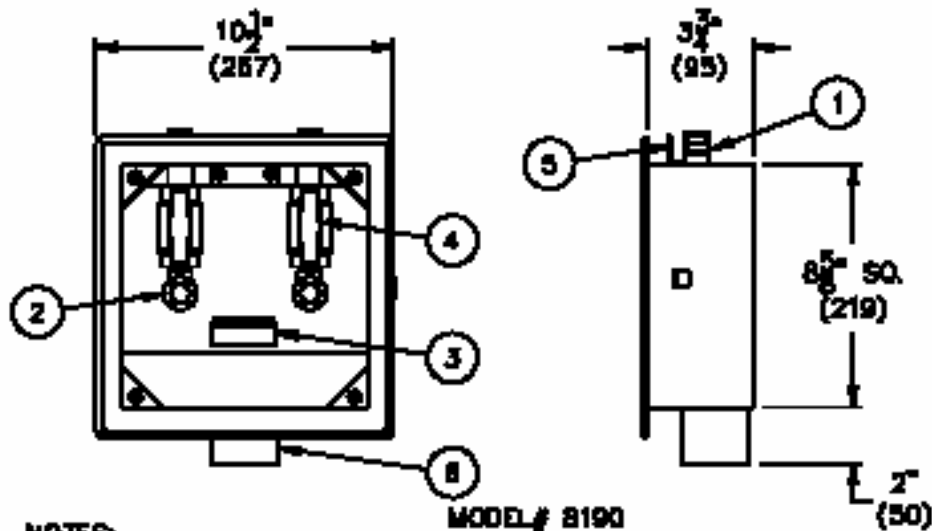
- * None Available

HEMO-DIALYSIS BOX WITH WALL FLANGE LESS DOOR

- 8190 Two Valve Supply, Less Door
- 8191 One Valve Supply, Less Door

HEMO-DIALYSIS BOX WITH WALL FLANGE AND DOOR

- 8195 Two Valve Supply With Door & Lock
- 8196 One Valve Supply With Door & Lock



MODEL# 8190

NOTES:

- 1. Supply Connection.
- 2. Hose Connection.
- 3. Discharge Hose Bracket.
- 4. Control Valve.
- 5. Anchor Clips.
- 6. Waste Connection.

Important: Installation instructions and current rough-in are furnished with each fixture. Do not rough in without certified dimensions. Dimensions are subject to manufacturer's tolerance of plus or minus 1/16" and change without notice. Acorn assumes no responsibility for use of old or superseded data. © Copyright 2004 Acorn Engineering Company

<p>Selection Summary</p> <p>Model No. & Option _____</p> <p>Quantity _____</p>	<p>Approved for Manufacturing</p> <p>Company _____ Title _____</p> <p>Signature _____ Date _____</p>
--	--

DESCRIPTION: DIALYSIS BOX - DIALYSIS AND WASTE BOX, 14 GAUGE, TYPE 316 STAINLESS STEEL ENCLOSURE WITH WELDED SEAMS GROUND SMOOTH, HINGED DOOR WITH CYLINDRICAL LOCK. REMOVABLE WALL FLANGE OF TYPE 304 STAINLESS STEEL WITH SATIN FINISH. 1 1/2" DRAIN CONNECTION WITH DISCHARGE HOSE BRACKET, [ONE][TWO] 1/2" [PVC][STAINLESS STEEL] BALL VALVE(S) WITH 3/4" SUPPLY INLET CONNECTION, AND 3/4" OUTLET MALE HOSE THREAD, DISCHARGE HOSE BRACKET WITH RUBBER GROMMET. FOR USE WITH DIALYSIS MACHINES THAT USE RO (REVERSE OSMOSIS) OR DI (DIONIZED) WATER MIXED WITH DIALYSATE SALINE CONCENTRATE.

MANUFACTURER & CATALOG NO.: ACORN CARE-WARE 8190 SERIES

Note to specifier:

1. Coordinate chemicals and water type to be used with dialysis box.
2. Coordinate that the use of PVC valves is needed/acceptable with codes.



Stainless Steel Recessed Dialysis Supply and Waste Box

Acorn Stainless Steel Recessed Dialysis Supply and Waste Boxes have been especially designed for dialysis machines which utilize RO (reverse osmosis) and DI (deionized) water, mixed with dialysate saline concentrate. This water is very corrosive and is commonly called "hungry water," because it eats away steel, some stainless steels, cast iron, copper and brass metals commonly used in supply and waste systems. There are two basic types of dialysis machines. One mixes dialysate into the RO-DI water inside the machine and the other requires pre-mixed water. When only one type is used, the single valve models are satisfactory. When both types are or may be used, the two valve models are required.

Waste Box. All parts of the Box which come in contact with waste water are fabricated from type 316 stainless steel. All seams are continuous welded and interior of the box and exposed parts of the waste receptor have a satin finish. The welded hose bracket will hold two discharge hoses. Tailpiece waste connection is 2-3/8" O.D. plain end. A stainless steel adjustable wall flange with satin finish is provided to cover space between wall and box. Wall flange is securely anchored with Phillips head screws at each corner. Waste outlet can be directly connected to 2" nominal size glass or plastic drainline with a mechanical coupling.

Door is provided with concealed hinge and Cam Cylinder Lock with Key Lock and two keys. Door can be easily removed after opening by releasing hinge pins with a screwdriver.

Valves and Fittings are PVC (polyvinyl chloride). Valves are ball type with Viton* O-ring and are securely anchored to the box. Each valve is furnished with a flushing nipple for installation in valve outlet when lines are flushed into waste receptor.

GUIDE SPECIFICATION

Provide and install Acorn Recessed Dialysis Supply and Waste Box model (specify model number). Box shall be fabricated from type 316 stainless steel with all seams continuous welded, and have a satin finish. Wall flange shall be heavy gage, type 304 stainless steel with satin finish. Ball valve and fittings shall be PVC (polyvinyl chloride) for corrosion-resistance with Viton seals. Nipples shall be provided for flushing of supply lines.

* Registered trademark of E.I. Dupont De Nemours

Page # C.8190

Acorn Engineering Co. • 15125 Proctor Ave. • P.O. Box 3527 • City of Industry, CA 91744-0527 U.S.A.
Tel: (800)488-8999 • (626) 336-4561 • (626) 961-2200 • www.acorneng.com • E-mail: info@acorneng.com

Care-Ware®: 8190 Stainless Steel Recessed Dialysis Supply and Waste Box



BASE MODEL NUMBER (Must Specify)

Product Options

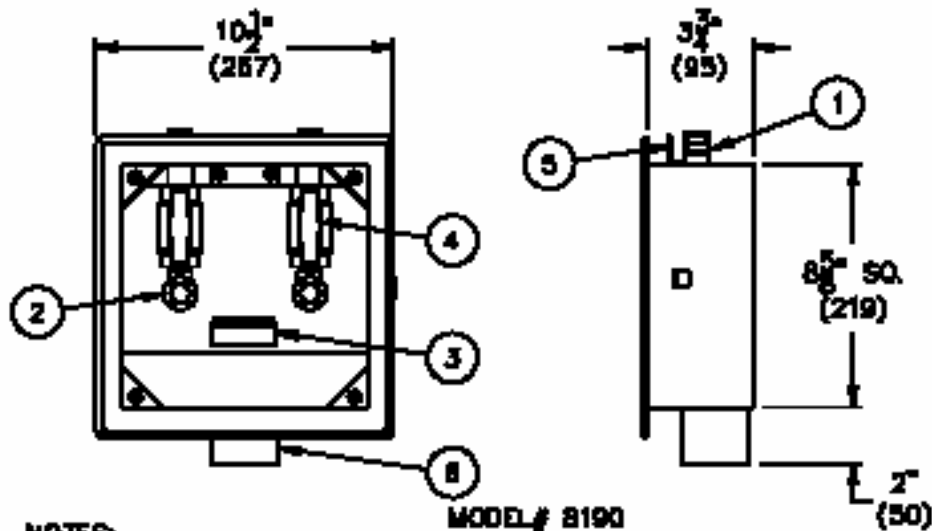
- * None Available

HEMO-DIALYSIS BOX WITH WALL FLANGE LESS DOOR

- 8190 Two Valve Supply, Less Door
- 8191 One Valve Supply, Less Door

HEMO-DIALYSIS BOX WITH WALL FLANGE AND DOOR

- 8195 Two Valve Supply With Door & Lock
- 8196 One Valve Supply With Door & Lock



MODEL# 8190

NOTES:

- 1. Supply Connection.
- 2. Hose Connection.
- 3. Discharge Hose Bracket.
- 4. Control Valve.
- 5. Anchor Clips.
- 6. Waste Connection.

Important: Installation instructions and current rough-in are furnished with each fixture. Do not rough-in without certified dimensions. Dimensions are subject to manufacturer's tolerance of plus or minus 1/16" and change without notice. Acorn assumes no responsibility for use of old or superseded data. © Copyright 2004 Acorn Engineering Company

<p>Selection Summary</p> <p>Model No. & Option _____</p> <p>Quantity _____</p>	<p>Approved for Manufacturing</p> <p>Company _____ Title _____</p> <p>Signature _____ Date _____</p>
--	--

DESCRIPTION: [ACCESSIBLE] EMERGENCY [EYE][EYE/FACE] WASH - WALL MOUNTED, [STAINLESS STEEL][PLASTIC] BOWL [WITH HINGED DUST COVER]. TWIN [CHROME PLATED][PLASTIC] SPRAY HEADS WITH CAPS AND RETAINING CHAINS/STRAPS MOUNTED ON BRASS SUPPLY ARMS, MINIMUM FLOW RATE OF [0.4][3.0] GPM AT 30 PSI, INTEGRAL FLOW CONTROL FITTING. BRASS PIPING AND FITTINGS WITH BRASS/BRONZE STAY OPEN BALL VALVE. BRASS/BRONZE PIPING, FITTINGS AND VALVES TO BE CHROME PLATED OR CHEMICAL RESISTANT POWDER COATED. 1-1/4" DRAIN OUTLET [WITH CHROME PLATED BRASS TAILPIECE][AND TRAP]. UNIVERSAL IDENTIFICATION SIGN. ANSI Z358.1 COMPLIANT.

MOUNT WITH OUTLET HEADS AT [42][36]" ABOVE FINISH FLOOR [WITH MINIMUM 27" OF KNEE CLEARANCE BELOW, AND MINIMUM OF 19" OF CLEARANCE FROM CENTER OF BOWL TO WALL OR OBSTRUCTION. ADA, ANSI 117.1 COMPLIANT].

MANUFACTURER & CATALOG NO.: BRADLEY S19-220, ENCON 0103/0104, GUARDIAN G1750/G1814, HAWS 7300 SERIES, LABORATORY ENTERPRISES 17933.909

Notes to specifier:

1. Flow rate shall be 0.4 GPM for eye wash or 3.0 gpm for eye/face wash. Flow rate at 30 psi for 15 minutes is required at the device for proper operation and to meet the ANSI standard.
2. Smaller chrome plated spray heads are generally used for eye wash. Bigger plastic spray heads are generally used for eye/face wash.
3. 36" mounting height and minimum clearance option pertains to accessible applications. Mounting height shall be 42" unless fixture is intended for accessible use.

PLUMBING FIXTURES
TECHNICAL DATA



Eye/Face Wash Fixture w/ Wall Bracket

- Model S19-220H (Shown)
- Model S19-220K
- Model S19-220SS

- Complies with American National Standard Z358.1-1998
- Galvanized Steel Protected with BRADTECT™ Safety Yellow Coating or all Stainless Steel
- Universal Identification Sign and Inspection Tag Included
- Full, One-Year Warranty

Specifications

Unit design saves space and fits easily into any work environment. Eye wash operates quickly by a large, highly visible push handle. Safe, steady water flow under varying water supply conditions is assured by integral flow control in the sprayhead assembly.

Construction

Impact-resistant plastic eye wash bowl is colored bright yellow for high visibility in emergency situations or is corrosion resistant stainless steel. Galvanized steel piping and wall mounting bracket are additionally protected with BRADTECT™ safety yellow coating. Chrome plated tailpiece provided. S19-220SS is all stainless steel construction.

Standard Equipment

Eye Wash Bowl
10" (254mm) diameter yellow impact-resistant plastic or stainless steel.

Standard Sprayhead Assembly
Chrome-plated brass sprayhead assembly with twin, soft flow, eye wash heads and protective sprayhead covers. The integral flow control assures safe, steady flow under varying water supply conditions. S19-220SS is all stainless steel construction.

Face Spray Ring
Chrome-plated circular spray ring provides supplemental face spray. Flow control assures adequate flow from eye wash nozzles and face spray ring. S19-220SS is all stainless steel construction.

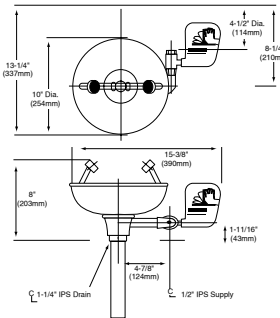
Valve
Chrome-plated brass 1/2" IPS stay-open ball valve. Hand operated by a large, highly visible safety yellow PVC push handle. S19-220SS is all stainless steel construction.

Pipe and Fittings
1/2" galvanized steel protected with BRADTECT™ safety yellow coating. S19-220SS is all stainless steel construction.

Wall Bracket
Heavy-gauge sand cast aluminum protected with BRADTECT™ safety yellow coating. Three clearance holes for wall mounting bracket; bolts by others. S19-220SS is all stainless steel construction.

Document No. 4320

This information is subject to change without formal notice. 0300RSSRG (1 Page Total)



Waste
Dome-type strainer, 1-1/4" drain fitting and tailpiece furnished.

Water Supply
1/2" IPS.

MODEL	
Model No.	Description
<input type="checkbox"/> S19-220H	Eye/Face Wash Fixture w/ Wall Bracket- Plastic Bowl
<input type="checkbox"/> S19-220K	Eye/Face Wash Fixture w/ Wall Bracket- Stainless Steel Bowl
<input type="checkbox"/> S19-220SS	Eye/Face Wash Fixture w/ Wall Bracket- All Stainless Steel Fixture



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

DESCRIPTION: EMERGENCY [EYE][EYE/FACE] WASH - DECK MOUNTED, RECESSED STAINLESS STEEL BOWL. TWIN [CHROME PLATED][PLASTIC] SPRAY HEADS WITH CAPS AND RETAINING CHAINS/STRAPS MOUNTED ON BRASS SUPPLY ARMS, MINIMUM FLOW RATE OF [0.4][3.0] GPM AT 30 PSI, INTEGRAL FLOW CONTROL FITTING. BRASS PIPING AND FITTINGS WITH BRASS/BRONZE STAY OPEN BALL VALVE WITH HEAVY DUTY METAL MOUNTING BRACKET. PUSH DOWN ACTIVATION ROD AND KNOB. BRASS/BRONZE PIPING, FITTINGS AND VALVES TO BE CHROME PLATED OR CHEMICAL RESISTANT POWDER COATED. 1-1/4" DRAIN OUTLET WITH CHROME PLATED BRASS TAILPIECE AND TRAP. UNIVERSAL IDENTIFICATION SIGN. ANSI Z358.1 COMPLIANT.

MANUFACTURER & CATALOG NO.: BRADLEY S19-260, ENCON 0111, GUARDIAN G1765/G1810, HAWS 7301, LABORATORY ENTERPRISES 17934.909

Notes to specifier:

1. Flow rate shall be 0.4 GPM for eye wash or 3.0 gpm for eye/face wash. Flow rate at 30 psi for 15 minutes is required at the device for proper operation and to meet the ANSI standard.
2. Smaller chrome plated spray heads are generally used for eye wash. Bigger plastic spray heads are generally used for eye/face wash.

PLUMBING FIXTURES
TECHNICAL DATA



Deck/Counter Top-Mounted Eye/Face Wash Fixture Model S19-260

- Complies with American National Standard Z358.1-1998
- Universal Identification Sign and Inspection Tag Included
- Full, One-Year Warranty

Specifications

Unit design saves space and fits easily into any work environment. Eye wash operates quickly by a large, highly visible push handle. Safe, steady water flow under varying water supply conditions is assured by integral flow control in the sprayhead assembly.

Construction

Eye wash bowl is corrosion-resistant stainless steel, with stainless steel push down handle.

Standard Equipment

Eye Wash Bowl
13-5/8" (327mm) diameter corrosion-resistant stainless steel.

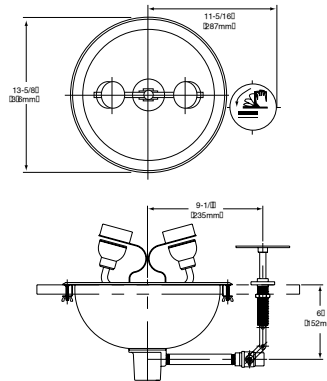
Eye/Face Wash Spray Heads
Twin perforated disc eye/face wash heads with protective pop-off spray-head covers. Gentle spray bathes eyes and face.

Valve
Chrome-plated 1/2" IPS stay-open ball valve. Hand operated by a large, highly visible push handle.

Pipe and Fittings
Galvanized steel protected with BRADTECT™ safety yellow coating.

Waste
Dome-type strainer and 1-1/4" drain fitting furnished. Tailpiece and trap to conform to local codes by others.

Water Supply
1/2" IPS.



MODEL	
Model No.	Description
□ S19-260	Deck/Counter Top-Mounted Eye/Face Wash Fixture

Document No. 4460

This information is subject to change without formal notice.
0401BLVS (1 Page Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

DESCRIPTION: EMERGENCY [EYE][EYE/FACE] WASH - [SWIVEL][SWING-DOWN], [DECK][WALL] MOUNTED ADJACENT TO SINK. TWIN [CHROME PLATED][PLASTIC] SPRAY HEADS WITH CAPS AND RETAINING CHAINS/STRAPS MOUNTED ON BRASS SUPPLY ARMS, MINIMUM FLOW RATE OF [0.4][3.0] GPM AT 30 PSI, INTEGRAL FLOW CONTROL FITTING. BRASS PIPING AND FITTINGS WITH BRASS/BRONZE STAY OPEN BALL VALVE. SINGLE ACTION ACTIVATION BY METAL FLAG OR BY MOVING INTO POSITION. BRASS/BRONZE PIPING, FITTINGS AND VALVES TO BE CHROME PLATED OR CHEMICAL RESISTANT POWDER COATED. UNIVERSAL IDENTIFICATION SIGN. ANSI Z358.1 COMPLIANT.

MANUFACTURER & CATALOG NO.: BRADLEY S19-270, ENCON 0104, GUARDIAN G1700/G1800 SERIES, HAWS 7610/7611

Notes to specifier:

1. Flow rate shall be 0.4 GPM for eye wash or 3.0 gpm for eye/face wash. Flow rate at 30 psi for 15 minutes is required at the device for proper operation and to meet the ANSI standard.
2. Smaller chrome plated spray heads are generally used for eye wash. Bigger plastic spray heads are generally used for eye/face wash.
3. Wall mounted units available in the swing-down style only. Not all manufacturers offer this configuration.



Swing-Activated Eye and Eye/Face Wash

Model S19-270C (Shown)
Model S19-270E

- Complies with ANSI Standard Z358.1-1998
- Universal Right or Left Hand Mounting w/Locking Mechanism
- Chrome-Plated Brass Pipe and Fittings
- Universal Sign and Inspection Tag Included
- Full, One-Year Warranty

Specifications

Unit design saves space and fits easily into any work environment. Eye and eye/face washes operate quickly by pulling swing arm 90° over sink. Universal mounting design with locking mechanism allows you to install either right or left handed. Safe, steady water flow under varying water supply conditions is assured by integral flow control in the shank.

Construction

Pipe and fittings are chrome-plated brass. Universal right or left handed mounting options.

Standard Equipment

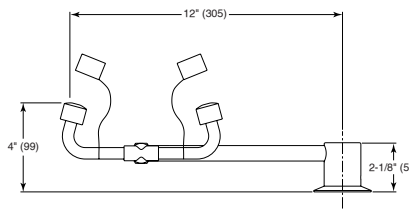
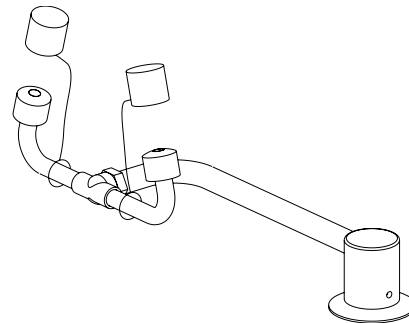
Standard Sprayhead Assembly
Chrome-plated brass sprayhead assembly with twin, soft flow eye wash heads and protective pop-off sprayhead covers. (S19-270C)

Eye/Face Wash Sprayhead Assembly
Twin perforated disc eye/face wash heads with protective pop-off sprayhead covers. Gentle spray bathes eyes and face. (S19-270E)

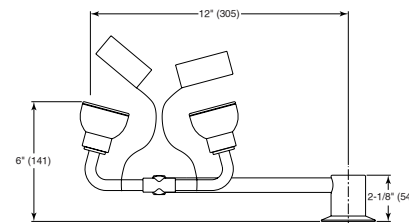
Valve
Chrome-plated brass 1/2" IPS stay-open valve. Waterflow is activated by pulling swing arm 90° over sink. Water will continue to flow until arm is returned to original position.

Pipe and Fittings
Chrome-plated brass

Water Supply
1/2" IPS



S19-270C



S19-270E

MODEL	
Model No.	Description
<input type="checkbox"/> S19-270C	Swing-Activated Eyewash Fixture – Universal Mount
<input type="checkbox"/> S19-270E	Swing-Activated Eye/Face Wash Fixture – Universal Mount

Document No. 4471

This information is subject to change without formal notice.
0399RSSVS (1 Page Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

ES-1

DESCRIPTION: EMERGENCY SHOWER - CEILING MOUNTED WITH [VERTICAL][HORIZONTAL] SUPPLY. [STAINLESS STEEL][PLASTIC] SHOWER HEAD [WITH INTEGRAL CEILING FLANGE], MINIMUM FLOW RATE OF 20 GPM AT 30 PSI, BRASS/BRONZE STAY OPEN BALL VALVE. STAINLESS STEEL/ALUMINUM PULL ROD [WITH CEILING GUIDE PLATE]. BRASS/BRONZE PIPING, FITTINGS AND VALVES TO BE CHROME PLATED OR CHEMICAL RESISTANT POWDER COATED. [GALVANIZED STEEL][STAINLESS STEEL] SUPPLY PIPING AND FITTINGS. UNIVERSAL IDENTIFICATION SIGN. ANSI Z358.1 COMPLIANT.

[MOUNT BOTTOM OF SHOWER HEAD BETWEEN 82"-96" AND PULL ROD AT MAXIMUM 69" ABOVE FINISH FLOOR. SECURE WITH PIPE HANGER AT ELBOW ABOVE SHOWER HEAD.]

[ACCESSIBLE - MOUNT BOTTOM OF SHOWER HEAD BETWEEN 82"-96" AND PULL ROD AT MAXIMUM 48" ABOVE FINISH FLOOR. SECURE WITH PIPE HANGER AT ELBOW ABOVE SHOWER HEAD.]

Note to specifier: Use the following model numbers for vertical supply piping.

MANUFACTURER & CATALOG NO.: BRADLEY S19-130, ENCON 0105, GUARDIAN G1635, HAWS 8122/8123, LABORATORY ENTERPRISES 17931.909

Note to specifier: Use the following model numbers for horizontal supply piping.

MANUFACTURER & CATALOG NO.: BRADLEY S19-120, ENCON 0105, GUARDIAN G1643 SERIES, HAWS 8122/8123, LABORATORY ENTERPRISES 17932.099

Note to specifier:

- 20 gpm at 30 psi for 15 minutes is required at the device for proper operation and to meet the ANSI standard.
- Galvanized supply piping is standard for most manufacturers. Consider using stainless steel in areas where monthly testing may not be performed by the owner.

**PLUMBING FIXTURES
TECHNICAL DATA**



Drench Shower w/ Vertical Supply

- Model S19-130
- Model S19-130A
- Model S19-130SS

- Complies with American National Standard Z358.1-1998
- Easily Mounted in an Open Area
- Galvanized Steel Protected with BRADTECT™ Safety Yellow Coating or all Stainless Steel
- Universal Identification Sign and Inspection Tag Included
- Full, One-Year Warranty

Specifications

Impact-resistant plastic shower head is colored bright yellow for high visibility in emergency situations or corrosion resistant stainless steel. Shower pull rod is stainless steel. Galvanized steel piping is additionally protected with BRADTECT™ safety yellow coating. S19-130SS is all stainless steel construction.

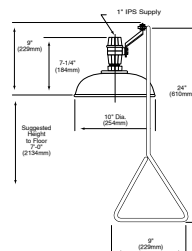
Standard Equipment

Shower Head
10" (254mm) diameter yellow impact-resistant plastic or stainless steel.

Valve
Chrome-plated brass 1" IPS stay-open ball valve. Operated by stainless steel pull rod with triangular handle. S19-130SS is stainless steel.

Pipe and Fittings
Galvanized steel protected with BRADTECT™ safety yellow coating. S19-130SS is stainless steel.

Water Supply
1" IPS vertical.



MODEL	
Model No.	Description
<input type="checkbox"/> S19-130	Drench Shower w/ Vertical Supply Plastic Shower Head
<input type="checkbox"/> S19-130A	Drench Shower w/ Vertical Supply Stainless Steel Shower Head
<input type="checkbox"/> S19-130SS	Drench Shower w/ Vertical Supply All Stainless Steel Fixture

Important Note:
Drench shower is designed to accommodate standard 8' ceiling height - other ceiling heights must be specified and special ordered.

Document No. 4110

This information is subject to change without formal notice.
0998RSSJZ (1 Page Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone: 1-800-BRADLEY FAX: 262-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

EF4110.1

ESE-1

DESCRIPTION: [ACCESSIBLE] COMBINATION EMERGENCY SHOWER/EYE AND FACE WASH - FREESTANDING, FLOOR MOUNTED WITH [TOP][BACK] INLET. [STAINLESS STEEL][PLASTIC] SHOWER HEAD WITH BRASS/BRONZE STAY OPEN BALL VALVE AND STAINLESS STEEL/ALUMINUM PULL ROD. [STAINLESS STEEL][PLASTIC] BOWL [WITH HINGED DUST COVER], PLASTIC SPRAY HEADS WITH CAPS AND RETAINING CHAINS/STRAPS MOUNTED ON BRASS SUPPLY ARMS WITH BRASS/BRONZE STAY OPEN BALL VALVE AND METAL FLAG. MINIMUM FLOW RATE OF 20 GPM AT 30 PSI. INTEGRAL FLOW CONTROL FITTINGS. BRASS/BRONZE PIPING, FITTINGS AND VALVES TO BE CHROME PLATED OR CHEMICAL RESISTANT POWDER COATED. [GALVANIZED STEEL][STAINLESS STEEL] SUPPLY PIPING AND FITTINGS. UNIVERSAL IDENTIFICATION SIGN. ANSI Z358.1 COMPLIANT.

[SHOWER HEAD SHALL BE BETWEEN 82"-96" AND PULL ROD AT MAXIMUM 69" ABOVE FINISH FLOOR. EYE/FACE WASH OUTLET HEADS SHALL BE 33-45" ABOVE FINISH FLOOR.]

[ACCESSIBLE - SHOWER HEAD SHALL BE BETWEEN 82"-96" AND PULL ROD AT MAXIMUM 48" ABOVE FINISH FLOOR. EYE/FACE WASH OUTLET HEADS SHALL BE AT MAXIMUM 36" ABOVE FINISH FLOOR WITH MINIMUM 27" OF KNEE CLEARANCE BELOW, AND MINIMUM OF 19" OF CLEARANCE FROM CENTER OR BOWL TO WALL OR OBSTRUCTION. ADA, ANSI 117.1 COMPLIANT]

MANUFACTURER & CATALOG NO.: BRADLEY S19-310, ENCON 0105, GUARDIAN G1950, HAWS 8300 SERIES, LABORATORY ENTERPRISES 17914.909

Note to specifier:

1. 20 gpm at 30 psi for 15 minutes is required at the device for proper operation and to meet the ANSI standard.
2. Galvanized supply piping is standard for most manufacturers. Consider using stainless steel in areas where monthly testing may not be performed by the owner.

Combination Drench Shower and Eye/Face Wash Unit

Model S19-310H (Shown)
Model S19-310K
Model S19-310SS
Model S19-310SS16

- Complies with American National Standard Z358.1-1998
- Galvanized Steel Protected with BRADTECT™ Safety Yellow Coating or all Stainless Steel
- Universal Identification Sign and Inspection Tag Included
- Full, One-Year Warranty

Specifications

Combination Drench Shower and Eye/Face Wash Unit saves space and fits easily into any work environment. Shower valve operates quickly by a pull rod with a triangular handle. Eye and face wash operated by a large, highly visible push handle. Safe, steady water flow under varying water supply conditions is assured by integral flow control in the sprayhead assembly.

Construction

Impact-resistant plastic shower head and bowl are colored bright yellow for high visibility in emergency situations or stainless steel shower head and bowl. Shower pull rod is stainless steel. Galvanized steel piping is additionally protected with BRADTECT™ safety yellow coating. S19-310SS and S19-310SS16 are all stainless steel construction and include foot pedal operation.

Standard Equipment

Shower Head

10" (254mm) diameter yellow impact-resistant plastic or stainless steel.

Shower Valve

Chrome-plated brass 1" IPS stay-open ball valve. Operated by stainless steel pull rod with triangular handle. S19-310SS and S19-310SS16 are all stainless steel.

Eye Wash Bowl

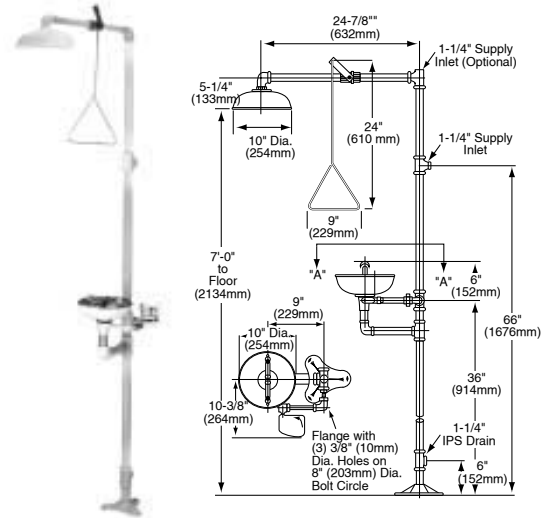
10" (254mm) diameter yellow impact-resistant plastic or stainless steel.

Standard Sprayhead Assembly

Chrome-plated brass sprayhead assembly with twin, soft flow, eye wash heads and protective sprayhead covers. The integral flow control assures safe, steady flow under varying water supply conditions. S19-310SS and S19-310SS16 are all stainless steel.

Eye Wash Valve

Chrome-plated 1/2" IPS stay-open ball valve. Hand operated by a large, highly visible safety yellow PVC push handle. S19-310SS and S19-310SS16 are all stainless steel.



Face Spray Ring

Chrome-plated circular spray ring provides supplemental face spray. Flow control assures adequate flow from eye wash nozzles and face spray ring. S19-310SS and S19-310SS16 are all stainless steel.

Pipe and Fittings

1-1/4" galvanized steel protected with BRADTECT™ safety yellow coating. S19-310SS and S19-310SS16 are all stainless steel.

Water Supply

1-1/4" IPS.

MODEL	
Model No.	Description
<input type="checkbox"/> S19-310H	Combination Drench Shower and Eye/Face Wash Unit-Plastic Shower Head and Bowl
<input type="checkbox"/> S19-310K	Combination Drench Shower and Eye/Face Wash Unit-Stainless Steel Shower Head and Bowl
<input type="checkbox"/> S19-310SS	Combination Drench Shower and Eye/Face Wash Unit-All Stainless Steel Fixture-Type 304 Stainless Steel
<input type="checkbox"/> S19-310SS16	Combination Drench Shower and Eye/Face Wash Unit-All Stainless Steel Fixture-Type 316 Stainless Steel

Document No. 4560

This information is subject to change without formal notice.
0800SWVS (1 Page Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

ET-1

DESCRIPTION: EXPANSION TANK - WELDED BLACK STEEL CONSTRUCTION, GUARANTEED AIRTIGHT AND LEAKPROOF WITH ASME STAMP, STAINLESS STEEL SYSTEM CONNECTION, HEAVY DUTY BUTYL DIAPHRAGM AND RIGID POLYPROPYLENE LINER MECHANICALLY BONDED TO TANK TO PROVIDE A 100% NON-CORROSIVE WATER RESERVOIR. DIAPHRAGM AND LINER SHALL BE APPROVED FOR USE IN POTABLE WATER SYSTEMS. ALL WETTED COMPONENTS OF FDA APPROVED MATERIALS. TANK SHALL HAVE A 100 PSIG WORKING PRESSURE AT 240°F. MINIMUM TANK VOLUME TO BE [_____] GALLONS, MINIMUM ACCEPTING VOLUME TO BE [_____] GALLONS. FACTORY PRE-CHARGED TO [55] [_____] PSIG. PROVIDE STANDARD SCHRADER AIR VALVE FOR FIELD CHARGING.

MANUFACTURER & CATALOG NO.: AMTROL THERM-XTROL ST-C [_____] , TACO PAX-[_____] , WESSELS TXA, ELBI DT, HIRISER T-C

Notes to Specifier:

- I. Standard tank is not ASME stamped and has a bronze system connection.
- II. ASME stamp is required for all tanks in Des Moines.



COMPARE. YOU'LL TAKE TACO.

"PAX" SERIES POTABLE WATER EXPANSION TANKS



- Shell designed and constructed per ASME Section VIII, DIV. 1.
- Removable heavy duty butyl bladder
- All wetted components of FDA approved materials
- Factory precharged to Job specifications
- Working pressure 125 PSI standard
(higher pressures available)
- 11 models available

CATALOG 400-2.5 Effective: October 1, 1997
Supersedes: 200-4 dated August 1, 1996



Submittal Data Information

PAX Expansion Tanks

(for Potable Water Applications)

SUPERSEDES: 200-4 August 1, 1996

EFFECTIVE: October 1, 1997

Job: _____

Quantity	Item No.	Model No.	Precharge*	Working Pressure

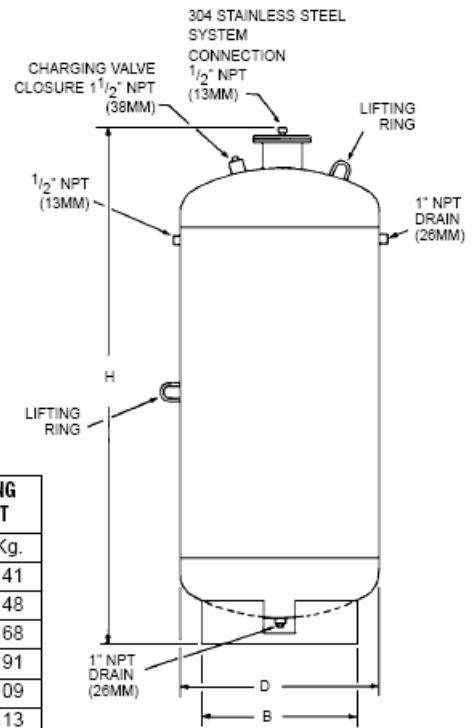
*Unless otherwise specified, standard precharge of 12 PSIG. (83 KPa)

CONSTRUCTION

- Bladder type for permanent separation of air and water.
- Water expands into bladder, air precharge on shell side.

SPECIFICATIONS

- Shell – Fabricated Steel designed and constructed per ASME Section VIII, Div. 1.
- Bladder – Heavy Duty Butyl **removable** for inspection.
- Working Pressure – 125 PSIG (862 KPa) (150 PSIG – optional)
- Operating Temperature – 240°F (116°C) Max.
- All wetted components of FDA approved materials.



MODEL NUMBER	TANK VOLUME		ACCEPTANCE VOLUME		H HEIGHT		B DIAMETER		D DIAMETER		SHIPPING WEIGHT	
	GAL.	LIT.	GAL.	LIT.	INCH	MM	INCH	MM	INCH	MM	LBS.	Kg.
PAX30	8	30	5	19	25 ¹ / ₂	648	12	305	14	356	90	41
PAX42	11	42	5	19	30 ¹ / ₂	775	12	305	14	356	105	48
PAX84	22	84	12	45	40 ³ / ₄	1035	12	305	16	406	150	68
PAX130	34	130	19	72	55 ¹ / ₂	1410	12	305	16	406	200	91
PAX170	45	170	24	91	68 ¹ / ₄	1734	12	305	16	406	240	109
PAX215	57	215	31	117	57 ¹ / ₄	1454	16	406	20	508	250	113
PAX254	67	254	34	129	65 ¹ / ₄	1657	16	406	20	508	280	127
PAX300	79	300	43	163	56 ³ / ₄	1441	20	508	24	610	300	136
PAX350	92	350	43	163	63 ³ / ₄	1619	20	508	24	610	330	150
PAX425	112	425	61	231	74 ¹ / ₄	1810	20	508	24	610	380	172
PAX500	132	500	61	231	84 ³ / ₄	2153	20	508	24	610	425	193

NOTE: Allow 18" minimum clearance above tank for piping system connections.



COMPARE. YOU'LL TAKE TACO.

TACO, INC., 1160 Cranston Street, Cranston, RI 02920 Telephone: (401) 942-8000 FAX: (401) 942-2360.

TACO (Canada), Ltd., 6180 Ordan Drive, Mississauga, Ontario L5T 2B3. Telephone: 905/564-9422. FAX: 905/564-9436.

Printed in USA
Copyright 1997
TACO, Inc.

EWC-1

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT AND SIDES, BUILT-IN FLOW REGULATOR, DRAIN & TRAP ASSEMBLY. 18 GAUGE STAINLESS STEEL CABINET AND NON-SPLASH BASIN. STREAM PROJECTOR WITH PROTECTIVE HOOD. ADA COMPLIANT. 7.8 GPH OF WATER FROM 80 DEGREES F. TO 50 DEGREES F. AT 90 DEGREES F. ROOM TEMPERATURE. TANK TESTED TO 125 PSIG. 1/5 HP, 115 VOLT. ADJUSTABLE THERMOSTAT, MOUNTING ACCESSORIES, TANK DRAIN AND ANGLE STOPS. HERMETIC COMPRESSOR. CORD AND PLUG. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. EWC SHALL CONFORM TO ANSI A117.1-1986. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION.

ORIFICE SHALL BE MAXIMUM OF 36" ABOVE FLOOR AND BOTTOM OF APRON SHALL BE 27" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY EZS8, OASIS P8AM, HALSEY-TAYLOR HAC-8FS-Q, ACORN AQUA A111, HAWS HWUACO8SS

Options:

1. Standard vinyl cabinet finish. Color selection by architect/ engineer.

Notes to specifier:

1. For lead removal system, specify Elkay model LISEA-8-S or Oasis model OPSF8WMQ.
2. This unit meets ADA requirements for handicapped installation in corridors.
3. ADA section 4.1.3(10) requires two heights of water coolers per floor. Use high-low type EWC or two separate units. Verify requirements with architect. High-low type may not meet ADA section 4.4 if installed in corridor.
4. Install unit with orifice at 40" above floor and delete ADA references if handicapped installation not required.

**No Lead Wall Mount Water Cooler
Barrier-Free Access Models
Models EBFA4, EBFA8, EBFSAD,
EBFSA4, EBFSA8 & EBFAD**



SPECIFICATIONS

GENERAL

Self-contained, wall hung electric refrigerated water cooler. Chilling capacity of 50°F drinking water, based upon 80°F inlet water and 90°F ambient.

Models EBFSA4, EBFSA8 and EBFSAD have self-closing push bars on front and both right and left sides.

Models EBFA4, EBFA8 and EBFAD each have a push bar on the front only.

Models EBFSAD and EBFAD are cabinet only. Refrigeration unit not included.

All models have a hooded stream projector with "light touch" push bar activation. The push bars have a textured finish. Patented valve with built-in flow regulator provide constant stream from 20 to 105 P.S.I. water pressure. Bubbler orifice fully protected to meet all sanitary codes. Includes pushbar overhang bottom cover plate.

Non pressurized cooling tank is standard on refrigerated models. Non pressurized water tank is located after bubbler valve, so that tank is subject to line pressure only when push bar is pressed.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT) WHEN PROPERLY INSTALLED.

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free materials. These waterways have no lead because all lead-containing materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of water born particulate of 140 microns or larger prior to their entry into the water cooler.

These water coolers are classified by Underwriters Laboratories Inc. in accordance with ANSI/NSF61, Section 9-1997b.

CAPACITIES CHART

Model Number	**GPH of 50°F Drinking Water				Full Rated Load Watts	Compr. HP	Glass† Filler Option	Pre-Cooler	Ship. Wt. Lbs.		
	Base Rate	70°F	80°F	90°F							
EBFSA4	4.0	5.0	4.4	4.0	3.5	3/25	3.7	1/5	YES	NO	74
EBFSA8	8.0	9.6	8.8	8.0	7.2	3/25	3.7	1/5	YES	NO	74
EBFA4	4.0	5.0	4.4	4.0	3.5	3/25	3.7	1/5	YES	NO	74
EBFA8	8.0	9.6	8.8	8.0	7.2	3/25	3.7	1/5	YES	NO	74

† Based on 80°F inlet water temperature.
† Glass filler available at extra cost. Requires factory preparation to receive glass filler. EBFSAD and EBFAD can be prepared to receive glass filler.

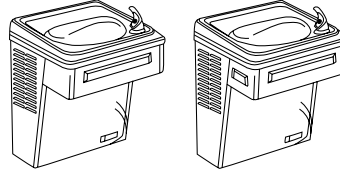
Rated watts shown are based on operational (run) time. In accordance with ARI Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature. EBFSAD and EBFAD have Ship Wt. of 38 lbs.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115VAC, 60 Hertz single phase. Sealed in lifetime oil supply. Equipped with electric cord and three prong molded rubber plug (domestic models), 1-1/2 foot (457 mm) long power cord.

Power: Rated 4.8 Amps; 350 Watts.

Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.



Cooling Unit: Combination tube-tank type. Tube portion is continuous coil of copper tubing. Fully insulated with EPS foam which meets Underwriters Laboratories for self-extinguishing material.

Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble-free operation.

Temperature Control: Enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements. Easily accessible.

CONSTRUCTION

Frame: Galvanized structural steel chassis supports fountain top and all working mechanisms. No operating parts are connected to cabinet panels.

Fountain Top: One piece stainless steel top, polished to a uniform Elkay bright luster finish. Basin has integral drain grid, embossed bubbler pad.

Exclusive Flexi-Guard® Safety Bubbler: Innovative design utilizes a pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong. Abrasion-resistant. Anti-sweat. Meets UL requirements and all sanitary codes.

Color Selection: Unless otherwise specified cabinet is Gray Beige vinyl. Other cabinet colors are available at no extra cost. Colors include Granite, Sandalwood, and Natural Almond. Pushbar is textured. Stainless Steel and Bronzestone units available at extra cost.

Bronzestone Cleaning Note: Be sure to clean bronzed finish surfaces with only a mild detergent or vinegar and water. Rinse well with clean water and wipe dry with a soft cloth. Any misuse or abrasion can eventually damage the bronze finish.

Cabinet: Cabinet design allows for flush to wall mounting. No recess space is required.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

Note: In keeping with our policy of continuing product improvement, Elkay reserves the right to change materials, design and specifications without notice.

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories, approved by C.S.A., rated in accordance with A.R.I. Standard 1010 and meet all known federal and state plumbing codes.



* Patent #4,481,971

Elkay Manufacturing Company
www.elkay.com

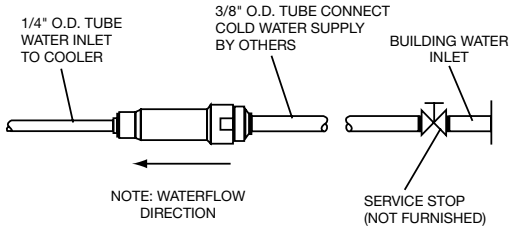
2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2000 Elkay Mfg. Co.
Rev. (06/00) 12-01J

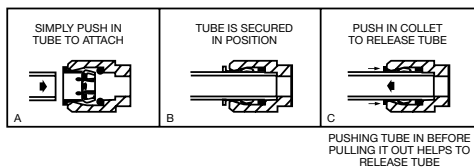
**No Lead Wall Mount Water Cooler
Barrier-Free Access Models
Models EBFA4, EBFA8, EBFSAD,
EBFSA4, EBFSA8 & EBFAD**



ROUGH-IN DIMENSIONS



OPERATION OF QUICK CONNECT FITTINGS



OPEN SPACE ROUGH-IN DESIGN PERMITS NEW INSTALLATION OR REPLACEMENT OF EXISTING FOUNTAINS AND COOLERS WITH THIS ELKAY COOLER WHEN ROUGH-IN IS WITHIN THE OUT-LINE SHOWN. THE LOCATION AVAILABLE IS FROM 14-3/4" TO 30-1/4" FROM FLOOR WHEN COOLER IS MOUNTED AS SHOWN, AND FROM 1-3/8" TO 7-7/8" LEFT OF CENTERLINE, ADDITIONAL AREA IS AVAILABLE AT UPPER RIGHT AS SHOWN. HOWEVER DIRECT ACCESS FORWARD FROM WALL IS RESTRICTED AND SHOULD ONLY BE CONSIDERED FOR USE UNTIL AFTER AN EXAMINATION OF THE COOLER HAS BEEN MADE.

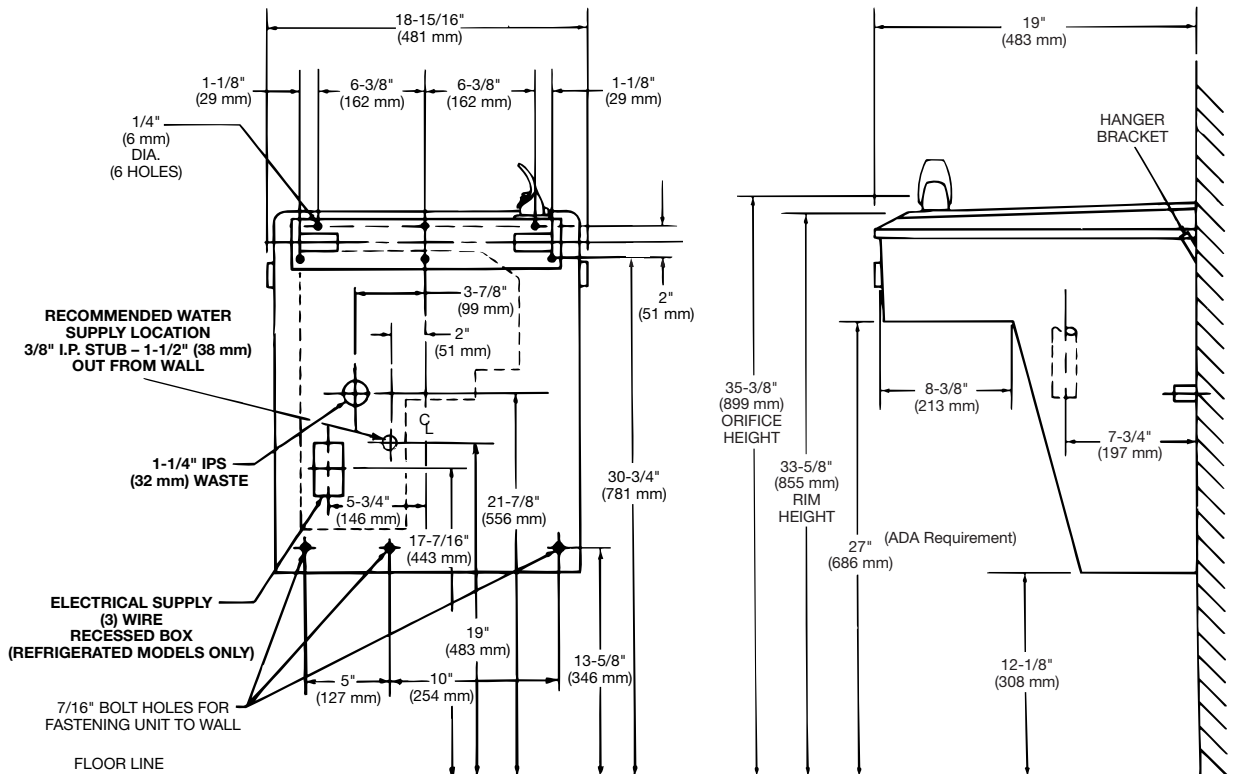
**INSTALLER PLEASE NOTE:
IMPORTANT**

THIS WATER COOLER HAS BEEN DESIGNED AND BUILT TO PROVIDE WATER TO THE USER WHICH HAS NOT BEEN ALTERED BY MATERIALS IN THE COOLER WATERWAYS.

THE GROUNDING OF ELECTRICAL EQUIPMENT SUCH AS TELEPHONE, COMPUTERS, ETC. TO WATER LINES IS A COMMON PROCEDURE. THIS GROUNDING MAY BE IN THE BUILDING BUT MAY ALSO OCCUR AWAY FROM THE BUILDING. THIS GROUNDING CAN CAUSE ELECTRICAL FEED-BACK INTO A WATER COOLER CREATING AN ELECTROLYSIS WHICH CREATES A METALLIC TASTE OR CAUSES AN INCREASE IN THE METAL CONTENT OF THE WATER. THIS CONDITION IS AVOIDABLE BY INSTALLING THE COOLER USING THE PROPER MATERIALS AS SHOWN BELOW.

NOTICE

THIS WATER COOLER MUST BE CONNECTED TO THE WATER SUPPLY USING A DIELECTRIC COUPLING. THE COOLER IS FURNISHED WITH A NON-METALLIC STRAINER WHICH MEETS THIS REQUIREMENT. THE DRAIN TRAP WHICH IS PROVIDED BY THE INSTALLER SHOULD ALSO BE PLASTIC TO COMPLETELY ISOLATE THE COOLER FROM THE BUILDING PLUMBING SYSTEM.



NOTE: A service supply stop should be installed at the cooler inlet tube

NOTE: INSURE PROPER VENTILATION BY MAINTAINING 6" (152mm) CLEARANCE FROM CABINET LOUVERS TO WALL ON EACH SIDE OF COOLER.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2000 Elkay Mfg. Co.

12-01J (Rev. 06/00)

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, BI-LEVEL UNITS, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT, BUILT-IN FLOW REGULATOR, DRAIN & TRAP ASSEMBLY. 18 GAUGE STAINLESS STEEL CABINETS AND NON-SPLASH BASINS. STREAM PROJECTORS WITH PROTECTIVE HOODS. ADA COMPLIANT [WITH APRON INSTALLED UNDER UPPER UNIT]. 7.8 GPH OF WATER FROM 80 DEGREES F. TO 50 DEGREES F. AT 90 DEGREES F. ROOM TEMPERATURE. TANK TESTED TO 125 PSIG. 1/5 HP, 115 VOLT. ADJUSTABLE THERMOSTAT, MOUNTING ACCESSORIES, TANK DRAIN AND ANGLE STOPS. HERMETIC COMPRESSOR. CORD AND PLUG. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. EWC SHALL CONFORM TO ANSI A117.1-1986. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION.

ORIFICE SHALL BE MAXIMUM OF 36" ABOVE FLOOR ON LOWER UNIT AND 40" ABOVE FLOOR ON UPPER UNIT. BOTTOM OF APRON SHALL BE 27" ABOVE FLOOR ON LOWER UNIT IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY EZTL8C, OASIS P8AMSL, HALSEY-TAYLOR HAC8FSBL-Q-SS, ACORN AQUA A112, HAWS HWUACO8LSS

Options:

1. Standard vinyl cabinet finish. Color selection by architect/ engineer.

Note to specifier: This unit complies with ADA requirements for handicapped use if installed in an alcove OR when mounted on an exposed wall with a wing wall located on the side with the upper unit OR if an apron is installed under upper unit.

**ELKAY[®]
SPECIFICATIONS**

GENERAL

Self-contained, wall hung electric refrigerated water cooler. Chilling capacity of 50°F drinking water, based upon 80°F inlet water and 90°F ambient.

Model EZSTL8C has self-closing Easy-Touch Controls on front, left and right of each unit.

Model EZTL8C has self-closing Easy-Touch Controls on the front of each unit.

Model EZSTLDDC non-refrigerated. Same as EZSTL8C without cooling system. (Requires outlet for power cord.)

All models have a hooded stream projector with Easy-Touch Controls that require less than 3 pounds of force to activate commercial-grade solenoid based flow control. Patented valve with built-in flow regulator provide constant stream from 20 to 105 psi water pressure. Bubbler orifice fully protected to meet all sanitary codes.

This model cooler consists of a refrigerated lower unit which requires a water supply, drain outlet and electrical supply.

ADA COMPLIANT

These Water Coolers comply with the requirements of A.D.A. (Americans with Disabilities Act) when properly installed. Unit is compliant if installed in an alcove and is also compliant when mounted on an exposed wall if a wing wall is located on the left side or if LKAPRZL apron is installed under upper unit. Also meets the guidelines for children's environments providing the floor to orifice height is 30' or less on the lower unit and proper clear floor space is provided for parallel approach. (Based on Architectural and Transportation Barriers Compliance Board final ruling.) Check Local and State Codes.

NO LEAD DESIGN

These Water Coolers are certified to be lead-free as defined by the Safe Drinking Water Act. Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free materials. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of waterborne particulate of 140 microns and larger prior to their entry into the water cooler.

These water coolers are certified to ANSI/NSF61.

CAPACITIES CHART

Model Number	Base Rate	**GPH of 50°F Drinking Water Room Temperature °F			Rated Watts	Full Load Amps	Glass Filler Option	Ship. Wt. Lbs.
		70°F	80°F	90°F				
EZSTL8C	8.0	9.6	8.8	8.0	325	3.7	Yes	89
EZTL8C	8.0	9.6	8.8	8.0	325	3.7	Yes	89
EZTLDDC	-	-	-	-	-	-	Yes	33
EZSTLDDC	-	-	-	-	-	-	Yes	33

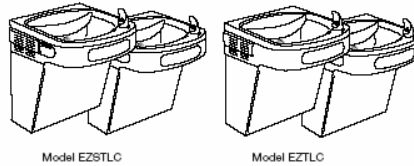
**Based on 80°F inlet water temperature. †Glass filler available at extra cost. Requires factory preparation to receive glass filler. Upper unit only.

Rated watts shown are based on operational (run) time, in accordance with A.R.I. Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115VAC, 60Hz single phase. Sealed-in lifetime oil supply. Equipped with electric cord and three prong molded rubber plug (domestic models).

**Two Station Wall Mount Water Coolers
Barrier-Free Access (Adult and Child)
ANSI/NSF61 Compliant – Models EZTL8C,
EZSTL8C, EZTLDDC and EZSTLDDC**



Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.

Cooling Unit: Combination tube-tank type. Tube portion is continuous coil of copper tubing. Tank is stainless steel. Fully insulated with EPS foam which meets Underwriters Laboratories Inc. requirements for self-extinguishing material.

Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble-free operation.

Temperature Control: Enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements. Easily accessible.

CONSTRUCTION

Frame: Galvanized structural steel chassis supports refrigeration system and fastens to wall. Provides increased structural integrity and rigidity to cooler.

Stainless Steel Basin: Type 304, one piece polished to a uniform Elkay bright luster finish. Basin has integral drain grid, embossed bubbler pad. No exposed fasteners.

Exclusive Flexi-Guard® Safety Bubbler*: Innovative design utilizes an infused anti-microbial pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong. Abrasion-resistant. Anti-sweat. Keyed in location to prevent rotation.

Upper Shroud: Contoured shock-absorbing, provides additional protection against accidental injury. No exposed fasteners.

Lower Shroud: One piece easy to remove and replace. Allows access to internal components from three sides.

Cabinet: Cabinet design allows for flush to wall mounting. No recess space is required.

Color Selection: Unless otherwise specified cabinet is two-tone gray upper shroud with textured gray lower shroud. Stainless Steel lower shrouds available at extra cost.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

STANDARDS

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories Inc. and comply with both Canadian and U.S. requirements.

Rated in accordance with A.R.I. Standard 1010 and meets all known federal and state plumbing codes.



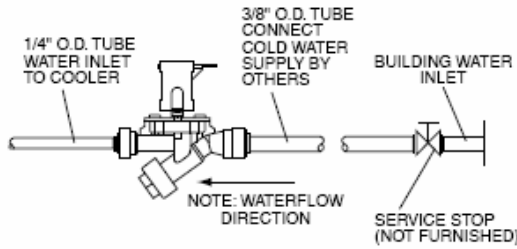
* Patent #4,481,971

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Two Station Wall Mount Water Coolers
Barrier-Free Access (Adult and Child)
ANSI/NSF61 Compliant – Models EZTL8C,
EZSTL8C, EZTLDDC and EZSTLDDC

ELKAY®
ROUGH-IN DIMENSIONS



IMPORTANT:
INSTALLER PLEASE NOTE:

This water cooler has been designed and built to provide water to the user which has not been altered by materials in the cooler waterways.

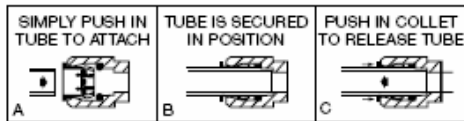
The grounding of electrical equipment such as telephone, computers, etc., to water lines is a common procedure. This grounding may be in the building but may also occur away from the building. This grounding can cause electrical feedback into a water cooler creating an electrolysis which creates a metallic taste or causes an increase in the metal content of the water. This condition is avoidable by installing the cooler using the proper materials as shown below.

NOTICE

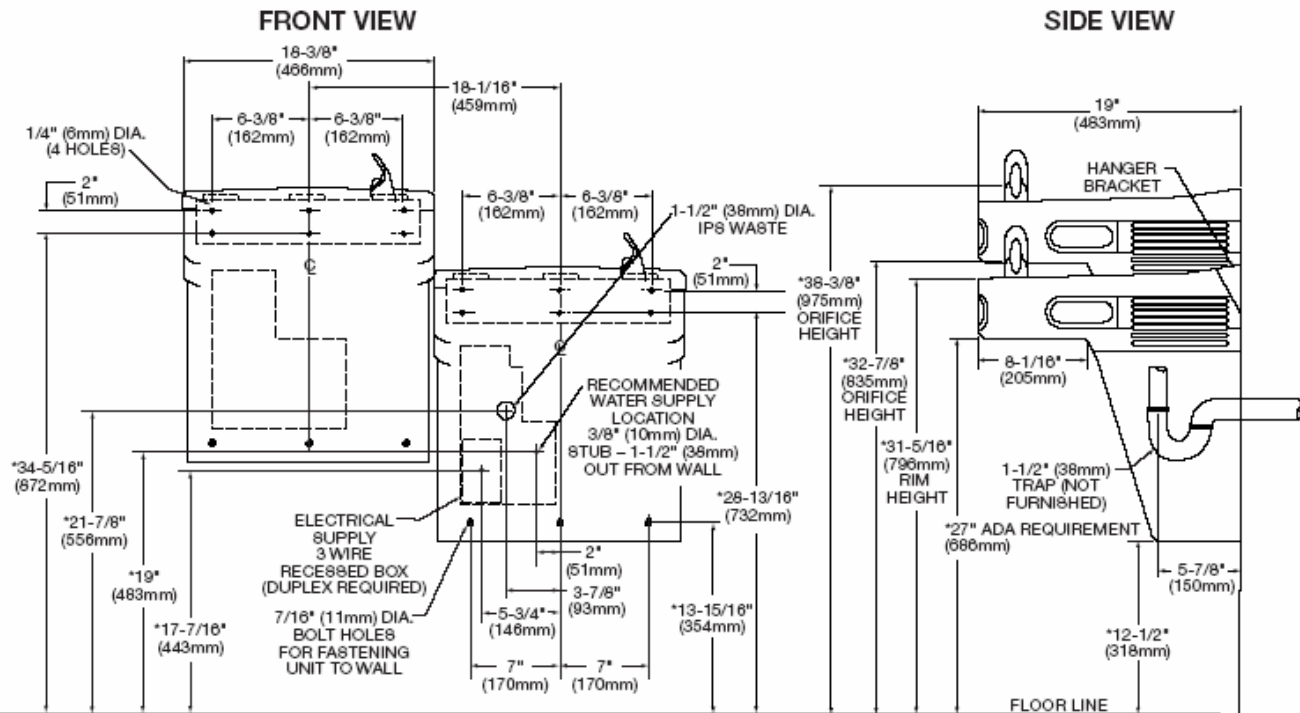
This water cooler must be connected to the water supply using a dielectric coupling. The cooler is furnished with a non-metallic strainer which meets this requirement.

The drain trap which is provided by the installer should also be plastic to completely isolate the cooler from the building plumbing system.

OPERATION OF QUICK CONNECT FITTINGS



PUSHING TUBE IN BEFORE PULLING IT OUT HELPS TO RELEASE TUBE



*Reduce height by 3 inches for installations used primarily by children ages 12 and younger. Shall also have a minimum clear floor space 30" (760mm) by 48" (1220mm).

NOTE: A service supply stop should be installed at the cooler inlet tube.

POWER REQUIRED FOR WATER FLOW.

INSURE PROPER VENTILATION BY MAINTAINING 6" (152mm) CLEARANCE FROM CABINET LOUVERS TO WALL ON EACH SIDE OF COOLER.

Elkay

12-24B (Rev. 12/03)

2222 Camden Court
 Oak Brook, IL 60523

Printed in U.S.A.
 ©2003 Elkay

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT AND SIDES, BUILT-IN FLOW REGULATOR, DRAIN & TRAP ASSEMBLY. 18 GAUGE STAINLESS STEEL CABINET AND NON-SPLASH BASIN. STREAM PROJECTOR WITH PROTECTIVE HOOD. ADA COMPLIANT. 7.8 GPH OF WATER FROM 80 DEGREES F. TO 50 DEGREES F. AT 90 DEGREES F. ROOM TEMPERATURE. TANK TESTED TO 125 PSIG. 1/5 HP, 115 VOLT. ADJUSTABLE THERMOSTAT, MOUNTING ACCESSORIES, TANK DRAIN AND ANGLE STOPS. HERMETIC COMPRESSOR. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. CORD AND PLUG. EWC SHALL CONFORM TO ANSI A117.1-1986.

ORIFICE SHALL BE MAXIMUM OF 36" ABOVE FLOOR AND BOTTOM OF UNIT SHALL BE 27" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY EHFA-8, OASIS PLF8SKTP, HALSEY TAYLOR WC8FS-Q

Options:

1. Standard vinyl cabinet finish. Color selection by architect/ engineer.

Notes to specifier:

1. This unit meets ADA requirements for handicapped installation in corridors.
2. ADA section 4.1.3(10) requires two heights of water coolers per floor. Use high-low type EWC or two separate units. Verify requirements with architect. High-low type may not meet ADA section 4.4 if installed in corridor.
3. Install unit with orifice at 40" above floor and delete ADA references if handicapped installation not required.

**No Lead Wall Mount Water Cooler
Barrier-Free Access
Models EHFA-8 and EHFA-8**



SPECIFICATIONS

GENERAL

Self-contained, wall hung, electric refrigerated water cooler. Capacity, 7.6 GPH of 50°F drinking water, based upon 80°F inlet water and 90°F ambient.

Model EHFA-8 has a hooded stream projector with self closing push bar control mounted on front only. Built in flow regulator from 20 to 105 psi. Bubbler stream fully protected to meet all sanitary codes.

Model EHFA-8 has self closing push bars on front and both right and left sides, otherwise same as EHFA-8.

Non-pressurized tank system is standard. Non-pressurized water tank is located after bubbler valve, so that tank is subject to line pressure only when push bar is pressed.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT) WHEN PROPERLY INSTALLED.

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free material. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of water born particulate of 140 microns and larger prior to their entry into the water cooler.

These water coolers are Classified by Underwriters Laboratories Inc. in accordance with **ANSI/NSF61, Section 9-1997b.**

CAPACITIES CHART

Model Number	Base Rate	**GPH of 50°F Drinking Water				Rated Watts	Full Load Amps	Glass Filler Option	Ship. Wt. Lbs.
		Room Temperature °F							
		70°F	80°F	90°F	100°F				
EHFA-8	7.6	8.8	8.2	7.6	7.0	425	3.5	YES	72
EHFA-8	7.6	8.8	8.2	7.6	7.0	425	3.5	YES	73

**Based on 80° inlet water temperature. †Glass filler available at extra cost. Requires factory preparation to receive glass filler. Glass filler LK-109a can be furnished.

Rated watts shown are based on operational (run) time, in accordance with ARI Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115V, 60 Hertz single phase. Sealed-in lifetime oil supply. Equipped with electric cord and three prong molded rubber plug.

Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.

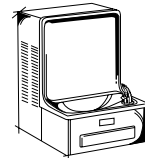
Cooling Unit: Combination tube-tank type. Self cleansing. Tube portion is continuous coil of copper tubing. Fully insulated with EPS foam which meets Underwriters Laboratories requirements for self extinguishing plastic material.

Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble free performance.

Temperature Control: Enclosed adjustable thermostat is factory pre-set. Requires no adjustment other than for altitude requirement.



Model EHFA-8



Model EHFA-8

CONSTRUCTION

Frame: #16 gauge galvanized steel chassis supports fountain top and all working mechanisms. No operating parts are connected to cabinet panels.

Fountain Top and Backsplash: One piece stainless steel top, polished to a uniform Elkay satin luster finish. Basin has removable perforated drain grid, embossed bubbler pad.

Exclusive Flexi-Guard® Safety Bubbler®: Innovative design utilizes a pliable elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong, Abrasion-resistant. Anti-sweat. Meets UL requirements and all sanitary codes.

Color Selection: Gray Beige vinyl furnished as standard unless alternate panel color is selected. Alternate panel colors in vinyl are: Granite, Sandalwood, and Natural Almond. All furnished at no extra cost. Stainless Steel units available at extra cost.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

Note: In keeping with our policy of continuing product improvement, Elkay reserves the right to change materials, design and specifications without notice.

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories, approved by C.S.A., rated in accordance with A.R.I. Standard 1010 and meet all known federal and state plumbing codes.



* Patent #4,481,971

Elkay Manufacturing Company
www.elkay.com

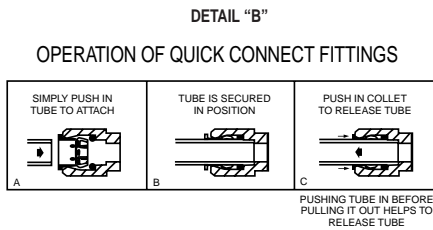
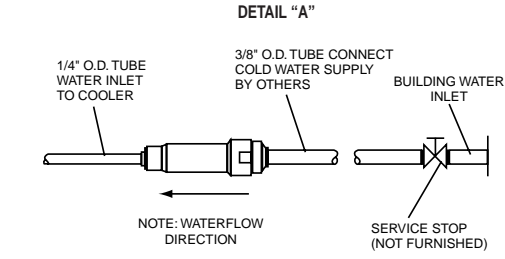
2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1999 Elkay Mfg. Co.
(Rev 9/99) 12-2/WH

**No Lead Wall Mount Water Cooler
Barrier-Free Access
Models EHFA-8 and EHFA-8**



ROUGH-IN DIMENSIONS



INSTALLER PLEASE NOTE:

IMPORTANT

THIS WATER COOLER HAS BEEN DESIGNED AND BUILT TO PROVIDE WATER TO THE USER WHICH HAS NOT BEEN ALTERED BY MATERIALS IN THE COOLER WATER WAYS.

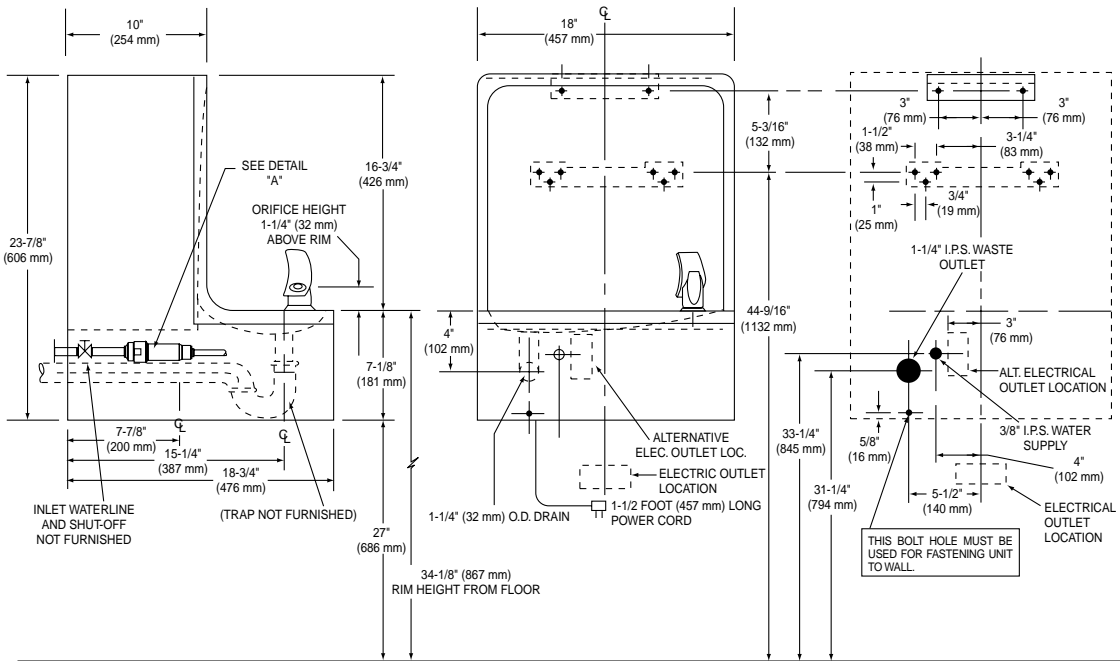
THE GROUNDING OF ELECTRICAL EQUIPMENT SUCH AS TELEPHONE, COMPUTERS, ETC. TO WATER LINES IS A COMMON

THIS GROUNDING MAY BE IN THE BUILDING BUT MAY ALSO OCCUR AWAY FROM THE BUILDING. THIS GROUNDING CAN CAUSE ELECTRICAL FEEDBACK INTO A WATER COOLER CREATING AN ELECTROLYSIS WHICH CREATES A METALLIC TASTE OR CAUSES AN INCREASE IN THE METAL CONTENT OF THE WATER. THIS CONDITION IS AVOIDABLE BY INSTALLING THE COOLER USING THE PROPER MATERIALS AS SHOWN BELOW.

NOTICE

THIS WATER COOLER MUST BE CONNECTED TO THE WATER SUPPLY USING A DIELECTRIC COUPLING. THE COOLER IS FURNISHED WITH A NON-METALLIC STRAINER WHICH MEETS THIS REQUIREMENT.

THE DRAIN TRAP WHICH IS PROVIDED BY THE INSTALLER SHOULD ALSO BE PLASTIC TO COMPLETELY ISOLATE THE COOLER FROM THE BUILDING PLUMBING SYSTEM.



Elkay Manufacturing Company
12-2H (Rev 9/99)

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1999 Elkay Mfg. Co.

EWC-4

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT, RECESSED DESIGN, WITH SINGLE STAINLESS STEEL RECTANGULAR NON-SPLASH BASIN, PERFORATED DRAIN, STREAM PROJECTOR WITH PROTECTIVE HOOD. ADA COMPLIANT. BUILT-IN FLOW REGULATOR, DRAIN AND TRAP ASSEMBLY. HERMETIC COMPRESSOR, 1/5 HP, 115 VOLT. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. CONCEALED ELECTRICAL CONNECTIONS, ADJUSTABLE THERMOSTAT. EWC SHALL CONFORM TO ANSI A117.1-1986.

UNIT TO PROVIDE 8.0 GPH OF 50 DEGREE F. WATER WITH 80 DEGREE F. INLET WATER, AT 90 DEGREES F. AMBIENT.

ORIFICE TO BE MAXIMUM OF 36" ABOVE FLOOR AND BOTTOM OF UNIT SHALL BE 27" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY ERHP-8-C, OASIS M8SBPM, HALSEY TAYLOR HT-ER-Q, ACORN AQUA A151, HAWS H1109.8

Notes to specifier:

1. This unit meets ADA requirements for handicapped installation in corridors.
2. ADA section 4.1.3(10) requires two heights of water coolers per floor. Use high-low type EWC or two separate units. Verify requirements with architect. High-low type may not meet ADA section 4.4 if installed in corridor.
3. Requires minimum of 12" deep chase for installation.
4. Install unit with orifice at 40" above floor and delete ADA references if handicapped installation not required.
5. Coordinate wiring with electrical engineer. Electrical to provide disconnecting means behind access panel.

No Lead Single Station Wall Mount Water Cooler Barrier-Free Access Model ERHPA8C



SPECIFICATIONS

GENERAL

Single station barrier-free stainless steel water cooler has recessed in-the-wall refrigeration system and stainless steel grill. All stainless steel polished to a satin finish. Fountain has contoured basin to minimize splashing. Flexi-Guard® safety bubbler and easy to operate, fully functional stainless steel, vandal-resistant front push bar with raised letters to aid the visually impaired. Patented* valve and in-line flow regulators provides constant stream from 20 to 105 psi. Energy efficient refrigeration system utilizes a combination tank continuous-tube type evaporator, refrigerant drier, and capillary tube.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT) WHEN PROPERLY INSTALLED.

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free material. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of water born particulate of 140 microns and larger prior to their entry into the water cooler.

This water cooler is classified by Underwriters Laboratories Inc. in accordance with **ANSI/NSF61, Section 9-1997b.**

CAPACITIES CHART

Model Number	Base Rate	**GPM of 50°F Drinking Water			Rated Watts	Full Load Amps	Glass† Filler Option	Ship. Wt. Lbs.
		70°F	80°F	90°F				
ERHPA8C	7.5	8.6	8.1	7.5	325	4.5	Yes	99

**Based on 80°F inlet water temperature.
 †Glass filler available at extra cost. Requires factory preparation to receive glass filler. Order Model ERHPA8FC. Glass filler LK1110 or LK1114 sold separately. Rated watts shown are based on operational (run) time, in accordance with ARI Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115V, 60 Hertz single phase. Sealed in lifetime oil supply.
Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.
Cooling Unit: Combination tube-tank type. Self cleansing. Tube portion is continuous coil of copper tubing. Tank is stainless steel. Fully insulated with EPS foam which meets Underwriters Laboratories Inc. requirements for self extinguishing material.
Temperature Control: Enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements.
Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble free performance.



Model ERHPA8C

CONSTRUCTION

Fountain Body: #18 gauge, type 304 nickel bearing stainless steel polished to a lustrous satin finish with high shined outer edge. Contoured basin offers large strike area to minimize splashing. Fully functional stainless steel push bar is easy to operate and has raised letters to aid visually impaired.

Exclusive Flexi-Guard® Safety Bubbler: Innovative design utilizes a pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong, Abrasion-resistant. Anti-sweat. **Optional Vandal-Resistant Bubbler** available at extra cost. Heavy duty, one-piece construction, chrome plated brass. **Order Model Number ERHPAVR8C.** Both bubblers meet UL requirements and all sanitary codes and are keyed in location to prevent rotation.

Front Panel Grill: Made of type 304 stainless steel, polished to a uniform Elkay satin finish. Removable louvered ventilating grille encloses refrigeration unit and plumbing.

Wall Mounting Frame: MF100 frame furnished with each unit. Frame allows flush mounting to finished wall.

Drain: LK464 drain and trap assembly included.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

Note: In keeping with our policy of continuing product improvement, Elkay reserves the right to change materials, design and specifications without notice.

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories Inc., approved by C.S.A., rated in accordance with A.R.I. Standard 1010 and meet all known federal and state plumbing codes.



* Patent #4,481,971

Elkay Manufacturing Company
 www.elkay.com

2222 Camden Court
 Oak Brook, IL 60523

Printed in U.S.A.
 ©2000 Elkay Mfg. Co.
 (11/00) 12-28

**No Lead Single Station Wall Mount
Water Cooler Barrier-Free Access
Model ERHPA8C**



ROUGH-IN DIMENSIONS

**IMPORTANT!
INSTALLER PLEASE NOTE:**

The grounding of electrical equipment such as telephone, computers, etc., to water lines is a common procedure. This grounding may be in the building or may occur away from the building. This grounding can cause electrical feedback into a water cooler, creating an electrolysis which causes a metallic taste or an increase in the metal content of the water. This condition is avoidable by using the proper materials as indicated below.

To minimize electrically induced corrosion, all water coolers should be connected to the water supply using an electrically isolating coupling. This cooler is furnished with non-metallic filter which meets this requirement.

The drain fittings which are provided by the installer should also be electrically isolate the cooler from the building plumbing system.

ERHPA8C MOUNTING FRAME INSTRUCTIONS

1. Cut a square rectangular wall opening 18-3/4" (476mm) W x 37-3/4" (959mm) H and 4-1/2" (114mm) above the floor line. These dimensions are required to obtain proper rim and bubbler heights for compliance with ANSI standard A117.1. (See Figure 2)

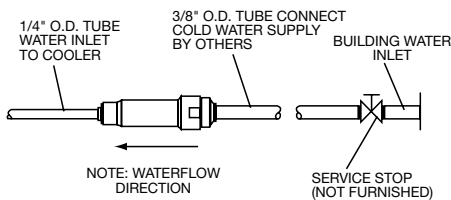
2. Reinforce the wall opening on all sides so that it will adequately support the water fountain. This reinforcement must support up to 150 lbs static load and provide a means for securing the frame assembly in place.

NOTE: Building construction must allow for adequate air flow on both sides and top of remote chiller unit. Minimum of 4" (102mm) is required. (See Figures 1 & 2)

3. Install plumbing and electrical rough-ins. See Figure 1 for location of the supply water inlet to chiller and for the location of the waste water outlet. A junction box for a (3) wire, 10 amp branch circuit is provided on the inside of the chiller. (Standard 120 Volts, 60 Hz and single phase) See Figure 2 for the electrical inlet location.

4. Remove frame and related hardware from packaging. Release the two shelf rods by cutting cable ties. Install the frame squarely in wall opening with frame upright edges flush with the finished wall face. (See Figure 2) Place shelf inside frame and line up the (2) holes on each. Insert loose ends of rods into holes on sides of shelf panel. Using appropriately sized wood screws (not provided), fasten the shelf and frame to bottom of wall opening. (See Figure 2) Secure the frame sides and top to the wall using (10) 5/16" x 2" lag bolts or screws (not provided).

NOTE: Be sure that frame is squared in location. Do not use less than the required screw quantity and size.



OPERATION OF QUICK CONNECT FITTINGS

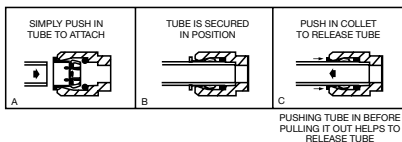


FIG. 1

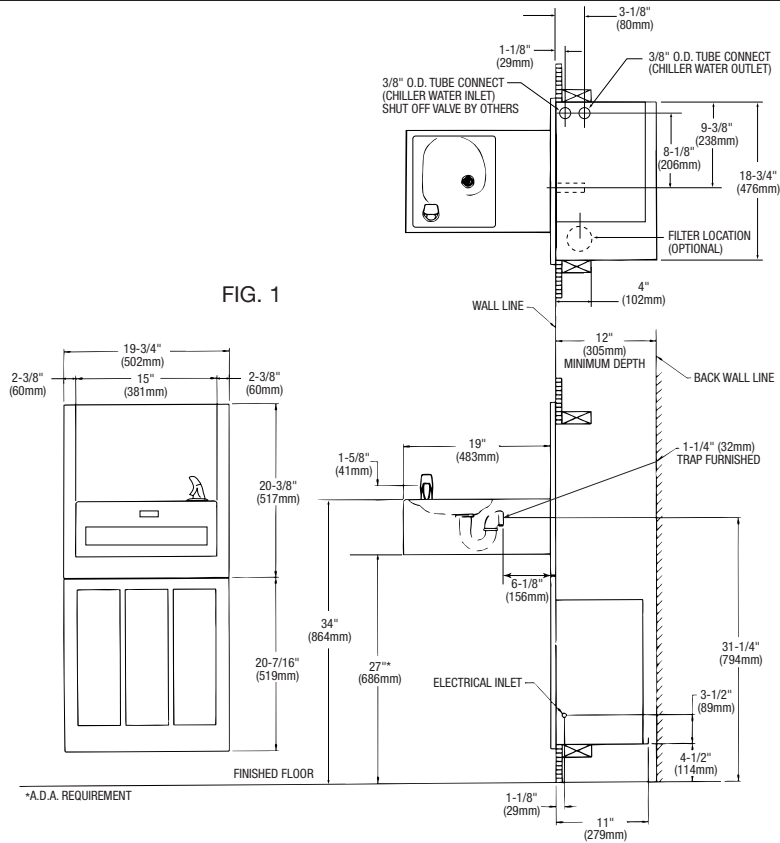
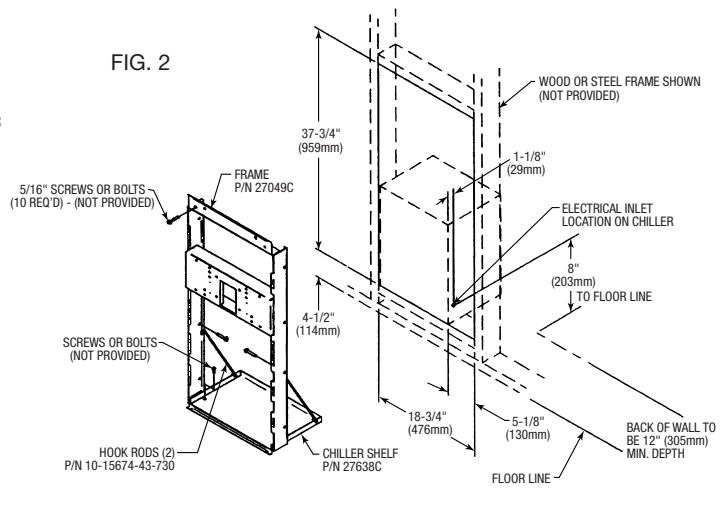


FIG. 2



Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2000 Elkay Mfg. Co.

12-28 (11/00)

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT, RECESSED DESIGN, WITH BI-LEVEL STAINLESS STEEL RECTANGULAR NON-SPLASH BASINS, PERFORATED DRAINS, STREAM PROJECTORS WITH PROTECTIVE HOODS. ADA COMPLIANT [WITH APRON INSTALLED UNDER UPPER UNIT]. BUILT-IN FLOW REGULATORS, DRAINS AND TRAP ASSEMBLIES. HERMETIC COMPRESSOR, 1/5 HP, 115 VOLT. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. CONCEALED ELECTRICAL CONNECTIONS, ADJUSTABLE THERMOSTAT. EWC SHALL CONFORM TO ANSI A117.1-1986.

UNIT TO PROVIDE 8.0 GPH OF 50 DEGREE F. WATER WITH 80 DEGREE F. INLET WATER, AT 90 DEGREES F. AMBIENT.

ORIFICE TO BE MAXIMUM OF 36" ABOVE FLOOR ON LOWER UNIT AND 40" ABOVE FLOOR ON UPPER UNIT. BOTTOM OF LOWER UNIT SHALL BE 27" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY ERHP2-8-C, OASIS M8SCPM, HALSEY TAYLOR HT-SER-Q, ACORN AQUA A152, HAWS H1119.8

Notes to specifier:

1. This unit complies with ADA requirements for handicapped use if installed in an alcove OR when mounted on an exposed wall with a wing wall located on the side with the upper unit OR if an apron is installed under upper unit.
2. Requires minimum of 12" deep chase for installation.
3. Coordinate wiring with electrical engineer. Electrical to provide disconnecting means behind access panel.

ELKAY[®]
SPECIFICATIONS

**No Lead Two-Level
Wall Mount Water Cooler
Barrier-Free Access
Model ERHPAM28C**

GENERAL

Two-level barrier-free stainless steel water cooler has recessed in-the-wall refrigeration system and stainless steel grill. All stainless steel polished to a satin finish.

Fountain has contoured basin to minimize splashing. Flexi-Guard[®] safety bubbler and easy to operate, fully functional, stainless steel vandal-resistant front push bar with raised letters to aid the visually impaired. Patented[®] valve and in-line flow regulators provide constant stream from 20 to 105 psi. Energy efficient refrigeration system utilizes a combination tank continuous-tube type evaporator, refrigerant drier, and capillary tube.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT) WHEN PROPERLY INSTALLED. UNIT IS COMPLIANT IF INSTALLED IN AN ALCOVE AND IS ALSO COMPLIANT WHEN MOUNTED ON AN EXPOSED WALL IF A WING WALL IS LOCATED ON THE LEFT SIDE OR IF LKAPR1512 APRON IS INSTALLED UNDER THE UPPER UNIT.

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free material. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of waterborne particulate of 140 microns and larger prior to their entry into the water cooler.

This water cooler is classified by Underwriters Laboratories Inc. in accordance with **ANSI/NSF61, Section 9-1997b**.

CAPACITIES CHART

Model Number	Base Rate	***GPH of 50°F Drinking Water			Rated Watts	Full Load Amps	Glass Filter Option	Shp. Wt. Lbs.
		Room Temperature °F						
		70°F	80°F	90°F				
ERHPAM28C	7.5	8.6	8.1	7.5	325	4.5	Yes	133

**Based on 80°F inlet water temperature.
†Glass filler available at extra cost. Requires factory preparation to receive glass filler. Long fountain only. Order Model ERHPA28FC. Glass filler LK1110 or LK1114 sold separately.
Rated watts shown are based on operational (run) time, in accordance with A.R.I. Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115V, 60 Hz single phase. Sealed-in lifetime oil supply.

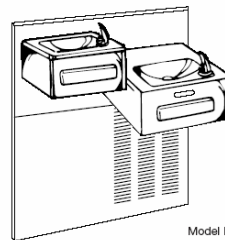
Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.

Cooling Unit: Combination tube-tank type. Self cleansing. Tube portion is continuous coil of copper tubing. Tank is stainless steel. Fully insulated with EPS foam which meets Underwriters Laboratories Inc. requirements for self extinguishing material.

Temperature Control: Enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements.

Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble-free performance.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.



Model ERHPAM28C

CONSTRUCTION

Fountain Body: #18 gauge, type 304 nickel bearing stainless steel polished to a lustrous satin finish with high shined outer edge. Contoured basin offers large strike area to minimize splashing. Fully functional stainless steel push bars are easy to operate and have raised letters to aid visually impaired.

Exclusive Flexi-Guard[®] Safety Bubbler: Innovative design utilizes an infused anti-microbial pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong. Abrasion-resistant. Anti-sweat. **Optional Vandal-Resistant Bubbler** available at extra cost. Heavy duty, one-piece construction, chrome plated brass. **Order Model Number ERHPAVR28C.** Both bubblers meet UL requirements and all sanitary codes and are keyed in location to prevent rotation.

Front Panel Grill: Made of type 304 stainless steel, polished to a uniform Elkay satin finish. Removable louvered ventilating grill encloses refrigeration unit and plumbing.

Wall Mounting Frame: MF200 frame furnished with each unit. Frame allows flush mounting to finished wall.

Drain: LK464 drain and trap assembly included.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

STANDARDS

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories Inc. and comply with both Canadian and U.S. requirements.



Rated in accordance with A.R.I. Standard 1010 and meets all known federal and state plumbing codes.

* Patent #4,481,971

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

**No Lead Two-Level
Wall Mount Water Cooler
Barrier-Free Access
Model ERHPAM28C**

**ELKAY®
ROUGH-IN DIMENSIONS**

**IMPORTANT!
INSTALLER PLEASE NOTE:**

The grounding of electrical equipment such as telephone, computers, etc., to water lines is a common procedure. This grounding may be in the building or may occur away from the building. This grounding can cause electrical feedback into a water cooler, creating an electrolysis which causes a metallic taste or an increase in the metal content of the water. This condition is avoidable by using the proper materials as indicated below.

The drain fittings which are provided by the installer should also be plastic to electrically isolate the cooler from the building plumbing system.

ERHPAM28C MOUNTING FRAME INSTRUCTIONS

1. Cut a square rectangular wall opening 37-1/2" (953mm) W x 37-3/4" (959mm) H and 4-1/2" (114mm) above the floor line. These dimensions are required to obtain proper rim and bubbler heights for compliance with ANSI standard A117.1. (See Figure 2)

2. Reinforce the wall opening on all sides so that it will adequately support the water fountain. This reinforcement must support up to 150 lbs static load and provide a means for securing the frame assembly in place.

NOTE: Building construction must allow for adequate air flow on both sides and top of remote chiller unit. Minimum of 4" (102mm) is required. (See Figures 1 & 2)

3. Install plumbing and electrical rough-ins. See Figure 1 for location of the supply water inlet to chiller and for the location of the waste water outlet. A junction box for a (3) wire, 10 amp branch circuit is provided on the inside of the chiller. (Standard 120 Volts, 60 Hz and single phase) See Figure 2 for the electrical inlet location.

4. Remove frame assembly and related hardware from packaging. Attach the two frames together thru the upright supports with (4) 5/16" x 3/4" (19mm) long bolts and nuts (not provided). Tighten securely.

NOTE: Frame with higher upper channel to be on left side.

5. Install the frame assembly squarely in wall opening with frame upright support edges flush with the finished wall face. Secure the frame to the wall thru holes with (12) 5/16" x 2" (51mm) long lag bolts or screws (not provided). Tighten securely.

NOTE: Be sure that frame is squared in location. Do not use less than required screw quantity and size.

6. Attach the chiller shelf support rods to the right side frame uprights at the second set of holes counting from the bottom and to the shelf at the (2) side holes. Line up the other shelf holes with the frame bottom holes and fasten the assembly to the wall using appropriately sized wood screws or bolts (not provided). (See Figure 2)

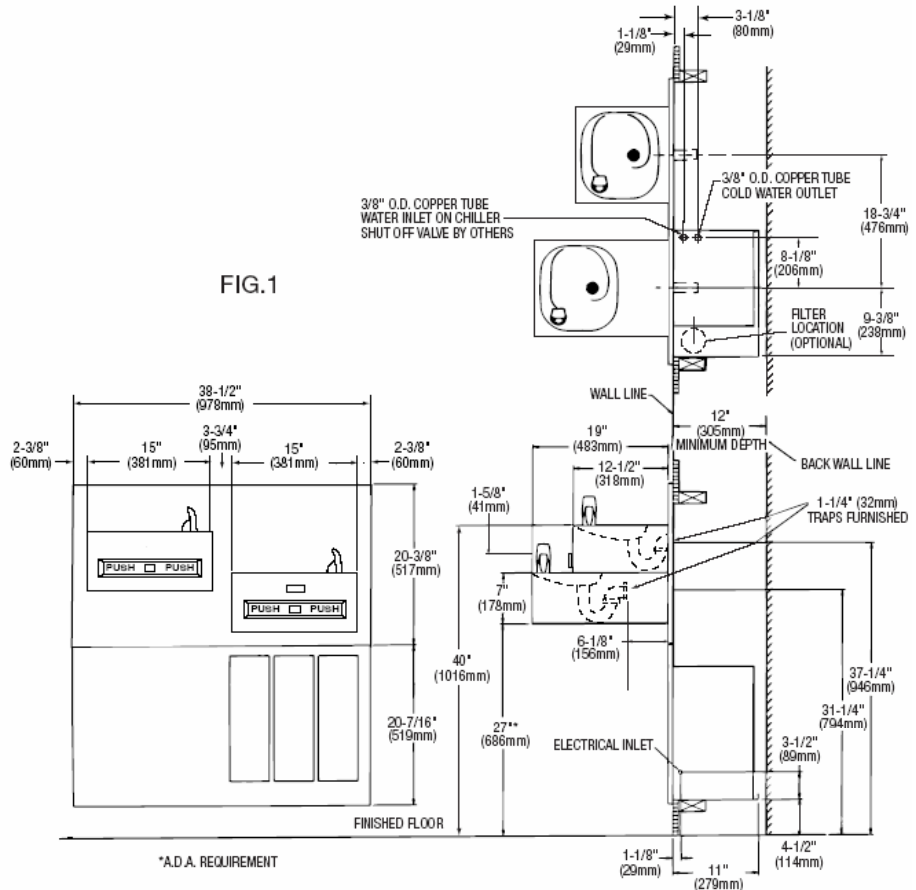


FIG. 1

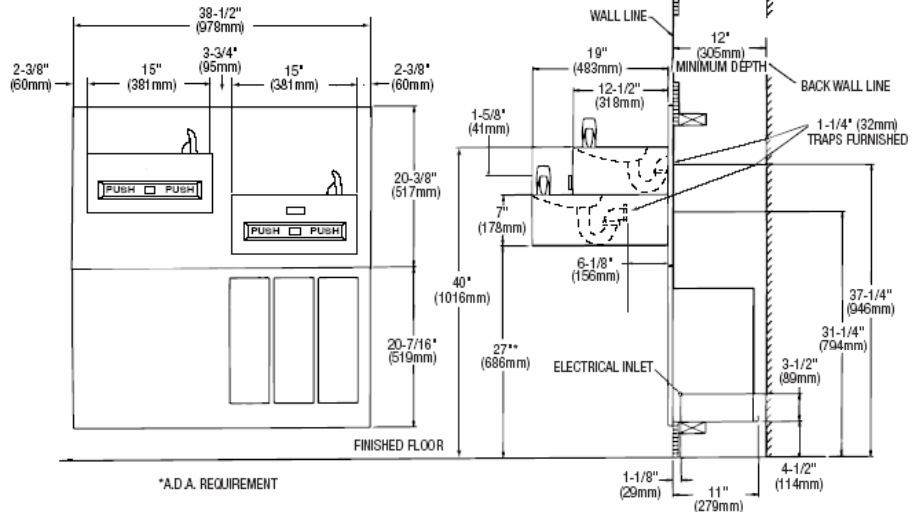
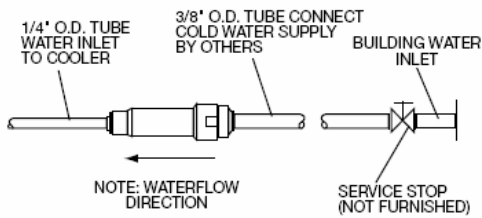
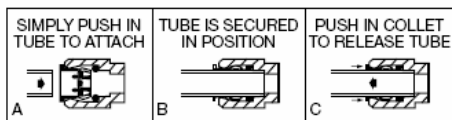


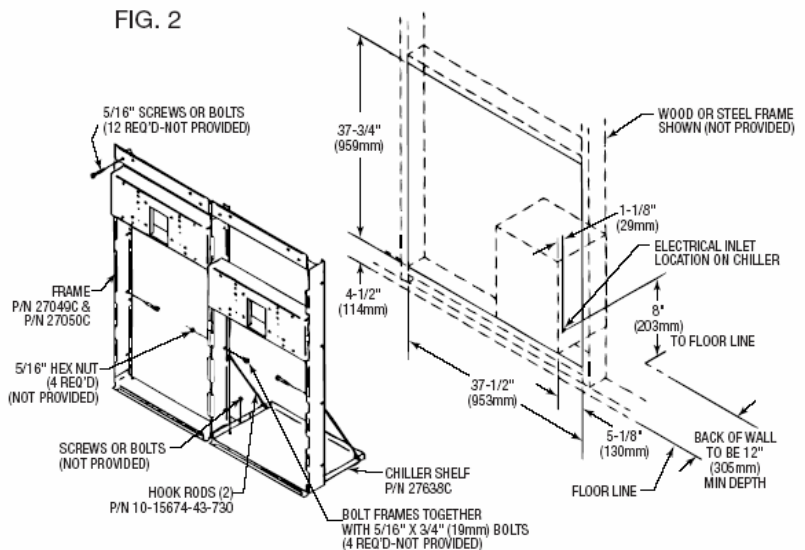
FIG. 2



OPERATION OF QUICK CONNECT FITTINGS



PUSHING TUBE IN BEFORE PULLING IT OUT HELPS TO RELEASE TUBE



Elkay

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2003 Elkay

12-29A (Rev. 9/03)

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT. RECESSED DESIGN, WITH SINGLE STAINLESS STEEL ROUND BASIN, PERFORATED DRAIN, STREAM PROJECTOR AND PROTECTIVE HOOD, BUILT-IN FLOW REGULATOR, DRAIN AND TRAP ASSEMBLY. ADA COMPLIANT. HERMETIC COMPRESSOR, 1/5 HP, 115 VOLT. CONCEALED ELECTRICAL CONNECTIONS, ADJUSTABLE THERMOSTAT. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION. EWC SHALL CONFORM TO ANSI A117.1-1986.

UNIT TO PROVIDE 8.0 GPH OF 50 DEGREE F. WATER WITH 80 DEGREE F. INLET WATER, AT 90 DEGREES F. AMBIENT.

ORIFICE TO BE MAXIMUM OF 36" ABOVE FLOOR AND BOTTOM OF APRON SHALL BE 27" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY ERPBM8C, OASIS MLF8WR, HALSEY TAYLOR OVLER-Q, ACORN AQUA A131, HAWS H1001.8

Notes to specifier:

1. This unit meets ADA requirements for handicapped installation in areas other than corridors.
2. ADA section 4.1.3(10) requires two heights of water coolers per floor. Use high-low type EWC or two separate units. Verify requirements with architect. High-low type may not meet ADA section 4.4 if installed in corridor.
3. Requires minimum of 12" deep chase for installation.
4. Install unit with orifice at 40" above floor and delete ADA references if handicapped installation not required.
5. Coordinate wiring with electrical engineer. Electrical to provide disconnecting means behind access panel.

**No Lead SwirlFlo®
Wall Mount Water Cooler
Barrier-Free Access
Model ERPBM8C**



SPECIFICATIONS

GENERAL

Fully exposed barrier-free stainless steel fountain has recessed in-the-wall refrigeration system and stainless steel grill. Stainless tubular steel support arm incorporates unique recess to be integrated with basin. All stainless steel polished to lustrous satin finish with high shined outer edge. Fountain has contoured basin to minimize splashing. Flexi-Guard® safety bubbler and easy to operate, fully functional vandal-resistant front push button. Patented* valve and in-line flow regulators provide constant stream from 20 to 105 psi. Energy efficient refrigeration system utilizes a combination tank continuous-tube type evaporator, refrigerant drier, and capillary tube.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT).

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free material. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of waterborne particulate of 140 microns and larger prior to their entry into the water cooler.

This water cooler is classified by Underwriters Laboratories Inc. in accordance with **ANSI/NSF61, Section 9-1997b.**

CAPACITIES CHART

Model Number	*GPH of 50°F Drinking Water			Rated Watts	Full Load Amps	Glass Filter Option	Pre-Cooler	Ship. Wt. Lbs.
	Base Rate	Room Temperature 70°F	Room Temperature 80°F					
ERPBM8C	7.5	8.6	8.1	7.5	325	4.5	No	93

*Based on 80°F inlet water temperature.
Rated watts shown are based on operational (run) time, in accordance with A.R.I. Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115V, 60 Hz or 230V, 50 Hz (International Model) single phase. Sealed-in lifetime oil supply.

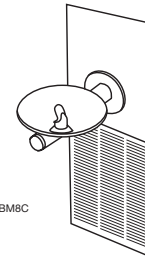
Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.

Cooling Unit: Combination tube-tank type. Self cleansing. Tube portion is continuous coil of copper tubing. Tank is stainless steel. Fully insulated with EPS foam which meets Underwriters Laboratories Inc. requirements for self extinguishing material.

Temperature Control: Enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements.

Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble-free performance.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.



Model ERPBM8C

CONSTRUCTION

Fountain Body: #18 gauge, type 304 nickel bearing stainless steel basin polished to a lustrous satin finish with high shined outer edge. Contoured basin offers large strike area to minimize splashing. #18 gauge, type 304 tubular support arm incorporates unique recess to accept basins. Fully functional vandal-resistant push button is easy to operate.

Exclusive Flexi-Guard® Safety Bubbler*: Innovative design utilizes a pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong. Abrasion-resistant. Anti-sweat. **Optional Vandal-Resistant Bubbler** available at extra cost. Heavy duty, one-piece construction, chrome plated brass. **Order Model Number ERPBMV8C.** Bubbler meets UL requirements and all sanitary codes and are keyed in location to prevent rotation.

Front Panel Grill: Made of type 304 stainless steel, polished to a uniform Elkay satin finish. Removable lowered ventilating grill encloses refrigeration unit and plumbing.

Wall Mounting Frame: MF100 frame furnished with each unit. Frame allows flush mounting to finished wall.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

STANDARDS

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories Inc. and comply with both Canadian and U.S. requirements.

Rated in accordance with A.R.I. Standard 1010 and meets all known federal and state plumbing codes.

* Patent #4,481,971

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

**No Lead SwirlFlo®
Wall Mount Water Cooler
Barrier-Free Access
Model ERPBM8C**

ELKAY®

ROUGH-IN DIMENSIONS

**IMPORTANT!
INSTALLER PLEASE NOTE:**

The grounding of electrical equipment such as telephone, computers, etc., to water lines is a common procedure. This grounding may be in the building or may occur away from the building. This grounding can cause electrical feedback into a water cooler, creating an electrolysis which causes a metallic taste or causes an increase in the metal content of the water. This condition is avoidable by using the proper materials as indicated below.

The drain fittings which are provided by the installer should also be plastic to electrically isolate the cooler from the building plumbing system.

ERPBM8C MOUNTING FRAME INSTRUCTIONS

1. Cut a square rectangular wall opening 18-3/4" (476mm) W x 37-3/4" (959mm) H and 4-1/2" (114mm) above the floor line. These dimensions are required to obtain proper rim and bubbler heights for compliance with ANSI standard A117.1. (See Figure 2)

2. Reinforce the wall opening on all sides so that it will adequately support the water fountain. This reinforcement must support up to 150 lbs static load and provide a means for securing the frame assembly in place.

NOTE: Building construction must allow for adequate air flow on both sides and top of remote chiller unit. Minimum of 4" (102mm) is required. (See Figures 1 & 2)

3. Install plumbing and electrical rough-ins. See Figure 1 for location of the supply water inlet to chiller and for the location of the waste water outlet. A junction box for a (3) wire, 10 amp branch circuit is provided on the inside of the chiller. (Standard 120 Volts, 60 Hz and single phase) See Figure 2 for the electrical inlet location.

4. Remove frame and related hardware from packaging. Release the two shelf rods by cutting cable ties. Install the frame squarely in wall opening with frame upright edges flush with the finished wall face. (See Figure 2) Place shelf inside frame and line up the (2) holes on each. Insert loose ends of rods into holes on sides of shelf panel. Using appropriately sized wood screws (not provided), fasten the shelf and frame to bottom of wall opening. (See Figure 2) Secure the frame sides and top to the wall using (10) 5/16" x 2" lag bolts or screws (not provided).

NOTE: Be sure that frame is squared in location. Do not use less than the required screw quantity and size.

FIG. 1

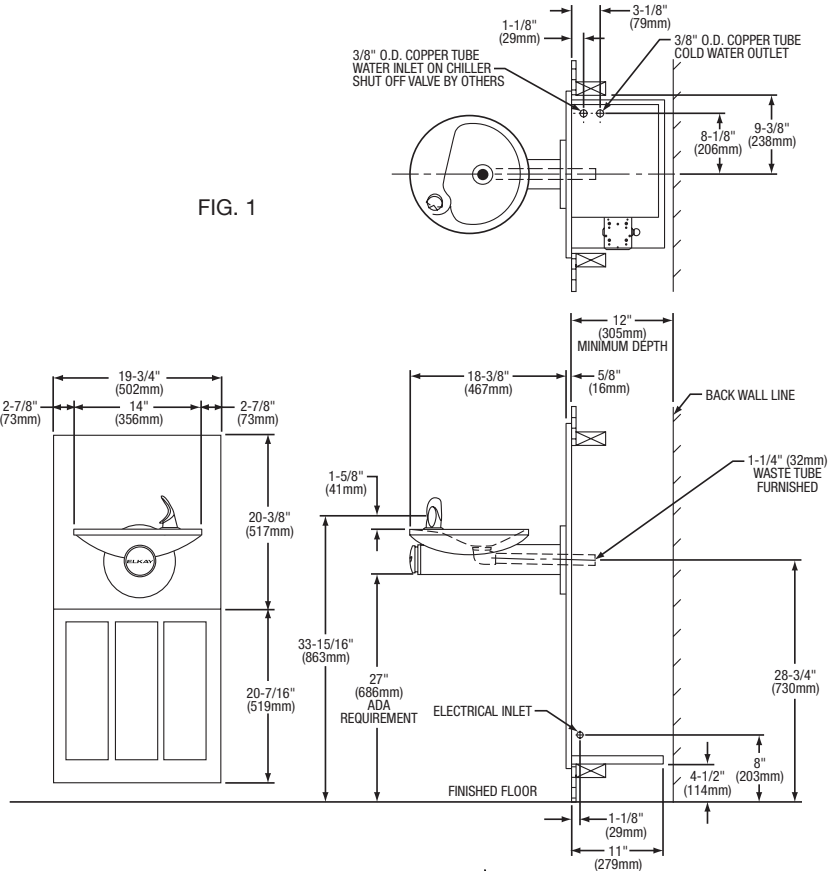
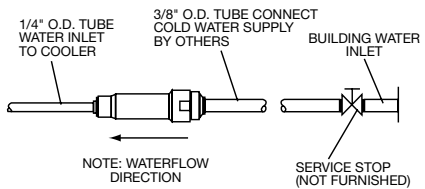
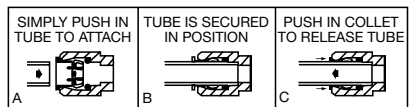


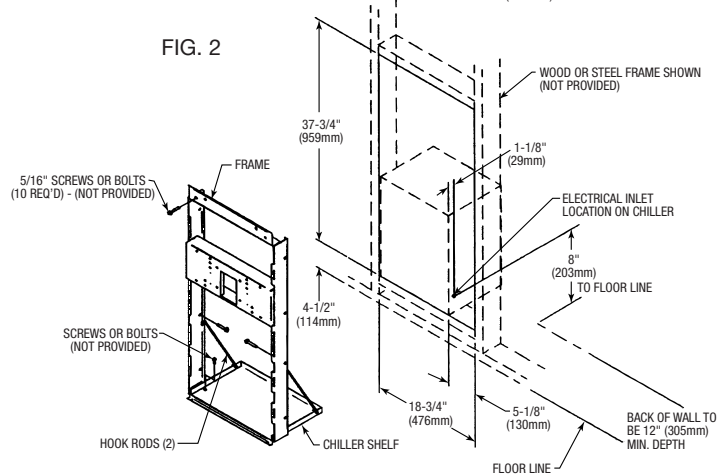
FIG. 2



OPERATION OF QUICK CONNECT FITTINGS



PUSHING TUBE IN BEFORE PULLING IT OUT HELPS T



Elkay

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2003 Elkay

12-40 (1/03)

EWC-7

DESCRIPTION: ELECTRIC WATER COOLER - WALL HUNG, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT. RECESSED DESIGN, WITH BI-LEVEL STAINLESS STEEL ROUND BASINS, PERFORATED DRAINS, STREAM PROJECTORS AND PROTECTIVE HOODS, BUILT-IN FLOW REGULATORS, DRAINS AND TRAP ASSEMBLIES. ADA COMPLIANT. HERMETIC COMPRESSOR, 1/5 HP, 115 VOLT. CONCEALED ELECTRICAL CONNECTIONS, ADJUSTABLE THERMOSTAT. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION. EWC SHALL CONFORM TO ANSI A117.1-1986.

UNIT TO PROVIDE 8.0 GPH OF 50 DEGREE F. WATER WITH 80 DEGREE F. INLET WATER, AT 90 DEGREES F. AMBIENT.

ORIFICE TO BE MAXIMUM OF 36" ABOVE FLOOR ON LOWER UNIT AND 40" ABOVE FLOOR ON UPPER UNIT. BOTTOM OF APRON SHALL BE 27" ABOVE FLOOR ON LOWER UNIT IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY ERPBM28C, OASIS MLF8CR, HALSEY TAYLOR OVLSE-R-Q, ACORN AQUA A132, HAWS H1011.8

Notes to specifier:

1. This unit meets ADA requirements for handicapped installation in areas other than corridors.
2. Requires minimum of 12" deep chase for installation.
3. Coordinate wiring with electrical engineer. Electrical to provide disconnecting means behind access panel.

**No Lead Two-Level SwirlFlo®
Wall Mount Water Cooler
Barrier-Free Access
Model ERPBM28C**



SPECIFICATIONS

GENERAL

Fully exposed dual height stainless steel fountains have recessed in-the-wall refrigeration system and stainless steel grill. Stainless steel tubular support arms incorporate unique recess to be integrated with basins. All stainless steel polished to lustrous satin finish with high shined outer edge. Fountains have contoured basins to minimize splashing. Flexi-Guard® safety bubblers and easy to operate, fully functional vandal-resistant front push button. Patented* valve and in-line flow regulators provide constant stream from 20 to 105 psi.

Energy efficient refrigeration system utilizes a combination tank continuous-tube type evaporator, refrigerant drier, and capillary tube.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT) PROVIDING THE UNIT IS INSTALLED IN AN ALCOVE OR WITH LEFT WING WALL.

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free material. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of waterborne particulate of 140 microns and larger prior to their entry into the water cooler.

This water cooler is classified by Underwriters Laboratories Inc. in accordance with **ANSI/NSF61, Section 9-1997b.**

CAPACITIES CHART

Model Number	Base Rate	*GPH of 50°F Drinking Water			Rated Watts	Full Load Amps	Glass Filler Option	Pre-Cooler	Ship. Wt. Lbs.
		70°F	80°F	90°F					
ERPBM28C	7.5	8.6	8.1	7.5	325	4.5	No	No	140

*Based on 90°F inlet water temperature. Rated watts shown are based on operational (run) time, in accordance with A.R.I. Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115V, 60 Hz or 230V, 50 Hz (International Model) single phase. Sealed-in lifetime oil supply.

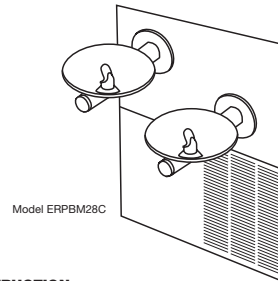
Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.

Cooling Unit: Combination tube-tank type. Self cleansing. Tube portion is continuous coil of copper tubing. Tank is stainless steel. Fully insulated with EPS foam which meets Underwriters Laboratories Inc. requirements for self extinguishing material.

Temperature Control: Enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements.

Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble-free performance.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.



Model ERPBM28C

CONSTRUCTION

Fountain Body: #18 gauge, type 304 nickel bearing stainless steel polished to a lustrous satin finish with high shined outer edge. Contoured basin offers large strike area to minimize splashing. #16 gauge, type 304 tubular support arms incorporate unique recess to accept basins. Fully functional vandal-resistant push buttons are easy to operate.

Exclusive Flexi-Guard® Safety Bubbler*: Innovative design utilizes a pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong. Abrasion-resistant. Anti-sweat. **Optional Vandal-Resistant Bubbler** available at extra cost. Heavy duty, one-piece construction, chrome plated brass. **Order Model Number ERPBMV28C.** Both bubblers meet UL requirements and all sanitary codes and are keyed in location to prevent rotation.

Front Panel Grill: Made of type 304 stainless steel, polished to a uniform Elkay satin finish. Removable louvered ventilating grill encloses refrigeration unit and plumbing.

Wall Mounting Frame: MF200 frame furnished with each unit. Frame allows flush mounting to finished wall.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

STANDARDS

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories Inc. and comply with both Canadian and U.S. requirements.

Rated in accordance with A.R.I. Standard 1010 and meets all known federal and state plumbing codes.

* Patent #4,481,971

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

**No Lead Two-Level SwirlFlo®
Wall Mount Water Cooler
Barrier-Free Access
Model ERPBM28C**

ELKAY®

ROUGH-IN DIMENSIONS

**IMPORTANT!
INSTALLER PLEASE NOTE:**

The grounding of electrical equipment such as telephone, computers, etc., to water lines is a common procedure. This grounding may be in the building or may occur away from the building. This grounding can cause electrical feedback into a water cooler, creating an electrolysis which causes a metallic taste or causes an increase in the metal content of the water. This condition is avoidable by using the proper materials as indicated below.

The drain fittings which are provided by the installer should also be plastic to electrically isolate the cooler from the building plumbing system.

ERPBM28C MOUNTING FRAME INSTRUCTIONS

1. Cut a square rectangular wall opening 37-1/2" (953mm) W x 37-3/4" (959mm) H and 4-1/2" (114mm) above the floor line. These dimensions are required to obtain proper rim and bubbler heights for compliance with ANSI standard A117.1. (See Figure 2)

2. Reinforce the wall opening on all sides so that it will adequately support the water fountain. This reinforcement must support up to 150 lbs static load and provide a means for securing the frame assembly in place.

NOTE: Building construction must allow for adequate air flow on both sides and top of remote chiller unit. Minimum of 4" (102mm) is required. (See Figures 1 & 2)

3. Install plumbing and electrical rough-ins. See Figure 1 for location of the supply water inlet to chiller and for the location of the waste water outlet. A junction box for a (3) wire, 10 amp branch circuit is provided on the inside of the chiller. (Standard 120 Volts, 60 Hz and single phase) See Figure 2 for the electrical inlet location.

4. Remove frame assembly and related hardware from packaging. Attach the two frames together thru the upright supports with (4) 5/16" x 3/4" (19mm) long bolts and nuts (not provided). Tighten securely.

NOTE: Frame with higher upper channel to be on left side.

5. Install the frame assembly squarely in wall opening with frame upright support edges flush with the finished wall face. Secure the frame to the wall thru holes with (12) 5/16" x 2" (51mm) long lag bolts or screws (not provided). Tighten securely.

NOTE: Be sure that frame is squared in location. Do not use less than required screw quantity and size.

6. Attach the chiller shelf support rods to the right side frame uprights at the second set of holes counting from the bottom and to the shelf at the (2) side holes. Line up the other shelf holes with the frame bottom holes and fasten the assembly to the wall using appropriately sized wood screws or bolts and nuts (not provided). (See Figure 2)

FIG. 1

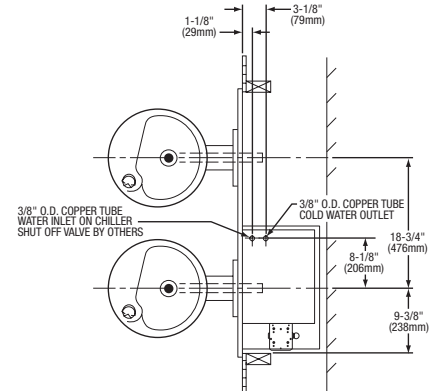
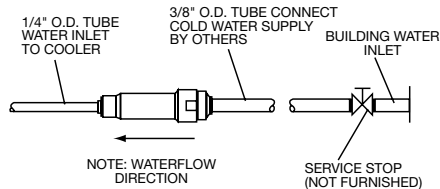
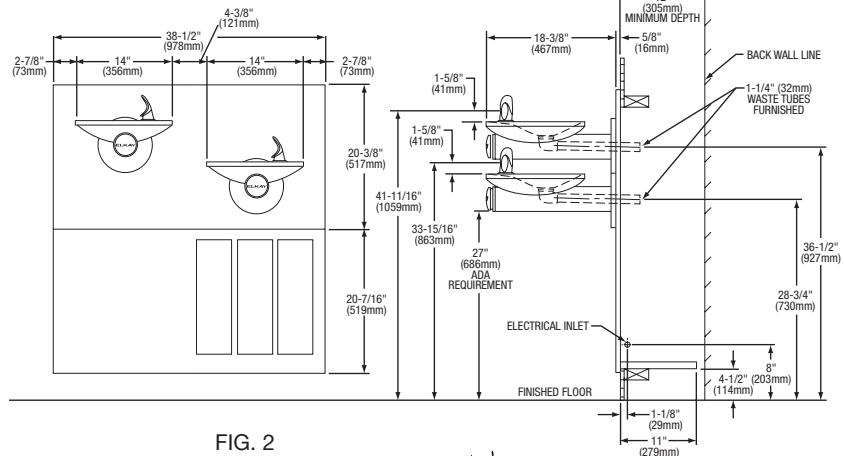
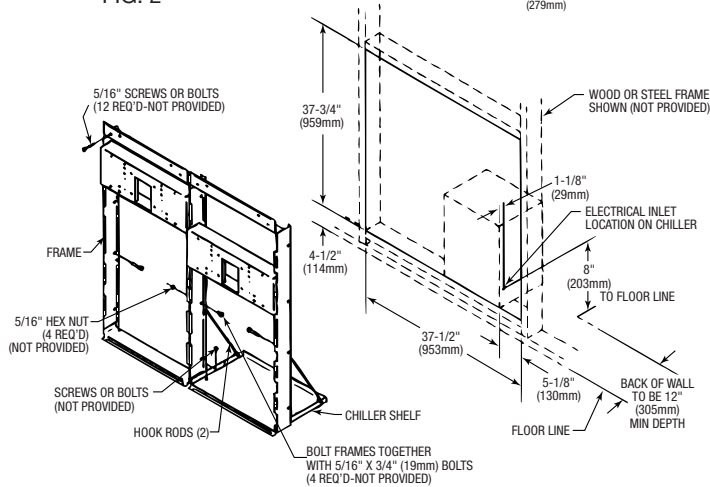
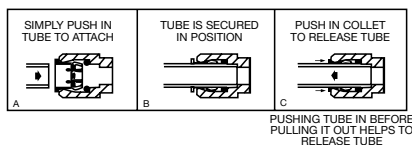


FIG. 2



OPERATION OF QUICK CONNECT FITTINGS



Elkay

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2003 Elkay

12-41 (1/03)

DESCRIPTION: ELECTRIC WATER COOLER - FULLY RECESSED, PUSH BUTTON OPERATING CONTROL ON FRONT OF UNIT, ALL STAINLESS STEEL CONSTRUCTION WITH NON-SPLASH BASIN, PERFORATED DRAIN, AND STREAM PROJECTOR WITH PROTECTIVE HOOD. ADA COMPLIANT. BUILT-IN FLOW REGULATOR, DRAIN AND TRAP ASSEMBLY. REMOVABLE LOUVERED BOTTOM PANEL. HERMETIC COMPRESSOR, 1/5 HP, 115 VOLT. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. CONCEALED ELECTRICAL CONNECTIONS, ADJUSTABLE THERMOSTAT. EWC SHALL CONFORM TO ANSI A117.1-1986.

UNIT TO PROVIDE 8.0 GPH OF 50 DEGREE F. WATER WITH 80 DEGREE F. INLET WATER, AT 90 DEGREES F. AMBIENT.

ORIFICE TO BE MAXIMUM OF 36" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTIONS 4.4 AND 4.15.

MANUFACTURER & CATALOG NO.: ELKAY EFRC-8, OASIS PLF8FPM, HALSEY TAYLOR RC8A-Q

Notes to specifier:

1. This unit meets ADA requirements for handicapped installation in corridors.
2. ADA section 4.1.3(10) requires two heights of water coolers per floor. Use high-low type EWC or two separate units. Verify requirements with architect. High-low type may not meet ADA section 4.4 if installed in corridor.
3. Install unit with orifice at 40" above floor and delete ADA references if handicapped installation not required.
4. This unit requires minimum of 12" deep chase for installation.
5. Coordinate wiring with electrical engineer. Electrical to provide disconnecting means behind access panel.

**No Lead Wall Mount
Fully-Recessed Water Cooler
Model EFRC-8**



SPECIFICATIONS

GENERAL

Wall type, fully recessed, electric refrigerated water cooler with stainless steel louvered ventilating grill.


Unit furnished with hermetically sealed tube-tank cooling unit in undersection. Cooling unit removable without disturbing electrical or drain connections. Condenser, air cooled by fan. Plumbing and electrical connections are concealed. Entire unit does not extend more than 1/2" from wall surface. Flexi-Guard® safety bubbler. Control push button located on front panel below stream projector. Patented* valve and in-line flow regulator provides constant stream from 20 to 105 p.s.i.

THIS WATER COOLER COMPLIES WITH THE REQUIREMENTS OF A.D.A. (AMERICANS WITH DISABILITIES ACT) PROVIDING THE FLOOR TO ORIFICE HEIGHT IS 36" OR LESS AND PROPER CLEAR FLOOR SPACE IS PROVIDED.

NO LEAD DESIGN

THIS WATER COOLER COMPLIES WITH THE LEAD-FREE DEFINITION IN THE SAFE DRINKING WATER ACT OF 1986 AND LEAD CONTAMINATION CONTROL ACT OF 1988.

Elkay Water Coolers are manufactured with a waterway system utilizing copper components and completely lead-free materials. These waterways have no lead because all lead materials, such as leaded brass, have been removed. All joints are brazed using silver solder only. No lead solder is permitted. A strainer with an easily cleanable screen is provided to allow trapping and convenient removal of water born particulate of 140 microns and larger prior to their entry into the water cooler.

 This water cooler is classified by Underwriters Laboratories Inc. in accordance with **ANSI/NSF61, Section 9-1997b**.

CAPACITIES CHART

Model Number	Base Rate	**GPH of 50° F Drinking Water			Rated Watts	Full Load Amps	Glass Filler Option	Ship. Wt. Lbs.
		70° F	80° F	90° F				
EFRC-8	8.0	9.2	8.6	8.0	325	3.3	Yes	107

**Based on 80° F inlet water temperature †Glass filler available at extra cost. Requires factory preparation to receive glass filler.

Rated watts shown are based on operational (run) time in accordance with API Standard 1010 conditions. Specific applications will determine the actual watts consumed per hour. Watts consumed will be based on number of people served per hour (usage), ambient temperatures, and inlet water temperature.

COOLING SYSTEM

Motor Compressor: Hermetically sealed, reciprocating type, 115V, 60 Hertz single phase. Lubricated for life.

Condenser: Fan cooled. Fan motor is permanently lubricated.

Cooling Unit: Combination tube-tank type. Tube portion is continuous coil of copper tubing. Fully insulated with EPS foam which meets Underwriters Laboratories requirements for self extinguishing plastic material.

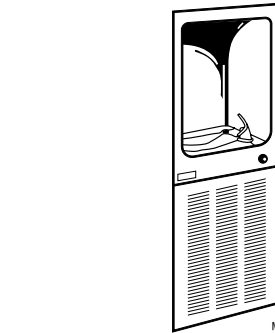
Refrigerant Control: Refrigerant HFC-134a is controlled by accurately calibrated capillary tube for positively trouble free performance.

Temperature Control: Enclosed adjustable thermostat is easily accessible by removing front grill panel.

CONSTRUCTION

Fountain Top: One piece #18 gauge stainless steel, type 302. Anti-splash design has Exclusive Cascade basin, tested most splash resistant. Fountain has 1-3/4" coved corners. Exposed surfaces polished to a uniform Elkay luster finish.

Elkay Manufacturing Company
www.elkay.com



Model EFRC-8

Stream Projector: Control push button operated, with an in-line flow regulator from 20 psi to 105 psi. Stream projector with protective hood meets all sanitary codes.

Exclusive Flexi-Guard® Safety Bubbler®: Innovative design utilizes a pliable polyester elastomer to prevent accidental mouth injuries. Flexes on impact, then returns to original position. Strong. Abrasion-resistant. Anti-sweat. Meets UL requirements and all sanitary codes. Keyed in location to prevent rotation.

Front Panel Grill: Made of Type 302, Stainless steel, polished to a uniform Elkay finish. Removable louvered ventilating grille encloses refrigeration unit and plumbing.

Wall Mounting Box: MB-23-A mounting box furnished with each unit. Box allows flush mounting to finished wall, plumbing and electrical service holes are prepunched on both right and left side to facilitate installation.

5 YEAR LIMITED WARRANTY on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. Sample Certificate available on request.

Elkay Pressure-Type Water Coolers are designed to operate on 20 psi to 105 psi supply line pressure. If inlet pressure is above 105 psi, a pressure regulator must be installed in the supply line. Any damage caused by reason of connecting this product to supply line pressures lower than 20 psi or higher than 105 psi is not covered by the warranty.

Note: In keeping with our policy of continuing product improvement, Elkay reserves the right to change materials, design and specifications without notice.

Elkay Electric Air Cooled Water Coolers are listed by Underwriters Laboratories, approved by C.S.A., rated in accordance with A.R.I. Standard 1010 and meet all known federal and state plumbing codes.



* Patent #4,481,971

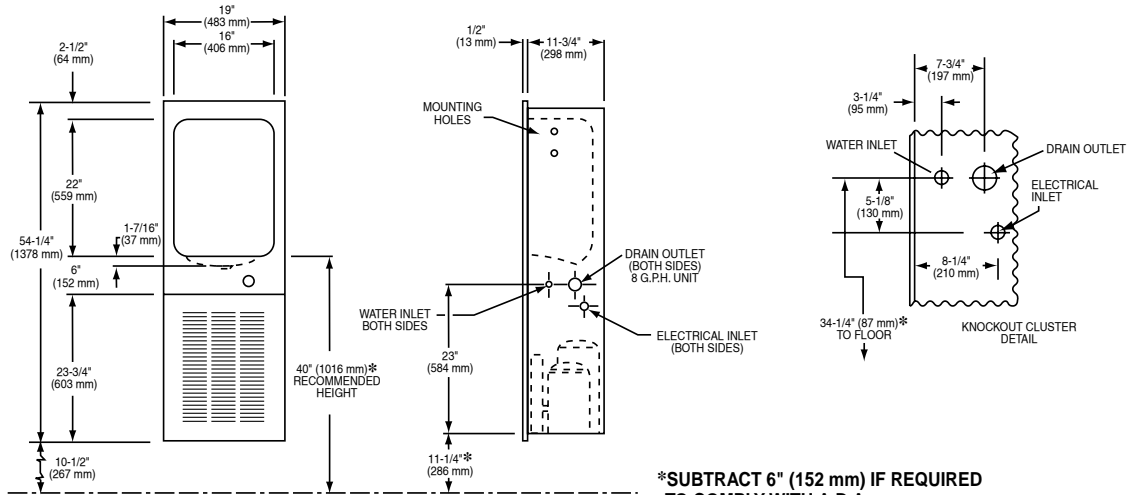
2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1999 Elkay Mfg. Co.
(Rev. 5/99) 10-1E

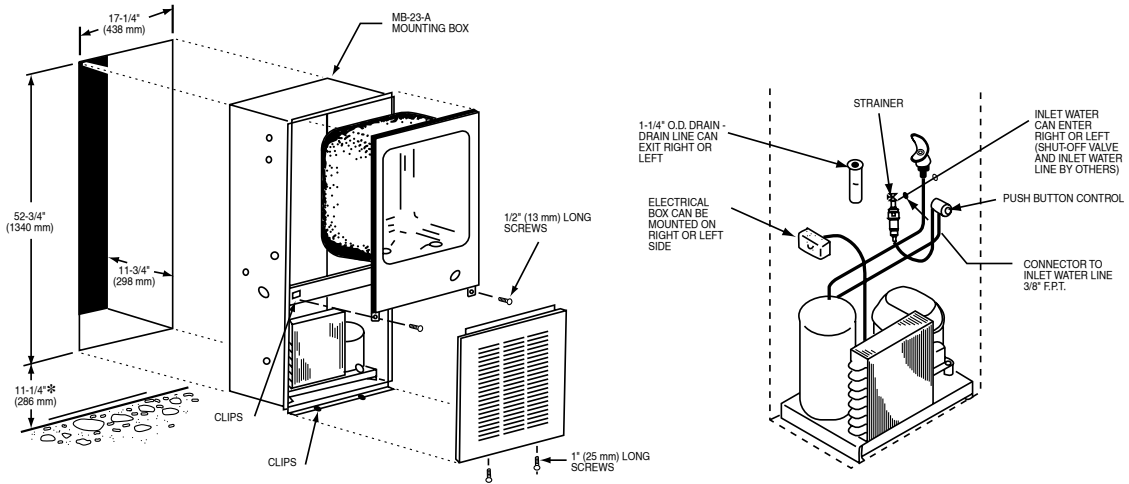
**No Lead Wall Mount
Fully-Recessed Water Cooler
Model EFRC-8**



ROUGH-IN DIMENSIONS



***SUBTRACT 6" (152 mm) IF REQUIRED TO COMPLY WITH A.D.A.**

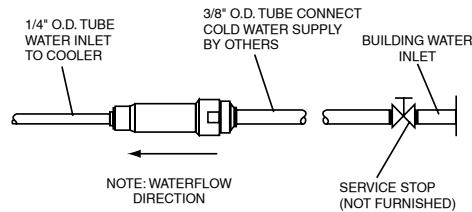


**INSTALLER PLEASE NOTE:
IMPORTANT**

THIS WATER COOLER HAS BEEN DESIGNED AND BUILT TO PROVIDE WATER TO THE USER WHICH HAS NOT BEEN ALTERED BY MATERIALS IN THE COOLER WATER WAYS.
THE GROUNDING OF ELECTRICAL EQUIPMENT SUCH AS TELEPHONE, COMPUTERS, ETC TO WATER LINES IS A COMMON PROCEDURE. THIS GROUNDING MAY BE IN THE BUILDING BUT MAY ALSO OCCUR AWAY FROM THE BUILDING. THIS GROUNDING CAN CAUSE ELECTRICAL FEEDBACK INTO A WATER COOLER CREATING AN ELECTROLYSIS WHICH CREATES A METALLIC TASTE OR CAUSES AN INCREASE IN THE METAL CONTENT OF THE WATER. THIS CONDITION IS AVOIDABLE BY INSTALLING THE COOLER USING THE PROPER MATERIALS AS SHOWN BELOW.

NOTICE

THIS WATER COOLER MUST BE CONNECTED TO THE WATER SUPPLY USING A DIELECTRIC COUPLING. THE COOLER IS FURNISHED WITH A NON-METALLIC STRAINER WHICH MEETS THIS REQUIREMENT.
THE DRAIN TRAP WHICH IS PROVIDED BY THE INSTALLER SHOULD ALSO BE PLASTIC TO COMPLETELY ISOLATE THE COOLER FROM THE BUILDING PLUMBING SYSTEM.



Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1999 Elkay Mfg. Co.

10-1E (Rev. 5/99)

DESCRIPTION: WATER FILTER, CAST BRASS OR STAINLESS STEEL HEAD, STAINLESS STEEL SUMP, 6 GPM FLOW AT 3 PSIG DROP, 5 MICRON FILTER CARTRIDGE, FDA APPROVED MATERIALS.

MANUFACTURER & CATALOG NO.: AQUA-PURE AP1610SS, CAMPBELL 1SSH

Notes to Specifier:

1. For dirt/rust removal only. Does NOT eliminate taste, odor or scale.
2. Water temperature shall not exceed 100 degrees F.

WHOLE-HOUSE WATER FILTER



AP1610

- 3/4" NPT
- 8 gpm (30.3 lpm)
- Hot or Cold Water

AP2610

- 3/4" NPT
- 16 gpm (60.6 lpm)
- Hot or Cold Water



Aqua-Pure®

WATER FILTERS

Clearly Great Water

Models:

AP1610

AP2610

Application:

Dirt/Rust

- Heavy-duty 304 stainless steel housing rated to 300 psi (2,069 kPa)
- Premium performance Graded-Density sediment cartridge
- Hot and cold water applications

Made from **FDA***
CFR-21 Compliant
Materials
*Food and Drug Administration of
USA

Features:

- ▶ Heavy-duty 304 stainless steel housing rated to 300 psi (2,069 kPa) maximum operating pressure.
- ▶ Premium performance AP110 Graded-Density depth cartridge.
- ▶ High temperature rating to 100°F (38°C) if used in conjunction with a graded density resin bonded cartridge.
- ▶ 3/4" unrestricted flow design.
- ▶ Made from FDA CFR-21 compliant materials.
- ▶ "Sure-Seal" ring nut connector with tightening tool.
- ▶ High flow, dual cartridge AP2610 model.
- ▶ Ten Year Limited Warranty.

Benefits:

- ▶ Maximum strength and durability with very high operating pressure rating. Especially suitable for applications where solenoid valves are used and frequent water hammer occurs.
- ▶ Complete with high efficiency, long life cartridges.
- ▶ For all hot and cold water applications.
- ▶ For high flow rates with minimal pressure drop.
- ▶ Conforms to public health requirements for water purification. Suitable for drinking and cooking water and all food applications.
- ▶ Assures positive cartridge sealing and easy cartridge changes.
- ▶ For high water demand applications; less frequent cartridge changes.
- ▶ Guaranteed system design and long-term factory support and service.

The Choice of the Professional Plumber

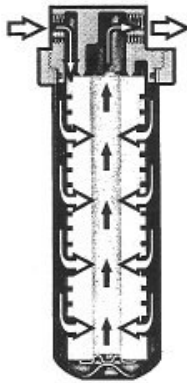
Specifications

Model No.	Inlet/Outlet Size	Dimensions		Approx. Weight	Clean Pressure Drop	Maximum Flow Rate	Maximum Water Temp.	Maximum Water Pressure	Standard Replacement CTG No.	Replacement CTG Qty.	Degree of Filtration
		Height	Maximum Diameter								
AP1610	3/4" NPT	12 7/32" (31 cm)	4 5/32" (10.6 cm)	6 lbs (2.7 kg)	2 psi @ 8 gpm (13.8 kPa @ 30 lpm)	8 gpm (30.3 lpm)	100°F (38°C)	300 psi (2070 kPa)	AP110	1	5 micron nominal
AP2610	3/4" NPT	22 1/32" (56 cm)	4 5/32" (10.4 cm)	7 lbs (3.1 kg)	4 psi @ 16 gpm (27.6 kPa @ 61 lpm)	16 gpm (60.6 lpm)	100°F (38°C)	300 psi (2070 kPa)	AP110	2	5 micron nominal

Capacity : Cartridges should be replaced every 3 - 4 months or sooner when noticeable pressure drop occurs.

Premium Performance Filtration

Graded-Density Cartridge Construction for Longer Life!



Aqua-Pure® Dirt & Rust Cartridges are made from an exclusive process using pure white cellulose fibers. This unique process offers unsurpassed filtration performance.



- Longer Life
- Higher Efficiency

As water passes from outer surfaces into the center of the cartridge, the filtering pores become increasingly smaller to remove even microscopic particles! Unlike string-wound and pleated paper cartridges, the rigid sturdy construction of **Aqua-Pure** cartridges are able to withstand high pressure drop and stressful conditions such as water hammer.

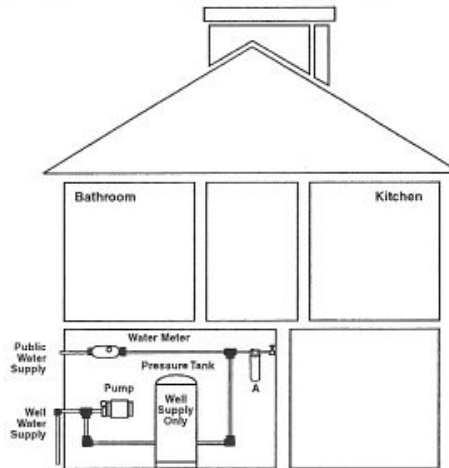
- Rigid Construction
- Resists Water Hammer

Replacement Cartridge Options

Dirt Model	Load	Nominal Micron Rating	Application			Flow Rate
			Dirt/Rust	Taste/Odor	Scale	
AP1001	Extra Fine	1	•			8 gpm (30.3 lpm)
AP1003	Fine	3	•			8 gpm (30.3 lpm)
AP110	Normal	5	•			8 gpm (30.3 lpm)
AP111	Medium	25	•			8 gpm (30.3 lpm)
AP124	Heavy	50	•			8 gpm (30.3 lpm)
AP117*	Normal	5	•	•		3 gpm (11.4 lpm)
APS117*	Normal	5	•	•	•	3 gpm (11.4 lpm)
AP420*	Normal	5	•		•	8 gpm (30.3 lpm)

* For cold water use only.

Easy Installation



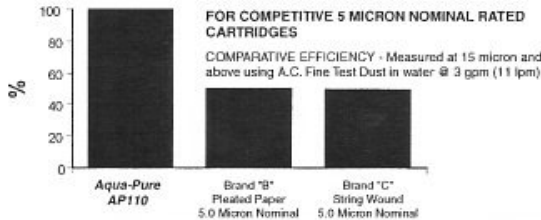
Your new **Aqua-Pure** Water Filter installs on the cold water line at the point-of-use, or main water line. Complete installation instructions are included for your convenience.

Tools required for installation:

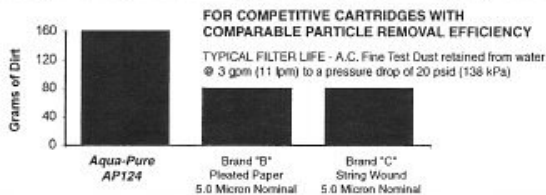
- Tube Cutter
- Teflon® Tape
- Adjustable Wrench
- Appropriate Pipe Fittings

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

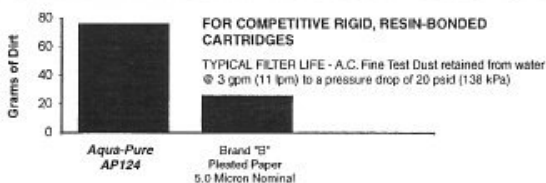
Typical Filter Efficiency



Typical Filter Life



Typical Filter Life



LITAP1610 0201

Teflon is a registered trademark of E.I. DuPont.

DESCRIPTION: FLOOR CLEANOUT - CAST IRON THREADED ADJUSTABLE HOUSING, FLANGED FERRULE WITH PLUG AND SECURED NICKEL BRONZE
 [[ROUND][SQUARE] SOLID SCORIATED TOP.]
 [[ROUND][SQUARE] TOP RECESSED FOR TILE.]
 [ROUND TOP RECESSED FOR TERRAZZO.]
 [ROUND TOP WITH CARPET MARKER.]
 [ROUND TOP WITH CARPET FLANGE.]

MANUFACTURER & CATALOG NO.: ZURN Z-1400, SMITH 4000, WADE 6000, JOSAM 56000, WATTS CO-200, MIFAB C1100

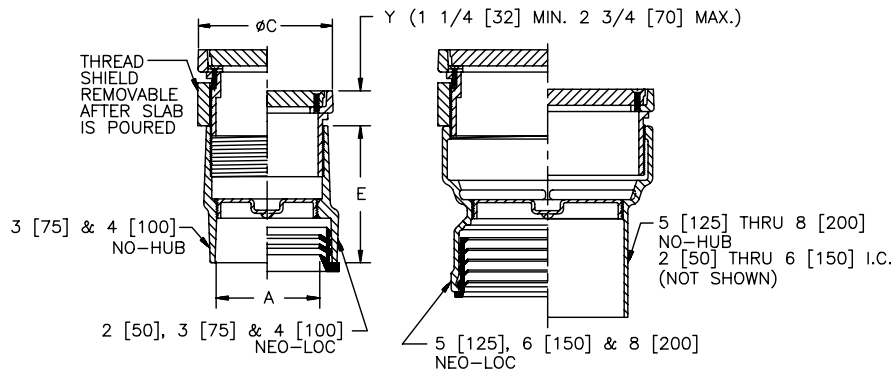


**Z-1400
 ADJUSTABLE CLEANOUT**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



ENGINEERING SPECIFICATION: ZURN Z-1400 "Level-Trol" Adjustable floor cleanout, Dura-Coated cast iron body, with gas and watertight ABS tapered thread plug, and round scoriated secured heavy duty top, adjustable to finished floor.

OPTIONS (Check/specify appropriate options)

PREFIXES

- Z- Dura Coated Cast Iron*
- ZB- D.C.C.I. with Polished Bronze Top (Deduct 1/2[13] from 'Y' Dim)
- ZN D.C.C.I. with Polished Nickel Bronze Top (Deduct 1/2[13] from 'Y' Dim)

SUFFIXES

- -AR Acid Resisting Epoxy Coated Finish
- -BP Bronze Plug
- -CF Carpet Flange Cover (ZB, ZN only)
- -CM Carpet Marker
- -DC Duresist Cover
- -DX Round ZB or ZN Top With Dex-o-tex Flange (2 thru 4 [50 thru 100] only)
- -G Galvanized Cast Iron
- -HD Heavy Duty Top (Add 1/8 [3] to 'Y' Dim. ZB and ZN only)
- -K Anchor Flange
- -KC Anchor Flange With Clamp Collar
- -SG Solid Gasketed Cover
- -SM Special Marking Stamped on Cover
- -T Square Top
- -TX Square Top Recessed for 1/8[3] Tile (ZB and ZN only)
- -VP Vandal Proof Screws
- -X Round Top Recessed for 1/8[3] Tile (ZB or ZN only)
- -Z Round Top Recessed for 1 1/4[32] Terrazzo (ZB or ZN only)

Dimensions In Inches			Approx. Wt. Lbs. [kg]
A-Pipe Size	C	E	
Inside Caulk			
2 [50]	6 1/8 [156]	6 7/8 [175]	6 [3]
3 [75]	6 1/8 [156]	6 7/8 [175]	8 [4]
4 [100]	7 1/4 [184]	6 7/8 [175]	9 [4]
5 [125]	8 1/4 [210]	6 7/8 [175]	12 [5]
6 [150]	9 1/4 [235]	6 7/8 [175]	15 [7]
No-Hub			
3 [75]	4 1/8 [105]	5 3/8 [137]	8 [4]
4 [100]	5 1/8 [130]	5 3/8 [137]	9 [4]
5 [125]	7 1/4 [184]	7 1/2 [191]	12 [5]
6 [150]	8 1/4 [210]	7 1/2 [191]	15 [7]
8 [200]	9 1/4 [235]	7 1/2 [191]	21 [10]
Neo-Loc			
2 [50]	4 1/8 [105]	5 3/8 [137]	6 [3]
3 [75]	5 1/8 [130]	5 3/8 [137]	8 [4]
4 [100]	5 1/8 [130]	5 3/8 [137]	9 [4]
5 [125]	7 1/4 [184]	6 1/2 [165]	12 [5]
6 [150]	8 1/4 [210]	6 1/2 [165]	15 [7]
8 [200]	9 1/4 [235]	6 1/2 [165]	21 [10]

PIPE SIZE

- 2 thru 6 [50 thru 150]
- 3 thru 6, 8 [75 thru 150, 200]
- 2 thru 6, 8 [50 thru 150, 200]

(Specify size/type) **OUTLET**

- IC Inside Caulk
- NH No-Hub
- NL Neo-Loc

'E' BODY HT. DIM.

- See Chart
- See Chart
- See Chart

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. G	DATE: 11/6/97	C.N. NO. 78904
DWG. NO. 58757	PRODUCT NO. Z-1400	

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FCO-2

DESCRIPTION: FLOOR CLEANOUT - CAST IRON THREADED ADJUSTABLE HOUSING, FLANGED FERRULE WITH PLUG AND ROUND SECURED GALVANIZED TOP.

MANUFACTURER & CATALOG NO.: ZURN Z-1400, SMITH 4000, WADE 6000, JOSAM 56000, WATTS CO-200, MIFAB C1100

Note to specifier: Use galvanized top for corrosive areas such as meat processing plants.

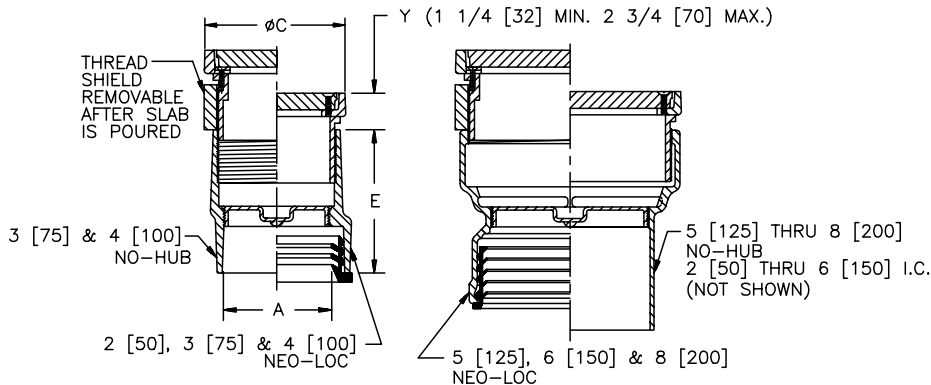


**Z-1400
ADJUSTABLE CLEANOUT**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



ENGINEERING SPECIFICATION: ZURN Z-1400 "Level-Trol" Adjustable floor cleanout, Dura-Coated cast iron body, with gas and watertight ABS tapered thread plug, and round scoriated heavy duty top, adjustable to finished floor.

OPTIONS (Check/specify appropriate options)

PREFIXES

- ___ Z- Dura Coated Cast Iron*
- ___ ZB- D.C.C.I. with Polished Bronze Top (Deduct 1/2[13] from 'Y' Dim)
- ___ ZN D.C.C.I. with Polished Nickel Bronze Top (Deduct 1/2[13] from 'Y' Dim)

SUFFIXES

- ___ -AR Acid Resisting Epoxy Coated Finish
- ___ -BP Bronze Plug
- ___ -CF Carpet Flange Cover (ZB, ZN only)
- ___ -CM Carpet Marker
- ___ -DC Duresist Cover
- ___ -DX Round ZB or ZN Top With Dex-o-tex Flange (2 thru 4 [50 thru 100] only)
- ___ -G Galvanized Cast Iron
- ___ -HD Heavy Duty Top (Add 1/8 [3] to 'Y' Dim. ZB and ZN only)
- ___ -K Anchor Flange
- ___ -KC Anchor Flange With Clamp Collar
- ___ -SG Solid Gasketed Cover
- ___ -SM Special Marking Stamped on Cover
- ___ -T Square Top
- ___ -TX Square Top Recessed for 1/8[3] Tile (ZB and ZN only)
- ___ -VP Vandal Proof Screws
- ___ -X Round Top Recessed for 1/8[3] Tile (ZB or ZN only)
- ___ -Z Round Top Recessed for 1 1/4[32] Terrazzo (ZB or ZN only)

Dimensions In Inches			Approx. Wt. Lbs. [kg]
A-Pipe Size	C	E	
Inside Caulk			
2 [50]	6 1/8 [156]	6 7/8 [175]	6 [3]
3 [75]	6 1/8 [156]	6 7/8 [175]	8 [4]
4 [100]	7 1/4 [184]	6 7/8 [175]	9 [4]
5 [125]	8 1/4 [210]	6 7/8 [175]	12 [5]
6 [150]	9 1/4 [235]	6 7/8 [175]	15 [7]
No-Hub			
3 [75]	4 1/8 [105]	5 3/8 [137]	8 [4]
4 [100]	5 1/8 [130]	5 3/8 [137]	9 [4]
5 [125]	7 1/4 [184]	7 1/2 [191]	12 [5]
6 [150]	8 1/4 [210]	7 1/2 [191]	15 [7]
8 [200]	9 1/4 [235]	7 1/2 [191]	21 [10]
Neo-Loc			
2 [50]	4 1/8 [105]	5 3/8 [137]	6 [3]
3 [75]	5 1/8 [130]	5 3/8 [137]	8 [4]
4 [100]	5 1/8 [130]	5 3/8 [137]	9 [4]
5 [125]	7 1/4 [184]	6 1/2 [165]	12 [5]
6 [150]	8 1/4 [210]	6 1/2 [165]	15 [7]
8 [200]	9 1/4 [235]	6 1/2 [165]	21 [10]

PIPE SIZE

- 2 thru 6 [50 thru 150]
- 3 thru 6, 8 [75 thru 150, 200]
- 2 thru 6, 8 [50 thru 150, 200]

(Specify size/type) **OUTLET**

- ___ IC Inside Caulk
- ___ NH No-Hub
- ___ NL Neo-Loc

'E' BODY HT. DIM.

- See Chart
- See Chart
- See Chart

REV. G	DATE: 11/6/97	C.N. NO. 78904
DWG. NO. 58757		PRODUCT NO. Z-1400

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514 • Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR CLEANOUT - CAST IRON THREADED ADJUSTABLE HOUSING, FLANGED FERRULE WITH PLUG AND ROUND SECURED STAINLESS STEEL TOP.

MANUFACTURER & CATALOG NO.: ZURN Z-1400, WATTS CO-1200, MIFAB C1000, SMITH, WADE, JOSAM

Note to specifier: Use stainless steel top for corrosive areas such as meat processing plants.

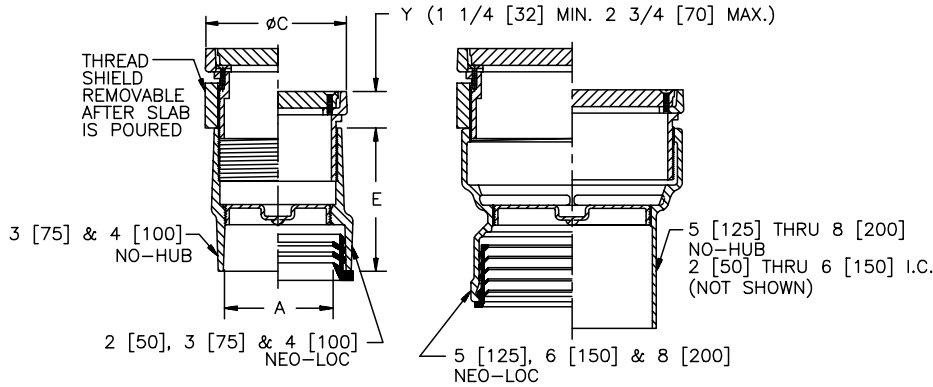


**Z-1400
ADJUSTABLE CLEANOUT**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



ENGINEERING SPECIFICATION: ZURN Z-1400 "Level-Trol" Adjustable floor cleanout, Dura-Coated cast iron body, with gas and watertight ABS tapered thread plug, and round scoriated secured heavy duty top, adjustable to finished floor.

OPTIONS (Check/specify appropriate options)

PREFIXES

- ___ Z- Dura Coated Cast Iron*
- ___ ZB- D.C.C.I. with Polished Bronze Top (Deduct 1/2[13] from 'Y' Dim)
- ___ ZN D.C.C.I. with Polished Nickel Bronze Top (Deduct 1/2[13] from 'Y' Dim)

SUFFIXES

- ___ -AR Acid Resisting Epoxy Coated Finish
- ___ -BP Bronze Plug
- ___ -CF Carpet Flange Cover (ZB, ZN only)
- ___ -CM Carpet Marker
- ___ -DC Duresist Cover
- ___ -DX Round ZB or ZN Top With Dex-o-tex Flange (2 thru 4 [50 thru 100] only)
- ___ -G Galvanized Cast Iron
- ___ -HD Heavy Duty Top (Add 1/8 [3] to 'Y' Dim. ZB and ZN only)
- ___ -K Anchor Flange
- ___ -KC Anchor Flange With Clamp Collar
- ___ -SG Solid Gasketed Cover
- ___ -SM Special Marking Stamped on Cover
- ___ -T Square Top
- ___ -TX Square Top Recessed for 1/8[3] Tile (ZB and ZN only)
- ___ -VP Vandal Proof Screws
- ___ -X Round Top Recessed for 1/8[3] Tile (ZB or ZN only)
- ___ -Z Round Top Recessed for 1 1/4[32] Terrazzo (ZB or ZN only)

Dimensions In Inches			Approx. Wt. Lbs. [kg]
A-Pipe Size	C	E	
Inside Caulk			
2 [50]	6 1/8 [156]	6 7/8 [175]	6 [3]
3 [75]	6 1/8 [156]	6 7/8 [175]	8 [4]
4 [100]	7 1/4 [184]	6 7/8 [175]	9 [4]
5 [125]	8 1/4 [210]	6 7/8 [175]	12 [5]
6 [150]	9 1/4 [235]	6 7/8 [175]	15 [7]
No-Hub			
3 [75]	4 1/8 [105]	5 3/8 [137]	8 [4]
4 [100]	5 1/8 [130]	5 3/8 [137]	9 [4]
5 [125]	7 1/4 [184]	7 1/2 [191]	12 [5]
6 [150]	8 1/4 [210]	7 1/2 [191]	15 [7]
8 [200]	9 1/4 [235]	7 1/2 [191]	21 [10]
Neo-Loc			
2 [50]	4 1/8 [105]	5 3/8 [137]	6 [3]
3 [75]	5 1/8 [130]	5 3/8 [137]	8 [4]
4 [100]	5 1/8 [130]	5 3/8 [137]	9 [4]
5 [125]	7 1/4 [184]	6 1/2 [165]	12 [5]
6 [150]	8 1/4 [210]	6 1/2 [165]	15 [7]
8 [200]	9 1/4 [235]	6 1/2 [165]	21 [10]

PIPE SIZE

- 2 thru 6 [50 thru 150]
- 3 thru 6, 8 [75 thru 150, 200]
- 2 thru 6, 8 [50 thru 150, 200]

(Specify size/type) **OUTLET**

- ___ IC Inside Caulk
- ___ NH No-Hub
- ___ NL Neo-Loc

'E' BODY HT. DIM.

- See Chart
- See Chart
- See Chart

REV. G	DATE: 11/6/97	C.N. NO. 78904
DWG. NO. 58757	PRODUCT NO. Z-1400	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FCO-4

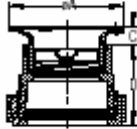
DESCRIPTION: ACID WASTE FLOOR CLEANOUT - POLYPROPYLENE [PVDF] THREADED ADJUSTABLE BODY, GAS AND WATER TIGHT TAPERED PLUG AND ROUND [SQUARE] SECURED NICKEL BRONZE [STAINLESS STEEL] TOP.

MANUFACTURER & CATALOG NO.: ORION FCO, ZURN Z9A-CO1

Notes to specifier:

1. Zurn floor cleanouts have stainless steel tops as a standard.
2. Use PVDF in return air plenums.
3. Verify floor finish and if square or round tops are required. Zurn does not have a square top.

Z9A-CO1 ADJUSTABLE FLOOR CLEANOUT



Model #	Dimensions in Inches (mm)					-F Unit Price	-H Unit Price
	Inn. Pipe Size	A	D	C			
				min.	max.		
Z9A-CO1-3	3	5-3/16	3-19/32	1	1-1/2	\$ 217.00	\$ 206.00
Z9A-CO1-4	4	5-3/16	3-11/16	1	1-1/2	217.00	206.00

Engineering Specification: ZURN Z9A-CO1 ADJUSTABLE FLOOR CLEANOUT – Polypropylene body with gas and water-tight taper plug complete with stainless steel top assembly with scotized cover.

FD-1

DESCRIPTION: FLOOR DRAIN - [5][6][7][8][9][10]" [DIAMETER] [4x4][5x5][6x6][8x8][9x9] [SQUARE] NICKEL BRONZE ADJUSTABLE TOP [WITH SURFACE MEMBRANE CLAMP], [2][3][4]" BOTTOM OUTLET, CAST IRON BODY, FLASHING COLLAR, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-415, SMITH 2005, WADE 1100, JOSAM 30000, WATTS FD-100, MIFAB F1100

Note to specifier:

1. Standard floor drain for general applications.
2. Edit size required.
3. Surface membrane clamp to be used with specialty flooring systems. Verify requirements with architect. Only available in 6" or 7" (depending on manufacturer) and 9" diameter sizes. Mifab does not offer this option.

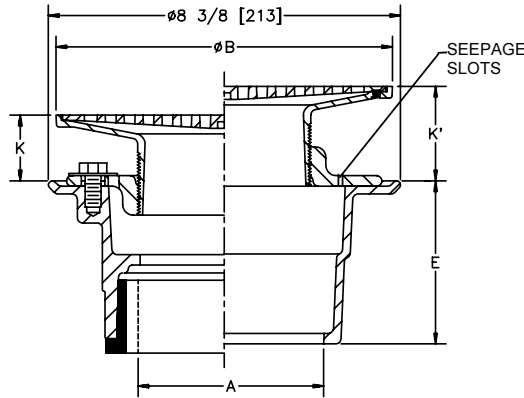


Z-415
BODY ASSEMBLY WITH
"TYPE B" STRAINER

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A - Pipe Size	B Strainer Dia.	Dimensions In Inches				Approx. Wt. Lbs. [kg]	Strainer Open Area Sq. In. [cm ²]
		K		K'			
		Min.	Max.	Min.	Max.		
2-3 [50-75]	5 [127]	1/2 [13]	1 5/8 [41]	1 3/8 [35]	2 3/8 [60]	11 [5]	8 [52]
2-3-4 [50-75-100]	6 [152]	3/4 [19]	1 3/4 [44]	1 5/8 [41]	2 3/4 [70]	13 [6]	9 [58]
2-3-4 [50-75-100]	7 [178]	1 [25]	2 1/4 [57]	2 [51]	3 1/8 [79]	14 [6]	12 [77]
3-4 [75-100]	8 [203]	1 1/8 [29]	2 1/4 [57]	2 [51]	3 1/8 [79]	16 [7]	18 [116]
6 [150]	8 [203]	1 1/8 [29]	2 1/4 [57]	2 [51]	3 1/8 [79]	18 [8]	18 [116]
6 [150]	10 [254]	1 5/8 [41]	2 5/8 [67]	2 5/8 [67]	3 1/2 [89]	22 [10]	26 [168]

ENGINEERING SPECIFICATION: ZURN ZN-415 Floor and shower drain, Dura-Coated cast iron body with bottom outlet, combination invertible membrane clamp and adjustable collar with seepage slots and "TYPE B" polished nickel bronze strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET	'E' BODY HT. DIM.
2 thru 4 [50 thru 100]	_____	IC Inside Caulk	3 7/8 [98]
2 [50]	_____	IP Threaded	2 3/8 [60]
3 [75]	_____	IP Threaded	2 5/8 [67]
4 [100]	_____	IP Threaded	2 7/8 [73]
6 [150]	_____	IP Threaded	2 3/4 [70]
2 thru 4 [50 thru 100]	_____	NH No-Hub	3 7/8 [98]
2 thru 4 [50 thru 100]	_____	NL Neo-Loc	4 5/8 [117]

- PREFIXES**
- _____ ZB- D.C.C.I. Body Assembly w/Polished Bronze Top
 - _____ ZN- D.C.C.I. Body Assembly w/Polished Nickel Bronze Top*
 - _____ ZS- D.C.C.I. Body Assembly w/6 [152] Dia. Stainless Steel Top

- SUFFIXES**
- _____ -AR Acid Resisting Epoxy Coated Cast Iron
 - _____ -G Galvanized Cast Iron
 - _____ -HD Heavy Duty Grate
 - _____ -P Trap Primer Connection (Specify 1/2 [13] or 3/4 [19])
 - _____ -U 3 [76] High Extension Adapter
 - _____ -V Backwater Valve
 - _____ VP Vandal Proof Secured Top
 - _____ -Y Sediment Bucket
 - _____ -90 90° Threaded Side Outlet Body (2 [50], 3 [75] Only)

REV. C	DATE: 03/24/97	C.N. NO. 77706
DWG. NO. 58789	PRODUCT NO. Z-415-B	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514 • Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR DRAIN - 9" ROUND MEDIUM DUTY CAST/DUCTILE IRON TOP [WITH SURFACE MEMBRANE CLAMP], [2][3][4]" BOTTOM OUTLET, SHALLOW SUMP WITH FREE STANDING SEDIMENT BUCKET, CAST IRON BODY, FLASHING COLLAR, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-550, SMITH 2110, WADE 1310, JOSAM 32100. WATTS FD-300, MIFAB F1320

Note to specifier:

1. Edit outlet size required.
2. Surface membrane clamp to be used with specialty flooring systems. Verify requirements with architect. Smith is the only manufacturer that offers this option for 9" cast iron drains.



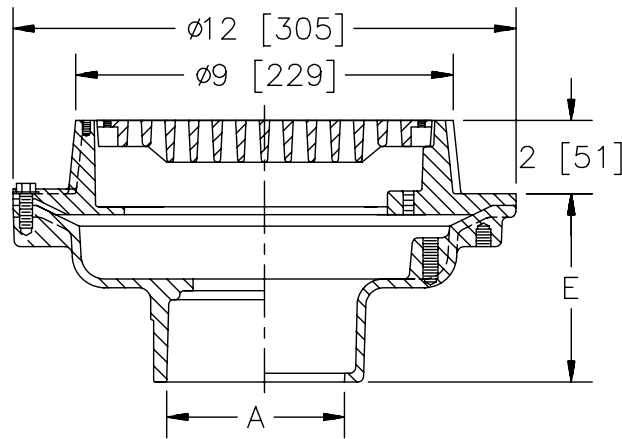
Z-550

9" [229] DIAMETER MEDIUM DUTY DRAIN

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4-6 [50-75-100-150]	16 [7]	14 [90]

ENGINEERING SPECIFICATION: ZURN Z-550 9 [229] Diameter top drain, Dura-Coated cast iron body with bottom outlet, seepage pan and medium duty cast iron anti-tilt slotted grate and combination membrane flashing clamp and frame.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type) OUTLET	'E' BODY HT. DIM.
2, 3, 4 [50, 75, 100]	___ IC Inside Caulk	3 3/4 [95]
2, 3, 4 [50, 75, 100]	___ IG Inside Caulk w/Sealtrol Gskt.	3 3/4 [95]
2, 3, 4 [50, 75, 100]	___ IP Threaded	2 3/4 [70]
2, 3, 4 [50, 75, 100]	___ NH No-Hub	4 3/4 [121]
2, 3, 4 [50, 75, 100]	___ NL Neo-Loc	3 1/2 [89]
6 [150]	___ NH No-Hub	5 1/4 [133]

PREFIXES

- ___ Z- D.C.C.I. Body and Grate*
- ___ ZB- D.C.C.I. Body with Polished Bronze Grate (Add 3/16 [5] to 2 [51] Dim.)
- ___ ZN- D.C.C.I. Body with Polished Nickel Bronze Grate (Add 3/16 [5] to 2 [51] Dim.)

SUFFIXES

- | | |
|--|--|
| ___ -AR Acid Resisting Epoxy Coated Interior | ___ -T Square Top |
| ___ -D Dome Grate | ___ -TG Tractor Grate |
| ___ -DF Deflector Grate | ___ -V Backwater Valve (See Z-1099) |
| ___ -DG Duresist Grate | ___ -VP Vandal Proof Secured Top |
| ___ -G Galvanized Cast Iron | ___ -Y Sediment Bucket |
| ___ -GG Galvanized Grate | ___ -90 90° Threaded Side Outlet Body (2 thru 4 [50 thru 100]) |
| ___ -P Trap Primer Connection | |
| ___ -S Secondary Strainer | |
| ___ -SS Stainless Mesh Liner for Bucket | |

REV. B	DATE: 03/05/97	C.N. NO. 77449
DWG. NO. 58947		PRODUCT NO. Z-550

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514 • Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR DRAIN - 12" ROUND HEAVY DUTY CAST/DUCTILE IRON TOP [WITH SURFACE MEMBRANE CLAMP], [2][3][4][6][8]" BOTTOM OUTLET, MEDIUM SUMP WITH FREE STANDING SEDIMENT BUCKET, CAST IRON BODY, FLASHING COLLAR, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-541, SMITH 2142, WADE 1210, WATTS FD-340, MIFAB F1340

Note to specifier:

1. Edit outlet size required.
2. Surface membrane clamp to be used with specialty flooring systems. Verify requirements with architect. Smith is the only manufacturer that offers this option for 12" cast iron drains.

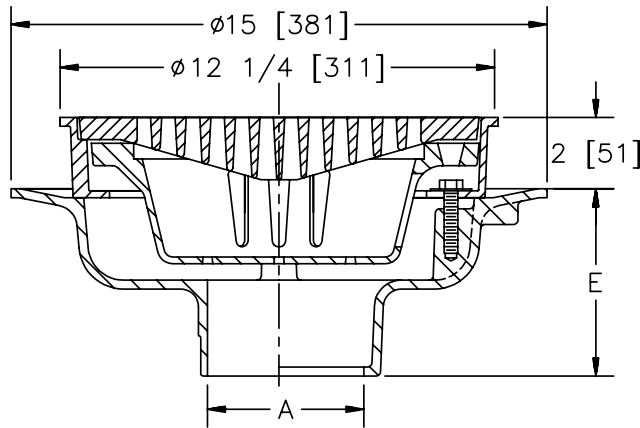


Z-541
12" [305] DIAMETER HEAVY DUTY DRAIN

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4-5-6 [50-75-100-125-150]	52 [24]	29 [187]
8-10 [200-250]	54 [24]	

ENGINEERING SPECIFICATION: ZURN Z-541 12 [305] Diameter top drain. Dura-Coated cast iron body with bottom outlet, seepage pan and combination membrane flashing clamp and frame for anti-tilt heavy duty slotted grate with suspended sediment bucket.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET	'E' BODY HT. DIM.
2 thru 6, 8, 10 [50 thru 150, 200, 250]	_____	IC Inside Caulk	5 1/4 [133]
2 thru 6, 8, 10 [50 thru 150, 200, 250]	_____	IG Inside Caulk w/Sealtrol Gskt.	5 1/4 [133]
2 thru 6, 8, 10 [50 thru 150, 200, 250]	_____	IP Threaded	3 3/4 [95]
2 thru 6, 8, 10 [50 thru 150, 200, 250]	_____	NH No-Hub	5 1/4 [133]
2 thru 4 [50 thru 100]	_____	NL Neo-Loc	4 5/8 [117]

PREFIXES

- _____ Z- D.C.C.I. Body and Grate*
- _____ ZB- D.C.C.I. Body with Polished Bronze Grate (Add 3/16 [5] to 2 [51] Dim.)
- _____ ZN- D.C.C.I. Body with Polished Nickel Bronze Grate (Add 3/16 [5] to 2 [51] Dim.)

SUFFIXES

- _____ -AR Acid Resisting Epoxy Coated Cast Iron
- _____ -DG Duresist Grate
- _____ -DX Dex-o-tex Flange (See Z-532)
- _____ -G Galvanized Cast Iron
- _____ -LY (Less) Sediment Bucket
- _____ -P Trap Primer Connection
- _____ -TG Tractor Grate
- _____ -S Secondary Strainer
- _____ -SS Stainless Mesh Liner for Bucket
- _____ -V Backwater Valve (See Z-1099)
- _____ -VP Vandal Proof Secured Top
- _____ -90 90° Threaded Side Outlet Body (2 thru 6 [50 thru 150])

REV. C	DATE: 03/05/97	C.N. NO. 77445
DWG. NO. 58944		PRODUCT NO. Z-541

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR DRAIN - 12" ROUND HEAVY DUTY CAST/DUCTILE IRON TOP, [2][3][4][6][8]" BOTTOM OUTLET, DEEP SUMP WITH FREE STANDING SEDIMENT BUCKET, CAST IRON BODY, FLASHING COLLAR, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-539, SMITH 2242, JOSAM 36340, MIFAB F1350, WADE 1220

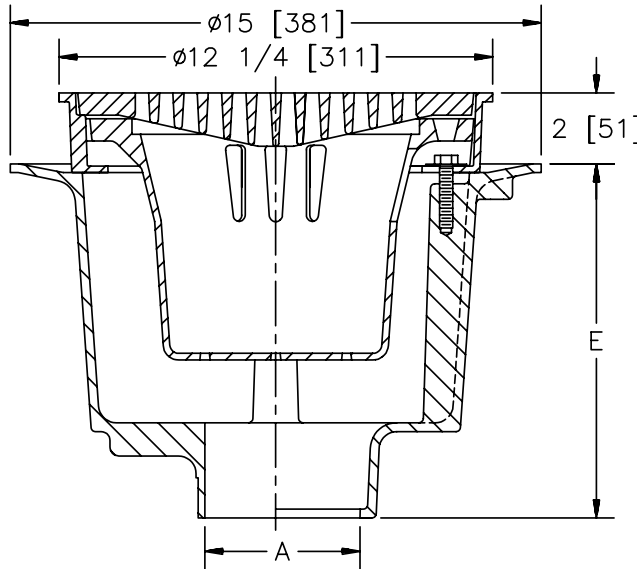


Z-539
12" [305] HEAVY DUTY DRAIN
WITH DEEP SUMP

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
3-4-5-6 [75-100-125-150]	68 [31]	30 [194]
8 [200]		

ENGINEERING SPECIFICATION: ZURN Z-539 12 [305] Diameter top drain. Dura-Coated cast iron deep sump body with bottom outlet, seepage pan and combination membrane flashing clamp and frame for sediment bucket and heavy duty slotted grate.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

- 3 thru 6 [75 thru 150]
- 3 thru 6 [75 thru 150]
- 3 thru 6, 8 [75 thru 150, 200]

(Specify size/type) **OUTLET**

- ___ IC Inside Caulk
- ___ IG Inside Caulk w/Sealtrol Gskt.
- ___ NH No-Hub

'E' BODY HT. DIM.

- 10 [254]
- 10 [254]
- 10 [254]

PREFIXES

- ___ Z- D.C.C.I. Body and Grate*
- ___ ZB- D.C.C.I. Body with Polished Bronze Grate (Add 3/16 [5] to 2 [51] Dim.)
- ___ ZN- D.C.C.I. Body with Polished Nickel Bronze Grate (Add 3/16 [5] to 2 [51] Dim.)

SUFFIXES

- ___ -DG Duresist Grate
- ___ -FY Free Standing Bucket
- ___ -G Galvanized Cast Iron
- ___ -T Square Top
- ___ -VP Vandal Proof Secured Top

REV. B	DATE: 03/05/97	C.N. NO. 77443
DWG. NO. 58942		PRODUCT NO. Z-539

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR DRAIN - 12" x 12" HEAVY DUTY CAST IRON TOP, [3][4][6]" BOTTOM OUTLET, DEEP SUMP WITH SUSPENDED PERFORATED SEDIMENT BUCKET, CAST IRON BODY, FLASHING COLLAR, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: SMITH 2415, JOSAM 35620A, MIFAB F1480

Note to specifier: Edit size required.



F	JAY R. SMITH MFG. CO. DIVISION OF SMITH INDUSTRIES, INC. POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396		LOCATION _____ _____ _____																											
DRAWING NUMBER S2450	<h2 style="margin: 0;">TRAFFIC FLOOR DRAINS</h2> <h3 style="margin: 0;">LARGE CAPACITY SEDIMENT BUCKET</h3>																													
SCALE: NONE	<p>FUNCTION: Used in heavy traffic areas in industrial plants and boiler rooms. Solid bottom suspended sediment bucket collects debris such as sand, grit and other solids. Large top and deep body will handle large flow of water.</p>																													
DATE: 5-17-85																														
APPROVED BY: TD	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50px;">A SIZE</td> <td>03 (80)</td> <td>04 (100)</td> <td>05 (125)</td> <td>06 (150)</td> </tr> <tr> <td>B</td> <td>8 1/4 (210)</td> <td>7 3/4 (195)</td> <td>7 1/4 (185)</td> <td>6 3/4 (170)</td> </tr> </table>			A SIZE	03 (80)	04 (100)	05 (125)	06 (150)	B	8 1/4 (210)	7 3/4 (195)	7 1/4 (185)	6 3/4 (170)																	
A SIZE	03 (80)	04 (100)	05 (125)	06 (150)																										
B	8 1/4 (210)	7 3/4 (195)	7 1/4 (185)	6 3/4 (170)																										
CHECKED BY: TD	<p>A (Pipe Size) = 03(80), 04(100), 05(125), or 06(150)</p> <p> </p>																													
DRAWN BY: PJ	<p> REGULARLY FURNISHED: Fabricated Steel Body with Galvanized Coating Inside and Outside and Cast Iron Grate and Stainless Steel Ported Bucket, with Mesh Screen and Lift Bar. </p> <p> VARIATIONS: </p> <p> OPTIONAL MATERIALS: </p> <p>NOTE: Dimensions shown in parentheses are in millimeters.</p>																													
2450, 2455 DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50px;">F</td> <td>7-19-96</td> <td>Chg'd Reg Furn</td> <td>EMB</td> <td>BS</td> <td rowspan="4" style="text-align: center; vertical-align: middle;"> WEIGHT POUNDS VOLUME CUBIC FEET FIGURE NUMBER <h2 style="margin: 0;">2450, 2455</h2> </td> </tr> <tr> <td>D</td> <td>10-23-95</td> <td>Chg'd Reg Furn</td> <td>EMB</td> <td>BS</td> </tr> <tr> <td>C</td> <td>6-15-95</td> <td>Added Millimeters</td> <td>EMB</td> <td>BS</td> </tr> <tr> <td></td> <td>10-6-93</td> <td>Submital Update</td> <td>EMB</td> <td>BS</td> </tr> <tr> <td>REV.</td> <td>DATE</td> <td>DESCRIPTION</td> <td>BY</td> <td>CKD. BY</td> <td></td> </tr> </table>			F	7-19-96	Chg'd Reg Furn	EMB	BS	WEIGHT POUNDS VOLUME CUBIC FEET FIGURE NUMBER <h2 style="margin: 0;">2450, 2455</h2>	D	10-23-95	Chg'd Reg Furn	EMB	BS	C	6-15-95	Added Millimeters	EMB	BS		10-6-93	Submital Update	EMB	BS	REV.	DATE	DESCRIPTION	BY	CKD. BY	
F	7-19-96	Chg'd Reg Furn	EMB	BS	WEIGHT POUNDS VOLUME CUBIC FEET FIGURE NUMBER <h2 style="margin: 0;">2450, 2455</h2>																									
D	10-23-95	Chg'd Reg Furn	EMB	BS																										
C	6-15-95	Added Millimeters	EMB	BS																										
	10-6-93	Submital Update	EMB	BS																										
REV.	DATE	DESCRIPTION	BY	CKD. BY																										

FD-6

DESCRIPTION: SMALL AREA PLANTING DRAIN - 4" BRONZE DOME WITH STAINLESS STEEL MESH SCREEN, [2][3][4]" BOTTOM OUTLET, CAST IRON BODY, BRONZE FLASHING CLAMP, NO TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-352, SMITH 2670, MIFAB R1400

Note to specifier: Install running trap with cleanouts downstream from floor drain. Connect to sanitary sewer. Edit size required.

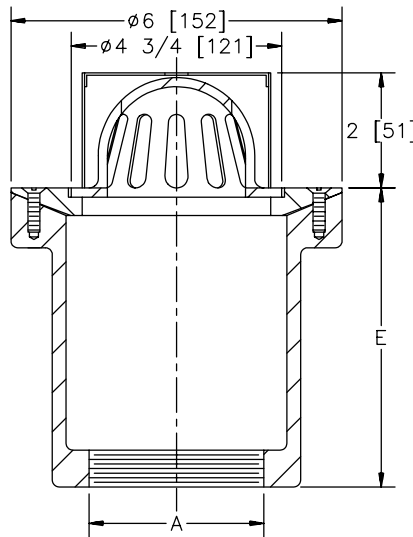


Z-352
SMALL PLANTING AREA DRAIN

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A-Pipe Size Inches	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
3 [75]	5 [2]	12 [77]
4 [100]	7 [3]	12 [77]

ENGINEERING SPECIFICATION: ZURN ZRB-352 6 [152] Diameter Small Area Planting Drain, Dura-Coated cast iron body with bottom outlet, plain bronze membrane flashing clamp and dome strainer with stainless steel mesh screen over dome.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

3, 4 [75, 100]

(Specify size/type) **OUTLET**

____ IP Threaded

'E' BODY HT. DIM.

4 [102]

PREFIXES

____ ZRB- D.C.C.I. Body w/Bronze Dome and Stainless Steel Mesh Screen*

SUFFIXES

- ____ -G Galvanized Cast Iron
- ____ -VP Vandal Proof Secured Top
- ____ -45 45° Side Outlet
- ____ -90 90° Side Outlet

REV. B DATE: 03/05/97 C.N. NO. 77378

DWG. NO. 58982 PRODUCT NO. Z-352

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FD-7

DESCRIPTION: LARGE AREA PLANTING DRAIN - 10" CAST IRON DOME WITH STAINLESS STEEL MESH SCREEN, 2" [3" [4" [6"]" BOTTOM OUTLET, CAST IRON BODY, FLASHING CLAMP, NO TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-348, SMITH 2675, JOSAM 39600, MIFAB F1820

Note to specifier: Install running trap with cleanouts downstream from floor drain. Connect to sanitary sewer. Edit size required.

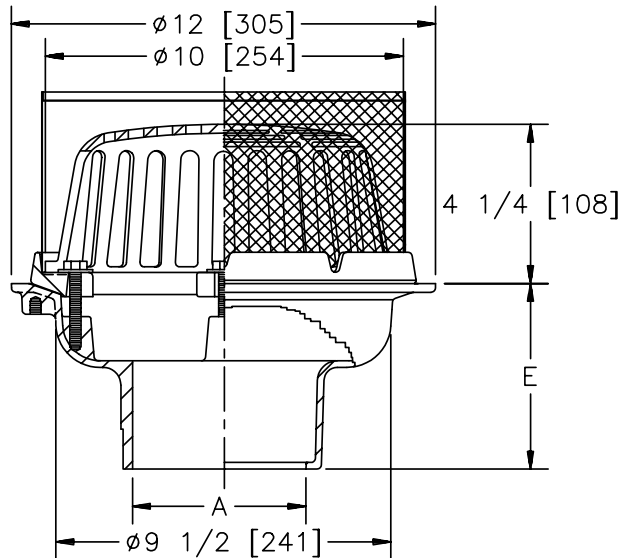


Z-348
DOME TYPE PLANTING AREA DRAIN

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A-Pipe Size Inches	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
2-3-4-6 [50-75-100-150]	23 [10]	78 [503]

ENGINEERING SPECIFICATION: ZURN Z-348 Dome type planting area drain, Dura-Coated cast iron body with bottom outlet complete with combination membrane flashing clamp/gravel guard, low silhouette dome and stainless steel mesh screen over dome.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIM.

2 thru 4, 6 [50 thru 100, 150]	___ IC Inside Caulk	5 1/4 [133]
2 thru 4, 6 [50 thru 100, 150]	___ IG Inside Caulk w/Sealtrol Gskt.	5 1/4 [133]
2 thru 4, 6 [50 thru 100, 150]	___ IP Threaded	3 3/4 [95]
2 thru 4, 6 [50 thru 100, 150]	___ NH No-Hub	5 1/4 [133]
2 thru 4 [50 thru 100]	___ NL Neo-Loc	4 5/8 [117]

PREFIXES

- ___ Z- D.C.C.I Body, Clamping Collar and Dome*
- ___ ZB- D.C.C.I Body, Clamping Collar and Bronze Dome*

SUFFIXES

- ___ -G Galvanized Cast Iron

REV. B DATE: 03/05/97 C.N. NO. 77375

DWG. NO. 58979 PRODUCT NO. Z-348

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR DRAIN - CAST IRON BODY, [2][3][4][6]" OUTLET, DEEP SEAL TRAP, ADJUSTABLE TOP, [7][9]" DIAMETER NICKEL BRONZE DEPRESSED RIM STRAINER.

MANUFACTURER & CATALOG NO.: ZURN Z-415, SMITH 2010, WADE 1100, JOSAM 30000, WATTS FD-100, MIFAB F1100

Note to specifier: Verify acceptability with local codes. Not allowed in Des Moines. Edit size required.

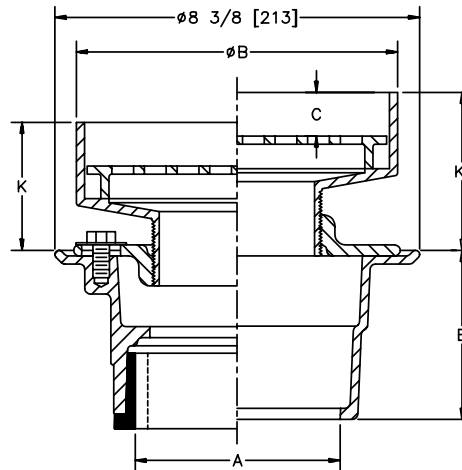


Z-415
BODY ASSEMBLY WITH
"TYPE I" STRAINER

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Dimensions In Inches							Approx. Wt. Lbs. [kg]	Strainer Open Area Sq. In. [cm ²]
A - Pipe Size	B Strainer Dia.	C	K		K'			
			Min.	Max.	Min.	Max.		
2-3 [50-75]	5 [127]	3/4 [19]	1 5/8 [41]	2 3/4 [70]	2 1/2 [64]	3 1/2 [89]	14 [6]	8 [52]
2-3-4 [50-75-100]	7 [178]	1 [25]	2 1/4 [57]	2 3/8 [60]	3 1/8 [79]	4 1/4 [108]	19 [9]	13 [84]
3-4 [75-100]	9 [229]	1 [25]	2 [51]	3 [76]	2 7/8 [73]	4 [102]	23 [10]	23 [148]
6 [150]	9 [229]	1 [25]	2 [51]	2 7/8 [73]	2 7/8 [73]	4 [102]	23 [10]	23 [148]

ENGINEERING SPECIFICATION: ZURN ZN-415 Floor and shower drain, Dura-Coated cast iron body with bottom outlet, combination invertible membrane clamp and adjustable collar with "TYPE I" polished nickel bronze strainer with raised flange.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIM.

