



1976 AIRPORT INDUSTRIAL PARK DRIVE, MARIETTA GA 30060  
OFFICE 770-952-3864 FAX 770-952-0299

TO: McShane Construction  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LETTER OF TRANSMITTAL	
DATED 08/08/17	JOB NO:
ATTN: Forest Luker	
RE: Sam's Crossing	

WE ARE SENDING YOU

<input type="checkbox"/>	SHOP DRAWINGS	<input checked="" type="checkbox"/> X	ATTACHED	<input type="checkbox"/>	PLANS
<input type="checkbox"/>	COPY OF LETTER	<input type="checkbox"/>	SPECIFICATION	<input type="checkbox"/>	OTHERS
		<input type="checkbox"/>	CHANGE ORDER		

COPIES	DATE	NO	DESCRIPTION
1			Revised submittals

<input checked="" type="checkbox"/> X	FOR APPROVAL	<input type="checkbox"/>	APPROVED AS SUBMITTED
<input type="checkbox"/>	FOR YOUR USE	<input type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	AS REQUESTED		

Remarks:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COPY TO: \_\_\_\_\_

SIGNED: Robby Downs  
PROJECT MANAGER



This review is for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions and quantities, confirming and correlating dimensions and quantities at the job site, for fabrication processes and techniques of construction, for coordination of his work with that of all other trades, and for the satisfactory performance of work done by the Contractor. Items marked "Approved" or "Exceptions Noted" do not need to be resubmitted.

DATE: **6/15/2017**

REVIEWED BY: **Stephen Howe**

PROJECT#: **216021**

PROJECT NAME: **Sams Crossing**

ITEM	REVIEW COMMENTS	NO EXCEPTIONS TAKEN	EXCEPTIONS NOTED	REVISE & RESUBMIT	REJECTED
General	Plumbing Contractor shall coordinate all electrical requirements for all Plumbing Devices with the Electrical/Low Voltage Contractor prior to ordering any equipment. No Exceptions to this comment will be acceptable.		X		
General	All models and finishes to be approved by the Owner or Interior Designer prior to purchase or installation. Architect to approve all shower and sink dimensions.		X		
Above Grade Sanitary/Storm Piping	Provide Solid PVC Piping			X	
T1,T1H	Provide acrylic bathtub, Verify quantity of left and right hand configuration of tubs.			X	
T1H	VALVE SHALL ALLOW A 3 GPM FLOW RATE WHEN PROVIDED WITH 20 PSI WATER PRESSURE AT THE VALVE INLET. VALVE SHALL HAVE PRESSURE BALANCING MIXING VALVE WITH LEVER HANDLE, THREE WAY DIVERTER WITH LEVER HANDLE, ADJUSTABLE TEMPERATURE CONTROL LIMIT STOP, SHOWERHEAD WITH ARM AND FLANGE, TUB SPOUT, WALL/HAND SHOWER WITH FLEXIBLE METAL HOSE, INLINE VACUUM BREAKER, 30" SLIDE BAR FOR HAND SHOWER MOUNTING, CHROME FINISH. OFFSET VALVE IN ADA UNITS.			X	
WH1,WH3	Submit specified water heater size. Voltage is 208V- Water heaters must provide specified (KW) of heating at supplied voltage. De-rating of water heating capacity due to mis-matched voltage is not allowed.			X	
WH2	Voltage is 208V- Water heaters must provide specified (KW) of heating at supplied voltage. De-rating of water heating capacity due to mis-matched voltage is not allowed.			X	
WH4	Annotate which water heater is being selected.			X	
Packaged Duplex Booster System	Electrical power for the booster pump does not coordinate with the electrical engineer's drawings. Coordinate electrical power with electrical design and electrical contractor.			X	



**SUBMITTAL REVIEW - Plumbing Submittals**

This review is for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions and quantities, confirming and correlating dimensions and quantities at the job site, for fabrication processes and techniques of construction, for coordination of his work with that of all other trades, and for the satisfactory performance of work done by the Contractor. Items marked "Approved" or "Exceptions Noted" do not need to be resubmitted.

DATE: **6/15/2017**

REVIEWED BY: **Stephen Howe**

PROJECT#: **216021**

PROJECT NAME: **Sams Crossing**

ITEM	REVIEW COMMENTS	NO EXCEPTIONS TAKEN	EXCEPTIONS NOTED	REVISE & RESUBMIT	REJECTED
SP	At the time of design, the elevators were traction and did not require oil sensing equipment. Confirm		X		
Sure Seal	Contractor to confirm with Plumbing inspector prior to purchase of Sure Seal trap seals.		X		
SH1H	Hand Showerhose to include in-line vacuum breaker. Hand shower to have non-positive shutoff.			X	
Other Items	Other items included in this submittal have been reviewed.	X			

PHILLIPS GRADICK ENGINEERING, P.C. 500 SUGAR MILL ROAD, BUILDING A SUITE 105 ATLANTA, GA  
PHONE (770) 650-9061, FAX (770) 642-2410, E-MAIL showe@pgeng.net



# Sam's Crossing

**Avondale Estates, GA**

## PLUMBING SUBMITTALS

### McShane Construction Company, LLC

Project Name: Sams Crossing

Project Number: 17-009

Submittal Number: SUB-220000-001

Date: \_\_\_\_\_ By: \_\_\_\_\_

- |                                     |                  |                      |   |
|-------------------------------------|------------------|----------------------|---|
| <input checked="" type="checkbox"/> | <u>5/17/2017</u> | <u>Forrest Luker</u> | Received for Review                       |
| <input type="checkbox"/>            | _____            | _____                | No Exception Taken                        |
| <input type="checkbox"/>            | _____            | _____                | Furnish with Noted Comments               |
| <input type="checkbox"/>            | _____            | _____                | Revise and Resubmit                       |
| <input type="checkbox"/>            | _____            | _____                | Rejected: _____                           |
| <input type="checkbox"/>            | _____            | _____                | Received for Record w/o review or comment |

This document or sample was reviewed for general conformance with the overall design concept of the Work. Sole responsibility for fabrication, design, dimensions, details, quantities and safety shall remain with the subcontractor. Comments and corrections made on subcontractor's submittals do not relieve the subcontractor from its obligation strictly to comply with Contract Documents and do not alter same.

### PHILLIPS GRADICK ENGINEERING, P.C.

- |  |   |
|--|---|
| <input type="checkbox"/> No Exceptions Taken | <input checked="" type="checkbox"/> Revise & Resubmit |
| <input type="checkbox"/> Rejected            | <input type="checkbox"/> Submit Specified Item        |
| <input type="checkbox"/> Exceptions Noted    | <input type="checkbox"/> Not Reviewed                 |

Checking is for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions and quantities, confirming and correlating dimensions and quantities at the job site, for fabrication processes and techniques of construction, for coordination of his work with that of all other trades, and for the satisfactory performance of work done by the contractor.

Items marked "No Exceptions Taken" or "Exceptions Noted" do not need to be resubmitted.

Reviewed by: Stephen Howe Date: 6-15-2017





# **Sam's Crossing**

**Avondale Estates, GA**

**PLUMBING SUBMITTALS**

## Plumbing Submittals

1. Pipe Specialties
2. Fixtures and Drains
3. Water Specialties
4. Pumps



## Pipe Specialties

# RECOMMENDED PRODUCT SPECIFICATION

## Suggested Specification

**System:** PVC Schedule 40 Solid Wall Pipe and PVC DWV Fitting **System**

**Scope:** This specification covers PVC Schedule 40 solid wall pipe and PVC DWV fittings used in sanitary drain, waste, and vent (DWV), sewer, and storm drainage applications. This system is intended for use in non-pressure applications where the operating temperature will not exceed 140°F.

**Specification:** Pipe and fittings shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a Cell Class of 12454-B as identified in ASTM D 1784.

PVC Schedule 40 pipe shall be Iron Pipe Size (IPS) conforming to ASTM D 1785 and ASTM D 2665. PVC DWV fittings shall conform to ASTM D 2665. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. All systems shall utilize a separate waste and vent system. Pipe and fittings shall conform to National Sanitation Foundation Standard 14.

Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry and shall conform to all local plumbing, building, and fire code requirements. Solvent cement joints shall be made in a two step process with primer manufactured for thermoplastic piping systems and solvent cement conforming to ASTM D 2564. The system shall be protected from chemical agents, fire stopping materials, thread sealant, plasticized vinyl products, or other aggressive chemical agents not compatible with PVC compounds. Systems shall be hydrostatically tested after installation. Testing with compressed air or gas is not recommended.

### Referenced Standards:

ASTM D 1784	Rigid Vinyl Compounds
ASTM D 1785	PVC Plastic Pipe, Schedule 40
ASTM D 2665	PVC Drain, Waste, and Vent Pipe & Fittings
ASTM D 2564	Solvent Cements for PVC Pipe and Fittings
NSF Standard 14	Plastic Piping Components and Related Materials

Note: Latest revision of all standards apply.



**Plastic Pipe and Fittings Drainage Systems**  
**Suggested Short Form Specifications**

**ABS Schedule 40 Cellular Core (Foam Core) Pipe and DWV Fitting System:**

Pipe and fittings shall be manufactured from ABS compound with a cell class of 42222 for pipe and 32222 for fittings as per ASTM D 3965 and conform with National Sanitation Foundation (NSF) standard 14. Pipe shall be iron pipe size (IPS) conforming to ASTM F 628. Fittings shall conform to ASTM D 2661.

All pipe and fittings to be produced by a single manufacturer and to be installed in accordance with manufacturer's recommendations and local code requirements. **Testing with compressed air or gas may result in injury or death.** Solvent cement shall conform to ASTM D 2235. The system to be manufactured by Charlotte Pipe and Foundry Co. and is intended for non-pressure drainage applications where the temperature will not exceed 160°F.

**PVC Schedule 40 Cellular Core (Foam Core) Pipe and DWV Fitting System:**

Pipe and fittings shall be manufactured from PVC compound with a cell class of 11432 per ASTM D 4396 for pipe and 12454 per ASTM D 1784 for fittings and conform with National Sanitation Foundation (NSF) standard 14. Pipe shall be iron pipe size (IPS) conforming to ASTM F 891. Fittings shall conform to ASTM D 2665.

All pipe and fittings to be produced by a single manufacturer and to be installed in accordance with manufacturer's recommendations and local code requirements. **Testing with compressed air or gas may result in injury or death.** Solvent cements shall conform to ASTM D 2564. Primer shall conform to ASTM F 656. The system to be manufactured by Charlotte Pipe and Foundry Co. and is intended for non-pressure drainage applications where the temperature will not exceed 140°F.

**PVC Schedule 40 Solid Wall Pipe and DWV Fitting System:**

Pipe and fittings shall be manufactured from PVC compound with a cell class of 12454 per ASTM D 1784 and conform with National Sanitation Foundation (NSF) standard 14. Pipe shall be iron pipe size (IPS) conforming to ASTM D 1785 and ASTM D 2665. Fittings shall conform to ASTM D 2665.