2 thru 4 [50 thru 100]	_____	IC	Inside Caulk	3 7/8 [98]
2 [50]	_____	IP	Threaded	2 3/8 [60]
3 [75]	_____	IP	Threaded	2 5/8 [67]
4 [100]	_____	IP	Threaded	2 7/8 [73]
6 [150]	_____	IP	Threaded	2 3/4 [70]
2 thru 4 [50 thru 100]	_____	NH	No-Hub	3 7/8 [98]
2 thru 4 [50 thru 100]	_____	NL	Neo-Loc	4 5/8 [117]

PREFIXES

_____ ZB- D.C.C.I. Body Assembly w/Polished Bronze Top
 _____ ZN- D.C.C.I. Body Assembly w/Polished Nickel Bronze Top*

SUFFIXES

_____ -AR Acid Resisting Epoxy Coated Cast Iron
 _____ -G Galvanized Cast Iron
 _____ -P Trap Primer Connection (Specify 1/2 [13] or 3/4 [19])
 _____ -U 3 [76] High Extension Adapter
 _____ -V Backwater Valve
 _____ -Y Sediment Bucket
 _____ -90 90° Threaded Side Outlet Body (2 [50], 3 [75] Only)

REV. B DATE: 03/05/97 C.N. NO. 77406

DWG. NO. 58797 PRODUCT NO. Z-415-I

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FD-9

DESCRIPTION: FLOOR DRAIN - 7" DIAMETER NICKEL BRONZE ADJUSTABLE TOP WITH 4" DIAMETER FUNNEL, [2][3][4]" BOTTOM OUTLET, CAST IRON BODY, FLASHING COLLAR, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-415, SMITH 2010, WADE 1100, JOSAM 30000, WATTS FD-100, MIFAB F1100

Note to specifier: Edit size required.

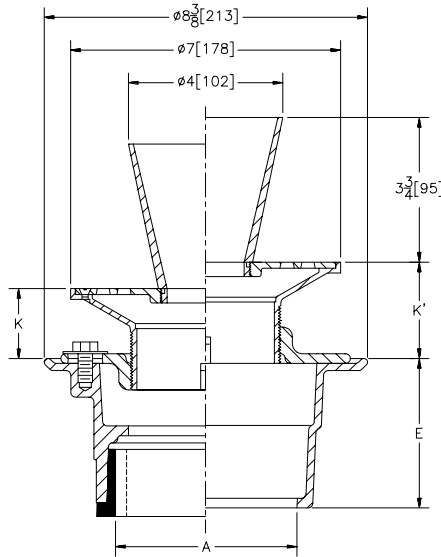


Z-415
BODY ASSEMBLY WITH
"TYPE E" STRAINER

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A - Pipe Size	Dimensions In Inches				Approx. Wt. Lbs. [kg]	Strainer Open Area Sq. In. [cm ²]
	K		K'			
	Min.	Max.	Min.	Max.		
2-3-4 [50-75-100]	1 [25]	2 1/4 [57]	2 [51]	3 1/8 [79]	19 [9]	5 [32]

ENGINEERING SPECIFICATION: ZURN ZN-415 Floor and shower drain, Dura-Coated cast iron body with bottom outlet, combination invertible membrane clamp and adjustable collar with "TYPE E" polished, nickel bronze strainer with 4 [102] diameter funnel.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIM.

2 thru 4 [50 thru 100]	_____	IC	Inside Caulk	3 7/8 [98]
2 [50]	_____	IP	Threaded	2 3/8 [60]
3 [75]	_____	IP	Threaded	2 5/8 [67]
4 [100]	_____	IP	Threaded	2 7/8 [73]
2 thru 4 [50 thru 100]	_____	NH	No-Hub	3 7/8 [98]
2 thru 4 [50 thru 100]	_____	NL	Neo-Loc	4 5/8 [117]

PREFIXES

- _____ ZB- D.C.C.I. Body Assembly w/Polished Bronze Top
- _____ ZN- D.C.C.I. Body Assembly w/Polished Nickel Bronze Top*

SUFFIXES

- _____ -V Backwater Valve
- _____ -VP Vandal Proof Secured Top
- _____ -Y Sediment Bucket

REV. B DATE: 03/05/97 C.N. NO. 77403

DWG. NO. 58793 PRODUCT NO. Z-415-E

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: OPEN SITE HUB DRAIN - TYPE 304 STAINLESS STEEL 4"x8" BODY, ALUMINUM BOTTOM DOME STRAINER, [2][3]" BOTTOM OUTLET, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1720, SMITH 9740

Note to specifier: Edit size required.

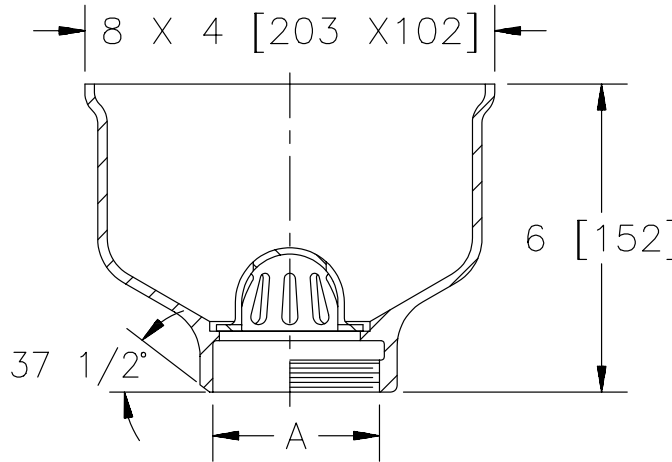


Z-1720
4" x 8" [102 X 203] OPEN SIGHT
DRIP DRAIN

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]
2-3 [50-75]	13 [6]

ENGINEERING SPECIFICATION: ZURN Z-1720 4 x 8 [102 x 203] Open sight drip drain with Type 304 (CF8) stainless steel body and integral aluminum bottom dome strainer, all with plain finish.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

2, 3 [50, 75]

2, 3 [50, 75]

2, 3 [50, 75]

(Specify size/type) **OUTLET**

- ___ BW Butt-weld
(Specify Schedule 10,40 or 80)
- ___ IC Inside Caulk 2, 3 [50, 75]
- ___ IP Threaded

PREFIXES

- ___ Z- Type 304 (CF8) Stainless Steel Body*
- ___ ZC- Type A-27 Carbon Steel Body (P.O.A.)
- ___ ZM- Type 316 (CF8M) Stainless Steel Body

SUFFIXES

- ___ -DB Dome Bottom Strainer
- ___ -FG Flush Grate
- ___ -K Seepage Pan and Seepage Holes
- ___ -KC Seepage Pan With Clamp Collar
- ___ -30 Bronze Closure Plug
- ___ -31 Plastic Closure Plug
- ___ -33 Type 304 Stainless Steel Closure Plug
- ___ -34 Bronze Closure Plug with 3/4 [19] Test Plug

REV. B DATE: 3/5/97 C.N. NO. 77599

DWG. NO. 59289 PRODUCT NO. Z-1720

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FD-11

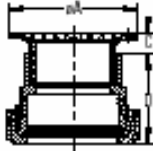
DESCRIPTION: ACID WASTE FLOOR DRAIN - 8" DIAMETER POLYPROPYLENE [PVDF][STAINLESS STEEL] GRATE, [2"][3"][4"][5"][6"] BOTTOM OUTLET, POLYPROPYLENE [PVDF] BODY, FLASHING CLAMP, [SEDIMENT BUCKET][FUNNEL][1/2" TRAP PRIMER CONNECTION], DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ORION AWFSTD, ZURN Z9A-FD, WATTS FD1-BAS

Notes to specifier:

1. Edit size required.
2. Zurn has 5" or 6" top assemblies and 3" or 4" outlet sizes. Zurn tops are stainless steel as a standard.
3. Use PVDF in return air plenums.
4. Watts outlet sizes depend upon outlet connection type. Verify with specification section 15410.
5. Verify need for sediment bucket, funnel, and trap primer connection. Manufacturers listed do not all have these options. Verify with manufacturer.
6. Not for use in heavy duty applications.

Z9A-FD1 ADJUSTABLE FLOOR DRAIN



Model #	Dimensions in Inches (mm)					-F List Price	-H List Price
	Iron Pipe Size	A	D	C			
				min.	max.		
Z9A-FD1-3	3 [76]	5-3/16 [132]	3-19/32 [99]	1 [25]	1-1/2 [38]	\$ 217.00	\$ 206.00
Z9A-FD1-4	4 [102]	5-3/16 [132]	3-11/16 [93]	1 [25]	1-1/2 [38]	217.00	206.00

Engineering Specification: ZURN Z9A-FD1 ADJUSTABLE FLOOR DRAIN – Polypropylene body with bottom outlet and adjustable stainless steel strainer

Options	Description	Add
-FI	4" [102] round stainless steel funnel	\$ 124.00
-AP	ventil. proof	28.00

DESCRIPTION: FEMININE HYGIENE WASHER - [SURFACE MOUNTED][RECESSED MOUNTED WITH WALL MOUNTING BRACKET], PRESSURE BALANCE MIXING VALVE WITH TRIM PLATE AND OFF-COLD-HOT INDICATOR DIAL, COLD AND HOT WATER INLET, CHECK STOPS, PRESSURE ADJUSTMENT, [IN-LINE DUAL CHECK VACUUM BREAKER][ANTI-SIPHON VACUUM BREAKER], VENTED HOSE HANDLE WITH FLOW CONTROL WHICH WILL NOT ALLOW POSITIVE SHUTOFF. ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 105 DEGREE F DISCHARGE. PLUMBING CONTRACTOR TO DEMONSTRATE ADJUSTMENT PROCEDURE TO OWNER. PRESSURE BALANCE MIXING VALVE SHALL BE ASSE 1016 LISTED. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF UNIT AT 30" ABOVE FINISHED FLOOR. THE HANDLE HOLDER SHALL BE MOUNTED 20" ABOVE FINISHED FLOOR. VERIFY EXACT INSTALLATION WITH MANUFACTURER'S RECOMMENDATIONS.

MANUFACTURER & CATALOG NO.: HYGENIQUE MODEL H-7 SERIES

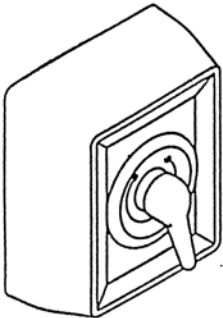
Notes to specifier:

1. For use in LDR or LDRP toilet rooms.
2. Requires a circulated hot water line within 6 feet of unit per manufacturer's recommendations..
3. Verify with local AHJ on backflow prevention required.
4. Verify mounting height with architect. Grab bars would be a conflict.

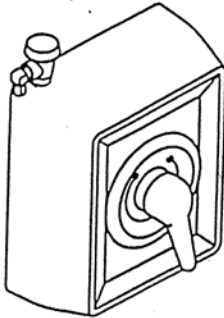
Hygenique™

MODEL 7 SERIES


VALVE ASSEMBLIES



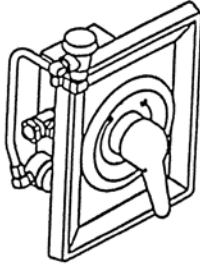
Model 7B3 - Pressure balancing valve. Surface-mounted unit with Watts N9 double check, backflow preventer with atmospheric vent.



Model 7B4 - Pressure balancing valve. Surface-mounted unit with Watts 288A anti-siphon vacuum breaker.



Model 7B5 - Recessed unit designed for new construction or vanity mounting. Internal components are the same as Model 7B3.



Model 7B6 - Recessed unit designed for new construction or vanity mounting. Internal components are the same as Model 7B4.

H-7 Series
Rev. 10/1/98Page 6

DESCRIPTION: FLOOR SINK - 8" DIAMETER NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, SHALLOW RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1970, SMITH 3021, WADE 9000, JOSAM 49200

Note to specifier: Edit size required.

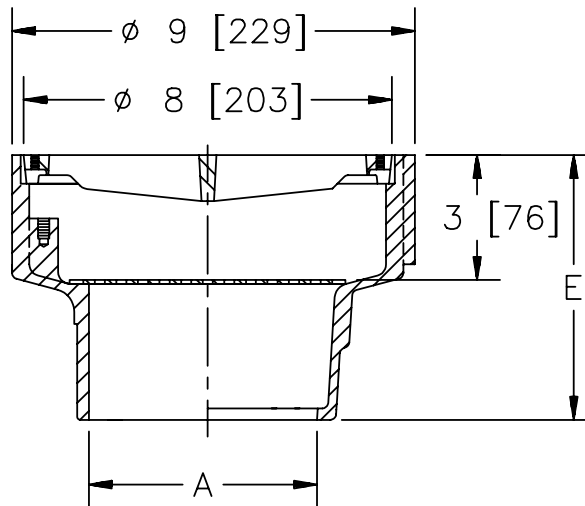


Z-1970
9" [229] DIAMETER SHALLOW A.R.C. SANI-FLOR
RECEPTOR 3" [76] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	14 [6]	18 [116]

ENGINEERING SPECIFICATION: ZURN Z-1970 Sani-Flor Receptor 9 [229] Dia. x 3 [76] deep cast iron body and round slotted medium duty grate, with white acid resisting coated interior and top, complete with aluminum secondary strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	((Specify size/type) OUTLET	'E' BODY HT. DIMENSION	
		Z	ZN
2, 3, 4 [50, 75, 100]	___ IC Inside Caulk	5 3/4 [146]	6 [152]
2, 3, 4 [50, 75, 100]	___ NH No-Hub	5 3/4 [146]	6 [152]

PREFIXES

- ___ Z- Cast Iron Body with White A.R.C. Interior*
- ___ ZN- Cast Iron Body with White A.R.C. Interior, 9 [229] Round N.B. Frame and Full Slotted Grate. (Add 3/16 [5] to 'E' Dim.)

SUFFIXES

- | | |
|--|---|
| ___ -K Seepage Flange With Seepage Holes | ___ -6 Grate w/6 [152] dia. x 6 [152] High Funnel |
| ___ -KC Seepage Flange With Seepage Holes With Clamp Collar | ___ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel |
| ___ -LD (Less) Internal Bottom Dome Strainer | ___ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel |
| ___ -P 1/2 [13] Threaded Trap Primer Connection (See Z-1023) | ___ -11 Vandal Proof Secured Grate |
| ___ -1 (Less) Grate | ___ -16 1/2 Solid Loose Set Cover |
| ___ -2 1/2 Grate | ___ -25 White A.R.E. Bucket |
| ___ -3 3/4 Grate | ___ -31 Stainless Steel Mesh Liner for Bucket |
| ___ -4 Full Grate With 2 [51] Square Opening | |
| ___ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel | |

REV. B DATE: 3/5/97 C.N. NO. 77629

DWG. NO. 59351 PRODUCT NO. Z-1970

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR SINK - 8" DIAMETER NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, MEDIUM RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1960, SMITH 3041, WADE 9010, JOSAM 49220, WATTS FS-720

Note to specifier: Edit size required.

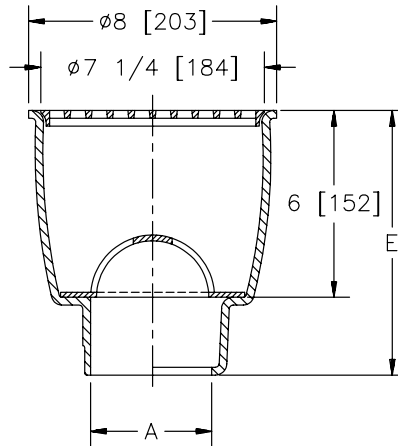


Z-1960
8" [203] DIAMETER A.R.E. SANI-FLORECEPTOR
6" [152] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	25 [11]	15 [97]

ENGINEERING SPECIFICATION: ZURN Z-1960 Sani-Flor Receptor 8 [203] Dia. x 6 [152] deep cast iron body and square slotted medium duty grate, with white acid resisting porcelain enamel interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIMENSION

- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]

- ___ IC Inside Caulk
- ___ NH No-Hub
- ___ NL Neo-Loc

- | | |
|-------------|-------------|
| Z | ZN |
| 8 1/2 [216] | 9 [229] |
| 8 1/2 [216] | 9 [229] |
| 8 [203] | 8 1/2 [216] |

PREFIXES

- ___ Z- Cast Iron Body with White A.R.E. Interior*
- ___ ZN- Cast Iron Body with White A.R.E. Interior, 8 1/2 [216] N.B. Frame and Full Grate with 1/4 [6] Square Openings +Add 1/2 [13] to 8 [203] Dim. and 3/8 [10] to 'E' Dim.

SUFFIXES

- | | |
|---|---|
| ___ -K Seepage Flange With Seepage Holes | ___ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel |
| ___ -KC Seepage Flange With Seepage Holes With Clamp Collar | ___ -11 Vandal Proof Secured Grate |
| ___ -LD (Less) Internal Bottom Dome Strainer | ___ -12 Depressed Aluminum Grate |
| ___ -P 1/2 [13] Threaded Trap Primer Connection (See Z-1023) | ___ -15 Solid Loose Set Cover |
| ___ -T Square Top | ___ -16 1/2 Solid Loose Set Cover |
| ___ -1 (Less) Grate | ___ -17 3/4 Solid Loose Set Cover |
| ___ -2 1/2 Grate | ___ -18 Solid Loose Set Cover With 2 [51] Square Center Opening |
| ___ -3 3/4 Grate | ___ -23 Aluminum Bucket |
| ___ -4 Full Grate With 2 [51] Square Opening | ___ -25 White A.R.E. Bucket |
| ___ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel | ___ -31 Stainless Steel Mesh Liner for Bucket |
| ___ -6 Grate w/6 [152] dia. x 6 [152] High Funnel | ___ -33 White A.R.E. Anti-Splash Bottom Dome Strainer |
| ___ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel | |

REV. C DATE: 5/6/97 C.N. NO. 77628

DWG. NO. 59350 PRODUCT NO. Z-1960

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FS-3

DESCRIPTION: FLOOR SINK - 12" DIAMETER NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, DEEP RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1950, SMITH 3061, JOSAM 49280, WATTS FS-760

Note to specifier: Edit size required.

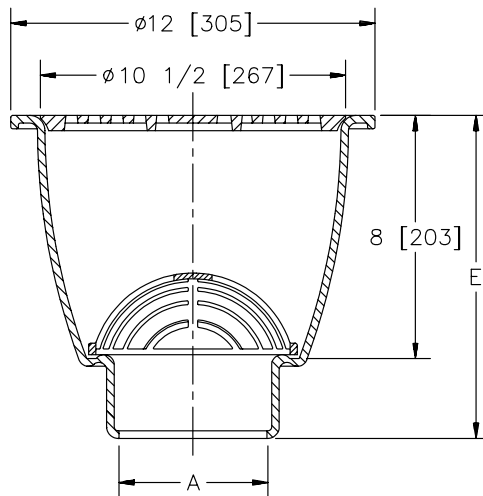


Z-1950
12" [305] DIAMETER A.R.E. SANI-FLOR RECEPTOR
8" [203] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	34 [15]	22 [142]

ENGINEERING SPECIFICATION: ZURN Z-1950 Sani-Flor Receptor 12 [305] Dia. x 8 [203] deep cast iron body and square slotted medium duty grate, with white acid resisting porcelain enamel interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIMENSION

- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]

- ___ IC Inside Caulk
- ___ NH No-Hub
- ___ NL Neo-Loc

Z	ZN
10 5/8 [270]	11 [279]
10 5/8 [270]	11 [279]
10 [254]	10 3/8 [264]

PREFIXES

- ___ Z- Cast Iron Body with White A.R.E. Interior*
- ___ ZN- Cast Iron Body with White A.R.E. Interior, 12 1/2 [321] N.B. Frame and Full Grate with 1/4 [6] Square Openings+
 +Add 1/2 [13] to 12 [305] Dim. and 3/8 [10] to 'E' Dim.

SUFFIXES

- ___ -K Seepage Flange With Seepage Holes
- ___ -KC Seepage Flange With Seepage Holes With Clamp Collar
- ___ -LD (Less) Internal Bottom Dome Strainer
- ___ -P 1/2 [13] Threaded Trap Primer Connection (See Z-1023)
- ___ -1 (Less) Grate
- ___ -2 1/2 Grate
- ___ -3 3/4 Grate
- ___ -4 Full Grate With 2 [51] Square Opening
- ___ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel
- ___ -6 Grate w/6 [152] dia. x 6 [152] High Funnel
- ___ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel
- ___ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel
- ___ -11 Vandal Proof Secured Grate
- ___ -12 Depressed Aluminum Grate
- ___ -15 Solid Loose Set Cover
- ___ -16 1/2 Solid Loose Set Cover
- ___ -17 3/4 [19] Solid Loose Set Cover
- ___ -18 Solid Loose Set Cover With 2 [51] Square Center Opening
- ___ -23 Aluminum Bucket
- ___ -25 White A.R.E. Bucket
- ___ -31 Stainless Steel Mesh Liner for Bucket
- ___ -33 White A.R.E. Anti-Splash Bottom Dome Strainer

REV. B	DATE: 5/6/97	C.N. NO. 77627
DWG. NO. 59349	PRODUCT NO. Z-1950	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FS-4

DESCRIPTION: FLOOR SINK - 8" x 8" NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, MEDIUM RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1910, SMITH 3101, WADE W-9110, JOSAM 49000, WATTS FS-710

Note to specifier: Verify if 3/4 or 1/2 grate is required. Edit size required.

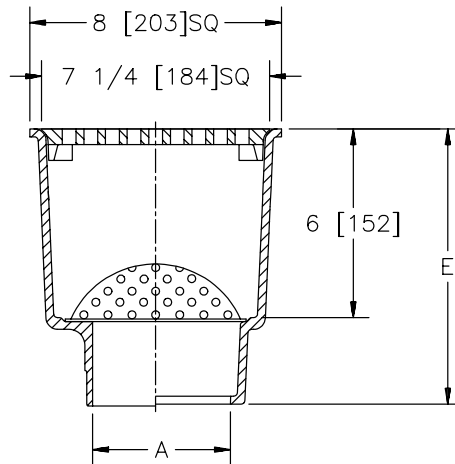


Z-1910
8 X 8 [203 X 203] A.R.E. SANI-FLOOR
RECEPTOR 6 [152] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	25 [11]	19 [123]

ENGINEERING SPECIFICATION: ZURN Z-1910 Sani-Floor Receptor 8x8 x 6 [203 x 203 x 152] deep cast iron body and square slotted medium duty grate, with white acid resisting porcelain enamel interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]

(Specify size/type) **OUTLET**

- ___ IC Inside Caulk
- ___ NH No-Hub
- ___ NL Neo-Loc

'E' BODY HT. DIMENSION

- | | |
|-------------|-------------|
| Z | ZN |
| 8 3/4 [222] | 9 1/4 [235] |
| 8 5/8 [219] | 9 1/8 [232] |
| 8 [203] | 8 1/2 [216] |

PREFIXES

- ___ Z- Cast Iron Body with White A.R.E. Interior*
- ___ ZN- Cast Iron Body with White A.R.E. Interior, 8 1/2 [216] Square N.B. Frame and Full Grate with 1/4 [6] Square Openings (Add 1/2 [13] to 8 [203] and 'E' Dim.)

SUFFIXES

- | | |
|---|---|
| ___ -DX Dex-O-Tex Flange (ZB,ZN only) | ___ -11 Vandal Proof Secured Grate |
| ___ -K Seepage Flange With Seepage Holes | ___ -12 Depressed Aluminum Grate |
| ___ -KC Seepage Flange With Seepage Holes With Clamp Collar | ___ -15 Solid Loose Set Cover |
| ___ -LD (Less) Internal Bottom Dome Strainer | ___ -16 1/2 Solid Loose Set Cover |
| ___ -P 1/2 [13] Threaded Trap Primer Connection (See Z-1023) | ___ -17 3/4 Solid Loose Set Cover |
| ___ -1 (Less) Grate | ___ -18 Solid Loose Set Cover With 2 [51] Square Center Opening |
| ___ -2 1/2 Grate | ___ -19 Full Hinged Grate |
| ___ -3 3/4 Grate | ___ -23 Aluminum Bucket |
| ___ -4 Full Grate With 2 [51] Square Opening | ___ -25 White A.R.E. Bucket |
| ___ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel | ___ -31 Stainless Steel Mesh Liner for Bucket |
| ___ -6 Grate w/6 [152] dia. x 6 [152] High Funnel | ___ -33 White A.R.E. Anti-Splash Bottom Dome Strainer |
| ___ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel | |
| ___ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel | |

REV. C	DATE: 9/29/97	C.N. NO. 78738
DWG. NO. 59344	PRODUCT NO. Z-1910	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514 • Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

FS-5

DESCRIPTION: FLOOR SINK - 12" x 12" NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, DEEP RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1901, SMITH 3151, WADE 9140, JOSAM 49040, WATTS FS-740

Note to specifier: Verify if 3/4 or 1/2 grate is required. Edit size required.

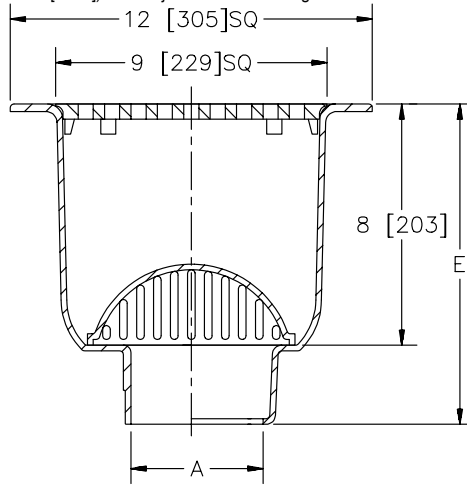


Z-1901
12" X 12" [305 X 305] A.R.E. SANI-FLORECEPTOR
8" [203] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	34 [15]	31 [200]

ENGINEERING SPECIFICATION: ZURN Z-1901 Sani-Flor Receptor 12 x 12 x 8 [305 x 305 x 203] deep cast iron body and square slotted medium duty grate, with white acid resisting porcelain enamel interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIMENSION

- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]
- 2, 3, 4 [50, 75, 100]

- ___ IC Inside Caulk
- ___ NH No-Hub
- ___ NL Neo-Loc

- | Z | ZN |
|--------------|--------------|
| 10 5/8 [270] | 11 1/8 [283] |
| 10 5/8 [270] | 11 1/8 [283] |
| 10 [254] | 10 1/2 [267] |

PREFIXES

- ___ Z- Cast Iron Body with White A.R.E. Interior*
- ___ ZN- Cast Iron Body with White A.R.E. Interior, 12 1/2 [318] Square N.B. Frame and Full Grate with 1/2 [13] Square Openings (Add 1/2 [13] to 12 [305] and 'E' Dim.)

SUFFIXES

- | | |
|---|---|
| ___ -DX Dex-o-Tex Flange | ___ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel |
| ___ -HD Nickel Bronze Frame w/X-Heavy Duty Stainles Steel Grate | ___ -9 Angle Frame and Grate |
| ___ -HP Heelproof Grate (1/4 [6] Sq. Openings) | ___ -11 Vandal Proof Secured Grate |
| ___ -K Flange With Seepage Holes | ___ -12 Depressed Aluminum Grate |
| ___ -KC Flange With Seepage Holes With Clamp Collar | ___ -15 Solid Loose Set Cover |
| ___ -LD (Less) Bottom Dome Strainer | ___ -16 1/2 Solid Loose Set Cover |
| ___ -P 1/2 [13] Trap Primer Connection (See Z-1023) | ___ -17 3/4 Solid Loose Set Cover |
| ___ -1 (Less) Grate | ___ -18 Solid Loose Set Cover With 2 [51] Square Center Opening |
| ___ -2 1/2 Grate | ___ -19 Full Hinged Grate |
| ___ -3 3/4 Grate | ___ -23 Aluminum Bucket |
| ___ -4 Full Grate With 2 [51] Square Opening | ___ -25 White A.R.E. Bucket |
| ___ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel | ___ -31 Stainless Steel Mesh Liner for Bucket |
| ___ -6 Grate w/6 [152] dia. x 6 [152] High Funnel | ___ -33 White A.R.E. Anti-Splash Bottom Dome Strainer |
| ___ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel | ___ -34 N.B. Anti-Splash Bottom Dome Strainer |

REV. C DATE: 5/13/97 C.N. NO. 77620

DWG. NO. 59342 PRODUCT NO. Z-1901

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: FLOOR SINK - 16" x 16" NICKEL BRONZE RIM AND GRATE, [2][3][4][6]" BOTTOM OUTLET, EXTRA DEEP RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1926, SMITH 3201, JOSAM 49120

Note to specifier: Verify if 3/4 or 1/2 grate is required. Edit size required.

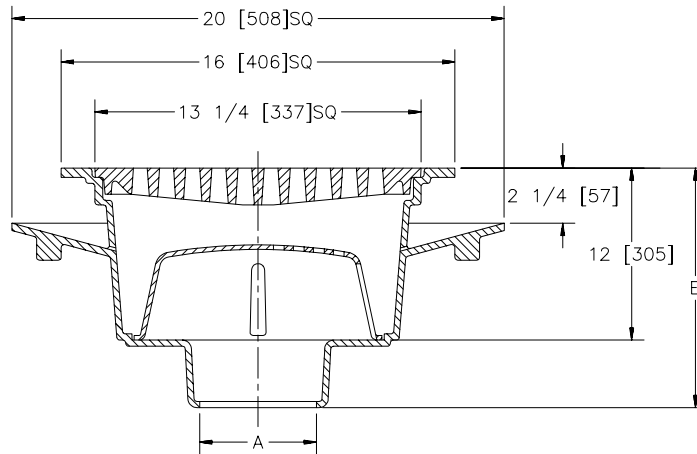


Z-1926
16" X 16" [406 X 406] A.R.C. SANI-FLOR RECEPTOR
12" [305] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4-6 [50-75-100-150]	150 [68]	54 [348]

ENGINEERING SPECIFICATION: ZURN Z-1926 Sani-Flor Receptor 16 x 16 x 12 [406 x 406 x 305] deep cast iron body and square slotted medium duty grate, with white acid resisting porcelain enamel interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET	'E' BODY HT. DIMENSION
2, 3, 4, 6 [50, 75, 100, 150]	_____	IC Inside Caulk	Z 14 7/8 [378] ZN 15 1/8 [384]

PREFIXES

- _____ Z- Cast Iron Body with White A.R.C. Interior*
- _____ ZN- Cast Iron Body with White A.R.C. Interior, 16 1/2 [419] Square N.B. Frame and Full Grate (Add 3/4 [19] to 16 [406] Dim. and 3/16 [5] to 'E' Dim.)

SUFFIXES

- | | |
|---|---|
| _____ -K Seepage Flange With Seepage Holes | _____ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel |
| _____ -KC Seepage Flange With Seepage Holes With Clamp Collar | _____ -11 Vandal Proof Secured Grate |
| _____ -LD (Less) Internal Bottom Dome Strainer | _____ -15 Solid Loose Set Cover |
| _____ -P 1/2 [13] Threaded Trap Primer Connection (See Z-1023) | _____ -16 1/2 Solid Loose Set Cover |
| _____ -1 (Less) Grate | _____ -17 3/4 Solid Loose Set Cover |
| _____ -2 1/2 Grate | _____ -18 Solid Loose Set Cover With 2 [51] Square Center Opening |
| _____ -3 3/4 Grate | _____ -23 Aluminum Bucket |
| _____ -4 Full Grate With 2 [51] Square Opening | _____ -25 White A.R.E. Bucket |
| _____ -5 Grate w/4 [102] Dia. x 3 3/4 [95] High Funnel | _____ -31 Stainless Steel Mesh Liner for Bucket |
| _____ -6 Grate w/6 [152] Dia. x 6 [152] High Funnel | _____ -33 White A.R.E. Anti-Splash Bottom Dome Strainer |
| _____ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel | |

REV. B	DATE: 3/5/97	C.N. NO. 77624
DWG. NO. 59346	PRODUCT NO. Z-1926	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FS-7

DESCRIPTION: FLOOR SINK - 4" x 8" NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, SHALLOW RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1930, SMITH 3301, JOSAM 49600

Note to specifier: Verify if 3/4 or 1/2 grate is required. Edit size required.



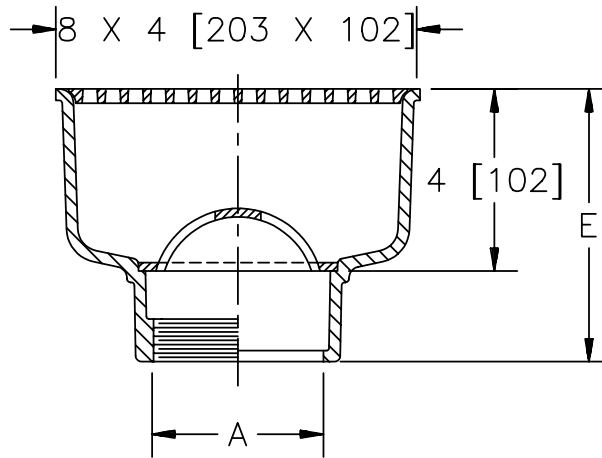
Z-1930

SPECIFICATION SHEET

**8" X 4" [203 X 102] A.R.C. SANI-FLOOR
RECEPTOR 4" [102] SUMP DEPTH**

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3- [50-75]	11 [5]	7.5 [48]

ENGINEERING SPECIFICATION: ZURN Z-1930 Sani-Floor Receptor 8 x 4 x 4 [203 x 102 x 102] deep cast iron body and square slotted medium duty grate, with white acid resisting porcelain enamel interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type) OUTLET	'E' BODY HT. DIMENSION	
		Z	ZN
2, 3 [50, 75]	___ IC Inside Caulk	6 [152]	6 3/8 [162]
2, 3 [50, 75]	___ IP Threaded	6 [152]	6 3/8 [162]
2, 3 [50, 75]	___ NL Neo-Loc	5 13/16 [148]	6 3/16 [157]

PREFIXES

- ___ Z- Cast Iron Body with White A.R.C. Interior*
 - ___ ZN- Cast Iron Body with White A.R.C. Interior, 8 3/4 x 4 3/4 [222 x 121] N.B. Frame and Full Grate with 1/4 [6] Square Openings+
- +Add 3/4 [19] to 8 [203] Dimension and 3/8 [10] to 'E' Dimension

SUFFIXES

- ___ -K Seepage Flange With Seepage Holes
- ___ -KC Seepage Flange With Seepage Holes With Clamp Collar
- ___ -LD (Less) Internal Bottom Dome Strainer (See Z-1023)
- ___ -S Secondary Strainer
- ___ -1 (Less) Grate
- ___ -2 1/2 Grate
- ___ -3 3/4 Grate
- ___ -4 Full Grate With 2 [51] Square Opening
- ___ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel
- ___ -6 Grate w/6 [102] dia. x 6 [152] High Funnel
- ___ -7 Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel
- ___ -8 Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel
- ___ -11 Vandal Proof Secured Grate
- ___ -15 Solid Loose Set Cover
- ___ -16 1/2 Solid Loose Set Cover
- ___ -23 Aluminum Bucket
- ___ -25 White A.R.E. Bucket
- ___ -31 Stainless Steel Mesh Liner for Bucket
- ___ -33 White A.R.E. Anti-Splash Bottom Dome Strainer

REV. B	DATE: 5/6/97	C.N. NO. 77625
DWG. NO. 59347		PRODUCT NO. Z-1930

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FS-8

DESCRIPTION: FLOOR SINK - 6" x 12" NICKEL BRONZE RIM AND GRATE, [2][3][4][6]" BOTTOM OUTLET, SHALLOW RECEPTOR WITH ALUMINUM SEDIMENT BUCKET, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1940, SMITH 3321, JOSAM 49620

Note to specifier: Verify if 3/4 or 1/2 grate is required. Edit size required.

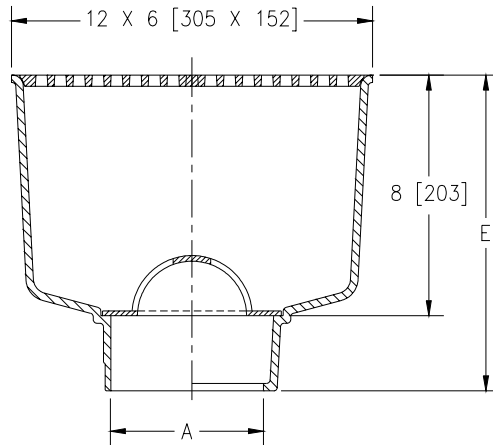


Z-1940
12" X 6" [305 X 152] A.R.C. SANI-FLORECEPTOR
8 [203] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	28 [13]	17 [110]

ENGINEERING SPECIFICATION: ZURN Z-1940 Sani-Flor Receptor 12 x 6 x 8 [305 x 152 x 203] deep cast iron body and square slotted light duty grate, with white acid resisting coated interior and top, complete with aluminum anti-splash interior bottom dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET	'E' BODY HT. DIMENSION	
			Z	ZN
2, 3, 4 [50, 75, 100]	_____	IC Inside Caulk	10 1/2 [267]	10 7/8 [276]
2, 3, 4 [50, 75, 100]	_____	NH No-Hub	10 1/2 [267]	10 7/8 [276]
2, 3, 4 [50, 75, 100]	_____	NL Neo-Loc	10 [254]	10 3/8 [264]

PREFIXES

- _____ Z- Cast Iron Body with White A.R.C. Interior*
- _____ ZN- Cast Iron Body with White A.R.C. Interior, 13 x 7 [330 x 178] N.B. Frame and Full Grate with 1/4 [6] Square Openings+
 +Add 1 [25] to 12 [305] Dimension and 3/8 [10] to 'E' Dimension

SUFFIXES

- | | | | |
|-----------|--|-----------|--|
| _____ -K | Seepage Flange With Seepage Holes | _____ -8 | Grate w/8 7/8 x 3 5/8 x 3 3/4 [225 x 92 x 95] High Oval Funnel |
| _____ -KC | Seepage Flange With Seepage Holes With Clamp Collar | _____ -11 | Vandal Proof Secured Grate |
| _____ -LD | (Less) Internal Bottom Dome Strainer (See Z-1023) | _____ -15 | Solid Loose Set Cover |
| _____ -S | Secondary Strainer | _____ -16 | 1/2 Solid Loose Set Cover |
| _____ -1 | (Less) Grate | _____ -17 | 3/4 [19] Solid Loose Set Cover |
| _____ -2 | 1/2 Grate | _____ -23 | Aluminum Bucket |
| _____ -3 | 3/4 Grate | _____ -25 | White A.R.E. Bucket |
| _____ -4 | Full Grate With 2 [51] Square Opening | _____ -31 | Stainless Steel Mesh Liner for Bucket |
| _____ -5 | Grate w/4 [102] dia. x 3 3/4 [95] High Funnel | _____ -33 | White A.R.E. Anti-Splash Bottom Dome Strainer |
| _____ -6 | Grate w/6 [102] dia. x 6 [152] High Funnel | | |
| _____ -7 | Grate w/6 3/4 x 3 x 1 [171 x 76 x 25] High Oval Funnel | | |

REV. E	DATE: 6/2/99	C.N. NO. 82606
DWG. NO. 59348	PRODUCT NO. Z-1940	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FS-9

DESCRIPTION: FLOOR SINK / CAN WASH - 12"x12" NICKEL BRONZE RIM AND GRATE, [2][3][4]" BOTTOM OUTLET, DEEP RECEPTOR WITH ALUMINUM SEDIMENT BUCKET WITH PORTED OPENINGS LINED WITH 1/4" STAINLESS STEEL MESH, BRONZE ADJUSTABLE NOZZLE ASSEMBLY, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: ZURN Z-1982, SMITH 3370, JOSAM 49870

Note to specifier: Edit size required.

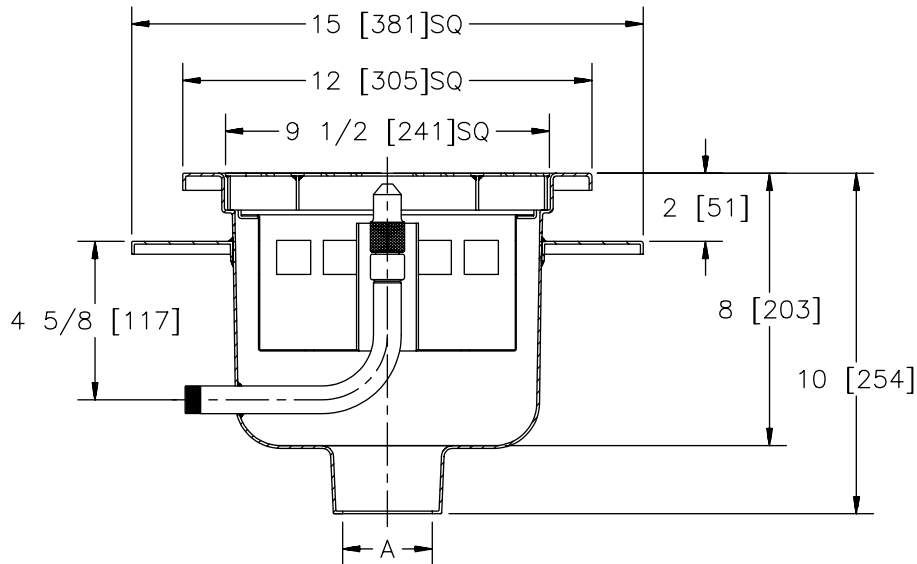


Z-1982
12" X 12" [305 X 305] STAINLESS STEEL
SANI-FLOr CAN WASH DRAIN
8" [203] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
3-4 [75-100]	45 [20]	20 [129]

ENGINEERING SPECIFICATION: ZURN Z-1982 Sani-Flo Can Wash Drain, 12 x 12 x 8 [305 x 305 x 203] deep fabricated stainless steel body with bottom outlet, anchor pan, medium duty stainless steel loose set grate, with standing sediment bucket. Complete with chrome plated bronze spray nozzle and water supply assembly.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIMENSION

3, 4 [75, 100]
 3, 4 [75, 100]

___ IC Inside Caulk
 ___ NH No-Hub

10 5/8 [270]
 10 5/8 [270]

PREFIXES

___ Z- All Type 304 Stainless Steel

SUFFIXES

___ -C Clamp Collar
 ___ -WB Water Supply Control Box
 ___ -11 Vandal Proof Secured Grate
 ___ -31 Stainless Steel Mesh Liner for Bucket

REV. B	DATE: 3/5/97	C.N. NO. 77630
DWG. NO. 59352	PRODUCT NO. Z-1982	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

FS-10

DESCRIPTION: FLOOR SINK - 14 GAUGE, TYPE 304 STAINLESS STEEL RECEPTOR, [2][3][4]" OUTLET, DEEP SEAL TRAP, 12"x12"x6" DEEP. STAINLESS STEEL RIM AND SECURED FULL GRATE WITH 1/2" SQUARE OPENINGS. ANTI-SPLASH INTERIOR DOME STRAINER.

MANUFACTURER & CATALOG NO.: ZURN Z-1750, SMITH 9690, WADE 9100, JOSAM 52000

Note to specifier: Use for processing plant applications requiring stainless steel construction. Edit size required.

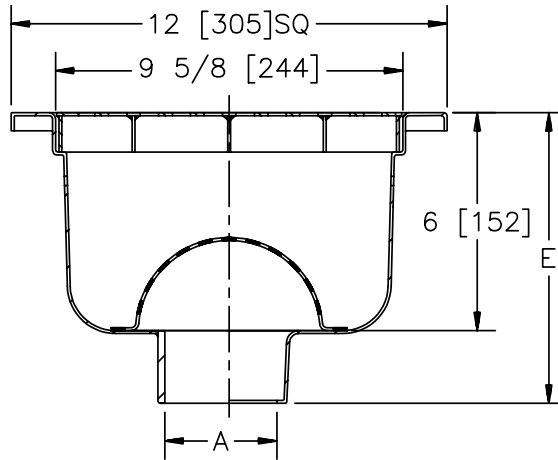


Z-1750
12" X 12" [305 x 305] SANI-FLORECEPTOR
6" [152] SUMP DEPTH

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	15 [7]	23 [148]

ENGINEERING SPECIFICATION: ZURN Z-1750 12 x 12 x 6 [305 x 305 x 152] deep, 14 gage, All Type 304 (CF8) Stainless Steel light duty Sani-Floreceptor with non-tilt, loose set full grate with 1/2 [13] square openings and anti-splash interior dome strainer.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET	'E' BODY HT. DIM.
2 thru 4 [50 thru 100]	_____	IC Inside Caulk	8 9/16 [214]
2 [50]	_____	IP Threaded	7 5/16 [186]
3 [75]	_____	IP Threaded	7 9/16 [198]
4 [100]	_____	IP Threaded	8 1/16 [205]
2 thru 4 [50 thru 100]	_____	NH No-Hub	8 1/16 [205]
2 thru 4 [50 thru 100]	_____	NL Neo-Loc	7 13/16 [198]

PREFIXES

- _____ Z- Type 304 (CF8) Stainless Steel Body*
- _____ ZM- Type 316 (CF8M) Stainless Steel

SUFFIXES

- | | |
|--|---|
| _____ -DX Dexotex Flange | _____ -4 Full Grate With 3 [76] Square Opening |
| _____ -HD Extra Heavy Duty Top Frame & Grate | _____ -5 Grate w/4 [102] dia. x 3 3/4 [95] High Funnel |
| _____ -HP Heelproof Grate | _____ -8 Grate w/8 3/8 x 3 3/4 [213 x 92 x 95] High Oval Funnel |
| _____ -IP Female Threaded Outlet | _____ -15 Solid Cover |
| _____ -K Seepage Pan | _____ -16 1/2 Solid Cover |
| _____ -KC Seepage Pan With Clamp Collar | _____ -17 3/4 Solid Cover |
| _____ -LSH Less Seepage Holes | _____ -18 Solid Cover With 3 [76] Square Center Opening |
| _____ -P 1/2 Trap Primer Connection | |
| _____ -Y Sediment Bucket | |
| _____ -YS Suspended Sediment Bucket | |
| _____ -1 (Less) Grate | |
| _____ -2 1/2 Grate | |
| _____ -3 3/4 Grate | |

REV. D DATE: 3/5/97 C.N. NO. 77615

DWG. NO. 59305 PRODUCT NO. Z-1750

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

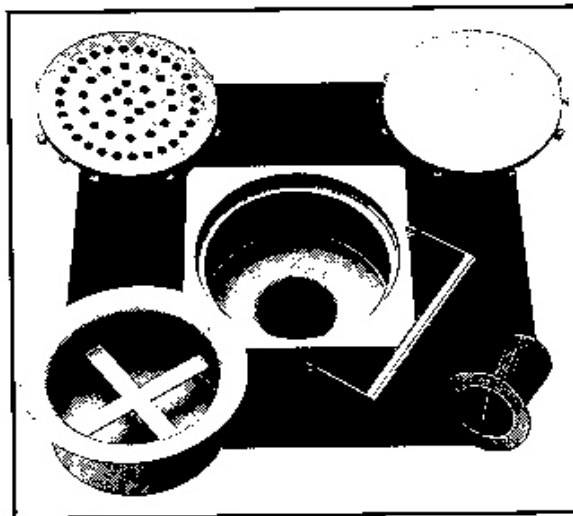
DESCRIPTION: FLOOR SINK - HEAVY GAUGE, TYPE 304 STAINLESS STEEL RECEPTOR, SEAMLESS CONSTRUCTION, [4][6]" OUTLET, DEEP SEAL TRAP, 12"x12"x6" DEEP. STAINLESS STEEL RIM AND 1/2" THICK REMOVABLE COVER PLATE WITH 1/2" GAP AROUND EDGE FOR DRAINAGE. INTERIOR PERFORATED STAINLESS STEEL BASKET STRAINER WITH LIFT HANDLE.

MANUFACTURER & CATALOG NO.: KUSEL KE, JOSAM 52000, ART'S WELDING, 3902 230 St., Winsted, Minn 320-485-2471

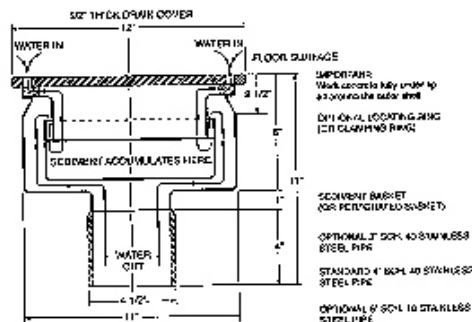
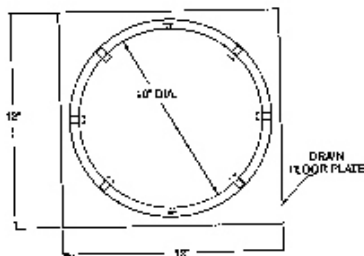
Note to specifier: Use for processing plant applications requiring stainless steel construction. Edit size required.

MODEL KE FLOOR DRAIN

- STAINLESS STEEL CONSTRUCTION
- LEVEL WITH FLOOR
- WITHSTANDS HEAVY LIFT-TRUCK WHEELS WITHOUT BUMPS OR DAMAGE
- SANITARY DESIGN (USDA ACCEPTABLE)
- POLISHED OR SATIN FINISH
- ONLY 3 PARTS
- REMOVABLE SOLID OR PERFORATED COLLECTING BASKET
- OPTIONAL PERFORATED COVER (SHOWN)
- OPTIONAL INSIDE OUTLET STRAINER (SHOWN)



The Kusel Model KE Floor Drain offers a practical application for manufacturing, processing, warehousing and storage, where sanitation, durability and accessibility are critical. Dairies, cheese plants, beverage, canning, chemical, pharmaceutical, packaging plants and warehouses will welcome this easy way to eliminate waste water drainage problems. The unique Kusel design, manufactured from stainless steel, assures resistance to acid, corrosion and staining.



KE SERIES SPECIFICATIONS

The Kusel KE Series Drain is a 12-inch square top drain specifically designed for tile or cement floors. It is built using industrial, pickled finish stainless steel, with a removable solid or perforated basket and Schedule 40 or Schedule 10 pipe outlet. The KE Series is available in both T304 and T316 stainless steel, and can be designed with a number of options to meet your needs. Cleaning is easy. Just lift out the floor cover and the uniquely designed solids collecting basket. The ample diameter sewage discharge pipe is fully exposed once the drain has been dismantled with a special handle. The floor level cover withstands heavy loads, four-wheel carts and fork lifts up to 27,000 pounds.

Outlet Sizes	
Model No.	Outlet Size
KE 75	3" Schedule 40
KE 100	4" Schedule 40
KE 150	6" Schedule 10*

* Rolled 1/8" stainless steel to a 6.625" outside diameter.

KE SERIES OPTIONS

- SETTING RING
- S.S. HANDLE
- SOLID BASKET
- PERFORATED BASKET
- POLISHED TOP
- CUSTOM COVERS
- 3" INTERNAL THREAD OUTLET
- 3" EXTERNAL THREAD OUTLET
- 4" INTERNAL THREAD OUTLET
- 4" EXTERNAL THREAD OUTLET
- 4" INSIDE OUTLET STRAINER
- MEMBRANE CLAMP RING

Additional options are available at the customer's request.

3

DESCRIPTION: GARBAGE DISPOSAL - CONTINUOUS FEED UNIT, STAINLESS STEEL GRIND CHAMBER, AUTOMATIC REVERSING ACTION, 1 HP, 115 VOLT, MANUALLY RESET OVERLOAD PROTECTION WITH CORD AND PLUG, SERVICE WRENCH AND FULL 7 YEAR WARRANTY.

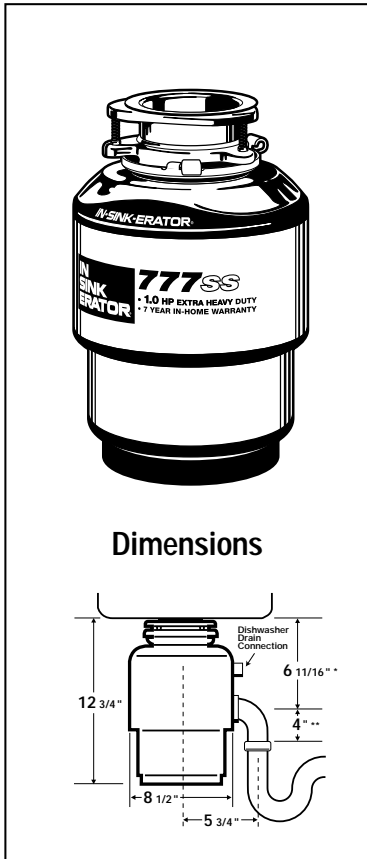
MANUFACTURER & CATALOG NO.: IN-SINK-ERATOR 777SS/PRO 77, SINKMASTER 1050, WASTE KING SS8000

IN SINK ERATOR®

777SS

1.0 Horsepower

Food Waste Disposer



Dimensions

* Distance from bottom of sink to center line of disposer outlet.
Add 1/2" when stainless steel sinks are used.
** Length of tailpipe from center line of disposer outlet to end of tailpipe.
NOTE: Plumb waste line to prevent standing water in disposer motor housing.



Submittal Sheet

- 7 year parts and in-home service warranty*
- Secondary sound baffle
- Fully insulated outer shell
- Stainless steel grind chamber
- Stainless steel grinding elements with two stainless steel 360° swivel lugs
- Exclusive corrosion protection shield
- One-piece polished stainless steel stopper
- Dishwasher drain connection
- Permanently lubricated upper and lower bearings
- Overload protector manual reset
- Exclusive cushioned anti-splash baffle
- Quick Lock™ mounting for fast, easy installation
- Exclusive self-service wrench
- Water seal
- Capacitor start

Sample Specification

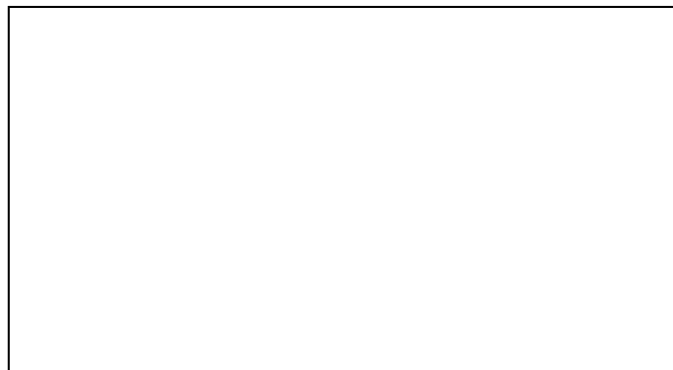
Food Waste Disposer(s) shall be In-Sink-Erator Model 777ss, continuous feed, dual direction, with 1.0 H.P. motor, corrosion protection shield, self service wrench, stainless steel grinding elements with two stainless steel 360° swivel lugs. Warranty - 7 year parts and in-home service.

* The complete In-Sink-Erator warranty is included in the Care & Use Booklet, packed with each unit.

Specifications

Type of Feed	Continuous
On/Off Control	Wall Switch
Motor	Single Phase
HP	1.0
Volts	120
HZ	60
RPM	1725
Amp. (Avg. Load)	10.2
Time Rating	Intermittent
Lubrication	Permanently Lubricated Upper & Lower Bearings
Shipping Weight (Approx.)	20 lbs. 6 oz.
Unit Finish	Waterborne Grey Enamel
Overall Height	12-3/4"
Grind Chamber Capacity	50 oz.
Motor Protection	Manual reset Overload
Average Water Usage	1/4 Gallon Per Person Per Day
Average Electrical Usage	1/2 KWH Per Month
Drain Connection	1-1/2" Cushioned Slip Joint
Dishwasher Drain Connection	Yes

Job Specifications



DESCRIPTION: GARBAGE DISPOSER - CONTINUOUS FEED, SINGLE DIRECTION UNIT WITH 3/4 HP, 115 VOLT SPLIT PHASE MOTOR, CORROSION PROTECTION SHIELD, SERVICE WRENCH, STAINLESS STEEL GRINDING ELEMENTS, MANUALLY RESET OVERLOAD PROTECTION WITH CORD AND PLUG AND FULL 4 YEAR WARRANTY.

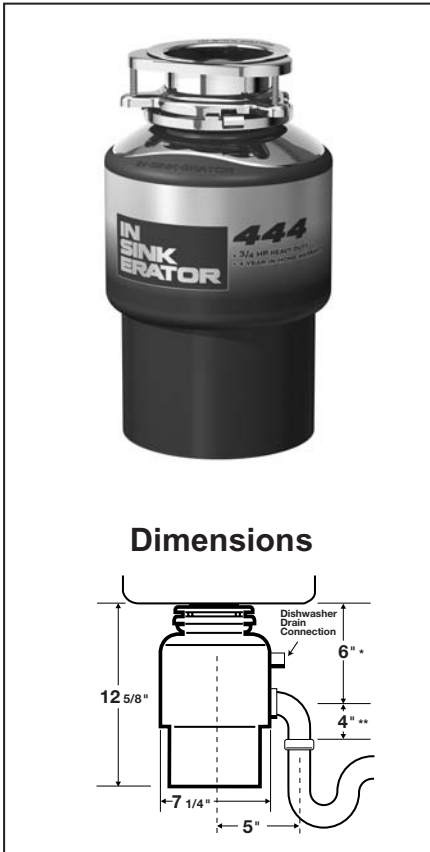
MANUFACTURER & CATALOG NO.: IN-SINK-ERATOR 444/PRO 333, SINKMASTER 950, WASTE KING 3300

**IN
SINK
ERATOR®**

FOOD WASTE DISPOSERS

444®

A Great Choice for Great Value



Dimensions

*Distance from bottom of sink to center line of disposer outlet. Add 1/2" when stainless steel sinks are used.
 **Length of tailpipe from center line of disposer outlet to end of tailpipe.
 NOTE: Plumb waste line to prevent standing water in disposer motor housing.

Job Specifications



Submittal Sheet

Our 444 model offers you premier performance at a practical price. This popular disposer features standard grinding capacity and is designed for typical kitchen cleanups.

This model also offers you these features and benefits:

- 3/4 Horsepower Heavy Duty Motor (Quiet Dura-Drive® Induction Motor)
- 4-Year *We Come To You™* In-Home Parts And Labor Service Warranty
- Sound Reduction System (Insulated Outer Shell Ensures Quiet Operation)
- Stainless Steel Grinding Components (For Increased Durability)
- Space-Saving Compact Design

Sample Specification

Food Waste Disposer(s) shall be In-Sink-Erator Model 444, continuous feed, with 3/4 H.P. motor, stainless steel grinding elements with two stainless steel 360° swivel lugs. Self-service wrench. Warranty - 4 year parts and in-home service.

*The complete In-Sink-Erator warranty is included in the Care & Use Booklet, packed with each unit.

Specifications

Type of Feed	Continuous
On/Off Control	Wall Switch
Motor	Single Phase
HP	3/4
Volts	120
HZ	60
RPM	1725
Amp. (Avg. Load)	8.1
Time Rating	Intermittent
Lubrication	Permanently Lubricated Upper & Lower Bearings
Shipping Weight (Approx.)	17 lbs. 4 oz.
Unit Finish	Waterborne Grey Enamel
Overall Height	12-5/8"
Grind Chamber Capacity	26 oz.
Motor Protection	Manual reset Overload
Average Water Usage	1/4 Gallon Per Person Per Day
Average Electrical Usage	1/2 KWH Per Month
Drain Connection	1-1/2" Cushioned Slip Joint
Dishwasher Drain Connection	Yes



The Emerson logo is a trademark and a service mark of Emerson Electric Co. In-Sink-Erator is a division of Emerson Electric Co.

DESCRIPTION: GREASE INTERCEPTOR (RECESSED) - STEEL WITH ACID RESISTANT COATING INSIDE, REMOVABLE BAFFLES, INTEGRAL AIR RELIEF, FLOW CONTROL FITTING, [ALUMINUM COVER] [STAINLESS STEEL COVER] GASKETED [COVER RECESSED FOR TERRAZO, CERAMIC TILE] [COVER RECESSED FOR VINYL TILE] WITH LOCK AND LIFT RING. INTEGRAL CLEANOUT. SHALL CONFORM TO THE REQUIRMENTS OF PDI G101, SHALL BE PDI APPROVED AND LISTED FOR USE IN ILLINOIS. RECESSED WITH STEEL EXTENSION TO MATCH FINISHED FLOOR HEIGHT. PROVIDE FLASHING FLANGE AND CLAMPING DEVICE FOR ABOVE CEILING INSTALLATIONS. [] GPM FLOW, [] lb. GREASE CAPACITY, AND [] GALLONS HOLDING CAPACITY.

MANUFACTURER & CATALOG NO.: SMITH 8200 SERIES, WADE W-5100-XT, JOSAM 60120, ZURN Z-1170-RE, ROCKFORD GFE SERIES, WATTS GI-100, MIFAB MI-G, SCHIER ATG SERIES

Notes to specifier:

1. Verify type of grease interceptor required (recessed vs floor mounted).
2. Size interceptor based on flow into unit.
3. CHECK LOCAL CODES. Des Moines has specific requirements regarding grease interceptors.
4. Avoid using recessed top with tile coverings unless requested and discussed with owner. Tiles won't always adhere to the lid and will become loose or broken resulting in an undesirable appearance.

SMITH® JAY R. SMITH MFG. CO.
DIVISION OF SMITH INDUSTRIES, INC.
POST OFFICE BOX 3227
MONTGOMERY, ALABAMA 36109-0237 (USA)
TEL: 334-277-8520 FAX: 334-272-7996 www.jsmith.com

MEMBER OF:

GREASE INTERCEPTORS

GREASE INTERCEPTORS WITH EXTENSION

FUNCTION: Used in kitchens, restaurants, institutions and all types of food processing areas where waste water contains grease, fats and oils which must be intercepted and collected before entering the drainage system. Interceptors with extensions are installed recessed in the floor with cover flush with finished floor. Extension provides additional roughing depth from top of interceptor to center line of inlet and outlet. Extension should not be used as a means for supporting the assembly. The entire interceptor body and extension must rest on solid ground or suitable support hangers.

WHEN ORDERING, SPECIFY HEIGHT REQUIRED FROM TOP OF INTERCEPTOR TO TOP OF EXTENSION USING SUFFIX NUMBER FOR EXTENSION HEIGHT. EXAMPLE: FIG. 8225 WITH 6"(150) EXTENSION -SPECIFY FIG. 8225 (E06)

PCN Fig. No.	GPM Flow Rate	Grease Cap Lbs.	Inlet and Outlet Size	Dimensions						C.O. Plug Size
				Roughing Dimensions			Body			
			A*	B	C	D	Height	Width	G	
8210	10	20	02(50)	9 1/2(240)	3 3/4(95)	21 1/4(540)	13 1/4(335)	13(330)	2(51)	
8215	15	30	02(50)	12(305)	3 1/2(89)	25(635)	15 1/2(395)	14(355)	2(51)	
8220	20	40	03(75)	13(330)	4(100)	28 1/2(725)	17(430)	15 3/4(400)	2(51)	
8225	25	50	03(75)	15 1/4(390)	4 1/2(115)	30(760)	19 3/4(500)	16 3/4(425)	2(51)	
8235	35	70	03(75)	16(405)	5(125)	32 1/2(825)	21(535)	18 1/4(465)	2(51)	
8250	50	100	03(75)	17 1/2(445)	6 3/4(170)	35 1/2(900)	24 1/4(615)	20 3/4(525)	2(51)	

*Available with larger inlet and outlet when specified.

LOCATION

REGULARLY FURNISHED:
Steel Interceptor and Extension with Gray Duco Coating Inside and Outside and Flow Control Fitting.

Δ NOTE: When tile top is specified, add 1"(25). When Terrazzo top is specified, add 1 1/4"(32).

NOTE: 2"(51) must be added to dimension D and F for clearance of extension clamps.

NOTE: Dimensions shown in parentheses are in millimeters.

VARIATIONS:

- Anchor Flange -F
- Δ Cover Recessed for Terrazzo Ceramic or Quarry Tile -QC
- Δ Cover Recessed for Vinyl or Asphalt Tile -TC
- Flange and Flashing Clamp -F-C
- Lift Out Sediment Bucket -B
- NO-HUB Adaptor (2) Req'd (Specify Fig. 2646Y)

OPTIONAL MATERIALS:

- Acid Resistant Coating Inside - ARI
- Acid Resistant Coating Outside - ARO
- Acid Resistant Coating Inside and Outside - ARIO
- Aluminum Cover -AC

NOTE: It is the responsibility of the installer to check all parts (internal and external) to verify they are in their proper operating order and location.

INSTALLATION NOTE

The Steel Extension supplied with the 8200 Series Interceptor is designed to increase the roughing dimension from the Inlet-Outlet centerline to the finished floor. The Extension and Anchoring Flange should not be used to support the unit. When installed in ground floor locations, the Interceptor must rest on solid ground or on some suitable concrete pad. If the 8200 Series Interceptor is installed in an upper floor (suspended in the ceiling below), a suitable method of supporting the entire unit must be provided and meet the approval of the structural engineer and architect. The installation sketch shows a typical Interceptor with Extension and one method of supporting the entire weight. Support of an interceptor, whether supplied with a cradle or independently, is essential for safety and functional integrity of the installation. Upon request, Jay R. Smith Mfg. Co. will provide the weight of the specific unit. Additional weight must be added to compensate for the weight of the liquid/grease when full and in the flowing mode of operation. Also shown are the "When Specified" options of an Anchor Flange and Flashing Clamp.

G	12-10-98	Added Notes	CMD	BS	WEIGHT	VOLUME	FIGURE NUMBER
D	6-23-97	Redraw Baffles	EMB	BS	POUNDS	CUBIC FEET	8200 SERIES
E	7-10-95	Added millimeters	CMD	BS			
C	8-22-94	Revised	EMB	BS			
D	12-16-93	Submittal Update	EMB	BS			
REV.	DATE	DESCRIPTION	BY	CKD.			

DESCRIPTION: GREASE INTERCEPTOR (FLOOR MOUNTED) - STEEL WITH ACID RESISTANT COATING INSIDE, REMOVABLE BAFFLES, INTEGRAL AIR RELIEF, FLOW CONTROL FITTING, GASKETED COVER WITH LOCK AND LIFT RING. INTEGRAL CLEANOUT. SHALL CONFORM TO THE REQUIRMENTS OF PDI G101, SHALL BE PDI APPROVED AND LISTED FOR USE IN ILLINOIS. [] GPM FLOW, [] lb. GREASE CAPACITY, AND [] GALLONS HOLDING CAPACITY.

MANUFACTURER & CATALOG NO.: SMITH 8000 SERIES, WADE W-5100, JOSAM 60100, ZURN Z-1170, ROCKFORD G SERIES, WATTS GI-100, MIFAB MI-G, SCHIER AT SERIES

Notes to specifier:

1. Verify type of grease interceptor required (recessed vs floor mounted).
2. Size interceptor based on flow into unit.
3. CHECK LOCAL CODES. Des Moines has specific requirements regarding grease interceptors.



L	SMITH® JAY R. SMITH MFG. CO. DIVISION OF SMITH INDUSTRIES, INC. POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com	MEMBER OF: 	LOCATION																																																																																																																																																
DRAWING NUMBER 8000 SERIES	<h2>GREASE INTERCEPTORS</h2>																																																																																																																																																		
SIZE A	<p>FUNCTION: Used in kitchens, restaurants, institutions, and all types of food processing areas where waste water contains grease, fats and oil. Rate of flow into interceptor is controlled by a flow control fitting, thus enabling the interceptor to collect over 90% of the grease which flows into it. "Uni-lock" cover design permits fast cover removal for periodic cleaning. Interceptor may be set on floor, semi-recessed in floor or fully recessed with cover flush with finished floor. Fig. 8100 Series are extra low designs adaptable for use with dishwashers or low roughing sinks.</p>																																																																																																																																																		
SCALE NONE	<p style="text-align:center;">SIDE VIEW FIG. 8010 SHOWN</p>																																																																																																																																																		
DATE 4-24-85	<p>Δ NOTE: When tile top is specified add 1"(25). When Terrazzo top is specified add 1 1/4"(32)</p> <table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th rowspan="3">FIG. NO.</th> <th rowspan="3">GPM FLOW RATE</th> <th rowspan="3">GREASE CAP. LBS.</th> <th rowspan="3">INLET AND OUTLET SIZE A*</th> <th colspan="6">DIMENSIONS</th> <th rowspan="3">C.O. PLUG SIZE</th> </tr> <tr> <th colspan="3">ROUGHING DIMENSIONS</th> <th colspan="3">BODY</th> </tr> <tr> <th>B</th> <th>C</th> <th>D</th> <th>HEIGHT E</th> <th>WIDTH F</th> <th>G</th> </tr> </thead> <tbody> <tr><td>8004</td><td>4</td><td>8</td><td>02(50)</td><td>7 3/4(195)</td><td>3 1/4(83)</td><td>16 3/4(425)</td><td>11(280)</td><td>9(230)</td><td>2(51)</td></tr> <tr><td>8007</td><td>7</td><td>14</td><td>02(50)</td><td>8 1/2(215)</td><td>3 1/2(89)</td><td>19(485)</td><td>12(305)</td><td>10(255)</td><td>2(51)</td></tr> <tr><td>8010</td><td>10</td><td>20</td><td>02(50)</td><td>9 1/2(240)</td><td>3 3/4(95)</td><td>21 1/4(540)</td><td>13 1/4(335)</td><td>11 1/2(290)</td><td>2(51)</td></tr> <tr><td>8015</td><td>15</td><td>30</td><td>02(50)</td><td>12(305)</td><td>3 1/2(89)</td><td>25(635)</td><td>15 1/2(395)</td><td>13 1/2(345)</td><td>2(51)</td></tr> <tr><td>8020</td><td>20</td><td>40</td><td>03(75)</td><td>13(330)</td><td>4(100)</td><td>28 1/2(725)</td><td>17(430)</td><td>15 3/4(400)</td><td>2(51)</td></tr> <tr><td>8025</td><td>25</td><td>50</td><td>03(75)</td><td>15 1/4(390)</td><td>4 1/2(115)</td><td>30(760)</td><td>19 3/4(500)</td><td>16 3/4(425)</td><td>2(51)</td></tr> <tr><td>8035</td><td>35</td><td>70</td><td>03(75)</td><td>16(405)</td><td>5(125)</td><td>32 1/2(825)</td><td>21(535)</td><td>18 1/4(465)</td><td>2(51)</td></tr> <tr><td>8050</td><td>50</td><td>100</td><td>03(75)</td><td>17 1/2(445)</td><td>6 3/4(170)</td><td>35 1/2(900)</td><td>24 1/4(615)</td><td>20 3/4(525)</td><td>2(51)</td></tr> <tr><td colspan="11" style="text-align:center;">LOW TYPE</td></tr> <tr><td>8120</td><td>20</td><td>40</td><td>03(75)</td><td>7(180)</td><td>3 1/2(89)</td><td>38 1/2(980)</td><td>10 1/2(265)</td><td>21 3/4(550)</td><td>2(51)</td></tr> <tr><td>8135</td><td>35</td><td>70</td><td>03(75)</td><td>7(180)</td><td>4 3/4(120)</td><td>49 1/2(1257)</td><td>11 3/4(300)</td><td>27 3/4(705)</td><td>2(51)</td></tr> <tr><td>8150</td><td>50</td><td>100</td><td>03(75)</td><td>10(255)</td><td>6(150)</td><td>49 1/2(1257)</td><td>16(405)</td><td>27 3/4(705)</td><td>2(51)</td></tr> </tbody> </table> <p style="text-align:center; font-size: x-small;">*Available with larger inlet and outlet when specified.</p>			FIG. NO.	GPM FLOW RATE	GREASE CAP. LBS.	INLET AND OUTLET SIZE A*	DIMENSIONS						C.O. PLUG SIZE	ROUGHING DIMENSIONS			BODY			B	C	D	HEIGHT E	WIDTH F	G	8004	4	8	02(50)	7 3/4(195)	3 1/4(83)	16 3/4(425)	11(280)	9(230)	2(51)	8007	7	14	02(50)	8 1/2(215)	3 1/2(89)	19(485)	12(305)	10(255)	2(51)	8010	10	20	02(50)	9 1/2(240)	3 3/4(95)	21 1/4(540)	13 1/4(335)	11 1/2(290)	2(51)	8015	15	30	02(50)	12(305)	3 1/2(89)	25(635)	15 1/2(395)	13 1/2(345)	2(51)	8020	20	40	03(75)	13(330)	4(100)	28 1/2(725)	17(430)	15 3/4(400)	2(51)	8025	25	50	03(75)	15 1/4(390)	4 1/2(115)	30(760)	19 3/4(500)	16 3/4(425)	2(51)	8035	35	70	03(75)	16(405)	5(125)	32 1/2(825)	21(535)	18 1/4(465)	2(51)	8050	50	100	03(75)	17 1/2(445)	6 3/4(170)	35 1/2(900)	24 1/4(615)	20 3/4(525)	2(51)	LOW TYPE											8120	20	40	03(75)	7(180)	3 1/2(89)	38 1/2(980)	10 1/2(265)	21 3/4(550)	2(51)	8135	35	70	03(75)	7(180)	4 3/4(120)	49 1/2(1257)	11 3/4(300)	27 3/4(705)	2(51)	8150	50	100	03(75)	10(255)	6(150)	49 1/2(1257)	16(405)	27 3/4(705)	2(51)
FIG. NO.	GPM FLOW RATE	GREASE CAP. LBS.	INLET AND OUTLET SIZE A*					DIMENSIONS							C.O. PLUG SIZE																																																																																																																																				
								ROUGHING DIMENSIONS			BODY																																																																																																																																								
				B	C	D	HEIGHT E	WIDTH F	G																																																																																																																																										
8004	4	8	02(50)	7 3/4(195)	3 1/4(83)	16 3/4(425)	11(280)	9(230)	2(51)																																																																																																																																										
8007	7	14	02(50)	8 1/2(215)	3 1/2(89)	19(485)	12(305)	10(255)	2(51)																																																																																																																																										
8010	10	20	02(50)	9 1/2(240)	3 3/4(95)	21 1/4(540)	13 1/4(335)	11 1/2(290)	2(51)																																																																																																																																										
8015	15	30	02(50)	12(305)	3 1/2(89)	25(635)	15 1/2(395)	13 1/2(345)	2(51)																																																																																																																																										
8020	20	40	03(75)	13(330)	4(100)	28 1/2(725)	17(430)	15 3/4(400)	2(51)																																																																																																																																										
8025	25	50	03(75)	15 1/4(390)	4 1/2(115)	30(760)	19 3/4(500)	16 3/4(425)	2(51)																																																																																																																																										
8035	35	70	03(75)	16(405)	5(125)	32 1/2(825)	21(535)	18 1/4(465)	2(51)																																																																																																																																										
8050	50	100	03(75)	17 1/2(445)	6 3/4(170)	35 1/2(900)	24 1/4(615)	20 3/4(525)	2(51)																																																																																																																																										
LOW TYPE																																																																																																																																																			
8120	20	40	03(75)	7(180)	3 1/2(89)	38 1/2(980)	10 1/2(265)	21 3/4(550)	2(51)																																																																																																																																										
8135	35	70	03(75)	7(180)	4 3/4(120)	49 1/2(1257)	11 3/4(300)	27 3/4(705)	2(51)																																																																																																																																										
8150	50	100	03(75)	10(255)	6(150)	49 1/2(1257)	16(405)	27 3/4(705)	2(51)																																																																																																																																										
APPROVED BY SJM	<p>REGULARLY FURNISHED: Steel Interceptor with Gray Duco Coating Inside and Outside and Flow Control Fitting.</p>																																																																																																																																																		
CHECKED BY JD	<p>VARIATIONS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Δ Cover Recessed for Terrazzo, Ceramic or Quary Tile -QC <input type="checkbox"/> Δ Cover Recessed for Vinyl or Asphalt Tile -TC <input type="checkbox"/> Lift Out Sediment Bucket -B <input type="checkbox"/> NO-HUB Adaptor (2) Req'd (Specify Fig. 2646Y) 																																																																																																																																																		
DRAWN BY PJ	<p>OPTIONAL MATERIALS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Acid Resistant Coating Inside - ARI <input type="checkbox"/> Acid Resistant Coating Outside - ARO <input type="checkbox"/> Acid Resistant Coating Inside and Outside - ARI0 <input type="checkbox"/> Aluminum Cover -AC <p style="font-size: x-small;">NOTE: Dimensions shown in parentheses are in millimeters.</p>																																																																																																																																																		
DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCE AND CHANGE WITHOUT NOTICE	8000 SERIES	FIGURE NUMBER	<p>FIGURE NUMBER 8000 SERIES</p>																																																																																																																																																
REV.	DATE	DESCRIPTION	BY																																																																																																																																																
L	7-09-99	Revised Text	JJ																																																																																																																																																
K	12-10-98	Added Note	BS																																																																																																																																																
J	6-20-97	Redraw Baffles	BS																																																																																																																																																
H	7-10-95	Added Millimeters	BS																																																																																																																																																
WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER																																																																																																																																																	

GR-1

DESCRIPTION: GAS PRESSURE REGULATOR-CAST IRON BODY WITH [INTERNAL] [EXTERNAL] PRESSURE RELIEF. SCREWED CONNECTIONS. [] INLET PRESSURE, [] OUTLET PRESSURE, [] CFH CAPACITY [AS SHOWN ON DRAWING] WITH ADJUSTABLE PRESSURE SETTING. [INTERNAL] [EXTERNAL] PRESSURE REGISTRATION, TIGHT SHUTOFF, MINIMUM CONTROLLABLE FLOW OF [] CFH.

MANUFACTURER & CATALOG NO.: FISHER [], SCHLUMBERGER [], INVENSYS []

Note to specifier:

I. Review each job requirements with regulator manufacturer.

II. Typical Fisher models (capacities) based on 2 psi inlet and 7" outlet: S100K Series (460 scfh), S200 Series (6000 scfh), 133 Series(17,000 SCF)

III. Fisher S100K and S200 Series have internal relief. 133 Series requires 289 Series external relief valve.

IV. Fisher S100K and S200 Series have option for either internal or external pressure registration. 133 Series has external only.

V. Schlumberger cross reference: Fisher S100K Series - B-31, Fisher S200 Series - B-34/38 Fisher 133 Series - none

VI. ALL REGULATORS INSIDE BUILDINGS MUST BE PIPED INDIVIDUALLY TO THE EXTERIOR OF THE BUILDING

VII. Equimeter has changed its name to Invensys.

Bulletin 71.1:S100C

Type S100C and S102C Pressure Regulators



- **EQUIPMENT FLEXIBILITY**—Different stem guides and relief valve springs can be field-interchanged to meet boost and relief performance requirements.
- **IMPROVED OVERPRESSURE PROTECTION**—Increased diaphragm movement assures pressure relief under all circumstances. Meets ANSI B109.4 standards.
- **DURABLE EXTERIOR FINISH**—Powder coating is standard for superior corrosion protection.
- **OUTLET PRESSURE STABILITY**—4:1 lever ratio reduces regulator sensitivity to inlet pressure fluctuations.
- **CONTROL ACCURACY**—Turbo-booster tube extensions register body outlet pressure at the point of highest velocity, providing a dynamic boost that compensates for outlet pressure drop as demand increases, which optimizes the regulator performance to the application.
- **INTERCHANGABLE DESIGN**—Actuator is interchangeable with standard Types S100 and S102 bodies
- **CORROSION RESISTANT MATERIALS**—Internal parts made from corrosion resistant materials for long life.
- **EASY INSTALLATION & MAINTENANCE**—Four position actuator mounting and four position vent mounting allow installation in limited spaces and inspection or maintenance without removing body from the line.
- **REDESIGNED DIAPHRAGM**—Diaphragm and diaphragm plate molded together for one-piece construction.

Fisher, Fisher-Rosemount, and Managing The Process Better are marks owned by Fisher Controls International, Inc. or Fisher-Rosemount Systems, Inc. All other marks are the property of their respective owners.

©Fisher Controls International, Inc. 1996. All Rights Reserved 6/96



FISHER-ROSEMOUNT™ Managing The Process Better.™

D10246X012

Bulletin 71.1:S100C

Table 3. Typical Regulating Capacities in Scfh of 0.6 Specific Gravity Natural Gas⁽¹⁾ for Type S100C or S102C Regulator with Standard-Boost Stem Guide

OUTLET PRESSURE SETTING, CONTROL SPRING RANGE, SPRING PART NUMBER, AND DROOP	INLET PRESSURE	3/4 INCH OUTLET						1 INCH OUTLET							
		Orifice Size, Inch (mm)						Orifice Size, Inch (mm)							
		1/8 (3.2)	3/16 (4.8)	1/4 (6.4)	5/16 (7.9)	3/8 (9.5)	1/2 (12.7)	9/16 (14.3)	1/8 (3.2)	3/16 (4.8)	1/4 (6.4)	5/16 (7.9)	3/8 (9.5)	1/2 (12.7)	9/16 (14.3)
Setting 5-inch wc (12 mbar), range 3.5 to 5.5-inch wc (8.5 to 13.5 mbar) Control spring number 1E9839 27052,	8-inch wc (20 mbar)				50	100	150	280			50	110	120	180	320
	10-inch wc (25 mbar)				80	150	175	320			80	160	200	260	450
	0.5 psig (34 mbar)		50	60	120	200	280	400		50	110	200	260	350	550
	1 psig (69 mbar)	50	80	100	200	350	480	550	50	80	160	260	450	600	820
Setting 7-inch wc (17 mbar), range 5.5 to 8.5-inch wc (13.5 to 21 mbar), Control spring number 1E9840 27052,	2 psig (0.14 bar)	100	140	220	400	450	630	850	100	180	300	510	750	1000	1400
	5 psig (0.34 bar)	200	410	600	650	800	950	1300	200	450	775	1150	1400	1400	1400
	8 psig (0.55 bar)	295	560	800	850	1000			295	700	1140	1400	1400		
	12 psig (0.83 bar)	375	700	1040	1150				400	880	1400	1400			
Setting 10.5-inch wc (25 mbar), range 8 to 15-inch wc (20 to 38 mbar), Control spring number 1E9851 27052,	20 psig (1.4 bar)	540	1050	1300					575	1175	1400				
	40 psig (2.8 bar)	875	1400						875	1400					
	60 psig (4.1 bar)	950	1400						950	1000 ⁽²⁾					
	80 psig (5.5 bar)	1000							1000						
Setting 20-inch wc (50 mbar), range 14 to 28-inch wc (35 to 70 mbar), Control spring number 1K6451 27052,	100 psig (6.9 bar)	1000							1000						
	125 psig (8.6 bar)	1000							1000						
	40 psig (2.8 bar)	770	1410						770	1500					
	60 psig (4.1 bar)	1050	1740						1040	760 ⁽²⁾					
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	80 psig (5.5 bar)	1350							860						
	100 psig (6.9 bar)	1600							800						
	125 psig (8.6 bar)	2000							700						
	8 psig (0.55 bar)	280	510	625	650	700			280	650	970	1000	1100		
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	12 psig (0.83 bar)	360	650	910	920				380	820	1200	1400			
	20 psig (1.4 bar)	550	1000	1170					550	1130	1400				
	40 psig (2.8 bar)	860	1400						860	1400					
	60 psig (4.1 bar)	950	1400						950	1000 ⁽²⁾					
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	80 psig (5.5 bar)	1000							1000						
	100 psig (6.9 bar)	1000							1000						
	125 psig (8.6 bar)	1000							1000						
	2 psig (0.14 bar)	80	120	160	210	250	310	360	80	120	160	210	250	310	360
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	5 psig (0.34 bar)	120	220	320	400	490	580	660	120	220	320	400	490	580	660
	8 psig (0.55 bar)	200	310	450	580	720			200	310	450	580	720		
	1 psig (0.83 bar)	250	390	570	770				250	390	570	770			
	20 psig (1.4 bar)	360	590	900					360	590	900				
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	40 psig (2.8 bar)	610	950						610	950					
	60 psig (4.1 bar)	750	1000						750	800 ⁽²⁾					
	80 psig (5.5 bar)	900							900						
	100 psig (6.9 bar)	1000							1000						
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	125 psig (8.6 bar)	1200							1200						
	3 psig (0.21 bar)	150	180	160	200	250	320	450	160	200	220	240	320	450	640
	4 psig (0.28 bar)	190	220	260	320	400	480	610	180	230	280	320	400	640	800
	5 psig (0.34 bar)	180	200	280	320	400	480	665	160	200	280	340	380	480	800
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	8 psig (0.55 bar)	190	300	390	480	580	700	1000	180	280	400	500	580	740	1150
	12 psig (0.83 bar)	260	400	540	680	800			250	400	540	680	900		
	20 psig (1.4 bar)	360	640	900	1000				360	640	860	1100			
	40 psig (2.8 bar)	660	1200	1660					650	1200	1800				
Setting 2 psig (140 mbar), range 1.5 to 2.5 psig (103 to 172 mbar), Control spring number T10200 27222,	60 psig (4.1 bar)	1000	1800						980	1800					
	80 psig (5.5 bar)	1340							1250						
	100 psig (6.9 bar)	1600							1600						
	125 psig (8.6 bar)	2000							2000						

1. See Capacity information section for conversion to equivalent capacities of other gases and/or normal m³/hr.
 2. Capacity is limited because of excessive boost at higher inlet pressures.
 Light Gray shading indicates where droop given in left-hand column of this table would be exceeded regardless of capacity.
 Dark Gray shading indicates where maximum operating inlet pressure for a given orifice is exceeded.

The quick-reacting S200 Series pressure-reducing service regulator (figure 1) is typically used in an industrial or commercial installation to minimize the shock effect of sudden downstream load changes that might otherwise activate safety shutoff equipment. In such an installation, where gas consumption varies from almost nothing to several thousand standard cubic feet per hour (scfh), snap-acting solenoid valves can cause sudden load changes. The resulting shock pressures and regulator instability can cause safety equipment to shut the installation down. But with an S200 Series regulator, transmission of shock loads to downstream equipment is reduced, thereby helping maintain downstream pressures within desired limits.

Features

- Excellent Shock Characteristics and High Speed of Response**—The two-way stabilizer vent valve (figure 2) on all spring-loaded regulators provides quick sensitive reaction to rapid downstream pressure changes. As the diaphragm responds to these rapid changes, one of the flappers opens to minimize diaphragm lag due to air in the spring case. With the regulator at equilibrium, both flappers are closed for stability.
- Installation Adaptability**—The 360-degree adjustability of the union ring connection and the four-position vent mounting permit proper vent positioning and allow regulator installation in awkward positions or limited spaces. An S200 Series regulator may be mounted in any orientation without affecting proper operation as long as



Figure 1. Typical Spring-Loaded S200 series Regulator

the spring case vent is protected from the elements (as, for example, with a Y602 Series vent assembly).

- Control Accuracy**—The turbo-booster tube (figure 2) registers outlet pressure in all internal registration regulators from the point of highest velocity, producing a dynamic boost that compensates for the outlet pressure drop that occurs as demand increases.

- Easy Maintenance**—The union ring permits inspection and maintenance of critical parts without removing the body from the line.

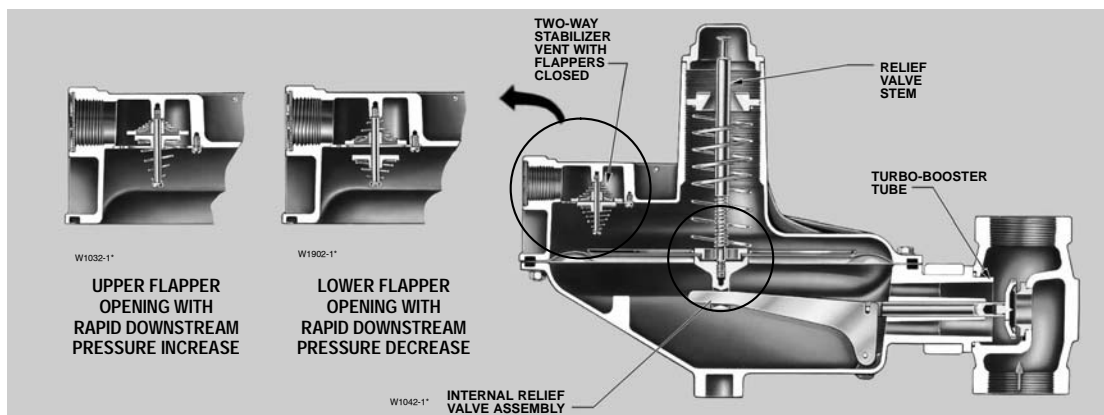


Figure 2. Type S202 Regulator with Internal Relief

Table 5. Type S201, S202, and S203 Regulator Capacities in Scfh of 0.6 Specific Gravity Natural Gas⁽¹⁾

OUTLET PRESSURE SETTING	CONTROL SPRING PART NO. (SEE TABLE 3 FOR RANGE)	DROOP	INLET PRESSURE		1-1/2 INCH BODY SIZE						2-INCH BODY SIZE						
			Psig	Bar	Port Diameter, Inches (mm)						Port Diameter, Inches (mm)						
					1/4 (6.4)	3/8 (9.5)	1/2 (12.7)	3/4 (19.1)	1 (25.4)	1-3/16 (30.2)	1/4 (6.4)	3/8 (9.5)	1/2 (12.7)	3/4 (19.1)	1 (25.4)	1-3/16 (30.2)	
4-inches wc (10 mbar) or 6-inch wc (15 mbar)	1D8925 27022 or 1D8926 27022	1-inch wc (2.5 mbar)	0.4	0.027				1000	1400	1600				1200	1600	1800	
			0.5	0.034				1400	1600	1800				1700	2200	2400	
			1.0	0.069	400	800	1200	2100	2500	2700	400	900	1300	2800	3200	3800	
			1.5	0.10	500	1050	1600	2500	3000	3200	500	1100	1700	3600	4300	5000	
			2.0	0.14	600	1300	2100	2800	3500	3800	600	1400	2200	4500	5500	6400	
			5.0	0.34	950	2200	3300	4500	5300	6000	1000	2300	3700	7800	9500	10,000	
			13	0.90	1600	3600	6200	7000	7750	7750	1650	3700	6500	10,000	10,000	10,000	
			25	1.7	2300	5000	7750	7750	7750		2400	5200	9200	10,000	10,000		
			60	4.1	4400	7750	7750				4450	9000	10,000	10,000			
			100	6.9	6800	7750	7750				7000	10,000	10,000				
125	8.6	6800	7750					7000	10,000								
7-inches wc (17 mbar)	1D8927 27012	1-inch wc (2.5 mbar)	0.4	0.027				900	1300	1450				950	1400	1600	
			0.5	0.034				1200	1550	1750				1500	1800	2000	
			1.0	0.069	400	800	1100	1900	2300	2500	400	800	1200	2300	2800	3300	
			1.5	0.10	500	1050	1500	2300	2800	3100	500	1050	1600	3100	3600	4500	
			2.0	0.14	600	1300	1900	2600	3300	3600	600	1300	2000	4000	4500	6000	
			5.0	0.34	950	2100	3200	4000	5100	5600	1000	2100	3500	7700	9200	10,000	
			13	0.90	1600	3500	6100	6600	7750	7750	1650	3500	6400	10,000	10,000	10,000	
			25	1.7	2200	5000	7750	7750	7750		2400	5200	9100	10,000	10,000		
			60	4.1	4300	7750	7750				4450	9000	10,000	10,000			
			100	6.9	6800	7750	7750				7000	10,000	10,000				
125	8.6	6800	7750					7000	10,000								
11-inches wc (27 mbar)	1D8932 27032	2-inches wc (5 mbar)	0.5	0.034				800	1500	1700				800	1500	1700	
			1.0	0.069	400	700	1100	1800	2200	2450	400	750	1100	1800	2500	2900	
			1.5	0.10	500	950	1450	2300	2800	2900	500	1000	1450	2500	3400	4000	
			2.0	0.14	600	1200	1700	2700	3200	3300	600	1200	1700	3100	4200	5000	
			5.0	0.34	950	2000	2900	3900	5100	5600	1000	2000	3000	7300	8000	9500	
			13	0.90	1600	3400	5200	6500	7750	7750	1600	3400	6200	10,000	10,000	10,000	
			25	1.7	2100	4700	7750	7750	7750		2400	4800	8900	10,000	10,000		
			60	4.1	4400	7750	7750				4450	8900	10,000	10,000			
			100	6.9	7000	7750	7750				7000	10,000	10,000				
			125	8.6	7000	7750					7000	10,000					
20-inches wc (50 mbar)	1D8933 27032	3-inches wc (7.5 mbar)	1.0	0.069	300	500	750	1000	1300	1700	300	500	750	1000	1300	1700	
			2.0	0.14	500	950	1400	2000	2800	3100	500	950	1400	2000	3000	3500	
			5.0	0.03	900	1700	2500	4200	5000	5500	900	1700	2500	5300	5600	6500	
			13	0.90	1500	3200	5400	6500	7750	7750	1500	3200	5500	9500	10,000	10,000	
			25	1.7	2100	4700	7750	7750	7750		2300	4800	9000	10,000	10,000		
			60	4.1	4400	7750	7750				4400	9500	10,000	10,000			
100	6.9	7000	7750	7750				7000	10,000	10,000							
125	8.6	7000	7750					7000	10,000								

1. See Capacity Information section for conversion to equivalent capacities of other gases and/or normal m³/hr.
 -Shaded areas show where indicated droop would be exceeded regardless of capacity
 -Shaded areas show where maximum operating inlet pressure for a given port diameter is exceeded.

133 Series Self-Operated Regulators

◆ **Wide Pressure Range Capability with Single Regulator** Type 133H may also use Type 133L springs, allowing pressure settings to be varied between 2-inches wc and 10 psig (5 mbar and 0.69 bar) by changing springs.

◆ **Types 133L, 133H and 133HP Suitable for Monitoring Applications** O-ring stem seal on Types 133L, 133H and 133HP isolates body pressure from controlled pressure.

◆ **Excellent Shock Characteristics and Fast Speed of Response** Due to two-way stabilizer vent valve, which vents the spring case more rapidly than conventional vents, lag in diaphragm and valve disk movement is minimized.

◆ **Bubble-Tight Shutoff** Single-port construction, large diaphragm area, and light-rate springs along with disk material and seat design provide low lock-up pressures.



Types 133H, 133L and 133Z Regulators



◆ **Spring and Diaphragm Effects Minimized** Boosting system provides excellent performance over a wide range of flow conditions.

◆ **No Seat-to-Seat Adjustment Required** Balanced single-port design eliminates necessity for seat-to-seat adjustments to achieve bubble-tight shutoff.

◆ **Easy Access to Trim Parts** Valve seat, disk, and cage easily removed with body remaining in line and without disassembly of actuator portion; orifice is not threaded in.

◆ **Reusable Pressure Seals** O-rings used for pressure seals, unlike gaskets, are not ordinarily damaged by disassembling the regulator.

◆ **Resistance to Piping Stresses** Steel constructions are available to help resist pipe stresses.



FISHER-ROSEMOUNT™ Managing The Process Better.™

Bulletin 71.1:133

Table 7. Type 133HP Regulator 100% Capacities in Thousands of CFH of (0.6 Specific Gravity Gas at 14.7 Psia and 60°F)

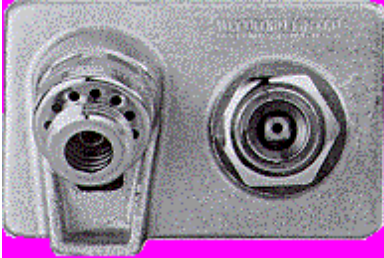
OUTLET PRESSURE RANGE, CONTROL SPRING NUMBER & COLOR	OUTLET PRESSURE SETTING ⁽¹⁾		INLET PRESSURE		2 INCH BODY SIZE 1.91 INCHES (48.5 mm) ORIFICE SIZE		
					DROOP FROM SETPOINT		
	Psig	Bar	Psig	Bar	10%	20%	30%
2 to 5 psig (0.14 to 0.34 bar) 17B8632X012 Yellow	2	0.14	10	0.69	10.4	18.9	27.5
			20	1.4	16.4	29.8	43.3
			40	2.8	27.0	49.1	71.2
			60	4.1	37.1	67.5	97.9
			80	5.5	47.2	85.7	124.3
			100	6.9	57.1	103.9	150.6
			125	8.6	69.5	126.5	183.4
	150	10.3	82.0	149.1	216.3		
	5	0.34	10	0.69	20.2	41.5	42.8
			20	1.4	35.1	71.7	72.3
			40	2.8	59.6	121.3	121.5
			60	4.1	82.4	167.9	168.0
			80	5.5	104.9	213.6	213.6
			100	6.9	127.2	258.9	258.9
125			8.6	155.0	315.4	315.4	
150	10.3	182.7	371.8	371.8			
5 to 10 psig (0.14 to 0.69 bar) 17B8633X012 Orange	5	0.34	10	0.69	11.4	21.4	32.0
			20	1.4	19.6	36.4	53.4
			40	2.8	33.0	61.3	89.6
			60	4.1	45.7	84.7	123.7
			80	5.5	58.1	107.7	157.3
			100	6.9	70.5	130.6	190.7
			125	8.6	85.8	159.0	232.2
	150	10.3	101.2	187.5	273.8		
	10	0.69	25	1.7	40.3	80.5	81.7
			30	2.1	47.1	93.9	94.8
			40	2.8	59.9	119.1	119.7
			60	4.1	84.0	166.8	167.1
			80	5.5	107.4	213.0	213.2
			100	6.9	130.4	258.7	258.8
125			8.6	159.0	315.4	315.4	
150	10.3	187.5	371.8	371.8			
10 to 20 psig (0.69 to 1.4 bar) 1F177027092 Tan	10	0.69	15	1.0	16.4	32.0	51.9
			20	1.4	22.1	42.2	67.7
			40	2.8	39.9	75.4	111.0
			60	4.1	55.9	105.0	155.0
			80	5.5	71.4	134.0	198.0
			100	6.9	86.8	163.0	240.0
			125	8.6	106.0	199.0	292.0
	150	10.3	125.0	235.0	344.0		
	20	1.4	25	1.7	38.8	65.0	70.0
			30	2.1	50.3	82.3	86.0
			40	2.8	69.4	112.0	114.0
			60	4.1	102.0	163.0	164.0
			80	5.5	133.0	211.0	211.0
			100	6.9	162.0	257.0	258.0
125			8.6	198.0	315.0	315.0	
150	10.3	234.0	372.0	372.0			
20 to 30 psig (1.4 to 2.1 bar) 1F177227092 Pink	20	1.4	25	1.7	24.8	50.4	70.0
			30	2.1	31.8	62.6	86.0
			40	2.8	43.5	84.0	114.0
			60	4.1	63.8	122.0	164.0
			80	5.5	83.0	158.0	211.0
			100	6.9	101.0	192.0	258.0
			125	8.6	124.0	235.0	315.0
	150	10.3	146.0	277.0	372.0		
	30	2.1	35	2.4	43.0	80.6	88.2
			40	2.8	53.8	98.4	104.0
			60	4.1	88.0	156.0	159.0
			80	5.5	117.0	207.0	208.0
			100	6.9	145.0	255.0	256.0
			125	8.6	178.0	313.0	314.0
150			10.3	211.0	371.0	371.0	
30 to 40 psig (2.1 to 2.8 bar) 1E805327092 Dark Gray	30	2.1	35	2.4	28.9	59.6	88.2
			40	2.8	35.7	71.0	104.0
			60	4.1	57.5	110.0	159.0
			80	5.5	76.4	146.0	208.0
			100	6.9	94.3	179.0	256.0
			125	8.6	116.0	220.0	314.0
			150	10.3	137.0	260.0	371.0
	40	2.8	45	3.1	43.5	96.2	106.0
			50	3.4	52.6	114.0	122.0
			60	4.1	68.4	146.0	151.0
			80	5.5	95.4	186.0	204.0
			100	6.9	120.0	232.0	253.0
			125	8.6	149.0	287.0	312.0
			150	10.3	177.0	341.0	370.0
40 to 50 psig (2.8 to 3.4 bar) 1E805727092 Light Green	40	2.8	45	3.1	36.2	76.1	106.0
			50	3.4	43.4	88.1	122.0
			60	4.1	56.2	110.0	151.0
			80	5.5	78.1	150.0	204.0
			100	6.9	97.9	187.0	253.0
			125	8.6	122.0	232.0	312.0
			150	10.3	145.0	276.0	370.0
	50	3.4	55	3.7	50.4	112.0	124.0
			60	4.1	59.5	130.0	141.0
			80	5.5	90.2	191.0	197.0
			100	6.9	116.0	227.0	248.0
			125	8.6	147.0	283.0	309.0
			150	10.3	176.0	338.0	368.0
			50 to 60 psig (3.4 to 4.1 bar) 1E805827082 White	50	3.4	55	3.7
60	4.1	51.0				105.0	141.0
80	5.5	76.9				151.0	197.0
100	6.9	99.0				191.0	248.0
125	8.6	125.0				239.0	309.0
150	10.3	149.0				285.0	368.0
60	4.1	65				4.4	57.5
		70		4.8	66.5	146.0	159.0
		80		5.5	83.2	179.0	188.0
		100		6.9	112.0	236.0	242.0
		125		8.6	144.0	280.0	305.0
		150		10.3	174.0	336.0	365.0

1. Outlet pressure setting was made at approximately 10% of the maximum capacity for the listed conditions.
2. Shaded area is equal to maximum flow capacity.

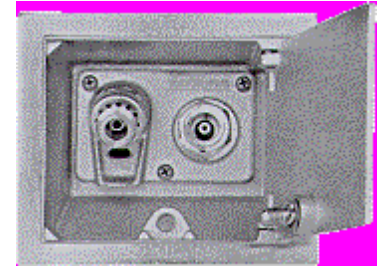
HB-1

DESCRIPTION: HOSE BIBB - FREEZELESS WALL HYDRANT, AUTOMATIC DRAINING, VACUUM BREAKER, 3/4" MALE HOSE THREAD, BRASS VALVE BODY AND SEAT, NON-FERROUS METAL STEM, STANDARD FINISH, WALL CLAMP. FURNISH TWO KEY OPERATORS. ASSE 1019 APPROVED AND LISTED. MOUNT AT 18" ABOVE GRADE UNLESS NOTED OTHERWISE ON DRAWINGS.

MANUFACTURER & CATALOG NO.: WOODFORD 65, ZURN Z-1310, JOSAM 71050, WATTS HY-420, PRIER C-534, MIFAB MHY-10, SMITH 5609-QT



Model 65 and B65 Series
The Model 65 is an automatic draining, freezeless wall hydrant with anti-siphon vacuum breaker. The Model B65 is in a flush mounting wall box. Each model is designed to blend in with modern architecture for installation on restaurants, schools, office buildings, churches, apartments, motels, stores, shopping centers and industrial buildings



Specifications

MODEL 65/B65 – Approved under ASSE Standard 1019-B and listed by IAPMO® . Meets Government Specification WW-P-541b Type 205..

VACUUM BREAKER – ANTI-SIPHON - NIDEL® Model 34HA with 3/4 inch male hose thread, approved under ASSE Standard 1011, Canadian Standards Association, listed by IAPMO® and accepted by U.S. Department of Health.

VALVE SEAT – Permanent type brass valve body with hemispherical seating surface

VALVE – One piece valve plunger accurately controls both flow and drainage with a minimum number of turns and without need for adjustments.

DRAIN – Under nozzle away from hands of operator and with a lip to divert water away from building

CASING – Copper tubes

NO LEAD SOLDER - All solder joints.

STEM – Hardened stainless steel stem resists damage.

TEE KEY – Loose key operates hydrant

OPERATING ROD – 3/8" solid brass operating rod.

EXTERIOR FINISH – Standard Chrome Optional – Polished brass or rough brass; Other Options: Anodized or Powdered coated Aluminum Box

WALL CLAMP – Furnished on all 65 series except close coupled.

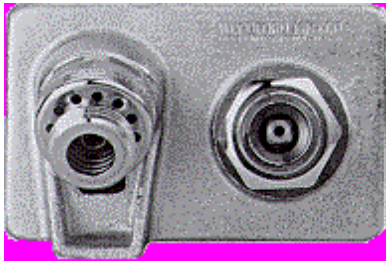
MAX PRESSURE - 125 p.s.i.

MAX TEMPERATURE - 120 degrees F.

HB-2

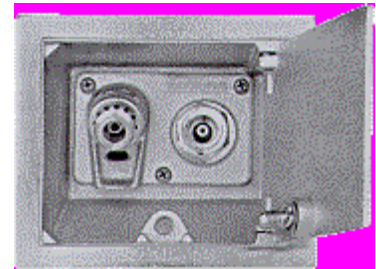
DESCRIPTION: HOSE BIBB - FREEZELESS WALL HYDRANT, CONCEALED TYPE, AUTOMATIC DRAINING, VACUUM BREAKER, 3/4" MALE HOSE THREAD, BRASS VALVE BODY AND SEAT, NON-FERROUS METAL STEM, FLUSH MOUNTING WALL BOX WITH STANDARD FINISH, WALL CLAMP. FURNISH TWO KEY OPERATORS. BOX COVER AND HYDRANT SHALL USE A COMMON KEY. ASSE 1019 APPROVED AND LISTED. MOUNT AT 18" ABOVE GRADE UNLESS NOTED OTHERWISE ON DRAWINGS.

MANUFACTURER & CATALOG NO.: WOODFORD B65, ZURN Z-1300, JOSAM 71000, WATTS HY-725, PRIER C-534-WB, MIFAB MHY-20, SMITH 5509-QT



Model 65 and B65 Series

The Model 65 is an automatic draining, freezeless wall hydrant with anti-siphon vacuum breaker. The Model B65 is in a flush mounting wall box. Each model is designed to blend in with modern architecture for installation on restaurants, schools, office buildings, churches, apartments, motels, stores, shopping centers and industrial buildings



Specifications

MODEL 65/B65 – Approved under ASSE Standard 1019-B and listed by IAPMO® . Meets Government Specification WW-P-541b Type 205..

VACUUM BREAKER – ANTI-SIPHON - NIDEL® Model 34HA with ¾ inch male hose thread, approved under ASSE Standard 1011, Canadian Standards Association, listed by IAPMO® and accepted by U.S. Department of Health.

VALVE SEAT – Permanent type brass valve body with hemispherical seating surface

VALVE – One piece valve plunger accurately controls both flow and drainage with a minimum number of turns and without need for adjustments.

DRAIN – Under nozzle away from hands of operator and with a lip to divert water away from building

CASING – Copper tubes

NO LEAD SOLDER - All solder joints.

STEM – Hardened stainless steel stem resists damage.

TEE KEY – Loose key operates hydrant

OPERATING ROD – 3/8" solid brass operating rod.

EXTERIOR FINISH – Standard Chrome Optional – Polished brass or rough brass; Other Options: Anodized or Powdered coated Aluminum Box

WALL CLAMP – Furnished on all 65 series except close coupled.

MAX PRESSURE - 125 p.s.i.

MAX TEMPERATURE - 120 degrees F.

HB-3

DESCRIPTION: HOSE BIBB - INDOOR TYPE WALL HYDRANT, BRASS CONSTRUCTION, VACUUM BREAKER, 3/4" MALE HOSE THREAD, STANDARD FINISH, METAL WHEEL HANDLE. MOUNT AT []" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: WOODFORD 24, CHICAGO FAUCET 293, ACORN 8121, PRIER C-135AS, T & S BRASS B-0736, MIFAB MHY-90



Model 24 is an anti-siphon vacuum breaker protected wall faucet designed for use in mild climate areas on homes, service stations, churches, motels, drive-in restaurants, etc

Model Y24 is an anti-siphon vacuum breaker protected lawn faucet designed to be used on a stand pipe in the garden, lawn and other water systems of mild climate areas.

The Model B24 is an anti-siphon vacuum breaker protected wall faucet enclosed in a flush mounted wall box. It is designed to blend with modern architecture in mild climate areas, for installation on homes, service stations, churches, motels, drive-in restaurants, etc.

Specifications

ANTI-SIPHON VACUUM BREAKER - NIDEL® Model 34HF with 3/4 inch male hose thread, approved under ASSE Standard 1011, Canadian Standards Association, listed by IAPMO®.

PACKING - Teflon impregnated packing.

PACKING NUT - Adjustable brass nut with deep stem guard.

VALVE SEAT - Standard "O" size washer

EXTERIOR FINISH – Std - Chrome, Optional Rough Brass, or Polished Chrome

Std - Chrome, Optional Rough Brass or Polished Chrome

Std - Chrome, Optional Rough Brass, Others - Anodized or Powder Coated Aluminum Box

OPERATING HANDLE – Polycarbonate Wheel handle and loose tee key.

Polycarbonate Wheel handle and loose Tee Key

Loose key unlocks box and operates faucet

MAX PRESSURE - 125 p.s.i.

MAX TEMPERATURE – 120 degrees F

SHIPPING WEIGHT - 10lbs (approximate weight per master carton of ten units)



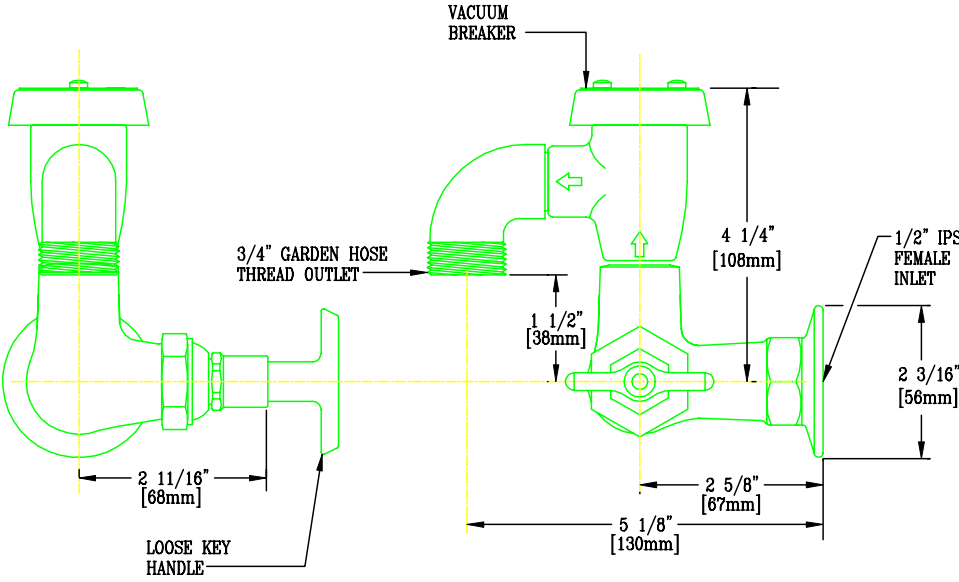
13 lbs - Brass or Chrome -- 6 lbs Aluminum

FOR NON-FREEZING AREAS ONLY

HB-4

DESCRIPTION: HOSE BIBB - INDOOR TYPE WALL HYDRANT, VACUUM BREAKER, 3/4" MALE HOSE THREAD, 3/4" FLANGED I.P.S. INLET, REMOVABLE TEE HANDLE. BRASS CONSTRUCTION, STANDARD FINISH. MOUNT AT []" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 952, T & S BRASS B-0720

	T&S BRASS AND BRONZE WORKS, INC. 2 SADDLEBACK COVE / P.O. BOX 1088 / TRAVELERS REST, SC 29690 PHONE 800-476-4103 FAX 864- 834-3518	 <small>REG.#A2601 ISO #9002</small>	Model No. B-0720-RGH Item No.:
Job Name:		Architect/Engineer Approval:	
Notes:			
 <p style="text-align: center;"> VACUUM BREAKER 3/4" GARDEN HOSE THREAD OUTLET 1 1/2" [38mm] 4 1/4" [108mm] 1/2" IPS FEMALE INLET 2 3/16" [56mm] 2 5/8" [67mm] 5 1/8" [130mm] 2 11/16" [68mm] LOOSE KEY HANDLE </p>			
Product Description: SILL FAUCET WITH VACUUM BREAKER, 3/4" HOSE OUTLET, ROUGH CHROME PLATED FINISH, & 1/2" IPS FEMALE FLANGED INLET		Drawn: WJS	Checked: ARY
		Approved: CA	Scale: 6" = 1' Date: 8/8/95

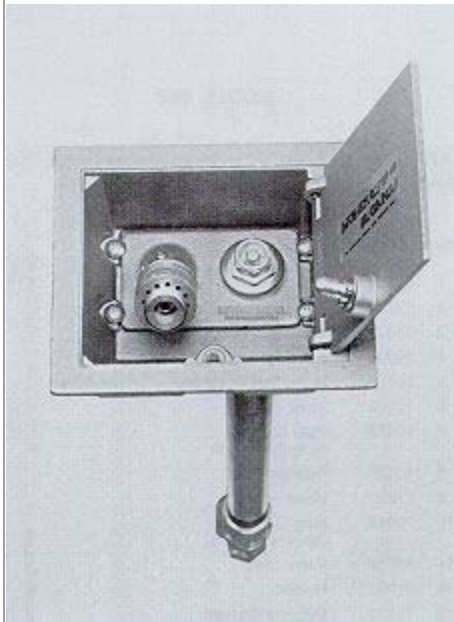
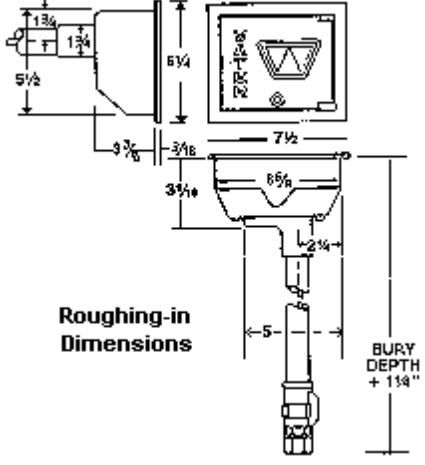
HB-5

DESCRIPTION: HOSE BIBB - FREEZELESS YARD HYDRANT, AUTOMATIC DRAINING, VACUUM BREAKER, BRASS BOX, DOOR AND HEAD CASTING, 3/4" MALE HOSE THREAD. FURNISH TWO KEY OPERATORS, BOX COVER AND HYDRANT SHALL USE A COMMON KEY. [4][5][6][7] FOOT BURY DEPTH.

MANUFACTURER & CATALOG NO.: WOODFORD Y95, ZURN Z-1370, JOSAM 71600, SMITH 5810, MIFAB MHY-60

Note to specifier:

1. Verify bury depth with frost depth.
2. Backflow preventer upstream from unit and sign stating "NON-POTABLE WATER" at unit required if used in Des Moines.
3. Install with 1/2" gravel 12" around drain hole. Provide detail or note.

SPECIFICATIONS	
	Y95 lawn hydrants are installed flush with surrounding surfaces, and are intended for use on golf courses, in parks and recreation areas, shopping center malls, and landscaped areas around buildings. This unit is a freezeless Yard Hydrant that offers anti-siphon protection.
	TAMPER PROOF – Hinged cover locks with same tee key that operates hydrant, prevents unauthorized use.
	ONE PIECE VARIABLE FLOW PLUNGER – Large cushion type seal for longer life – is not easily damaged and assures shut-off even when foreign particles are present. Automatic drain feature – plunger opens drain to prevent freezing.
	PARTS REPLACEMENT – Head nut assembly can be removed for ready access to internal parts.
	ANTI-SIPHON VACUUM BREAKER – NIDEL® Model 34HW with 3/4 inch male hose thread. Approved under ASSE Standard 1011, Canadian Standards Association, listed by IAPMO®.
	PACKING NUT ASSEMBLY – Adjustable packing nut. Lock Nut prevents packing nut from loosening. Teflon impregnated packing.
	BOX – Deep box, brass casting.
	FINISH – Brass box, door, and head casting. Optional: Polished brass door and frame
	INLET – 3/4" N.P.T.
	DRAIN HOLE – 1/8" N.P.T.
CASING – 1" galvanized steel pipe. Optional: 1" Brass pipe.	
OPERATING ROD – 3/8" galvanized steel pipe. Optional: 3/8" Brass pipe.	
MAX PRESSURE - 125 p.s.i.	
MAX TEMPERATURE - 120 degrees F.	
For Maximum protection, we strongly recommend replacing vacuum breaker every 3-5 years	

Bury Depth (Ft)	1	2	3	4	5	6	7
Shipping Weight (lbs) *Approximate	14	16	18	21	23	26	28

HB-6

DESCRIPTION: RECESSED EPOXY COATED STEEL BOX WITH 1/2" INLET x 1/4" COMPRESSION OUTLET SHUT-OFF VALVE FOR WATER SUPPLY TO [KITCHEN APPLIANCE BY OWNER.] [CONCESSION EQUIPMENT.] MOUNT AT []" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: GUY GRAY BIM875, WATERTITE 9000

Note to specifier: Backflow preventer may be required if used for carbonated beverage dispenser. Use BFP-4.

SPACE SAVER
WASHING MACHINE
SUPPLY & DRAIN

26 Gauge 304 1/8" Thick Stainless
Digital Temperature Control
Low Temperature: 120 deg. 200 deg.
High Temperature: 160 deg. 200 deg.

Material: Stainless Steel
Finish: Polished
Color: Silver
Mounting: Wall Mount

Model: BIM875
Weight: 1.5 lbs

Space Saver Designed for
Ice Maker Hookup

Model: BIM875
Material: 26 Gauge 304 1/8" Thick Stainless
Finish: Polished
Color: Silver
Mounting: Wall Mount
Weight: 1.5 lbs

GUY GRAY
MANUFACTURING
COMPANY, INC.
5208 Inter. Rd. No. 100
P.O. Box 7957 - Parkville, Missouri 64078-2257

Phone: 816-951-4400
816-951-4200
FAX: 816-951-4277

HB-7

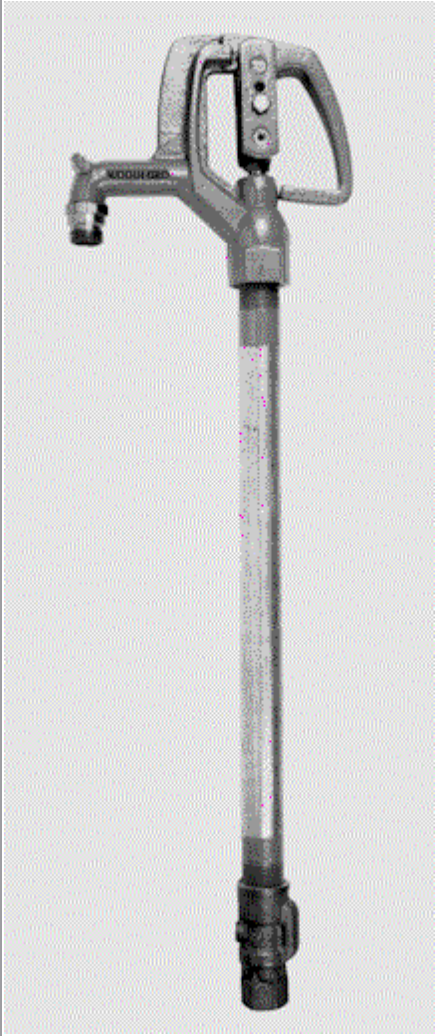
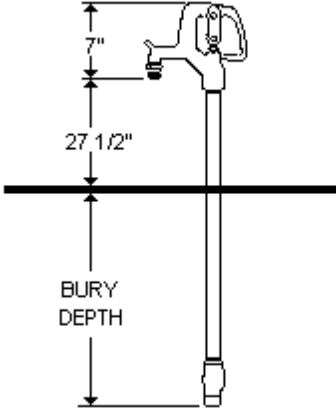
DESCRIPTION: HOSE BIBB - FREEZELESS YARD HYDRANT, 3/4" MALE HOSE THREAD, 3/4" I.P.S. INLET, ONE PIECE PLUNGER, AUTOMATIC DRAINING, LOCKABLE HANDLE, [4][5][6][7] FOOT BURY DEPTH.

VACUUM BREAKER - FREEZE PROOF, SELF DRAINING WITH BREAKAWAY SET SCREW. 3/4" HOSE THREAD INLET AND OUTLET. INSTALL ON OUTLET OF YARD HYDRANT.

MANUFACTURER & CATALOG NO.: WOODFORD W34, ZURN-1395, PRIER C-250, SMITH 5909

Note to specifier:

1. Verify bury depth with frost depth.
2. Hose must be removed from hydrant to allow vacuum breaker to drain.
3. Backflow preventer upstream from unit and sign stating "NON-POTABLE WATER" at unit required if used in Des Moines.
4. Install with 1/2" gravel 12" around drain hole. Provide detail or note.

	SPECIFICATIONS	
	W34 hydrants are used for filling field spray equipment, cleaning tools and equipment, lawn and garden care, watering livestock, fire protection – immediate water flow even in sub-zero temperatures.	
	ONE PIECE VARIABLE FLOW PLUNGER – Large cushion type seal for longer life – is not easily damaged and assures shut-off even when foreign particles are present. Automatic drain feature to prevent freezing.	
	MAINTENANCE AND REPAIR – Can be accomplished from the top of the unit without excavating.	
	TAMPERPROOF LOCK – Can be locked in closed position by inserting padlock or bolt thru hole in link.	
	LONG LIFE PACKING – Teflon impregnated packing in deep chamber with adjustable packing nut.	
	LONG LIFE VALVE SEAT – Special shape – large contact area – eliminates need for renewable nylon seat.	
	FEMALE INLET – 3/4" N.P.T.	
	CASING – 1" Galvanized steel pipe	
	OPERATING ROD – 3/8" Galvanized steel pipe	
	DRAIN HOLE – Tapped-1/8" N.P.T.	
	REMOVABLE NOZZLE – 3/4" Brass male hose nozzle	
	OPTIONAL – (At additional cost) - 1" brass pipe outer casing; 3/8" brass pipe operating rod; 1" hose nozzle (10007)	
	MAX PRESSURE - 125 p.s.i.	
MAX TEMPERATURE - 120 degrees F.		
		

BURY DEPTH (Ft)	1	2	3	4	5	6*	7*
Shipping Weight (Lbs)	14	16	18	20	22	24	26

DESCRIPTION: LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 4" HIGH CONTOURED BACKSPLASH, 20" X 18", [SINGLE FAUCET HOLE][FAUCET HOLES ON 4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF BASIN RIM AT 31" ABOVE FLOOR.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0356.421, CRANE 1412, ELJER 051-2101, KOHLER K-2007, TOTO LT307, ZURN Z5341

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0355.012, CRANE 1412, ELJER 051-2104, KOHLER K-2005, TOTO LT307.4, ZURN Z5344

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0356.015, CRANE 1412, ELJER 051-2108, KOHLER K-2006, TOTO LT307.8, ZURN Z5348

Notes to specifier:

1. Eljer model does not match other styles.

American Standard

LUCERNE™
WALL-HUNG LAVATORY
VITREOUS CHINA

LUCERNE™ WALL-HUNG LAVATORY

- Vitreous china
- Front overflow
- D-shaped bowl
- Self-draining deck area with contoured back and side splash shields
- Faucet ledge

Faucet holes on 203mm (8") centers (Illus.):

0356.028 For exposed bracket support
Shown with 4801.862 Amarillis Heritage faucet with Triune Cross handles (not included)

0356.015 For wall hanger (included) or concealed arms support

Faucet holes on 102mm (4") centers:

0355.027 For exposed bracket support

0355.012 For wall hanger (included) or concealed arms support

Single center faucet hole (Illus.):


0356.041 for exposed bracket support
Shown with 1340.000 metering faucet (not included)

0356.421 for wall hanger (included) or concealed arms support


Nominal Dimensions:
521 x 464mm (20-1/2" x 18-1/4")

Bowl sizes:
381mm (15") wide, 254mm (10") front to back, 171mm (6-3/4") deep

Fixture Dimensions conform to ANSI Standard A112.19.2



0356.028



0356.041

To Be Specified

Color: White Bone Silver Black Shell

Faucet*: Faucet Finish:

Supplies: 1-1/4" Trap:

Nipple:

Bracket Support (by others):

Concealed Arms Support (by others):

● Top of front rim mounted 864mm (34") maximum from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR PEOPLE WITH DISABILITIES

NOTE: Roughing-in information shown on reverse side of page

* See faucet section for additional models available

SPS 0355/0356

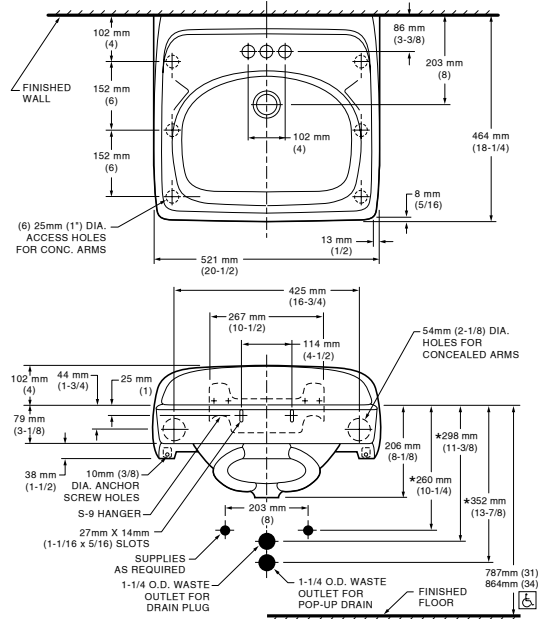
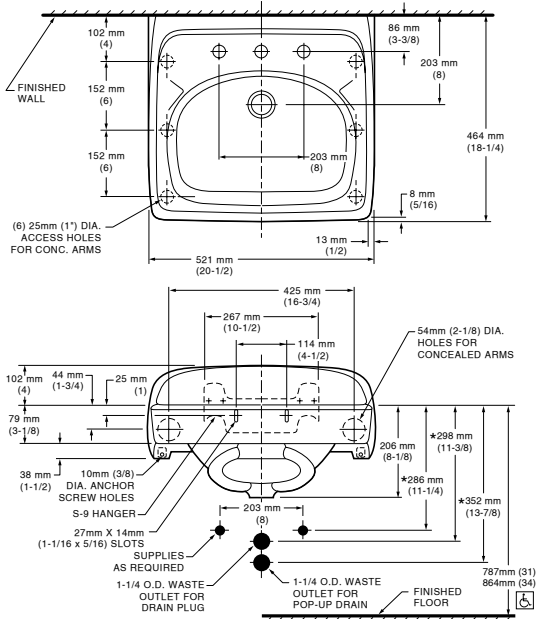
LAV-056/
INS-005

Revised 6/95

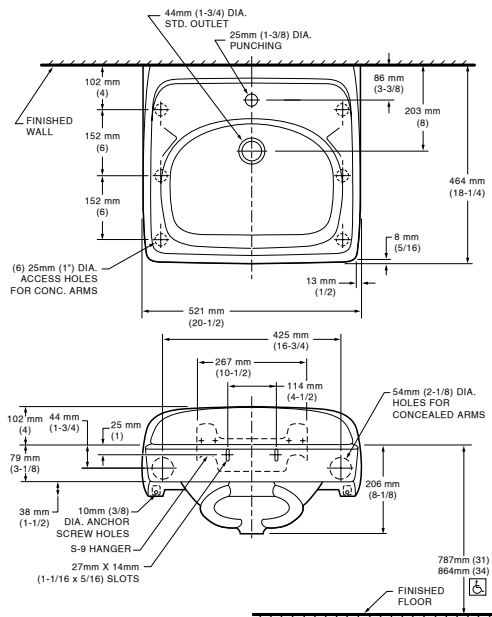
© 1995 American Standard Inc.

0356.015 8" CTRS FOR WALL HANGER OR CONCEALED ARMS

0355.012 4" CTRS FOR WALL HANGER OR CONCEALED ARMS



0356.041 SINGLE CENTER HOLE FOR WALL HANGER OR CONCEALED ARMS



NOTES:
 * DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.

LAVATORY DESIGNED TO MEET ADA HANDICAPPED GUIDELINES WITH MOUNTING HEIGHT SET AT 864MM (34") ABOVE FINISHED FLOOR. PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS. FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY. CONCEALED ARM SUPPORT AS REQUIRED TO BE FURNISHED BY OTHERS. **IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 0355/0356

Revised 6/95

© 1995 American Standard Inc.

L-2

DESCRIPTION: ACCESSIBLE LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 4" HIGH CONTOURED BACKSPLASH, 20" X 18", [SINGLE FAUCET HOLE][FAUCET HOLES ON [4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEAN-OUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. PROVIDE 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP OF BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. PROVIDE OFFSET DRAIN AND TAILPIECE.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0356.421, CRANE 1412, ELJER 051-2101, KOHLER K-2007, TOTO LT307, ZURN Z5341

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0355.012, CRANE 1412, ELJER 051-2104, KOHLER K-2005, TOTO LT307.4, ZURN Z5344

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0356.015, CRANE 1412, ELJER 051-2108, KOHLER K-2006, TOTO LT307.8, ZURN Z5348

DESCRIPTION: PRE-MANUFACTURED P-TRAP, STOP VALVE AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

Notes to specifier:

1. This unit meets ADA requirements for handicapped installation. Specify lever-type or sensor faucet.
2. Eljer model does not match other styles.

LUCERNE™ WALL-HUNG LAVATORY

- Vitreous china
- Front overflow
- D-shaped bowl
- Self-draining deck area with contoured back and side splash shields
- Faucet ledge

Faucet holes on 203mm (8") centers (Illus.):

- 0356.028** For exposed bracket support
 Shown with 4801.862 Amarilis Heritage faucet with Triune Cross handles (not included)
- 0356.015** For wall hanger (included) or concealed arms support

Faucet holes on 102mm (4") centers:

- 0355.027** For exposed bracket support
- 0355.012** For wall hanger (included) or concealed arms support

Single center faucet hole (Illus.):

- 0356.041** for exposed bracket support
 Shown with 1340.000 metering faucet (not included)
- 0356.421** for wall hanger (included) or concealed arms support

Nominal Dimensions:
 521 x 464mm (20-1/2" x 18-1/4")

Bowl sizes:
 381mm (15") wide, 254mm (10") front to back, 171mm (6-3/4") deep

Fixture Dimensions conform to ANSI Standard A112.19.2



0356.028



0356.041

To Be Specified

- Color: White Bone Silver Black
 Shell
- Faucet*: Faucet Finish:
- Supplies: 1-1/4" Trap:
- Nipple:
- Bracket Support (by others):
- Concealed Arms Support (by others):



● Top of front rim mounted 864mm (34") maximum from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR PEOPLE WITH DISABILITIES

NOTE: Roughing-in information shown on reverse side of page

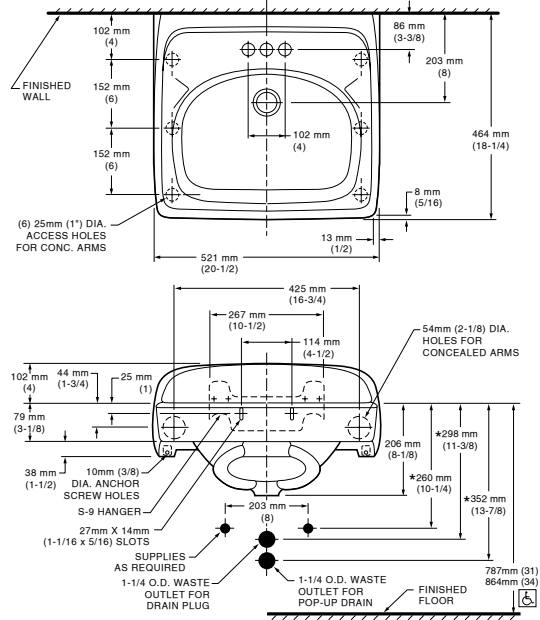
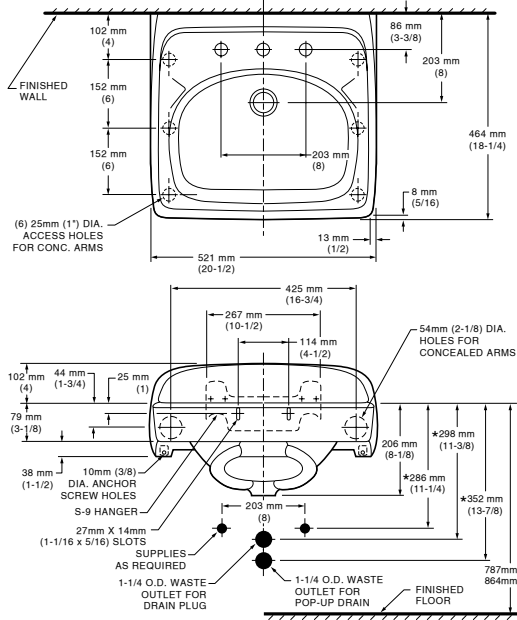
* See faucet section for additional models available

SPS 0355/0356

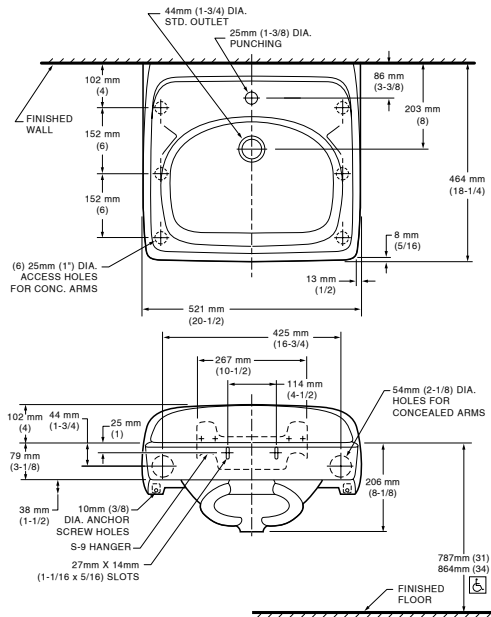
LAV-056/
 INS-005

0356.015 8" CTRS FOR WALL HANGER OR CONCEALED ARMS

0355.012 4" CTRS FOR WALL HANGER OR CONCEALED ARMS



0356.041 SINGLE CENTER HOLE FOR WALL HANGER OR CONCEALED ARMS



NOTES:

* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.

LAVATORY DESIGNED TO MEET ADA HANDICAPPED GUIDELINES WITH MOUNTING HEIGHT SET AT 864MM (34") ABOVE FINISHED FLOOR. PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS. FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY. CONCEALED ARM SUPPORT AS REQUIRED TO BE FURNISHED BY OTHERS. IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 0355/0356

Revised 6/95

© 1995 American Standard Inc.

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093"

Revised 12/29/2006

Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

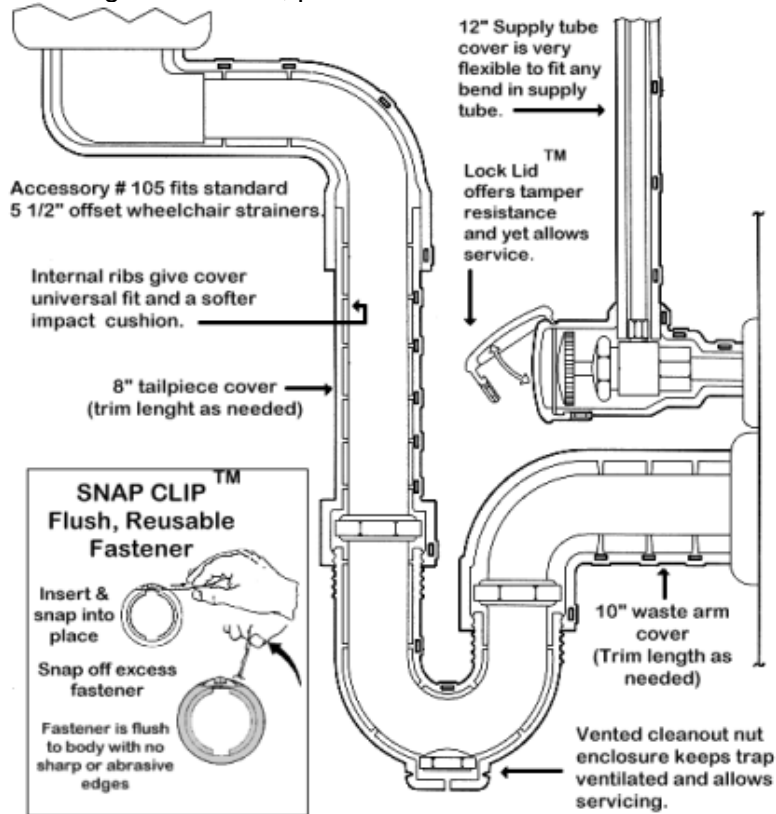
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____ (white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

DESCRIPTION: LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 4" HIGH BACKSPLASH, 20" X 18", [SINGLE FAUCET HOLE][FAUCET HOLES ON [4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEAN-OUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF BASIN RIM AT 31" ABOVE FLOOR.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: GERBER 12-651, KOHLER K-2031

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: GERBER 12-654, KOHLER K-2032

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: GERBER 12-658, KOHLER K-2030

VITREOUS CHINA LAVATORY
GERBER **12-651/12-654/12-658**



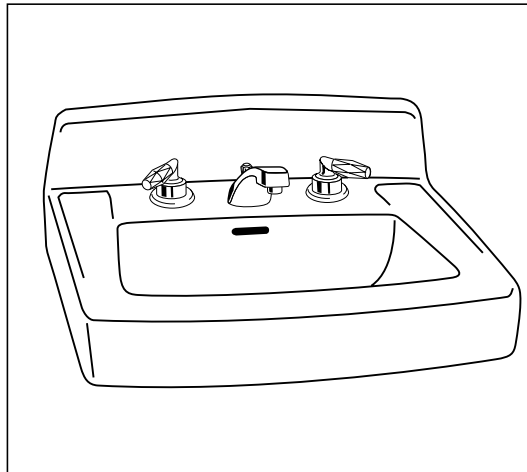
MONTICELLO II
Splash Back

Features:

- 20" x 18" Splash Back Lavatory
- 1 Hole (12-651)
- 4" Centers (12-654)
- 8" Centers (12-658)
- 15" x 10" Bowl
- Two Integral Self-Draining Soap Dishes
- Back Overflow
- Fast Aligning One-Piece Wall Hanger
- Punched for use with Concealed Carrier
- ADA Compliant

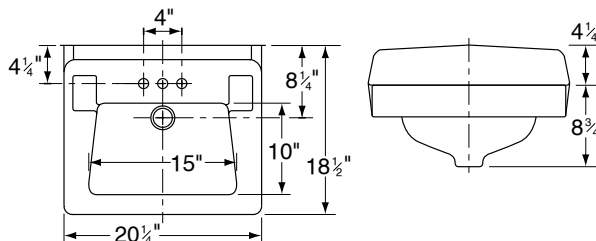
Dimensions:

Height.....	13"
Width.....	20 1/4"
Depth.....	18 1/2"
Splashback Height	4 1/4"
Shipping Weight.....	37 lbs



Faucet not included

Catalog #12-658 Shown



GERBER

PROFESSIONALLY MADE • PROFESSIONALLY SOLD • PROFESSIONALLY INSTALLED
 Gerber Plumbing Fixtures Corp., 4600 W. Touhy Avenue, Lincolnwood, IL 60712-1699
 (847) 675-6570, FAX 1-800-5GERBER (Illinois FAX (847) 675-5192)
 ©2002 Gerber Plumbing Fixtures Corp. www.gerberonline.com

Because we are committed to continual product improvement, specifications are subject to change without notice.

Printed in the U.S.A. 3/03

LAVATORIES

TOILETS

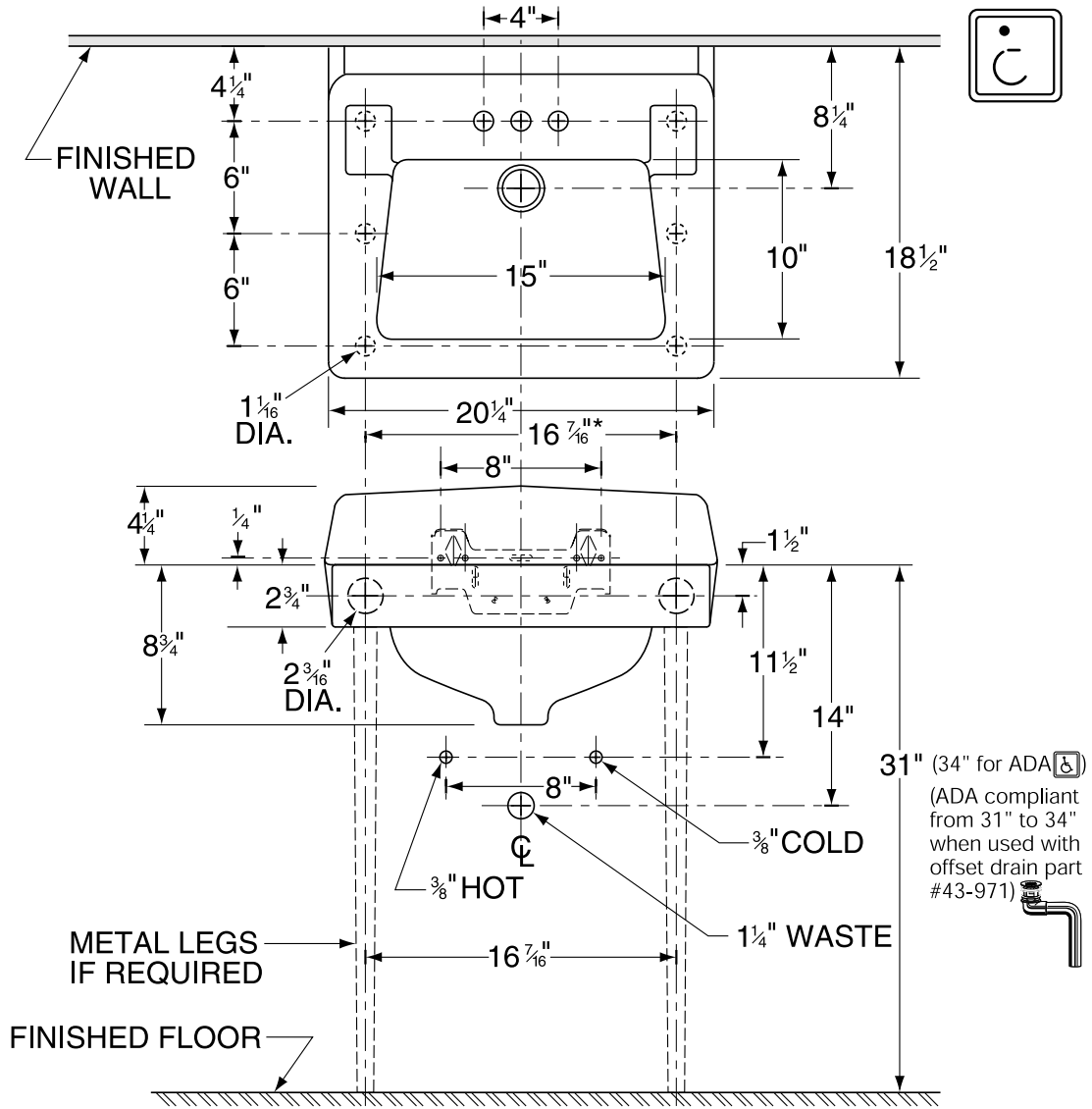
BIDETS / URINALS

MISC.

MONTICELLO II

GERBER®

12-651/12-654/12-658
 Splash Back Lavatory



NOTES:
 All dimensions are in inches.
 *Punched for use with concealed carrier.
 (Can be used with bracket carriers.)
 Illustrations may not be drawn to scale
PLUMBERS NOTE:
 Provide suitable reinforcement for all wall supports.

IMPORTANT:
 Dimensions of fixtures are nominal and may vary within the range of tolerances established by ASME Standard A 112.19.2.

VITREOUS CHINA

LAVATORY
 3/03

L-4

DESCRIPTION: ACCESSIBLE LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 4" HIGH BACKSPLASH, 20" X 18", [SINGLE FAUCET HOLE][FAUCET HOLES ON [4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEAN-OUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. PROVIDE 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP OF BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. PROVIDE OFFSET DRAIN AND TAILPIECE.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: GERBER 12-651, KOHLER K-2031

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: GERBER 12-654, KOHLER K-2032

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: GERBER 12-658, KOHLER K-2030

DESCRIPTION: PROVIDE PRE-MANUFACTURED P-TRAP, STOP VALVE AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

Note to specifier:

1. This unit meets ADA requirements for handicapped installation. Specify lever-type or sensor faucet.



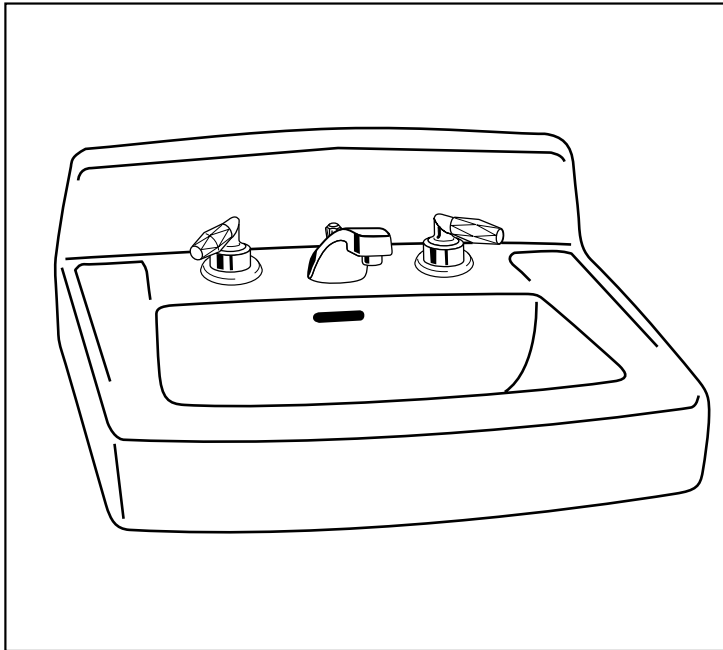
**MONTICELLO II
Splash Back**

Features:

- 20" x 18" Splash Back Lavatory
- 1 Hole (12-651)
- 4" Centers (12-654)
- 8" Centers (12-658)
- 15" x 10" Bowl
- Two Integral Self-Draining Soap Dishes
- Back Overflow
- Fast Aligning One-Piece Wall Hanger
- Punched for use with Concealed Carrier
- ADA Compliant

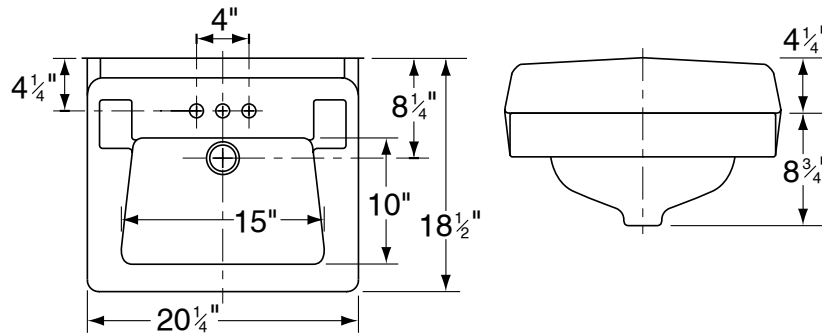
Dimensions:

Height.....	13"
Width	20 ¹ / ₄ "
Depth.....	18 ¹ / ₂ "
Splashback Height	4 ¹ / ₄ "
Shipping Weight.....	37 lbs



Faucet not included

Catalog #12-658 Shown



GERBER®

PROFESSIONALLY MADE • PROFESSIONALLY SOLD • PROFESSIONALLY INSTALLED
 Gerber Plumbing Fixtures Corp., 4600 W. Touhy Avenue, Lincolnwood IL 60712-1699
 (847) 675-6570, FAX 1-800-5GERBER (Illinois FAX (847) 675-5192)
 ©2002 Gerber Plumbing Fixtures Corp. www.gerberonline.com

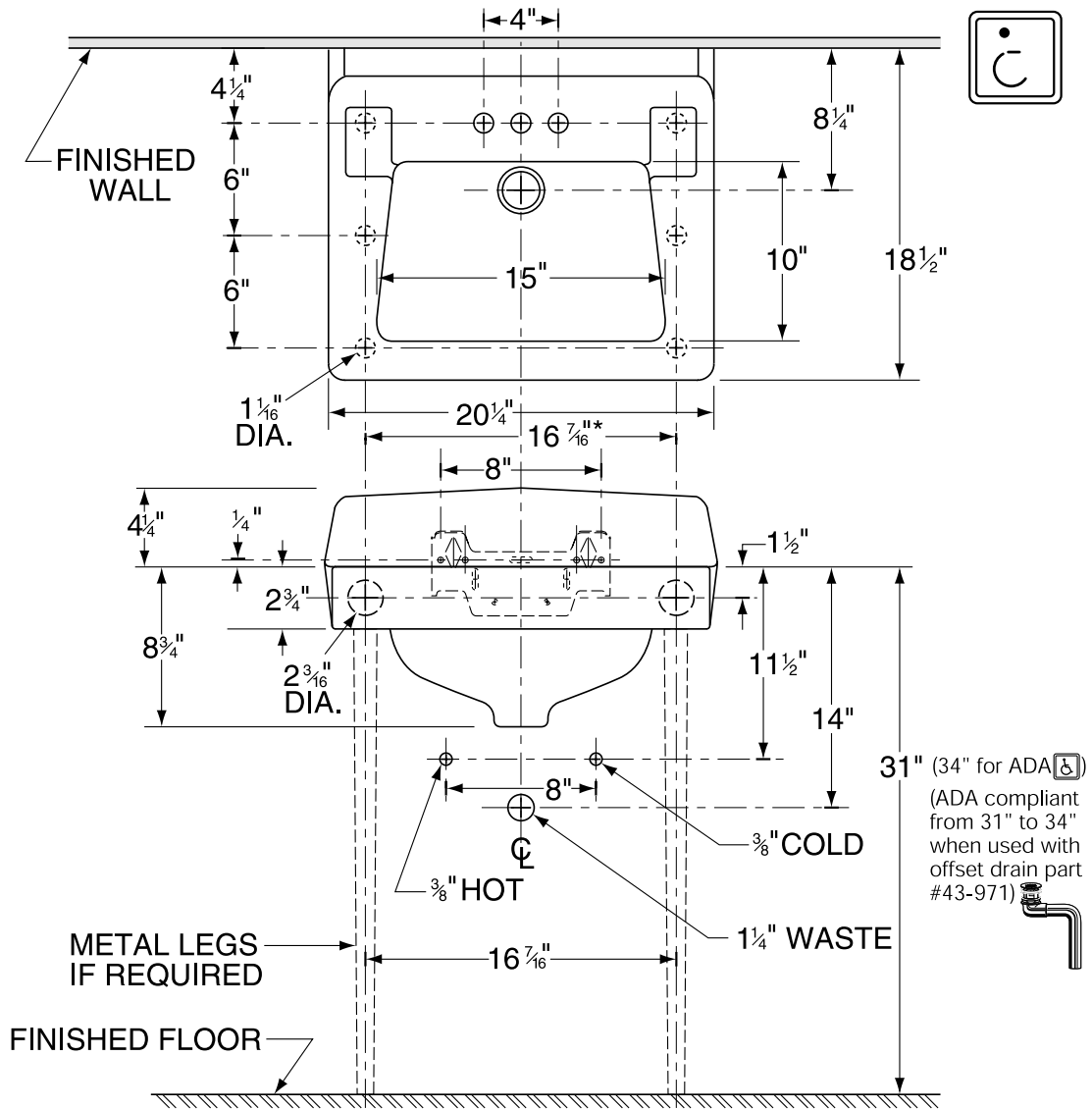
Because we are committed to continual product improvement, specifications are subject to change without notice.

Printed in the U.S.A. 3/03

MONTICELLO II

GERBER®

12-651/12-654/12-658
 Splash Back Lavatory



NOTES:
 All dimensions are in inches.
 *Punched for use with concealed carrier.
 (Can be used with bracket carriers.)
 Illustrations may not be drawn to scale
PLUMBERS NOTE:
 Provide suitable reinforcement for all wall supports.

IMPORTANT:
 Dimensions of fixtures are nominal and may vary within the range of tolerances established by ASME Standard A 112.19.2.

VITREOUS CHINA

LAVATORY
 3/03

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093" Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

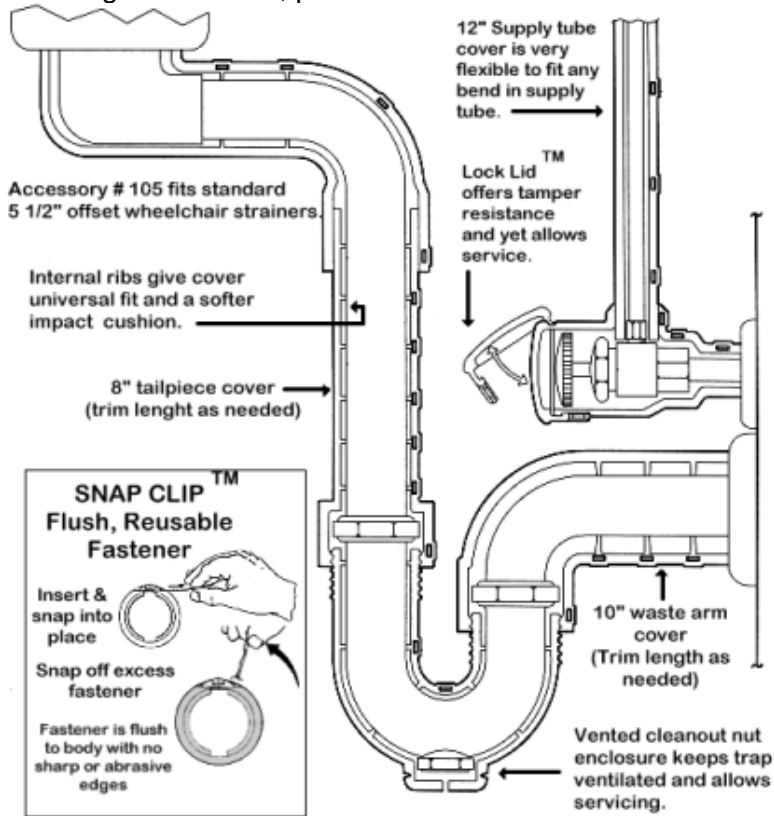
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____(white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

DESCRIPTION: LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 20" X 18", [SINGLE FAUCET HOLE][FAUCET HOLES ON 4"[8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEAN-OUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF BASIN RIM AT 31" ABOVE FLOOR.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: ELJER 051-2241, CRANE 1165, KOHLER K-2084, ZURN Z5311

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: ELJER 051-2244, CRANE 1165, KOHLER K-2054, ZURN Z5314

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: ELJER 051-2248, CRANE 1165, KOHLER K-2053, ZURN Z5318



Mayburne Lavatory

VITREOUS CHINA

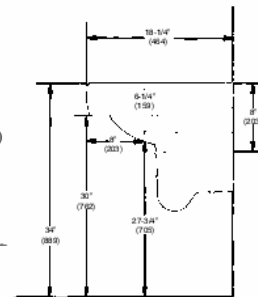
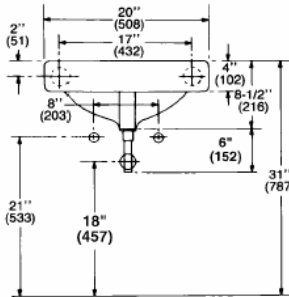
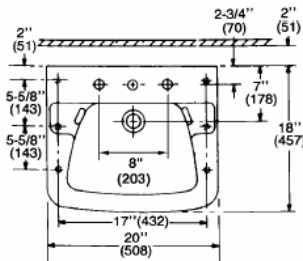
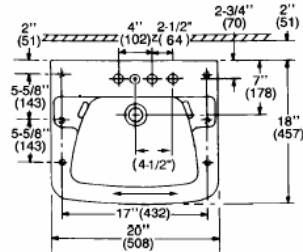


Mayburne Lavatory (051-2248).

- 20" (508mm) x 18" (457mm) - 35 lbs., Cubes 2.54
- Faucet Holes For Single, 4" or 8" Centers
- Model Available with 4" Centers and Extra Hole For Dispenser
- Wall-Hung Lavatory for Exposed or Concealed Arm Carrier (Provided By Others)
- Two Soap Depressions
- Meets Requirements for Both ADA and ANSI 117.1 When Installed Per Code

- 051-2241 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier, Single-Hole for Goose Neck Spout
- 051-2244 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier with Faucet Holes on 4" Centers
- 051-2245 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier with Faucet Holes on 4" Centers with Extra Hole 4-1/2" to Right of Center for Soap Dispenser
- 051-2248 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier with Faucet Holes on 8" Centers

NOTE: Leg Supports (Furnished by Others) Can be Used For Above Lavatories for Support in Conjunction with Carrier Support Provided by Others
Carrier Arm Roughing Information To Be Supplied By Carrier Manufacturer
Location of Supplies And "P" Trap Are Suggested



- CSA Certified
- Eljer products are designed to comply with ADA and CABO/ANSI A117.1 standards, when installed in accordance with these standards. Eljer assumes no responsibility or liability for local or state regulations which deviate from national standards. It shall be the responsibility of the installer to comply with local codes and standards prior to installation of any Eljer product.

FAUCETS ARE NOT INCLUDED.
ALL FIXTURE DIMENSIONS ARE NOMINAL AND MAY VARY WITHIN THE RANGE OF TOLERANCES ESTABLISHED BY A S.M.E./ANSI STANDARD A112.19.2M
ALL MEASUREMENTS SHOWN ARE SUBJECT TO CHANGE OR CANCELLATION.

L-6

DESCRIPTION: ACCESSIBLE LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 20" X 18", [SINGLE FAUCET HOLE][FAUCET HOLES ON [4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEAN-OUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. PROVIDE 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP OF BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. PROVIDE OFFSET DRAIN AND TAILPIECE.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: ELJER 051-2241, CRANE 1165, KOHLER K-2084, ZURN Z5311

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: ELJER 051-2244, CRANE 1165, KOHLER K-2032, ZURN Z5314

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: ELJER 051-2248, CRANE 1165, KOHLER K-2030, ZURN Z5318

DESCRIPTION: PROVIDE PRE-MANUFACTURED P-TRAP, STOP VALVE AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

Note to specifier:

1. This unit meets ADA requirements for handicapped installation. Specify lever-type or sensor faucet.



Mayburne Lavatory

VITREOUS CHINA



- 20" (508mm) x 18" (457mm) - 35 lbs., Cubes 2.54
- Faucet Holes For Single, 4" or 8" Centers
- Model Available with 4" Centers and Extra Hole For Dispenser
- Wall-Hung Lavatory for Exposed or Concealed Arm Carrier (Provided By Others)
- Two Soap Depressions
- Meets Requirements for Both ADA and ANSI 117.1 When Installed Per Code

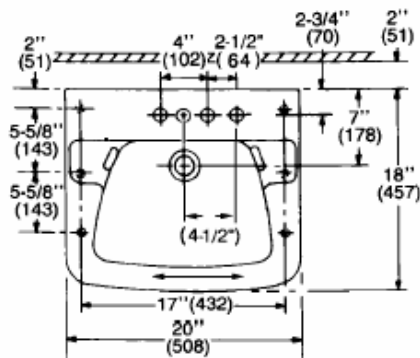
□ 051-2241 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier, Single-Hole for Goose Neck Spout

□ 051-2244 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier with Faucet Holes on 4" Centers

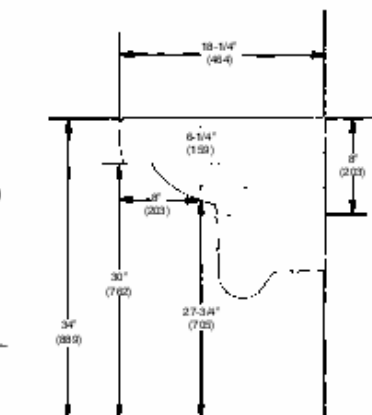
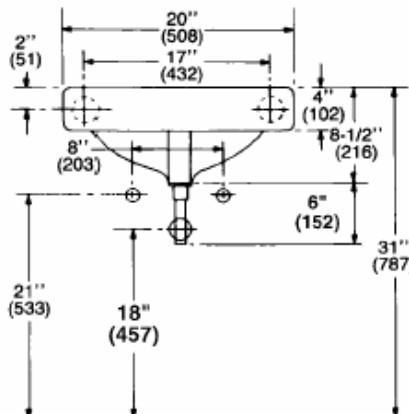
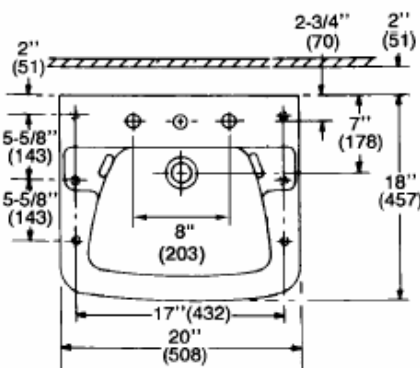
□ 051-2245 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier with Faucet Holes on 4" Centers with Extra Hole 4-1/2" to Right of Center for Soap Dispenser

□ 051-2248 Vitreous China Wall-Hung Lavatory for Exposed or Concealed Arm Carrier with Faucet Holes on 8" Centers

Mayburne Lavatory (051-2248).



NOTE: Leg Supports (Furnished by Others) Can be Used For Above Lavatories for Support in Conjunction with Carrier Carrier Support Provided by Others Carrier Arm Roughing Information To Be Supplied By Carrier Manufacturer Location of Supplies And "P" Trap Are Suggested



CSA Certified

■ Eljer products are designed to comply with ADA and CABO/ANSI A117.1 standards, when installed in accordance with these standards. Eljer assumes no responsibility or liability for local or state regulations which deviate from national standards. It shall be the responsibility of the installer to comply with local codes and standards prior to installation of any Eljer product.

FAUCETS ARE NOT INCLUDED.
ALL FIXTURE DIMENSIONS ARE NOMINAL AND MAY VARY WITHIN THE RANGE OF TOLERANCES ESTABLISHED BY ASME/ANSI STANDARD A112.19.2M
ALL MEASUREMENTS SHOWN ARE SUBJECT TO CHANGE OR CANCELLATION.

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093" Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

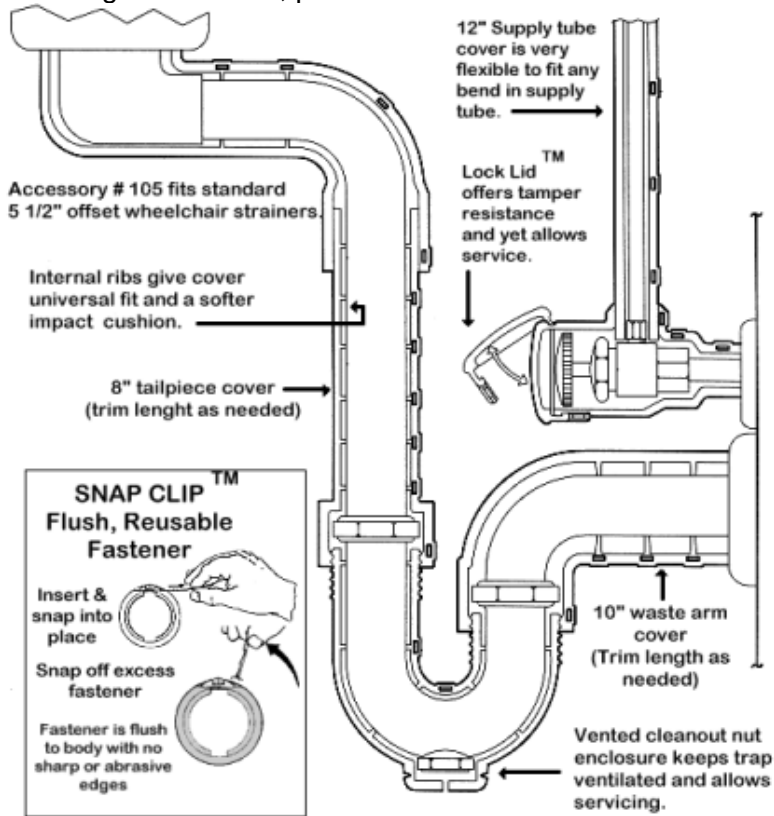
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____(white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

L-7

DESCRIPTION: ACCESSIBLE LAVATORY - WALL MOUNTED, WHITE VITREOUS CHINA, 27" X 20", [SINGLE FAUCET HOLE][FAUCET HOLES ON [4][8][12]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT. DRILLED FOR CONCEALED ARM CARRIER. FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF BASIN RIM TO BE 34" MAXIMUM ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. PROVIDE 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. PROVIDE OFFSET DRAIN & TAILPIECE.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 9140.047, KOHLER K-12638, ELJER 051-2961, GERBER, TOTO LT308, ZURN Z5331

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 9141.011, KOHLER K-12636, ELJER 051-2964, GERBER 12-464, TOTO LT308.4, ZURN Z5334

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: ELJER 051-2968, GERBER 12-468, ZURN Z5338

[Use following manufacturers/model numbers for 12" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 9140.013, KOHLER K-12634, GERBER 12-466, ZURN Z5338

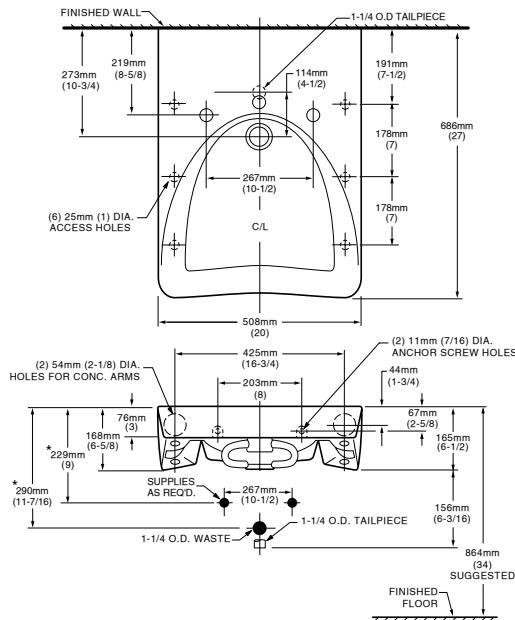
DESCRIPTION: PROVIDE PRE-MANUFACTURED P-TRAP, STOP VALVE AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

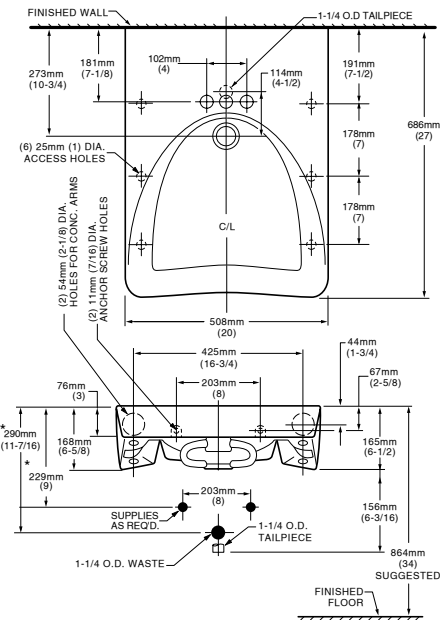
Note to specifier:

1. This unit meets ADA requirements for handicapped installation. For institutional use only, not for general usage.

9140.013



9141.011



Top of front rim mounted 864mm (34") from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR PEOPLE WITH DISABILITIES

NOTES:

- * DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.
- CONCEALED ARM SUPPORT AS REQUIRED TO BE FURNISHED BY OTHERS.
- FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
- PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS

© 1995 American Standard Inc.

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093" Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

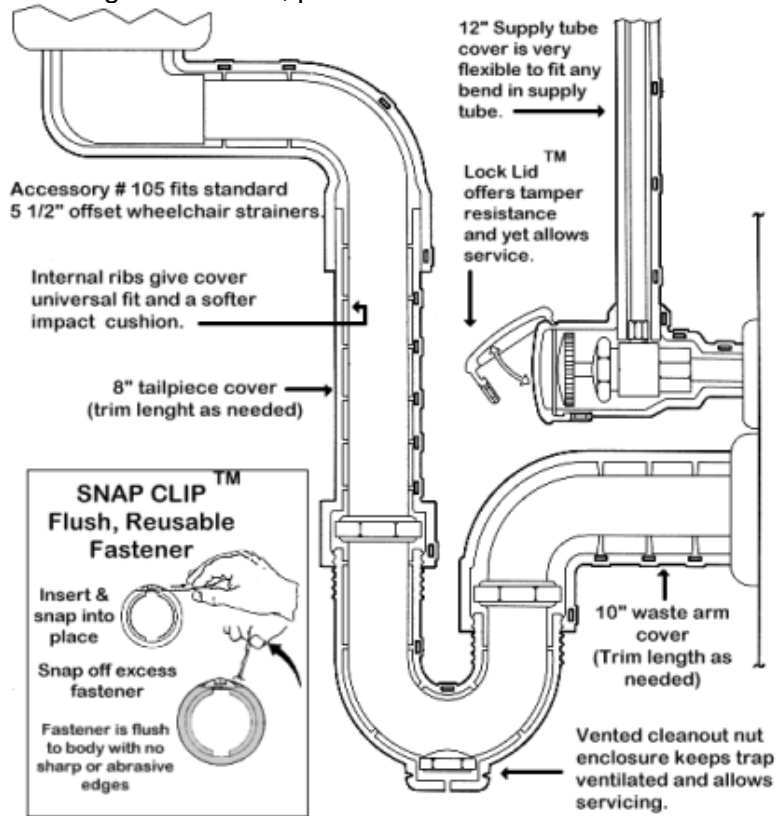
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____(white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

L-8

DESCRIPTION: LAVATORY - COUNTER TOP MOUNTED, SELF-RIMMING, WHITE VITREOUS CHINA, OVAL, 20" X 17", [SINGLE FAUCET HOLE][FAUCET HOLES ON 4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT.

[Use following manufacturers/model number for single hole]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0475.047, KOHLER K-2196-1, ELJER 051-0121, GERBER 12-841, TOTO LT501, ZURN Z5111

[Use following manufacturers/model number for 4" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0476.028, KOHLER K-2196-4, ELJER 051-0124, CRANE 1-287-V, GERBER 12-844, TOTO LT501.4, ZURN Z5114

[Use following manufacturers/model number for 8" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0475.020, KOHLER K-2196-8, ELJER 051-0128, CRANE 1-287-S, GERBER 12-848, TOTO LT501.8, ZURN Z5118

DESCRIPTION: PROVIDE PRE-MANUFACTURED P-TRAP, STOP VALVE, AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

Notes to specifier:

1. Verify mounting height with architect.
2. Remove trap wrap in not required.

AQUALYN COUNTERTOP LAVATORY

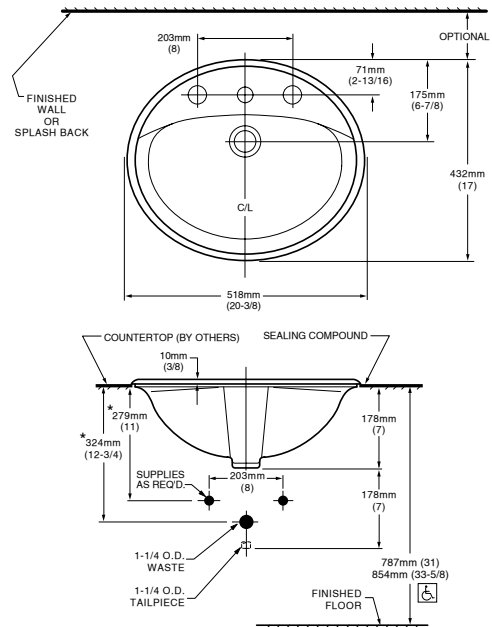
- Vitreous china
- Self-rimming
- Front overflow
- Supplied with template and color-matched sealant
- Faucet ledge.
 Shown with 4801.862 Amarilis/Heritage faucet with Triune cross handles (not included)

- 0475.020** Faucet holes on 203mm (8") ctrs (Illus)
- 0476.028** Faucet holes on 102mm (4") centers
- 0475.047** Center hole only

Nominal Dimensions:
 518 x 432mm (20-3/8" x 17")

Bowl sizes:
 406mm (16") wide, 254mm (10") front to back, 143mm (5-5/8") deep

Fixture Dimensions conform to ANSI Standard A112.19.2



To Be Specified

<input type="checkbox"/> Color:	<input type="checkbox"/> Faucet*:
<input type="checkbox"/> Faucet Finish	<input type="checkbox"/> Supplies:
<input type="checkbox"/> 1-1/4" Trap:	<input type="checkbox"/> Nipple:

* See faucet section for additional models available

MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR PEOPLE WITH DISABILITIES
 Install lavatory 864mm (34") from finished floor.
 Lavatory installed 64mm (2-1/2") minimum from front edge of countertop provides 686mm (27") knee clearance area. **CHECK LOCAL CODE.**

NOTES:
 * DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED. FOR COUNTERTOP CUTOUT AND INSTALLATION INSTRUCTIONS USE TEMPLATE SUPPLIED WITH LAVATORY.
 FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
 IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
 These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093" Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

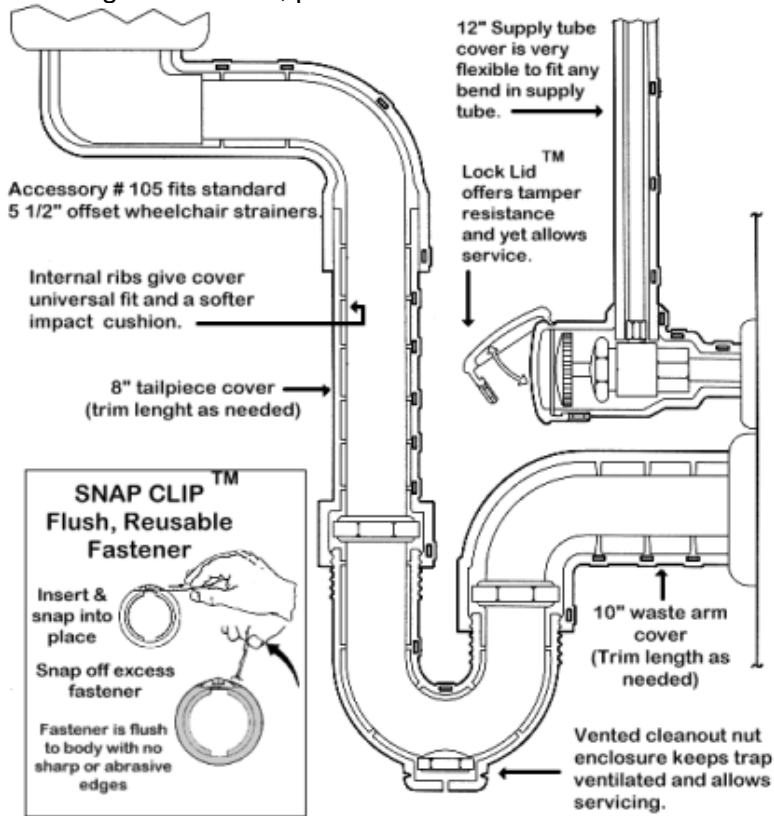
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____(white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

L-9

DESCRIPTION: LAVATORY - COUNTER TOP MOUNTED, SELF-RIMMING, WHITE VITREOUS CHINA, 19" ROUND, [SINGLE FAUCET HOLE][FAUCET HOLES ON [4][8]" CENTERS], [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT.

[Use following manufacturers/model numbers for single hole]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0490.156, KOHLER K-2202-1, ELJER 051-0171, GERBER 12-891, TOTO LT402, ZURN Z5121

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0491.019, KOHLER K-2202-4, ELJER 051-0174, CRANE 1-250-V, GERBER 12-894, TOTO LT402.4, ZURN Z5124

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0490.011, KOHLER K-2202-8, ELJER 051-0178, CRANE 1-250-S, GERBER 12-898, TOTO LT402.8, ZURN Z5128

DESCRIPTION: PROVIDE PRE-MANUFACTURED P-TRAP, STOP VALVE, AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

Notes to specifier:

1. Verify mounting height with architect.
2. Remove trap wrap if not required.

RONDALYN COUNTERTOP LAVATORY

- Vitreous china
- Self-rimming
- Front overflow
- Supplied with template and color-matched sealant
- Faucet ledge.
 Shown with 4801.862 Amarelis/Heritage faucet with Triune cross handles (not included)

0490.011 (Illustrated)
 Faucet holes on 203mm (8") centers

0491.019
 Faucet holes on 102mm (4") centers

0490.156
 Center hole only

Nominal Dimensions:
 483mm (19") diameter

Bowl sizes:
 381mm (15") wide,
 308mm (12-1/8") front to back,
 146mm (5-3/4") deep

Fixture Dimensions conform to ANSI Standard A112.19.2

To Be Specified

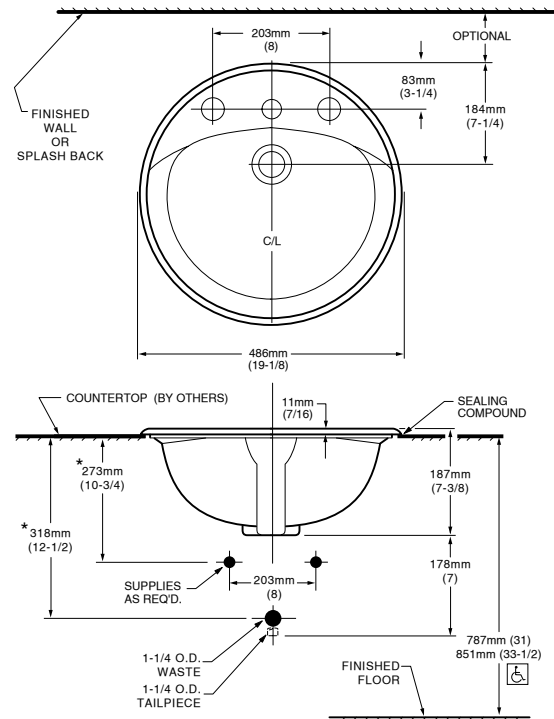
- Color:
- Faucet*:
- Faucet Finish:
- Supplies:
- 1-1/4" Trap:
- Nipple:

* See faucet section for additional models available



MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR PEOPLE WITH DISABILITIES

Install lavatory 864mm (34") from finished floor.
 Lavatory installed 51mm (2") minimum from front edge of countertop provides 686mm (27") knee clearance area. **CHECK LOCAL CODE.**



NOTES:

* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED. FOR COUNTERTOP CUTOUT AND INSTALLATION INSTRUCTIONS USE TEMPLATE SUPPLIED WITH LAVATORY.
 FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
 IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
 These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 0490/0491

LAV-024

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093" Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

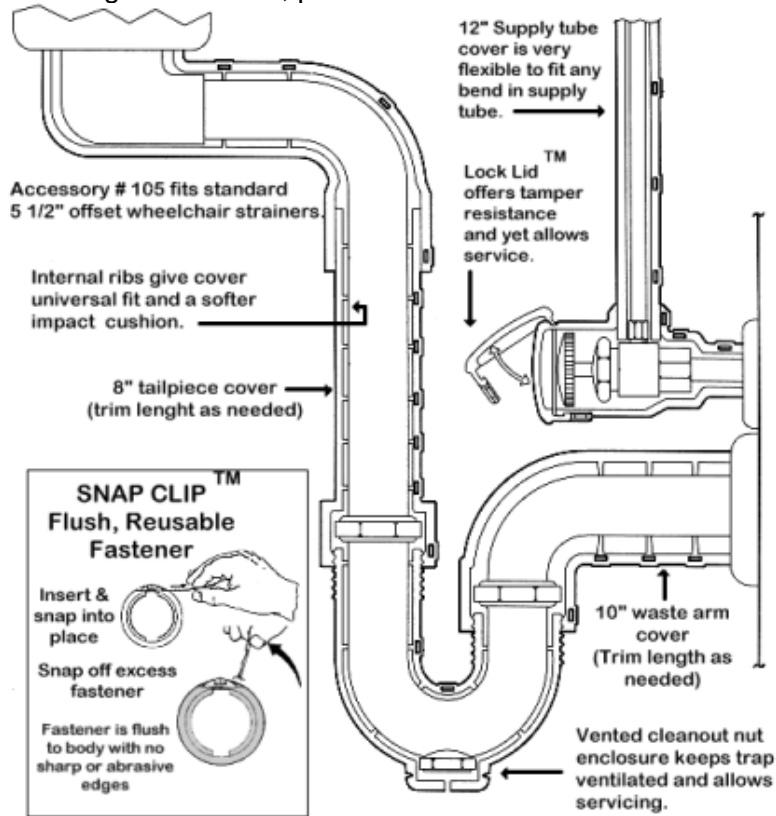
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____(white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

DESCRIPTION: LAVATORY - UNDER-COUNTER MOUNTED, WHITE VITREOUS CHINA WITH 19" X 16" OVAL BOWL AND FRONT OVERFLOW. [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT. COORDINATE OPENINGS REQUIRED IN COUNTERTOP WITH GENERAL CONTRACTOR. FIELD CUT OPENING WILL NOT BE ACCEPTABLE.

MANUFACTURER & CATALOG NO.: AMER. STAND. 0496.221, KOHLER K-2211, ELJER 051-3381, CRANE TIARA 1992, GERBER 12-780, TOTO LT587, ZURN Z5220

DESCRIPTION: PROVIDE PRE-MANUFACTURED P-TRAP, STOP VALVE, AND SUPPLY LINE INSULATION KIT. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE.

MANUFACTURER & CATALOG NO.: TRUEBRO HANDI LAV-GUARD, BROCAR PRODUCTS TRAP WRAP, MCGUIRE PROWRAP, PLUMBEREX PRO-EXTREME

Notes to specifier:

1. Verify mounting height and opening required with architect.
2. Remove trap wrap if not required.



OVALYN II™
UNDER COUNTER LAVATORY
VITREOUS CHINA

OVALYN II UNDER COUNTER LAVATORY

- Vitreous china
- Unglazed rim for under counter mount
- Rear overflow
- Supplied with mounting kit (047194-0070A)

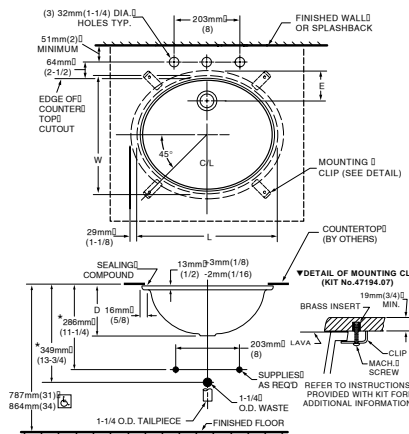
- ☐ **0496.011 Unglazed rim**
489 x 413mm (19-1/4" x 16-1/4")

Bowl size:
432mm (17") wide,
356mm (14") front to back,
140mm (5-1/2") deep

- ☐ **0497.012 Unglazed rim**
540 x 451mm (21-1/4" x 17-3/4")

Bowl size:
483mm (19") wide,
381mm (15") front to back,
140mm (5-1/2") deep

Fixture Dimensions conform to ANSI Standard A112.19.2



To Be Specified

- ☐ Color:
- ☐ Faucet*:
- ☐ Faucet Finish:
- ☐ Supplies:
- ☐ 1-1/4" Trap:
- ☐ Nipple:

- * See faucet section for additional models available
- ☐ Countertop 864mm (34") from finished floor. Lavatory installed 51mm (2") from front edge of countertop. Countertop thickness to be 25mm (1") maximum. **MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR PEOPLE WITH DISABILITIES**

CAT. NO.	SIZE	L _D	W _D	D _D	E _D
0496.011	489 X 413mm (19-1/4 X 16-1/4)	432mm (17)	356mm (14)	162mm (7-3/16)	103mm (4-1/16)
0497.012	540mm X 451mm (21-1/4 X 17-3/4)	483mm (19)	397mm (15-5/8)	187mm (7-3/8)	106mm (4-1/4)

NOTES:
WE RECOMMEND USING BASIN AS A TEMPLATE TO DETERMINE PROPER CONTOUR. CUT COUNTERTOP 38MM (1-1/2") INSIDE BASIN CONTOUR. FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY. * DIMENSIONS SHOWN FOR LOCATION OF SUPPLIED AND "P" TRAP ARE SUGGESTED. ▼ UNDERCOUNTER MOUNTING KIT SUPPLIED WITH LAVATORY. **IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

PRODUCT DESCRIPTION

New from TRUEBRO...The BASIN-GUARD™. This smooth, attractive undersink enclosure conceals unsightly piping and mechanical connections, while maintaining knee and foot clearances mandated by ADA. Molded from .093" Rigiwall E™ protective vinyl, it offers a UL listing and satisfies BOCA Class 1 interior finish material code for fire and smoke ratings. This product can be installed under either kitchen sinks or restroom lavatories where counter tops and sidewalls are present. This enclosure eliminates the need to insulate piping. Servicing sink or lavatory is easily accessed through the bottom opening.

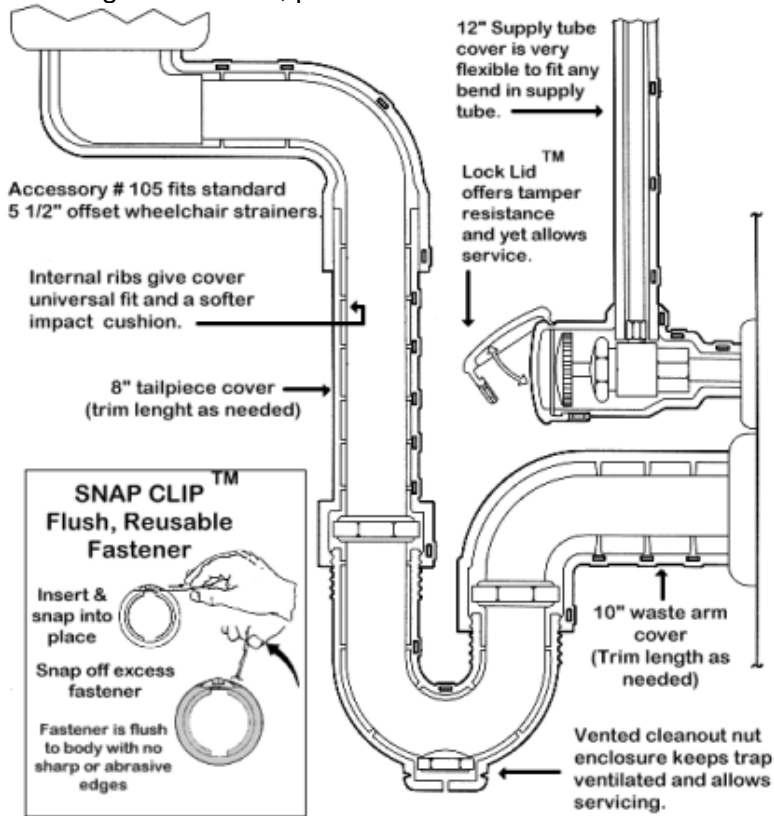
SAMPLE SPECIFICATIONS

Wheelchair accessible sinks or lavatories shall be equipped with the molded TRUEBRO Basin-Guard undersink enclosure Model # _____, color _____(white or beige).

e to specifier: The Basin-Guard should be specified in combination with ADA conforming kitchen sinks (example:Elkay ADA-R Line) with 5 1/2" deep bowls and rear waste outlets.

INSTALLATION

The Basin-Guard is offered in 36" and 42" widths and is easily trimmed to size. Special edge cap moldings hide the trimmed edge for a clean, professional and attractive installation.



MATERIAL:	molded closed cell vinyl
NOM. WALL:	55-65 Shore A
UV PROTECTION:	Will not fade or discolor
DURABILITY:	Virtually indestructible
FASTENERS:	Snap Clip, Flush, Reusable
COLOR:	Light gray or China white
PAINTABILITY:	Apply acrylic enamel
BURNING CHARACTERISTICS: ASTM D 635:	Self-extinguish 5 sec (ATB), 10 mm(AEB)
THERMAL CONDUCTIVITY:	BTU-IN/HR-FT ² -°F K value of 1.17
BACTERIA/FUNGUS RESIST:	Antimicrobial vinyl formula
MAINTENANCE:	USE COMMON DETERGENTS

DESCRIPTION: HAND WASH SINK - WALL MOUNTED, 3 HOLE DRILLED, 4" CENTERS, 18 GAUGE TYPE 304 STAINLESS STEEL, 22" X 19" WITH 16" X 12" X 5-1/2" DEEP BOWL, INTEGRAL BACKSPLASH, CONNECTED OVERFLOW, WALL MOUNTING BRACKETS, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS AND 17 GAUGE BRASS "P" TRAP WITH CLEANOUT. TOP OF BASIN RIM AT 31" ABOVE FLOOR.

MANUFACTURER & CATALOG NO.: ELKAY ELVWO-2219, JUST B-21429

Note to specifier:

1. Use for hand wash sinks in commercial kitchens.

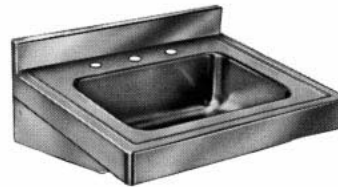
Lustertone® Lavatory Sink, Wall Mounted
Models ELV-2219-CS ELV-2219
ELVWO-2219-CS ELVWO-2219



SPECIFICATIONS

GENERAL

#18 gauge, type 302 (18-8), stainless steel lavatory with 5/32" (4 mm) raised rims and 2-1/2" (64 mm) high back splash. Compartment has 1-3/4" (44 mm) radius vertical and horizontal covered corners. 2-1/2" (64 mm) apron at front and both sides. Exposed surfaces are hand blended to a uniform satin luster finish. Underside is sound deadened. Furnished with integral stainless steel support brackets and separate wall hanger.



ELV-2219 Illustrated

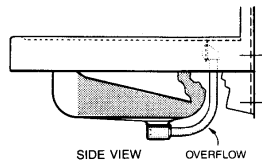
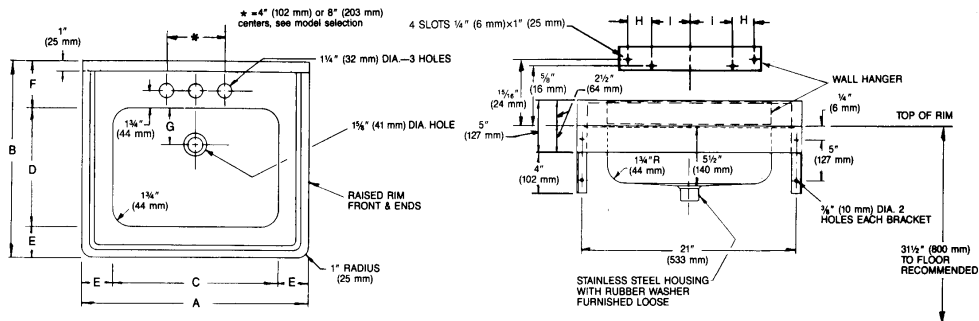
FOLLOWING MODELS DO NOT INCLUDE FAUCET AND FITTING:

(CHECK MODEL SPECIFIED)

- ELV-2219-CS (Three faucet holes 1-1/4" (32 mm) dia. on 2" (51 mm) centers.)
- ELVWO-2219-CS (Three faucet holes 1-1/4" (32 mm) dia. on 2" (51 mm) centers. With connected overflow.)
- ELV-2219 (Three faucet holes 1-1/4" (32 mm) dia. on 4" (102 mm) centers.)
- ELVWO-2219 (Three faucet holes 1-1/4" (32 mm) dia. on 4" (102 mm) centers. With connected overflow.)

DIMENSIONS

MODEL NUMBER	A		B		C		D		E		F		G		H		I	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
ELV-2219	22	559	19	483	16	406	11 1/4	292	3	76	4 1/2	114	3 1/2	89	2 1/2	67	4 15/16	125
ELVWO-2219	22	559	19	483	16	406	11 1/2	292	3	76	4 1/2	114	3 1/2	89	2 1/2	67	4 15/16	125



In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 12/97) 3-3D

L-12

DESCRIPTION: LAVATORY - PROVIDED [AND INSTALLED] BY OTHERS [AND INSTALLED BY PLUMBING CONTRACTOR]. [STRAINER AND TAILPIECE PROVIDED BY [OTHERS][PLUMBING CONTRACTOR] AND INSTALLED BY [OTHERS][PLUMBING CONTRACTOR].] FURNISH AND INSTALL [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS AND 17 GAUGE BRASS "P" TRAP WITH CLEANOUT. [FURNISH SUPPORT CARRIER BOLTED SECURELY TO FLOOR.]

MANUFACTURER & CATALOG NO.: BY G.C.

Note to specifier:

1. Include strainer and tailpiece if provided with lavatory. Otherwise it should be specified with lavatory trim and removed from this description.

DESCRIPTION: MODULAR LAVATORY - SOLID SURFACE BOWL WITH [TWO][THREE] WASH STATIONS, [INTEGRAL SOAP DISPENSER(S)], PEDESTAL, STAINLESS STEEL MOUNTING FRAME. FINAL COLOR SELECTION BY ARCHITECT.

LAVATORY TRIM - PREPIPED FOR SINGLE HOT, COLD, AND DRAIN CONNECTION, INFRARED SENSOR ACTIVATED FAUCET WITH THERMOSTATIC MIXING VALVE, COMBINATION CHECK VALVE AND STOP ASSEMBLY WITH REMOVABLE STRAINER. 110/24 VAC PLUG-IN TRANSFORMER AND SOLENOIDS, 60 Hz, 3/8" NPT, ELECTRONICALLY ACTIVATED. 1-1/2" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT, TWO FLEXIBLE STAINLESS STEEL SUPPLY CONNECTIONS, GRID STRAINER DRAIN, TAILPIECE, ANCHOR TO WALL AND FLOOR PER MANUFACTURER'S REQUIREMENTS. CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP OF BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND AMSE/ANSI STANDARD A112.18.1M.

[Use following manufacturers/model numbers for two station]

MANUFACTURER & CATALOG NO.: BRADLEY SS-2N, ACORN 3772, WILLOUGHBY WAW-2322

[Use following manufacturers/model numbers for three station]

MANUFACTURER & CATALOG NO.: BRADLEY SS-3N, ACORN 3773, WILLOUGHBY WAW-2333

Note to specifier:

1. Unit meets ADA requirements.
2. Coordinate electrical requirements with Electrical Engineer. Other trim options are available, check with each manufacturer and edit description/model number as required.
3. Review requirements of mixing valve with all manufacturers. Pressure ranges vary between manufacturers.
4. Mixing valve is a single temperature output and can not be adjusted. Verify requirements with each manufacturer.

PLUMBING FIXTURES
TECHNICAL DATA

2 Station Express™ Lavatory System

Model SS-2/IR Express™ Lavatory System w/ Infrared Control
Model SS-2/AST Express™ Lavatory System w/ Air Valve Metering

- ADA Compliant
- Serves One or Two Users at a Time
- Continuous Bowl
- Standard Lavatory Spacing on 30" Centers
- Unique, Repairable Terreon® Solid Surface Material
- Reliable Infrared Activation or Push Button Air Valve Control

Specifications

Accommodates one or two users. These units handle washroom traffic quickly and economically while providing each user with personal space. The lavatories for the Express™ system are positioned on 30" centers. The preassembled sprayhead module is equipped with independent streamformers, each served by a separate push-button or infrared sensor. Standard flow rate of .5 GPM meets industry standards for water conservation while providing enough water to rinse hands quickly and efficiently. Operating range is 20-80 PSI.

Construction

Bowl
Constructed of Terreon®, a densified solid surface material composed of polyester resin. Terreon® is resistant to chemicals, stains, burns, and impact. Surface damage can be easily repaired with everyday cleansers or fine-grit abrasives.

Pedestal/Scuff Panels

Panels are composed of vacuum-formed acrylic laminate. Highly resistant to impact, abrasion, acid and corrosion. The panels will not chip, peel or flake.

Support Frame

Bowl assembly and panel are secured to a heavy gauge stainless steel support frame mounted to wall and supported on floor.

Vandal Resistance

The molded sprayhead is an integral part of the bowl module. Its concealed vandal-resistant streamformers discourage abuse. The infrared sensor will automatically shut off water flow after 30-45 seconds if a vandal attempts to trigger constant operation by covering the sensor, or by placing a stationary object in the sensor's detection area. Pushbuttons are secured to the unit from inside the sprayhead. Air valves, water supplies and waste are concealed within the pedestal/support frame assembly.

Barrier-Free (ADA Compliant)

Standard Height
The standard height Express™ is designed to comply with all ADA guidelines on reaches, clearances and operation

Juvenile Height

The juvenile height Express™ Lavatory must have a rim height

Document No. 1000

This information is subject to change without formal notice.
0505WCR (3 Pages Total)

LS1000.1



Model SS-2AST

no higher than 31" above finished floor to be compliant with Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities: Building Elements Designed for Children's Use; Final Rule.

Standard Equipment

Bowl with two lavatories, pedestal, stainless steel mounting frame (as described above), and the following fittings: P-trap; tailpiece; two flexible stainless steel supply connections; and Vernaltherm thermostatic mixing valve with combination stop, strainer, check valves, and 110/24 VAC plug-in transformer (model SS-2/IR only).

Activation Controls

Infrared Sensor (Model SS-2/IR)

Each of the streamformers is controlled by a separate solenoid valve. Hands placed within the bowl are detected by an infrared sensor module which activates a flow of tempered water from one stream former. Shut-off is automatic after hands are removed from the detection area.

The infrared sensor uses a conical shaped transmitting beam, having a detection area adapted to, but not exceeding the bowl perimeter. The detection area projects forward 15° to each side and 15° below horizontal. The adaptive infrared sensor automatically adapts to the bowl after power is turned on.

The infrared sensor is not affected by varying color tones or darkness. Direct sunlight or bright washroom lights will not activate the system. Infrared models also include solenoid valves and a low voltage transformer as standard equipment:



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
http://www.bradleycorp.com
Technical Information Fax Service: 1-800-BRADFAX

PLUMBING FIXTURES
TECHNICAL DATA

3 Station Express™ Lavatory System

Model SS-3/IR Express™ Lavatory System w/ Infrared Control
Model SS-3/AST Express™ Lavatory System w/ Air Valve Metering

- ADA Compliant
- Serves One to Three Users at a Time
- Continuous Bowl
- Standard Lavatory Spacing on 30" Centers
- Unique, Repairable Terreon® Solid Surface Material
- Reliable Infrared Activation or Push Button Air Valve Control

Specifications

Accommodates one to three users. These units handle washroom traffic quickly and economically while providing each user with personal space. The lavatories for the Express™ system are positioned on 30" centers. The preassembled sprayhead module is equipped with independent streamformers, each served by a separate push-button or infrared sensor. Standard flow rate of .5 GPM meets industry standards for water conservation while providing enough water to rinse hands quickly and efficiently. Operating range is 20-80 PSI.

Construction

Bowl
Constructed of Terreon®, a densified solid surface material composed of polyester resin. Terreon® is resistant to chemicals, stains, burns and impact. Surface damage can be easily repaired with everyday cleansers or fine-grit abrasives.

Pedestal/Scuff Panels

Panels are composed of vacuum-formed acrylic laminate. Highly resistant to impact, abrasion, acid and corrosion. The panels will not chip, peel or flake.

Support Frame

Bowl assembly and panel are secured to a heavy gauge stainless steel support frame mounted to wall and supported on floor.

Vandal Resistance

The molded sprayhead is an integral part of the bowl module. Its concealed vandal-resistant streamformers discourage abuse. The infrared sensor will automatically shut off water flow after 30-45 seconds if a vandal attempts to trigger constant operation by covering the sensor, or by placing a stationary object in the sensor's detection area. Pushbuttons are secured to the unit from inside the sprayhead. Air valves, water supplies and waste are concealed within the pedestal/support frame assembly.

Barrier-Free (ADA Compliant)

Standard Height
The standard height Express™ is designed to comply with all ADA guidelines on reaches, clearances and operation

Juvenile Height

The juvenile height Express™ Lavatory must have a rim height no higher than 31" above finished floor to be compliant with Americans with Disabilities Act (ADA) Accessibility Guidelines

Document No. 1020

This information is subject to change without formal notice.
0505WCR (3 Pages Total)



Model SS-3AST

for Buildings and Facilities: Building Elements Designed for Children's Use; Final Rule.

Standard Equipment

Bowl with three lavatories, pedestal, stainless steel mounting frame (as described above), and the following fittings: P-trap; tailpiece; two flexible stainless steel supply connections; and Vernaltherm thermostatic mixing valve with stop, strainer, check valves, and 110/24 VAC plug-in transformer (model SS-3/IR only).

Activation Controls

Infrared Sensor (Model SS-3/IR)

Each of the streamformers is controlled by a separate solenoid valve. Hands placed within the bowl are detected by an infrared sensor module which activates a flow of tempered water from one stream former. Shut-off is automatic after hands are removed from the detection area.

The infrared sensor uses a conical shaped transmitting beam, having a detection area adapted to, but not exceeding the bowl perimeter. The detection area projects forward 15° to each side and 15° below horizontal. The adaptive infrared sensor automatically adapts to the bowl after power is turned on.

The infrared sensor is not affected by varying color tones or darkness. Direct sunlight or bright washroom lights will not activate the system. Infrared models also include solenoid valves and a low voltage transformer as standard equipment:

- Solenoid - 24V, 50/60 Hz, 3/8" NPT. Few moving parts, and resistant to most chemicals, minerals, and impurities often present in municipal water supplies.



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
http://www.bradleycorp.com
Technical Information Fax Service: 1-800-BRADFAX

LS1020.1

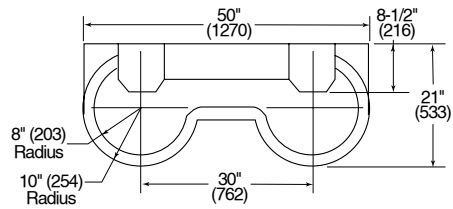
SS-2 Express™ Lavatory System

Model SS-2/IR
Model SS-2/AST

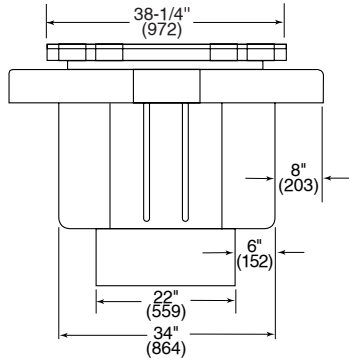
PLUMBING FIXTURES TECHNICAL DATA

Model SS-2 Two Person

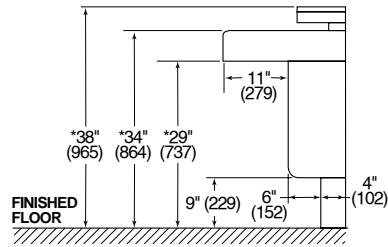
Dimensions shown in parentheses are millimeters.



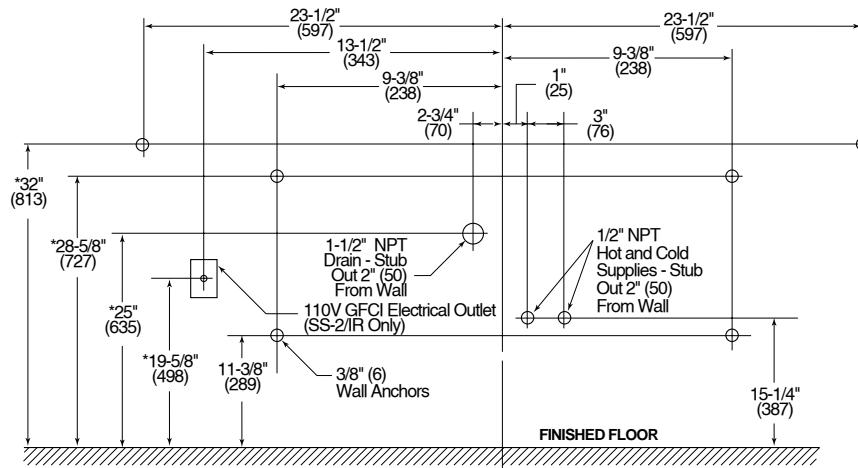
TOP VIEW



FRONT VIEW



SIDE VIEW



* Subtract 4" from this dimension for Juvenile Height model.

ROUGH-IN VIEW

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

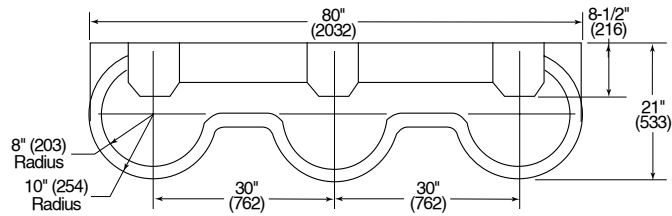
LS1000.2

SS-3 Express™ Lavatory System
Model SS-3/IR
Model SS-3/AST

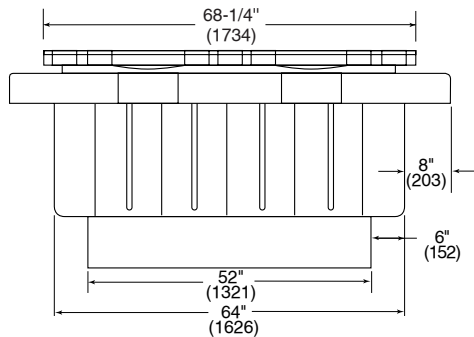
**PLUMBING FIXTURES
 TECHNICAL DATA**

**Model SS-3
 Three Person**

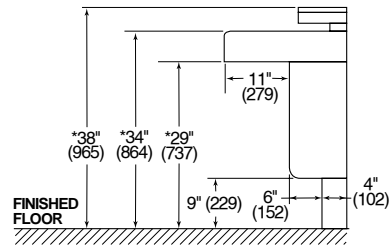
Dimensions shown in parentheses are millimeters.



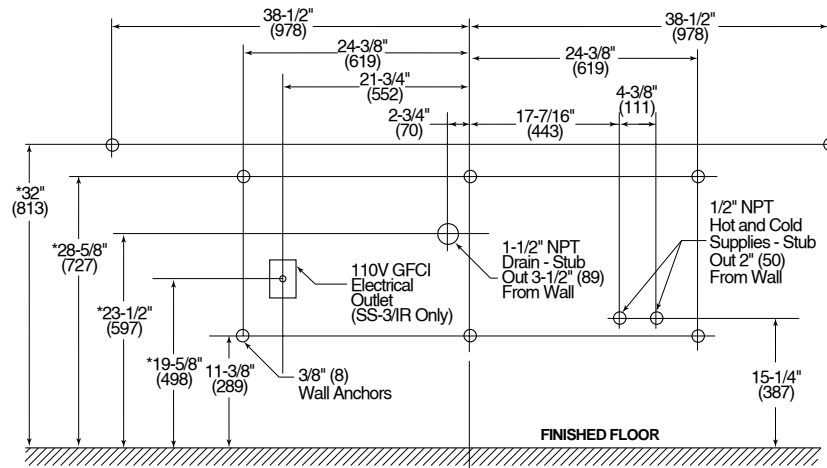
TOP VIEW



FRONT VIEW



SIDE VIEW



ROUGH-IN VIEW

* Subtract 4" from this dimension for Juvenile Height Model.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

LS1020.2

DESCRIPTION: MODULAR LAVATORY - SOLID SURFACE BOWL WITH [TWO][THREE] WASH STATIONS, [INTEGRAL SOAP DISPENSER(S)], WALL MOUNT WITH STAINLESS STEEL MOUNTING FRAME. FINAL COLOR SELECTION BY ARCHITECT.

LAVATORY TRIM - PREPIPED FOR SINGLE HOT, COLD, AND DRAIN CONNECTION, INFRARED SENSOR ACTIVATED FAUCET WITH THERMOSTATIC MIXING VALVE, COMBINATION CHECK VALVE AND STOP ASSEMBLY WITH REMOVABLE STRAINER. 110/24 VAC PLUG-IN TRANSFORMER AND SOLENOIDS, 60 Hz, 3/8" NPT, ELECTRONICALLY ACTIVATED. 1-1/2" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT, TWO FLEXIBLE STAINLESS STEEL SUPPLY CONNECTIONS, GRID STRAINER DRAIN, TAILPIECE, ANCHOR TO WALL PER MANUFACTURER'S REQUIREMENTS. CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP OF BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND AMSE/ANSI STANDARD A112.18.1M.

[Use following manufacturers/model number for two station]

MANUFACTURER & CATALOG NO.: BRADLEY SS-2N, ACORN 3772, WILLOUGHBY WAW-2322

[Use following manufacturers/model number for three station]

MANUFACTURER & CATALOG NO.: BRADLEY SS-3N, ACORN 3773, WILLOUGHBY WAW-2333

Note to specifier:

1. Unit meets ADA requirements.
2. Coordinate electrical requirements with Electrical Engineer. Other trim options are available, check with each manufacturer and edit description/model number as required.
3. Review requirements of mixing valve with all manufacturers. Pressure ranges vary between manufacturers.
4. Mixing valve is a single temperature output and can not be adjusted. Verify requirements with each manufacturer.

PLUMBING FIXTURES
TECHNICAL DATA

2 Station Wall-Hung Express™ Lavatory System

Model SS-2/IR/WH97 Wall-Hung Express™ w/Infrared Control
Model SS-2/AST/WH97 Wall-Hung Express™ w/Air Valve Metering

- Wall-Hung Express is ADA Compliant*
- Serves One or Two Users at a Time
- Continuous Bowl
- Standard Lavatory Spacing on 30" Centers
- Unique, Repairable Terreon™ Solid Surface Material
- Reliable Infrared Activation or Pushbutton Air Valve Control

Specifications

Accommodates one or two users. These units handle washroom traffic quickly and economically while providing each user with personal space. Lavatories for the Express™ system are positioned on 30" centers. The preassembled sprayhead module is equipped with independent streamformers, each served by separate infrared sensing module and solenoid valve (Model SS-2/IR/WH97) or pushbutton air metering valve (Model SS-2/AST/WH97). Standard flow rate of .5 GPM meets industry standards for water conservation while providing enough water to rinse hands quickly and efficiently. Operating range is 20-80 PSI.

have a rim height no higher than 31" above finished floor to be compliant with Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities: Building Elements Designed for Children's Use; Final Rule.

Construction

Bowl
Constructed of Terreon™ a densified solid surface material composed of an acrylic modified polyester resin. Terreon™ is resistant to chemicals, stains, burns and impact. Surface damage can be easily repaired with everyday cleaners or fine-grit abrasives.

Pedestal

Panel is composed of vacuum-formed acrylic laminate. Highly resistant to impact, abrasion, acid and corrosion. The panel will not chip, peel or flake.

Support Frame

Bowl assembly and pedestal panel are secured to a heavy-gauge stainless steel support frame mounted to wall.

Vandal Resistance

The molded sprayhead is an integral part of the bowl module. Its concealed vandal-resistant streamformers discourage abuse. The infrared sensor will automatically shut off water flow after 30-45 seconds if a vandal attempts to trigger constant operation by covering the sensor, or by placing a stationary object in the sensor's detection area. Pushbuttons are secured to the unit from inside the sprayhead. Air valves, water supplies and waste are concealed within the pedestal/support frame assembly.

Mounting Height Options

Standard Height Mounting ADA Compliant

The Wall-Hung Express™ mounted at standard height is designed to comply with all ADA guidelines on reaches, clearances, and operation. To comply with ADA, the rim height of the Wall-Hung Express bowl must be 34" above the finished floor.

Juvenile Height Mounting

For juvenile users, the Express™ Wall Hung Lavatory must

Document No. 1040

This information is subject to change without formal notice.
65080NCR (3 Pages Total)



Model SS-2/IR/WH97
Shown with optional liquid soap dispenser.

Model SS-2/IR/WH97
Shown with optional liquid soap dispenser.

Model SS-2/IR/WH97
Shown with optional liquid soap dispenser.

Model SS-2/IR/WH97
Shown with optional liquid soap dispenser.

Model SS-2/IR/WH97
Shown with optional liquid soap dispenser.

Model SS-2/IR/WH97
Shown with optional liquid soap dispenser.

(Continued on page LS1040.3)

Bradley

P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
http://www.bradleycorp.com
Technical Information Fax Service: 1-800-BRADFAX

LS1040.1

PLUMBING FIXTURES
TECHNICAL DATA

3-Station Wall-Hung Express™ Lavatory System

Model SS-3/IR/WH97 Wall-Hung Express™ w/Infrared Control
Model SS-3/AST/WH97 Wall-Hung Express™ w/Air Valve Metering

- Wall-Hung Express is ADA Compliant*
- Serves One to Three Users at a Time
- Continuous Bowl
- Standard Lavatory Spacing on 30" Centers
- Unique, Repairable Terreon™ Solid Surface Material
- Reliable Infrared Activation or Pushbutton Air Valve Control

Specifications

Accommodates one to three users. Units handle washroom traffic quickly and economically while providing each user with personal space. Lavatories for the Express™ system are positioned on 30" centers. The preassembled sprayhead module is equipped with independent streamformers, each served by separate infrared sensing module and solenoid valve (Model SS-3/IR/WH97) or pushbutton air metering valve (Model SS-3/AST/WH97). Standard flow rate of .5 GPM meets industry standards for water conservation while providing enough water to rinse hands quickly and efficiently. Operating range is 20-80 PSI.

Construction

Bowl
Constructed of Terreon™ a densified solid surface material composed of an acrylic modified polyester resin. Terreon™ is resistant to chemicals, stains, burns and impact. Surface damage can be easily repaired with everyday cleaners or fine-grit abrasives.

Pedestal

Panel is composed of vacuum-formed acrylic laminate. Highly resistant to impact, abrasion, acid and corrosion. The panel will not chip, peel or flake.

Support Frame

Bowl assembly and pedestal panel are secured to a heavy-gauge stainless steel support frame mounted to wall.

Vandal Resistance

The molded sprayhead is an integral part of the bowl module. Its concealed vandal-resistant streamformers discourage abuse. The infrared sensor will automatically shut off water flow after 30-45 seconds if a vandal attempts to trigger constant operation by covering the sensor, or by placing a stationary object in the sensor's detection area. Pushbuttons are secured to the unit from inside the sprayhead. Air valves, water supplies and waste are concealed within the pedestal/support frame assembly.

Mounting Height Options*

Standard Height Mounting ADA Compliant

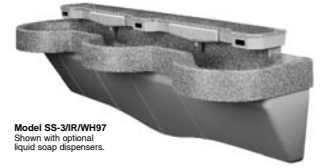
The Wall-Hung Express™ mounted at standard height is designed to comply with all ADA guidelines on reaches, clearances and operation. To comply with ADA, the rim height of the Wall-Hung Express™ bowl must be 34" above the finished floor.

Juvenile Height Mounting

For juvenile users, the Express™ Wall Hung Lavatory must have a rim height no higher than 31" above finished floor to

Document No. 1050

This information is subject to change without formal notice.
65080NCR (3 pages total)



Model SS-3/IR/WH97
Shown with optional liquid soap dispenser.

be compliant with Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities: Building Elements Designed for Children's Use; Final Rule.

Standard Equipment

Bowl with three lavatories, pedestal, stainless steel mounting frame (as described at left), 110/24 VAC plug-in transformer (Model SS-3/IR/WH97), and the following fittings: P-trap, tailpiece, two flexible stainless steel supply connections; and Vernatherm thermostatic mixing valve with combination stop, strainer and check valves.

Infrared Sensor (Model SS-3/IR/WH97)

Each of the streamformers is controlled by a separate solenoid valve. Hands placed within the bowl are detected by an infrared sensor module which activates a flow of tempered water from one streamformer. Shut-off is automatic after hands are removed from the detection area.

The infrared sensor uses a conical shaped transmitting beam, having a detection area adapted to, but not exceeding the bowl perimeter. The detection area projects forward 15° to each side and 15° below horizontal. The adaptive infrared sensor automatically adapts to the bowl after power is turned on.

The infrared sensor is not affected by varying color tones or darkness. Direct sunlight or bright washroom lights will not activate the system. Infrared models also include solenoid valves and a low voltage transformer as standard equipment.

- Solenoid - 24V, 50/60 Hz, 3/8" NPT. Few moving parts, and resistant to most chemicals, minerals, and impurities often present in municipal water supplies.
- Low Voltage Transformer - Class II UL/CSA listed, 100/24

(Continued on page LS1050.3)

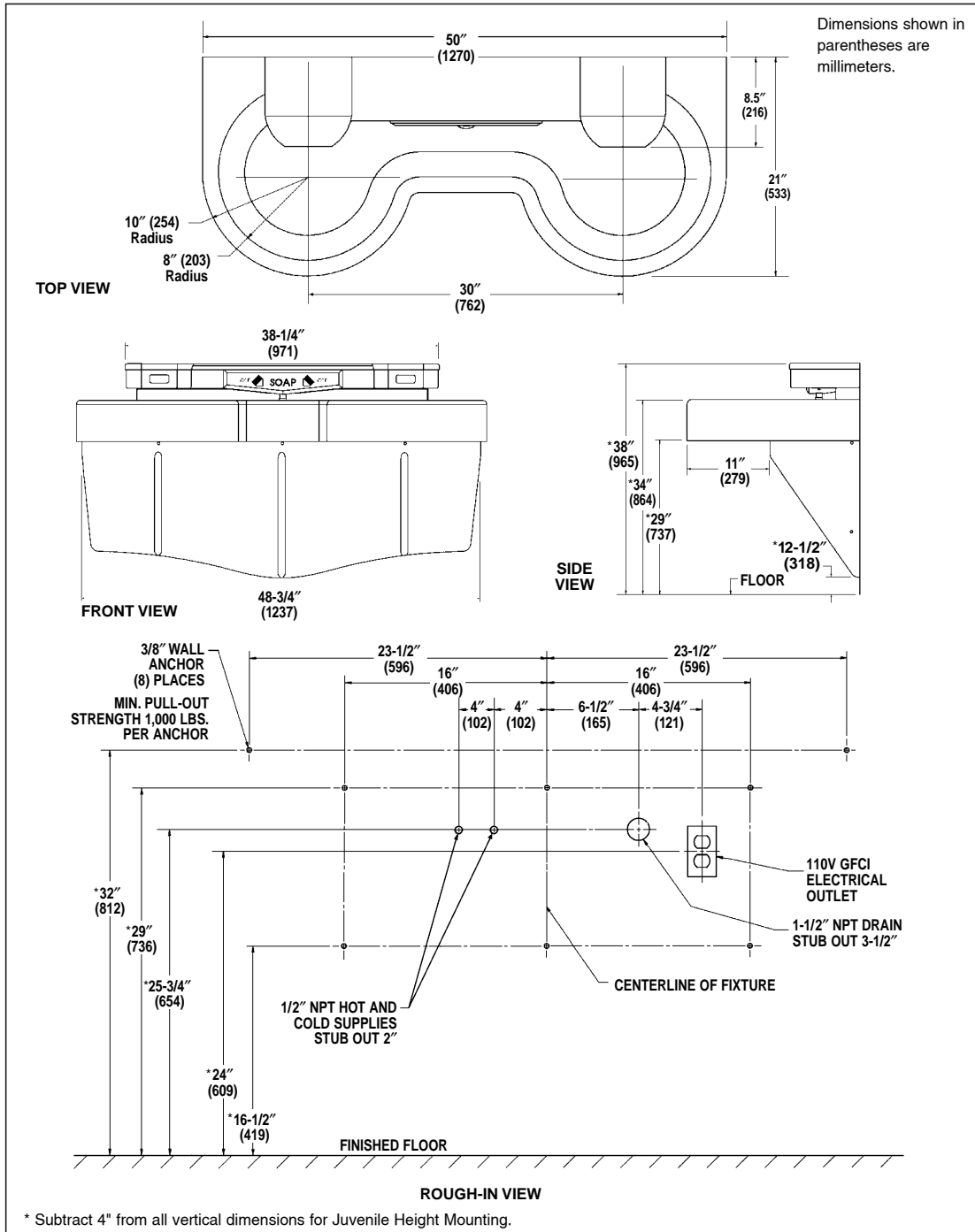
Bradley

P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
http://www.bradleycorp.com
Technical Information Fax Service: 1-800-BRADFAX

LS1050.1

**2 Station Wall-Hung Express™
Lavatory System**
Model SS-2/IR/WH97
& SS-2/AST/WH97

**PLUMBING FIXTURES
TECHNICAL DATA**



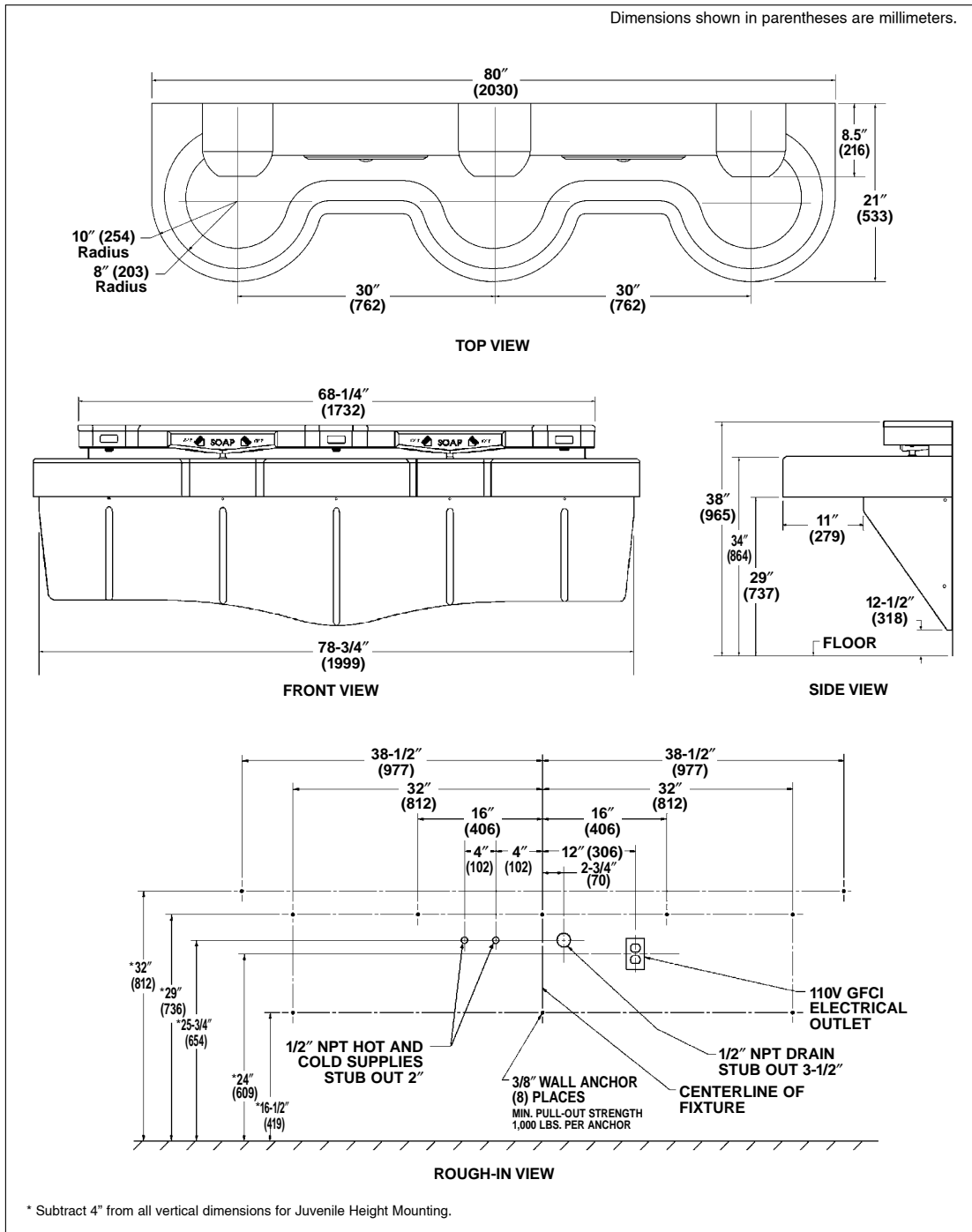
Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

LS1040.2

3-Station Wall-Hung Express™ Lavatory System

Model SS-3/IR/WH97
& SS-3/AST/WH97

PLUMBING FIXTURES
TECHNICAL DATA



Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

LS1050.2

DESCRIPTION: MODULAR LAVATORY - WITH [TWO][THREE] WASH STATIONS, [INTEGRAL SOAP DISPENSER(S)] WALL MOUNTED WITH STAINLESS STEEL MOUNTING FRAME. BOWL, ENDPLATES AND TOP COVER TO BE TERREON CONSTRUCTION. FRONT ACCESS PANEL TO BE STAINLESS STEEL. SENSOR ACTIVATED SPRAYHEADS WITH 110/24 VAC PLUG-IN TRANSFORMER AND SOLENOIDS. FINAL COLOR SELECTION BY ARCHITECT.

LAVATORY TRIM - PREPIPED FOR SINGLE HOT, COLD AND DRAIN CONNECTIONS. INFRARED SENSOR ACTIVATED FAUCET WITH THERMOSTATIC MIXING VALVE. BRADLEY MODEL 560-003A5 WITH COMBINATION CHECK VALVE AND STOP ASSEMBLY WITH REMOVABLE STRAINER. 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT. TWO FLEXIBLE STAINLESS STEEL SUPPLY CONNECTIONS. GRID STRAINER DRAIN, TAILPIECE, ANCHOR TO WALL PER MANUFACTURER'S REQUIREMENTS. CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP OF BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19. MAXIMUM FLOW TO BE 0.5 GPM PER FAUCET IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

[Use following manufacturers/model numbers for two stations]

MANUFACTURER & CATALOG NO.: BRADLEY MG-2

[Use following manufacturers/model numbers for three stations]

MANUFACTURER & CATALOG NO.: BRADLEY MG-3

Notes to specifier:

1. Unit meets ADA requirements.
2. Coordinate electrical requirements with Electrical Engineer. Other trim options are available, check with each manufacturer and edit description/model number as required.
3. Review requirements of mixing valve with all manufacturers. Pressure ranges vary between manufacturers.
4. Mixing valve is a single temperature output and can not be adjusted. Verify requirements with each manufacturer.

PLUMBING FIXTURES TECHNICAL DATA

Express® Lavatory System — MG-Series

Model MG-2/IR (Infrared Control)
Model MG-2/AST (Air Valve Metering)
Model MG-2/TT (Touch Time™ Metering)

- ADA and TAS Compliant
- Serves One or Two Users at a Time
- Standard Lavatory Spacing on 30" Centers
- Continuous Bowl, Sprayhead and End Caps are Constructed of Terreon® Solid Surface Material
- Available in 18 Colors
- Infrared Activation, Pushbutton Air Valve or Touch Time™ Metering Control



Model MG-2/IR

Specifications

Accommodates one to two users. Units handle washroom traffic quickly and economically while providing each user with personal space. Lavatories for the system are positioned on 30" centers. Bradley's continuous bowl features a contemporary flowing "wave" design. This unique "wave" pattern is repeated in the sprayhead, integrating the components. The preassembled sprayhead module is equipped with independent aerators, each served by separate infrared sensing module and solenoid valve (Model MG-2/IR), pushbutton air metering valve (Model MG-2/AST) or a pushbutton Touch Time™ electronic metering control (Model MG-2/TT).

Construction

Bowl, Sprayhead and Pedestal End Caps

Constructed of Terreon®, a densified solid surface material composed of polyester resin. Terreon® is resistant to chemicals, stains, burns, and impact. Surface damage can be easily repaired with everyday cleaners or fine grit abrasives. Terreon® is NAHB certified to meet ANSI Z124.3, Z124.6 and ANSI/ICPA SS-1-2001.



Support Frame and Access Panel

Bowl assembly and pedestal end caps are secured to a heavy-gauge stainless steel support frame mounted to the wall. The contoured front access panel is constructed of 300 series stainless steel.

Vandal Resistance

The molded solid surface sprayhead is an integral part of the bowl module. A face spinning collar protects the aerator from vandalism. The infrared sensor will automatically shut off water flow after 30-45 seconds if a vandal attempts to trigger constant operation by covering the sensor, or by placing a stationary object in the sensor's detection area. Pushbuttons are secured to the unit from inside the sprayhead. Air valves, water supplies and waste are concealed within the pedestal/support frame assembly.

Mounting Height Options

Standard Height Mounting ADA Compliant

The Express Lavatory System model MG-2 mounted at standard height is designed to comply with all ADA guidelines on reaches, clearances and operation. To comply with ADA, the rim height of the Express Lavatory System bowl must be 34" maximum above the finished floor.

[Document No. 105]

This information is subject to change without formal notice. 0902BLCE (5 pages total)

Juvenile Height Mounting

The Express Lavatory System model MG-2 must have a rim height no higher than 31" above finished floor to be compliant with Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities: Building Elements Designed for Children's Use, Final Rule. Always check local codes for compliance.

Standard Equipment

Continuous bowl with two lavatories, sprayhead, pedestal, stainless steel mounting frame (as described at left), 110/24 VAC plug-in transformer (Model MG-2/IR) and the following fittings: P-trap; tailpiece; two flexible stainless steel supply connections; and Vernatherm™ thermostatic mixing valve with combination stop, strainer and check valves.

Activation Controls

Infrared Sensor (Model MG-2/IR)

The sensor module uses a conical infrared transmitting beam, creating a detection area not exceeding the bowl perimeter. Adaptive-style sensor shall learn installation environment upon power-up and react (activate) when the user's hands enter the detection area. A timing turn-off delay of 2-3 seconds results in a smooth, controlled hand-washing operation. The Bradley adaptive sensor is not affected by varying color tones or darkness. Direct sunlight or bright washroom lights (up to 10,000 foot candles) will not activate the system.

- Solenoids – 24V, 50/60 Hz, 1/8" NPT. The electronically activated solenoid valve provides reliable performance since there are few moving parts, and its operation is unaffected by most chemicals and minerals often present in municipal water supplies. Neither the solenoid valve nor the infrared sensor module need adjustment for range or timing.



P.O. Box 309, Menomonie Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
http://www.bradleycorp.com
Technical Information Fax Service: 1-800-BRADFAX

LS1051.1

PLUMBING FIXTURES TECHNICAL DATA

Express® Lavatory System — MG-Series

Model MG-3/IR (Infrared Control)
Model MG-3/AST (Air Valve Metering)
Model MG-3/TT (Touch Time™ Metering)

- ADA and TAS Compliant
- Serves One to Three Users at a Time
- Standard Lavatory Spacing on 30" Centers
- Continuous Bowl, Sprayhead and End Caps are Constructed of Terreon® Solid Surface Material
- Available in 18 Colors
- Infrared Activation, Pushbutton Air Valve or Touch Time™ Metering Control



Model MG-3/IR

Specifications

Accommodates one to three users. Units handle washroom traffic quickly and economically while providing each user with their own personal space. Lavatories for the system are positioned on 30" centers. The preassembled sprayhead module is equipped with independent aerators, each served by separate infrared sensing module and solenoid valve (Model MG-3/IR), pushbutton air metering valve (Model MG-3/AST) or a pushbutton Touch Time™ electronic metering control (Model MG-3/TT).

Construction

Bowl, Sprayhead and Pedestal End Caps

Constructed of Terreon®, a densified solid surface material composed of polyester resin. Terreon® is resistant to chemicals, stains, burns, and impact. Surface damage can be easily repaired with everyday cleaners or fine grit abrasives. Terreon® is NAHB certified to meet ANSI Z124.3, Z124.6 and ANSI/ICPA SS-1-2001.



Support Frame and Access Panel

Bowl assembly and pedestal end caps are secured to a heavy-gauge stainless steel support frame mounted to the wall. The contoured front access panel is constructed of 300 series stainless steel.

Vandal Resistance

The molded solid surface sprayhead is an integral part of the bowl module. A face spinning collar protects the aerator from vandalism. The infrared sensor will automatically shut off water flow after 30-45 seconds if a vandal attempts to trigger constant operation by covering the sensor, or by placing a stationary object in the sensor's detection area. Pushbuttons are secured to the unit from inside the sprayhead. Air valves, water supplies and waste are concealed within the pedestal/support frame assembly.

Mounting Height Options

Standard Height Mounting ADA Compliant

The Express Lavatory System model MG-3 mounted at standard height is designed to comply with all ADA guidelines on reaches, clearances and operation. To comply with ADA, the rim height of the Express Lavatory System bowl must be 34" maximum above the finished floor.

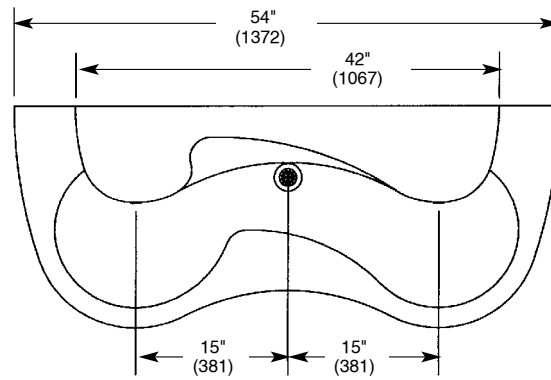
[Document No. 105]

This information is subject to change without formal notice. 0902BLCE (5 pages total)

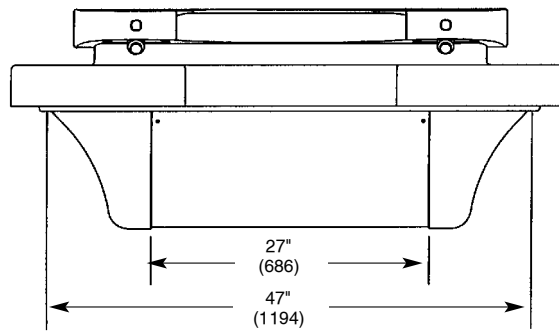


P.O. Box 309, Menomonie Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
http://www.bradleycorp.com
Technical Information Fax Service: 1-800-BRADFAX

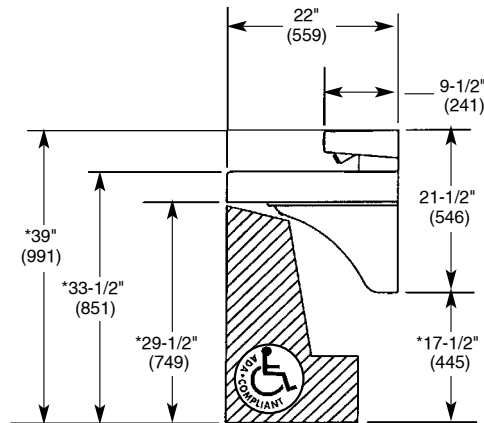
LS1052.1



TOP VIEW



FRONT VIEW



SIDE VIEW

Dimensions in parentheses are in millimeters

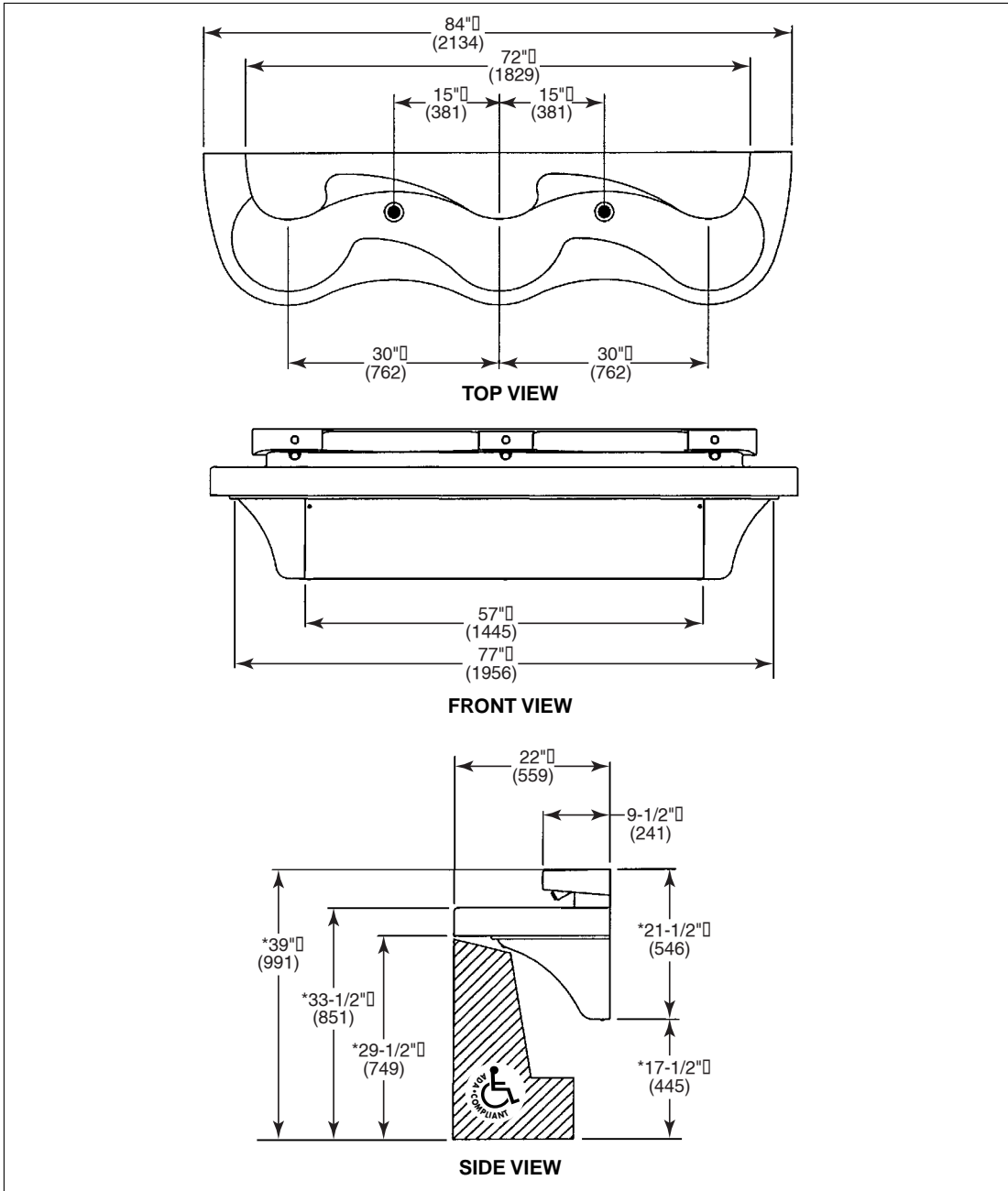
* Subtract 4" from all vertical dimensions for Juvenile Height Mounting.

Subtract 3.5" from all vertical dimensions for TAS Juvenile Height Mounting (grades Pre-K thru 5 or 6).

Subtract 1.5" from all vertical dimensions for TAS Juvenile Height Mounting (grades 6 thru 8 or 9).

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

LS1051.3



Dimensions in parentheses are in millimeters

* Subtract 4" from all vertical dimensions for Juvenile Height Mounting.

Subtract 3.5" from all vertical dimensions for TAS Juvenile Height Mounting (grades Pre-K thru 5 or 6).

Subtract 1.5" from all vertical dimensions for TAS Juvenile Height Mounting (grades 6 thru 8 or 9).

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

LS1052.3

LT-1

DESCRIPTION: LAVATORY TRIM - TWO HANDLE MIXING FAUCET, CHROME PLATED, RIGID GOOSENECK SPOUT WITH 6" REACH AND [AERATOR][LAMINAR FLOW OUTLET], 4" WRIST BLADE HANDLES AT [4"][8"][12]" CENTERS, PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

[Use following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: ZURN Z-812B4, AMERICAN STANDARD 7490.172, CHICAGO FAUCET 895-317, DELTA 27T3954, ELJER 559-2550, GERBER CO-44-252, KOHLER K-13335-5, T&S BRASS B-0892

[Use following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: ZURN Z-831B4, AMERICAN STANDARD 6930.170, CHICAGO FAUCET 786, DELTA 3579 WFHDF, ELJER 559-1250, GERBER CO-44-022, KOHLER K-13328-5, T&S BRASS B-2867-04

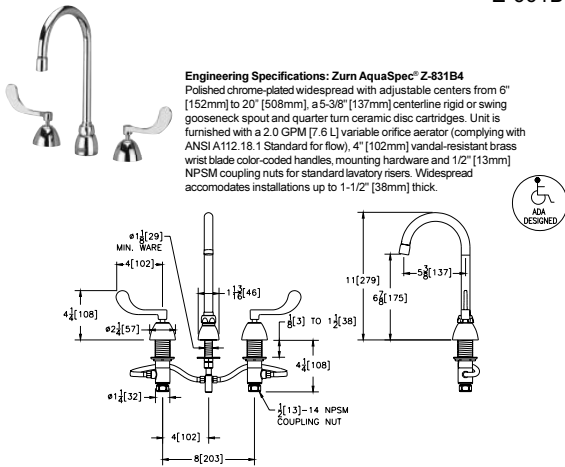
[Use following manufacturers/model numbers for 12" centers]

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 786-WC-E3, KOHLER K-7313-5, AMER. STAND. 6932.170, DELTA 23T644, ZURN Z-831B4-MOD

Notes to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Trim with 12" centers is for hospital type wheelchair lavatory use only, not for general usage.

ZURN WIDESPREAD Z-831B4



Engineering Specifications: Zurn AquaSpec® Z-831B4
 Polished chrome-plated widespread with adjustable centers from 6" [152mm] to 20" [508mm], a 5-3/8" [137mm] centerline rigid or swing gooseneck spout and quarter turn ceramic disc cartridges. Unit is furnished with a 2.0 GPM [7.6 L] variable orifice aerator (complying with ANSI A112.18.1 Standard for flow), 4" [102mm] vandal-resistant brass wrist blade color-coded handles, mounting hardware and 1/2" [13mm] NPSM coupling nuts for standard lavatory risers. Widespread accommodates installations up to 1-1/2" [38mm] thick.



Note: All dimensions are for reference only. Do not use for pre-plumbing

OPTIONAL ACCESSORIES

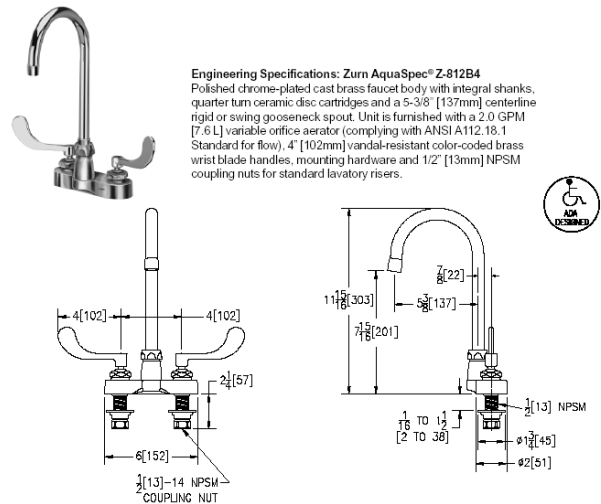
Suffix	Description
-CWO	Cold Water Only
-FC	2.0 GPM [7.6 L] Laminar Flow Control in Base of Spout
-G	1-1/4" [32mm] Grid Strainer Drain
-GH	1-1/4" [32mm] Offset Handicap Grid Drain
-HS	Hose and Spray
-ICT	Inter-connecting Copper Supply Tubes for 8" In-line Centers
-PT	1-1/4" [32mm] Cast Brass P-Trap with a 7-1/2" [191mm] Long 17-Gauge Wall Bend
-TW	Third Waterway
-WS2	Two 3/8" [10mm] IPS All Chrome-Plated Angle Wall Stops and Two 1/2" [305mm] Lavatory Risers
-140	Restricted 140° Swing Spout
-2F	2.0 GPM [7.6 L] Vandal-Resistant Female Aerator
-3F	0.5 GPM [1.9 L] Vandal-Resistant Female Aerator
-4F	2.0 GPM [7.6 L] Vandal-Resistant Female Laminar Flow
-5F	2.0 GPM [7.6 L] Female Spray Outlet

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS
 P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292
 AquaSpec® is a registered trademark of Zurn Industries, Inc. ©1998 Zurn Industries, Inc. Rev. D Date: 6/2/99 C.N. No. 82276 Dwg. No. 60790 Product No. Z-831B4

ZURN 4" CENTERSET GOOSENECK Z-812B4

TAG _____



Engineering Specifications: Zurn AquaSpec® Z-812B4
 Polished chrome-plated cast brass faucet body with integral shanks, quarter turn ceramic disc cartridges and a 5-3/8" [137mm] centerline rigid or swing gooseneck spout. Unit is furnished with a 2.0 GPM [7.6 L] variable orifice aerator (complying with ANSI A112.18.1 Standard for flow), 4" [102mm] vandal-resistant color-coded brass wrist blade handles, mounting hardware and 1/2" [13mm] NPSM coupling nuts for standard lavatory risers.



Note: All dimensions are for reference only. Do not use for pre-plumbing

OPTIONAL ACCESSORIES

Suffix	Description
-FC	2.0 GPM [7.6 L] Laminar Flow Control in Base of Spout
-G	1-1/4" [32mm] Grid Strainer Drain
-GH	1-1/4" [32mm] Offset Handicap Grid Drain
-PT	1-1/4" [32mm] Cast Brass P-Trap with a 7-1/2" [191mm] Long 17-Gauge Wall Bend
-140	Restricted 140° Swing Spout
-2F	2.0 GPM [7.6 L] Vandal-Resistant Female Aerator
-3F	0.5 GPM [1.9 L] Vandal-Resistant Female Aerator
-4F	2.0 GPM [7.6 L] Vandal-Resistant Female Laminar Flow
-5F	2.0 GPM [7.6 L] Female Spray Outlet

ZURN INDUSTRIES, INC. • COMMERCIAL BRASS OPERATION • 2855 GIRTS ROAD • JAMESTOWN NY 14701
 Phone: 1-716-655-1132 • Fax: 1-716-655-1135 • World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc. ©2000 Zurn Industries, Inc. Rev. E Date: 11/20/00 C.N. No. 86538 Dwg. No. 60786 Product No. Z-812B4

LT-2

DESCRIPTION: LAVATORY TRIM - TWO HANDLE MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [AERATOR][LAMINAR FLOW OUTLET], SINGLE WING HANDLES AT [4][8]" CENTERS, [PERFORATED DRAIN GRATE][POP-UP DRAIN] WITH 1-1/4" 17 GAUGE TAILPIECE. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

[Use following manufacturers/model numbers for 4" centers with perforated drain grate]

MANUFACTURER & CATALOG NO.: ZURN Z-81103, CHICAGO FAUCET 802-1000, DELTA 21T353, GROHE 21-362, T&S BRASS B-0871

[Use following manufacturers/model numbers for 4" centers with pop-up drain]

MANUFACTURER & CATALOG NO.: ZURN Z-81103, CHICAGO FAUCET 797-1000, DELTA 21T243, GROHE 21-364, T&S BRASS B-0870

[Use following manufacturers/model numbers for 8" centers with perforated drain grate]

MANUFACTURER & CATALOG NO.: ZURN Z-831R3, AMERICAN STANDARD 6802.342, CHICAGO FAUCET 404-1000, DELTA 23T353, ELJER 559-0711, GERBER C4-44-052, GROHE 20-783, KOHLER K-7443-K, T&S BRASS B-2860

[Use following manufacturers/model numbers for 8" centers with pop-up drain]

MANUFACTURER & CATALOG NO.: ZURN Z-831R3, AMERICAN STANDARD 6801.342, CHICAGO FAUCET 746-1000, DELTA 23T443, ELJER 559-0430, GERBER CO-43-071, GROHE 20-781, KOHLER K-7437-K, T&S BRASS B-2880

Notes to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Use pop-up drain for private installations only. Use perforated drain grate for public installations.

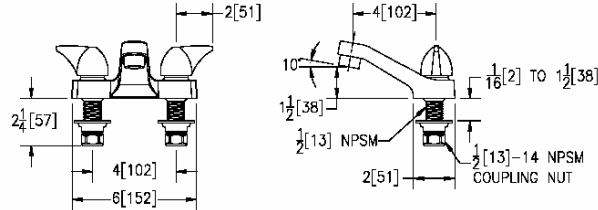


4" CENTERSET
Z-81103

TAG _____



Engineering Specification: Zurn AquaSpec® Z-81103
Polished chrome-plated cast brass faucet body with integral shanks, quarter turn ceramic disc cartridges and a 4" [102mm] long integral cast spout. Unit is furnished with a 2.0 GPM [7.6 L] variable orifice aerator (complying with ANSI A112.18.1 Standard for flow), 2" [51mm] vandal-resistant color-coded brass dome lever handles, mounting hardware and 1/2" [13mm] NPSM coupling nuts for standard lavatory risers.



Note: All dimensions are for reference only. Do not use for pre-plumbing

OPTIONAL ACCESSORIES

Suffix	Description
—G	1-1/4" [32mm] Grid Strainer Drain
—PT	1-1/4" [32mm] Cast Brass P-Trap with a 7-1/2" [191mm] Long 17-Gauge Wall Bend
—2M	2.0 GPM [7.6 L] Vandal-Resistant Male Aerator
—3M	0.5 GPM [1.9 L] Vandal-Resistant Male Aerator
—4M	2.0 GPM [7.6 L] Vandal-Resistant Male Laminar Flow

ZURN INDUSTRIES, INC. • COMMERCIAL BRASS OPERATION • 2855 GIRTS ROAD • JAMESTOWN NY 14701

Phone: 1-716-665-1132 • Fax: 1-716-665-1135 • World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©2000 Zurn Industries, Inc.

Rev. B Date: 11/16/00 C.N. No. 86522
Dwg. No. 61309 Product No. Z-81103

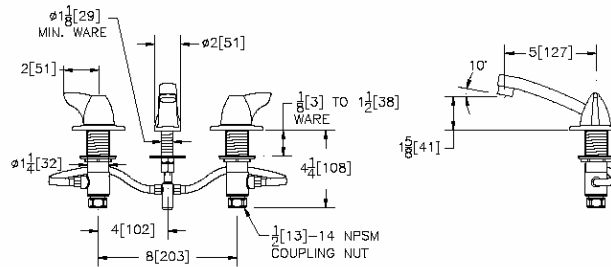


WIDESPREAD
Z-831R3

TAG _____



Engineering Specifications: Zurn AquaSpec® Z-831R3
Polished chrome-plated widespread with adjustable centers from 6" [152mm] to 20" [508mm], a 5" [127mm] centerline cast brass low profile spout and quarter turn ceramic disc cartridges. Unit is furnished with a 2.0 GPM [7.6 L] variable orifice aerator (complying with ANSI A112.18.1 Standard for flow), 2" [51mm] vandal-resistant color-coded brass dome lever handles, mounting hardware and 1/2" [13mm] NPSM coupling nuts for standard lavatory risers. Widespread accommodated installations up to 1-1/2" [38mm] thick.



Note: All dimensions are for reference only. Do not use for pre-plumbing

OPTIONAL ACCESSORIES

Suffix	Description
—CWO	Cold Water Only
—G	1-1/4" [32mm] Grid Strainer Drain
—GH	1-1/4" [32mm] Offset Handicap Grid Drain
—ICT	Inter-connecting Copper Supply Tubes for 8" [203mm] In-line Centers
—P	1-1/4" [32mm] Pop-up Drain
—PT	1-1/4" [32mm] Cast Brass P-Trap with a 7-1/2" [191mm] Long 17-Gauge Wall Bend
—2M	2.0 GPM [7.6 L] Vandal-Resistant Male Aerator
—3M	0.5 GPM [1.9 L] Vandal-Resistant Male Aerator
—4M	2.0 GPM [7.6 L] Vandal-Resistant Male Laminar Flow
—5M	2.0 GPM [7.6 L] Male Spray Outlet

ZURN INDUSTRIES, INC. • COMMERCIAL BRASS OPERATION • 2855 GIRTS ROAD • JAMESTOWN NY 14701

Phone: 1-716-665-1132 • Fax: 1-716-665-1135 • World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©2001 Zurn Industries, Inc.

Rev. C Date: 1/4/01 C.N. No. 86774
Dwg. No. 61313 Product No. Z-831R3

LT-3

DESCRIPTION: LAVATORY TRIM - TWO HANDLE MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [AERATOR][LAMINAR FLOW OUTLET], BLADE HANDLES AT 4" CENTERS, [PERFORATED DRAIN GRATE][POP-UP DRAIN] WITH 1-1/4" 17 GAUGE TAILPIECE. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

[Use following manufacturers/model numbers for perforated drain grate]

MANUFACTURER & CATALOG NO.: KOHLER K-15243-B, AMERICAN STANDARD 2350.120, DELTA 2500, ELJER 559-2010, GERBER CO-43-412, GROHE 21-360

[Use following manufacturers/model numbers for pop-up drain]

MANUFACTURER & CATALOG NO.: KOHLER K-15241-B, AMERICAN STANDARD 2352.120, DELTA 2520 MPU, ELJER 559-1500, GERBER CO-43-431, GROHE 21-363

Notes to specifier:

1. This trim is NOT ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Use pop-up drain for private installations only. Use perforated drain grate for public installations.

KOHLER
FAUCETS®

FEATURES

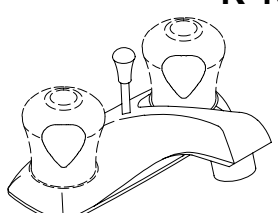
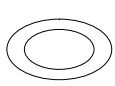
- Metal construction
- For 4" centers
- Reversible quarter-turn washerless ceramic disc valves
- 3-5/8" spout
- Metal throatplate
- 2.0 gallons per minute
- Pop-up drain with lift rod and tailpiece
- Available with sculptured acrylic or blade handles

CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.18.1M
- CSA B125
- Energy Policy Act of 1992
- IAPMO/UPC
- NSF 61



CORALAIS™
LAVATORY FAUCET
K-15241

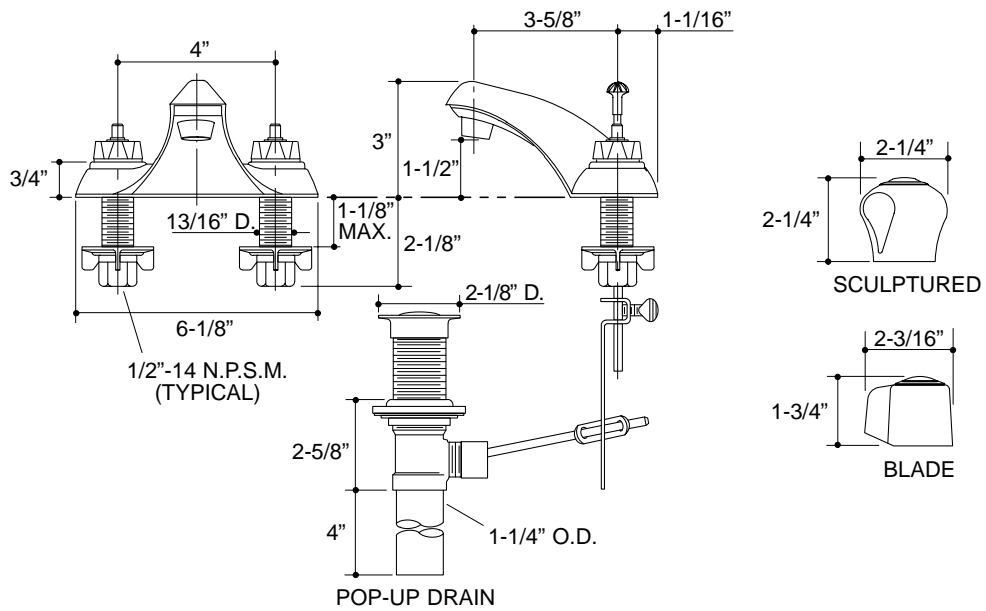
COLORS/FINISHES

- CP Polished Chrome
- PB Polished Brass

SPECIFIED MODEL:

Model	Description		
K-15241	With Sculptured Acrylic Handles	<input type="checkbox"/> CP <input type="checkbox"/> PB	
K-15241-B	With Blade Handles		<input type="checkbox"/> CP

PRODUCT SPECIFICATION:
Two-handle centerset lavatory faucet shall be of metal construction. Faucet shall feature reversible quarter-turn washerless ceramic disc valves, assuring positive handle stop positioning. Product shall include 4" centers, 3-5/8" spout, pop-up drain with lift rod and tailpiece, and sculptured acrylic or blade handles. Faucet shall be Kohler Model K-15241-____-____.



14

PRODUCT DIAGRAM

K-15241 Coralais™ Lavatory Faucet
 Page 2 of 2
 115371-4-BA (A)



LT-4

DESCRIPTION: LAVATORY TRIM - SINGLE HANDLE MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [AERATOR][LAMINAR FLOW OUTLET], WASHERLESS PUSH-PULL LEVER HANDLE WITH SUPPLIES AT 4" CENTERS, [PERFORATED DRAIN GRATE][POP-UP DRAIN] WITH 1-1/4" 17 GAUGE TAILPIECE. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

[Use following manufacturers/model numbers for perforated drain grate]


MANUFACTURER & CATALOG NO.: KOHLER K-15597, AMERICAN STANDARD 2385, DELTA 523HDF, ELJER 557-1062, GROHE 33-092, ZURN Z-7440

[Use following manufacturers/model numbers for pop-up drain]

MANUFACTURER & CATALOG NO.: KOHLER K-15582, AMERICAN STANDARD 2385, DELTA 520HDF, ELJER 557-1002, GROHE 33-159, ZURN Z-7440

Note to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.

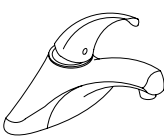


CORALAIS™
LAVATORY FAUCET
K-15597

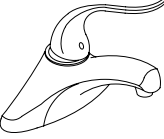
ADA

FEATURES

- Metal construction
- For 4" centers
- One-piece self-contained ceramic disc valve allows both volume and temperature control
- Temperature memory allowing faucet to be turned on and off at any temperature setting
- High-temperature limit stop
- 4-1/4" spout
- Metal throatplate
- Vandal-resistant aerator
- 0.5 gallons per minute
- Grid drain with tailpiece
- Available with 4-1/2" or 5-3/4" vandal-resistant lever handle
- Optional ground joint connections



K-15597
K-15597-P



K-15597-5
K-15597-5P

CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.18.1M
- Energy Policy Act of 1992
- IAPMO/UPC
- NSF 61

COLORS/FINISHES

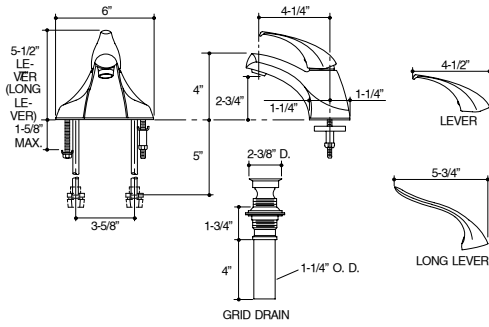
- CP Polished Chrome

SPECIFIED MODEL:

Model	Description	
K-15597	With 4-1/2" Lever Handle; Less Ground Joint Connections	<input type="checkbox"/> CP
K-15597-P	With 4-1/2" Lever Handle; With Ground Joint Connections	<input type="checkbox"/> CP
K-15597-5	With 5-3/4" Lever Handle; Less Ground Joint Connections	<input type="checkbox"/> CP
K-15597-5P	With 5-3/4" Lever Handle; With Ground Joint Connections	<input type="checkbox"/> CP

PRODUCT SPECIFICATION:
 Single-control centerset lavatory faucet shall be of metal construction. The valve shall be a one-piece, self-contained ceramic disc valve, and allows both volume and temperature control. The valve shall feature temperature memory, allowing the faucet to be turned on and off at any temperature setting, and includes a high-temperature limit stop. Product shall include 4" centers, 4-1/4" spout, vandal-resistant(VR) aerator, grid drain with tailpiece, and VR 4-1/2" or 5-3/4" lever handle. Optional feature shall be with or without ground joint connections. Faucet shall be Kohler Model K-15597-____-CP.

CORALAIS™



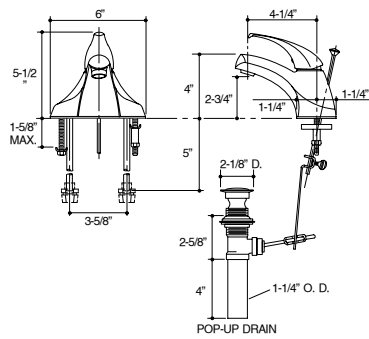
316

PRODUCT DIAGRAM

K-15597 Coralais™ Lavatory Faucet
Page 2 of 2
115841-4-AA (A)



CORALAIS™



316

PRODUCT DIAGRAM

K-15582 Coralais™ Lavatory Faucet
Page 2 of 2
115838-4-AA (A)



DESCRIPTION: LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, CHROME PLATED, RIGID GOOSENECK SPOUT WITH MINIMUM 5" REACH AND [AERATOR][LAMINAR FLOW OUTLET], [SINGLE HOLE][4" DECK PLATE][8" DECK PLATE], PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. SOLID BRASS SOLENOID WITH BUILT-IN FILTER. UNDERCOUNTER SOLID BRASS MANUAL MIXING VALVE (WYE PATTERN STYLE NOT ACCEPTABLE) WITH ADJUSTABLE TEMPERATURE LIMIT STOP. UL APPROVED TRANSFORMER, 120 VAC INPUT, WITH WATERPROOF CONNECTORS AND 10' LONG CABLE. MOUNT TRANSFORMER ABOVE CEILING OR IN ACCESSIBLE PIPE CHASE. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

MANUFACTURER & CATALOG NO.: SLOAN ETF-700, CHICAGO FAUCET 652, HYDROTEK H-6000C, KOHLER K-13666, SPEAKMAN S-8021, ZURN Z-6902

Notes to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Coordinate electrical requirements with Electrical Engineer.
4. Delete undercounter mixing valve if using single tempered water supply.
5. Transformer output voltage varies by manufacturer.



Sensor Operated
Electronic Gooseneck Hand Washing Faucet

ETF-700

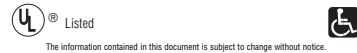
- ▶ **Description**
Sensor Operated Electronic Gooseneck Hand Washing Faucet for tempered or hot/cold application.
- ▶ **Flow Rate**
 - Model ETF-700-A (0.5 gpm/1.9 Lpm max.) Vandal-resistant Spray Head
 - Model ETF-700-B (2.2 gpm/8.3 Lpm max.) Vandal-resistant Aerator
 - Model ETF-700-C (2.2 gpm/8.3 Lpm max.) Laminar Flow Spray Head
 - Model ETF-700-H (2.2 gpm/8.3 Lpm max.) Shower Spray Head
- ▶ **Specifications**
ADA Compliant, Sensor activated, 24 VAC, Chrome Plated Brass, Gooseneck Hand Washing Faucet with the following features:
 - Splash-proof Circuit Control Module
 - Sensor Range Adjustment Screw
 - Trouble Shooting LED Indicator Lights
 - User friendly Variable Time Out Settings
 - Filtered Solenoid Valve with serviceable "Y" Strainer Filter
 - 120 VAC/24 VAC Transformer (Plug-in or Box Mount)
 - Aerator/Spray Head with Pressure Compensating Flow Control
 - Metal Jacket wire protection for Sensor and Solenoid Leads
 - Optional Trim Plate for 4" or 8" Center-Set Sink
 - Modular Quick-Release Sensor and Solenoid Connections

The Shower Spray Head ("H" variation) is recommended for use on scrub or deep wash-up sinks only. For lavatories and small basins, the Laminar Flow ("C" variation) Spray Head is recommended.
- ▶ **Variations**
 - **Surgical Bend**
 - S Surgical Bend Spout
 - **Back Checks - for Hot/Cold Simple Mix**
 - 2 Two Back Checks for Hot/Cold (Double Supply)
 - **Transformer Type**
 - P Plug-in Transformer 120 VAC/24 VAC, 50/60Hz (35 VA) (will operate up to 2 ETF-700 Faucets)
 - B Hard Wire (Box Mount) 120 VAC/24 VAC, 50/60Hz (40 VA) (will operate up to 2 ETF-700 Faucets)
 - LT Less Transformer (specify Alternate Transformer listed below)
- ▶ **Accessories**
 - **Alternate Transformer Type** Specify faucet LT (Less Transformer) and order the following Transformers separately:
 - EL-154 120 VAC/24 VAC, 50/60Hz, (50 VA) - Box Mount (will operate up to 3 ETF-700 Faucets)
 - EL-208 120 VAC/24 VAC, 50/60Hz, (100 VA) - Foot Mount (will operate up to 6 ETF-700 Faucets)
 - EL-342 240 VAC/24 VAC 50/60Hz (50 VA) - Box Mount (will operate up to 3 ETF-700 Faucets)
 - **Mixing Valves**
 - MIX-25-A OPTIMIX™ Manual Mixing Valve (specify Trim Plate if required)
 - MIX-30-A OPTIMIX with Wrist Blade (specify Trim Plate if required)
 - MIX-60-A Mechanical Mixing Valve for a single faucet
 - MIX-70-A Thermostatic Mixing Valve for multiple faucets
 - **Trim Plates**
 - ETF-312-A 4" Trim Plate
 - ETF-313-A 4" Trim Plate for use with OPTIMIX Mixing Valve
 - ETF-431-A 8" Trim Plate
 - ETF-432-A 8" Trim Plate for use with OPTIMIX Mixing Valve
 - **Grid Strainer**
 - ETF-460-A Chrome Plated Brass Grid Strainer w/1¼" Outlet Tube



Model ETF-700-H shown

- ▶ **ADA Compliant**
- ▶ **Automatic**
The Sloan OPTIMA® ETF-700 Electronic Gooseneck Hand Washing Faucet operates by means of an infrared sensor. Once the user's hands enter the sensor's effective range the Solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off.
- ▶ **Hygienic**
The ultimate in sanitary protection—there are no handles to turn or buttons to push. Helps to control the spread of infectious diseases. Ideal for health care applications.
- ▶ **Economical**
Automatic operation provides savings in water usage over other faucet devices. Reduces maintenance and operation costs.
- ▶ **Warranty**
3 year (limited).
Made in the U.S.A.



This information contained in this document is subject to change without notice.

This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

ETF-700

Description
Sensor Operated Electronic Gooseneck Hand Washing Faucet for tempered or hot/cold application.

ELECTRICAL SPECIFICATIONS

Control Circuit
24 VAC Input/Output, 50/60Hz, Adjustable Range & Time Out Settings, Modular Plugs & Trouble Shooting LED Indicators.

Time Out Adjustment Settings
3, 6, 12, 30 & 45 seconds; 1, 3 & 20 minutes. The Faucet Time Out Setting determines the maximum time the faucet will run upon continuous activation. This timing can be changed to meet individual application requirements. Unless otherwise specified the ETF-700 is factory set at the 30 second time out.

Optima Sensor Range:
Factory Set: 8" - 10" (203mm - 254mm)
Adjustable: 1" - 14" (23mm - 357mm)

Solenoid Valve
24 VAC, 50/60Hz with integral "Y" strainer filter, 3/8" NPT Inlet/Outlet.

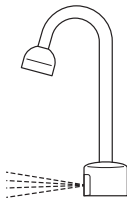
Transformer
Standard Plug-In (Sloan #ETF-233): 120 VAC Primary/24 VAC Secondary, 35 VA.
Standard Box Mount (Sloan #EL-248-40): 120 VAC Primary/24 VAC Secondary, 40 VA.
Multiple faucets can be powered by a single transformer, provided the transformer

has been properly sized. Allow a minimum of 15 VA of current rating for each faucet/solenoid valve being used.

Optional Transformers available:
Box Mount: EL-154 120 VAC/24 VAC 50 VA
Foot Mount: EL-208 120 VAC/24 VAC 100VA
Box Mount: EL-342 240 VAC/24 VAC 50 VA
All Sloan Transformers are 50/60Hz.
Specify Faucet as "Less Transformer"(-LT) and order optional transformers separately.

OPERATION

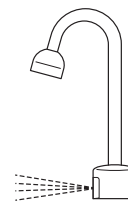
1. A continuous invisible beam of light is emitted from the OPTIMA Sensor located on the throat of the lavatory faucet.



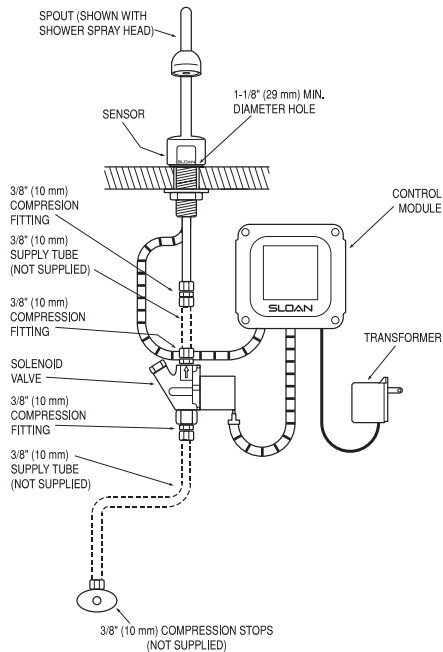
2. As the user's hands enter the beam's effective range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing tempered water to flow from the faucet. Water will flow until the hands are removed or until the faucet reaches its automatic time out limit setting.



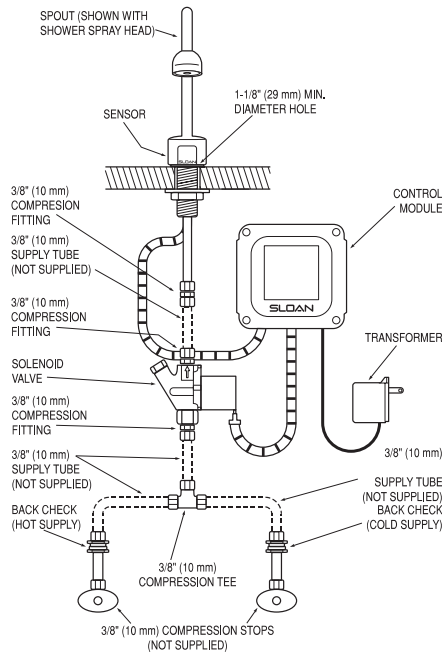
3. When hands are moved away from the OPTIMA Sensor, the loss of reflected light initiates an electrical signal that deactivates the solenoid valve, shutting off the water flow. The circuit then automatically resets and is ready for the next user.



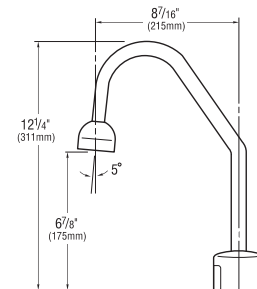
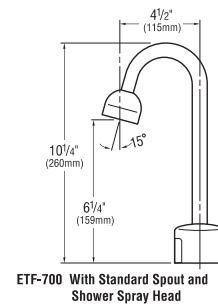
ETF-700 Faucet with Tempered Water Supply



ETF-700 Faucet with Back Checks for Hot & Cold Water Supply ("2" Variation)



FAUCET DIMENSIONS



SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, ILLINOIS 60131

© Copyright 1997
SLOAN VALVE COMPANY

Ph: 1-800 982-5839 • Fax: 1-800 447-8329 • <http://www.sloanvalve.com>

Printed in the U.S.A.

DESCRIPTION: LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, CHROME PLATED, RIGID GOOSENECK SPOUT WITH MINIMUM 5" REACH AND [AERATOR][LAMINAR FLOW OUTLET], [SINGLE HOLE][4" DECK PLATE][8" DECK PLATE], PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. SOLID BRASS SOLENOID WITH BUILT-IN FILTER. UNDERCOUNTER SOLID BRASS MANUAL MIXING VALVE (WYE PATTERN STYLE NOT ACCEPTABLE) WITH ADJUSTABLE TEMPERATURE LIMIT STOP. BATTERY POWERED WITH WATERPROOF CONNECTORS AND CABLE. CONTROLS AND BATTERIES TO BE LOCATED IN WATERPROOF, VANDAL-RESISTANT ENCLOSURE MOUNTED BELOW LAVATORY. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

MANUFACTURER & CATALOG NO.: SLOAN EBF-750, CHICAGO FAUCET 682, HYDROTEK HB-6000C, ZURN Z-6920

Notes to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Delete undercounter mixing valve if using single tempered water supply.



Battery Powered Gooseneck Hand Washing Faucet

EBF-750

- ▶ **Description**
Battery Powered, Sensor Operated Electronic Gooseneck Hand Washing Faucet for tempered or hot/cold application.
- ▶ **Flow Rate**
 - Model EBF-750-A (0.5 gpm/1.9 Lpm max.) Vandal-resistant Spray Head
 - Model EBF-750-B (2.2 gpm/8.3 Lpm max.) Vandal-resistant Aerator
 - Model EBF-750-C (2.2 gpm/8.3 Lpm max.) Laminar Flow Spray Head
 - Model EBF-750-H (2.2 gpm/8.3 Lpm max.) Shower Spray Head
- ▶ **Specifications**
ADA Compliant, Sensor activated, Battery Powered, Chrome Plated Brass, Gooseneck Hand Washing Faucet with the following features:
 - Water-proof Circuit Control Module
 - Sensor Range Adjustment Screw
 - Low Battery LED Indicator Light
 - User friendly Variable Time Out Settings
 - Serviceable Filtered Solenoid Valve
 - Aerator/Spray Head with Pressure Compensating Flow Control
 - Metal Jacket wire protection for Solenoid Lead
 - Optional Trim Plate for 4" or 8" Center-Set Sink
 - Includes four (4) C-size Alkaline Batteries
 - Appropriate Mounting Hardware included

The Shower Spray Head ("H" Variation) is recommended for use on scrub or deep wash-up sinks only. For lavatories and small basins, the Laminar Flow ("C" variation) Spray Head is recommended.
- ▶ **Variations**
 - **Surgical Bend**
 - S Surgical Bend Spout
 - **Back Checks - for Hot/Cold Simple Mix**
 - 2 Two Back Checks for Hot/Cold (Double Supply)
- ▶ **Accessories**
 - **Mixing Valves**
 - MIX-25-A** OPTIMIX™ Manual Mixing Valve (specify Trim Plate if required)
 - MIX-30-A** OPTIMIX with Wrist Blade (specify Trim Plate if required)
 - MIX-60-A** Mechanical Mixing Valve for a single faucet
 - MIX-70-A** Thermostatic Mixing Valve for multiple faucets
 - **Trim Plates**
 - ETF-312-A** 4" Trim Plate
 - ETF-313-A** 4" Trim Plate for use *with* OPTIMIX Mixing Valve
 - ETF-431-A** 8" Trim Plate
 - ETF-432-A** 8" Trim Plate for use *with* OPTIMIX Mixing Valve
 - **Grid Strainer**
 - ETF-460-A** Chrome Plated Brass Grid Strainer w/1/4" Outlet Tube



Model EBF-750-H shown

- ▶ **ADA Compliant**
- ▶ **Automatic**
The Sloan OPTIMA Plus® EBF-750 Battery Powered Gooseneck Hand Washing Faucet operates by means of an infrared sensor. Once the user's hands enter the sensor's effective range the Solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off.
- ▶ **Hygienic**
The ultimate in sanitary protection—there are no handles to turn or buttons to push. Helps to control the spread of infectious diseases. Ideal for high traffic commercial installations.
- ▶ **Economical**
Automatic operation provides savings in water usage over other faucet devices. Reduces maintenance and operation costs. Battery operation ideal for Retrofit installations.
- ▶ **Warranty**
3 year (limited).
Made in the U.S.A.



The information contained in this document is subject to change without notice.

This space for Architect/Engineer approval

Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

EBF-750

- **Description**
Battery Powered, Sensor Operated Electronic Gooseneck Hand Washing Faucet for tempered or hot/cold application.

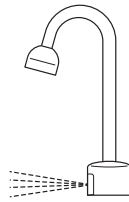
ELECTRICAL SPECIFICATIONS

- **Control Circuit**
6 VDC - operates on four (4) alkaline C-cell batteries.
- **Optima Sensor Range:**
Factory Set: 4"-5" (102mm) - 127mm
Adjustable: 2"-7" (51mm - 187mm)
- **Time Out Adjustment Settings**
30 seconds - The Faucet Time Out Setting determines the maximum time the faucet will run upon continuous detection. The EBF-750 is factory set at the 30 second time out. Consult factory for time out settings to meet individual application requirements.
- **Solenoid Valve**
Low Energy Latching Solenoid with Self-cleaning By-pass and Integral Clean Out Strainer Filter

OPERATION

1.

A continuous invisible beam of light is emitted from the OPTIMA Sensor located on the throat of the lavatory faucet.



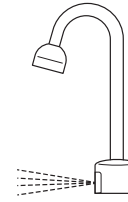
2.

As the user's hands enter the beam's effective range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing tempered water to flow from the faucet. Water will flow until the hands are removed or until the faucet reaches its automatic time out limit setting.

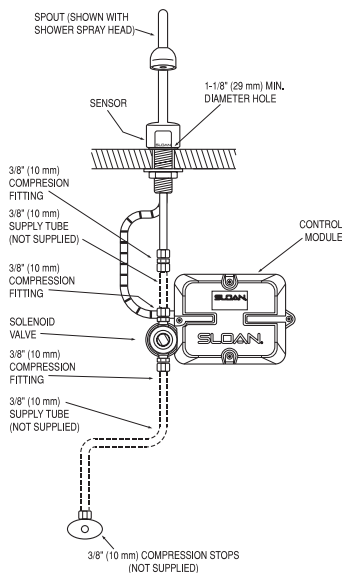


3.

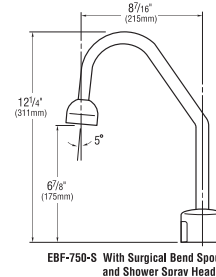
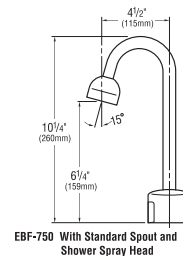
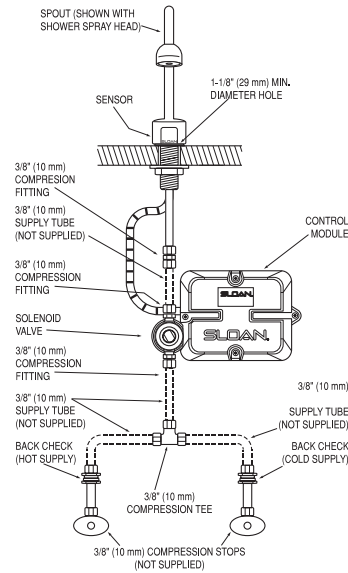
When hands are moved away from the OPTIMA Sensor, the loss of reflected light initiates an electrical signal that deactivates the solenoid valve, shutting off the water flow. The circuit then automatically resets and is ready for the next user.



EBF-750 Faucet with Tempered Water Supply



EBF-750 Faucet with Back Checks for Hot & Cold Water Supply ("2" Variation)



SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, ILLINOIS 60131

© Copyright 1997
SLOAN VALVE COMPANY

Ph: 1-800 982-5839 • Fax: 1-800 447-8329 • <http://www.sloanvalve.com>

Printed in the U.S.A.

LT-7

DESCRIPTION: LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [VANDAL RESISTANT] [AERATOR][LAMINAR FLOW OUTLET], [SINGLE HOLE][4" DECK PLATE][8" DECK PLATE], PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. SOLID BRASS SOLENOID WITH BUILT-IN FILTER. UNDERCOUNTER SOLID BRASS MANUAL MIXING VALVE (WYE PATTERN STYLE NOT ACCEPTABLE) WITH ADJUSTABLE TEMPERATURE LIMIT STOP. UL APPROVED TRANSFORMER, 120 VAC INPUT, WITH WATERPROOF CONNECTORS AND 10' LONG CABLE. MOUNT TRANSFORMER ABOVE CEILING OR IN ACCESSIBLE PIPE CHASE. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

MANUFACTURER & CATALOG NO.: SLOAN ETF-600, CHICAGO FAUCET 650, HYDROTEK H-1000C, KOHLER K-13662, ZURN Z-6913

Notes to specifier:

1. This trim is ADA compliant
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Coordinate electrical requirements with Electrical Engineer.
4. Delete undercounter mixing valve if using single tempered water supply.
5. Transformer output voltage varies by manufacturer.



Sensor Operated
Electronic Hand Washing Faucet

ETF-600



- ▶ **Description**
Sensor Operated 4" Center-Set Electronic Hand Washing Faucet for tempered or hot/cold application.
- ▶ **Flow Rate**
 - Model ETF-600-A (0.5 gpm/1.9 Lpm max.) Vandal-resistant Spray Head
 - Model ETF-600-B (2.2 gpm/8.3 Lpm max.) Vandal-resistant Aerator
 - Model ETF-600-C (2.2 gpm/8.3 Lpm max.) Laminar Flow Spray Head
- ▶ **Specifications**
ADA Compliant, Sensor activated, 24 VAC, Chrome Plated 4" Center-Set Brass, Hand Washing Faucet with the following features:
 - Splash-proof Circuit Control Module
 - Sensor Range Adjustment Screw
 - Trouble Shooting LED Indicator Lights
 - User friendly Variable Time Out Settings
 - Filtered Solenoid Valve with serviceable "Y" Strainer Filter
 - 120 VAC/24 VAC Transformer (Plug-in or Box Mount)
 - Aerator/Spray Head with Pressure Compensating Flow Control
 - Metal Jacket wire protection for Sensor and Solenoid Leads
 - Modular Quick-Release Sensor and Solenoid Connections
- ▶ **Variations**
 - **Back Checks - for Hot/Cold Simple Mix**
 - 2 Two Back Checks for Hot/Cold (Double Supply)
 - **Transformer Type**
 - P Plug-in Transformer 120 VAC/24 VAC, 50/60Hz (35 VA) (will operate up to 2 ETF-600 Faucets)
 - B Hard Wire (Box Mount) 120 VAC/24 VAC, 50/60Hz (40 VA) (will operate up to 2 ETF-600 Faucets)
 - LT Less Transformer (specify Alternate Transformer listed below)
- ▶ **Accessories**
 - **Alternate Transformer Type** Specify faucet LT (Less Transformer) and order the following Transformers separately:
 - EL-154 120 VAC/24 VAC, 50/60Hz, (50 VA) - Box Mount (will operate up to 3 ETF-600 Faucets)
 - EL-208 120 VAC/24 VAC, 50/60Hz (100 VA) - Foot Mount (will operate up to 6 ETF-600 Faucets)
 - EL-342 240 VAC/24 VAC 50/60Hz (50 VA) - Box Mount (will operate up to 3 ETF-600 Faucets)
 - **Mixing Valves**
 - MIX-60-A Mechanical Mixing Valve for a single faucet
 - MIX-70-A Thermostatic Mixing Valve for multiple faucets
 - **Grid Strainer**
 - ETF-460-A Chrome Plated Brass Grid Strainer w/1/4" Outlet Tube

- ▶ **ADA Compliant**
- ▶ **Automatic**
The Sloan OPTIMA® ETF-600 Electronic Hand Washing Faucet operates by means of an infrared sensor. Once the user's hands enter the sensor's effective range the Solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off.
- ▶ **Hygienic**
The ultimate in sanitary protection—there are no handles to turn or buttons to push. Helps to control the spread of infectious diseases. Ideal for high traffic commercial installations.
- ▶ **Economical**
Automatic operation provides savings in water usage over other faucet devices. Reduces maintenance and operation costs. The 4" Center-Set design makes the ETF-600 Faucet secure against abuse and vandalism.
- ▶ **Warranty**
3 year (limited).

Made in the U.S.A.



Listed



Listed



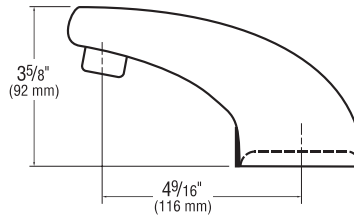
The information contained in this document is subject to change without notice.

This space for Architect/Engineer approval	
Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

ETF-600

FAUCET DIMENSIONS

- Description**
Sensor Operated 4" Center-Set Electronic Hand Washing Faucet for tempered or hot/cold application



ELECTRICAL SPECIFICATIONS

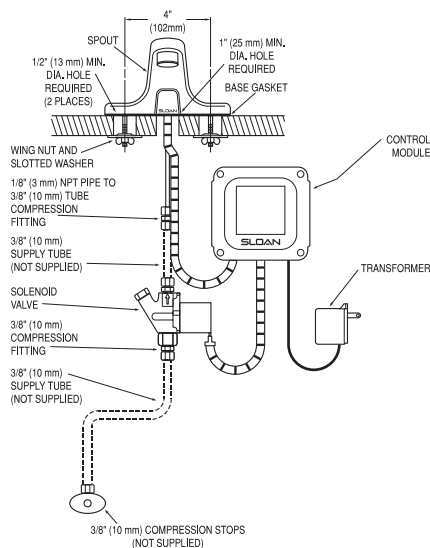
- Control Circuit**
24 VAC Input/Output, 50/60Hz, Adjustable Range & Time Out Settings, Modular Plugs & Trouble Shooting LED Indicators.
- Time Out Adjustment Settings**
3, 6, 12, 30 & 45 seconds; 1, 3 & 20 minutes. The Faucet Time Out Setting determines the maximum time the faucet will run upon continuous activation. This timing can be changed to meet individual application requirements. Unless otherwise specified the ETF-600 is factory set at the 30 second time out.
- Optima Sensor Range:**
Factory Set: 4" - 5" (102mm - 127mm)
Adjustable: 1" - 14" (23mm - 357mm)
- Solenoid Valve**
24 VAC, 50/60Hz with integral "Y" strainer filter, 3/8" NPT Inlet/Outlet.
- Transformer**
Standard Plug-In (Sloan #ETF-233): 120 VAC Primary/24 VAC Secondary, 35 VA.
Standard Box Mount (Sloan #EL-248-40): 120 VAC Primary/24 VAC Secondary, 40 VA.
Multiple faucets can be powered by a single transformer, provided the transformer has been properly sized. Allow a minimum of 15 VA of current rating for each faucet/solenoid valve being used.

- Optional Transformers available:**
Box Mount: EL-154 120 VAC/24 VAC 50 VA
Foot Mount: EL-208 120 VAC/24 VAC 100VA
Box Mount: EL-342 240 VAC/24 VAC 50 VA
All Sloan Transformers are 50/60Hz.
Specify Faucet as "Less Transformer"(-LT) and order optional transformers separately.

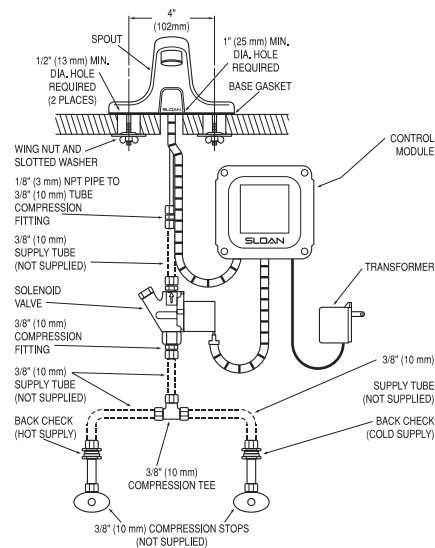
OPERATION

- A continuous invisible beam of light is emitted from the OPTIMA Sensor located on the throat of the lavatory faucet.
- As the user's hands enter the beam's effective range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing tempered water to flow from the faucet. Water will flow until the hands are removed or until the faucet reaches its automatic time out limit setting.
- When hands are moved away from the OPTIMA Sensor, the loss of reflected light initiates an electrical signal that deactivates the solenoid valve, shutting off the water flow. The circuit then automatically resets and is ready for the next user.

ETF-600 Faucet with Tempered Water Supply



ETF-600 Faucet with Back Checks for Hot & Cold Water Supply ("2" Variation)



SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, ILLINOIS 60131

© Copyright 1997
SLOAN VALVE COMPANY

Ph: 1-800 982-5839 • Fax: 1-800 447-8329 • <http://www.sloanvalve.com>

Printed in the U.S.A.

DESCRIPTION: LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [VANDAL-RESISTANT] [AERATOR][LAMINAR FLOW OUTLET], [SINGLE HOLE][4" DECK PLATE][8" DECK PLATE], PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. SOLID BRASS SOLENOID WITH BUILT-IN FILTER. UNDERCOUNTER SOLID BRASS MANUAL MIXING VALVE (WYE PATTERN STYLE NOT ACCEPTABLE) WITH ADJUSTABLE TEMPERATURE LIMIT STOP. BATTERY POWERED WITH WATERPROOF CONNECTORS AND CABLE. CONTROLS AND BATTERIES TO BE LOCATED IN WATERPROOF, VANDAL-RESISTANT ENCLOSURE MOUNTED BELOW LAVATORY. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

MANUFACTURER & CATALOG NO.: SLOAN EBF-650, CHICAGO FAUCET 680, DELTA 591-HGMHDF, GROHE 36-212, HYDROTEK HB-1000C, ZURN Z-6913

Notes to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.
3. Delete undercounter mixing valve if using single tempered water supply.



EBF-650

- ▶ **Description**
Battery Powered, Sensor Operated 4" Center-Set Electronic Hand Washing Faucet for tempered or hot/cold application.
- ▶ **Flow Rate**
 - Model EBF-650-A (0.5 gpm/1.9 Lpm max.) Vandal-resistant Spray Head
 - Model EBF-650-B (2.2 gpm/8.3 Lpm max.) Vandal-resistant Aerator
 - Model EBF-650-C (2.2 gpm/8.3 Lpm max.) Laminar Flow Spray Head
- ▶ **Specifications**
ADA Compliant, Sensor activated, Battery Powered, Chrome Plated 4" Center-Set Brass, Hand Washing Faucet with the following features:
 - Water-proof Circuit Control Module
 - Sensor Range Adjustment Screw
 - Low Battery LED Indicator Light
 - User friendly Variable Time Out Settings
 - Serviceable Filtered Solenoid Valve
 - Aerator/Spray Head with Pressure Compensating Flow Control
 - Metal Jacket wire protection for Sensor Lead
 - Includes four (4) C-size Alkaline Batteries
 - Appropriate Mounting Hardware included
- ▶ **Variations**
 - **Back Checks - for Hot/Cold Simple Mix**
 - 2 Two Back Checks for Hot/Cold (Double Supply)
- ▶ **Accessories**
 - **Mixing Valves**
 - MIX-60-A** Mechanical Mixing Valve for a single faucet
 - MIX-70-A** Thermostatic Mixing Valve for multiple faucets
 - **Grid Strainer**
 - ETF-460-A** Chrome Plated Brass Grid Strainer w/1/4" Outlet Tube



- ▶ **ADA Compliant**
- ▶ **Automatic**
The Sloan OPTIMA Plus® EBF-650 Battery Powered Hand Washing Faucet operates by means of an infrared sensor. Once the user's hands enter the sensor's effective range the Solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off.
- ▶ **Hygienic**
The ultimate in sanitary protection—there are no handles to turn or buttons to push. Helps to control the spread of infectious diseases. Ideal for high traffic commercial installations.
- ▶ **Economical**
Automatic operation provides savings in water usage over other faucet devices. Reduces maintenance and operation costs. The 4" Center-Set design makes the EBF-650 Faucet secure against abuse and vandalism. Battery operation ideal for Retrofit installations.
- ▶ **Warranty**
3 year (limited).
Made in the U.S.A.



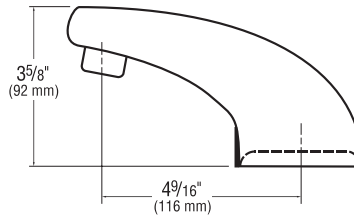
The information contained in this document is subject to change without notice.

This space for Architect/Engineer approval	
Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

EBF-650

FAUCET DIMENSIONS

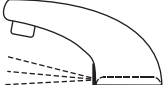


- Description**
Battery Powered, Sensor Operated 4" Center-Set Electronic Hand Washing Faucet for tempered or hot/cold application.



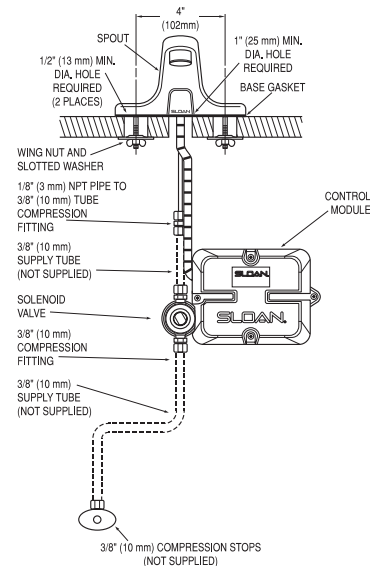
ELECTRICAL SPECIFICATIONS

- Control Circuit**
6 VDC - operates on four (4) alkaline C-cell batteries.
- Optima Sensor Range:**
Factory Set: 4"-5" (102mm) - 127mm
Adjustable: 2"-7" (51mm - 187mm)
- Time Out Adjustment Settings**
30 seconds - The Faucet Time Out Setting determines the maximum time the faucet will run upon continuous detection. The EBF-650 is factory set at the 30 second time out. Consult factory for time out settings to meet individual application requirements.
- Solenoid Valve**
Low Energy Latching Solenoid with Self-cleaning By-pass and Integral Clean Out Strainer Filter

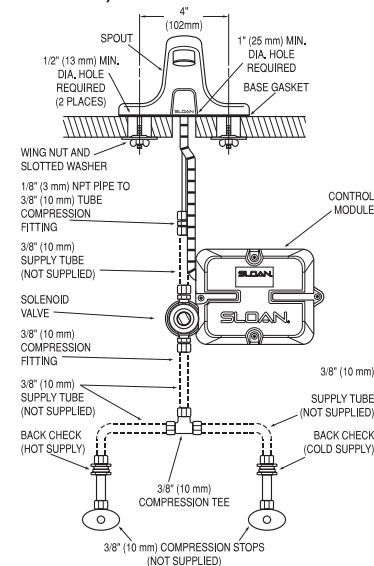
OPERATION

1. A continuous invisible beam of light is emitted from the OPTIMA Sensor located at the base of the lavatory faucet. 
2. As the user's hands enter the beam's effective range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing tempered water to flow from the faucet. Water will flow until the hands are removed or until the faucet reaches its automatic time out limit setting. 
3. When hands are moved away from the OPTIMA Sensor, the loss of reflected light initiates an electrical signal that deactivates the solenoid valve, shutting off the water flow. The circuit then automatically resets and is ready for the next user. 

EBF-650 Faucet with Tempered Water Supply



EBF-650 Faucet with Back Checks for Hot & Cold Water Supply ("2" Variation)



SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, ILLINOIS 60131

© Copyright 1997
SLOAN VALVE COMPANY

Ph: 1-800 982-5839 • Fax: 1-800 447-8329 • <http://www.sloanvalve.com>

Printed in the U.S.A.

DESCRIPTION: LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [VANDAL-RESISTANT] [AERATOR][LAMINAR FLOW OUTLET], [SINGLE HOLE][4" DECK PLATE][8" DECK PLATE], PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. [INTERNAL][EXTERNAL] ADJUSTABLE TEMPERATURE. BATTERY POWERED WITH CONTROLS, FILTER, AND BATTERIES LOCATED IN FAUCET. MAXIMUM FLOW TO BE [0.5 GPM][2.2 GPM] IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

MANUFACTURER & CATALOG NO.: SYMMONS S-6080, GEBERIT 115.711.21.1, JOSAM-STERN JS1000, SLOAN EAF-150, ZURN Z-6916

Notes to specifier:

1. This trim is ADA compliant.
2. All public lavatories to have 0.5 gpm maximum flow per Energy Policy Act of 1992 and ASME/ANSI standard A112.18.1M. All private lavatories to have 2.2 gpm maximum flow rate per same standard. Edit description as required.

ULTRA-SENSE® Sensor Activated Lavatory Faucet

- S-6080-G: With grid strainer drain assembly
- S-6080: Faucet only

Ultra-Sense battery-powered, sensor-activated lavatory faucet with infra-red Position Sensitive Detection (PSD) system. Faucet features 4" center deck plate and temperature limit stop to adjust outlet temperature, 1.5 gpm (5.7 L/min) low profile, vandal-resistant aerator. 10 second factory-set cycle time with automatic shut-off feature, 6-volt lithium battery power pack, in-line check/strainers. Electronic components and battery are sealed and housed above deck in a cast brass body for maximum vandal resistance. Grid strainer drain assembly.

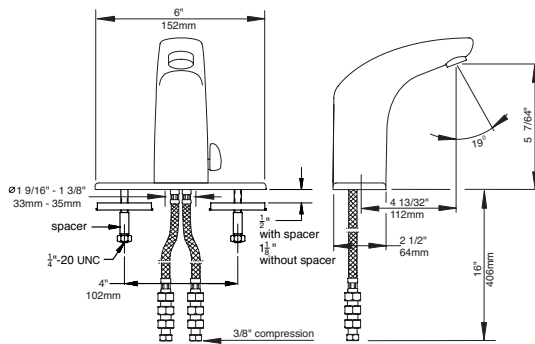
Faucet can be installed in one of three possible supply configurations:

- ① Hot and cold supply with lever handle temperature adjustment (factory standard)
- ② Hot and cold supply with pre-set tempered water (field adjusted)
- ③ Single supply for cold or premixed tempered water (field adjusted)

Modifications:

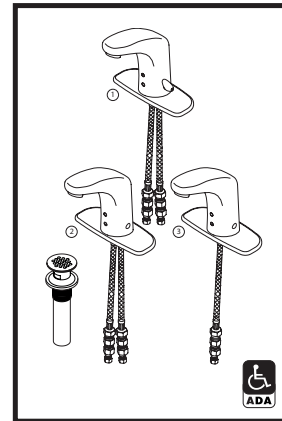
Add:

- Suffix DP: 8" adapter plate
- Suffix FR: 0.5 gpm flow restrictor
- Suffix NA: Non-aerated laminar flow spray outlet
- Suffix OFG: Offset grid strainer drain assembly in place of standard grid drain
- Suffix SM: Single hole mounting
- Suffix LST: 18" copper supply tubes in lieu of flexible hoses
- Suffix BRS: Radiance® polished brass finish



SYMMONS INDUSTRIES, INC.
31 Brooks Drive, Braintree, MA 02184-3804
TEL: 1-800-SYMMONS, (781) 848-2250 FAX: 1-800-961-9621, (781) 843-3849
Website: www.symmons.com

© 2001-2002 Symmons Industries, Inc. 12/02



SYMMONS PRODUCTS MEET
ANSI A112.18.1M, EPA '92
AND ALL KNOWN FLOW RATE
REQUIREMENTS.
Metering Faucets
0.25 gallons per cycle (1.0 L/cycle)

Job/Location

.....

Engineer

.....

Contractor

.....

.....

.....

For ADA compliance (Americans with Disabilities Act) consult ADAAG or your state regulations for proper product choice and mounting locations.



LT-10

DESCRIPTION: LAVATORY TRIM - SELF CLOSING TWO HANDLE MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [AERATOR][LAMINAR FLOW OUTLET], WASHERLESS PUSH HANDLES AT [4][8]" CENTERS, PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. MINIMUM FLOW TIME OF 15 SECONDS. MAXIMUM OPERATING PRESSURE OF 5.0 LBS. MAXIMUM FLOW TO BE 0.25 GALLONS PER CYCLE IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

[Use the following manufacturers/model numbers for 4" centers]

MANUFACTURER & CATALOG NO.: ZURN Z-86500, CHICAGO FAUCET 802-VE, SPEAKMAN S-4141, T&S BRASS B-0831

[Use the following manufacturers/model numbers for 8" centers]

MANUFACTURER & CATALOG NO.: ZURN Z-867R0, CHICAGO FAUCET 404-665, GROHE 20-791, SPEAKMAN S-4171, T&S BRASS B-2826

Notes to specifier:

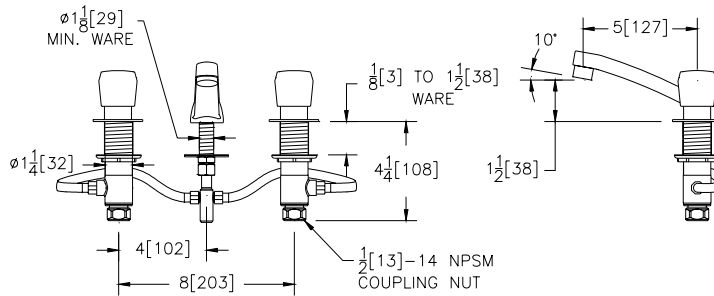
1. This trim is ADA Compliant.
2. All public metering lavatories to have 0.25 gallons per cycle maximum per Energy Policy Act of 1992 and ASME/ANSI Standard A112.18.1M. Does not apply to private locations.



WIDESPREAD METERING
Z-867R0



Engineering Specifications: Zurn AquaSpec® Z-867R0
Polished chrome-plated 8" [203mm] widespread faucet with a 5" [127mm] centerline cast brass low profile spout and slow-closing metering cartridges. Vandal-resistant brass and handicap approved color-coded handles. Easily adjustable cycle time, preset to 10 seconds at 80 PSI. Unit is furnished with a water conserving aerator which reduces flow to .25 GPC [95 L] (complying with ANSI A112.18.1 Standard for flow), mounting hardware and 1/2" [13mm] NPSM coupling nuts for standard lavatory risers.



Note: All dimensions are for reference only. Do not use for pre-plumbing

OPTIONAL ACCESSORIES

Suffix	Description
-CWO	Cold Water Only
-G	1-1/4" [32mm] Grid Strainer Drain
-GH	1-1/4" [32mm] Offset Handicap Drain
-ICT	Inter-connecting Copper Supply Tubes for 8" In-line Centers
-PT	1-1/4" [32mm] Cast Brass P-Trap with a 7-1/2" [191mm] Long 17-Gauge Wall Bend
-WS2	Two 3/8" [10mm] IPS All Chrome-Plated Angle Wall Stops and Two 12" [305mm] Lavatory Risers
-3M	0.5 GPM [1.9-L] Vandal-Resistant Male Aerator

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zum.com

In Canada:

ZURN INDUSTRIES LTD. 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/4051292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. C Date: 9/10/98
Dwg. No. 60520

C.N. No. 81189
Product No. Z-867R0



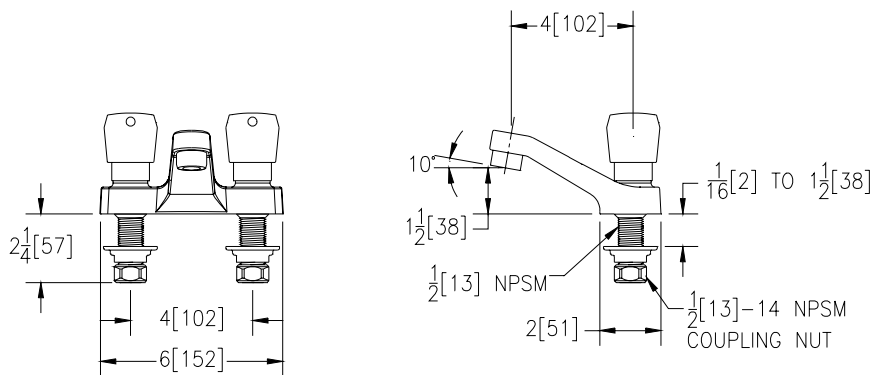
CENTERSET METERING

Z-86500



Engineering Specifications: Zurn AquaSpec® Z-86500

Polished chrome-plated cast brass faucet body with integral shanks, slow-closing metering cartridges and a 4" [102mm] long integral cast spout. Vandal-resistant brass and handicap-approved color-coded handles. Easy adjustable cycle time, preset to 10 seconds at 80 PSI. Unit is furnished with a water-conserving aerator which reduces flow to .25 GPC [.95 L] (complying to ANSI A112.18.1 Standard for flow), mounting hardware and 1/2" [13mm] coupling nuts for standard lavatory risers.



Note: All dimensions are for reference only. Do not use for pre-plumbing

OPTIONAL ACCESSORIES

Suffix Description

- G 1-1/4" [32mm] Grid Strainer Drain
- GH 1-1/4" [32mm] Offset Handicap Drain
- PT 1-1/4" [32mm] Cast Brass P-Trap with a 7-1/2" [191mm] Long 17-Gauge Wall Bend
- WS2 Two 3/8" [10mm] IPS All Chrome-Plated Angle Wall Stops and Two 12" [305mm] Lavatory Risers
- 3M 0.5 GPM [1.9 L] Vandal-Resistant Male Aerator

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541

In Canada:

ZURN INDUSTRIES LTD. 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/4051292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. C Date: 9/9/98
Dwg. No. 60517

C.N. No. 81187
Product No. Z-86500

DESCRIPTION: LAVATORY TRIM - SELF CLOSING SINGLE HANDLE MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH [AERATOR][LAMINAR FLOW OUTLET], WASHERLESS BLADE HANDLE WITH SUPPLIES AT 4" CENTERS, PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. ADJUSTABLE TEMPERATURE LIMIT STOP. MINIMUM FLOW TIME OF 15 SECONDS. MAXIMUM OPERATING PRESSURE OF 5.0 LBS. MAXIMUM FLOW TO BE 0.25 GALLONS PER CYCLE IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: SYMMONS S-60

Notes to specifier:

1. This trim is ADA compliant.
2. All public metering lavatories to have 0.25 gallons per cycle maximum per Energy Policy Act of 1992 and ASME/ANSI Standard A112.18.1M. Does not apply to private locations.

SCOT® Slow-Closing Omni Temperature Lavatory Faucet

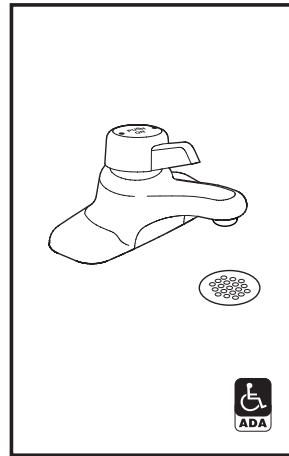
- S-60-G-H: With grid strainer drain assembly
- S-60-P-H: With pop-up drain assembly
- S-60-1-H: With lift rod only
- S-60-H: Faucet only

SCOT metering/temperature selection lavatory faucet with blade type handle for handicap accessible applications (replaces S-60 knob style handle). Cast brass 4" centerset with temperature limit stop to adjust outlet temperature and time limit stop to adjust flow time, includes (2) in-line check/screen assemblies. Spray outlet with 0.5 gpm flow rate. Vandal resistant.

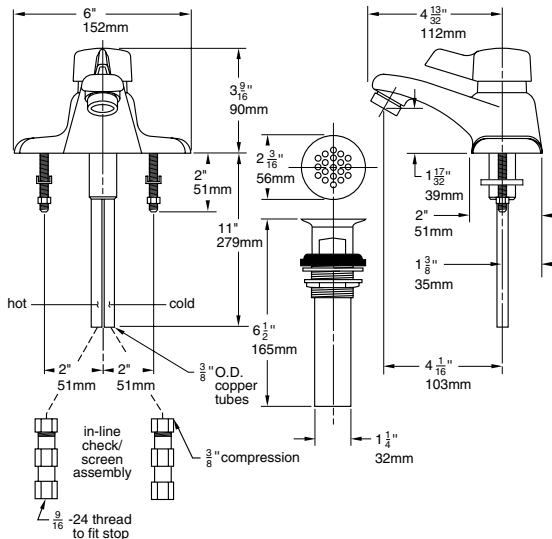
Modifications:

Add:

- Suffix A: Vandal resistant aerator in place of 0.5 gpm spray outlet (1.25 GPM at 50 PSI)
- Suffix IPS: 1/2" IPS connectors
- Suffix STE: Supply tube extensions, 8" with compression couplings
- Suffix DP: Adaptor plate for 8" center installations
- Suffix OFG: Offset grid strainer



**SYMMONS PRODUCTS MEET
ANSI A112.18.1M, EPA '92
AND ALL KNOWN FLOW RATE
REQUIREMENTS.**
**Metering Faucet
0.25 gallons per cycle (1.0 L/cycle)**



Job/Location

.....
.....

Engineer

.....
.....

Contractor

.....
.....

For ADA compliance (Americans with Disabilities Act) consult ADAAG or your state regulations for proper product choice and mounting locations.

SYMMONS INDUSTRIES, INC.
31 Brooks Drive, Braintree, MA 02184-3804
TEL: 1-800-SYMMONS, (781) 848-2250 FAX: 1-800-961-9621, (781) 843-3849
Website: www.symmons.com

© 2000 Symmons Industries, Inc. Printed in U.S.A. REV 3/00



DESCRIPTION: LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, CHROME PLATED, CONVENTIONAL SPOUT WITH AERATOR, 4" DECK PLATE, PERFORATED DRAIN GRATE WITH 1-1/4" 17 GAUGE TAILPIECE. SOLID BRASS SOLENOID WITH BUILT-IN FILTER. UNDERCOUNTER SOLID BRASS MANUAL MIXING VALVE WITH ADJUSTABLE TEMPERATURE LIMIT STOP. BATTERY POWERED WITH WATERPROOF CONNECTORS AND CABLE. CONTROLS AND BATTERIES TO BE LOCATED IN WATERPROOF, VANDAL-RESISTANT ENCLOSURE MOUNTED BELOW LAVATORY. MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

MANUFACTURER & CATALOG NO.: TOTO TEL5GSC[-10, -60]

Notes to Specifier:

1. This faucet uses EcoPower system which has a turbine in the water stream that charges a capacitor which is used to run the faucet. A battery is supplied that will run the faucet when capacitor is discharged. Improves battery life.
2. This faucet will only run with a 10 second or 60 second continuous discharge depending on the suffix.



Self-Generating EcoPower System
Sensor Faucet, Standard Spout

To be specified:
Sensor Faucet
 Continuous Discharge: Up to 10 secs.
 Single Supply - TEL3GSC-10
 Thermal Mixing - TEL5GSC-10
 Continuous Discharge: Up to 60 secs.
 Single Supply - TEL3GSC-60
 Thermal Mixing - TEL5GSC-60

Optional Accessories:
 4" cc Cover Plate - TN71V100
 8" cc Cover Plate - 71244T8CC

Meets the American Disabilities Act Guidelines and ANSI A117.1 requirements for people with disabilities, and ANSI A112.18.1M as metering / self-closing faucets.

NOTE:
 Following the Federal mandate for water efficiency outlined in the Environmental Protection Act of 1992, Electronic Faucets can be rated for water consumption based on two standards: flow rate and water consumption.
 With the "Water Consumption" standard, a faucet must not use more than 0.25 gallons of water per cycle.
 The TOTO faucets with a 10 second cycle uses 0.17 gallons of water.
 This is a 32% below the base line of 0.25 gallons per cycle.
 TOTO uses water consumption because it is the most accurate method of measuring water use. This method of measurement can be incorporated into water usage calculations for various efficiency programs. For more information, please consult www.totousa.com



TEL3GSC-10

AUTOMATIC FAUCETS- ECOPOWER SYSTEM

Designed for new and retrofit installations, TOTO's new technology of EcoPower generation sensor faucets offer easy installation without the cost and downtime required to install power supplies and wiring for each faucet. A contemporary styled spout provides a cascading flow of water over the users' hands, utilizing less than 0.17 gallons per cycle, while a hydro-powered turbine charges the power supply during usage eliminating the need for battery replacement or consumption of external electrical power for up to 10 years.

DURABLE AND SAFE

In today's facilities, durability and safety are essential. That's why TOTO faucets incorporate several integral features: an anti-scald thermal mixing chamber, waterproof electronic components, vandal proof assembly, a removable strainer to prevent clogging and make cleaning easier, and no touch operation. Mounting brackets with integral strainers and a self-cleaning solenoid valve allow for virtually uninterrupted use in high debris areas.

THERMOSTATIC MIXER

Unlike a standard mixing tee, TOTO's true thermostatic mixing valve provides an anti-scald feature using a state of the art shape memory alloy (SMA) controller. This mechanism reacts instantaneously to water reaching excessively high temperatures and automatically turns the water off preventing any discharge. Temperature stability is maintained to within +/- 3° F regardless of pressure and temperature fluctuations in the supply lines. Check valves are integrated into the mixer to prevent cross flow of water. The temperature of the water can also be adjusted with an external control knob.

"SMART SENSOR"

A self-adjusting sensor facilitates installation by preventing the need to make additional manual adjustments to the detection range, depending on the size of the basin the faucet is installed upon. The faucet will also automatically shut off in cases where false detection may occur, preventing water from continuously running.

OPERATING PROCEDURE

1. By placing your hands under the faucet, a sensor beam path is broken, causing the water to turn on.

2. Water flows for as long as you need it while your hands are under the faucet.

3. After pulling your hands away, the water turns off immediately, saving water.



Self-Generating EcoPower System Sensor Faucet, Standard Spout

SPECIFICATIONS

Product	TEL3GSC-10 - Single Supply, Single Hole - Continuous Discharge Up to 10 Seconds TEL5GSC-10 - Thermal Mixing, Single Hole - Continuous Discharge Up to 10 Seconds TEL3GSC-60 - Single Supply, Single Hole - Continuous Discharge Up to 60 Seconds TEL5GSC-60 - Thermal Mixing, Single Hole - Continuous Discharge Up to 60 Seconds <i>Optional Parts: TN71V100 - 4" cc Cover Plate for 2002 Model; 71244T8CC - 8" cc Cover Plate</i>
Power supply	Hydro-Power Charge. 10 year based on 2,000 cycles per month <i>(Backup battery: 4 years at 4,000 cycles per month w/o recharging)</i>
Hot/Cold-water supply	Minimum required water pressure: 20PSI Maximum water pressure: 125PSI
Water supply connection	1/2" I.P.
Water Consumption	10 Second Faucet: 0.17 gallons (max); 60 Second Faucet: 1.06 gallons (max)
Water saving function	Automatically turns OFF after 10 seconds or 60 seconds of continuous use
Detection time	ON feature: Immediate OFF feature: 1 second delay
Detection range	Factory set from 2 1/4". The faucet automatically sets the detection range according to the size of the basin.
Discharge water temperature control range	Thermal Mixing Faucet: Cold water - 104°F (Max) (When used under standard conditions)
Anti-scald safety feature	Provides the user protection against exposure to excessive water or outlet temperature (Thermal mixing faucet, only) fluctuation resulting from normal variation in inlet water pressure.
Warranty	Limited three (3) year warranty on all component parts. Details available upon request.

Listings



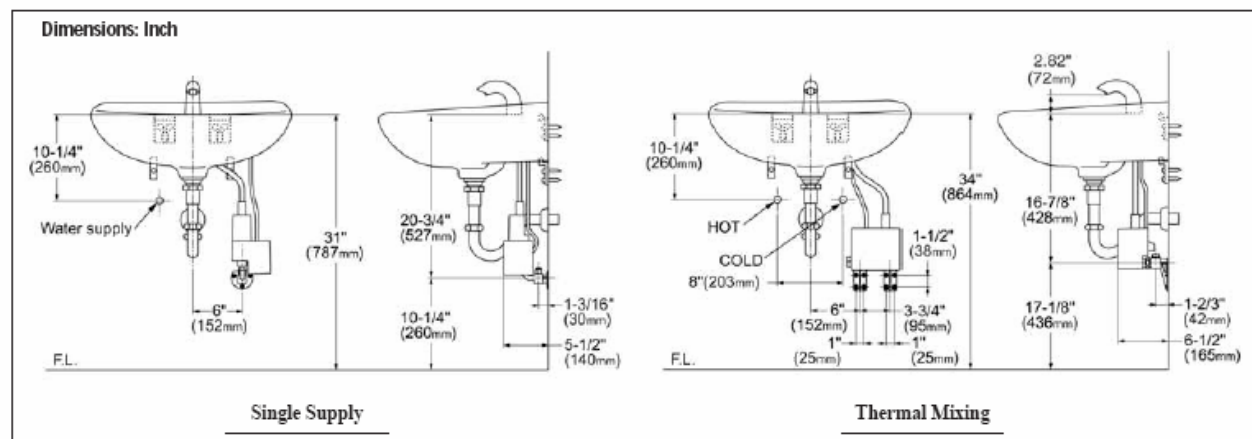
U.S. Patent No. 4742583, 5758688, 6076550 U.S. Patent Pending No. PCT/JP01/04079, PCT/JP01/04068, 2002-269745, 2002-269746, 2002-264784

SUGGESTED ENGINEERING SPECIFICATION:

TOTO Model # _____ Automatic infrared sensor activated faucet. Anti-scald, thermal mixing chamber (thermal faucets only). Automatic sensor adjustment on installation. Maximum discharge 0.17 gallons per 10 second cycle. Electrical components

separated from spout assembly and sealed in waterproof compartments. Single hole faucet with optional 4" cc cover plate. Through the use of TOTO's EcoPower system, using the faucet 11 times a day for 5 seconds or more will fully recharge the faucet.

DIAGRAM:



TOTO[®]
Perfection by Design

TOTO U.S.A., INC. • 1155 Southern Road, Morrow, GA 30260
Tel. (888) 295-8134 • Fax. (770) 282-8701 • www.totousa.com
Printed in U.S.A. © TOTO LTD. 12/04 #J90070

Printed on recycled paper

REV 12/04

MB-1

DESCRIPTION: MOP BASIN - PRECAST TERRAZZO, 24" X 24" X 12", STAINLESS STEEL INTEGRAL DRAIN WITH REMOVABLE STRAINER, 3" OUTLET. CONTINUOUS STAINLESS STEEL CAP ON ALL EDGES, MOP HANGER, HOSE AND HOSE BRACKET. CAULK BETWEEN MOP BASIN AND WALL WITH SILICONE BASED CAULK. DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: FIAT TSB-100, WILLIAMS SB-900 CREATIVE IND. MC2424-12

TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

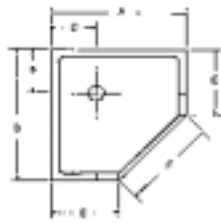
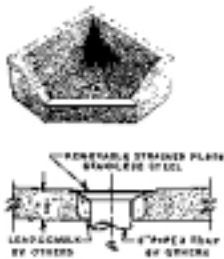
MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

Notes to specifier:

1. WI requires a screw on type vacuum breaker similar to Watts 8A.

Mop Service Basins of Precast Terrazzo

12" Neo-Corner TERRAZZO Models with 6" Drop Front TS5C 1610 SERIES



WITH STAINLESS STEEL THROUGH DRAIN ONLY

MODEL	SIZE	APPROX. SHIP WT.	A	B	C	D	E	F
TS5C-1610	24x24x12	235 lbs.	24	24	12	12	11 1/2	18 1/2
TS5C-1611	30x30x12	248 lbs.	30	30	12	12	11 1/2	23 1/2
TS5C-1612	36x36x12	405 lbs.	36	36	12	12	11 1/2	29 1/2

Note: This is a 12" x 12" Neoflex® drain with a multi-opening woodstock faucet with a 1/2" x 1/2" x 1/2" T. Check local code.

SB SERIES
6" - FLANK CURVES (NO DROP FRONT)

SB-3636	36x36x6	250 lbs.	36	36	12	12	18	25 1/2
---------	---------	----------	----	----	----	----	----	--------

12" TERRAZZO Service Basin with 6" Drop Front TSB 3000 SERIES



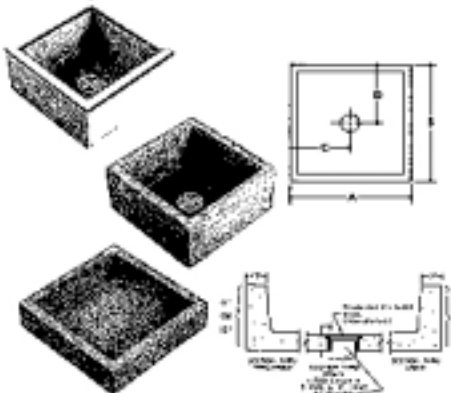
WITH STAINLESS STEEL CAPS ON ALL CURVES

MODEL	SIZE	APPROX. SHIP WT.	A	B	C	D	E
TSB-3000	24x24x12	230 lbs.	24	24	12	12	15
TSB-3001	30x30x12	415 lbs.	30	30	12	12	21
TSB-3002	36x36x12	479 lbs.	36	36	12	12	27
TSB-3003	36x24x12	345 lbs.	36	24	12	12	27

WITH STAINLESS STEEL THROUGH DRAIN ONLY

TSB-3000	24x24x12	230 lbs.	24	24	12	12	15
TSB-3001	30x30x12	415 lbs.	30	30	12	12	21
TSB-3002	36x36x12	479 lbs.	36	36	12	12	27
TSB-3003	36x24x12	345 lbs.	36	24	12	12	27

12" TSB 100 SERIES and 6" SB SERIES



TSB SERIES
12" - WITH STAINLESS STEEL CAPS ON ALL CURVES

MODEL	SIZE	APPROX. SHIP WT.	A	B	C	D
TSB-100	24x24x12	287 lbs.	24	24	12	12
TSB-100	30x30x12	435 lbs.	30	30	12	12
TSB-100	36x36x12	545 lbs.	36	36	12	12
TSB-100	36x24x12	435 lbs.	36	24	12	12

12" - FLANK CURVES

TSB-100	24x24x12	287 lbs.	24	24	12	12
TSB-100	30x30x12	435 lbs.	30	30	12	12
TSB-100	36x36x12	545 lbs.	36	36	12	12
TSB-100	36x24x12	435 lbs.	36	24	12	12

SB SERIES
6" - FLANK CURVES

SB-2424	24x24x6	165 lbs.	24	24	12	12
SB-3030	30x30x6	248 lbs.	30	30	12	12
SB-3636	36x36x6	345 lbs.	36	36	12	12
SB-3624	36x24x6	328 lbs.	36	24	12	12

(SB-3636 - See Also Series above.)

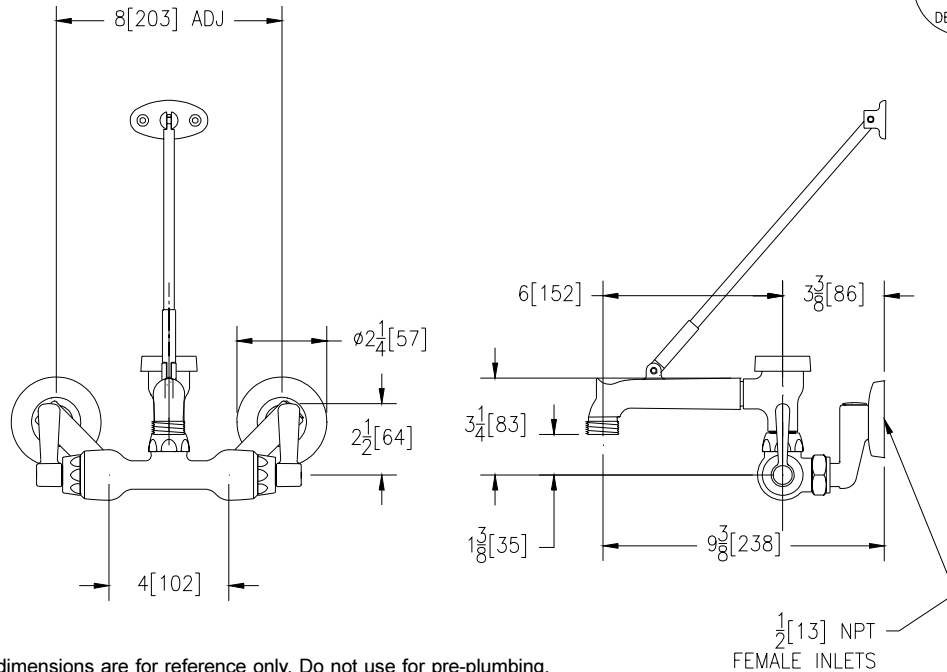


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E Date: 10/7/98
Dwg. No. 60882

C.N. No. 81369
Product No. Z-841M1

MB-2

DESCRIPTION: MOP BASIN - MOLDED STONE, 24" X 24" X 10", WHITE WITH BLACK ACCENTS, STAINLESS STEEL DRAIN WITH COMBINATION DOME STRAINER AND LINT BASKET, 3" OUTLET. VINYL BUMPER GUARD ON EXPOSED SIDES. MOP HANGER, HOSE AND HOSE BRACKET. CAULK BETWEEN MOP BASIN AND WALL WITH SILICONE BASED CAULK. DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: FIAT MSB-2424, WILLIAMS MTB-2424, SWAN MS-2424, ZURN Z-1996-24

TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

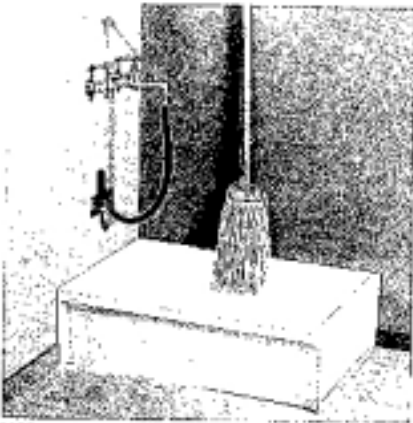
MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

Notes to specifier:

1. WI requires a screw on type vacuum breaker similar to Watts 8A.

Mop Service Basins of Molded-Stone

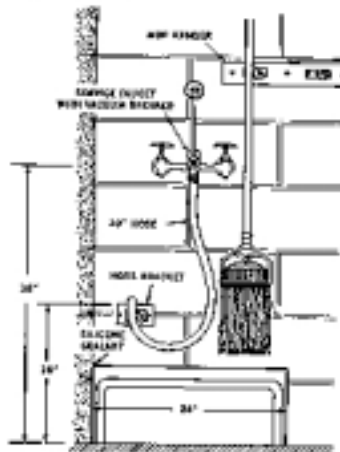
- Weighs 80% less than Terrazzo.
- Stronger than stone.
- Easy to handle and install.
- Stainproof, stays cleaner.



MSB-2424



- Crushproof, extra thick shoulders.
- Can withstand boiling water.
- Unaffected by normal cleaning chemicals.
- Finished on all four sides.



MSB-2424
Both models MSB-2424 and MSB-2424 are designed for complete installation flexibility.

Specifications:

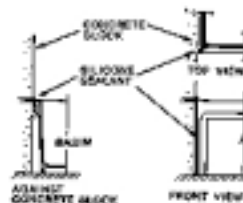
Two Sizes: MSB-2424 - 24" x 24" x 10" less Shell.
MSB-3624 - 36" x 24" x 10" with Shell.

The Molded-Stone® mop service basin shall be manufactured by Fiat Products. The molding shall be done in heated metal dies under heat and pressure, resulting in a one-piece, homogeneous product. Color: White.

The unit shall be 10" high walls with not less than 1" wide shoulders and an integrally molded shell 10-5/16" wide where indicated. The factory-installed drain body shall be stainless steel and designed to provide for a lead caulk or QDC-3 joint to a 3" drain pipe. A combination dome strainer and lint basket made from stainless steel shall be included.

The Everything Floor Sink for residential use is also available. Models EFS 3624 and EFS 2424 - with 2" drain.

Suggested Installation
Level base and shim as necessary. Drive to be connected to Quick Drain Connector. Apply silicone sealant at all points where basin meets wall.



3" Quick Drain Connector:
QDC-301 Schedule 40 Plastic Pipe
QDC-36M Schedule 40 Steel Pipe
Extra Heavy C.I. Pipe
QDC-36M Service Weight C.I. No. Hub Pipe



QDC-32
Facilitates connection of 2" pipe to 3" drain.

Other QDC Series Quick Drain Connectors are also available.

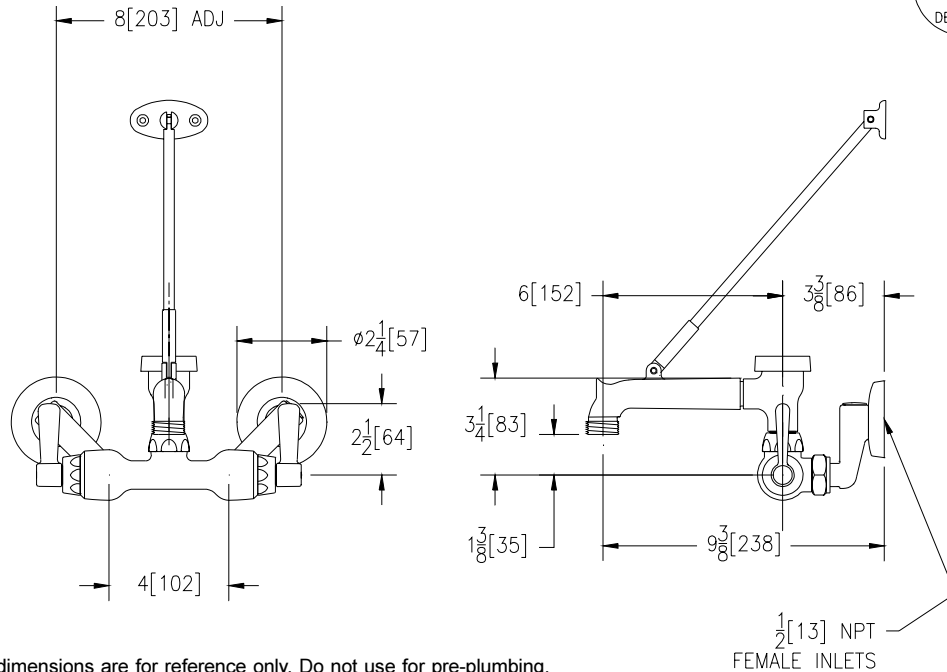


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E Date: 10/7/98
Dwg. No. 60882

C.N. No. 81369
Product No. Z-841M1

MB-3

DESCRIPTION: MOP BASIN - PRECAST TERRAZZO, 36" X 24" X 12", 3" STAINLESS STEEL INTEGRAL DRAIN WITH REMOVABLE STRAINER, 3" OUTLET. CONTINUOUS STAINLESS STEEL CAP ON ALL EDGES, MOP HANGER, HOSE AND HOSE BRACKET. CAULK BETWEEN MOP BASIN AND WALL WITH SILICONE BASED CAULK. DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: FIAT TSB-700, WILLIAMS SB-300, CREATIVE IND. MC3624-12

TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

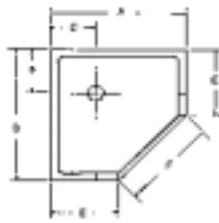
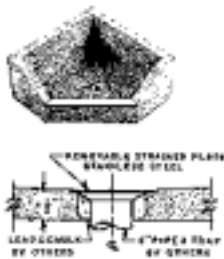
MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1 DELTA 28T2383

Notes to specifier:

1. WI requires a screw on type vacuum breaker similar to Watts 8A.

Mop Service Basins of Precast Terrazzo

12" Neo-Corner TERRAZZO Models with 6" Drop Front TS5C 1610 SERIES



WITH STAINLESS STEEL THRESHOLD ONLY

MODEL	SIZE	APPROX. SHIP. WT.	A	B	C	D	E	F
TS5C-1610	24x24x12	235 lbs.	24	24	12	12	12	18 1/2
TS5C-1611	32x32x12	249 lbs.	32	32	12	12	14	20 1/2
TS5C-1612	36x36x12	405 lbs.	36	36	12	12	16	23 1/2

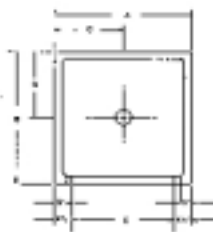
Note: Dimensions are for the basin only. Shipping weight includes the stainless steel threshold.

SB SERIES

6" - FLANG CURBS (NO DROP FRONT)

SB-3036	36x36x6	250 lbs.	36	36	12	12	18	25 1/2
---------	---------	----------	----	----	----	----	----	--------

12" TERRAZZO Service Basin with 6" Drop Front TSB 3000-SERIES



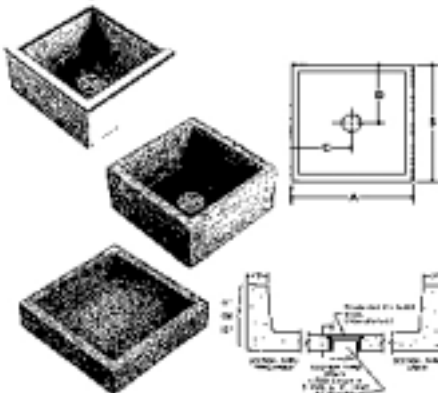
WITH STAINLESS STEEL CAPS ON ALL CURBS

MODEL	SIZE	APPROX. SHIP. WT.	A	B	C	D	E	F
TSB-3000	24x24x12	239 lbs.	24	24	12	12	12	15
TSB-3001	32x32x12	415 lbs.	32	32	12	12	14	20
TSB-3002	36x36x12	479 lbs.	36	36	12	12	16	22
TSB-3003	36x24x12	345 lbs.	36	24	12	12	18	22

WITH STAINLESS STEEL THRESHOLD ONLY

TSB-3000	24x24x12	239 lbs.	24	24	12	12	12	15
TSB-3001	32x32x12	415 lbs.	32	32	12	12	14	20
TSB-3002	36x36x12	479 lbs.	36	36	12	12	16	22
TSB-3003	36x24x12	345 lbs.	36	24	12	12	18	22

12" TSB 100 SERIES and 6" SB SERIES



TSB SERIES

12" - WITH STAINLESS STEEL CAPS ON ALL CURBS

MODEL	SIZE	APPROX. SHIP. WT.	A	B	E	D
TSB-100	24x24x12	287 lbs.	24	24	12	12
TSB-100	32x32x12	431 lbs.	32	32	12	12
TSB-100	36x36x12	545 lbs.	36	36	12	12
TSB-100	36x24x12	432 lbs.	36	24	12	12

12" - FLANG CURBS

TSB-100	24x24x12	287 lbs.	24	24	12	12
TSB-100	32x32x12	432 lbs.	32	32	12	12
TSB-100	36x36x12	545 lbs.	36	36	12	12
TSB-100	36x24x12	432 lbs.	36	24	12	12

SB SERIES

6" - FLANG CURBS

SB-3024	24x24x6	165 lbs.	24	24	12	12
SB-3030	30x30x6	204 lbs.	30	30	12	12
SB-3032	32x32x6	249 lbs.	32	32	12	12
SB-3036	36x36x6	325 lbs.	36	36	12	12
SB-3024	36x24x6	228 lbs.	36	24	12	12

(SB-3036 - See Also Series above.)

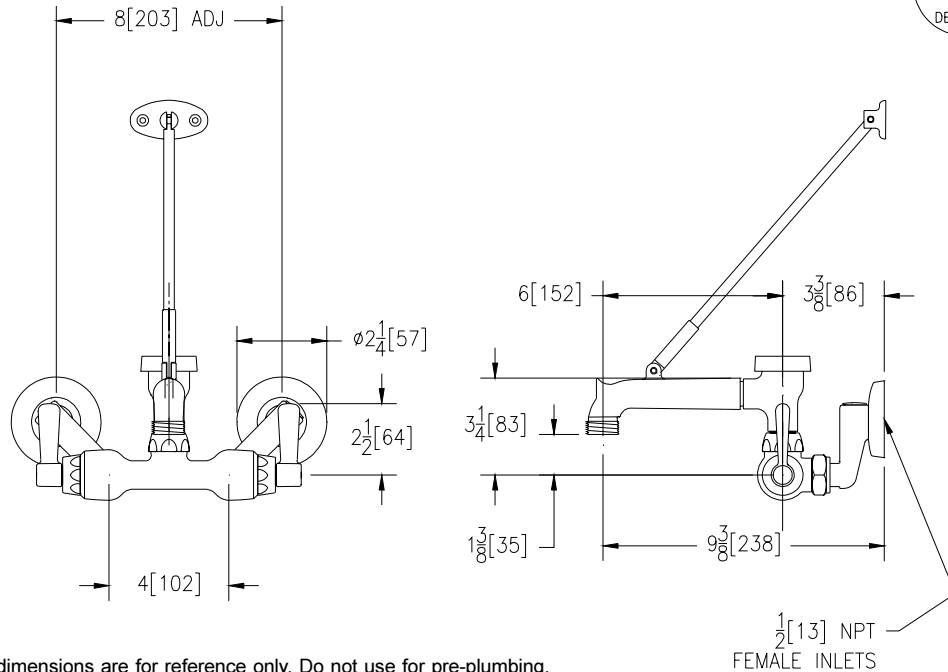


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E Date: 10/7/98
Dwg. No. 60882

C.N. No. 81369
Product No. Z-841M1

MB-4

DESCRIPTION: MOP BASIN - MOLDED STONE, 36" X 24" X 10", WHITE WITH BLACK ACCENTS, STAINLESS STEEL DRAIN WITH COMBINATION DOME STRAINER AND LINT BASKET, 3" OUTLET. VINYL BUMPER GUARD ON EXPOSED SIDES. MOP HANGER, HOSE AND HOSE BRACKET. CAULK BETWEEN MOP BASIN AND WALL WITH SILICONE BASED CAULK. DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: FIAT MSB-3624 WILLIAMS MTB-3624, SWAN MS-2436, ZURN Z-1996-36

TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

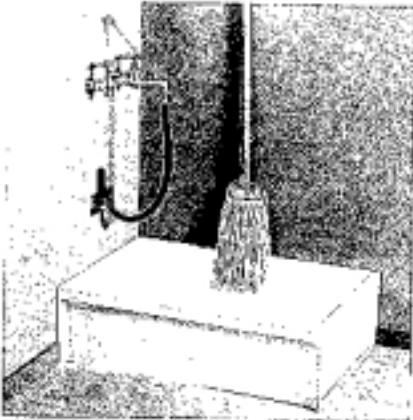
MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

Notes to specifier:

1. WI requires a screw on type vacuum breaker similar to Watts 8A.

Mop Service Basins of Molded-Stone

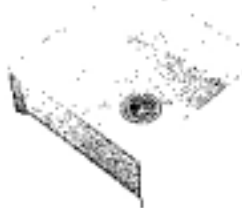
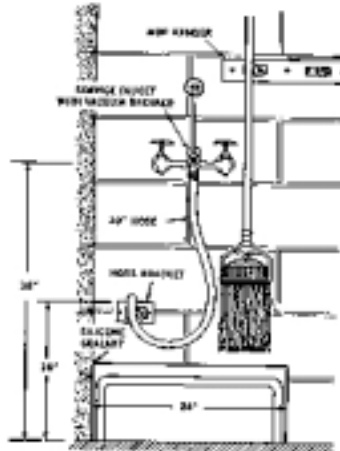
- Weighs 80% less than Terrazo.
- Stronger than stone.
- Easy to handle and install.
- Stainproof, stays cleaner.



MSB-3624



- Crashproof, extra thick shoulders.
- Can withstand boiling water.
- Unaffected by normal cleaning chemicals.
- Finished on all four sides.



MSB-3624
Both models MSB-3624 and MSR-2424 are designed for complete installation flexibility.

Specifications:

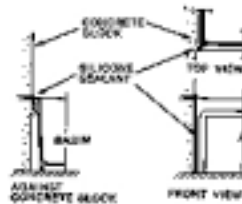
Two Sizes: MSB-3624 - 36" x 24" x 10" less Shelf.
MSB-3624 - 36" x 24" x 10" with Shelf.

The Molded-Stone® mop service basin shall be manufactured by Fiat Products. The molding shall be done in reinforced metal dies under heat and pressure, resulting in a one-piece, homogeneous product. Color: White.

The unit shall be 10" high walls with not less than 1" wide shoulders and an integrally molded shelf 10-5/16" wide where indicated. The factory-installed drain body shall be stainless steel and designed to provide for a lead caulk or QDC-3 joint to a 3" drain pipe. A combination dome strainer and lint basket made from stainless steel shall be included.

The Enriching Floor Sink for residential use is also available. Models EFS 3824 and EFS 2424 - with 2" drain.

Suggested Installation
Level table and drain as necessary. Drain to be connected to 3" Quick Drain Connector. Add by no means sealant at all points where basin meets wall.



3" Quick Drain Connector:
QDC-3X1 Schedule 40 Plastic Pipe
QDC-3S1 Schedule 40 Steel Pipe
Extra Heavy C.I. Pipe
QDC-3SM Service Weight C.I. No. Hub Pipe



QDC-32
Facilitates connection of 2" pipe to 3" drain.

Model 3400 and Quick Drain Extension are also available.

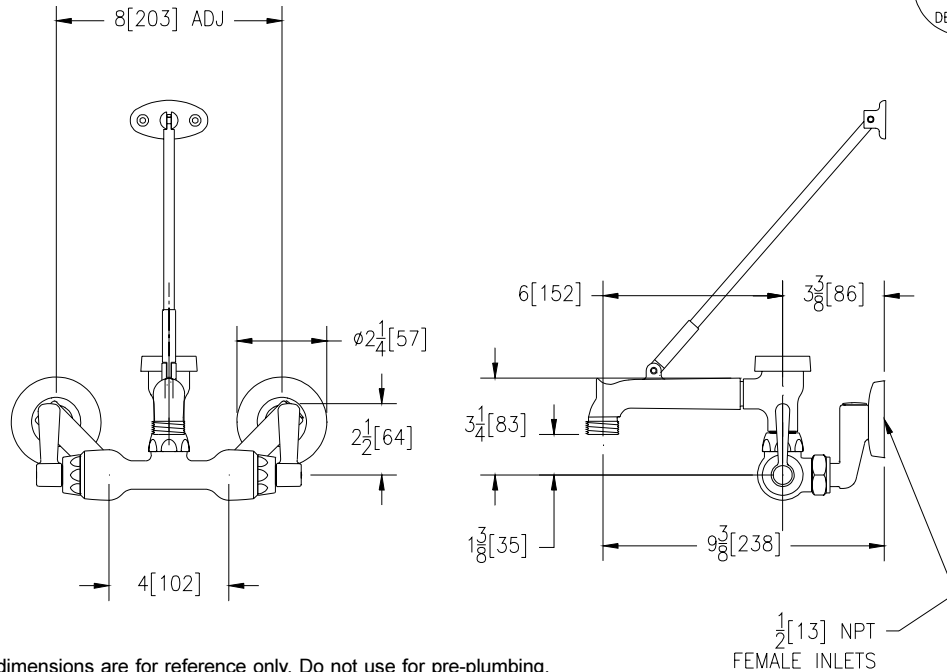


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E Date: 10/7/98
Dwg. No. 60882

C.N. No. 81369
Product No. Z-841M1

MB-5

DESCRIPTION: MOP BASIN - PRECAST TERRAZZO, 24" X 24" X 12", CORNER STYLE WITH 6" DEEP FRONT, STAINLESS STEEL INTEGRAL DRAIN WITH REMOVABLE STRAINER, 3" OUTLET. STAINLESS STEEL THRESHOLD, MOP HANGER, HOSE AND HOSE BRACKET. CAULK BETWEEN MOP BASIN AND WALL WITH SILICONE BASED CAULK. DEEP SEAL TRAP.

MANUFACTURER & CATALOG NO.: FIAT TSBC-1610, WILLIAMS SBC-1700

TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

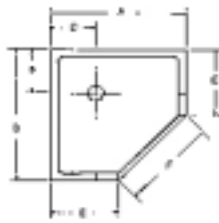
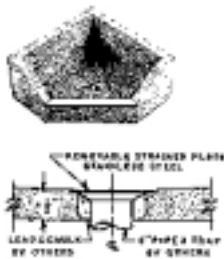
MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

Notes to specifier:

1. WI requires a screw on type vacuum breaker similar to Watts 8A.

Mop Service Basins of Precast Terrazzo

12" Neo-Corner TERRAZZO Models with 6" Drop Front TSBC 1610 SERIES



WITH STAINLESS STEEL THRESHOLD ONLY

MODEL	SIZE	APPROX. SHIP WT.	A	B	C	D	E	F
TSBC-1610	24x24x12	235 lbs.	24	24	12	12	12	18 1/2
TSBC-1611	32x32x12	249 lbs.	32	32	12	12	14	20 1/2
TSBC-1612	36x36x12	405 lbs.	36	36	12	12	16	23 1/2

Note: Dimensions are for the basin only. Shipping weight includes the basin and the stainless steel threshold.

SB SERIES

6" - FLARE CURBS (NO DROP FRONT)

TSBC-3636	36x36x6	250 lbs.	36	36	12	12	18	25 1/2
-----------	---------	----------	----	----	----	----	----	--------

12" TERRAZZO Service Basin with 6" Drop Front TSB 3000-SERIES



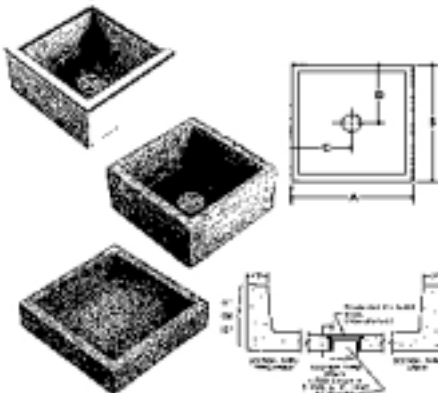
WITH STAINLESS STEEL CAPS ON ALL CURBS

MODEL	SIZE	APPROX. SHIP WT.	A	B	C	D	E
TSB-3000	24x24x12	239 lbs.	24	24	12	12	15
TSB-3001	32x32x12	415 lbs.	32	32	15	15	23
TSB-3002	36x36x12	479 lbs.	36	36	15	15	27
TSB-3003	36x24x12	345 lbs.	36	24	15	12	27

WITH STAINLESS STEEL THRESHOLD ONLY

TSB-3000	24x24x12	239 lbs.	24	24	12	12	15
TSB-3001	32x32x12	415 lbs.	32	32	15	15	23
TSB-3002	36x36x12	479 lbs.	36	36	15	15	27
TSB-3003	36x24x12	345 lbs.	36	24	15	12	27

12" TSB 100 SERIES and 6" SB SERIES



TSB SERIES

12" - WITH STAINLESS STEEL CAPS ON ALL CURBS

MODEL	SIZE	APPROX. SHIP WT.	A	B	C	D
TSB-100	24x24x12	287 lbs.	24	24	12	12
TSB-200	32x32x12	431 lbs.	32	32	15	15
TSB-300	36x36x12	545 lbs.	36	36	15	15
TSB-700	36x24x12	432 lbs.	36	24	15	12

12" - FLARE CURBS

TSB-200	32x32x12	387 lbs.	32	32	12	12
TSB-400	32x32x12	432 lbs.	32	32	15	15
TSB-600	36x36x12	545 lbs.	36	36	15	15
TSB-800	36x24x12	432 lbs.	36	24	15	12

SB SERIES

6" - FLARE CURBS

SB-C424	24x24x6	165 lbs.	24	24	12	12
SB-2620	30x30x6	204 lbs.	30	30	15	15
SB-2232	32x32x6	208 lbs.	32	32	15	15
SB-2236	36x36x6	325 lbs.	36	36	15	15
SB-2824	36x24x6	228 lbs.	36	24	15	12

(SB-C424 - See Also Series above.)

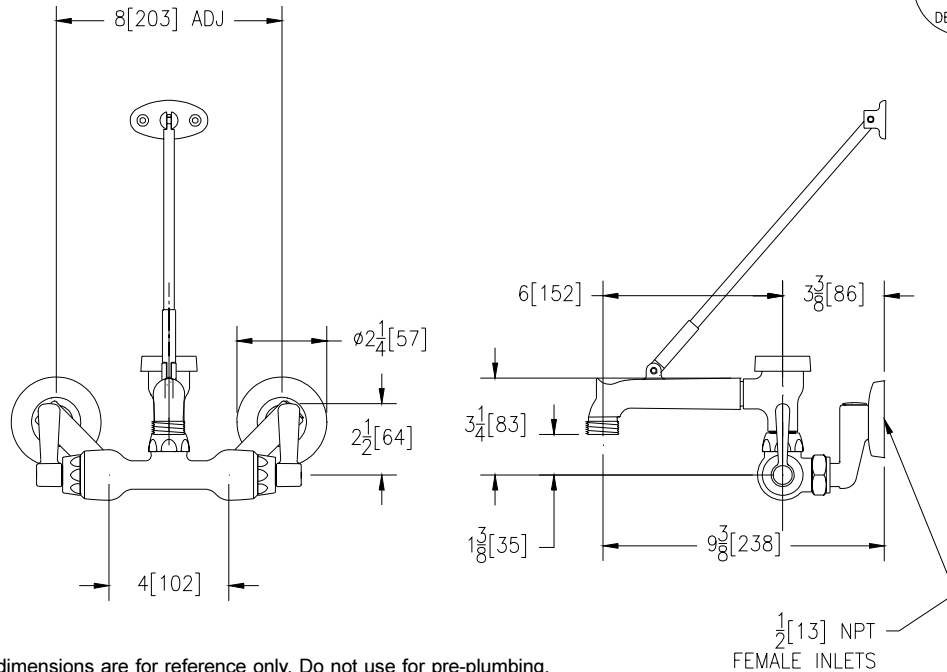


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E Date: 10/7/98
Dwg. No. 60882

C.N. No. 81369
Product No. Z-841M1



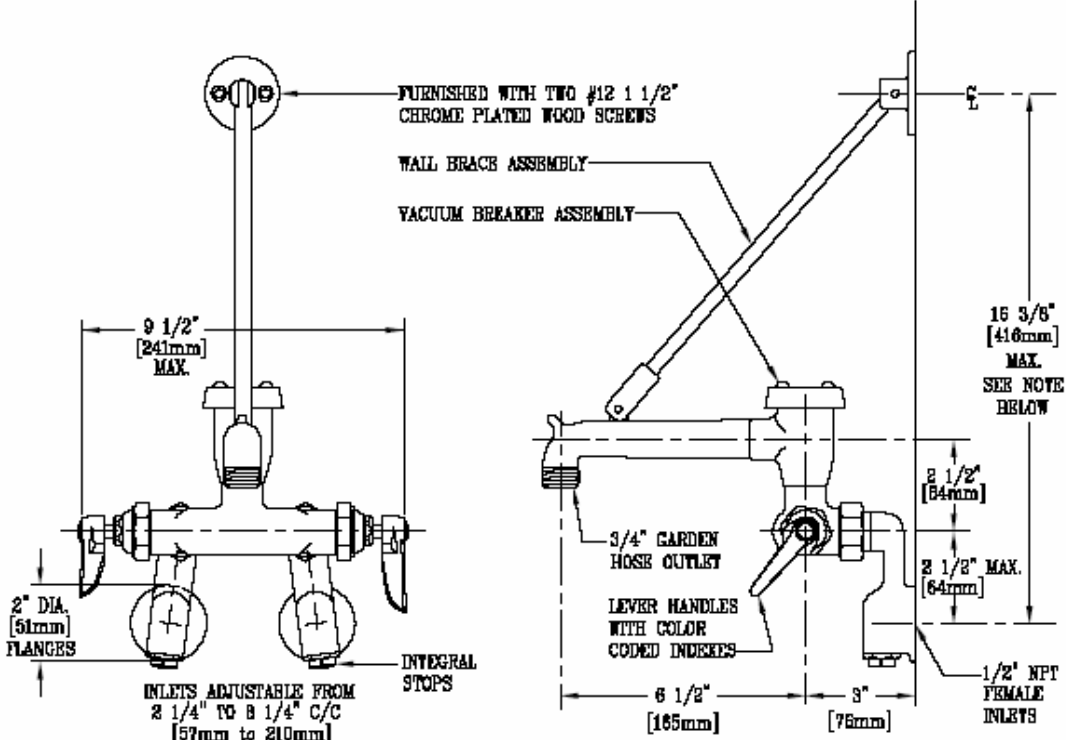
MBT-1

DESCRIPTION: TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS. MOUNT AT 30" ABOVE FLOOR.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

Notes to specifier:

1. WI requires a screw on type vacuum breaker similar to Watts 8A.

	T&S BRASS AND BRONZE WORKS, INC. 2 SADDLEBACK COVE / P.O. BOX 1088 / TRAVELERS REST, SC 29690 PHONE 800-476-4103 FAX 864-834-3518	 <small>REG #42801 180 78002</small>	Model No. B-0667-POL Item No.:
Job Name:		Architect/Engineer Approval:	
Notes:			
			
<p>NOTES:</p> <ol style="list-style-type: none"> 1. 16 3/8" MAX. DIMENSION IS BASED ON INLET CENTERS SET AT 9 1/2" [88mm] C/C. INCREASING INLET C/C DIMENSION WILL DECREASE 16 3/8" DIMENSION TO C OF WALL BRACE MOUNTING PLATE. 2. NSF STANDARD 61, SECTION 9 CERTIFIED. 			
Product Description: SERVICE SINK FAUCET WITH POLISHED CHROME FINISH, INTEGRAL STOPS, VACUUM BREAKER, WALL BRACE, ADJUSTABLE INLETS, & 3/4" GARDEN HOSE OUTLET		Drawn: WJS	Checked: MW
		Approved: CA	Scale: 3"=1' Date: 11/22/95

MV-2

DESCRIPTION: THERMOSTATIC MIXING VALVE - MASTER MIXING VALVE FOR TEMPERED WATER CONTROL. [1/2"][3/4"][1"] ALL BRONZE/BRASS CONSTRUCTION, ROUGH BRASS FINISH. UNION INLETS WITH STRAINERS AND CHECK STOPS. DIAL THERMOMETER ON OUTLET. RATED FOR [] GPM OUTPUT MAXIMUM AT [] PSI DIFFERENTIAL AND [] GPM OUTPUT MINIMUM. UNIT TO MIX 140 DEGREE F. HOT WATER SUPPLY AND 40 DEGREE F. COLD WATER SUPPLY FOR [] DEGREE F. OUTLET. SHALL CONFORM TO THE REQUIRMENTS OF ASSE 1017, SHALL BE ASSE 1017 APPROVED AND LISTED FOR USE IN ILLINOIS.

PROVIDE [RECESSED] [SURFACE MOUNTED] 18 GAUGE [STAINLESS STEEL] [PAINTED STEEL] CABINET WITH 16 GAUGE [STAINLESS STEEL] [PAINTED STEEL] LOCKING DOOR TO ENCLOSE VALVE. CONFIGURATION OF VALVE AND BOX SHALL BE AS INDICATED ON THE DRAWINGS.

PROVIDE FIELD ADJUSTMENT BY FACTORY AUTHORIZED REPRESENTATIVE.

MANUFACTURER & CATALOG NO.: LEONARD TYPE TM, APOLLO 34C, BRADLEY TMV, LAWLER SERIES 61, POWERS SERIES e490, SYMMONS THERMIXER/TEMPCONTROL, SPARCO AM, WATTS 1170, WILKINS ZW1017

Notes to specifier:

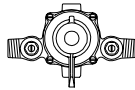
- I. For use at hot water source with low capacity hot water systems (approx. 15 gpm max).
- II. Edit size, gpm and temperature of water required. Review each mfr for min. and max. capacities for listed size.
- III. Locate accessible, exposed out of public access or provide cabinet in public area. Lockable enclosure recommended.
- IV. Edit or delete enclosure. Not all manufacturers provide cabinets as an option. Contractor will need to submit cabinet as a separate item if not a mfr. option.
- V. Refer to mfr. literature for piping requirements.

Submittal Data Sheet S-1200
October 2000

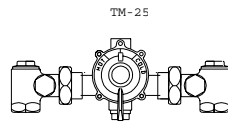
Thermostatic
MIXING
VALVES

TYPE TM

- TM-15-E _____
- TM-20-E _____
- TM-25-E _____



TM-15-2



TM-25

TM-15-1

- Thermostatic water mixing valve
- Dura-trol® bimetal thermostat directly linked to val to control the intake of hot and cold water and com supply temperature or pressure fluctuations. Dura-tro responsive and cannot be damaged by extremes in tempera
- 1/2" inlets, 3/4" outlet
- 1 GPM (3.7 l/m) minimum flow capacity
- Integral combination checkstops
- Internal parts of bronze, brass, and stainless steel
- Integral wall support, cast lever handle
- Color-coded dial, HOT-COLD with directional indicators
- Maximum operating pressure 125 PSI (860 KPA)
- Adjustable high temperature limit stop set for 120° F *
- Select valve finish below
- See Flow Capacity Chart to select correct size
- LTR - Locking temperature regulator

TM-20-1

- Thermostatic water mixing valve
- 3/4" inlets and outlet
- 1 GPM (3.7 l/m) minimum flow capacity
- See Flow Capacity Chart, reverse side to select correct

TM-25-1

- Thermostatic water mixing valve
- 3/4" inlets and outlet
- 4 GPM (15.1 l/m) minimum flow capacity
- See Flow Capacity Chart, reverse side to select correct

OPTIONS

- ___ SUFFIX RF- Rough bronze finish
- ___ SUFFIX SAT- Satin sprayed finish
- ___ SUFFIX CP- Chrome plated finish
- ___ SUFFIX LWS- Less Wall support

Engineer's Approval

Job # _____

Arch/Eng. _____

Contractor _____

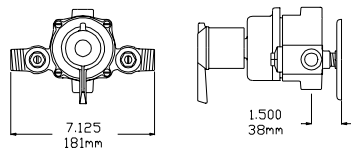
CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow must be as indicated.

*NOTE: A limit stop, set for 120°F is simply a mechanical setting. Excessive handle rotation. If incoming water temperature is higher than the temperature of the factory test, the valve when turned to the "HOT" position will exceed the limit stop and the limit stop MUST BE RESET BY THE INSTALLER.

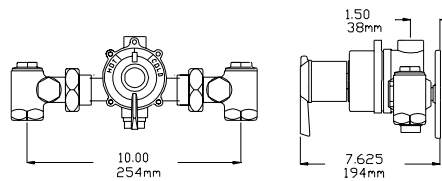


1360 Elmwood Avenue, Cranston, RI 0
Phone: 401.461.1200 Fax: 401.941.5310
Email: info@leonardvalve.com

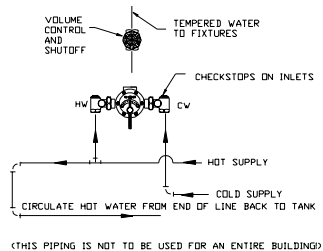
TM-15-20



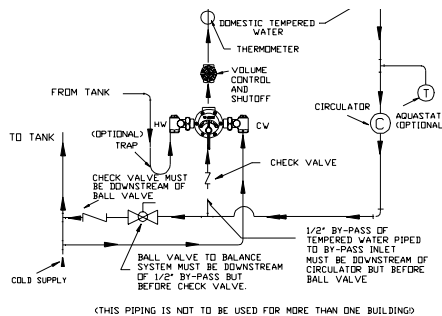
TM-25



REQUIRED PIPING METHOD #1



REQUIRED PIPING METHOD #2



MODEL	IN	OUT	MINIMUM FLOW (GPM) (l/min)	SYSTEM PRESSURE DROP (PSIG)										
				5	10	15	20	25	30	35	40	45	50	PSI
				.3	.7	.97	1.4	1.7	2.1	2.4	2.8	3.1	3.4	
TM-15-E	1/2"	3/4"	1.0 3.7	4.5 17	7 26	8 30	10 38	12 45	13 49	14 53	15 57	16 60	17 64	GPM l/min
TM-20-E	3/4"	3/4"	1.0 3.7	5 19	7.3 28	9 34	11 42	13 49	14 53	15 57	16 60	17 64	18 68	GPM l/min
TM-25-E	3/4"	3/4"	4.0 (15)	7 26	10 38	13 49	16 60	18 68	20 76	22 83	24 91	26 98	27 102	GPM l/min



1360 Elmwood Avenue, Cranston, RI
 Phone: 401.461.1200 Fax: 401.491.5310
 Email: info@leonardvalve.com

MV-3

DESCRIPTION: THERMOSTATIC MIXING VALVE - REMOTE ANTI-SCALD MIXING VALVE FOR TEMPERED WATER CONTROL. ALL BRONZE/BRASS CONSTRUCTION, ROUGH FINISH. UNION/THREADED INLETS WITH CHECK STOPS/STRAINERS. RATED FOR [] GPM OUTPUT MAXIMUM AT [] PSI DIFFERENTIAL AND 0.5 GPM OUTPUT MINIMUM. UNIT TO MIX [] DEGREE F. HOT WATER SUPPLY AND 40 DEGREE F. COLD WATER SUPPLY FOR 110 DEGREE F. OUTLET. SHALL CONFORM TO THE REQUIRMENTS OF ASSE 1016, SHALL BE ASSE 1016 APPROVED AND LISTED FOR USE IN ILLINOIS.

PROVIDE [SEMI-RECESSED] [SURFACE MOUNTED] 18 GAUGE [STAINLESS STEEL] [PAINTED STEEL] CABINET WITH 16 GAUGE [STAINLESS STEEL] [PAINTED STEEL] LOCKING DOOR TO ENCLOSE VALVE, INLET STOPS, OUTLET THERMOMETER, AND OUTLET VALVES. CONFIGURATION OF VALVE AND BOX SHALL BE AS INDICATED ON THE DRAWINGS.