All pipe and fittings to be produced by a single manufacturer and to be installed in accordance with manufacturer's recommendations and local code requirements. **Testing with compressed air or gas may result in injury or death.** Solvent cements shall conform to ASTM D 2564. Primer shall conform to ASTM F 656. The system to be manufactured by Charlotte Pipe and Foundry Co. and is intended for non-pressure drainage applications where the temperature will not exceed 140°F.

(908)



## PRODUCT SPECIFICATION

### Corzan® CPVC pipe and fittings

#### SCOPE:

This specification covers the manufacturing requirements for CPVC Schedule 80 Iron Pipe Size (IPS) pipe and fittings. Both the pipe and fittings are manufactured in North America and meet or exceed the requirements set forth by the American Society for Testing Materials (ASTM) and ANSI/NSF Standards 14 and 61.

#### CPVC Materials:

Corzan® CPVC pipe and fittings are extruded/molded from CPVC compounds manufactured by Noveon. The pipe compound meets cell class 24448 and the fitting compound meets cell class 23447 as defined by ASTM D1784. Both the pipe and the fitting compounds are certified by NSF International for use with potable water.

#### DIMENSIONS AND PROPERTIES:

Dimensions, tolerances and physical properties meet or exceed the requirements of ASTM Standards F441 for pipe, F439 for socket fittings and ASTM F437 or F439 for threaded fittings. Threaded fittings have taper pipe threads in accordance with ASTM F1498. Unions and flanges meet or exceed the requirements of ASTM F1970.

#### SOLVENT CEMENT:

All socket type joints shall be assembled employing solvent cements that meet or exceed the requirements of ASTM F493. The standard practice for safe handling of solvent cements shall be in accordance with ASTM F402. Solvent cement shall be listed by NSF International for use with potable water, and approved by the Corzan® pipe and fittings manufacturers.

#### FLAME AND SMOKE REQUIREMENTS:

Water filled Corzan® pipe and fittings (1/2" through 6") tested in general accordance with UL 723/ASTM E 84 (NFPA 255 and UBC 8-1) meets the 25/50 flame and smoke requirement and shall be permitted to be installed in return air plenums. Test reports from a third party testing laboratory shall be obtained and made available upon request.

#### MARKING:

The marking on the CPVC pipe meet the requirements of ASTM F441 and the marking on the fittings meets the requirements of ASTM Standards F437, F438 or F1970. The pipe and fittings markings state the pipe/fitting manufacture's name or trademark, the material designation, the size, the NSF mark for potable water and the ASTM designation.

# RECOMMENDED PRODUCT SPECIFICATION

Domestic Water Pipe  
1/2" thru 2"

**CHARLOTTE**  
PIPE AND FOUNDRY COMPANY

## Suggested Specification

**System:** FlowGuard Gold® CPVC Copper Tube Size (CTS) Hot and Cold Domestic Water Distribution System

**Scope:** This specification covers Copper Tube Size (CTS) CPVC manufactured to standard dimensional ratio (SDR) 11 for hot and cold domestic water distribution. This system is intended for pressure applications where the operating temperature will not exceed 180°F at 100 psi.

**Specification:** Pipe and fittings shall be manufactured from virgin rigid CPVC (chlorinated polyvinyl chloride) vinyl compounds with a Cell Class of 23447-B as identified in ASTM D 1784.

FlowGuard Gold CTS CPVC pipe and fittings shall conform to ASTM D 2846. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. Pipe and fittings shall conform to National Sanitation Foundation (NSF) Standard 61.

Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry and shall conform to all local plumbing, building, and fire code requirements. Solvent cement joints shall be made in a two step process with primer manufactured for thermoplastic piping systems and solvent cement conforming to ASTM F 493. The system shall be protected from chemical agents, fire stopping materials, thread sealant, plasticized vinyl products, or other aggressive chemical agents not compatible with CPVC compounds. Systems shall be hydrostatically (water) tested after installation. Testing with compressed air or gas is not recommended.

### Referenced Standards:

ASTM D 1784	Rigid Vinyl Compounds
ASTM D 2846	CPVC Plastic Hot and Cold Water Distribution System
ASTM F 493	Solvent Cements for CPVC Pipe and Fittings
NSF Standard 61	Drinking Water System Components - Health Effects

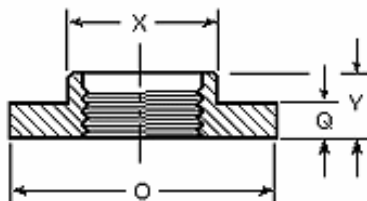
Note: Latest revision of all standards apply.

FlowGuard Gold is a registered trademark of Noveon, Inc.





## Dimensions, Weights, and Short Lengths

AMERICAN Flanged Pipe Companion Flanges for Use On Ductile Iron Pipe  
ANSI/AWWA C115/A21.15[To Top of Page](#)

Ductile Companion Flange

ADIP Table No. 8-4

Size in.	Pipe O.D. in.	AWWA C115			
		O Dia. Of Flange in.	Q Thickness in.	X Dia. Hub in.	Y Length Incl. Hub in.
4	4.8	9	0.94	6.00	1.88
6	6.9	11	1.00	7.78	2.06
8	9.05	13.5	1.12	10.01	2.25
10	11.1	16	1.19	12.31	2.44
12	13.2	19	1.25	14.75	2.68
14	15.3	21	1.38	16.59	2.87
16	17.4	23.5	1.44	18.94	3.06
18	19.5	25	1.56	20.38	3.31
20	21.6	27.5	1.69	22.62	3.50
24	25.8	32	1.88	26.91	3.93
30	32	38.75	2.12	33.31	4.50
36	38.3	46	2.38	39.62	5.12
42	44.5	53	2.62	46.00	5.75
48	50.8	59.5	2.75	52.31	6.38
54	57.56	66.25	3.00	58.75	7.00
60	61.61	73	3.12	63.76	7.00
64	65.67	80	3.38	70.32	7.00

## Notes:

Hub diameter and length are AMERICAN Design. See Table No. 8-3 for data on bolt holes and bolt circle.

When ordering Companion Flanges for Ductile Iron Pipe specify the outside diameter of the pipe.

"X" and "Y" dimensions may vary depending on foundry equipment.



> Companion Flange for Use On Ductile Iron Pipe ANSI/AWWA C115/A21.15

> Flange and Flange

> Flange and Plain End

> Flange and MJ

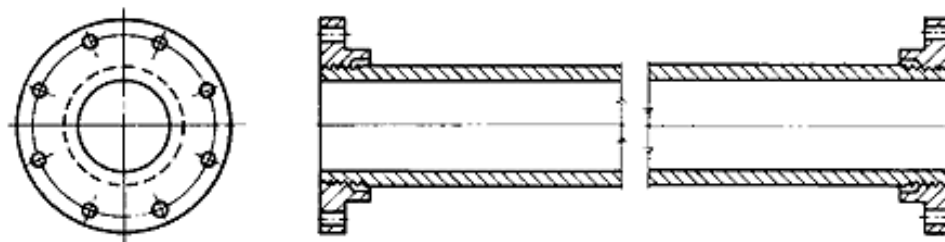
> Flange and Fastite

> Companion Flanges for Use On Ductile Iron Pipe Faced and Drilled Per ANSI B16.1 Class 250

> Flanges Faced and Drilled ANSI B16.1 Class 250

**AMERICAN Flanged Pipe**  
**AMERICAN Ductile Iron Flanged Pipe**  
**ANSI/AWWA C115/A21.15**

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Flange and Flange

For more information, see the [Short Body Flange Static Castings](#) page.

ADIP Table No. 8-5

Size in.	Pressure* Rating psi	Nominal Wall Thickness in.	Pipe O.D. in.	Minimum Length** in.	Maximum Length** ft.-in.	Weight in Pounds		
						Per Foot Plain End	One Flange	Per Maximum Length with Two Flanges
4	350+	0.32	4.8	4 1/2	17'-6"	13.8	13	266
6	350+	0.34	6.9	4 1/2	20'-0"	21.4	17	460
8	350+	0.36	9.05	4 1/2	20'-0"	30.1	27	655
10	350+	0.38	11.1	6	20'-0"	39.2	38	860
12	350+	0.4	13.2	6	20'-0"	49.2	59	1100
14	350+	0.42	15.3	7	20'-0"	60.1	70	1340
16	350+	0.43	17.4	7	20'-0"	70.1	90	1580
18	350+	0.44	19.5	7	20'-0"	80.6	88	1790
20	350+	0.45	21.6	7	20'-0"	91.5	112	2060
24	350+	0.47	25.8	8	20'-0"	114.4	155	2600
30	250	0.51	32	12	19'-6"	154.4	245	3500
36	250	0.58	38.3	14	19'-6"	210.3	354	4810
42	250	0.65	44.5	18	19'-6"	274	512	6370
48	250	0.72	50.8	18	19'-6"	346.6	632	8020
54	250	0.81	57.56	20	19'-6"	441.9	716	10050
60	250	0.83	61.61	20	19'-6"	485	1113	11680
64	250	0.87	65.67	21	19'-0"	542	1824	13950

Notes:

\*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.

\*\*Check AMERICAN if longer or shorter lengths required.

+This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per

Flanged Pipe description.

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53 for 4"-54" diameters, and Pressure Class 350 for 60" and 64" diameters as shown in AWWA C151.

Any length between minimum and maximum shown can be furnished.

Tolerance on length is  $\pm 0.12$  in.

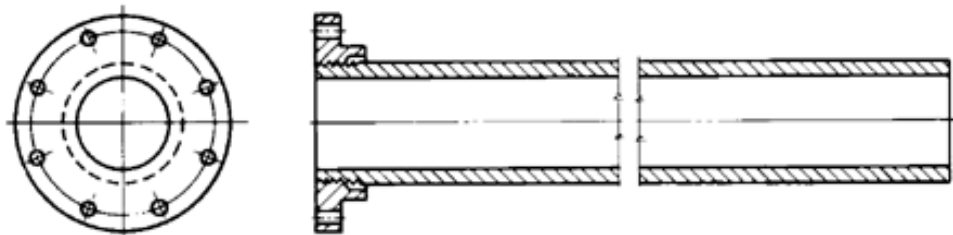
Standard drilling is with bolt holes aligned, straddling a common centerline. Special drilling can be furnished on request.

Where required, specify flanges "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

AMERICAN Flanged Pipe  
AMERICAN Ductile Iron Flanged Pipe  
ANSI/AWWA C115/A21.15

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Flange and Plain End

ADIP Table No. 8-6

Size in.	Pressure* Rating psi	Nominal Wall Thickness in.	Pipe O.D. in.	Minimum Length** in.	Maximum Length** ft.-in.	Weight in Pounds		
						Per Foot Plain End	One Flange	Per Maximum Length with One Flange
4	350+	0.32	4.8	1 3/4	17'-6"	13.8	13	251
6	350+	0.34	6.9	2	20'-0"	21.4	17	445
8	350+	0.36	9.05	2 1/2	20'-0"	30.1	27	630
10	350+	0.38	11.1	2 1/2	20'-0"	39.2	38	820
12	350+	0.4	13.2	2 1/2	20'-0"	49.2	59	1045
14	350+	0.42	15.3	2 3/4	20'-0"	60.1	70	1270
16	350+	0.43	17.4	3	20'-0"	70.1	90	1490
18	350+	0.44	19.5	3	20'-0"	80.6	88	1700
20	350+	0.45	21.6	3	20'-0"	91.5	112	1950
24	350+	0.47	25.8	3 1/4	20'-0"	114.4	155	2450
30	250	0.51	32	8	19'-6"	154.4	245	3260
36	250	0.58	38.3	10	19'-6"	210.3	354	4450
42	250	0.65	44.5	10	19'-6"	274	512	5850

Notes:

- \*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.
- \*\*Check AMERICAN if longer or shorter lengths required.
- +This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per [Flanged Pipe description](#).