MANUFACTURER & CATALOG NO.: LEONARD MODEL 220/320, APOLLO 34B, BRADLEY ISV, LAWLER SERIES 4000, POWERS SERIES e420, SLOAN MIX-70-A, SPARCO SM, SYMMONS THERMIXER, WATTS MMV, WILKINS ZW1070

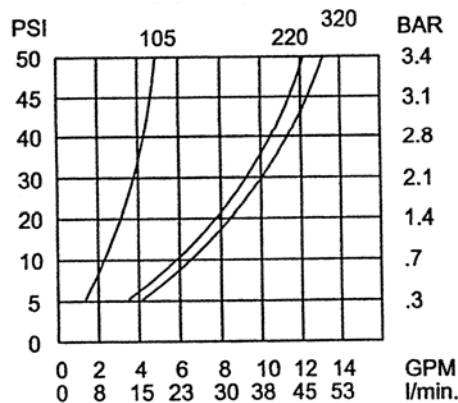
Notes to specifier:

- I. For use at remote fixtures.
- II. Locate accessible, exposed out of public access or provide lockable cabinet in public area.
- III. Edit or delete enclosure. Not all manufacturers provide cabinets as an option. Contractor will need to submit cabinet as a separate item if not a mfr. option.
- IV. Refer to mfr. literature for piping requirements.
- V. Verify GPM and Pressure drop requirements.



105, 220 & 320 THERMOSTATIC WATER MIXING VALVES

- Highly responsive copper encapsulated thermostat assembly
- Locked temperature adjustment (tamper-resistant)
- Bronze body, brass, stainless steel and engineering polymer internal components
- Integral check valves on hot and cold inlets
- Temperature differential: 15°F (9°C) between mix and hot supply
- Temperature range:
 Model 105.....95°F - 105°F (35°C - 40°C)
 Model 220, 320.....85°F - 120°F (20°F - 49°F)
- Maximum hot water supply temperature:
 Model 105.....195°F (90°C)
 Model 220, 320.....180°F (82°C)



Specifications

Leonard Model 105 Thermostatic Mixing Valve for Single Outlet Application (one fixture), bronze body, copper encapsulated thermostat, DZE brass and engineering polymer internals, stainless steel springs, tamper-resistant cap, integral check valves on hot and cold inlets, 3/8" IPS connections, compression fittings included, rough bronze finish.

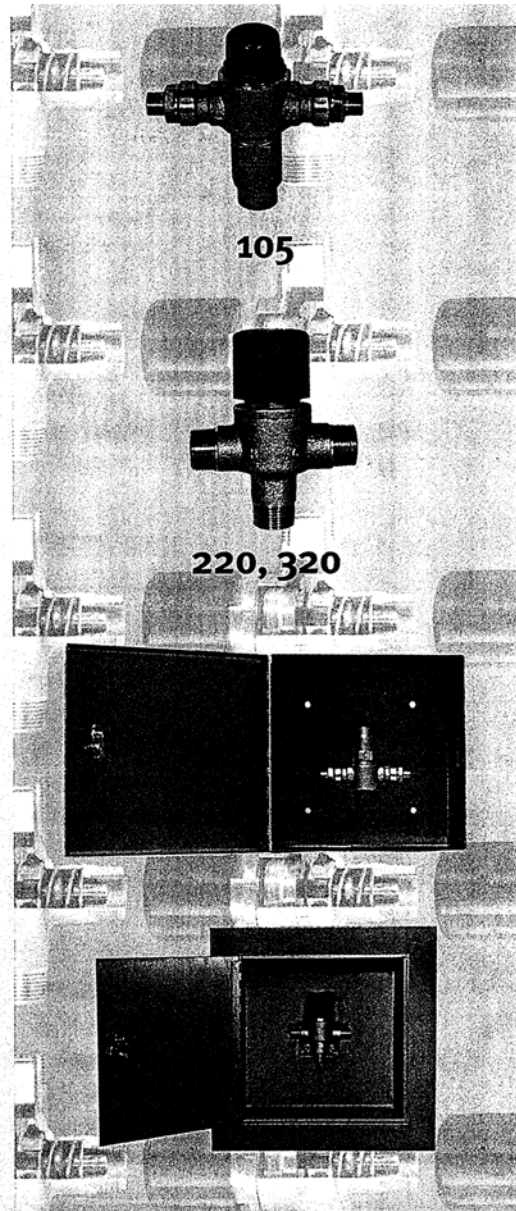
Leonard Model 220, 320 Thermostatic Mixing Valve, bronze body, copper encapsulated thermostat, brass internals, stainless steel spring, locked temperature adjustment knob (tamper-resistant), integral check valves on hot and cold inlets, MIPS connections, rough bronze finish.

(Note: 220, 320 models may be used for single or multiple outlets or for primary control of domestic hot water systems)

Cabinet Assembly Specifications

Leonard Model 105-STSTL-EXP Thermostatic Mixing Valve Cabinet Assembly for Single Outlet Application (one fixture). Cabinet shall be exposed type, stainless steel construction, hinged left hand door with cylinder lock, punched for side inlets, top outlet. Valve with 3/8" IPS connections, compression fittings included, rough bronze finish, mounting bracket.

Leonard Model 220(320)-STSTL-REC Thermostatic Mixing Valve Cabinet Assembly for Single or Multiple Outlets. Cabinet shall be recessed type, stainless steel construction, hinged left hand door with cylinder lock, punched for side inlets, bottom outlet. Valve with MIPS connections, rough bronze finish, mounting bracket.



MODEL	IN	OUT	MINIMUM FLOW (GPM)	PRESSURE DROP										PSI	BAR
				5	10	15	20	25	30	35	40	45	50		
105	3/8"	3/8"	0.5	1.5	2.0	2.5	3.2	3.5	3.8	4.1	4.5	4.6	4.7	GPM	
			1.9	5.6	7.6	9.5	12.1	13.2	14.4	15.5	17	17.4	17.7	LMIN	
220	1/2"	1/2"	0.5	3.5	5.5	6.5	7.5	8.5	9.5	10	10.5	11.5	12	GPM	
			1.9	13	21	25	28	32	36	38	40	43	45	LMIN	
320	3/4"	3/4"	0.5	4	6	7	8	9	10	10.5	11.5	12.5	13	GPM	
			1.9	15	23	27	30	34	38	40	43	47	49	LMIN	

DESCRIPTION: THERMOSTATIC MIXING VALVE - REMOTE ANTI-SCALD MIXING VALVE FOR TEMPERED WATER CONTROL. ALL BRONZE/BRASS CONSTRUCTION, ROUGH FINISH. THREADED INLETS, TAMPER RESISTANT SETPOINT. 0.5 GPM OUTPUT. UNIT TO MIX [] DEGREE F. HOT WATER SUPPLY AND 40 DEGREE F. COLD WATER SUPPLY FOR 110 DEGREE F. OUTLET. SHALL CONFORM TO THE REQUIRMENTS OF ASSE 1016, SHALL BE ASSE 1016 APPROVED AND LISTED FOR USE IN ILLINOIS.

MANUFACTURER & CATALOG NO.: WATTS USG-B, APOLLO 34D, POWERS e480

Notes to specifier:

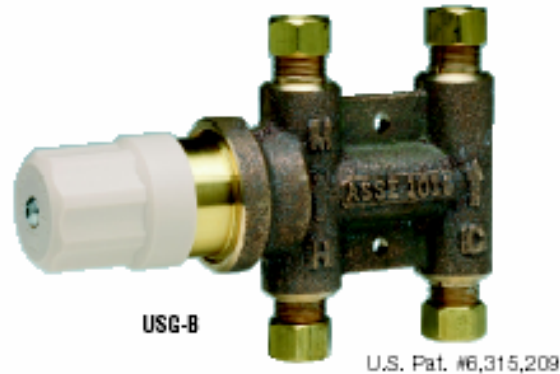
- I. For use exposed at each remote fixture.
- II. Locate accessible under sink or counter.

Under Sink Guardian™, Series USG-B

ASSE 1016 Listed Thermostatic Mixing Valves

Safely delivers bathing water to lavatory or kitchen sink faucets.

Watts Under Sink Guardian™, Series USG-B, is manufactured from heavy duty bronze alloy and is specifically designed for under sink installations by professional plumbers or homeowners who desire commercial grade performance. The USG-B is an ASSE 1016 listed valve that meets the criteria governing the safe delivery of bathing water to individual faucets adjusted and controlled by the end user. The USG-B automatically blends hot and cold water to produce safe mixed water from the tap. Should the cold water supply fail or be shut off, flow from the hot water faucet will cease. The USG-B, is specifically designed for single-fixture protection and uses 3/8" (10mm) compression fittings to accommodate most kitchen sink or bathroom lavatory installations. The USG-B series uses a double throttling design to control both the hot and cold water supply to the mixed outlet. In addition, the USG-B incorporates check valves to protect against cross-flow.



Minimum Flow Requirements To Maintain Set Temperature For Series USG-B

Valve Size: 3/8" (10mm) Compression, 0.5gpm (1.9 lpm)

Pressure/Temperature

Minimum Supply Pressure (static): 30psi (207 kPa)

Recommended Inlet Temperatures:

Hot Inlet: 120°F – 180°F (49°C – 82°C)

Cold Inlet: 39°F – 85°F (4°C – 29°C)

Minimum Inlet Differential

Temperature: 15°F (-9°C)

Temperature Out: 80°F – 120°F (27°C – 49°C), adjustable

Maximum Temperature: 180°F (82°C)

Maximum Pressure: 150psi (10 bars)

Materials

Body – Cast bronze construction

Disc, Spring and Ball – Stainless steel

Thermostat – Copper

Disc and O-rings – Buna-N

Piston – Udel-P1700

Gasket – Garlock 3000

Features

- ASSE Standard 1016 listed
- Proportional flow design controls both hot and cold supply to mixed water outlet
- Maintains mixed water temperature to ± 3°F (1.5°C), up to 120°F (49°C)
- Installs easily between stop valves and faucet
- Includes locking cap
- Built-in check valves prevent migration of hot water to cold water piping
- Comes with cap for three-port applications

Specifications

A Watts model USG-B Thermostatic Mixing Valve shall be installed on the hot and cold water supply in order to control the maximum temperature to the fixture. The valve shall be ASSE Standard 1016 listed. It shall have a bronze body and shall include integral check valves on the hot and cold water inlets and an adjustment cap with locking feature. The valve shall be provided with 3/8" (10mm) male compression fittings. The adjusting cap shall permit the maximum outlet temperature to be adjustable over a 80°F – 120°F (27°C – 49°C) range.

Application Note

Delivery of water to fixtures intended for use in bathing or washing should always be controlled by valves listed to ASSE Standard 1016, such as the Watts Series USG, MMV or L111 mixing valves. These valves provide the user with both scald protection and protection from thermal shock. These valves can be set to a maximum temperature of 120°F (49°C). Watts recommends the maximum temperature of 110°F (43°C) for shower and bathing fixtures.

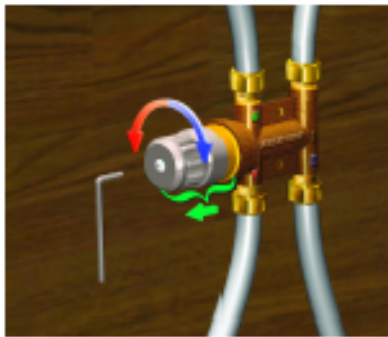
Typical Installation



The Watts Under Sink Guardian, USG-B, installs easily onto most faucets.

- Shut off supply valves and remove existing piping to faucet
- Connect the USG-B to the supply valves and the faucet, using tubing of your choice with $\frac{3}{8}$ " (10mm) compression fittings
- Turn on supply valves and check for leaks.
- Set temperature

Temperature Adjustment

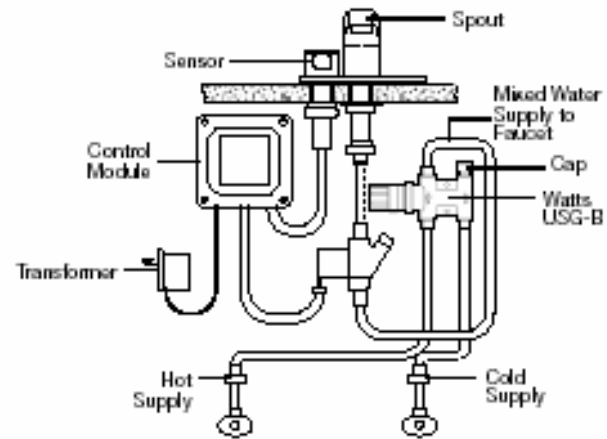
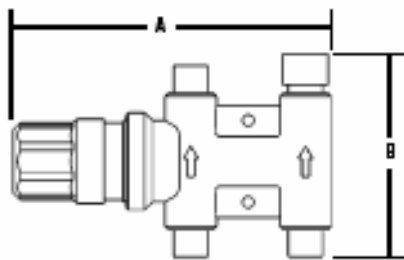


You can easily adjust the Under Sink Guardian to the desired safe maximum temperature using the unique safety cap.

- Loosen the cap screw with the hex wrench provided.
- Pull the cap from the valve body and turn to obtain the desired mixed water temperature at the outlet. As a safety feature, the cap must be partially lifted from the valve to adjust the temperature.
- Push the cap onto the valve body and tighten the hex screw to protect against inadvertent or unauthorized adjustment of the outlet temperature.

Dimensions/Weight

USG-B



Typical Sensor Faucet Application

MODEL	ORDERING CODE	FINISH	CONNECTION SIZE (DN)	DIMENSIONS (approx.)				WEIGHT	
				A		B		lbs.	kg.
USG-B	0204073	Bronze	$\frac{3}{8}$ " (10mm) Compression	$3\frac{1}{8}$	79	$5\frac{1}{16}$	132	1.5	0.68
USG-B-SC	0204074	Satin Chrome	$\frac{3}{8}$ " (10mm) Compression	$3\frac{1}{8}$	79	$5\frac{1}{16}$	132	1.5	0.68

MV-5

DESCRIPTION: THERMOSTATIC MIXING VALVE FOR EMERGENCY SHOWER OR COMBINATION SHOWER/EYEWASH FIXTURE. DUAL THERMOSTATIC MIXING AND PRESSURE REGULATING VALVES TO DELIVER 25 GPM OF TEMPERED WATER (65-90 DEGREES) WITH 10 PSI PRESSURE DIFFERENTIAL. BRONZE BODY CONSTRUCTION, COLD WATER BYPASS, INLET AND OUTLET THERMOMETERS, INTEGRAL CHECKSTOPS, MOUNTING BRACKET. UNIT TO MEET ANSI STANDARD Z358.1

PROVIDE [RECESSED] [SURFACE MOUNTED] 18 GAUGE [STAINLESS STEEL] [PAINTED STEEL] CABINET WITH 16 GAUGE [STAINLESS STEEL] [PAINTED STEEL] LOCKING DOOR TO ENCLOSE VALVE, INLET STOPS, OUTLET THERMOMETER, AND OUTLET VALVES. CONFIGURATION OF VALVE AND BOX SHALL BE AS INDICATED ON THE DRAWINGS.

MANUFACTURER & CATALOG NO.: LEONARD TM, BRADLEY S19, LAWLER 911, POWERS ES

Notes to specifier:

- I. Surface, semi and full recessed cabinets available in stainless steel or baked enamel.
- II. Smaller unit is available for eyewash stations.

Submittal Data Sheet S-176G8
May 2000

**EMERGENCY
MIXING
VALVES**

Exposed Assembly for Drench o
Combination Emergency Shower
3 - 64 GPM (11 - 242 l/min) flow ra
up to 45 PSI system pressure drop

TM-800

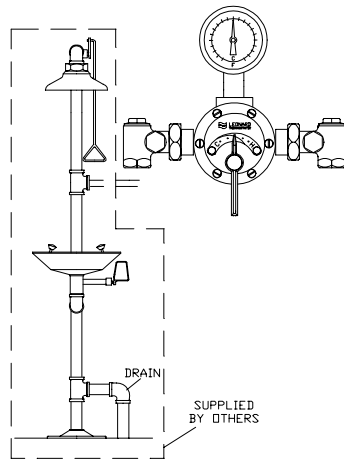
___ TM-800

EMERGENCY WATER MIXING VALVE

- DURA-trol® solid bimetal thermostat directly linked to valve porting to control the intake of hot and cold water and compensate for supply temperature and pressure fluctuations. DURA-trol is highly responsive and cannot be damaged by extremes in temperature
- Thermostatic Mixing Valve can be set to the correct temperature for the application.
- Locking type temperature regulator to prevent accidental movement set for 85°F (29°C)
- Mixing valve will close down on failure of cold water supply
- Mixing Valve with special internal cold water bypass capable of 20 GPM (76 l/min) @ 30 PSI (2.1 Bar) upon failure of hot water supply
- Adjustable high temperature limit stop * set for 90°F (32°C)
- Full 1" top or bottom inlets and 1 1/4" top outlet
- Integral wall support
- Dial thermometer (range 0 to 140°F, -10 to 60°C)
- Rough bronze finish
- Union angle checkstops on inlets

OPTIONS

- ___ SAT-Satin sprayed finish
- ___ CP- Chrome plated finish
- ___ IT- Inlet thermometers (range 0 to 140°F, -10 to



Job # _____	Engineer's Approval _____
Arch/Eng. _____	
Contractor _____	

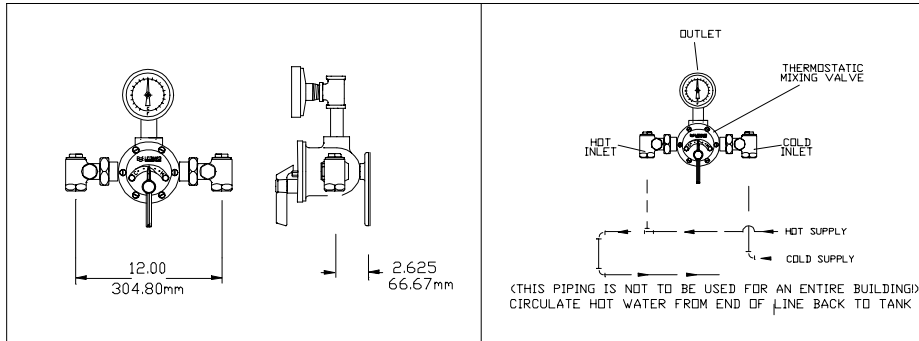
CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow must be no indicated.

*NOTE: A limit stop, set for 90°F (32°C) is simply a mechanical setting. It does not provide excessive handle rotation. If incoming water temperature is higher than the temperature of the factory test, the valve when turned to full excess of 90°F and the limit stop MUST BE RESET BY THE INSTALLER



1360 Elmwood Avenue, Cranston, RI 02904
Phone: 401.461.1200 Fax: 401.941.5310
Email info@leonardvalve.com

EMERGENCY WATER MIXING VALVE FOR DRENCH OR COMBINATION EMERGENCY SHOWER



CAUTION! It may be necessary to recirculate the tempered water to the emergency piping be exposed to excessive hot or cold conditions. Consult factory for proper

FLOW CAPACITIES

MODEL	IN	OUT	MINIMUM FLOW (GPM) L\MIN	INTERNAL COLD WATER BY-PASS MINIMUM	SYSTEM PRESSURE DROP									PSI BAR
					5	10	15	20	25	30	35	40	45	
TM-800	1"	1 1/4"	3	20	21	29	38	44	50	53	56	61	64	GPM
			11	76	79	110	143	167	189	201	212	231	242	L\MIN
MAXIMUM FLOW CAPACITY														

The Emergency Shower Mixing Valve shall control and maintain the temperature of the water station. Unit shall be self contained and include a thermostatic water mixing valve, a dial checkstops, wall mounting bracket, piping and fittings factory assembled and tested, top set for 85°F (29°C) and a maximum temperature of 90°F (32°C). Unit must be able to be set specific contaminant but must be locked in place to prevent changing of the temperature weekly for performance in conjunction with the requirements of ANSI Z-358. Unit shall be 20 GPM (76 l/min) at 30 PSI (2.1 Bar).

WARNING! IT IS THE RESPONSIBILITY OF THE SPECIFIER TO DETERMINE THE DELIVERED WATER TEMPERATURE TO EACH SAFETY FIXTURE. A COMFORTABLE RANGE IS 60°F TO 90°F (15° TO 35°C). IN CIRCUMSTANCES WHERE A CHEMICAL REACTION IS ACCELERATED BY WATER TEMPERATURE, A MEDICAL ADVISOR SHOULD BE CONSULTED FOR THE OPTIMUM TEMPERATURE FOR EACH APPLICATION.

Specifications are subject to change without notice!

CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desired their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow must be indicated.



1360 Elmwood Avenue, Cranston, RI
Phone: 401.461.1200 Fax: 401.491.5310
Email: info@leonardvalve.com

MV-6

DESCRIPTION: THERMOSTATIC MIXING VALVE FOR EMERGENCY EYEWASH OR COMBINATION EYEWASH/FACEWASH FIXTURE. THERMOSTATIC MIXING AND PRESSURE REGULATING VALVES TO DELIVER 3 GPM OF TEMPERED WATER (65-90 DEGREES) WITH 10 PSI PRESSURE DIFFERENTIAL. BRONZE BODY CONSTRUCTION, COLD WATER BYPASS, INLET AND OUTLET THERMOMETERS, INTEGRAL CHECKSTOPS, MOUNTING BRACKET. UNIT TO MEET ANSI STANDARD Z358.1

PROVIDE [RECESSED] [SURFACE MOUNTED] 18 GAUGE [STAINLESS STEEL] [PAINTED STEEL] CABINET WITH 16 GAUGE [STAINLESS STEEL] [PAINTED STEEL] LOCKING DOOR TO ENCLOSE VALVE, INLET STOPS, OUTLET THERMOMETER, AND OUTLET VALVES. CONFIGURATION OF VALVE AND BOX SHALL BE AS INDICATED ON THE DRAWINGS.

MANUFACTURER & CATALOG NO.: LEONARD TA, BRADLEY S19, LAWLER 911E, POWERS ES

Notes to specifier:

- I. Surface, semi and full recessed cabinets available in stainless steel or baked enamel.
- II. Smaller unit is available for eyewash stations.

Submittal Data Sheet S-176F
July 2000

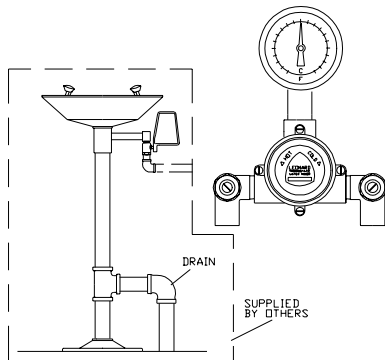
**EMERGENCY
MIXING
VALVES**

Exposed Assembly for
Eye/Face Wash Units
0.5 - 10 GPM (1.9 - 38 l/min.) flow rate
up to 45 PSI system pressure drop

TA-300

___ TA-30

EMERGENCY WATER MIXING VALVE



- DURA-trol solid bimetal thermostat directly linked to the mixing valve to control the intake of hot water and compensate for supply temperature and pressure fluctuations. DURA-trol is highly responsive and cannot be damaged by extremes in temperature.
- Thermostatic Mixing Valve can be set to the temperature for the application.
- Locking temperature regulator to prevent accidental movement set for 85°F (29°C)
- Mixing valve will close down on failure of cold water supply
- Mixing valve with special internal cold water bypass of a minimum of 4 GPM (15 l/min) @ 30 PSI (2.1 Bar) in the event of hot water supply failure
- Adjustable high temperature limit stop * set for 140°F (60°C)
- Integral wall support
- Full 1/2" bottom inlets and 3/4" top outlet
- Rough bronze finish
- Dial thermometer (range 0 to 140°F, -10 to 60°C)
- Angle checkstops on inlets

OPTIONS

- ___ CP- Chrome plated finish
- ___ IT- Inlet thermometers (0 to 140°F, -10 to 60°C)
- ___ TOP - Top inlets

Job # _____	Engineer's Approval _____
Arch/Eng. _____	
Contractor _____	

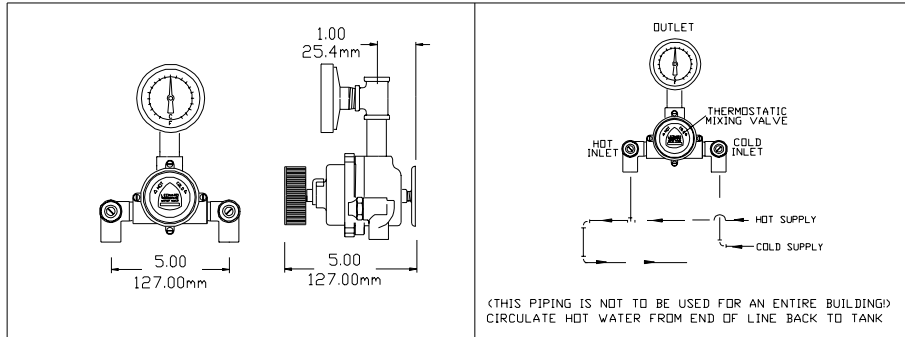
CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow must be indicated.

*NOTE: A limit stop, set for 140°F, is simply a mechanical setting that prevents excessive handle rotation. If incoming water temperature drops below the setpoint of the factory test, the valve when turned to full HOT may close. The limit stop is set at 90°F and the limit stop MUST BE RESET BY THE INSTALLER



1360 Elmwood Avenue, Cranston, RI
Phone: 401.461.1200 Fax: 401.491.5310
Email: info@leonardvalve.com
Web Site: <http://www.leonardvalve.com>

EMERGENCY WATER MIXING VALVE FOR EYE/FACE WASH



CAUTION! It may be necessary to recirculate the tempered water to the face/eyew be exposed to excessive hot or cold conditions. Consult factory for proper pipin

FLOW CAPACITIES

MODEL	IN	OUT	MINIMUM FLOW (GPM) L\MIN	INTERNAL COLD WATER BY-PASS MINIMUM	SYSTEM PRESSURE DROP									
					5	10	15	20	25	30	35	40	45	PSI
TA-300	1/2"	1/2"	0.5	4	.3	.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
			1.9	15	9.5	15	19	23	27	30	32	36	38	L\MIN
MAXIMUM FLOW CAPACITY														

The Emergency Shower Mixing Valve shall control the temperature of the water to the static temperature within Unit shall be self contained and include a thermostatic water mixing valve, angle checkstops, wall mounting bracket, piping and fittings factory assembled and tested, top for 85°F (29°C) and a maximum temperature of 90°F (32°F). Unit must be able to be set to the contaminant but must be locked in place to prevent changing of the temperature by accident. performance in conjunction with the requirements of ANSI Z-358. Unit shall be able to flow a m 30 PSI (2.1 Bar).

WARNING! IT IS THE RESPONSIBILITY OF THE SPECIFIER TO DETERMINE THE DELIVERED WATER TEMPERATURE TO EACH SAFETY FIXTURE. A COMFORTABLE RANGE IS 60°F TO 90°F (15° TO 35°C). IN CIRCUMSTANCES WHERE A CHEMICAL REACTION IS ACCELERATED BY WATER TEMPERATURE, A MEDICAL ADVISOR SHOULD BE CONSULTED FOR THE OPTIMUM TEMPERATURE FOR EACH APPLICATION.

Specifications are subject to change without notice!

CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desire their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow mus indicated.



1360 Elmwood Avenue, Cranston, RI
 Phone: 401.461.1200 Fax: 401.491.531
 Email: info@leonardvalve.com
 Web Site: <http://www.leonardvalve.com>

NT-1

DESCRIPTION: NEUTRALIZATION TANK - [18" DIA x 24" DEEP] [24" DIA.x 36" DEEP], DENSE ACID-PROOF CHEMICAL STONEWARE SUMP BODY VITRIFIED IN ONE PIECE AT A MIN. 2100 DEGREE F. COMPLETE WITH DIP PIPE, 4" INLET AND 3" VENT CONNECTIONS. PROVIDE EXTENSION PIECE MADE OF CHEMICAL STONEWARE CERAMIC TO BRING TOP TO GRADE. PROVIDE GAS-TIGHT MANHOLE FRAME AND COVER. SUMP SHALL BE SUPPLIED AND INSTALLED WITH MANUFACTURER APPROVED NEUTRALIZING AGENT SUCH AS LIMESTONE OR MARBLE CHIPS (ONE TO THREE INCHES IN SIZE) TO A LEVEL JUST BELOW TANK OUTLET. ADD WATER AFTER PLACEMENT OF NEUTRALIZATION AGENT.

MANUFACTURER & CATALOG NO.: KOCH 401BR

Note to Specifier:

- I. Refer to chemical resistance chart for a list of acceptable chemicals, concentrations and temperatures.
- I.

MODEL 400 & 401

KNIGHT-WARE® Monolithic Chemical Stoneware Sumps

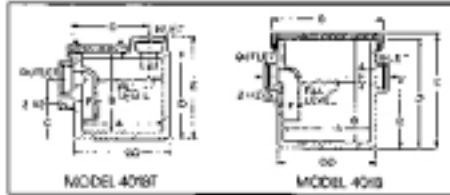
GENERAL NOTES:

CONSTRUCTION

Using a very stiff clay mix, these ceramic shells, complete with connections and dip pipe, are formed in one piece, carefully dried, then vitrified at a high temperature in excess of 2800F. The end product is a dense acid-proof stoneware vessel, completely joint-free, and inert to all chemicals except hydrofluoric acid and hot concentrated caustic.

FOUNDATION

The 400 and 401 Series ceramic sumps should be bedded in a 3/4" layer of sand or fresh stone-like grout on firm base. Avoid possibility of point bearings such as pebbles, rocks, or hard debris under bottom. When filled with neutralizing liquid wastes, the larger sumps involve considerable weight. Provide even load bearing when using beam supports; possibly using thin grout or roofing paper insulation.



SIZE	DIMENSIONS (inches)								Approximate Ship Weight	Neutralizing Cap	Student Stations
	A	B	C	D	E	F	G	H			
401BT	22 1/2	12	8	13	25 1/2	2	1 1/4	1 1/4	20 lbs.	50 lbs.	1
401B	22 1/2	12	8	13	24 1/2	2	1 1/4	1 1/4	20 lbs.	50 lbs.	1

MODEL 401

LOW CAPACITY

1-20 Student Stations

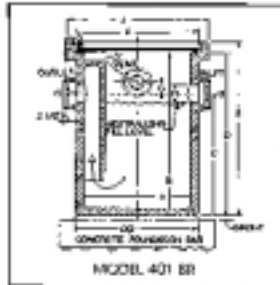
Cover Style B - KNIGHT-WARE® bolted cover.

(12 x 12 only)

BR - BISSONOT® clamped cover.

BT - KNIGHT-WARE® bolted cover (1/2 cover for top, inside outlet) (12 x 12 only).

APPLICATION: Size 12" x 12" is suitable for installing in a laboratory cabinet under a sink. The style BT may be connected to the sink drain without the need of an elbow. The sump may also serve as a trap when used with a single or two adjacent sinks. Sizes 18" x 24" and 24" x 36" sumps are installed to receive the waste from a collection system from a series of laboratory sinks. They are generally located in the building basement area or underground outside the building. If an extension is required to reach grade level for entrance to sump, see page 5.



401BR

SIZE	DIMENSIONS (inches)								Approximate Ship Weight	Neutralizing Cap	Student Stations
	A	B	C	D	E	F	G	H			
18 x 24	17	25 1/2	27 1/2	28 1/2	2 1/4	2 1/4	2 1/4	21	300 lbs.	350 lbs.	2 to 8
24 x 36	28	37 1/2	39 1/2	39 1/2	2 1/4	2 1/4	2 1/4	27	600 lbs.	600 lbs.	3 to 20

MODEL 400

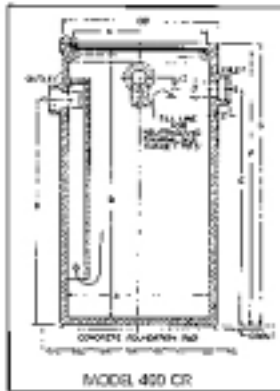
MEDIUM CAPACITY

25-70 Student Stations

Cover Style CR - BISSONOT® clamped cover.

APPLICATION

These sumps are installed to receive the dilute acid wastes from a collection system from a series of laboratory sinks. They are generally located in a building basement area or underground outside the building. If an extension is required to reach grade level for entrance to sump, see page 5.



400CR

SIZE	DIMENSIONS (inches)								Approximate Ship Weight	Neutralizing Cap	Student Stations
	A	B	C	D	E	F	G	H			
30 x 60	24	45 1/2	47 1/2	47 1/2	2 1/4	2 1/4	2 1/4	33	1,200 lbs.	1,100 lbs.	21 to 40
36 x 72	30	57 1/2	59 1/2	59 1/2	2 1/4	2 1/4	2 1/4	39	1,500 lbs.	1,400 lbs.	41 to 70

CR are Available But Not Shown

NT-2

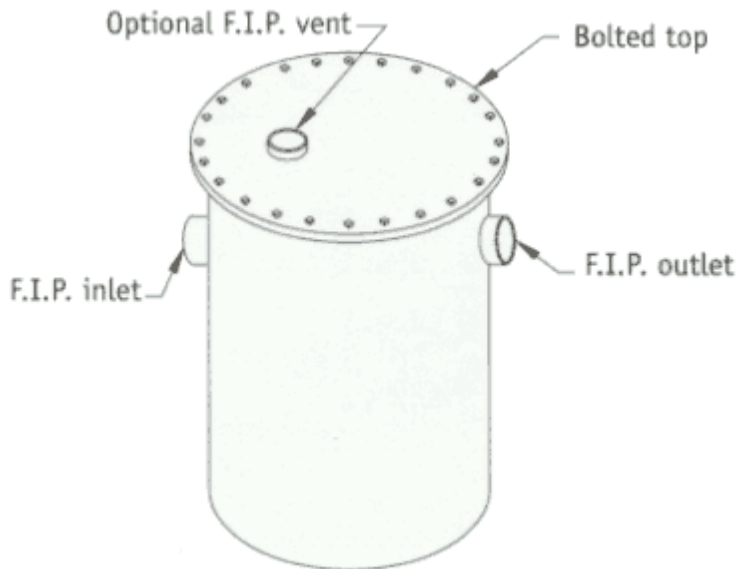
DESCRIPTION: NEUTRALIZATION TANK - []" DIA.x []" DEEP, [] GALLON, HIGH DENSITY POLYETHYLENE, ROTATIONALLY MOLDED WITH FLANGED TOP AND BOLTED COVER. 3" INLET AND 2" VENT CONNECTIONS. PROVIDE GAS-TIGHT MANHOLE FRAME AND COVER-SEE DETAIL ON DRAWINGS. SUMP SHALL BE SUPPLIED AND INSTALLED WITH MANUFACTURER APPROVED NEUTRALIZING AGENT SUCH AS LIMESTONE OR MARBLE CHIPS (ONE TO THREE INCHES IN SIZE) TO A LEVEL JUST BELOW TANK OUTLET. ADD WATER AFTER PLACEMENT OF NEUTRALIZATION AGENT.

MANUFACTURER & CATALOG NO.: ORION STYLE 5, SCHIER OS SERIES OR NT SERIES

Note to Specifier:

I. Polypropylene and Polyethylene are unaffected by most inorganic acids, alkalis, and aqueous solutions which rapidly corrode metals, although some concentrated acids and oxidizing agents can attack them, especially at elevated temperatures. Refer to chemical resistance chart (Master Plumbing Material List Book) for a list of acceptable chemicals, concentrations and temperatures.

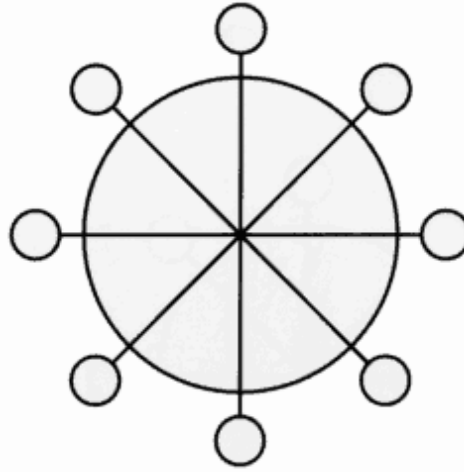
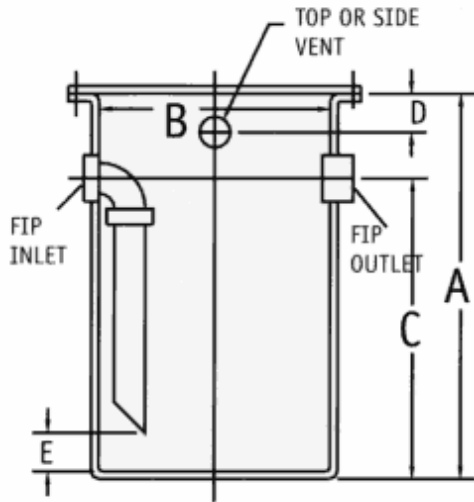
Neutralization Tanks Style 5



Orion Style 5 tanks are manufactured in 5 gallon to 2400 gallon sizes. The style 5 tank is complete with a bolted circular top. This top lifts off for access to the tank.

Style 5	Tank
	P.O. No.
	No. of Tanks

Tank Data Sheet - Must accompany all tank orders



A	B	C	D	E

Connections				
	Type	Size		
Inlet	F.I.P.			
Outlet	F.I.P.			
Vent	F.I.P.		<input type="checkbox"/> Top	<input type="checkbox"/> Side

Job Name:
Date:

DESCRIPTION: OIL/WATER SEPARATOR - GRAVITY TYPE WITH FABRICATED STEEL HOUSING, EPOXY COATING, REMOVABLE BAFFLE AND SEDIMENT BUCKET, ADJUSTABLE GRAVITY DRAW OFF, DOUBLE VENT CONNECTIONS AND VISIBLE DEEP SEAL TRAP.

CAPACITY SHALL BE [] GPM,
 []" X []" X []" DEEP OVERALL, []" INLET/OUTLET, []" DRAW OFF, AND []" VENT CONNECTIONS.

MANUFACTURER & CATALOG NO.: SMITH 8500 SERIES, WADE W-5400, ZURN Z-1188, JOSAM 6000 SERIES, ROCKFORD OS SERIES, MIFAB MI-O, SCHIER SOS SERIES

Note to specifier:

- Edit capacity and size as required.
- Separator has minimal oil holding capacity. Capacity is determined by the height of the draw off tube above the static water line. Will require separate oil storage tank for high oil demands. Specify storage tank separately.



E	JAY R. SMITH MFG. CO. DIVISION OF SMITH INDUSTRIES, INC. POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396		LOCATION 																																																																																																													
DRAWING NUMBER 8510	OIL INTERCEPTORS																																																																																																															
SCALE: NONE	<p>FUNCTION: Used in service stations, parking garages, and industrial plants where discharged water contains oil and sediment. Interceptor collects oil and conveniently permits the collected oil to be drained to a storage tank by means of an adjustable gravity draw-off connection. Sediment and chips are collected in sediment bucket and should be periodically removed. Interceptors should not be located directly in traffic areas. If required, specify extra heavy duty traffic cover.</p>																																																																																																															
DATE: 12-11-84																																																																																																																
APPROVED BY: KG	<p>NOTE: It is the responsibility of the installer to check all parts (internal and external) to verify they are in their proper operating order and location.</p> <p>NOTE: 2"(51) must be added to dimension D and F for clearance of extension clamps.</p>																																																																																																															
CHECKED BY: VGD	<table border="1" style="width:100%; border-collapse: collapse; font-size:10px;"> <thead> <tr> <th rowspan="2">PCN/ Fig. No.</th> <th rowspan="2">GPM Flow Rate</th> <th rowspan="2">Inlet and Outlet Size</th> <th colspan="7">Dimensions</th> <th rowspan="2">C.O. Plug Size</th> <th colspan="3">Dimensions</th> </tr> <tr> <th colspan="3">Roughing Dimensions</th> <th colspan="4">Body</th> <th colspan="3">Dimensions</th> </tr> <tr> <th></th> <th></th> <th></th> <th>A*</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>J</th> <th>K</th> <th>L</th> </tr> </thead> <tbody> <tr> <td>8510</td> <td>10</td> <td>02(50)</td> <td>9 1/2(240)</td> <td>3 3/4(95)</td> <td>21 1/4(540)</td> <td>13 1/4(335)</td> <td>13(330)</td> <td>2(51)</td> <td>9 1/2(240)</td> <td>12(305)</td> <td>4(100)</td> </tr> <tr> <td>8515</td> <td>15</td> <td>02(50)</td> <td>12(305)</td> <td>3 1/2(89)</td> <td>25(635)</td> <td>15 1/2(395)</td> <td>14(355)</td> <td>2(51)</td> <td>10 1/4(260)</td> <td>14 1/4(360)</td> <td>5 3/4(145)</td> </tr> <tr> <td>8520</td> <td>20</td> <td>03(80)</td> <td>13(330)</td> <td>4(100)</td> <td>28 1/2(725)</td> <td>17(430)</td> <td>15 3/4(400)</td> <td>2(51)</td> <td>12(305)</td> <td>16 1/2(420)</td> <td>4 1/2(115)</td> </tr> <tr> <td>8525</td> <td>25</td> <td>03(80)</td> <td>15 1/4(390)</td> <td>4 1/2(115)</td> <td>30(760)</td> <td>19 3/4(500)</td> <td>16 3/4(425)</td> <td>2(51)</td> <td>12 3/4(325)</td> <td>18 3/4(475)</td> <td>6 1/4(160)</td> </tr> <tr> <td>8535</td> <td>35</td> <td>03(80)</td> <td>16(405)</td> <td>5(125)</td> <td>32 1/2(825)</td> <td>21(535)</td> <td>18 1/4(465)</td> <td>2(51)</td> <td>14 1/2(370)</td> <td>21 1/4(540)</td> <td>7(180)</td> </tr> <tr> <td>8550</td> <td>50</td> <td>03(80)</td> <td>17 1/2(445)</td> <td>6 3/4(170)</td> <td>35 1/2(825)</td> <td>24 1/4(615)</td> <td>20 3/4(525)</td> <td>2(51)</td> <td>16(405)</td> <td>22(560)</td> <td>7 1/2(190)</td> </tr> </tbody> </table> <p style="font-size:8px;">*Available with larger inlet and outlet when specified.</p>			PCN/ Fig. No.	GPM Flow Rate	Inlet and Outlet Size	Dimensions							C.O. Plug Size	Dimensions			Roughing Dimensions			Body				Dimensions						A*	B	C	D	E	F	G	J	K	L	8510	10	02(50)	9 1/2(240)	3 3/4(95)	21 1/4(540)	13 1/4(335)	13(330)	2(51)	9 1/2(240)	12(305)	4(100)	8515	15	02(50)	12(305)	3 1/2(89)	25(635)	15 1/2(395)	14(355)	2(51)	10 1/4(260)	14 1/4(360)	5 3/4(145)	8520	20	03(80)	13(330)	4(100)	28 1/2(725)	17(430)	15 3/4(400)	2(51)	12(305)	16 1/2(420)	4 1/2(115)	8525	25	03(80)	15 1/4(390)	4 1/2(115)	30(760)	19 3/4(500)	16 3/4(425)	2(51)	12 3/4(325)	18 3/4(475)	6 1/4(160)	8535	35	03(80)	16(405)	5(125)	32 1/2(825)	21(535)	18 1/4(465)	2(51)	14 1/2(370)	21 1/4(540)	7(180)	8550	50	03(80)	17 1/2(445)	6 3/4(170)	35 1/2(825)	24 1/4(615)	20 3/4(525)	2(51)	16(405)	22(560)	7 1/2(190)
PCN/ Fig. No.	GPM Flow Rate	Inlet and Outlet Size	Dimensions							C.O. Plug Size	Dimensions																																																																																																					
			Roughing Dimensions			Body					Dimensions																																																																																																					
			A*	B	C	D	E	F	G	J	K	L																																																																																																				
8510	10	02(50)	9 1/2(240)	3 3/4(95)	21 1/4(540)	13 1/4(335)	13(330)	2(51)	9 1/2(240)	12(305)	4(100)																																																																																																					
8515	15	02(50)	12(305)	3 1/2(89)	25(635)	15 1/2(395)	14(355)	2(51)	10 1/4(260)	14 1/4(360)	5 3/4(145)																																																																																																					
8520	20	03(80)	13(330)	4(100)	28 1/2(725)	17(430)	15 3/4(400)	2(51)	12(305)	16 1/2(420)	4 1/2(115)																																																																																																					
8525	25	03(80)	15 1/4(390)	4 1/2(115)	30(760)	19 3/4(500)	16 3/4(425)	2(51)	12 3/4(325)	18 3/4(475)	6 1/4(160)																																																																																																					
8535	35	03(80)	16(405)	5(125)	32 1/2(825)	21(535)	18 1/4(465)	2(51)	14 1/2(370)	21 1/4(540)	7(180)																																																																																																					
8550	50	03(80)	17 1/2(445)	6 3/4(170)	35 1/2(825)	24 1/4(615)	20 3/4(525)	2(51)	16(405)	22(560)	7 1/2(190)																																																																																																					
DRAWN BY: PJ	<p>REGULARLY FURNISHED: Steel Interceptor with Gray Duco Coating Inside and Outside and Flow Control Fitting.</p> <p>2"(51) min. extension available. Anchor flange & flashing clamp not available on less than 4"(100) extension.</p> <p>NOTE: Dimensions shown in parentheses are in millimeters.</p>																																																																																																															
FIGURE NUMBER 8510	<p>VARIATIONS:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Anchor Flange -F (Flange available with extension only) <input type="checkbox"/> Extra Heavy Duty Traffic Cover -HC <input type="checkbox"/> Flashing Flange and Clamp -F-C <input type="checkbox"/> NO-HUB Adaptor (4) Req'd (Specify Fig. 2646Y) <input type="checkbox"/> Steel Extension -E (Specify Height eg: -E12 For 12"(305) Ext) 																																																																																																															
DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE	WEIGHT POUNDS VOLUME CUBIC FEET	FIGURE NUMBER 8510	REV. DATE DESCRIPTION BY CKD. BY																																																																																																													

OS-2

DESCRIPTION: OIL/WATER SEPARATOR - GRAVITY TYPE WITH FABRICATED STEEL DOUBLE WALL HOUSING, ALL WELDED CONSTRUCTION, INTEGRAL OIL STORAGE TANK, ANCHOR FLANGE, ACID RESISTANT EPOXY COATING, REMOVABLE BAFFLE AND SEDIMENT SCREEN, TAPPED INLET AND OUTLET, ADJUSTABLE GRAVITY DRAWOFF, FOUR INDEPENDENT VENT CONNECTIONS AND VISIBLE DEEP SEAL TRAP. NON-SKID TREADPLATE REINFORCED FOR [FOOT][LIGHT][HEAVY] TRAFFIC COVER SECURED WITH RECESSED STAINLESS STEEL BOLTS.

CAPACITY SHALL BE [] GPM, []" X []" OVERALL, 4" INLET/OUTLET AND 4" VENT CONNECTIONS. STATIC HOLDING CAPACITY SHALL BE [] GALLONS WITH [] GALLON OIL STORAGE CAPACITY.

PROVIDE HIGH LEVEL ALARM IN OIL STORAGE TANK.

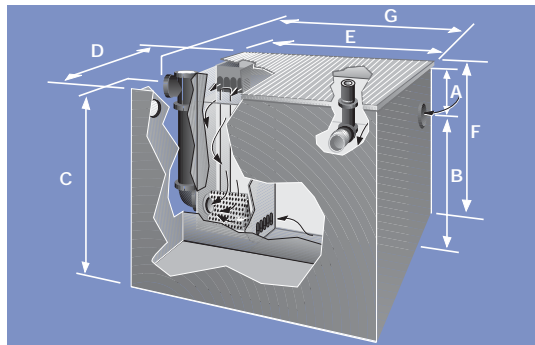
PROVIDE EXTENSION TO GRADE AS REQUIRED.

PROVIDE FIELD ADJUSTMENT AS REQUIRED BY FACTORY AUTHORIZED REPRESENTATIVE.

MANUFACTURER & CATALOG NO.: ROCKFORD OST SERIES, ZURN Z1186 SERIES, MIFAB MI-O SERIES, SCHIER SIT SERIES

Note to specifier:

I. Coordinate alarm requirements with electrical engineer.



**ROCKFORD
SEPARATORS
OST SERIES
WITH INTEGRAL
STORAGE
COMPARTMENT
SPECIFICATIONS**

OST-1

Job Specification: Oil Separators shall be Rockford Separators as manufactured by Rockford Sanitary Systems, Inc., Rockford, Illinois, and as noted on plans.

Separator Specifications: Furnish and install ___Rockford Model OST,___-___gallon integral storage compartment, all-welded ___ 1/4" steel Separators, ___g.p.m. intermittent flow ___" (tapped) (hubbed) inlet and outlet with tapped outlet vent connect, ___" internal fume vent ___" adjustable oil draw-off, visible double-wall outside trap seal, removable filter screen, non-removable separator screen, 3/8" nonskid diamond treadplate cover (for flush-with-floor installation) for pedestrian traffic, or reinforced for ___ (light) (heavy) traffic, cover secured with stainless steel bolts, extra heavy leakproof gasket. OPEX® Shop Coat coating (resistant to oil, grease and cutting oils) inside and bituminous coating outside.

Optional Features: Anchor flange, filter media, sediment basket, integral extension, acid-resistant epoxy coating, anodes, coalescing pack, high level sensor and alarm, double wall construction, with or without leak detection.

Model	Intermittent Flow GPM	Tapped Inlet and Outlet	Static Holding Capacity Gallons	Capacity Cubic Feet	Top to Center of Inlet A	Bottom to Center of Inlet B	Bottom to Center of Outlet C	Width D	Length E	Height F	Overall Length G+	Internal Oil Storage ¹	Bottom to Internal Vent	Tapped Internal Vent	Weight	Covers
OST.5624*	25	2"	45gal.	6cu.ft.	7.5"	22.5"	25.5"	46"	24"	30"	29"	50gal.	26"	3"	631lb.	1
OST.5628*	35	3"	64gal.	8.5cu.ft.	8.5"	22.5"	26"	43"	30"	31"	37"	50gal.	27"	3"	825lb.	2
OST.5630*	50	3"	75gal.	10cu.ft.	9.5"	22.5"	26"	65.5"	36"	32"	43"	100gal.	28"	3"	1,120lb.	2
OST.5636*	75	4"	150gal.	20cu.ft.	13.75"	22.25"	26.5"	65"	40"	36"	49"	100gal.	30"	4"	1,350lb.	2
OST.5642*	100	4"	172gal.	23cu.ft.	13.75"	22.25"	26.5"	90.5"	49.5"	36"	58"	200gal.	30"	4"	1,835lb.	4
OST.5644	150	4"	210gal.	28cu.ft.	18.25"	25.75"	30"	68"	57"	44"	66"	200gal.	35"	4"	2,010lb.	4
OST.5648	200	4"	285gal.	38cu.ft.	22"	26"	30.5"	91.25"	64.25"	48"	73.25"	300gal.	38"	4"	2,310lb.	6
OST.5652	250	4"	397gal.	53cu.ft.	20"	31"	35.5"	92"	64.25"	51"	73.25"	300gal.	42"	4"	2,801lb.	6
OST.5654	300	• 6"	487gal.	65cu.ft.	22"	30"	36.5"	88.25"	70.25"	52"	94.875"	300gal.	43"	4"	3,100lb.	6
OST.5658	350	• 6"	525gal.	70cu.ft.	23"	37"	43.5"	95.75"	76.25"	60"	100.875"	500gal.	48"	4"	3,454lb.	6
OST.5662	400	• 6"	598gal.	78.5cu.ft.	23.25"	36.75"	43"	91.75"	83"	60"	107.875"	500gal.	49"	4"	3,500lb.	6
OST.5664	450	• 6"	630gal.	84cu.ft.	23.25"	36.75"	43"	80.875"	94.25"	60"	118.875"	500gal.	49"	4"	3,900lb.	6
OST.5670	500	• 6"	735gal.	98cu.ft.	26.25"	39.75"	46"	80.875"	94.25"	66"	118.875"	500gal.	52"	4"	4,200lb.	6

Call for information on OST.5700 and OST.5800 series when larger units are required.

* 6" & larger – companion flange connection.
 • Anchor flange requires 3" extension.
 + Length is the distance from inlet to outlet ends.
¹ Any smaller size storage compartment may be ordered P.O.A.
 Example: OST.5636 (Model No.) – 50 (Oil Storage)
 Standard storage supplied unless specified otherwise.
 Double wall construction available.

Larger sizes available.

**TOTAL/UNCONFINED/
UNRESTRICTED/OSHA**
 Recommended Top Access to be able to observe and clean the entire fluid surface in all chambers down to the bottom of the unit.



RD-1

DESCRIPTION: ROOF DRAIN - CAST IRON BODY, 15" DIAMETER, [BOTTOM][SIDE] OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, SECURED CAST IRON DOME, ADJUSTABLE EXTENSION TO MATCH INSULATION THICKNESS. OUTLET SIZE AS LISTED ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-100, SMITH 1010, WADE 3000, JOSAM 21500, WATTS RD-300, MIFAB R1200

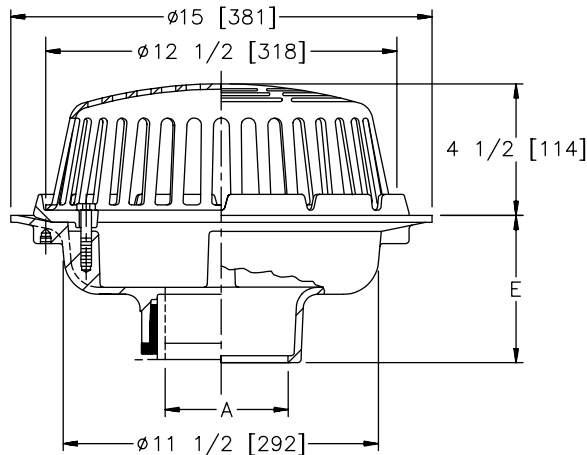


**Z-100
15" [381] DIAMETER MAIN ROOF DRAIN
LOW SILHOUETTE DOME**

SPECIFICATION SHEET

TAG

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	26 [12]	103 [665]
5-6 [125-150]	27 [12]	
8 [200]	28 [13]	

ENGINEERING SPECIFICATION: ZURN Z-100 15[381] Diameter roof drain. Dura-Coated cast iron body with combination membrane flashing clamp/gravel guard and low silhouette Poly-Dome.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

2 thru 6, 8 [50 thru 150,200]
2 thru 6, 8 [50 thru 150,200]
2 thru 6, 8 [50 thru 150,200]
2,3,4[50,75,100]

(Specify size/type) **OUTLET**

_____ IC Inside Caulk
_____ IP Threaded
_____ NH No-Hub
_____ NL Neo-Loc

E BODY HT. DIM.

5 1/4 [133]
3 3/4 [95]
5 1/4 [133]
4 5/8 [117]

PREFIXES

_____ Z- D.C.C.I. Body with Poly-Dome*
_____ ZA- D.C.C.I. Body with 6 3/4 [171] High Aluminum Dome
_____ ZC- D.C.C.I. Body with Cast Iron Dome
_____ ZRB- D.C.C.I. Body with Plain Bronze Dome

SUFFIXES

_____ -AC Angular Underdeck Clamp	_____ -SC Secondary Clamping Collar
_____ -AR Acid Resistant Epoxy Coated Finish	_____ -SS Stainless Steel Mesh Screen Over Dome
_____ -AW 3/4 [19] to 4 [102] Adj. Water Level Regulator	_____ -VP Vandal Proof Secured Top
_____ -BS Bronze Mesh Screen Over Dome	_____ -W2 2 [51] Internal Water Dam
_____ -C Underdeck Clamp	_____ -W3 3 [76] Internal Water Dam
_____ -DX Dex-o-tex Flange	_____ -W4 4 [102] Internal Water Dam
_____ -E Static Extension 1 [25] thru 4 [102] (Specify Ht.)	_____ -XJ Vertical Expansion Joint (See Z-190)
_____ -EA Adjustable Extension Assembly 1 3/4 [44] thru 3 1/2 [89]	_____ -6 6 3/4 [171] High Aluminum Dome (148 Sq. In. [955 cm ²] Open Area)
_____ -ES Static Extension With Secondary Clamp	_____ -84 Stainless Steel Perforated Gravel Guard
_____ -FG Flush Grate	_____ -85 Stainless Steel Perforated Extension
_____ -G Galvanized Cast Iron	_____ -89 2 [51] High External Water Dam
_____ -GD Galvanized Cast Iron Dome	_____ -90 90° Threaded Side Outlet Body
_____ -R Roof Sump Receiver	

REV. D	DATE: 3/23/98	C.N. NO. 80059
DWG. NO. 59285		PRODUCT NO. Z-100

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

RD-2

DESCRIPTION: ROOF DRAIN - CAST IRON BODY, 8" X 8" NICKEL-BRONZE GRATE AND FRAME, FLASHING CLAMP, GRAVEL STOP, EXTENSIONS (AS REQUIRED), AND UNDERDECK CLAMP. DRAIN TO BE DESIGNED FOR ELEVATED DECK WITH ADJUSTABLE TOP TO MEET PAVING BRICKS AND WEEP HOLES AT CLAMP TO DRAIN MEMBRANE. OUTLET SIZE AS LISTED ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-158, SMITH 1470, JOSAM 23730, WATTS RD-200-CP, MIFAB R1100-P

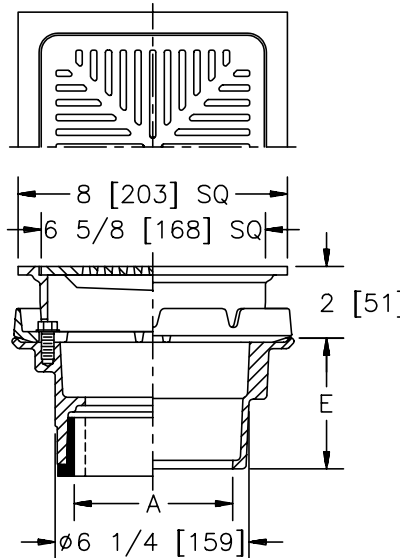


Z-158
8" [203] TOP PROM-DECK DRAIN
WITH HEEL-PROOF GRATE

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Changes Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	18 [8]	11 [71]

ENGINEERING SPECIFICATION: ZURN Z-158 8 [203] Prom-Deck drain, Dura-Coated cast iron body with square promenade frame and heel-proof grate with combination membrane flashing clamp/gravel guard.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size) **OUTLET**

'E' BODY HT. DIM.

2 thru 4 [50 thru 100]	___ IC Inside Caulk	3 7/8 [98]
2 thru 4 [50 thru 100]	___ IP Threaded	2 5/8 [67]
2 thru 4 [50 thru 100]	___ NH No-Hub	3 7/8 [98]
2 thru 4 [50 thru 100]	___ NL Neo-Loc	4 5/8 [117]

PREFIXES

___ Z-	D.C.C.I. Body with Grate*
___ ZB-	D.C.C.I. Body with Polished Bronze Grate
___ ZN-	D.C.C.I. Body with Polished Nickel Bronze Grate

SUFFIXES

___ -C	Underdeck Clamp	___ -SC	Secondary Clamping Collar
___ -DG	Duresist Grate (Z-Only)	___ -TS	Secured Top With Slotted Screws
___ -E	Static Extension 1 [25] thru 4 [102] (Specify Ht.)	___ -VP	Vandal Proof Secured Top
___ -G	Galvanized Cast Iron	___ -XJ	Vertical Expansion Joint (See Z-190)
___ -R	Roof Sump Receiver	___ -85	Stainless Steel Perforated Extension
___ -S	Secondary Strainer	___ -90	90° Threaded Side Outlet Body

REV. D DATE: 6/12/98 C.N. NO. 80690

DWG. NO. 58825 PRODUCT NO. Z-158

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

RD-3

DESCRIPTION: ROOF DRAIN OUTLET - LAMBS TONGUE DOWNSPOUT NOZZLE WITH BRONZE BODY AND INTEGRAL ANCHORING FLANGE. OUTLET SIZE AS LISTED ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-199, SMITH 1770, WADE 3940, JOSAM 25010, WATTS RD-940, MIFAB R1940

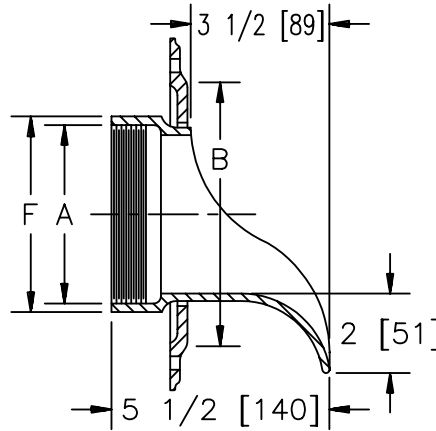


**Z-199
DOWNSPOUT NOZZLE**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A Pipe Size Inches	Dimensions In Inches		Approx. Wt. Lbs. [kg]
	B	F	
2 [50]	6 [152]	4 [102]	5 [2]
3 [75]		6 [3]	
4 [100]	7 [178]	5 [127]	7 [3]
5 [125]	9 [229]	7 1/8 [181]	12 [5]
6 [150]			13 [6]
8 [200]	10 7/8 [276]	9 1/8 [232]	14 [6]
10 [250]	12 7/8 [327]	11 1/8 [283]	30 [14]

ENGINEERING SPECIFICATION: ZURN ZANB-199 Downspout Nozzle, All nickel bronze body, threaded inlet and decorative face of wall flange and outlet nozzle.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

2 thru 6, 8, 10 [50 thru 150, 200, 250]

(Specify size/type) **OUTLET**

___ IP Thru

PREFIXES

- ___ ZANB- All Nickel Bronze Body*
- ___ ZAB- All Polished Bronze Body
- ___ ZARB- All Plain Bronze Body

REV. B	DATE: 3/5/97	C.N. NO. 77364
DWG. NO. 58841		PRODUCT NO. Z-199

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

RD-4

DESCRIPTION: ROOF DRAIN - CAST IRON BODY, 15" DIAMETER, [BOTTOM][SIDE] OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, SECURED CAST IRON DOME, EXTENSION TO MATCH INSULATION THICKNESS, [2"][3"][4"] TALL INTERNAL STANDPIPE. OUTLET SIZE AS LISTED ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-100, SMITH 1070, WADE 3000, JOSAM 26010, WATTS RD-300, MIFAB R1200

Notes to Specifier:

1. Use as secondary drains when overflow scuppers aren't workable.
2. Verify height of standpipe required.

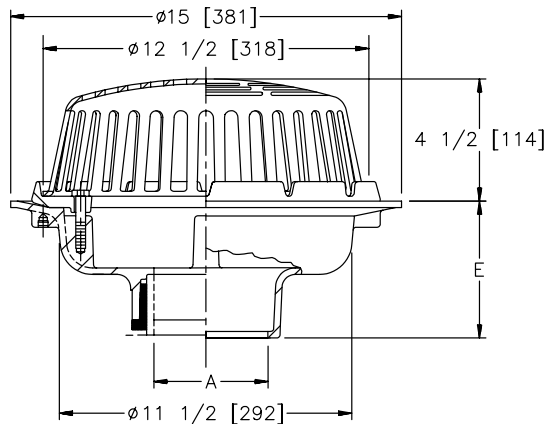


Z-100
15" [381] DIAMETER MAIN ROOF DRAIN
LOW SILHOUETTE DOME

SPECIFICATION SHEET

TAG

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	26 [12]	103 [665]
5-6 [125-150]	27 [12]	
8 [200]	28 [13]	

ENGINEERING SPECIFICATION: ZURN Z-100 15[381] Diameter roof drain. Dura-Coated cast iron body with combination membrane flashing clamp/gravel guard and low silhouette Poly-Dome.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

- 2 thru 6, 8 [50 thru 150,200]
- 2 thru 6, 8 [50 thru 150,200]
- 2 thru 6, 8 [50 thru 150,200]
- 2,3,4[50,75,100]

(Specify size/type) **OUTLET**

- _____ IC Inside Caulk
- _____ IP Threaded
- _____ NH No-Hub
- _____ NL Neo-Loc

E BODY HT. DIM.

- 5 1/4 [133]
- 3 3/4 [95]
- 5 1/4 [133]
- 4 5/8 [117]

PREFIXES

- _____ Z- D.C.C.I. Body with Poly-Dome*
- _____ ZA- D.C.C.I. Body with 6 3/4 [171] High Aluminum Dome
- _____ ZC- D.C.C.I. Body with Cast Iron Dome
- _____ ZRB- D.C.C.I. Body with Plain Bronze Dome

SUFFIXES

- _____ -AC Angular Underdeck Clamp
- _____ -AR Acid Resistant Epoxy Coated Finish
- _____ -AW 3/4 [19] to 4 [102] Adj. Water Level Regulator
- _____ -BS Bronze Mesh Screen Over Dome
- _____ -C Underdeck Clamp
- _____ -DX Dex-o-tex Flange
- _____ -E Static Extension 1 [25] thru 4 [102] (Specify Ht.)
- _____ -EA Adjustable Extension Assembly 1 3/4 [44] thru 3 1/2 [89]
- _____ -ES Static Extension With Secondary Clamp
- _____ -FG Flush Grate
- _____ -G Galvanized Cast Iron
- _____ -GD Galvanized Cast Iron Dome
- _____ -R Roof Sump Receiver
- _____ -SC Secondary Clamping Collar
- _____ -SS Stainless Steel Mesh Screen Over Dome
- _____ -VP Vandal Proof Secured Top
- _____ -W2 2 [51] Internal Water Dam
- _____ -W3 3 [76] Internal Water Dam
- _____ -W4 4 [102] Internal Water Dam
- _____ -XJ Vertical Expansion Joint (See Z-190)
- _____ -6 6 3/4 [171] High Aluminum Dome (148 Sq. In. [955 cm²] Open Area)
- _____ -84 Stainless Steel Perforated Gravel Guard
- _____ -85 Stainless Steel Perforated Extension
- _____ -89 2 [51] High External Water Dam
- _____ -90 90° Threaded Side Outlet Body

REV. D DATE: 3/23/98 C.N. NO. 80059

DWG. NO. 59285 PRODUCT NO. Z-100

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514
 Phone: 814455-0921 • Fax: 814454-7929 • World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905405-8272 Fax: 905405-1292

RD-5

DESCRIPTION: ROOF DRAIN - CAST IRON BODY, 15" DIAMETER, [BOTTOM][SIDE] OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, SECURED CAST IRON DOME, EXTENSION TO MATCH INSULATION THICKNESS, 2" TALL EXTERNAL WATER DAM. OUTLET SIZE AS LISTED ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-100, SMITH 1080, WADE 3000, WATTS RD-300, MIFAB R1200

Notes to Specifier:

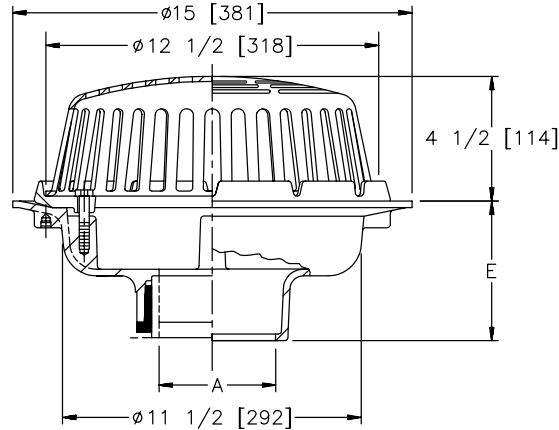
1. Use as secondary drains when overflow scuppers aren't workable.



Z-100
15" [381] DIAMETER MAIN ROOF DRAIN
LOW SILHOUETTE DOME

SPECIFICATION SHEET
TAG

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	26 [12]	103 [665]
5-6 [125-150]	27 [12]	
8 [200]	28 [13]	

ENGINEERING SPECIFICATION: ZURN Z-100 15 [381] Diameter roof drain. Dura-Coated cast iron body with combination membrane flashing clamp/gravel guard and low silhouette Poly-Dome.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

- 2 thru 6, 8 [50 thru 150,200]
- 2 thru 6, 8 [50 thru 150,200]
- 2 thru 6, 8 [50 thru 150,200]
- 2,3,4[50,75,100]

(Specify size/type) **OUTLET**

- _____ IC Inside Caulk
- _____ IP Threaded
- _____ NH No-Hub
- _____ NL Neo-Loc

E BODY HT. DIM.

- 5 1/4 [133]
- 3 3/4 [95]
- 5 1/4 [133]
- 4 5/8 [117]

PREFIXES

- _____ Z- D.C.C.I. Body with Poly-Dome*
- _____ ZA- D.C.C.I. Body with 6 3/4 [171] High Aluminum Dome
- _____ ZC- D.C.C.I. Body with Cast Iron Dome
- _____ ZRB- D.C.C.I. Body with Plain Bronze Dome

SUFFIXES

- _____ -AC Angular Underdeck Clamp
- _____ -AR Acid Resistant Epoxy Coated Finish
- _____ -AW 3/4 [19] to 4 [102] Adj. Water Level Regulator
- _____ -BS Bronze Mesh Screen Over Dome
- _____ -C Underdeck Clamp
- _____ -DX Dex-o-tex Flange
- _____ -E Static Extension 1 [25] thru 4 [102] (Specify Ht.)
- _____ -EA Adjustable Extension Assembly 1 3/4 [44] thru 3 1/2 [89]
- _____ -ES Static Extension With Secondary Clamp
- _____ -FG Flush Grate
- _____ -G Galvanized Cast Iron
- _____ -GD Galvanized Cast Iron Dome
- _____ -R Roof Sump Receiver
- _____ -SC Secondary Clamping Collar
- _____ -SS Stainless Steel Mesh Screen Over Dome
- _____ -VP Vandal Proof Secured Top
- _____ -W2 2 [51] Internal Water Dam
- _____ -W3 3 [76] Internal Water Dam
- _____ -W4 4 [102] Internal Water Dam
- _____ -XJ Vertical Expansion Joint (See Z-190)
- _____ -6 6 3/4 [171] High Aluminum Dome (148 Sq. In. [955 cm²] Open Area)
- _____ -84 Stainless Steel Perforated Gravel Guard
- _____ -85 Stainless Steel Perforated Extension
- _____ -89 2 [51] High External Water Dam
- _____ -90 90° Threaded Side Outlet Body

REV. D	DATE: 3/23/98	C.N. NO. 80059
DWG. NO. 59285		PRODUCT NO. Z-100

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514
 Phone: 814/455-0921 • Fax: 814/454-7929 • World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

RD-6

DESCRIPTION: ROOF DRAIN - CAST IRON BODY, 15" DIAMETER, [BOTTOM][SIDE] OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, SECURED CAST IRON DOME, EXTENSION TO MATCH INSULATION THICKNESS. OUTLET SIZE AS LISTED ON DRAWINGS. CONTROL FLOW TYPE WITH INTEGRAL PARABOLIC WEIR. [1][2][3][4] WEIR(S) PER DRAIN.

MANUFACTURER & CATALOG NO.: ZURN Z-105, SMITH 1085, WADE 3000, JOSAM 28600, WATTS RD-300, MIFAB R1200

Notes to specifier:

1. Use only for control-flow type roof drains. Verify requirements with Architect.
2. Edit/verify number and height of weirs required.

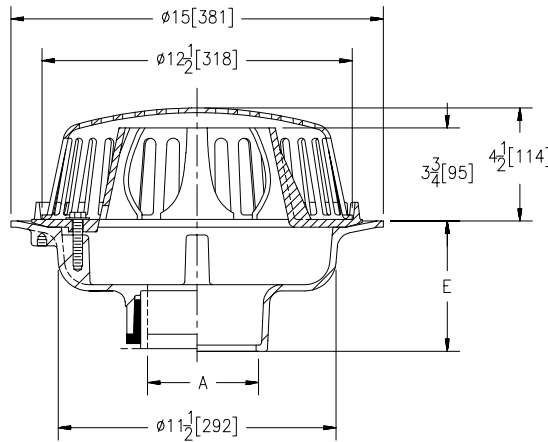


**Z-105
"CONTROL-FLO" ROOF DRAIN
WITH PARABOLIC WEIR**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	34 [15]	103 [665]

ENGINEERING SPECIFICATION: ZURN Z-105 "Control-Flo" roof drain for Dead-Level roof construction, Dura-Coated cast iron body, "Control-Flow" weir shall be linear functioning with integral membrane flashing clamp/gravel guard and Poly-Dome. All data shall be verified proportional to flow rates.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

- 2, 3, 4 [50,75,100]
- 2, 3, 4 [50,75,100]
- 2, 3, 4 [50,75,100]
- 2, 3, 4 [50,75,100]

(Specify size/type) **OUTLET**

- _____ IC Inside Caulk
- _____ IP Threaded
- _____ NH No-Hub
- _____ NL Neo-Loc

E BODY HT. DIM.

- 5 1/4 [133]
- 3 3/4 [95]
- 5 1/4 [133]
- 4 5/8 [117]

PREFIXES

- _____ Z- D.C.C.I. Body with Poly-Dome*
- _____ ZA- D.C.C.I. Body with 6 3/4 [171] High Aluminum Dome
- _____ ZC- D.C.C.I. Body with Cast Iron Dome
- _____ ZRB- D.C.C.I. Body with Plain Bronze Dome

SUFFIXES

- _____ -C Underdeck Clamp
- _____ -E Static Extension 1 [25] thru 4 [102] (Specify Ht.)
- _____ -EA Adjustable Extension Assembly 1 3/4 [44] thru 3 1/2 [89]
- _____ -G Galvanized Cast Iron
- _____ -R Roof Sump Receiver
- _____ -SC Secondary Clamping Collar
- _____ -VP Vandal Proof Secured Top
- _____ -XJ Vertical Expansion Joint (See Z-190)
- _____ -10 Parabolic Weir for Sloped Roof (See Z-105)
- _____ -90 90° Threaded Side Outlet Body

REV. C DATE: 3/5/97 C.N. NO. 77338

DWG. NO. 58816 PRODUCT NO. Z-105

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: SHOWER - PRECAST TERRAZZO SHOWER BASIN, 36" X 36", WITH 2" DRAIN AND STAINLESS STEEL REMOVABLE STRAINER.

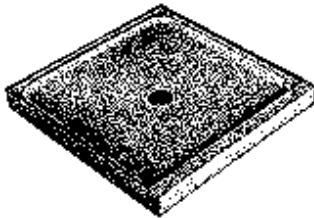
MANUFACTURER & CATALOG NO.: FIAT MFT, CREATIVE IND. 74832, WILLIAMS MODEL 56, FLORESTONE

Note to specifier: Shower walls provided by others.

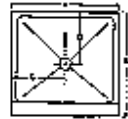
Shower Floors of Precast Terrazzo

Monterey®

With Integral Terrazzo threshold for tile walls and glass enclosure installations.



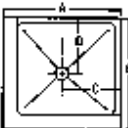
Model MFT & MFTR



Model MFTC



Model MFTD*

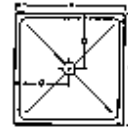


Sierra®

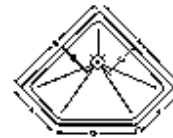
For installation with ceramic walls where tiled threshold and pilasters are desired.



Model FT & FTR



Model FTC



MODEL	SIZE	APPROX. SHIP. WT.	Sierra or Rectangular					Neo-Corner
			A	B	C	D	E	
32FT	32x32	166 lbs.	32	32	16	16		
36FT	36x36	255 lbs.	36	36	18	18		
40FT	40x40	285 lbs.	40	40	20	20		
48FTR	48x32	295 lbs.	48	32	24	16		
36FTC	36x36	210 lbs.					12	
40FTC	40x40	210 lbs.					12	

Modified Sierra

Special sizes and configurations can be made to your requirements.

Example:



MODEL	SIZE	APPROX. SHIP. WT.	Sierra or Rectangular					Neo-Corner		
			A	B	C	D	E	F	G	
30MFT	30x30	165 lbs.	30	30	15	15				
32MFT	32x32	200 lbs.	32	32	16	16				
36MFT	36x36	240 lbs.	36	36	18	18				
40MFT	40x40	295 lbs.	40	40	20	20				
48MFT	48x48	390 lbs.	48	48	24	24				
36MFTR	36x32	240 lbs.	36	32	18	16				
42MFTR	42x32	265 lbs.	42	32	21	16				
4234MFTR	42x34	285 lbs.	42	34	21	17				
4236MFTR	42x36	285 lbs.	42	36	21	18				
48MFTR	48x32	290 lbs.	48	32	24	16				
4834MFTR	48x34	275 lbs.	48	34	24	17				
4836MFTR	48x36	320 lbs.	48	36	24	18				
54MFTR	54x32	300 lbs.	54	32	27	16				
60MFTR	60x32	375 lbs.	60	32	30	16				
6034MFTR	60x34	320 lbs.	60	34	30	16				
6036MFTR	60x36	390 lbs.	60	36	30	18				
32MFTC	32x32	175 lbs.					12	12	32	
34MFTC	34x34	220 lbs.					12	12	34	
36MFTC	36x36	240 lbs.					12	12	36	
40MFTC	40x40	280 lbs.					12	12	40	
32MFTD	32x32	205 lbs.	32	32	16	16				
36MFTD	36x36	266 lbs.	36	36	18	18				
40MFTD	40x40	320 lbs.	40	40	20	20				

*Room Corner (Neo-Corner) Model MFTD available in 12x12 square sizes only: 32" x 32", 36" x 36", 40" x 40".
For West Coast (MFTD Replacement), other model Monterey's not shown but finished as required.

SH-2

DESCRIPTION: SHOWER - ONE PIECE WHITE ACRYLIC UNIT WITH TOP DOME LIGHT, INTEGRAL SOAP DISH ON BACK WALL, 1" DIA. CHROME PLATED SHOWER ROD (INSTALLED AS HIGH AS POSSIBLE), BLOCKING AT SHOWER ROD CONNECTION, AND 2" [3"] FLOOR DRAIN WITH CHROME PLATED BRASS STRAINER. NOMINAL SIZE OF 36" X 35" X 84".

MANUFACTURER & CATALOG NO.: AQUA GLASS 613635A, AQUARIUS A3634SH, AQUA BATH IS4136BF, LASCO 36-AC, UNIVERSAL-RUNDLE 6511

NoteS to specifier:

1. More expensive unit (includes top).
2. Verify dome light requirements and coordinate with electrical engineer.
3. Verify rough-in dimensions required with architect. Unit sizes vary.
4. WI Plumbing Code (82.50) requires a 3" floor drain for health care applications. Aqua Glass is a manufacturer that can do this. Verify with manufacturers listed.

AQUA GLASS®

MODEL 613635A—Center Drain (AG3788)

SPECIFICATIONS

ACRYLIC

613635AC

Shower Door Opening	30-1/4" x 65-1/2"
Weight (approx.)	150 lbs.

Rough-in Dimensions In Inches & Millimeters		
A	36"	914 mm
B	35"	889 mm
C	84"	2134 mm
D	8"	203 mm
E	18"	457 mm
F	17-1/4"	438 mm
G	3-1/2"	89 mm
H	4"	102 mm
I	30-1/4"	768 mm
J	3-3/4"	95 mm
AA	33-1/2"	851 mm

STANDARD FEATURES

- Standard Color-White
- Self-caulking Brass Drain
- Chrome Strainer
- Textured Bottom

OPTIONS

- Decorator Colors
- Designer Colors
- Polished Brass/Antique Brass/Gold Strainer
- Chrome/Polished Brass Dome Light
- Aqua Glass Shower Doors

Available as a Luxury Comfort, Aqua Steam® Unit

Aqua Glass Corporation
P. O. Box 412, Industrial Park
Adamsville, TN 38310
(901) 632-0911

Toll-Free 1-800-238-3940

The manufacturer represents that the product to which this label is affixed is duplicated the samples independently tested by NAHB Research Center, and certified to conform to the requirements of the appropriate ANSI Z124 standard and HUD's LHM Bulletin No. 75a and (b) has been manufactured under quality control deemed appropriate by the manufacturer and periodically reviewed by the Research Center. Flame spread rating less than 206 by ASTM E-84

Aqua Glass West
5855 Washburn Way
Klamath Falls, OR 97603
(541) 882-7711

SH-3

DESCRIPTION: SHOWER - ONE PIECE WHITE GELCOATED FIBERGLASS SHELL, INTEGRAL SOAP DISH ON BACK WALL, OPEN TOP, 1" DIA CHROME PLATED SHOWER ROD (AS HIGH AS POSSIBLE), BLOCKING AT SHOWER ROD CONNECTION, AND 2" [3"] FLOOR DRAIN WITH CHROME PLATED BRASS STRAINER. NOMINAL SIZE OF 36" X 36" X 78".

MANUFACTURER & CATALOG NO.: AQUA GLASS 813638A, AQUARIUS G3679SH, BEST BATH SS3636, LASCO 1363-CNT, UNIVERSAL-RUNDLE 6852

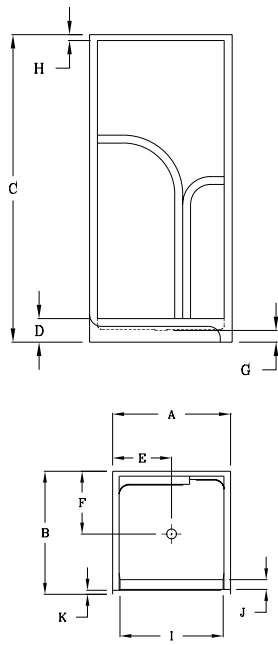
Notes to specifier:

1. Less expensive unit.
2. Verify rough-in dimensions required with architect. Unit sizes vary.
3. WI Plumbing Code (82.50) requires a 3" floor drain for healthcare applications.

Aqua Glass is a manufacturer that can do this. Verify with manufacturer's listed.

AQUA GLASS®

MODEL 813638A—Center Drain (AG3688)



SPECIFICATIONS

GELCOAT

813638AC

Shower Door Opening	31-3/8" x 69-1/2"
Weight (approx.)	105 lbs.

Rough-In Dimensions In Inches & Millimeters		
A	36"	914 mm
B	37-3/4"	959 mm
C	78"	1981 mm
D	6-1/2"	165 mm
E	18"	457 mm
F	18-3/4"	476 mm
G	3-1/4"	83 mm
H	1-1/2"	38 mm
I	31-3/8"	797 mm
J	3"	76 mm
K	1-1/2"	38 mm


STANDARD FEATURES

Standard Color-White / Antique White / Medium White / Bone / Dark Bone


Self-caulking Brass Drain
Chrome Strainer
Microban® Antibacterial Protection


OPTIONS

Decorator Colors
Designer Colors
Polished Brass/Antique Brass/Gold Strainer
Aqua Shield® Doors



Aqua Glass Corporation
P. O. Box 412, Industrial Park
Adamsville, TN 38310
(901) 632-0911





The manufacturer represents that the product to which this seal is affixed (a) fulfills the samples independently tested by NAHB Research Center, and certified to conform to the requirements of the appropriate ANSI Z124 standard and HUD's UM (Uniform) No. 73a and (b) has been manufactured under quality control deemed appropriate by the manufacturer and periodically reviewed by the Research Center. Floor spread rating less than 12 by ASTM E-64.

Toll-Free 1-800-238-3940

Aqua Glass West
5855 Washburn Way
Klamath Falls, OR 97603
(541) 882-7711

SH-4

DESCRIPTION: SHOWER - ONE PIECE WHITE GELCOATED REINFORCED FIBERGLASS, NOMINAL SIZE OF 36" X 36" X 78". RIGHT OR LEFT HAND AS SHOWN ON DRAWINGS. SLIP-RESISTANT FLOOR, UNIT SHALL COMPLY WITH ASTM F-446, ANSI A117.1-1992, AND ADA REQUIREMENTS. UNIT SHALL BE RECESSED IN SUB-FLOOR TO ALLOW FOR A MAXIMUM CURB HEIGHT OF 1/2" OR LESS ABOVE THE FINISHED FLOOR.

ACCESSORIES - FOLD DOWN PHENOLIC SIMULATED TEAKWOOD SEAT. 1 1/2" OD, 18 GAUGE TYPE 304 STAINLESS STEEL WRAP AROUND GRAB BAR MOUNTED HORIZONTALLY ON BACK WALL AND VALVE WALL, MOUNTED WITH STAINLESS STEEL NUTS AND BOLTS AND FASTENED FROM THE BACKSIDE OF THE UNIT WITH MIN. 3" X 3" METAL PLATES. 1" OD 18 GAUGE TYPE 304 STAINLESS STEEL CURTAIN ROD (INSTALLED AS HIGH AS POSSIBLE) WITH COMMERCIAL GRADE VINYL SHOWER CURTAIN. PROVIDE 2" [3"] FLOOR DRAIN WITH 4" NICKEL BRONZE STRAINER.

MANUFACTURER & CATALOG NO.: AQUA GLASS 833941A, AQUARIUS G3698BF, BEST BATH LSS3838A5T, CLARION 3837-BF, LASCO 1363-BFS

Notes to specifier:

1. Accessible shower unit. Less expensive unit.
2. Verify rough-in dimensions required with Architect. Unit sizes vary.
3. WI Plumbing Code (82.50) requires a 3" floor drain in healthcare applications. Aqua Glass is a manufacturer that can do this. Verify with the manufacturer's listed.
4. Coordinate unit recessing with architect/structural engineer. Recessing may compromise fire rating or structural integrity of floor. Recess can be up to 2" deep.
5. Aquarius can be specified with a no-recess requirement. Verify need for "collapsible" dam at shower threshold. Verify with other manufacturer's as well.

**SPECIAL[®]
CARE** 

Universally Designed And Engineered with the patient and homeowner in mind. Aqua Glass is committed to helping designers, specifiers, and contractors with barrier-free commercial and residential installations.

AQUA GLASS[®]



**MODEL 833941A-R or L
(SC3692)
GELCOAT TRANSFER SHOWER**

THIS UNIT IS DESIGNED TO COMPLY WITH:

- ANSI A117.1—1992
- ADA (The Americans With Disabilities Act-1991)

NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.

STANDARD FEATURES

- Microban[®] Antibacterial Protection.
- Standard color—WHITE.
- Fold-down phenolic seat (simulated teakwood).
- Reinforced, sandwiched plastic laminate for superior overall wall rigidity.
- Grab bars are 1-1/2" O.D. 18 gauge type 304 stainless steel.
- Accessory mounting plates are 3" x 3" metal with stainless steel nuts and bolts caulked and sealed in place.
- Self-caulking brass shower drain in shower units only.
- Curtain rod - 1" O.D. 20 gauge type 304 stainless steel.
- Green commercial grade vinyl shower curtain.
- Textured floor in bathing area.

OPTIONAL FEATURES

- Additional colors available (refer to Aqua Glass color chart).
- Additional grab bars with approved dimensional drawings for exact location.
- Chrome pressure balanced, temperature and volume control valve by Delta (Model #1704WSBRS).
- Hand-held shower spray package by Alsons (Model #1521). (Includes vacuum breaker by Alsons Model #4900).
- Chrome thermostatic and pressure balanced control valve by Grohe (Model #34.456).
- Chrome flow control valve by Grohe (1/2") (Model #29.076).
- Chrome (1/2") supply elbow (Model #4990F).
- Hand-held shower spray package # 28.474 by Grohe (Includes hand-held champagne spray, 24" slide bar, adjustable soap dish, vacuum breaker, and a 60" stainless steel hose).
- Colored grab bars.
- White or bone fold-down phenolic seat.
- White commercial grade vinyl shower curtain.

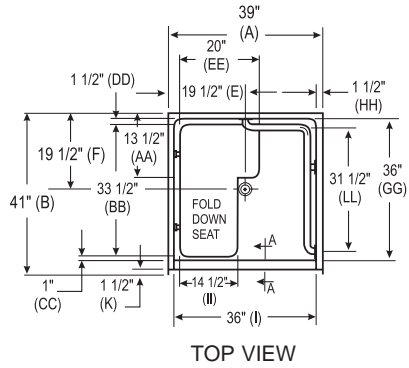
NOMINAL DIMENSIONS

WIDTH O.D.	39"
DEPTH O.D.	41"
HEIGHT O.D.	78"
WEIGHT (APPROX.)	105 LBS.

Building Code / Testing Organization Compliance

- ADA—Americans with Disabilities Act, 1991
- ANSI A 117.1—1992, Handicap Standards
- ANSI Z124.2
- ASTM F 446 (Grab Bars)
- ASTM F 462 79 (Slip Resistance)
- CSA (Canadian Standards Association)
- FHA/HUD UM 73 - Use of Materials Bulletin
- NAHB Certified
- NFPA NO. 101, 258 and ASTM E84
- Universal Plumbing Code (UPC) Administered by IAPMO

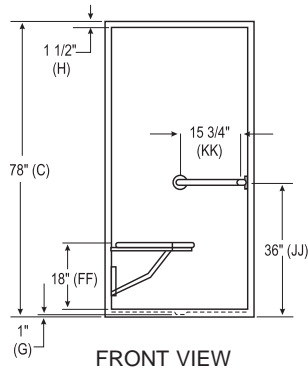
NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.



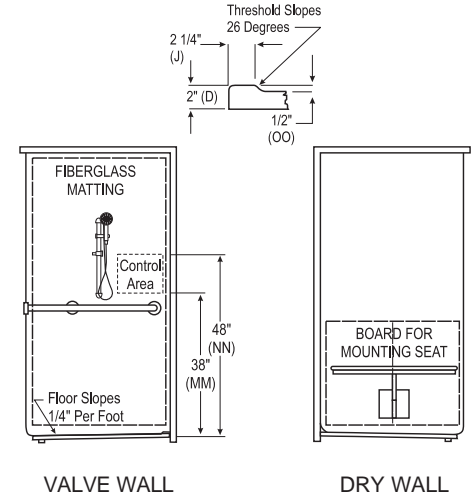
TOP VIEW

BATH FIXTURE SUBMITTAL FORM

MODEL 833941A-R or L (SC3692)
GELCOAT TRANSFER SHOWER



FRONT VIEW



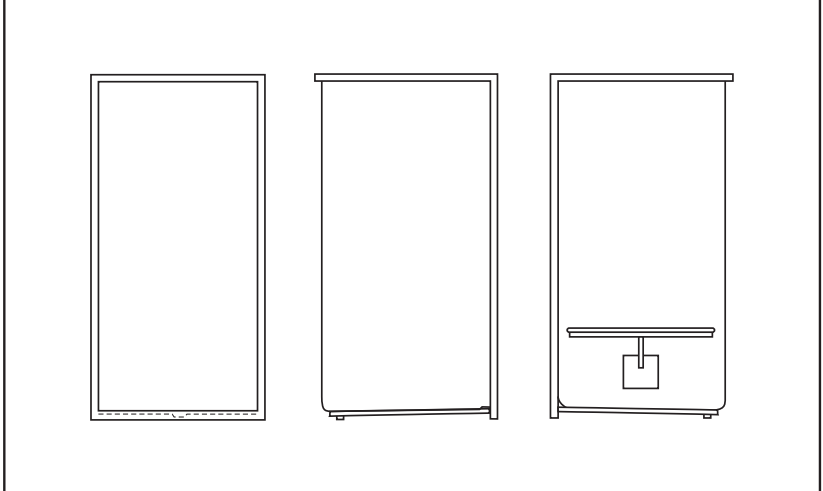
VALVE WALL

DRY WALL

UNIT SPECIFIED

- AS IS
- WITH NOTED MODIFICATIONS:
 - NON-STANDARD COLOR COLOR _____
 - ADDITIONAL GRAB BARS
 - COLORED GRAB BARS WHITE OR BONE
 - COLORED PHENOLIC SEAT WHITE, BONE, OR SIMULATED TEAKWOOD
 - WHITE COMMERCIAL GRADE VINYL SHOWER CURTAIN
 - WITH DELTA VALVE & ALSONS HAND-HELD SHOWER SYSTEM
 - WITH GROHE VALVE & HAND-HELD SHOWER SYSTEM
 - OTHER _____

MODIFICATIONS



See front side for "SAMPLE SPECIFICATION"

JOB NAME _____ DATE ____/____/____

CUSTOMER _____

ARCHITECT / ENGINEER _____

AQUA GLASS CORPORATION—P.O. BOX 412—INDUSTRIAL PARK—ADAMSVILLE, TN 38310
TELEPHONE (901) 632-0911—TOLL FREE (800) 238-3940—FAX (901) 632-4232

AQUA GLASS®

Making Life Better

Dimensions subject to change without notification

*Microban and the Microban symbol are trademarks of the Microban Products Company, Huntersville, NC.

REVISED 2-16-98
SUPERSEDES 9-1-96MP

SH-5

DESCRIPTION: SHOWER - ONE PIECE WHITE ACRYLIC ROLL-IN UNIT, NOMINAL SIZE OF 64" X 36" X 84". BACK SIDE OF UNIT SHALL BE CONSTRUCTED OF MOLDED REINFORCED FIBERGLASS. WITH SLIP-RESISTANT FLOOR. UNIT SHALL COMPLY WITH ASTM F-446, ANSI A117.1-1992, AND ADA REQUIREMENTS. UNIT SHALL BE RECESSED IN SUB-FLOOR TO ELIMINATE ANY CURB AT FINISHED FLOOR LEVEL.

ACCESSORIES - FOLD DOWN PHENOLIC SEAT, TOP DOME LIGHT. 1 1/2" OD 18 GAUGE TYPE 304 STAINLESS STEEL CONTINUOUS WRAP AROUND GRAB BAR MOUNTED HORIZONTALLY ON BACK WALL AND END WALLS, MOUNTED WITH STAINLESS STEEL NUTS AND BOLTS AND FASTENED FROM THE BACKSIDE OF THE UNIT WITH MIN. 3" x 3" METAL PLATES. 1" OD 18 GAUGE TYPE 304 STAINLESS STEEL CURTAIN ROD (INSTALLED AS HIGH AS POSSIBLE) WITH COMMERCIAL GRADE VINYL SHOWER CURTAIN. PROVIDE 2" [3"] FLOOR DRAIN WITH 4" NICKEL BRONZE STRAINER.

MANUFACTURER & CATALOG NO.: AQUA GLASS 636437A, AQUARIUS S6436BF, AQUA BATH C6436BFFUS, CLARION AN6436BF, LASCO 6036-BFSC

Notes to specifier:

1. Accessible roll-in shower unit. More expensive unit.
2. Verify dome light electrical requirements.
3. Provide floor drain outside of unit.
4. Verify rough-in dimensions required with architect. Unit sizes vary.
5. WI Plumbing Code (82.50) requires a 3" floor drain in healthcare applications. Aqua Glass is a manufacturer that can do this. Verify with manufacturers listed.
6. Coordinate unit recessing with architect/structural engineer. Recessing may compromise fire rating or structural integrity of floor. Recess can be up to 2" deep.
7. Aquarius can be specified with a no-recess requirement. Verify need for "collapsible" dam at shower threshold.

**SPECIAL[®]
CARE** 

Universally Designed And Engineered with the patient and homeowner in mind. Aqua Glass is committed to helping designers, specifiers, and contractors with barrier-free commercial and residential installations.

AQUA GLASS[®]



**MODEL 636437A-R or L
ACRYLIC ROLL-IN SHOWER**

THIS UNIT IS DESIGNED TO COMPLY WITH:

- ANSI A117.1—1992
- ADA (The Americans With Disabilities Act-1991)

NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.

STANDARD FEATURES

- Standard color—WHITE.
- Reinforced, sandwiched plastic laminated for superior overall wall rigidity.
- Grab bars are 1-1/2" O.D. 18 gauge type 304 stainless steel.
- Accessory mounting plates are 3" x 3" metal with stainless steel nuts and bolts caulked and sealed in place.
- Self-caulking brass shower drain.
- Curtain rod - 1" O.D. 20 gauge type 304 stainless steel.
- Green commercial grade vinyl shower curtain.
- Textured floor in bathing area.

OPTIONAL FEATURES

- Additional colors available (refer to Aqua Glass color chart).
- Additional grab bars with approved dimensional drawings for exact location.
- Dome light (recommended in acrylic units).
- Chrome pressure balanced, temperature and volume control valve by Delta (Model #1704WSBRS).
- Hand-held shower spray package by Alsons Model #1521 (Includes Vacuum breaker by Alsons Model #4900).
- Chrome thermostatic and pressure balanced control valve by Grohe (Model #34.456).
- Chrome flow control valve by Grohe (1/2") (Model #29.076).
- Chrome (1/2") supply elbow (Model #4990F).
- Hand-held shower spray package #28.474 by Grohe (includes hand-held champagne spray, 24" slide bar, adjustable soap dish, vacuum breaker, and a 60" stainless steel hose).
- Colored grab bar.
- Simulated wood grain or colored phenolic seat.
- **Ramp for above-the-floor installation.**

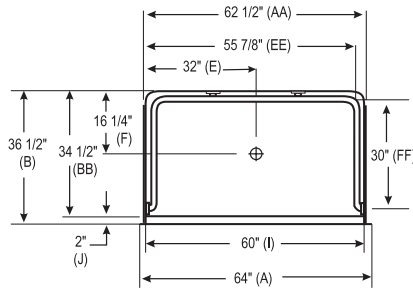
NOMINAL DIMENSIONS

WIDTH O.D.	64"
DEPTH O.D.	36-1/2"
HEIGHT O.D.	83"
WEIGHT (APPROX.)	225 LBS.

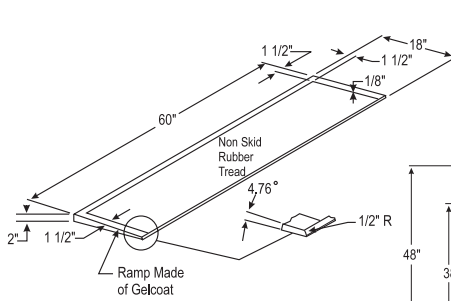
Building Code / Testing Organization Compliance

- ADA—Americans with Disabilities Act, 1991
- ANSI A 117.1—1992, Handicap Standards
- ANSI Z 124.2
- ASTM F 446 (Grab Bars)
- ASTM 462 79 (Slip Resistance)
- CSA (Canadian Standards Association)
- FHA/HUD UM 73 - Use of Materials Bulletin
- NAHB Certified
- NFPA NO. 101, 258 and ASTM E 84
- Southern Building Congress Code International (SBCCI)
- Universal Plumbing Code (UPC) Administered by IAPMO

NOTE: Control valves and shower spray packages are not standard. These components must be ordered separately. See Optional Features.



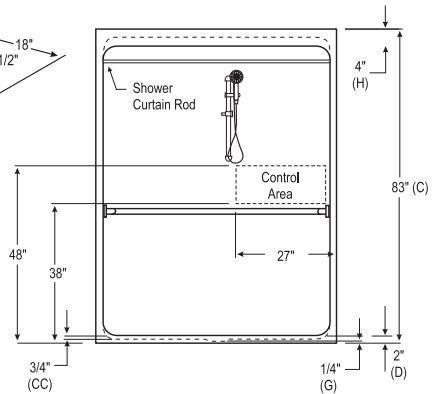
TOP VIEW



OPTIONAL RAMP

BATH FIXTURE SUBMITTAL FORM

**MODEL 636437A-R or L (SC6591)
ACRYLIC ROLL-IN SHOWER**

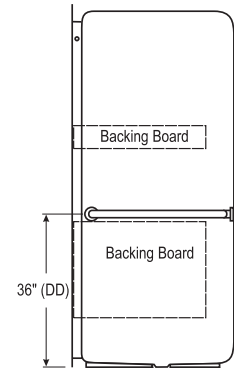
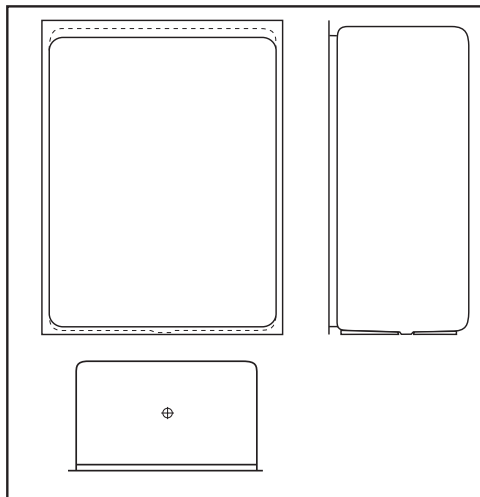


FRONT VIEW

UNIT SPECIFIED

- AS IS
- WITH NOTED MODIFICATIONS:
 - NON-STANDARD COLOR COLOR _____
 - DOME LIGHT
 - ADDITIONAL GRAB BARS
 - COLORED GRAB BARS WHITE OR BONE
 - PHENOLIC SEAT WHITE, BONE, OR SIMULATED TEAKWOOD
 - WHITE COMMERCIAL GRADE VINYL SHOWER CURTAIN
 - WITH DELTA VALVE & ALSONS HAND-HELD SHOWER SYSTEM
 - WITH GROHE VALVE & HAND HELD SHOWER SYSTEM
 - OTHER _____

MODIFICATIONS



END VIEW

See front side for "SAMPLE SPECIFICATION"

JOB NAME _____ DATE ____ / ____ / ____

CUSTOMER _____

ARCHITECT / ENGINEER _____

AQUA GLASS CORPORATION—P.O. BOX 412—INDUSTRIAL PARK—ADAMSVILLE, TN 38310
TELEPHONE (901) 632-0911—TOLL FREE (800) 238-3940—FAX (901) 632-4232

AQUA GLASS®

Making Life Better

Dimensions subject to change without notification

REVISED 7-1-98
SUPERSEDES 2-16-98

SH-6

DESCRIPTION: SHOWER - COLUMN TYPE, 16 GAUGE, TYPE 304 STAINLESS STEEL UNIT WITH SATIN FINISH, FIVE (5) STATIONS, TEMPERED WATER COMPRESSION VALVES, 6'-0" DISCHARGE HEIGHT, FIXED 2.5 GPM SHOWER HEADS, DOME GRATE DRAIN, SUPPLY COVER (VERIFY HEIGHT REQUIRED), AND ANCHOR PLATE, 3" DRAIN CONNECTION, AND CIRCULAR SOAP DISH. UNIT TO BE COMPLETELY PRE-PIPED AND READY FOR INSTALLATION. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 & ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: BRADLEY 5C, ACORN 700 SERIES, WILLOUGHBY CWCSX SERIES

Notes to specifier:

1. Requires remote mounted mixing valve for tempered water.
2. Verify supply and vent piping arrangement.
3. Verify discharge height required.

PLUMBING FIXTURES
TECHNICAL DATA

Column Showers

2-5 Person

- Hydrostatically Tested to 150 PSI
- One Set of Supply Connections Required for Five Stations
- Preassembled, Complete with Drain Fitting

Specifications

Materials

All exposed parts are type 304 stainless steel polished to a #4 finish or polished chrome-plated brass. Valve manifold is cast brass. Drain fitting is cast iron and supply inlets are copper tubing.

Standard Equipment

Flow Control

A 2.5 GPM (2.5 FC) flow control is standard.

Column Shower

Constructed of type 304 stainless steel polished to a #4 finish. Column and column cap are 16 gauge, and base flange is 13 gauge. Access panel located near bottom of column. Each station on column shower equipped with a stainless steel soap tray.

Drain Fitting

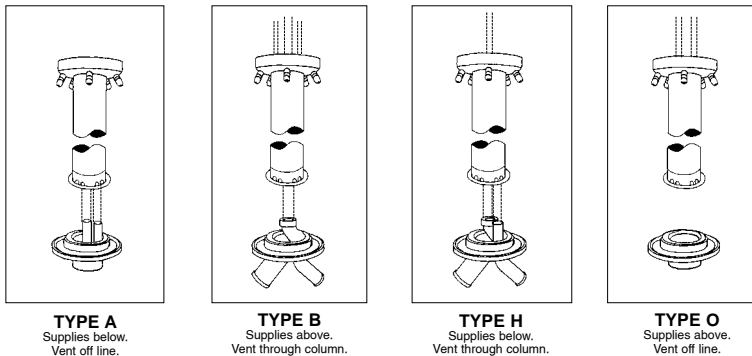
Cast iron with five stainless steel mounting bolts.

Supply Inlets

Constructed of 3/4" type "L" copper tubing.



Drain Variations*



*Note: See pages S-CD/7-S-CD/15 for drain rough-ins and column installation instructions.

Document No. 5120

This information is subject to change without formal notice.
3124-1-298SE (2 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
 Phone 414-251-6000 FAX 414-251-5817
 Web Site: <http://www.bradleycorp.com>
 Technical Information Fax Service: 1-800-BRADFAX

SH5120.1

Column Showers

2-5 Person

Sample Specification

Column shower to be Bradley Model 5-Person Column Shower 5C/B/6'-0"/EF/SH. Column shower to include the following:

- column and column cap constructed of 16 gauge type 304 stainless steel polished to a #4 finish, base flange 13 gauge
- each station to be equipped with a standard soap tray

Column shower to include the following: type (B) drain for centrally rising vent with supplies from above; (6'-0" standard) standard showerhead height; (EF) Equa-Flo pressure balanced mixing valve; and (SH) telescoping shroud.

MODELS <small>Must select one</small>	
Model No.	
<input type="checkbox"/> 5C	5-Person Column Shower
<input type="checkbox"/> 4C	4-Person Column Shower
<input type="checkbox"/> 3C	3-Person Column Shower
<input type="checkbox"/> 2C	2-Person Column Shower

STANDARD SELECTIONS <small>Must select one from each category</small>	
Drain Type (select one):	
<input type="checkbox"/> A	Off-line vent w/supplies from below
<input type="checkbox"/> B	Centrally rising vent w/supplies from above
<input type="checkbox"/> H	Centrally rising vent w/supplies from below
<input type="checkbox"/> O	Off-line vent w/supplies from above
Showerhead Height (select one):	
<input type="checkbox"/> 6'-0" Standard Height	
<input type="checkbox"/> 5'-6" Juvenile Height	
Valves per station (select one):	
Hot/tempered and cold supplies	
<input type="checkbox"/> BV	Bradrol Washerless Mixing Valve
<input type="checkbox"/> EF	Equa-Flo Pressure Balanced Mixing Valve
<input type="checkbox"/> HC	Hot and Cold Compression Valve
Single tempered/cold supply	
<input type="checkbox"/> MT*	Micro-Touch Electronic Metering Valve
<input type="checkbox"/> TF	Touch 'N' Flo Mechanical Metering Valve
<input type="checkbox"/> SV	Single Compression Valve
<input type="checkbox"/> TT*	Touch Time Metering Valve
*NOTE: Touch Time and Micro-Touch valves require optional Class 2 transformer.	

OPTIONAL SELECTIONS	
Showerhead Variations:	
<input type="checkbox"/> ESF	Economy Soft Flow with Ball Joint
<input type="checkbox"/> SF	Deluxe Showerhead with Ball Joint
<input type="checkbox"/> SX	Severe Service Showerhead
Flow control:	
<input type="checkbox"/> 2.0 GPM (2.0 FC)	
Volume Control:	
<input type="checkbox"/> AKV**	Allen Key Volume Control
Ball Joint:	
<input type="checkbox"/> LBJ**	Lockable Ball Joint
Drain Variations:	
<input type="checkbox"/> CR	Clamping Ring for Flashing
<input type="checkbox"/> DG	Dome Grate Drain
Thermostatic Blending Valve (TB):	
<input type="checkbox"/> TB	for Type A
<input type="checkbox"/> TB	for Type B—Includes Shroud
<input type="checkbox"/> TB	for Type O—Includes Shroud
NOTE: Thermostatic blending valve not available with type H column	
Miscellaneous:	
<input type="checkbox"/> CS	Soap Container in Column with Liquid Soap Valve
<input type="checkbox"/> FAK	Flange Anchor Kit
<input type="checkbox"/> SH	Telescoping Shroud
<input type="checkbox"/> ST	Stops in Supplies
<input type="checkbox"/> LD	Less Drain Slots
**NOTE: Not available with Severe Service (SX) or Economy Soft Flow (ESF) showerhead.	

Document No. 5120

This information is subject to change without formal notice.
3124-1-298SE (2 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 414-251-6000 FAX 414-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

SH-7

DESCRIPTION: SHOWER - COLUMN TYPE, 16 GAUGE, TYPE 304 STAINLESS STEEL UNIT WITH SATIN FINISH, THREE (3) STATIONS AND ONE (1) ACCESSIBLE STATION WITH SINGLE PARTITION, FOLD DOWN SEAT AND HANDHELD SHOWER. PARTITION TO BE SUPPORTED FROM WALL. VERIFY EXACT LOCATION WITH ARCHITECT. TEMPERED WATER COMPRESSION VALVES, 6'-0" DISCHARGE HEIGHT, FIXED 2.5 GPM SHOWER HEADS, DOME GRATE DRAIN, SUPPLY COVER (VERIFY HEIGHT REQUIRED), AND ANCHOR PLATE, 3" DRAIN CONNECTION, AND CIRCULAR SOAP DISH. UNIT TO BE COMPLETELY PRE-PIPED AND READY FOR INSTALLATION. ACCESSIBLE STATION SHALL COMPLY WITH ADA REQUIREMENTS. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 & ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: BRADLEY 4C-HN400, ACORN 700HC SERIES, WILLOUGHBY CWCSX SERIES

Notes to specifier:

1. Requires remote mounted mixing valve for tempered water.
2. Verify supply and vent piping arrangement.
3. Verify handicapped arrangement with Architect, (must be located near wall).
4. Verify discharge height required.

PLUMBING FIXTURES
TECHNICAL DATA

Column Showers
2-5 Person

- Hydrostatically Tested to 150 PSI
- One Set of Supply Connections Required for Five Stations
- Preassembled, Complete with Drain Fitting

Specifications

Materials
All exposed parts are type 304 stainless steel polished to a #4 finish or polished chrome-plated brass. Valve manifold is cast brass. Drain fitting is cast iron and supply inlets are copper tubing.

Standard Equipment

Flow Control
A 2.5 GPM (2.5 FC) flow control is standard.

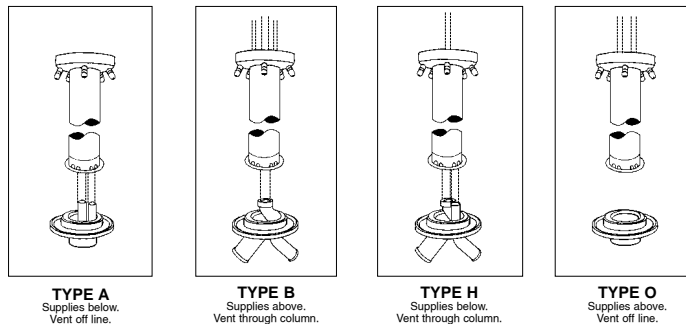
Column Shower
Constructed of type 304 stainless steel polished to a #4 finish. Column and column cap are 16 gauge, and base flange is 13 gauge. Access panel located near bottom of column. Each station on column shower equipped with a stainless steel soap tray.

Drain Fitting
Cast iron with five stainless steel mounting bolts.

Supply Inlets
Constructed of 3/4" type "L" copper tubing.



Drain Variations*



*Note: See pages S-CD/7-S-CD/15 for drain rough-ins and column installation instructions.

Document No. 5120

This information is subject to change without formal notice.
3124-1-298SE (2 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 414-251-6000 FAX 414-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

SH5120.1

Column Showers

2-5 Person

Sample Specification

Column shower to be Bradley Model 5-Person Column Shower 5C/B/6'-0"/EF/SH. Column shower to include the following:

- column and column cap constructed of 16 gauge type 304 stainless steel polished to a #4 finish, base flange 13 gauge
- each station to be equipped with a standard soap tray

Column shower to include the following: type (B) drain for centrally rising vent with supplies from above; (6'-0" standard) standard showerhead height; (EF) Equa-Flo pressure balanced mixing valve; and (SH) telescoping shroud.

MODELS <small>Must select one</small>	
Model No.	
<input type="checkbox"/> 5C	5-Person Column Shower
<input type="checkbox"/> 4C	4-Person Column Shower
<input type="checkbox"/> 3C	3-Person Column Shower
<input type="checkbox"/> 2C	2-Person Column Shower

STANDARD SELECTIONS <small>Must select one from each category</small>	
Drain Type (select one):	
<input type="checkbox"/> A	Off-line vent w/supplies from below
<input type="checkbox"/> B	Centrally rising vent w/supplies from above
<input type="checkbox"/> H	Centrally rising vent w/supplies from below
<input type="checkbox"/> O	Off-line vent w/supplies from above
Showerhead Height (select one):	
<input type="checkbox"/> 6'-0" Standard Height	
<input type="checkbox"/> 5'-6" Juvenile Height	
Valves per station (select one):	
Hot/tempered and cold supplies	
<input type="checkbox"/> BV	Bradrol Washerless Mixing Valve
<input type="checkbox"/> EF	Equa-Flo Pressure Balanced Mixing Valve
<input type="checkbox"/> HC	Hot and Cold Compression Valve
Single tempered/cold supply	
<input type="checkbox"/> MT*	Micro-Touch Electronic Metering Valve
<input type="checkbox"/> TF	Touch 'N' Flo Mechanical Metering Valve
<input type="checkbox"/> SV	Single Compression Valve
<input type="checkbox"/> TT*	Touch Time Metering Valve
*NOTE: Touch Time and Micro-Touch valves require optional Class 2 transformer.	

OPTIONAL SELECTIONS	
Showerhead Variations:	
<input type="checkbox"/> ESF	Economy Soft Flow with Ball Joint
<input type="checkbox"/> SF	Deluxe Showerhead with Ball Joint
<input type="checkbox"/> SX	Severe Service Showerhead
Flow control:	
<input type="checkbox"/> 2.0 GPM (2.0 FC)	
Volume Control:	
<input type="checkbox"/> AKV**	Allen Key Volume Control
Ball Joint:	
<input type="checkbox"/> LBJ**	Lockable Ball Joint
Drain Variations:	
<input type="checkbox"/> CR	Clamping Ring for Flashing
<input type="checkbox"/> DG	Dome Grate Drain
Thermostatic Blending Valve (TB):	
<input type="checkbox"/> TB	for Type A
<input type="checkbox"/> TB	for Type B—Includes Shroud
<input type="checkbox"/> TB	for Type O—Includes Shroud
NOTE: Thermostatic blending valve not available with type H column	
Miscellaneous:	
<input type="checkbox"/> CS	Soap Container in Column with Liquid Soap Valve
<input type="checkbox"/> FAK	Flange Anchor Kit
<input type="checkbox"/> SH	Telescoping Shroud
<input type="checkbox"/> ST	Stops in Supplies
<input type="checkbox"/> LD	Less Drain Slots
**NOTE: Not available with Severe Service (SX) or Economy Soft Flow (ESF) showerhead.	

Document No. 5120

This information is subject to change without formal notice.
3124-1-298SE (2 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 414-251-6000 FAX 414-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

SH-8

DESCRIPTION: SHOWER - WALL TYPE, SURFACE MOUNTED, 16 GAUGE TYPE 304 STAINLESS STEEL ENCLOSURE WITH SATIN FINISH, SINGLE TEMPERED WATER COMPRESSION VALVE, 6'-0" DISCHARGE HEIGHT, SOLID BRASS ADJUSTABLE 2.5 GPM SHOWER HEAD, RECESSED SOAP DISH, TAMPER RESISTANT FASTENERS. UNIT TO BE COMPLETELY PRE-PIPED AND READY FOR INSTALLATION. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 & ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: BRADLEY 1WCA, ACORN 455 SERIES, WILLOUGHBY CWSMS SERIES

Notes to specifier:

1. Requires remote mounted mixing valve for tempered water.
2. Verify discharge height required.

PLUMBING FIXTURES
TECHNICAL DATA

**1WCA Coverall
Individual Wall Shower**

- Quick, Easy Installation
- Completely Preassembled Wall Shower Unit
- Hydrostatically Tested to 150 PSI

Specifications

Materials

Shower panel is type 304 stainless steel polished to a #4 finish. All other exposed parts are stainless steel or chrome-plated brass. Valve bodies are brass casting. Supply inlets are flexible stainless steel hoses.

Standard Equipment

Flow Control

A flow control of 2.5 GPM (2.5FC) is standard.

Shower panel

Constructed of 18 gauge stainless steel polished to a #4 finish with stainless steel soap tray mounted to panel. Shower panel top and bottom covers are sloped, and constructed of 16 gauge stainless steel.

Showerhead

Standard fixed direction adjustable spray showerhead.

Supply Inlets

Supply inlets are flexible, stainless steel hoses with 1/2 NPT connections. Inlets are accessible through the back of the shower or through knockouts in the top and bottom covers.



Document No. 5050

This information is subject to change without formal notice.
3215-1-898 (3 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 414-251-6000 FAX 414-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

SH5050.1

IWCA Coverall

Individual Wall Shower

Sample Specification

Wall shower shall be Bradley Model IWCA/6'-0"/EF.
Individual wall shower to include the following standard equipment:

- shower panel fabricated of 18 gauge type 304 stainless steel polished to a #4 finish
- standard fixed direction adjustable spray showerhead
- flexible stainless steel hose supply inlets
- standard soap tray.

To include (6'-0") standard showerhead height and (EF) Equa-Flo pressure balanced mixing valve.

MODEL <u>Must select one</u>	
Model	Description
<input type="checkbox"/> 1WCA Coverall	Individual Wall Shower

STANDARD SELECTIONS

Must select one from each category

Showerhead Height (select one):

- 6'-0" Standard Height
- 5'-6" Juvenile Height

Valves (select one):

Hot/tempered and cold supplies

- BV Bradtrol Washerless Mixing Valve
- EF Equa Flo Pressure Balanced Mixing Valve
- HC Hot and Cold Compression Valve
- MM Alpa 80 Metering and Mixing Valve
- TV Thermostatic Mixing Valve

Single tempered/cold supply

- AZ* Infrared Metering Valve
- MT* Micro-Touch Electronic Metering Valve
- PM Presto 50B Mechanical Metering Valve
- SV Single Compression Valve
- TF Touch 'N' Flo Mechanical Metering Valve
- TT* Touch Time Metering Valve

*NOTE: Infrared, Touch Time and Micro-Touch valves require optional Class 2 transformers.

OPTIONAL SELECTIONS

Showerhead variations:

- ESF Economy Soft Flow with Ball Joint
- SF Deluxe Showerhead with Ball Joint
- SX Severe Service Showerhead

Flow controls:

- 2.0 GPM (2.0FC)

Volume Control:

- AKV** Allen Key Volume Control

Ball Joint:

- LBJ** Lockable Ball Joint

Miscellaneous:

- CS Soap Container in Panel with Liquid Soap Valve
- IS Individual Stops
- RSD Recessed Soap Dish
- SHH Horizontal Shroud
- SHV Vertical Shroud

**NOTE: Not available with Severe Service (SX) or Economy Soft Flow showerhead (ESF).

Document No. 5050

This information is subject to change without formal notice.
3215-1-898 (3 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 414-251-6000 FAX 414-251-5817
Web Site: <http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

SH-9

DESCRIPTION: ACCESSIBLE SHOWER - WALL TYPE, SURFACE MOUNTED, 16 GAUGE TYPE 304 STAINLESS STEEL ENCLOSURE WITH SATIN FINISH, [PRESSURE BALANCE][THERMOSTATIC] MIXING VALVE WITH [HOT AND COLD][TEMPERED] WATER INLET[S] AND DIVERTER VALVE WITH LEVER HANDLES, 6'-0" DISCHARGE HEIGHT, SOLID BRASS ADJUSTABLE 2.5 GPM SHOWER HEAD, RECESSED SOAP DISH, TAMPER RESISTANT FASTENERS. ADJUSTABLE SPRAY DETACHABLE HAND-HELD SHOWER WITH HOLDER, SWIVEL CONNECTOR AND 60" VINYL HOSE, IN-LINE VACUUM BREAKER [AND QUICK DISCONNECT]. UNIT TO BE COMPLETELY PRE-PIPED AND READY FOR INSTALLATION. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 & ASME/ANSI STANDARD A112.18.1M.

INSTALL ALL CONTROLS BETWEEN 38" AND 48" AFF IN COMPLIANCE WITH ADA SECTION 4.21.

PROVIDE PADDED VINYL FOLDING SEAT WITH 1" TYPE 304 STAINLESS STEEL SATIN FINISH TUBING FRAME. INSTALL SEAT IN COMPLIANCE WITH ADA REQUIREMENTS.

PROVIDE 24" X 1-1/2" STAINLESS STEEL GRAB BAR. INSTALL GRAB BAR IN COMPLIANCE WITH ADA REQUIREMENTS.

MANUFACTURER & CATALOG NO.: BRADLEY WS-1X-HN, ACORN 450 SERIES, WILLOUGHBY CWBFS-250

Notes to specifier:

1. Requires remote mounted mixing valve for tempered water.
2. Verify handicapped arrangement with Architect, including who provides seat and grab bar.
3. Verify discharge height required.

**PLUMBING FIXTURES
TECHNICAL DATA**

**Individual Pivoting Wall Shower – ADA Compliant
Model WS-1X-HN**



- Ideal for Barrier-Free shower room
- Industry unique hinge design for quick & easy installation and maintenance
- Completely preassembled and ready to mount to a wall
- Flexible supply connections

Specifications

Materials

Shower panel is type 304 stainless steel. All other exposed parts are stainless steel or chrome-plated brass. Supply inlets are flexible stainless steel hoses.

Barrier-Free (ADA Compliant)

When installed properly, the WS-1X-HN is designed to comply with all known ADA guidelines on reaches, clearances, and operation.

NOTE: Check local applicable codes for dimensional compliance.

Standard Equipment

Shower panel

Shower panel is constructed of 18 gauge stainless steel. Top and bottom covers are riveted onto shower panel.

Hinges

Stainless steel barrel hinges to mount shower to wall.

Showerhead

Showerhead is chrome plated brass with 2.0 GPM flow control, ball joint, and adjustable spray pattern control.

Control Valve

All exposed parts are chrome plated or stainless steel, all valves are ADA compliant. Control valve can be hot & cold type, single temperature type, or metering.

Diverter Valve

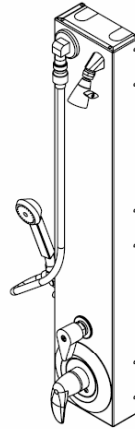
Lever handle operation for easy transfer of water flow between fixed showerhead and hand-held shower spray.

Hand-Held Shower Spray

Constructed with a 60" stainless steel flexible hose and post style mounting bracket to hold to shower panel. Elevated in-line backflow preventer with quick disconnect for flexible hose.

Supply Inlets

Supply inlets are 24" flexible, stainless steel hoses with 1/2" NPT connections. Inlets are accessible through back of shower or through knockouts in the top and bottom covers.



Sample Specification

Shower shall be Bradley Axis Wall Shower model WS-1X-HN-EE. Individual wall shower to include the following equipment:

- shower panel fabricated of 18 gauge type 304 stainless steel
- stainless steel mounting hinges
- chrome plated brass showerhead with ball joint and adjustable spray pattern
- Equa-Flo™ pressure balancing valve with integral checkstops
- lever handle diverter valve
- stainless steel flexible supply hoses
- hand-held shower spray constructed of 1/2" NPT 60" stainless steel hose with in-line backflow preventer and quick disconnect

Document No. 5195

This information is subject to change without formal notice.
© 2006 Bradley Corporation
10-31-2006 (2 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
Web Site: <http://www.bradleycorp.com>

SH5195.1

Individual Pivoting Wall Shower – ADA Compliant
Model WS-1X-HN

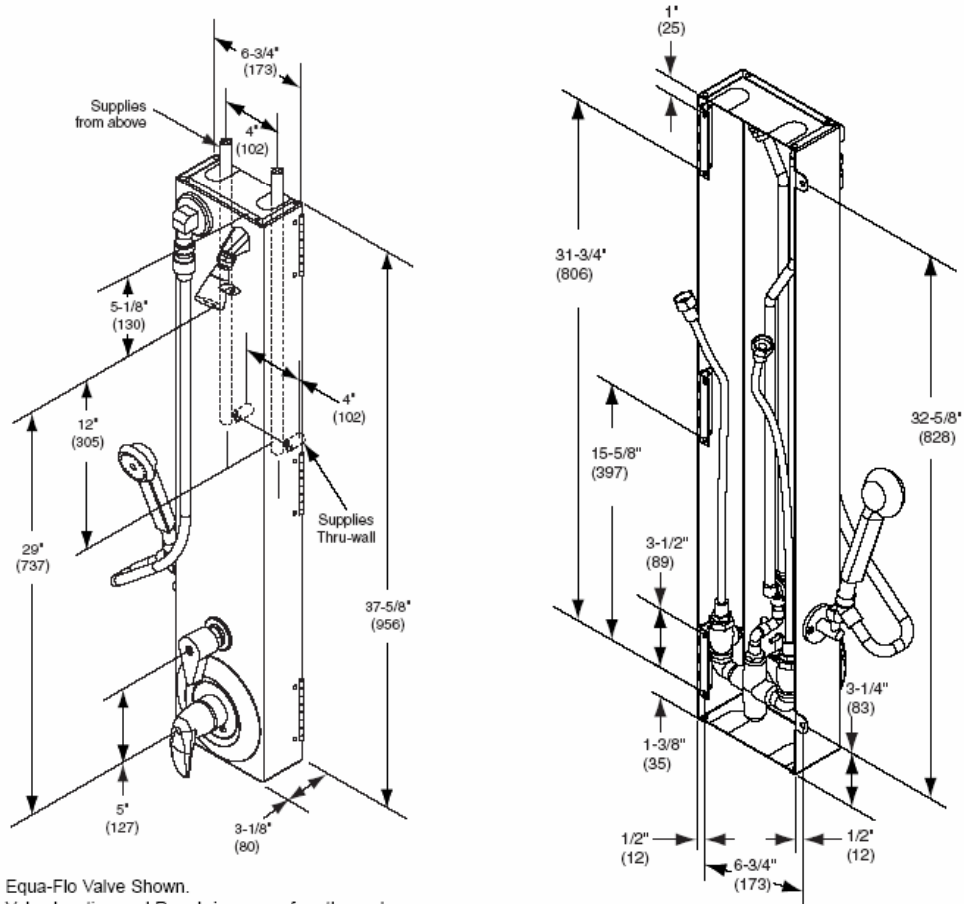
**PLUMBING FIXTURES
 TECHNICAL DATA**

MODEL	
Model	Description
<input type="checkbox"/> WS-1X-HN	Individual Pivoting Wall Shower
Valve:	
<input type="checkbox"/> EF	Hot/Tempered and Cold Supplies Equa-Flo Pressure Balancing Valve
<input type="checkbox"/> HD	Equa-Flo HD Pressure Balancing Valve
<input type="checkbox"/> TMV	Thermostatic Mixing Valve
Single Tempered / Cold Supply	
<input type="checkbox"/> AST	Air Metering Valve
<input type="checkbox"/> SVL	Single Compression Valve
<input type="checkbox"/> TT	TouchTime® Metering Valve

OPTIONAL SELECTIONS	
Showerheads:	
<input type="checkbox"/> S	Standard Institutional Showerhead
<input type="checkbox"/> G	Optional 1.5 GPM Flow Control (S option only)
<input type="checkbox"/> LBJ	Lockable ball joint (S option only)
Miscellaneous:	
<input type="checkbox"/> SB	24" Slide Bar
<input type="checkbox"/> SL	Sloped Top
<input type="checkbox"/> SD	Wall Mounted Cake Soap Dish
<input type="checkbox"/> SHV	Vertical Shroud Showerhead Height _____ Floor to Ceiling Height _____
<input type="checkbox"/> SHH	Horizontal Shroud *
* Submittal drawings required.	

Dimensions in parentheses are millimeters.

Rough-in Dimensions



Equa-Flo Valve Shown.
 Valve location and Rough-ins same for other valves.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

10-31-2006

SH5195.2

SHV-1

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 110 DEGREE F DISCHARGE. ASSE 1016 LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED PLASTIC SHOWERHEAD WITH SWIVEL BALL JOINT, CHROME PLATED BRASS ARM AND FLANGE. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: SYMMONS 56-1, AMERICAN STANDARD 1495SS.501, CHICAGO FAUCETS 1762-CP, DELTA 1323, GERBER 49-720, KOHLER K-T15611-4, LEONARD 4500 SERIES, POWERS P910-J1, SPEAKMAN 1600-AF

Notes to specifier:

1. Use on low budget projects only.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.

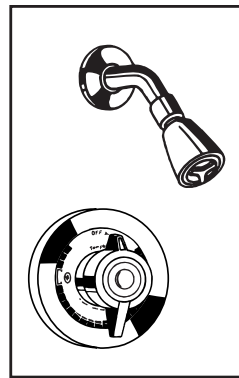
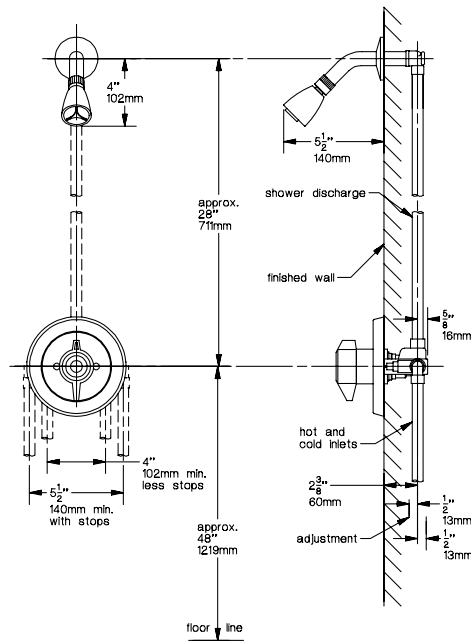
BP-56-1
Tem p t r o l I I S h o w e r S y s t e m

Tem p t r o l I I P r e s s u r e - B a l a n c i n g m i x i n g v a l v e w i t h l e v e r h a n d l e a n d a d j u s t a b l e s t o p s c r e w t o l i m i t h a n d l e t u r n . C h r o m e p l a t e d s h o w e r h e a d w i t h a r m a n d f l a n g e .

Modifications:

Add:

Suffix X: Integral service stops - allow water shut off at valve for service.



SYMMONS PRODUCTS MEET
 ANSI A112.18.1M, EPA 92
 AND ALL KNOWN FLOW RATE
 REQUIREMENTS.
 Showerheads and Hand Showers
 2.5 GPM @ 5 L/min

Job/Location

Engineer

Contractor

This drawing to be used for rough-in installation only. All floor to centerline dimensions optional. Concealed piping and fittings not furnished by manufacturer. For ADA compliance Am extension D (ADA) conformance or your state regulations for proper product choice and mounting locations. For complete installation, adjustment and service information, see installation instructions.

SYMMONS INDUSTRIES, INC.
 31 Brooks Drive, Bellingham, MA 02184
 TEL: 1-800-SYMMONS (781) 848-2250 FAX: 1-800-961-9621, (781) 843-3849
 website: www.symmons.com

© 1998 Symmons Industries, Inc. Printed in U.S.A.



SHV-2

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 110 DEGREE F DISCHARGE. ASSE 1016 LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED PLASTIC SHOWERHEAD WITH SWIVEL BALL JOINT, ADJUSTABLE SPRAY, CHROME PLATED BRASS ARM AND FLANGE. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: SYMMONS 1-100, LEONARD PAM-II, POWERS P413-K

Notes to specifier:

1. Higher quality valve.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.

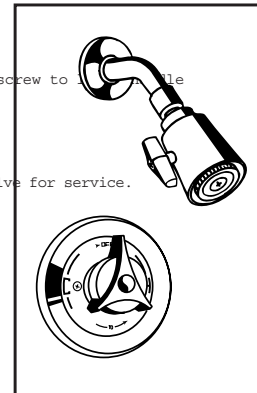
96-1-131
Temptrol® Shower System

Temptrol Pressure-Balancing mixing valve with adjustable stop screw to turn. Super shower head with arm and flange.

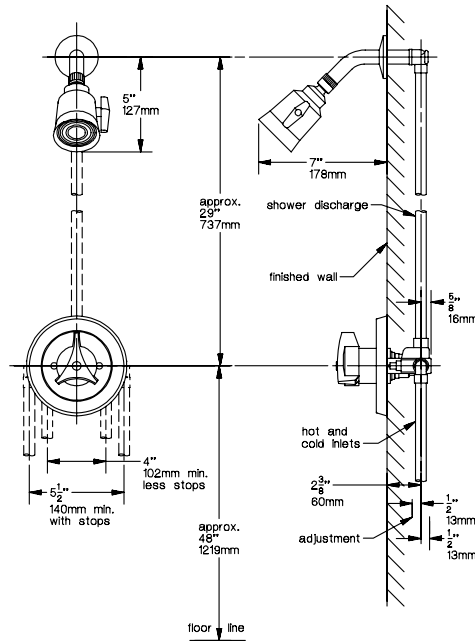
Modifications:

Add:

- Suffix X: Integral service stops - allows water shutoff at valve for service.
- Suffix L: Lever handle.



SYMMONS PRODUCTS MEET
 ANSI A112.18.1M, EPA '92
 AND ALL KNOWN FLOW RATE
 REQUIREMENTS.
 Showerheads and Hand Showers
 2.5 GPM (9.5 L/min)



Job/Location

 Engineer

 Contractor

This drawing to be used for rough installation only. All floor to center optional. Concealed piping and fittings furnished by manufacturer. For ADA compliance (Americans with Disabilities Act) consult your state regulations for proper choice and mounting locations. For correct installation, adjustment and service see installation instructions.

SYMMONS INDUSTRIES, INC.
 31 Brooks Drive, Braintree, MA 02184
 TEL: 1-800-SYMMONS, (781) 848-2250 FAX: 1-800-961-9621, (781) 843-3849
 website: www.symmons.com



©1998 Symmons Industries, Inc. Printed in U.S.A.

SHV-3

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, ADJUSTABLE TEMPERATURE LIMIT STOP SET TO 110 DEGREE F DISCHARGE. ASSE 1016 LISTED.

INSTALL ALL CONTROLS BETWEEN 38" AND 48" ABOVE FINISHED FLOOR IN COMPLIANCE WITH ADA SECTION 4.21.

ACCESSORIES - ADJUSTABLE SPRAY HAND HELD SHOWER, CHROME PLATED 24" MOUNTING RAIL, SWIVEL CONNECTOR, 60" [VINYL] [CHROME PLATED METAL] HOSE [AND QUICK DISCONNECT], CHROME PLATED BRASS SUPPLY ELBOW WITH FLANGE, CHROME PLATED [ELEVATED] [IN-LINE] VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

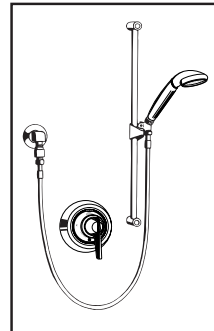
MANUFACTURER & CATALOG NO.: SYMMONS 1-25, LEONARD PAM-II, POWERS P413-K

Notes to specifier:

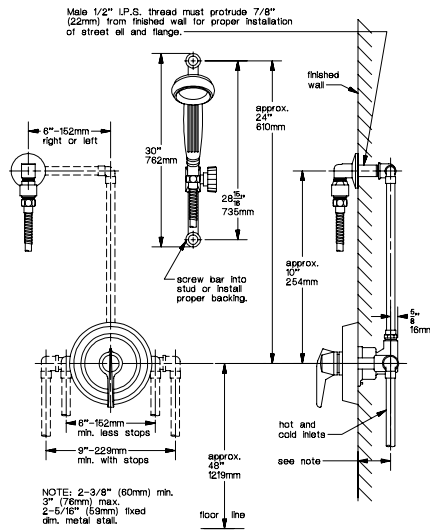
1. Higher quality valve.
2. This unit meets ADA requirements for handicapped installation when installed per ADA section 4.21.
3. In unmonitored facilities where vandalism is a consideration a fixed shower head at 48" above the shower floor may be used in lieu of a hand held shower head. ADA 4.21.6. Modify description as required and verify with owner.
4. Verify which type of vacuum breaker is acceptable.
5. Verify with owner/architect if shower head is required in addition to hand-held shower.
6. Verify if quick disconnect is required.
7. Not all manufacturers have vinyl hoses. Verify with listed manufacturers.

1-25-FSB
Safetym ix® Shower System
 Safetym ix Pressure-Balancing mixing valve with lever handle and adjustable stop screw to limit handle turn. Wall hand shower with flexible 5' metal hose with in-line vacuum breaker, wall connection and flange, 30" slide bar for hand shower mounting.

- Modifications:
- Add:
- Suffix X: Integral scissor stops - allow water shutoff at valve for service
 - Suffix VB: Elevated vacuum breaker with union and flanges in place of in-line vacuum breaker
 - Suffix G: Dalthemometer



SYMMONS PRODUCTS MEET ANSI A112.18.1M, EPA 92 AND ALL KNOWN FLOW RATE REQUIREMENTS. Showerheads and Hand Showers 2.5 GPM @ 5 L/min



Job/Location

Engineer

Contractor

This drawing to be used for rough-in installation only. All floor-to-center dimensions optional. Concealed piping and fittings not furnished by manufacturer. Dimensions are for ADA compliance. American with Disabilities Act. Consult ADAAG corporate regulations for proper product choice and mounting locations. For complete installation, adjustment and service information, see installation instructions.

SYMMONS INDUSTRIES, INC.
 31 Brooks Drive, Braintree, MA 02184
 TEL: 1-800-SYMMONS, (781) 848-2250 FAX: 1-800-961-9621, (781) 843-3849
 website: www.symm.com



SHV-4

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE THERMOSTATIC MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOP, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016 LISTED.


ACCESSORIES - 2.5 GPM CHROME PLATED BRASS SHOWERHEAD WITH SWIVEL BALL JOINT, ADJUSTABLE SPRAY, CHROME PLATED BRASS ARM AND FLANGE. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: POWERS E425-K, GROHE 34-436, LAWLER 3800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.



POWERS
A WATTS INDUSTRIES CO.



PRODUCT SPECIFICATION
Hydroguard Series e420 - Thermostatic Mixing Valves
Model e421 (3-port)/e422 (4-port)
Model e425 (3-port)/e426 (4-port)

Form PS421 v4

DESCRIPTION

Concealed thermostatic water mixing valve for use on shower and tub/shower installations. Powerful advanced thermal actuator compensates for both temperature and pressure fluctuations. A built-in adjustable temperature limit stop reduces chances of accidental scalding due to overadjustment of handle. Heavy cast-brass body, durable stainless-steel faceplate, lucite knob-type handle, and corrosion-resistant material ensure years of trouble-free service.

See reverse for complete specification codes for valve and additional accessories.

SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

Connections:
 Type e421 and e425 1/2" NPT Inlets and 1/2" NPT Top Outlet
 Type e422 and e426 1/2" NPT Inlets, 1/2" NPT Top Outlet, 3/4" NPT Bottom Outlet

Capacity (without checkstops) 5.25 gpm [19.9 L/min]* (±0.25 gpm [0.95 L/min])

Maximum Hot Water Supply Temperature 190°F [88°C]

Minimum Hot Water Supply Temperature 5°F [14°C] above set point

Maximum Operating Pressure 125 psig [862 kPa]

Temperature Ranges:
 ASSE 1016 Type T 65-115°F [18-46°C]
 ASSE 1016 Type T/P 90-110°F [32-43°C]

Temperature Limit Stop Adjustable* factory set at 110°F [43°C]

Maximum Static Pressure 125 psig [862 kPa]

Minimum Flow and Pressure Differential: 1 gpm [3.79 L/min]

Wall Seal Gasket Furnished with Dial

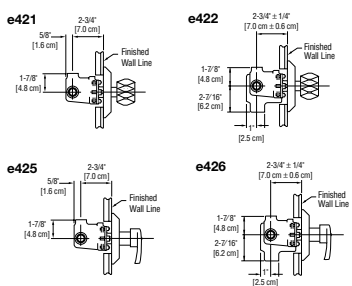
Dial Plate Color-Coded Temperature Scale

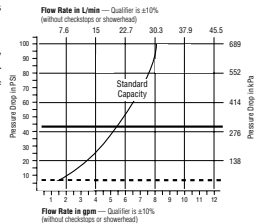
Certified CSA B125

Compliance ASSE 1016-T/P

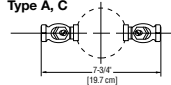
Shipping Weight 5 lbs. [2.3 kg]

All Hydroguard Series e420 thermostatic mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016-T/P (45 psi pressure differential, hot water supply between 140°-180°F [60-82°C], cold water supply less than 70°F [21°C]). If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016-T/P and CSA B125.
 * At 45 psi differential [310 kPa], with hot water supply between 140°-180°F [60-82°C].

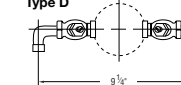




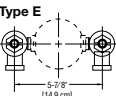
Type A, C



Type D



Type E



SHV-5

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE THERMOSTATIC MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOP, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016 LISTED.

INSTALL ALL CONTROLS BETWEEN 38" AND 48" ABOVE FINISHED FLOOR IN COMPLIANCE WITH ADA SECTION 4.21.

ACCESSORIES - ADJUSTABLE SPRAY HAND-HELD SHOWER WITH 60" [VINYL] [CHROME PLATED METAL] HOSE [AND QUICK DISCONNECT], SWIVEL CONNECTOR, AND 24" CHROME PLATED MOUNTING RAIL. CHROME PLATED BRASS SUPPLY ELBOW FLANGE, CHROME PLATED [ELEVATED] [IN-LINE] VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: POWERS E425-K, GROHE 34-436, LAWLER 3800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. This unit meets ADA requirements for handicapped installation when installed per ADA section 4.21.
3. In unmonitored facilities where vandalism is a consideration, a fixed shower head at 48" above the shower floor may be used in lieu of a hand held shower head per ADA section 4.21.6. Modify description as required and verify with owner.
4. Verify which type of vacuum breaker is acceptable.
5. Verify with owner/architect if shower head is also required in addition to hand-held shower.
6. Verify if quick disconnect is required.
7. Not all manufacturers have vinyl hoses. Verify with listed manufacturers.



POWERS
A WATTS INDUSTRIES CO.

PRODUCT SPECIFICATION
Hydroguard Series e420 - Thermostatic Mixing Valves
Model e421 (3-port)/e422 (4-port)
Model e425 (3-port)/e426 (4-port)
Form PS421 v4

DESCRIPTION

Concealed thermostatic water mixing valve for use on shower and tub/shower installations. Powerful advanced thermal actuator compensates for both temperature and pressure fluctuations. A built-in adjustable temperature limit stop reduces chances of accidental scalding due to overadjustment of handle. Heavy cast-brass body, durable stainless-steel faceplate, lucite knob-type handle, and corrosion-resistant material ensure years of trouble-free service.

See reverse for complete specification codes for valve and additional accessories.

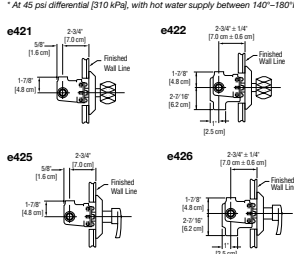
e421/e422
e425/e426

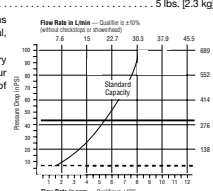
SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

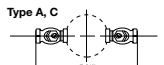

Connections:
 Type e421 and e425 1/2" NPT Inlets and 1/2" NPT Top Outlet
 Type e422 and e426 1/2" NPT Inlets, 1/2" NPT Top Outlet, 3/4" NPT Bottom Outlet
Capacity (without checkstops) 5.25 gpm [19.9 L/min] (e0.25 gpm [0.95 L/min])
Maximum Hot Water Supply Temperature 190°F [88°C]
Minimum Hot Water Supply Temperature 5°F [14°C] above set point
Maximum Operating Pressure 125 psig [862 kPa]

Temperature Ranges:
 ASSE 1016 Type T 65-115°F [18-46°C]
 ASSE 1016 Type T/P 90-110°F [32-43°C]
Temperature Limit Stop Adjustable* factory set at 110°F [43°C]
Maximum Static Pressure 125 psig [862 kPa]
Minimum Flow and Pressure Differential 1 gpm [3.79 L/min]
Wall Seal Gasket Furnished with Dial
Dial Plate Color-Coded Temperature Scale
Certified CSA B125
Compliance ASSE 1016-T/P
Shipping Weight 5 lbs. [2.3 kg]

All Hydroguard Series e420 thermostatic mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016-T/P (45 psi pressure differential, hot water supply between 140°-180°F [60-82°C], cold water supply less than 70°F [21°C]). If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016-T/P and CSA B125.
 *At 45 psi differential (310 kPa), with hot water supply between 140°-180°F [60-82°C].





SHV-6

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE THERMOSTATIC/PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOPS, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016-T/P LISTED.

ACCESSORIES - 2.5 GPM CHROME PLATED BRASS SHOWERHEAD WITH SWIVEL BALL JOINT, ADJUSTABLE SPRAY, CHROME PLATED BRASS ARM AND FLANGE. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

INSTALL BOTTOM OF SHOWER HEAD AT [72" ABOVE FINISHED FLOOR FOR MALE ADULTS] [AND] [66" ABOVE FINISHED FLOOR FOR FEMALE ADULTS AND CHILDREN].

MANUFACTURER & CATALOG NO.: POWERS E710-K, CHICAGO FAUCET 2502-600CP, LAWLER 7800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. Adult male shower heights are for senior high students and older. Children shower heights are for junior high students and younger.
3. Verify mounting height of shower head with specified shower stall and owner if different height is required.
4. For Non-ADA applications only.
5. Cost difference is between a pressure balance and a thermostatic valve.

PS e700 v1

POWERS

A WATTS INDUSTRIES CO.

HydroGuard® T/P

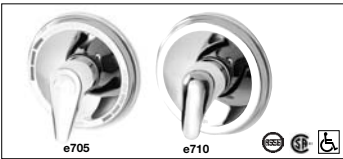
Series e700

PRODUCT SPECIFICATION

DESCRIPTION

The Series e700 HydroGuard T/P automatically mixes hot and cold water to deliver blended water within a specified range. Using an advanced thermal actuator, the Series e700 quickly compensates for temperature fluctuations induced by water temperature and pressure changes. In the event of cold water failure, the thermostatic motor virtually shuts off the flow of hot water; HydroGuard T/P meets the most stringent performance criteria for temperature and pressure changes, defined by ASSE 1016 (Type T/P).

Featuring heavy, cast-brass construction and an adjustable brass to brass high limit temperature stop, self-contained cartridge, corrosion resistant internal component, integral checks, and back to back shallow wall installation capability. All parts of the e700 Series valve are accessible from the front of the valve. All Series e700 valves open in the cold water position to ensure maximum bather safety and comfort.



The accuracy, reliability and water economy of the Series e700 HydroGuard T/P make it preferable for applications that require precise, consistent water control: showers, baths, hospital hydrotherapy and residential areas. All e700 valves meet the **Americans with Disabilities Act (ADA)**.

SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

Valve Construction: Combination mixing valve, with heavy cast bronze body and brass stem. Concealed adjustable high temperature limit stop. Available with ADA-compliant ABS or metal lever handle.

Connections 1/2" Sweat Inlet/Outlet

Capacity 4 gpm @ 45 psi ΔP 50/50 mix

Maximum Hot Water Supply Temperature 190°F (88°C)

Minimum Hot Water Supply Temperature (Approach Temperature) 5°F (2.8°C) above set point

Maximum Operating Pressure 125 psig (862 kPa)

Temperature Ranges ASSE 1016 Type T/P - 90 - 110°F (32 - 43°C)
 ASSE 1016 Type T - 80 - 120°F (27 - 49°C)

High Temperature Limit Stop Adjustable (factory set at 110°F [43°C])

Maximum Static Pressure 125 psig (862 kPa)

Minimum Flow 0.5 gpm (3.78 L/min)

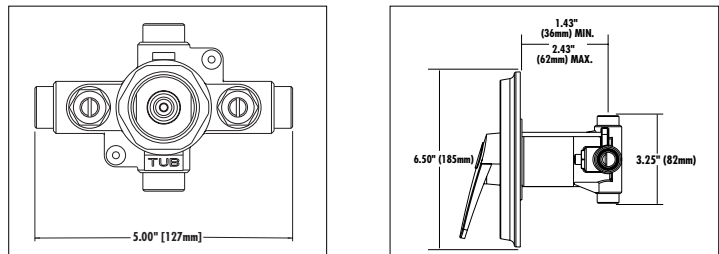
Approval CSA B125

Listing ASSE 1016

Shipping Weight 3.5 lbs. (1.6 kg)

All HydroGuard T/P Series e700 combination mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016 (45 psi pressure differential, hot water supply between 140°-180°F (60°-82°C), cold water supply less than 70°F (21°C)).

If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016 and CSA B125.



HOW TO SPECIFY e700 VALVES FOR SHOWER AND TUB/SHOWER SYSTEMS

	Wt.	Order Code									
Valves											
ABS Trim	3.5	e705									
Metal Trim	3.5	e710									
Showerheads											
Economizer, Chrome-Plated ABS, Adjustable	0.5	J									
Standard, Chrome-Plated Brass	0.9	K									
Deluxe, Chrome-Plated Brass	1.3	M									
Arm and Flange Kits											
Standard Arm and Flange	0.3	1									
Deluxe Arm and Flange	0.4	2									
Tub Spouts											
Diverter, Chrome-Plated Brass, 3/4" IPS	1.2	Q									
Non-Diverter, Chrome-Plated, 1/2" IPS	0.4	R									
Diverter, Chrome-Plated, 1/2" IPS	0.7	S									
Diverter, Chrome-Plated Brass, 1/2" IPS	1.3	T									
Diverter, Chrome-Plated, 1/2" Slipfit	1.0	U									
Hand Shower Systems											
24" Chrome ADA Wall Grab Bar System	4.7	1									
36" Chrome ADA Wall Grab Bar System	5.5	2									
Deluxe, Metal Hose, 30" Slide Bar	3.5	3									
Professional, Vinyl Hose, 30" Slide Bar	2.7	4									
Standard, Metal Hose, Two Wall Hooks	2.0	5									
Deluxe, Metal Hose, 24" Slide Bar	3.1	6									
Professional, Vinyl Hose, 24" Slide Bar	2.3	7									
Standard Plus, Metal Hose, 24" Slide Bar	3.0	8									
European, Metal Hose, 23" Slide Bar	2.0	9									
Diverter											
Concealed Diverting Valve, 1/2" IPS	3.0	Y									
Exposed Diverter, Shower Arm-Type, Chrome-Plated	0.5	Z									
Vacuum Breakers											
Vacuum Breaker, Elevated, Chrome-Plated	2.0	V									
Vacuum Breaker, In-Line	1.0	W									

Typical Specifications:

Valve shall meet the performance requirements of ASSE 1016, Type T/P compensating for 50% fluctuation in supply line pressure, and compensate for increases in hot water supply temperature. Valve shall be capable of supplying mixed water temperature with in 5°F of hot water supply temperature. Valve shall contain a powerful, paraffin-based thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.

Water tempering valve shall not be subject to failure due to the lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble free life, and shall not have close fitting, sliding parts, which through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 4 gpm at 45 psig. Valve shall include an adjustable limit stop, factory set at 110°F. Valve shall always open through cold water to maximize bather safety.

Valve shall be Powers # e7xx. Any alternates must have written approval prior to bidding.

ENGINEERING APPROVAL	
Project:	_____
Contractor:	_____
Architect/Engineer:	_____

<p>POWERS</p> <p>A WATTS INDUSTRIES CO.</p>	<p>© June 2003 Powers, a Watts Industries Co.</p> <p>USA Phone: 800.669.5430 • www.powerscontrols.com</p> <p>Canadian office: Phone: 888.208.8927</p>
--	---

SHV-7

DESCRIPTION: SHOWER VALVE - SINGLE HANDLE THERMOSTATIC/PRESSURE BALANCED MIXING FAUCET, BRASS OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK-STOPS, ADJUSTABLE SAFETY LIMIT STOP SET TO 110 DEGREES F DISCHARGE. ASSE 1016-T/P LISTED.

INSTALL ALL CONTROLS BETWEEN 38" AND 48" ABOVE FINISHED FLOOR IN COMPLIANCE WITH ADA SECTION 4.21.

ACCESSORIES - ADJUSTABLE SPRAY HAND-HELD SHOWER WITH 60" [VINYL] [CHROME PLATED METAL] HOSE [AND QUICK DISCONNECT], SWIVEL CONNECTOR, AND 24" CHROME PLATED MOUNTING RAIL. CHROME PLATED BRASS SUPPLY ELBOW FLANGE, CHROME PLATED [ELEVATED] [IN-LINE] VACUUM BREAKER WITH CHROME PLATED PIPING AND FLANGES. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M.

MANUFACTURER & CATALOG NO.: POWERS E710, CHICAGO FAUCET 2502-600CP, LAWLER 7800

Notes to specifier:

1. Powers requires a 5 degree approach temperature for proper operation. Verify with other manufacturers. 140 degree F hot water supply temperature is still preferred.
2. This unit meets ADA requirements for handicapped installation when installed per ADA section 4.21.
3. In unmonitored facilities where vandalism is a consideration, a fixed shower head at 48" above the shower floor may be used in lieu of a hand held shower head per ADA section 4.21.6. Modify description as required and verify with owner.
4. Verify which type of vacuum breaker is acceptable.
5. Verify with owner/architect if shower head is also required in addition to hand-held shower.
6. Verify if quick disconnect is required.
7. Not all manufacturers have vinyl hoses. Verify with listed manufacturers.
8. Cost is between a pressure balance and thermostatic valve.

PS e700 v1

POWERS
A WATTS INDUSTRIES CO.


HydroGuard® T/P
Series e700

PRODUCT SPECIFICATION

DESCRIPTION

The Series e700 HydroGuard T/P automatically mixes hot and cold water to deliver blended water within a specified range. Using an advanced thermal actuator, the Series e700 quickly compensates for temperature fluctuations induced by water temperature and pressure changes. In the event of cold water failure, the thermostatic motor virtually shuts off the flow of hot water. HydroGuard T/P meets the most stringent performance criteria for temperature and pressure changes, defined by ASSE 1016 (Type T/P).

Featuring heavy, cast-brass construction and an adjustable brass to brass high limit temperature stop, seal-contained cartridge, corrosion resistant internal component, integral checks, and back to back shallow wall installation capacity. All parts of the e700 Series valve are accessible from the front of the valve. All Series e700 valves open in the cold water position to ensure maximum bather safety and comfort.



The accuracy, reliability and water economy of the Series e700 HydroGuard T/P make it preferable for applications that require precise, consistent water control: showers, baths, hospital hydrotherapy and residential areas. All e700 valves meet the Americans with Disabilities Act (ADA).

SPECIFICATIONS, DIMENSIONS AND FLOW RATE CURVES & CHECKSTOPS

Valve Construction: Combination mixing valve, with heavy cast bronze body and brass stem. Concealed adjustable high temperature limit stop. Available with ADA-compliant ABS or metal lever handle.

Connections 1/2" Sweat Inlet/Outlet

Capacity 4 gpm @ 45 psi, 1/2" 50/50 mix

Maximum Hot Water Supply Temperature 190°F (88°C)

Minimum Hot Water Supply Temperature (Approach Temperature) 5°F (2.8°C) above set point

Maximum Operating Pressure 125 psig (862 kPa)

Temperature Ranges ASSE 1016 Type T/P - 90 - 110°F (32 - 43°C)
ASSE 1016 Type T - 90 - 120°F (27 - 43°C)

High Temperature Limit Stop Adjustable (factory set at 110°F (43°C))

Maximum Static Pressure 125 psig (862 kPa)

Minimum Flow 0.5 gpm (3.78 l/min)

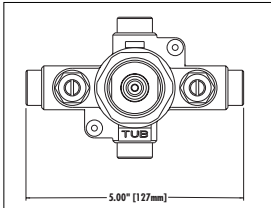
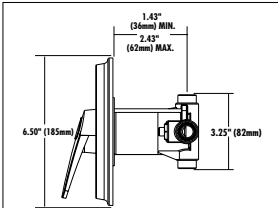
Approval CSA B125

Listing ASSE 1016

Shipping Weight 3.5 lbs. (1.6 kg)

All HydroGuard T/P Series e700 combination mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016 (45 psi pressure differential, hot water supply between 140°-180°F (60°-82°C), cold water supply less than 70°F (21°C)).

If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016 and CSA B125.

HOW TO SPECIFY e700 VALVES FOR SHOWER AND TUB/SHOWER SYSTEMS

	Wt.	Order Code																		
Valves																				
ABS Trim	3.5	e705																		
Metal Trim	3.5	e710																		
Showerheads																				
Economizer, Chrome-Plated ABS, Adjustable	0.5	J																		
Standard, Chrome-Plated Brass	0.9	K																		
Deluxe, Chrome-Plated Brass	1.3	M																		
Arm and Flange Kits																				
Standard Arm and Flange	0.3	1																		
Deluxe Arm and Flange	0.4	2																		
Tub Spouts																				
Diverter, Chrome-Plated Brass, 3/4" IPS	1.2	Q																		
Non-Diverter, Chrome-Plated, 1/2" IPS	0.4	R																		
Diverter, Chrome-Plated, 1/2" IPS	0.7	S																		
Diverter, Chrome-Plated Brass, 1/2" IPS	1.3	T																		
Diverter, Chrome-Plated, 1/2" Slipfit	1.0	U																		
Hand Shower Systems																				
24" Chrome ADA Wall Grab Bar System	4.7	1																		
36" Chrome ADA Wall Grab Bar System	5.5	2																		
Deluxe, Metal Hose, 30" Slide Bar	3.5	3																		
Professional, Vinyl Hose, 30" Slide Bar	2.7	4																		
Standard, Metal Hose, Two Wall Hooks	2.0	5																		
Deluxe, Metal Hose, 24" Slide Bar	3.1	6																		
Professional, Vinyl Hose, 24" Slide Bar	2.3	7																		
Standard Plus, Metal Hose, 24" Slide Bar	3.0	8																		
European, Metal Hose, 23" Slide Bar	2.0	9																		
Diverter																				
Concealed Diverting Valve, 1/2" IPS	3.0	Y																		
Exposed Diverter, Shower Arm-Type, Chrome-Plated	0.5	Z																		
Vacuum Breakers																				
Vacuum Breaker, Elevated, Chrome-Plated	2.0	V																		
Vacuum Breaker, In-Line	1.0	W																		

Typical Specifications:

Valve shall meet the performance requirements of ASSE 1016, Type T/P compensating for 50% fluctuation in supply line pressure, and compensate for increases in hot water supply temperature. Valve shall be capable of supplying mixed water temperature with in 5°F of hot water supply temperature. Valve shall contain a powerful, paraffin-based thermal actuator and feature a self-contained cartridge design for ease of repair and maintenance.

Water tempering valve shall not be subject to failure due to the lime build-up or dirt particles. Construction shall be conducive to long lasting, trouble free life, and shall not have close fitting, sliding parts, which through wear or binding, may impair operation.

Valve shall have all cast bronze housing and a capacity of 4 gpm at 45 psig. Valve shall include an adjustable limit stop, factory set at 110°F. Valve shall always open through cold water to maximize bather safety.

Valve shall be Powers # e7xx. Any alternates must have written approval prior to bidding.

ENGINEERING APPROVAL	
Project:	_____
Contractor:	_____
Architect/Engineer:	_____

<p>POWERS</p> <p>A WATTS INDUSTRIES CO.</p>	<p>© June 2003 Powers, a Watts Industries Co. USA Phone: 800.669.5430 • www.powerscontrols.com Canadian office: Phone: 888.208.8927</p>
--	---

SI-1

DESCRIPTION: SOLIDS INTERCEPTOR - EPOXY COATED CAST IRON BODY, REMOVABLE STAINLESS STEEL SEDIMENT BASKET, GASKETED CLEANOUT COVER, 2" [1 1/2"] SIDE INLET AND OUTLET. USED IN LIEU OF P-TRAP. MAINTAIN REQUIRED CLEARANCE BELOW INTERCEPTOR FOR REMOVAL OF BASKET.

MANUFACTURER & CATALOG NO.: ZURN Z-1184, JOSAM 61000, MIFAB MI-SOLID-LB, SMITH 8730, WADE 5730

Notes to specifier:

1. Not all manufacturers provide a 1 1/2" inlet and outlet.
2. Use on art room sinks, dental sinks, plaster sinks, or any other sinks where solids (other than food) could be washed down the drain.

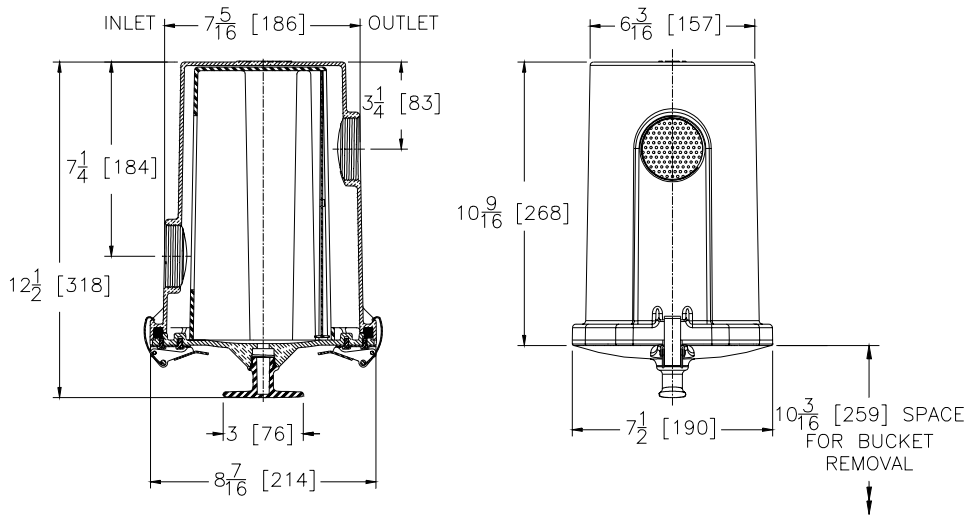


Z-1184
BOTTOM ACCESS SOLIDS INTERCEPTOR

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Inlet/Outlet Inches	Flow Rate GPM [L]	Approx. Wt. Lbs. [kg]
1-1/2, 2** [38, 50]	15 [57]	6 [3]

ENGINEERING SPECIFICATION: ZURN Z-1184 Bottom access acid resistant composite interceptor, in lieu of fixture 'P' trap, for suspended installation, with removable PVC sediment bucket having a removable 3/32 [2] dia. perforated flow defusing/intercepting PVC screen, designed to intercept all types of solids, and precious metals. with bottom access gasketed secured cover, stainless steel draw latches and hardware with an ABS combination handle and drain port plug for easy removal of sediment bucket and screen. Regularly furnished with 2 [51] threaded low inlet and high outlet.

OPTIONS (Check/specify appropriate options)

PREFIXES

___ Z- Acid Resistant Composite*

SUFFIXES

- ___ -CS Custom Screens (Specify Material And Perforation Size Required)
- ___ -RS Replacement 3/32 [2] Dia Perforated Screen For Bucket
- ___ -SS Stainless Steel 3/32 [2] Dia Perforated Screen For Bucket
- ___ -Y Replacement Bucket Assembly With 3/32 [2] Dia Perforated Screen

REV. C	DATE: 5/11/99	C.N. NO. 82515
DWG. NO. 58914		PRODUCT NO. Z-1184

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514 • Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

SI-2

DESCRIPTION: SOLIDS INTERCEPTOR - ACID RESISTANT COATED STEEL BODY, [ON THE FLOOR] [FLUSH WITH FLOOR] INSTALLATION, REMOVABLE STAINLESS STEEL SEDIMENT BASKET, GASKETED COVER, 2" SIDE INLET AND OUTLET. MAINTAIN REQUIRED CLEARANCE ABOVE INTERCEPTOR FOR REMOVAL OF SEDIMENT BUCKET. PROVIDE EXTENSIONS AS REQUIRED FOR IN-FLOOR INSTALLATIONS.

MANUFACTURER & CATALOG NO.: ZURN Z-1181, JOSAM 61040, MIFAB MI-SOLID-M, SMITH 8715, WADE 5740L, WATTS SI-742-L

Notes to specifier:

1. Watts and Josam are for ON THE FLOOR installations only.
2. Use for multiple sink applications only.
3. May be used as an interceptor for hair, lint, plaster, and sediment.
4. Verify pipe depth vs. slab thickness with in-floor installations.

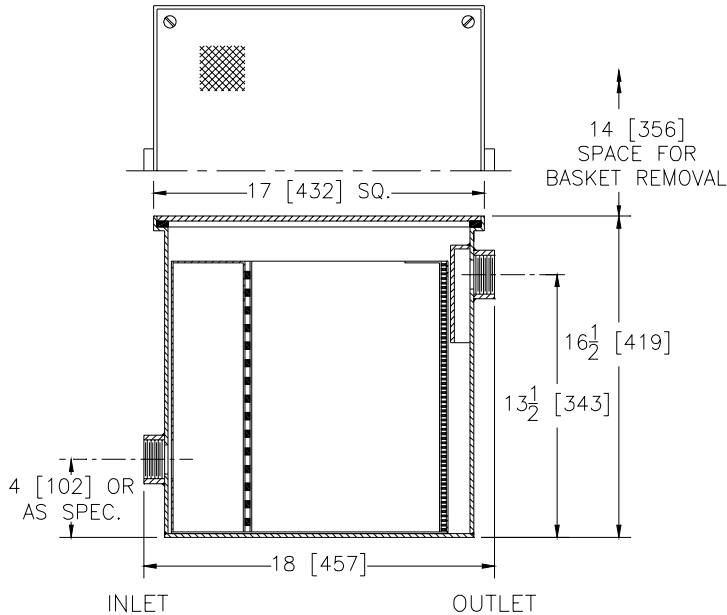


Z1181
SOLIDS INTERCEPTOR

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Inlet/Outlet Inches	Flow Rate GPM [L]	Approx. Wt. Lbs. [kg]
1-1/2, 2** [38, 50]	30 [113]	40 [18]

ENGINEERING SPECIFICATION: ZURN Z1181 Large capacity Acid Resistant Coated interior and exterior fabricated steel solids interceptor, in lieu of fixture 'P' trap, for on-floor or flush with floor installation. Furnished with a removable Acid Resistant Coated fabricated steel bucket having removable primary (3/8 [10] dia. holes) and secondary (3/32 [2] dia. holes) flow diffusing/intercepting brass screens, and complete with a top access gasketed secured cover. Regularly furnished with 2 [50] low inlet and high outlet**.

OPTIONS (Check/specify appropriate options)

PREFIXES

___ Z Standard Assembly* (See Engineering Specification)

SUFFIXES

- ___ -CS Custom Screens (Specify material & perforation size required)
- ___ -SS Stainless Steel Perforated Screens for Bucket (Specify perforation size)
- ___ -YR Replacement Basket Assembly with Perforated Screens

REV. C	DATE: 8/6/03	C.N. NO. 91157
DWG. NO. 58913	PRODUCT NO. Z1181	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

SI-3

DESCRIPTION: SOLIDS INTERCEPTOR - EPOXY COATED CAST IRON BODY, REMOVABLE STAINLESS STEEL SEDIMENT BASKET, GASKETED CLEANOUT COVER, 1 1/2" SIDE INLET AND OUTLET. USED IN LIEU OF P-TRAP. MAINTAIN REQUIRED CLEARANCE BELOW INTERCEPTOR FOR REMOVAL OF BASKET.

MANUFACTURER & CATALOG NO.: ZURN Z-1175, JOSAM 61000, MIFAB MI-SOLID-HAIR, SMITH 8750, WADE 5750, WATTS SI-750

Notes to specifier:

1. Consider using chrome plated finish on exposed applications. Verify with listed manufacturers.
2. Verify if top outlet is required. Not all manufacturers make a top outlet hair interceptor.
3. Use for hair washing sinks. Verify use as a solids interceptor.

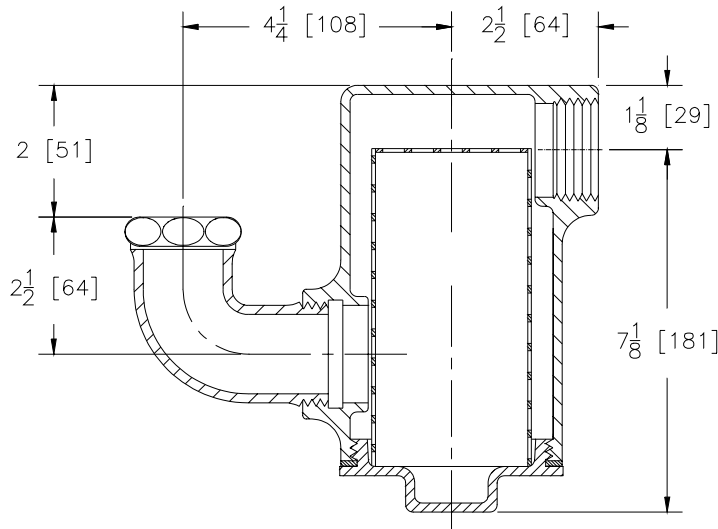


Z-1175
HAIR INTERCEPTOR

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Inlet/Outlet Inches	Approx. Wt. Lbs.
1 1/2 [38]	8 [4]

ENGINEERING SPECIFICATION: ZURN Z-1175 Dura-Coated cast iron hair and solids interceptor, in lieu of fixture 'P' trap, with 1-1/2 [38] slip joint elbow inlet and 1-1/2 [38] threaded side outlet, perforated stainless steel basket removable from bottom, with flanged and gasketed cleanout cover with raised hex head.

OPTIONS (Check/specify appropriate options)

PREFIXES

- ___ Z- D.C.C.I.*
- ___ ZAB- Polished Bronze

SUFFIXES

- ___ -CP Chrome Plated Finish Interior and Exterior
- ___ -YR Replacement Stainless Steel Basket

REV. C	DATE: 1/22/02	C.N. NO. 88275
DWG. NO. 58910		PRODUCT NO. Z-1175

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

SI-4

DESCRIPTION: SOLIDS INTERCEPTOR - STEEL WITH EPOXY COATED INSIDE AND OUTSIDE. REMOVABLE BAFFLES AND SEDIMENT PAN. AUTOMATIC FLOW SHUT-OFF, HEAVY DUTY STEEL INLET GRATE, CONCRETE ANCHOR FLANGE AND INTEGRAL TRAP. [100] GALLON LIQUID HOLDING CAPACITY, [350] LB. SLUDGE CAPACITY. [4"] OUTLET SIZE.

MANUFACTURER & CATALOG NO.: ZURN Z-1189, SMITH 8925, WADE 5800

Notes to specifier:

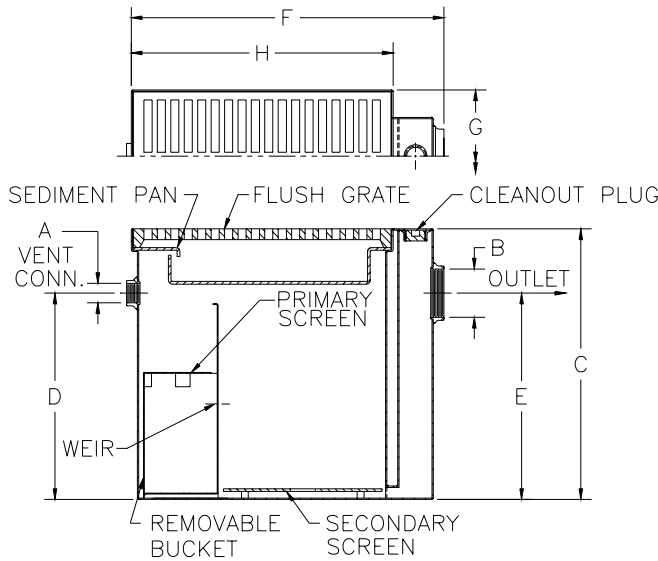
1. This separator is only for applications such as auto body repair shops, where no engine work or large oil spills are expected.
2. Verify size required.



Z-1189
OIL/SEDIMENT INTERCEPTOR

SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	Sludge Capacity Lbs. [kg]	Grate Open Area [cm ²]	No. of Grates	No. of Pans	Approx. Wt. Lbs. [kg]	A Vent Size	B Pipe Size	Dimension In Inches					
								C	D	E	F	G	H
12	12 [5]	49 [316]	1	1	70 [32]	----	2 [50]	15 [381]	----	10 1/2 [267]	17 1/8 [435]	11 3/8 [289]	12 3/8 [314]
60	60 [27]	131 [845]	1	1	175 [79]	2 [51]	4 [75]	25 1/4 [641]	19 1/4 [489]	17 5/8 [448]	29 1/8 [740]	12 3/8 [314]	24 3/8 [619]
100	100 [45]	262 [1690]	2	1	280 [127]	2 [51]	4 [75]	33 [838]	27 [686]	22 [559]	29 1/8 [740]	24 3/8 [619]	24 3/8 [619]
200	200 [91]	393 [2535]	3	1	370 [168]	2 [51]	4 [75]	33 [838]	27 [686]	22 [559]	41 1/8 [1044]	24 3/8 [619]	36 3/8 [924]

ENGINEERING SPECIFICATION: ZURN Z-1189 Dura-Coated fabricated steel interceptor, interior and exterior with heavy duty Dura-Coated iron grate, visible double-wall outside trap seal, removable sediment tray, primary and secondary screens, internal vent connection.

PREFIXES

___ Z- Dura-Coated Fabricated Steel*

SUFFIXES

- ___ -AR Acid Resistant Coated fabricated steel finish interior and exterior.
- ___ -E Dura-Coated Interior and exterior fabricated steel extension section. (Specify 'C' Dim. required)
- ___ -K Anchor flange 1 3/4 [44] down from top and 2 [51] wide.
- ___ -KC Anchor flange 1 3/4 [44] down from top and 2 [51] wide with seepage holes and clamp collar.
- ___ -OD Adjustable Oil Drawoff

REV. C	DATE: 12/5/00	C.N. NO. 86219
DWG. NO. 58918		PRODUCT NO. Z-1189

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514
 Phone: 814/455-0921 • Fax: 814/454-7929 • World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED • 3544 Nashua Drive • Mississauga, Ontario L4V1L2 • Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: SOLIDS INTERCEPTOR - HEAVY DUTY ALL WELDED 1/4" STEEL PLATE CONSTRUCTION, REMOVABLE COVERS WITH NON-SKID TREADPLATE SECURED TO BODY WITH RECESSED STAINLESS STEEL BOLTS. EXTRA HEAVY LEAKPROOF AND AIRTIGHT GASKET, TAPPED INLET AND OUTLETS AND FOUR INDEPENDENT VENT CONNECTIONS. INLET TO EXTEND BELOW LIQUID LEVEL FOR POSITIVE TRAP SEAL. OIL AND ACID RESISTANT COATING INSIDE AND OUT. UNIT TO BE DESIGNED TO ALLOW OIL TO FLOW THROUGH SEPARATOR.

HOLDING CAPACITY SHALL BE [] GALLONS. []" LONG X []" WIDE WITH 4" INLET AND OUTLET AND FOUR 2" VENT CONNECTIONS.

PROVIDE EXTENSION TO GRADE AS REQUIRED.

MANUFACTURER & CATALOG NO.: ROCKFORD GSS SERIES, SMITH 8817, ZURN Z-1187

Notes to specifier:

1. Used as a sand, sediment, and gravel interceptor. Verify with code on use and if an oil interceptor is also required.

F	JAY R. SMITH MFG. CO. DIVISION OF SMITH INDUSTRIES, INC. POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.JRSmith.com		LOCATION <div style="border: 1px solid black; height: 30px; width: 100%;"></div>																																																
DRAWING NUMBER	S8817	SPECIAL SAND AND SEDIMENT INTERCEPTORS																																																	
SIZE	A																																																		
SCALE:	NONE	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>FIG. NO.</th> <th>SIZE (Gallons)</th> <th>CUBIC FEET</th> <th>"A" PIPE SIZE</th> <th>WIDTH</th> <th>LENGTH "B"</th> </tr> </thead> <tbody> <tr><td>8817-300</td><td>300</td><td>43</td><td>04" (100) NPT</td><td>36 (915)</td><td>60 (1525)</td></tr> <tr><td>8817-400</td><td>400</td><td>54</td><td>04" (100) NPT</td><td>36 (915)</td><td>72 (1830)</td></tr> <tr><td>8817-500</td><td>500</td><td>72</td><td>04" (100) NPT</td><td>36 (915)</td><td>96 (2438)</td></tr> <tr><td>8817-600</td><td>600</td><td>81</td><td>04" (100) NPT</td><td>36 (915)</td><td>108 (2743)</td></tr> <tr><td>8817-700</td><td>700</td><td>90</td><td>04" (100) NPT</td><td>36 (915)</td><td>120 (3048)</td></tr> <tr><td>8817-800</td><td>800</td><td>108</td><td>04" (100) NPT</td><td>36 (915)</td><td>144 (3458)</td></tr> <tr><td>8817-1000</td><td>1000</td><td>135</td><td>04" (100) NPT</td><td>36 (915)</td><td>180 (4572)</td></tr> </tbody> </table>		FIG. NO.	SIZE (Gallons)	CUBIC FEET	"A" PIPE SIZE	WIDTH	LENGTH "B"	8817-300	300	43	04" (100) NPT	36 (915)	60 (1525)	8817-400	400	54	04" (100) NPT	36 (915)	72 (1830)	8817-500	500	72	04" (100) NPT	36 (915)	96 (2438)	8817-600	600	81	04" (100) NPT	36 (915)	108 (2743)	8817-700	700	90	04" (100) NPT	36 (915)	120 (3048)	8817-800	800	108	04" (100) NPT	36 (915)	144 (3458)	8817-1000	1000	135	04" (100) NPT	36 (915)	180 (4572)
FIG. NO.	SIZE (Gallons)	CUBIC FEET	"A" PIPE SIZE	WIDTH	LENGTH "B"																																														
8817-300	300	43	04" (100) NPT	36 (915)	60 (1525)																																														
8817-400	400	54	04" (100) NPT	36 (915)	72 (1830)																																														
8817-500	500	72	04" (100) NPT	36 (915)	96 (2438)																																														
8817-600	600	81	04" (100) NPT	36 (915)	108 (2743)																																														
8817-700	700	90	04" (100) NPT	36 (915)	120 (3048)																																														
8817-800	800	108	04" (100) NPT	36 (915)	144 (3458)																																														
8817-1000	1000	135	04" (100) NPT	36 (915)	180 (4572)																																														
DATE:	1-10-92	*12" (305) Regularly Furnished - Specify dimension if higher or lower is required.																																																	
APPROVED BY:	SJM	<table border="0" style="width:100%;"> <tr> <td style="width:30%;"> REGULARLY FURNISHED: Acid Resistant Coated Fabricated Steel Body and Non-Skid Cover. </td> <td style="width:30%;"> VARIATIONS: <input type="checkbox"/> Anchor Flange -F <input type="checkbox"/> Extra Heavy Duty Reinforced Cover for Vehicular Traffic -HC <input type="checkbox"/> Flange and Flashing Clamp -F-C <input type="checkbox"/> Extension -E (Specify height eg: -E24 for 24" (610) Ext.) -Ext Height shall be measured from top of body. </td> <td style="width:30%;"> OPTIONAL MATERIALS: <input type="checkbox"/> All Stainless Steel -SS </td> </tr> </table>		REGULARLY FURNISHED: Acid Resistant Coated Fabricated Steel Body and Non-Skid Cover.	VARIATIONS: <input type="checkbox"/> Anchor Flange -F <input type="checkbox"/> Extra Heavy Duty Reinforced Cover for Vehicular Traffic -HC <input type="checkbox"/> Flange and Flashing Clamp -F-C <input type="checkbox"/> Extension -E (Specify height eg: -E24 for 24" (610) Ext.) -Ext Height shall be measured from top of body.	OPTIONAL MATERIALS: <input type="checkbox"/> All Stainless Steel -SS																																													
REGULARLY FURNISHED: Acid Resistant Coated Fabricated Steel Body and Non-Skid Cover.	VARIATIONS: <input type="checkbox"/> Anchor Flange -F <input type="checkbox"/> Extra Heavy Duty Reinforced Cover for Vehicular Traffic -HC <input type="checkbox"/> Flange and Flashing Clamp -F-C <input type="checkbox"/> Extension -E (Specify height eg: -E24 for 24" (610) Ext.) -Ext Height shall be measured from top of body.	OPTIONAL MATERIALS: <input type="checkbox"/> All Stainless Steel -SS																																																	
CHECKED BY:	JCS	NOTE: It is the responsibility of the installer to check all parts (internal and external) to verify they are in their proper operating order and location.																																																	
DRAWN BY:	TBW	NOTE: Dimensions shown in parentheses are in millimeters.																																																	
FIGURE NUMBER	8817	F 5-15-98 Submittal Update E 7-12-95 Added Millimeters D 9-14-94 Submittal Update C 5-10-93 Chg'd Table B 4-28-93 Chg'd Dwg	ASL BS EMB BS CMB BS EMB BS																																																
REV.	DATE	DESCRIPTION	BY																																																
WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER 8817																																																	

SK-1

DESCRIPTION: SINK - STAINLESS STEEL, SINGLE COMPARTMENT WITH FAUCET DECK, 18 GAUGE, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE, [L]" X [W]" X [D]" DEEP BOWL, COMPLETELY UNDERCOATED, 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT, 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY LR/LK-99, JUST SL/JB-99

Notes to specifier:

1. High quality sink.
2. Same quality of sink available in varying sizes. Check catalogs.
3. Sink can NOT exceed 6.5" deep to meet ADA requirements.

Lustertone® Spacious Single Bowl
LR-Series Sinks
LRAD - A.D.A. Compliant Series Sinks



SPECIFICATIONS

GENERAL

Lustertone sink with spacious sink bowl. Highest quality sink seamlessly drawn of #18 gauge, (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

LR-Bowl Depth: 8" (LR-2521) or 7-1/2" (all others).

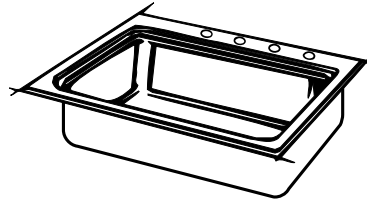
LRAD Bowl Depth: 5-1/2", 6" or 6-1/2".

Coved Corners: 1-3/4" radius.

Bowl and Faucet Deck Recess: 3/16" below outside edge of sink.

Finish: Exposed surfaces are hand blended to a lustrous high-lighted satin finish.

Underside: Fully undercoated to dampen sound and prevent condensation. LR-2521 is fully protected by heavy duty Sound Guard undercoating.



Model LR-2521-4 Shown

DRAIN OPENING

LR-Series drain opening is 3-1/2" and centered in bowl as illustrated.

LRAD-1517, LRAD-1716, LRAD-1720, and LRAD-1919 drain opening is 3-1/2" and centered in the bowl.

LRAD-1522, LRAD-1722, LRAD-2022, LRAD-2222, and LRAD-3122 drain opening is 3-1/2" and located centered right-to-left and off-center front-to-back in bowl as illustrated.

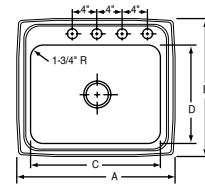
NOTE: Unless otherwise specified, models with one, two or three faucet hole option are shipped with 3 faucet holes standard; models with choice of one, two, three, four or five faucet hole option are shipped with 4 faucet holes standard.

SINK DIMENSIONS

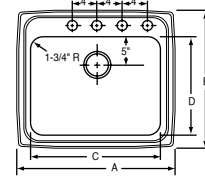
Model Number	DIMENSIONS IN INCHES					Cutout In Counter Top (1 1/2" Radius Corners)		No. of 1 1/2" Dia. Faucet Holes 4" Center	Shp. Wt. Lbs.	3 1/2" Drain Opening (see above for details)
	Length is left to right. Width is front to back.					L	W			
	Overall		Inside Bowl							
A	B	L	W	Depth	L	W				
LR-Series	A	B	C	D						
LR-1517	15	17 1/2	12	12	7 1/2	14 3/8	16 7/8	1, 2, or 3	10	Centered
LR-1522	15	22	11 1/2	16	7 1/2	14 3/8	21 3/8	1, 2, or 3	12	Centered
LR-1716	17	16	14	10	7 1/2	16 3/8	15 3/8	1, 2, or 3	12	Centered
LR-1720	17	20	14	14	8	16 3/8	19 3/8	1, 2, or 3	12	Centered
LR-1722	17	22	13 1/2	16	7 1/2	16 3/8	21 3/8	1, 2, or 3	13	Centered
LR-1918	19	18	16	11 1/2	7 1/2	18 3/8	17 3/8	1, 2, or 3	13	Centered
LR-1919	19 1/2	19	16	13 1/2	7 1/2	18 7/8	18 5/8	1, 2, or 3	13	Centered
LR-2022	19 1/2	22	16	16	7 1/2	18 7/8	21 1/8	1, 2, or 3	13	Centered
LR-2219	22	19 1/2	18	14	7 1/2	21 3/8	18 7/8	**	13	Centered
LR-2222	22	22	19	16	7 1/2	21 3/8	21 3/8	**	13	Centered
LR-2521	25	21 1/4	21	15 3/4	8	24 3/8	20 3/8	**	15	Centered
LR-3122	31	22	28	16	7 1/2	30 3/8	21 3/8	**	19	Centered
LRAD-Series	A	B	C	D						
LRAD-1517	15	17 1/2	12	12	*	14 3/8	16 7/8	1, 2, or 3	10	Centered
LRAD-1522	15	22	11 1/2	16	*	14 3/8	21 3/8	1, 2, or 3	12	Off-Centered
LRAD-1716	17	16	14	10	*	16 3/8	15 3/8	1, 2, or 3	12	Centered
LRAD-1720	17	20	14	14	*	16 3/8	19 3/8	1, 2, or 3	12	Centered
LRAD-1722	17	22	13 1/2	16	*	16 3/8	21 3/8	1, 2, or 3	13	Off-Centered
LRAD-1919	19 1/2	19	16	13 1/2	*	18 7/8	18 5/8	1, 2, or 3	13	Centered
LRAD-2022	19 1/2	22	16	16	*	18 7/8	21 1/8	1, 2, or 3	13	Off-Centered
LRAD-2222	22	22	19	16	*	21 3/8	21 3/8	**	13	Off-Centered
LRAD-3122	31	22	28	16	*	30 3/8	21 3/8	**	19	Off-Centered

*Available in 5 1/2", 6" and 6 1/2" depths. Please consult your sales representative for other depths or modifications.

**1, 2, 3, 4 or 5 holes



LR-Series Illustrated



LRAD-Series Off-Center Drain Model Illustrated
LRAD-1522 Drain Off-Centered 4 1/2" From Back.

THIS PRODUCT, AS CONSTRUCTED IS SUBJECT TO INTERPRETATION OF A.D.A. REQUIREMENTS. THE UNOBSTRUCTED KNEE SPACE REQUIRED TO SATISFY A.D.A. STANDARDS MAY NOT BE DESIRABLE.

ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company
www.elkay.com

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1999 Elkay Mfg. Co.
(Rev. 10/99) 1-60E

**Sink Accessories
LK-99 Drain**

ELKAY®

SPECIFICATIONS

GENERAL

Strainer body made of 300 Series stainless steel.

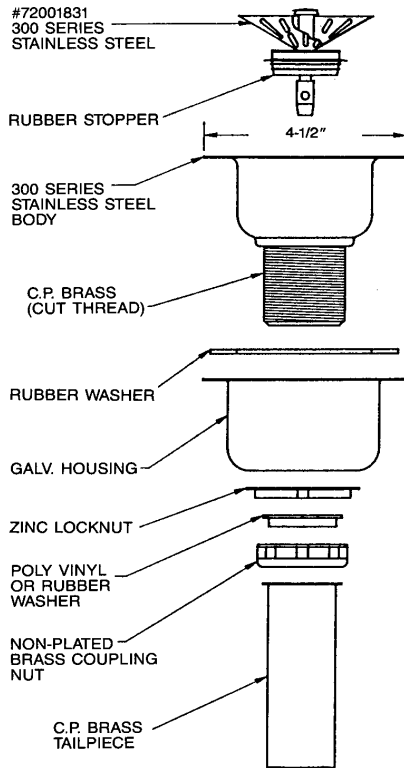
DESIGN FEATURES

Fits 3-1/2" opening, with overall top diameter of approx. 4-1/2". Electro bright finish with push and lock stem basket and rubber stopper. Chrome plated brass knob and flange have high polish finish. Chrome plated 4" length, 1-1/2" overall diameter tailpiece included. Ship. Wt. 1-1/2 lbs.

Sold as an accessory item only.



LK-99



ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS, MULTIPLY BY 25.4

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60521

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 4/97) 15-07B

SK-2

DESCRIPTION: SINK - STAINLESS STEEL, EXTRA DEEP SINGLE COMPARTMENT WITH FAUCET DECK, 18 GAUGE, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE, [L]" X [W]" X [D]" DEEP BOWL, COMPLETELY UNDERCOATED, 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT, 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY DLR/LK-99, JUST SLX/JB-99

Notes to specifier:

1. High quality sink, extra deep sink (10"+).
2. Same quality of sink available in varying sizes. Check catalogs.
3. Sink can NOT exceed 6.5" deep to meet ADA requirements.

**Lustertone® Deep Single Bowl Sink
Model DLR Series**



SPECIFICATIONS

GENERAL

Highest quality. Sink bowl seamlessly drawn of #18 gauge, type 304 (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

Bowl Depth: 10-1/8", 11-1/2" (DLR252212) or 12-1/8".

Coved Corners: 1-3/4" vertical and horizontal radius.

Bowl and Faucet Deck: 3/16" below outside edge of sink.

Finish: Exposed surfaces are hand blended to a lustrous highlighted satin finish.

Underside: Fully undercoated to prevent condensation and deaden sound. DLR191910 and DLR252110 underside is fully protected by heavy duty Sound Guard™ undercoating.

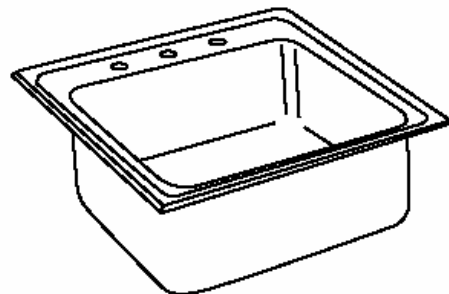
OTHER

Drain Opening: 3-1/2".

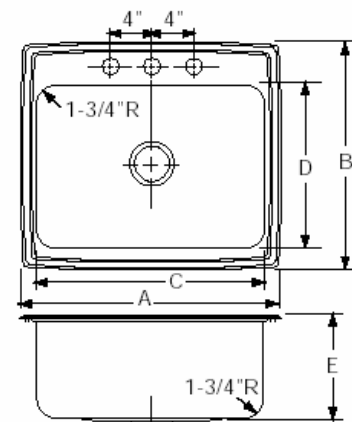
SINK DIMENSIONS (INCHES)*

Model Number	Overall		Inside Bowl			Cutout in Countertop (1 1/2" Radius Corners)		No. of 1 1/2" Dia. Faucet Holes 4" Center	Minimum Cabinet Size	Ship. Wt. Lbs.
	L	W	L	W	D	L	W			
	A	B	C	D	E					
DLR171610	17	16	14	10	10 1/8	16 3/8	15 3/8	1, 2, 3	21	12
DLR172010	17	20	14	14	10 1/8	16 3/8	19 3/8	1, 2, 3	21	14
DLR172210	17	22	13 1/2	16	10 1/8	16 3/8	21 3/8	1, 2, 3, OS4	21	14 3/4
DLR191910	19 1/2	19	16	13 1/2	10 1/8	18 7/8	18 3/8	1, 2, 3, OS4	24	14 3/4
DLR221910	22	19 1/2	18	14	10 1/8	21 3/8	18 7/8	1, 2, 3, 4	27	14 3/4
DLR222210	22	22	19	16	10 1/8	21 3/8	21 3/8	1, 2, 3, 4, 5	27	15
DLR222212	22	22	19	16	12 1/8	21 3/8	21 3/8	1, 2, 3, 4, 5	27	17
DLR252110	25	21 1/4	21	15 3/4	10 1/8	24 3/8	20 5/8	1, 2, 3, 4, 5	30	18
DLR252210	25	22	21	15 3/4	10 1/8	24 3/8	21 3/8	1, 2, 3, 4, 5	30	18 1/2
DLR252212	25	22	21	15 3/4	12 1/8	24 3/8	21 3/8	1, 2, 3, 4, 5	30	19
DLR312210	31	22	28	16	10 1/8	30 3/8	21 3/8	1, 2, 3, 4, 5	36	22 1/2
DLR312212	31	22	28	16	11 1/2	30 3/8	21 3/8	1, 2, 3, 4, 5	36	22 1/2

*Length is left to right. Width is front to back.



Model DLR2522103



**Sink Accessories
LK-99 Drain**

ELKAY®

SPECIFICATIONS

GENERAL

Strainer body made of 300 Series stainless steel.

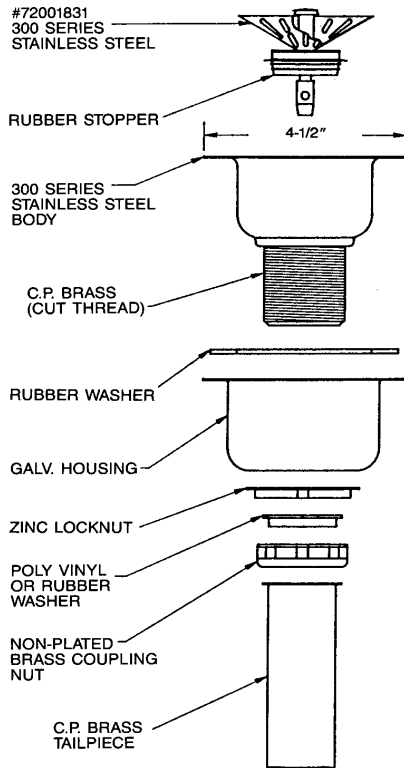
DESIGN FEATURES

Fits 3-1/2" opening, with overall top diameter of approx. 4-1/2". Electro bright finish with push and lock stem basket and rubber stopper. Chrome plated brass knob and flange have high polish finish. Chrome plated 4" length, 1-1/2" overall diameter tailpiece included. Ship. Wt. 1-1/2 lbs.

Sold as an accessory item only.



LK-99



ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS, MULTIPLY BY 25.4

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60521

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 4/97) 15-07B

DESCRIPTION: SINK - STAINLESS STEEL, SINGLE COMPARTMENT WITH FAUCET DECK, 20 GAUGE, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE, [L]" X [W]" X [D]" DEEP BOWL, COMPLETELY UNDERCOATED, 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT, 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY PSR/LK-99, JUST SL/JB-99

Notes to specifier:

1. Lower quality sink.
2. Same quality of sink available in varying sizes. Check catalogs.
3. Sink can NOT exceed 6.5" deep to meet ADA requirements.

**Pacemaker Single Bowl Sink
20 Gauge, Type 302, Self Rim
Model PSR Series**



SPECIFICATIONS

GENERAL

Fine quality, spacious sink bowl seamlessly drawn of #20 gauge, type 302 (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

Bowl Depth: 7-1/4", 7-1/2" (PSR-2521 & PSR-2522).

Coved Corners: 1-3/4", vertical and horizontal radius.

Bowl and Faucet Deck Recess: All models have a 3/16" drop ledge, except PSR-2522. PSR-2522 has a 7/16" drop ledge.

Finish: Exposed surfaces are polished to a lustrous, highlighted bright satin finish.

Underside: Fully undercoated to prevent condensation and deaden sound.

OTHER

Drain Opening: 3-1/2".

Faucet Holes: 1, 2, 3, 4 or 5 holes as indicated.

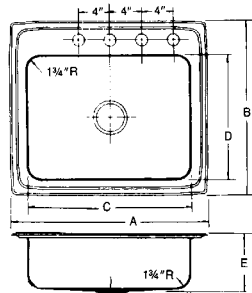
NOTE: PSR-2521 and PSR-2522 undersides are fully protected by heavy duty Sound Guard undercoating.



Model PSR-2521-4 Shown

SINK DIMENSIONS

Model Number	DIMENSIONS IN INCHES					Cutout in Counter Top (1/2" Radius Corners)	No. of 1 1/2" Dia. Faucet Holes 4" Centers	Ship. Wt. Lbs.	
	Length is left to right. Width is front to back.								
	Overall		Inside Bowl						
L	W	L	W	D	L	W			
PSR-1517	15	17 1/2	12	12	7 1/4	14 1/2	16 1/4	1, 2 or 3	8
PSR-1716	17	16	14	10	7 1/4	16 1/2	15 1/2	1, 2 or 3	7 1/4
PSR-1720	17	20	14	14	7 1/4	16 1/2	19 1/4	1, 2 or 3	10
PSR-1722	17	22	13 1/2	16	7 1/4	16 1/2	21 1/2	1, 2 or 3	10
PSR-1918	19	18	16	11 1/2	7 1/4	18 1/4	17 1/4	1, 2 or 3	8 3/4
PSR-2219	22	19 1/2	18	14	7 1/4	21 1/2	18 1/4	1, 2, 3 or 4	11
PSR-2222	22	22	19	16	7 1/4	21 1/2	21 1/2	1, 2, 3, 4 or 5	12
PSR-2521	25	21 1/4	21	15 1/4	7 1/2	24 1/2	20 1/2	1, 2, 3, 4 or 5	13
PSR-2522	25	22	21	15 1/4	7 1/2	24 1/2	21 1/2	1, 2, 3, 4 or 5	13 3/4
PSR-3122	31	22	28	16	7 1/4	30 3/4	21 1/2	1, 2, 3, 4 or 5	17
PSRS-3322	33	22	28	16	7 1/4	32 3/4	21 1/2	1, 2, 3, 4 or 5	16 1/4



Model PSR-2219-4 Illustrated

ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1997 Elkay Mfg. Co.

(Rev. 12/97) 1-73B

**Sink Accessories
LK-99 Drain**

ELKAY®

SPECIFICATIONS

GENERAL

Strainer body made of 300 Series stainless steel.

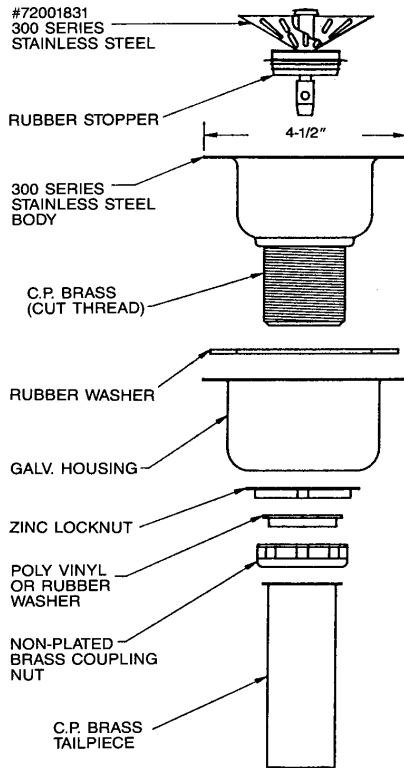
DESIGN FEATURES

Fits 3-1/2" opening, with overall top diameter of approx. 4-1/2". Electro bright finish with push and lock stem basket and rubber stopper. Chrome plated brass knob and flange have high polish finish. Chrome plated 4" length, 1-1/2" overall diameter tailpiece included. Ship. Wt. 1-1/2 lbs.

Sold as an accessory item only.



LK-99



ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS, MULTIPLY BY 25.4

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60521

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 4/97) 15-07B

SK-4

DESCRIPTION: SINK - STAINLESS STEEL, SINGLE COMPARTMENT WITH FAUCET DECK, 18 GAUGE, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE, [L]" X [W]" X [D]" DEEP BOWL, COMPLETELY UNDERCOATED, 3-1/2" DIAMETER DRAIN OUTLET. 3" PERFORATED, STAINLESS STEEL GRID STRAINER. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT, 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY LR/LK-18B, JUST SL/J-35-SSF

Notes to specifier:

1. High quality sink.
2. Same quality of sink available in varying sizes. Check catalogs.
3. Sink can NOT exceed 6.5" deep to meet ADA requirements.

Lustertone® Spacious Single Bowl
LR-Series Sinks
LRAD - A.D.A. Compliant Series Sinks



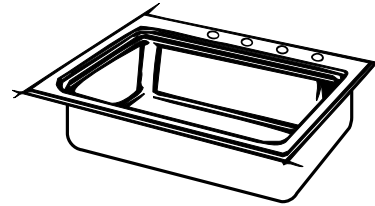
SPECIFICATIONS

GENERAL

Lustertone sink with spacious sink bowl. Highest quality sink seamlessly drawn of #18 gauge, (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

LR-Bowl Depth: 8" (LR-2521) or 7-1/2" (all others).
LRAD Bowl Depth: 5-1/2", 6" or 6-1/2".
Coved Corners: 1-3/4" radius.
Bowl and Faucet Deck Recess: 3/16" below outside edge of sink.
Finish: Exposed surfaces are hand blended to a lustrous high-lighted satin finish.
Underside: Fully undercoated to dampen sound and prevent condensation. LR-2521 is fully protected by heavy duty Sound Guard undercoating.



Model LR-2521-4 Shown

DRAIN OPENING

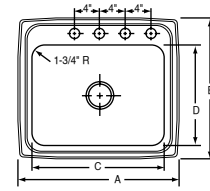
LR-Series drain opening is 3-1/2" and centered in bowl as illustrated.
LRAD-1517, LRAD-1716, LRAD-1720, and LRAD-1919 drain opening is 3-1/2" and centered in the bowl.
LRAD-1522, LRAD-1722, LRAD-2022, LRAD-2222, and LRAD-3122 drain opening is 3-1/2" and located centered right-to-left and off-center front-to-back in bowl as illustrated.

NOTE: Unless otherwise specified, models with one, two or three faucet hole option are shipped with 3 faucet holes standard; models with choice of one, two, three, four or five faucet hole option are shipped with 4 faucet holes standard.

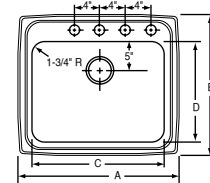
SINK DIMENSIONS

Model Number	DIMENSIONS IN INCHES					Cutout In Counter Top (1 1/2" Radius Corners)		No. of 1 1/2" Dia. Faucet Holes 4" Center	Ship. Wt. Lbs.	3 1/2" Drain Opening (see above for details)
	Overall		Inside Bowl			L	W			
	L	W	L	W	Depth					
LR-Series	A	B	C	D						
LR-1517	15	17 1/2	12	12	7 1/2	14 3/8	16 7/8	1, 2, or 3	10	Centered
LR-1522	15	22	11 1/2	16	7 1/2	14 3/8	21 3/8	1, 2, or 3	12	Centered
LR-1716	17	16	14	10	7 1/2	16 3/8	15 3/8	1, 2, or 3	12	Centered
LR-1720	17	20	14	14	8	16 3/8	19 3/8	1, 2, or 3	12	Centered
LR-1722	17	22	13 1/2	16	7 1/2	16 3/8	21 3/8	1, 2, or 3	13	Centered
LR-1918	19	18	16	11 1/2	7 1/2	18 3/8	17 3/8	1, 2, or 3	13	Centered
LR-1919	19 1/2	19	16	13 1/2	7 1/2	18 7/8	18 3/8	1, 2, or 3	13	Centered
LR-2022	19 1/2	22	16	16	7 1/2	18 7/8	21 3/8	1, 2, or 3	13	Centered
LR-2219	22	19 1/2	18	14	7 1/2	21 3/8	18 3/8	**	13	Centered
LR-2222	22	22	19	16	7 1/2	21 3/8	21 3/8	**	13	Centered
LR-2521	25	21 1/4	21	15 1/4	8	24 3/8	20 3/8	**	15	Centered
LR-3122	31	22	28	16	7 1/2	30 3/8	21 3/8	**	19	Centered
LRAD-Series	A	B	C	D						
LRAD-1517	15	17 1/2	12	12	*	14 3/8	16 7/8	1, 2, or 3	10	Centered
LRAD-1522	15	22	11 1/2	16	*	14 3/8	21 3/8	1, 2, or 3	12	Off-Centered
LRAD-1716	17	16	14	10	*	16 3/8	15 3/8	1, 2, or 3	12	Centered
LRAD-1720	17	20	14	14	*	16 3/8	19 3/8	1, 2, or 3	12	Centered
LRAD-1722	17	22	13 1/2	16	*	16 3/8	21 3/8	1, 2, or 3	13	Off-Centered
LRAD-1919	19 1/2	19	16	13 1/2	*	18 7/8	18 3/8	1, 2, or 3	13	Centered
LRAD-2022	19 1/2	22	16	16	*	18 7/8	21 3/8	1, 2, or 3	13	Off-Centered
LRAD-2222	22	22	19	16	*	21 3/8	21 3/8	**	13	Off-Centered
LRAD-3122	31	22	28	16	*	30 3/8	21 3/8	**	19	Off-Centered

*Available in 5 1/2", 6" and 6 1/2" depths. Please consult your sales representative for other depths or modifications.
**1, 2, 3, 4 or 5 holes



LR-Series Illustrated



LRAD-Series Off-Center Drain Model Illustrated
LRAD-1522 Drain Off-Centered 4 1/2" From Back.

THIS PRODUCT, AS CONSTRUCTED IS SUBJECT TO INTERPRETATION OF A.D.A. REQUIREMENTS. THE UNOBSTRUCTED KNEE SPACE REQUIRED TO SATISFY A.D.A. STANDARDS MAY NOT BE DESIRABLE.

ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company
www.elkay.com

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1999 Elkay Mfg. Co.
(Rev. 10/99) 1-60E

**Drain Fitting with Grid Strainer
LK18, LKVR18, LK18B and LK372**



SPECIFICATIONS

DESIGN FEATURES

LK18 Chrome plated stamped brass drain outlet fitting for 3-1/2" opening. (4-1/2" top diameter) with 3" perforated grid strainer and 1-1/2" O.D. tailpiece. Ship. Wt. 1 lb.

LKVR18 Drain fitting with vandal resistant 3" perforated grid strainer.

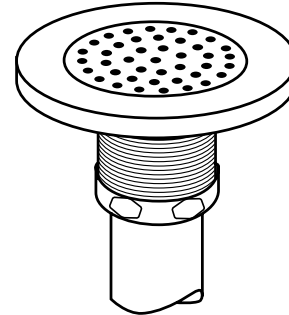
LKVR18B Same as LKVR18, except of type 304 stainless steel. Ship. Wt. 1 lb.

LKAD18 Same as LK18 except comes with LKADOS drain offset (see 15-14).

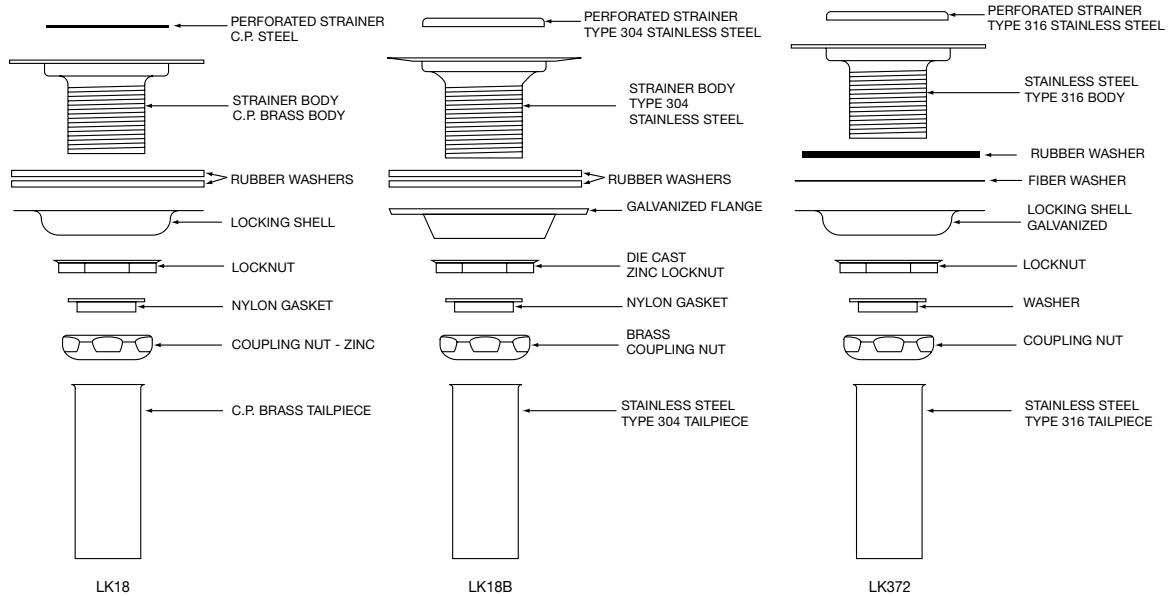
LK18B Same as LK18, except of type 304 stainless steel. Ship. Wt. 1 lb.

LK372 Same as LK18, except of type 316 stainless steel. Ship. Wt. 1 lb.

Sold as an accessory item only.



Model LK18



ALL DIMENSIONS IN INCHES, TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company
www.elkay.com

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2000 Elkay Mfg. Co.
(Rev. 11/00) 15-13C

DESCRIPTION: SINK - STAINLESS STEEL, DOUBLE COMPARTMENT WITH FAUCET DECK, 18 GAUGE, COMPLETELY UNDERCOATED, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE. EACH COMPARTMENT [L]" X [W]" X [D]" DEEP. WITH 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT. [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY LR/LK-99, JUST DL/JB-99, KINDRED KSDL, KOHLER K-3246

Notes to specifier:

1. High quality sink.
2. Verify base cabinet size with architect.
3. Kohler sink is only available in 33"x22" size.
4. Sink can NOT exceed 6.5" deep to meet ADA requirements.

**Lustertone® Spacious Double Bowl
LR Series Sinks
LRAD - A.D.A. Compliant Series Sinks**



SPECIFICATIONS

GENERAL

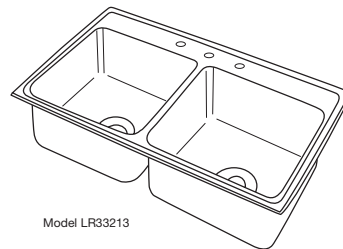
Lustertone sink with two roomy sink bowls. Highest quality sink seamlessly drawn of #18 gauge, type 304 (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

LR Bowl Depths: 8" (LR3321) or 7-1/2" (all others).
LRAD Bowl Depths: 5-1/2", 6" or 6-1/2".
Coved Corners: 1-3/4" radius.
Bowl and Faucet Deck Recess: 3/16" below outside edge of sink.
Finish: Exposed surfaces are hand blended to a lustrous highlighted satin finish.
Underside: Fully undercoated to dampen sound and prevent condensation. LR3321 is fully protected by heavy duty Sound Guard™ undercoating.

OTHER

LR Series Drain Openings: 3-1/2" and centered in bowls as illustrated.
LRAD2918, LRAD3319 Drain Openings: 3-1/2" and centered in the bowls.
LRAD2922, LRAD3321, LRAD3722 and LRAD4322 Drain Openings: 3-1/2" and located centered left-to-right and off-center front-to-back in each bowl as illustrated.



Model LR33213

Note: Unless other specified, sinks are shipped with 4 faucet holes standard.

SINK DIMENSIONS (INCHES)*

Model Number	Overall		Inside Each Bowl			Cutout in Countertop (1 1/2" Radius Corners)		No. of 1 1/2" Dia. Faucet Holes 4" Center	Ship. Wt. Lbs.	3 1/2" Drain Openings (see above for details)
	L	W	L	W	D	L	W			
LR Series	A	B	C	D	E					
LR2918	29	18	12	12	7 1/2	28 3/8	17 3/8	0, 1, 2, 3, 4, or 5	16	Centered
LR2922	29	22	11 1/2	16	7 1/2	28 3/8	21 3/8	0, 1, 2, 3, 4, or 5	17	Centered
LR3319	33	19 1/2	14	14	7 1/2	32 3/8	18 3/8	0, 1, 2, 3, 4, or 5	20	Centered
LR3321	33	21 1/4	13 1/2	16	8	32 3/8	20 3/8	0, 1, 2, 3, 4, or 5	21	Centered
LR3722	37	22	16	16	7 1/2	36 3/8	21 3/8	0, 1, 2, 3, 4, or 5	24	Centered
LR4322	43	22	19	16	7 1/2	42 3/8	21 3/8	0, 1, 2, 3, 4, or 5	25	Centered
LRAD Series	A	B	C	D	E					
LRAD2918	29	18	12	12	**	28 3/8	17 3/8	0, 1, 2, 3, 4, or 5	16	Centered
LRAD2922	29	22	11 1/2	16	**	28 3/8	21 3/8	0, 1, 2, 3, 4, or 5	17	Off-Centered
LRAD3319	33	19 1/2	14	14	**	32 3/8	18 3/8	0, 1, 2, 3, 4, or 5	20	Centered
LRAD3321	33	21 1/4	13 1/2	16	**	32 3/8	20 3/8	0, 1, 2, 3, 4, or 5	21	Off-Centered

*Length is left to right. Width is front to back.

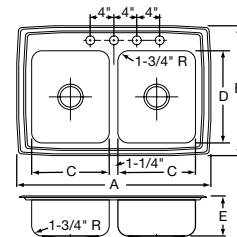
**Available in 5-1/2", 6" and 6-1/2" depths. Please consult your sales representative for other depths or modifications.

THIS PRODUCT, AS CONSTRUCTED IS SUBJECT TO INTERPRETATION OF A.D.A. REQUIREMENTS. THE UNOBSTRUCTED KNEE SPACE REQUIRED TO SATISFY A.D.A. STANDARDS MAY NOT BE DESIRABLE.

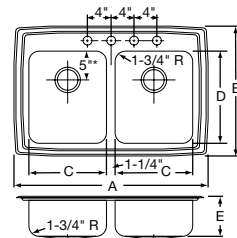
ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.



Model LR Series Illustrated



Model LRAD Series Off-Center Drain Model Only Illustrated "4-1/2" LRAD2922

**Sink Accessories
LK-99 Drain**

ELKAY®

SPECIFICATIONS

GENERAL

Strainer body made of 300 Series stainless steel.

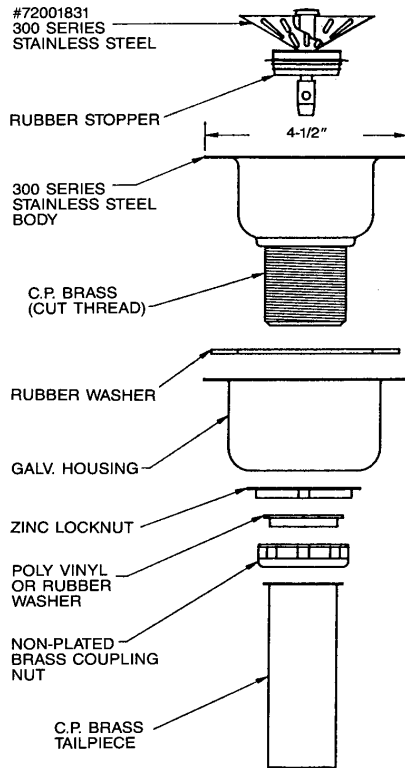
DESIGN FEATURES

Fits 3-1/2" opening, with overall top diameter of approx. 4-1/2". Electro bright finish with push and lock stem basket and rubber stopper. Chrome plated brass knob and flange have high polish finish. Chrome plated 4" length, 1-1/2" overall diameter tailpiece included. Ship. Wt. 1-1/2 lbs.

Sold as an accessory item only.



LK-99



ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS, MULTIPLY BY 25.4

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60521

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 4/97) 15-07B

DESCRIPTION: SINK - STAINLESS STEEL, EXTRA DEEP DOUBLE COMPARTMENT WITH FAUCET DECK, 18 GAUGE, COMPLETELY UNDERCOATED, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE. EACH COMPARTMENT [L]" X [W]" X [D]" DEEP. WITH 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT. [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY DLR/LK-99, JUST DLX/JB-99

Notes to specifier:

1. High quality sink, extra deep sink (10"+)
2. Verify base cabinet size with architect.
4. Sink can NOT exceed 6.5" deep to meet ADA requirements.

**Lustertone® Deep Double Bowl Sinks
Model DLR Series**



SPECIFICATIONS

GENERAL

Highest quality. Sink bowls seamlessly drawn of #18 gauge, type 304 (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

Bowl Depths: 10-1/8" (DLR332210, DLR372210, and DLR432210); 12-1/8" (DLR332212); 10" (DLR291810).

Coved Corners: 1-3/4" vertical and horizontal radius.

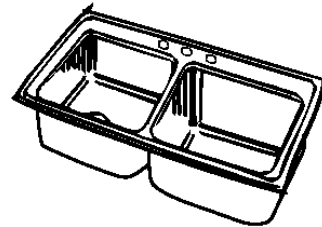
Finish: Exposed surfaces are hand blended to a lustrous highlighted satin finish.

Underside: Fully undercoated to prevent condensation and deaden sound.

OTHER

Drain Opening: 3-1/2".

Faucet Holes: Sink is available with 1, 2, 3, or 4, 1-1/2" diameter faucet holes 4" center.

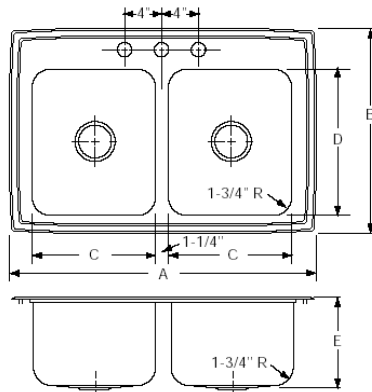


Model DLR3322103

SINK DIMENSIONS (INCHES)*

Model Number	Overall		Inside Bowl			Cutout in Countertop (1 1/2" Radius Corners)		Minimum Cabinet Size	Ship. Wt. Lbs.
	L	W	L	W	D	L	W		
DLR291810	29	18	12	12	10	28 3/8	17 3/8	33	22
DLR331910	33	19 1/2	14	14	10 1/8	32 3/8	18 7/8	36	23
DLR332210	33	22	13 1/2	16	10 1/8	32 3/8	21 3/8	36	24 3/4
DLR332212	33	22	13 1/2	16	12 1/8	32 3/8	21 3/8	36	24 3/4
DLR372210	37	22	16	16	10 1/8	36 3/8	21 3/8	42	29
DLR432210	43	22	19	16	10 1/8	42 3/8	21 3/8	48	32 3/4

*Length is left to right. Width is front to back.



ALL DIMENSIONS IN INCHES, TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

**Sink Accessories
LK-99 Drain**

ELKAY®

SPECIFICATIONS

GENERAL

Strainer body made of 300 Series stainless steel.

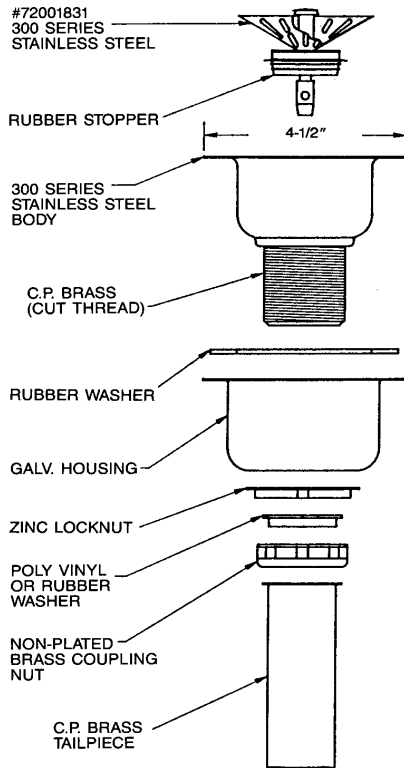
DESIGN FEATURES

Fits 3-1/2" opening, with overall top diameter of approx. 4-1/2". Electro bright finish with push and lock stem basket and rubber stopper. Chrome plated brass knob and flange have high polish finish. Chrome plated 4" length, 1-1/2" overall diameter tailpiece included. Ship. Wt. 1-1/2 lbs.

Sold as an accessory item only.



LK-99



ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS, MULTIPLY BY 25.4

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60521

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 4/97) 15-07B

SK-7

DESCRIPTION: SINK - STAINLESS STEEL, DOUBLE COMPARTMENT WITH FAUCET DECK, 20 GAUGE, COMPLETELY UNDERCOATED, SELF-RIMMING, [L]" (SIDE-TO-SIDE) X [W]" (FRONT-TO-BACK) OVERALL SIZE. EACH COMPARTMENT [L]" X [W]" X [D]" DEEP. WITH 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT. [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS.

MANUFACTURER & CATALOG NO.: ELKAY PSR/LK-99, JUST DL/JB-99, KINDRED QDL, KOHLER K-3283

Notes to specifier:

1. Lower quality sink.
2. Verify base cabinet size with architect.
3. Sink can NOT exceed 6.5" deep to meet ADA requirements.

**Pacemaker Double Bowl Sink
20 Gauge, Type 302, Self Rim
Model PSR Series**



SPECIFICATIONS

GENERAL

Fine quality Pacemaker double bowl hospitality sink is seamlessly drawn of #20 gauge, type 302 (18-8) nickel bearing stainless steel. Self-rimming.

DESIGN FEATURES

Bowl Depth: 7-1/4", 7-1/2" (PSR-3321).

Coved Corners: 1-3/4".

Bowl and Faucet Deck Recess: 3/16" drop ledge.

Finish: Exposed surfaces are polished to a lustrous, highlighted bright satin finish.

Underside: Fully undercoated to prevent condensation and deaden sound. PSR-3321 underside is fully protected by heavy duty Sound Guard undercoating

OTHER

Drain Opening: 3-1/2".

Faucet Holes: Available with 0, 1, 2, 3, 4 or 5 1-1/2" diameter faucet holes 4" centers.

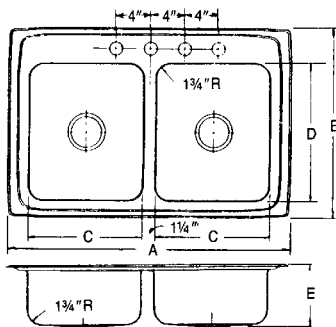
NOTE: Unless otherwise specified, sink is furnished with four faucet holes.



Model PSR-3321-4 Shown

SINK DIMENSIONS

Model Number	DIMENSIONS IN INCHES					Cutout in Counter Top (1 1/4" Radius Corners)		Shp. Wt. Lbs.
	Length is left to right. Width is front to back.					L	W	
	Overall		Inside Each Bowl					
	A	B	C	D	E			
PSR-3319	33	19 1/2	14	14	7 1/4	32 3/8	18 1/8	16
PSR-3321	33	21 1/4	13 1/2	16	7 1/2	32 3/8	20 5/8	17
PSR-4322	43	22	19	16	7 1/4	42 3/8	21 3/8	20



Model PSR-3321-4 Illustrated

ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS MULTIPLY BY 25.4.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 11/97) 1-75B

**Sink Accessories
LK-99 Drain**

ELKAY®

SPECIFICATIONS

GENERAL

Strainer body made of 300 Series stainless steel.

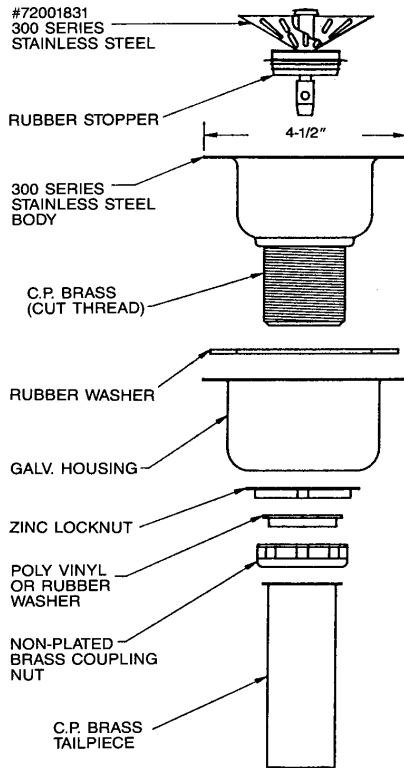
DESIGN FEATURES

Fits 3-1/2" opening, with overall top diameter of approx. 4-1/2". Electro bright finish with push and lock stem basket and rubber stopper. Chrome plated brass knob and flange have high polish finish. Chrome plated 4" length, 1-1/2" overall diameter tailpiece included. Ship. Wt. 1-1/2 lbs.

Sold as an accessory item only.



LK-99



ALL DIMENSIONS IN INCHES. TO CONVERT TO MILLIMETERS, MULTIPLY BY 25.4

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

This specification describes an Elkay product with design, quality and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay Manufacturing Company

2222 Camden Court
Oak Brook, IL 60521

Printed in U.S.A.
©1997 Elkay Mfg. Co.
(Rev. 4/97) 15-07B

DESCRIPTION: SINK - STAINLESS STEEL, 3 COMPARTMENT, 14 GAUGE, []" (SIDE-TO-SIDE) X []" (FRONT-TO-BACK) OVERALL SIZE. 8" BACKSPLASH WITH SLOPING TOP. EACH COMPARTMENT []" X []" X []" DEEP, WITH 3-1/2" DIAMETER DRAIN OUTLET, REMOVABLE STRAINER PLATE AND NEOPRENE STOPPER. 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT. [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS WITH CHROME PLATED SOFT COPPER RISERS. SINK SUPPORTED ON FOUR 14 GAUGE STAINLESS STEEL TUBULAR LEGS WITH ADJUSTABLE BULLET SHAPED FEET.

SINK TO MEET NATIONAL SANITATION FOUNDATION REQUIREMENTS.

MANUFACTURER & CATALOG NO.: ELKAY WNSF, JUST NSFB

SINK TRIM - TWO HANDLE MIXING VALVE WITH INDEXED LEVER HANDLES, ADJUSTABLE SUPPLY ARMS, INTEGRAL STOPS, 13" DOUBLE JOINTED SWINGING SPOUT AND AERATOR.

MANUFACTURER & CATALOG NO.: , CHICAGO FAUCET 445-DJ13, T&S BRASS B-235-LN/66X, ZURN Z-841K1, DELTA 28T4543-R17

Notes to specifier:

1. Verify size requirements of sink.
2. Add side drainboards if required.
3. Verify type and number of faucets required.
4. Grease interceptor is required if used in commercial kitchens.

Weldbilt® Triple Compartment Scullery Sink
1/4-Inch Radius Coved Corner



SPECIFICATIONS IN INCHES

GENERAL

Model No. WNSF _____ #14 gauge, Type 304, nickel bearing stainless steel scullery sink. Compartments 14" deep. Welded 1/4" radius coved corner construction. Welds are ground to a smooth and cleanable finish. Full length 8" high backsplash with 45° sloped top. 1-1/2" wide inward sloping top channel rims. Integral drainboard/s, sink compartments pitched to drain. Exposed surfaces polished to a satin finish. Weldbilt sinks carry the NSF International Certification.

Sinks supported on (4) LK251 stainless steel, 1-5/8" O.D. tubular legs, #16 gauge wall thickness. Adjustable bullet shaped feet adjustable up to 1".

Shaded models are normally carried in stock with standard faucet location.

Non-shaded models with specified dimensions are considered standard models which must be made to order—standard faucet location unless otherwise specified.

Last item in each group is custom. Fill in dimensions. Standard faucet location unless otherwise specified.

Drainboards over 25-1/2" furnished with one tubular leg.

Drainboards over 48" furnished with two tubular legs.

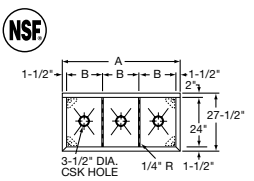
SPECIFIED FITTINGS:
SUPPLY:

DRAIN:

(Check Model Specified):

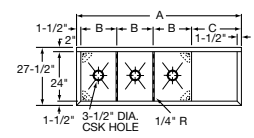
NO DRAINBOARD

Model Number	Dimensions	
	A	B
WNSF8345	48	15
WNSF8354	57	18
WNSF8360	63	20
WNSF8372	75	24
• WCNF8300		



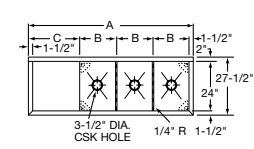
RIGHT DRAINBOARD

Model Number	Dimensions		
	A	B	C
WNSF8345R	70 1/2	15	24
WNSF8354R	79 1/2	18	24
WNSF8372R	97 1/2	24	24
• WCNF8300R			



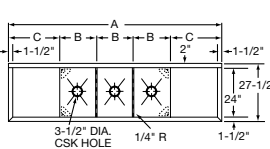
LEFT DRAINBOARD

Model Number	Dimensions		
	A	B	C
WNSF8345L	70 1/2	15	24
WNSF8354L	79 1/2	18	24
WNSF8372L	97 1/2	24	24
• WCNF8300L			

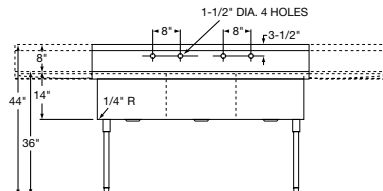


RIGHT & LEFT DRAINBOARD

Model Number	Dimensions		
	A	B	C
WNSF8345LR	93	15	24
WNSF8354LR	102	18	24
WNSF8360LR	108	20	24
WNSF8372LR	120	24	24
• WCNF8300LR			



FAUCET DRILLINGS AND LOCATION STANDARD AS ILLUSTRATED. (NON-STANDARD FAUCET AND OVERFLOW DRILLING LOCATIONS ARE AVAILABLE. SPECIFY ON DRAWING AT RIGHT.)



ALL DIMENSIONS IN INCHES.
SEE OTHER SIDE FOR DIMENSIONS IN MILLIMETERS.



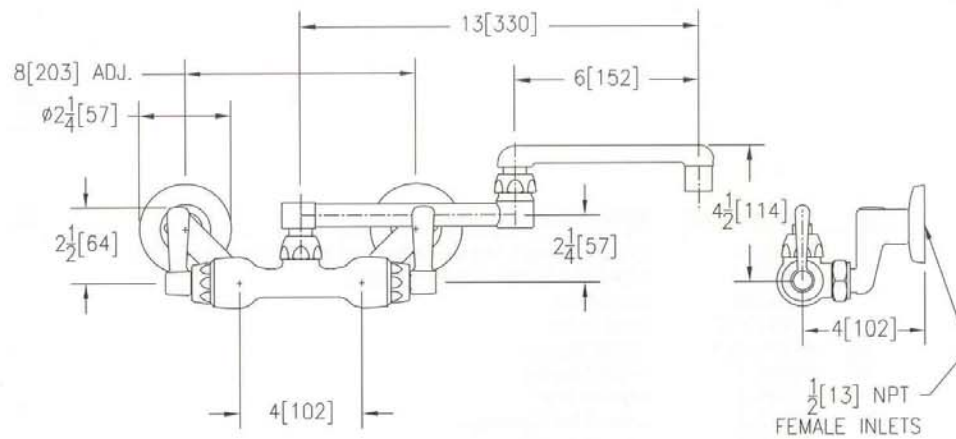
SERVICE SINK FAUCET

Z-841K1



Engineering Specifications: Zurn AquaSpec® Z-841K1

Polished chrome-plated cast brass service sink faucet with quarter-turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 13" [330mm] double-jointed brass swing spout with a 2.0 GPM [7.6 L] variable orifice aerator (complying with ANSI A112.18.1 Standard for flow). Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-DJ18	18" Double Jointed Brass Swing Spout
-RC	Rough Chrome Plated
-SSI	3/8" [10mm] Short Swivel Inlets
-2F	2.0 GPM [7.6 L] Vandal-Resistant Female Aerator
-3F	0.5 GPM [1.9 L] Vandal-Resistant Female Aerator
-4F	2.0 GPM [7.6 L] Vandal-Resistant Female Laminar Flow

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATION

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541

In Canada:

ZURN INDUSTRIES LTD. 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V 1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. D
Dwg. No. 60881

Date: 10/6/98

C.N. No. 81365
Product No. Z-841K1

SP-1

DESCRIPTION: SUMP PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED.

CAPACITY [EACH PUMP]: [____] GPM, [____] FEET OF HEAD.

CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 1 1/4" VERTICAL DISCHARGE.

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 1/2" SOLIDS MINIMUM.

SHAFT: STEEL OR STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED SLEEVE OR BALL BEARINGS, CARBON AND CERAMIC SEAL.

MOTOR: 1/2 HP MAX., 115 VOLTS, 1 PHASE, 1750 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH WITH GROUNDING PLUG.

MANUFACTURER & CATALOG NO.: WEIL 1409, ZOELLER SERIES 137, BARNES SE, GOULDS WE, STARRITE EC, STANCOR SE

[Specifier: Choose the following for simple integrated float]

DESCRIPTION: CONTROLS - INTEGRAL FLOAT SWITCH OR PIGGY-BACK FLOAT/DIAPHRAM SWITCH.

[Specifier: Choose the following for oil sensing controls]

DESCRIPTION: CONTROLS - HYDROCARBON SENSING PUMP SWITCH WITH HIGH WATER ALARM, NEMA 4X ENCLOSURE, HIGH WATER FLOAT/CONTACT SWITCH WITH WATER PROOF CABLE OF SUFFICIENT LENGTH, HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, 6 FOOT 115V POWER CORD, UL LISTED.

MANUFACTURER & CATALOG NO.: SEEWATER OSS SERIES/OSA-05, STANCOR OIL MINDER, ZOELLER 940 SERIES

DESCRIPTION: ALARM - [SPECIFIER: DELETE OR ADD FROM SUMP/SEWAGE PUMP ACCESSORY SECTION]

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

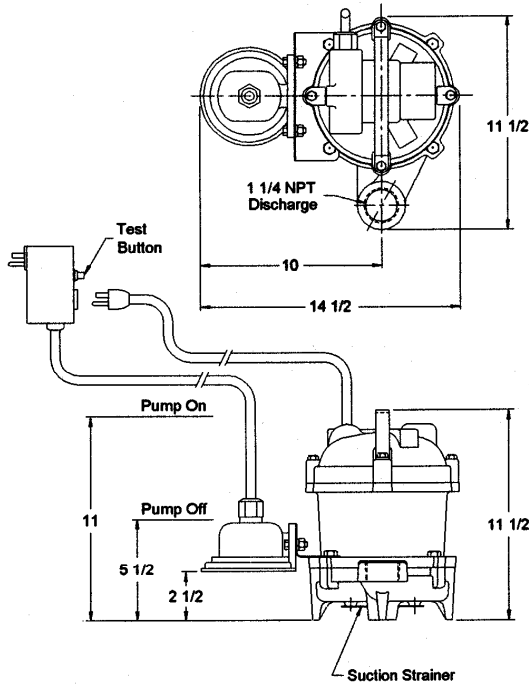
1. Small, plug-in with integral float commonly used for elevator pits and low flow drain tile.
2. Capacity around 8 gpm at 25 ft. hd and 64 gpm at 15 ft. hd. Refer to mfr. information for other selections.
3. For duplex installation set one of the pumps up on a 4" block.
4. Coordinate receptacle location with electrical engineer. Refer to mfr. information for available voltages/phase.

WEIL 1 1/4-Inch Discharge Submersible Pump 1409

Commercial and industrial applications.
 Pump clear water and gray water.
 Handles 1/2-inch solids from elevator pits, home sumps, etc.

Disch. Size 1 1/4 Inch
 Disch. Type NPT
 Solids Max. 1/2 Inch

Mounting Style Floor



Pump

Case - Cast Iron
 Impeller - Cast Iron
 Strainer - 304 Stainless Steel
 Stainless Steel Hardware

Motor

Single Seal
 - Carbon against Ceramic
Air-Filled Hermetically Sealed
 Shaft - Stainless Steel Series 300
 Motor Shell - Cast Iron
 Insulation - Class F
 Ball Bearings - 2 - Double Sealed
 Power Cord Length - 15 ft. with 3 conductor grounded plug

Single-Phase motor:

- 1750 RPM, 60 Hz, 115 volts
- Auto Thermal Overload Protection
- Capacitors and Start Relays in Motor

8224 Diaphragm Level Control Switch

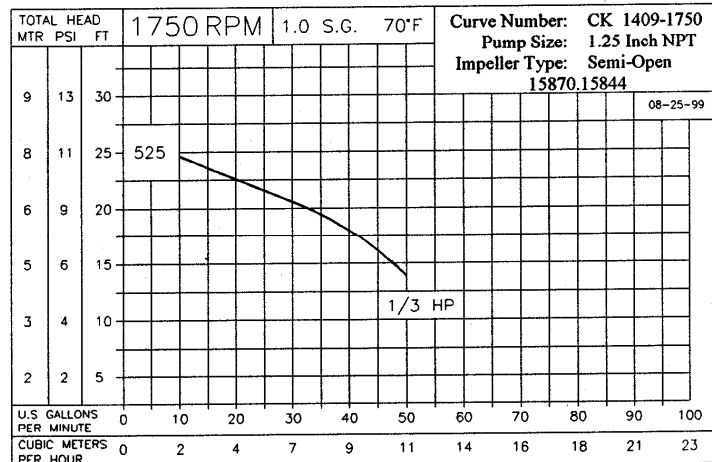
The 8224 module plugs into a standard 115-volt receptacle. The pump plug is inserted into the cover of the 8224 module. The 8224 module has a pump test button and a green light indicates power to pump motor.

Disch. Location	Minimum Basin Dia.	
	Simplex	Duplex
Above Grade	18 Inches	24 Inches
Below Grade	24 Inches	30 Inches

Curve	HP	Wt.
525	1/3	60

Options

- Bronze Impeller
- Additional power cable lengths
- Stainless Steel lifting cable



Curve is non-overloading at any point.



X

Replaces SN-1409, June 1, 2001

SN-1409

FEBRUARY 2, 2004

1409

SP-2

DESCRIPTION: SUMP PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED.

CAPACITY [EACH PUMP]: [] GPM, [] FEET OF HEAD.

CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 2" VERTICAL DISCHARGE.

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 1/2" SOLIDS MINIMUM.

SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED SLEEVE OR BALL BEARINGS, CARBON AND CERAMIC SEAL.

MOTOR: [] HP, [] VOLTS, [] PHASE, 3450 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH.

MANUFACTURER & CATALOG NO.: WEIL 2443, ZOELLER SERIES 180, BARNES EH, HYDROMATIC SPD, GOULDS WE, STA-RITE EC

DESCRIPTION: CONTROLS - WALL MOUNTED NEMA [1][4X] ENCLOSURE, [SIMPLEX (3) FLOAT,][DUPLEX (4) FLOAT WITH AUTOMATIC ALTERNATOR TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD,] RUN LIGHT, HAND-OFF-AUTO AND DISCONNECTING MEANS FOR [EACH] PUMP, HIGH WATER ALARM WITH HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

1. Medium capacity, high head with separate control panel.
2. Capacity around 55 gpm at 55 ft. hd. Refer to mfr. information for other selections.
3. Alarm is integral to control panel.
4. Pump amperage exceeds plug-in style oil sensor. Weil can provide oil sensor that is integrated with their control panel. Verify with other mfr. Manually add if needed.
5. Coordinate electrical requirements with electrical engineer. Typically requires a separate feed for each pump and control/alarm circuit. Refer to mfr. information for available hp/voltages/phase.

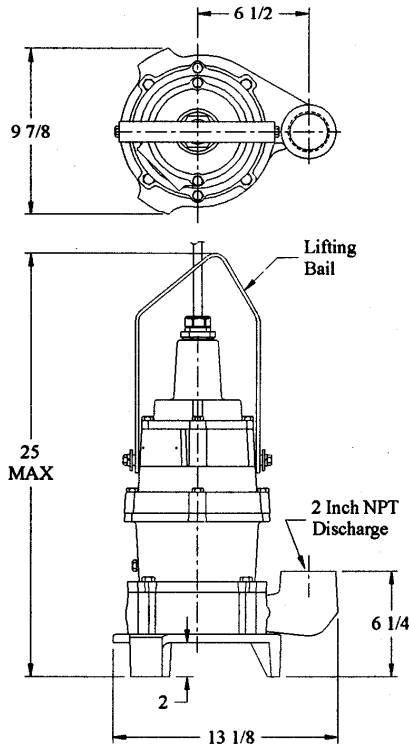
WEIL 2-Inch Discharge Submersible Pump

2443

Commercial and industrial applications.
 Pump clear water, gray water, and effluent.
 Handles 3/4-inch solids from wet wells, sump pits, etc.

Disch. Size 2 Inch
 Disch. Type NPT
 Max. Solids 3/4 Inch

Mounting Style Floor



Pump
 Case – Cast Iron
 Impeller – Cast Iron
 Stainless Steel Hardware

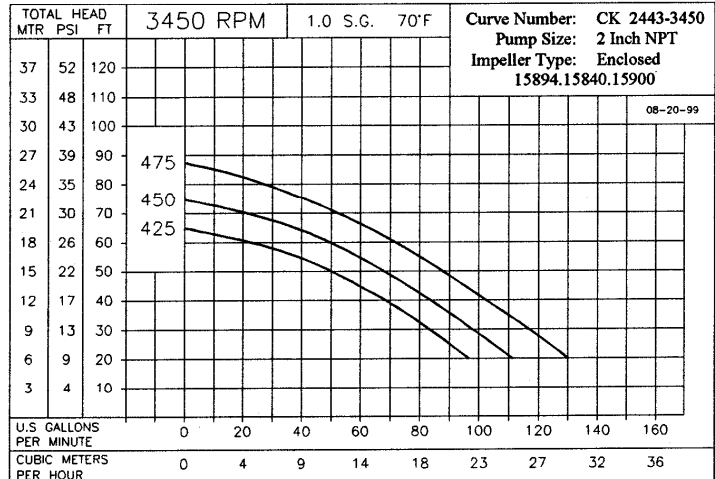
Motor
Single Seal
 - Carbon against Ceramic
Air-Filled, Hermetically Sealed
Shaft – Stainless Steel Series 300
 Motor Shell – Cast Iron
 Insulation – Class F
 Ball Bearings – 2 – Double Sealed
 Power Cord Length – 20 ft.
 Three-phase motor – 3450 RPM
 - 60 Hz, 208-230 or 460 volts
 Single-phase motor – 3450 RPM
 - 60 Hz, 115 or 208-230 volts
 - Automatic reset thermal and overload protection
 - Capacitor and start relay in motor

Options

- Additional power cable lengths
- Stainless Steel lifting cable

Disch. Location	Minimum Basin Dia.	
	Simplex	Duplex
Above Grade	24 Inches	30 Inches
Below Grade	24 Inches	36 Inches

Curve	HP	Wt.
475	2	204
450	1 1/2	200
425	1	194



Impeller curves are Non – Overloading at any point on curve.

These are standard impeller trims. Other trims are available as options.



X Replaces SN-2443, July 1, 2001

SN-2443 FEBRUARY 2, 2004

2443

SP-3

DESCRIPTION: SUMP PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED.

CAPACITY [EACH PUMP]: [____] GPM, [____] FEET OF HEAD.

CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 2" VERTICAL DISCHARGE.

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 1/2" SOLIDS MINIMUM.

SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED BALL BEARINGS, CARBON AND CERAMIC SEAL.

MOTOR: [____] HP, [____] VOLTS, [__] PHASE, [____] RPM, AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH.

MANUFACTURER & CATALOG NO.: WEIL [____], PACO [____], FLYGT [____], ABS [____], KSB [____], HOMA [____]

DESCRIPTION: CONTROLS - WALL MOUNTED NEMA [1][4X] ENCLOSURE, [SIMPLEX (3) FLOAT.][DUPLEX (4) FLOAT WITH AUTOMATIC ALTERNATOR TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD,] RUN LIGHT, HAND-OFF-AUTO AND DISCONNECTING MEANS FOR [EACH] PUMP, HIGH WATER ALARM WITH HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

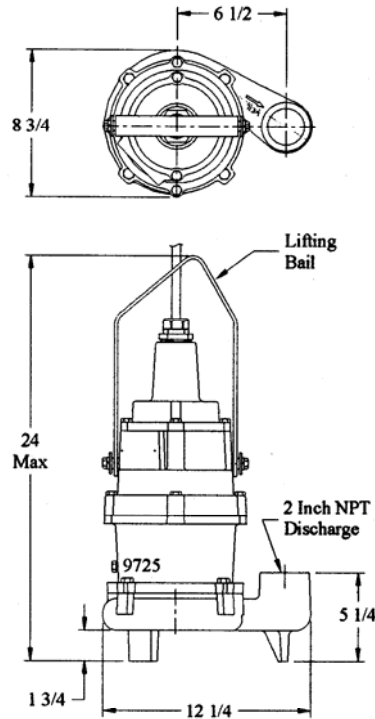
1. Based on higher grade air filled motor with ball bearings only.
2. Refer to mfr. information for available flow capacities and electrical hp/voltages/phase.
3. Alarm is integral to control panel.
4. Pump amperage exceeds plug-in style oil sensor. Weil can provide oil sensor that is integrated with their control panel. Verfiy with other mfr. Manually add if needed.
5. Coordinate electrical requirements with electrical engineer. Typically requires a separate feed for each pump and control/alarm circuit.

WEIL 2-Inch Submersible Wastewater Pump 2445

Commercial and industrial applications.
 Pump clear water, gray water, and effluent.
 Handles 3/4-inch solids from septic tanks, sump pits,
 loading docks, etc.

Disch. Size 2 Inch
Disch. Type NPT
Solids Max. 3/4 Inch

Mounting Style Floor



Pump

Case - Cast Iron
 Impeller - Cast Iron
 Stainless Steel Hardware

Motor

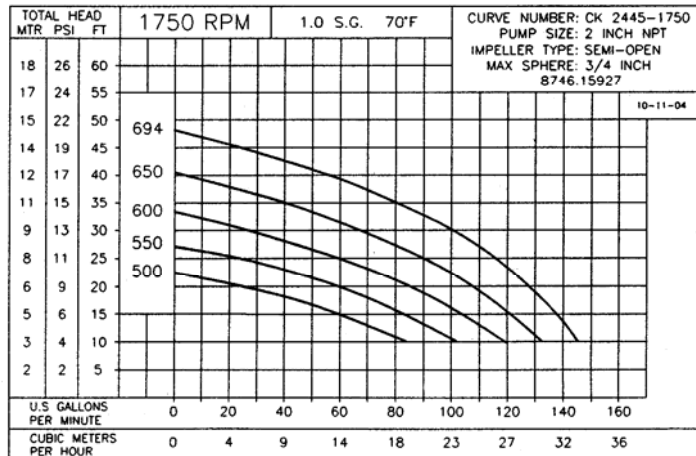
Single Seal
 - Carbon against Ceramic
Air-Filled Hermetically Sealed
Shaft - Stainless Steel Series 300
 Motor Shell - Cast Iron
 Insulation - Class F
 Ball Bearings - 2- Double Sealed
 Power Cord Length - 20 ft.
Three-phase motor - 1750 RPM
 - 60 Hz, 208-230 or 460 volts
Single-phase motor - 1750 RPM
 - 60 Hz, 115 or 208-230 volts
 - Automatic reset thermal and
 overload protection
 - Capacitor and start relay in motor
 - 2 HP single phase not available

Options

- High-temperature motor - Max. 1 HP
- Stainless Steel lifting cable
- Additional power cable lengths

Curve	HP	Wt.
694	2	160
650	1 1/2	155
600	1	150
550	3/4	145
500	1/2	140

Disch. Location	Wet Well Minimum Dia.	
	Simplex	Duplex
Above Grade	18 Inches	24 Inches
Below Grade	24 Inches	30 Inches



Impeller curves are Non - Overloading at any point on curve.

These are standard impeller trims. Other trims are available as options.



X New

SN-2445

NOVEMBER 2, 2004

2445

SP-11

DESCRIPTION: SEWAGE PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED.

CAPACITY [EACH PUMP]: [____] GPM, [____] FEET OF HEAD.

CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 2" VERTICAL DISCHARGE.

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 2" SOLIDS MINIMUM.

SHAFT: STEEL OR STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED SLEEVE OR BALL BEARINGS, CARBON AND CERAMIC SEAL.

MOTOR: 1/2 HP MAX., 115 VOLTS, 1 PHASE, 1725 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH WITH GROUNDING PLUG.

MANUFACTURER & CATALOG NO.: WEIL 2411, ZOELLER SERIES 267, BARNES SE, HYDROMATIC SK50, GOULDS WS_BF, STA-RITE SC, MYERS WHR

DESCRIPTION: CONTROLS - INTEGRAL FLOAT SWITCH OR PIGGY-BACK FLOAT/DIAPHRAM SWITCH.

DESCRIPTION: ALARM - [SPECIFIER: DELETE/ADD FROM SUMP/SEWAGE PUMP ACCESSORY SECTION]

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

1. Small, plug-in with integral float commonly used for lower level floor drains.
2. Capacity around 10 gpm at 20 ft. hd and 50 gpm at 15 ft. hd. Refer to mfr. information for other selections.
3. For duplex installation set one of the pumps up on a 4" block.
4. Coordinate receptacle location with electrical engineer. Refer to mfr. information for available voltages/phase.

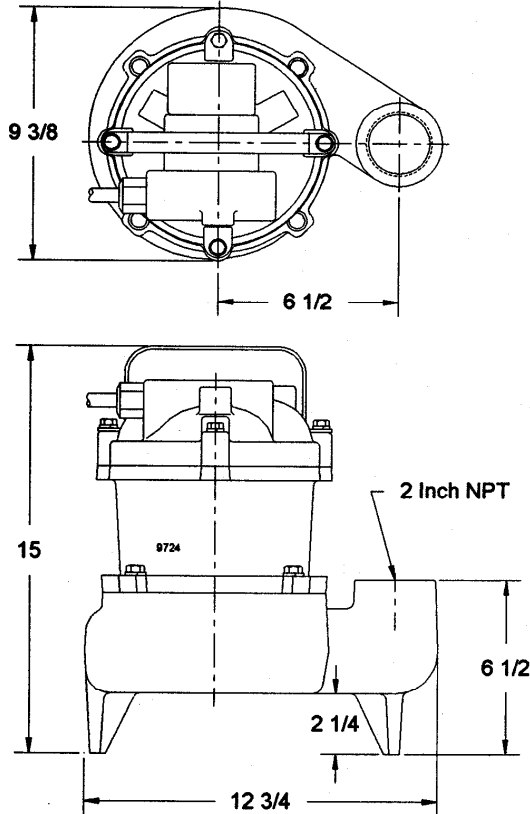
WEIL 2-Inch Discharge Submersible Pump

2411

Residential and commercial applications.
 Pump clear water, gray water, effluent and wastewater.
 Handles 2-inch solids from basement wet wells, laundry
 drainage, floor drains, etc.

Disch. Size 2 Inch
 Disch. Type NPT
 Solids Max. 2 Inch

Mounting Style Floor



Pump

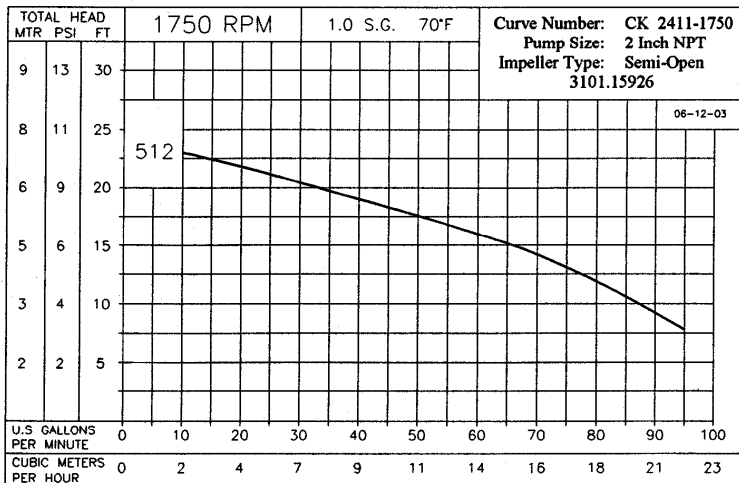
Case - Cast Iron
 Impeller - Cast Iron
 Stainless Steel Hardware

Motor

Single Seal
 - Carbon against Ceramic
Air-Filled Hermetically Sealed
Shaft - Stainless Steel Series 300
 Motor Shell - Cast Iron
 Insulation - Class F
 Ball Bearings - 2 - Double Sealed
 Power Cord Length - 15 ft. with 3 conductor
 grounded plug
 Single-Phase motor
 - 1750 RPM, 60 Hz, 115 volts
 - Auto Thermal Overload Protection
 - Capacitors and Start Relays in Motor

Disch. Location	Minimum Basin Dia.	
	Simplex	Duplex
Above Grade	18 Inches	24 Inches
Below Grade	24 Inches	30 Inches

Curve	HP	Wt.	Max. Amps
512	1/2	90	10.0



Curve is non-overloading at any point.



X

Replaces SN-2411, April 1, 2003

SN-2411

FEBRUARY 2, 2004

2411

SP-12

DESCRIPTION: SEWAGE PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED.

CAPACITY [EACH PUMP]: [] GPM, [] FEET OF HEAD.

CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 2" VERTICAL DISCHARGE.

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 2" SOLIDS MINIMUM.

SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED SLEEVE OR BALL BEARINGS, CARBON AND CERAMIC SEAL.

MOTOR: [] HP, [] VOLTS, [] PHASE, 3450 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH.

MANUFACTURER & CATALOG NO.: ZOELLER 290 SERIES, BARNES 2SE, HYDROMATIC SKHS, GOULDS WS_BHF, STA-RITE SC, MYERS MW

DESCRIPTION: CONTROLS - WALL MOUNTED NEMA [1][4X] ENCLOSURE, [SIMPLEX (3) FLOAT,][DUPLEX (4) FLOAT WITH AUTOMATIC ALTERNATOR TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD,] RUN LIGHT, HAND-OFF-AUTO AND DISCONNECTING MEANS FOR [EACH] PUMP, HIGH WATER ALARM WITH HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

1. Medium capacity, high head with separate control panel. Small solids capacity commonly used for lower level floor drains, loading docks, etc.
2. Capacity around 55 gpm at 55 ft. hd. Refer to mfr. information for other selections.
3. Alarm is integral to control panel.
4. Coordinate electrical requirements with electrical engineer. Typically requires a separate feed for each pump and control/alarm circuit. Refer to mfr. information for available hp/voltages/phase.

"QUALITY PUMPS SINCE 1939"



SECTION: 2.30.050

FM0450

0104

Supersedes

0303

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

visit our web site:
<http://www.zoeller.com>

COMPARE THESE FEATURES

- Non-clogging vortex impeller design. Bronze class 84-8-0-4.
- Durable cast construction. Cast iron switch case, base, motor and pump housing. No sheet metal parts to rust or corrode. All cast iron class 25-30 25000# tensile strength.
- Stainless steel screws, bolts, float rod, handle, guard, arm and seal assembly.
- 20 ft. UL Listed 3-wire neoprene cord and plug. Extra cord lengths available in 25-35-50 foot lengths only.
- 3 phase models available (292, 115V/1PH only).
- Motor - 60 Hz, 3450 RPM, oil-filled, hermetically sealed, automatic reset, thermal overload protected (1 PH only).
- Maximum temperature for sewage or dewatering 130°F (54°C), 120°F (49°C) for WD295. If over 130°F, consult factory.
- Shaft Seal - Stainless steel carbon & ceramic rotary.
- Corrosion resistant powder coated epoxy finish.
- Upper sleeve bearing and lower ball bearing running in bath of oil.
- Square Ring & Gasket - Neoprene.
- All models pass 2" spherical solids.
- Major width 12 7/8" • Height 18 9/16" (Single seal pumps).
- Automatic units available with float operated, submersible (NEMA 6) 2-pole mechanical switch. On point 14 3/4" - Off point 5".
- Specify 2" or 3" NPT female flanged vertical discharge.
- 100% computerized testing.

**MODELS 4292-4293-4294-4295
DOUBLE SEAL PUMPS (Nonauto only)**

- Gives motor extra protection from seal leaks.
- Improved bearing lubrication.
- Helps eliminate seal and bearing damage from dry runs.
- Major width 12 7/8". Height 20 7/16".

Note: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

**292 - 293 - 294 - 295 Single Seal Series
4292 - 4293 - 4294 - 4295 Double Seal Series
(For Pump Prefix Identification see News & Views 0052)**



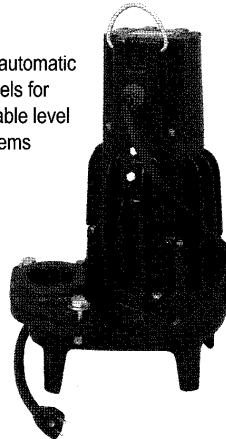
Certified to CSA
Standard C22.2 No.108



**HIGH HEAD
"WASTE-MATE"
SUBMERSIBLE
SEWAGE
OR DEWATERING PUMP**

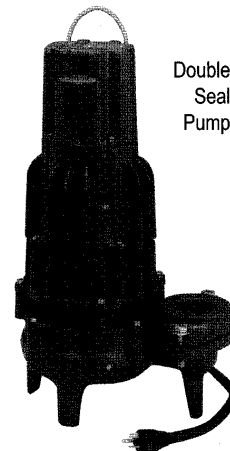


Nonautomatic models for variable level systems

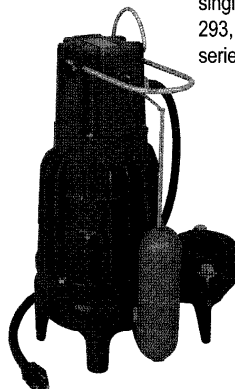


Tested to UL
Standard UL778

Double Seal Pump



Automatic units available in single phase 292, 293, 294 & 295 series

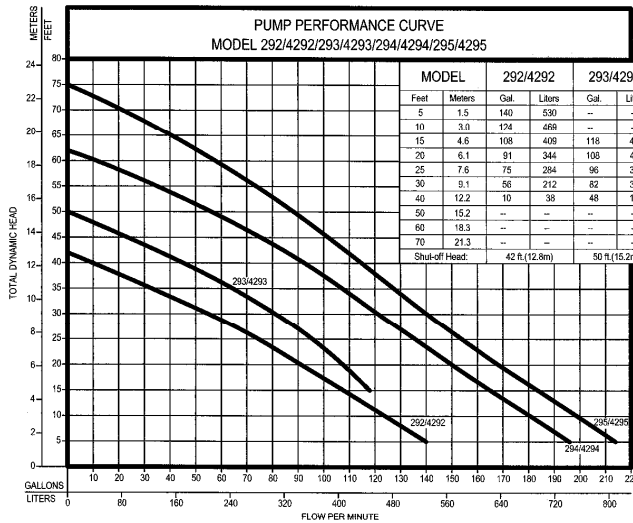


WD295 controlled by variable level float switch

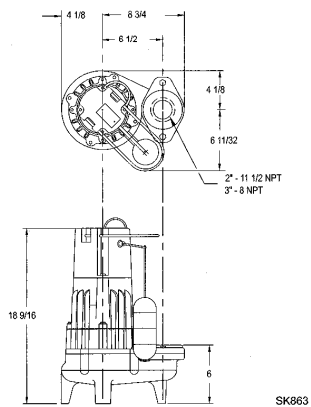


*See back page for UL & CSA listings

© Copyright 2004 Zoeller Co. All rights reserved.



**Single Seal Automatic Design
Weight 87-90 lbs.**

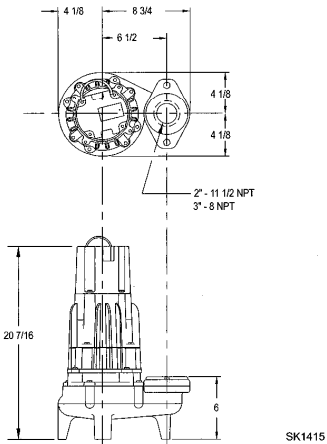


CAUTION
Model 293 should not be subjected to less than 15' TDH.

292 MODELS		4292 MODELS		Standard all models - 20 ft. cord - 1/2 HP				Control Selection		Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL		
M292	---	115	1	Auto	15.0	1	---	---	---	Y	Y
N292	N4292	115	1	Non	15.0	2 or 3	2 or 4	Y	Y	Y ⁽¹⁾	Y ⁽¹⁾

Double Seal Design / Weight 93-96 lbs.

293 MODELS		4293 MODELS		Standard all models - 20 ft. cord - 1 HP				Control Selection		Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL		
D293	---	230	1	Auto	10.2	1	---	---	---	Y	Y
E293	E4293	230	1	Non	10.2	2 or 3	4	Y ⁽²⁾	Y	Y	Y
* H293	---	200-208	1	Auto	12.0	1	---	---	---	Y	N
* I 293	* I 4293	200-208	1	Non	12.0	2 or 3	4	Y	Y	N	N
* F293	* F4293	230	3	Non	7.6	3	4	Y	Y	Y	Y
* J293	* J4293	200-208	3	Non	8.2	3	4	Y	Y	Y	Y
* G293	* G4293	460	3	Non	4.0	3	4	Y	Y	Y	Y
* BA293	---	575	3	Non	3.3	3	4	N	N	N	N



294 MODELS		4294 MODELS		Standard all models - 20 ft. cord - 1 1/2 HP				Control Selection		Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL		
D294	---	230	1	Auto	13.7	1	---	---	---	Y	Y ⁽¹⁾
E294	E4294	230	1	Non	13.7	2 or 3	4	Y ⁽²⁾	Y ⁽¹⁾	Y	Y
* H294	---	200-208	1	Auto	17.8	1	---	---	---	N	N
* I 294	* I 4294	200-208	1	Non	17.8	2 or 3	4	N	N	N	N
* F294	* F4294	230	3	Non	9.5	3	4	Y	Y	Y	Y
* J294	* J4294	200-208	3	Non	10.8	3	4	Y	Y	Y	Y
* G294	* G4294	460	3	Non	4.8	3	4	Y	Y	Y	Y
* BA294	---	575	3	Non	3.8	3	4	Y	N	N	N

SELECTION GUIDE

1. Integral float operated mechanical switch, no external control required.
2. For automatic use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
3. See FM1228 for correct model of simplex control panel.
4. See FM0712 for correct model of duplex control panel.

295 MODELS		4295 MODELS		Standard all models - 20 ft. cord - 2 HP				Control Selection		Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL		
D295	---	230	1	Auto	17.1	1	---	---	---	N	Y
E295	E4295	230	1	Non	17.1	2 or 3	4	Y ⁽²⁾	Y	Y	Y
WD295	---	230	1	Auto	17.1	**	4	---	---	N	N
* H295	---	200-208	1	Auto	20.5	1	---	---	---	N	N
* I 295	* I 4295	200-208	1	Non	20.5	2 or 3	4	N	N	N	N
* F295	* F4295	230	3	Non	12.2	3	4	Y	Y	Y	Y
* J295	* J4295	200-208	3	Non	14.3	3	4	Y	Y	Y	Y
* G295	* G4295	460	3	Non	6.1	3	4	Y	Y	Y	Y
* BA295	---	575	3	Non	4.9	3	4	Y	N	N	N

CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

For information on additional Zoeller products refer to catalog on Explosion Proof Models, FM1702; Simplex controls, FM1596; Piggyback Variable Level Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Sump/Sewage Basins, FM0487; Alarm Systems, FM0732; Disconnect/Rail Systems, FM0787; and Junction Boxes FM1597.

* No Molded Plug.
** Single piggyback switch included.
(1) UL Listed unit available with 20 Amp Plug.
(2) CSA Approval without cap.

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.
© Copyright 2004 Zoeller Co. All rights reserved.

SP-13

DESCRIPTION: SEWAGE PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED.

CAPACITY [EACH PUMP]: [] GPM, [] FEET OF HEAD.

CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM [3" VERTICAL DISCHARGE][3" FLANGED DISCHARGE FOR USE WITH GUIDE RAIL REMOVAL SYSTEM].

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 2" SOLIDS MINIMUM.

SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED BALL BEARINGS, CARBON AND CERAMIC SEAL.

MOTOR: [] HP, [] VOLTS, [] PHASE, [] RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH.

[Specifier: Select list below for 3" vertical discharge]

MANUFACTURER & CATALOG NO.: WEIL 2429, ZOELLER 600 SERIES, BARNES 3SE, HYDROMATIC SB3S, GOULDS 3WD, MYERS V3WHV

[Specifier: Select list below for 3" flanged discharge]

MANUFACTURER & CATALOG NO.: WEIL 2441, ZOELLER 600 SERIES, BARNES 3SE, HYDROMATIC, SB3, GOULDS 3SD, MYERS, 3WHV

DESCRIPTION: CONTROLS - WALL MOUNTED NEMA [1][4X] ENCLOSURE, [SIMPLEX (3) FLOAT.][DUPLEX (4) FLOAT WITH AUTOMATIC ALTERNATOR TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD,] RUN LIGHT, HAND-OFF-AUTO AND DISCONNECTING MEANS FOR [EACH] PUMP, HIGH WATER ALARM WITH HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

1. Large capacity pumps commonly used for clear water, gray water, effluent and wastewater.
2. Based on higher grade ball bearings only.
3. For highest grade pump include only WEIL, PACO, FLYGT, ABS, KSB, HOMA. Edit motor to read AIR-FILLED only.
4. Refer to mfr. information for available flow capacities and electrical hp/voltages/phase.
5. Alarm is integral to control panel.
6. Coordinate electrical requirements with electrical engineer. Typically requires a separate feed for each pump and control/alarm circuit.

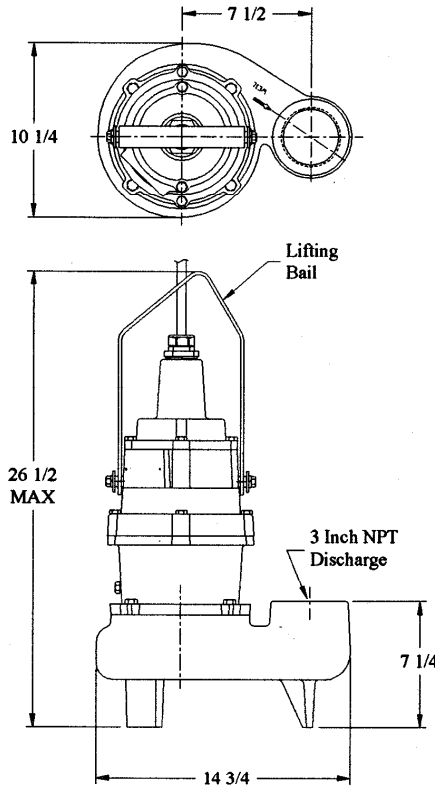
WEIL 3-Inch Discharge Submersible Pump

2429

Commercial and industrial applications.
Pump clear water, gray water, effluent and wastewater.
Handles 2-inch solids from wet wells, underground utility vaults, etc.

Disch. Size 3 Inch
Disch. Type NPT
Solids Max. 2 Inch

Mounting Style Floor



Pump

Case - Cast Iron
Impeller - Cast Iron
Stainless Steel Hardware

Motor

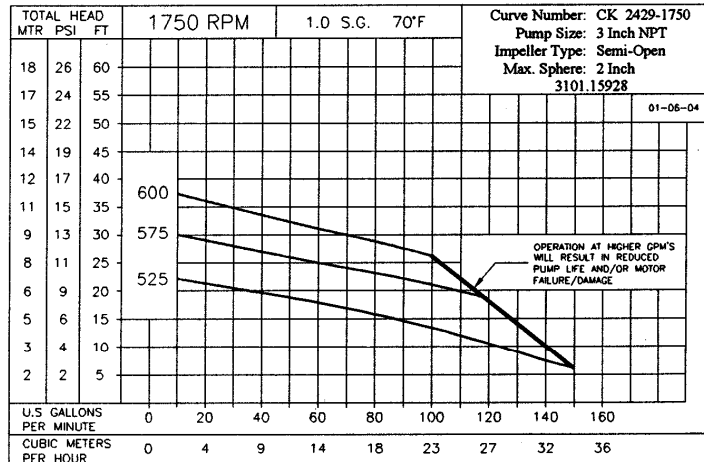
Single Seal
- Carbon against Ceramic
Air-Filled, Hermetically Sealed Shaft - Stainless Steel Series 300
Motor Shell - Cast Iron
Insulation - Class F
Ball Bearings - 2 - Double Sealed
Power Cord Length - 20 ft.
Three-phase motor - 1750 RPM
- 60 Hz, 208-230 or 460 volts
Single-phase motor - 1750 RPM
- 60 Hz, 115 or 208-230 volts
- Automatic reset thermal and overload protection
- Capacitor and start relay in motor

Options

- Bronze impeller
- Additional power cable lengths
- Stainless Steel lifting cable
- High-temperature motor - Max. 3/4 HP

Disch. Location	Minimum Basin Dia.	
	Simplex	Duplex
Above Grade	24 Inches	36 Inches
Below Grade	24 Inches	36 Inches

Curve	HP	Wt.
600	1	204
575	3/4	200
525	1/2	194



These are standard impeller trims. Other trims are available as options.



X Replaces SN-2429, July 1, 2001

SN-2429 FEBRUARY 2, 2004

2429

SP-14

DESCRIPTION: SEWAGE PUMP - [SIMPLEX][DUPLEX] SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], GRINDER STYLE WITH HARDENED STAINLESS STEEL ROTATING AND STATIONARY BLADES, STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED. CAPACITY [EACH PUMP]: [____] GPM, [____] FEET OF HEAD. CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 1 1/4" VERTICAL DISCHARGE. IMPELLER: BRONZE OR CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT. SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED BALL BEARINGS, CARBON AND CERAMIC SEAL. MOTOR: [____] HP, [____] VOLTS, [__] PHASE, 3450 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH.

MANUFACTURER & CATALOG NO.: WEIL 2439, ZOELLER 840/841 SERIES, BARNES SGV, HYDROMATIC HPGH, GOULDS 1A

DESCRIPTION: CONTROLS - WALL MOUNTED NEMA [1][4X] ENCLOSURE, [SIMPLEX (3) FLOAT,][DUPLEX (4) FLOAT WITH AUTOMATIC ALTERNATOR TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD,] RUN LIGHT, HAND-OFF-AUTO AND DISCONNECTING MEANS FOR [EACH] PUMP, HIGH WATER ALARM WITH HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

1. Grinder style sewage pump commonly used for wastewater.
2. Refer to mfr. information for available flow capacities and electrical hp/voltages/phase.
3. Alarm is integral to control panel.
4. Coordinate electrical requirements with electrical engineer. Typically requires a separate feed for each pump and control/alarm circuit.

WEIL Submersible 1 1/4-Inch Grinder Pump 2439

Pump Type Grinder
 Disch. Size 1 1/4 Inch
 Disch. Type NPT
 Mounting Style Floor

Pump

Case – Cast Iron
 Impeller – Cast Iron
 Rotating Cutter – Type 440C Stainless Steel
 Stationary Cutter – Type 440C Stainless Steel
 Stainless Steel Hardware
 One-Phase and Three-Phase pump capacities are the same.

Motor

Air-Filled Hermetically Sealed
Shaft – 316 Stainless Steel
 Motor Shell – Cast Iron
 Insulation – Class F
 Ball Bearings – 2 Double Sealed
 Power Cord Length – 20 ft.
 Single-Phase Motors have:
 - Automatic Reset Thermal and Overload Protection
 - Capacitor and Start Relay in Motor

Options

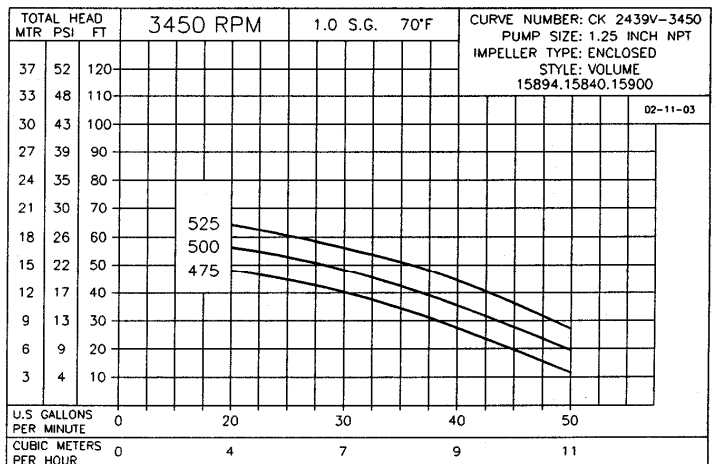
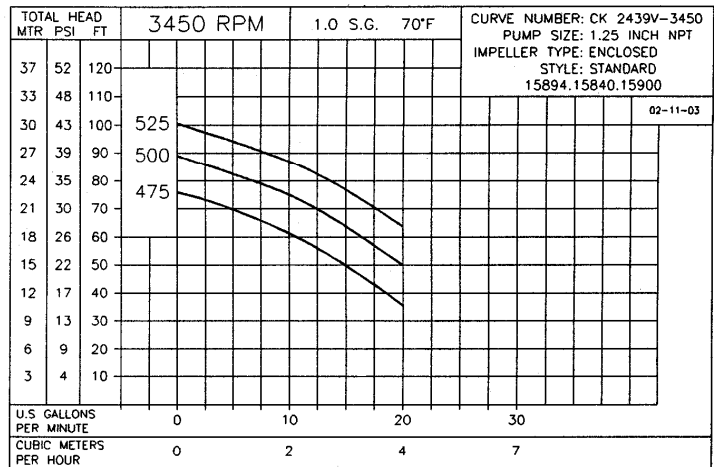
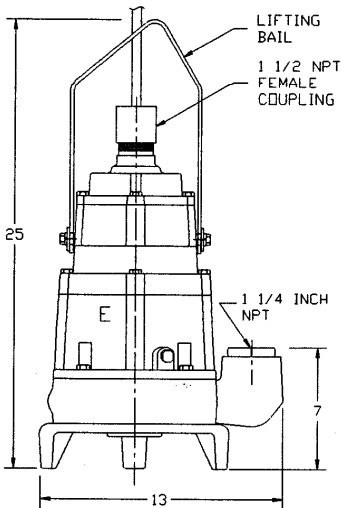
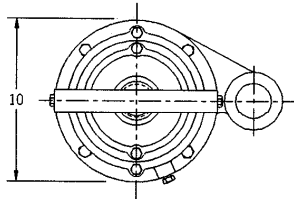
- Stainless Steel Lifting Cable
- Additional power cable lengths

Seal

Carbon - Ceramic

Curve	HP	Weight
525	2	210
500	1.5	204
475	1	200

Disch.	Minimum Basin	
	Simplex	Duplex
Above Grade	18 Inches	36 Inches
Below Grade	24 Inches	36 Inches



Impeller curves are Non – Overloading at any point on curve.

X

Replaces SN-2439, October 1, 2001

SN-2439

FEBRUARY 1, 2003

2439

SP-15

DESCRIPTION: SEWAGE PUMP - [SIMPLEX][DUPLEX] VERTICAL, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION, SEPARATELY COUPLED, SUSPENDED PUMP[S], UL LISTED.

CAPACITY [EACH PUMP]: [____] GPM, [____] FEET OF HEAD.

CASING: CAST IRON, MINIMUM [__"] VERTICAL GALVANIZED DISCHARGE.

IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT.

LEG: GALVANIZED STEEL HOUSING, STAINLESS STEEL SHAFT, BRONZE SLEEVE BEARINGS, BALL THRUST BEARING WITH COVER ACCESSIBLE LUBRICANT LINES.

MOTOR SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED BALL BEARINGS, FLEXIBLE COUPLING.

MOTOR: [____] HP, [____] VOLTS, [__] PHASE, [____] RPM, AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH.

MANUFACTURER & CATALOG NO.: WEIL 2100/2200 SERIES, PACO NCC, PEERLESS VCS, AURORA SERIES 640, TRAMCO 2900/3100 SERIES

DESCRIPTION: CONTROLS - PEDESTAL MOUNTED NEMA [1][4X] ENCLOSURE, [SIMPLEX MECHANICAL FLOAT,][DUPLEX ALTERNATING MECHANICAL FLOAT TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD,] STAINLESS STEEL FLOAT, STAINLESS STEEL FLOAT ROD, BRASS ADJUSTABLE STOPS, DRY CONTACTS FOR HIGH WATER ALARM, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER

DESCRIPTION: BASIN - [SPECIFIER: ADD FROM SUMP/SEWAGE PUMP BASIN SECTION]

Notes to specifier:

1. Vertical sewage pump commonly used for wastewater.
2. Refer to mfr. information for available flow capacities and electrical hp/voltages/phase.
3. Alarm is integral to control panel.
4. Coordinate electrical requirements with electrical engineer. Typically requires a separate feed for each pump and control/alarm circuit.

SPA-1

DESCRIPTION: ALARM - HIGH WATER ALARM, NEMA [1][4X] ENCLOSURE, FLOAT SWITCH WITH WATER PROOF CABLE OF SUFFICIENT LENGTH, HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS, 6 FOOT 115V POWER CORD, UL LISTED.

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER, WEIL 8341, ZOELLER A-PAK, HYDROMATIC Q-ALERT

Notes to specifier:

1. Coordinate receptacle location with electrical engineer.

"QUALITY PUMPS SINCE 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
 SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
 (502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

visit our web site:
<http://www.zoeller.com>

SECTION: 4.10.110
 FM0732
 0404
 Supersedes
 0903

A-PAK - ALARM SYSTEMS

INDOOR/OUTDOOR ALARM SYSTEM FEATURES

- Indoor & Outdoor use per UL 864.
- UL Listed and CSA Certified.
- Alarm system (horn & light) operates to warn of a high water condition.
- Horn is rated 82 decibels at 10'.
- Alarm Test and Horn Silence Switch with auto reset.
- Terminal connections for a pump & float switch.

Standard Model (P/N 10-0623) Includes:

- 15 ft. float switch.

Deluxe Model (P/N 10-0682) Includes:

- 20 ft. float switch.
- 6 ft. power cord plugs into 115V outlet.
- Watertight cord connectors.

"A-PAK" ALARM SYSTEM FEATURES

10-1494 (115V/1Ph/9V DC)

- Auto reset solid state alarm.
- 9 Volt battery back-up (battery not included).
- NEMA 1 non-corrosive enclosure for indoor use.
- Manual shut off.
- Float operates on 12 VAC.
- Float switch with 15' cable included.
- 6 ft. power cord plugs into 115V outlet.
- Horn is rated at 86 decibels at 10'.

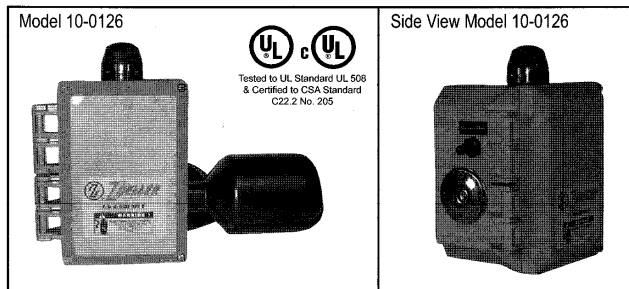
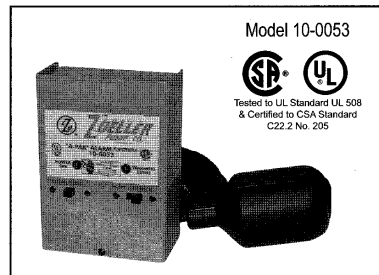
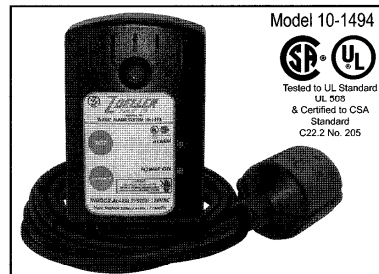
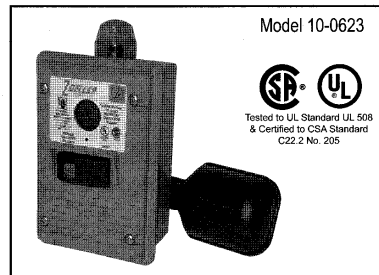
10-0053 (115V/1Ph)

- NEMA 1 metal enclosure for indoor use.
- Solid state warning light and horn.
- Manual shut off switch.
- Float operates on 12 VAC.
- Float switch with 15 ft. cable included.
- 6 ft. power cord plugs into 115V outlet.
- Horn is rated at 86 decibels at 10'.

"A-PAK II" ALARM SYSTEM FEATURES

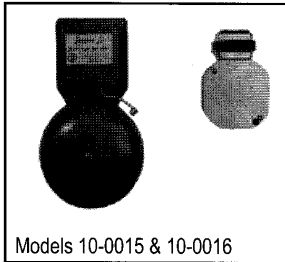
10-0126 (115V/1Ph)

- NEMA 4X thermoplastic alarm panel.
- Horn & light warn of high liquid levels
- Test and silence switch.
- Auxiliary dry high level alarm contacts - 5 amps.
- Operates on separate circuit from pump 115 VAC.
- UL Listed for US & Canada.
- Float switch with 15 ft. cable included.
- Can be used with liquids to 140°F (60°C).
- Horn is rated at 88 decibels at 10'.



© Copyright 2004 Zoeller Co. All rights reserved.

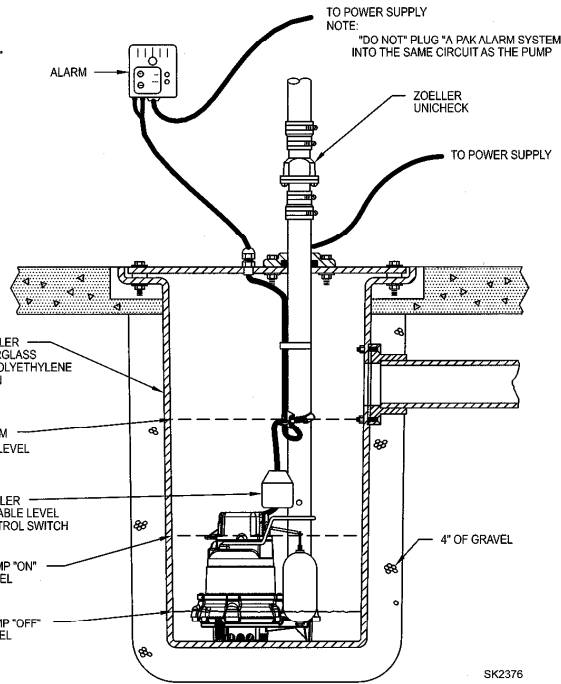
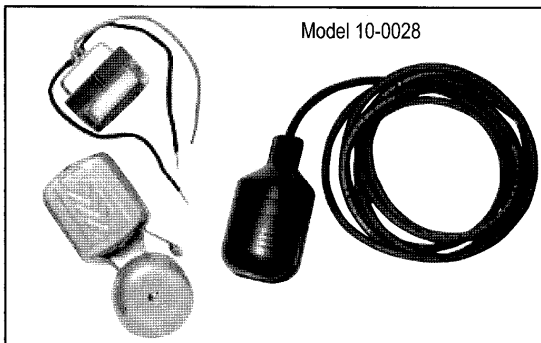
A-PAK - ALARM SYSTEMS



- 10-0015 (115V) / 10-0016 (230V)**
- Non-enclosed model.
 - 6" magnetic bell with transformer.
 - Mount on standard utility box (not included).
 - Operates with 10-0743 float switch or mechanical alternator (not included).

10-0028 (115V/1Ph)

- Non-Enclosed model.
- Operates on 115V circuit.
- 3" magnetic bell with transformer.
- Mount on standard utility box. (Not Included).
- Float switch with 15 ft. cable included.



A-PAK PUMP ALARM SYSTEMS

MODEL #	VOLTS	PANEL	SWITCH	AUX. CONTACTS	UL	CSA
10-0015	115V	N/A	Alarm Float P/N 10-0743 ⁽¹⁾	N/A	No	No
10-0016	230V	N/A	Alarm Float P/N 10-0743 ⁽¹⁾	N/A	No	No
10-0028	115V	N/A	Alarm Float 15' Cable	N/A	No	No
10-0053	115V	6" x 4" - Metal NEMA 1	Alarm Float 15' Cable	N/A	Yes	Yes
10-0126	115V	6" x 4" x 4" NEMA 4X	Alarm Float 15' Cable	115V	Yes	Yes ⁽²⁾
10-0623	115V	6.5" x 4.5" x 3.0" NEMA 4X	Alarm Float 15' Cable	N/A	Yes	Yes
10-0682	115V	6.5" x 4.5" x 3.0" PVC/UL Indoor/Outdoor Watertight Cord Connectors	Alarm Float 20' Cable	N/A	Yes	Yes
10-1494	115V and 9V Battery	NEMA 1 for indoor use.	Alarm Float 15' Cable	N/A	Yes	Yes

⁽¹⁾ Alarm Float Switch not included. Purchase separately. See FM0526 or use float switch listed (Includes 15' cable).

⁽²⁾ List to Canadian Standard cULus.

© Copyright 2004 Zoeller Co. All rights reserved.

SPB-1

DESCRIPTION: BASIN - [__"SQ.][__"DIA.] X [__"] DEEP FORMED CONCRETE PIT BY OTHERS WITHOUT COVER.

Notes to specifier:

1. Commonly used for elevator pits..

SPB-2

DESCRIPTION: BASIN - [__"DIA] X [__"] DEEP FIBERGLASS BASIN WITH RIM, ANCHOR FLANGE, AND PIPE INLET(S) AS SHOWN ON DRAWING. CAST IRON OR STEEL GASKETED COVER WITH OPENINGS FOR PUMP ACCESS, [__"] DISCHARGE PIPE FLANGE(S), [__"] VENT PIPE FLANGE, CONTROL AND POWER CORDS, INSPECTION PORT. [STAINLESS STEEL LIFTING CABLE SECURED TO SIDE OF BASIN][GALVANIZED STEEL GUIDE RAIL SUPPORTS ANCHORED TO BASING BASE AND COVER OR SIDEWALL WITH DISCHARGE ELBOW, SEALING PLATE AND STAINLESS STEEL LIFITING CABLE.]

MANUFACTURER & CATALOG NO.: SAME AS PUMP MANUFACTURER, AK INDUSTRIES, FIBER BASIN INC,

Notes to specifier:

1. Lifting cable or guide rails should be utilized for pits 60" deep or more.

SS-1

DESCRIPTION: SERVICE SINK - WHITE ACID RESISTING ENAMELED CAST IRON, 24" X 20", BLANK BACK, STAINLESS STEEL RIM GUARD, WALL HANGER, 3" TRAP STANDARD WITH CLEANOUT PLUG AND STRAINER.

MANUFACTURER & CATALOG NO.: KOHLER K-6719, ELJER 242-0125, AMER. STAND. 7695.000, CECO 868

SINK TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

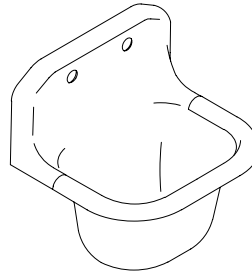


BANNON™
SERVICE SINK

FEATURES

- 22-1/4" x 18-1/4" or 24-1/4" x 20-1/4"
- Cast iron
- Acid resistant enamel finish
- Single compartment
- 2-hole (K-6714 and K-6716)
- Drilled back (K-6714 and K-6716) or blank back (K-6718 and K-6719)
- With rim guard

K-6714, K-6716
K-6718, K-6719



CODES/STANDARDS APPLICABLE

Specified model meets or exceeds the following:

- ASME/ANSI A112.19.1M
- IAPMO/UPC
- Canadian Standards Association (CSA)
- State of Massachusetts

COLORS/FINISHES

- 0 White

SPECIFIED MODEL:

Model	Description	Colors/Finishes
K-6714	22-1/4" x 18-1/4" drilled back service sink	<input type="checkbox"/> 0 White
K-6716	24-1/4" x 20-1/4" drilled back service sink	<input type="checkbox"/> 0 White
K-6718	22-1/4" x 18-1/4" blank back service sink	<input type="checkbox"/> 0 White
K-6719	24-1/4" x 20-1/4" blank back service sink	<input type="checkbox"/> 0 White

PRODUCT SPECIFICATION:

The service sink shall be made of cast iron with acid resistant enamel finish. Sink shall be 2-hole (K-6714 and K-6716) drilled. Sink shall be single compartment with drilled back (K-6714 and K-6716) or blank back (K-6718 and K-6719). Sink shall have rim guard. Sink shall be Kohler Model K-_____ -_____.

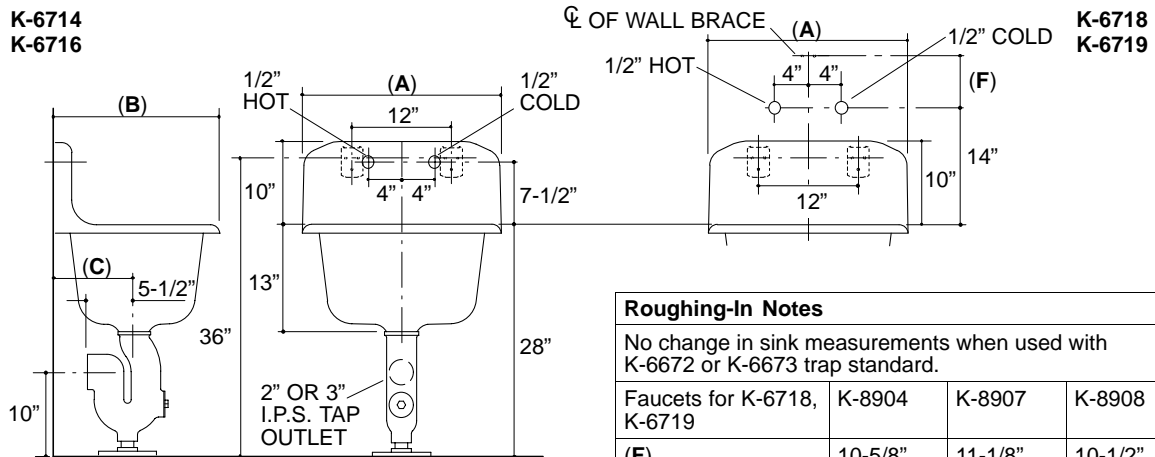
We reserve the right to make revisions without notice in the design of fixtures or in packaging unless this right has specifically been waived at the time the order is accepted.

Page 1 of 2
105145-4-BA (A)

BANNON™

PRODUCT INFORMATION

Fixture*:		basin area	water depth
K-6714, K-6718		18" x 14"	12"
K-6716, K-6719		20" x 16"	12"
Outlet	2-7/8" D.		
Faucet holes	1-1/2" D.		
Rim guard holes	5/8" D.		
* Approximate measurements for comparison only.			
Included Components:			
Hangers		64515	
Stainless steel rim guards		K-8937	



Roughing-In Notes			
No change in sink measurements when used with K-6672 or K-6673 trap standard.			
Faucets for K-6718, K-6719	K-8904	K-8907	K-8908
(F)	10-5/8"	11-1/8"	10-1/2"
	(A)	(B)	(C)
K-6714, K-6718	22-1/4"	18-1/4"	8-1/2"
K-6716, K-6719	24"	20-1/4"	9-1/2"
Recommended accessories/hardware are shown.			

.9<116

PRODUCT DIAGRAM

K-6714, K-6716, K-6718, K-6719 Bannion™ Sink
Page 2 of 2
105145-4-BA (A)



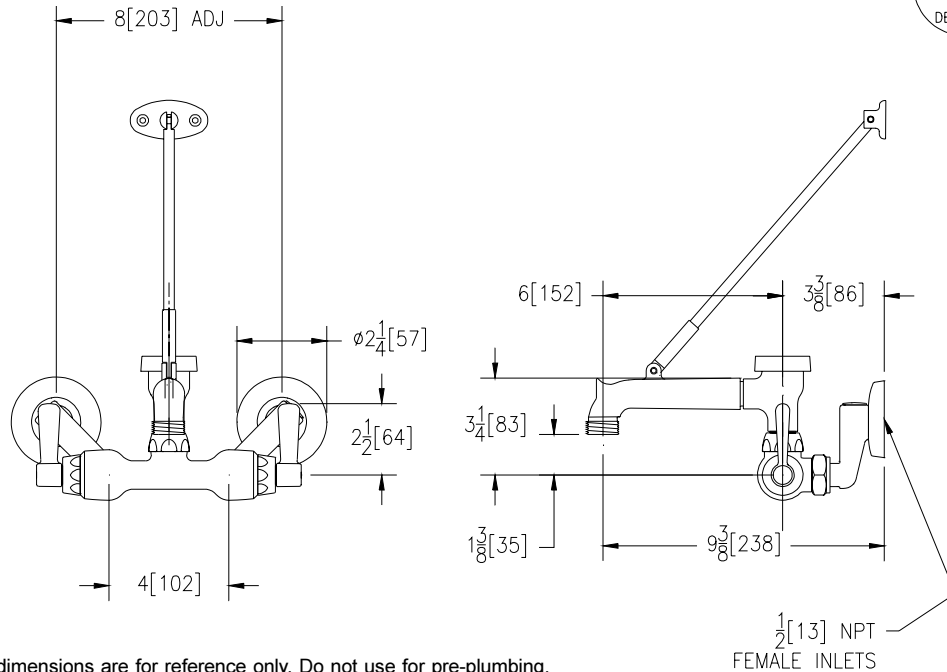


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E

Date: 10/7/98

C.N. No. 81369

Dwg. No. 60882

Product No. Z-841M1

SS-2

DESCRIPTION: SERVICE SINK - WALL MOUNTED UNIT MADE OF 14 GA STAINLESS STEEL, TYPE 304 WITH 25" X 20" X 12" DEEP BOWL, WITH 3" CAST IRON FLOOR SUPPORTED "P" TRAP, AND WALL MOUNTING BRACKETS.

MANUFACTURER & CATALOG NO.: JUST A-18665, ELKAY ESS

SINK TRIM - TWO HANDLE EXPOSED MIXING FAUCET, SINGLE WING HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 897, T & S BRASS B-667, ZURN Z-841M1, DELTA 28T2383

Service Sink, Wall Mounted
Model ESS- ESSB- ESSW-Series



SPECIFICATIONS

GENERAL

#14 gauge, type 304 (18-8), stainless steel service sink with 1-3/4" (44 mm) radius vertical and horizontal covered corners. 1-1/2" (38 mm) rolled rims. Full length backsplash. Exposed surfaces are hand blended to a uniform satin luster finish. Furnished with wall hanger and stainless steel support brackets.

(CHECK MODEL SPECIFIED)

- ESS-2118-C ESSB-2118-C ESSW-2118-C
- ESS-2319-C ESSB-2319-C ESSW-2319-C
- ESS-2520-C ESSB-2520-C ESSW-2520-C

FURNISHED COMPLETE WITH "ESS" SERIES:

SUPPLY: LK-69-C (Pair) Chrome plated single bib service faucets.

DRAIN: LK-173. Cast iron, "P" trap standard.

FURNISHED COMPLETE WITH "ESSB" SERIES:

SUPPLY: LK-400 Rough brass Chrome plated mixing faucet with 3/4" (19 mm) hose thread spout.*

DRAIN: LK-173. Cast iron, "P" trap standard.

FURNISHED COMPLETE WITH "ESSW" SERIES:

SUPPLY: LK-401 Chrome plated mixing faucet. Spout* with 3/4" (19 mm) hose thread, vacuum breaker, wall brace and pail hook.

DRAIN: LK-173. Cast iron, "P" trap standard.

*Suggested for hospital applications. Order faucet with AE-K3E8 anti-hose adapter (available at extra cost.)

FOLLOWING MODELS DO NOT INCLUDE SUPPLY & DRAIN:

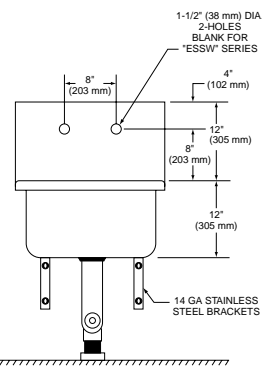
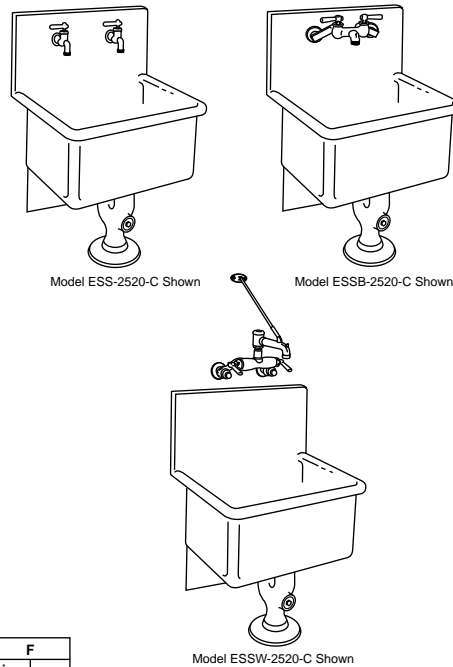
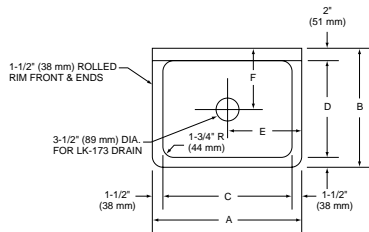
- ESS-2118 ESSB-2118 ESSW-2118
- ESS-2319 ESSB-2319 ESSW-2319
- ESS-2520 ESSB-2520 ESSW-2520

SPECIFY FAUCET DRILLINGS AND LOCATION

DIMENSIONS

MODEL NUMBER	A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
*-2118	21	533	17½	445	18	457	14	356	10½	267	9	229
*-2319	23	584	18½	470	20	508	15	381	11½	292	9½	241
*-2520	25	635	19½	495	22	559	16	406	12½	318	10	254

*(ABOVE DIMENSIONS REFER TO ESS-, ESSB-, and ESSW-SERIES)



NOTE: SEE REVERSE SIDE FOR ROUGH-IN DIMENSIONS

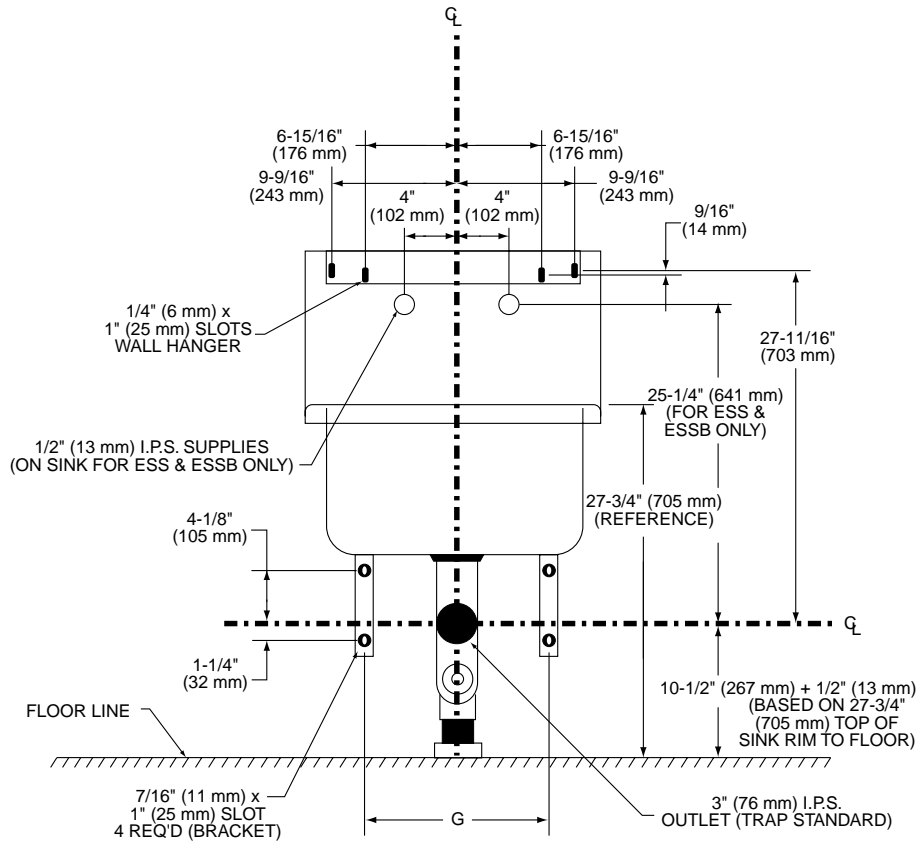
In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice.

Elkay Manufacturing Company
www.elkay.com

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©2000 Elkay Mfg. Co.
(Rev. 1/00) 3-24C

ROUGH-IN DIMENSIONS



MODEL NUMBER	G	
	in.	mm
* -2118-C	13	330
* -2319-C	14½	368
* -2520-C	17	432

*(ABOVE "G" DIMENSIONS REFER TO ESS-, ESSB-, and ESSW-SERIES)

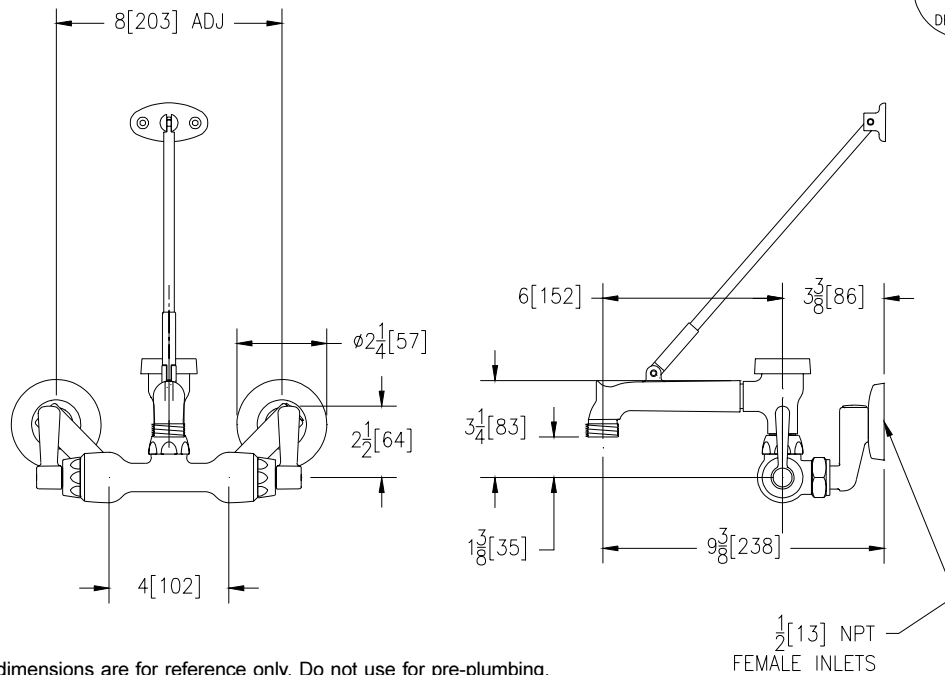


SERVICE SINK FAUCET Z-841M1



Engineering Specifications: Zurn AquaSpec® Z-841M1

Polished chrome-plated cast brass service sink faucet with quarter turn ceramic disc cartridges, 2-1/2" [64mm] long swivel inlets (with integral stops) providing adjustable centers from 4" [102mm] to 8-3/8" [213mm] and a 6" [152mm] centerline cast brass vacuum breaker spout with an integral 3/4" [19mm] hose threaded outlet, pail hook and wall brace. Unit is provided with 2-1/2" [64mm] vandal-resistant brass lever color-coded handles.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

OPTIONAL ACCESSORIES

Suffix	Description
-SSI	3/8" [10mm] Short Swivel Inlets
-WHK	Wall Hook
-5H	5' [152cm] Vinyl Hose

ZURN INDUSTRIES, INC. COMMERCIAL BRASS OPERATIONS

P.O. BOX 2767, SANFORD, NC, U.S.A. 27331 PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com

In Canada:

ZURN INDUSTRIES LTD. 6544 Nashua Drive, MISSISSAUGA, ONTARIO L4V1L2 PHONE: 905/405-8272 FAX: 905/405-1292

AquaSpec® is a registered trademark of Zurn Industries, Inc.
©1998 Zurn Industries, Inc.

Rev. E Date: 10/7/98
Dwg. No. 60882

C.N. No. 81369
Product No. Z-841M1

SS-3

DESCRIPTION: SERVICE SINK - SINGLE BOWL POLYPROPYLENE UNIT WITH 23" X 25" X 13" DEEP BOWL, BAKED ENAMEL LEGS, AND FAUCET SHELF. 1-1/2" 17 GAUGE CHROME PLATED BRASS TAILPIECE. CHROME PLATED CAST BRASS "P" TRAP WITH CLEANOUT. 3/8" CHROME PLATED BRASS ANGLE SUPPLIES AND [LOOSE KEY] STOPS.

MANUFACTURER & CATALOG NO.: FIAT MODEL P-1, SWAN PT-1

SINK TRIM - TWO HANDLE MIXING FAUCET, SINGLE WING HANDLES, AERATOR, CHROME PLATED, 8" SWING SPOUT, 4" CENTERS.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 1891-L8-E3, T&S BRASS B-1111, ZURN Z-812F1, DELTA 27T3243

Note to specifier: Low quality. Use for low budget jobs only.



PT-1 Single Tub
25" x 22" (22 gallon capacity)

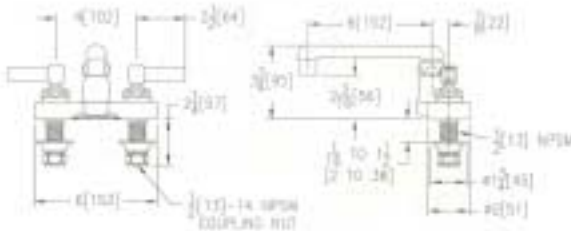
Swan polypropylene floor-mount laundry tubs use heavy gauge snap steel legs with adjustable leg levers and feature ribbed tub construction, two molded-in self-draining soap dishes and molded-in drain stopper. Available in white only.

[Installation Instructions](#)

ZURN 4" CENTERSET GOOSENECK Z-812F1



Engineering Specifications: Zurn Aquaspec® Z-812F1
Protective chrome-plated cast brass faucet body with integral chrome, swivel arm, ceramic disc cartridge and a 6" (152mm) cast brass swing spout. Unit is furnished with a 3.0 GPM (7.6 L) variable orifice aerator (optional with A955-A112 16.1 Standard for flow, 2-1/2" (64mm) optional aerator) bronze lever color-coated handles, rearwing hardware and 102" (13mm) MPMA coupling nuts for standard laundry hoses.



Note: All dimensions are for reference only. Do not use for pre-planning.

OPTIONAL ACCESSORIES

SKU#	Description
-D	1-1/4" (32mm) Grid Bleeder Drain
-P	1-1/4" (32mm) Pop-up Drain
-H	1-1/4" (32mm) Cast Brass "P" Trap with a 1-1/2" (38mm) Long 17 Gauge Wall Bend
-MSZ	Two 5/8" (16mm) 875 All Chrome-Plated Angle Wash Glass and Two 1/2" (32mm) Laundry Rings
-2F	3.0 GPM (7.6 L) Variable-Resistant Porcelain Aerator
-3F	0.5 GPM (1.9 L) Variable-Resistant Porcelain Aerator
-4F	3.0 GPM (7.6 L) Variable-Resistant Porcelain Aerator
-5F	3.0 GPM (7.6 L) Porcelain Spray Dialer

ZURN INDUSTRIES, INC. COMMERCIAL BRASS DIVISION
P.O. BOX 2102, SAFFORD, NC, U.S.A. 27577 PHONE: 1-800-667-0876 FAX: 919-778-0481
In Canada:
ZURN INDUSTRIES LTD. 1007 SANDHURST DRIVE, MISSISSAUGA, ONTARIO L4V 1V2 CANADA PHONE: 905-884-8877 FAX: 905-884-2287
Head Office: 1-800-667-0876 In Canada: 905-884-8877
Product No. 08786 Date: 8/27/95 C.N. No. 95370
Product No. Z-812F1

ST-2

DESCRIPTION: SINK TRIM - TWO HANDLE MIXING FAUCET, CHROME PLATED, ALL BRASS CONSTRUCTION, CONVENTIONAL SWING SPOUT WITH 8" REACH AND [AERATOR][LAMINAR FLOW OUTLET], [LEVER BLADE][4" WRIST BLADE][6" WRIST BLADE] HANDLES AT 8" CENTERS, 1/4-TURN OPERATION, [SPRAY HOSE WITH LEVER CONTROL]. MAXIMUM FLOW TO BE 2.2 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

[Use following manufacturers/model numbers for trim with NO spray hose]

MANUFACTURER & CATALOG NO.: DELTA 27T2, AMERICAN STANDARD 7270.000, CHICAGO FAUCET 201, KOHLER K-7761, T&S BRASS B-2855, ZURN Z-831



[Use following manufacturers/model numbers for trim with spray hose]

MANUFACTURER & CATALOG NO.: DELTA 27T1, AMERICAN STANDARD 7271.000, CHICAGO FAUCET 201, KOHLER K-7765, ZURN Z-831

Notes to specifier:

1. All sinks to have 2.2 gpm maximum flow per energy policy act of 1992.
2. Coordinate spout length/depth with sink. Spout outlet should line-up with sink drain.
3. Coordinate number of faucet holes required in sink.


Two Handle Under Deckmount Sink Faucet

Specification: (example)

- Two handle below deckmount faucet
- 203mm (8") center
- Polished chrome plated finish
- **CAST BRASS** bodies
- Brass spout and trim
- Tuf-Teck institutional structures
- Metal hold down package
- Color indexed metal handles with vandal resistant screws

and ... with ... hose spray and diverter (if applicable)
 with ... (add spout required)
 with ... (add outlet required)
 with ... (add handle required)




27T2144 27T2944

Engineer/Architect Approval

Model Specified: _____

Approval: _____ Date: _____

DESCRIPTION	PRODUCT NO.	
With hose and spray	27T1	
Less hose and spray	27T2	



SPOUT	OUTLET	HANDLE
0 <input type="checkbox"/>	0 <input type="checkbox"/>	0 <input type="checkbox"/>
1 203mm (8") Wallform Swing Spout (2) <input type="checkbox"/>	1 Vandal Resistant 1.9 USGPM (7.2 L/min) Flow Control Rosespray <input type="checkbox"/>	1 Five Flute Handles <input type="checkbox"/>
2 203mm (8") Tubular Swing Spout (2) (SS) <input type="checkbox"/>	2 Vandal Resistant 2.2 USGPM (8.3 L/min) Laminar Non-Splash Flow Control Moderator <input type="checkbox"/>	2 <input type="checkbox"/>
3 *203mm (8") Spout 90° Limited Swing Wallform Spout <input type="checkbox"/>	3 Vandal Resistant 2.2 USGPM (8.3 L/min) Flow Control Aerator <input type="checkbox"/>	3 70mm (2-3/4") Lever Blade Handles <input type="checkbox"/>
4 279mm (11") Tubular Swing Spout (2) <input type="checkbox"/>	4 Standard 2.2 USGPM (8.3 L/min) Flow Control Aerator <input type="checkbox"/>	4 102mm (4") Blade Handles, Sanitary Hoods <input type="checkbox"/>
5 356mm (14") Tubular Swing Spout (2) <input type="checkbox"/>	5 <input type="checkbox"/>	5 152mm (6") Wrist Handles, Sanitary Hoods <input type="checkbox"/>
6 406mm (16") Tubular Swing Spout (2) <input type="checkbox"/>	6 <input type="checkbox"/>	6 Cross Handles, Sanitary Hoods <input type="checkbox"/>
7 <input type="checkbox"/>	7 Smooth End, Laminar Flow Control in Base of Gooseneck Spout 1.1 USGPM (4.2L/min.) (3) <input type="checkbox"/>	7 <input type="checkbox"/>
8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Heavy Duty (R4), 152mm (6") Bend Rigid/Swivel Gooseneck Spout (1) <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>

(1) See Page 9.T.5 for **Optional Rigid/Swivel Spouts**. These spouts can ONLY BE added to **SPOUT Option No. 9**. *Available on 27T2 Deckmount Sink Faucet only (Patent Applied For) Flowrates are at 60 PSI

(2) See Page 9.T.7 for **Optional Swing Spouts**. These spouts can ONLY BE added to **SPOUT Option No. 2**. Refer to Spec Select for individual models.

(3) This outlet can ONLY be added to **SPOUT Option No. 9**. Note: Use this page front and back as a product submittal sheet.

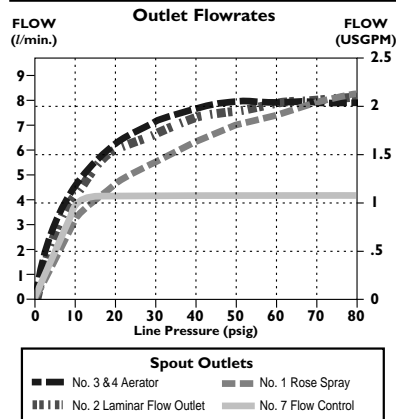
See current price list for product availability.
Page 3.T.3

Approvals:

- CSA certified
- Complies to ASME A112.18.1
- Lever Blade Handle No.'s 3, 4 and 5, ADA Compliant and meet Handicapped Accessibility Standard ASME A117.1 of less than 5 lbs. operating force.
- IAPMO listed
- UL listed to U.S. and Canadian Safety Standards and classified in accordance with ANSI/NSF61-97b 21PL

(Contact Delta Representative for State and/or Local Approvals.)

FLOWRATE vs PRESSURE



OUTLET NO.	"D"	
	mm	in.
1	17	0.67
2	18	0.69
3	18	0.69
4	17	0.67

GOOSENECK SPOUT ASSEMBLIES

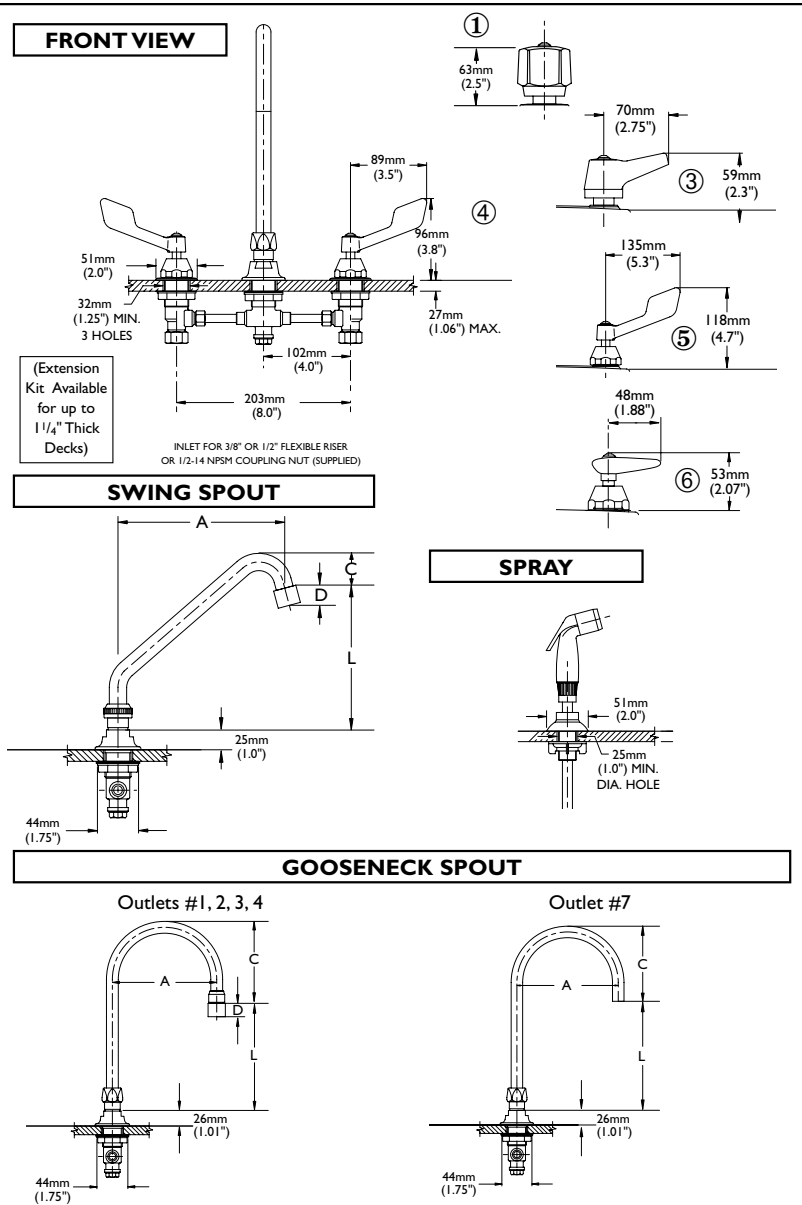
SPOUT/OUTLET	"A"		"C"		"L"	
	mm	in.	mm	in.	mm	in.
Gooseneck-Standard (R4) for outlets #1, 2, 3, 4	152	6	124	4.9	146	5.8
Gooseneck-Standard (R4) for outlets #7	152	6	117	4.6	152	6.0

See Page 9.T.5 for additional optional spouts.

INLETS - 1/2" MIP/Coupling Nuts

Note: Measurements may vary ± 6mm (0.25")

Refer to Spec Select for individual models.



SWING SPOUT ASSEMBLIES

Spout No.	SPOUT TYPE	"A"		"C"		"L"	
		mm	in.	mm	in.	mm	in.
1	8" Wallform Spout	206	8.1	15	0.6	130	5.1
2	8" Tubular Spout (S5)	185	7.3	41	1.6	147	5.8
3	8" Limited Swing Spout	206	8.1	15	0.6	130	5.1
4	11" Tubular Spout	277	10.9	28	1.1	104	4.1
5	14" Tubular Spout	351	13.8	28	1.1	127	5
6	16" Tubular Spout	399	15.7	28	1.1	142	5.6

See Page 9.T.7 for additional optional spouts.

Note: Use this page front and back as a product submittal sheet.

ST-3

DESCRIPTION: SINK TRIM - SINGLE HANDLE MIXING FAUCET, CHROME PLATED, ALL BRASS CONSTRUCTION, 10" HIGH-RISE SWING SPOUT WITH 8" REACH AND [AERATOR][LAMINAR FLOW OUTLET], LEVER HANDLE, [SPRAY HOSE WITH LEVER CONTROL]. MAXIMUM FLOW TO BE 2.2 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

[Use following manufacturers/model numbers for trim with NO spray hose]

MANUFACTURER & CATALOG NO.: ELKAY LK-4121, KOHLER K-15177

[Use following manufacturers/model numbers for trim with spray hose]

MANUFACTURER & CATALOG NO.: ELKAY LK-4123, KOHLER K-15178

Notes to specifier:

1. All sinks to have 2.2 gpm maximum flow per energy policy act of 1992.
2. Coordinate spout length/depth with sink. Spout outlet should line-up with sink drain.
3. Coordinate number of faucet holes required in sink.

**Hi-Arc® Single Lever Kitchen Faucet
Model LK-4121 Series**



SPECIFICATIONS

GENERAL

LK-4121. Single lever kitchen faucet with circular brass base finished in a polished heavy chrome plate. Tubular brass high-arc contemporary style, 8" swing spout with restricted flow aerator. Removable cartridge. Temperature and flow controlled by one movement of the single lever handle. All operating parts are replaceable from above deck. 3/8" O.D. copper tube connections. Requires two faucet holes. Ship. Wt. 3-3/4 lbs.

LK-4121-RS. Same as LK-4121 except with restricted swing spout.



This faucet is ADA compliant.

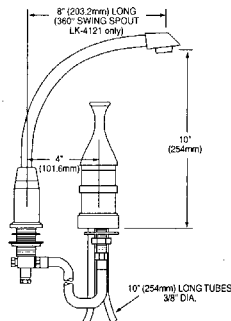


This faucet is classified by Underwriter's Laboratory, Inc. to ANSI/NSF 61, Section 9 for residential use.



This faucet is listed with the Canadian Standards Association.

MAXIMUM FLOW RATE
2.5 GPM/9.5 L/min AT 80 P.S.I.G.
2.2 GPM/8.3 L/min AT 60 P.S.I.G.



CARTRIDGE

Maintenance-free, drip-free washerless cartridge that is completely self-contained and easily removable.

A simple cam-activated movement of the diaphragm controls the flow of water with a feather-soft touch.

No springs. No wearing action. And no moving parts exposed to water.

U.S. Patent #4,357,957.

ELKAY FAUCET/WATER DISPENSERS LIMITED WARRANTY

Elkay warrants its faucet and water dispensers to be free of defects in workmanship and material for a period of one year from the date of purchase. Replacement parts are available from Elkay for a nominal charge. Upon return of a defective part to Elkay during the warranty period with written notice of the claimed defect, Elkay will refund the replacement charge.

WASTE FITTINGS AND ACCESSORIES ARE NOT WARRANTED; OTHER WARRANTY CONDITIONS:

Our warranty does not cover product failure caused by abusive treatment, misuse, or damage due to handling or faulty installations. This warranty is extended only to the original consumer purchaser of the product. This warranty does not cover shipping costs, labor costs, or any other charges for such items as installation or replacement of the sink, diagnosis or replacement of any faucet or component part, or any other expense or loss.

ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED. NO ADDITIONAL WARRANTIES, EXPRESS OR IMPLIED, ARE GIVEN. ANY IMPLIED WARRANTY, INCLUDING ONE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

TO OBTAIN SERVICE UNDER WARRANTY

1. Write to: Elkay Manufacturing Company
Attention: Consumer Service
2222 Camden Court
Oak Brook, Illinois 60523
2. Include a letter containing the following information:
 - a. Date of purchase and installation
 - b. Description of nature of defect
 - c. Model number or description of model and/or component part if possible.

Elkay Manufacturing Company
www.elkay.com

2222 Camden Court
Oak Brook, IL 60523

Printed in U.S.A.
©1998 Elkay Mfg. Co.
(Rev. 11/98) 5-36D

ST-4

DESCRIPTION: SINK TRIM - TWO HANDLE MIXING FAUCET, CHROME PLATED, ALL BRASS CONSTRUCTION, GOOSENECK [RIGID][SWING] SPOUT WITH [4][6][8]" REACH AND [AERATOR][LAMINAR FLOW OUTLET], [LEVER BLADE][4" WRISTBLADE][6" WRISTBLADE] HANDLES AT 8" CENTERS, 1/4-TURN OPERATION, [SPRAY HOSE WITH LEVER CONTROL]. MAXIMUM FLOW TO BE 2.2 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

[Use following manufacturers/models for trim with 8" reach and NO spray hose]

MANUFACTURER & CATALOG NO.: DELTA 27T2, AMERICAN STANDARD 7230.000, CHICAGO FAUCET 201, T&S BRASS B-2850, ZURN Z-831

[Use following manufacturers/models for trim with 8" reach and spray hose]

MANUFACTURER & CATALOG NO.: DELTA 27T1, AMERICAN STANDARD 7231.000, CHICAGO FAUCET 200, T&S BRASS B-2347, ZURN Z-831

[Use following manufacturers/models for trim with 6" reach and NO spray hose]

MANUFACTURER & CATALOG NO.: DELTA 27T2, AMERICAN STANDARD 7890.000, CHICAGO FAUCET 201, T&S BRASS B-2850, ZURN Z-831

[Use following manufacturers/models for trim with 4" reach and NO spray hose]

MANUFACTURER & CATALOG NO.: DELTA 27T2, CHICAGO FAUCET 201, ZURN Z-831

Notes to specifier:

1. All sinks to have 2.2 gpm maximum flow per energy policy act of 1992.
2. Coordinate spout length/depth with sink. Spout outlet should line-up with sink drain.
3. Coordinate number of faucet holes required in sink.

Two Handle Under Deckmount Sink Faucet

Teck®



Specification: (example)

- Two handle below deckmount faucet
- 203mm (8") center
- Polished chrome plated finish
- **CAST BRASS** bodies
- Brass spout and trim
- Tuf-Teck institutional structures
- Metal hold down package
- Color indexed metal handles with vandal resistant screws and ... with ... hose spray and diverter (if applicable)
- with ... (add spout required)
- with ... (add outlet required)
- with ... (add handle required)

27T2144



27T2944

Engineer/Architect Approval

Model Specified:

Approval:

Date:

DESCRIPTION	PRODUCT NO.			
With hose and spray	27T1			
Less hose and spray	27T2			



SPOUT		OUTLET		HANDLE	
0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>
1 203mm (8") Wallform Swing Spout (2)	<input type="checkbox"/>	1 Vandal Resistant 1.9 USGPM (7.2 L/min) Flow Control Rosespray	<input type="checkbox"/>	1 Five Flute Handles	<input type="checkbox"/>
2 203mm (8") Tubular Swing Spout (2) (S5)	<input type="checkbox"/>	2 Vandal Resistant 2.2 USGPM (8.3 L/min) Laminar Non-Splash Flow Control Moderator	<input type="checkbox"/>	2	<input type="checkbox"/>
3 *203mm (8") Spout 90° Limited Swing Wallform Spout	<input type="checkbox"/>	3 Vandal Resistant 2.2 USGPM (8.3 L/min) Flow Control Aerator	<input type="checkbox"/>	3 70mm (2-3/4") Lever Blade Handles	<input type="checkbox"/>
4 279mm (11") Tubular Swing Spout (2)	<input type="checkbox"/>	4 Standard 2.2 USGPM (8.3 L/min) Flow Control Aerator	<input type="checkbox"/>	4 102mm (4") Blade Handles, Sanitary Hoods	<input type="checkbox"/>
5 356mm (14") Tubular Swing Spout (2)	<input type="checkbox"/>	5	<input type="checkbox"/>	5 152mm (6") Wrist Handles, Sanitary Hoods	<input type="checkbox"/>
6 406mm (16") Tubular Swing Spout (2)	<input type="checkbox"/>	6	<input type="checkbox"/>	6 Cross Handles, Sanitary Hoods	<input type="checkbox"/>
7	<input type="checkbox"/>	7 Smooth End, Laminar Flow Control in Base of Gooseneck Spout 1.1 USGPM (4.2L/min.) (3)	<input type="checkbox"/>	7	<input type="checkbox"/>
8	<input type="checkbox"/>	8	<input type="checkbox"/>	8	<input type="checkbox"/>
9 Heavy Duty (R4), 152mm (6") Bend Rigid/Swivel Gooseneck Spout (1)	<input type="checkbox"/>	9	<input type="checkbox"/>	9	<input type="checkbox"/>

(1) See Page 9.T.5 for **Optional Rigid/Swivel Spouts**. These spouts can ONLY BE added to **SPOUT Option No. 9**. *Available on 27T2 Deckmount Sink Faucet only (Patent Applied For) Flowrates are at 60 PSI
 (2) See Page 9.T.7 for **Optional Swing Spouts**. These spouts can ONLY BE added to **SPOUT Option No. 2**. Refer to Spec Select for individual models.
 (3) This outlet can ONLY be added to **SPOUT Option No. 9**. Note: Use this page front and back as a product submittal sheet.

See current price list for product availability.



Teck®

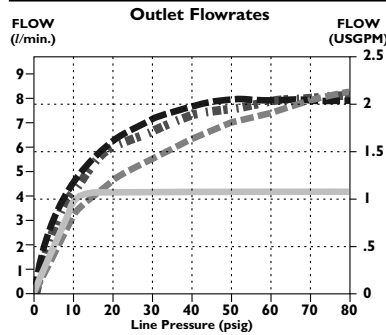
Two Handle Under Deckmount Sink Faucet

Approvals:

- CSA certified
- Complies to ASME A112.18.1
- Lever Blade Handle No.'s 3, 4 and 5, ADA Compliant and meet Handicapped Accessibility Standard ASME A117.1 of less than 5 lbs. operating force.
- IAPMO listed
- UL listed to U.S. and Canadian Safety Standards and classified in accordance with ANSI/NSF61-97b 21PL

(Contact Delta Representative for State and/or Local Approvals.)

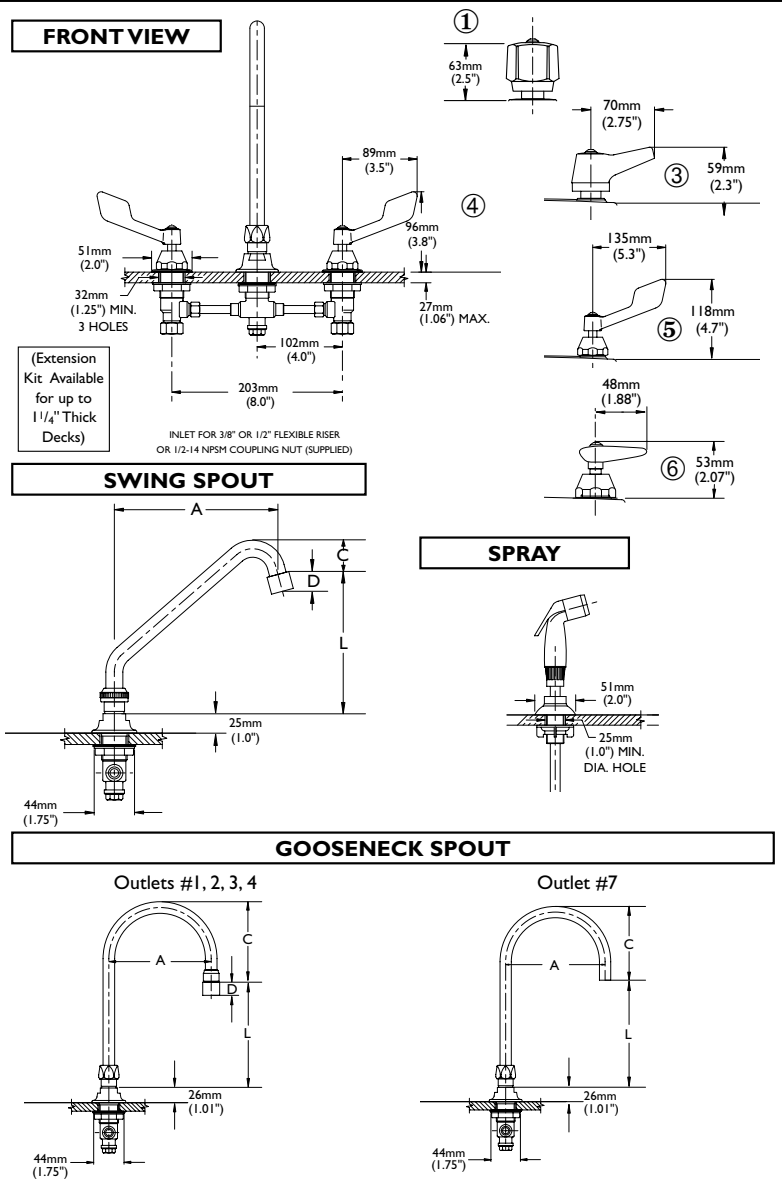
FLOWRATE vs PRESSURE



Spout Outlets

- No. 3 & 4 Aerator
- - - No. 1 Rose Spray
- ... No. 2 Laminar Flow Outlet
- · - · No. 7 Flow Control

OUTLET NO.	"D"	
	mm	in.
1	17	0.67
2	18	0.69
3	18	0.69
4	17	0.67



GOOSENECK SPOUT ASSEMBLIES

SPOUT/OUTLET	"A"		"C"		"L"	
	mm	in.	mm	in.	mm	in.
Gooseneck-Standard (R4) for outlets #1, 2, 3, 4	152	6	124	4.9	146	5.8
Gooseneck-Standard (R4) for outlets #7	152	6	117	4.6	152	6.0

See Page 9.T.5 for additional optional spouts.

SWING SPOUT ASSEMBLIES

Spout No.	SPOUT TYPE	"A"		"C"		"L"	
		mm	in.	mm	in.	mm	in.
1	8" Wallform Spout	206	8.1	15	0.6	130	5.1
2	8" Tubular Spout (S5)	185	7.3	41	1.6	147	5.8
3	8" Limited Swing Spout	206	8.1	15	0.6	130	5.1
4	11" Tubular Spout	277	10.9	28	1.1	104	4.1
5	14" Tubular Spout	351	13.8	28	1.1	127	5
6	16" Tubular Spout	399	15.7	28	1.1	142	5.6

See Page 9.T.7 for additional optional spouts.

INLETS - 1/2" MIP/Coupling Nuts

Note: Measurements may vary ± 6mm (0.25")

Refer to Spec Select for individual models.

Note: Use this page front and back as a product submittal sheet.

Page 3.T.4

See current price list for product availability.

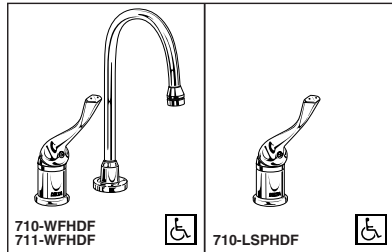
ST-5

DESCRIPTION: SINK TRIM - SINGLE HANDLE MIXING FAUCET, CHROME PLATED, ALL BRASS CONSTRUCTION, RIGID GOOSENECK SPOUT WITH 6" REACH AND [AERATOR][LAMINAR FLOW OUTLET], LEVER HANDLE. MAXIMUM FLOW TO BE 2.2 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

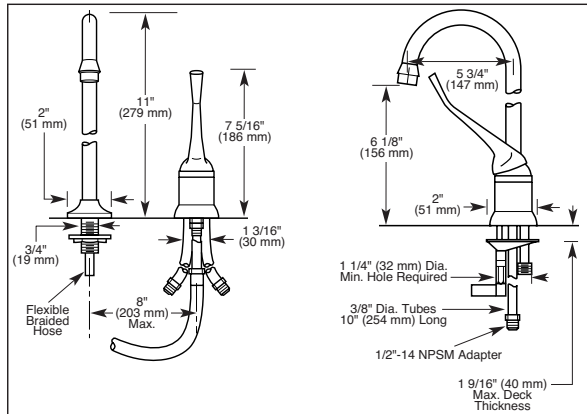
MANUFACTURER & CATALOG NO.: DELTA 711 WFHDF, CHICAGO FAUCET 2302, ELKAY LK-4121

Notes to specifier:

1. All sinks to have 2.2 gpm maximum flow per energy policy act of 1992.
2. For 2 hole installation.
3. Coordinate spout length/depth with sink. Spout outlet should line-up with sink drain.



Submitted Model No.: _____
 Specific Features: _____



SPECIALTY FAUCETS

- Single Handle
- Utility Faucet
- Deck Mount
- 1 and 2 Hole Sink Applications
- 8" (203 mm) Maximum Centers

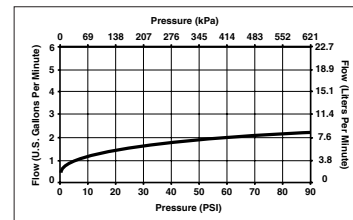


COMPLIES WITH:

- ASME A112.18.1
- CSA B125
- Indicates ADA compliance to CABO/ANSI A117.1
- IAPMO Listed
- CSA Certified

STANDARD SPECIFICATIONS:

- Single handle utility deck faucet for exposed mounting on one and two hole sinks.
- 8" (203 mm) maximum centers.
- Solid brass fabricated body.
- 5 3/4" (147 mm) long, 11" (279 mm) high gooseneck spout.
- Vandal resistant 6" (152 mm) elbow handle. Red/blue colored graphics indicate hot/cold temperature.
- Control mechanism shall be of the rotating stainless steel ball type with replaceable non-metallic seats operating in stainless steel lined sockets.
- Control handle returns to the neutral position when valve is turned off.
- Adjustable handle limit stop.
- 2.2 gpm (8.3 L/min) laminar flow outlet.
- Models have 3/8" O.D. copper supply tubes.
- Models with suffix "WF" supplied with 1/2"-14 NPSM adapters.



Delta reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only.

ST-6

DESCRIPTION: SINK TRIM - FOOT CONTROL MIXING FAUCET, CHROME PLATED, ALL BRASS CONSTRUCTION, [DECK][WALL] MOUNTED RIGID GOOSENECK SPOUT WITH 6" REACH AND [AERATOR][LAMINAR FLOW OUTLET], [WALL][FLOOR] MOUNT [DOUBLE][SINGLE] SELF-CLOSING PEDAL VALVE[S] AND LOOSE KEY STOPS. MAXIMUM FLOW TO BE 2.2 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

[Use following manufacturers/model numbers for wall mount double pedals]

MANUFACTURER & CATALOG NO.: DELTA 54T5, CHICAGO FAUCET 834/626, T&S BRASS B-0504/B-0520, ZURN Z-85500/Z-821B0

[Use following manufacturers/model numbers for floor mount double pedals]

MANUFACTURER & CATALOG NO.: DELTA 54T5, CHICAGO FAUCET 625/626, T&S BRASS B-0502/B-0520, ZURN Z-85500/Z-821B0

[Use following manufacturers/model numbers for wall mount single pedal]

MANUFACTURER & CATALOG NO.: DELTA 54T5, CHICAGO FAUCET 806/626, T&S BRASS B-0508/B-0520, ZURN Z-85100/Z-821B0

[Use following manufacturers/model numbers for floor mount single pedal]

MANUFACTURER & CATALOG NO.: DELTA 54T5, CHICAGO FAUCET 628/626, T&S BRASS B-0507/B-0520, ZURN Z-85100/Z-821B0

Notes to specifier:

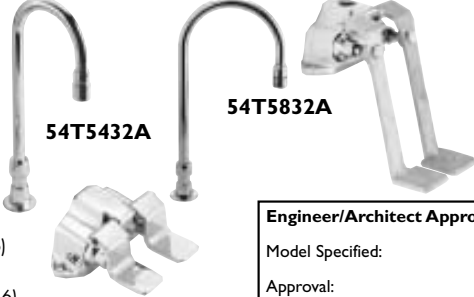
1. All sinks to have 2.2 gpm maximum flow per energy policy act of 1992.
2. Coordinate spout length/depth with sink. Spout outlet should line-up with sink drain.
3. WHEN WALL MOUNTED GOOSENECK IS USED, Chicago Faucet model number 626 shall be changed to 629 and T&S Brass model number B-0520 shall be changed to B-0525.
4. Manufacturer strongly recommends that each supply line to be equipped with hammer arrestor installed per manufacturer's instructions.

Single and Mixing Surgeon Scrub-Up Valves

Teck®



- Specification: (example)**
- Forged brass, **self close foot pedal valve**
 - Polished chrome plated finish trim
 - Indexed pedals
 - Heavy duty rigid/swivel gooseneck spout and ... with ... (add control required) with ... (add spout required) with ... (add outlet required) with ... less stop (add suffix LS if outlet stop not required - See Page 7.T.6) ... less elbow (add suffix LE if outlet elbow not required (See Page 7.T.6))



- Specification: (example)**
- **Above floor mount**, forged brass
 - Rough chrome plated finish
 - **Self-close foot pedal valve**
 - Indexed cast aluminum pedals
 - Heavy duty rigid/swivel gooseneck spout and ... with ... (add spout required) with ... (add outlet required)













Engineer/Architect Approval

Model Specified: _____

Approval: _____ Date: _____

DESCRIPTION	PRODUCT NO.		
Surgeon Scrub-up Valve	54T5		A



CONTROL	SPOUT	OUTLET
0 <input type="checkbox"/>	0 Specify "0" When No Spout Required <input type="checkbox"/>	0 Specify "0" When No Outlet Required <input type="checkbox"/>
1 Single Wallmount Valve, Inlet Stop Outlet Elbow <input type="checkbox"/> 	1 <input type="checkbox"/>	1 Vandal Resistant 1.9 USGPM (7.2 L/min) Flow Control Rosespray <input type="checkbox"/> 
2 Single Floormount Valve <input type="checkbox"/> 	2 Wallmounted (R2) Rigid/Swivel Gooseneck Spout (1) <input type="checkbox"/> 	2 Vandal Resistant 2.2 USGPM (8.3 L/min) Laminar Non-Splash Flow Control Moderator <input type="checkbox"/> 
3 Double Wallmount Valve, Inlet & Outlet Stops <input type="checkbox"/> 	3 Deckmounted (R2) Rigid/Swivel Gooseneck Spout (1) <input type="checkbox"/> 	3 Vandal Resistant 2.2 USGPM (8.3 L/min) Flow Control Aerator <input type="checkbox"/> 
4 Double Floormount Valve <input type="checkbox"/> 	4 <input type="checkbox"/>	4 Standard 2.2 USGPM (8.3 L/min) Flow Control Aerator <input type="checkbox"/> 
5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 Smooth End, Laminar Flow Control in Base of Gooseneck Spout 1.1 USGPM (4.2L/min.) (2) <input type="checkbox"/> 
8 Rough Chrome Plated Double Above Floormount Valve <input type="checkbox"/> 	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>

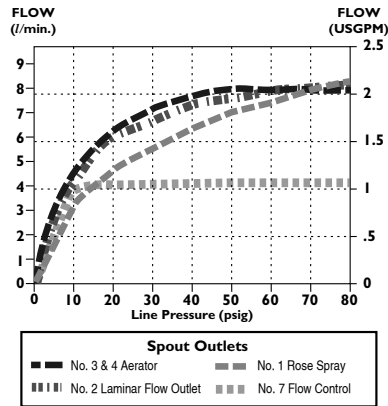
(1) See Page 9.T.5 for **Optional Rigid/Swivel Spouts**. These spouts can ONLY be added to **SPOUT Option No.'s 2, or 3**. Flowrates are at 60 PSI.
 (2) This outlet can ONLY be added to **SPOUT Option No.'s 2, or 3**. Refer to Spec Select for individual models.

See current price list for product availability. Note: Use this page front and back as a product submittal sheet.

Approvals:

- CSA certified
 - Complies to ASME A112.18.1
 - Long Foot Pedal Valves No. 1, 3, and 8 ADA Compliant and Meet Handicapped Accessibility Standard ASME A117.1 of less than 5 lbs. operating force.
 - IAPMO listed
- (Contact Delta Representative for State and/or Local Approvals.)

FLOWRATE vs PRESSURE



OUTLET NO.	"D"	
	mm	in.
1	17	0.67
2	18	0.69
3	18	0.69
4	17	0.67

Note: It is strongly recommended that each supply line be equipped with a hammer arrestor installed per manufacturer's instructions.

□ **060327A**

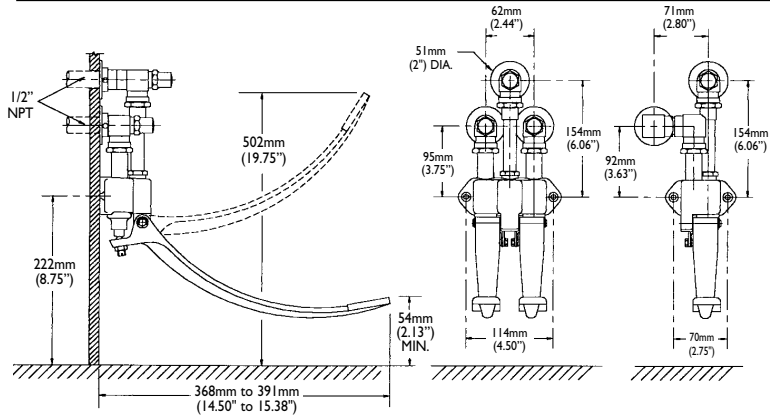
1/2" NPT Water Hammer Arrestor

Note: Measurements may vary ± 6mm (0.25")

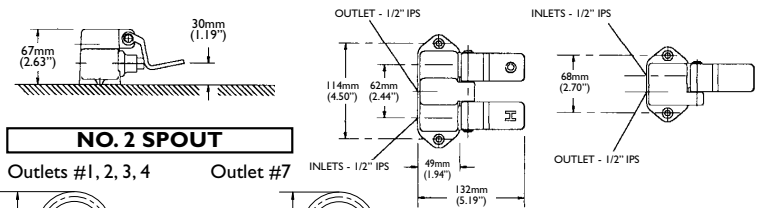
Refer to Spec Select for individual models.

NO. 1 and NO. 3 CONTROLS

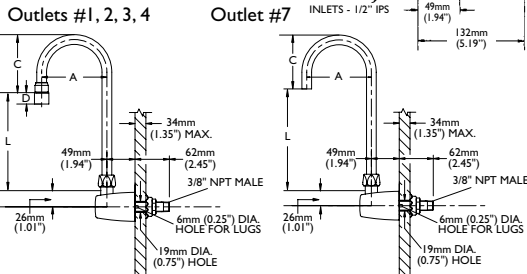
□ ADD Suffix "LS" to 54T53 _ A Product Number when Outlet Stop not required
 □ ADD Suffix "LE" to 54T51 _ A Product Number when Outlet Elbow not required



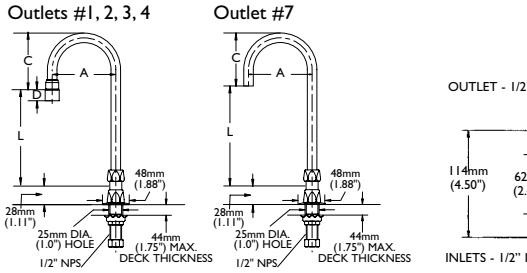
NO. 2 and NO. 4 CONTROLS



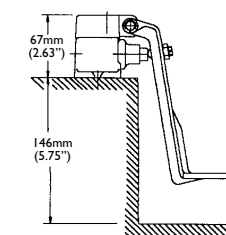
NO. 2 SPOUT



NO. 3 SPOUT



NO. 8 CONTROL



GOOSENECK SPOUT ASSEMBLIES

Spout No.	SPOUT/OUTLET	DIMENSIONS					
		"A"		"C"		"L"	
		mm	in.	mm	in.	mm	in.
2 & 3	Gooseneck-Standard (R2) for Outlet #1, 2, 3, 4	114	4.5	104	4.1	170	6.7
2 & 3	Gooseneck-Standard (R2) for Outlet #7	114	4.5	97	3.8	178	7.0

See Page 9.T.5 for additional optional spouts.

Note: Use this page front and back as a product submittal sheet.

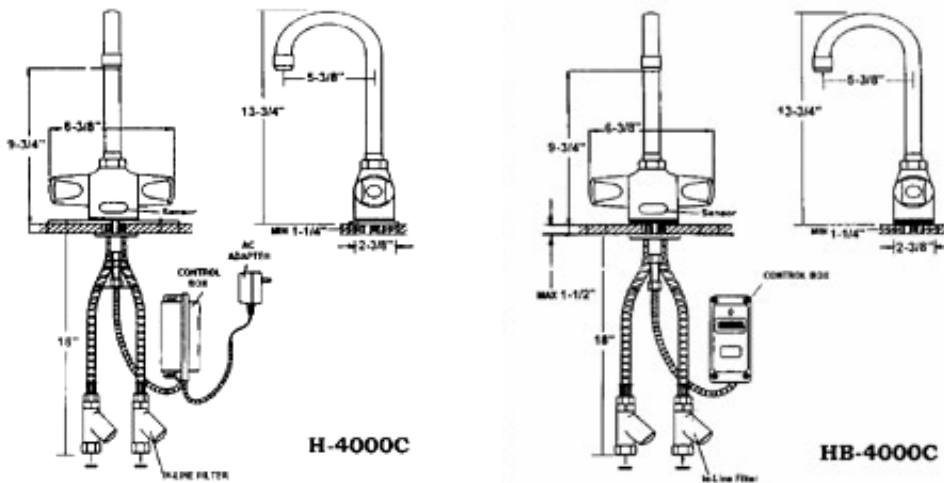
ST-7

DESCRIPTION: SINK TRIM - SENSOR OPERATED MIXING FAUCET, CHROME PLATED, ALL BRASS CONSTRUCTION, GOOSENECK SPOUT WITH [6][8]" REACH AND [AERATOR][LAMINAR FLOW OUTLET], ADJUSTABLE SENSOR EYE, ADJUSTABLE TEMPERATURE CONTROL, AND MANUAL OVERRIDE. VANDAL-RESISTANT CONTROL AND POWER CABLES. 12V DC PLUG-IN VOLTAGE ADAPTER. MAXIMUM FLOW TO BE 2.2 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992 AND ASME/ANSI STANDARD A112.18.1M. PROVIDE RESTRICTIVE DEVICE AS REQUIRED.

MANUFACTURER & CATALOG NO.: HYDROTEK 4000C, ELKAY LK720AC

Notes to specifier:

1. All sinks to have 2.2 gpm maximum flow per energy policy act of 1992.
2. Coordinate electrical requirements with electrical engineer.
3. Coordinate spout length/depth with sink. Spout outlet should line-up with sink drain.



Dimensions:

Base Width	2-1/2"
Base Depth	2"
Faucet Height (Aerator to Base) Overall Height	9-3/4" - 13-3/4"
Depth (Center of Spout to Center of Faucet)	5-3/8"
Mounting Bolt	Single-Hole Mount, 2-1/2" long

Optional Variations and Accessories:

- 1.6 GPM Soft-Flow Aerator, 1.5 & 2.5 GPM Laminar Flow
- 4" or 8" Cover Plates
- 8" deep Gooseneck and 6" or 8" Swing Spout
- HC-010 Multi-Unit Voltage Adapter (AC Powered Only)
- HBL-02 Thermostatic Mixing Valve with checks
- HC-029 Wrist Blade handle

SV-1

DESCRIPTION: SOLENOID VALVE - [3/4"] [1"] [1-1/4"] [1-1/2"] [2"] [2-1/2"] [3"] NPT PIPE CONNECTIONS, 2-WAY NORMALLY CLOSED OPERATION, MANUAL RESET HANDLE WITH VISIBLE POSITION INDICATOR. SUITABLE FOR NATURAL GAS SERVICE. ALUMINUM BODY WITH BUNA-N SEAT, MAXIMUM OPERATING PRESSURE DIFFERENTIAL OF [25] [20] [10] PSI., [24][120][240][480] V AC. UL & FM SAFETY VALVE CLASSIFIED.

MANUFACTURER & CATALOG NO.: ASCO SERIES 8044

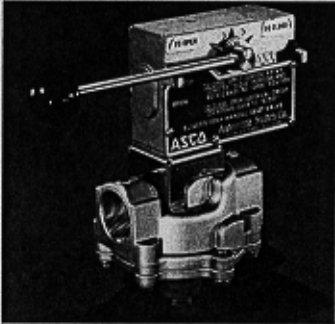
Note to specifier:

1. Verify maximum operating pressure differential with valve size.
2. For use as manual reset gas shutoff valve for kitchen, labs, etc.
3. Coordinate electrical requirements with Electrical Engineer.
4. Solenoid creates a hum. Locate away from sensitive areas.

Manual Reset Valves

Once tripped by power interruption, these gas shutoff valves must be manually reset prior to recycling the system. They meet FM, IRI and NFPA combustion system requirements.

Pipe sizes 3/4" to 3"



“FREE HANDLE” MANUAL RESET SHUTOFF VALVES

General Description: The free handle will not open the valve until the solenoid is energized allowing the lever to engage. Only then can the lever be manually raised to the latched position, opening the valve. The manual reset movement can be rotated 4 positions (90° apart) to best locate the handle and visual indicator.

SERIES 8044.

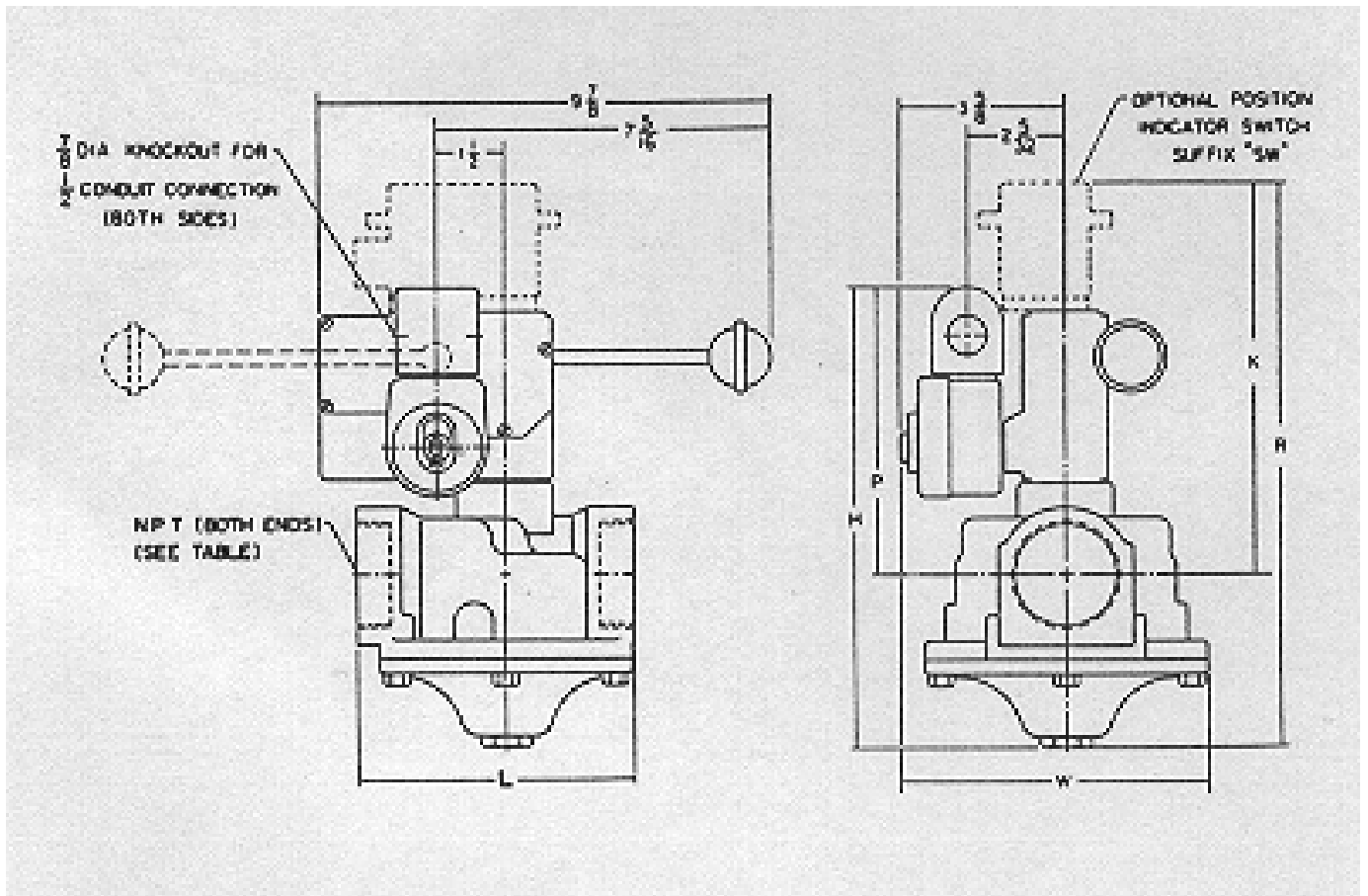
SPECIFICATIONS AC ONLY ②

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)		Field & Ambient Temperature °F		Standard Solenoid Enclosure Red-Hat – Type 1 Junction Box		Gas Capacity ① Btu/Hr.	Approval Listings					Watt Rating/ Class of Coil Insulation AC	
			Minimum	Maximum	Min	Max	Catalog Number	Constr. Ref. No.		UL	FM	CSA	CGA 3.9	CGA 6.5		AGA 221.21
NORMALLY CLOSED (Closed when de-energized) Aluminum Body with Buna “N” Seating																
3/4	1 5/8	13	0	25	-20	125	8044B1	24	717,000	○	○	○	○	-	-	20/F
1	1 5/8	22	0	25	-20	125	8044A2	25	1,170,000	○	○	○	○	-	-	20/F
1 1/4	1 5/8	30	0	25	-20	125	8044A3	25	1,580,000	○	○	○	○	-	-	20/F
1 1/2	1 5/8	33	0	25	-20	125	8044A4	25	1,760,000	○	○	○	○	-	-	20/F
2	2 3/32	55	0	20	-20	125	8044A5	26	2,960,000	○	○	○	○	-	-	20/F
2 1/2	3	108	0	10	-20	125	8044A6	27	5,810,000	○	○	○	○	-	-	20/F
3	3	135	0	10	-20	125	8044A7	27	7,260,000	○	○	○	○	-	-	20/F

INSTALLATION: Valves listed on this page must be mounted with the solenoid or operator assembly vertical and upright.

Note: ① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1000 Btu/Cu. Ft. or More, 0.64 Specific Gravity Gas

② 8044 is available with electrical position indicator switches – one indicates closed position and the other indicates open position of the valve. To order, add suffix "SW" to catalog number. Valves can only be provided with Type 1 General Purpose Solenoid and Switch Indicator Enclosures.



Const. Ref.	Pipe Size	H	K	L	P	R	W
24	3/4	9 5/8	8 15/16	5	6 1/16	12 3/8	6 5/16
25	1	9 5/8	8 15/16	5	6 3/16	12 3/8	6 5/16
25	1 1/4	9 5/8	8 15/16	5	6 3/16	12 3/8	6 5/16
25	1 1/2	9 5/8	8 7/8	5	6 1/8	12 3/8	6 5/16
26	2	10 1/4	9 1/8	6 1/32	6 3/8	13	6 25/32
27	2 1/2	12 7/16	9 31/32	7 13/16	7 7/32	15 1/16	7 3/4
27	3	12 7/16	9 31/32	7 25/32	7 7/32	15 3/16	7 3/4


SV-2

DESCRIPTION: SOLENOID VALVE - [3/8"] [1/2"] [3/4"] [1"] [1-1/4"] [1-1/2"] [2"] [2-1/2"] GENERAL SERVICE VALVE, [NORMALLY CLOSED] [NORMALLY OPEN], [SLOW CLOSING,] TWO WAY PILOT OPERATED, BRASS BODY, BUNA-N SEAT, METAL SOLENOID ENCLOSURE. 120/1/60 VALVE WITH CONTINUOUS DUTY MOLDED CLASS F COIL. SUITABLE FOR USE WITH WATER PRESSURE DIFFERENTIAL OF 0-150 LBS AT 180 DEGREES F. UL LISTED.



MANUFACTURER & CATALOG NO.: ASCO 8210 [8221]

Note to Specifier:

1. General purpose water solenoid valve.
2. Use Model 8221 for slow closing type.



Pilot Operated
General Service Solenoid Valves
Brass or Stainless Steel Bodies
3/8" to 2 1/2" NPT

NC 
NO 

2/2
SERIES
8210

Features

- Wide range of pressure ratings, sizes, and resilient materials provide long service life and low internal leakage.
- High Flow Valves for liquid, corrosive, and air/inert gas service.
- Industrial applications include:
 - Car wash
 - Laundry equipment
 - Air compressors
 - Industrial water control
 - Pumps

Construction

Valve Parts in Contact with Fluids		
Body	Brass	304 Stainless Steel
Seals and Discs	NBR or PTFE	
Disc-Holder	PA	
Core Tube	305 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Springs	302 Stainless Steel	
Shading Coil	Copper	Silver

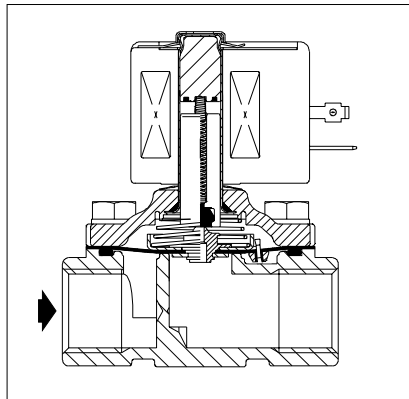
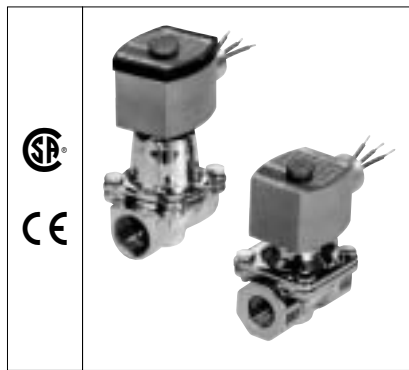
Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	-	6.1	16	40	238210	-	238214	-
F	11.6	10.1	25	70	238610	238710	238614	238714
F	16.8	16.1	35	180	272610	97617	272614	97617
F	-	17.1	40	93	238610	-	238614	-
F	-	20	43	240	99257	-	99257	-
F	-	20.1	48	240	272610	-	272614	-
H	30.6	-	-	-	-	74073	-	74073
F	40.6	-	-	-	-	238910	-	238914

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz). 6, 12, 24, 120, 240 volts DC. Must be specified when ordering. Other voltages available when required.

Solenoid Enclosures

Standard: Red-Hat II - Watertight, Types 1, 2, 3, 3S, 4, and 4X; Red-Hat - Type I.
Optional: Red-Hat II - Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9; Red-Hat - Explosionproof and Watertight, Types 3, 4, 4X, 7, and 9.
 (To order, add prefix "EF" to catalog number, except Catalog Numbers 8210B57, 8210B58, and 8210B59. Valves not available with Explosionproof enclosures.)
 See *Optional Features Section* for other available options.