14"-64" pipe is not available with integrally cast MJ Bell. See Table 8-8 (below) for Flange and Fastite Pipe.

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53.

Any length between minimum and maximum shown can be furnished.

Tolerance on length is ±0.25 in.

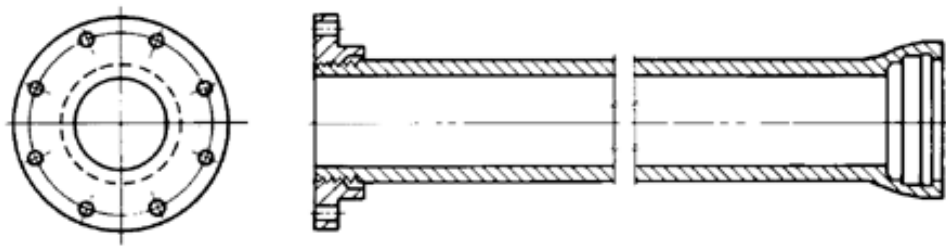
If specified, bolt holes both ends can be drilled, straddling a common centerline.

Where required, specify flanges or MJ Bells "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

AMERICAN Flanged Pipe  
AMERICAN Ductile Iron Flanged Pipe  
ANSI/AWWA C115/A21.15 and AMERICAN Standard

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Flange and Fastite

ADIP Table No. 8-8

Size in.	Pressure Rating psi*	Nominal Wall Thickness in.	Pipe O. D. in.	Minimum Laying Length** in.	Maximum Laying Length** ft.-in.	Weight in Pounds			
						Per Foot Plain End	Flange	Fastite Bell	Maximum Length
4	350+	0.32	4.8	2 1/2	17'-6"	13.8	13	10	262
6	350+	0.34	6.9	2 1/2	19'-6"	21.4	17	15	450
8	350+	0.36	9.05	3	19'-6"	30.1	27	21	635
10	350+	0.38	11.1	2	19'-6"	39.2	38	27	830
12	350+	0.4	13.2	2	19'-6"	49.2	59	32	1050
14	350+	0.42	15.3	2 3/4	19'-6"	60.1	70	57	1300
16	350+	0.43	17.4	2 3/4	19'-6"	70.1	90	64	1520
18	350+	0.44	19.5	3	19'-6"	80.6	88	73	1735
20	350+	0.45	21.6	3	19'-6"	91.5	112	81	1980
24	350+	0.47	25.8	2 3/4	19'-6"	114.4	155	96	2480

30	250	0.51	32	12	19'-6"	154.4	245	164	3420
36	250	0.58	38.3	14	19'-6"	210.3	354	214	4670
42	250	0.65	44.5	14	19'-6"	274	512	289	6140
48	250	0.72	50.8	16	19'-6"	346.6	632	354	7745
54	250	0.81	57.56	16	19'-6"	441.9	716	439	9770
60	250	0.83	61.61	16	19'-6"	485	1113	819	11390
64	250	0.87	65.67	16	19'-6"	542	1824	932	13320

Notes:

\*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.

\*\*Check AMERICAN if longer or shorter lengths required.

+This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per [Flanged Pipe description](#).

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53 for 4"-54" diameters, and Pressure Class 350 for 60" and 64" diameters as shown in AWWA C151.

Any length between minimum and maximum shown can be furnished.

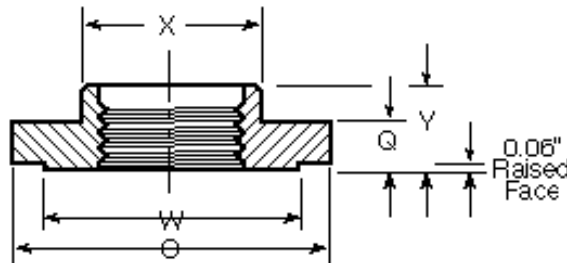
Tolerance on length is  $\pm 0.25$  in.

Where required, specify flanges "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

### AMERICAN Flanged Pipe Companion Flanges for Use On Ductile Iron Pipe Faced and Drilled Per ANSI B16.1 Class 250

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ADIP Table No. 8-12

Size in.	Pipe O.D. in.	Flanges Faced and Drilled Per ANSI B16.1 Class 250				
		O Dia. of Flange in.	Q Thickness in.	W Dia. Of Raised Face in.	X Dia. of Hub in.	Y Length incl. Hub in.
4	4.8	10	1.25	6.94	6	2.12
6	6.9	12.5	1.44	9.69	8.5	2.31
8	9.05	15	1.62	11.94	10.78	2.5
10	11.1	17.5	1.88	14.06	12.81	2.68
12	13.2	20.5	2	16.44	15.13	2.93

30	250	0.51	32	12	19'-6"	154.4	245	164	3420
36	250	0.58	38.3	14	19'-6"	210.3	354	214	4670
42	250	0.65	44.5	14	19'-6"	274	512	289	6140
48	250	0.72	50.8	16	19'-6"	346.6	632	354	7745
54	250	0.81	57.56	16	19'-6"	441.9	716	439	9770
60	250	0.83	61.61	16	19'-6"	485	1113	819	11390
64	250	0.87	65.67	16	19'-6"	542	1824	932	13320

Notes:

\*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.

\*\*Check AMERICAN if longer or shorter lengths required.

+This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per [Flanged Pipe description](#).

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53 for 4"-54" diameters, and Pressure Class 350 for 60" and 64" diameters as shown in AWWA C151.

Any length between minimum and maximum shown can be furnished.

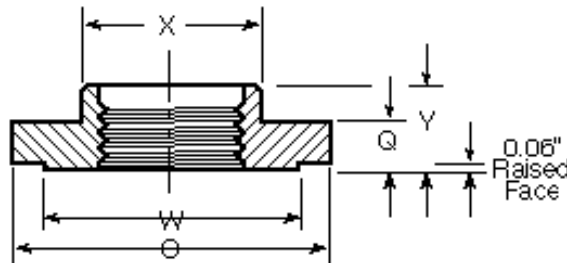
Tolerance on length is  $\pm 0.25$  in.

Where required, specify flanges "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

### AMERICAN Flanged Pipe Companion Flanges for Use On Ductile Iron Pipe Faced and Drilled Per ANSI B16.1 Class 250

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ADIP Table No. 8-12

Size in.	Pipe O.D. in.	Flanges Faced and Drilled Per ANSI B16.1 Class 250				
		O Dia. of Flange in.	Q Thickness in.	W Dia. Of Raised Face in.	X Dia. of Hub in.	Y Length incl. Hub in.
4	4.8	10	1.25	6.94	6	2.12
6	6.9	12.5	1.44	9.69	8.5	2.31
8	9.05	15	1.62	11.94	10.78	2.5
10	11.1	17.5	1.88	14.06	12.81	2.68
12	13.2	20.5	2	16.44	15.13	2.93

48	250	0.72	50.8	10	19'-6"	346.6	632	7390
54	250	0.81	57.56	12	19'-6"	441.9	716	9330
60	250	0.83	61.61	12	19'-6"	485	1113	10570
64	250	0.87	65.67	12	19'-0"	542	1824	12120

#### Notes:

\*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.

\*\*Check AMERICAN if longer or shorter lengths required. All minimum lengths assume a "no-gauge" plain end (no joint will be made at the plain end).

+This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per [Flanged Pipe description](#).

Plain ends to be assembled in a joint (MJ, Fastite, coupling, etc.) must be ordered gauged for the specific joint.

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53 for 4"-54" diameters, and Pressure Class 350 for 60" and 64" diameters as shown in AWWA C151.

Any length between minimum and maximum shown can be furnished.

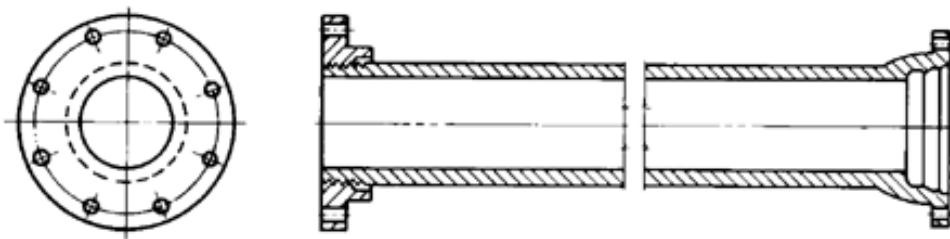
Tolerance on length is  $\pm 0.25$  in.

Where required, specify flanges "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

### AMERICAN Flanged Pipe AMERICAN Ductile Iron Flanged Pipe ANSI/AWWA C115/A21.15 and AMERICAN Standard

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Flange and MJ

ADIP Table No. 8-7

Size in.	Pressure Rating psi*	Nominal Wall Thickness in.	Pipe O. D. in.	Minimum Laying Length** in.	Maximum Laying Length** ft.-in.	Weight in Pounds			
						Per Foot Plain End	Flange	MJ Bell	Maximum Length
4	350+	0.32	4.8	3 1/2	17'-6"	13.8	13	14	267
6	350+	0.34	6.9	3 1/2	19'-6"	21.4	17	19	455
8	350+	0.36	9.05	3 1/2	19'-6"	30.1	27	25	640
10	350+	0.38	11.1	6	19'-6"	39.2	38	31	835
12	350+	0.4	13.2	6	19'-6"	49.2	59	38	1055

16	250	0.43	17.4	10	20'-0"	70.1	90	157	305
18	250	0.44	19.5	10	20'-0"	80.6	88	194	349
20	250	0.45	21.6	10	20'-0"	91.5	112	239	427
24	250	0.47	25.8	10	20'-0"	114.4	155	358	608
30	250	0.51	32	12	19'-6"	154.4	245	508	907
36	250	0.58	38.3	14	19'-6"	210.3	354	697	1296
42	250	0.65	44.5	18	19'-6"	274	512	1010	1933
48	250	0.72	50.8	18	19'-6"	346.6	632	1545	2697

**Notes:**

\*The minimum lengths shown may not allow clearance in all cases for installation of bolts between flanges requiring bolt clearance from the other direction. Very short (shorter than the minimums as per above table) fabricated steel adapters are also available for connecting AWWA C115 flanged pipe or AWWA C110 fittings to ANSI B16.1 Class 250 flanged items. Contact AMERICAN for details.

Pressure rating designated is maximum water working pressure.

Flanges faced and drilled per ANSI B16.1 Class 250 have 0.06" raised face; they do not match AWWA C110 or C115 flanges. Flanges may be furnished with a flat face upon special request.

Pipe is available with greater wall thickness than shown.

Tolerance on length for Flange and Flange pipe is  $\pm 0.12$  in.