Nominal Ambient Temperature Ranges:

- Red-Hat II/ AC: 32°F to 125°F (0°C to 52°C)
- Red-Hat II DC: 32°F to 104°F (0°C to 40°C)
- Red-Hat DC: 32°F to 77°F (0°C to 25°C)
(104°F/40°C occasionally)

Refer to *Engineering Section* for details.

Approvals:

CSA certified. Red-Hat II meets applicable CE directives.
 Refer to *Engineering Section* for details.

Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)							Max. Fluid Temp. °F		Brass Body			Stainless Steel Body			Watt Rating/ Class of Coil Insulation ⑦	
			Min.	Max. AC			Max. DC			AC	DC	Catalog Number	Constr. Ref. No. ④	UL ⑤ Listing	Catalog Number	Constr. Ref. No. ④	UL ⑤ Listing	AC	DC
				Air-Inert Gas	Water	Light Oil @ 300 SSU	Air-Inert Gas	Water	Light Oil @ 300 SSU										
NORMALLY CLOSED (Closed when de-energized), NBR or PTFE ② Seating																			
3/8	3/8	1.5	①	150	125	-	40	40	-	180	150	8210G73 ③	1P	●	8210G36 ③	1P	●	6.1/F	11.6/F
3/8	5/8	3	0	150	150	-	40	40	-	180	150	8210G93	5D	○	-	-	-	10.1/F	11.6/F
3/8	5/8	3	5	200	150	135	125	100	100	180	150	8210G1	6D	○	-	-	-	6.1/F	11.6/F
3/8	5/8	3	5	300	300	300	-	-	-	175	-	8210G6	5D	○	-	-	-	17.1/F	-
1/2	7/16	2.2	①	150	125	-	40	40	-	180	150	8210G15 ③	2P	●	8210G37 ③	2P	●	6.1/F	11.6/F
1/2	5/8	4	0	150	150	-	40	40	-	180	150	8210G94	5D	○	-	-	-	10.1/F	11.6/F
1/2	5/8	4	0	150	150	125	40	40	-	175	150	-	-	-	8210G87	7D	●	17.1/F	11.6/F
1/2	5/8	4	5	200	150	135	125	100	100	180	150	8210G2	6D	○	-	-	-	6.1/F	11.6/F
1/2	5/8	4	5	300	300	300	-	-	-	175	-	8210G7	5D	○	-	-	-	17.1/F	-
1/2	5/8	4	5	300	300	-	300	300	-	180	125	8210G227	5D	○	-	-	-	17.1/F	40.6/H
3/4	5/8	4.5	0	150	150	125	40	40	-	175	150	-	-	-	8210G88	7D	●	17.1/F	11.6/F
3/4	3/4	5	5	125	125	125	100	90	75	180	150	8210G9	9D	○	-	-	-	6.1/F	11.6/F
3/4	3/4	5	0	150	150	-	40	40	-	180	150	8210G95	8D	○	-	-	-	10.1/F	11.6/F
3/4	3/4	6.5	5	250	150	100	125	125	125	180	150	8210G3	11D	○	-	-	-	6.1/F	11.6/F
3/4	3/4	6	0	-	-	-	200	180	180	-	77	8210B26 ② ‡	10P	-	-	-	-	-	30.6/H
3/4	3/4	6	0	350	300	200	-	-	-	200	-	8210G26 ② ‡	40P	●	-	-	-	16.1F	-
1	1	13	0	-	-	-	100	100	80	-	77	8210B54 ‡	31D	-	-	8210D89	15D	-	30.6/H
1	1	13	0	150	125	125	-	-	-	180	-	8210G54	41D	●	8210G89	45D	●	16.1/F	-
1	1	13	5	150	150	100	125	125	125	180	150	8210G4	12D	○	-	-	-	6.1/F	11.6/F
1	1	13.5	0	300	225	115	-	-	-	200	-	8210G27 ‡	42P	●	-	-	-	20.1/F	-
1	1	13.5	10	300	300	300	-	-	-	175	-	8210G78	3P	-	-	-	-	17.1/F	-
1 1/4	1 1/8	15	0	-	-	-	100	100	80	-	77	8210B55 ‡	32D	-	-	-	-	-	30.6/H
1 1/4	1 1/8	15	0	150	125	125	-	-	-	180	-	8210G55	43D	●	-	-	-	16.1/F	-
1 1/4	1 1/8	15	5	150	150	100	125	125	125	180	150	8210G8	16D	○	-	-	-	6.1/F	11.6/F
1 1/2	1 1/4	22.5	0	-	-	-	100	100	80	-	77	8210B56 ‡	33D	-	-	-	-	-	30.6/H
1 1/2	1 1/4	22.5	0	150	125	125	-	-	-	180	-	8210G56 ‡	44D	●	-	-	-	16.1/F	-
1 1/2	1 1/4	22.5	5	150	150	100	125	125	125	180	150	8210G22	18D	●	-	-	-	6.1/F	11.6/F
2	1 3/4	43	5	150	125	90	50	50	50	180	150	8210G100	20P	●	-	-	-	6.1/F	11.6/F
2 1/2	1 3/4	45	5	150	125	90	50	50	50	180	150	8210G101	21P	●	-	-	-	6.1/F	11.6/F
NORMALLY OPEN (Open when de-energized), NBR Seating (PA Disc-Holder, except as noted)																			
3/8	5/8	3	0	150	150	125	125	125	80	180	150	8210G33	23D	●	-	-	-	10.1/F	11.6/F
3/8	5/8	3	5	250	200	200	250	200	200	180	180	8210G11 ⑧ ⑨	39D	●	-	-	-	10.1/F	11.6/F
1/2	5/8	4	0	150	150	125	125	125	80	180	150	8210G34	23D	●	-	-	-	10.1/F	11.6/F
1/2	5/8	3	0	150	150	100	125	125	80	180	150	-	-	-	8210G30	37D	●	10.1/F	11.6/F
1/2	5/8	4	5	250	200	200	250	200	200	180	180	8210G12 ⑧ ⑨	39D	●	-	-	-	10.1/F	11.6/F
3/4	3/4	5.5	0	150	150	125	125	125	80	180	150	8210G35	25D	●	-	-	-	10.1/F	11.6/F
3/4	5/8	3	0	150	150	100	125	125	80	180	150	-	-	-	8210G38	38D	●	10.1/F	11.6/F
3/4	3/4	6.5	5	-	-	-	250	200	200	-	180	8210C13	24D	●	-	-	-	-	16.8/F
3/4	3/4	6.5	5	250	200	200	-	-	-	180	-	8210G13	46D	●	-	-	-	16.1/F	-
1	1	13	0	125	125	125	-	-	-	180	-	8210B57 ⑥ ⑩	34D	●	-	-	-	20/F	-
1	1	13	5	-	-	-	125	125	125	-	180	8210D14	26D	●	-	-	-	-	16.8/F
1	1	13	5	150	150	125	-	-	-	180	-	8210G14	47D	●	-	-	-	16.1/F	-
1 1/4	1 1/8	15	0	125	125	125	-	-	-	180	-	8210B58 ⑥ ⑩	35D	●	-	-	-	20/F	-
1 1/4	1 1/8	15	5	-	-	-	125	125	125	-	180	8210D18	28D	●	-	-	-	-	16.8/F
1 1/4	1 1/8	15	5	150	150	125	-	-	-	180	-	8210G18	48D	●	-	-	-	16.1/F	-
1 1/2	1 1/4	22.5	0	125	125	125	-	-	-	180	-	8210B59 ⑥ ⑩	36D	●	-	-	-	20/F	-
1 1/2	1 1/4	22.5	5	-	-	-	125	125	125	-	180	8210D32	29D	●	-	-	-	-	16.8/F
1 1/2	1 1/4	22.5	5	150	150	125	-	-	-	180	-	8210G32	49D	●	-	-	-	16.1/F	-
2	1 3/4	43	5	-	-	-	125	125	125	-	150	8210103	30P	●	-	-	-	-	16.8/F
2	1 3/4	43	5	125	125	125	-	-	-	180	-	8210G103	50P	●	-	-	-	16.1/F	-
2 1/2	1 3/4	45	5	-	-	-	125	125	125	-	150	8210104	27P	●	-	-	-	-	16.8/F
2 1/2	1 3/4	45	5	125	125	125	-	-	-	180	-	8210G104	51P	●	-	-	-	16.1/F	-

Notes: ① 5 psi on Air; 1 psi on Water.
 ② Valve provided with PTFE main disc.
 ③ Valve includes Ultem (G.E. trademark) piston.
 ④ Letter "D" denotes diaphragm construction; "P" denotes piston construction.
 ⑤ ○ Safety Shutoff Valve; ● General Purpose Valve.
 Refer to Engineering Section (Approvals) for details.
 ⑥ Valves not available with Explosionproof enclosures.
 ⑦ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts.
 ⑧ AC construction also has PA seating.
 ⑨ No disc-holder.
 ⑩ Stainless Steel disc-holder.
 ‡ Must have solenoid mounted vertical and upright.

DESCRIPTION: SOLENOID VALVE - [3/8"][1/2"][3/4"][1"][1-1/4"][1-1/2"][2"][2-1/2"][3"] NPT PIPE CONNECTIONS, 2-WAY NORMALLY CLOSED OPERATION, AUTOMATIC RESET, SUITABLE FOR NATURAL GAS SERVICE, ALUMINUM BODY WITH BUNA "N" SEAT. MAXIMUM OPERATION PRESSURE DIFFERENTIAL OF [5][25][50] PSI., [24][120][240][480] V AC, UL & FM SAFETY VALVE CLASSIFIED.

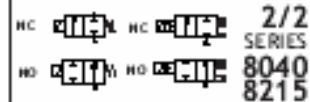
MANUFACTURER & CATALOG NO.: ASCO 8215

Note to specifier:

1. Verify maximum operating pressure differential with valve size.
2. For use as automatic reset gas shutoff valve for kitchen, labs, etc.
3. Coordinate electrical requirements with Electrical Engineer.
4. Solenoid creates a hum. Locate away from sensitive areas.



Direct Acting or Piloted
Aluminum Body Solenoid Valves
 1/8" to 3" NPT

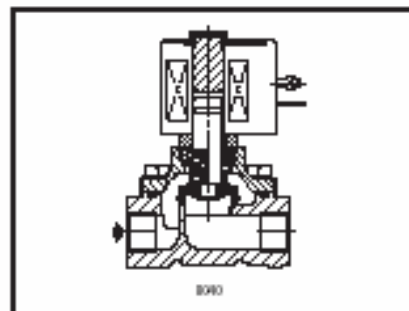
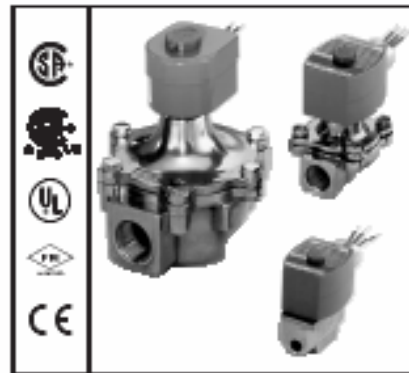


Features

- Lightweight, low-cost valves for air service.
- Ideal for low pressure applications.
- Provides high flow, Cv up to 138 (Kv 118).
- Air and vacuum service.

Construction

Valve Parts in Contact with Fluids	
Body	Aluminum
Seals, Diaphragms, Disc	NBR
Disc-Holder	PA (10.1 and 11.6 watt Normally Open only)
Cone Guide	CA
Cone Tube	305 Stainless Steel
Rider Rings	PTFE
Cone and Plugnut	430F Stainless Steel
Springs	302 Stainless Steel
Shading Coil	Copper



Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part No.			
	DC Volts	AC			General Purpose		Explosionproof	
		Volts	V/A Holding	V/A Inrush	AC	DC	AC	DC
F	-	6.1	16	40	258210	-	238214	-
F	11.6	10.1	25	70	258610	238710	238614	238714
B	14.9	-	-	-	-	62801	-	-
F	-	15.4	27	160	90257	-	90257	-
F	-	28.2	50	385	206400	-	206400	-

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz), 6, 12, 24, 120, 240 volts DC. Must be specified when ordering. Other voltages available when required.

Nominal Ambient Temperature Ranges:

- Rad-Hat IV
- Rad-Hat AC: 32°F to 125°F (0°C to 52°C)
- Rad-Hat II DC: 32°F to 104°F (0°C to 40°C)
- Rad-Hat DC: 32°F to 77°F (0°C to 25°C) (104°F/40°C occasionally)

Refer to Engineering Section for details.

Approvals:

- CSA certified to:
- 8040 Series:**
- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 10381.
 - 2) Automatic Gas Valves Z21.21 (6.5), File 112872.
 - 3) Automatic Gas Safety Shutoff Valves G1 (3.0), File 112502.

8215 Series Normally Closed:

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 10381.
- 2) Automatic Gas Valves Z21.21 (6.5), File 112872.

8215 Series Normally Open:

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 10381.

UL listed, as indicated. FM approved (Normally Closed only, except Catalog Numbers 8215A00 and 8215A40). Rad-Hat II meets applicable CE directives. Refer to Engineering Section for details.

DESCRIPTION: STORAGE TANK - [VERTICAL][HORIZONTAL] GLASS-LINED WITH [] GALLON CAPACITY, ANODE ROD, HEAVY GAUGE STEEL JACKET WITH BAKED ENAMEL FINISH, ASME STAMPED, FIBERGLASS OR FOAM INSULATION TO MEET ASHRAE/IES 90.1B-1992, INLET, OUTLET, DRAIN AND RELIEF VALVE OPENINGS. ASME T&P RELIEF VALVE, 125 PSIG WORKING PRESSURE, 5-YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: A.O. SMITH [], LOCHINVAR [], RHEEM RSS120-[], STATE []

A.O. SMITH

FEATURES

Exceeds ASHRAE 90.1b-1992.

A. O. Smith storage tanks are ideal for use with copper heat exchanger equipment for storage of any water at temperatures up to 180°F.

GLASS-LINED TANK - Alkaline borosilicate composite permanently fused to steel by firing at a temperature of 1600°F, providing years of corrosion protection for dependable use.

HEAVY GAUGE STEEL JACKET - With baked enamel finish.

THREADED OPENINGS - All tanks furnished with threaded openings for thermometer, relief valve, 2" recirculation tankstat, and drain valve.

5 YEAR WARRANTY

TJ-80S, TJ-80A, TJV-120M and TJV-120A

• Fits through 30" door • Magnesium anode • foam insulation for corrosion protection

TJ-80A • 80 gallons • exceeds ASHRAE requirements • saves fuel, helps reduce standby heat loss • 160 psi standard working pressure.

TJV-120A • 119 gallons • exceeds ASHRAE requirements • saves fuel, helps reduce standby heat loss • 160 psi standard working pressure.

TJ-80S • 80 gallons • exceeds ASHRAE requirements • 150 psi working pressure.

TJV-120M • 119 gallons • exceeds ASHRAE requirements • 150 psi working pressure.

OPTIONS

Perfectly balanced manifold kits (120 gallon models) allow installation where 240 to 480 gallons of stored water is required.

TJV-200-M - 175 GALLONS

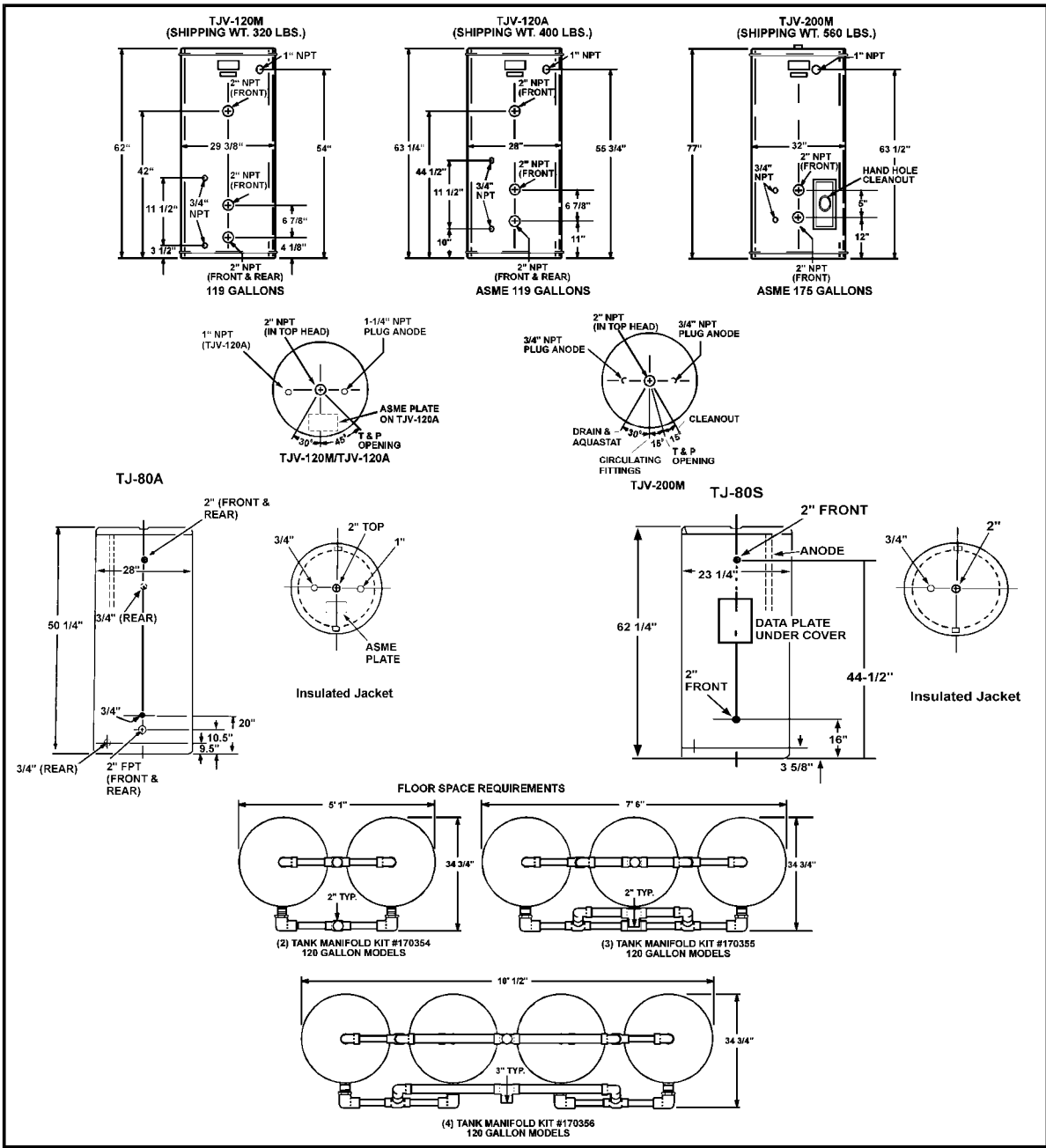
• 150 psi ASME working pressure • 2" foam insulation • Handhole cleanout (Standard) • Fits through 33" door • Storage is downsized to 175 gallons for a 32" x 77" envelope for space restrictive installations. Model TJV-200-M is available with 200 gallons of storage • Magnesium anodes for extra corrosion protection.

COMMERCIAL
HOT WATER STORAGE TANKS
TJ-80S, TJ-80A, TJV-120A, TJV-120M
& TJV-200M



120 GALLON MODEL

LIMITED WARRANTY OUTLINE
If the tank should leak any time during the first 5 years, under the terms of the warranty A. O. Smith will repair or replace the tank, installation, labor, handling and local delivery charges. THIS OUTLINE IS NOT A WARRANTY. For complete information, consult the written warranty or A. O. Smith Water Products literature.



SUGGESTED SPECIFICATIONS

Storage tank shall be A. O. SMITH glass-lined storage tank. Tank shall be _____" x _____" and _____ nominal tank capacity of _____ have threaded openings as shown on drawings. Interior of tank(s) shall be glass-lined with _____ composite steel by firing at a temperature of 1600°F. Glass coating shall be continuous over the entire tank surface. Tank shall have a _____ finish. Foam insulation to meet or exceed ASHRAE 90.1b-1992 efficiency requirements. Cathodic protection shall be provided. Tank shall have a _____ working pressure of _____ psi. Tank shall have a five year limited warranty as outlined in the written warranty.

A. O. Smith Water Products Co., Inc. On Line
www.hotwater.com

For Technical Information and Automated Fax Service,
 Phone: 800-527-1953

A. O. Smith
 Water Products Company
 Irving, TX
 A Division of A. O. Smith Corporation

A. O. Smith Corporation reserves the right to make product change or improvements at any time without notice.

TD-1

DESCRIPTION: FLOOR TRENCH DRAIN - STAINLESS STEEL PRE-SLOPED DRAINAGE SYSTEM. MODULAR SECTIONS. 6" WIDE, 1/8" PER FOOT SLOPE. 16 GAUGE, TYPE 304 STAINLESS STEEL CHANNEL WITH BOLTED FLANGED CONNECTIONS COMPLETE WITH RUBBER FLANGE GASKET AND SLOTTED HEAVY DUTY STAINLESS STEEL GRATE WITH LOCKDOWN ASSEMBLY. INCLUDE CATCH BASIN SECTION WITH OUTLET.

MANUFACTURER & CATALOG NO.: ZURN Z-890

Notes to specifier:

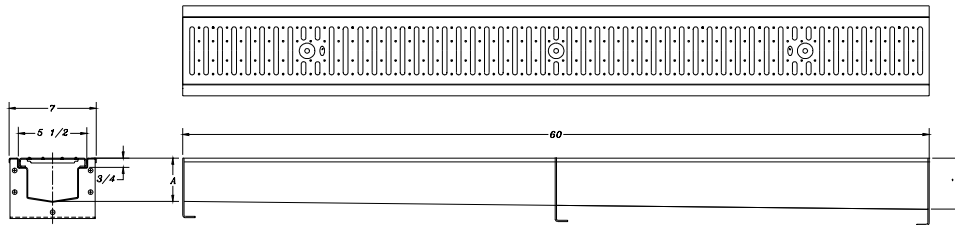
1. Specify length required and location of catch basin.
2. Expensive, use only where required for corrosive materials, etc.



Z-890 6" WIDE TRENCH DRAIN SYSTEM

TAG _____

Dimensions Subject to Manufacturing Tolerances



Channel Number	Overall Depth		Max. Flow Rate (GPM)	Approx. Wt. Lbs. (Less Grates)
	A Min.	B Max.		
89001	3.50	4.13	97	20
89002	4.13	4.75	124	21
89002N	4.75	4.75	---	22
89003	4.75	5.38	151	23
89004	5.38	6.00	179	24
89004N	6.00	6.00	---	25
89005	6.00	6.63	207	26
89006	6.63	7.25	235	27
89006N	7.25	7.25	---	28
89007	7.25	7.88	263	29
89008	7.88	8.50	292	30
89008N	8.50	8.50	---	31
89009	8.50	9.13	321	32
89010	9.13	9.75	349	33
89010N	9.75	9.75	---	34
89011	9.75	10.38	378	35
89012	10.38	11.00	407	37
89012N	11.00	11.00	---	38
89013	11.00	11.63	436	39
89014	11.63	12.25	465	40
89014N	12.25	12.25	---	41
89015	12.25	12.88	494	42
89016	12.88	13.50	523	43
89016N	13.50	13.50	---	44
89017	13.50	14.13	552	45
89018	14.13	14.75	581	46
89018N	14.75	14.75	---	47
89019	14.75	15.38	610	48
89020	15.38	16.00	639	49

ENGINEERING SPECIFICATION Zurn Z-890 6" Wide Pre-Sloped Trench Drainage System with 1/8" per foot slope. #16 Gage Type 304 Stainless Steel drain channel with bolted flanged connection complete with rubber flange gasket, and stamped stainless steel grate.

OPTIONS (Check/specify appropriate options)

PREFIXES

___ **Z-** #16 Gage Type 304 Stainless Steel Trench with Stamped Stainless Steel Grate.*

SUFFIXES

- ___ **-DB** Dome Bottom Strainer
- ___ **-E1** Closed End Cap
- ___ **-E2** 2" No-Hub End Outlet
- ___ **-E3** 3" No-Hub End Outlet
- ___ **-E4** 4" No-Hub End Outlet
- ___ **-FS** Fabricated Stainless Steel Slotted Grate
- ___ **-GG** Fiberglass Grate
- ___ **-GL** Grate Lockdown Assembly
- ___ **-K** Anchor Flange
- ___ **-KC** Clamp Collar and Pan
- ___ **-PS** Perforated Stainless Steel Grate
- ___ **-RFS** Reinforced Stainless Steel Slotted Grate
- ___ **-RPS** Reinforced Stainless Steel Perforated Grate
- ___ **-SBG** Stainless Steel Bar Grate
- ___ **-U2** 2" No-Hub Bottom Outlet
- ___ **-U3** 3" No-Hub Bottom Outlet
- ___ **-U4** 4" No-Hub Bottom Outlet
- ___ **-VP** Vandle-Proof Secured Grate/Cover

REV. <u>A</u>	DATE: <u>11/11/99</u>	C.N. NO. <u>83266</u>
DWG. NO. <u>60730</u>	PRODUCT NO. <u>Z-890</u>	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC., FLO-THRU DIV., 2855 Girts Road, Jamestown, NY 14701
 Phone: 716/665-1132, Fax: 716/665-1135, World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED, 3544 Nashua Drive, Mississauga, Ontario L4V1L2, Phone: 905/405-8272 Fax:

DESCRIPTION: FLOOR TRENCH DRAIN - CAST IRON MODULAR TRENCH DRAIN, 12" WIDE, HEAVY DUTY CAST IRON SLOTTED GRATE, SEDIMENT BUCKET, [2][3][4][5][6]" BOTTOM OUTLET.

MANUFACTURER & CATALOG NO.: ZURN Z-665, WADE 2920, JOSAM 76010, MIFAB T1350FL

Note to specifier: Specify length required and size and location of outlet(s). Use additional outlet if longer than 12 feet.

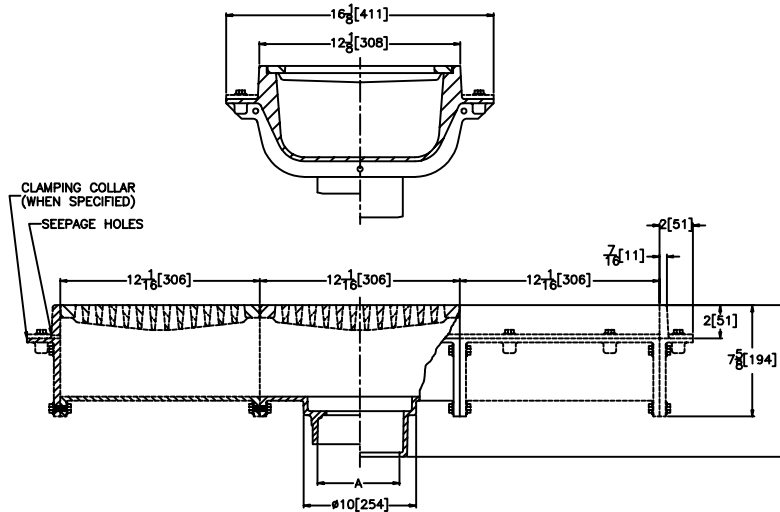


Z-665
12" [305] WIDE MODULAR TRENCH DRAIN
HEAVY DUTY

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A- Pipe Size In.	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm ²]
2-3-4 [50-75-100]	100 [45]	36 [232]
5-6 [125-150]	110 [50]	

ENGINEERING SPECIFICATION Z-665 12 [305] Wide top modular trench drain, Dura-Coated cast iron deep sump body with bottom outlet. Both 12 [305] long outlet module and 12 [305] extension module are complete with integral seepage pan and heavy duty loose slotted grate.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

(Specify size/type) **OUTLET**

'E' BODY HT. DIM.

2 thru 6 [50 thru 150]	___ IC Inside Caulk	13 3/16 [335]
2 thru 4, 6 [50, 100, 150]	___ IG Inside Caulk w/Sealrol Gskt.	13 3/16 [335]
2 thru 4 [50, 100, 150]	___ NL Neo-Loc	12 1/2 [318]

PREFIXES

- ___ Z- D.C.C.I. Body and Grate*
- ___ ZB- D.C.C.I Body w/Polished Bronze Top (Add 1/8 [3] to 'E' and 2 [51] Dim.)
- ___ ZN- D.C.C.I Body w/Polished Stainless Steel Top Frame and Grate (Add 1/8 [3] to 'E' and 2 [51] Dim.)

SUFFIXES

- ___ -AR Acid Resisting Epoxy Coated Cast Iron
- ___ -C Clamp Collar or Underdeck Clamp
- ___ -DB Bottom Dome Strainer
- ___ -DG Duresist Grate
- ___ -ES Extension Section (See Z-664, Z-665)
- ___ -G Galvanized Cast Iron
- ___ -HP Heelproof Grate
- ___ -M Side Outlet Adapter Via End Plate
- ___ -SB Shallow Drain Body
- ___ -TS Top Secured With Slotted Screws
- ___ -VP Vandal Proof Secured Top
- ___ -Y Sediment Bucket

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. C DATE: 03/05/97 C.N. NO. 77475

DWG. NO. 59250 PRODUCT NO. Z-665






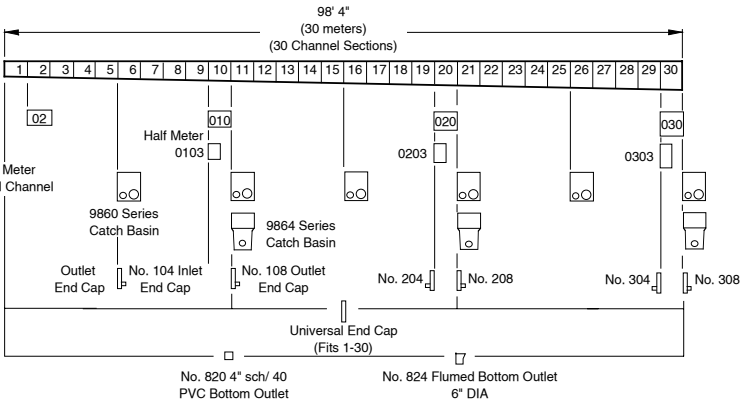
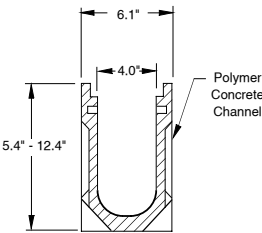

ZURN INDUSTRIES, INC. • PLUMBING PRODUCTS GROUP • DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514 • Phone: 814/455-0921 Fax: 814/454-7929
 In Canada: ZURN INDUSTRIES LIMITED • 6540 Gattardo Court • Mississauga, Ontario L5T 2A2 • Phone: 905/795-8844 Fax: 905/795-8850





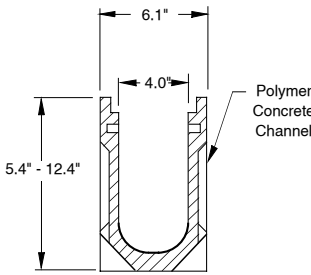
DESCRIPTION: FLOOR TRENCH DRAIN - HEAVY DUTY PRECAST POLYMER CONCRETE DRAIN, SLOPED BOTTOM, MODULAR SECTIONS, EXTRA HEAVY DUTY LOCKING DUCTILE IRON GRATE, CLASS E RATED. BUILT-IN 0.6% SLOPE, WITH INTEGRAL CATCH BASINS AND SEDIMENT BUCKETS. 4" WIDE CHANNEL, LENGTH AS SHOWN ON THE DRAWINGS. 4" OUTLETS.

MANUFACTURER & CATALOG NO.: SMITH 9814, ABT POLYDRAIN, WATTS 600 SERIES

Notes to specifier:

1. Specify length required and location of outlet(s).
2. Good, economical trench drain system with lots of options.

D		MEMBER OF:    	LOCATION
	9814 CHANNEL SLOPE® PRECAST POLYMER CONCRETE SYSTEM		
DRAWING NUMBER a9814	FUNCTION: Used in all surface drainage applications, may be assembled in any length utilizing interlocking tongue and groove ends. This reduces installation time and cost, providing an engineered sloped solution for drainage requirement.		
SIZE A			
SCALE: NONE	All channels provided with vertical preformed knock-out positions for 4" and 6" outlet discharge.		
DATE: 8-3-93			
APPROVED BY: PACE	REGULARLY FURNISHED: 1 Meter (3.28') Precast Polyester Concrete Channel of Interlocking Design with a Built-in Slope of .6% with Radiused Bottom. Supplied with Secured Grate as per Specification.		
CHECKED BY: PACE	VARIATIONS: Grate Specifications (See Back) <input type="checkbox"/> Bottom Outlet 4" <input type="checkbox"/> Bottom Outlet 6" <input type="checkbox"/> Closing End Cap <input type="checkbox"/> Horizontal Outlet 4" <input type="checkbox"/> Horizontal Outlet 6" <input type="checkbox"/> Dome Strainer 4" size only <input type="checkbox"/> Channel Chair <input type="checkbox"/> Catch Basin Only 9860 <input type="checkbox"/> Catch Basin Bucket, available catch basin only 9860 <input type="checkbox"/> Catch Basin only 9864 <input type="checkbox"/> Catch Basin Bucket, available catch basin only 9864		
DRAWN BY: CMB	OPTIONAL MATERIALS: <input type="checkbox"/> Vinyl Ester Resin		
FIGURE NUMBER 9814			
REV.	DATE	DESCRIPTION	BY
A	3-6-96	Updated Dwg & Layout	EMB
B	5-17-94	9864 was 9862	TWK
C	11-23-93	Added note	TWK
D	9-7-93	Removed @ from Title	PACE
E			PACE
F			PACE
G			PACE
H			PACE
I			PACE
J			PACE
K			PACE
L			PACE
M			PACE
N			PACE
O			PACE
P			PACE
Q			PACE
R			PACE
S			PACE
T			PACE
U			PACE
V			PACE
W			PACE
X			PACE
Y			PACE
Z			PACE
AA			PACE
AB			PACE
AC			PACE
AD			PACE
AE			PACE
AF			PACE
AG			PACE
AH			PACE
AI			PACE
AJ			PACE
AK			PACE
AL			PACE
AM			PACE
AN			PACE
AO			PACE
AP			PACE
AQ			PACE
AR			PACE
AS			PACE
AT			PACE
AU			PACE
AV			PACE
AW			PACE
AX			PACE
AY			PACE
AZ			PACE
BA			PACE
BB			PACE
BC			PACE
BD			PACE
BE			PACE
BF			PACE
BG			PACE
BH			PACE
BI			PACE
BJ			PACE
BK			PACE
BL			PACE
BM			PACE
BN			PACE
BO			PACE
BP			PACE
BQ			PACE
BR			PACE
BS			PACE
BT			PACE
BU			PACE
BV			PACE
BW			PACE
BX			PACE
BY			PACE
BZ			PACE
CA			PACE
CB			PACE
CC			PACE
CD			PACE
CE			PACE
CF			PACE
CG			PACE
CH			PACE
CI			PACE
CJ			PACE
CK			PACE
CL			PACE
CM			PACE
CN			PACE
CO			PACE
CP			PACE
CQ			PACE
CR			PACE
CS			PACE
CT			PACE
CU			PACE
CV			PACE
CW			PACE
CX			PACE
CY			PACE
CZ			PACE
DA			PACE
DB			PACE
DC			PACE
DD			PACE
DE			PACE
DF			PACE
DG			PACE
DH			PACE
DI			PACE
DJ			PACE
DK			PACE
DL			PACE
DM			PACE
DN			PACE
DO			PACE
DP			PACE
DQ			PACE
DR			PACE
DS			PACE
DT			PACE
DU			PACE
DV			PACE
DW			PACE
DX			PACE
DY			PACE
DZ			PACE
EA			PACE
EB			PACE
EC			PACE
ED			PACE
EE			PACE
EF			PACE
EG			PACE
EH			PACE
EI			PACE
EJ			PACE
EK			PACE
EL			PACE
EM			PACE
EN			PACE
EO			PACE
EP			PACE
EQ			PACE
ER			PACE
ES			PACE
ET			PACE
EU			PACE
EV			PACE
EW			PACE
EX			

F		MEMBER OF:   	LOCATION																																																																																																																																																																																																																																																																																																																
9814BS	9814 CHANNEL SLOPE® PRECAST POLYMER CONCRETE SYSTEM																																																																																																																																																																																																																																																																																																																		
DRAWING NUMBER a9814BS SIZE A SCALE: NONE DATE: 8-3-93 APPROVED BY: PACE CHECKED BY: PACE DRAWN BY: CMB	Hydraulic Capacity and Deep End Depths 9814 System																																																																																																																																																																																																																																																																																																																		
WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE																																																																																																																																																																																																																																																																																																																			
	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Channel Number</th> <th>Deep End in.</th> <th>Depth* mm</th> <th>Slope</th> <th>Holding Capacity (gallons)</th> <th>Single Est. CFS</th> <th>Channel Est. GPM</th> <th>Weight lbs.</th> </tr> </thead> <tbody> <tr><td>9814-100-1</td><td>5.6</td><td>143</td><td>0.6</td><td>2.3</td><td>.29</td><td>128</td><td>33.0</td></tr> <tr><td>9814-100-02#</td><td>5.6</td><td>143</td><td>0.0</td><td>2.3</td><td>.33</td><td>146</td><td>33.0</td></tr> <tr><td>9814-100-2</td><td>5.8</td><td>149</td><td>0.6</td><td>2.6</td><td>.31</td><td>141</td><td>33.0</td></tr> <tr><td>9814-100-3</td><td>6.0</td><td>155</td><td>0.6</td><td>2.6</td><td>.34</td><td>151</td><td>35.0</td></tr> <tr><td>9814-100-4</td><td>6.3</td><td>161</td><td>0.6</td><td>2.7</td><td>.36</td><td>164</td><td>35.0</td></tr> <tr><td>9814-100-5</td><td>6.5</td><td>167</td><td>0.6</td><td>2.9</td><td>.39</td><td>177</td><td>36.0</td></tr> <tr><td>9814-100-6</td><td>6.7</td><td>173</td><td>0.6</td><td>3.0</td><td>.42</td><td>187</td><td>36.0</td></tr> <tr><td>9814-100-7</td><td>7.0</td><td>179</td><td>0.6</td><td>3.2</td><td>.45</td><td>200</td><td>38.0</td></tr> <tr><td>9814-100-8</td><td>7.2</td><td>185</td><td>0.6</td><td>3.4</td><td>.47</td><td>213</td><td>40.0</td></tr> <tr><td>9814-100-9</td><td>7.4</td><td>191</td><td>0.6</td><td>3.5</td><td>.49</td><td>224</td><td>41.0</td></tr> <tr><td>9814-100-010#</td><td>7.4</td><td>191</td><td>0.0</td><td>3.6</td><td>.51</td><td>229</td><td>42.0</td></tr> <tr><td>9814-100-0103*</td><td>7.4</td><td>191</td><td>0.0</td><td>3.6</td><td>.51</td><td>229</td><td>22.0</td></tr> <tr><td>9814-100-10</td><td>7.7</td><td>197</td><td>0.6</td><td>3.7</td><td>.53</td><td>237</td><td>43.0</td></tr> <tr><td>9814-100-11</td><td>7.9</td><td>203</td><td>0.6</td><td>3.8</td><td>.56</td><td>250</td><td>44.0</td></tr> <tr><td>9814-100-12</td><td>8.1</td><td>209</td><td>0.6</td><td>4.0</td><td>.58</td><td>261</td><td>44.0</td></tr> <tr><td>9814-100-13</td><td>8.4</td><td>215</td><td>0.6</td><td>4.2</td><td>.61</td><td>274</td><td>45.0</td></tr> <tr><td>9814-100-14</td><td>8.6</td><td>221</td><td>0.6</td><td>4.3</td><td>.64</td><td>287</td><td>46.0</td></tr> <tr><td>9814-100-15</td><td>8.9</td><td>227</td><td>0.6</td><td>4.5</td><td>.67</td><td>301</td><td>47.0</td></tr> <tr><td>9814-100-16</td><td>9.1</td><td>233</td><td>0.6</td><td>4.6</td><td>.70</td><td>314</td><td>48.0</td></tr> <tr><td>9814-100-17</td><td>9.3</td><td>239</td><td>0.6</td><td>4.8</td><td>.72</td><td>324</td><td>49.0</td></tr> <tr><td>9814-100-18</td><td>9.6</td><td>245</td><td>0.6</td><td>4.9</td><td>.75</td><td>338</td><td>50.0</td></tr> <tr><td>9814-100-19</td><td>9.8</td><td>251</td><td>0.6</td><td>5.1</td><td>.78</td><td>351</td><td>51.0</td></tr> <tr><td>9814-100-020#</td><td>9.8</td><td>251</td><td>0.0</td><td>5.2</td><td>.79</td><td>356</td><td>52.0</td></tr> <tr><td>9814-100-0203*</td><td>9.8</td><td>251</td><td>0.0</td><td>5.2</td><td>.79</td><td>356</td><td>27.0</td></tr> <tr><td>9814-100-20</td><td>10.0</td><td>257</td><td>0.6</td><td>5.3</td><td>.81</td><td>362</td><td>53.0</td></tr> <tr><td>9814-100-21</td><td>10.3</td><td>263</td><td>0.6</td><td>5.4</td><td>.84</td><td>375</td><td>54.0</td></tr> <tr><td>9814-100-22</td><td>10.5</td><td>269</td><td>0.6</td><td>5.6</td><td>.86</td><td>389</td><td>55.0</td></tr> <tr><td>9814-100-23</td><td>10.7</td><td>275</td><td>0.6</td><td>5.7</td><td>.88</td><td>399</td><td>56.0</td></tr> <tr><td>9814-100-24</td><td>11.0</td><td>281</td><td>0.6</td><td>5.9</td><td>.92</td><td>413</td><td>56.0</td></tr> <tr><td>9814-100-25</td><td>11.2</td><td>287</td><td>0.6</td><td>6.1</td><td>.95</td><td>426</td><td>58.0</td></tr> <tr><td>9814-100-26</td><td>11.5</td><td>293</td><td>0.6</td><td>6.2</td><td>.98</td><td>440</td><td>58.0</td></tr> <tr><td>9814-100-27</td><td>11.7</td><td>299</td><td>0.6</td><td>6.4</td><td>1.01</td><td>453</td><td>59.0</td></tr> <tr><td>9814-100-28</td><td>11.9</td><td>305</td><td>0.6</td><td>6.5</td><td>1.03</td><td>464</td><td>59.0</td></tr> <tr><td>9814-100-29</td><td>12.2</td><td>311</td><td>0.6</td><td>6.7</td><td>1.06</td><td>477</td><td>59.0</td></tr> <tr><td>9814-100-030#</td><td>12.2</td><td>311</td><td>0.0</td><td>6.8</td><td>1.08</td><td>485</td><td>59.0</td></tr> <tr><td>9814-100-0303*</td><td>12.2</td><td>311</td><td>0.0</td><td>6.8</td><td>1.08</td><td>485</td><td>32.0</td></tr> <tr><td>9814-100-30</td><td>12.5</td><td>317</td><td>0.6</td><td>6.9</td><td>1.09</td><td>491</td><td>60.0</td></tr> </tbody> </table>			Channel Number	Deep End in.	Depth* mm	Slope	Holding Capacity (gallons)	Single Est. CFS	Channel Est. GPM	Weight lbs.	9814-100-1	5.6	143	0.6	2.3	.29	128	33.0	9814-100-02#	5.6	143	0.0	2.3	.33	146	33.0	9814-100-2	5.8	149	0.6	2.6	.31	141	33.0	9814-100-3	6.0	155	0.6	2.6	.34	151	35.0	9814-100-4	6.3	161	0.6	2.7	.36	164	35.0	9814-100-5	6.5	167	0.6	2.9	.39	177	36.0	9814-100-6	6.7	173	0.6	3.0	.42	187	36.0	9814-100-7	7.0	179	0.6	3.2	.45	200	38.0	9814-100-8	7.2	185	0.6	3.4	.47	213	40.0	9814-100-9	7.4	191	0.6	3.5	.49	224	41.0	9814-100-010#	7.4	191	0.0	3.6	.51	229	42.0	9814-100-0103*	7.4	191	0.0	3.6	.51	229	22.0	9814-100-10	7.7	197	0.6	3.7	.53	237	43.0	9814-100-11	7.9	203	0.6	3.8	.56	250	44.0	9814-100-12	8.1	209	0.6	4.0	.58	261	44.0	9814-100-13	8.4	215	0.6	4.2	.61	274	45.0	9814-100-14	8.6	221	0.6	4.3	.64	287	46.0	9814-100-15	8.9	227	0.6	4.5	.67	301	47.0	9814-100-16	9.1	233	0.6	4.6	.70	314	48.0	9814-100-17	9.3	239	0.6	4.8	.72	324	49.0	9814-100-18	9.6	245	0.6	4.9	.75	338	50.0	9814-100-19	9.8	251	0.6	5.1	.78	351	51.0	9814-100-020#	9.8	251	0.0	5.2	.79	356	52.0	9814-100-0203*	9.8	251	0.0	5.2	.79	356	27.0	9814-100-20	10.0	257	0.6	5.3	.81	362	53.0	9814-100-21	10.3	263	0.6	5.4	.84	375	54.0	9814-100-22	10.5	269	0.6	5.6	.86	389	55.0	9814-100-23	10.7	275	0.6	5.7	.88	399	56.0	9814-100-24	11.0	281	0.6	5.9	.92	413	56.0	9814-100-25	11.2	287	0.6	6.1	.95	426	58.0	9814-100-26	11.5	293	0.6	6.2	.98	440	58.0	9814-100-27	11.7	299	0.6	6.4	1.01	453	59.0	9814-100-28	11.9	305	0.6	6.5	1.03	464	59.0	9814-100-29	12.2	311	0.6	6.7	1.06	477	59.0	9814-100-030#	12.2	311	0.0	6.8	1.08	485	59.0	9814-100-0303*	12.2	311	0.0	6.8	1.08	485	32.0	9814-100-30	12.5	317	0.6	6.9	1.09	491	60.0
Channel Number	Deep End in.	Depth* mm	Slope	Holding Capacity (gallons)	Single Est. CFS	Channel Est. GPM	Weight lbs.																																																																																																																																																																																																																																																																																																												
9814-100-1	5.6	143	0.6	2.3	.29	128	33.0																																																																																																																																																																																																																																																																																																												
9814-100-02#	5.6	143	0.0	2.3	.33	146	33.0																																																																																																																																																																																																																																																																																																												
9814-100-2	5.8	149	0.6	2.6	.31	141	33.0																																																																																																																																																																																																																																																																																																												
9814-100-3	6.0	155	0.6	2.6	.34	151	35.0																																																																																																																																																																																																																																																																																																												
9814-100-4	6.3	161	0.6	2.7	.36	164	35.0																																																																																																																																																																																																																																																																																																												
9814-100-5	6.5	167	0.6	2.9	.39	177	36.0																																																																																																																																																																																																																																																																																																												
9814-100-6	6.7	173	0.6	3.0	.42	187	36.0																																																																																																																																																																																																																																																																																																												
9814-100-7	7.0	179	0.6	3.2	.45	200	38.0																																																																																																																																																																																																																																																																																																												
9814-100-8	7.2	185	0.6	3.4	.47	213	40.0																																																																																																																																																																																																																																																																																																												
9814-100-9	7.4	191	0.6	3.5	.49	224	41.0																																																																																																																																																																																																																																																																																																												
9814-100-010#	7.4	191	0.0	3.6	.51	229	42.0																																																																																																																																																																																																																																																																																																												
9814-100-0103*	7.4	191	0.0	3.6	.51	229	22.0																																																																																																																																																																																																																																																																																																												
9814-100-10	7.7	197	0.6	3.7	.53	237	43.0																																																																																																																																																																																																																																																																																																												
9814-100-11	7.9	203	0.6	3.8	.56	250	44.0																																																																																																																																																																																																																																																																																																												
9814-100-12	8.1	209	0.6	4.0	.58	261	44.0																																																																																																																																																																																																																																																																																																												
9814-100-13	8.4	215	0.6	4.2	.61	274	45.0																																																																																																																																																																																																																																																																																																												
9814-100-14	8.6	221	0.6	4.3	.64	287	46.0																																																																																																																																																																																																																																																																																																												
9814-100-15	8.9	227	0.6	4.5	.67	301	47.0																																																																																																																																																																																																																																																																																																												
9814-100-16	9.1	233	0.6	4.6	.70	314	48.0																																																																																																																																																																																																																																																																																																												
9814-100-17	9.3	239	0.6	4.8	.72	324	49.0																																																																																																																																																																																																																																																																																																												
9814-100-18	9.6	245	0.6	4.9	.75	338	50.0																																																																																																																																																																																																																																																																																																												
9814-100-19	9.8	251	0.6	5.1	.78	351	51.0																																																																																																																																																																																																																																																																																																												
9814-100-020#	9.8	251	0.0	5.2	.79	356	52.0																																																																																																																																																																																																																																																																																																												
9814-100-0203*	9.8	251	0.0	5.2	.79	356	27.0																																																																																																																																																																																																																																																																																																												
9814-100-20	10.0	257	0.6	5.3	.81	362	53.0																																																																																																																																																																																																																																																																																																												
9814-100-21	10.3	263	0.6	5.4	.84	375	54.0																																																																																																																																																																																																																																																																																																												
9814-100-22	10.5	269	0.6	5.6	.86	389	55.0																																																																																																																																																																																																																																																																																																												
9814-100-23	10.7	275	0.6	5.7	.88	399	56.0																																																																																																																																																																																																																																																																																																												
9814-100-24	11.0	281	0.6	5.9	.92	413	56.0																																																																																																																																																																																																																																																																																																												
9814-100-25	11.2	287	0.6	6.1	.95	426	58.0																																																																																																																																																																																																																																																																																																												
9814-100-26	11.5	293	0.6	6.2	.98	440	58.0																																																																																																																																																																																																																																																																																																												
9814-100-27	11.7	299	0.6	6.4	1.01	453	59.0																																																																																																																																																																																																																																																																																																												
9814-100-28	11.9	305	0.6	6.5	1.03	464	59.0																																																																																																																																																																																																																																																																																																												
9814-100-29	12.2	311	0.6	6.7	1.06	477	59.0																																																																																																																																																																																																																																																																																																												
9814-100-030#	12.2	311	0.0	6.8	1.08	485	59.0																																																																																																																																																																																																																																																																																																												
9814-100-0303*	12.2	311	0.0	6.8	1.08	485	32.0																																																																																																																																																																																																																																																																																																												
9814-100-30	12.5	317	0.6	6.9	1.09	491	60.0																																																																																																																																																																																																																																																																																																												
	<p>#Neutral Full Meter Channel *Neutral Half Meter Channel</p> <p>Class A Light Duty For pedestrian, wheelchair and bicycle traffic.</p> <input type="checkbox"/> 9870-410 GP - 1/4" dia. Perforated Galv. Steel 17.60 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-451-SSPA 1/4" dia. Perforated Stainless Steel 17.60																																																																																																																																																																																																																																																																																																																		
	<p>Class B Medium Duty For pneumatic tire traffic for speeds less than 20 mph only. Twenty ton gross vehicle weight, 5 ton wheel load or less.</p> <input type="checkbox"/> 9870-420 G - Slotted Galv. Steel 44.60 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-440 VF - Viny Lester Fiberglass 110 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-450 SS - Slotted Stainless Steel 44.60 SQ IN																																																																																																																																																																																																																																																																																																																		
	<p>Class C Heavy Duty For heavy loads to 60 ton gross vehicle weight. 10 ton wheel load at speeds less than 20 mph. For pneumatic tire forklifts, tractor trailers.</p> <input type="checkbox"/> 9870-411 GPHD - Perf. Galv. Steel 26.80 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-416 GS - Solid Galv. Steel																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-425 GHD - Slotted Galv. Steel 44.60 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-485 PB - Perforated Brass 26.80 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-455 SSHD - Slotted SS 44.60 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-460 CI - Slotted Cast Iron 26.40 SQ IN																																																																																																																																																																																																																																																																																																																		
	<input type="checkbox"/> 9870-465 SSP - Perforated SS 26.80 SQ IN																																																																																																																																																																																																																																																																																																																		
	<p>NOTE: The grate securing bolts must remain secured in the grate and tightened to the locking bar installed in the channel. If the grate securing bolts are removed from the grates for maintenance of the trench drain, they must be replaced and retightened. If the grate securing bolts are left out of the grates, the life span of the trench drain system could be affected along with the safety of pedestrian traffic.</p>																																																																																																																																																																																																																																																																																																																		
F E D C B	6-16-98 3-6-96 3-10-94 1-17-94 11-23-93	Added secured grate note Updated Dims & Grates Revised Grates Part No. Corrected Added note	ASL EMB TWK TWK TWK PACE PACE PACE																																																																																																																																																																																																																																																																																																																
REV.	DATE	DESCRIPTION	BY																																																																																																																																																																																																																																																																																																																
			CKD. BY																																																																																																																																																																																																																																																																																																																
			WEIGHT POUNDS VOLUME CUBIC FEET FIGURE NUMBER 9814BS																																																																																																																																																																																																																																																																																																																

Channel Slope® is a registered trademark of ACO Polymer Products, Inc.

DESCRIPTION: FLOOR TRENCH DRAIN - [6][8][12]" WIDE PRE-SLOPED TRENCH DRAIN SYSTEM. POLYESTER FIBERGLASS DRAIN CHANNEL WITH BUILT-IN BOTTOM SLOPE. MODULAR SECTIONS, INTERLOCKING ENDS WITH HEAVY DUTY STEEL FRAME AND ANCHORING DEVICE. HEAVY DUTY CAST IRON GRATE. CATCH BASIN WITH [4][6][8]" [BOTTOM][SIDE] OUTLET AND SEDIMENT BUCKET. LENGTH AS SHOWN ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-806/812, SMITH 9812, ACO FG200

Notes to specifier:

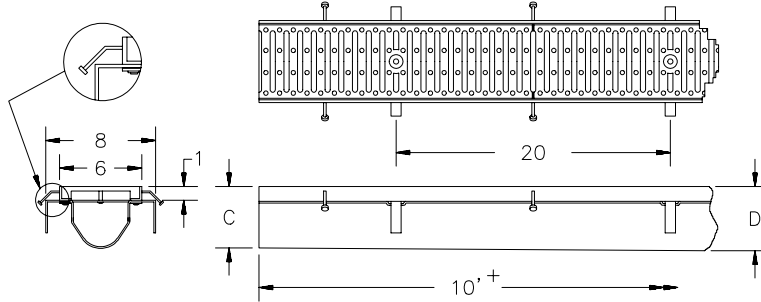
1. Specify length required and location of outlet(s).
2. Include installation detail on drawing.
3. Lower cost system. Not acceptable for high temperature discharge.
4. Slope, modular section length, and width vary by manufacturer.



Z-806 6" WIDE TRENCH DRAIN SYSTEM

TAG _____

Dimensions Subject to Manufacturing Tolerances



Channel Number	Overall Depth		Max. Flow Rate (GPM)	Approx. Wt. Lbs. (Less Grates)
	C Min.	D Max.		
1001	3.5	4.4	73	39
1002	4.4	5.3	109	40
1002N	5.3	5.3	---	40
1003	5.3	6.2	146	41
1004	6.2	7.1	184	43
1004N	7.1	7.1	---	43
1005	7.1	8.0	223	44
1006	8.0	8.9	261	46
1007	8.9	9.8	300	47
1008	9.8	10.7	339	49
1008N	10.7	10.7	---	49
1009	10.7	11.6	379	50
1010	11.6	12.5	418	51

ENGINEERING SPECIFICATION Zurn Z-806 6" Wide Pre-Sloped Trench Drainage System. Glass filled polyester fiberglass drain channel with .75 percent bottom slope. All sections modular 10 foot lengths with interlocking ends. Complete with heavy-duty Dura-Coated steel frame w/ anchor studs at surface, combination anchor tabs/leveling devices at appropriate locations and heavy-duty cast iron grate w/ lockdown.

OPTIONS (Check/specify appropriate options)

PREFIXES

- Z- 10' Polyester Fiberglass Channel, Heavy-Duty Frame with Anchor Studs, Cast Iron Grate with lockdowns and anchor tabs.*
- ZV- 10' Vinylester Fiberglass Channel, Heavy-Duty Frame with Anchor Studs, Cast Iron Grate with lockdowns and anchor tabs.

Note:

+ Actual channel length is 10' 2-1/2" to allow for overlap.

SUFFIXES

- -BG Galvanized Ductile Iron Cast Bar Grate
- -BD Black Acid Resistant Coated Ductile Iron Grate
- -BC Black Acid Resistant Coated Cast Iron Grate
- -CBF Black Acid Resistant Coated Frame
- -CC Solid Cast Iron Cover
- -CG Cast Iron Grate
- -CSG Cast Iron Center Slot Grate
- -CWF White Acid Resistant Coated Frame
- -DB Dome Bottom Strainer
- -DBG Ductile Iron Cast Bar Grate
- -DC Ductile Iron Solid cover
- -DG Ductile Iron Slotted Grate
- -E1 Closed End Cap
- -E2 2" No-Hub End Outlet
- -E3 3" No-Hub End Outlet
- -E4 4" No-Hub End Outlet
- -E6 6" No-Hub End Outlet
- -FG Galvanized Steel Slotted Grate
- -FS Fabricated Stainless Steel Slotted Grate
- -GC Galvanized Cast Iron Slotted Grate
- -GD Galvanized Ductile Iron Slotted Grate
- -GF Fiberglass Frame
- -GFA Galvanized Steel Frame
- -GG Fiberglass Grate
- -HGG Heavy Duty Fiberglass Grate
- -HPD Heel Proof Ductile Grate

- -HPP Heel Proof Polyethylene Grate
- -IA Inlet Adaptor
- -JC Joint Connector
- -LC C.I. Longitudinal Slotted Grate
- -LD Ductile Iron Longitudinal Slotted Grate
- -PG Perforated Galvanized Steel Grate
- -PS Perforated Stainless Steel Grate
- -RC Rebar Clip
- -RFG Reinforced Galvanized Steel Slotted Grate
- -RFS Reinforced Stainless Steel Slotted Grate
- -RBP Reinforced Brass Perforated Grate
- -RPG Reinforced Perforated Galvanized Steel Grate
- -RPS Reinforced Perforated Stainless Steel Grate
- -SBG Stainless Steel Cast Bar Grate
- -SF Type 304 Stainless Steel Top Frame
- -SW 8.1" High Side Wall Extension Adaptor
- -U2 2" No-Hub Bottom Outlet
- -U3 3" No-Hub Bottom Outlet
- -U4 4" No-Hub Bottom Outlet
- -U6 6" No-Hub Bottom Outlet
- -VP Vandal Proof Secured Grate/Cover
- -WC White Acid Resistant Coated Cast Iron Grate
- -WD White Acid-Resistant Coated Ductile Grate

REV. I DATE: 11/11/99 C.N. NO. 83263

DWG. NO. 56815 PRODUCT NO. Z-806

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC., FLO-THRU DIV., 2855 Girts Road, Jamestown, NY 14701

Phone: 716/665-1132, Fax: 716/665-1135, World Wide Web: www.zurn.com

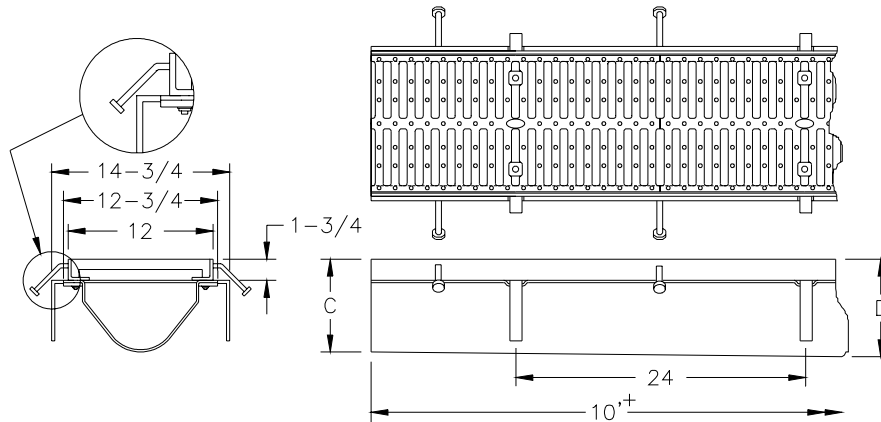
In Canada: ZURN INDUSTRIES LIMITED, 3544 Nashua Drive, Mississauga, Ontario L4V1L2, Phone: 905/405-8272 Fax: 905/405-1292



Z-812 12" WIDE TRENCH DRAIN SYSTEM

TAG _____

Dimensions Subject to Manufacturing Tolerances



Channel Number	Overall Depth		Max. Flow Rate (GPM)	Approx. Wt. Lbs. (Less Grates)
	C Min.	D Max.		
2001	6.25	7.50	479	78
2002	7.50	8.75	681	81
2002N	8.75	8.75	---	82
2003	8.75	10.00	891	84
2004	10.00	11.25	1107	87
2004N	11.25	11.25	---	88
2005	11.25	12.50	1328	91
2006	12.50	13.75	1551	94
2007	13.75	15.00	1776	97
2008	15.00	16.25	2004	99
2008N	16.25	16.25	---	100
2009	16.25	17.50	2232	103
2010	17.5	18.75	2462	106

ENGINEERING SPECIFICATION Zurn Z-812 12" Wide Pre-Sloped Trench Drainage System. Glass filled polyester fiberglass drain channel with 1.04 Percent (1/8" per foot) bottom slope. All sections modular 10 foot lengths with interlocking ends. Complete with heavy-duty Dura-Coated steel frame w/ anchor studs at surface, combination anchor tabs/ leveling devices at appropriate locations and extra heavy-duty cast iron grate w/ lockdowns.

OPTIONS (Check/specify appropriate options)

PREFIXES

_____ **Z-** 10' Polyester Fiberglass Channel, Heavy-Duty Frame with Anchor Studs, Cast Iron Grate with lockdowns and anchor tabs.*

_____ **ZV-** 10' Vinylester Fiberglass Channel, Heavy-Duty Frame with Anchor Studs, Cast Iron Grate with lockdowns and anchor tabs.

Note:

+ Actual channel length is 10' 2-1/2" to allow for overlap, with the exception of P.N. 1.

SUFFIXES

- _____ **-BC** Black Acid Resistant Coated Cast Iron Grate
- _____ **-BD** Black Acid Resistant Coated Ductile Iron Grate
- _____ **-BG** Galvanized Steel Bar Grate
- _____ **-CBF** Black Acid Resistant Coated Frame
- _____ **-CC** Cast Iron Solid Cover
- _____ **-CG** Cast Iron Slotted Grate
- _____ **-CT** Cast Iron Tire Proof Grate
- _____ **-CWF** White Acid Resistant Coated Frame
- _____ **-DB** Dome Bottom Strainer
- _____ **-DC** Ductile Iron Solid Cover
- _____ **-DG** Ductile Iron Slotted Grate
- _____ **-E1** Closed End Cap
- _____ **-E4** 4" No-Hub End Outlet
- _____ **-E6** 6" No-Hub End Outlet
- _____ **-E8** 8" No-Hub End Outlet
- _____ **-FG** Fabricated Galvanized Steel Slotted Grate
- _____ **-FS** Fabricated Stainless Steel Slotted Grate
- _____ **-G** Galvanized Cast Iron Grate and Frame
- _____ **-GC** Galvanized Cast Iron Grate
- _____ **-GD** Galvanized Ductile Iron Grate
- _____ **-GF** Fiberglass Frame and Grate
- _____ **-GFA** Galvanized Frame Assembly
- _____ **-GG** Fiberglass Grate
- _____ **-GL** Grate Lockdown Assembly

- _____ **-HPC** Heel Proof Cast Iron Grate
- _____ **-HPD** Heel Proof Ductile Iron Grate
- _____ **-JC** Joint Connector
- _____ **-IA** Inlet Adapter
- _____ **-PG** Perforated Galvanized Steel Grate
- _____ **-PS** Perforated Stainless Steel Grate
- _____ **-RC** Rebar Clip
- _____ **-RFG** Reinforced Galvanized Steel Slotted Grate
- _____ **-RFS** Reinforced Stainless Steel Slotted Grate
- _____ **-RPG** Reinforced Perforated Galvanized Steel Grate
- _____ **-RPS** Reinforced Perforated Stainless Steel Grate
- _____ **-SBG** Stainless Steel Bar Grate
- _____ **-SF** Type 304 Stainless Steel Top Frame
- _____ **-SW** 11-1/4" High Side Wall Extension Adaptor
- _____ **-U4** 4" No-Hub Bottom Outlet
- _____ **-U6** 6" No-Hub Bottom Outlet
- _____ **-U8** 8" No-Hub Bottom Outlet
- _____ **-VP** Vandal Proof Secured Grate/Cover
- _____ **-WC** White Acid Resistant Coated Cast Iron Grate
- _____ **-WD** White Acid Resistant Coated Ductile Iron Grate

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. <u>J</u>	DATE: <u>11/16/99</u>	C.N. NO. <u>83272</u>
DWG. NO. <u>57030</u>	PRODUCT NO. <u>Z-812</u>	

ZURN INDUSTRIES, INC., FLO-THRU DIV., 2855 Girls Road, Jamestown, NY 14701
 Phone: 716/665-1132, Fax: 716/665-1135, World Wide Web: www.zurn.com

In Canada: ZURN INDUSTRIES LIMITED, 3544 Nashua Drive, Mississauga, Ontario L4V1L2, Phone: 905/405-8272 Fax: 905/405-1292

TD-5

DESCRIPTION: FLOOR TRENCH DRAIN - 12" WIDE PRE-MANUFACTURED POLYSTYRENE TRENCH FORMING SYSTEM, 8 FOOT PRE-SLOPED SECTIONS WITH BUILT-IN 1/8" PER FOOT SLOPE, ROUND BOTTOM, INTEGRAL DEFORMING GROOVES, STEEL SUPPORT RAILS AND ANCHORING STUDS. HEAVY DUTY CAST IRON GRATE, H-20 RATED. INTEGRAL CATCH BASIN.

MANUFACTURER & CATALOG NO.: POLYDRAIN TF-14

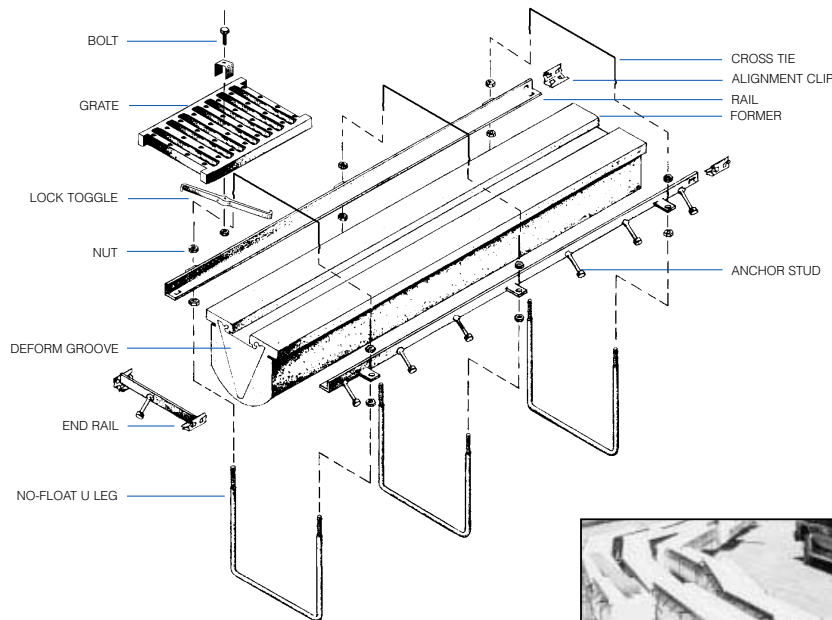
Notes to specifier:

1. Specify length required and location of outlet(s).
2. Include installation detail on drawing.
3. System is for concrete trench integral with floor. Verify requirements with architect.

Toll Free: 800-438-6057

FEATURES TF-14

3



TF-14 is the standard stock Trench Former system. Its components are made in the most commonly constructed size. TF-14 consists of 2.4 m (8 ft.) pre-sloped form segments. The 21 stock segments can be used together to create a continuously sloped 51 m (168 ft.) trench.

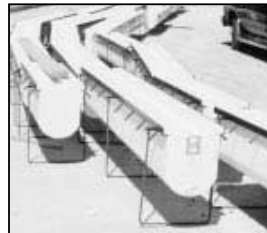
Each segment is engineered to a 10.4 mm per meter ($\frac{1}{8}$ in. per ft.) slope (1.04%). The EPS forms create 305 mm (12 in.) wide trenches with a 165 mm ($6\frac{1}{2}$ in.) radius bottom and a 356 mm (14 in.) grate seat area.

They have integral deforming grooves for easy removal and full length longitudinal grooves for coplanar rail spacing and alignment. Six non-sloping, 1.2 m (4 ft.) or 2.4 m (8 ft.) long forms are available throughout the system to create longer continuous runs.

The steel angle rails include anchoring studs welded on 280 mm (11 in.) centers to the outside corners. 12 mm ($\frac{1}{2}$ in.) threaded U-shaped no-float legs attach to horizontal tabs on each rail. Each rail end is designed to accept a rail alignment clip which connects adjacent rail segments.

Prefabricated L-rail and T-rail assemblies allow for field installation of 90° turns anywhere in the pre-sloped layout.

Outlet piping is butted to an annular groove made in the EPS form prior to concreting. For trench junctions or for large outlet sizes, four catch basins are provided. A wide selection of retainable grates and solid covers is available for various loadings.



TP-1

DESCRIPTION: TRAP PRIMER - PRESSURE DROP ACTIVATED TRAP SEAL PRIMER, WITH INLET OPENING OF 1/2" MALE NPT AND OUTLET OPENING OF 1/2" FEMALE NPT. COMPLETE WITH BUILT-IN AIRGAP TO PREVENT ANY BACKFLOW FROM THE TRAP BEING FED AND REMOVABLE FILTER SCREEN. REQUIRES NO ADJUSTMENTS OR PRE-CHARGE. ASSE 1018 LISTED.

MANUFACTURER & CATALOG NO.: MIFAB M-500, PPP PR-500

(CHOOSE DISTRIBUTION SYSTEM OR DELETE IF NOT REQUIRED)

DESCRIPTION: TRAP PRIMER DISTRIBUTION SYSTEM - TRAP PRIMER DISTRIBUTION UNIT TO SERVE [2,3,4] FLOOR DRAIN TRAPS.

MANUFACTURER & CATALOG NO.: MIFAB MI-DU, PPP DU

Notes to specifier:

1. Trap primer should be installed on cold water line with frequent use.

	M-500
	PRESSURE DROP ACTIVATED TRAP SEAL PRIMER
Internet address: www.mifab.com	Toll Free: 1-800-465-2736
	Canada Toll Free: 1-800-387-3880

SPECIFICATION: MIFAB® model MR-500 pressure drop activated brass trap seal primer, with inlet opening of 1/2" (13) male N.P.T. and outlet opening of female 1/2" (13) N.P.T. Complete with four view holes and removable filter screen. Serves up to 6 floor drain traps and requires no adjustments and no air pre-charge.

SPECIFICATION: MIFAB® model M1-500 pressure drop activated brass trap seal primer, with inlet opening of 1/2" (13) male N.P.T. and outlet opening of female 1/2" (13) N.P.T. Complete with four view holes and removable filter screen. Serves up to 10 floor drain traps and requires no adjustments and no air pre-charge.

SPECIFICATION: MIFAB® model M2-500 pressure drop activated brass trap seal primer, with inlet opening of 1/2" (13) male N.P.T. and outlet opening of female 1/2" (13) N.P.T. Complete with four view holes and removable filter screen. Serves up to 3 floor drain traps and requires no adjustments and no air pre-charge.

MODEL NO.	A IN	B IN	C IN	D IN	E IN	NUMBER OF DRAINS SERVED
MR-500	4 1/8" (105)	3 1/4" (82)	7/8" (22)	1 1/4" (32)	1 1/8" (29)	6
M1-500	4 1/8" (105)	3 1/4" (82)	7/8" (22)	1 1/4" (32)	1 1/8" (29)	10
M2-500	4 1/8" (105)	3 1/4" (82)	7/8" (22)	1 1/4" (32)	1 1/8" (29)	3

FUNCTION AND DESCRIPTION: MIFAB's M-500 Series of pressure activated trap seal primers (MR-500, M1-500 and M2-500) can be connected to any cold water line, and will be automatically activated when a valve or faucet, that is on the line, is opened. A pressure drop of three p.s.i. will activate all of the trap seal primers. MIFAB's M-500 Series of trap seal primers can be disassembled in the field. Their unique design permits filter replacement without affecting the performance of the primer. The "O" ring seals are tested for reliability at a temperature range of -40 degrees to 450 degrees F. The M-500 Series of trap seal primers do not require adjustment. The operating range for all of MIFAB's M-500 Series of trap seal primers is 20 to 125 p.s.i. All three models are listed with I.A.P.M.O. and C.S.A. and are tested and certified to the A.S.S.E. Standard 1018 and are so marked. U.S. Patent # 6,152,164.

(Dimension) Denotes Millimetres



MIDU

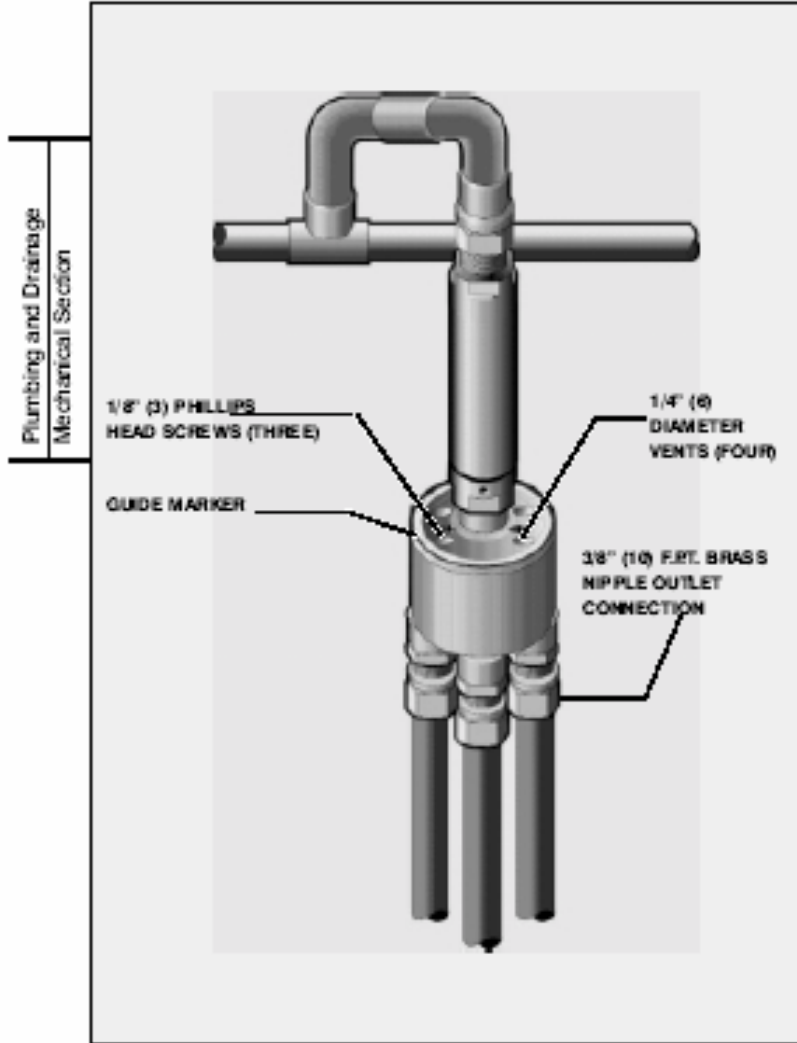
TRAP SEAL PRIMER DISTRIBUTION UNIT

Internet address: www.mifab.com

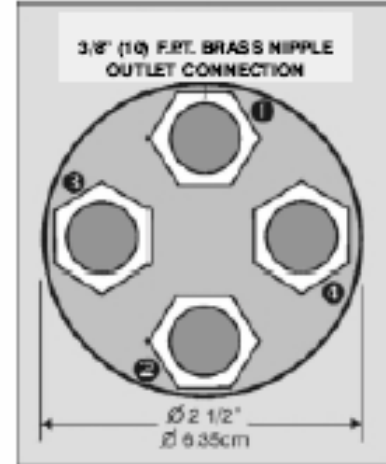
Toll Free: 1-800-465-2736

Canada Toll Free: 1-800-387-3880

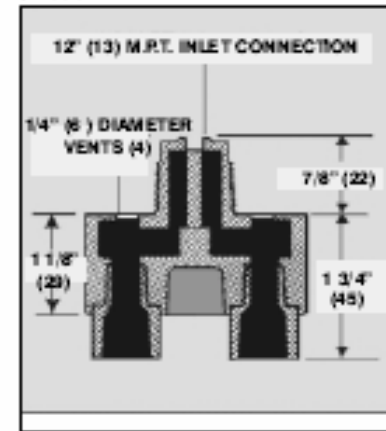
SPECIFICATION: MIFAB® model M-IDU trap seal primer distribution unit with four 3/8" (10) F.P.T. brass nipple outlet connections to serve either two, three or four floor drain traps and a 1/2" (13) M.P.T. inlet connection. Unit complete with four 1/4" (6) diameter vent holes in the lid and three 1/8" (3) diameter Phillips head screws to secure the lid to the body.



Bottom view



Cross section view



FUNCTION AND DESCRIPTION: MIFAB's model M-IDU trap seal primer distribution unit is engineered to receive a metered amount of water from a trap seal primer and distribute the water equally to either two, three or four floor drain traps. The lid of the distribution unit has the numbers "2", "3" and "4" marked on it. The body of the distribution unit has a guide marker on the top of the body. When the number "2" and the guide marker are aligned, only the ports marked #1 and #2 will distribute water equally. When the number "3" and the guide marker are aligned, only the ports marked #1, #2 and #3 will distribute water equally. When the number "4" and the guide marker are aligned, all of the ports (#1, #2, #3 and #4) will distribute water equally. The numbers and the guide marker are positioned by removing the three screws in the lid of the unit and rotating the lid to match the appropriate numbers with the guide marker. Do not over torque the three lid screws when securing the lid back to the body. If necessary, two plugs are provided to block the unused brass ports. Install them with Teflon tape when screwing them into the unused brass ports. It is not necessary to install MIFAB's distribution unit perfectly level. It will distribute water uniformly when out of level. Model M-IDU is listed with I.A.P.M.O. U.S. Patent # 6,142,178.

(Dimension) Denotes Millimetres

TP-2

DESCRIPTION: TRAP PRIMER - [SURFACE MOUNTED, FLUSH MOUNTED] ELECTRONIC SOLENOID ACTIVATED, WITH MANUAL OVERRIDE, TRAP SEAL PRIMER, WITH INLET OPENING OF 3/4" FNPT AND 1/2" COMPRESSION FITTING OUTLET. COMPLETE WITH BUILT-IN VACUUM BREAKER TO PREVENT ANY BACKFLOW FROM THE TRAP BEING FED. SERVES FROM 4 TO 30 TRAPS.

MANUFACTURER & CATALOG NO.: PPP-PT

Notes to specifier:

1. Coordinate with electrical engineer. Requires 120V 3-wire connection.
2. Priming assembly must be mounted above the finished floor.

". . . Automatically maintains a constant water seal in floor drain traps."

It's PRIME-TIME to meet your floor drain trap priming needs. This unique trap priming manifold is available in 4 through 30 opening configurations and all the contractor needs to do is simply supply the potable water and power, Precision supplies the rest . . .

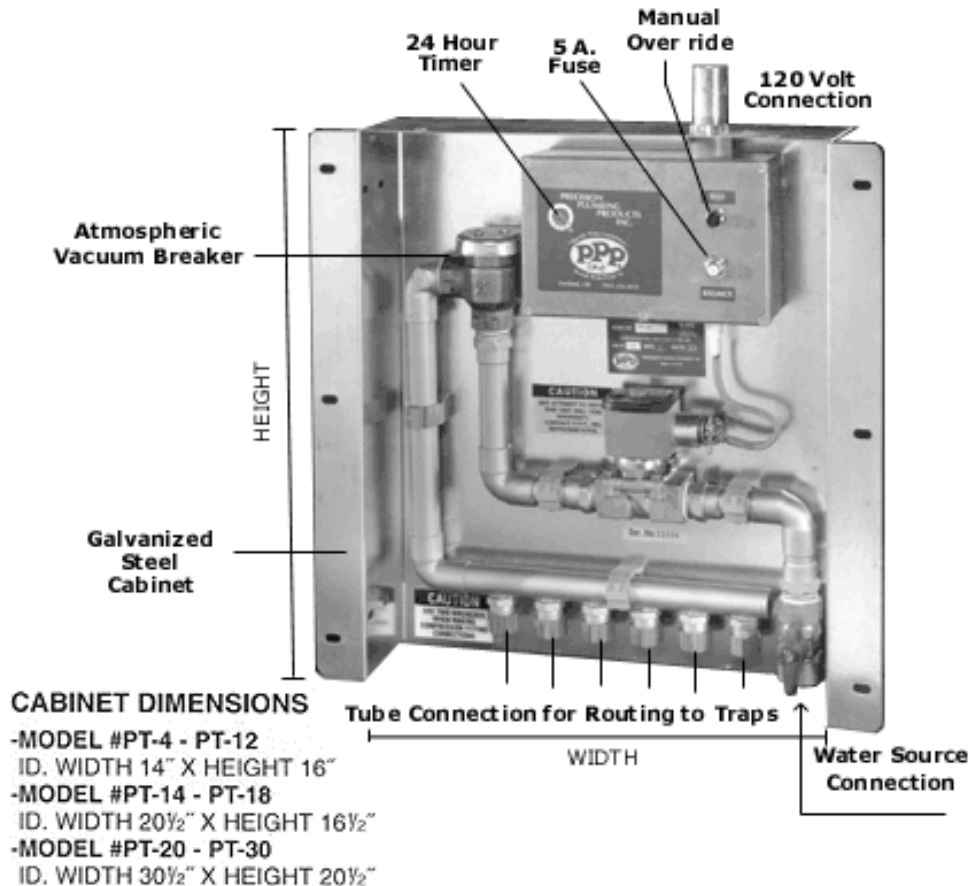
Features:

- Atmospheric vacuum breaker
- Pre-set 24 hour clock
- Manual over ride switch
- 120v solenoid valve
- 120v 3/wire connection
- 3/4" FNPT connection
- Calibrated manifold for equal water distribution
- 5/8" & 1/2" outlet compression fittings

The PRIME-TIME PRIMING MANIFOLD will supply a minimum of 2oz of potable water at 20 PSIG in a 24 hour period **GUARANTEED**, and we have included a breaker to protect the timing mechanism. The entire manifold is pre-assembled in a steel cabinet ready to be either surface, or flush wall mounted. The Priming assembly must be mounted above the finished floor.



SPECIFICATIONS



CABINET DIMENSIONS

- MODEL #PT-4 - PT-12
ID. WIDTH 14" X HEIGHT 16"
- MODEL #PT-14 - PT-18
ID. WIDTH 20½" X HEIGHT 16½"
- MODEL #PT-20 - PT-30
ID. WIDTH 30½" X HEIGHT 20½"

NOTE: DEPTH OF CABINET (DRY WALL 4") (FIRE RATED 6")

NOTE: DEPTH OF CABINET (DRY WALL 4") (FIRE RATED 6")

To be Precision Plumbing Products, Inc. Electronic Trap Priming manifold Model PT-4 thru PT-30. The manifold shall supply a minimum of 2oz of potable water per opening at 20 PSIG once in each 24 hour period. The Electronic Trap Priming Manifold must be capable of equally priming from 4 thru 30 individual floor drain traps.

The unit shall be factory assembled and prepiped, and shall include a bronze body 3/4" female NPT, WOG rated ball valve, copper barrel with brass piston and type "L" copper sweat connection, electronic brass body 3/4" solenoid valve, and type "L" copper manifold with brass 1/2" compression fitting and orifice opening for precision water distribution to each floor drain trap.

Electronic components shall include single point power connection at 120/1/60, manual over-ride switch, minimum 5 amp breaker, 24 hour geared timer with relay and 5 second dwell function.

All components shall be factory assembled, tested and supplied in a 16gauge steel enclosure suitable for surface or recess mounting. In addition, all components must comply with nationally recognized standards. The Precision Plumbing Products Electronic Trap Priming Manifold shall be fully warranted for the life of the plumbing system.

UR-1

DESCRIPTION: URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WASHOUT ACTION, WATER SAVING, 3/4" TOP SPUD, 2" OUTLET, ELONGATED RIM AND EXTENDED SIDE SHIELDS. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM AT 22" ABOVE FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6501.010, KOHLER K-4960-ET, CRANE 7-197-E, ELJER 161-1030, GERBER 27-780, TOTO UT447, ZURN Z5750

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED, 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES. 1.0 GALLON PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 186-1, ZURN Z6003PL, DELANY 451-1, TOTO TMU1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8186-1, ZURN ZR6003AV, HYDROTEK HB-8000C, DELANY I1451-1, TOTO TEU1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 186-1 ES-S, ZURN ZEMS6003AV, HYDROTEK H-8000C, DELANY 1351-1, TOTO TEU1ANCR

Notes to specifier:

1. Select type of flush valve desired and delete other type of valve.
2. Coordinate electrical requirements with electrical engineer.
3. Manufacturer recommends not to specify over-ride button on urinals to avoid unnecessary operation.
4. Toto valve does not have over-ride button.



WASHBROOK URINAL

- Vitreous china
- Low-consumption (3.8 Lpf/1.0 gpf)
- Flushing rim
- Elongated 14" rim from finished wall
- Washout flush action
- Extended sides for privacy
- 3/4" inlet spud
- Outlet connection threaded 2" inside (NPTF)
- 2 wall hangers
- Fixture only
- Meets ANSI flush requirements at 0.7 to 1.0 GPF

- 6501.010** Top spud
- 6506.011** Back spud

Nominal Dimensions:
470 x 359 x 692mm
(18-1/2" x 14" x 27-1/4")

Recommended working pressure - between 20 psi at valve when flushing and 80 psi static.

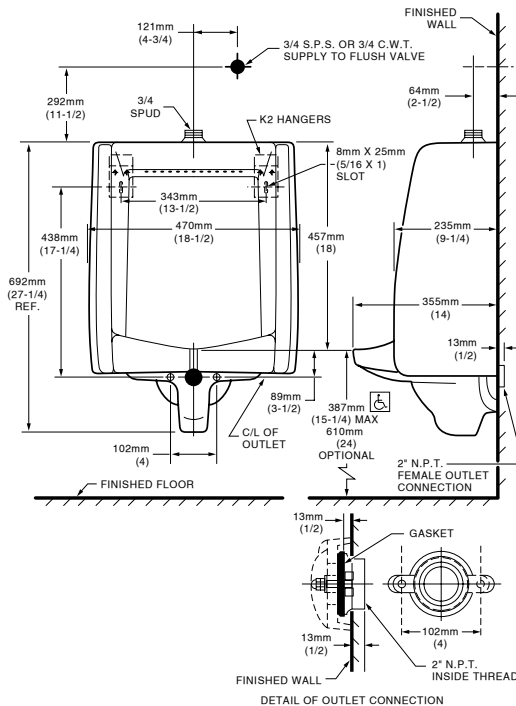
- Compliance Certifications - Meets or Exceeds the Following Specifications:**
- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimension

To Be Specified

- Color: White Bone Silver Shell Black
- Flush Valve: Sloan Royal 186-1 (top spud)
Sloan Royal 195-1 (back spud)
- Alternative Flush Valve:
- Stainless Steel Strainer: 047068-0070A



● When installed so top of rim is 387mm (15-1/4") from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.



NOTES:
FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 6501/6506

COM/INS-034

© 2000 American Standard Inc.

Revised 3/99



Royal® Model 186 Flushometer 186 186-1 186-0.5

► **Description**
Exposed Urinal Flushometer, for ¾" top spud urinals.

► **Flush Cycle**

- Model 186 Water Saver (1.5 gpf/5.7 Lpf)
- Model 186-1 Low Consumption (1.0 gpf/3.8 Lpf)
- Model 186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

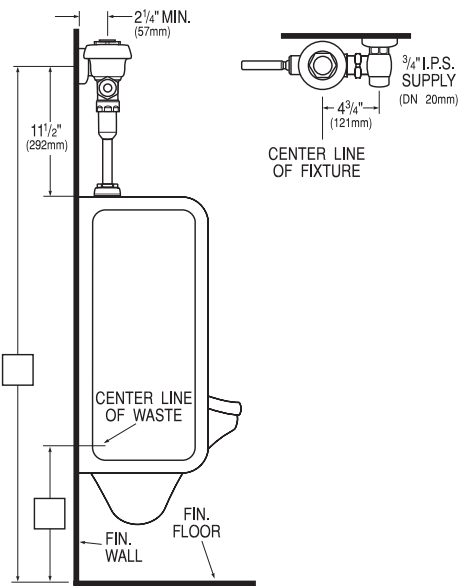
- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- ¾" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for ¾" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

- BG** Bio-Gard™ Handle
- HL-3** 3" Metal Oscillating Palm Button on front of valve (does not meet ADA requirements)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

Made in the U.S.A.

SLOAN

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8186

8186, 8186-1.0, and 8186-0.5 Models

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Urinal Flushometer.

► **Flush Cycle**

- Royal® Model 8186 Water Saver (1.5 gpf/5.7 Lpf)
- Royal® Model 8186-1.0 Low Consumption (1.0 gpf/3.8 Lpf)
- Royal® Model 8186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 3/4" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 3/4" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- BD** Beam Deflector now included as *Standard* with all Urinal OPTIMA *Plus*® Models
- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

186 ES-S 186-1 ES-S 186-0.5 ES-S

- ▶ **Description**
Exposed Sensor operated Urinal Flushometer, for ¾" top spud urinals.
- ▶ **Flush Cycle**
 - Model 186 ES-S Water Saver (1.5 gpf/5.7 Lpf)
 - Model 186-1 ES-S Low Consumption (1.0 gpf/3.8 Lpf)
 - Model 186-0.5 ES-S (0.5 gpf/1.9 Lpf)
- ▶ **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
 - Dual Filtered By-Pass
 - OPTIMA® EL-1500 Self Adaptive Infrared Sensor with Indicator Light
 - Non-Hold-Open Integral Solenoid Operator
 - Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
 - ¾" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for ¾" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.
- ▶ **Accessories**
 - EL-154** Transformer (120 VAC/24 VAC 50 VA.)
 - EL-342** Transformer (240 VAC/24 VAC 50 VA.)
 - EL-226** Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



- ▶ **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.
- ▶ **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.
- ▶ **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.
- ▶ **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.
- ▶ **Warranty**
3 year (limited)
- ▶ **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

UR-2

DESCRIPTION: ACCESSIBLE URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WASHOUT ACTION, WATER SAVING, 3/4" TOP SPUD, 2" OUTLET, ELONGATED RIM AND EXTENDED SIDE SHIELDS. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM SHALL BE 17" MAXIMUM ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.18.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6501.010, KOHLER K-4960-ET, CRANE 7-197-E, ELJER 161-1030, GERBER 27-780, TOTO UT447, ZURN Z5750

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED, 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES. 1.0 GALLON PER FLUSH. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE 44" MAXIMUM ABOVE FLOOR AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.18 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 186-1, ZURN Z6003PL, DELANY 451-1, TOTO TMU1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8186-1, ZURN ZR6003AV, HYDROTEK HB-8000C, DELANY I1451-1, TOTO TEU1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 8 OR MORE UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 186-1 ES-S, ZURN ZEMS6003AV, HYDROTEK H-8000C, DELANY 1351-1, TOTO TEU1ANCR

Notes to specifier:

1. Meets ADA requirements for handicapped fixture.
2. Select type of flush valve desired and delete other type of valve.
3. Coordinate electrical requirements with electrical engineer.
4. Mount rim at 17" maximum above floor and flush valve at 44" maximum above floor when used as handicapped urinal.
5. Manufacturer recommends not to specify over-ride button on urinals to avoid unnecessary operation.
6. Toto valve does not have over-ride button.



WASHBROOK URINAL

- Vitreous china
- Low-consumption (3.8 Lpf/1.0 gpf)
- Flushing rim
- Elongated 14" rim from finished wall
- Washout flush action
- Extended sides for privacy
- 3/4" inlet spud
- Outlet connection threaded 2" inside (NPTF)
- 2 wall hangers
- Fixture only
- Meets ANSI flush requirements at 0.7 to 1.0 GPF

- 6501.010** Top spud
- 6506.011** Back spud

Nominal Dimensions:
470 x 359 x 692mm
(18-1/2" x 14" x 27-1/4")

Recommended working pressure - between 20 psi at valve when flushing and 80 psi static.

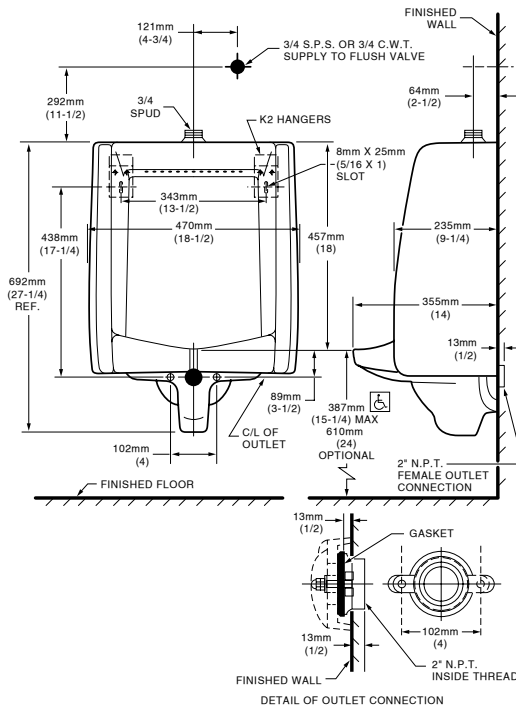
- Compliance Certifications - Meets or Exceeds the Following Specifications:**
- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimension

To Be Specified

- Color: White Bone Silver Shell Black
- Flush Valve: Sloan Royal 186-1 (top spud)
Sloan Royal 195-1 (back spud)
- Alternative Flush Valve:
- Stainless Steel Strainer: 047068-0070A



● When installed so top of rim is 387mm (15-1/4") from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.



NOTES:
FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 6501/6506

COM/INS-034

© 2000 American Standard Inc.

Revised 3/99



Royal® Model 186 Flushometer 186 186-1 186-0.5

► **Description**
Exposed Urinal Flushometer, for ¾" top spud urinals.

► **Flush Cycle**

- Model 186 Water Saver (1.5 gpf/5.7 Lpf)
- Model 186-1 Low Consumption (1.0 gpf/3.8 Lpf)
- Model 186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

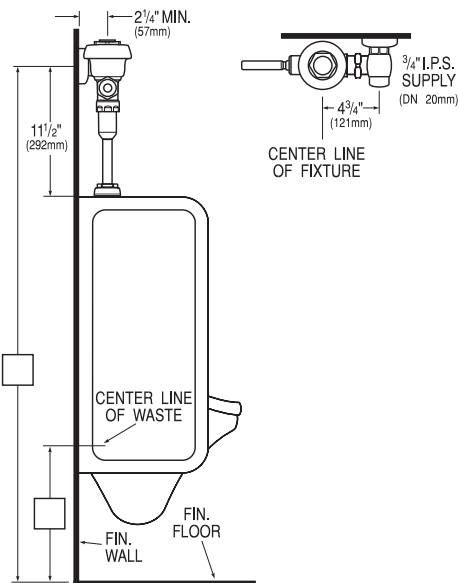
- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- ¾" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for ¾" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

- BG** Bio-Gard™ Handle
- HL-3** 3" Metal Oscillating Palm Button on front of valve (does not meet ADA requirements)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8186

8186, 8186-1.0, and 8186-0.5 Models

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Urinal Flushometer.

► **Flush Cycle**

- Royal® Model 8186 Water Saver (1.5 gpf/5.7 Lpf)
- Royal® Model 8186-1.0 Low Consumption (1.0 gpf/3.8 Lpf)
- Royal® Model 8186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 3/4" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 3/4" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- BD** Beam Deflector now included as *Standard* with all Urinal OPTIMA *Plus*® Models
- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

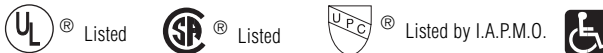
The information contained in this document is subject to change without notice.
Made in the U.S.A.

186 ES-S 186-1 ES-S 186-0.5 ES-S

- ▶ **Description**
Exposed Sensor operated Urinal Flushometer, for 3/4" top spud urinals.
- ▶ **Flush Cycle**
 - Model 186 ES-S Water Saver (1.5 gpf/5.7 Lpf)
 - Model 186-1 ES-S Low Consumption (1.0 gpf/3.8 Lpf)
 - Model 186-0.5 ES-S (0.5 gpf/1.9 Lpf)
- ▶ **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
 - Dual Filtered By-Pass
 - OPTIMA® EL-1500 Self Adaptive Infrared Sensor with Indicator Light
 - Non-Hold-Open Integral Solenoid Operator
 - Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
 - 3/4" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 3/4" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.
- ▶ **Accessories**
 - EL-154** Transformer (120 VAC/24 VAC 50 VA.)
 - EL-342** Transformer (240 VAC/24 VAC 50 VA.)
 - EL-226** Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval	
Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	



- ▶ **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.
- ▶ **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.
- ▶ **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.
- ▶ **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.
- ▶ **Warranty**
3 year (limited)
- ▶ **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

UR-3

DESCRIPTION: ACCESSIBLE URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET ACTION, EXTENDED FRONT, 3/4" TOP SPUD, 2" OUTLET. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM SHALL BE 17" MAXIMUM ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.18.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6541.132, KOHLER K-5016-ET, ELJER 161-1150, GERBER 27-750, ZURN Z5730

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED, 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES. 1.0 GALLON PER FLUSH. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE 44" MAXIMUM ABOVE FLOOR AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.18 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 186-1, ZURN Z6003PL, DELANY 451-1, TOTO TMU1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8186-1, ZURN ZR6003AV, HYDROTEK HB-8000C, DELANY I1451-1, TOTO TEU1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 8 OR MORE UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 186-1 ES-S, ZURN ZEMS6003AV, HYDROTEK H-8000C, DELANY 1351-1, TOTO TEU1ANCR

Notes to specifier:

1. Meets ADA requirements for handicapped fixture.
2. Select type of flush valve desired and delete other type of valve.
3. Coordinate electrical requirements with electrical engineer.
4. Mount rim at 17" maximum above floor and flush valve at 44" maximum above floor when used as handicapped urinal.
5. Manufacturer recommends not to specify over-ride buttons on urinals to avoid unnecessary operation.
6. Toto valve does not have over-ride button.

 **BARRIER FREE**

ALLBROOK URINAL

- Vitreous china
- Low-consumption (3.8 Lpf/1.0 gpf)
- Flushing rim
- Siphon jet flush action
- 3/4" inlet spud
- Outlet connection threaded 2" inside (NPTF)
- Wall hanger
- Fixture only
- Meets ANSI flush requirements at 0.7 to 1.0 GPF

 **6541.132 Top spud**

Nominal Dimensions:
356 x 356 x 546mm
(14" x 14" x 21-1/2")


Recommended working pressure - between 20 psi at valve when flushing and 80 psi static.

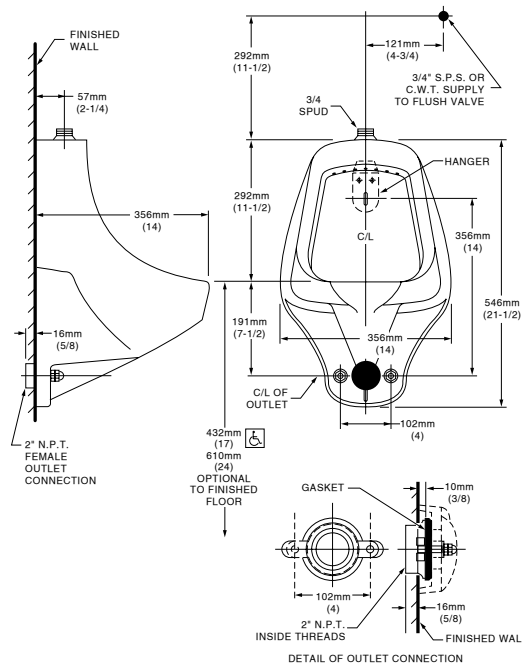
**Compliance Certifications -
Meets or Exceeds the Following Specifications:**

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

To Be Specified

- Color: White Bone Silver
 Shell Black
- Flush Valve: Sloan Royal 186-1
- Alternative Flush Valve:

 ● When installed so top of rim is 432mm (17") from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.



NOTES:
FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 6541

Revised 6/95

© 1998 American Standard Inc.

COM/INS-027



Royal® Model Flushometer

186
186-1
186-0.5

► **Description**
Exposed Urinal Flushometer, for ¾" top spud urinals.

► **Flush Cycle**

- Model 186 Water Saver (1.5 gpf/5.7 Lpf)
- Model 186-1 Low Consumption (1.0 gpf/3.8 Lpf)
- Model 186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

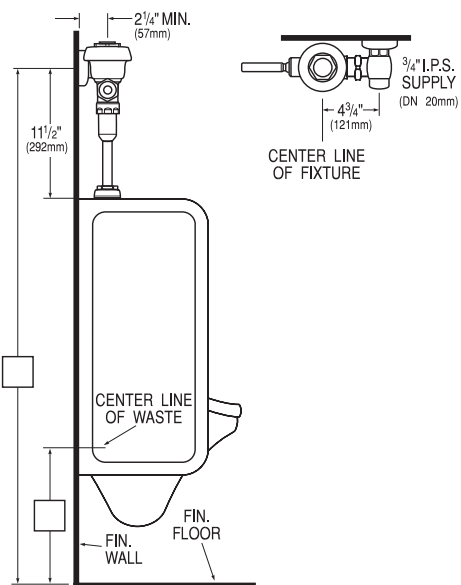
- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- ¾" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for ¾" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

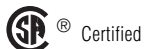
► **Variations**

- BG** Bio-Gard™ Handle
- HL-3** 3" Metal Oscillating Palm Button on front of valve (does not meet ADA requirements)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

Made in the U.S.A.

SLOAN

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8186

8186, 8186-1.0, and 8186-0.5 Models

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Urinal Flushometer.

► **Flush Cycle**

- Royal® Model 8186 Water Saver (1.5 gpf/5.7 Lpf)
- Royal® Model 8186-1.0 Low Consumption (1.0 gpf/3.8 Lpf)
- Royal® Model 8186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 3/4" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 3/4" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- BD** Beam Deflector now included as *Standard* with all Urinal OPTIMA *Plus*® Models
- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

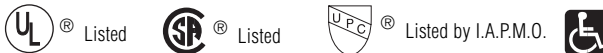
The information contained in this document is subject to change without notice.
Made in the U.S.A.

186 ES-S 186-1 ES-S 186-0.5 ES-S

- ▶ **Description**
Exposed Sensor operated Urinal Flushometer, for ¾" top spud urinals.
- ▶ **Flush Cycle**
 - Model 186 ES-S Water Saver (1.5 gpf/5.7 Lpf)
 - Model 186-1 ES-S Low Consumption (1.0 gpf/3.8 Lpf)
 - Model 186-0.5 ES-S (0.5 gpf/1.9 Lpf)
- ▶ **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
 - Dual Filtered By-Pass
 - OPTIMA® EL-1500 Self Adaptive Infrared Sensor with Indicator Light
 - Non-Hold-Open Integral Solenoid Operator
 - Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
 - ¾" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for ¾" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.
- ▶ **Accessories**
 - EL-154** Transformer (120 VAC/24 VAC 50 VA.)
 - EL-342** Transformer (240 VAC/24 VAC 50 VA.)
 - EL-226** Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



- ▶ **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.
- ▶ **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.
- ▶ **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.
- ▶ **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.
- ▶ **Warranty**
3 year (limited)
- ▶ **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

UR-4

DESCRIPTION: URINAL - FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WASHOUT ACTION, WATER SAVING, 3/4" TOP SPUD, 2" OUTLET. FURNISH VITREOUS CHINA SEAM COVERS BETWEEN URINALS IN GROUPS.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6400.014, KOHLER K-4920-T, ELJER 161-1000, GERBER 27-780

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED, 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES. 1.0 GALLON PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 186-1, ZURN Z6003PL, DELANY 451-1, TOTO TMU1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8186-1, ZURN ZR6003AV, HYDROTEK HB-8000C, DELANY I1451-1, TOTO TEU1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1 GALLON PER FLUSH. [OVER-RIDE BUTTON,] RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 8 OR MORE UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 186-1 ES-S, ZURN ZEMS6003AV, HYDROTEK H-8000C, DELANY 1351-1, TOTO TEU1ANCR

Notes to specifier:

1. Select type of flush valve desired and delete other type of valve.
2. Coordinate electrical requirements with electrical engineer.
3. Meets ADA requirements when installed with sensor flush valve.
4. Check local codes. Not allowed in all areas.
5. Manufacturer recommends not to specify over-ride buttons on urinals to avoid unnecessary operation.
6. Toto valve does not have over-ride button.



BARRIER FREE

STALLBROOK URINAL

- Vitreous china
- Sloping front stall urinal
- Low-consumption (3.8 Lpf/1.0 gpf)
- Integral flush spreader
- Washout flush action
- 3/4" inlet spud
- Fixture only
- Meets ANSI flush requirements of 0.7 to 1.0 GPF

6400.014 Top Spud

Nominal Dimensions:
457 x 381 x 965mm (18" x 15" x 38")

Recommended working pressure - between 20 psi at valve when flushing and 80 psi static.

- Compliance Certifications -
Meets or Exceeds the Following Specifications:**
- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

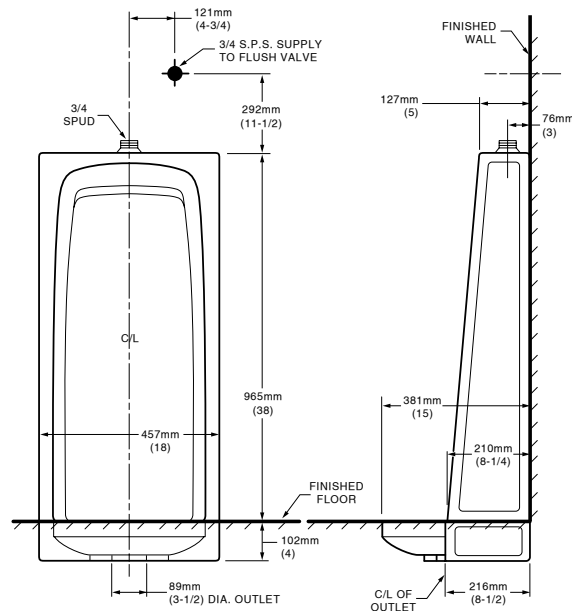


To Be Specified

- Color: White Bone Silver
- Flush Valve: Sloan Royal 186-1 (see note)
- Alternative Flush Valve:
- Strainer (suggest McGuire #1233 or equivalent):



NOTE: Electronic Flush Valve required to meet ADA Flush Valve Height Requirement. **MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.**



NOTES:
FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 6400



Royal® Model Flushometer

186
186-1
186-0.5

► **Description**
Exposed Urinal Flushometer, for ¾" top spud urinals.

► **Flush Cycle**

- Model 186 Water Saver (1.5 gpf/5.7 Lpf)
- Model 186-1 Low Consumption (1.0 gpf/3.8 Lpf)
- Model 186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

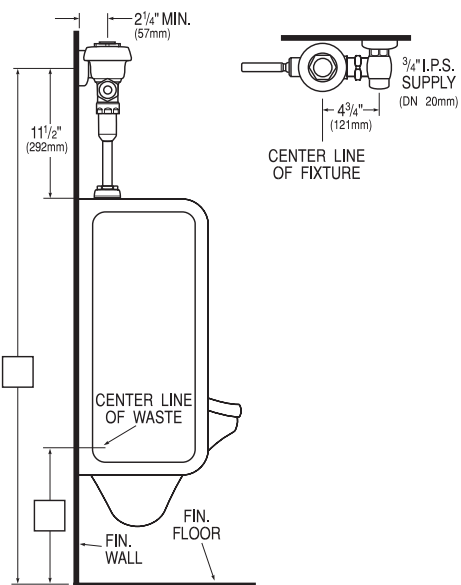
- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- ¾" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for ¾" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

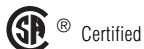
► **Variations**

- BG** Bio-Gard™ Handle
- HL-3** 3" Metal Oscillating Palm Button on front of valve (does not meet ADA requirements)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8186

8186, 8186-1.0, and 8186-0.5 Models

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Urinal Flushometer.

► **Flush Cycle**

- Royal® Model 8186 Water Saver (1.5 gpf/5.7 Lpf)
- Royal® Model 8186-1.0 Low Consumption (1.0 gpf/3.8 Lpf)
- Royal® Model 8186-0.5 (0.5 gpf/1.9 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 3/4" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 3/4" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- BD** Beam Deflector now included as *Standard* with all Urinal OPTIMA *Plus*® Models
- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

186 ES-S 186-1 ES-S 186-0.5 ES-S

- ▶ **Description**
Exposed Sensor operated Urinal Flushometer, for 3/4" top spud urinals.
- ▶ **Flush Cycle**
 - Model 186 ES-S Water Saver (1.5 gpf/5.7 Lpf)
 - Model 186-1 ES-S Low Consumption (1.0 gpf/3.8 Lpf)
 - Model 186-0.5 ES-S (0.5 gpf/1.9 Lpf)
- ▶ **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
 - Dual Filtered By-Pass
 - OPTIMA® EL-1500 Self Adaptive Infrared Sensor with Indicator Light
 - Non-Hold-Open Integral Solenoid Operator
 - Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
 - 3/4" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 3/4" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.
- ▶ **Accessories**
 - EL-154** Transformer (120 VAC/24 VAC 50 VA.)
 - EL-342** Transformer (240 VAC/24 VAC 50 VA.)
 - EL-226** Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



- ▶ **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.
- ▶ **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.
- ▶ **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.
- ▶ **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.
- ▶ **Warranty**
3 year (limited)
- ▶ **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

UR-5

DESCRIPTION: URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, BLOWOUT ACTION, 1-1/4" TOP SPUD, 2" OUTLET, 1.0 GALLON FLUSH. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM AT 22" ABOVE FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6601.012, KOHLER K-4972-T, CRANE 7-180, ELJER 161-1060, ZURN Z5770

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED, 3/4" OR 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES. 1.0 GALLON PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 180-1, ZURN Z6001PL, DELANY 452-1, TOTO TMU1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 3/4" OR 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.0 GALLON PER FLUSH. [OVER-RIDE BUTTON,] LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8180-1, ZURN ZR6001AV, HYDROTEK HB-8000C, DELANY I1452-1, TOTO TEU1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 3/4" OR 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.0 GALLON PER FLUSH. [OVER-RIDE BUTTON,] RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 8 OR MORE UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 180-1 ES-S, ZURN ZEMS6001AV, HYDROTEK H-8000C, DELANY 1352-1, TOTO TEU1ANCR

Notes to specifier:

1. Blowout type fixture for sports arena type applications only. Not for general applications.
2. Select type of flush valve desired and delete other type of valve.
3. Coordinate electrical requirements with electrical engineer.
4. Manufacturer recommends not to specify over-ride buttons on urinals to avoid unnecessary operation.



BARRIER FREE

LYNBROOK URINAL

- Vitreous china
- Low consumption (3.8 Lpf/1.0 gpf)
- Flushing rim
- Blowout flush action
- Privacy shields
- 1-1/4" inlet spud
- Outlet connection threaded 2" inside (NPTF)
- 2 wall hangers
- Fixture only
- Meets ANSI flush requirements at 0.7 to 1.0 GPF

6601.012 Top spud (Illustrated)

6605.027 Back spud

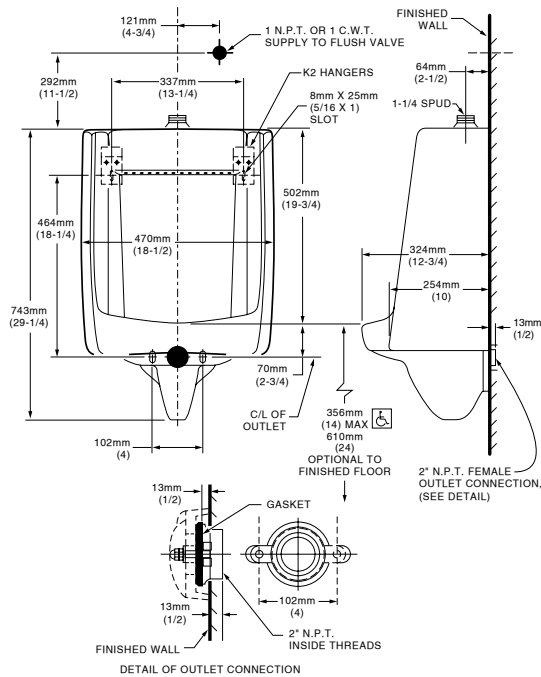
Nominal Dimensions:

470 x 324 x 743mm
(18-1/2" x 12-3/4" x 29-1/4")

Recommended working pressure - between 20 psi at valve when flushing and 80 psi static.

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



To Be Specified

- Color: White Bone Silver Shell Black
- Flush Valve:
 - Sloan Royal 180-1 (top spud)
 - Sloan Royal 190-1 (back spud)
- Alternative Flush Valve:



● When installed so top of rim is 356mm (14") from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.

NOTES:
FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS. IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 6601/6605

COM/INS-026

© 1998 American Standard Inc.

Revised 3/97



Royal® Model 180 Flushometer 180 180-1.5 180-1

► **Description**
Exposed Urinal Flushometer, for 1/4" top spud urinals.

► **Flush Cycle**

- Model 180 Conventional (3.5 gpf/13.2 Lpf)
- Model 180-1.5 Water Saver (1.5 gpf/5.7 Lpf)
- Model 180-1 Low Consumption (1.0 gpf/3.8 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

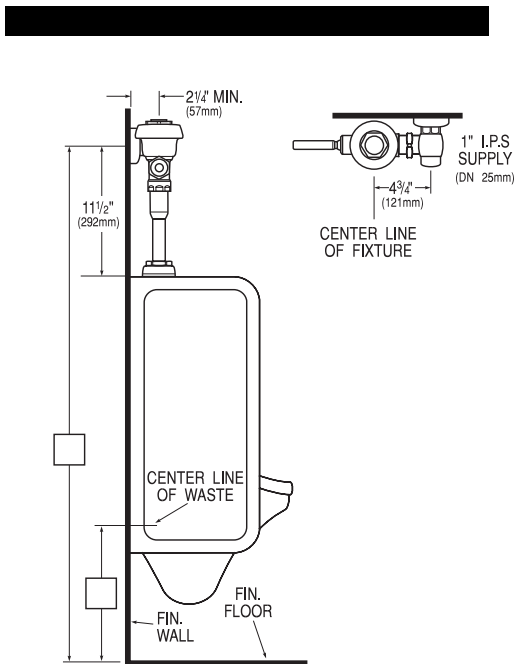
- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1/4" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

- BG** Bio-Gard™ Handle
- HL-3** 3" Metal Oscillating Palm Button on front of valve (does not meet ADA requirements)
- T** 1 1/2" Flush Connection

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8180

8180, 8180-1.5, and 8180-1.0 Models

Description

Exposed, Battery Powered, Sensor Operated Royal® Model Urinal Flushometer.

Flush Cycle

- Royal® Model 8180 Conventional (3.5 gpf/13.2 Lpf)
- Royal® Model 8180-1.5 Water Saver (1.5 gpf/5.7 Lpf)
- Royal® Model 8180-1.0 Low Consumption (1.0 gpf/3.8 Lpf)

Specifications

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/4" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

Variations

- | | |
|---|--|
| <input checked="" type="checkbox"/> BD | Beam Deflector now included as <i>Standard</i> with all Urinal OPTIMA <i>Plus</i> ® Models |
| <input type="checkbox"/> LH | Less Handle Opening |
| <input type="checkbox"/> MC | Metal Cover |
| <input type="checkbox"/> T | 1 1/2" Less Handle Opening |

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



▶ ADA Compliant

▶ Automatic

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

▶ Hygienic

User makes no physical contact with the Flushometer surface. Helps control the spread of infectious diseases.

▶ Economical

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

▶ Warranty

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

180 ES-S 180-1.5 ES-S 180-1 ES-S



► **Description**
Exposed Sensor Operated Urinal Flushometer, for 1/4" top spud urinals.

- **Flush Cycle**
- Model 180 ES-S Conventional (3.5 gpf/13.2 Lpf)
 - Model 180-1.5 ES-S Water Saver (1.5 gpf/5.7 Lpf)
 - Model 180-1 ES-S Low Consumption (1.0 gpf/3.8 Lpf)

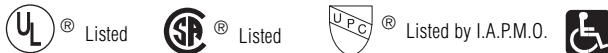
- **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
- Dual Filtered By-Pass
 - OPTIMA® EL-1500 Self Adaptive Infrared Sensor with Indicator Light
 - Non-Hold-Open Integral Solenoid Operator
 - Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
 - 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1/4" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

- **Variations**
- T** 1 1/2" Flush Connection

- **Accessories**
- EL-154** Transformer (120 VAC/24 VAC 50 VA.)
 - EL-342** Transformer (240 VAC/24 VAC 50 VA.)
 - EL-226** Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

UR-6

DESCRIPTION: ACCESSIBLE URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, BLOWOUT ACTION, 1-1/4" TOP SPUD, 2" OUTLET, 1.0 GALLON FLUSH. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM SHALL BE 17" MAXIMUM ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.18.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6601.012, KOHLER K-4972-T, CRANE 7-180, ELJER 161-1060, ZURN Z5770

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED, 3/4" OR 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES. 1.0 GALLON PER FLUSH. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE 44" MAX. ABOVE FLOOR AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.18 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 180-1, ZURN Z6001PL, DELANY 452-1, TOTO TMU1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 3/4" OR 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.0 GALLON PER FLUSH. [OVER-RIDE BUTTON,] LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8180-1, ZURN ZR6001AV, HYDROTEK HB-8000C, DELANY I1452-1, TOTO TEU1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 3/4" OR 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.0 GALLON PER FLUSH. [OVER-RIDE BUTTON,] RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 8 OR MORE UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 180-1 ES-S, ZURN ZEMS6001AV, HYDROTEK H-8000C, DELANY 1352-1, TOTO TEU1ANCR

Notes to specifier:

1. Blowout type fixture for sports arena type applications only. Not for general applications.
2. Meets ADA requirements for handicapped fixture.
3. Select type of flush valve desired and delete other type of valve.
4. Coordinate electrical requirements with electrical engineer.
5. Mount rim at 17" maximum above floor and flush valve at 44" maximum above floor when used as handicapped urinal.
6. Manufacturer recommends not to specify over-ride buttons on urinals to avoid unnecessary operation.



BARRIER FREE

LYNBROOK URINAL

- Vitreous china
- Low consumption (3.8 Lpf/1.0 gpf)
- Flushing rim
- Blowout flush action
- Privacy shields
- 1-1/4" inlet spud
- Outlet connection threaded 2" inside (NPTF)
- 2 wall hangers
- Fixture only
- Meets ANSI flush requirements at 0.7 to 1.0 GPF

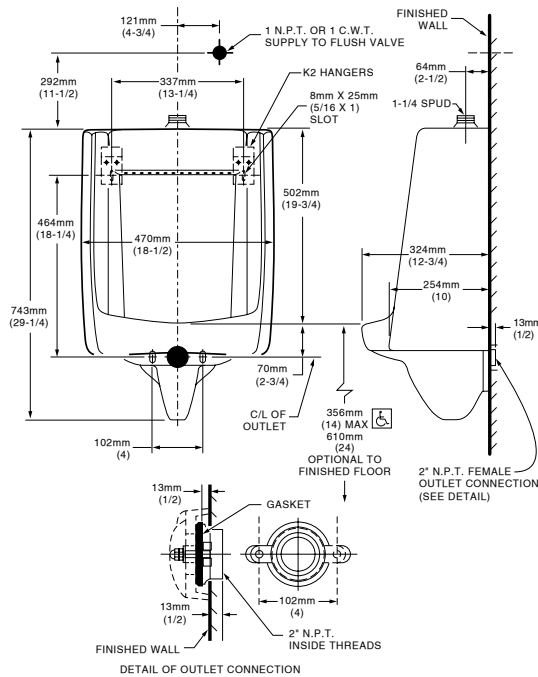
- 6601.012** Top spud (Illustrated)
- 6605.027** Back spud

Nominal Dimensions:
470 x 324 x 743mm
(18-1/2" x 12-3/4" x 29-1/4")

Recommended working pressure - between 20 psi at valve when flushing and 80 psi static.

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



To Be Specified

- Color: White Bone Silver Shell Black
- Flush Valve:
 - Sloan Royal 180-1 (top spud)
 - Sloan Royal 190-1 (back spud)
- Alternative Flush Valve:



● When installed so top of rim is 356mm (14") from finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.

NOTES:
FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS. IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 6601/6605

COM/INS-026

© 1998 American Standard Inc.

Revised 3/97



Royal® Model 180 Flushometer 180 180-1.5 180-1

► **Description**
Exposed Urinal Flushometer, for 1/4" top spud urinals.

► **Flush Cycle**

- Model 180 Conventional (3.5 gpf/13.2 Lpf)
- Model 180-1.5 Water Saver (1.5 gpf/5.7 Lpf)
- Model 180-1 Low Consumption (1.0 gpf/3.8 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

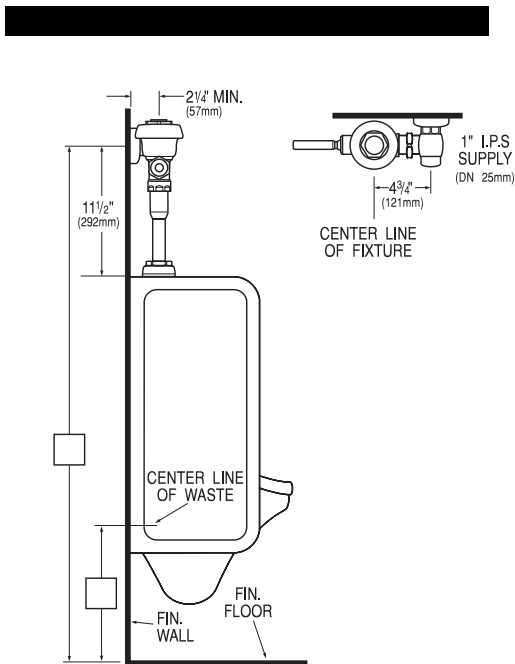
- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1/4" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

- BG** Bio-Gard™ Handle
- HL-3** 3" Metal Oscillating Palm Button on front of valve (does not meet ADA requirements)
- T** 1 1/2" Flush Connection

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8180

8180, 8180-1.5, and 8180-1.0 Models

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Urinal Flushometer.

► **Flush Cycle**

- Royal® Model 8180 Conventional (3.5 gpf/13.2 Lpf)
- Royal® Model 8180-1.5 Water Saver (1.5 gpf/5.7 Lpf)
- Royal® Model 8180-1.0 Low Consumption (1.0 gpf/3.8 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/4" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- | | |
|---|--|
| <input checked="" type="checkbox"/> BD | Beam Deflector now included as <i>Standard</i> with all Urinal OPTIMA <i>Plus</i> ® Models |
| <input type="checkbox"/> LH | Less Handle Opening |
| <input type="checkbox"/> MC | Metal Cover |
| <input type="checkbox"/> T | 1 1/2" Less Handle Opening |

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

180 ES-S

180-1.5 ES-S

180-1 ES-S

► **Description**
Exposed Sensor Operated Urinal Flushometer, for 1¼" top spud urinals.

- **Flush Cycle**
- Model 180 ES-S Conventional (3.5 gpf/13.2 Lpf)
 - Model 180-1.5 ES-S Water Saver (1.5 gpf/5.7 Lpf)
 - Model 180-1 ES-S Low Consumption (1.0 gpf/3.8 Lpf)

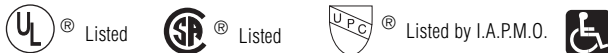
- **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
- Dual Filtered By-Pass
 - OPTIMA® EL-1500 Self Adaptive Infrared Sensor with Indicator Light
 - Non-Hold-Open Integral Solenoid Operator
 - Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
 - 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1¼" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

- **Variations**
- T** 1½" Flush Connection

- **Accessories**
- EL-154** Transformer (120 VAC/24 VAC 50 VA.)
 - EL-342** Transformer (240 VAC/24 VAC 50 VA.)
 - EL-226** Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

UR-7

DESCRIPTION: URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WASHOUT ACTION, WATER SAVING, 3/4" TOP SPUD, 2" OUTLET, ELONGATED RIM AND EXTENDED SIDE SHIELDS. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM AT 22" ABOVE FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6501.010, KOHLER K-4960-ET, CRANE 7-197-E, ELJER 161-1030, GERBER 27-780, TOTO UT447, ZURN Z5750

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, SELF-GENERATING ECOPOWER SYSTEM, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 0.5 GALLON PER FLUSH UNDER FREQUENT USE AND AVERAGE OF 0.75 GALLON PER FLUSH. LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: TOTO TEU1GNC

Notes to Specifier:

1. This urinal is for low flush applications - it uses fuzzy logic to vary GPF from 0.5 GPF during high use to 1.0 GPF at low use.
2. This urinal uses EcoPower system which has a turbine in the water stream that charges a capacitor which is used to flush urinal. A battery is supplied that will flush the urinal when capacitor is discharged. Improves battery life.
3. Currently TOTO is the only manufacturer with this capability.

TOTO[®]
Perfection by Design

UT447
Low Consumption Washout Urinal



UT447



UT447V

- Low consumption one gallon or less per flush
- Compact design with privacy shields
- 14" elongated rim for all handicap applications
- Washout flush action

Vitreous china low consumption washout urinal. Includes wall hangers, 3/4" inlet spud, 2" I.P.S. outlet flange and rubber gasket. ADA Compliant.

■ **UT447**
Low consumption washout urinal
Top Spud Inlet

■ **UT447V**
Low consumption washout urinal
Back Spud Inlet

Colors:
Standard #01 Cotton
Optional See price book for additional colors

Recommended flushometer valve:
TOTO Manual and Electronic Flush Valves are highly recommended for maximum performance.



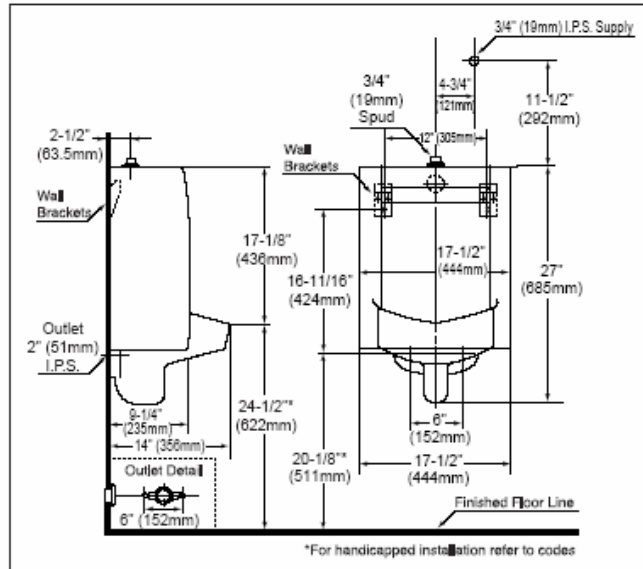
UT447

Low Consumption Washout Urinal

■ SPECIFICATIONS

Water Use: 0.5 – 1.0 Gpf
 Flush System: Washout flush action
 Warranty: One Year Limited Warranty
 Material: Vitreous china
 Height (Urinal Only): 27"
 Width: 17½"
 Rim: 14"
 Shipping Weight: UT447 / UT447V
 66 lbs.

Shipping Dimensions: UT447 / UT447V
 29⅞" L x 16¾" W
 x 19⅞" H



UT447

Fixture dimensions and hydraulic performance meet or exceed ANSI/ASME standard A112.19.2M and CAN/CSA B 45 requirements.

Listing / Approvals: IAPMO/UPC, CSA, City of Los Angeles, State of Massachusetts, and others.



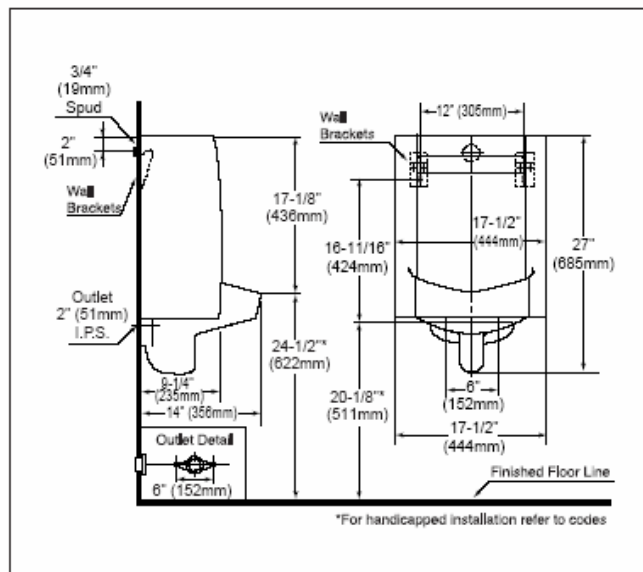
Meets the American Disabilities Act Guidelines and ANSI A117.1 requirements where installed so top of rim is 17" maximum from the finished floor.

Note: Refer to manufacturer's instructions and local codes for proper flushometer valve installation and requirements

Recommended carrier:

Jay R. Smith 0636 (Wall Hanger)
 0637 (Wall Hanger with bottom)

These dimensions and specifications are subject to change without notice.



UT447V

TOTO®
 Perfection by Design

TOTO U.S.A., INC. • 1155 Southern Road, Morrow, GA 30260
 Tel. (888) 295-8134 • Fax. (770) 282-8701 • www.totousa.com
 Printed in U.S.A. © TOTO LTD. 03/03 #E50100

Printed on recycled paper ♻️

REV 03/03

To be specified:

Sensor Toilet Flush Valve

- Complete Set, Nickel Chrome Plated Finish
 - TEU1GNC-12 (3/4" V.B.) - Left and Right Rough
 - TEU1GNC-22 (1-1/4" V.B.) - Left and Right Rough
- Complete set supplied with:
 - Vacuum Breaker & Angle Stop Set - VB9CP-12
 - 3/4" Angle Stop - 10077t4
 - 3/4" Vacuum Breaker - 10075t2
 - Spud Nut & Escutcheon - 71051Nt5
 - Sweat Solder Kit - TH559EDVSJ1
 - Vacuum Breaker & Angle Stop Set - VB9CP-22
 - 3/4" Angle Stop - 10077t4
 - 1-1/4" Vacuum Breaker - 10075t5
 - Spud Nut & Escutcheon - 71051Nt5
 - Sweat Solder Kit - TH559EDVSJ1
- Valve only, Nickel Chrome Plated Finish
 - TEU1GNC - Left and Right Rough

Z-4000-J - Adapter for Ground Joint Angle Stops

Meets the American Disabilities Act Guidelines and ANSI A117.1 requirements for people with disabilities.



TEU1GNC-12

AUTOMATIC FLUSHING SYSTEM

TOTO, the world leader in advanced plumbing systems, provides sensor operated flush valves for facilities demanding the finest sanitation equipment for busy restrooms. "Hands-free" technology effectively reduces unsanitary conditions from unflushed fixtures.

SELF-GENERATING POWER SYSTEM

TOTO's new technology of automatic generator flush valves offer easy installation without the cost and downtime required to install power supplies and wiring for each valve. A hydro-powered turbine charges the power supply during usage eliminating the need for a battery replacement or consumption of external power for up to 10 years.

SUPERIOR PISTON VALVE

TOTO's piston valve technology is a marked improvement over traditional rubber diaphragm type valves. Longer piston travel and SELF-CLEANING 360° debris screen reduce common problems such as continuous running and flooding. The piston seat itself will not warp or mis-seal thus, significantly reducing repair and maintenance costs. A micro-porous cup seal keeps the piston self-lubricated upon each activation with the incoming water supply.

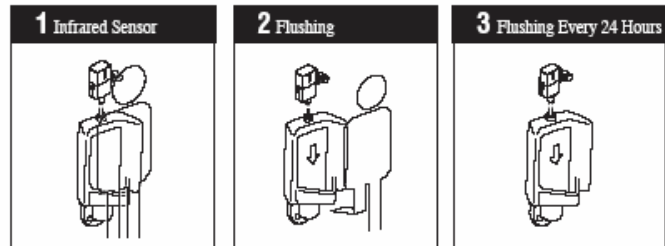
NEUTRAL ROUGH-IN

TOTO's sensor flush valve has neutral rough-in, it can be used as right or left rough-in with no modification.

FUZZY LOGIC MICROPROCESSOR

"Fuzzy logic" controlled flushing offers the ultimate water conservation without sacrificing performance. The new TOTO urinal flush valves utilize a fuzzy logic control microprocessor which measures the duration and frequency of use, and flushes an appropriate volume (0.5 – 1.0 gpf). In facilities with periods of frequent use, water conservation is maximized with the use of fuzzy logic technology.

OPERATING PROCEDURE A sanitary environment without using the hands.



The infrared sensor detects a user standing in front of the urinal within 2 ft (600mm).

When the user stays in place longer than 6 seconds then moves away, the controller sends a signal to the operating unit to automatically trip the flush valve.


If toilet is not used, the system automatically flushes every 24 hours as a maintenance and hygienic precaution.



TOTO'S® ECOPOWER FLUSH VALVES™

Sensor Urinal Flush Valve, Exposed - 1.0 GPF

SPECIFICATIONS

Product	TEU1GNC- Valve Only, Left and Right Rough, Chrome Plated Finish TEU1GNC-12- Complete Set (3/4" V.B.), Left and Right Rough, Chrome Plated Finish TEU1GNC-22- Complete Set (1-1/4" V.B.), Left and Right Rough, Chrome Plated Finish
Power supply	Hydro-Power Charge , 10 years based on 2,000 cycles per month (Backup battery: 4 years at 4,000 cycles per month without recharging)
Supply water pressure	15 psi - 125 psi*
Water supply pipe	1" NPT
Discharge quantity	Factory setting at 1.0 GPF/3.8 LPF
Ambient temperature	32°-104°F (0°-40°C)
Trap seal protection	Automatic flushing once every twenty-four (24) hours, if not used
Detection time	Factory setting at six (6) seconds minimum
Detection range	Self-adjusting to environment
Warranty	Limited three (3) year warranty on all component parts. Details available upon request.
Listings	 A.S.S.E. 1037

These dimensions and specifications are subject to change without notice.

**Water pressures over 80 psi are not recommended for most plumbing fixtures.*

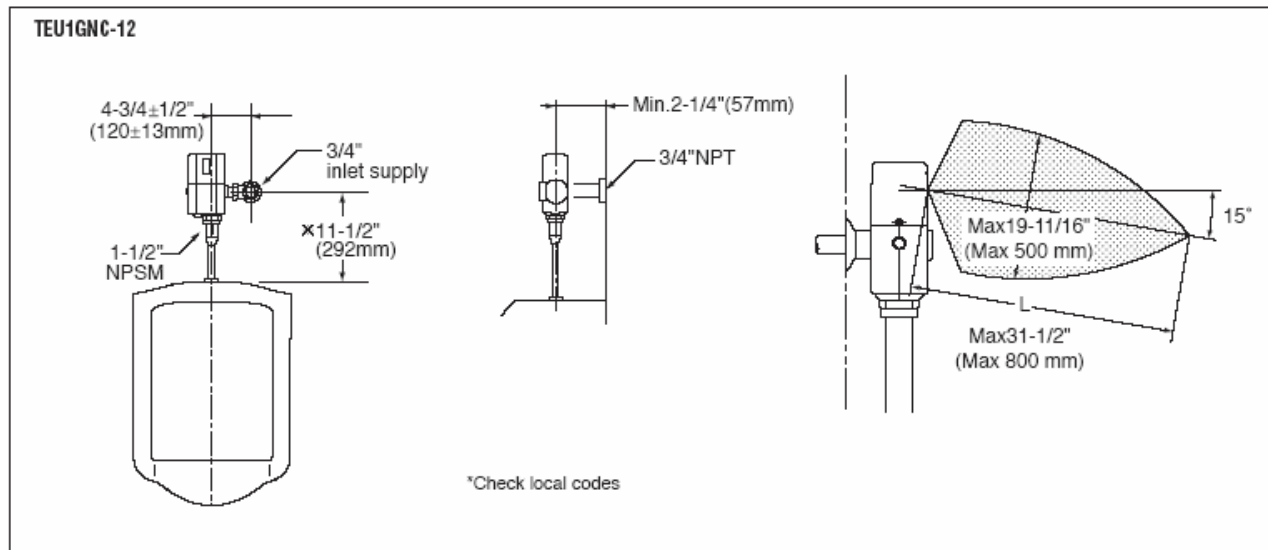
U.S. Patent Pending

SUGGESTED ENGINEERING SPECIFICATION:

TOTO Model No. _____
Automatic infrared sensor activated, piston urinal flush valve.
Heavy-duty zinc die cast cover with nickel chrome finish.
Vandal resistant hex head screws. Automatic sensor adjustment on installation. Manual override button. Piston valve and

solenoid with self-cleaning mechanism. Automatic flush every twenty four hours if not used. Angle stop and vacuum breaker included with accessories. Through the use of TOTO's® EcoPower Flush Valves™, using the valve 2000 times a month will fully recharge the valve for up to 10 years.

DIAGRAM:



TOTO®
Perfection by Design

TOTO U.S.A., INC. • 1155 Southern Road, Morrow, GA 30260
Tel. (888) 295-8134 • Fax. (770) 282-8701 • www.totousa.com
Printed in U.S.A. © TOTO LTD. 04/04 #H80021

Printed on recycled paper 

REV 04/04

UR-8

DESCRIPTION: ACCESSIBLE URINAL - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WASHOUT ACTION, WATER SAVING, 3/4" TOP SPUD, 2" OUTLET, ELONGATED RIM AND EXTENDED SIDE SHIELDS. FURNISH SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. BOLT CARRIER SECURELY TO FLOOR. TOP OF BOWL RIM SHALL BE 17" MAXIMUM ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.18.

MANUFACTURER & CATALOG NO.: AMER. STAND. 6501.010, KOHLER K-4960-ET, CRANE 7-197-E, ELJER 161-1030, GERBER 27-780, TOTO UT447, ZURN Z5750

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, SELF-GENERATING ECOPOWER SYSTEM, CHROME PLATED 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 0.5 GALLON PER FLUSH UNDER FREQUENT USE AND AVERAGE OF 0.75 GALLON PER FLUSH. LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, BEAM DEFLECTOR. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: TOTO TEU1GNC

Notes to Specifier:

1. This urinal is for low flush applications - it uses fuzzy logic to vary GPF from 0.5 GPF during high use to 1.0 GPF at low use.
2. This urinal uses EcoPower system which has a turbine in the water stream that charges a capacitor which is used to flush urinal. A battery is supplied that will flush the urinal when capacitor is discharged. Improves battery life.
3. Currently TOTO is the only manufacturer with this capability.

TOTO[®]
Perfection by Design

UT447
Low Consumption Washout Urinal



UT447



UT447V

- Low consumption one gallon or less per flush
- Compact design with privacy shields
- 14" elongated rim for all handicap applications
- Washout flush action

Vitreous china low consumption washout urinal. Includes wall hangers, 3/4" inlet spud, 2" I.P.S. outlet flange and rubber gasket. ADA Compliant.

■ **UT447**
Low consumption washout urinal
Top Spud Inlet

■ **UT447V**
Low consumption washout urinal
Back Spud Inlet

Colors:
Standard #01 Cotton
Optional See price book for additional colors

Recommended flushometer valve:
TOTO Manual and Electronic Flush Valves are highly recommended for maximum performance.



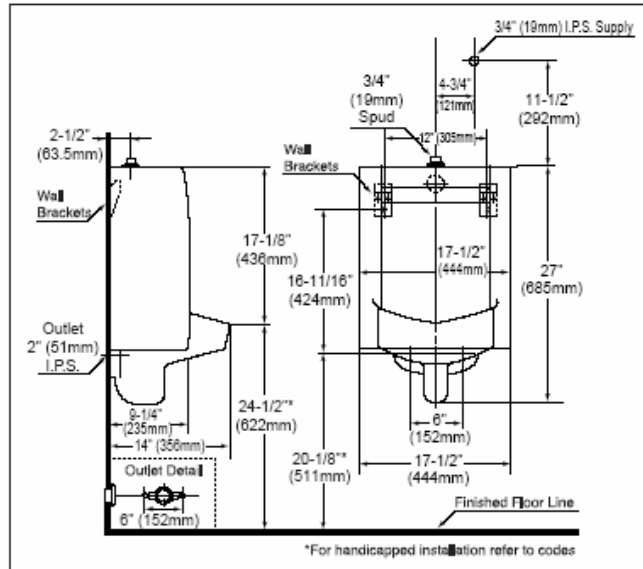
UT447

Low Consumption Washout Urinal

■ SPECIFICATIONS

Water Use: 0.5 – 1.0 Gpf
 Flush System: Washout flush action
 Warranty: One Year Limited Warranty
 Material: Vitreous china
 Height (Urinal Only): 27"
 Width: 17½"
 Rim: 14"
 Shipping Weight: UT447 / UT447V
 66 lbs.

Shipping Dimensions: UT447 / UT447V
 29⅞" L x 16¾" W
 x 19⅞" H



UT447

Fixture dimensions and hydraulic performance meet or exceed ANSI/ASME standard A112.19.2M and CAN/CSA B 45 requirements.

Listing / Approvals: IAPMO/UPC, CSA, City of Los Angeles, State of Massachusetts, and others.



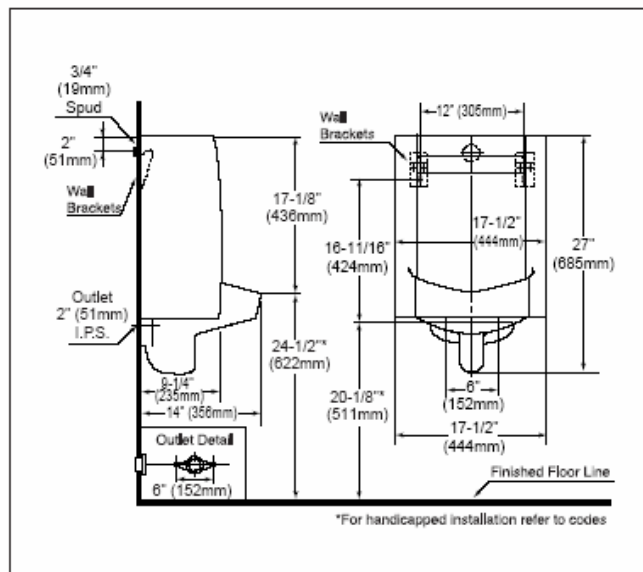
Meets the American Disabilities Act Guidelines and ANSI A117.1 requirements where installed so top of rim is 17" maximum from the finished floor.

Note: Refer to manufacturer's instructions and local codes for proper flushometer valve installation and requirements

Recommended carrier:

Jay R. Smith 0636 (Wall Hanger)
 0637 (Wall Hanger with bottom)

These dimensions and specifications are subject to change without notice.



UT447V

TOTO®
 Perfection by Design

TOTO U.S.A., INC. • 1155 Southern Road, Morrow, GA 30260
 Tel. (888) 295-8134 • Fax. (770) 282-8701 • www.totousa.com
 Printed in U.S.A. © TOTO LTD. 03/03 #E50100

Printed on recycled paper ♻️

REV 03/03

To be specified:

Sensor Toilet Flush Valve

- Complete Set, Nickel Chrome Plated Finish
 - TEU1GNC-12 (3/4" V.B.) - Left and Right Rough
 - TEU1GNC-22 (1-1/4" V.B.) - Left and Right Rough
- Complete set supplied with:
 - Vacuum Breaker & Angle Stop Set - VB9CP-12
 - 3/4" Angle Stop - 10077t4
 - 3/4" Vacuum Breaker - 10075t2
 - Spud Nut & Escutcheon - 71051Nt5
 - Sweat Solder Kit - TH559EDVSJ1
 - Vacuum Breaker & Angle Stop Set - VB9CP-22
 - 3/4" Angle Stop - 10077t4
 - 1-1/4" Vacuum Breaker - 10075t5
 - Spud Nut & Escutcheon - 71051Nt5
 - Sweat Solder Kit - TH559EDVSJ1
- Valve only, Nickel Chrome Plated Finish
 - TEU1GNC - Left and Right Rough

Z-4000-J - Adapter for Ground Joint Angle Stops

Meets the American Disabilities Act Guidelines and ANSI A117.1 requirements for people with disabilities.



TEU1GNC-12

AUTOMATIC FLUSHING SYSTEM

TOTO, the world leader in advanced plumbing systems, provides sensor operated flush valves for facilities demanding the finest sanitation equipment for busy restrooms. "Hands-free" technology effectively reduces unsanitary conditions from unflushed fixtures.

SELF-GENERATING POWER SYSTEM

TOTO's new technology of automatic generator flush valves offer easy installation without the cost and downtime required to install power supplies and wiring for each valve. A hydro-powered turbine charges the power supply during usage eliminating the need for a battery replacement or consumption of external power for up to 10 years.

SUPERIOR PISTON VALVE

TOTO's piston valve technology is a marked improvement over traditional rubber diaphragm type valves. Longer piston travel and SELF-CLEANING 360° debris screen reduce common problems such as continuous running and flooding. The piston seat itself will not warp or mis-seal thus, significantly reducing repair and maintenance costs. A micro-porous cup seal keeps the piston self-lubricated upon each activation with the incoming water supply.

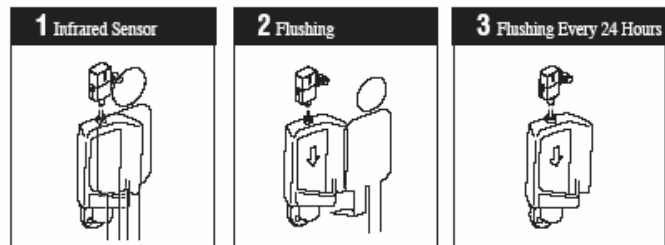
NEUTRAL ROUGH-IN

TOTO's sensor flush valve has neutral rough-in, it can be used as right or left rough-in with no modification.

FUZZY LOGIC MICROPROCESSOR

"Fuzzy logic" controlled flushing offers the ultimate water conservation without sacrificing performance. The new TOTO urinal flush valves utilize a fuzzy logic control microprocessor which measures the duration and frequency of use, and flushes an appropriate volume (0.5 – 1.0 gpf). In facilities with periods of frequent use, water conservation is maximized with the use of fuzzy logic technology.

OPERATING PROCEDURE A sanitary environment without using the hands.



1 Infrared Sensor
The infrared sensor detects a user standing in front of the urinal within 2 ft (600mm).

2 Flushing
When the user stays in place longer than 6 seconds then moves away, the controller sends a signal to the operating unit to automatically trip the flush valve.


3 Flushing Every 24 Hours
If toilet is not used, the system automatically flushes every 24 hours as a maintenance and hygienic precaution.



TOTO'S® ECOPOWER FLUSH VALVES™

Sensor Urinal Flush Valve, Exposed - 1.0 GPF

SPECIFICATIONS

Product	TEU1GNC- Valve Only, Left and Right Rough, Chrome Plated Finish TEU1GNC-12- Complete Set (3/4" V.B.), Left and Right Rough, Chrome Plated Finish TEU1GNC-22- Complete Set (1-1/4" V.B.), Left and Right Rough, Chrome Plated Finish
Power supply	Hydro-Power Charge , 10 years based on 2,000 cycles per month (Backup battery: 4 years at 4,000 cycles per month without recharging)
Supply water pressure	15 psi - 125 psi*
Water supply pipe	1" NPT
Discharge quantity	Factory setting at 1.0 GPF/3.8 LPF
Ambient temperature	32°-104°F (0°-40°C)
Trap seal protection	Automatic flushing once every twenty-four (24) hours, if not used
Detection time	Factory setting at six (6) seconds minimum
Detection range	Self-adjusting to environment
Warranty	Limited three (3) year warranty on all component parts. Details available upon request.
Listings	 A.S.S.E. 1037

These dimensions and specifications are subject to change without notice.

**Water pressures over 80 psi are not recommended for most plumbing fixtures.*

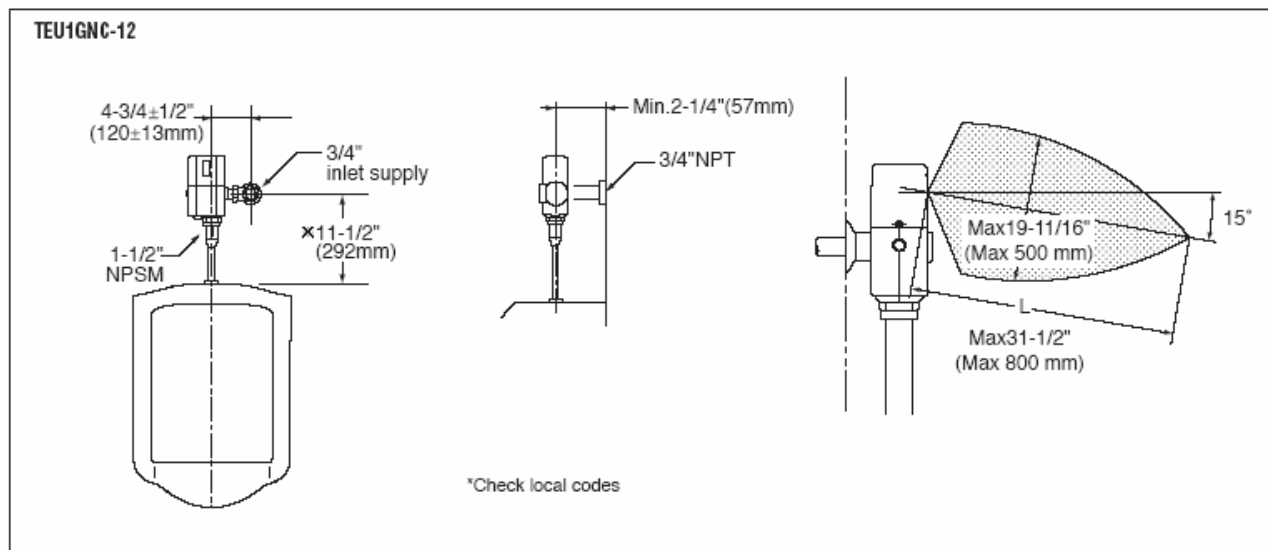
U.S. Patent Pending

SUGGESTED ENGINEERING SPECIFICATION:

TOTO Model No. _____
Automatic infrared sensor activated, piston urinal flush valve.
Heavy-duty zinc die cast cover with nickel chrome finish.
Vandal resistant hex head screws. Automatic sensor adjustment on installation. Manual override button. Piston valve and

solenoid with self-cleaning mechanism. Automatic flush every twenty four hours if not used. Angle stop and vacuum breaker included with accessories. Through the use of TOTO's® EcoPower Flush Valves™, using the valve 2000 times a month will fully recharge the valve for up to 10 years.

DIAGRAM:



TOTO®
Perfection by Design

TOTO U.S.A., INC. • 1155 Southern Road, Morrow, GA 30260
Tel. (888) 295-8134 • Fax. (770) 282-8701 • www.totousa.com
Printed in U.S.A. © TOTO LTD. 04/04 #H80021

Printed on recycled paper 

REV 04/04

DESCRIPTION: VACUUM BREAKER - POLISHED CHROME PLATED UNIT WITH 1/2" I.P.S. FEMALE INLET AND OUTLET. PROVIDE ESCUTCHEONS AND WALL BRACKETS AS REQUIRED ON DRAWINGS. INSTALL MINIMUM OF 6" ABOVE FLOOD RIM OF FIXTURE.

MANUFACTURER & CATALOG NO.: CHICAGO FAUCET 892, WATTS SERIES 288A, T&S BRASS 969

Series 288A

Hot or Cold Water

Anti-Siphon

Vacuum Breakers

Sizes: 1/4" - 3" (8-80mm)

Series 288A represents a complete line of vacuum breakers designed to prevent backsiphonage of contaminated water into a potable water supply.

They feature a lightweight, durable "disc float" suitable for temperatures up to 180°F (82°C) which closes the atmospheric vent to prevent spilling under all rates of flow. Therefore, they are ideally recommended for low flow installations such as laboratory equipment which use such a small amount of water. They also contain a durable silicone disc which has high heat and water hammer shock resistance and assures tight seating with the lightest of seating contact.

Full Size Orifice - Series 288A has a full-size orifice to assure pipe size capacity. Water passages are streamlined to provide high water flow with minimal pressure loss.

For bottom/inlet and outlet connection type vacuum breakers 1/4", 3/8" (8, 10mm) size, send for ES-N388.

FEATURES

- Brass Body
- Full size orifice for maximum flow
- Lightweight disc assembly prevents spilling under all rates of flow

SPECIFICATIONS

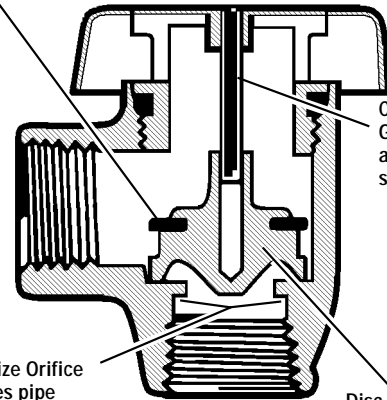
For Anti-Siphon Vacuum Breakers

An atmospheric type anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the backsiphonage of contaminated water. Device shall include lightweight disc float with silicone disc for tight seating. This device is not to be used under continuous pressure or where there is a possibility that a backpressure condition may develop. The device shall meet the requirements of ASSE Standard 1001, ANSI A112.1.1 and CSA B64. Watts Regulator Company Series 288A.



1/2" 288A

Disc has high heat and water hammer shock resistance



Center Stem Guide for accurate seating

Full Size Orifice assures pipe size capacity

Disc Float durable and lightweight, closes vent with minimum flow

A LEADER IN VALVE TECHNOLOGY
WATTS
REGULATOR
— Since 1874 — Watts Industries, Inc. —
Water Products Division • Safety & Control Valves
USA: 815 Chestnut Street, North Andover, MA 01845-6098
Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7
www.wattsreg.com

MATERIALS

Sizes 1/4" to 1" (6 to 25mm) are available in either plain brass or polished chrome finish. Durable silicone disc, high heat resistance. Sizes 1 1/4" to 3" (32 to 76mm) standardly furnished with plain brass finish.

PRESSURE-TEMPERATURE

Maximum temperature 180°F (82°C) at 125 psi (8.6 bars) working pressure.

INSTALLATIONS

Atmospheric VB must be installed 6" (152mm) above the highest point on the downstream piping. There can be no shutoff valves downstream of an AVB.

STANDARDS

ASSE No. 1001, IAPMO
CSA B.64.1.1

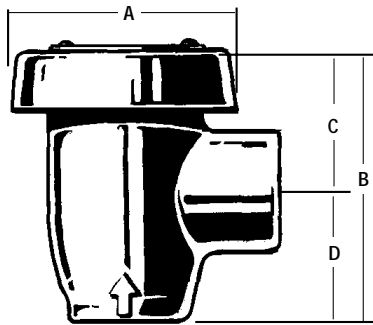
APPROVALS

ASSE
IAPMO



Certified thru 1" (25mm) CSA

DIMENSIONS-WEIGHT



Model	Size (DN)	Dimensions				Weight							
		A	B	C	D								
Plain Brass	Polished Chrome	in.	mm	in.	mm	in.	mm	in.	mm	oz.	gm.		
288A	288A-C	1/4	8	1 3/4	44	2 1/4	57	1 1/4	32	1	25	6	170
288A	288A-C	3/8	10	1 3/4	44	2 1/4	57	1 1/4	32	1	25	6	170
288A	288A-C	1/2	15	2	50	2 3/4	70	1 1/2	38	1 1/4	32	8	227
288A	288A-C	3/4	20	2 1/4	57	3	76	1 1/2	38	1 1/2	38	18	510
288A	288A-C	1	25	2 7/8	73	3 3/8	92	1 7/8	48	1 3/4	44	28	794
288A		1 1/4	32	2 7/8	73	3 3/4	95	1 7/8	48	1 7/8	48	34	964
288A		1 1/2	40	3 3/8	92	4 1/2	114	2 1/4	57	2 1/4	57	54	1531
288A		2	50	4	100	5 1/8	130	2 5/8	67	2 1/2	64	84	2381
288A		2 1/2	65	6 1/2	165	7 1/2	191	4 1/2	114	3	76	256	7258
288A		3	80	6 1/2	165	8	200	4 5/8	117	3 3/8	86	274	7768

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



USA: 815 Chestnut Street, North Andover, MA 01845-6098
Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7
www.wattsreg.com

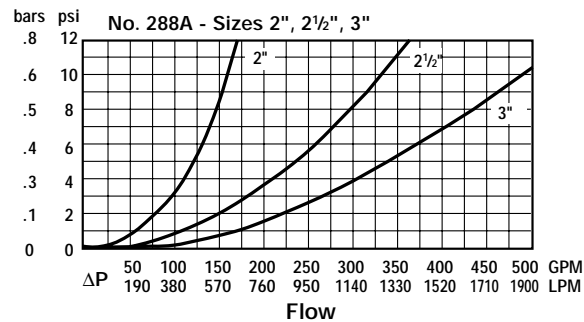
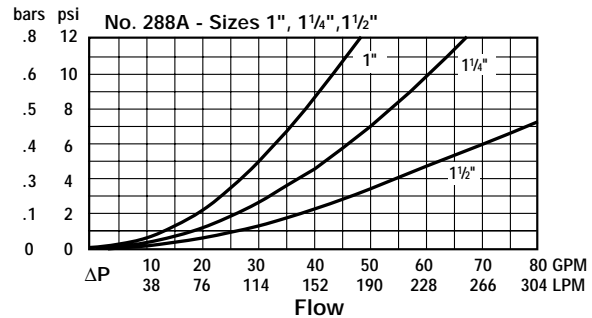
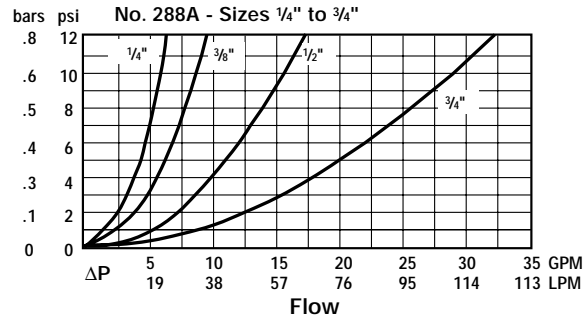


ES-288A 9727

©Watts Regulator Co., 1997

Printed in U.S.A.

CAPACITY



Since atmospheric type vacuum breakers are subject to normal maintenance and replacement, they should be located where emergency water spillage will create no problem and where they can be accessible for inspection or servicing.

IMPORTANT NOTE:

This device shall not be subjected to continuous pressure for more than twelve (12) hours per ASSE Std. 1001. For continuous pressure application, specify Watts Series 800 pressure type vacuum breakers. Vacuum breakers are not designed, tested or approved to protect against backpressure backflow. For protection against backpressure backflow, install Watts Series 909 or Series 009 reduced pressure principle backflow preventers.

VB-2

DESCRIPTION: VACUUM BREAKER - HIGH HAZARD TYPE, ANTI-SIPHON, SPILL-RESISTANT, WITH TEE HANDLE BALL VALVES, STAINLESS STEEL SPRINGS AND BRONZE BODY. FOR CONTINUOUS PRESSURE APPLICATIONS. SIZE AS NOTED ON DRAWINGS. RATED FOR 150 PSI AT 33 DEGREES F. TO 180 DEGREES F. MAXIMUM 13 GPM AT 10 PSI DROP. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

MANUFACTURER & CATALOG NO.: WATTS SVB SERIES 008QT

Note to specifier: Use for continuous pressure applications such as water cooled ice makers. Do not use where backpressure can occur. Install min. of 6" above flood rim of fixture.

Series 008QT

High Hazard Backflow Preventer

Anti-Siphon, Spill-Resistant

Designed for indoor point of use applications to prevent back-siphonage of contaminated water back into the potable water supply. Separation of the water supply from the air inlet is accomplished by means of a diaphragm seal. This feature protects against any spillage during start-up or operation.

SIZES

3/8", 1/2", 3/4" and 1" (10, 15, 20, 25mm)

FEATURES

- Standardly supplied with Tee handles
- Available less Tee handle with stem wrench flats. For use where space is limited
- Available in left-handed or right-handed outlet
- Patented design
- Spill-resistant design for indoor use
- Affordable design
- Modular cartridge for ease of service
- Vent uses an o-ring for reliable operation
- Bronze body for durability
- Compact space saving design
- ASSE 1056
- IAPMO Classified

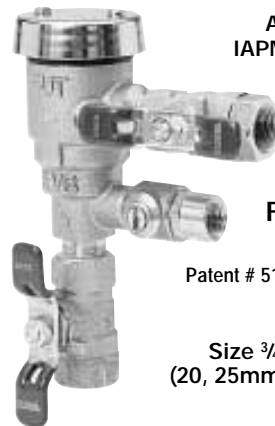
INSTALLATION

The SVB is designed to be installed at the point of use. When factory installed deck/machine mounted on machines or equipment, the critical level of the SVB shall be not less than 1" (25mm) above the flood rim. If field applied for general plumbing applications, the critical level of the SVB shall be a minimum of 6" above the flood rim.

SPECIFICATIONS

A spill-resistant vacuum breaker (SVB) shall be installed, in accordance with the manufacturer's instructions, as noted on the plans. The valve shall consist of a one piece modular check and float assembly made of engineered thermoplastic and housed in a bronze body. Springs shall be stainless steel. The valve shall be constructed with a molded diaphragm separating the air inlet from the potable water supply to prevent spillage. The valve shall be a Watts SVB Series 008QT.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

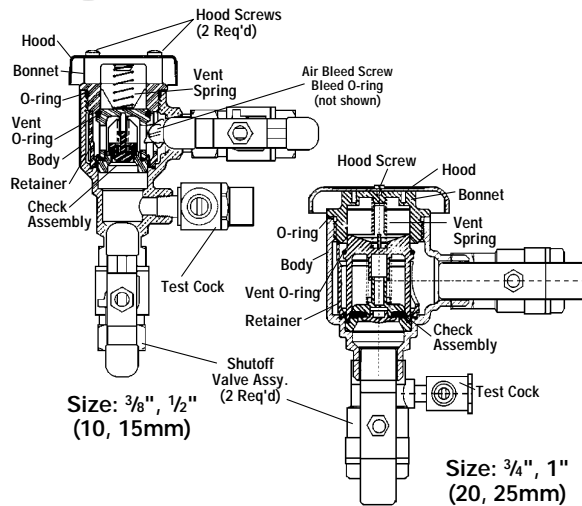


ASSE 1056
IAPMO Classified

FOR INDOOR USE!

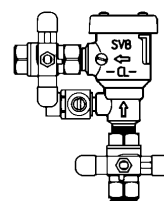
Patent # 5125429

Size 3/4", 1"
(20, 25mm) shown

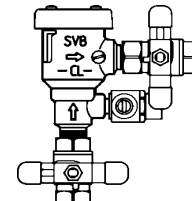


Size: 3/8", 1/2"
(10, 15mm)

Size: 3/4", 1"
(20, 25mm)



008QT-L (Left-Handed)



008QT (Right-Handed)

A LEADER IN VALVE TECHNOLOGY
WATTS®
REGULATOR
— Since 1874 —
Watts Industries, Inc.
Water Products Division • Safety & Control Valves

MATERIALS

Springs - Stainless Steel Disc Holder - PPO
 Bonnet - PPO Check Disc - Silicone Rubber
 Vent Disc - EPDM Body - Bronze

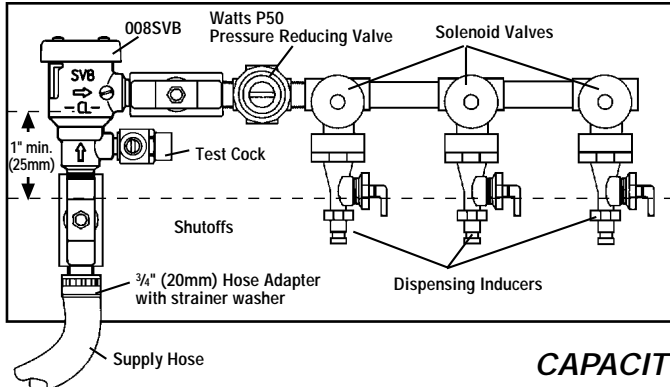
PRESSURE - TEMPERATURE

Working Temp: 33° - 180°F (1° - 83°C)
 Max Pressure: 150 psi (10.34 bars) - Min Pressure: 8 psi (55.2 kPa)

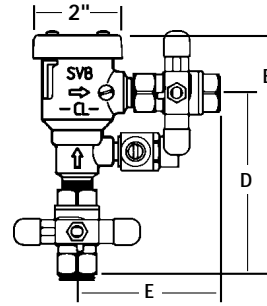
END CONNECTIONS

Female NPT - Ball Valve shut-offs.
 Hose and Custom Connections

TYPICAL INSTALLATION



DIMENSIONS - WEIGHT



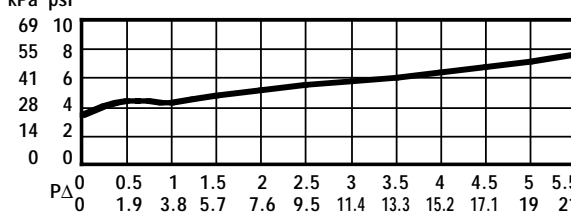
Size DN	Dimensions (approx.)						Weight			
	in.	mm	B in.	B mm	D in.	D mm	E in.	E mm	lbs.	kgs.
3/8	10	25	5 1/2	140	4	102	3 3/8	79	1.6	.73
1/2	15	38	5 3/4	146	4 1/4	108	3 3/8	86	1.7	.77
3/4	20	51	7	178	4 5/8	117	4 1/2	114	3.8	1.72
1	25	64	7 1/2	191	5	127	4 7/8	124	4.8	2.18

CAPACITY

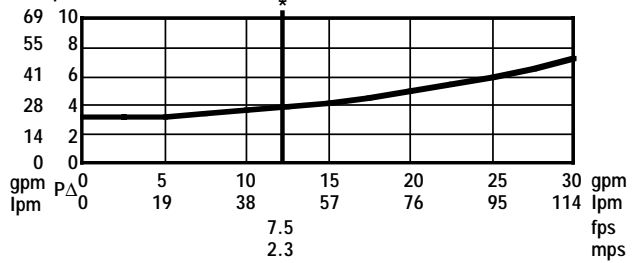
As compiled from documented Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California lab tests.

*Typical maximum system flow rate (7.5 feet/sec.)

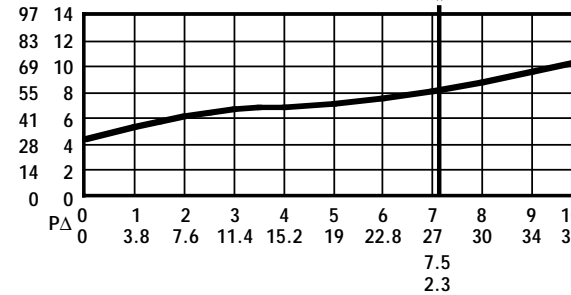
3/8" (10mm) 008QT



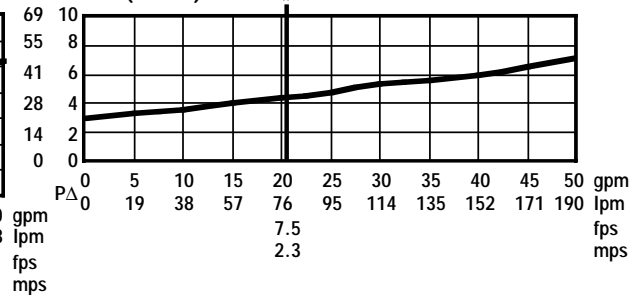
3/4" (20mm) 008QT



1/2" (15mm) 008QT



1" (25mm) 008QT



USA: 815 Chestnut Street, North Andover, MA 01845-6098
 Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7
 www.wattsiind.com



DESCRIPTION: VACUUM BREAKER - HOSE CONNECTION TYPE, NON-REMOVABLE FOR ATTACHMENT TO HOSE THREAD FAUCETS.

MANUFACTURER & CATALOG NO.: WATTS SERIES 8A

Note to specifier: For use on existing hose bibbs without vacuum breakers. Do not use on freeze-proof faucets.

Series 8

Hose Connection Vacuum Breakers

Size: 3/4" (20mm) hose thread

The Watts Series 8 is a line of unique vacuum breakers specially made to permit the attachment of portable hoses to hose thread faucets. Designed to prevent the flow of contaminated water back into the potable water supply, these devices require no plumbing changes, and screw directly onto a sill cock.

Series 8 can be used on a wide variety of installations, such as service sinks, swimming pools, photo developing tanks, laundry tubs, wash racks, dairy barns, marinas and general outside gardening uses.

MODELS

No. 8A - Furnished with exclusive "Non-Removable" feature and standardly equipped to allow sill cock to be drained. **Note:** Device should only be installed on approved sill cocks containing at least four full threads. Non-removable once installed.

No. 8 - Similar to the No. 8A except it is furnished without the "Non-Removable" or draining feature. Secured with Allen head set screw.

No. 8B - Furnished with break-away set screw to provide a tamper-resistant installation. Standardly equipped to allow sill cock to be drained.

No. NF8 - Especially made for wall and yard hydrants. Permits manual draining for freezing conditions.

No. 8P - Furnished with exclusive patented "Non-Removable" feature. Standardly equipped to allow sill cock to be drained. Constructed of durable, corrosion-resistant, reinforced thermoplastic. Tamper-proof feature.

No. 8AC, 8C, 8BC or NF8C - Same as above but furnished with chrome finish.

No. 8FR - With freeze relief feature. Protects the valve from freeze damage with or without the hose attached.

Inlet Connection: 3/4" (20mm) standard female hose thread

Outlet Connection: 3/4" (20mm) standard male hose thread

Maximum Pressure: 125 psi (8.6 bar)

Maximum Temperature: 180°F (82°C)

For backflow preventer for tub and shower hand spray sets, send for ES-S8.

FEATURES

- Brass body (all models except 8P)
- Stainless steel working parts for longevity
- Durable rubber diaphragm and disc for consistent positive seating

SPECIFICATIONS

For Anti-Siphon Vacuum Breakers

A hose connection type anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the back-siphonage of contaminated water. This device is not to be used under continuous pressure or where there is a possibility that a back pressure condition may develop. This device shall meet the requirements of ANSI A112.1.3, ASSE Standard 1011. Watts Regulator Company Series 8.



No. 8A
Non-Removable Model
Pat. Nos. 3,459,443
3,171,423



No. 8
Pat. No. 3,171,423



No. NF8
Permits Manual Drain



No. 8B



No. 8P
Pat. Nos. 3,459,443
3,171,423
Tamper-Proof Feature
Pat. Nos. 4821763



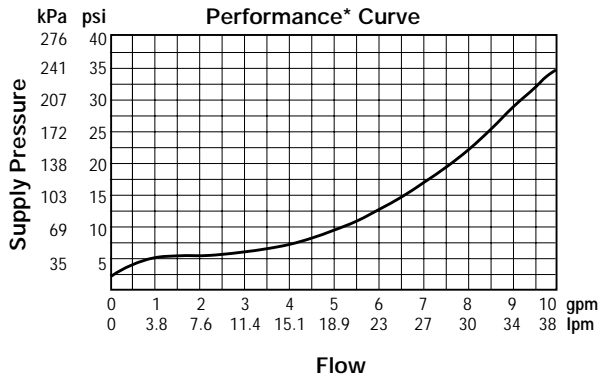
No. 8FR

IMPORTANT NOTE:

Series 8 is tested and certified under ANSI A112.1.3 (ASSE 1011), which precludes use under continuous pressure. This valve should only be used in areas where spillage of water will not cause damage.



CAPACITY



*Performance as established by an independent testing laboratory.

STANDARDS

ASSE Standard 1011

APPROVALS

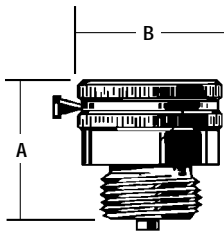
Series 8, 8A, 8B, 8P, 8FR and NF8 are listed by IAPMO.



Certified by CSA B64.2

IMPORTANT: Inquire with governing authorities for local installation requirements.

DIMENSIONS-WEIGHT



Valve No.	Size		Dimensions				Weight	
	In.	mm	A In.	A mm	B In.	B mm	oz.	gm.
8, 8C, 8B, 8BC	3/4 HT	20	1 1/2	38	1 3/8	35	4.0	113.4
8A, 8AC	3/4 HT	20	1 1/2	38	1 1/2	38	4.0	113.4
NF8, NF8C	3/4 HT	20	2	51	1 1/2	38	5.3	151.2
8P	3/4 HT	20	1 3/4	38	1 3/8	35	1.5	42.5
8FR	3/4 HT	20	1 3/4	38	1 1/4	38	7.0	200.0

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com
Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscca.com



ES-8 0041

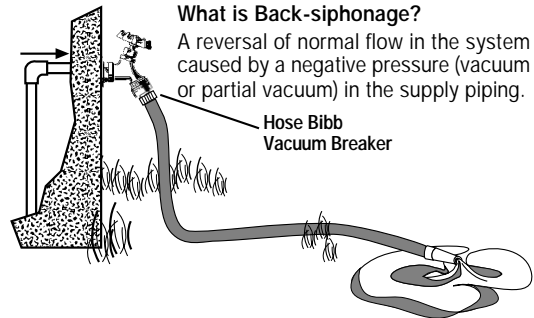
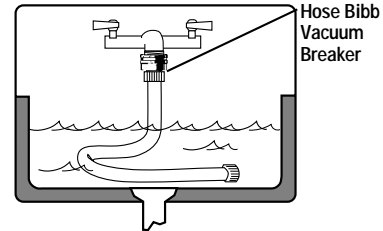
© Watts Regulator Co., 1996

Printed in U.S.A.

INSTALLATIONS

For Inside or Outside Use

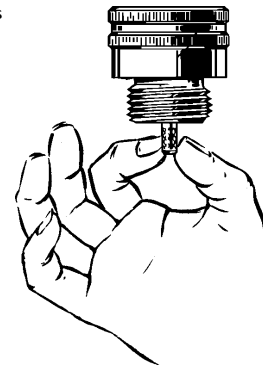
Installation - Inside Service Sink



Drainage Features to Prevent Freezing
Watts 8A, 8B and 8P hose connection vacuum breakers are constructed to allow sill cocks to be drained. Simply remove hose coupling and lightly pull knurled tip of stem at outlet of valve to allow drainage of collected water.

Note: Do not use Watts 8, 8A, 8B, 8P Hose Bibb Vacuum Breakers on frost-free hydrants. Specify No. NF8.

Do not use where discharge of water is objectionable.



WC-1

DESCRIPTION: ACCESSIBLE WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" TOP SPUD, WITH [EXTRA-HEAVY DUTY (500 LB.)] CLOSET SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT AT 17" TO 19" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2257.103, CRANE 3-446, KOHLER K-4330, ELJER 111-2105, GERBER 25-030, TOTO CT708, ZURN Z5610

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND SHALL BE 12" MAXIMUM ABOVE BOWL RIM AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 111, ZURN Z6000PL, DELANY 402-1.6, TOTO TMT1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GAL. PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8111, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402-1, TOTO TET1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 111 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302-1.5, TOTO TET1ANCR

Notes to specifier:

1. 30 psi minimum required.
2. Select type of seat to be used and delete other type.
3. Use anti-microbial seat in Illinois public restrooms.
4. Use standard open front seat in Iowa.
5. Select type of flush valve desired and delete other type of valve.
6. Coordinate electrical requirements with electrical engineer.
7. Standard carriers are rated for 350 lbs.

American Standard

 **BARRIER FREE**

AFWALL™ ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

AFWALL™ ELONGATED TOILET

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Wall-mounted elongated bowl
- Fully glazed trapway
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- 2" ballpass trapway
- 10" x 12" water surface area
- 100% factory flush tested

- 2257.103** Top spud
- 2256.194** Top spud with slotted rim for bedpan holding (White only)
- 2258.125** Back spud
- 2254.127** Back spud with slotted rim for bedpan holding (White only)

Recommended working pressure--between 30 psi at valve when flushing and 80 psi static

Nominal Dimensions:
635 x 375 x 381mm (25" x 14-3/4" x 15")

Fixture only, less seat and bolt caps

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTE: Roughing-in information shown on reverse side of page

To Be Specified

- Color: White Bone Silver Shell
 Black
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111 (Top Spud)
Sloan Royal #144-1.5 (Back Spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES-CHECK LOCAL CODES.

SPS 2254/2256/2257/2258

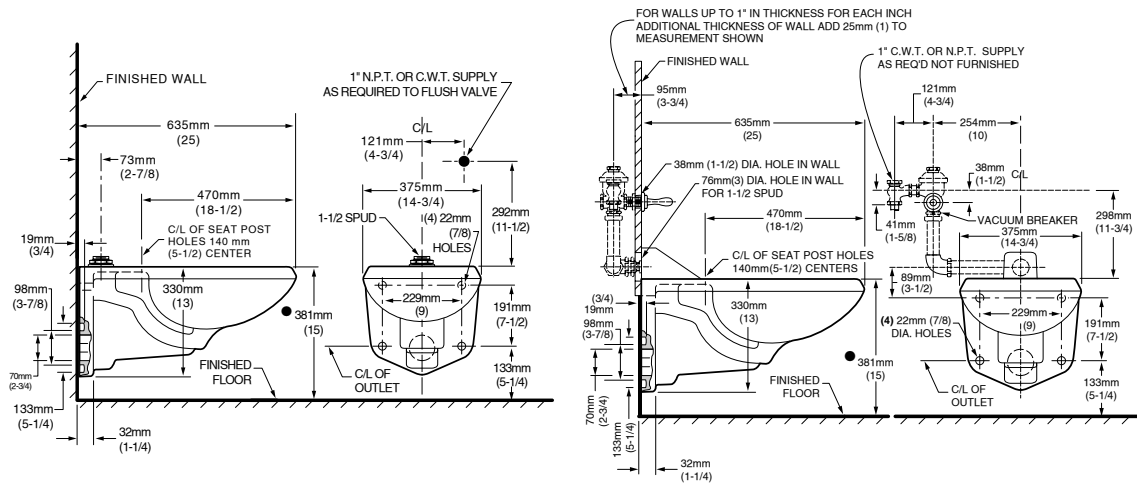
COM/INS-001

Revised 6/95

© 1998 American Standard Inc.

2256.J/2257.

2254.J/2258.



NOTES:

● Toilet designed to meet ADA handicapped standards with seat height set at 432 to 483mm (17" to 19") from finished floor.

PRODUCT 2257.103 SHOWN, 2256.194 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

PRODUCT 2258.125 SHOWN, 2254.127 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED).

SUGGESTED 2mm (1/16) CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL.

TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.

FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

CARRIER FITTING AS REQUIRED TO BE FURNISHED BY OTHERS.

PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORT.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2

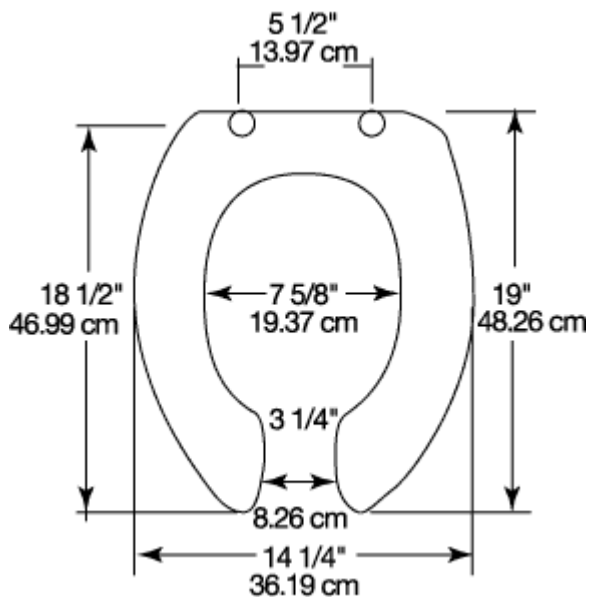
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 2254/2256/2257/2258

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

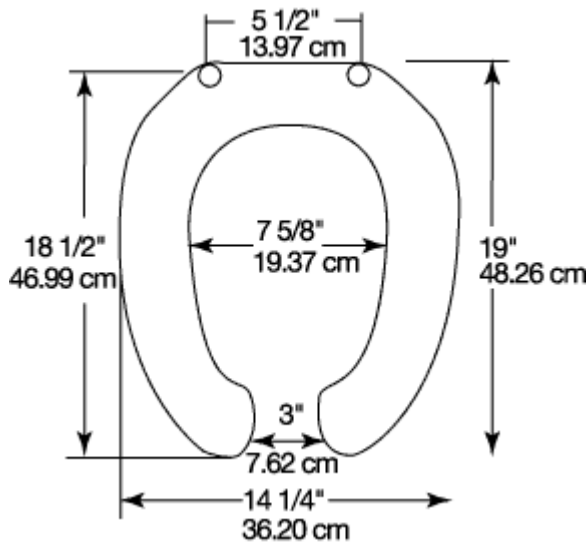
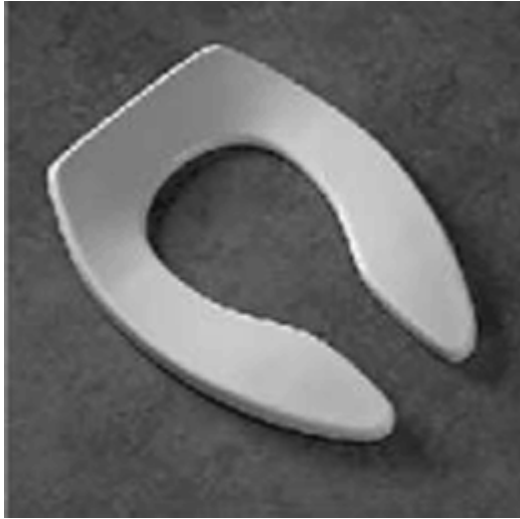
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
 External check hinges
[DuraGuard®](#) antimicrobial agent
 Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"



Regal® Model 110 Flushometer 111

► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.



► **Flush Cycle**
 Model 110 Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

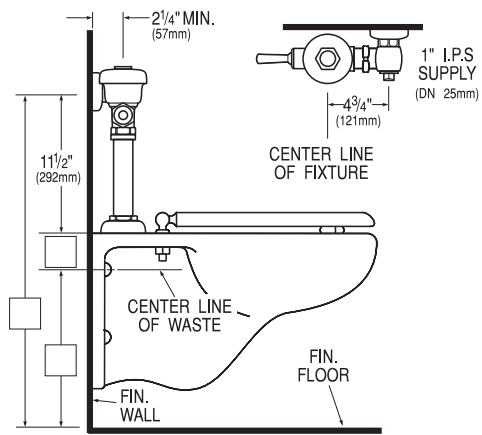
Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

- ADA** ADA Compliant Handle 
- BG** Bio-Gard™ Handle 
- TP** Trap Primer
- YB** Sweat Solder Adapter Kit with Stamped Flange
- YBYC** Sweat Solder Adapter & Cast Wall Flange w/Set Screw
- YO** Bumper on Angle Stop

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.



Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval	
Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S

111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**

TP Trap Primer

YG Extended Bumper on Angle Stop (for seat with cover)

YO Bumper on Angle Stop (for open front seat w/o cover)

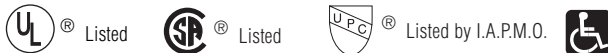
► **Accessories**

EL-154 Transformer (120 VAC/24 VAC 50 VA.)

EL-342 Transformer (240 VAC/24 VAC 50 VA.)

EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-2

DESCRIPTION: ACCESSIBLE WATER CLOSET - FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" TOP SPUD, BOLT CAPS. TOP OF SEAT AT 17" TO 19" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 3043.102, CRANE 3-701, KOHLER K-4368, ELJER 111-2145, GERBER 25-730, TOTO CT705, ZURN Z5660

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND SHALL BE 12" MAXIMUM ABOVE BOWL RIM AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 111, ZURN Z6000PL, DELANY 402-1.6, TOTO TMT1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GAL. PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8111, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402-1, TOTO TET1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 111 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302-1.5, TOTO TET1ANCR

Notes to specifier:

1. 30 psi minimum required.
2. Select type of seat to be used and delete other type.
3. Use anti-microbial seat in Illinois public restrooms.
4. Use standard open front seat in Iowa.
5. Select type of flush valve desired and delete other type of valve.
6. Coordinate electrical requirements with electrical engineer.

American Standard



BARRIER FREE

MADERA™ 17"H ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

MADERA™ 17"H ELONGATED 10" ROUGH

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- 10" roughing-in
- 17" rim height
- Elongated bowl
- Direct-fed siphon jet action
- Fully glazed 2" ballpass trapway
- 11" x 13" water surface area
- 1-1/2" top spud
- 2 bolt caps
- 100% factory flush tested

- 3043.102** Top spud
- 3043.156** Top spud with slotted rim for bedpan holding (white only)

Nominal Dimensions:
765 x 381 x 438mm (30-1/8" x 15" x 17-1/4")

Recommended working pressure--between
25 psi at valve when flushing and 80 psi
static

Fixture only, less seat and bolt caps

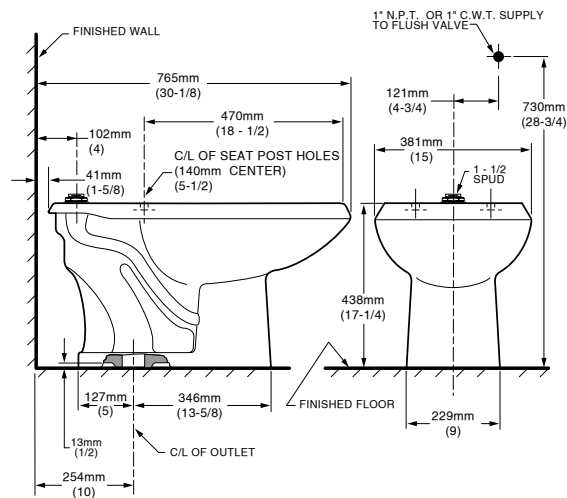
- Compliance Certifications -
Meets or Exceeds the Following Specifications:**
- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

To Be Specified

- Color: White Bone Silver Black
- Shell
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111
- Alternate Flush Valve:



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
- MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES- CHECK LOCAL CODES.**



NOTES:
PRODUCT 3043.102 SHOWN, 3043.156 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.
THIS TOILET IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") FROM FINISHED WALL TO C/L OF OUTLET.
TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGH-IN.
FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 3043

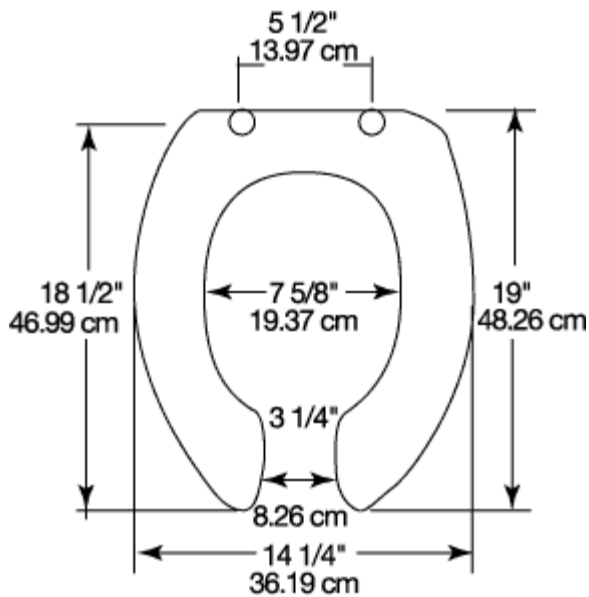
COM/INS-005

Revised 4/96

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

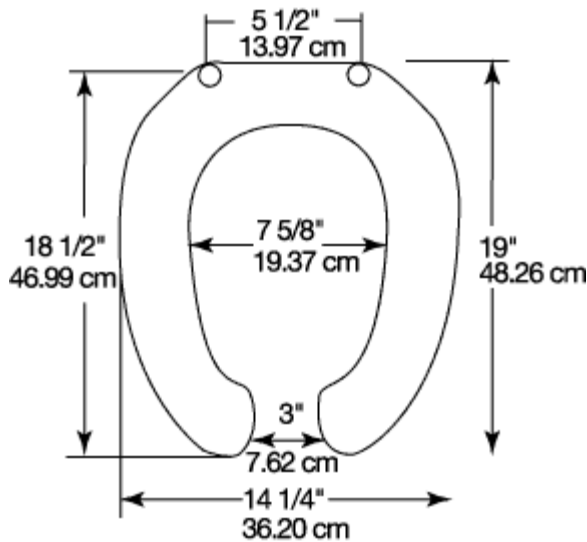
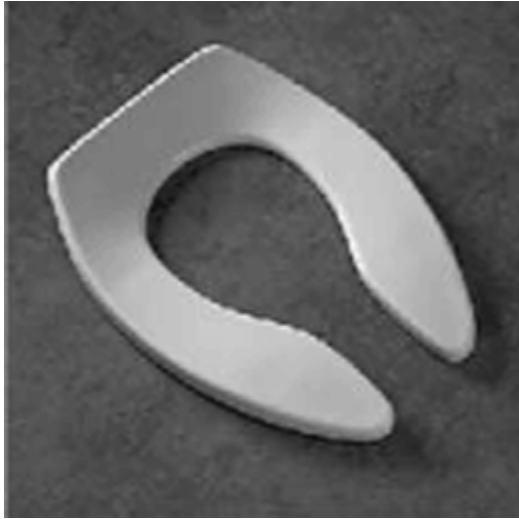
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No. _____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
 External check hinges
[DuraGuard®](#) antimicrobial agent
 Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"



Regal® Model 110 Flushometer 111

► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 Low Consumption (1.6 gpf/6.0 Lpf)

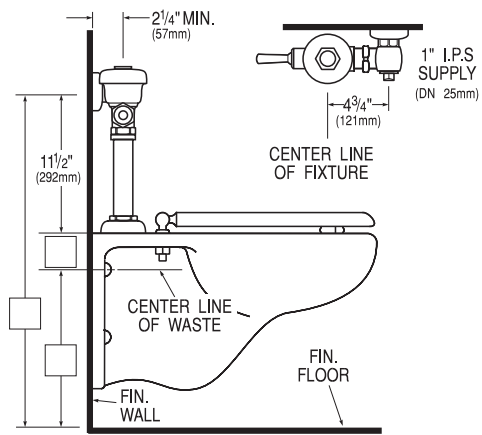
► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:
 • Metal Oscillating Non-Hold-Open Handle
 • 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 • Vandal Resistant Stop Cap
 • Adjustable Tailpiece
 • Vacuum Breaker Flush Connection
 • Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
 • Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
 • Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**
 ADA ADA Compliant Handle _____
 BG Bio-Gard™ Handle _____
 TP Trap Primer _____
 YB Sweat Solder Adapter Kit with Stamped Flange _____
 YBYC Sweat Solder Adapter & Cast Wall Flange w/Set Screw _____
 YO Bumper on Angle Stop _____

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Certified

Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval	
Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S

111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**

TP Trap Primer

YG Extended Bumper on Angle Stop (for seat with cover)

YO Bumper on Angle Stop (for open front seat w/o cover)

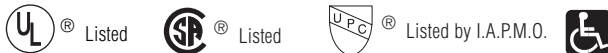
► **Accessories**

EL-154 Transformer (120 VAC/24 VAC 50 VA.)

EL-342 Transformer (240 VAC/24 VAC 50 VA.)

EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-3

DESCRIPTION: ACCESSIBLE WATER CLOSET - FLOOR MOUNTED, WHITE VITREOUS CHINA, TANK TYPE, CLOSE COUPLED, SIPHON JET, ELONGATED BOWL, BOLT CAPS, 12" ROUGH-IN, FLOAT VALVE WITH VACUUM BREAKER, CHROME PLATED TRIP LEVER, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY WITH STOP. TOP OF SEAT AT 17" TO 19" ABOVE FINISHED FLOOR. INSULATED TANK LINER TO PREVENT CONDENSATION. 1.6 GALLONS PER FLUSH MAXIMUM, IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2998.012 OR 2002.012, CRANE 3-814, KOHLER K-3427, ELJER 091-0288, GERBER 21-718, TOTO CST744SL, ZURN Z5550

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

Notes to specifier:

1. Select type of seat to be used and delete other type of seat.
2. Use anti-microbial seat in Illinois 2 public restrooms.
3. Use standard open front seat in Iowa.
4. Use cover locking device for nursing homes, mental units. Verify availability with manufacturer.

American Standard

**CADET™ ADA 16-1/2" H
ELONGATED TOILET**

VITREOUS CHINA



BARRIER FREE

CADET™ ADA 16-1/2" H ELONGATED TOILET

2998.012

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- 16-1/2" rim height for accessible and elderly applications
- Elongated siphon action jetted bowl
- Fully glazed 2" **Ballpass** trapway
- Large 11" x 9" water surface area
- Smart Valve 2000 Fill Valve for quiet refill
- Close-coupled tank with raised lip detail on tank cover
- Color-matched trip lever
- Speed Connect™ tank/bowl coupling system
- Sanitary bar on bowl
- 2 bolt caps
- 100% factory flush tested

3417.016 Bowl

4112.016 Tank

2998.164 with Slotted Rim for Bedpan holding

3417.164 Bowl

4112.016 Tank

Alternate Tank Configurations Available:

4112.800 Tank complete w/Trip Lever
Located on Right Side

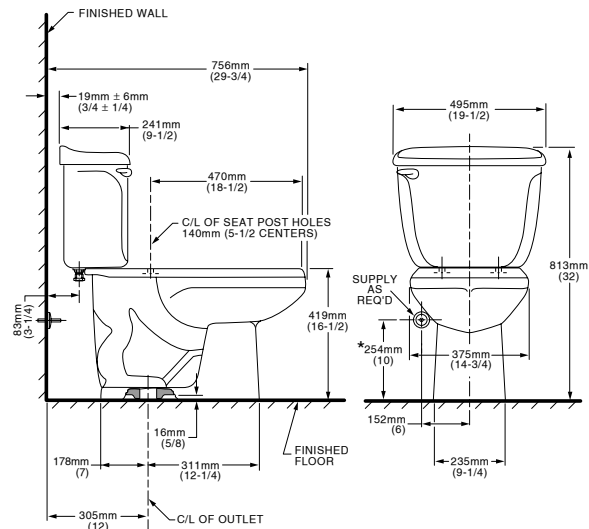
Nominal Dimensions:
756 x 495 x 813mm (29-3/4" x 19-1/2" x 32")
Fixture only, seat and supply by others

Compliance Certifications -

Meets or Exceeds the Following Specifications:
• ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

To Be Specified

- Color:
- Seat: American Standard #5324.019 "Rise and Shine" (with easy to clean lift-off hinge system) solid plastic closed front seat with cover. See page TB-001.
- Seat: American Standard #5311.012 "Laurel" molded closed front seat with cover. See page TB-001.
- Alternate Seat:
- Supply with stop:



NOTES:
THIS TOILET IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.
SUPPLY NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.
* DIMENSION SHOWN FOR LOCATION OF SUPPLY IS SUGGESTED.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.



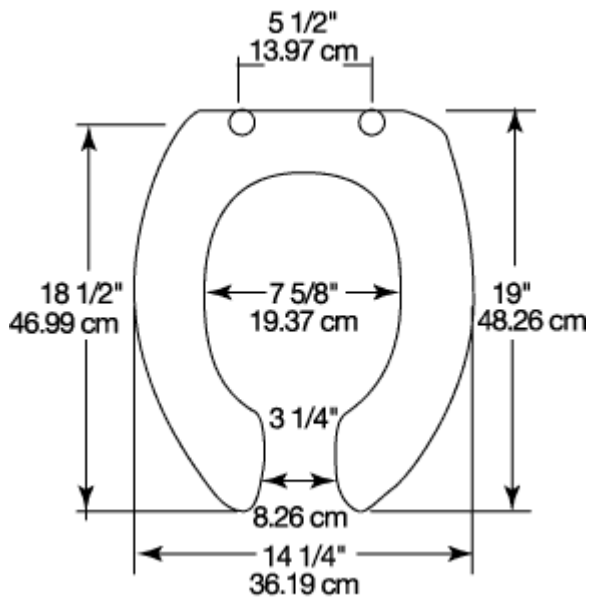
• When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES- CHECK LOCAL CODES.

SPS 2998.012

TB-034/
COM/INS-016

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

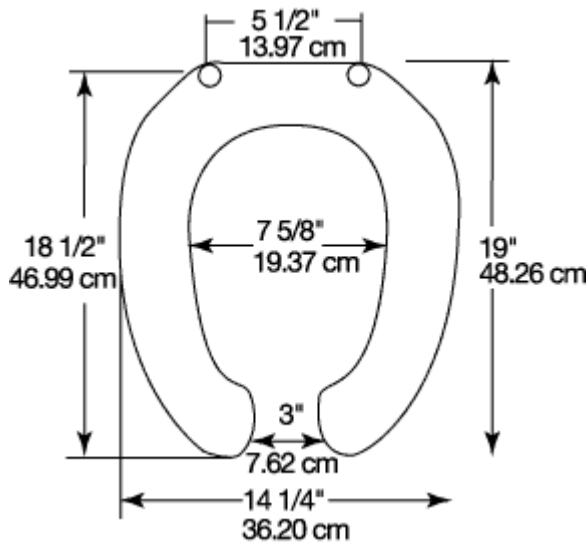
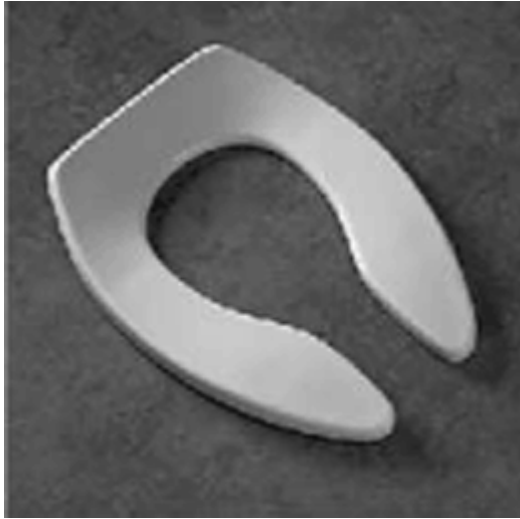
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

WC-4

DESCRIPTION: WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WATER SAVING, SIPHON JET, ELONGATED BOWL, 1-1/2" TOP SPUD. WITH [EXTRA-HEAVY DUTY (500 LB.)] CLOSET SUPPORT CARRIER BOLTED SECURELY TO THE FLOOR. TOP OF SEAT AT 16" TO 17" ABOVE FLOOR. VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2257.103, CRANE 3-446, KOHLER K-4330, ELJER 111-2105, GERBER 25-030, TOTO CT708, ZURN Z5610

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

[Choose flush valve type]

[Taller valve used to be required by Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED, 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLON PER FLUSH. HANDLE AT LEAST 22" ABOVE TOP OF BOWL. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 115-1.6, ZURN Z6000PL-2, DELANY 414-1.5

[Shorter valve can now be used according to latest Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 111, ZURN Z6000PL, DELANY 402-1.6, TOTO TMT1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GAL. PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8111, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402-1, TOTO TET1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 111 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302-1.5, TOTO TET1ANCR

Notes to specifier:

1. 30 psi minimum required.
2. Select type of seat to be used and delete other type.
3. Use anti-microbial seat in Illinois public restrooms.
4. Use standard open front seat in Iowa.
5. Select type of flush valve desired and delete other type of valve.
6. Coordinate electrical requirements with electrical engineer.
7. Standard carriers are rated for 350 lbs.

American Standard

 **BARRIER FREE**

AFWALL™ ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

AFWALL™ ELONGATED TOILET

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Wall-mounted elongated bowl
- Fully glazed trapway
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- 2" ballpass trapway
- 10" x 12" water surface area
- 100% factory flush tested

- 2257.103** Top spud
- 2256.194** Top spud with slotted rim for bedpan holding (White only)
- 2258.125** Back spud
- 2254.127** Back spud with slotted rim for bedpan holding (White only)

Recommended working pressure--between 30 psi at valve when flushing and 80 psi static

Nominal Dimensions:
635 x 375 x 381mm (25" x 14-3/4" x 15")

Fixture only, less seat and bolt caps

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTE: Roughing-in information shown on reverse side of page

To Be Specified

- Color: White Bone Silver Shell
 Black
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111 (Top Spud)
Sloan Royal #144-1.5 (Back Spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES-CHECK LOCAL CODES.

SPS 2254/2256/2257/2258

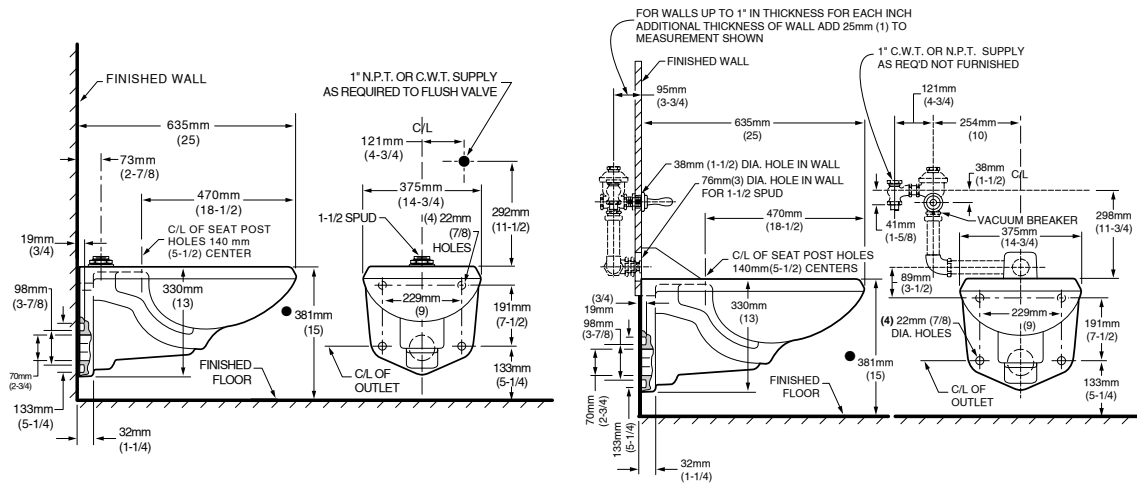
COM/INS-001

Revised 6/95

© 1998 American Standard Inc.

2256.J/2257.

2254.J/2258.



NOTES:

● Toilet designed to meet ADA handicapped standards with seat height set at 432 to 483mm (17" to 19") from finished floor.

PRODUCT 2257.103 SHOWN, 2256.194 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

PRODUCT 2258.125 SHOWN, 2254.127 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED).

SUGGESTED 2mm (1/16) CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL.

TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.

FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

CARRIER FITTING AS REQUIRED TO BE FURNISHED BY OTHERS.

PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORT.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2

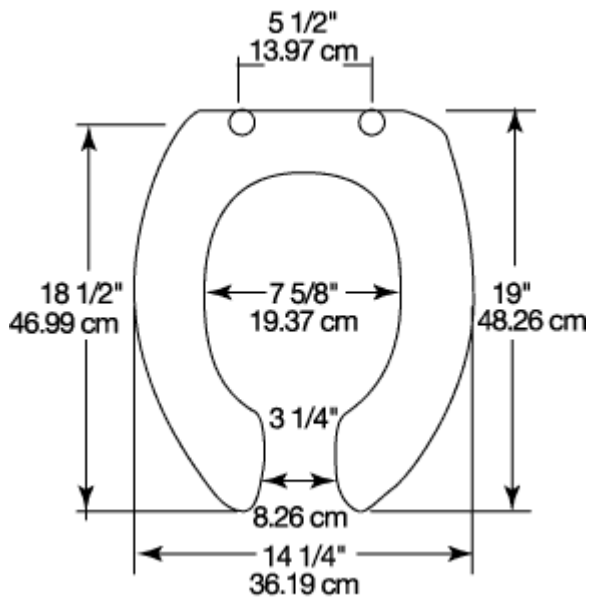
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 2254/2256/2257/2258

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Extra heavy weight solid plastic construction
Resistant to chemicals and cleaners
Scratch and stain resistant
Easy to clean
External check hinge
[Self-sustaining](#) and external check hinge

Specifications:

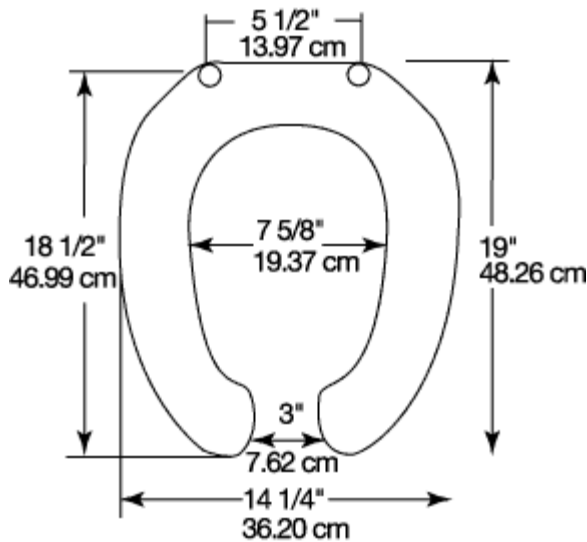
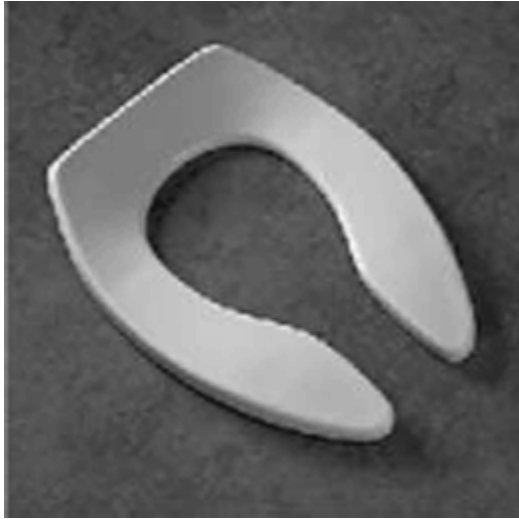
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No. _____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
 External check hinges
[DuraGuard®](#) antimicrobial agent
 Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"



Regal® Model 115 Flushometer 115-1.6



► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 115 Water Saver (3.5 gpf/13.2 Lpf)
 Model 115-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

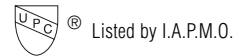
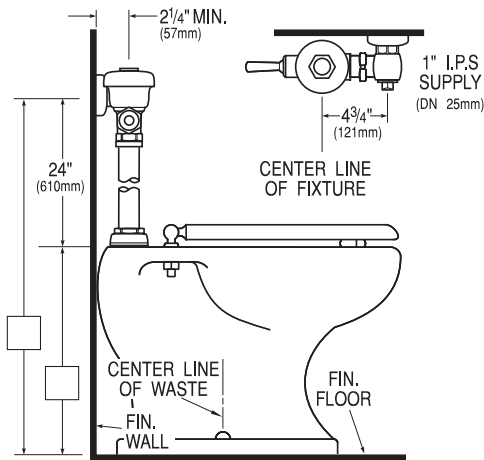
- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

- **Variations**
- ADA** ADA Compliant Handle 
 - BG** Bio-Gard™ Handle 
 - TP** Trap Primer
 - YB** Sweat Solder Adapter Kit with Stamped Flange
 - YBYC** Sweat Solder Adapter & Cast Wall Flange w/Set Screw
 - YI** Two Wall Bumpers (for open front seat without cover)
 - YJ** Split Ring Pipe Support
 - YK** Solid Ring Pipe Support

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.



Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S

111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**
 TP Trap Primer
 YG Extended Bumper on Angle Stop (for seat with cover)
 YO Bumper on Angle Stop (for open front seat w/o cover)

► **Accessories**
 EL-154 Transformer (120 VAC/24 VAC 50 VA.)
 EL-342 Transformer (240 VAC/24 VAC 50 VA.)
 EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-5

DESCRIPTION: WATER CLOSET - FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" TOP SPUD, 10" ROUGH-IN, BOLT CAPS. TOP OF SEAT AT 16" TO 17" ABOVE FINISHED FLOOR. VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2234.015, CRANE 3-325E, KOHLER K-4350, ELJER 111-2125, GERBER 25-830, TOTO CT705, ZURN Z5650

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

[Choose flush valve type]

[Taller valve used to be required by Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. FLUSH HANDLE AT LEAST 22" ABOVE TOP OF BOWL. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 115-1.6, ZURN Z6000PL-2, DELANY 414-1.5

[Shorter valve can now be used according to latest Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 111, ZURN Z6000PL, DELANY 402-1.6, TOTO TMT1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GAL. PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8111, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402-1 , TOTO TET1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 111 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302-1.5, TOTO TET1ANCR

Notes to specifier:

1. 30 psi minimum required.
2. Select type of seat to be used and delete other type.
3. Use anti-microbial seat in Illinois public restrooms.
4. Use standard open front seat in Iowa.
5. Select type of flush valve desired and delete other type of valve.
6. Coordinate electrical requirements with electrical engineer.

MADERA™ ELONGATED 10" ROUGH

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- 10" roughing-in
- Elongated bowl
- Direct-fed siphon jet action
- Fully glazed 2" ballpass trapway
- 11" x 13" water surface area
- 1-1/2" top spud
- 2 bolt caps
- 100% factory flush tested

- 2234.015** Top spud
- 2234.137** Top spud with slotted rim for bedpan holding (white only)

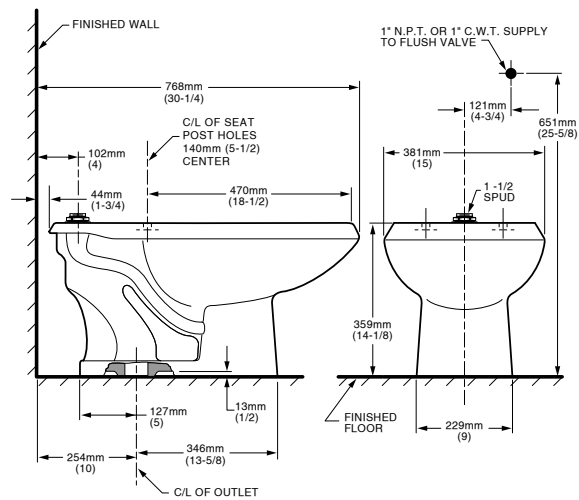
Nominal Dimensions:
768 x 381 x 359mm
(30-1/4" x 15" x 14-1/8")

Recommended working pressure--between
25 psi at valve when flushing and 80 psi
static

Fixture only, less seat

**Compliance Certifications -
Meets or Exceeds the Following Specifications:**

- ASME A112.19.2M (and 19.6M) for Vitreous
China Fixtures - includes Flush Performance,
Ball Pass Diameter, Trap Seal Depth and
all Dimensions



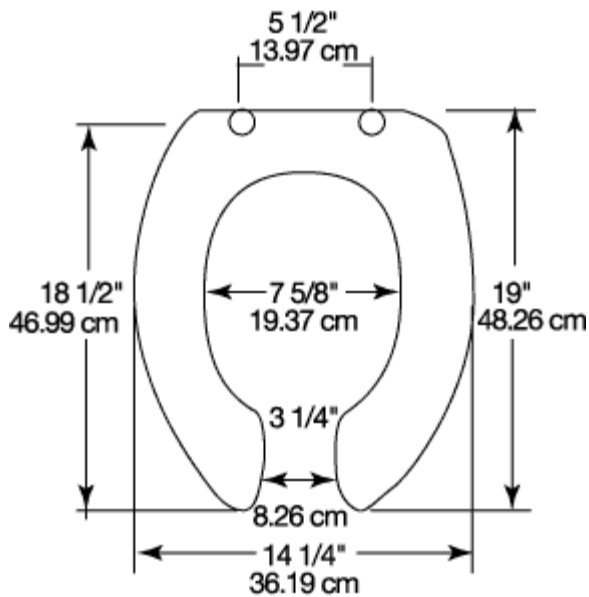
To Be Specified

- Color: White Bone Silver Black
 Shell
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111
- Alternate Flush Valve:

NOTES:
PRODUCT 2234.015 SHOWN, 2234.137 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.
TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.
FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
THIS TOILET IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") FROM FINISHED WALL TO C/L OF OUTLET.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

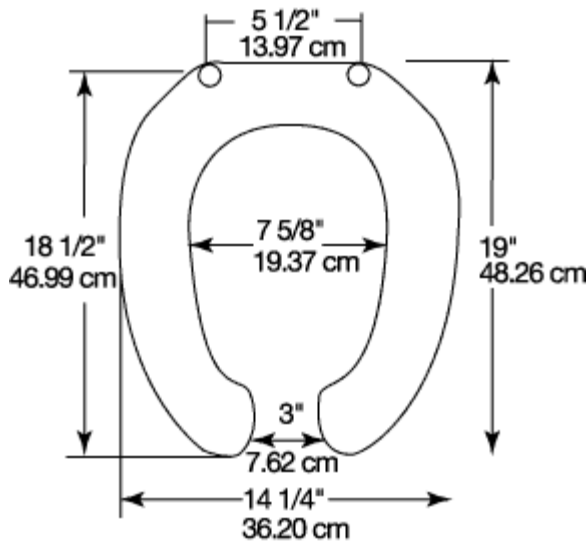
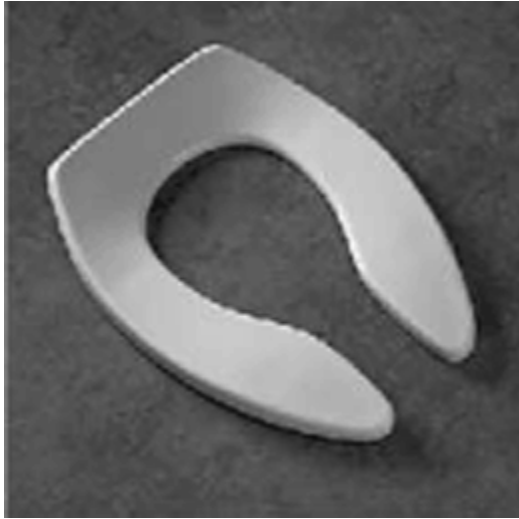
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"



Regal® Model 115 Flushometer 115-1.6

► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 115 Water Saver (3.5 gpf/13.2 Lpf)
 Model 115-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

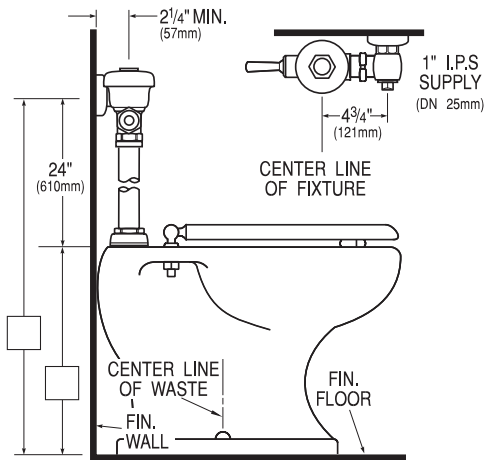
Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

<input type="checkbox"/> ADA	ADA Compliant Handle	
<input type="checkbox"/> BG	Bio-Gard™ Handle	
<input type="checkbox"/> TP	Trap Primer	
<input type="checkbox"/> YB	Sweat Solder Adapter Kit with Stamped Flange	
<input type="checkbox"/> YBYC	Sweat Solder Adapter & Cast Wall Flange w/Set Screw	
<input type="checkbox"/> YI	Two Wall Bumpers (for open front seat without cover)	
<input type="checkbox"/> YJ	Split Ring Pipe Support	
<input type="checkbox"/> YK	Solid Ring Pipe Support	

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Certified

Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S 111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

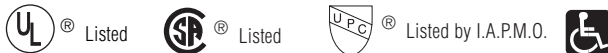
- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**
 TP Trap Primer
 YG Extended Bumper on Angle Stop (for seat with cover)
 YO Bumper on Angle Stop (for open front seat w/o cover)

► **Accessories**
 EL-154 Transformer (120 VAC/24 VAC 50 VA.)
 EL-342 Transformer (240 VAC/24 VAC 50 VA.)
 EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-6

DESCRIPTION: WATER CLOSET - FLOOR MOUNTED, TANK TYPE, WHITE VITREOUS CHINA, SIPHON JET, ELONGATED BOWL, BOLT CAPS, 12" ROUGH-IN, FLOAT VALVE WITH VACUUM BREAKER, CHROME PLATED TRIP LEVER, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY WITH STOP. INSULATED TANK LINER TO PREVENT CONDENSATION. TOP OF SEAT AT 16" TO 17" ABOVE FINISHED FLOOR. VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER. 1.6 GALLON PER FLUSH MAXIMUM, IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2898.012 OR 2018.212, CRANE 3-852, KOHLER K-3422, ELJER 091-2125, GERBER 21-712, TOTO CST744SL, ZURN Z5530

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

Notes to specifier:

1. Select type of seat to be used and delete other type of seat.
2. Use anti-microbial seat in Illinois public restrooms.
3. Use standard open front seat in Iowa.
4. Use cover locking device for nursing homes, mental units. Verify availability with manufacturer.

CADET™ ELONGATED TOILET

2898.012

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Elongated siphon action jetted bowl
- Fully glazed 2" **Ballpass** trapway
- Smart Valve 2000 Fill Valve for quiet refill
- Large 11" x 9" water surface area
- Close-coupled tank w/raised lip detail on tank cover
- Color-matched trip lever
- Speed Connect™ tank/bowl coupling system
- Sanitary bar on bowl
- 2 bolt caps
- 100% factory flush tested

3459.016 Bowl

4112.016 Tank

Nominal Dimensions:

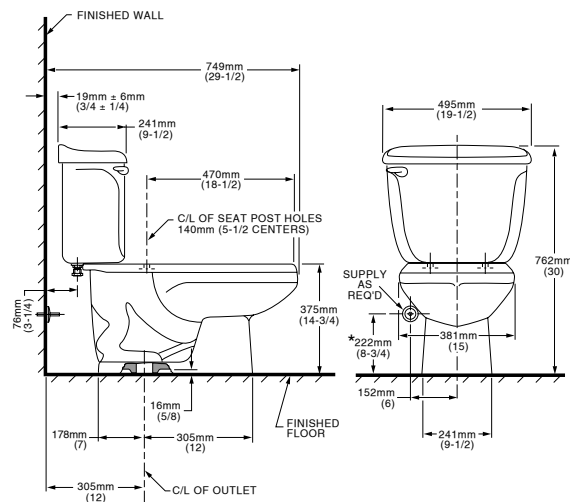
749 x 495 x 762mm

(29-1/2" x 19-1/2" x 30")

Fixture only, seat and supply by others

Alternate Tank Configurations Available:

- 4112.500** Tank complete w/Aquaguard Liner
- 4112.600** Tank complete w/Cover Locking Device
- 4112.700** Tank complete w/Aquaguard Liner and Cover Locking Device
- 4112.800** Tank complete w/Trip Lever Located on Right Side



To Be Specified

- Color:
- Seat: American Standard #5324.019 "Rise and Shine" (with easy to clean lift-off hinge system) solid plastic closed front seat with cover. See pageTB-001.
- Seat: American Standard #5311.012 "Laurel" molded closed front seat with cover. See pageTB-001.
- Alternate Seat:
- Supply with stop:

NOTES:

THIS COMBINATION IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.

* DIMENSION SHOWN FOR LOCATION OF SUPPLY IS SUGGESTED.

SUPPLY NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2

These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

Compliance Certifications -

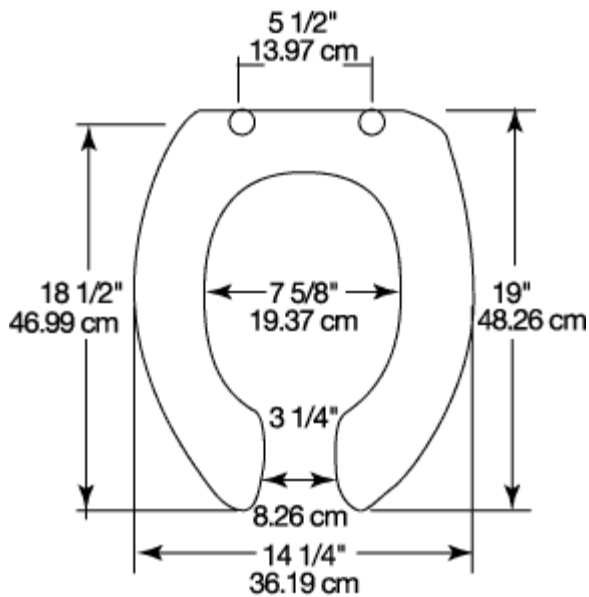
Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

SPS 2898.012

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Extra heavy weight solid plastic construction
Resistant to chemicals and cleaners
Scratch and stain resistant
Easy to clean
External check hinge
[Self-sustaining](#) and external check hinge

Specifications:

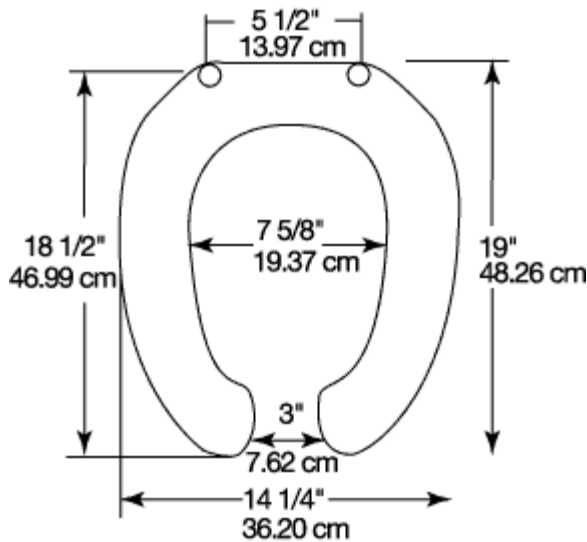
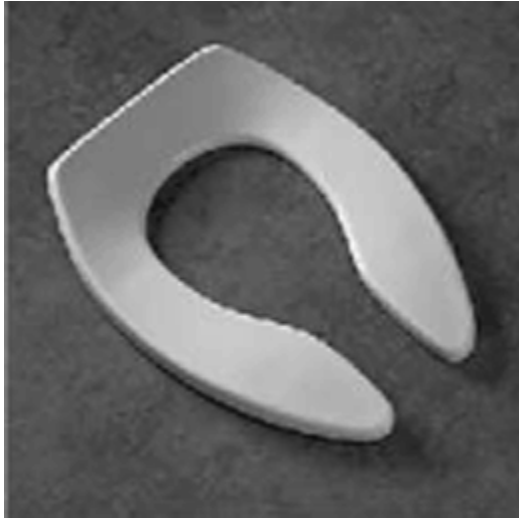
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

WC-7

DESCRIPTION: WATER CLOSET - FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED 10" HIGH BOWL, 1-1/2" TOP SPUD, 10" ROUGH-IN, BOLT CAPS. TOP OF BOWL RIM 10" ABOVE FINISHED FLOOR FOR USE BY CHILDREN.

MANUFACTURER & CATALOG NO.: AMER.STAND. 2282.010, CRANE 3-380E, KOHLER K-4321, ELJER 111-1000, ZURN Z5670

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS, BENEKE 323-5, KOHLER, OLSONITE 126CC, CHURCH

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS BB955C, BENEKE 323-5PC, KOHLER K-4686-A, OLSONITE 126CC, CHURCH 1580C

[Choose flush valve type]

[Taller valve used to be required by Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. FLUSH HANDLE AT LEAST 16" ABOVE TOP OF BOWL. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 113-1.6, ZURN Z6000PL-1, DELANY 414-1.5

[Shorter valve can now be used according to latest Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 111, ZURN Z6000PL, DELANY 402-1.6, TOTO TMT1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GAL. PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8111, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402-1, TOTO TET1DNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 111 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302-1.5, TOTO TET1ANCR

Notes to specifier:

1. 30 psi minimum required.
2. Select type of seat to be used and delete other type.
3. Use anti-microbial seat in Illinois public restrooms.
4. Use standard open front seat in Iowa.
5. Select type of flush valve desired and delete other type of valve.
6. Coordinate electrical requirements with electrical engineer.

BABY DEVORO ROUND FRONT 10" ROUGH

2282.010

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Fully glazed 2" ballpass trapway
- 10" x 13" water surface area
- 10" high bowl
- 10" roughing-in
- Siphon flush action
- 2 bolt caps
- 1-1/2" top spud
- 100% factory flush tested

Nominal Dimensions:

Round Front: 603 x 318 x 254mm
(23-3/4" x 12-1/2" x 10")

Recommended working pressure--between
25 psi at valve when flushing and 80 psi
static

Fixture only, less seat and bolt caps

Compliance Certifications -

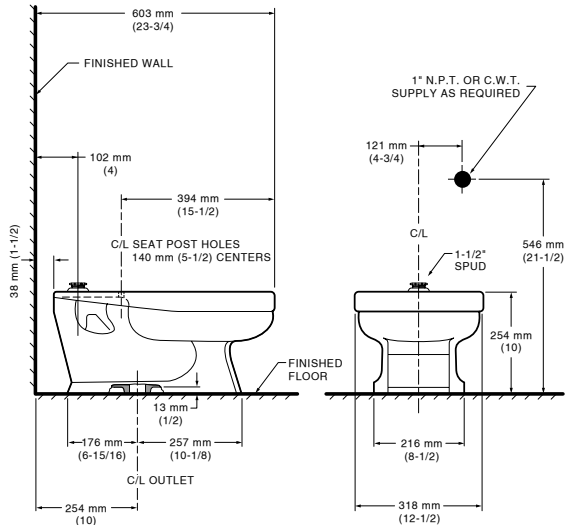
Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous
China Fixtures - includes Flush Performance,
Ball Pass Diameter, Trap Seal Depth and
all Dimensions



To Be Specified

- Color: White Bone
- Seat: Olsonite #126-CC open front seat less cover
- Seat: Church #1580C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111
- Alternate Flush Valve:



NOTES:

TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING. FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.

THIS TOILET IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") FROM FINISHED WALL TO C/L OF OUTLET.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2

These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 2282

COM/INS-008

BB955C

Commercial Plastic Toilet Seat



Infant Seat, Open Front, Less Cover

Seats shall be No. BB955C as manufactured by Bemis Seats. Seats shall be injection molded of solid plastic and open front less cover to fit baby bowls. Seats shall feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white.

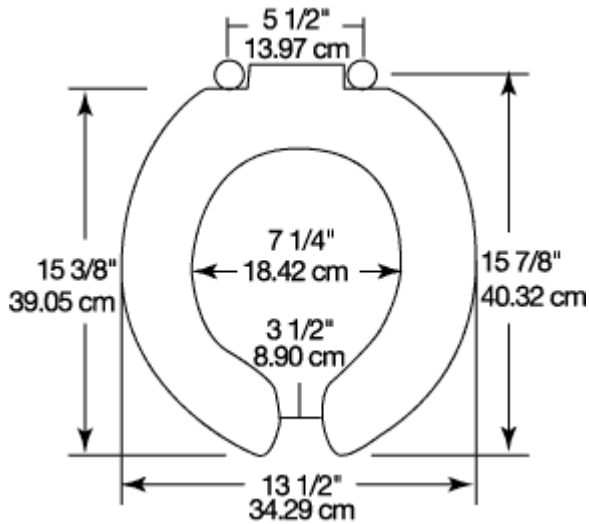
Seat Features:

Solid plastic construction
External check hinge

Specifications:

Ring thickness is 13/16"

Ring thickness, including bumper is 1-1/4"





Regal® Model 113 Flushometer 113-1.6

► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 113 Water Saver (3.5 gpf/13.2 Lpf)
 Model 113-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

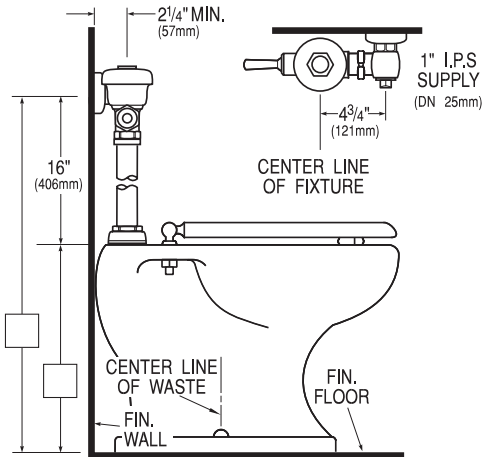
Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

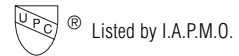
<input type="checkbox"/> ADA	ADA Compliant Handle	
<input type="checkbox"/> BG	Bio-Gard™ Handle	
<input type="checkbox"/> TP	Trap Primer	
<input type="checkbox"/> YB	Sweat Solder Adapter Kit with Stamped Flange	
<input type="checkbox"/> YBYC	Sweat Solder Adapter & Cast Wall Flange w/Set Screw	
<input type="checkbox"/> YJ	Split Ring Pipe Support	
<input type="checkbox"/> YK	Solid Ring Pipe Support	

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.



This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.



Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S

111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**
 TP Trap Primer
 YG Extended Bumper on Angle Stop (for seat with cover)
 YO Bumper on Angle Stop (for open front seat w/o cover)

► **Accessories**
 EL-154 Transformer (120 VAC/24 VAC 50 VA.)
 EL-342 Transformer (240 VAC/24 VAC 50 VA.)
 EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-8

DESCRIPTION: ACCESSIBLE WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL WITH BEDPAN LUGS, 1-1/2" TOP SPUD, WITH [EXTRA-HEAVY DUTY (500 LB.)] CLOSET SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT AT 17" TO 19" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2256.194, CRANE 3H722, KOHLER K-4330-L, ELJER 111-2113, ZURN Z5611

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

FLUSH VALVE - EXPOSED, OFFSET, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, BEDPAN WASHER, 1.6 GALLONS PER FLUSH. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND SHALL BE 44" MAXIMUM ABOVE FLOOR AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL BPW-1150-1.6, ZURN Z6011AV-BW, DELANY 455-HC

Notes to specifier:

1. Verify mounting height of water closet.
2. Select type of seat to be used and delete other type of seat.
3. 30 psi minimum required.
4. For non-continuous grab bar use model numbers SLOAN BPW-1000-1.6, DELANY 455, ZURN Z6000AV-BW and erase "offset" from flush valve description.
5. Standard carriers are rated for 350 lbs.

American Standard



BARRIER FREE

AFWALL™ ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

AFWALL™ ELONGATED TOILET

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Wall-mounted elongated bowl
- Fully glazed trapway
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- 2" ballpass trapway
- 10" x 12" water surface area
- 100% factory flush tested

- 2257.103** Top spud
- 2256.194** Top spud with slotted rim for bedpan holding (White only)
- 2258.125** Back spud
- 2254.127** Back spud with slotted rim for bedpan holding (White only)

Recommended working pressure--between 30 psi at valve when flushing and 80 psi static

Nominal Dimensions:
635 x 375 x 381mm (25" x 14-3/4" x 15")

Fixture only, less seat and bolt caps

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTE: Roughing-in information shown on reverse side of page

To Be Specified

- Color: White Bone Silver Shell
 Black
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111 (Top Spud)
Sloan Royal #144-1.5 (Back Spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.

MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES-CHECK LOCAL CODES.

SPS 2254/2256/2257/2258

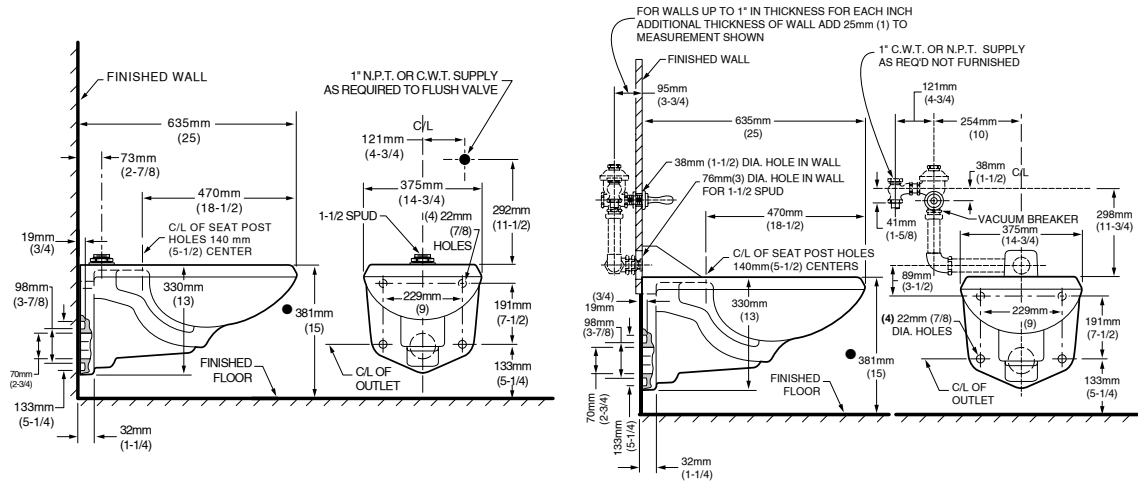
COM/INS-001

Revised 6/95

© 1998 American Standard Inc.

2256.J/2257.

2254.J/2258.



NOTES:

● Toilet designed to meet ADA handicapped standards with seat height set at 432 to 483mm (17" to 19") from finished floor.

PRODUCT 2257.103 SHOWN, 2256.194 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

PRODUCT 2258.125 SHOWN, 2254.127 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED).

SUGGESTED 2mm (1/16) CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL.

TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.

FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

CARRIER FITTING AS REQUIRED TO BE FURNISHED BY OTHERS.

PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORT.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2

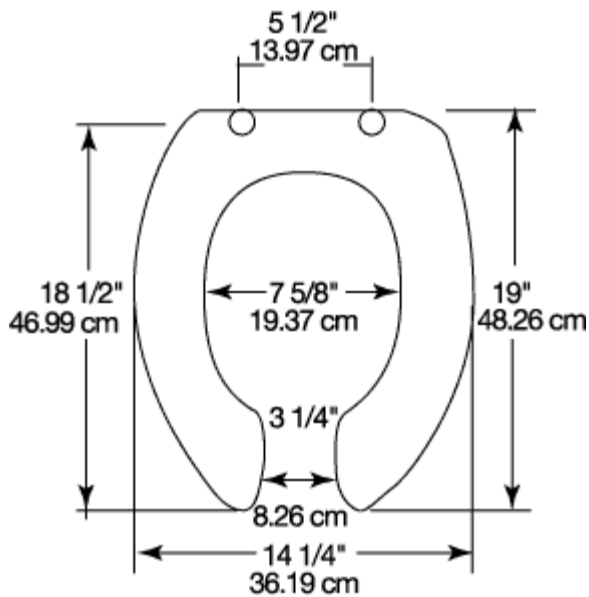
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 2254/2256/2257/2258

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

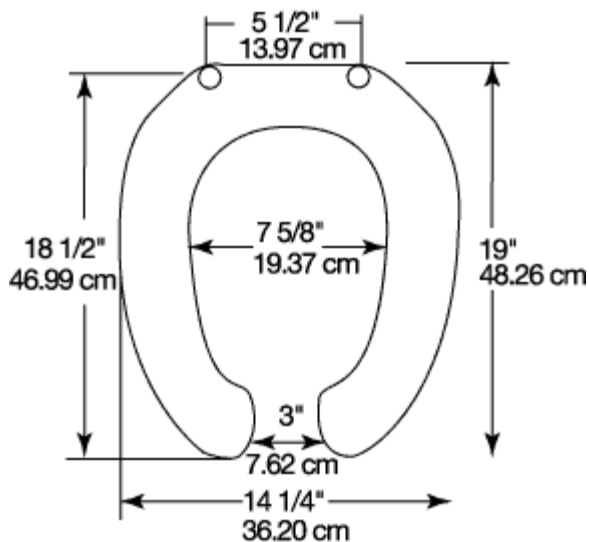
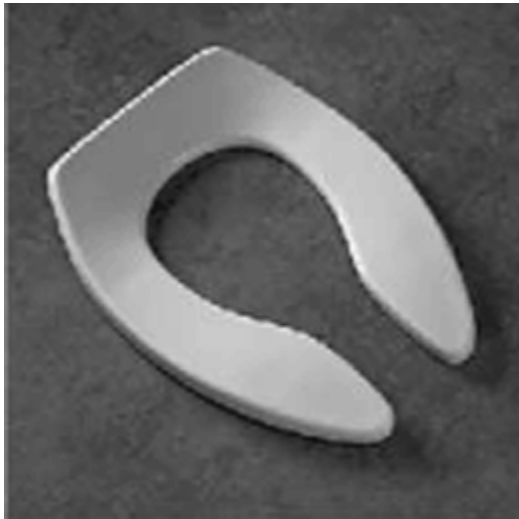
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No. _____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be:

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

Slimline® Bedpan Washer Model BPW-1150 Flushometer



► **Description**
Slimline® Bedpan Washer Water Closet Flushometer, for floor mounted or wall hung top spud bowls. For installation where clearance is required around Grab Bars. Installation meets ADA height requirements.

► **Flush Cycle**
 Model BPW-1150 Water Saver (3.5 gpf/13.2 Lpf)
 Model BPW-1150-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- 1½" Offset Flush Tube
- Spud Coupling and Flange for 1½" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Bedpan Washer Diverter Assembly with the following features:

- Solid One-piece Body Construction
- Solid Brass Spray Arm
- Counter Balanced Pivot Assembly
- Diverter Valve Wall Support
- Offset Flush Connection for clearance around Grab Bar installations

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

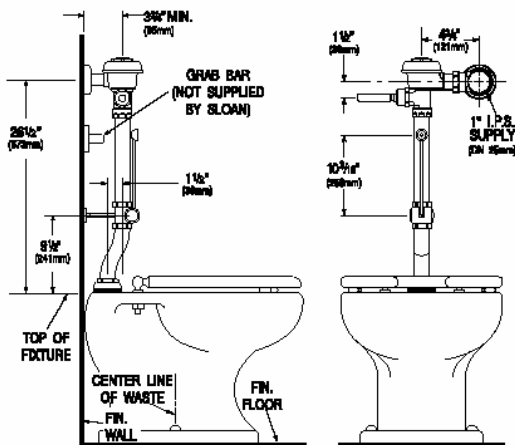
► **Variations**

- BG** Bio-Gard™ Handle and Spray Arm
- YI** Two Wall Bumpers (for open front seat without cover)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Listed by I.A.P.M.O.



This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

Made in the U.S.A.

SLOAN.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

WC-9

DESCRIPTION: ACCESSIBLE WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, BLOWOUT ACTION, ELONGATED BOWL, 1-1/2" TOP SPUD, WITH [EXTRA-HEAVY DUTY (500 LB.)] CLOSET SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT AT 17" TO 19" ABOVE FIN. FLR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2512.010, KOHLER K-4450-C, ELJER 111-0355

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

[Choose flush valve type]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL, SHALL BE 12" MAXIMUM ABOVE BOWL RIM AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 110, ZURN Z6000PL, DELANY 402, TOTO TMW1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8110, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402, TOTO TEW1DNC

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 110 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302

Notes to specifier:

1. Select type of seat to be used and delete other type.
2. Use anti-microbial seat in Illinois public restrooms.
3. Use standard open front seat in Iowa.
4. Not allowed for general commercial usage. Use only for sports arena type applications.
5. Select type of flush valve desired and delete other.
6. Coordinate electrical requirements with elec. engr.
7. 25 psi minimum required.
8. Crane is not acceptable for this fixture due to floor clearance.
9. Use Bemis 1955CC seat with back-spud WC.
10. Standard carriers are rated for 350 lbs.

American Standard



BARRIER FREE

INSTANTO™ 3.5 GPF ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

INSTANTO™ ELONGATED 3.5 GPF TOILET

- Vitreous china
- Water-saving (13.2 Lpf/3.5gpf)
- Wall-mounted elongated bowl
- Blowout flush action
- Fully-glazed 2-1/2" Ballpass trapway
- 1-1/2" inlet spud
- 100% factory flush tested

2512.010

Top spud

2511.012

Back spud

2513.018

Back spud with Integral Seat

Nominal Dimensions:

660x 356 x 457mm

(26" x 14" x 15")

Recommended working pressure--between
25 psi at valve when flushing and 80 psi static

Fixture only, less seat and bolt caps

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTES: Roughing-in information shown on reverse side of page.

Blowout water closets are exempt from the 1.6 gallon per flush requirements of the National Energy Policy Act. However, some state and local codes do not allow the use of 3.5 gallons per flush toilets. Check local codes.

To Be Specified

- Color: White
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Seat: Pressalit seats for American Standard, open front seat with/without cover (thermoset compound material). See page TBU-002 through TBU-005.
- Alternative Seat:
- Flush Valve: Sloan Royal #110-3 (top spud)
Sloan Royal #144-3 (back spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES- CHECK LOCAL CODES.

SPS 2511/2512

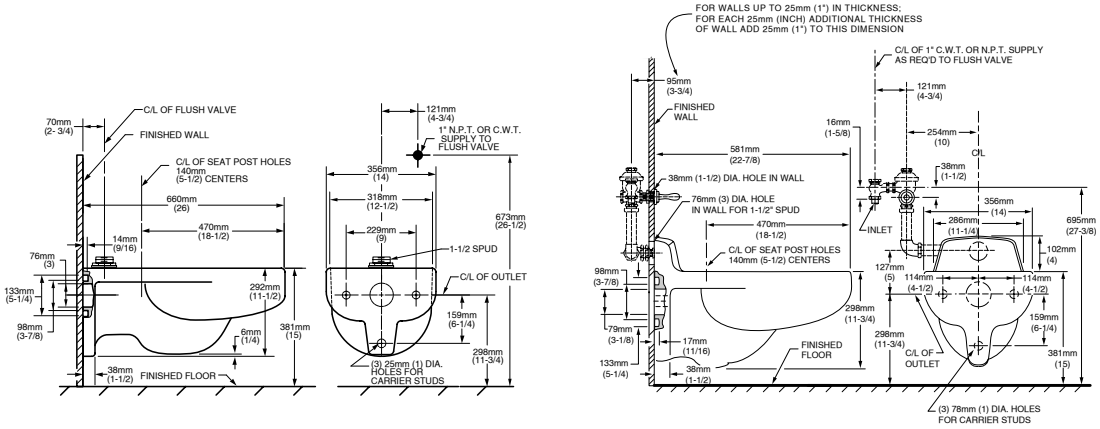
COM/INS-006

Revised 4/96

© 1998 American Standard Inc.

2512.010

2511.012



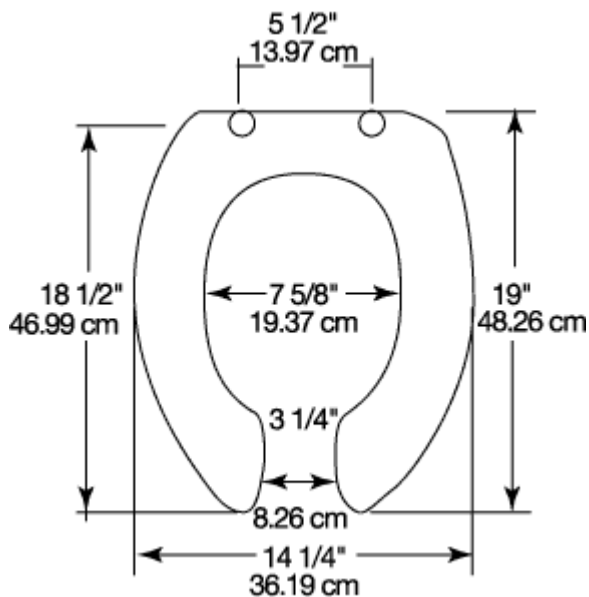
NOTES:
WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED). TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING. SUGGEST 1/16" CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL. METHOD AND MEANS OF SUPPORT TO BE FIGURED AND FURNISHED BY OTHERS. FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. PLUMBER NOTE: PROVIDE SUITABLE REINFORCEMENT FOR ALL SUPPORTS. IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS2511/2512

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

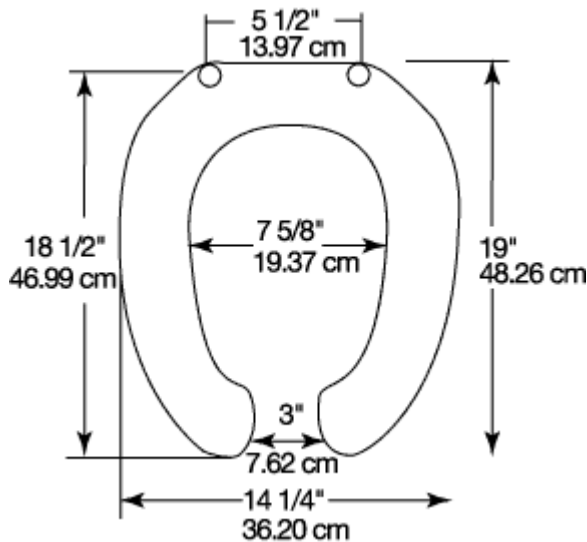
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"



Regal® Model 110 Flushometer 111

► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:
 • Metal Oscillating Non-Hold-Open Handle
 • 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 • Vandal Resistant Stop Cap
 • Adjustable Tailpiece
 • Vacuum Breaker Flush Connection
 • Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
 • Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
 • Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

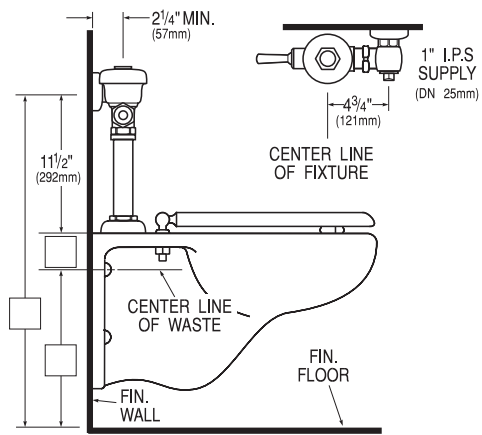
Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

<input type="checkbox"/> ADA	ADA Compliant Handle	
<input type="checkbox"/> BG	Bio-Gard™ Handle	
<input type="checkbox"/> TP	Trap Primer	
<input type="checkbox"/> YB	Sweat Solder Adapter Kit with Stamped Flange	
<input type="checkbox"/> YBYC	Sweat Solder Adapter & Cast Wall Flange w/Set Screw	
<input type="checkbox"/> YO	Bumper on Angle Stop	

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Certified

Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval	
Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S

111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**

TP Trap Primer

YG Extended Bumper on Angle Stop (for seat with cover)

YO Bumper on Angle Stop (for open front seat w/o cover)

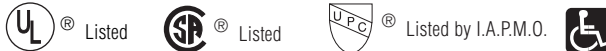
► **Accessories**

EL-154 Transformer (120 VAC/24 VAC 50 VA.)

EL-342 Transformer (240 VAC/24 VAC 50 VA.)

EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-10

DESCRIPTION: WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, BLOWOUT ACTION, ELONGATED BOWL, 1-1/2" TOP SPUD, WITH [EXTRA-HEAVY DUTY (500 LB.)] CLOSET SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT AT 16" TO 17" ABOVE FINISHED FLOOR. VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2512.010, KOHLER K-4450-C, ELJER 111-0355

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95CC

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95CCAM

[Choose flush valve type]

[Taller valve used to be required by Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. HANDLE AT LEAST 22" ABOVE TOP OF BOWL. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 115, ZURN Z6000PL-2, DELANY 414

[Shorter valve can now be used according to latest Illinois Plumbing Code]

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN REGAL PRO 110, ZURN Z6000PL, DELANY 402, TOTO TMW1NNCR

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 8110, ZURN ZR6000AV, HYDROTEK HB-8000C, DELANY I1402, TOTO TEW1DNC

FLUSH VALVE - EXPOSED, SENSOR OPERATED, HARDWIRED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 3.5 GALLONS PER FLUSH. OVER-RIDE BUTTON, RANGE ADJUSTMENT SCREW, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS. 120VAC TO 24VAC TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 110 ES-S, ZURN ZEMS6000AV, HYDROTEK H-8000C, DELANY 1302

Notes to specifier:

1. 1955CC seat with back-spud fixture.
2. Select type of seat to be used and delete other type.
3. Use anti-microbial seat in Illinois public restrooms.
4. Use standard open front seat in Iowa.
5. Not allowed for general commercial usage. Use only for sports arena type applications.
6. Select type of flush valve desired and delete other type of valve.
7. Coordinate electrical requirements with elect. engr.
8. 25 psi minimum required.
9. Crane is not acceptable for this fixture due to floor clearances.
Use Bemis
10. Standard carriers are rated for 350 lbs.

American Standard



BARRIER FREE

INSTANTO™ 3.5 GPF ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

INSTANTO™ ELONGATED 3.5 GPF TOILET

- Vitreous china
- Water-saving (13.2 Lpf/3.5gpf)
- Wall-mounted elongated bowl
- Blowout flush action
- Fully-glazed 2-1/2" Ballpass trapway
- 1-1/2" inlet spud
- 100% factory flush tested

2512.010

Top spud

2511.012

Back spud

2513.018

Back spud with Integral Seat

Nominal Dimensions:

660x 356 x 457mm

(26" x 14" x 15")

Recommended working pressure--between
25 psi at valve when flushing and 80 psi static

Fixture only, less seat and bolt caps

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTES: Roughing-in information shown on reverse side of page.

Blowout water closets are exempt from the 1.6 gallon per flush requirements of the National Energy Policy Act. However, some state and local codes do not allow the use of 3.5 gallons per flush toilets. Check local codes.

To Be Specified

- Color: White
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Seat: Pressalit seats for American Standard, open front seat with/without cover (thermoset compound material). See page TBU-002 through TBU-005.
- Alternative Seat:
- Flush Valve: Sloan Royal #110-3 (top spud)
Sloan Royal #144-3 (back spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES- CHECK LOCAL CODES.

SPS 2511/2512

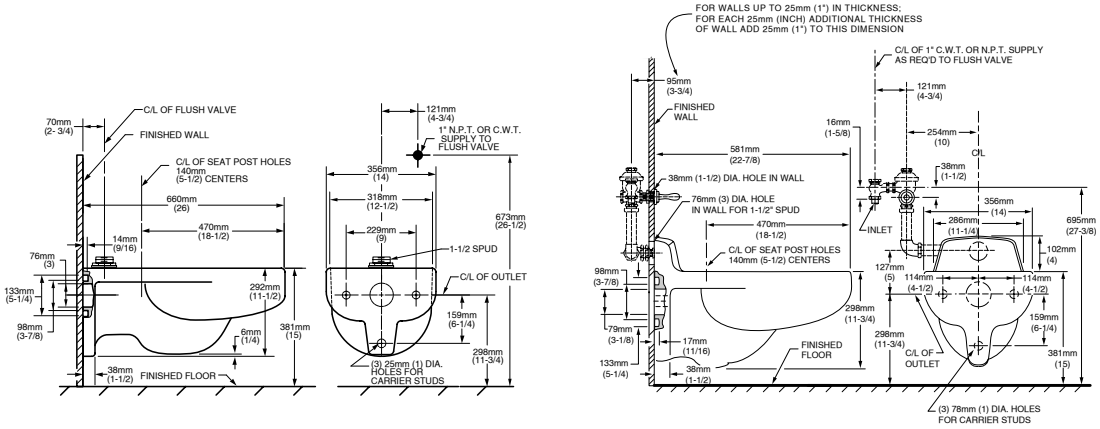
COM/INS-006

Revised 4/96

© 1998 American Standard Inc.

2512.010

2511.012



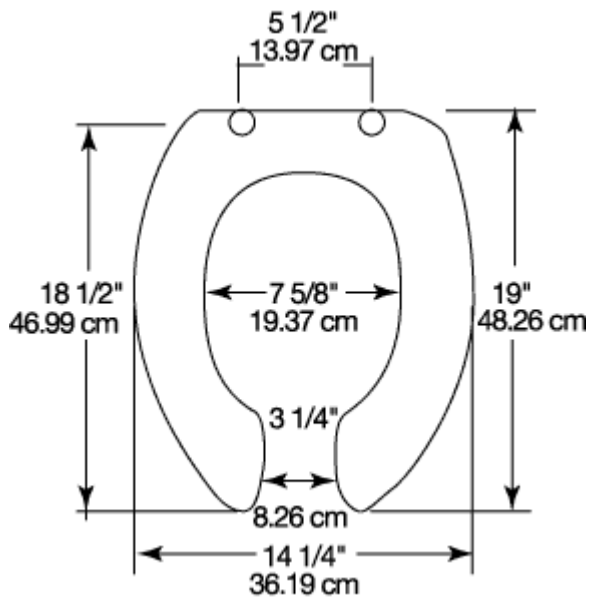
NOTES:
WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED). TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING. SUGGEST 1/16" CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL. METHOD AND MEANS OF SUPPORT TO BE FIGURED AND FURNISHED BY OTHERS. FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. PLUMBER NOTE: PROVIDE SUITABLE REINFORCEMENT FOR ALL SUPPORTS. IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS2511/2512

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

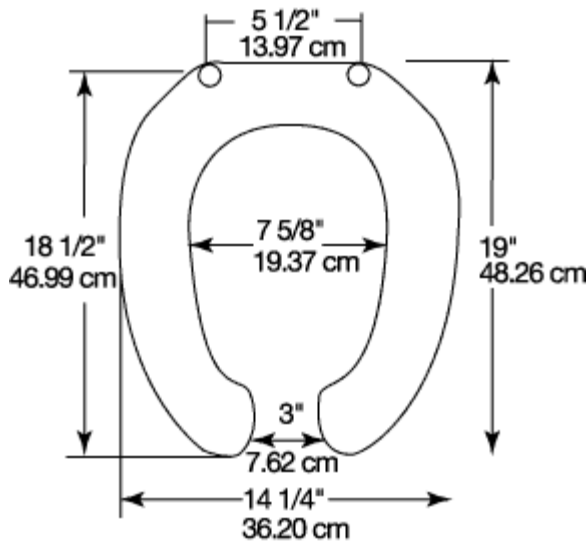
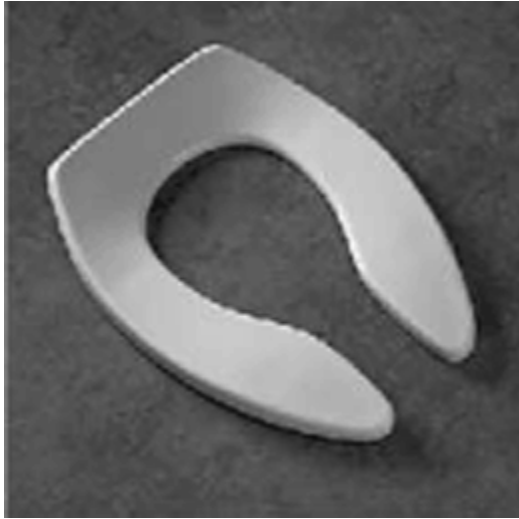
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No. _____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
 External check hinges
[DuraGuard®](#) antimicrobial agent
 Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"



Regal® Model 115 Flushometer 115-1.6

► **Description**
Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 115 Water Saver (3.5 gpf/13.2 Lpf)
 Model 115-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
 Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1½" Top Spud
- Low Consumption flush accuracy controlled by Para-Flo™ Inside Parts Kit
- Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance

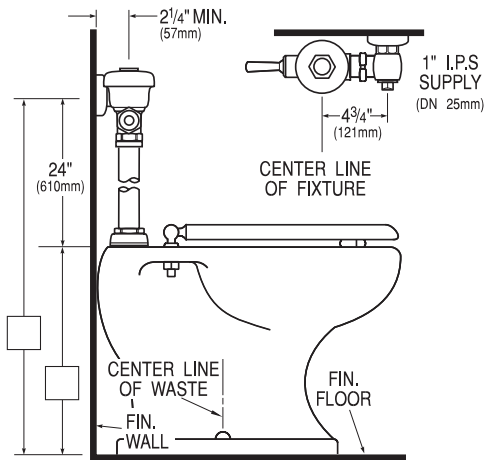
Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

► **Variations**

<input type="checkbox"/> ADA	ADA Compliant Handle	
<input type="checkbox"/> BG	Bio-Gard™ Handle	
<input type="checkbox"/> TP	Trap Primer	
<input type="checkbox"/> YB	Sweat Solder Adapter Kit with Stamped Flange	
<input type="checkbox"/> YBYC	Sweat Solder Adapter & Cast Wall Flange w/Set Screw	
<input type="checkbox"/> YI	Two Wall Bumpers (for open front seat without cover)	
<input type="checkbox"/> YJ	Split Ring Pipe Support	
<input type="checkbox"/> YK	Solid Ring Pipe Support	

REGAL XL
 Flushometer includes ADA Compliant Handle, Vandal Resistant Stop Cap with Set Screw, and Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange.

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



SR Certified

UPC Listed by I.A.P.M.O.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
 PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

8110
8111

► **Description**

Exposed, Battery Powered, Sensor Operated Royal® Model Water Closet Flushometer for floor mounted or wall hung top spud bowls.

► **Flush Cycle**

- Royal® Model 8110 Water Saver (3.5 gpf/13.2 Lpf)
- Royal® Model 8111 Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either right or left hand supply with the following features:

- ADA Compliant OPTIMA *Plus*® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Dual Filtered By-Pass
- Diaphragm, Stop Seat and Vacuum Breaker to be molded from PERMEX™ Rubber Compound for Chloramine resistance
- Engineered Plastic Cover Assembly with Integral Window
- User friendly three (3) second Flush Delay
- Courtesy Flush™ Override Button
- Four (4) size AA Batteries included
- "Low Battery" Flashing LED
- Infrared Sensor Range Adjustment Screw
- Initial Set-Up Range Indicator Light (first 10 minutes)
- Solid Handle Cap
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning, Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1 1/2" Top Spud

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass, Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Valve shall conform to ADA requirements.

► **Variations**

- LH** Less Handle Opening
- MC** Metal Cover

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA *Plus*® Flushometer variations.



► **ADA Compliant**

► **Automatic**

Sloan OPTIMA *Plus*® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**

User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

► **Economical**

Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

► **Warranty**

3 year (limited)



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

The information contained in this document is subject to change without notice.
Made in the U.S.A.

110 ES-S

111 ES-S

► **Description**
Exposed Sensor Operated Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► **Flush Cycle**
 Model 110 ES-S Water Saver (3.5 gpf/13.2 Lpf)
 Model 111 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

► **Specifications**
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- Dual Filtered By-Pass
- OPTIMA® EL-1500-L Self Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Over-ride Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

► **Variations**
 TP Trap Primer
 YG Extended Bumper on Angle Stop (for seat with cover)
 YO Bumper on Angle Stop (for open front seat w/o cover)

► **Accessories**
 EL-154 Transformer (120 VAC/24 VAC 50 VA.)
 EL-342 Transformer (240 VAC/24 VAC 50 VA.)
 EL-226 Solenoid Extension Nipple

See Accessories Section and Optima Accessories Section of the Sloan catalog for details on these and other Optima Flushometer variations.



This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____



► **Automatic**
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surroundings. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

► **Hygienic**
User makes no physical contact with the Flushometer surface. Helps to control the spread of infectious diseases. 24 Hour Sentinel Flush keeps fixture fresh during periods of non-use.

► **Economical**
Automatic operation provides savings in water over other flushing devices. Reduces maintenance and operation costs.

► **Practical**
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Royal Flushometer, proven by 90 years of experience.

► **Warranty**
3 year (limited)

► **Made in the U.S.A.**

The information contained in this document is subject to change without notice.

WC-11

DESCRIPTION: ACCESSIBLE WATER CLOSET - FLOOR MOUNTED, WHITE VITREOUS CHINA, TANK TYPE, PRESSURE ASSISTED, CLOSE COUPLED, SIPHON JET, ELONGATED BOWL, BOLT CAPS, 12" ROUGH-IN, FLOAT VALVE WITH VACUUM BREAKER, CHROME PLATED TRIP LEVER, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY WITH STOP. TOP OF BOWL RIM AT 17" TO 19" ABOVE FINISHED FLOOR. INSULATED TANK LINER TO PREVENT CONDENSATION. 1.6 GALLONS PER FLUSH MAXIMUM, IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2377.100, CRANE 3-838, KOHLER K-3544, ELJER 091-7045, GERBER 21-318, ZURN Z5560

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95CC

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95CCAM

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND OPERATE WITH NO GREATER THAN A 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

Notes to specifier:

1. Select type of seat to be used and delete other type.
2. Use anti-microbial seat in Illinois public restrooms.
3. Use standard open front seat in Iowa.
4. Pressure assisted type water closet. Recommended pressure range: 20-80 psi.
5. Use cover locking device for nursing homes, mental units. Verify availability with manufacturer.

American Standard



BARRIER FREE

CADET™ 17"H ELONGATED PRESSURE-ASSISTED TOILET

VITREOUS CHINA

CADET™ 17"H ELONGATED PRESSURE-ASSISTED TOILET

- 2168.100**
 - Vitreous china
 - Low-consumption (6.0 Lpf/1.6 gpf)
 - 17" rim height
 - Elongated bowl
 - Pressure-assisted siphon jet flush action
 - Close-coupled flushometer tank*
 - Side-mounted chrome trip lever
 - Speed Connect™ tank/bowl coupling system
 - 2 bolt caps
 - Fully-glazed trapway
 - 100% factory flush tested
- 3042.109 Bowl**
- 4086.100 Tank**

- 2168.175 with Slotted Rim for Bedpan holding**
 - 3042.132 Bowl**
 - 4086.100 Tank**

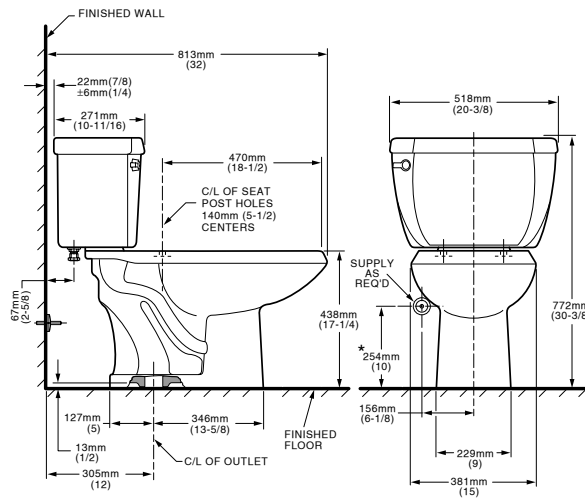
Nominal Dimensions:
813 x 518 x 772mm
(32" x 20-3/8" x 30-3/8")

Fixture only, seat and supply by others

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

Recommended working pressure range
20 psi - 80 psi



To Be Specified

- Color:
- Seat: American Standard #5324.019 "Rise and Shine" (with easy to clean lift-off hinge system) solid plastic closed front seat with cover. See page TB-001.
- Seat: American Standard #5311.012 "Laurel" molded closed front seat with cover. See page TB-001.
- Alternate Seat:
- Supply with stop:

* Flushometer tank system by Flushmate® Div. of Sloan Valve Co.

NOTES:

THIS TOILET IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.
SUPPLY NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.
* DIMENSIONS SHOWN FOR LOCATION OF SUPPLY IS SUGGESTED.
FOR ADDITIONAL INFORMATION REFER TO INSTALLATION INSTRUCTIONS SUPPLIED.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.



When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES-CHECK LOCAL CODES.

SPS 2168.100

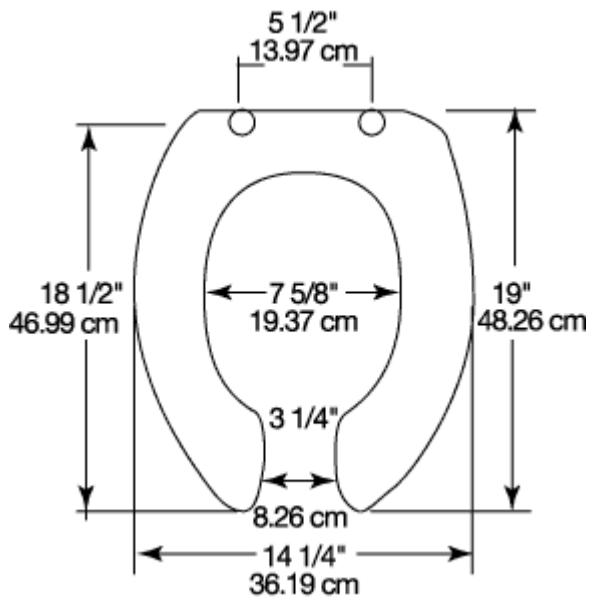
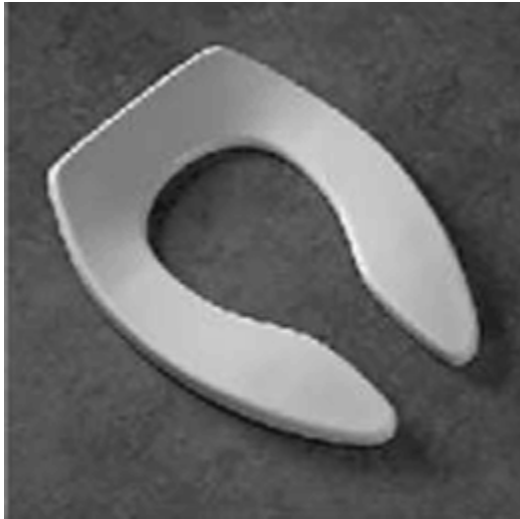
TB-042
COM/INS-020

© 1998 American Standard Inc.

Revised 1/98

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

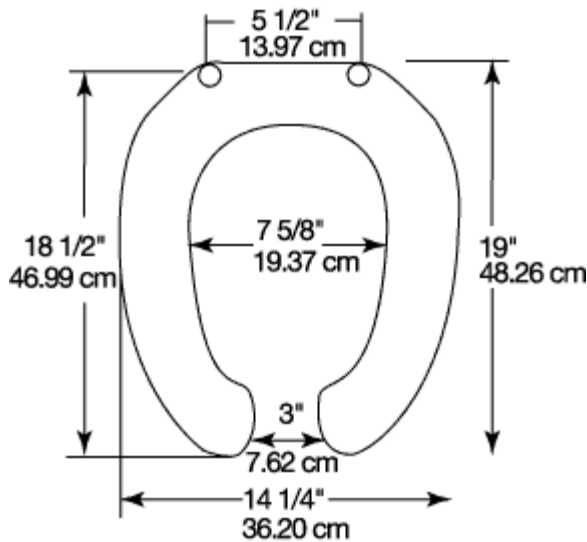
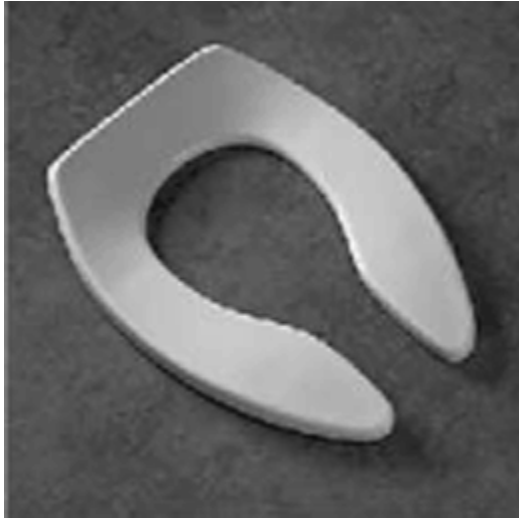
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No. _____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
 External check hinges
[DuraGuard®](#) antimicrobial agent
 Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

WC-12

DESCRIPTION: WATER CLOSET - FLOOR MOUNTED, TANK TYPE, PRESSURE ASSISTED, WHITE VITREOUS CHINA, SIPHON JET, ELONGATED BOWL, BOLT CAPS, 12" ROUGH-IN, FLOAT VALVE WITH VACUUM BREAKER, CHROME PLATED TRIP LEVER, [QUARTER-TURN] 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY WITH STOP. INSULATED TANK LINER TO PREVENT CONDENSATION. TOP OF SEAT AT 16" TO 17" ABOVE FINISHED FLOOR. VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER. 1.6 GALLON PER FLUSH MAXIMUM, IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2333.100, CRANE 3-835, KOHLER K-3458, ELJER 091-7025, GERBER 21-312, ZURN Z5570

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95CC

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95CC

Notes to specifier:

1. Select type of seat to be used and delete other type of seat.
2. Use anti-microbial seat in Illinois public restrooms.
3. Use standard open front seat in Iowa.
4. Pressure assisted type water closet. Recommended pressure range: 20-80 psi.
5. Use cover locking device for nursing homes, mental units. Verify availability with manufacturer.

CADET™ EL 1.6/PA

2292.100

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Elongated bowl
- Pressure-assisted siphon jet flush action
- Side-mounted chrome trip lever
- Close-coupled flushometer tank*
- Speed Connect™ tank/bowl coupling system
- 2 bolt caps
- Fully-glazed trapway
- 100% factory flush tested

3081.017 Bowl

4086.100 Tank

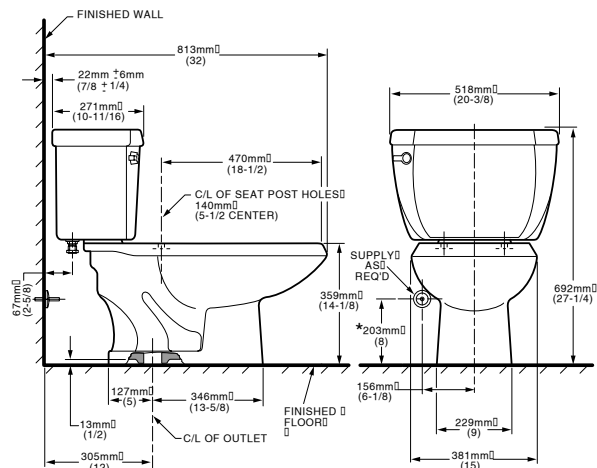
Nominal Dimensions:

813 x 518 x 692mm
(32" x 20-3/8" x 27-1/4")

Fixture only, seat and supply by others

Hydraulic performance, water surface area, trap seal depth, ballpass diameter, and all fixture dimensions meet or exceed ANSI Standard A112.19.2 requirements.

Recommended static pressure range
20 psi - 80 psi



NOTES:
THIS COMBINATION IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.
* DIMENSION SHOWN FOR LOCATION OF SUPPLY IS SUGGESTED.
SUPPLY NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.
FOR ADDITIONAL INFORMATION REFER TO INSTALLATION INSTRUCTIONS SUPPLIED.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

To Be Specified

- Color:
- Seat: American Standard #5324.019 "Rise and Shine" (with easy to clean lift-off hinge system) solid plastic closed front seat with cover. See page TBU-001.
- Seat: American Standard #5311.012 "Laurel" molded closed front seat with cover. See page TBU-001.
- Seat: Pressalit seats for American Standard, closed front seat with cover (thermoset compound material). See pages TBU-002 through TBU-005.
- Alternate Seat:
- Supply with stop:

* Flushometer tank system by Flushmate® Div. of Sloan Valve Co.

SPS 2292

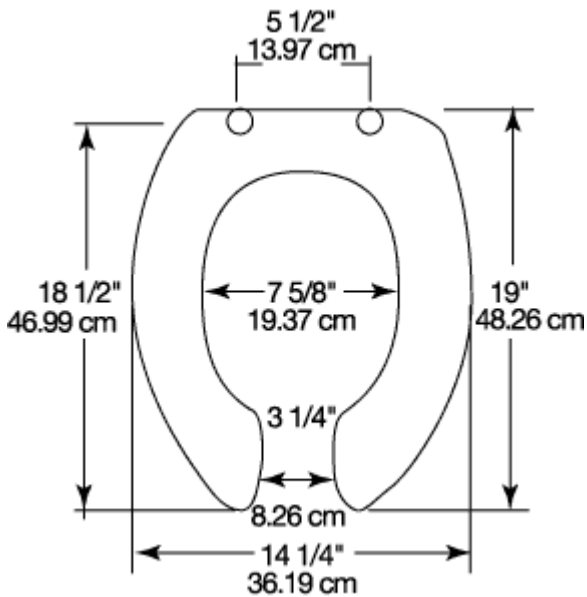
TBU-039

© 1996 American Standard Inc.

Revised 4/96

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

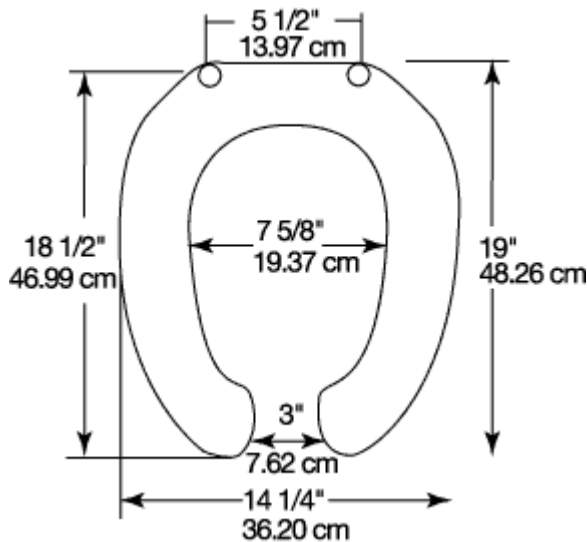
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

WC-13

DESCRIPTION: WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL WITH BEDPAN LUGS, 1-1/2" TOP SPUD, WITH [EXTRA-HEAVY DUTY (500 LB.)] CLOSET SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT AT 16" TO 17" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2256.194, CRANE 3H722, KOHLER K-4330-L, ELJER 111-2113, ZURN Z5611
[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95CC

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95CCAM

FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, BEDPAN WASHER, 1.6 GALLONS PER FLUSH. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL BPW-1000-1.6, ZURN Z6000AV-BW, DELANY 455

Notes to specifier:

1. Verify mounting height of water closet.
2. Select type of seat to be used and delete other type of seat.
3. 30 psi minimum required.
4. Standard carriers are rated for 350 lbs.

American Standard



BARRIER FREE

AFWALL™ ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

AFWALL™ ELONGATED TOILET

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Wall-mounted elongated bowl
- Fully glazed trapway
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- 2" ballpass trapway
- 10" x 12" water surface area
- 100% factory flush tested

- 2257.103** Top spud
- 2256.194** Top spud with slotted rim for bedpan holding (White only)
- 2258.125** Back spud
- 2254.127** Back spud with slotted rim for bedpan holding (White only)

Recommended working pressure--between 30 psi at valve when flushing and 80 psi static

Nominal Dimensions:
635 x 375 x 381mm (25" x 14-3/4" x 15")

Fixture only, less seat and bolt caps

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTE: Roughing-in information shown on reverse side of page

To Be Specified

- Color: White Bone Silver Shell
 Black
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111 (Top Spud)
Sloan Royal #144-1.5 (Back Spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.

MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES-CHECK LOCAL CODES.

SPS 2254/2256/2257/2258

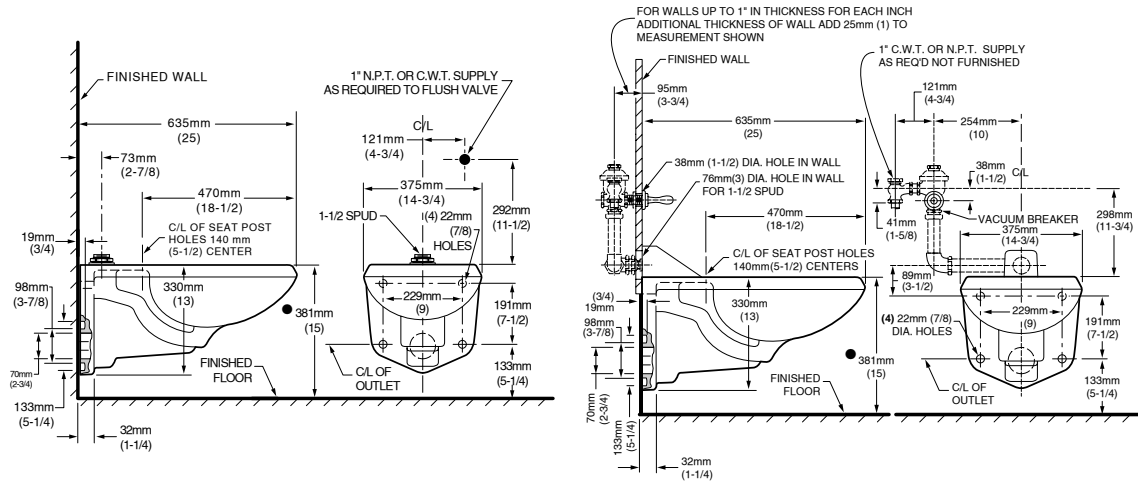
COM/INS-001

Revised 6/95

© 1998 American Standard Inc.

2256.J/2257.

2254.J/2258.



NOTES:

● Toilet designed to meet ADA handicapped standards with seat height set at 432 to 483mm (17" to 19") from finished floor.

PRODUCT 2257.103 SHOWN, 2256.194 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

PRODUCT 2258.125 SHOWN, 2254.127 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED).

SUGGESTED 2mm (1/16) CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL.

TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.

FLUSH VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

CARRIER FITTING AS REQUIRED TO BE FURNISHED BY OTHERS.

PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORT.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2

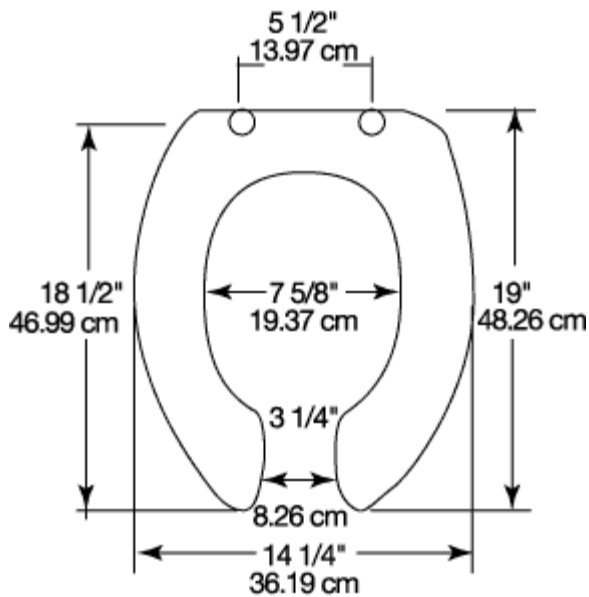
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

SPS 2254/2256/2257/2258

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.
(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

Specifications:

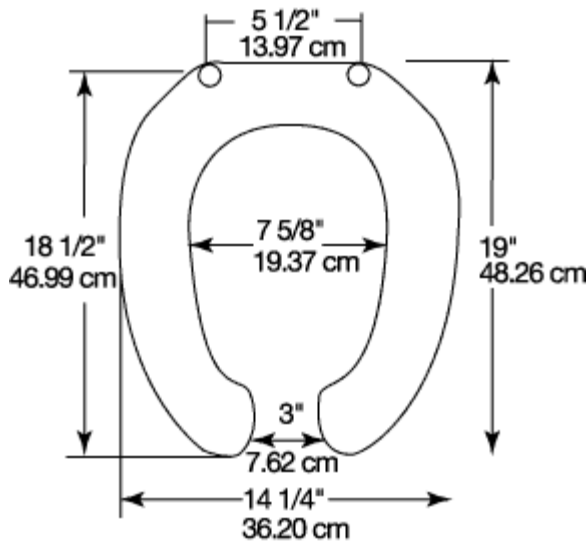
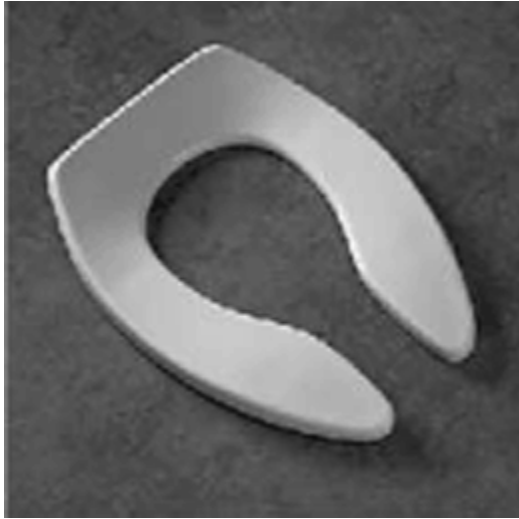
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

Slimline® Bedpan Washer Model BPW-1000 Flushometer



Description
Slimline® Bedpan Washer Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

- Flush Cycle**
- Model BPW-1000 Water Saver (3.5 gpf/13.2 Lpf)
 - Model BPW-1000-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

Specifications
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1½" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

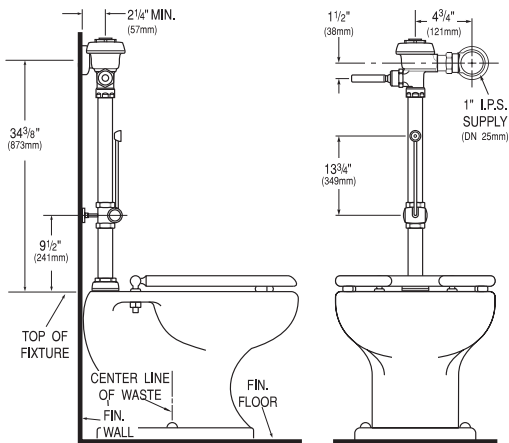
Bedpan Washer Diverter Assembly with the following features:

- Solid One-piece Body Construction
- Solid Brass Spray Arm
- Counter Balanced Pivot Assembly
- Diverter Valve Wall Support

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

- Variations**
- BG** Bio-Gard™ Handle and Spray Arm
 - O** Offset Vacuum Breaker Specify: 1" - 1½" - 2"
 - YI** Two Wall Bumpers (for open front seat without cover)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.



Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

WC-14

DESCRIPTION: ACCESSIBLE WATER CLOSET - FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL WITH BEDPAN LUGS, 1-1/2" TOP SPUD, 10" ROUGH IN, BOLT CAPS. TOP OF SEAT AT 17" TO 19" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 3043.156, KOHLER K-4368-L, ELJER 111-2153, ZURN Z5667

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95CC

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95CCAM

FLUSH VALVE - EXPOSED, OFFSET, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, BEDPAN WASHER, 1.6 GALLONS PER FLUSH. PROVIDE WALL BRACE FOR PIPE. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND SHALL BE 44" MAXIMUM ABOVE FLOOR AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL BPW-1150-1.6, ZURN Z6011AV-BW, DELANY 455-HC

Notes to specifier:

1. Verify mounting height of water closet.
2. Select type of seat to be used and delete other type of seat.
3. 30 psi minimum required.
4. For non-continuous grab bar use model numbers SLOAN BPW-1000-1.6, DELANY 455, ZURN Z6000AV-BW and erase "offset" from flush valve description.
5. Standard carriers are rated for 350 lbs.

American Standard

MADERA™ 17"H ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA



BARRIER FREE

MADERA™ 17"H ELONGATED 10" ROUGH

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- 10" roughing-in
- 17" rim height
- Elongated bowl
- Direct-fed siphon jet action
- Fully glazed 2" ballpass trapway
- 11" x 13" water surface area
- 1-1/2" top spud
- 2 bolt caps
- 100% factory flush tested

- 3043.102** Top spud
- 3043.156** Top spud with slotted rim for bedpan holding (white only)

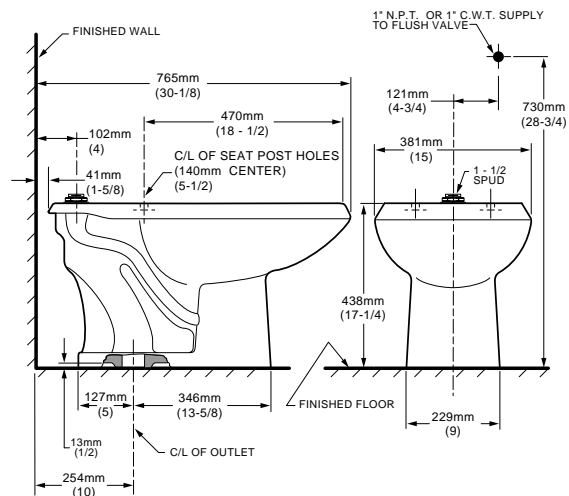
Nominal Dimensions:
765 x 381 x 438mm (30-1/8" x 15" x 17-1/4")

Recommended working pressure--between
25 psi at valve when flushing and 80 psi
static

Fixture only, less seat and bolt caps

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTES:
PRODUCT 3043.102 SHOWN, 3043.156 SAME AS EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.
THIS TOILET IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") FROM FINISHED WALL TO C/L OF OUTLET.
TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON FLUSH VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGH-IN.
FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.
These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

To Be Specified

- Color: White Bone Silver Black
- Shell
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111
- Alternate Flush Valve:



● When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES-CHECK LOCAL CODES.

SPS 3043

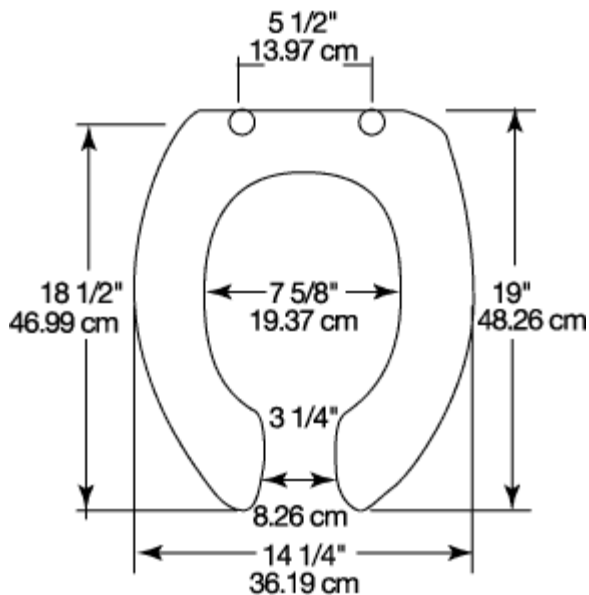
COM/INS-005

Revised 4/96

© 1998 American Standard Inc.

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.

(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Extra heavy weight solid plastic construction

Resistant to chemicals and cleaners

Scratch and stain resistant

Easy to clean

External check hinge

[Self-sustaining](#) and external check hinge

Specifications:

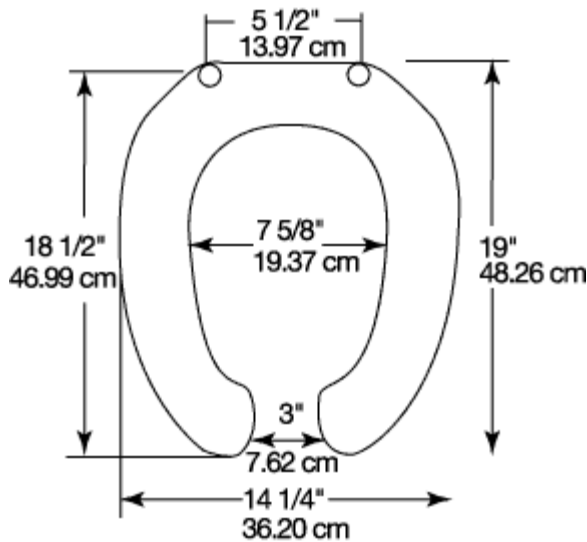
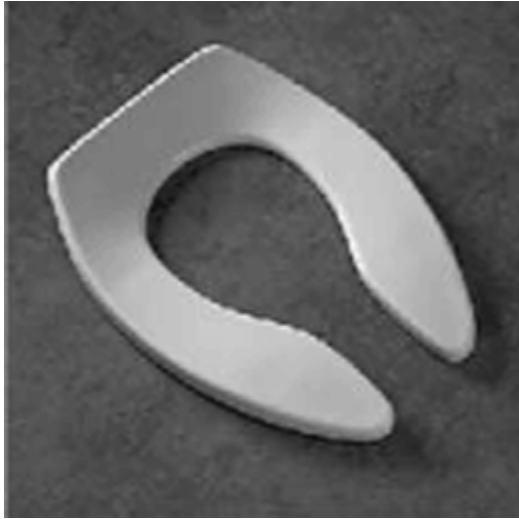
Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No. _____ as manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness, including bumper is 1-3/16"

Height of the seat 2-5/16"

Slimline® Bedpan Washer Model BPW-1000 Flushometer



Description

Slimline® Bedpan Washer Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

Flush Cycle

- Model BPW-1000 Water Saver (3.5 gpf/13.2 Lpf)
- Model BPW-1000-1.6 Low Consumption (1.6 gpf/6.0 Lpf)

Specifications

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

- Dual Filtered By-Pass
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker to be molded from PERMEX™ rubber compound for Chloramine resistance
- Metal Oscillating Non-Hold-Open Handle with a Triple Seal Handle Packing
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1½" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Set Screw Wall Flange

Bedpan Washer Diverter Assembly with the following features:

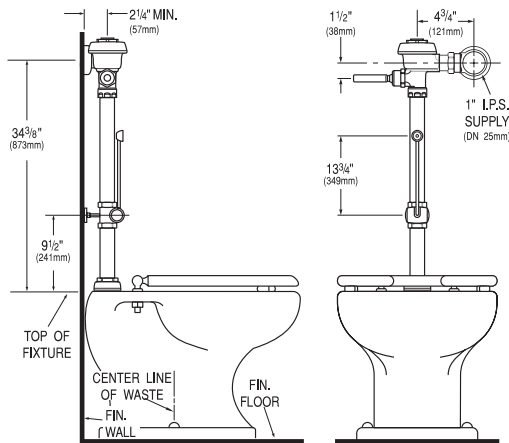
- Solid One-piece Body Construction
- Solid Brass Spray Arm
- Counter Balanced Pivot Assembly
- Diverter Valve Wall Support

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME 112.19.6, and Military Specification V-29193.

Variations

- BG** Bio-Gard™ Handle and Spray Arm
- O** Offset Vacuum Breaker Specify: 1" - 1½" - 2"
- YI** Two Wall Bumpers (for open front seat without cover)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



© Copyright 1997 SLOAN VALVE COMPANY Printed in U.S.A.

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL 60131
PHONE: 1-800 982-5839 • FAX: 1-800 447-8329 • <http://www.sloanvalve.com>

WC-15

DESCRIPTION: WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, WATER SAVING, SIPHON JET, ELONGATED BOWL, FULLY GLAZED TRAPWAY, 1-1/2" TOP SPUD. WITH CLOSET SUPPORT CARRIER BOLTED SECURELY TO THE FLOOR. TOP OF SEAT AT 16" TO 17" ABOVE FLOOR. VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2257.103, CRANE 3-446, KOHLER K-4330, ELJER 111-2105, GERBER 25-030, TOTO CT708, ZURN Z5610

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

DUAL FUNCTION FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH WHEN HANDLE IS PUSHED DOWN AND 1.1 GALLONS PER FLUSH WHEN HANDLE IS PUSHED UP. 3 YEAR WARRANTY.

MANUFACTURER & CATALOG NO.: SLOAN WES-111

Notes to Specifier:

1. This water closet is for low flush applications - it uses a flush valve handle that can be pushed down for a 1.6 gallon flush or it can be pushed up for a 1.1 gallon flush.
2. Valve is provided with a green handle and water droplets engraved on valve (one droplet up, two droplets on down). A sign is provided with the valve that can be installed indicating how to use valve.
3. Discuss location with architect & owner - may only save water in womens toilet rooms.
4. Currently Sloan is the only manufacturer with this capability.

American Standard

 **BARRIER FREE**

AFWALL™ ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

AFWALL™ ELONGATED TOILET

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Wall-mounted elongated bowl
- Fully glazed trapway
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- 2" ballpass trapway
- 10" x 12" water surface area
- 100% factory flush tested

- 2257.103** Top spud
- 2256.194** Top spud with slotted rim for bedpan holding (White only)
- 2258.125** Back spud
- 2254.127** Back spud with slotted rim for bedpan holding (White only)

Recommended working pressure--between 30 psi at valve when flushing and 80 psi static

Nominal Dimensions:
635 x 375 x 381mm (25" x 14-3/4" x 15")

Fixture only, less seat and bolt caps

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions



NOTE: Roughing-in information shown on reverse side of page

To Be Specified

- Color: White Bone Silver Shell
 Black
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111 (Top Spud)
Sloan Royal #144-1.5 (Back Spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



● When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES- CHECK LOCAL CODES.

SPS 2254/2256/2257/2258

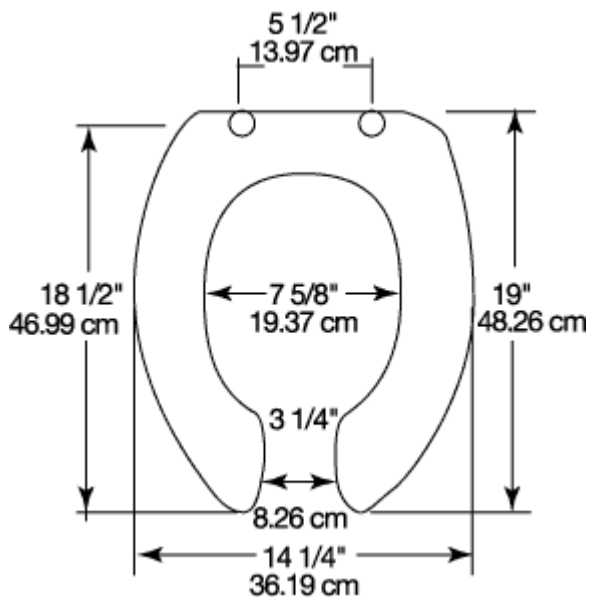
Revised 6/95

© 1998 American Standard Inc.

COM/INS-001

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.

(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

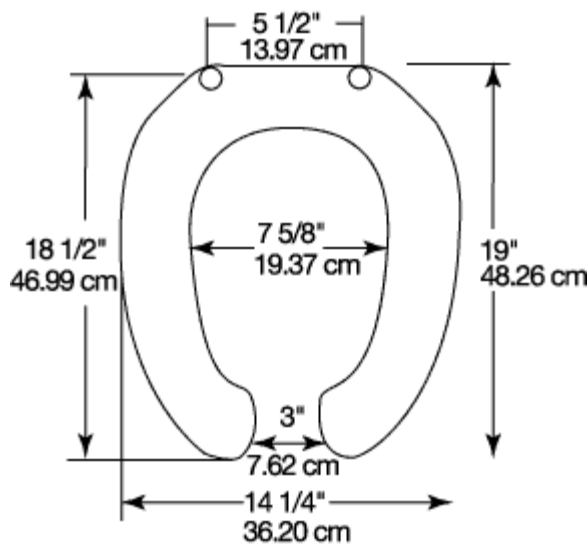
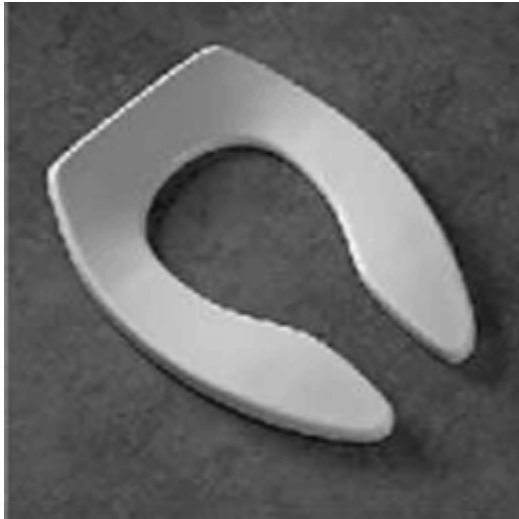
Specifications:

Ring thickness is 1"

Ring thickness,
including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness,
including bumper is 1-3/16"

Height of the seat 2-5/16"

NEW

UPPERCUT™

The Fastest Way to Start Saving Water!



Dual-Flush Flushometer

WES-111

► Description

Exposed Water Closet Flushometer with Dual-Flush Feature, for floor mounted or wall hung top spud bowls.

► Flush Cycle

□ Model WES-111 Low Consumption
(Down 1.6 gpf/6.0 Lpf, Up 1.1 gpf/4.2 Lpf)

► Specifications

Dual-Flush, Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:

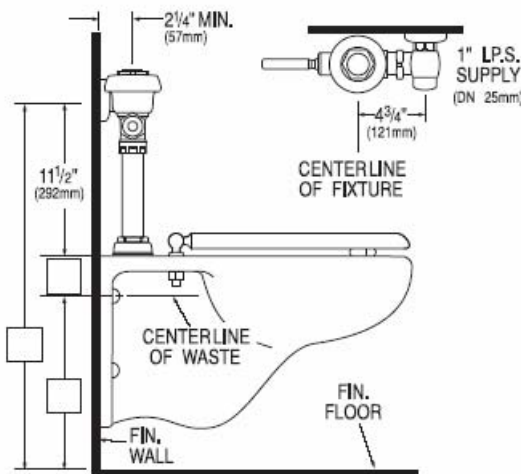
- Lifting Handle UP initiates reduced flush (1.1 gpf/4.2 Lpf), eliminating liquid and paper waste, saving a ½-gallon of water
- Pushing Handle DOWN initiates full flush (1.6 gpf/6.0 Lpf), eliminating solid waste and paper
- Reduces water volume by up to 30% when activated UPWARDS
- Antimicrobial Coating on Handle protects against germs
- PERMEX™ Synthetic Rubber Diaphragm w/Dual Filtered Fixed Bypass
- Distinctive Green ADA Compliant Metal Non-Hold-Open Handle with Triple Seal Handle Packing signifies Water Conserving Device
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Free Spinning Vandal Resistant Stop Cap
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
- Spud Coupling and Flange for 1½" Top Spud
- Sweat Solder Adapter w/Cover Tube and Cast Set Screw Wall Flange
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Non-Hold-Open Handle, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Flush Accuracy Controlled by CID™ Technology
- Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker molded from PERMEX™ Rubber Compound for Chloramine Resistance
- Includes (2) adhesive backed Metal Wall Plates etched w/Instructions

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME A112.19.2 and Military Specification V-29193.

► Variations

- TP Trap Primer
- YG Extended Bumper on Angle Stop (for seat with cover)
- YO Bumper on Angle Stop (for open front seat without cover)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Patent Pending

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN®

Made in the U.S.A.
SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL. 60131
Ph: 1-800-9-VALVE-9 or 1-847-671-4300 • Fax: 1-800-447-8329 or 1-847-671-4380
www.sloanvalve.com

WES-111 Dual-Flush Flushometer S.S. — Rev. 0b (10/05)
Copyright © 2005 SLOAN VALVE COMPANY Printed in the U.S.A.

WC-16

DESCRIPTION: ACCESSIBLE WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, FULLY GLAZED TRAPWAY, 1-1/2" TOP SPUD, WITH EXTRA-HEAVY DUTY (500 LB.) CLOSET SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT AT 17" TO 19" ABOVE FINISHED FLOOR.

MANUFACTURER & CATALOG NO.: AMER. STAND. 2257.103, CRANE 3-446, KOHLER K-4330, ELJER 111-2105, GERBER 25-030, TOTO CT708, ZURN Z5610

[Choose seat type]

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 1655C, CHURCH 9500C, BENEKE 533, KOHLER K-4666-C, OLSONITE 95

WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC [SELF-SUSTAINING] SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95

DUAL FUNCTION FLUSH VALVE - EXPOSED, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES, 1.6 GALLONS PER FLUSH WHEN HANDLE IS PUSHED DOWN AND 1.1 GALLONS PER FLUSH WHEN HANDLE IS PUSHED UP. 3 YEAR WARRANTY.

FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND SHALL BE 12" MAXIMUM ABOVE BOWL RIM AND OPERATE WITH NO GREATER THAN 5 LB FORCE, IN COMPLIANCE WITH ADA SECTION 4.16.5 AND 4.27.4. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN WES-111

Notes to Specifier:

1. This water closet is for low flush applications - it uses a flush valve handle that can be pushed down for a 1.6 gallon flush or it can be pushed up for a 1.1 gallon flush.
2. Valve is provided with a green handle and water droplets engraved on valve (one droplet up, two droplets on down). A sign is provided with the valve that can be installed indicating how to use valve.
3. Discuss location with architect & owner - may only save water in womens toilet rooms.
4. Currently Sloan is the only manufacturer with this capability.

American Standard

 **BARRIER FREE**

AFWALL™ ELONGATED FLUSH VALVE TOILET

VITREOUS CHINA

AFWALL™ ELONGATED TOILET

- Vitreous china
- Low-consumption (6.0 Lpf/1.6 gpf)
- Wall-mounted elongated bowl
- Fully glazed trapway
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- 2" ballpass trapway
- 10" x 12" water surface area
- 100% factory flush tested

- 2257.103** Top spud
- 2256.194** Top spud with slotted rim for bedpan holding (White only)
- 2258.125** Back spud
- 2254.127** Back spud with slotted rim for bedpan holding (White only)

Recommended working pressure--between 30 psi at valve when flushing and 80 psi static

Nominal Dimensions:
635 x 375 x 381mm (25" x 14-3/4" x 15")

Fixture only, less seat and bolt caps

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2M (and 19.6M) for Vitreous China Fixtures - includes Flush Performance, Ball Pass Diameter, Trap Seal Depth and all Dimensions

To Be Specified

- Color: White Bone Silver Shell
 Black
- Seat: Olsonite #95 open front seat less cover
- Seat: Church #9500C open front seat less cover
- Alternate Seat:
- Flush Valve: Sloan Royal #111 (Top Spud)
Sloan Royal #144-1.5 (Back Spud)
- Alternate Flush Valve:
- Carrier Fitting (by others):



NOTE: Roughing-in information shown on reverse side of page



● When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.
MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USEABLE BUILDING FACILITIES- CHECK LOCAL CODES.

SPS 2254/2256/2257/2258

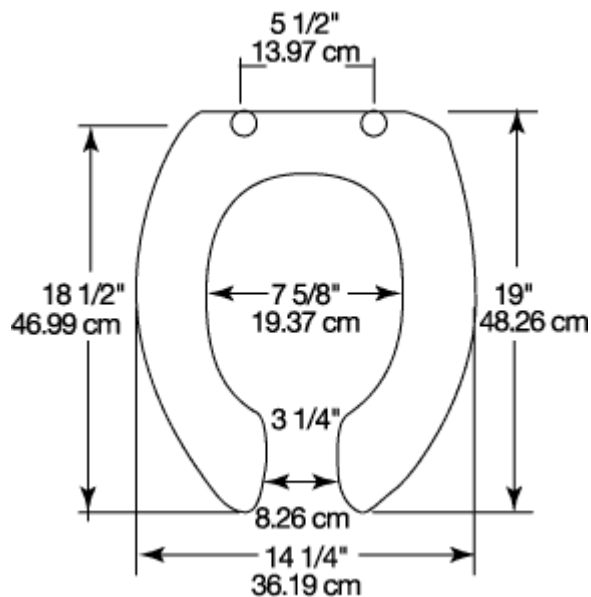
Revised 6/95

© 1998 American Standard Inc.

COM/INS-001

1655C

Commercial Plastic Toilet Seat



Elongated Seat, Open Front Less Cover

Seats shall be No. 1655C as manufactured by Bemis Seats. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical.

Color to be _____.

(Specify white or black.)

Hinges shall

be _____.

1655C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

1655SSC Open front seat less cover Stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

- Extra heavy weight solid plastic construction
- Resistant to chemicals and cleaners
- Scratch and stain resistant
- Easy to clean
- External check hinge
- [Self-sustaining](#) and external check hinge

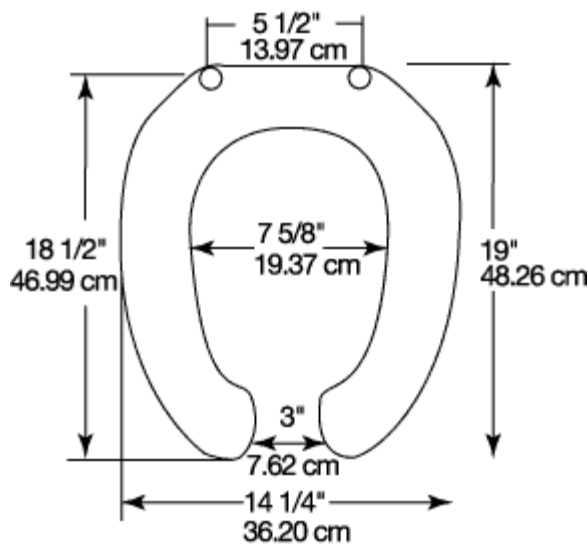
Specifications:

Ring thickness is 1"

Ring thickness,
including bumper is 1-3/16"

Height of the seat 2-5/8"

3155C Commercial Plastic Toilet Seat



Elongated Seat, Open Front, Less Cover

Seats shall be No.

_____ as

manufactured by Bemis Seats. Seats shall contain [DuraGuard®](#), an antimicrobial agent. Seats shall be extra heavy weight and injection molded of solid plastic. Seats shall be open front less cover for elongated bowl and feature large molded-in bumpers. External check hinges to feature stainless steel posts that stop seat 11 degrees beyond vertical. Color to be white. Hinges shall be: _____

3155C Open front seat less cover External check hinge stops seat 11 degrees beyond vertical.

3155SSC Open front seat less cover stainless steel, [self-sustaining](#) and external check hinge holds seat in any raised position up to 11 degrees beyond vertical.

Seat Features:

Solid plastic construction
External check hinges
[DuraGuard®](#) antimicrobial agent
Self sustaining and external check hinges

Specifications:

Ring thickness is 1"

Ring thickness,
including bumper is 1-3/16"

Height of the seat 2-5/16"

NEW

UPPERCUT™

The Fastest Way to Start Saving Water!



Dual-Flush Flushometer

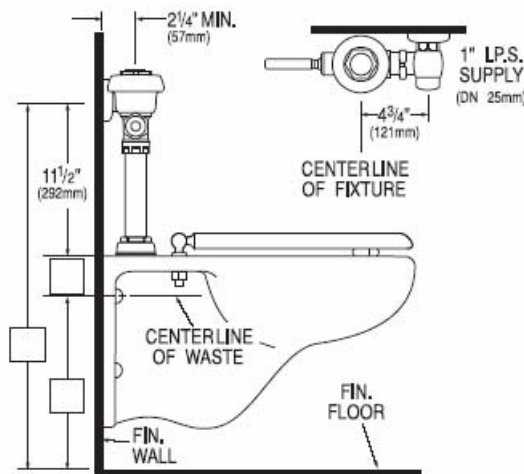
WES-111

- ▶ **Description**
Exposed Water Closet Flushometer with Dual-Flush Feature, for floor mounted or wall hung top spud bowls.
- ▶ **Flush Cycle**
 Model WES-111 Low Consumption
(Down 1.6 gpf/6.0 Lpf, Up 1.1 gpf/4.2 Lpf)
- ▶ **Specifications**
Dual-Flush, Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer with the following features:
 - Lifting Handle UP initiates reduced flush (1.1 gpf/4.2 Lpf), eliminating liquid and paper waste, saving a ½-gallon of water
 - Pushing Handle DOWN initiates full flush (1.6 gpf/6.0 Lpf), eliminating solid waste and paper
 - Reduces water volume by up to 30% when activated UPWARDS
 - Antimicrobial Coating on Handle protects against germs
 - PERMEX™ Synthetic Rubber Diaphragm w/Dual Filtered Fixed Bypass
 - Distinctive Green ADA Compliant Metal Non-Hold-Open Handle with Triple Seal Handle Packing signifies Water Conserving Device
 - 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
 - Free Spinning Vandal Resistant Stop Cap
 - Adjustable Tailpiece
 - High Back Pressure Vacuum Breaker Flush Connection with One-piece Bottom Hex Coupling Nut
 - Spud Coupling and Flange for 1½" Top Spud
 - Sweat Solder Adapter w/Cover Tube and Cast Set Screw Wall Flange
 - High Copper, Low Zinc Brass Castings for Dezincification Resistance
 - Non-Hold-Open Handle, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
 - Flush Accuracy Controlled by CID™ Technology
 - Diaphragm, Handle Packing, Stop Seat and Vacuum Breaker molded from PERMEX™ Rubber Compound for Chloramine Resistance
 - Includes (2) adhesive backed Metal Wall Plates etched w/Instructions

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037, ANSI/ASME A112.19.2 and Military Specification V-29193.

- ▶ **Variations**
 - TP** Trap Primer
 - YG** Extended Bumper on Angle Stop (for seat with cover)
 - YO** Bumper on Angle Stop (for open front seat without cover)

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



Patent Pending

This space for Architect/Engineer approval

The information contained in this document is subject to change without notice.

SLOAN

Made in the U.S.A.
SLOAN VALVE COMPANY • 10500 SEYMOUR AVE. • FRANKLIN PARK, IL. 60131
Ph: 1-800-9-VALVE-9 or 1-847-671-4300 • Fax: 1-800-447-8329 or 1-847-671-4380
www.sloanvalve.com

WES-111 Dual-Flush Flushometer S.S. — Rev. 0b (10/05)
Copyright © 2005 SLOAN VALVE COMPANY Printed in the U.S.A.

WCO

DESCRIPTION: WALL CLEANOUTS SHALL HAVE CAST IRON ACCESS BODY, GAS AND WATERTIGHT THREADED PLUG, ROUND STAINLESS STEEL ACCESS COVER AND EXTENDED MACHINE SCREW.

MANUFACTURER & CATALOG NO.: ZURN Z-1441, SMITH 4422, WADE W-8480-R/ 8550, JOSAM 58710, WATTS CO-380-RD

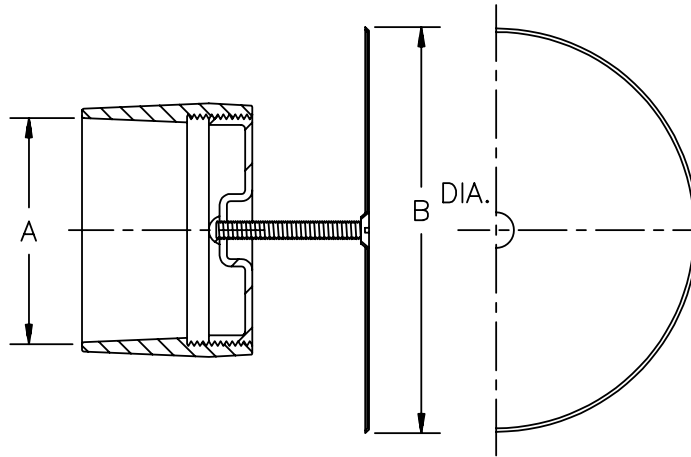


Z-1441
WALL CLEANOUT WITH
SMOOTH ACCESS COVER

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Dimensions In Inches		Approx. Wt. Lbs. [kg]
A-Pipe Size	B	
2 [50]	5 [127]	4 [2]
3 [75]	5 [127]	5 [2]
4 [100]	7 [178]	7 [3]
5 [125]	7 [178]	8 [4]
6 [150]	9 [229]	9 [4]
8 [200]	11 [279]	12 [5]

ENGINEERING SPECIFICATION: ZURN Z-1441 Wall Cleanout, Dura-Coated cast iron body, gas and watertight ABS tapered thread plug, and round, smooth stainless steel access cover with securing screw.

OPTIONS (Check/specify appropriate options)

PIPE SIZE (Specify size/type) **OUTLET**
3 thru 6, 8 [75 thru 150, 200] _____ NH No-Hub

PREFIXES
____ Z- D.C.C.I. Body with Stainless Steel Cover*
____ ZB- D.C.C.I. with Polished Bronze Cover

SUFFIXES
____ -A Raised Head Plug
____ -BP Bronze Plug
____ -G Galvanized Cast Iron
____ -VP Vandal Proof Secured Top

REV. B	DATE: 3/5/97	C.N. NO. 77573
DWG. NO. 58763	PRODUCT NO. Z-1441	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

WF-1

DESCRIPTION: WASH FOUNTAIN - 36" SEMI-CIRCULAR, 14 GAUGE STAINLESS STEEL WITH #4 FINISH, 3 USER, SLOW CLOSING FOOT VALVE AND VOLUME CONTROL, BACKSPLASH PLATE, INTEGRAL SOAP DISPENSER. SUPPLY, WASTE AND VENT THRU WALL. THERMOSTATIC MIXING VALVE WITH CHECK STOPS AND STRAINERS IN ENCLOSED PANEL.

MANUFACTURER & CATALOG NO.: BRADLEY 2703F-TMV, ACORN 3460

Notes to specifier:

1. Verify size and finish required.
2. Unit requires 1" HW and CW.
3. If using tempered water, delete mixing valve.

PLUMBING FIXTURES TECHNICAL DATA

Classic Washfountains

Semi-Circular Washfountain with 9" Deep Bowl

- Available in a 54" or 36" Bowl Size
- Foot Control or Infrared Operation
- Available in Bradstone™, Terrazzo™, or Stainless Steel Bowls

Specifications

Size and Capacity: Accommodates 3 users (36" models) or 4 users (54" models) at a time, using less water, energy, and space than lavs equipped with conventional faucets. The nonsectional sprayhead module is controlled by a mechanically actuated hold-open valve (foot control models) or by an infrared sensor-actuated solenoid valve. Flow rate at 1.25 GPM (36" models) or 3 GPM (54" models) when properly adjusted. Operating range is 20–100 PSI.

Bowl Materials: Bowls for Classic washfountains are available in Bradstone, terrazzo, or stainless steel.

Molded Bradstone: Composed of reinforced thermosetting polyester resins, finely ground inorganic fillers, and fade-resistant pigments. Bradstone bowls are 85% lighter than precast bowls, yet comparable on a strength-to-weight basis. Bradstone is highly resistant to acid, abrasions, and corrosion; and will not chip, peel, or flake. The bowl has a uniform thickness of 1/4". The underside is structurally reinforced by equally spaced radial ribs 1/4" W X 3/4" H.

Precast Terrazzo: Composed of approximately 85% stone and 15% binder with steel reinforcing rods cast into the bowl. Polished and sealed with urethane resin.

Stainless Steel: One-piece pressing of 14 gauge stainless steel polished to a #4 finish.

Pedestals: Constructed of die-formed legs, upper braces, scuff bases, and panels; legs are 14 gauge galvanized steel; upper braces are heavy gauge steel coated with a rust preventative; and scuff bases are stainless steel with a #4 finish. Pedestal panels are specific to washfountain type as follows: Bradstone washfountains have tapered, vacuum-formed ABS panels; terrazzo washfountains have straight, galvanized, vinyl-clad steel panels; and stainless steel washfountains have straight, type 304 stainless steel panels polished to a #4 finish.

Standard Equipment

Valves and Fittings: In addition to bowl and pedestal, the following valves and fittings are standard: sprayhead with stainless steel support tube and bowl gasket; spud with locknut and beehive strainer; sprayhead supply pipe; manual mixing valve; volume control valve; and combination stop strainer and check valves.

Activation Controls

Specify either a foot control valve or infrared activation as a standard selection (see the **Standard Selections** table on page W-C/12).

Foot Control Valve: Each press of the foot rail mechanically actuates a hold-open valve, with slow closing upon release of foot pressure.

Document No. 2050

This information is subject to change without formal notice.
1198RSSAW (6 Pages Total)

Bradstone Model 2804: 54" model with foot control and optional metal-clad soap dispenser.



Stainless Steel Model 2703: 36" model shown with Infrared control and optional metal-clad soap dispenser.

Precast Terrazzo Model 2604: 54" model shown with foot control and optional metal-clad soap dispenser.



Activation Controls (continued)

Infrared Control: Hands placed within the washfountain bowl are detected by an infrared sensor module which activates a flow of tempered water from the non-sectional sprayhead. Shut-off is automatic after hands are removed from the detection area.

The sensor module uses two zone-focused infrared transmitting beams—each creating a detection area not exceeding the bowl perimeter. The detection range projects 6–9 inches forward at a 30° angle to each side, and reaches 15° below horizontal. The infrared sensor is not affected by varying color tones or darkness. Direct sunlight or bright washroom lights (up to 10,000 ft. candles) will not activate the system. Models also include a solenoid and low voltage transformer as standard equipment:

- **Solenoid**—24V, 50/60 Hz, 3/8" NPT. Few moving parts, and resistant to most chemicals and minerals in municipal water.
- **Low Voltage Transformer**—Class II, 110/24 VAC plug-in transformer. Location of transformer per local electrical code.



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
<http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

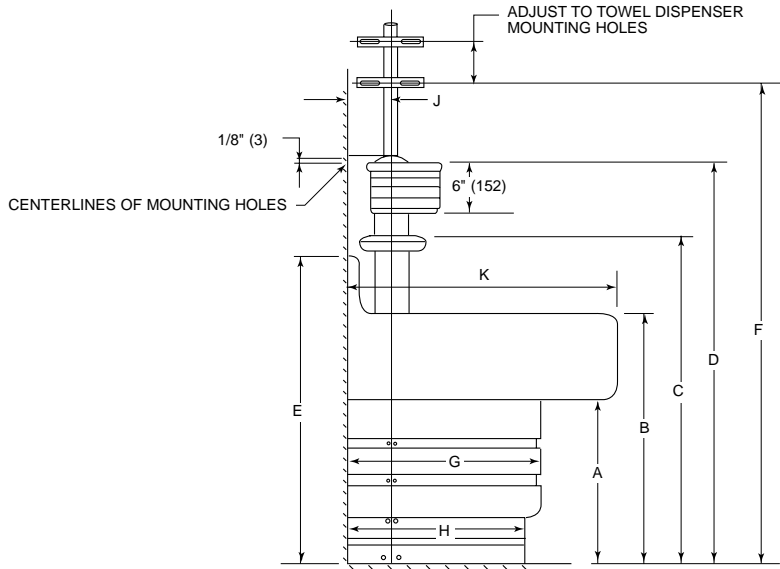
WE2050.1

Classic Washfountains

Semi-Circular w/9" Deep Bowl

PLUMBING FIXTURES TECHNICAL DATA

Foot Controlled Semi-Circular Washfountain Dimensions



DIMENSIONS IN INCHES*

Material	Size	A	B	C	D	E	F	G	H	J	K
Precast	54"	19	29-1/4	39-1/8	47-5/8	36-1/4	56	23-1/4	21-1/2	5-1/4	32-1/4
Stainless	54"	19	28	37-3/8	45-7/8	36-1/4†	54-1/4	26-1/4	24-1/4	8-1/4	35-1/4
Bradstone	54"	19-3/4	29-1/4	37-1/2	46	35-1/4	54-3/8	26-1/4	24-1/4	8-1/4	35-1/4
Precast	36"	19	29-1/4	35-5/8	44-1/8	33-1/4	52-1/2	17-1/4	15-1/4	4-3/4	22-3/4
Stainless	36"	19	28	33-7/8	42-3/8	33†	50-3/4	20-1/4	18-1/4	7-3/4	25-3/4
Bradstone	36"	19-3/4	29-1/4	34	42-1/2	35-1/4	50-7/8	20-1/4	18-1/4	7-3/4	25-3/4

*Juvenile Height: Subtract 4" from dimensions A through F for juvenile height.

†Backsplash (stainless steel models only): Only when backsplash is specified; otherwise, dimension B applies.

DIMENSIONS IN MILLIMETERS**

Material	Size	A	B	C	D	E	F	G	H	J	K
Precast	1372	483	743	994	1210	921	1422	591	546	133	819
Stainless	1372	483	711	949	1165	921†	1378	667	616	210	895
Bradstone	1372	502	743	953	1168	895	1381	667	616	210	895
Precast	914	483	743	905	1112	845	1334	438	378	121	578
Stainless	914	483	711	860	1076	838†	1289	514	464	197	654
Bradstone	914	502	743	864	1080	895	1292	514	464	197	654

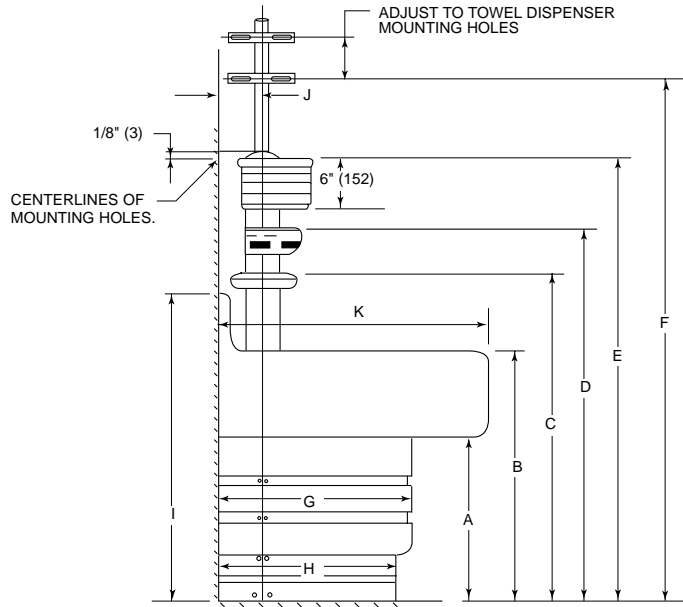
**Juvenile Height: Subtract 102mm from dimensions A through F for juvenile height.

†Backsplash (stainless steel models only): Only when backsplash is specified; otherwise, dimension B applies.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2050.2

Infrared Controlled Semi-Circular Washfountain Dimensions



DIMENSIONS IN INCHES*

Material	Size	A	B	C	D	E	F	G	H	I	J	K
Precast	54"	19	29-1/4	39-1/8	42-5/8	51-1/8	59-1/2	23-1/4	21-1/2	36-1/4	5-1/4	32-1/4
Stainless	54"	19	29	37-3/8	40-7/8	49-3/8	57-3/4	26-1/4	24-1/4	34-3/8†	8-1/4	35-1/4
Bradstone	54"	19-3/4	29-1/4	37-1/2	41	49-1/2	57-7/8	26-1/4	24-1/4	35-1/4	8-1/4	35-1/4
Precast	36"	19	29-1/4	35-5/8	39-1/8	47-5/8	56	17-1/4	15-1/4	33-1/4	4-3/4	22-3/4
Stainless	36"	19	28	33-7/8	37-3/8	45-7/8	54-1/4	20-1/4	18-1/4	33†	7-3/4	25-3/4
Bradstone	36"	19-3/4	29-1/4	34	37-1/2	46	54-3/8	20-1/4	18-1/4	35-1/4	7-3/4	25-3/4

*Juvenile Height: Subtract 4" from dimensions A through E, and dimension I for juvenile height.

†Backsplash (stainless steel models only): Only when backsplash is specified; otherwise, dimension B applies.

DIMENSIONS IN MILLIMETERS**

Material	Size	A	B	C	D	E	F	G	H	I	J	K
Precast	1372	483	743	994	1083	1299	1511	591	546	921	133	819
Stainless	1372	483	711	949	994	1254	1467	667	616	873†	210	895
Bradstone	1372	502	743	953	1041	1257	1470	667	616	895	210	895
Precast	914	483	743	905	994	1210	1422	438	378	845	121	578
Stainless	914	483	711	860	949	1165	1378	514	464	838†	197	654
Bradstone	914	502	743	864	953	1168	1381	514	464	895	197	654

**Juvenile Height: Subtract 102mm from dimensions A through E, and dimension I for juvenile height.

†Backsplash (stainless steel models only): Only when backsplash is specified; otherwise, dimension B applies.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2050.3

Classic Washfountains

Semi-Circular w/9" Deep Bowl

PLUMBING FIXTURES
TECHNICAL DATA

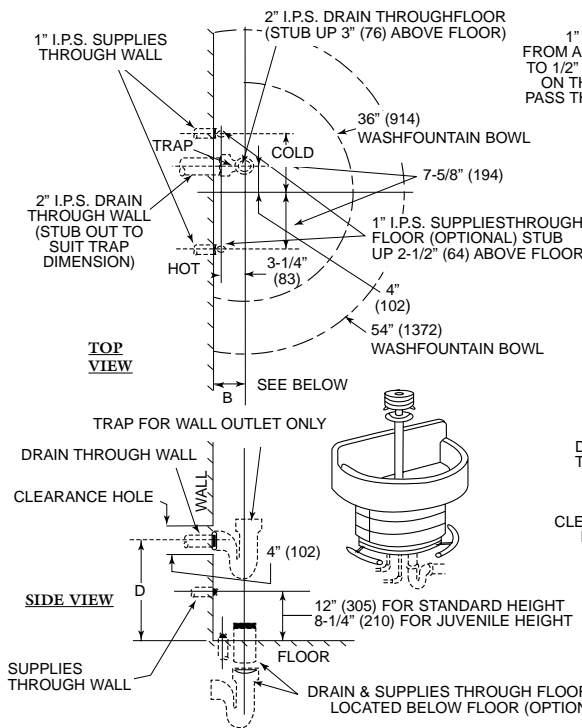
Semi-Circular Washfountain Rough-In Dimensions

Rough-In Notes:

1. All pipes and fittings not furnished by Bradley are shown in broken lines.
2. Supply lines for one to two washfountains should be 1"; for three washfountains 1-1/4"; for more than three washfountains, pipe sizes should be increased proportionately.
3. Overhead supplies must be reduced to 1/2" copper tube to pass through support tube.
4. Check valve inlets are 1/2" IPS.
5. Dimensions shown in parentheses are millimeters.
6. See reverse side for anchoring pedestal to wall and floor.

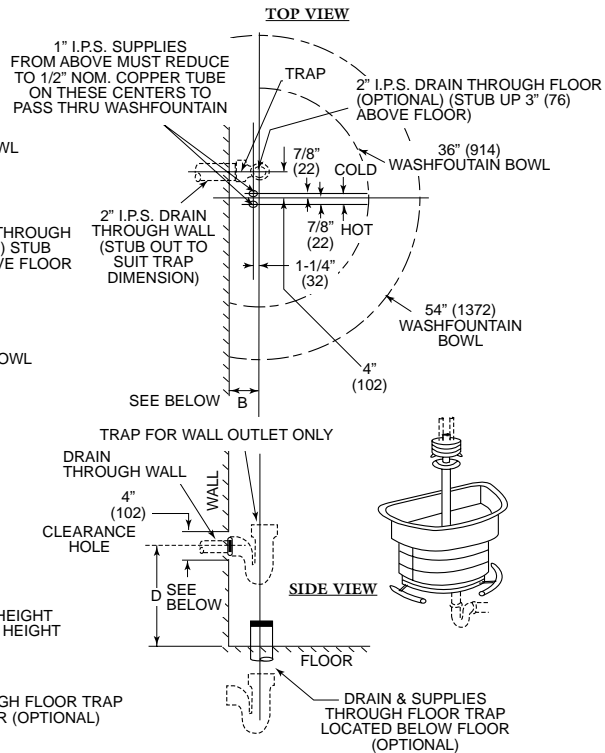
Type A

Off-line vent with supplies from below.



Type O

Off-line vent with supplies from above.



Installing Traps

When installing trap with a coupling and nipple, see dimension D in the charts below. If trap is installed tight to bottom of bowl, dimension D depends on design of trap.

36" (914MM) BOWL				54" (1372MM) BOWL			
Material	B	D (standard ht.)	D (juvenile ht.)	Material	B	D (standard ht.)	D (juvenile ht.)
Terrazzo	4-3/4" (121mm)	6"-13-1/4" (152-337mm)	6"-10-1/4" (152-260mm)	Terrazzo	5-1/4" (133mm)	6"-13-1/4" (152-337mm)	6"-10-1/4" (152-260mm)
Stainless/Bradstone	7-3/4" (197mm)	6"-12" (152-305mm)	6"-9" (152-229mm)	Stainless/Bradstone	8-1/4" (210mm)	6"-11-5/8" (152-295mm)	6"-8-5/8" (152-219mm)

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2050.4

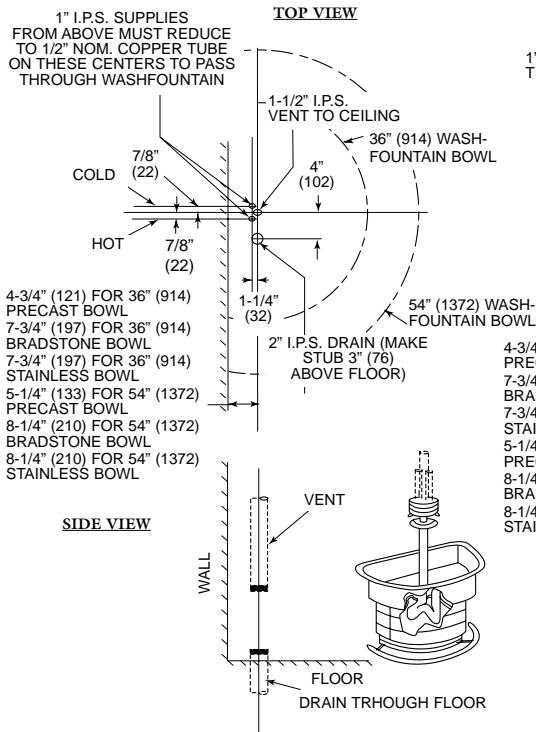
Semi-Circular Washfountain Rough-In Dimensions (continued)

Rough-In Notes:

1. All pipes and fittings not furnished by Bradley are shown in broken lines.
2. Supply lines for one to two washfountains should be 1"; for three washfountains 1-1/4"; for more than three washfountains, pipe sizes should be increased proportionately.
3. Overhead supplies must be reduced to 1/2" copper tube to pass through support tube.
4. Check valve inlets are 1/2" IPS.
5. Dimensions shown in parentheses are millimeters.
6. For maximum rigidity of sprayhead/support tube assembly, use 1-1/2" IPS galvanized pipe for vent. Use of plastic or copper for vent is not recommended.

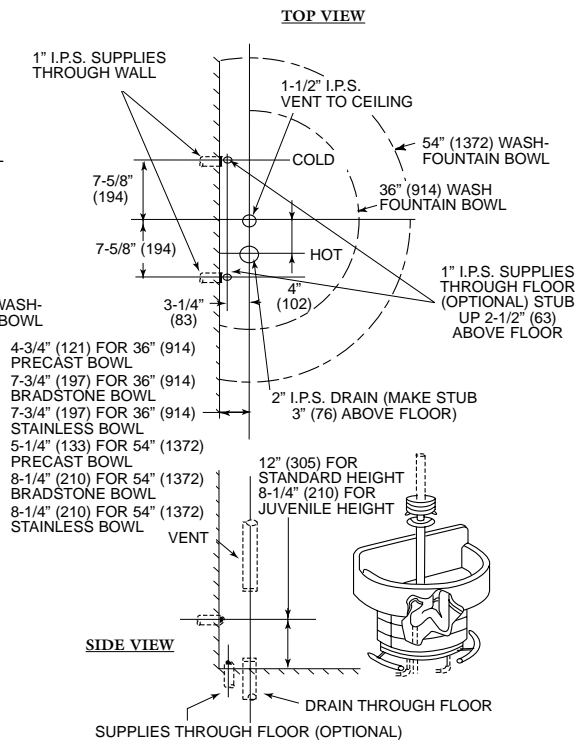
Type B

Centrally rising vent with supplies from above.



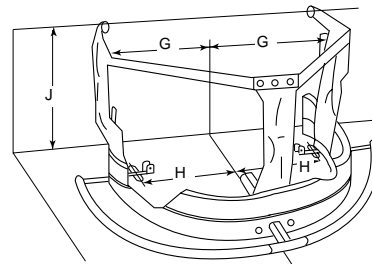
Type H

Centrally rising vent with supplies from below.



PEDESTAL ANCHORING DIMENSIONS

Bowl Size	Standard Height			Juvenile Height		
	G	H	J	G	H	J
36" (914mm)	11" (279mm)	8-5/8" (219mm)	18-1/4" (464mm)	11" (279mm)	8-5/8" (219mm)	14-1/4" (362mm)
54" (1372mm)	11" (279mm)	8-5/8" (219mm)	18-1/4" (464mm)	11" (279mm)	8-5/8" (219mm)	14-1/4" (362mm)



Anchoring Pedestals

1. Place pedestal assembly as shown.
2. Anchor pedestal assembly to floor and wall with suitable wall fasteners. Backing may be required in some types of wall construction.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2050.5

Classic Washfountains

Semi-Circular Washfountain with 9" Deep Bowl

Sample Specification

Classic washfountain shall be Bradley model No. 2603/A/standard height/foot control valve/NSD/white marmorite. Semi-circular 36" Terrazzo washfountain to have 9" deep bowl and accommodate up to 3 users. To include bowl, pedestal, fittings, and the following standard selections: drain type (A) for off-line vent with supplies from below; (foot control valve) foot control operation; (standard height) pedestal height of 19"; (NSD) no soap dispenser; and standard (white Marmorite) bowl color.

MODELS <small>Must select one</small>			
Model No.	Size	Users	Material
<input type="checkbox"/> 2603	36"	3	Terrazzo
<input type="checkbox"/> 2703	36"	3	Stainless Steel
<input type="checkbox"/> 2803*	36"	3	Bradstone
<input type="checkbox"/> 2604	54"	4	Terrazzo
<input type="checkbox"/> 2704	54"	4	Stainless Steel
<input type="checkbox"/> 2804*	54"	4	Bradstone

*Note: Bradstone Washfountains (Models 2803 and 2804) not available in juvenile height.

STANDARD SELECTIONS <small>Must select one from each category</small>	
Drain Type (select one):	
<input type="checkbox"/> A	Off-line vent with supplies from below
<input type="checkbox"/> B	Centrally rising vent with supplies from above
<input type="checkbox"/> H	Centrally rising vent with supplies from below
<input type="checkbox"/> O	Off-line vent with supplies from above
Pedestal Height (select one):	
<input type="checkbox"/> Standard Height	
<input type="checkbox"/> Juvenile Height (not available on Bradstone)	
Valve (select one):	
<input type="checkbox"/> Foot Control Valve	
<input type="checkbox"/> Infrared	
Soap Dispenser (select one):	
<input type="checkbox"/> PSD	Powdered Soap Dispenser
<input type="checkbox"/> LSD	Liquid Soap Dispenser
<input type="checkbox"/> NSD	No Soap Dispenser

STANDARD SELECTIONS (continued) <small>Must select one from category</small>	
Bowl Color (select one):	
<input type="checkbox"/>	Terrazzo—Granito*
<input type="checkbox"/>	Terrazzo—White Marmorite*
<input type="checkbox"/>	Terrazzo—Dusty Rose**
<input type="checkbox"/>	Terrazzo—Whisper Gray**
<input type="checkbox"/>	Bradstone—Driftwood Beige*
<input type="checkbox"/>	Bradstone—White Marble*
*Standard color.	
**Premium color available at additional charge.	

OPTIONAL SELECTIONS	
Thermostatic Mixing Valve:	
<input type="checkbox"/> TMV	Thermostatic Mixing Valve (in lieu of manual mixing valve)
Metal Soap Dispensers:	
<input type="checkbox"/> MLSD	Metal-Clad Liquid Soap Dispenser
<input type="checkbox"/> MPSD	Metal-Clad Powdered Soap Dispenser
Pedestal:	
<input type="checkbox"/> SSP	Stainless Steel Pedestal (Terrazzo only: standard on stainless steel models)
Stainless Steel Shroud:	
<input type="checkbox"/> SH	Conceals Overhead Piping
1-1/2" Tie Pipe Assembly:	
<input type="checkbox"/> TA	Reinforces support tube (unvented washfountains)
Cube Adapter:	
<input type="checkbox"/> SA	For Individual Soap Dispensers (dispenser sold separately)
Backsplash:	
<input type="checkbox"/> BS	For Stainless Steel Washfountains (standard on Bradstone and Terrazzo)
Paper Towel Dispensers:	
<input type="checkbox"/> CTD (2)	C-Fold, Multi-fold Dispenser
<input type="checkbox"/> STD (2)	Single-fold Dispenser

Document No. 2050

This information is subject to change without formal notice.
1198RSSAW (6 Pages Total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
<http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

WF2050.6

WF-2

DESCRIPTION: WASH FOUNTAIN - 54" SEMI-CIRCULAR, 14 GAUGE TYPE 304 STAINLESS STEEL WITH #3 FINISH, 4 USERS, SENSOR ACTIVATED VANDAL RESISTANT CONTROLS. UL APPROVED TRANSFORMER 120 VAC TO 24 VDC AND THERMOSTATIC MIXING VALVE WITH CHECK STOPS, STRAINERS AND VOLUME CONTROL ENCLOSED IN ACCESSIBLE PANEL. ALL VALVING AND COMPONENTS COMPLETELY CONTAINED WITHIN STAINLESS STEEL HOUSING. OFF-FLOOR MOUNTING. FOR HANDICAPPED USE, 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19.

MANUFACTURER & CATALOG NO.: BRADLEY 2024AZ, ACORN 3540 SERIES

Notes to specifier:

1. Verify size and finish required.
2. Unit requires 1" HW and CW.
3. If using tempered water, delete mixing valve.
4. Unit meets handicapped requirements.
5. Coordinate electrical requirements with Electrical Engineer.

PLUMBING FIXTURES TECHNICAL DATA

Sentry™ Washfountains Semi-Circular Shallow Bowl Washfountain

- Reliable Pushbutton Activated Air Metering or Infrared Control
- Available in a 54" or 36" Bowl Size—Wall Mounted or Floor Mounted
- Standard Height Model with Hand or Infrared Control is ADA Compliant
- Factory Tested and **Shipped Preassembled**
- Vandal Resistant and Easy to Clean

Specifications

Size and Capacity: Accommodates 3 users (36" models) or 4 users (54" models) at a time, using less water, energy, and space than lavs equipped with conventional faucets. The sectional sprayhead module (nonsectional is optional) is controlled by a pushbutton which actuates an air valve (hand or foot control models), or an infrared sensor-actuated solenoid valve. Flow restrictor keeps flow rate constant at 0.5 GPM per station for all pressures. Operating range is 20-100 PSI.

Bowl and Pedestal: All exposed materials are type 304 stainless steel polished to a #4 finish. Bowl, pedestal and access panels, frame, foot control housing; support tube; and sprayhead are heavy gauge stainless steel. Exposed fittings are chrome plated.

Vandal Resistance: Bowl, backsplash, and support tube are an integrally welded assembly with the support tube welded to extruded flange from bowl. Sprayhead nozzles and pushbuttons/infrared sensors are secured to unit from inside the sprayhead module. Air valves/solenoid valves are safely concealed inside the washfountain. Access panels are removable only with a hex key. All supply and waste connections are concealed within the pedestal.

Barrier-Free (ADA compliant)

Standard Height Models Only: Wall-mounted models (when mounted at standard height) and standard height floor-mounted models with hand or infrared control are designed to comply with all ADA guidelines on reaches, clearances, and operation.

Standard Equipment

Valves and Fittings: In addition to the bowl and pedestal, the following valves and fittings are standard: manual mixing valve, check stops, and strainers. Check valves are 1/2" NPT female.

Activation Controls

Air Valve Hand Control: Each pushbutton pneumatically actuates a non-hold-open air single temperature valve with field adjustable timing from 0-60 seconds. Factory set at 10 seconds minimum for ADA. Each pushbutton actuates one valve which in turn activates one station (sprayhead nozzle).

Air Valve Foot Control: Each pushbutton pneumatically actuates a hold-open air single temperature valve with slow closing upon release of foot pressure.



Model 2004AZ: 54" model with Infrared control.

Model 2004: 54" model with hand control.

Model 2004F: 54" model with foot control.

Activation Controls (continued)

Infrared Control: Each of the spray nozzles is controlled by a separate solenoid valve. Hands placed within the washfountain bowl are detected by an infrared sensor module which activates a flow of tempered water from one spray nozzle. Shut-off is automatic after hands are removed from the detection area.

The infrared sensor module uses two zone-focused infrared transmitting beams—each creating a detection area not exceeding the bowl perimeter. The detection range projects 6-9 inches forward at a 30° angle to each side, and reaches 15° below horizontal. The infrared sensor is not affected by varying color tones or darkness. Direct sunlight or bright wash-room lights (up to 10,000 ft. candles) will not activate the system. Infrared models also include solenoid valves and a low voltage transformer as standard equipment:

- **Solenoids**—24V, 50/60 Hz, 1/8" NPT. Few moving parts, and resistant to most chemicals and minerals in municipal water.
- **Low Voltage Transformer**—Class II, 110/24 VAC transformer with integral universal motor. Location and junction box (by others) per local electrical code.




P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
<http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

Document No. 2100

This information is subject to change without formal notice.
1298RSSAW (8 Pages Total)

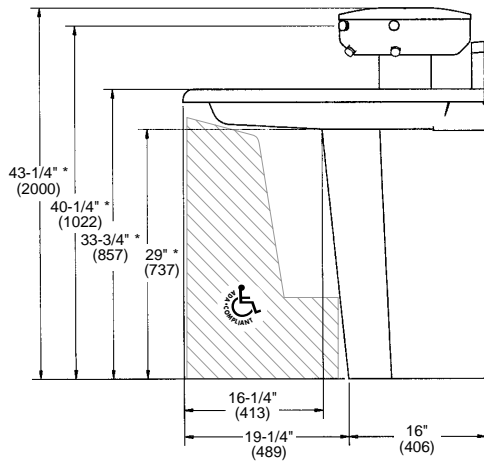
WF2100.1

Sentry 54" Floor-Mounted Semi-Circular Washfountain Dimensions

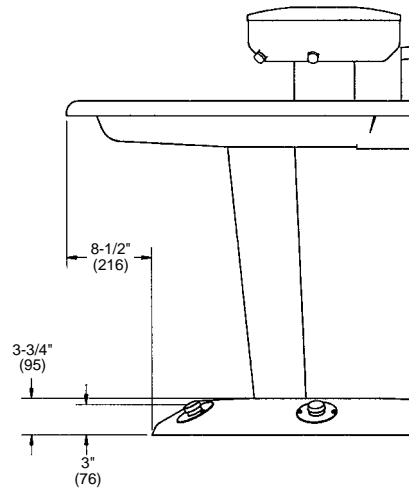
 **ADA Compliant:** Standard height 54" models with Infrared or hand control are ADA compliant.

Dimensions in parentheses are millimeters.

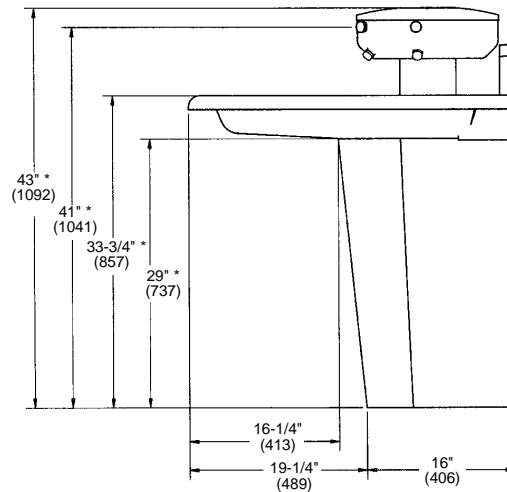
54" Semi-Circular with Infrared Control



54" Semi-Circular with Foot Control



54" Semi-Circular with Hand Control



***Juvenile Height:** Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.2

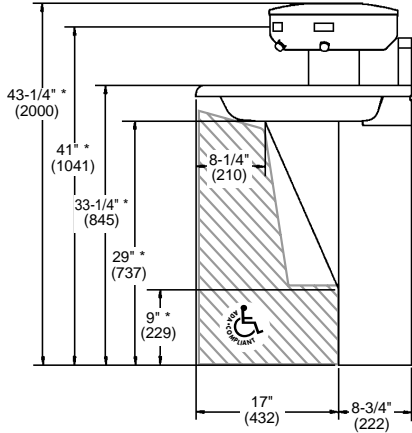
Sentry 36" Floor-Mounted Semi-Circular Washfountain Dimensions



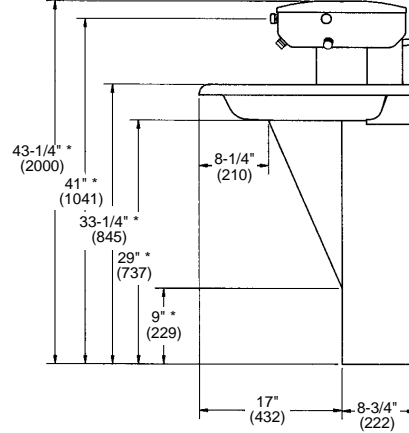
ADA Compliant: Standard height 36" models with Infrared or hand control are ADA compliant.

Dimensions in parentheses are millimeters.

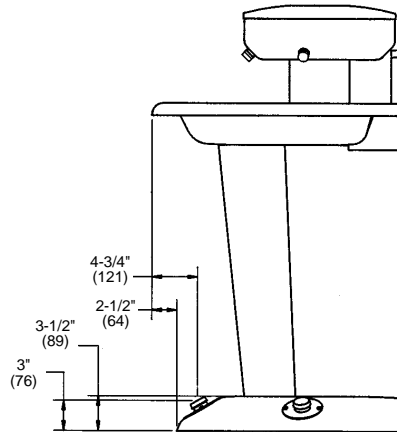
36" Semi-Circular with Infrared Control



36" Semi-Circular with Hand Control



36" Semi-Circular with Foot Control



*Juvenile Height: Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.3

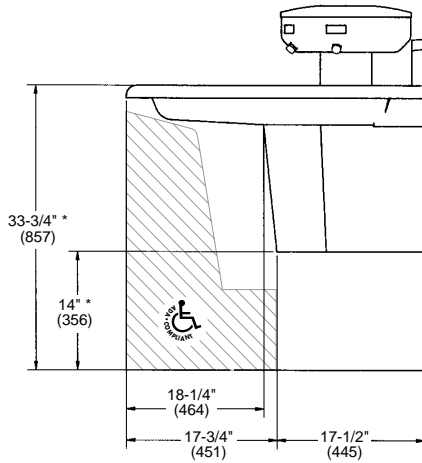
Sentry 54" and 36" Wall-Mounted Semi-Circular Washfountain Dimensions



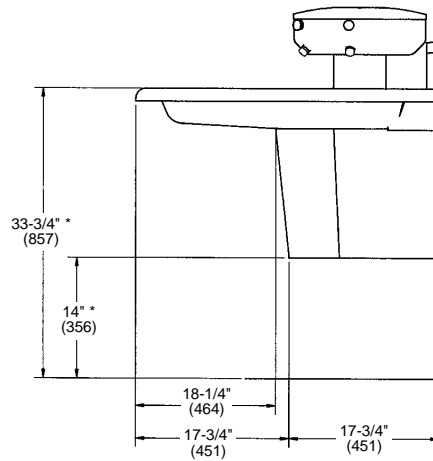
ADA Compliant: Wall-mounted 54" and 36" models with Infrared or hand control are ADA compliant when mounted at standard height dimensions.

Dimensions in parentheses are millimeters.

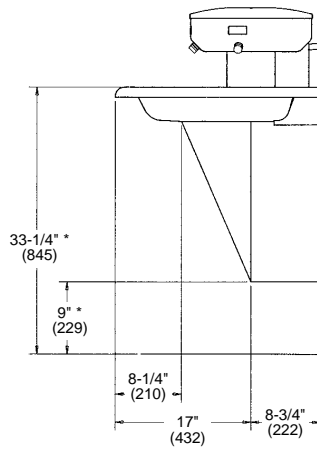
54" Semi-Circular Wall-Mounted with Infrared Control



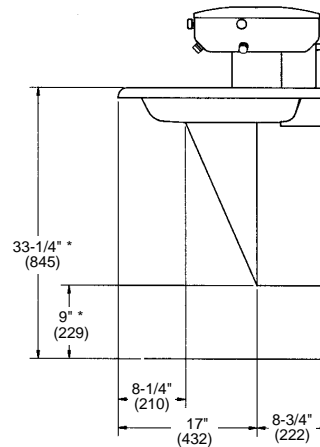
54" Semi-Circular Wall-Mounted with Hand Control



36" Semi-Circular Wall-Mounted with Infrared Control



36" Semi-Circular Wall-Mounted with Hand Control



***Juvenile Height:** Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.4

Sentry Floor-Mounted Semi-Circular Washfountain Rough-In Dimensions

Rough-In Notes:

1. Supply lines must be 1" for 1–2 washfountains; 1-1/4" for 3 washfountains. For more than three washfountains, pipe sizes should be increased proportionately.
2. Dimensions shown in parentheses are millimeters.

Types A

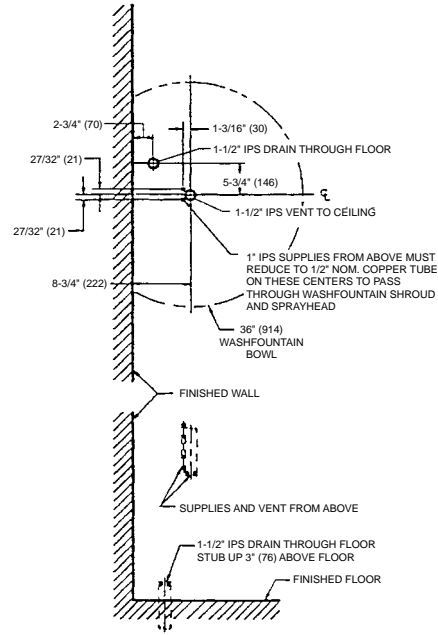
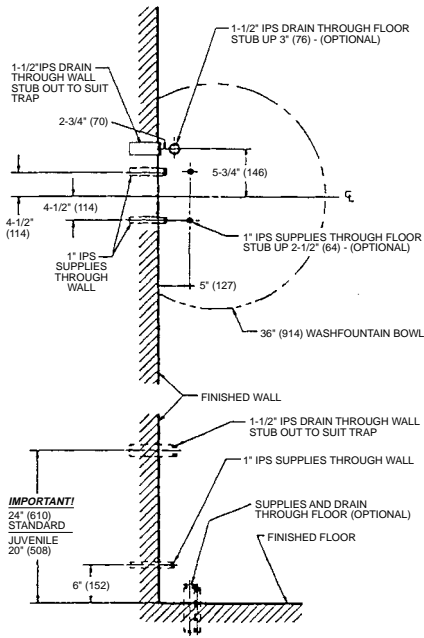
For models 2003-A, 2003F-A, 2003AZ-A 2004-A, 2004F-A, and 2004AZ-A

Off-line vent with supplies from below.

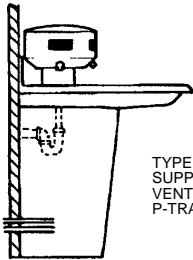
Type B

For models 2003-B, 2003F-B, 2003AZ-B, 2004-B, 2004F-B, and 2004AZ-B

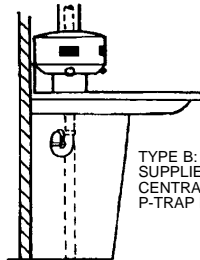
Centrally rising vent with supplies from above.



DRAIN TYPES



TYPE A:
SUPPLIES BELOW,
VENT OFF DRAIN.
P-TRAP FURNISHED BY OTHERS.




TYPE B:
SUPPLIES ABOVE,
CENTRALLY-RISING VENT.
P-TRAP FURNISHED.

*Juvenile Height: Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.5

Sentry Wall-Mounted Semi-Circular Washfountain Rough-In Dimensions

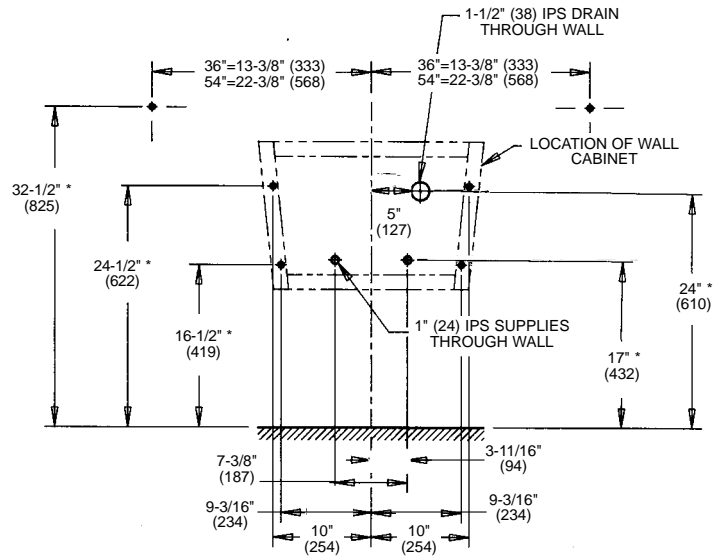
 **ADA Compliant:** Wall-mounted 54" and 36" models with Infrared or hand control are ADA compliant when mounted at standard height.

Rough-In Notes:

1. Supply lines must be 1" for 1–2 washfountains; 1-1/4" for 3 washfountains. For more than three washfountains, pipe sizes should be increased proportionately.
2. Dimensions shown in parentheses are millimeters.

Types A, B, H, and O for models 2023, 2023AZ, 2024, 2024AZ:

- **A**—Off-line vent with supplies from below.
- **B**—Centrally rising vent with supplies from above.
- **H**—Centrally rising vent with supplies from below.
- **O**—Off-line vent with supplies from above.



***Juvenile Height:** Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.7

Sentry™ Washfountains

Semi-Circular Shallow Bowl

PLUMBING FIXTURES
TECHNICAL DATA

Sample Specification

Sentry washfountain shall be ADA compliant Bradley Model No. 2003/A/ standard height/NSD. Circular 36" floor-mounted washfountain with hand control to accommodate 1-3 users at time, and to include the following standard equipment:

- bowl and pedestal constructed of type 304 stainless steel
- manual mixing valve assembly complete with check stops and strainers
- flow control rate of 0.5 GPM at each station (operating range 20-100 PSI)
- pushbutton actuated air metering valve with field adjustable timing from 0-60 seconds.

To include (A) drain type for off-line vent with supplies from below, (standard height) pedestal height of 29", and (NSD) no soap dispenser.

MODELS <small>Must select one</small>			
Model No.	Size	Stations	Description
<input type="checkbox"/> 2003*	36"	3	Floor-Mounted w/Hand Control
<input type="checkbox"/> 2003F	36"	3	Floor-Mounted w/Foot Control
<input type="checkbox"/> 2003AZ*	36"	3	Floor-Mounted w/Infrared Control
<input type="checkbox"/> 2004*	54"	4	Floor-Mounted w/Hand Control
<input type="checkbox"/> 2004F	54"	4	Floor-Mounted w/Foot Control
<input type="checkbox"/> 2004AZ*	54"	4	Floor-Mounted w/Infrared Control
<input type="checkbox"/> 2023*	36"	3	Wall-Mounted w/Hand Control
<input type="checkbox"/> 2023AZ*	36"	3	Wall-Mounted w/Infrared Control
<input type="checkbox"/> 2024*	54"	4	Wall-Mounted w/Hand Control
<input type="checkbox"/> 2024AZ*	54"	4	Wall-Mounted w/Infrared Control

*NOTE: This model is ADA compliant when mounted at standard height dimensions.

STANDARD SELECTIONS

Must select one from each category

Drain Type (select one):

- A Off-line vent with supplies from below
- B Centrally rising vent with supplies from above
- H Centrally rising vent with supplies from below
- O Off-line vent with supplies from above

Pedestal Height (select one):

- Standard Height
- Juvenile Height

Soap Dispenser (select one):

- LSD Liquid Soap Dispenser
- NSD No Soap Dispenser

OPTIONAL SELECTIONS

Supply Fittings:

- HB Hose Bibb on Pedestal
- TL Tempered Line Supply (cold water only)

Paper Towel Dispensers:

- CTD (2) C-Fold, Multi-fold Dispenser
- STD (2) Single-fold Dispenser

Nonsectional Control:

- NS Nonsectional Control

Mixing Valves:

- TMA Thermostatic Mixing Valve (in lieu of manual mixing valve).
- PBV Pressure Balance Mixing Valve (in lieu of manual mixing valve).

Document No. 2100

This information is subject to change without formal notice.
1298RSSAW (8 pages total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
<http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

WF2100.8

WF-3

DESCRIPTION: WASH FOUNTAIN - 54" SEMI-CIRCULAR, 14 GAUGE TYPE 304 STAINLESS STEEL WITH #3 FINISH, 4 USERS, SENSOR ACTIVATED VANDAL RESISTANT CONTROLS. UL APPROVED TRANSFORMER 120 VAC TO 24 VDC AND THERMOSTATIC MIXING VALVE WITH CHECK STOPS, STRAINERS AND VOLUME CONTROL ENCLOSED IN ACCESSIBLE PANEL. ALL VALVING AND COMPONENTS COMPLETELY CONTAINED WITHIN STAINLESS STEEL HOUSING. FLOOR MOUNTED. FOR HANDICAPPED USE, 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH ANSI A117.1-1986 AND ADA SECTION 4.19. TOP BASIN RIM TO BE MAXIMUM OF 34" ABOVE FLOOR IN COMPLIANCE WITH ADA SECTION 4.19.

MANUFACTURER & CATALOG NO.: BRADLEY 2004AZ, ACORN 3540 SERIES

Notes to specifier:

1. Verify size, finish and soap dispenser required.
2. Unit requires 1" HW and CW.
3. If using tempered water, delete mixing valve.
4. Unit meets ADA requirements.
5. Coordinate electrical requirements with Electrical Engineer.

PLUMBING FIXTURES TECHNICAL DATA

Sentry™ Washfountains Semi-Circular Shallow Bowl Washfountain

- Reliable Pushbutton Activated Air Metering or Infrared Control
- Available in a 54" or 36" Bowl Size—Wall Mounted or Floor Mounted
- Standard Height Model with Hand or Infrared Control is ADA Compliant
- Factory Tested and Shipped Preassembled
- Vandal Resistant and Easy to Clean

Specifications

Size and Capacity: Accommodates 3 users (36" models) or 4 users (54" models) at a time, using less water, energy, and space than lavs equipped with conventional faucets. The sectional sprayhead module (nonsectional is optional) is controlled by a pushbutton which actuates an air valve (hand or foot control models), or an infrared sensor-actuated solenoid valve. Flow restrictor keeps flow rate constant at 0.5 GPM per station for all pressures. Operating range is 20–100 PSI.

Bowl and Pedestal: All exposed materials are type 304 stainless steel polished to a #4 finish. Bowl, pedestal and access panels, frame, foot control housing, support tube; and sprayhead are heavy gauge stainless steel. Exposed fittings are chrome plated.

Vandal Resistance: Bowl, backsplash, and support tube are an integrally welded assembly with the support tube welded to extruded flange from bowl. Sprayhead nozzles and pushbuttons/infrared sensors are secured to unit from inside the sprayhead module. Air valves/solenoid valves are safely concealed inside the washfountain. Access panels are removable only with a hex key. All supply and waste connections are concealed within the pedestal.

Barrier-Free (ADA compliant)

Standard Height Models Only: Wall-mounted models (when mounted at standard height) and standard height floor-mounted models with hand or infrared control are designed to comply with all ADA guidelines on reaches, clearances, and operation.

Standard Equipment

Valves and Fittings: In addition to the bowl and pedestal, the following valves and fittings are standard: manual mixing valve, check stops, and strainers. Check valves are 1/2" NPT female.

Activation Controls

Air Valve Hand Control: Each pushbutton pneumatically actuates a non-hold-open air single temperature valve with field adjustable timing from 0-60 seconds. Factory set at 10 seconds minimum for ADA. Each pushbutton actuates one valve which in turn activates one station (sprayhead nozzle).

Air Valve Foot Control: Each pushbutton pneumatically actuates a hold-open air single temperature valve with slow closing upon release of foot pressure.



Activation Controls (continued)

Infrared Control: Each of the spray nozzles is controlled by a separate solenoid valve. Hands placed within the washfountain bowl are detected by an infrared sensor module which activates a flow of tempered water from one spray nozzle. Shut-off is automatic after hands are removed from the detection area.