Standard drilling is with bolt holes aligned, straddling a common centerline. Class 250 is special drilling and all connecting equipment must have flanges faced and drilled per ANSI B16.1 Class 250.

Where required, specify flanges "Tap for Studs."

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AMERICAN DUCTILE IRON PIPE

Domestic and Fire Service stub  
Inn's only

## AMERICAN Ductile Iron Pipe provides ...

### High Impact Resistance

AMERICAN Ductile Iron Pipe has the high impact strength and toughness to withstand shocks usually encountered in transportation, handling and installation. These characteristics also provide added security against stresses induced by water hammer, highway traffic and unexpected adverse forces. Excellent impact resistance is confirmed by tests made at regular intervals in accordance with ANSI/AWWA C151/A21.51 Standard.

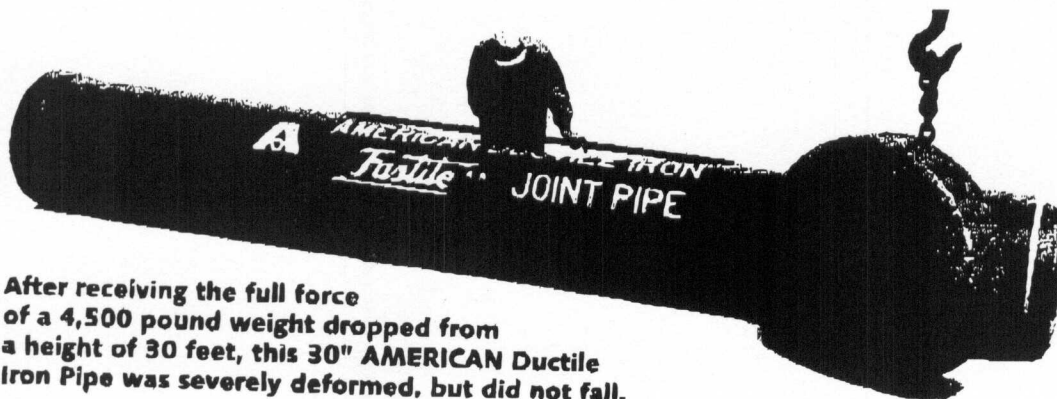
### Superior Strength

AMERICAN utilizes the ideal combination of chemical analysis and heat treatment to produce a pipe with the most

desirable combination of high strength and excellent ductility ... a pipe that will withstand high internal pressure and deep cover ... a pipe providing added reliability and additional factors of safety for normal and for unusual conditions such as expansive soils and earth movement due to freezing and thawing.

### Assured, Proven Long Life

Historical records document the proven service for centuries of gray cast iron pipe. Extensive laboratory and field tests conducted by many authorities under various installation conditions prove the superiority of ductile iron for soil corrosion resistance over gray cast iron. The outstanding resistance of Ductile Iron Pipe to soil corrosion has been verified by more than four decades of service.



After receiving the full force of a 4,500 pound weight dropped from a height of 30 feet, this 30" AMERICAN Ductile Iron Pipe was severely deformed, but did not fall.

## Design of AMERICAN Ductile Iron Pipe

The principal standards covering ductile iron pipe are ANSI/AWWA C150/A21.50 and ANSI/AWWA C151/A21.51. These and other standards are referenced throughout this Section either by the full ANSI/AWWA designation or by only the AWWA numbering, such as AWWA C150.

AMERICAN Ductile Iron Pipe is designed for combinations of internal pressure, water hammer, earth load and truck load. Thicknesses are determined in accordance with ANSI/AWWA C150/A21.50, employing design methods applicable to flexible pipe. Utilizing the principal mechanical properties of high

tensile strength, ductility and impact resistance, the design of ductile iron pipe is conservative in all respects and embodies high factors of safety. For qualification of pipe these properties are confirmed during production by frequent tensile and impact tests of specimens from the wall of pipe.



## AMERICAN DUCTILE IRON PIPE



# AMERICAN Ductile Iron Fastite Joint and Mechanical Joint Pipe

## ANSI/AWWA C151/A21.51

### Weights for Special Classes

Table No. 3-13

Size In.	Thickness Class	Wall Thickness In.	Weight in Pounds				
			Per Foot Plain End	Fastite Joint		Mechanical Joint	
				Per Foot inc. Bell	Per 20' Nominal Length	Per Foot inc. Bell	Per 20' Nominal Length
4	51	.26	11.3	11.8	235	12.0	240
	52	.29	12.6	13.1	265	13.3	270
	53	.32	13.8	14.3	285	14.5	290
	54	.35	15.0	15.5	310	15.7	315
	55	.38	16.1	16.6	335	16.8	340
	56	.41	17.3	17.8	355	18.0	365
6	50	.25	16.0	16.7	335	16.9	340
	51	.28	17.8	18.5	370	18.8	380
	52	.31	19.6	20.3	410	20.5	415
	53	.34	21.4	22.1	445	22.3	450
	54	.37	23.2	23.9	480	24.1	485
	55	.40	25.0	25.7	515	26.0	525
8	56	.43	26.7	27.4	550	27.6	555
	50	.27	22.8	23.8	480	24.0	485
	51	.30	25.2	26.2	525	26.5	535
	52	.33	27.7	28.7	575	28.9	585
	53	.36	30.1	31.1	625	31.3	630
	54	.39	32.5	33.5	675	33.7	680
10	55	.42	34.8	35.8	720	36.0	725
	56	.45	37.2	38.3	770	38.4	775
	50	.29	30.1	31.4	630	31.7	640
	51	.32	33.2	34.5	695	34.7	700
	52	.35	36.2	37.5	755	37.7	760
	53	.38	39.2	40.5	815	40.7	820
12	54	.41	42.1	43.5	875	43.6	880
	55	.44	45.1	46.5	935	46.6	940
	56	.47	48.0	49.3	990	49.5	1000
	50	.31	38.4	40.0	805	40.2	810
	51	.34	42.0	43.6	875	43.9	885
	52	.37	45.6	47.2	950	47.5	960
14	53	.40	49.2	50.8	1020	51.1	1030
	54	.43	52.8	54.3	1090	54.7	1105
	55	.46	56.3	57.9	1165	58.2	1175
	56	.49	59.9	61.5	1235	61.8	1245
	50	.33	47.5	50.3	1010	50.4	1015
	51	.36	51.7	54.6	1095	54.6	1100
16	52	.39	55.9	58.7	1175	58.8	1185
	53	.42	60.1	62.9	1260	63.0	1270
	54	.45	64.2	67.0	1345	67.1	1350
	55	.48	68.4	71.3	1430	71.3	1435
	56	.51	72.5	75.3	1510	75.4	1515
	50	.34	55.8	59.0	1180	59.1	1190
18	51	.37	60.6	63.8	1280	63.9	1285
	52	.40	65.4	68.6	1375	68.7	1385
	53	.43	70.1	73.3	1470	73.5	1480
	54	.46	74.9	78.1	1565	78.2	1575
	55	.49	79.7	82.9	1660	83.0	1670
	56	.52	84.4	87.6	1755	87.7	1765
18	50	.35	64.4	68.0	1365	68.3	1380
	51	.38	69.8	73.4	1470	73.7	1490
	52	.41	75.2	78.8	1580	79.1	1600
	53	.44	80.6	84.2	1690	84.5	1710
	54	.47	86.0	89.6	1795	89.9	1815
	55	.50	91.3	95.0	1905	95.2	1925
	56	.53	96.7	100.3	2010	100.6	2035





AMERICAN DUCTILE IRON PIPE

**AMERICAN Ductile Iron Fastite Joint and Mechanical Joint Pipe**  
**ANSI/AWWA C151/A21.51**  
**Weights for Special Classes**

Table No. 3-13—Continued

Size in.	Thickness Class	Wall Thickness in.	Weight in Pounds				
			Per Foot Plain End	Fastite Joint		Mechanical Joint	
				Per Foot inc. Bell	Per 20' Nominal Length	Per Foot inc. Bell	Per 20' Nominal Length
20	50	.36	73.5	77.5	1555	78.1	1580
	51	.39	79.5	83.5	1675	84.1	1700
	52	.42	85.5	89.5	1795	90.1	1820
	53	.45	91.5	95.5	1915	96.1	1940
	54	.48	97.5	101.5	2035	102.1	2065
	55	.51	103.4	107.5	2155	108.0	2185
	56	.54	109.3	113.3	2270	113.9	2300
24	50	.38	92.9	97.7	1960	98.9	2000
	51	.41	100.1	104.9	2100	106.1	2145
	52	.44	107.3	112.1	2245	113.3	2290
	53	.47	114.4	119.2	2390	120.4	2435
	54	.50	121.6	126.4	2535	127.6	2580
	55	.53	128.8	133.5	2675	134.8	2725
	56	.56	135.9	140.7	2820	141.9	2870
30	50	.39	118.5	126.7	2540	-	-
	51	.43	130.5	138.7	2780	-	-
	52	.47	142.5	150.7	3020	-	-
	53	.51	154.4	162.6	3260	-	-
	54	.55	166.3	174.5	3495	-	-
	55	.59	178.2	186.4	3735	-	-
	56	.63	190.0	198.2	3970	-	-
36	50	.43	156.5	167.2	3350	-	-
	51	.48	174.5	185.2	3710	-	-
	52	.53	192.4	203.1	4070	-	-
	53	.58	210.3	221.0	4430	-	-
	54	.63	228.1	238.8	4785	-	-
	55	.68	245.9	256.5	5140	-	-
	56	.73	263.7	274.4	5500	-	-
42	50	.47	198.9	213.3	4265	-	-
	51	.53	224.0	238.4	4770	-	-
	52	.59	249.1	263.5	5270	-	-
	53	.65	274.0	288.5	5770	-	-
	54	.71	298.9	313.3	6265	-	-
	55	.77	323.7	338.2	6765	-	-
	56	.83	348.4	362.8	7255	-	-
48	50	.51	246.6	264.3	5285	-	-
	51	.58	280.0	297.7	5955	-	-
	52	.65	313.4	331.1	6620	-	-
	53	.72	346.6	364.3	7285	-	-
	54	.79	379.8	397.5	7950	-	-
	55	.86	412.9	430.6	8610	-	-
	56	.93	445.9	463.6	9270	-	-
54	50	.57	312.3	334.3	6685	-	-
	51	.65	355.6	377.5	7550	-	-
	52	.73	398.8	420.8	8415	-	-
	53	.81	441.9	463.8	9275	-	-
	54	.89	484.9	506.8	10135	-	-
	55	.97	527.7	549.7	10995	-	-
	56	1.06	570.4	592.3	11845	-	-

60" and 64" sizes are not available in Special Classes.



Fixtures

&

Drains



<b><u>WC1 WATER CLOSET:</u></b>			<b><u>Page</u></b>
PF1401TWH	PROFLO	1.1-1.6 12 ELONGATED UNIVERSAL BOWL WHITE	6
PF5112HEWH	PROFLO	CCY 1.28 12 TANK FOR PF1400HE WHITE	7
PFTSE2000WH	PROFLO	ELONGATED CLOSET SEAT PLASTIC ECONOMY WHITE	9
<b><u>WC1H WATER CLOSET:</u></b>			11
PF1403TWH	PROFLO	1.1-1.6 12 ADA UNIVERSAL BOWL WHITE	12
PF5112HEWH	PROFLO	CCY 1.28 12 TANK FOR PF1400HE WHITE	13
PFTSE2000WH	PROFLO	ELONGATED CLOSET SEAT PLASTIC ECONOMY WHITE	15
<b><u>L1 LAVATORY: SINK FBO</u></b>			17
PFWSC3016CP	PROFLO	LEAD LAW COMPLIANT 1.2 GPM 1 HANDLE LEVER LAVATORY FAUCET WITH POP UP POLISHED CHROME	18
<b><u>L1H: SINK FBO</u></b>			19
PFWSC3016CP	PROFLO	LEAD LAW COMPLIANT 1.2 GPM 1 HANDLE LEVER LAVATORY FAUCET WITH POP UP POLISHED CHROME	20
<b><u>T1 BATHTUB:</u></b>			21
AGGT36TOLWH	AQUARIUS	60X36 LH SOAKER	22
PF7611SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 TUB AND SHOWER TRIM	23
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS	24
<b><u>T1H BATHTUB:</u></b>			25
AGGT36TOLWH	AQUARIUS	60X36 LH SOAKER	26
PF7611SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 TUB AND SHOWER TRIM	27
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS	28
<b><u>SH1 SHOWER:</u></b>			29
S721211000	STERLING	48X34 VIKRELL SHOWER RECEPTOR ENSEMBLE WHITE	30
PF7610SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 SHOWER TRIM	31
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS	33
			34

<b><u>SH1H:</u></b>			35
S721311000	STERLING	60 ENSEMBLE SHOWER RECEPTOR WHT	36
PF7610SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 SHOWER TRIM	38
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS	39
PF14BSCP	PROFLO	24 SLDBR CP WITH 7/8 BRASS BAR	40
PF05464CP	PROFLO	5 FUNCTION 1.75 SINGLE HAND SHOWER CHROME PLATED	41
PF05289CP	PROFLO	60 METAL SHOWER HOSE CHROME PLATED	42
<b><u>SH1:</u></b>			43
S721311000	STERLING	60 ENSEMBLE SHOWER RECEPTOR WHT	44
PF7610SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 SHOWER TRIM	46
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS	47
<b><u>KS1: SINK FBO</u></b>			48
PFXC5150CP	PROFLO	CCY LEAD LAW COMPLIANT 1.5 1 HANDLE LEVER KITCHEN PULLOUT SPOUT POLISHED CHROME	49
<b><u>KS1H: SINK FBO</u></b>			50
PFXC5150CP	PROFLO	CCY LEAD LAW COMPLIANT 1.5 1 HANDLE LEVER KITCHEN PULLOUT SPOUT POLISHED CHROME	51
<b><u>WMB:</u></b>			52
O38103	OATEY	CENTROII CPVC HAMM	53
<b><u>IMB:</u></b>			55
O39122	OATEY	LF FIR WMOB QT HAMMER BV CPVC	56
<b><u>WH1:</u></b>			58
AENL36202172000	AO SMITH	*36G ELEC 4.5KW 240V 1PH WHTR	59
<b><u>WH2:</u></b>			61
AENLB50202172000	AO SMITH	48G 4.5KW 240V 1PH LB WHTR ALUM (WITH BLANKET)	62
<b><u>PL01: Leasing Restroom Sink</u></b>			64
L546800101	LACAVALLC	1H PORC LAV W/ O/FLOW WHIT	65
<b><u>PL02: Leasing Restroom Trap Cover</u></b>			66
LRA09821	LACAVALLC	LAVACA BRUSHED SS TRAP COVER	67
<b><u>PL03: Restrooms Faucet</u></b>			68
H31080821	HANSGROHE	CCY LEAD LAW COMPLIANT E ONE HOLE 1 HANDLE FAUCET *METRIS BRUSHED NICKEL 1.5	69

<b><u>PL04: Restrooms Toilet</u></b>			70
K4309-0	KOHLER	CCY @ 12 ELONGATED BOWL WHITE ADA 1.28/1.6	71
K4421-0	KOHLER	CCY @ 12 ROUGH IN CLOSET TANK WHITE 1.28	73
PFTSCOF2000WH	PROFLO	ELONGATED CLOSET SEAT COMM OPEN FRONT L/COVER WHITE	75
<b><u>PL09: Clubroom Bar Faucet</u></b>			76
H04507801	HANS GROHE	LEAD LAW COMPLIANT NOT CERTIFIED 1.5 GPM 1 HANDLE BAR FAUCET *FOCUS STAINLESS STEEL	77
<b><u>PL10: Clubroom Bar Sink</u></b>			82
SP-N3671-L006	NEO METRO	NEO METRO SATIN SS SINK	83
<b><u>PL11: Restrooms Undermount Sink</u></b>			85
K2882-0	KOHLER	VERTICYL RECT UC LAV	86
<b><u>PL13: Male Restroom Urinal</u></b>			88
K2590-0	KOHLER	0.5 GPF BARDON TOUCHL LITE	89
<b><u>PL15: Workroom Faucet</u></b>			91
D470ARDST	DELTA	CCY LEAD LAW COMPLIANT 1.8 1 HANDLE KITCHEN PULLOUT SPRAY FAUCET STAINLESS STEEL	92
<b><u>PL16: Workroom, Dog Wash, Bike Room Sink</u></b>			93
ELRADQ221965PD	ELKAY	ELKAY 22X19X6.5 TOP MOUNT SINK	94
<b><u>PL17: Janitor Closet Mop Sink</u></b>			96
PFMB3624S	PROFLO	36X24X10 MOP BASIN W/ SS DRAIN	97
<b><u>PL18: Janitor Closet Faucet</u></b>			99
ELKB940C	ELKAY	2 HANDLE WALL MOUNT SERVICE SINK FAUCET 2.2 GALLONS PER MINUTE	100
<b><u>PL20: Dog Wash &amp; Bike Room Faucet</u></b>			102
D101DST	DELTA	CCY LEAD LAW COMPLIANT 1.8 1 HANDLE KIT FAUCET LESS SPRAY POLISHED CHROME	103
<b><u>WH3:</u></b>			104
AENL40202172000	AO SMITH	*38G ELEC 4.5KW 240V 1PH WHTR LB	105
<b><u>WH4:</u></b>			107
AENL40202172000	AO SMITH	*38G ELEC 4.5KW 240V 1PH WHTR LB	108
<b><u>FD1:</u></b>			110
S2005L04A05NBP05	SMITH	4 SV FLR DRN W/ 5 NB TOP & TP	111
0			



<b><u>FD2:</u></b>			114
S2005D07CIBP050	SMITH	SMITH FLOOR DRAIN 24"	115
<b><u>WHYD:</u></b>			118
S5519SAP	SMITH	BOX TYPE WALL HYD	119
<b><u>HB:</u></b>			121
S5619SAP	SMITH	1/4 TURN HYD VAC BRKR DUAL CHK	122
<b><u>RHYD:</u></b>			124
S5907	SMITH	NF ROOF HYDRANT W/ DUAL CHK VB	125
<b><u>FS:</u></b>			126
S3150UP050	SMITH	SMITH FLOOR SINK	127
<b><u>FCO:</u></b>			128
S4111L03NS	SMITH	3 SV FLR CO W/ RD NB TOP	129
<b><u>WCO:</u></b>			131
S4472T03	SMITH	3 BRZ TPR THRD PLUG W/CVR	132



PF1401TWH  
PF5112HEWH  
PFTSE2000WH

PROFLO  
PROFLO  
PROFLO

**WC1 WATER CLOSET:**




1.1-1.6 12 ELONGATED UNIVERSAL BOWL WHITE  
CCY 1.28 12 TANK FOR PF1400HE WHITE  
ELONGATED CLOSET SEAT PLASTIC ECONOMY WHITE

**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

- Gravity fed 1.28gpf HET, High Efficiency Toilet
- Two-piece vitreous china
- 2" fully glazed trapway
- 6" x 5-1/4" water surface
- Anti-siphon fill valve
- Jetted box rim
- Close coupled tank with cover
- Quick connect, 2 bolt tank to bowl installation
- Comes standard with a color matching trip lever
- 2" Flush valve
- Sanitary bar on all bowls
- Seat and supply not included
- Available in 10", 12", 14" RI
- Available with RH trip level
- Available with insulated tank
- Available round front, elongated, and ADA
- Uses 20% less water than standard low consumption toilets
- EPA WaterSense Certified

**PF1403TWH/PF5112HEWH****Codes and Standards**

- IAPMO/UPC
- ASME A112.19.2
- CSA B45.0
- CSA B45.1

Model	Model Description	Color Finishes
*PF1400T	1.1-1.6 12 RI RF UNIV BOWL	<input type="radio"/> White <input type="radio"/> Biscuit
*PF1401T 	1.1-1.6 12 RI EL UNIV BOWL	 White <input type="radio"/> Biscuit
PF1403T 	1.1-1.6 12 RI ADA UNIV BOWL	<input type="radio"/> White <input type="radio"/> Biscuit
PF5112HE	HET Tank only 12" RI for 1400 series	<input type="radio"/> White <input type="radio"/> Biscuit
PF5110HE	HET Tank only 10" RI for 1400 series	<input type="radio"/> White <input type="radio"/> Biscuit
PF5114HEWH	HET Tank only 14" RI for 1400 series	<input type="radio"/> White
PF5112RHEWH	HET Tank only 12" RI for 1400 series	<input type="radio"/> White
PF5112UHEWH	HET Lined Tank only 12" RI for 1400 series	<input type="radio"/> White
PF5112LHEWH	Tank with Locking Lid	<input type="radio"/> White

\* = complies with CSA B651

wheelchair symbol = complies with ADA & CSA B651



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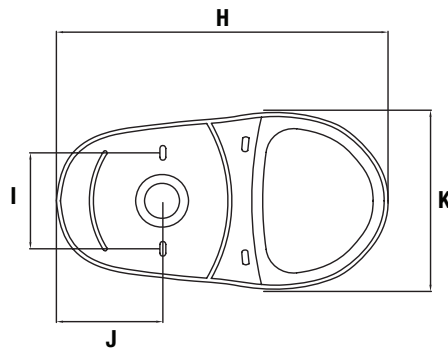
**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

The combination toilet shall be made of vitreous china. Toilet shall be 1.28 gpf (4.8 lpf). Toilet shall have 2" (5.1cm) fully glazed trapway. Toilet shall include color match trip lever. Toilet shall be less seat and supply. Toilet shall be ADA compliant (PF1403T) with 17" high bowl.