The infrared sensor module uses two zone-focused infrared transmitting beams—each creating a detection area not exceeding the bowl perimeter. The detection range projects 6–9 inches forward at a 30° angle to each side, and reaches 15° below horizontal. The infrared sensor is not affected by varying color tones or darkness. Direct sunlight or bright wash-room lights (up to 10,000 ft. candles) will not activate the system. Infrared models also include solenoid valves and a low voltage transformer as standard equipment:

- **Solenoids**—24V, 50/60 Hz, 1/8" NPT. Few moving parts, and resistant to most chemicals and minerals in municipal water.
- **Low Voltage Transformer**—Class II, 110/24 VAC transformer with integral universal motor. Location and junction box (by others) per local electrical code.

Bradley 


P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
<http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

Document No. 2100

This information is subject to change without formal notice.
1298RSSAW (8 Pages Total)

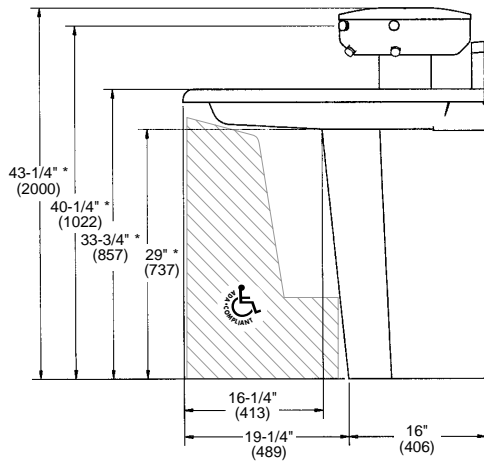
WF2100.1

Sentry 54" Floor-Mounted Semi-Circular Washfountain Dimensions

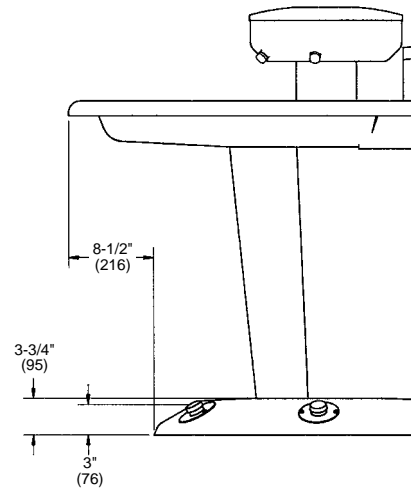
 **ADA Compliant:** Standard height 54" models with Infrared or hand control are ADA compliant.

Dimensions in parentheses are millimeters.

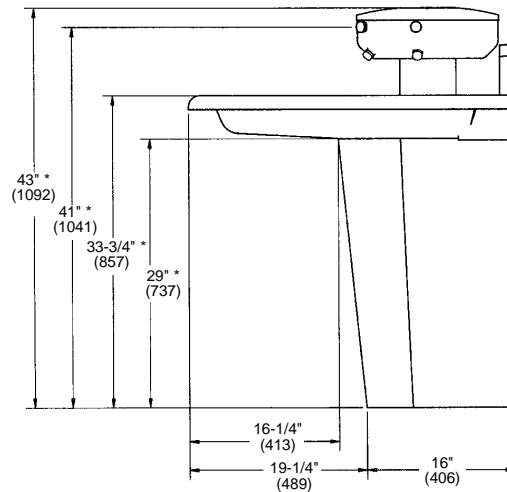
54" Semi-Circular with Infrared Control



54" Semi-Circular with Foot Control



54" Semi-Circular with Hand Control



***Juvenile Height:** Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.2

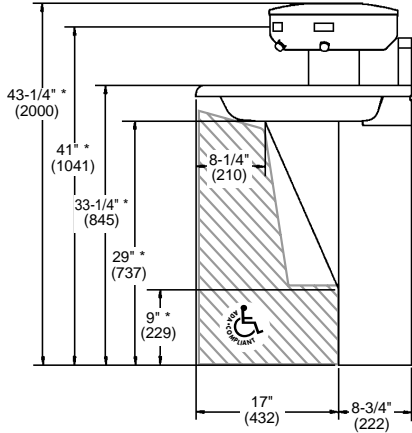
Sentry 36" Floor-Mounted Semi-Circular Washfountain Dimensions



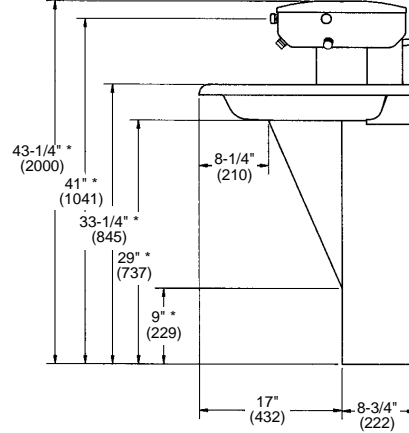
ADA Compliant: Standard height 36" models with Infrared or hand control are ADA compliant.

Dimensions in parentheses are millimeters.

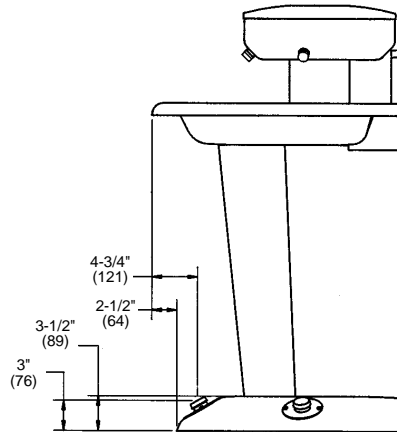
36" Semi-Circular with Infrared Control



36" Semi-Circular with Hand Control



36" Semi-Circular with Foot Control




*Juvenile Height: Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

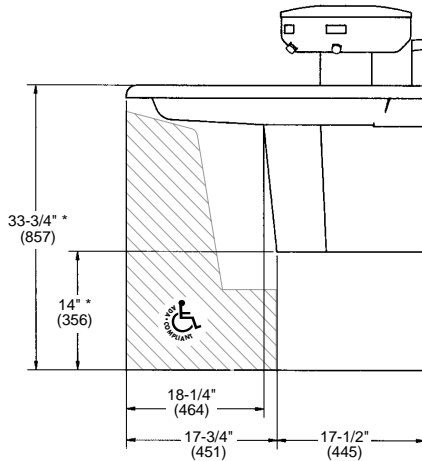
WF2100.3

Sentry 54" and 36" Wall-Mounted Semi-Circular Washfountain Dimensions

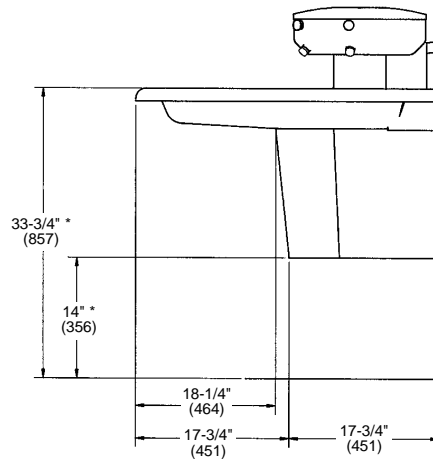
 **ADA Compliant:** Wall-mounted 54" and 36" models with Infrared or hand control are ADA compliant when mounted at standard height dimensions.

Dimensions in parentheses are millimeters.

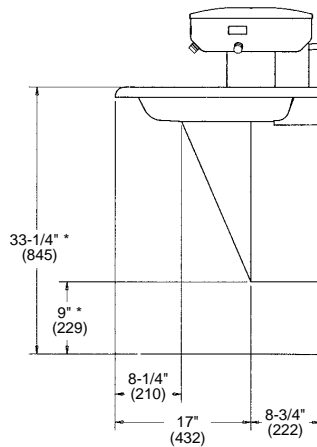
54" Semi-Circular Wall-Mounted with Infrared Control



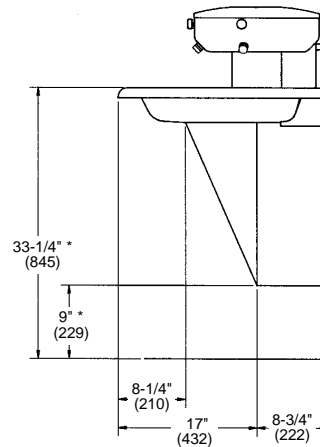
54" Semi-Circular Wall-Mounted with Hand Control



36" Semi-Circular Wall-Mounted with Infrared Control



36" Semi-Circular Wall-Mounted with Hand Control




***Juvenile Height:** Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.4

Sentry Wall-Mounted Semi-Circular Washfountain Rough-In Dimensions

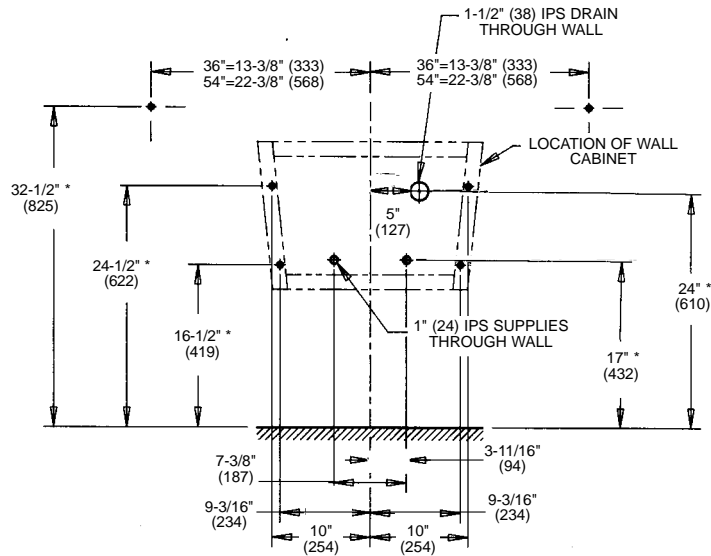
 **ADA Compliant:** Wall-mounted 54" and 36" models with Infrared or hand control are ADA compliant when mounted at standard height.

Rough-In Notes:

1. Supply lines must be 1" for 1–2 washfountains; 1-1/4" for 3 washfountains. For more than three washfountains, pipe sizes should be increased proportionately.
2. Dimensions shown in parentheses are millimeters.

Types A, B, H, and O for models 2023, 2023AZ, 2024, 2024AZ:

- **A**—Off-line vent with supplies from below.
- **B**—Centrally rising vent with supplies from above.
- **H**—Centrally rising vent with supplies from below.
- **O**—Off-line vent with supplies from above.



*Juvenile Height: Subtract 4" (102) from this dimension for juvenile height.

Bradley Corporation reserves the right to make changes in design and material without formal notice and without incurring obligation. Verify all rough-in dimensions prior to installation.

WF2100.7

Sentry™ Washfountains

Semi-Circular Shallow Bowl

PLUMBING FIXTURES
TECHNICAL DATA

Sample Specification

Sentry washfountain shall be ADA compliant Bradley Model No. 2003/A/ standard height/NSD. Circular 36" floor-mounted washfountain with hand control to accommodate 1-3 users at time, and to include the following standard equipment:

- bowl and pedestal constructed of type 304 stainless steel
- manual mixing valve assembly complete with check stops and strainers
- flow control rate of 0.5 GPM at each station (operating range 20-100 PSI)
- pushbutton actuated air metering valve with field adjustable timing from 0-60 seconds.

To include (A) drain type for off-line vent with supplies from below, (standard height) pedestal height of 29", and (NSD) no soap dispenser.

MODELS <small>Must select one</small>			
Model No.	Size	Stations	Description
<input type="checkbox"/> 2003*	36"	3	Floor-Mounted w/Hand Control
<input type="checkbox"/> 2003F	36"	3	Floor-Mounted w/Foot Control
<input type="checkbox"/> 2003AZ*	36"	3	Floor-Mounted w/Infrared Control
<input type="checkbox"/> 2004*	54"	4	Floor-Mounted w/Hand Control
<input type="checkbox"/> 2004F	54"	4	Floor-Mounted w/Foot Control
<input type="checkbox"/> 2004AZ*	54"	4	Floor-Mounted w/Infrared Control
<input type="checkbox"/> 2023*	36"	3	Wall-Mounted w/Hand Control
<input type="checkbox"/> 2023AZ*	36"	3	Wall-Mounted w/Infrared Control
<input type="checkbox"/> 2024*	54"	4	Wall-Mounted w/Hand Control
<input type="checkbox"/> 2024AZ*	54"	4	Wall-Mounted w/Infrared Control

*NOTE: This model is ADA compliant when mounted at standard height dimensions.

STANDARD SELECTIONS

Must select one from each category

Drain Type (select one):

- A Off-line vent with supplies from below
- B Centrally rising vent with supplies from above
- H Centrally rising vent with supplies from below
- O Off-line vent with supplies from above

Pedestal Height (select one):

- Standard Height
- Juvenile Height

Soap Dispenser (select one):

- LSD Liquid Soap Dispenser
- NSD No Soap Dispenser

OPTIONAL SELECTIONS

Supply Fittings:

- HB Hose Bibb on Pedestal
- TL Tempered Line Supply (cold water only)

Paper Towel Dispensers:

- CTD (2) C-Fold, Multi-fold Dispenser
- STD (2) Single-fold Dispenser

Nonsectional Control:

- NS Nonsectional Control

Mixing Valves:

- TMA Thermostatic Mixing Valve (in lieu of manual mixing valve).
- PBV Pressure Balance Mixing Valve (in lieu of manual mixing valve).

Document No. 2100

This information is subject to change without formal notice.
1298RSSAW (8 pages total)



P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone 1-800-BRADLEY FAX 262-251-5817
<http://www.bradleycorp.com>
Technical Information Fax Service: 1-800-BRADFAX

WF2100.8

WH-1

DESCRIPTION: WATER HEATER - ELECTRIC, GLASS-LINED, VERTICAL, WELDED STEEL TANK, ANODE ROD, IMMERSION ELEMENTS, ENCLOSED CONTROLS, HIGH TEMPERATURE CUTOFF SWITCH, 150 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, FIBERGLASS OR FOAM INSULATION. AUTOMATIC THERMOSTAT WITH EXTERNALLY ADJUSTABLE TEMPERATURE RANGE. FLANGED OR SCREW-IN LOW WATT DENSITY IMMERSION ELEMENTS, ENCLOSED CONTROLS AND ELECTRICAL JUNCTION BOX. BRASS WATER CONNECTIONS, DIP TUBE, DRAIN AND RELIEF VALVES. ASME/AGA T&P RELIEF VALVE. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 1-YEAR WARRANTY.

[5 GALLON CAPACITY, 1-1500 WATT ELEMENT, [120] [240] VOLT, 7 GPH RECOVERY AT 90 DEGREE F. RISE.]

[15 GALLON CAPACITY, 1-1500 WATT ELEMENT, [120] [240] VOLT, 7 GPH RECOVERY AT 90 DEGREE F. RISE.]

[30 GALLON CAPACITY, 2-4500 WATT, NON-SIMULTANEOUS ELEMENT, [120] [240] VOLT, 20 GPH RECOVERY AT 90 DEGREE F. RISE.]

SET WATER HEATER TEMPERATURE AT [] DEGREES F.

MANUFACTURER & CATALOG NO.: A.O. SMITH ELJF, BRADFORD WHITE M-I, RHEEM POINT-OF-USE, RUUD POINT-OF-USE, STATE P6 SERIES, AMERICAN WATER HEATER E61 SERIES

Notes to Specifier:

1. This is a residential electric water heater. Warranty shall be 5 years if used residentially.
2. Expansion tanks are required in Des Moines on ALL water heaters.
3. Edit model numbers as required for different element selections.

A. O. SMITH

Energy Saving Product

APPROVAL RATINGS AND CERTIFICATION

Models are certified to UL 174 for Household Electric Storage Tank Water Heaters.

All models comply with: ASHRAE/IES 90.1b-1992
1990 NAECA
BOCA AND CEC

All models are approved for installation in a manufactured (mobile) home - HUD part no. 3280 707(d)(1).

FEATURES

CFC-FREE FOAM INSULATION — Minimizes radiant heat loss.

DIP TUBE — Carries inlet water deep into tank.

THERMOSTAT/HIGH LIMITS — Combination control provides sensitive temperature control and overheat protection. Factory preset to 120°F.

GLASS-LINED TANK — Glass, specifically developed by A. O. Smith for water heaters, is permanently fused to steel at 1600°F, providing years of corrosion protection and dependable use.

NON-METALLIC DRAIN VALVE STANDARD — 6 and 15 gallon models have a combination 3/4" inlet/drain fitting.

SUPPLIED TEMPERATURE & PRESSURE RELIEF VALVE — Matched to the heater and included in the carton so that the installer can select the proper orientation for the job. (Specify if your local code requires a special T&P).

ENERGY SAVER
ELECTRIC
RESIDENTIAL WATER HEATERS
MODELS EES, EEH, EEST, ELF & ELJF



Model EES shown



Model ELJF 2 & 4



6 YEAR LIMITED TANK WARRANTY

If the tank should leak any time during the first 6 years, under the terms of the warranty, A.O. Smith will furnish a replacement heater. Installation, labor, handling and local delivery are extra. When used commercially, warranty is 1 year. **THIS OUTLINE IS NOT A WARRANTY.** For complete information, consult the written warranty or A.O. Smith Water Products Company. (Exception ELJF 2 & 4 - One year tank warranty).

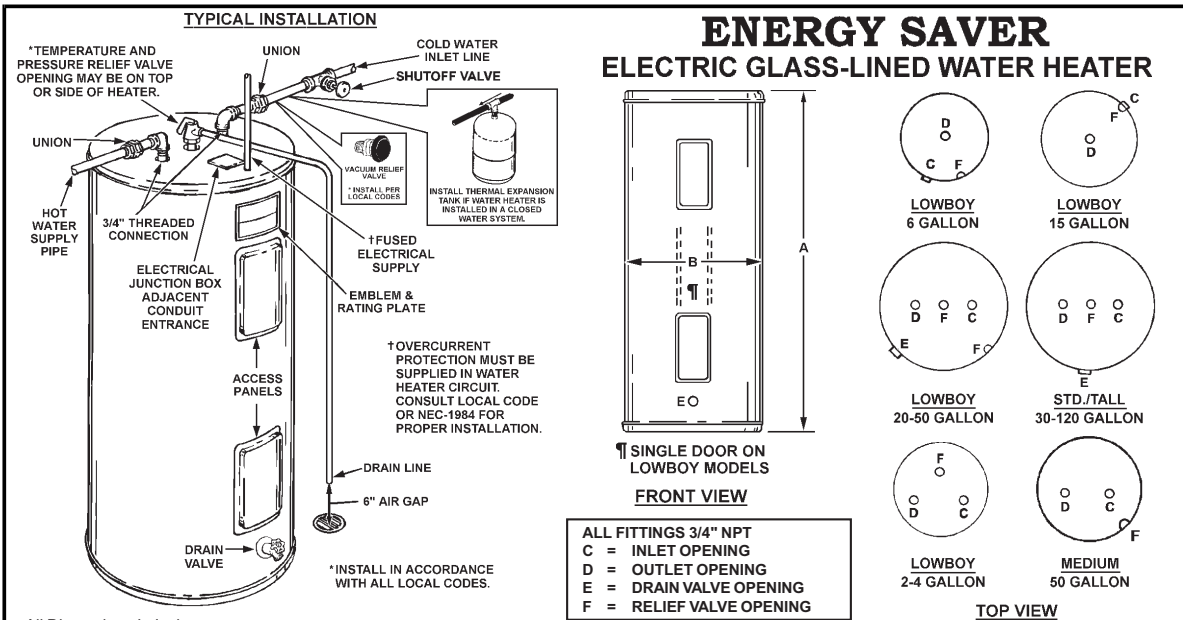
Warranty does not apply to product installed outside of the United States of America or its territorial possessions and Canada.

Revised March 2003

A 721.1

Revised 08/12/04

Page 1 of 2



All Dimensions In Inches

6-Year Model No.	1st Hr. Rating Gals.	Energy Factor	Gal. Cap.	Element Wattage (Non-Simultaneous)		A Height	B Dia.	Approx. Ship. Wt. (Lbs.)
				Std. 240 Volts Upper/Lower	Max. 240 Volt Upper/Lower			
ENERGY SAVER MODELS								
EES-30	43	.89	30	4500/4500	4500/4500	34 1/2	20 1/2	94
EES-40	52	.89	40	4500/4500	6000/6000	44	20 1/2	115
EES-52	60	.87	50	4500/4500	6000/6000	53 3/4	20 1/2	123
EES-66	72	.84	66	4500/4500	6000/6000	59 3/4	21 3/4	172
EES-80	81	.84	80	4500/4500	6000/6000	58 1/4	24	206
EES-120	112	.83	120	4500/4500	6000/6000	61 3/4	29 1/2	336
ENERGY SAVER MEDIUM MODEL								
EES-50D	62	.87	50	4500/4500	6000/6000	46 3/4	23	149
ENERGY SAVER TALL MODELS								
EEST-30	43	.89	30	4500/4500	6000/6000	45 1/4	18	94
EEST-40	52	.89	40	4500/4500	6000/6000	59 1/4	18	114
EEST-52	64	.87	55	4500/4500	6000/6000	58 3/4	19 1/2	132
ENERGY SAVER LOWBOY MODELS								
ELJF-2	---	---	2	--- /1440*	--- /1440*	12 3/4	10	21
ELJF-4	---	---	4	--- /1440*	--- /1440*	20	10	27
ELJF-6	---	---	6	--- /1500*Δ	--- /2500Δ	15 1/2	14 1/4	35
ELJF-15	---	---	15	--- /1500*Δ	--- /2500Δ	32 1/2	14 1/4	58
ELJF-20	---	---	19.9	--- /2500*	--- /6000	32 1/4	18	73
ELF-30	53	.90	30	4500/4500	6000/6000	29 1/2	21 3/4	106
ELJF-30	41	.89	30	4500/4500	6000/6000	31	21 3/4	106
ELJF-40	48	.88	40	4500/4500	6000/6000	32 1/4	23 1/4	136
ELJF-50	55	.87	50	4500/4500	6000/6000	32 1/4	25 1/4	171
ENERGY SAVER HIGH ENERGY FACTOR MODELS								
EEHT-40	52	.92	40	4500/4500	6000/6000	60	18	120
EEH-52	60	.93	52	4500/4500	6000/6000	55 1/2	21 3/4	131
EEH-66	76	.95	66	4500/4500	6000/6000	60	24	181
EEH-80	89	.92	80	4500/4500	6000/6000	60	25 1/4	220

*Single element models - Std. 120 volts.

ΔMaximum element wattage is 2500 W 6 & 15 gallon units.

Element Availability			
120V	Amps	240V	Amps
1,500	12.5	1,500	6.3
2,000	16.7	2,000	8.3
2,500	20.8	2,500	10.4
3,000	25.0	3,000	12.5
		4,000	16.7
		4,500	18.8
		5,000	20.8
		6,000	25.0

SUGGESTED SPECIFICATIONS

This water heater(s) shall be A. O. SMITH Model(s) No. _____ electric heater, or an approved equal. Heater(s) shall be rated at ___ KW, ___ volts, single phase, 60 cycle AC and listed by Underwriters' Laboratories. Heater(s) shall have a maximum working pressure of 150 psi, a nominal storage tank capacity of ___ gallons with a separate 3/4" tapping for relief valve installation and a rigidly supported anode rod for maximum cathodic protection. All internal surfaces of the heater(s) exposed to water shall be glass-lined with an alkaline borosilicate composition fused-to-steel. Electric heating element(s) shall be zinc plated copper sheath, screw-in design. Element operation shall be double element, non-simultaneous (or single element). The controls shall include a thermostat with each element and a high temperature cutoff. The jacket shall provide full size control compartments for performance of service and maintenance through front panel openings and enclose the tank with foam insulation. The drain valve shall be located in the front for ease of servicing (except 6 and 15 gallon have a combination 3/4" inlet/drain fitting). Outer jacket shall be baked enamel finish. Heater(s) shall have a 6 year limited warranty for residential installation; 1 year for commercial installation, as outlined in the written warranty. (Exception ELJF 2 & 4 - One year tank warranty). Fully illustrated instruction manual to be included. Heater(s) shall meet the minimum energy factor required by the Federal "National Appliance Energy Conservation Act of 1990".

A.O. Smith Water Products Co., Inc. On Line
www.hotwater.com
For Technical Information and Automated Fax Service,
Phone: 800-527-1953

A. O. Smith Water Products Company
Ashland City, TN
A Division of A. O. Smith Corporation

A. O. Smith Corporation reserves the right to make product changes or improvements at any time without notice.

WH-2

DESCRIPTION: WATER HEATER - GAS FIRED, MINIMUM 80% EFFICIENT, GLASS-LINED, VERTICAL, WELDED STEEL TANK. ANODE ROD, MULTI-PORT ALUMINIZED STEEL BURNER. HIGH TEMPERATURE SENSOR IN TANK SHALL SHUT OFF ENTIRE GAS SUPPLY. 150 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, AGA CERTIFIED DRAFT HOOD, SINGLE FLUE PASSAGE, FLUE BAFFLE, FIBERGLASS OR FOAM INSULATION. AUTOMATIC WATER THERMOSTAT AND BUILT-IN GAS REGULATING VALVE, ADJUSTABLE TEMPERATURE RANGE. BRASS WATER CONNECTIONS, DIP TUBE, DRAIN AND RELIEF VALVES. ASME/CSA T&P RELIEF VALVE. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 3-YEAR WARRANTY.

[30 GALLON CAPACITY, 40,000 BTUH INPUT NATURAL GAS, 41 GPH RECOVERY AT 90 DEGREE F. RISE.]

[40 GALLON CAPACITY, 40,000 BTUH INPUT NATURAL GAS, 39 GPH RECOVERY AT 90 DEGREE F. RISE.]

[50 GALLON CAPACITY, 40,000 BTUH INPUT NATURAL GAS, 41 GPH RECOVERY AT 90 DEGREE F. RISE.]

SET WATER HEATER TEMPERATURE AT [] DEGREES F.

SET WATER HEATER GAS PRESSURE AT [] " W.C.

MANUFACTURER & CATALOG NO.: A.O. SMITH GCV, BRADFORD WHITE M-I SERIES, RHEEM FURY, RUUD PACEMAKER, STATE SSX SERIES, AMERICAN WATER HEATER FG61 OR FG62 SERIES

Notes to Specifier:

1. This is a residential gas fired water heater. Warranty shall be 10 years if used residentially.
2. Expansion tanks are required in Des Moines on ALL water heaters.
3. Typical ranges for gas pressures are 5" to 14" w.c. Verify with manufacturer.

A.O. SMITH

Energy Saving Product

ENERGY SAVER

GAS RESIDENTIAL WATER HEATERS
MODELS PGX, PGXH, PGXL AND PGXT
HIGH RECOVERY





10 YEAR LIMITED WARRANTY OUTLINE

If the tank should leak any time during the first 10 years, under the terms of the warranty, A. O. Smith will furnish a replacement heater. Installation, labor, handling and local delivery are extra. When used commercially, warranty is for 3 years. **THIS OUTLINE IS NOT A WARRANTY.** For complete information, consult the written warranty or A. O. Smith Water Products Company.



FEATURES

CODE COMPLIANCE: H.U.D., B.O.C.A., ASHRAE/IES 90.1b-1992, and 1990 NAECA.

A.G.A. CERTIFIED – To ANSI standards for residential water heaters. All models are approved for use in combined appliance applications.

HIGH RECOVERY – Models range from 40,000 (the maximum allowed for a 3" vent) to 60,000 BTU for superior recovery.

BRASS DRAIN VALVE - On all PGXH and PGXT models. PGX and PGXL models have a non-metallic drain valve.

FOAM INSULATION – Minimizes radiant heat loss.

GLASS-LINED TANK – Glass, specifically developed by A. O. Smith ceramic research for water heater use, is fused to steel at 1600°F, providing corrosion protection for years of dependable use. Proven reliable in millions of water heaters for over 50 years.

DIP TUBE – Diffuser style carries inlet water deep into tank.

ANODE – Tank-mounted, screw-in anode for longer tank life. Easily accessible for inspection and replacement to extend heater life.

THERMOSTAT – Designed for long service life. Safety shutoff provided.

BURNER – Stainless steel multipoint burner on PGXT models only. All others have a stamped steel multipoint burner.

HINGED SELF CLOSING INNER DOOR – Supplied as a standard feature.

DRAFT DIVERTER – Supplied with screw anchor tabs for secure connection to the top cover.

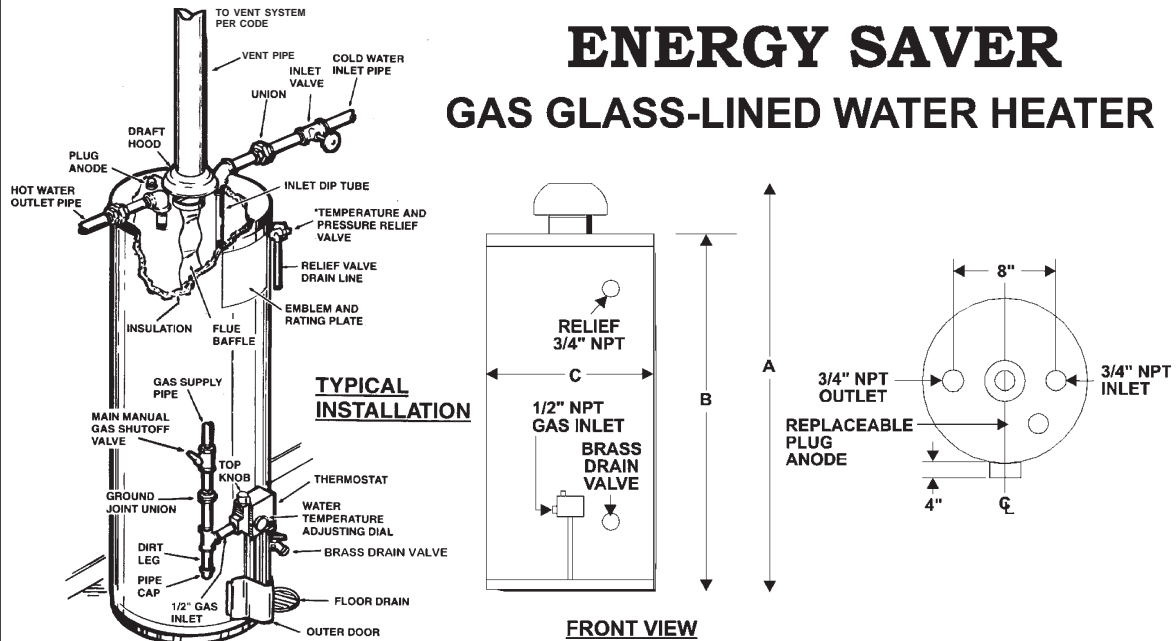
NON-LINTING ENERGY SAVING PILOT

CALIFORNIA – Models for sale in California are built to special requirements. See California specification sheet available from sales office.

Revised August 1999

A 714.0

ENERGY SAVER GAS GLASS-LINED WATER HEATER



* TYPICAL INSTALLATION SHOWN AS A GUIDELINE ONLY. INSTALL IN ACCORDANCE WITH LOCAL CODES.

ALL DIMENSIONS IN INCHES

Model Number	Gal. Cap.	Vent Size	NATURAL GAS		PROPANE GAS		A Height Plus Diverter	B Height Less Diverter	C Dia.	Approx. Ship. Wt. (Lbs.)
			Input BTU/Hr. Nat. Gas	Gal./Hr. Recovery 90°F Rise	Input BTU/Hr. LP Gas	Gal./Hr.* Recovery 90°F Rise				
STANDARD 10 YEAR TANK / 2 YEAR PARTS WARRANTY MODELS										
PGX-30	30	3	32,000	32.7	30,000	30.7	59 3/4	55 1/4	15 3/4	105
PGX-40	40	3	32,000	32.7	30,000	30.7	57 3/4	53 1/4	18 1/4	119
HIGH RECOVERY STANDARD 6 YEAR MODELS										
PGX-50	50	3	40,000	40.9	37,000	37.9	60 1/4	56 1/2	20 1/4	153
PGXH-30	30	3	40,000	40.9	37,000	37.9	61 1/4	57 1/2	15 3/4	122
PGXH-40	40	3	40,000	40.9	37,000	37.9	59 1/4	55 1/2	18 1/4	128
HIGH RECOVERY STANDARD SHORT 10 YEAR MODELS										
PGXL-30	30	3	40,000	40.9	37,000	37.9	47 1/2	43 3/4	18 1/4	114
PGXL-40	40	3	40,000	40.9	37,000	37.9	51	47 1/4	20 1/4	131
HIGH CAPACITY STANDARD 6 YEAR MODELS										
PGXT-40	38	4	50,000	51.2	41,000	48.1	59	54 3/4	20 1/4	130
PGXT-50	48	4	60,000	61.4	---	---	60 1/2	56 1/4	20 1/4	164

NOTE: Special high altitude models are available. To compensate for the effects of high altitude areas above 2,000 feet, recovery capacity should be reduced approximately 4% for each 1,000 feet above sea level. ALL DIMENSIONS IN INCHES.

*Recovery capacities are based on DOE method of test.

SUGGESTED SPECIFICATIONS

Water Heater(s) shall be Model No. _____ as manufactured by A. O. SMITH, or an approved equal. Heater(s) shall be glass-lined, gas-fired, equipped to burn natural gas, design certified to meet the latest ANSI Standard by the American Gas Association. Heater(s) shall have an input rating of _____ BTU/HR and with a recovery capacity of _____ GPH at _____ °F temperature rise. Heater shall be factory equipped for operation at _____ feet above sea level. Gas control shall totally regulate the gas supply to main and pilot burners. Heater(s) shall have a maximum working pressure of 150 psi, a nominal storage tank capacity of _____ gallons with factory installed temperature and pressure relief valve and a rigidly supported anode rod for maximum cathodic protection. All internal surfaces of the heater(s) exposed to water shall be glass-lined with an alkaline borosilicate composition fused-to-steel. Heater(s) shall also be equipped with an automatic shutoff device to shutoff entire gas supply in event of excessive temperature in tank. Heater(s) shall also be equipped with an A.G.A. certified draft hood. Tank shall be foam insulated. Outer jacket shall have a baked enamel finish. Heater shall have a 10 year limited warranty in a residential installation, (3 years in a commercial installation). Fully illustrated instruction manual to be included. Heater(s) shall comply with the "National Appliance Energy Conservation Act of 1987".

A.O. Smith Water Products Co., Inc. On Line
www.hotwater.com

For Technical Information and
Automated Fax Service,
Phone: 800-527-1953

A. O. Smith
Water Products Company
Irving, TX
A Division of A. O. Smith Corporation

A. O. Smith Corporation reserves the right to make product changes or improvements at any time without notice.

DESCRIPTION: WATER HEATER - GAS FIRED, MINIMUM 80% EFFICIENT, SEALED COMBUSTION, GLASS-LINED, VERTICAL, WELDED STEEL TANK. ANODE ROD, SIDEWALL VENT PIPING KIT, MULTI-PORT ALUMINIZED STEEL BURNER, HIGH TEMPERATURE SENSOR IN TANK SHALL SHUT OFF ENTIRE GAS SUPPLY. 150 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, SINGLE FLUE PASSAGE, FLUE BAFFLE, FIBERGLASS OR FOAM INSULATION. AUTOMATIC WATER THERMOSTAT AND BUILT-IN GAS REGULATING VALVE, ADJUSTABLE TEMPERATURE RANGE. BRASS WATER CONNECTIONS, DIP TUBE, DRAIN AND RELIEF VALVES. ASME/CSA T&P RELIEF VALVE. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 1-YEAR WARRANTY.

[40 GALLON CAPACITY, 40,000 BTUH INPUT NATURAL GAS, 40 GPH RECOVERY AT 90 DEGREE F. RISE.]
 [50 GALLON CAPACITY, 48,000 BTUH INPUT NATURAL GAS, 49 GPH RECOVERY AT 90 DEGREE F. RISE.]

SET WATER HEATER TEMPERATURE AT [] DEGREES F.

SET WATER HEATER GAS PRESSURE AT [] " W.C.

MANUFACTURER & CATALOG NO.: A.O. SMITH GDVH, BRADFORD WHITE DS1, RHEEM FURY DV, RUUD PACEMAKER DV, STATE PR6 DIRECT VENT, AMERICAN WATER HEATER DVG SERIES

Notes to Specifier:

1. This is a residential sealed combustion water heater. Warranty shall be 10 years if used residentially.
2. Expansion tanks are required in Des Moines on ALL water heaters.
3. Verify specific venting requirements for this type of unit. Allowable vent distance is very restrictive.
4. Typical ranges for gas pressures are 5" to 14" w.c. Verify with manufacturer.

A. O. SMITH



SURE SHOT

ENERGY SAVER
DIRECT VENT
FDV



FEATURES

CODE COMPLIANCE - 1990 NAECA, ASHRAE/IES 90.1b-1992, BOCA and CEC.

A.G.A. CERTIFIED — To ANSI standards for residential water heaters.

CLOSED COMBUSTION — All air for combustion is taken directly from the outside. Exhaust gases are vented directly outside. No costly chimney to install.

COAXIAL VENT — Air supply and vent install through a single hole in the outside wall. Swivels 360 degrees for maximum installation flexibility.

FOAM INSULATED — Minimizes radiant heat loss.

GLASS-LINED TANK — Glass, specifically developed by A. O. Smith ceramic research for water heater use, is fused to steel at 1,600°F, providing corrosion protection for years of dependable use. Proven reliable in millions of water heaters for over 50 years.

DIP TUBE — Carries inlet water deep into tank.

ANODE — Tank-mounted, screw-in anode for longer tank life.

THERMOSTAT — Designed for long service life. Provided with safety shutoff.

BURNER — All steel, multiport burner for improved combustion efficiency.

REQUIRES NO ELECTRICAL POWER

VENT CAP KIT — Easy to install. (Requires 6" hole through wall.)

CALIFORNIA — All models meet CEC labeling and recovery efficiency/standby loss requirements when ordered to SMR S-06. All California models must be ordered to SMR S-06. Not available for installation in Nox areas at this time.

NOTE: Read the installation manual before installing this unit. Check installation dimensions before ordering water heater. Installation procedures and dimensions may not deviate from the instructions provided in the installation manual. A. O. Smith model FPS or FPD may be utilized for installations that require more flexibility.

INSTALLATION NOTES:

- Vent terminal must be at least 12" above grade.
- Minimum gas pressure 4.5" W.C. Maximum gas pressure 14" W.C.
- No extra venting may be added to the factory vent kit.
- Do not install if all clearances cannot be maintained.
- Consult installation manual for vent terminal placement.
- Only high temperature silicone sealant provided with kit may be used to install vent.



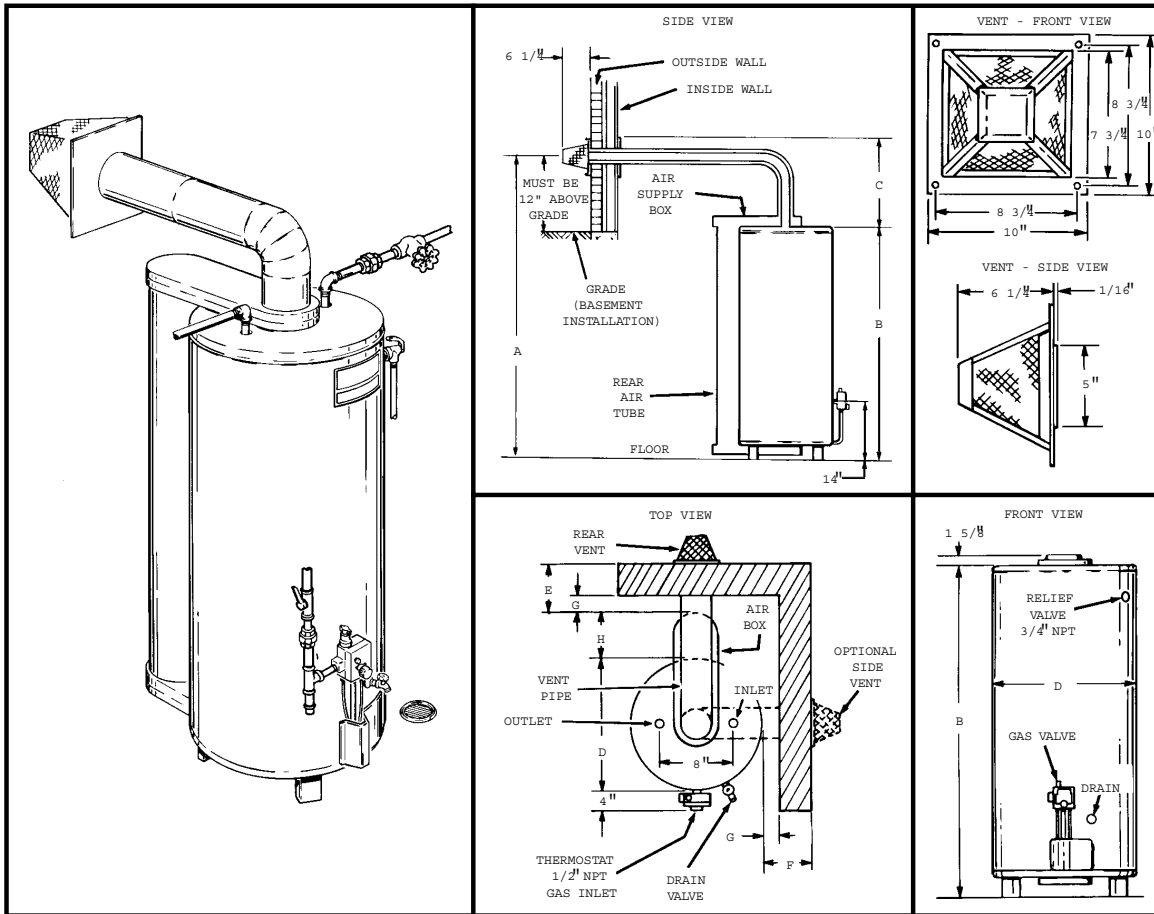

6 YEAR LIMITED WARRANTY OUTLINE

If the tank should leak any time during the first 6 years, under the terms of the warranty, A. O. Smith will furnish a replacement heater. Installation, labor, handling and local delivery are extra. When used commercially, warranty is for 1 year.

THESE OUTLINES ARE NOT WARRANTIES

For complete information, consult the written warranty or A. O. Smith Water Products Company.

Warranty does not apply to product installed outside of the United States of America or its territorial possessions and Canada.



Model Number	First Hour Delivery	Gal. Cap.	Nat. Gas Input MBT	Rec. at 90 Rise				D (Dia.)	E		F		G		H	Ship. Lbs.							
					A	B	C		Rear*	Side*	Min.	Max.	Min.	Max.									
FDV-40	65	40	38	38.9	67	7/8	54	7/8	18	1 1/4	4	1 1/8	14	1 1/8	10	1 1/8	20	1 1/8	6	140			
FDV-50	78	50	40	40.9	67	7/8	58	1 1/2	14	5/16	20	1 1/4	3	1 1/8	13	1 1/8	8	1 1/8	18	1 1/8	0	5	163

*Maximum lateral adjustment for all tank sizes is 10".

SUGGESTED SPECIFICATION

Water Heater(s) shall be direct vent Model No. _____ as manufactured by A.O. SMITH, or an approved equal shall be glass-lined, gas-fired, equipped to burn natural gas, design certified to meet the latest ANSI Standard for Gas Association. Heater(s) shall have an input rating of _____ BTU/Hr and with a recovery capacity of _____ GPH at a temperature rise of _____ degrees F. Gas control shall totally regulate the gas supply to main and pilot burners. Heater(s) shall have a working pressure of 150 psi, a nominal storage tank capacity of _____ gallons with a 3/4" relief valve installed anode rod for maximum cathodic protection. Internal surfaces of the heater(s) exposed to water shall be with an alkaline borosilicate composition fused-to-steel. Heater(s) shall also be equipped with an auto shutoff entire gas supply in event of excessive temperature in tank. Heater(s) shall also be equipped with a coaxial vent pipe with vent cap. Tank shall be foam insulated. Outer jacket shall have a baked enamel finish. Heater(s) shall have a 6 year limited warranty in a residential installation, (1 year in a commercial installation). Fully illustrated. Heater(s) shall comply with the National Appliance Energy Conservation Act (NAECA) of 1987.

<p>A. O. Smith Water Products Co., Inc On Line www.hotwater.com</p> <p>For Technical Information and Automated Fax Service, Phone: 800-527-1953</p>	<p>A. O. Smith Water Products Company Irving, TX A Division of A. O. Smith Corporation</p> <p>A. O. Smith Corporation reserves the right to make product change or improvements at any time without notice.</p>
---	---

WH-4

DESCRIPTION: WATER HEATER - GAS FIRED, MINIMUM 94% EFFICIENT, SEALED COMBUSTION, GLASS-LINED, VERTICAL, WELDED STEEL, ASME STAMPED TANK, MULTIPLE ANODE RODS, VENT PIPING KIT, HIGH TEMPERATURE SENSOR IN TANK SHALL SHUT OFF ENTIRE GAS SUPPLY. 160 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, FIBERGLASS OR FOAM INSULATION. AUTOMATIC WATER THERMOSTAT AND BUILT-IN GAS REGULATING VALVE, ADJUSTABLE TEMPERATURE RANGE. BRASS WATER CONNECTIONS, DIP TUBE, DRAIN AND RELIEF VALVES. ASME/CSA T&P RELIEF VALVE. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 3-YEAR WARRANTY.

PROVIDE 120 VOLT CIRCUIT FOR BLOWER AND CONTROLS.

[100 GALLON CAPACITY, 150,000 BTUH INPUT NATURAL GAS, 190 GPH RECOVERY AT 90 DEGREE F. RISE.]
[100 GALLON CAPACITY, 199,000 BTUH INPUT NATURAL GAS, 252 GPH RECOVERY AT 90 DEGREE F. RISE.]
[100 GALLON CAPACITY, 240,000 BTUH INPUT NATURAL GAS, 304 GPH RECOVERY AT 90 DEGREE F. RISE.]

SET WATER HEATER TEMPERATURE AT [] DEGREES F.

SET WATER HEATER GAS PRESSURE AT [] " W.C.

MANUFACTURER & CATALOG NO.: A.O. SMITH BTH, BOCK HEC, BRADFORD WHITE EF SERIES, RHEEM HE, STATE ULTRA FORCE,

Notes to Specifier:

1. This is a commercial sealed combustion, high efficiency water heater.
2. Expansion tanks are required in Des Moines on ALL water heaters.
3. Verify specific venting requirements for this type of unit. Allowable vent distance is very restrictive.
4. In a few instances the "ASME Stamped Tank" can be removed for a cost savings measure. Verify with all applicable codes.
5. Coordinate electrical requirements with electrical engineer.
6. Typical ranges for gas pressures are 5" to 14" w.c. Verify with manufacturer.

A.O. SMITH
Energy Saving Product

Exceeds the minimum requirements of ASHRAE/IES 90.1b-1992 for thermal efficiency and standby loss.

FEATURES

94% THERMAL EFFICIENCY - Fully condensing design is 16% more efficient than the ASHRAE requirement of 80%.

FLEXIBLE VENTING - 3" or 4" PVC, ABS or CPVC pipe is recommended. The CYCLONE XHE™ vents vertically, horizontally and is also approved for direct vent sealed combustion applications. 50 equivalent feet maximum using 3" vent, 120 equivalent feet using 4" vent.

ADVANCED ELECTRONIC CONTROLS - A microprocessor controls the ignition and thermostat allowing precise setting of water temperatures from 110°F to 180°F. A digital display panel shows the operating mode, all user settings and any failure modes for ease of service.

PRESET POWER BURNER - Developed for the CYCLONE XHE™, a turbulent jet flame shoots down the submerged combustion chamber in a spiral action. This turbulence causes a thorough mixing of the gas and air for optimum combustion and high heat transfer efficiencies.

SUBMERGED COMBUSTION CHAMBER - Submerging the combustion chamber in the center of the water storage tank minimizes radiant heat loss and improves efficiency.

ZERO INCH CLEARANCE - The CYCLONE XHE™ jacket is cool and is approved for zero inches to combustibles for unsurpassed installation flexibility.

SPIRAL WOUND FLUE TUBE - The continuous spiral flue tube keeps the hot combustion gases moving at a high velocity. The combination of high turbulence and velocity causes an enormous rate of heat transfer into the water.

SCALE FREE - This flue design prevents scale and sediment from forming on the flue tube and reducing efficiency over time.

GLASS LINED TANK - Proprietary ceramic coating developed by A.O. Smith's ceramic engineers specifically for this heater is applied after the complete tank has been assembled to give a seamless barrier against corrosion by hot water. The maximum working pressure is 160 psi.

HANDHOLE CLEANOUT - Allows easy inspection and cleaning of the tank.

FOAM INSULATION - Thick foam insulation protected by a heavy gauge steel jacket contributes to low standby losses.

EASY INSTALLATION - All components are factory assembled and 100% tested prior to shipment. Only gas, water, electrical and venting connections need to be made. No major field adjustments are required for proper operation. Includes T&P valve and drain valve.

CYCLONE^{XHE™}
94% EXTRA HIGH EFFICIENCY
TANK-TYPE WATER HEATERS
BTH-120, BTH-150, BTH-199 & BTH-250



SCAQMD Approved, Rule 1146.2 Low NOx for California and Texas.






LIMITED WARRANTY OUTLINE

If the tank assembly which includes the combustion chamber and flue should leak any time during the first three years, under the terms of the warranty, A.O. Smith will furnish a replacement tank assembly. Installation, labor, handling and local delivery are extra. **THIS OUTLINE IS NOT A WARRANTY.** For complete information, consult the written warranty or A.O. Smith Water Products Company.

Warranty does not apply to product installed outside of the United States of America or its territorial possessions and Canada.

PATENTS PENDING

Revised January 2002

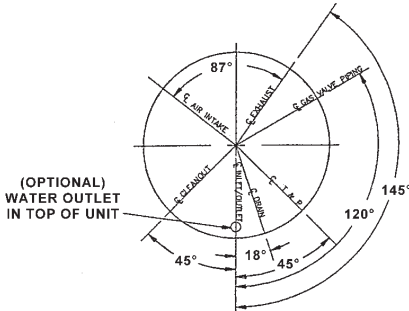
A 104.5

ROUGH IN DIMENSIONS

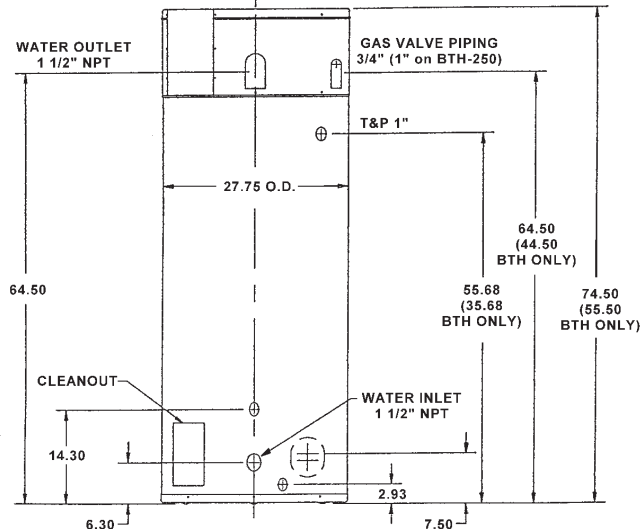
INSTALLATION CLEARANCES

Sides	0"
Front	4"
Rear	0"
Top	2"

Combustible clearances 0".
Approved for combustible floors.



AIR INTAKE 3" PVC, CPVC, ABS, 50' EQUIVALENT MAXIMUM.
FLUE EXHAUST 3" PVC, CPVC, ABS, 50' EQUIVALENT MAXIMUM.
AIR INTAKE 4" PVC, CPVC, ABS, 120' EQUIVALENT MAXIMUM.
FLUE EXHAUST 4" PVC, CPVC, ABS, 120' EQUIVALENT MAXIMUM.

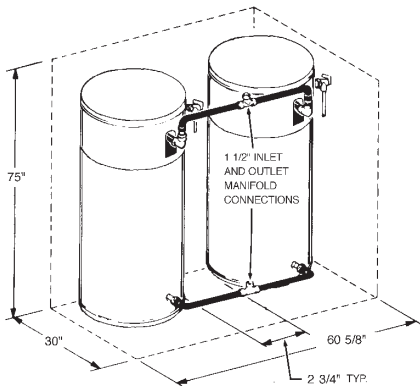


RECOVERY CAPACITIES

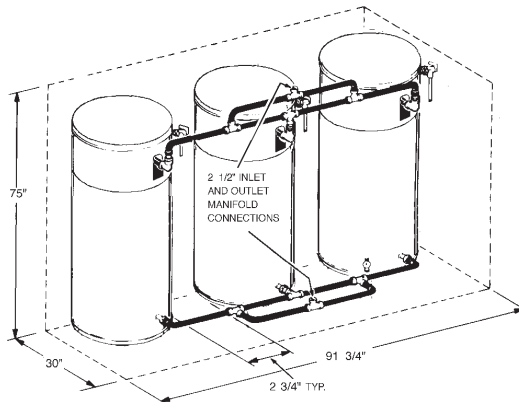
Model	BTU Input	Approx. Gallon Capacity	Ship. Wt.	Temperature Rise - Degrees F - Gallons per Hour												
				30	40	50	60	70	80	90	100	110	120	130	140	
BTH-120	125,000	60	350	475	356	285	237	203	178	158	142	129	119	110	102	
BTH-150	150,000	100	438	570	427	342	285	244	214	190	171	155	142	131	122	
BTH-199	199,000	100	438	756	567	453	378	324	283	252	227	206	189	174	162	
BTH-250	240,000*	100	438	912	684	547	456	391	342	304	273	249	228	210	195	

*BTH-250 NOT AVAILABLE IN LP GAS.

TWO UNIT MANIFOLD KIT (PART NO. 78692)

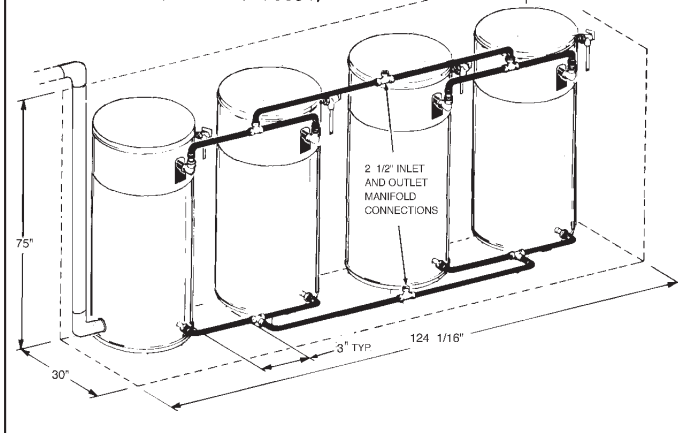


THREE UNIT MANIFOLD KIT (PART NO. 78693)



A 104.6

**FOUR UNIT MANIFOLD KIT
(PART NO. 78694)**



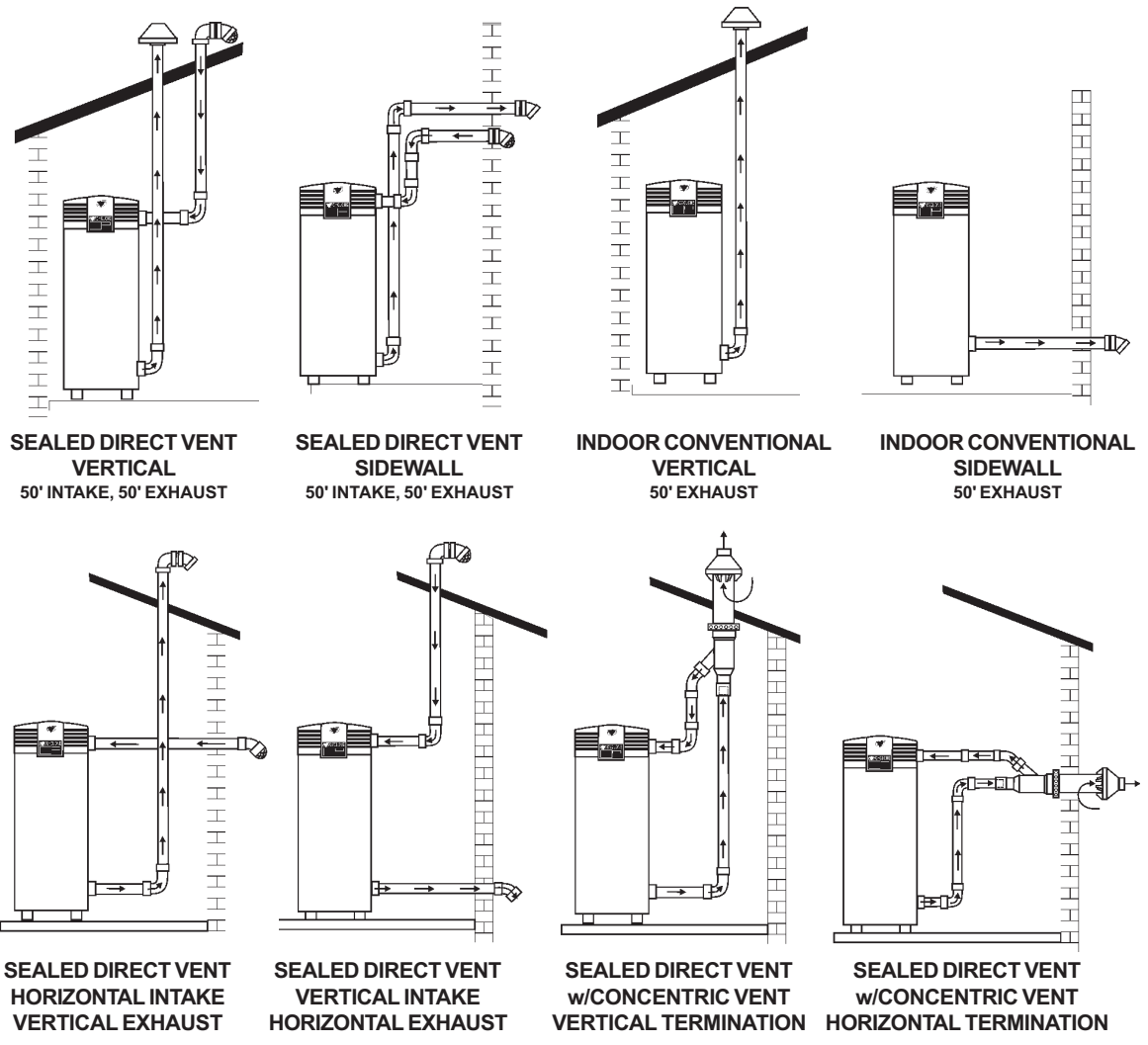
1. Direct Vent/Sealed Combustion

The ultimate venting system for either horizontal or vertical applications.

This system gives the specifier and installer optimum venting flexibility in placing the Cyclone XHE at point of use. The safe, two-vent, system allows clean uncontaminated air to be drawn directly into the unit. The flue gas products are expelled directly through the wall to the outside. This two-vent system protects the unit from harmful flue products being recirculated.

2. Sidewall or Vertical

The Cyclone XHE series can be vented directly through an outside wall or vertically up through the roof. Quick and simple. Perfect for retrofit and cost saving installations.



A 104.7

SPECIAL CONSTRUCTION FEATURES

All functional controls are located at the top of the heater for ease of service and protection from water damage in equipment rooms that have potential for flooding. The top cover comes off quickly to provide convenient access for all serviceable parts.

This is a fully condensing water heater. The latent heat energy which holds water in the vapor state in the combustion process is effectively scavenged. This means that water which would normally escape up the flue as vapor in a conventional heater is condensed into its liquid state prior to exiting the heater. The spiral flue tube coils downward to permit natural drainage of the condensate. As a result the flue exits at the bottom of the heater. The heater should be located near a drain to enable the condensate to be properly disposed of.

The exhaust gases of this heater are less than 140 degrees F, much lower than a standard water heater. In cold climates any water vapor remaining in the flue gases will condense into a cloud of vapor at the point where the vent system exits the building. This vapor can discolor exterior building surfaces over a period of time. The flue exhaust should be located in an area where the water vapor cloud or potential discoloration of the walls is not a concern. Locating the vent termination out from the wall by six or more inches helps prevent the vapor from being trapped in the layer of air that sometimes forms along a buildings face. The vent can also be terminated on the roof to avoid any problems. Always keep the vent above the maximum snow line so it cannot get covered up. Do not locate the exhaust above a walkway.

Avoid locating the air intake too close to the exhaust of this unit or any other exhaust terminations that discharge moisture laden air such as clothes dryers, in very cold climates. The intake can freeze over if the moisture is drawn through the screen required to prevent foreign objects from getting sucked into the fan. A separation of three feet is usually adequate to prevent intake freezing. Locate the intake above the maximum snow line also. The heater is equipped with sensors to shut it down if any blockage of the vent or intake occurs. A light on the diagnostic panel will alert the maintenance people to the problem.

Avoid locating the exhaust terminals close to bedroom windows or areas where blower noise will be objectionable. Venting into corners or confined areas will amplify the sound. Anchoring the intake or exhaust to walls or ceilings can cause noise to be transmitted to living areas. Where this must be done - use isolation mounts. Consult us if you have any questions.

SUGGESTED SPECIFICATIONS

Water Heater(s) shall be model BTH-_____ as manufactured by A.O. Smith. Water heater(s) shall be of the seamless glass lined steel tank construction in which the glass coating is applied to the water side surfaces of the tank after the tank has been assembled and welded. The condensing flue coil shall be coated on the flue gas side with A.O. Smith's proprietary acid resistant glass lining designed for use in condensing heaters.

The heater(s) shall be suitable for venting with (3" or 4")_____ diameter PVC pipe for a total equivalent distance of (50' or 120')_____ feet. [*alternative venting*: the heater shall be suitable for sealed combustion direct venting using a (3" or 4")_____ diameter PVC air intake pipe and (3" or 4")_____ diameter PVC exhaust pipe for a total distance of (50' or 120')_____ equivalent feet of vent and (50' or 120')_____ equivalent feet of intake.] The heater shall be factory assembled and tested. The power burner shall be of a design that requires no special calibrations on start up. The heater(s) shall be approved for 0" clearances to combustibles.

The control shall be an integrated solid state temperature and ignition control device with integral diagnostics, LED fault display capability and a digital display of temperature settings.

The tanks shall be foam insulated and equipped with a ASME rated temperature pressure relief valve. The water heater shall be UL listed and exceed the minimum efficiency requirements of ASHRAE/IES 90.1b-1992.

This heater shall be listed by SCAQMD Rule 1146.2 Low NOx.

Operation of the heater in a closed system where thermal expansion has not been compensated for with a properly sized thermal expansion tank will void the warranty.

A.O. Smith Water Products Co., Inc. On Line
www.hotwater.com

For Technical Information and
Automated Fax Service,
Phone: 800-527-1953

A. O. Smith
Water Products Company
Irving, TX
A Division of A. O. Smith Corporation

A. O. Smith Corporation reserves the right to make product changes
or improvements at any time without notice.

DESCRIPTION: WATER HEATER - ELECTRIC, GLASS-LINED, VERTICAL, WELDED STEEL, ASME STAMPED TANK, FACTORY-ASSEMBLED AND WIRED, ANODE ROD, IMMERSION ELEMENTS, ENCLOSED CONTROLS, HIGH TEMPERATURE CUTOFF SWITCH. ALL ELECTRICAL COMPONENTS PER NEC. AUTOMATIC IMMERSION WATER THERMOSTAT, EXTERNALLY ADJUSTABLE TEMPERATURE RANGE. 150 PSI WORKING PRESSURE, MANUAL RESET HIGH TEMPERATURE CUTOFF, METAL CABINET WITH BAKED ENAMEL FINISH, FIBERGLASS OR FOAM INSULATION. BRASS WATER CONNECTIONS, DIP TUBE, DRAIN AND RELIEF VALVE. ASME/AGA T&P RELIEF VALVE. FLANGE-MOUNTED IMMERSION HEATING ELEMENTS, INDIVIDUAL ELEMENTS SHEATHED WITH INCOLOY CORROSION-RESISTANT METAL ALLOY, RATED LESS THAN 75 WATTS PER SQUARE INCH, CERAMIC TERMINAL BLOCK. VENTILATED CONTROL CABINET, SEQUENCING STEP CONTROLLER, POWER CIRCUIT FUSES, MAGNETIC CONTACTORS, CONTROL TRANSFORMER, PILOT LIGHTS INDICATING MAIN POWER AND HEATING STEPS, CONTROL CIRCUIT TOGGLE SWITCH, HIGH TEMPERATURE LIMIT THERMOSTAT, 120 VOLT CONTROL CIRCUIT AND TRANSFORMER AS REQUIRED. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 3-YEAR WARRANTY.

[] GALLON CAPACITY STORAGE WITH [] GPH RECOVERY RATE AT [] DEGREES F TEMPERATURE RISE AND [] KW, [] VOLT, [] PHASE ELEMENT[S].

SET WATER HEATER TEMPERATURE AT [] DEGREES F.

MANUFACTURER & CATALOG NO.: A.O. SMITH DVE, BRADFORD WHITE M-II, RHEEM E SERIES, PVI DURAWATT, RUUD E SERIES, STATE SB6, AMERICAN WATER HEATER ITCE33 SERIES

Notes to Specifier:

1. This is a commercial electric water heater.
2. Expansion tanks are required in Des Moines on ALL water heaters.
3. In a few instances the "ASME Stamped Tank" can be removed for a cost savings measure. Verify with all applicable codes.

A.O. SMITH CONSERVATIONIST®

Designed for use as a recovery heater having its own storage tank or booster for supplying sanitizing rinse water for dishwashing.

FEATURES

GLASS-LINED TANK - Three sizes: 52, 80 and 119 gallon capacity. Tank interior is coated with glass specially developed by A.O. Smith Ceramic Research for water heater use. Tanks rated at 150 psi working pressure; tested at 300 psi. Foam insulation reduces costly heat loss. ASME (optional) maximum working pressure is 180 psi.

ELEMENTS - Heavy duty elements have Incoloy sheaths and ceramic terminal block for rugged commercial service. Medium watt density means lower surface temperature to minimize scale buildup and more surface to heat water. Element sizes from 2 to 6 KW. Use 3, 6 or 9 elements; maximum input 54 KW. The design assures proper placement of elements in the tank to avoid bridging the sheaths with lime or scale deposits.

POWER CIRCUIT FUSING - Protects elements and contactors from short circuits, overloading or line surges. Meets National Electric Code requirements (fusing required when current draw exceeds 48 amps).

STANDARD VOLTAGES - 208, 240 and 480V single-phase and three phase delta. Convertible from three-phase to single-phase (in field) and vice versa (except 208/54 KW), 277V single-phase also available.

TERMINAL BLOCK - Factory installed. Just bring the service to the heater and connect to block.

MAGNETIC CONTACTORS - Heavy duty; UL rated 100,000 cycles.

CONTROLS - 120V control circuit is powered by fused transformer, eliminating need for 120V service connection. Immersion temperature control adjustable through a range of 60°F to 180°F. Manual reset high temperature cutoff.

- Simplified circuitry, color coded for ease of service
- Hinged control compartment door for quick, easy access
- Two anode rods for maximum corrosion protection
- Cabinet has bonderized undercoat with baked enamel finish
- Top outlet, side inlet and relief valve openings
- Nipple and brass drain valve
- A.G.A. / ASME temperature and pressure relief valve.

OPTIONAL

GOLDENROD ELEMENTS - All DVE models are available with the Goldenrod 24K gold plated elements (patent pending). Goldenrod elements provide long life and 5 times the scaling resistance of standard incoloy elements. Goldenrod elements carry a three-year warranty against failure due to lime scale build-up.

MANIFOLD KITS WITH STOP VALVES - Available for multiple installations.

THERMOSTATIC SEQUENCING CONTROL - Energizes three elements at a time to prevent line surges when thermostat calls for heat. Available on units 24 KW and larger.

Dura-Power

COMMERCIAL ELECTRIC
WATER HEATERS
DVE-52, 80, 120

Meets or exceeds the requirements of ASHRAE 90.1b-1992 Standard for energy efficiencies.











LIMITED WARRANTY OUTLINE

If the tank should leak any time during the first three years, under the terms of the warranty, A.O. Smith will furnish a replacement heater; installation, labor, handling and local delivery extra. **THIS OUTLINE IS NOT A WARRANTY.**

For complete information, consult the written warranty or A. O. Smith Water Products Company.

See page C 029.0 for service wiring and fuse selection.

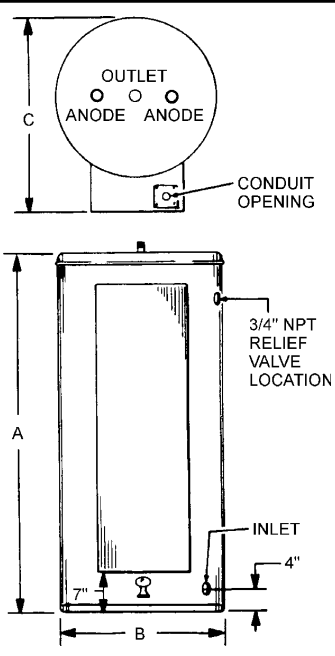
OPTIONAL INTERNATIONAL VOLTAGES - 350, 415, 480, 575 and 600 volts three-phase available with Y connected elements.

Revised June 2001

A 203.0

Revised 03/29/05

Page 1 of 2



RECOVERY CAPACITY IN GALLONS AT TEMPERATURE RISE OF

Standard KW Input	BTU/ Hour	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
6	20,478	82	62	49	41	35	31	27	25	22	21	19	18
9	30,717	123	92	74	62	53	46	41	37	34	31	28	26
12	40,956	164	123	98	82	70	61	55	49	45	41	38	35
13.5	46,075	184	138	111	92	79	69	62	55	50	46	43	40
15	51,195	205	154	123	102	88	77	68	61	56	51	47	44
18	61,434	246	184	148	123	105	92	82	74	67	62	57	53
24	81,912	328	246	197	164	140	123	109	98	90	82	76	70
27	92,151	369	276	221	185	158	138	123	111	101	92	85	79
30	102,390	410	307	246	205	176	154	137	123	112	102	95	88
36	122,868	492	369	295	246	211	184	164	148	134	123	113	105
40.5	138,226	554	418	332	277	237	208	185	166	151	138	128	119
45	153,585	615	461	369	307	263	230	205	184	168	154	142	132
54	184,302	738	554	443	359	316	277	246	221	201	185	170	158

Figured at 1 KW (3413 BTU) = 4.1 Gallons at 100°F temperature rise.
NSF ratings may be obtained by multiplying the above figures by 0.98.

Model Number	Tank Capacity in Gallons	Dimensions in Inches			Inlet/ Outlet	Approx. Ship. Wt. (Lbs.)	
		A	B	C		Standard	ASME
DVE-52	50	55 1/4	21 3/4	27 1/4	1 1/4	265	316
DVE-80	80	59 1/2	25 1/4	31 1/4	1 1/4	280	325
DVE-120	119	62 1/4	29 1/2	35 3/4	1 1/4	390	416

KW Input	Model Numbers			Number Of Elements	Element Wattage	Full Load Current In Amperes						
	Tank Capacity in Gallons					Single Phase			Three Phase			
	50	80	119			208V	240V	277V	480V	208V	240V	480V
6	DVE-52-6	DVE-80-6	DVE-120-6	3	2,000	28.8	25.0	21.7	12.5	16.7	14.4	7.2
9	DVE-52-9	DVE-80-9	DVE-120-9	3	3,000	43.3	37.5	32.5	18.8	25.0	21.7	10.8
12	DVE-52-12	DVE-80-12	DVE-120-12	3	4,000	57.7	50.0	43.3	25.0	33.3	28.9	14.4
13.5	DVE-52-13.5	DVE-80-13.5	DVE-120-13.5	3	4,500	64.9	56.3	48.7	28.1	37.5	32.5	16.2
15	DVE-52-15	DVE-80-15	DVE-120-15	3	5,000	72.1	62.5	54.2	31.3	41.6	36.1	18.0
18	DVE-52-18	DVE-80-18	DVE-120-18	3*	6,000	86.5	75.0	65.0	37.5	50.0	43.3	21.7
24	DVE-52-24	DVE-80-24	DVE-120-24	6	4,000	115.4	100.0	86.6	50.0	66.6	57.7	28.9
27	DVE-52-27	DVE-80-27	DVE-120-27	6	4,500	129.8	112.5	97.5	56.3	74.9	65.0	32.5
30	DVE-52-30	DVE-80-30	DVE-120-30	6	5,000	144.2	125.0	108.3	62.5	83.3	72.2	36.1
36	DVE-52-36	DVE-80-36	DVE-120-36	6*	6,000	173.1	150.0	130.0	75.0	99.9	86.6	43.3
40.5	DVE-52-40.5	DVE-80-40.5	DVE-120-40.5	9	4,500	194.7	168.8	146.2	84.4	112.4	97.4	48.7
45	DVE-52-45	DVE-80-45	DVE-120-45	9	5,000	216.3	187.5	162.5	93.8	124.9	108.3	54.1
54	DVE-52-54	DVE-80-54	DVE-120-54	9	6,000	N/A	225.0	194.9	112.5	149.9	129.9	65.0

*208 volt models may contain three (3) additional elements.

SAMPLE SPECIFICATION

The heater(s) shall be Dura-Power Commercial Electric Model Number _____ as manufactured by A.O. Smith Water Products Company or equivalent. Heater(s) shall be rated at _____ KW _____ V _____ phase, 60 cycle AC listed by Underwriters' Laboratories and approved by the National Sanitation Foundation. Tank(s) shall be (52, 80 or 119) gallon capacity with 150 psi working pressure and equipped with dual extruded high density anodes. All internal surfaces of the heater(s) exposed to water shall be glass-lined with an alkaline borosilicate composition that has been fused to steel by firing at a temperature range of 1400°F to 1600°F. Electric heating elements shall be medium watt density screw-in type with Incoloy sheath and ceramic terminal block. Internal power circuit fusing shall be provided. Element operation shall be _____ (1. simultaneous; or 2. sequenced with thermostats) switched through individual magnetic contactors. Control circuit shall be factory fused and include manual reset high temperature cutoff switch and thermostat with sensing element in tin-plated well, immersed in water. Control cabinet and jacket shall be of baked enamel finish and shall provide full size control and element compartment for complete service and maintenance performance through front hinged compartment door, and enclose tank with foam insulation. 1 1/4" inlet and outlet connection shall be provided. The heater tank shall have a three year limited warranty and controls and accessories shall have a one year limited warranty as outlined in the written warranty. Fully illustrated instruction manual to be included. For multiple installation, factory built manifold kits for _____ heater installation (maximum of 4 heaters) shall be provided. Meets ASHRAE 90.1b-1992.

<p>A.O. Smith Water Products Co., Inc. On Line www.hotwater.com</p> <p>For Technical Information and Automated Fax Service, Phone: 800-527-1953</p>	<p>A. O. Smith Water Products Company Ashland City, TN A Division of A. O. Smith Corporation</p> <p>A. O. Smith Corporation reserves the right to make product changes or improvements at any time without notice.</p>
---	--

DESCRIPTION: WATER HEATER - GAS FIRED, MINIMUM 80% EFFICIENT, GLASS-LINED, VERTICAL, WELDED STEEL, ASME STAMPED TANK, MULTIPLE ANODE RODS, DRAFT DIVERTER, ALUMINIZED STEEL BURNER, INSPECTION PORT, TEMPERATURE SENSOR LOCATED IN THE TOP AND BOTTOM OF TANK, AUTOMATIC SHUTOFF DEVICE IN CASE PILOT LIGHT IS EXTINGUISHED. 160 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, FIBERGLASS OR FOAM INSULATION. AUTOMATIC DIRECT IMMERSION THERMOSTAT WITH ADJUSTABLE TEMPERATURE RANGE, AUTOMATIC RESET HIGH TEMPERATURE LIMITING THERMOSTAT, BUILT-IN GAS REGULATING VALVE, MULTI-RIBBON OR TUBULAR BURNER, 100 PERCENT SAFETY SHUT-OFF PILOT AND THERMOCOUPLE, INTERMITTENT ELECTRONIC IGNITION MONITORING PILOT AND MAIN FLAME, SHUTDOWN OF PILOT AND MAIN BURNER IN 2-4 SECONDS AFTER LOSS OF FLAME, AUTOMATIC FLUE DAMPER, 120 VOLT CONTROL SYSTEM. [FURNISH POWER VENTER IN FLUE PIPE WITH SAIL SWITCH TO PROVE FLOW BEFORE HEATER FIRES. WIRE TO HEATER CONTROLS.] BRASS WATER CONNECTIONS AND DIP TUBE, BRASS DRAIN AND RELIEF VALVES, HANDHOLE CLEANOUT, BURNER VIEW PORT. ASME/CSA T&P RELIEF VALVE. DESIGNED AND CERTIFIED BY AGA UNDER VOLUME III (COMMERCIAL WATER HEATERS). SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 3-YEAR WARRANTY.

[_____] GALLON CAPACITY STORAGE WITH [_____] GPH RECOVERY RATE AT [_____] DEGREE F. TEMPERATURE RISE AND [_____] MBH INPUT NATURAL GAS.

SET WATER HEATER TEMPERATURE AT [_____] DEGREES F.

SET WATER HEATER GAS PRESSURE AT [_____] " W.C.

MANUFACTURER & CATALOG NO.: A.O. SMITH BTR, BRADFORD WHITE D SERIES, RHEEM G SERIES, RUUD G SERIES, STATE SBF, AMERICAN WATER HEATER DCG SERIES

Notes to Specifier:

1. This is a commercial gravity, gas fired water heater. If water heater is used to supply 180°F for sanitation purposes, add the following: AGA AND NSF CERTIFICATION OF 180 DEGREE F. SERVICE.
2. In a few instances the "ASME Stamped Tank" can be removed for a cost savings measure. Verify with all applicable codes.
3. Expansion tanks are required in Des Moines on ALL water heaters.
4. Typical ranges for gas pressures are 5" to 14" w.c. Verify with manufacturer.

A.O. SMITH

APPROVAL RATINGS AND CERTIFICATION
 All models comply with ANSI Z21.10.3 CGA4.3
 All models comply with ASHRAE/IES 90.1 b-1992.
 C.E.C. California Energy Commission

FEATURES
 80+ % thermal efficiency affords lower operating costs on most models.

WATER CONNECTIONS - For ease of installation, BTR's feature on most models water connections on the top, front, and rear.

GLASS LINED TANK - Permaglas® Ultracoat is the proprietary ceramic coating developed by A.O. Smith's ceramic engineers specifically for this heater. It is applied after the complete tank has been assembled to give a seamless barrier against corrosion by hot water. The maximum working pressure is 160 psi (1103.2 kPa).

FULLY AUTOMATIC CONTROLS WITH SAFETY SHUTOFF —Accurate, dependable control system. Manual reset gas shutoff device for added safety. Maximum inlet gas pressure is 14" W.C. Minimum gas pressure is 4.5" W.C. natural gas, 11" W.C. propane.

FOAM INSULATION—Saves fuel, helps reduce standby heat loss.

JACKET—Heavy gauge steel finished with a baked enamel finish over a bonderized undercoat.

EASY CLEANING — Handhole cleanout allows easy cleaning.

FULLY TESTED FOR SAFETY AND PERFORMANCE— Design certified by the Underwriters Laboratory for 180° F (82° C) hot water service. Meets rigid requirements of the National Sanitation Foundation when equipped with optional leg kit. Certified for use on combustible flooring.

INTERMITTENT IGNITION DEVICE— Eliminates standing pilot. Provides flame failure response in less than one second. Power ON/OFF switch.

EASY TO INSTALL—Completely factory-assembled. Only gas, water, vent and electric connections need be made. Provided with drain valve.

FACTORY INSTALLED AND TESTED DRAFT DIVERTER —Low profile "snap action" diverter with automatic motorized flue damper to minimize standby losses.

ANODES — CoreGuard™ long-life, stainless steel core anode rods.

PLUG KITS — Pipe nipples and caps are included to plug unused water connections.

OTHER FEATURES

- Equipped with gas pressure regulator and pilot filter.
- Integral automatic gas shutoff system prevents excessive water temperature.
- A.S.A. rated temperature and pressure relief valve factory-installed.
- Maximum working pressure is 160 psi (1103.2 kPa) standard.
- Cathodic protection.
- Adjustable thermostat with a 120-180°F range.

OPTIONS

- Power vent kits for side wall venting (page A105.4).
- Manifold kits for multiple heater installations.
- Meets NSF Standard 5 with optional leg kit.

MasterFit®

COMMERCIAL GAS
TANK-TYPE WATER HEATERS
BTR 120-500(A)






ASME

on selected models.

Approved by NSF
Standard 5
with Optional Leg Kit

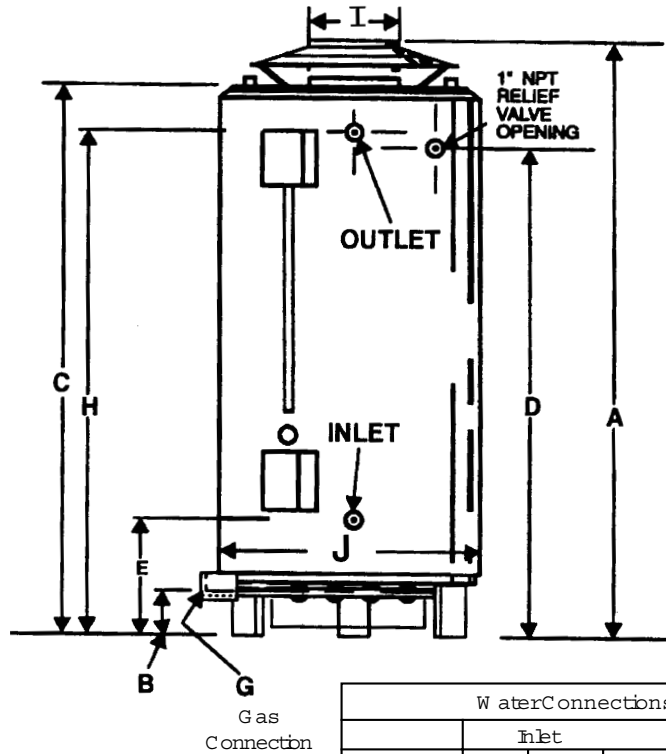
LIMITED WARRANTY OUTLINE

If the tank should leak any time during the first three years, under the terms of the limited warranty, A. O. Smith will furnish a replacement heater, installation, labor, handling and local delivery extra. **THIS OUTLINE IS NOT A WARRANTY.** For complete information, consult the written warranty or A. O. Smith Water Products Company.

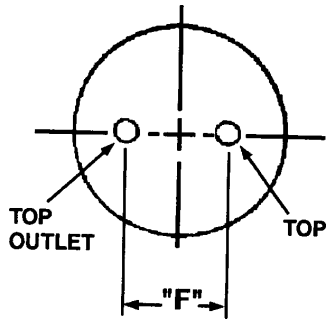
Warranty does not apply to product installed outside of the United States of America or its territorial possessions and Canada.

Revised April 2000
A 105.1

ROUGH DIMENSIONS
SIDE VIEW OF BTR
Models 120-500



Top View of BTR



Models	Water Connections in Inches					
	Inlet			Outlet		
	Top	Front	Back	Top	Front	Back
BTR 120	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 154	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 180	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 197	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 198	1 1/2	1 1/2	2	1 1/2	1 1/2	2
BTR 199	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 200	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 250 (A)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 251 (A)	NA	1 1/2	1 1/2	NA	1 1/2	1 1/2
BTR 275 (A)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 305 (A)	NA	1 1/2	1 1/2	NA	1 1/2	1 1/2
BTR 365 (A)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 400 (A)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
BTR 500 (A)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2

Gas Pressure Requirements		
	Natural Gas	Propane Gas
Max. Supply Pressure	13.8" w.c.	13.8" w.c.
Min. Supply Pressure	4.5" w.c.	11" w.c.
Manifold Pressure	3.5" w.c.	10" w.c.

Electrical Specifications		
	Volts	Amps
BTR	120VAC	.7
BTR with PowerVenter	120VAC	3.0 FLA

A 105.2

Model	Input Rate BTU/Hr	Approx. Tank Cap.	A	B	C	D	E	F	Gas Inlet G	H	Vent Dia. I	J	Connections						Approximate Shp. Weight	
													Inlet			Outlet			STD.	ASME
													Top	Front	Back	Top	Front	Back		
BTR120	120,000 BTU/Hr 35 Kw/Hr	71 Gal 268 L	69.75" 177 cm	4.25" 11 cm	59.50" 151 cm	50.87" 129 cm	19.69" 50 cm	19" 48 cm	1/2" 1.2"	51.88" 132 cm	5" 13 cm	27.75" 71 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	400 Lbs 182 Kg	NA NA
BTR154	154,000 BTU/Hr 45 Kw/Hr	81 Gal 307 L	73.00" 185 cm	4.25" 11 cm	66.50" 169 cm	57.87" 147 cm	19.69" 50 cm	19" 48 cm	1/2" 1.2"	59.00" 150 cm	6" 15 cm	27.75" 71 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	470 Lbs 213 Kg	NA NA
BTR180	180,000 BTU/Hr 53 Kw/Hr	81 Gal 307 L	67.50" 171 cm	4.50" 12 cm	62.00" 157 cm	53.62" 136 cm	20.50" 52 cm	21" 53 cm	1/2" 1.2"	54.62" 139 cm	6" 15 cm	27.75" 71 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	470 Lbs 213 Kg	NA NA
BTR197	199,000 BTU/Hr 58 Kw/Hr	100 Gal 379 L	75.00" 192 cm	4.50" 12 cm	70.00" 178 cm	61.62" 157 cm	20.50" 52 cm	21" 53 cm	1/2" 1.2"	62.62" 159 cm	6" 15 cm	27.75" 71 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	603 Lbs 273 Kg	NA NA
BTR198	199,000 BTU/Hr 58 Kw/Hr	100 Gal 379 L	75.00" 192 cm	4.50" 12 cm	70.00" 178 cm	61.62" 157 cm	20.50" 52 cm	21" 53 cm	1/2" 1.2"	61.50" 150 cm	6" 15 cm	27.75" 71 cm	1.50"	1.50"	2.00"	1.50"	1.50"	2.00"	603 Lbs 273 Kg	NA NA
BTR199	190,000 BTU/Hr 56 Kw/Hr	81 Gal 307 L	67.50" 171 cm	4.50" 12 cm	62.00" 157 cm	53.62" 136 cm	20.50" 52 cm	21" 53 cm	1/2" 1.2"	54.62" 139 cm	6" 15 cm	27.75" 71 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	470 Lbs 213 Kg	NA NA
BTR200	199,000 BTU/Hr 58 Kw/Hr	100 Gal 379 L	72.00" 183 cm	4.50" 12 cm	65.13" 165 cm	55.87" 142 cm	19.75" 50 cm	23" 58 cm	1/2" 1.2"	56.38" 143 cm	6" 15 cm	30.25" 77 cm	1.50"	2.00"	2.00"	1.50"	2.00"	2.00"	630 Lbs 286 Kg	725 Lbs 329 Kg
BTR250	250,000 BTU/Hr 72 Kw/Hr	100 Gal 379 L	72.00" 183 cm	4.50" 12 cm	65.13" 165 cm	55.87" 142 cm	19.75" 50 cm	23" 58 cm	1/2" 1.2"	56.38" 143 cm	8" 20 cm	30.25" 77 cm	1.50"	2.00"	2.00"	1.50"	2.00"	2.00"	630 Lbs 286 Kg	725 Lbs 329 Kg
BTR251	251,000 BTU/Hr 73 Kw/Hr	65 Gal 246 L	75.00" 191 cm	4.50" 12 cm	65.75" 167 cm	57.25" 145 cm	20.00" 51 cm	NA	1/2" 1.2"	58.75" 149 cm	8" 20 cm	27.75" 70 cm	NA	1.50"	1.50"	NA	1.50"	1.50"	750 Lbs 341 Kg	862 Lbs 391 Kg
BTR275	275,000 BTU/Hr 80 Kw/Hr	100 Gal 379 L	72.00" 183 cm	4.50" 12 cm	65.13" 165 cm	55.87" 142 cm	19.75" 50 cm	23" 58 cm	1/2" 1.2"	56.38" 143 cm	8" 20 cm	30.25" 77 cm	1.50"	2.00"	2.00"	1.50"	2.00"	2.00"	630 Lbs 286 Kg	725 Lbs 329 Kg
BTR305	305,000 BTU/Hr 89 Kw/Hr	65 Gal 246 L	75.00" 191 cm	4.50" 12 cm	65.75" 167 cm	57.25" 145 cm	20.00" 51 cm	NA	1/2" 1.2"	58.75" 149 cm	8" 20 cm	27.75" 70 cm	NA	1.50"	1.50"	NA	1.50"	1.50"	750 Lbs 341 Kg	862 Lbs 391 Kg
BTR365	365,000 BTU/Hr 107 Kw/Hr	85 Gal 322 L	79.50" 202 cm	4.50" 12 cm	70.25" 178 cm	62.50" 159 cm	22.50" 57 cm	23" 58 cm	3/4" 3/4"	63.00" 160 cm	8" 20 cm	27.75" 70 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	725 Lbs 329 Kg	833 Lbs 379 Kg
BTR400	399,000 BTU/Hr 117 Kw/Hr	100 Gal 379 L	75.00" 192 cm	4.50" 12 cm	67.50" 171 cm	58.25" 148 cm	26.75" 68 cm	23" 58 cm	3/4" 3/4"	59.00" 150 cm	8" 20 cm	30.25" 77 cm	1.50"	2.00"	2.00"	1.50"	2.00"	2.00"	760 Lbs 345 Kg	874 Lbs 396 Kg
BTR500	500,000 BTU/Hr 147 Kw/Hr	85 Gal 322 L	82.25" 209 cm	4.50" 12 cm	73.50" 187 cm	65.25" 166 cm	25.50" 65 cm	21" 53 cm	1" 1"	65.75" 167 cm	8" 20 cm	27.75" 70 cm	1.50"	1.50"	1.50"	1.50"	1.50"	1.50"	745 Lbs 338 Kg	857 Lbs 389 Kg

MODEL	NPUT RATE BTUH	APPROX. GAL CAP.	EFF. %	RECOVERY RATING CAPACITIES (GPH AND LPH)													
				30°F (-1 C)	40°F 4 C	50°F 10 C	60°F 15 C	70°F 21 C	80°F 27 C	90°F 32 C	100°F 38 C	110°F 43 C	120°F 49 C	130°F 54 C	140°F 60 C		
BTR 120	120,000 BTUH 35 Kw/Hr	71 Gal 268 L	80	388 1469	491 1102	233 882	194 734	166 628	145 549	129 488	116 439	106 401	97 367	90 341	83 314		
BTR 154	154,000 BTUH 45 Kw/Hr	81 Gal 306 L	80	498 1885	373 1412	299 1132	249 943	213 806	187 708	166 628	149 564	136 515	124 469	115 435	107 405		
BTR 180	180,000 BTUH 53 Kw/Hr	81 Gal 306L	80	579 2192	434 1643	347 1314	289 1094	248 939	217 821	193 731	174 659	158 598	145 549	134 507	124 469		
BTR 197	199,000 BTUH 58 Kw/Hr	100 Gal 379 L	80	643 2434	482 1825	386 1461	322 1219	276 1045	241 912	214 810	193 731	175 662	161 609	148 560	132 500		
BTR 198	199,000 BTUH 58 Kw/Hr	100 Gal 379L	80	643 2434	482 1825	386 1461	322 1219	276 1045	241 912	214 810	193 731	175 662	161 609	148 560	132 500		
BTR 199	190,000 BTUH 56 Kw/Hr	81 Gal 306 L	80	614 2324	461 1745	368 1393	307 1162	263 996	230 871	205 776	184 697	167 632	154 583	142 538	132 500		
BTR 200	199,000 BTUH 58 Kw/Hr	100 Gal 379 L	80	643 2434	482 1825	386 1461	322 1219	276 1045	241 912	214 810	193 731	175 662	161 609	148 560	132 500		
BTR 250	250,000 BTUH 73 Kw/Hr	100 Gal 379 L	80	808 3059	606 2294	485 1835	404 1529	346 1311	303 1147	269 1020	242 918	220 834	202 765	186 706	173 655		
BTR 251	251,000 BTUH 73 Kw/Hr	65 Gal 246 L	80	811 3071	608 2303	487 1843	406 1536	348 1316	304 1152	270 1024	243 921	221 838	203 768	187 709	174 658		
BTR 275	275,000 BTUH 80 Kw/Hr	100 Gal 379 L	80	889 3365	667 2524	533 2019	444 1682	381 1442	333 1262	296 1122	267 1009	242 918	222 841	205 776	190 721		
BTR 305	305,000 BTUH 89 Kw/Hr	65 Gal 246 L	80	986 3732	739 2799	592 2239	493 1866	423 1599	370 1399	329 1244	296 1120	269 1018	246 933	228 861	211 800		
BTR 365	365,000 BTUH 107 Kw/Hr	85 Gal 322 L	80	1180 4466	885 3349	708 2680	590 2233	506 1914	442 1675	393 1489	354 1340	322 1218	295 1116	272 1031	253 957		
BTR 400	399,000 BTUH 117 Kw/Hr	100 Gal 379 L	80	1293 4894	970 3671	776 2936	646 2447	554 2097	485 1835	431 1631	388 1468	353 1335	323 1224	298 1129	277 1049		
BTR 500	500,000 BTUH 147 Kw/Hr	85 Gal 322 L	80	1616 6118	1212 4588	970 3671	808 3059	693 2622	606 2294	539 2039	485 1835	441 1668	404 1529	373 1412	346 1311		

MECHANICAL VENTING

SINGLE UNIT INSTALLATION

When mechanical venting of these heaters is desired, the following kits are available.

BTR (C) 120 through the BTR (C) 200/A, A.O. Smith part number 193933

BTR (C) 250/A through the BTR (C) 500/A, A.O. Smith part number 193933-1

When a draft inducer is to be installed to operate in conjunction with the water heater thermostat, the following codes must be adhered to. Field wiring should conform to the latest version of the National Electric Code. ANSINFPANo. 70. For Canadian installations the electrical connections and grounding shall be done in accordance with the current Canadian Electrical Code CSA C22.1 Part 1 and/or local codes.

NOTE: The draft inducer must be installed downstream of the draft hood. See figure 13.

- Install draft inducer in the vent system.
- Take one way plugs and insert male into thermostat connector and plug female into connection coming from draft hood.
- Run 120 VAC to draft hood inducer.

See side wall vent kit installation manual for complete instructions.

VENT INSTALLATION

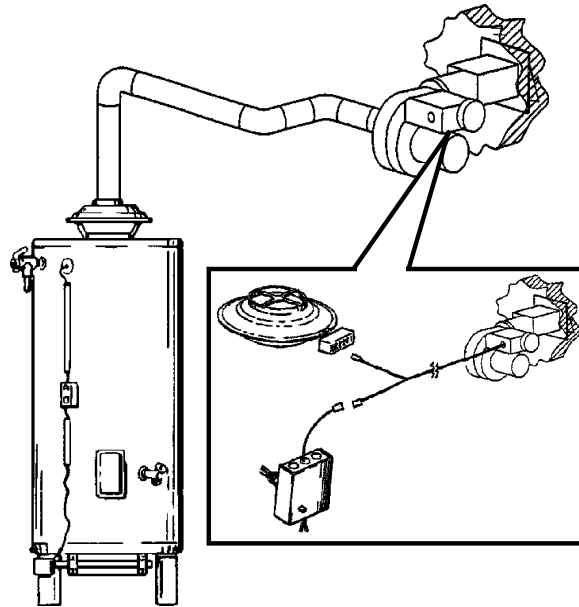
Seal all joints between the boiler and the vent termination. This is to prevent leakage of exhaust products into the room(s) due to positive pressure of boiler.

The "Sequence of Operation" description will be the same with mechanical venting except,

When the appliance thermostat calls for heat:

The thermostat contacts "C base" and the draft inducer boiler (120 VAC) is energized. Sufficient draft must be established for the "Draft Prover Switch (NO)" to "C base". When the draft prover switch "C bases" the relay coil of the flue damper is energized.

See side wall vent kit installation manual for complete instructions.



Model Number	PowerVent Part Number
BTR (C) 120 through 200/A	193933
BTR (C) 250/A through 500/A	193933-1

SUGGESTED SPECIFICATION

Water Heater(s) shall be Model _____ as manufactured by A.O. SMITH, or equal. Water heater(s) shall be of glass-lined design, and gas-fired, equipped to burn _____ gas and design certified by the Underwriter Laboratory under Volume III tests for commercial heaters for delivery of 180°F water, and exceed requirements of ASHRAE/IES 90.1b-1992. Heaters shall have an input rating of _____ and a recovery rating of _____ GPH at a temperature rise of 100°F with a storage capacity of _____ gallons. Heaters shall be equipped with 1 1/2" water inlet and outlet openings (BTR 198 rear openings are 2"), a 2 3/4" x 3 3/4" boiler-type handhole cleanout and shall have a maximum working pressure of 160 psi. Water heater(s) shall be equipped with an integrated control system consisting of a 180°F adjustable thermostat with upper and lower sensing bulbs, which average the water temperatures at the top and bottom of the tank for maximum water temperature control. Heater(s) shall be provided with a manual reset gas shutoff device, a gas pressure regulator set for the type of gas supplied, coated steel burners, an approved draft diverter, anodes for cathodic protection, flue damper and ID system. A G.A. pressure and temperature relief valve shall be furnished and installed by the factory. The heaters shall be insulated with foam insulation or equal. The outer jacket shall have a baked enamel finish over a bonderized undercoating. All internal surfaces of the heater(s) exposed to water shall be glass-lined with an alkaline borosilicate composition that has been fused-to-steel by firing at a temperature range of 1400° to 1600°F. Heater tank shall have a 3 year limited warranty against corrosion in residential use as outlined in the written warranty. Fully illustrated instruction manual to be included.

A.O. Smith Water Products Co., Inc On Line
www.hotwater.com

For Technical Information and
Automated Fax Service,
Phone: 800-527-1953

A.O. Smith
Water Products Company
Living, TX

A Division of A.O. Smith Corporation
A.O. Smith Corporation reserves the right to make product changes
or improvements at any time without notice.

WH-7

DESCRIPTION: WATER HEATER - GAS FIRED, MINIMUM 80% EFFICIENT, GLASS-LINED, VERTICAL, WELDED STEEL, ASME STAMPED TANK, MULTIPLE ANODE RODS, BAROMETRIC DRAFT REGULATOR, ALUMINIZED STEEL POWER BURNER WITH ELECTRONIC FLAME GUARD, INTERMITTENT IGNITION, MAIN AND PILOT AUTOMATIC GAS VALVE, GAS PRESSURE REGULATOR, BLOWER PROVING SWITCH, TEMPERATURE SENSOR LOCATED IN THE TOP AND BOTTOM OF TANK, COMBINATION TEMPERATURE AND PRESSURE GAUGE, LOW WATER CUTOFF, 160 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, DRAFT DIVERter, FIBERGLASS OR FOAM INSULATION. AUTOMATIC DIRECT IMMERSION THERMOSTAT WITH ADJUSTABLE TEMPERATURE RANGE, AUTOMATIC RESET HIGH TEMPERATURE LIMITING THERMOSTAT, BUILT-IN GAS REGULATING VALVE, MULTI-RIBBON OR TUBULAR BURNER, 100 PERCENT SAFETY SHUT-OFF PILOT AND THERMOCOUPLE, INTERMITTENT ELECTRONIC IGNITION MONITORING PILOT AND MAIN FLAME, SHUTDOWN OF PILOT AND MAIN BURNER IN 2-4 SECONDS AFTER LOSS OF FLAME, AUTOMATIC FLUE DAMPER, 120 VOLT CONTROL SYSTEM. [FURNISH POWER VENTER IN FLUE PIPE WITH SAIL SWITCH TO PROVE FLOW BEFORE HEATER FIRES. WIRE TO HEATER CONTROLS.] BRASS WATER CONNECTIONS AND DIP TUBE, BRASS DRAIN AND RELIEF VALVES, HANDHOLE CLEANOUT, FLAME INSPECTION PORT. ASME/CSA T&P RELIEF VALVE. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED. 10-YEAR WARRANTY.

[_____] GALLON CAPACITY STORAGE WITH [_____] GPH RECOVERY RATE AT [_____] DEGREE F. TEMPERATURE RISE AND [_____] MBH INPUT NATURAL GAS.

SET WATER HEATER TEMPERATURE AT [_____] DEGREES F.

SET WATER HEATER GAS PRESSURE AT [_____] " W.C.

MANUFACTURER & CATALOG NO.: A.O. SMITH BTP, BRADFORD WHITE R SERIES, PVI MAXIM, RHEEM G SERIES, RUUD G SERIES, STATE SBF,

Notes to Specifier:

1. This is a commercial gas fired water heater with a power burner. PVI Maxim can be sealed combustion, it is a little higher efficiency. Verify type of vent with manufacturer. If water heater is used to supply 180°F for sanitation purposes, add the following:
AGA AND NSF CERTIFICATION OF 180 DEGREE F. SERVICE.
2. In a few instances the "ASME Stamped Tank" can be removed for a cost savings measure. Verify with all applicable codes.
3. Expansion tanks are required in Des Moines on ALL water heaters.
4. Typical ranges for gas pressures are 5" to 14" w.c. Verify with manufacturer.

A.O. SMITH CONSERVATIONIST®

Meets or exceeds current edition of ASHRAE/IES-90.1b-1992.

FEATURES

UL – Entire unit UL listed (File No. MH11631).

GLASS-LINED TANK — Exclusive corrosion protection with glass-lining on all interior surfaces. Multiple anodes provide even more corrosion protection.

ASME CONSTRUCTION STANDARD — 160 PSI working pressure on all models.

POWERED GAS BURNER — Suitable for natural or propane gas. Powered burner has electronic flame safeguard control with intermittent spark ignition. Also included are main and pilot automatic gas valves plus gas pressure regulators, diaphragm air switch for proof of blower operation. Maximum supply gas pressure 13" W.C. A negative draft of $-.02$ " (min.) $-.07$ " W.C. is required in vent piping.

FULLY AUTOMATIC CONTROLS WITH SAFETY SHUTOFF — High temperature limit control (manual reset). ASME rated temperature and pressure relief valve. Hinged door control compartment for ease of access. Two thermostats, upper and lower, for accurate temperature control. Standard control is for 120°F - 180°F water service.

JACKET — Heavy gauge steel with baked enamel finish.

PROFESSIONAL START-UP SERVICE FURNISHED TO ASSURE MOST EFFICIENT COMBUSTION AND SAFE INITIAL START-UP.

OTHER FEATURES

- Two layers of high temperature ceramic fiber insulation in combustion chamber
- Flame inspection port opening
- Mounted on rugged channel iron skids
- National Board Stamping
- Combination temperature and pressure gauge
- Low water cutoff
- ASME rated temperature and pressure relief valve
- Barometric draft regulator
- Two cleanout inspection openings
- 120 volt control circuit
- Drain valve.

OPTIONS

Factory Mutual approved control arrangement • Industrial Risk Insurance (Formerly FIA) • 5 year or 10 year limited warranty • High or low water pressure switch • 180°F water service thermostats • A.G.A. rated T & P valve • Modular graphic burner systems management on heaters with 270,000 BTU input and over.

**HEAVY COMMERCIAL
POWER GAS TANK-TYPE
WATER HEATERS**
MODELS BTP-140-140 THRU BTP-600-2,500



ASME

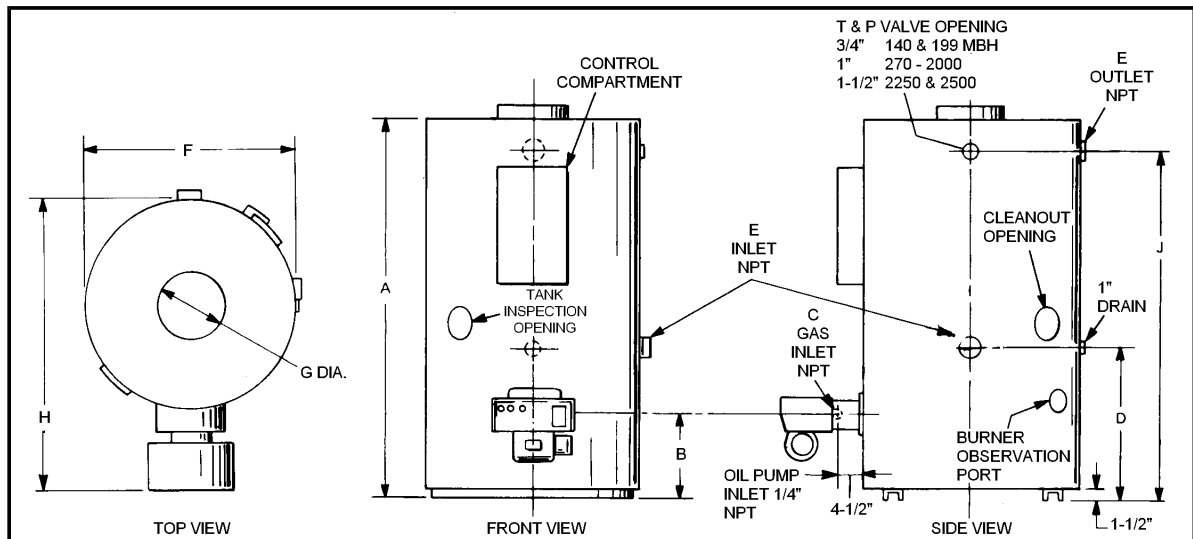
LIMITED WARRANTY OUTLINE

If the tank should leak any time during the first three years, under the terms of the warranty, A.O. Smith will repair or replace heater; installation, labor, handling and local delivery extra. **THIS OUTLINE IS NOT A WARRANTY.** For complete information, consult the written warranty or A. O. Smith Water Products Company.

STORAGE CAPACITIES

Models	Nominal Storage Capacity U.S. Gallons	Input Rating BTU/Hr. Natural Gas	1st Hour Availability	Recovery Capacity GPH 80°F Rise	Recovery Capacity GPH 100°F Rise	Recovery Capacity GPH 140°F Rise	Motor HP 120V 60 Hz 1
BTP-140-140	140	140,000	248	170	136	97	1/7 HP - 2.5 Amps
BTP-140-199	140	199,000	305	241	193	138	
BTP-140-255	140	255,000	359	359	247	176	
BTP-140-270	140	270,000	374	327	262	187	1/4 HP - 4.6 Amps
BTP-140-400	140	400,000	499	485	387	277	
BTP-140-540	140	540,000	636	654	524	374	
BTP-140-720	140	720,000	810	873	698	499	1/3 HP - 5.5 Amps
BTP-200-300	200	300,000	451	364	291	208	1/4 HP - 4.6 Amps
BTP-200-600	200	600,000	742	727	582	416	
BTP-200-800	200	800,000	936	970	776	554	1/3 HP - 5.5 Amps
BTP-200-1000	200	1,000,000	1130	1212	970	693	
BTP-200-1250	200	1,250,000	1372	1515	1212	866	1/2 HP - 7.4 Amps
BTP-200-1500	200	1,500,000	1615	1818	1455	1039	
BTP-300-300	300	300,000	531	364	291	208	1/4 HP - 4.6 Amps
BTP-300-600	300	600,000	822	727	582	416	
BTP-300-800	300	800,000	1016	970	776	554	1/3 HP - 5.5 Amps
BTP-300-1000	300	1,000,000	1210	1212	970	693	
BTP-300-1250	300	1,250,000	1452	1515	1212	866	1/2 HP - 7.4 Amps
BTP-300-1500	300	1,500,000	1695	1818	1455	1039	
BTP-400-600	400	600,000	902	727	582	416	1/4 HP - 4.6 Amps
BTP-400-800	400	800,000	1096	970	776	554	1/3 HP - 5.5 Amps
BTP-400-1000	400	1,000,000	1290	1212	970	693	
BTP-400-1250	400	1,250,000	1532	1515	1212	866	
BTP-400-1500	400	1,500,000	1775	1816	1455	1039	1/2 HP - 7.4 Amps
BTP-400-1750	400	1,750,000	2017	2121	1697	1212	
BTP-400-2000	400	2,000,000	2259	2424	1939	1385	
BTP-400-2250	400	2,250,000	2502	2727	2182	1558	3/4 HP - 10.2 Amps
BTP-400-2500	400	2,500,000	2744	3030	2424	1732	
BTP-600-720	600	720,000	1178	873	698	499	1/3 HP - 5.5 Amps
BTP-600-1000	600	1,000,000	1450	1212	970	693	
BTP-600-1250	600	1,250,000	1692	1515	1212	866	
BTP-600-1500	600	1,500,000	1935	1816	1455	1039	1/2 HP - 7.4 Amps
BTP-600-1750	600	1,750,000	2177	2121	1697	1212	
BTP-600-2000	600	2,000,000	2419	2424	1939	1385	
BTP-600-2250	600	2,250,000	2662	2727	2182	1558	3/4 HP - 10.2 Amps
BTP-600-2500	600	2,500,000	2904	3030	2424	1732	

Capacity ratings are based on 80% thermal efficiency.



Models	A	B	C	D	E	F	G	H*	J	Ship. Wt. w/Burner (lbs.)
BTP-140-140	83 1/2	14	1/2	28 1/2	1 1/4	34 1/2	5	46†	73	1292
BTP-140-199	83 1/2	14	1/2	28 1/2	1 1/4	34 1/2	6	46†	73	1292
BTP-140-255	83 1/2	14	1/2	28 1/2	1 1/4	34 1/2	6	46†	73	1292
BTP-140-270	83 1/2	14	1	28 1/2	1 1/4	34 1/2	6	56 1/2	73	1397
BTP-140-400	83 1/2	14	1	28 1/2	1 1/4	34 1/2	7	56 1/2	73	1397
BTP-140-540	83 1/2	14	1	28 1/2	1 1/4	34 1/2	8	56 1/2	73	1505
BTP-140-720	83 1/2	14	1 1/4	28 1/2	1 1/4	34 1/2	10	56 1/2	73	1510
BTP-200-300	83 1/2	15	1	32 1/2	1 1/2	44 3/4	6	66 1/2	73	2098
BTP-200-600	83 1/2	15	1	32 1/2	1 1/2	44 3/4	8	66 1/2	73	2098
BTP-200-800	83 1/2	15	1 1/4	32 1/2	1 1/2	44 3/4	10	66 1/2	73	2103
BTP-200-1000	83 1/2	15	1 1/4	32 1/2	1 1/2	44 3/4	10	66 1/2	73	2103
BTP-200-1250	83 1/2	15	1 1/4	32 1/2	1 1/2	44 3/4	12	66 1/2	73	2467
BTP-200-1500	83 1/2	15	1 1/2	32 1/2	1 1/2	44 3/4	12	81 1/2	73	2757
BTP-300-300	91 1/2	14	1	26 1/2	1 1/2	44 3/4	6	66 1/2	83	2150
BTP-300-600	91 1/2	14	1	26 1/2	1 1/2	44 3/4	8	66 1/2	83	2150
BTP-300-800	91 1/2	14	1 1/4	26 1/2	1 1/2	44 3/4	10	66 1/2	83	2308
BTP-300-1000	91 1/2	14	1 1/4	26 1/2	1 1/2	44 3/4	10	66 1/2	83	2308
BTP-300-1250	91 1/2	14	1 1/4	26 1/2	1 1/2	44 3/4	12	66 1/2	83	2584
BTP-300-1500	91 1/2	14	1 1/2	26 1/2	1 1/2	44 3/4	12	81 1/2	83	2774
BTP-400-600	91 1/2	15	1	32 1/2	2	55	8	76 1/2	81	3207
BTP-400-800	91 1/2	15	1 1/4	32 1/2	2	55	10	76 1/2	81	3212
BTP-400-1000	91 1/2	15	1 1/4	32 1/2	2	55	10	76 1/2	81	3212
BTP-400-1250	91 1/2	15	1 1/4	32 1/2	2	55	12	76 1/2	81	3212
BTP-400-1500	91 1/2	15	1 1/2	32 1/2	2	55	12	91 1/2	81	3402
BTP-400-1750	91 1/2	15	2	32 1/2	2	55	14	91 1/2	81	3528
BTP-400-2000	91 1/2	15	2	32 1/2	2	55	14	91 1/2	81	3669
BTP-400-2250	91 1/2	15	2	32 1/2	2	55	16	91 1/2	81	3886
BTP-400-2500	91 1/2	15	2	32 1/2	2	55	16	91 1/2	81	4169
BTP-600-720	115	15	1 1/4	32 1/2	2	55	10	76 1/2	105	3567
BTP-600-1000	115	15	1 1/4	32 1/2	2	55	10	76 1/2	105	3567
BTP-600-1250	115	15	1 1/4	32 1/2	2	55	12	76 1/2	105	3567
BTP-600-1500	115	15	1 1/2	32 1/2	2	55	12	91 1/2	105	3737
BTP-600-1750	115	15	2	32 1/2	2	55	14	91 1/2	105	3737
BTP-600-2000	115	15	2	32 1/2	2	55	14	91 1/2	105	3737
BTP-600-2250	115	15	2	32 1/2	2	55	16	91 1/2	105	4377
BTP-600-2500	115	15	2	32 1/2	2	55	16	91 1/2	105	4519

*Dimensions based on "Power Flame" Power Burners. † Dimensions based on "Adams" Burners.

WH-8

DESCRIPTION: WATER HEATER - GAS FIRED, MINIMUM 80% EFFICIENT, NON-FERROUS WATERWAYS, COPPER FINNED HEAT EXCHANGER. 160 PSI WORKING PRESSURE, METAL CABINET WITH BAKED ENAMEL FINISH, FIBERGLASS OR FOAM INSULATION, AGA CERTIFIED DRAFT HOOD. ADJUSTABLE THERMOSTAT TO ACTIVATE BURNER MOUNTED ON STORAGE TANK, HIGH TEMPERATURE SENSOR IN TANK TO SHUT-OFF ENTIRE GAS SUPPLY, AUTOMATIC MAIN AND REDUNDANT GAS VALVE, BUILT-IN GAS REGULATING VALVE, ELECTRIC GAS VALVE OF THE STEP-OPENING TYPE, WATER FLOW SWITCH, HOT SURFACE ELECTRONIC IGNITION, OPERATING AQUASTAT, MANUAL RESET HIGH TEMPERATURE CUTOUT, HIGH-LOW GAS PRESSURE SWITCH, 120 VOLT, SINGLE PHASE CONTROL CIRCUIT, INLET, OUTLET, FLAME INSPECTION PORT, DRAIN AND RELIEF VALVE OPENINGS. ENTIRE SYSTEM SHALL BE RIGIDLY MOUNTED ON A WELDED STEEL SKID BASE AND SHIPPED ASSEMBLED TO THE JOBSITE. ASME/CSA T&P RELIEF VALVE. SHALL MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT, ASHRAE 90.1, AND ASHRAE 90A - GOVERNING ISSUES. UL LISTED, 5-YEAR WARRANTY.

CAPACITY - [_____] GPH RECOVERY RATE AT [_____] DEGREE F. TEMPERATURE RISE AND [_____] MBH INPUT NATURAL GAS.

SET WATER HEATER GAS PRESSURE AT [_____] " W.C.

CIRCULATING SYSTEM - BRONZE OR STAINLESS STEEL FITTED CIRCULATING PUMP. SIZE PUMP FOR PROPER TUBE VELOCITY AND TO PREVENT SCALING, PUMP SHALL RUN CONTINUOUSLY. ISOLATION VALVES, COPPER PIPING, 120 VOLT, DISCONNECT SWITCH, OVERLOAD PROTECTION, FACTORY WIRED TO CONTROL BOX ON HEATER.

HOT WATER STORAGE TANK - [_____] GALLON STORAGE, WELDED STEEL, GLASS-LINED AFTER FABRICATION AND CLEANING, ASME STAMPED TANK. FURNISH WITH TAPPINGS FOR TANK DRAIN, WATER INLET, WATER OUTLET, THERMOMETER, AND PRESSURE RELIEF VALVE SUITABLE FOR MAXIMUM WORKING PRESSURE. 125 PSI WORKING PRESSURE, SCREWED CONNECTIONS OF STAINLESS STEEL OR LINED AFTER FABRICATION, FIBERGLASS OR FOAM INSULATION TO MEET ASHRAE/IES 90.1B-1992. ENCLOSE TANK IN ENAMELED STEEL CABINET WITH ACCESS MANHOLE. WATER TO BE MAINTAINED AT [_____] DEGREES F.

MANUFACTURER & CATALOG NO.: A.O. SMITH AC-U-TEMP, ACE BOILER G SERIES, RHEEM GBCP, RUUD GBCP, WEBEN-JARCO A-2000 SERIES

Notes to Specifier:

1. Other efficiencies and style boilers are available. See manufacturer's catalog and modify description as required.
2. Verify type of vent with manufacturer. If water heater is used to supply 180°F for sanitation purposes, add the following:
AGA AND NSF CERTIFICATION OF 180 DEGREE F. SERVICE.
3. In a few instances the "ASME Stamped Tank" can be removed for a cost savings measure. Verify with all applicable codes.
4. Expansion tanks are required in Des Moines on ALL water heaters.
5. Typical ranges for gas pressures are 5" to 14" w.c. Verify with manufacturer.

A.O. SMITH

Ac-U-Temp Hot Water Supply Systems

The "TOTAL SYSTEM" Concept - We have taken our highly efficient equipment and created a convenient package ; a complete domestic hot water system.

Simplifies Installation - The installer simply connects the gas vent, gas, electric supply, cold water make-up, and hot water supply (Building return loop(s) connect to cold water make-up.)

Eliminates Costly Field Errors - These complete hot water systems are factory-engineered and assembled to assure proper pipe, pump and wiring sizing. Systems are pre-piped and wired to guarantee maximum system efficiency.

Factory Tested - Each Ac-U-Temp system is hydrostatic and fire tested before shipping from the factory.

Ac-U-Temp Storage Tanks - Each Ac-U-Temp storage tank is especially designed with tank opening locations, that provide maximum tank draw efficiency and eliminate any unnecessary piping and connections. Standard Ac-U-Temp tanks are factory jacketed and insulated (Bare tanks to be insulated by others are also available.) The Ac-U-Tanks are factory standard with the same superior glass lining that has set new standards for the tank industry. Standard tank capacities range from 80 gallons to 1,000 gallons (Custom tanks to 10,000 gallons are available).

Other Features - ASME Temperatures and Pressure Relief Valve 125# - Tank Temperature Sensor- Tank Thermometer- Isolation Valves (Reliable Ball Valves) - Superior I-Beam Skid - 125 psi Tank Construction - CI Bronze Fitted Pump - Large Ac-U-Temp Systems are shipped with split/bolt together skids for ease of shipping and installation.

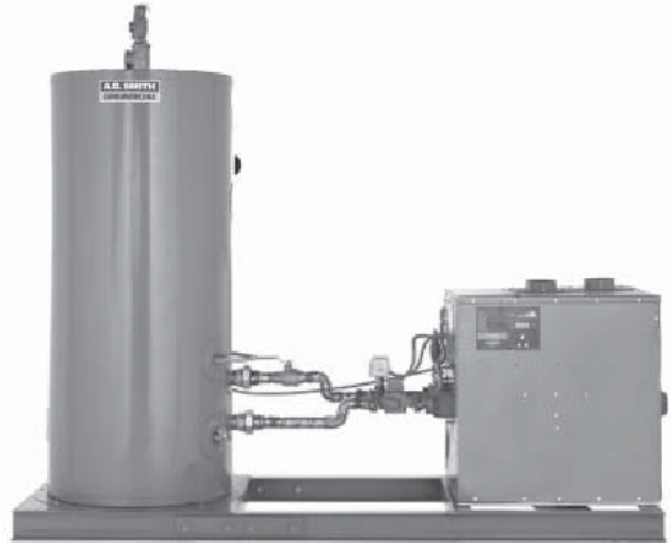
Options - All Bronze Circulating Pump - Sequencing Control Panel (For Multi-Boiler systems) - 150 and 160 psi Tank Construction - 11" x 15" Manholes- Cement and Epoxy Tanks Linings.

Custom Ac-U-Temp Systems - All Ac-U-Temp Systems are built to order, and can be precisely designed to specifically meet your specifications. Many combinations of boilers and tanks are available. Consult your local A.O. Smith Representative for factory assistance.

Multi-Boiler Systems - High recovery systems that can meet any hot water demand. Systems can be designed to provide 50 to 100% back-up. Boilers can be on & off fired, or sequenced to meet changing system demands. Sequenced multi-boiler systems that employ small storage tanks are ideal for applications with relatively constant water demands. Using an A.O. Smith "Stack Rack" these boilers can be stacked two high.



Ac-U-Temp



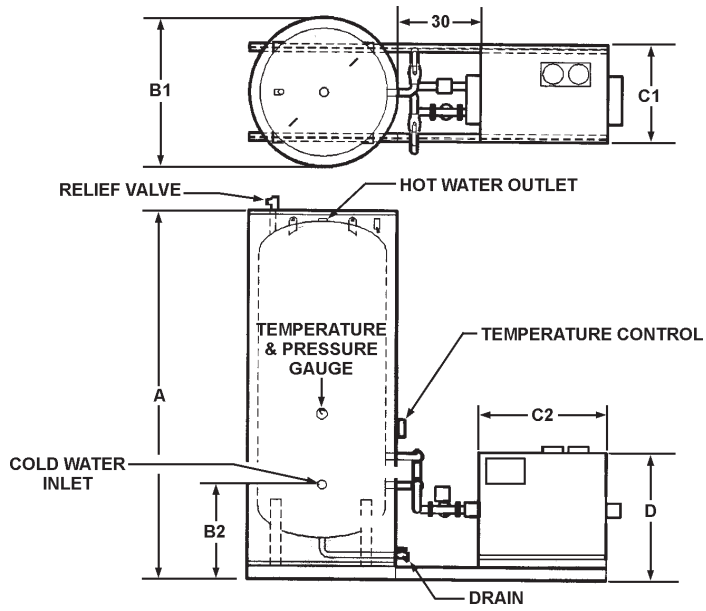
Multi-Tank Systems - For applications with low ceiling heights or unique installation challenges.

Optional Dual Energy Source Capability - Ac-U-Temp storage tanks can be specified with heat exchangers; allows winter/summer heating boiler operation. Both, water to water, or steam to water exchangers are available in both single wall and double wall. Complete control packages can be factory installed for hook-up and run capability.

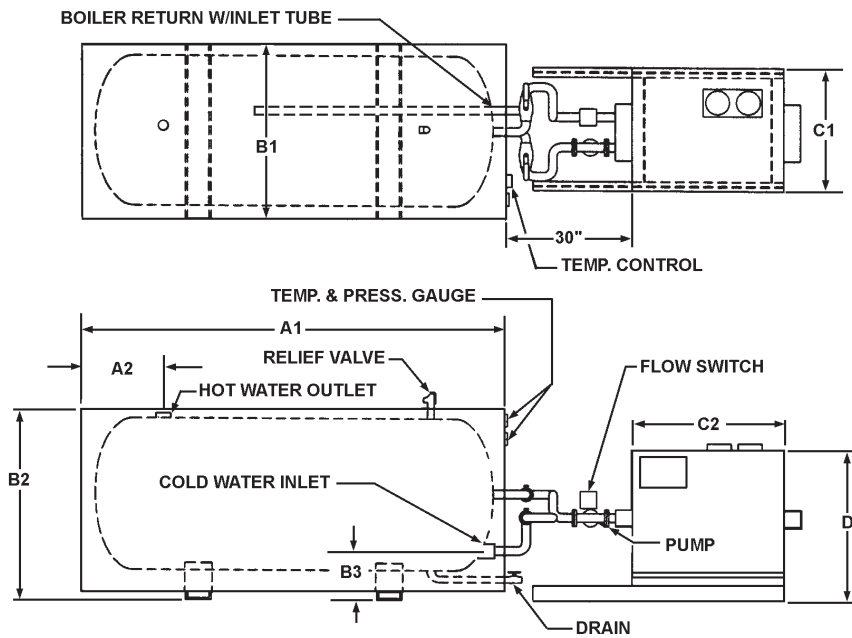
Electric Back-up - Heavy-duty electric water heater elements and controls can be specified for up to 3,000 KW; 100% electric back-up. Provides hot water even during natural gas curtailments.

LIMITED WARRANTY OUTLINE

If the heat exchanger modules should fail within 5 years, under the terms of the warranty, A.O. Smith will furnish a replacement part; installation, labor, handling and local delivery extra. If the tank should leak any time during the first 5 years, under terms of the warranty, A.O. Smith will repair or replace the tank; installation, labor, handling and local delivery extra. **THIS OUTLINE IS NOT THE WARRANTY.** For complete information, consult the boiler and tank warranties or information, consult the boiler and tank warranties or A.O Smith Water Products Company.

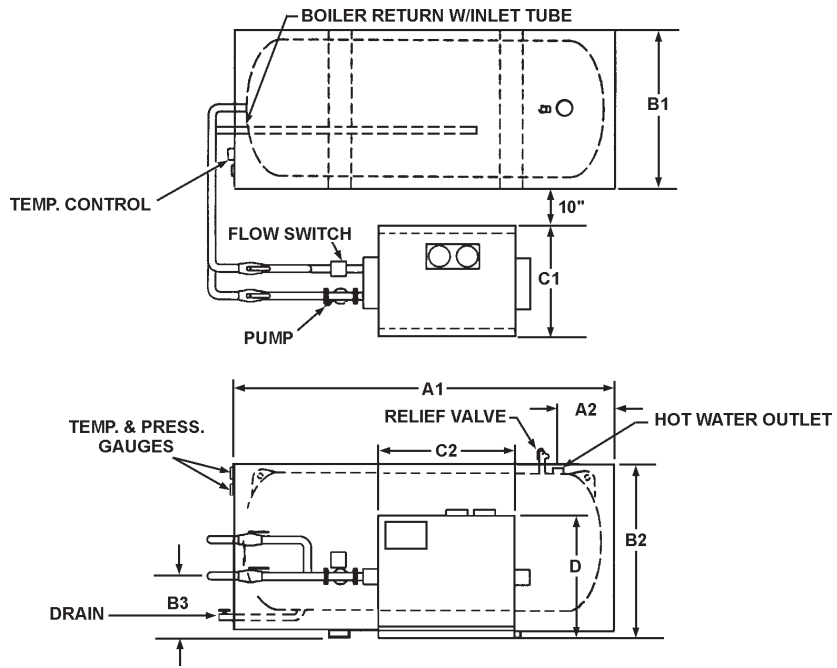


CONFIGURATION V

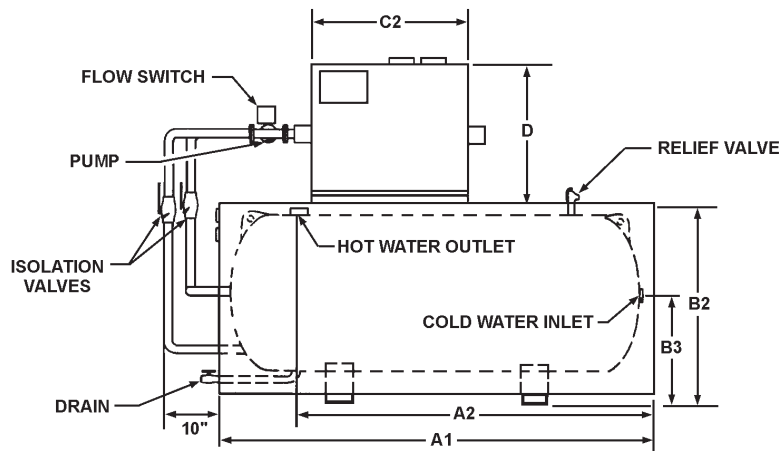
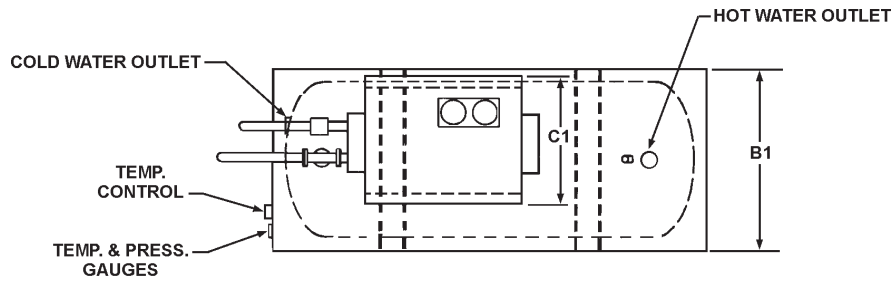


CONFIGURATION H

A 012.7



CONFIGURATION S

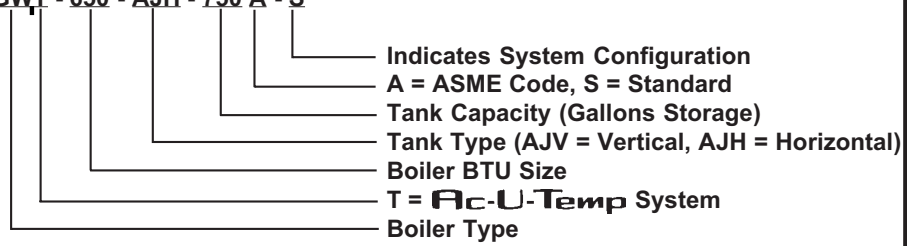


CONFIGURATION P

CONTACT FACTORY FOR APPROPRIATE BOILER/TANK COMBINATION

A 012.8

Model to Specify: **GWT - 650 - AJH - 750 A - S**



BOILER DATA						
	GW-200	GW-300	GW-400	GW-500	GW-650	GW-750
LENGTH (C2)	23 1/4	39 1/2	35 3/4	42	51 3/8	57 5/8
WIDTH (C1)	24	24	24	24	24	24
HEIGHT (D)	32	32	32	32	32	32
INLET SIZE	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
GAS INLET	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4

VERTICAL VESSEL DATA										
	AJV-120	AJV-140	AJV-200	AJV-250	AJV-350	AJV-400	AJVT-500	AJV-500	AJV-750	AJV-1000
HEIGHT (A)	67.25	88	84	97	99	106	101	86	118	150
WIDTH (B1)	28	30	36	36	42	42	48	54	54	54
INLET HEIGHT (B2)	15	19 1/2	21	21	22 1/2	22 1/2	24	25 1/2	25 1/2	25 1/2
OUTLET SIZE	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	3	3	3	3
GAS INLET	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	3	3	3	3

HORIZONTAL VESSEL DATA							
	AJH 200	AJH 350	AJH 400	AJHT 500	AJH 500	AJH750	AJH 1000
LENGTH (A1)	77	93	99	94	79	111	143
OUTLET DIM (A2)	18	19.5	19.5	21	22.5	22.5	22.5
WIDTH (B1)	36	42	42	48	54	54	54
HEIGHT (B2)	16	15.5	15.5	16	16.5	16.5	16.5
INLET HEIGHT (B3)	21	24	24	27	30	30	30
INLET SIZE	2 1/2	2 1/2	2 1/2	3	3	3	3
OUTLET SIZE	2 1/2	2 1/2	2 1/2	3	3	3	3

SUGGESTED SPECIFICATION

Hot Water Supply System - shall consist of A.O. SMITH Ac-U-Temp® factory assembled unit Model No. . System shall be completely factory assembled and shall include the A.O. SMITH Genesis hot water supply boiler(s), with input of BTU/H for gas and recovery capacity of gph, and the A.O. SMITH glass-lined (cement/epoxy) hot water storage tank with gallons capacity for mounting (vertical-horizontal). System shall include properly sized circulator, inlet and outlet thermometers, tank temperature thermometer, relief valve, and tank temperature control. Entire system shall be rigidly mounted on welded steel skid base and shipped assembled to job site (Ac-U-Temp systems employing tanks to large for shipping as an assembled unit, will be shipped with the tank mounted on a split bolt-together skid).

See Genesis Boiler Specifications A & E Page # A 012.0.
 See A.O.Smith Storage Specifications A & E Page #'s A 412.0 & A 416.0.
 Hot water supply boiler(s) and storage tank(s) shall have a 5 year limited warranty against corrosion as outlined in the written warranty.

NOTE: Custom arrangement also available. Consult factory.

<p>A. O. Smith Water Products Co., Inc On Line www.hotwater.com</p> <p>For Technical Information and Automated Fax Service, Phone: 800-527-1953</p>	<p>A.O.Smith Water Products Company Irving, TX A Division of A.O. Smith Corporation</p> <p>A.O. Smith Corporation reserves the right to make product changes or improvements at any time without notice.</p>
--	---

WH-9

DESCRIPTION: WATER HEATER - STEAM, [DOUBLE WALL] [SINGLE WALL WITH PRESSURE MONITORING SYSTEM], SHELL AND TUBE CROSS FLOW DESIGN. INTEGRAL DEMAND ANTICIPATOR REQUIRING NO ELECTRICAL HOOK-UP, SHALL BE PROVIDED TO MAINTAIN DISCHARGE WATER TEMPERATURE AT 5 DEGREES F. OF SETPOINT. NON-FERROUS MATERIALS ON DOMESTIC WATER SIDE. ASME 150 PSI SHELL AND 150 PSI COPPER COILS, RESILIENT INSULATION, IN-LINE CIRCULATOR AS REQUIRED, [PNEUMATIC] [STEAM PILOT OPERATED] CONTROL VALVE, ASME T&P VALVE, UNION, ORIFICE, DOUBLE SOLENOID TEMPERATURE LIMIT SAFETY, POWER ON/TRIPPED STATUS AND REMOTE DIAL THERMOMETER AND COMPOUND GAUGE. 1 YEAR WARRANTY.

PROVIDE 120 VOLT CONTROL CIRCUIT.

[] GPM OF WATER FROM [] DEGREE F. TO [] DEGREE F. WITH [] LBS/HOUR STEAM AT [] PSIG.

SET WATER HEATER TEMPERATURE AT [] DEGREES F.

Use the following model numbers for double wall water heaters

MANUFACTURER & CATALOG NO.: ACE MINI-PACK, AERCO DW, ARMSTRONG FLOW-RITE-TEMP, PATTERSON-KELLEY PKD, PVI QUICKDRAW, THERMAFLO TH-750-DW

Use the following model numbers for single wall water heaters with monitoring system

MANUFACTURER & CATALOG NO.: ACE MINI-PACK, AERCO SW, ARMSTRONG FLOW-RITE-TEMP, PATTERSON-KELLEY PKS, PVI CSX, THERMAFLO TH-750-S

Notes to specifier:

1. Verify type of control valve required.
2. AERCO, Patterson & Kelley offer a longer warranty period (10 years).



SECTION 410
EFFECTIVE
JANUARY 2002

ACE
MINI-PACK

MINI-PACK

**COMPACT SEMI-INSTANTANEOUS
STEAM TO WATER OR
WATER TO WATER
WATER HEATER
WITH
SINGLE-WALL OR DOUBLE-WALL
TUBE BUNDLES**

- **CLOSE TEMPERATURE CONTROLS ±4° F** at heater hot water outlet under normal operating conditions, even on deadend hot water systems without recirculation.
- Vertical or Horizontal heater choice.
- Solid rust-free construction on the domestic water side (no troublesome thin copper liners).
- Tube bundle readily accessible without moving heater, shell or foundation (excluding double-wall vertical model). Recommend horizontal mounting of double-wall due to coil length.
- Minimum space requirement for installation.
- Standard sizes cover hot water output from 1 to 300 GPM simplifying size selection, layout and increasing the potential for heater duplication on multiple heater projects.



STANDARD
STAINLESS STEEL JACKET

Compact design
requires less floor space

GAS FIRED COPPER FIN CONE COIL WATER HEATERS • HEAVY DUTY INDUSTRIAL WATER HEATERS • "MINI-PACK" SEMI-INSTANTANEOUS WATER HEATERS • PACKAGED STORAGE WATER HEATERS • UNFIRED STEAM BOILERS • ASME HOT WATER STORAGE TANKS

DESCRIPTION: ELECTRIC WATER HEATER - POINT OF USE, INSTANTANEOUS, THERMOSTATIC CONTROLLED, ENCLOSED CONTROLS, HIGH TEMPERATURE CUT-OFF SWITCH, FULLY ADJUSTABLE THERMOSTAT (100-140 DEGREES), 150 PSI WORKING PRESSURE, HIGH STRENGTH REINFORCED PLASTIC BODY, 1/2" COMPRESSION INLET AND OUTLET FITTINGS, [] GPM CONSTANT FLOW REGULATOR IN THE OUTLET, [] KW, 277V-1PH REPLACEABLE ELEMENT, [] DEGREE F RISE AT [] GPM. UL LISTED. 1 YEAR WARRANTY ON ELEMENT, 10 YEAR WARRANTY ON HEATER BODY/ELEMENT ASSEMBLY.

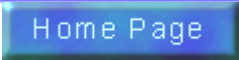
SET THERMOSTAT AT 105 DEGREES F.

WATER HEATER TO BE MOUNTED ON WALL BELOW SINK OR LAVATORY.

MANUFACTURER & CATALOG NO.: EEMAX EX, BRADFORD WHITE EFT, CHRONOMITE S, CEC RP12T

Notes to specifier:

1. Coordinate electrical data with electrical engineer. Other voltages and KW's are available.
2. This unit is thermostatically controlled.
3. This unit must have option IL (Illinois Code) for ambient to 110 max temperature when not used with a mixing valve in Illinois.
4. Refer to manufacturer's literature for flow rates and heating capabilities.



DIGITAL READOUT THERMOSTATIC ELECTRIC INSTANTANEOUS WATER HEATERS SPECIFICATIONS

ELECTRICAL and TEMPERATURE RATINGS:

MODEL	VOLTS	kW	AMPS	Temperature Rise F at /GPM					Wire Size AWG
				0.5	0.75	1.0	1.5	2.0	
EX55T DR	240V*	5.5kW	23	75°	50°	38°	25°	19°	10
EX75T DR	240V*	7.5kW	32	-	68°	51°	34°	25°	8
EX95T DR	240V*	9.5kW	40	-	86°	55°	43°	32°	8
EX60T DR	277V	6.0kW	22	81	55°	41°	27°	21°	10
EX80T DR	277V	8.0kW	29	-	73°	55°	36°	27°	10
EX100T DR	277V	10.0kW	36	-	91°	68°	46°	34°	8

*Units can be used at 208V with 25% reduced output.

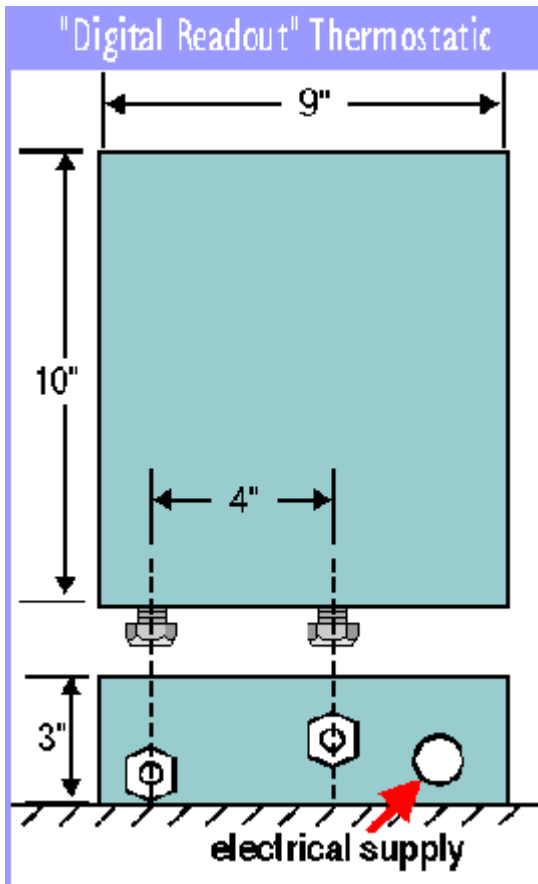
- **APPLICATIONS:**
- Photo Processing
- Schools
- Nursing Homes
- Laboratories
- Showers
- Boosters (to 180° sanitation)

**ADVANCED TECHNOLOGY
HIGHEST EFFICIENCY
DESIGNED FOR
DURABILITY**

MADE IN USA

QUALITY FEATURES

- **Fully Adjustable Temperature Range between 100-140°F.** Special settings of higher or lower range available upon request.
- **Eliminate costly mixing valves.**
- **On Demand Hot Water** - no delay.
- **Continuous Hot Water** - no storage capacity to run out.
- **Reduces Installation Cost** - no T & P relief valve needed (check local codes).
- **Easy Installation** - only one cold water line need be brought to installation - integral ½" compression fittings on bottom (no sweat connections).
- **Cut Energy Waste** -flow switch activates heater only on demand (no standby heat loss).
- **External Thermostatic control** reduces wide temperature fluctuation.
- **Designed for Durability** - constructed of high strength reinforced "ENGINEERING PLASTIC".
- **Ni Chrome Element** - a unique, patented flow path ensures optimum heat transfer and extended element life.
- **Compact Size** - dimensions 10"x9"x3"; weight 8 lbs.
- **Convenient** external temperature control.
- **Space Saving Installation** - point-of-use.
- **Field Serviceable Element** - replaceable cartridge element (1 year warranty).
- **Warranty** - Full Factory Warranty - Heaters are guaranteed against failure due to leaks of "Heater Body/Element Assembly" for a period of TEN YEARS.
- Unit must be wall mounted.



SPECIFICATIONS:

Dimensions: 10"x9"x3"

Weight: 8 lbs.

Materials:

Cover: Enameled Steel.

Glass reinforced "NORYL"* Heater Body and Ni Chrome Element.

Color: Matt Black

Element: Replaceable cartridge insert

Pipe-Fittings: ½" compression fittings at bottom of unit.

UL Listed: E86887(M)

U.S. Patent #'s: 4,762,980 and 4,960,976

*NORYL is a registered trademark of General Electric Company



DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED, BELLOWS TYPE, ALL STAINLESS STEEL CONSTRUCTION, ASSE 1010 APPROVED, PDI CERTIFIED, 1-11 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: ZURN Z-1700-100, SMITH 5005, WADE W-5, JOSAM 75001, WATTS SS-A, MIFAB WHB-A

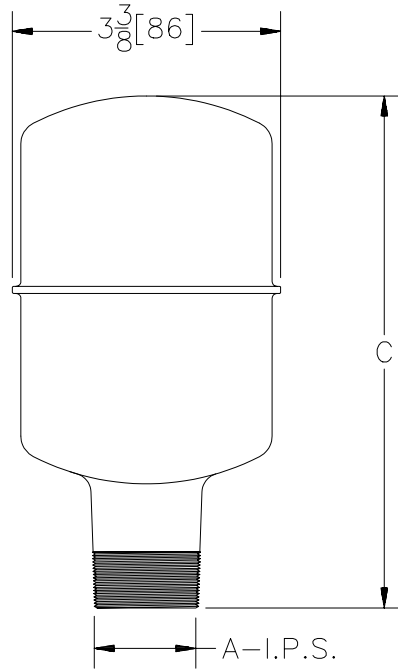


**Z-1700
SHOKTROL WATER HAMMER
ARRESTORS**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C	Approx. Wt. Lbs. [kg]
100	3/4 [19]	3 1/2 [90]	1 [.5]
200	3/4 [19]	3 1/2 [90]	1 1/2 [.7]
300	1 [25]	4 1/2 [114]	1 3/4 [.8]
400	1 [25]	6 5/8 [168]	2 3/4 [1.2]
500	1 [25]	7 1/2 [191]	3 1/4 [1.5]
600	1 [25]	8 1/2 [216]	3 3/4 [1.7]

ENGINEERING SPECIFICATION: ZURN Z-1700 Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25] male I.P.S. inlet is standard for 300 thru 600 size units.

All sizes of Zurn Z-1700 Shoktrol Water Hammer Arrestors are certified to the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z-1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated in piping system. Both casing and bellows constructed of Type 304 stainless steel.

REV. A DATE: 2/05/96 C.N. NO. 74155

DWG. NO. 59412 PRODUCT NO. Z-1700

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED, BELLOWS TYPE, ALL STAINLESS STEEL CONSTRUCTION, ASSE 1010 APPROVED, PDI CERTIFIED, 12-32 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: ZURN Z-1700-200, SMITH 5010, WADE W-10, JOSAM 75002, WATTS SS-B, MIFAB WHB-B

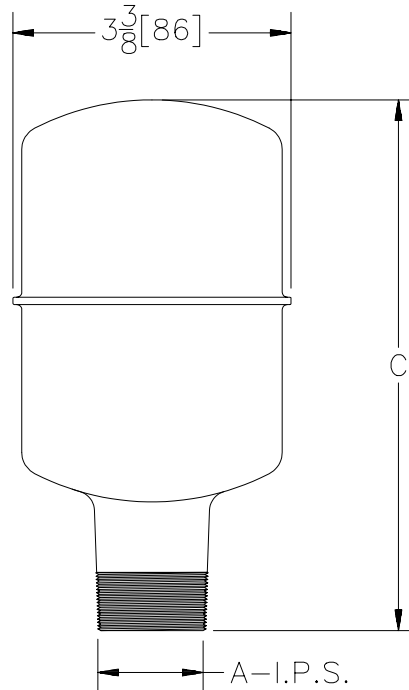


Z-1700
SHOKTROL WATER HAMMER
ARRESTORS

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C	Approx. Wt. Lbs. [kg]
100	3/4 [19]	3 1/2 [90]	1 [.5]
200	3/4 [19]	3 1/2 [90]	1 1/2 [.7]
300	1 [25]	4 1/2 [114]	1 3/4 [.8]
400	1 [25]	6 5/8 [168]	2 3/4 [1.2]
500	1 [25]	7 1/2 [191]	3 1/4 [1.5]
600	1 [25]	8 1/2 [216]	3 3/4 [1.7]

ENGINEERING SPECIFICATION: ZURN Z-1700 Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25] male I.P.S. inlet is standard for 300 thru 600 size units.

All sizes of Zurn Z-1700 Shoktrol Water Hammer Arrestors are certified to the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z-1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated in piping system. Both casing and bellows constructed of Type 304 stainless steel.

REV. A	DATE: 2/05/96	C.N. NO. 74155
DWG. NO. 59412	PRODUCT NO. Z-1700	

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED, BELLOWS TYPE, ALL STAINLESS STEEL CONSTRUCTION, ASSE 1010 APPROVED, PDI CERTIFIED, 33-60 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: ZURN Z-1700-300, SMITH 5020, WADE W-20, JOSAM 75003, WATTS SS-C, MIFAB WHB-C

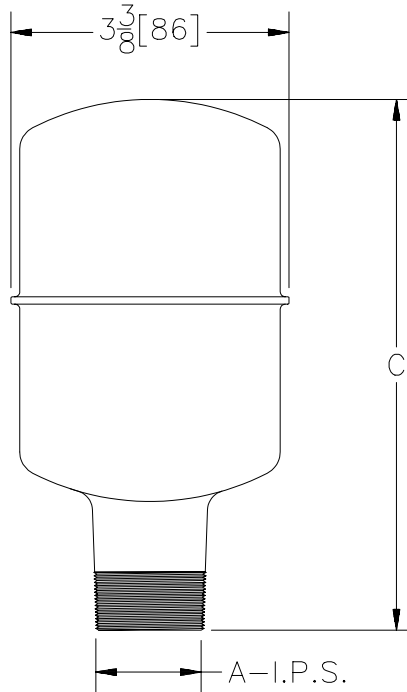


Z-1700
SHOKTROL WATER HAMMER
ARRESTORS

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C	Approx. Wt. Lbs. [kg]
100	3/4 [19]	3 1/2 [90]	1 [.5]
200	3/4 [19]	3 1/2 [90]	1 1/2 [.7]
300	1 [25]	4 1/2 [114]	1 3/4 [.8]
400	1 [25]	6 5/8 [168]	2 3/4 [1.2]
500	1 [25]	7 1/2 [191]	3 1/4 [1.5]
600	1 [25]	8 1/2 [216]	3 3/4 [1.7]

ENGINEERING SPECIFICATION: ZURN Z-1700 Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25] male I.P.S. inlet is standard for 300 thru 600 size units.

All sizes of Zurn Z-1700 Shoktrol Water Hammer Arrestors are certified to the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z-1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated in piping system. Both casing and bellows constructed of Type 304 stainless steel.

REV. A DATE: 2/05/96 C.N. NO. 74155

DWG. NO. 59412 PRODUCT NO. Z-1700

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

WHA-4

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED, BELLOWS TYPE, ALL STAINLESS STEEL CONSTRUCTION, ASSE 1010 APPROVED, PDI CERTIFIED, 61-113 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: ZURN Z-1700-400, SMITH 5030, WADE W-50, JOSAM 75004, WATTS SS-D, MIFAB WHB-D

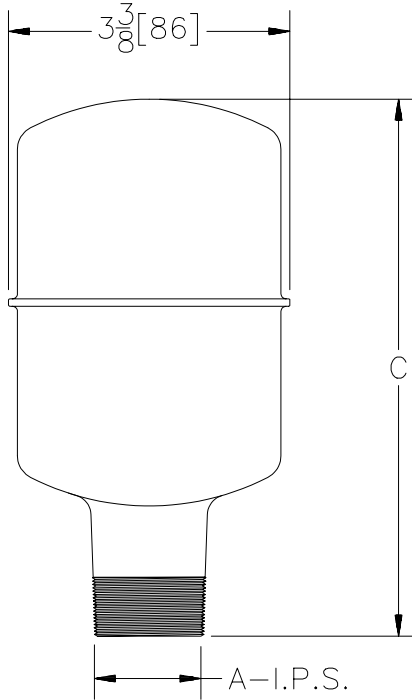


**Z-1700
SHOKTROL WATER HAMMER
ARRESTORS**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C	Approx. Wt. Lbs. [kg]
100	3/4 [19]	3 1/2 [90]	1[.5]
200	3/4 [19]	3 1/2 [90]	1 1/2 [.7]
300	1 [25]	4 1/2 [114]	1 3/4 [.8]
400	1 [25]	6 5/8 [168]	2 3/4 [1.2]
500	1 [25]	7 1/2 [191]	3 1/4 [1.5]
600	1 [25]	8 1/2 [216]	3 3/4 [1.7]

ENGINEERING SPECIFICATION: ZURN Z-1700 Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25] male I.P.S. inlet is standard for 300 thru 600 size units.

All sizes of Zurn Z-1700 Shoktrol Water Hammer Arrestors are certified to the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z-1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated in piping system. Both casing and bellows constructed of Type 304 stainless steel.

REV. A DATE: 2/05/96 C.N. NO. 74155

DWG. NO. 59412 PRODUCT NO. Z-1700

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED, BELLOWS TYPE, ALL STAINLESS STEEL CONSTRUCTION, ASSE 1010 APPROVED, PDI CERTIFIED, 114-154 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: ZURN Z-1700-500, SMITH 5040, WADE W-75, JOSAM 75005, WATTS SS-E, MIFAB WHB-E

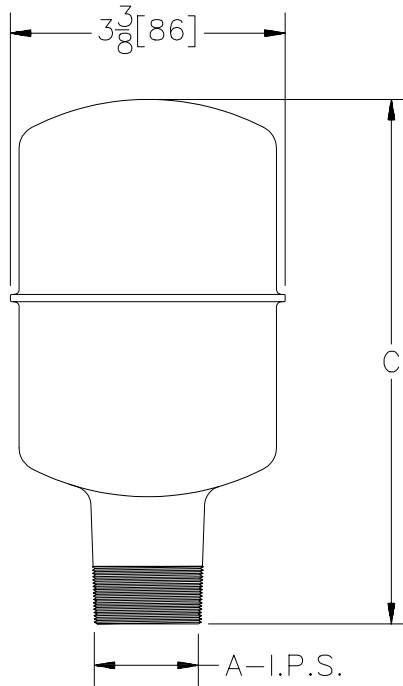


**Z-1700
SHOKTROL WATER HAMMER
ARRESTORS**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C	Approx. Wt. Lbs. [kg]
100	3/4 [19]	3 1/2 [90]	1[.5]
200	3/4 [19]	3 1/2 [90]	1 1/2 [.7]
300	1 [25]	4 1/2 [114]	1 3/4 [.8]
400	1 [25]	6 5/8 [168]	2 3/4 [1.2]
500	1 [25]	7 1/2 [191]	3 1/4 [1.5]
600	1 [25]	8 1/2 [216]	3 3/4 [1.7]

ENGINEERING SPECIFICATION: ZURN Z-1700 Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25] male I.P.S. inlet is standard for 300 thru 600 size units.

All sizes of Zurn Z-1700 Shoktrol Water Hammer Arrestors are certified to the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z-1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated in piping system. Both casing and bellows constructed of Type 304 stainless steel.

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. A	DATE: 2/05/96	C.N. NO. 74155
DWG. NO. 59412	PRODUCT NO. Z-1700	

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
 Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
 In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

WHA-6

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED, BELLOWS TYPE, ALL STAINLESS STEEL CONSTRUCTION, ASSE 1010 APPROVED, PDI CERTIFIED, 155-330 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: ZURN Z-1700-600, SMITH 5050, WADE W-100, JOSAM 75006, WATTS SS-F, MIFAB WHB-F

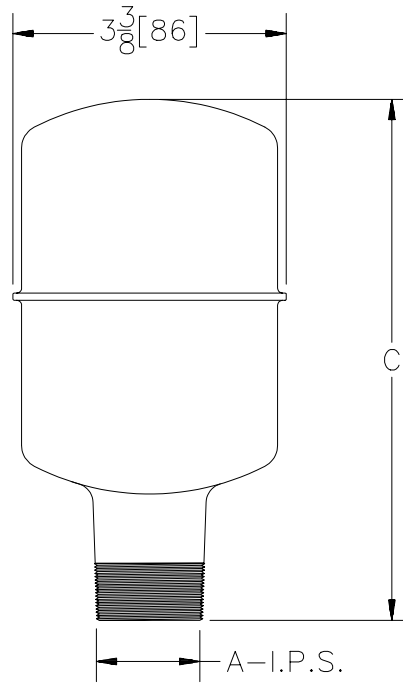


**Z-1700
SHOKTROL WATER HAMMER
ARRESTORS**

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C	Approx. Wt. Lbs. [kg]
100	3/4 [19]	3 1/2 [90]	1 [.5]
200	3/4 [19]	3 1/2 [90]	1 1/2 [.7]
300	1 [25]	4 1/2 [114]	1 3/4 [.8]
400	1 [25]	6 5/8 [168]	2 3/4 [1.2]
500	1 [25]	7 1/2 [191]	3 1/4 [1.5]
600	1 [25]	8 1/2 [216]	3 3/4 [1.7]

ENGINEERING SPECIFICATION: ZURN Z-1700 Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25] male I.P.S. inlet is standard for 300 thru 600 size units.

All sizes of Zurn Z-1700 Shoktrol Water Hammer Arrestors are certified to the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z-1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated in piping system. Both casing and bellows constructed of Type 304 stainless steel.

REV. A DATE: 2/05/96 C.N. NO. 74155

DWG. NO. 59412 PRODUCT NO. Z-1700

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com

In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

WHA-7

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED WITH 60 PSIG AIR, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 1-11 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: WATTS SG-050, SIOUX CHIEF 652, MIFAB MWH-A

Note to specifier: Use only on low budget projects. Not equal to bellows type arrester.

WATTS Drainage	SG SERIES	Copper Shock Arrestors
-----------------------	------------------	-------------------------------

SHOK-GARD® Technical Data						
WATTS#	SG-050	SG-075	SG-100	SG-125	SG-150	SG-200
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2" (13)	3/4" (19)	1"(25)	1-1/4"(31)	1-1/2"(38)	2"(51)
"B" height	4-7/8"(124)	6-7/8"(175)	7-3/8"(187)	10-13/16"(276)	11-1/2"(292)	14-7/8"(464)
"C" diameter	1-7/16"(37)	1-7/8"(48)	2-3/16"(57)	2-11/16"(66)	3-5/16"(85)	3-5/16"(85)
PDI Des.	A	B	C	D	E	F

SPECIFICATION: Watts Drainage Products SG SERIES PDI Certified pre-charged hard drawn copper shock absorber with brass piston, EPDM O-ring seals, and male IPS connection.

OPERATING PRESSURE: Designed to operate on all domestic and commercial lines @ 150 PSI working pressure.

TEMPERATURE RANGE: 33° F to 180° F (0.5° C to 82° C)

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION:
Bodies: Hard drawn copper with custom internal mirror finish. **Piston:** Brass
Seal Lubricant: Dow-Corning Silicone compound #111 FDA approved for use in potable water system. **Seals:** "O" rings, (2) EPDM

ACP-1098

(Dimension) Denotes Millimeters

WHA-8

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED WITH 60 PSIG AIR, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 12-32 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: WATTS SG-075, SIOUX CHIEF 653, MIFAB MWH-B/C

Note to specifier: Use only on low budget projects. Not equal to bellows type arrester.

WATTS Drainage	SG SERIES	Copper Shock Arrestors
-----------------------	------------------	-------------------------------

SHOK-GARD® Technical Data						
WATTS#	SG-050	SG-075	SG-100	SG-125	SG-150	SG-200
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2" (13)	3/4" (19)	1" (25)	1-1/4" (31)	1-1/2" (38)	2" (51)
"B" height	4-7/8" (124)	6-7/8" (175)	7-3/8" (187)	10-13/16" (276)	11-1/2" (292)	14-7/8" (464)
"C" diameter	1-7/16" (37)	1-7/8" (48)	2-3/16" (57)	2-11/16" (66)	3-5/16" (85)	3-5/16" (85)
PDI Des.	A	B	C	D	E	F

SPECIFICATION: Watts Drainage Products SG SERIES PDI Certified pre-charged hard drawn copper shock absorber with brass piston, EPDM O-ring seals, and male IPS connection.

OPERATING PRESSURE: Designed to operate on all domestic and commercial lines @ 150 PSI working pressure.

TEMPERATURE RANGE: 33° F to 180° F (0.5° C to 82° C)

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION:
Bodies: Hard drawn copper with custom internal mirror finish. **Piston:** Brass
Seals: "O" rings, (2) EPDM
Seal Lubricant: Dow-Corning Silicone compound #111 FDA approved for use in potable water system.

ACP-1098

(Dimension) Denotes Millimeters

WHA-9

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED WITH 60 PSIG AIR, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 33-60 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: WATTS SG-100, SIOUX CHIEF 654, MIFAB MWH-B/C

Note to specifier: Use only on low budget projects. Not equal to bellows type arrester.

WATTS Drainage	SG SERIES	Copper Shock Arrestors
-----------------------	------------------	-------------------------------

SHOK-GARD® Technical Data						
WATTS#	SG-050	SG-075	SG-100	SG-125	SG-150	SG-200
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2" (13)	3/4" (19)	1" (25)	1-1/4" (31)	1-1/2" (38)	2" (51)
"B" height	4-7/8" (124)	6-7/8" (175)	7-3/8" (187)	10-13/16" (276)	11-1/2" (292)	14-7/8" (464)
"C" diameter	1-7/16" (37)	1-7/8" (48)	2-3/16" (57)	2-11/16" (66)	3-5/16" (85)	3-5/16" (85)
PDI Des.	A	B	C	D	E	F

SPECIFICATION: Watts Drainage Products SG SERIES PDI Certified pre-charged hard drawn copper shock absorber with brass piston, EPDM O-ring seals, and male IPS connection.

OPERATING PRESSURE: Designed to operate on all domestic and commercial lines @ 150 PSI working pressure.

TEMPERATURE RANGE: 33° F to 180° F (0.5° C to 82° C)

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION:

Bodies: Hard drawn copper with custom internal mirror finish.	Piston: Brass
Seal Lubricant: Dow-Corning Silicone compound #111 FDA approved for use in potable water system.	Seals: "O" rings, (2) EPDM

ACP-1098

(Dimension) Denotes Millimeters

WHA-10

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED WITH 60 PSIG AIR, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 61-113 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: WATTS SG-125, SIOUX CHIEF 655, MIFAB MWH-D

Note to specifier: Use only on low budget projects. Not equal to bellows type arrester.

WATTS Drainage	SG SERIES	Copper Shock Arrestors
-----------------------	------------------	-------------------------------

SHOK-GARD® Technical Data						
WATTS#	SG-050	SG-075	SG-100	SG-125	SG-150	SG-200
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2" (13)	3/4" (19)	1"(25)	1-1/4"(31)	1-1/2"(38)	2"(51)
"B" height	4-7/8"(124)	6-7/8"(175)	7-3/8"(187)	10-13/16"(276)	11-1/2"(292)	14-7/8"(464)
"C" diameter	1-7/16"(37)	1-7/8"(48)	2-3/16"(57)	2-11/16"(66)	3-5/16"(85)	3-5/16"(85)
PDI Des.	A	B	C	D	E	F

SPECIFICATION: Watts Drainage Products SG SERIES PDI Certified pre-charged hard drawn copper shock absorber with brass piston, EPDM O-ring seals, and male IPS connection.

OPERATING PRESSURE: Designed to operate on all domestic and commercial lines @ 150 PSI working pressure.

TEMPERATURE RANGE: 33° F to 180° F (0.5° C to 82° C)

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION:
Bodies: Hard drawn copper with custom internal mirror finish.
Piston: Brass
Seals: "O" rings, (2) EPDM
Seal Lubricant: Dow-Corning Silicone compound #111 FDA approved for use in potable water system.

ACP-1098

(Dimension) Denotes Millimeters

WHA-11

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED WITH 60 PSIG AIR, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 114-154 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: WATTS SG-150, SIOUX CHIEF 656, MIFAB MWH-E

Note to specifier: Use only on low budget projects. Not equal to bellows type arrester.

WATTS Drainage	SG SERIES	Copper Shock Arrestors
-----------------------	------------------	-------------------------------

SHOK-GARD® Technical Data						
WATTS#	SG-050	SG-075	SG-100	SG-125	SG-150	SG-200
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2" (13)	3/4" (19)	1" (25)	1-1/4" (31)	1-1/2" (38)	2" (51)
"B" height	4-7/8" (124)	6-7/8" (175)	7-3/8" (187)	10-13/16" (276)	11-1/2" (292)	14-7/8" (464)
"C" diameter	1-7/16" (37)	1-7/8" (48)	2-3/16" (57)	2-11/16" (66)	3-5/16" (85)	3-5/16" (85)
PDI Des.	A	B	C	D	E	F

SPECIFICATION: Watts Drainage Products SG SERIES PDI Certified pre-charged hard drawn copper shock absorber with brass piston, EPDM O-ring seals, and male IPS connection.

OPERATING PRESSURE: Designed to operate on all domestic and commercial lines @ 150 PSI working pressure.

TEMPERATURE RANGE: 33° F to 180° F (0.5° C to 82° C)

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION:
Bodies: Hard drawn copper with custom internal mirror finish.
Seal Lubricant: Dow-Corning Silicone compound #111 FDA approved for use in potable water system.
Piston: Brass
Seals: "O" rings, (2) EPDM

WHA-12

DESCRIPTION: WATER HAMMER ARRESTER - PRE-CHARGED WITH 60 PSIG AIR, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 155-300 FIXTURE UNITS.

MANUFACTURER & CATALOG NO.: WATTS SG-200, SIOUX CHIEF 657, MIFAB MWH-F

Note to specifier: Use only on low budget projects. Not equal to bellows type arrester.

WATTS Drainage	SG SERIES	Copper Shock Arrestors
-----------------------	------------------	-------------------------------

SHOK-GARD® Technical Data						
WATTS#	SG-050	SG-075	SG-100	SG-125	SG-150	SG-200
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2" (13)	3/4" (19)	1" (25)	1-1/4" (31)	1-1/2" (38)	2" (51)
"B" height	4-7/8" (124)	6-7/8" (175)	7-3/8" (187)	10-13/16" (276)	11-1/2" (292)	14-7/8" (464)
"C" diameter	1-7/16" (37)	1-7/8" (48)	2-3/16" (57)	2-11/16" (66)	3-5/16" (85)	3-5/16" (85)
PDI Des.	A	B	C	D	E	F

SPECIFICATION: Watts Drainage Products SG SERIES PDI Certified pre-charged hard drawn copper shock absorber with brass piston, EPDM O-ring seals, and male IPS connection.

OPERATING PRESSURE: Designed to operate on all domestic and commercial lines @ 150 PSI working pressure.

TEMPERATURE RANGE: 33° F to 180° F (0.5° C to 82° C)

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION:
Bodies: Hard drawn copper with custom internal mirror finish.
Seal Lubricant: Dow-Corning Silicone compound #111 FDA approved for use in potable water system.

Piston: Brass
Seals: "O" rings, (2) EPDM

WM-1

DESCRIPTION: WATER METER - [[3/4"]][1"]][1-1/2"]][2"] DISC [[3/4"]][1"]][1-1/2"]][2"]][3"]][4"]][6"] TURBINE [[2"]][3"]][4"]][6"]][8"] COMPOUND TYPE, ALL BRONZE CONSTRUCTION, TOP READING CUMULATIVE DIAL WITH FACE PLATE CAP [AND REMOTE READOUT]. PROVIDE [TEST PORT AND] FULL SIZE BYPASS WITH LOCKABLE VALVE. METER SHALL COMPLY TO AWWA STANDARDS.

MANUFACTURER & CATALOG NO.: NEPTUNE, BADGER, HERSEY

Notes to specifier:

1. Not all manufacturers offer all sizes listed. Verify sizes with each manufacturer.
2. Smaller meters generally offer more accuracy than larger ones. Consider using multiple small meters in lieu of a single large one.

RD-S-10
8-94

RECORDALL® DISC METERS
PHYSICAL AND OPERATING CHARACTERISTICS

SELECTION GUIDE



RECORDALL DISC METERS

SIZES	OPERATING RANGE
5/8", 5/8" x 3/4"	1/4 to 25 GPM
3/4", 3/4" SL, 3/4" x 1"	3/8 to 35 GPM
1"	3/4 to 70 GPM
1 1/2" ELL, ELS, HEX	1 1/4 to 120 GPM
2" ELL, ELS, HEX	1 1/2 to 170 GPM

FEATURES

- Meets or exceeds AWWA C700 Standard.
- Proven design with years of field performance.
- Extended-measurement capacity while maintaining exceptional accuracy.
- Interchangeability of parts within sizes.
- Permanently sealed registers with tamper-resistant features.
- Lower pressure loss at all flow ranges.

Physical and Operating Characteristics for Recordall Disc Meters

Meter Model	Meter Size (Inches)	Bore Dia. (Inches)	Meter Length (Inches)			Safe Max. Oper. Capacity (GPM)	Maximum Pressure Loss (PSI) At Rate Shown	Recommend. Max. Continuous Flow	Minimum Test Flow Rate (GPM) & Accuracy Percent	98.5/91.5% Accuracy At Normal Flow Limits, GPM	Maximum Headloss		Housing Material Main Case
			Thread, Spud Ends	Flang. Ends	—						Per 1 Gal.	Per Cu. Ft.	
1/2"	AWWA C710-90 STANDARDS	1.0, 1.0x3/4	5/8	7 1/2	—	15 GPM	15 PSI @ 15 GPM	7.5 GPM	95% @ 14GPM	1-15 GPM	87.5	657.0	Polymer
	Plastic RCCL 25	1.0, 1.0x3/4	5/8	7 1/2	—	25 GPM	7.4 PSI @ 20 GPM	15 GPM	98.5% @ 14 GPM	1.0-25 GPM	49.59	370.9	Polymer
	AWWA C700-90 STANDARDS	1.0, 1.0x3/4	5/8	7 1/2	—	15 GPM	15 PSI @ 15 GPM	7.5 GPM	95% @ 14 GPM	1-15 GPM	87.5	657.0	Bronze
	Bronze RCCL 25	1.0, 1.0x3/4	5/8	7 1/2	—	35 GPM	7.1 PSI @ 20 GPM	15 GPM	98.5% @ 14 GPM	1.0-25 GPM	49.59	370.9	Bronze
5/8"	AWWA C710-90 STANDARDS	5/8, 5/8x3/4	5/8	7 1/2	—	20 GPM	15 PSI @ 20 GPM	10 GPM	95% @ 14GPM	1-20 GPM	58.0	435.0	Polymer
	Plastic RCCL 25	5/8, 5/8x3/4	5/8	7 1/2	—	25 GPM	7.4 PSI @ 20 GPM	15 GPM	98.5% @ 14 GPM	1.0-25 GPM	49.59	370.9	Polymer
	AWWA C700-90 STANDARDS	5/8, 5/8x3/4	5/8	7 1/2	—	20 GPM	15 PSI @ 20 GPM	10 GPM	95% @ 14GPM	1-20 GPM	58.0	435.0	Bronze
	Bronze RCCL 25	5/8, 5/8x3/4	5/8	7 1/2	—	25 GPM	7.1 PSI @ 20 GPM	15 GPM	98.5% @ 14 GPM	1.0-25 GPM	49.59	370.9	Bronze
3/4"	AWWA C700-90 STANDARDS	3/4	3/4	9	—	30 GPM	15 PSI @ 30 GPM	15 GPM	95% @ 14 GPM	2-30 GPM	33.3	250.0	Bronze
	Bronze RCCL 35	3/4	3/4	9, 7 1/2	—	35 GPM	7.3 PSI @ 30 GPM	25 GPM	97% @ 38 GPM	3/4-35 GPM	31.6	236.8	Bronze
1"	AWWA C700-90 STANDARDS	1	1	10 3/4	—	50 GPM	15 PSI @ 50 GPM	25 GPM	95% @ 34 GPM	3-50 GPM	15.3	115.0	Bronze
	RCCL 70	1	1	10 3/4	—	70 GPM	6.7 PSI @ 50 GPM	50 GPM	95% @ 34 GPM	1 1/4-70 GPM	11.7	87.5	Bronze
1 1/2"	AWWA C700-90 STANDARDS	1 1/2	1 1/2	12 5/8	13	100 GPM	15 PSI @ 100 GPM	50 GPM	95% @ 1 1/2 GPM	5-100 GPM	6.7	50.0	Bronze
	RCCL 120	1 1/2	1 1/2	12 5/8	12 5/8, 13	120 GPM	7.3 PSI @ 100 GPM	80 GPM	95% @ 1 1/4 GPM	2 1/2-120 GPM	5.97	44.83	Bronze
2"	AWWA C700-90 STANDARDS	2	2	15 1/4	17	160 GPM	15 PSI @ 160 GPM	80 GPM	95% @ 2 GPM	8-160 GPM	4.0	30.0	Bronze
	RCCL 170	2	2	15 1/4	15 1/4, 17	170 GPM	8.6 PSI @ 160 GPM	100 GPM	95% @ 1 1/2 GPM	2 1/2-170 GPM	3.64	27.2	Bronze

AWWA C700-90 and C710-90 Standards

WMF-1

DESCRIPTION: WASHING MACHINE FITTING - EPOXY ENAMELED STEEL ENCLOSURE, 2" STANDPIPE CONNECTION, 2 INDEXED 1/2" HOSE BIBBS WITH THREADED OUTLETS.[, 20 AMP, 120 VOLT DUPLEX OUTLET AND 30 AMP, 240 VOLT DRYER OUTLET.]

MANUFACTURER & CATALOG NO.: GUY GRAY B-200 SERIES

Note to specifier:

1. Edit electrical outlets as required or delete if not required.
2. Coordinate electrical requirements with Electrical Engineer.

SPACE SAVER

WASHING MACHINE SUPPLY & DRAIN

20 Gauge Box 18 Gauge Faceplate
Duplex Receptacle: 20 Amp, 110 Volt
Dryer Receptacle: 30 Amp, 220 Volt
4-Wire Available on Models Designated With NW prefix

Finish: Minimum Spangle G90 Hot Dipped Galvanized Steel (Unpainted)
Valves: Furnished With Domestic Valves and Combination MIP or Sweat Connections
Drain: Male Thread Fitting and Locknut Included

Model B150 for 1 1/2" Drain
Model B200 for 2" Drain

Model BB200TS for 2" Drain

Rough Opening: 10" W x 8 1/2" H x 3 1/2" D
Overall: 11 1/2" W x 9 1/2" H
Weight: 7 lbs.

Space Saver Designed for Ice Maker Hook-up

Model BIM875

Furnished with 1/2" FIP Inlet x 1/4" OD Outlet Compression Angle Valve. Supply Connection is 1/2" MPT or 3/8" OD Sweat Connection.
Rough Opening: 10" W x 8 1/2" H x 3 1/2" D
Overall: 11 1/2" W x 9 1/2" H
Weight: 5 lbs.

GG GUY GRAY MANUFACTURING COMPANY, INC.
5235 Alben Barkley Drive
P.O. Box 2287 Paducah, Kentucky 42002-2287

Phone 502/554-4423
800/782-4695
FAX 800/453-4522

2

WMF-2

DESCRIPTION: WASHING MACHINE FITTING - PVC/PLASTIC ENCLOSURE, 2" STANDPIPE CONNECTION, 2 INDEXED 1/2" HOSE BIBBS WITH THREADED OUTLETS.], 20 AMP, 120 VOLT DUPLEX OUTLET AND 30 AMP, 240 VOLT DRYER OUTLET.]

MANUFACTURER & CATALOG NO.: WATERTITE 1100 SERIES, OATEY 38000 SERIES, GUY GRAY

Note to specifier:

1. Edit electrical outlets as required or delete if not required.
2. Coordinate electrical requirements with Electrical Engineer.

SPACE SAVER
WASHING MACHINE
SUPPLY & DRAIN

20 Gauge Box 18 Gauge Faceplate
Duplex Receptacle: 20 Amp, 110 Volt
Dryer Receptacle: 30 Amp, 220 Volt
4-Wire Available on Models Designated With NW prefix

Finish: Minimum Spangle G90 Hot Dipped Galvanized Steel (Unpainted)
Valves: Furnished With Domestic Valves and Combination MIP or Sweat Connections
Drain: Male Thread Fitting and Locknut Included

Model BE150 for 1 1/2" Drain
Model BE200 for 2" Drain
Model BBE200TS for 2" Drain
Rough Opening: 12" W x 8 3/4" H x 3 1/2" D
Overall: 13 3/4" W x 9 1/2" H
Weight: 8 lbs.

Model BED150 for 1 1/2" Drain
Model BED200 for 2" Drain
Model BBED200TS for 2" Drain
Rough Opening: 14 1/4" W x 8 3/4" H x 3 1/2" D
Overall: 15 3/4" W x 9 1/2" H
Weight: 9 lbs.

Model NW/BED150 for 1 1/2" Drain
Model NW/BED200 for 2" Drain
Rough Opening: 14" W x 8 3/4" H x 3 1/2" D
Overall: 15 3/4" W x 9 1/2" H
Weight: 9 lbs.

GUY GRAY
MANUFACTURING
COMPANY, INC.
5235 Alben Barkley Drive
P.O. Box 2287 Paducah, Kentucky 42002-2287

Phone 502/554-4423
800/782-4695
FAX 800/453-4522

3

WMF-3

DESCRIPTION: WASHING MACHINE FITTING - EPOXY ENAMELED STEEL ENCLOSURE, 2" STANDPIPE CONNECTION, 2 INDEXED 1/2" HOSE BIBBS WITH THREADED OUTLETS, 20 AMP, 120 VOLT DUPLEX OUTLET AND 30 AMP, 240 VOLT DRYER OUTLET.

MANUFACTURER & CATALOG NO.: GUY GRAY BED-200

Note to specifier: Coordinate electrical requirements with Electrical Engineer.

SPACE SAVER
WASHING MACHINE
SUPPLY & DRAIN

20 Gauge Box 18 Gauge Faceplate
Duplex Receptacle: 20 Amp, 110 Volt
Dryer Receptacle: 30 Amp, 220 Volt
4-Wire Available on Models Designed With NW ports

Finish: Minimum Spangle G90 Hot Dipped Galvanized Steel (unpainted)
Valves: Furnished With Domestic Valves and Combination MP or Sweat Connections
Drain: Male Thread Fitting and Locknut Included

Model BE150 for 1 1/2" Drain
Model BE200 for 2" Drain
Model BBE200TS for 2" Drain
Rough Opening: 12 1/2" W x 8 1/2" H x 3 1/2" D
Overall: 13 1/2" W x 9 1/2" H
Weight: 8 lbs.

Model RED150 for 1 1/2" Drain
Model RED200 for 2" Drain
Model BBE200TS for 2" Drain
Rough Opening: 14 1/2" W x 8 1/2" H x 3 1/2" D
Overall: 15 1/2" W x 9 1/2" H
Weight: 9 lbs.

Model NAWBED150 for 1 1/2" Drain
Model NAWBED200 for 2" Drain
Rough Opening: 14" W x 8 1/2" H x 3 1/2" D
Overall: 15 1/2" W x 9 1/2" H
Weight: 9 lbs.

GG GUY GRAY
MANUFACTURING
COMPANY, INC.
5235 Alben Barkley Drive
P.O. Box 2287 Paducah, Kentucky 42002-2287

Phone 502/554-4423
800/782-4895
FAX 800/453-4522

3

WS-1

DESCRIPTION: WATER SOFTENER - AUTOMATIC REGENERATION TYPE. (DUPLEX) (SIMPLEX)
SOFTENER TANKS. CONTINUOUS FLOW RATE OF [____] GPM AT 15 PSI PRESSURE DROP. MAXIMUM
FLOW RATE OF [____] GPM AT 25 PSI PRESSURE DROP. MINIMUM CAPACITY OF [____] GRAINS PER
SOFTENER TANK. 120/1/60 POWER SUPPLY. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

MANUFACTURER & CATALOG NO.: SEE SPECIFICATIONS

YCO-1

DESCRIPTION: YARD CLEANOUT - ROUND DURA-COATED CAST IRON CLEANOUT AND DOUBLE FLANGED HOUSING, HEAVY DUTY SECURED SCORIATED DURA-COATED CAST IRON COVER WITH LIFTING DEVICE. BRONZE CLEANOUT PLUG AND GAS/WATERTIGHT SEAL. SIZE AS LISTED ON DRAWINGS.

MANUFACTURER & CATALOG NO.: ZURN Z-1474, SMITH 4261, WADE W-8300, JOSAM 58860, WATTS CO-300

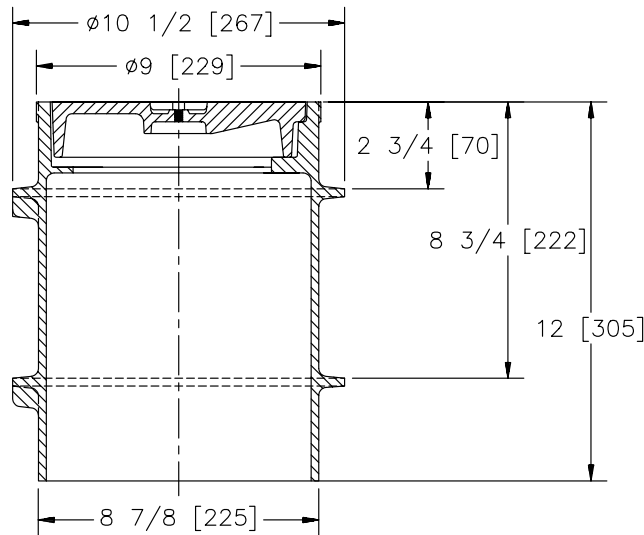


Z-1474
HEAVY DUTY CLEANOUT HOUSING

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A Pipe Size Inches	Approx. Wt. Lbs [kg]
8 3/8 [213]	40 [18]

ENGINEERING SPECIFICATION: ZURN Z-1474 Heavy Duty Cleanout Housing. Dura-Coated cast iron body with integral anchor flange, secured scoriated cover with lifting device.

OPTIONS (Check/specify appropriate options)

PREFIXES

- ___ Z- D.C.C.I. Body and Cover*
- ___ ZB- D.C.C.I. Body and Cover with Polished Bronze Cover (Add 3/16 [5] to 2 3/4 [70] Dim. & 5/8 [16] to 9 [229] Dim.)
- ___ ZN D.C.C.I. with Polished Nickel Bronze Top (Add 3/16 [5] to 2 3/4 [70] Dim. & 5/8 [16] to 9 [229] Dim.)

SUFFIXES

- ___ -DC Duresist Cover
- ___ -G Galvanized Cast Iron
- ___ -IN With Internal Cleanout (See Z-1403) (2 thru 4, 6 [50 thru 100, 150] Sizes)
- ___ -SG Solid Gasketed Cover
- ___ -VP Vandal Proof Secured Top

REV. B DATE: 3/5/97 C.N. NO. 77595

DWG. NO. 58787 PRODUCT NO. Z-1474

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514 ♦ Phone: 814/455-0921 Fax: 814/454-7929
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292