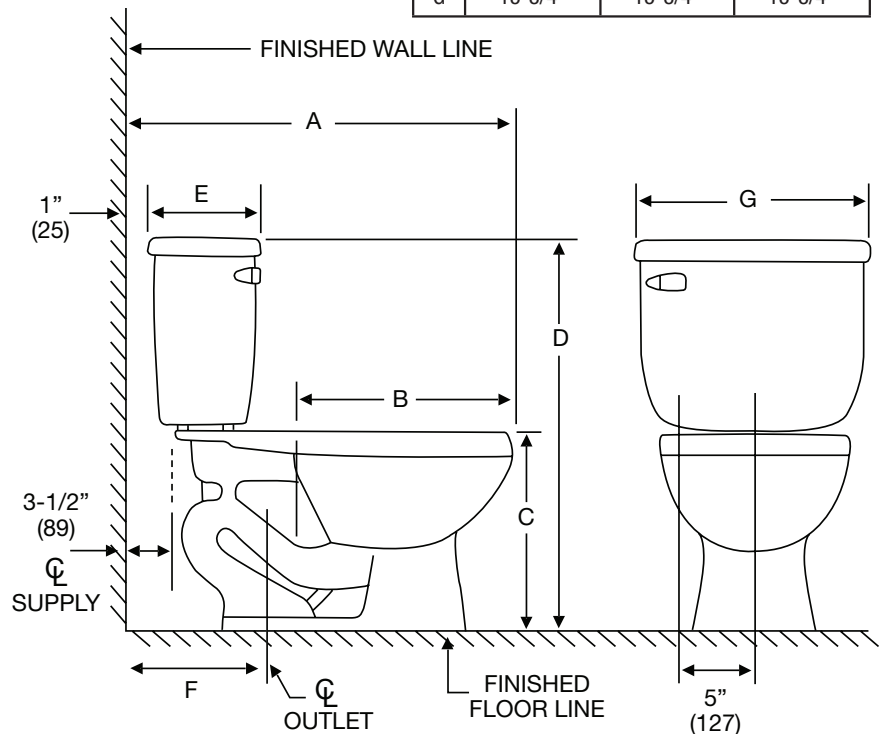
	PF5114HE /1400T	PF5114HE /1401T	PF5114HE /1403T
A	30-1/2"	32-1/2"	32-1/2"
E	9-3/4"	9-3/4"	9-3/4"
F	14"	14"	14"
G	15-3/4"	15-3/4"	15-3/4"

	PF5110HE /1400T	PF5110HE /1401T	PF5110HE /1403T
A	26-1/2"	28-1/2"	28-1/2"
E	6-1/4"	6-1/4"	6-1/4"
F	10"	10"	10"
G	17-1/2"	17-1/2"	17-1/2"

	PF5112HE /1400T	PF5112HE /1401T	PF5112HE /1403T
A	28-1/2"	30-1/2"	30-1/2"
B	16-1/2"	18-1/2"	18-1/2"
C	15"	15"	17"
D	29-3/4"	29-3/4"	31-3/4"
E	8-1/2"	8-1/2"	8-1/2"
F	12"	12"	12"
G	15-3/4"	15-3/4"	15-3/4"

**Footprint**

	RF	EL	ADA
	PF1400T	PF1401T	PF1403T
H	18-1/2"	18-1/2"	18-1/2"
I	6"	6"	6"
J	6-1/8"	6-1/2"	6-1/2"
K	9"	9"	9"

**Warranty and Codes:**

This product comes complete with installation, operating, care and maintenance instructions. All PROFLO fixtures carry a 1- year limited warranty. This product meets or exceeds ASME/ANSI A112.19.2M. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.






**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

- Gravity fed 1.28gpf HET, High Efficiency Toilet
- Two-piece vitreous china
- 2" fully glazed trapway
- 6" x 5-1/4" water surface
- Anti-siphon fill valve
- Jetted box rim
- Close coupled tank with cover
- Quick connect, 2 bolt tank to bowl installation
- Comes standard with a color matching trip lever
- 2" Flush valve
- Sanitary bar on all bowls
- Seat and supply not included
- Available in 10", 12", 14" RI
- Available with RH trip level
- Available with insulated tank
- Available round front, elongated, and ADA
- Uses 20% less water than standard low consumption toilets
- EPA WaterSense Certified

**PF1403TWH/PF5112HEWH****Codes and Standards**

- IAPMO/UPC
- ASME A112.19.2
- CSA B45.0
- CSA B45.1

Model	Model Description	Color Finishes
*PF1400T	1.1-1.6 12 RI RF UNIV BOWL	○ White ○ Biscuit
*PF1401T	1.1-1.6 12 RI EL UNIV BOWL	○ White ○ Biscuit
PF1403T 	1.1-1.6 12 RI ADA UNIV BOWL	○ White ○ Biscuit
PF5112HE 	HET Tank only 12" RI for 1400 series	 White ○ Biscuit
PF5110HE	HET Tank only 10" RI for 1400 series	○ White ○ Biscuit
PF5114HEWH	HET Tank only 14" RI for 1400 series	○ White
PF5112RHEWH	HET Tank only 12" RI for 1400 series	○ White
PF5112UHEWH	HET Lined Tank only 12" RI for 1400 series	○ White
PF5112LHEWH	Tank with Locking Lid	○ White

\* = complies with CSA B651

wheelchair symbol = complies with ADA & CSA B651



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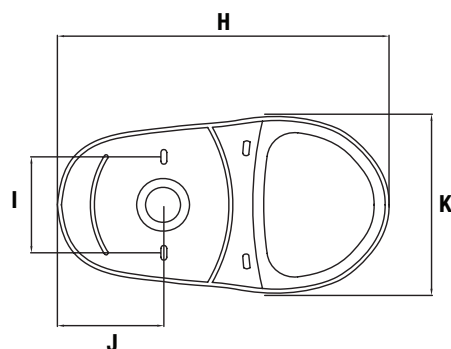
**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

The combination toilet shall be made of vitreous china. Toilet shall be 1.28 gpf (4.8 lpf). Toilet shall have 2" (5.1cm) fully glazed trapway. Toilet shall include color match trip lever. Toilet shall be less seat and supply. Toilet shall be ADA compliant (PF1403T) with 17" high bowl.

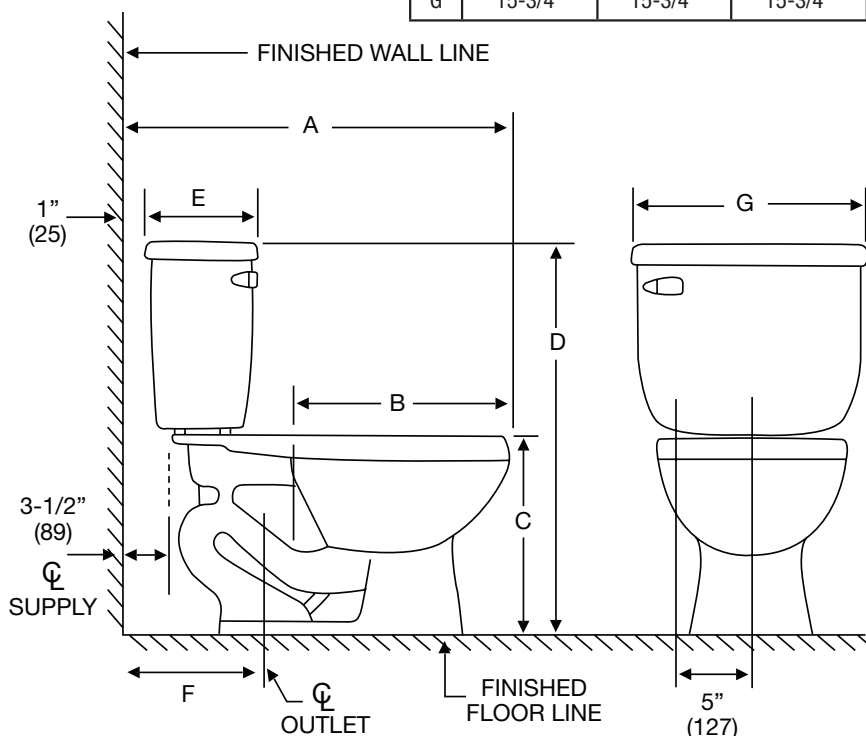
	PF5114HE /1400T	PF5114HE /1401T	PF5114HE /1403T
A	30-1/2"	32-1/2"	32-1/2"
E	9-3/4"	9-3/4"	9-3/4"
F	14"	14"	14"
G	15-3/4"	15-3/4"	15-3/4"

	PF5110HE /1400T	PF5110HE /1401T	PF5110HE /1403T
A	26-1/2"	28-1/2"	28-1/2"
E	6-1/4"	6-1/4"	6-1/4"
F	10"	10"	10"
G	17-1/2"	17-1/2"	17-1/2"

	PF5112HE /1400T	PF5112HE /1401T	PF5112HE /1403T
A	28-1/2"	30-1/2"	30-1/2"
B	16-1/2"	18-1/2"	18-1/2"
C	15"	15"	17"
D	29-3/4"	29-3/4"	31-3/4"
E	8-1/2"	8-1/2"	8-1/2"
F	12"	12"	12"
G	15-3/4"	15-3/4"	15-3/4"

**Footprint**

	RF	EL	ADA
	PF1400T	PF1401T	PF1403T
H	18-1/2"	18-1/2"	18-1/2"
I	6"	6"	6"
J	6-1/8"	6-1/2"	6-1/2"
K	9"	9"	9"

**Warranty and Codes:**

This product comes complete with installation, operating, care and maintenance instructions. All PROFLO fixtures carry a 1- year limited warranty. This product meets or exceeds ASME/ANSI A112.19.2M. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.

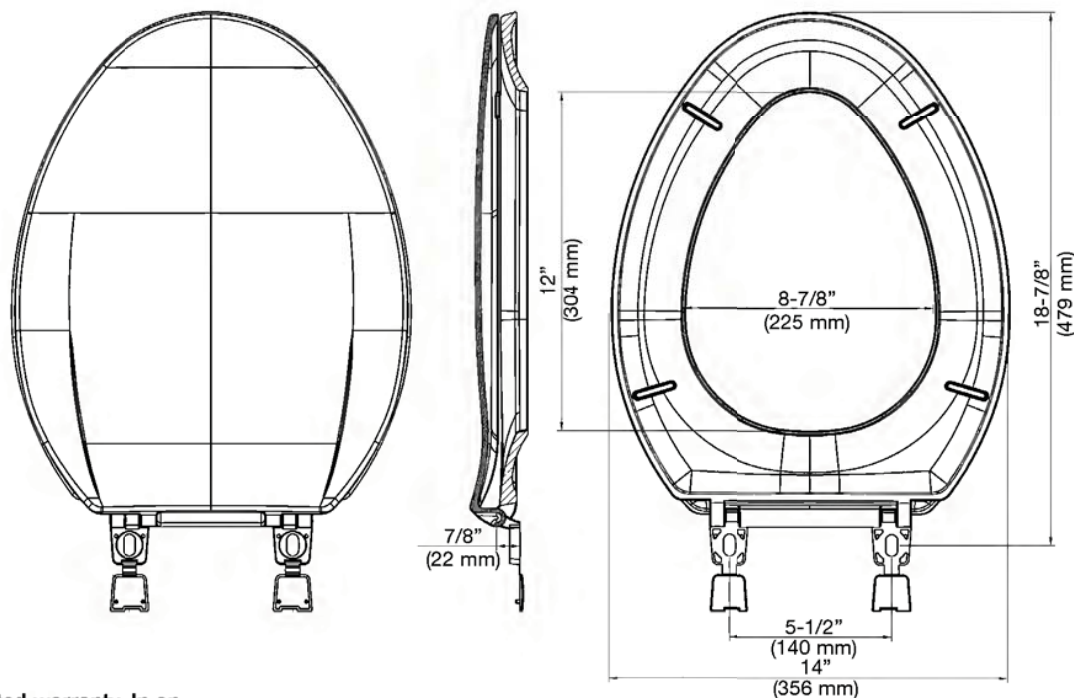


**PFTSE2000WH****Plastic  
Toilet Seats****Product Features**

- Impact resistant plastic construction
- Available in round or elongated
- Closed front with cover
- Conforms to ANSI Z124.5
- White only

**Model Numbers**

✓ **PFTSE2000WH** Elongated plastic toilet seat, white

**PFTSE2000WH****Product Specifications****Warranty and Codes**

PROFLO toilet seats carry a 1-year limited warranty. In an effort to continually improve our products, FEI will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise. Conforms to ANSI Z124.5



PF1403TWH  
PF5112HEWH  
PFTSE2000WH

PROFLO  
PROFLO  
PROFLO

**WC1H WATER CLOSET:**

1.1-1.6 12 ADA UNIVERSAL BOWL WHITE  
CCY 1.28 12 TANK FOR PF1400HE WHITE  
ELONGATED CLOSET SEAT PLASTIC ECONOMY WHITE






**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

- Gravity fed 1.28gpf HET, High Efficiency Toilet
- Two-piece vitreous china
- 2" fully glazed trapway
- 6" x 5-1/4" water surface
- Anti-siphon fill valve
- Jetted box rim
- Close coupled tank with cover
- Quick connect, 2 bolt tank to bowl installation
- Comes standard with a color matching trip lever
- 2" Flush valve
- Sanitary bar on all bowls
- Seat and supply not included
- Available in 10", 12", 14" RI
- Available with RH trip level
- Available with insulated tank
- Available round front, elongated, and ADA
- Uses 20% less water than standard low consumption toilets
- EPA WaterSense Certified

**PF1403TWH/PF5112HEWH****Codes and Standards**

- IAPMO/UPC
- ASME A112.19.2
- CSA B45.0
- CSA B45.1

Model	Model Description	Color Finishes
*PF1400T	1.1-1.6 12 RI RF UNIV BOWL	○ White ○ Biscuit
*PF1401T	1.1-1.6 12 RI EL UNIV BOWL	○ White ○ Biscuit
PF1403T  	1.1-1.6 12 RI ADA UNIV BOWL	 White ○ Biscuit
PF5112HE	HET Tank only 12" RI for 1400 series	○ White ○ Biscuit
PF5110HE	HET Tank only 10" RI for 1400 series	○ White ○ Biscuit
PF5114HEWH	HET Tank only 14" RI for 1400 series	○ White
PF5112RHEWH	HET Tank only 12" RI for 1400 series	○ White
PF5112UHEWH	HET Lined Tank only 12" RI for 1400 series	○ White
PF5112LHEWH	Tank with Locking Lid	○ White

\* = complies with CSA B651

wheelchair symbol = complies with ADA & CSA B651



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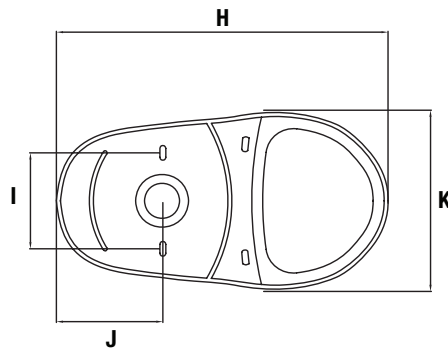
**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

The combination toilet shall be made of vitreous china. Toilet shall be 1.28 gpf (4.8 lpf). Toilet shall have 2" (5.1cm) fully glazed trapway. Toilet shall include color match trip lever. Toilet shall be less seat and supply. Toilet shall be ADA compliant (PF1403T) with 17" high bowl.

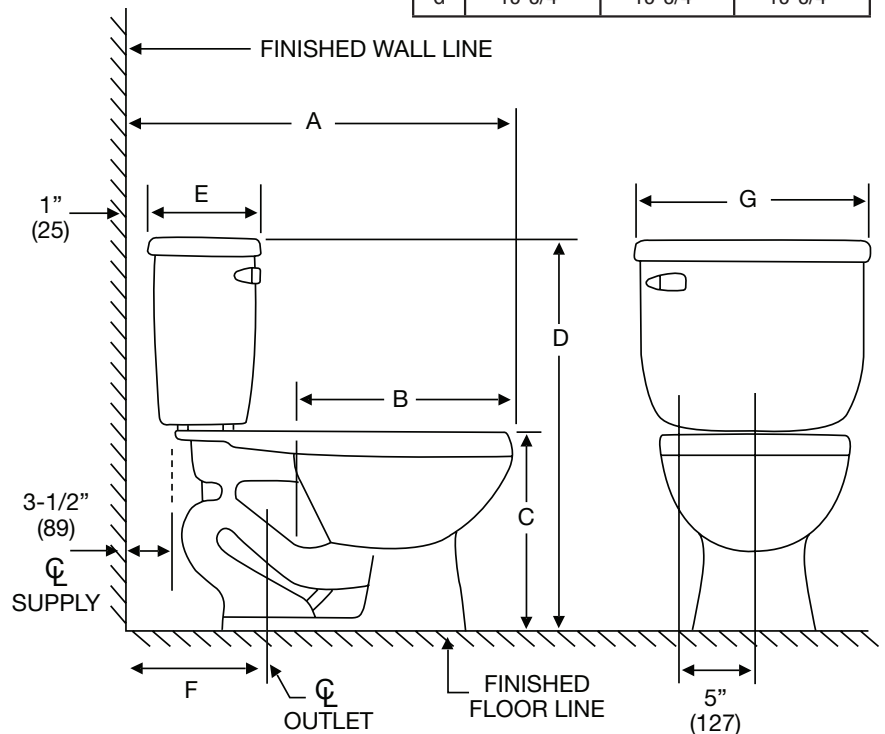
	PF5114HE /1400T	PF5114HE /1401T	PF5114HE /1403T
A	30-1/2"	32-1/2"	32-1/2"
E	9-3/4"	9-3/4"	9-3/4"
F	14"	14"	14"
G	15-3/4"	15-3/4"	15-3/4"

	PF5110HE /1400T	PF5110HE /1401T	PF5110HE /1403T
A	26-1/2"	28-1/2"	28-1/2"
E	6-1/4"	6-1/4"	6-1/4"
F	10"	10"	10"
G	17-1/2"	17-1/2"	17-1/2"

	PF5112HE /1400T	PF5112HE /1401T	PF5112HE /1403T
A	28-1/2"	30-1/2"	30-1/2"
B	16-1/2"	18-1/2"	18-1/2"
C	15"	15"	17"
D	29-3/4"	29-3/4"	31-3/4"
E	8-1/2"	8-1/2"	8-1/2"
F	12"	12"	12"
G	15-3/4"	15-3/4"	15-3/4"

**Footprint**

	RF	EL	ADA
	PF1400T	PF1401T	PF1403T
H	18-1/2"	18-1/2"	18-1/2"
I	6"	6"	6"
J	6-1/8"	6-1/2"	6-1/2"
K	9"	9"	9"

**Warranty and Codes:**

This product comes complete with installation, operating, care and maintenance instructions. All PROFLO fixtures carry a 1- year limited warranty. This product meets or exceeds ASME/ANSI A112.19.2M. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.






**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

- Gravity fed 1.28gpf HET, High Efficiency Toilet
- Two-piece vitreous china
- 2" fully glazed trapway
- 6" x 5-1/4" water surface
- Anti-siphon fill valve
- Jetted box rim
- Close coupled tank with cover
- Quick connect, 2 bolt tank to bowl installation
- Comes standard with a color matching trip lever
- 2" Flush valve
- Sanitary bar on all bowls
- Seat and supply not included
- Available in 10", 12", 14" RI
- Available with RH trip level
- Available with insulated tank
- Available round front, elongated, and ADA
- Uses 20% less water than standard low consumption toilets
- EPA WaterSense Certified

**PF1403TWH/PF5112HEWH****Codes and Standards**

- IAPMO/UPC
- ASME A112.19.2
- CSA B45.0
- CSA B45.1

Model	Model Description	Color Finishes
*PF1400T	1.1-1.6 12 RI RF UNIV BOWL	○ White    ○ Biscuit
*PF1401T	1.1-1.6 12 RI EL UNIV BOWL	○ White    ○ Biscuit
PF1403T 	1.1-1.6 12 RI ADA UNIV BOWL	○ White    ○ Biscuit
PF5112HE 	HET Tank only 12" RI for 1400 series	 White    ○ Biscuit
PF5110HE	HET Tank only 10" RI for 1400 series	○ White    ○ Biscuit
PF5114HEWH	HET Tank only 14" RI for 1400 series	○ White
PF5112RHEWH	HET Tank only 12" RI for 1400 series	○ White
PF5112UHEWH	HET Lined Tank only 12" RI for 1400 series	○ White
PF5112LHEWH	Tank with Locking Lid	○ White

\* = complies with CSA B651

wheelchair symbol = complies with ADA & CSA B651



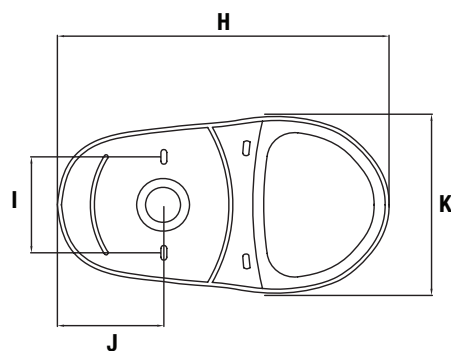
**PF1400T Series****High-Efficiency  
Two Piece Toilet****Product Features**

The combination toilet shall be made of vitreous china. Toilet shall be 1.28 gpf (4.8 lpf). Toilet shall have 2" (5.1cm) fully glazed trapway. Toilet shall include color match trip lever. Toilet shall be less seat and supply. Toilet shall be ADA compliant (PF1403T) with 17" high bowl.

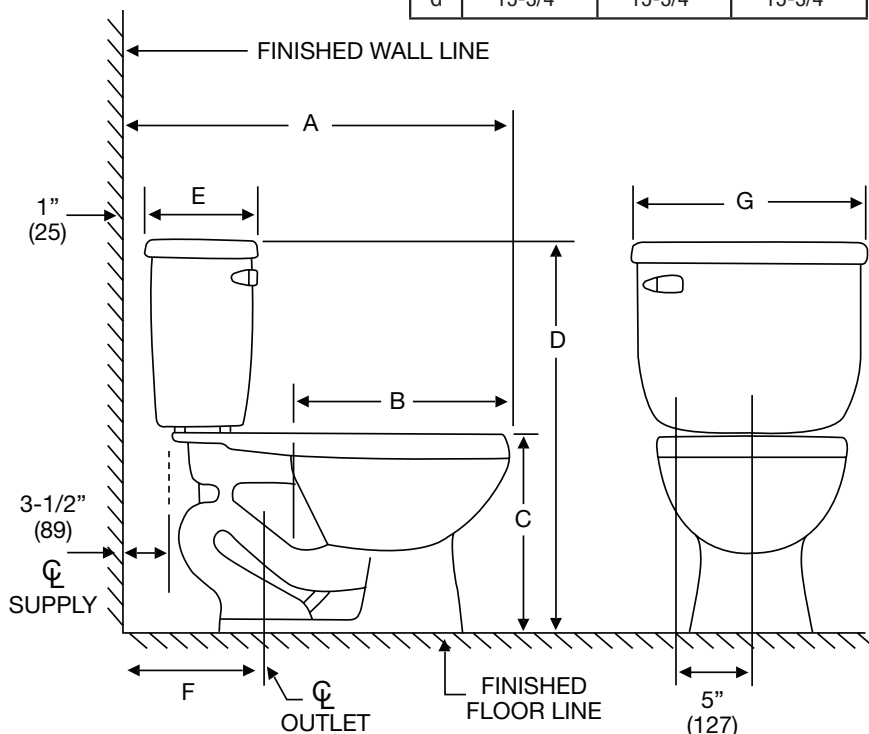
	PF5114HE /1400T	PF5114HE /1401T	PF5114HE /1403T
A	30-1/2"	32-1/2"	32-1/2"
E	9-3/4"	9-3/4"	9-3/4"
F	14"	14"	14"
G	15-3/4"	15-3/4"	15-3/4"

	PF5110HE /1400T	PF5110HE /1401T	PF5110HE /1403T
A	26-1/2"	28-1/2"	28-1/2"
E	6-1/4"	6-1/4"	6-1/4"
F	10"	10"	10"
G	17-1/2"	17-1/2"	17-1/2"

	PF5112HE /1400T	PF5112HE /1401T	PF5112HE /1403T
A	28-1/2"	30-1/2"	30-1/2"
B	16-1/2"	18-1/2"	18-1/2"
C	15"	15"	17"
D	29-3/4"	29-3/4"	31-3/4"
E	8-1/2"	8-1/2"	8-1/2"
F	12"	12"	12"
G	15-3/4"	15-3/4"	15-3/4"

**Footprint**

	RF	EL	ADA
	PF1400T	PF1401T	PF1403T
H	18-1/2"	18-1/2"	18-1/2"
I	6"	6"	6"
J	6-1/8"	6-1/2"	6-1/2"
K	9"	9"	9"

**Warranty and Codes:**

This product comes complete with installation, operating, care and maintenance instructions. All PROFLO fixtures carry a 1- year limited warranty. This product meets or exceeds ASME/ANSI A112.19.2M. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.

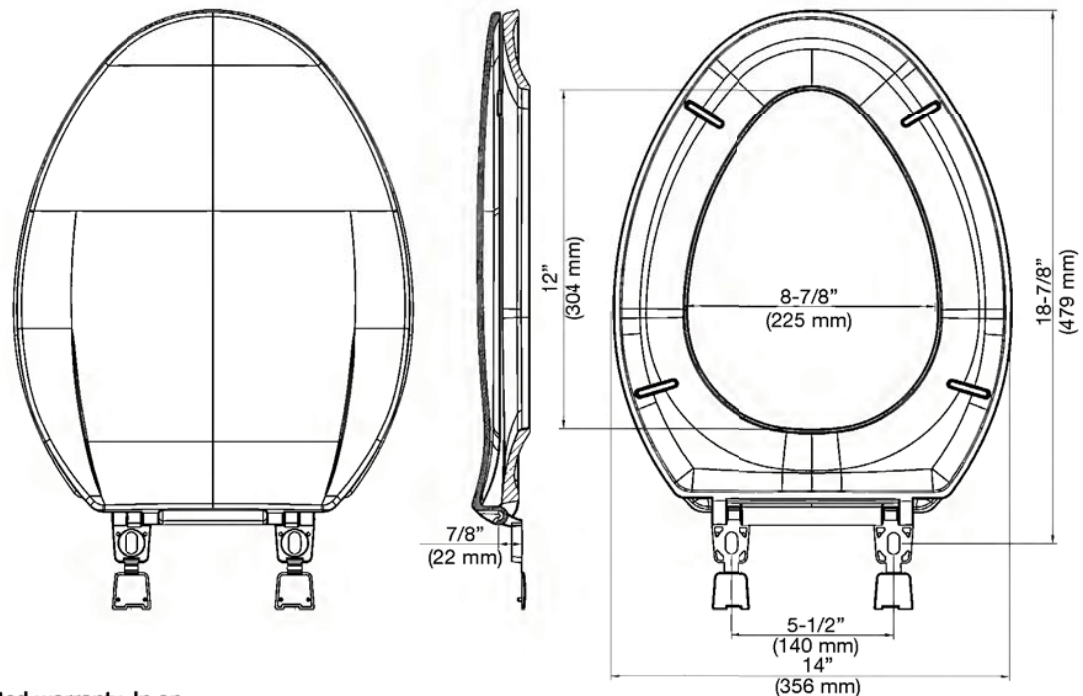


**PFTSE2000WH****Plastic  
Toilet Seats****Product Features**

- Impact resistant plastic construction
- Available in round or elongated
- Closed front with cover
- Conforms to ANSI Z124.5
- White only

**Model Numbers**

✓ **PFTSE2000WH** Elongated plastic toilet seat, white

**PFTSE2000WH****Product Specifications****Warranty and Codes**

PROFLO toilet seats carry a 1-year limited warranty. In an effort to continually improve our products, FEI will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise. Conforms to ANSI Z124.5



PFWSC3016CP

PROFLO

**L1 LAVATORY: SINK FBO**

LEAD LAW COMPLIANT 1.2 GPM 1 HANDLE LEVER LAVATORY  
FAUCET WITH POP UP POLISHED CHROME

PFWCS3016

# SINGLE HANDLE LAVATORY FAUCET



## Product Features

- Ceramic disc cartridge
- Metal handle
- With 50/50 Pop-up
- 3-hole 4" on-center installation
- Flow rate: 1.2 GPM at 60 PSI
- ADA compliant
- cUPC/IAPMO listed
- WaterSense certified

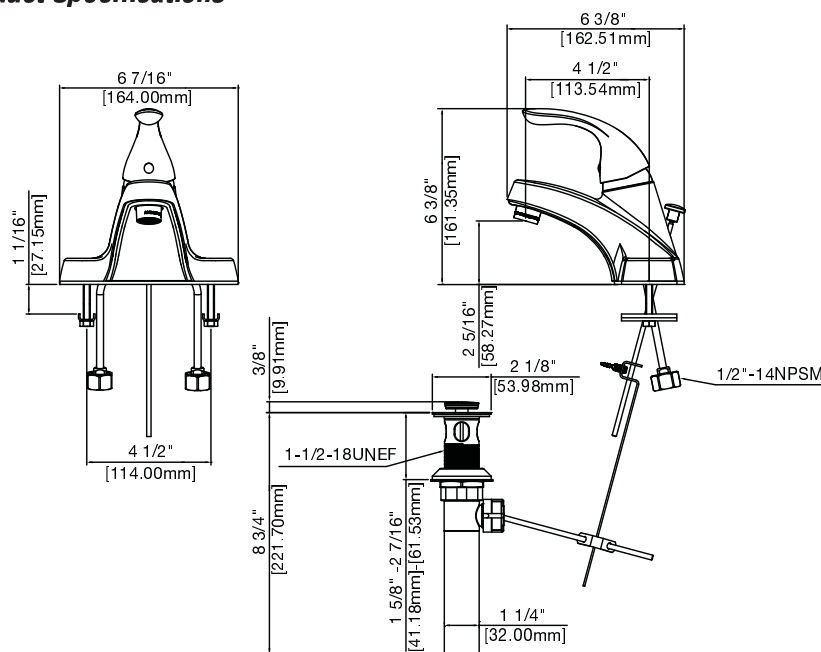


PFWSC3016CP

## Model Numbers

PFWSC3016CP chrome  
PFWSC3016BN brushed nickel  
PFWSC3016ORB oil rubbed bronze

## Product Specifications



## Available Parts

PF3357061 Cartridge

## Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ANSI: A112.18.1M.

\*Compliant with lead content requirements of California AB 1953.



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08/18/15 Rev.A



PFWSC3016CP

PROFLO

**L1H: SINK FBO**

LEAD LAW COMPLIANT 1.2 GPM 1 HANDLE LEVER LAVATORY  
FAUCET WITH POP UP POLISHED CHROME



PFWCS3016

# SINGLE HANDLE LAVATORY FAUCET



## Product Features

- Ceramic disc cartridge
- Metal handle
- With 50/50 Pop-up
- 3-hole 4" on-center installation
- Flow rate: 1.2 GPM at 60 PSI
- ADA compliant
- cUPC/IAPMO listed
- WaterSense certified

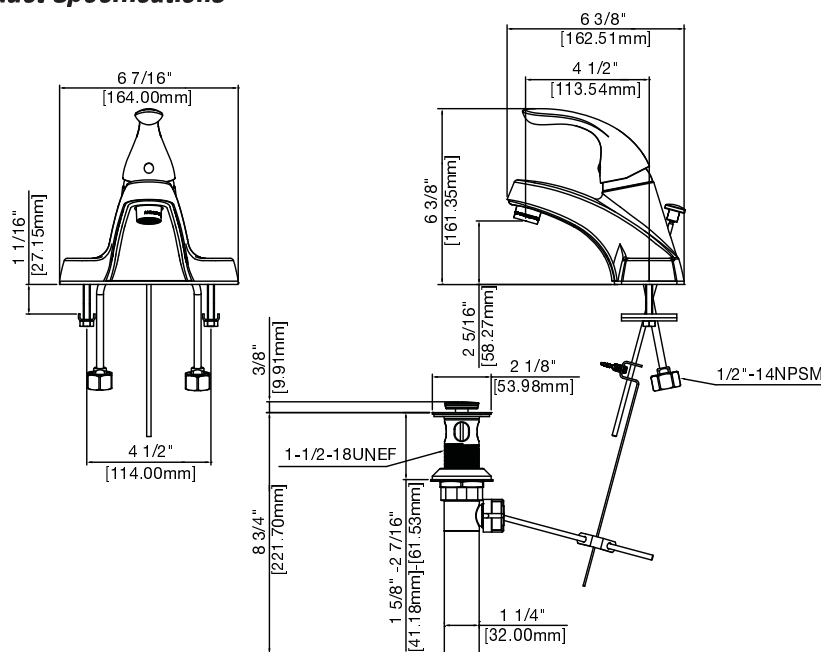


PFWSCC3016CP

## Model Numbers

PFWSC3016CP chrome  
PFWSC3016BN brushed nickel  
PFWSC3016ORB oil rubbed bronze

## Product Specifications



## Available Parts

PF3357061 Cartridge

## Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ANSI: A112.18.1M.

\*Compliant with lead content requirements of California AB 1953.



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08/18/15 Rev.A



		<b><u>T1 BATHTUB: QUANTITY 113-RIGHT HAND, 30-LEFT HAND</u></b>
AGGT36TOLWH	AQUARIUS	60X36 LH SOAKER
PF7611SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 TUB AND
		SHOWER TRIM
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS

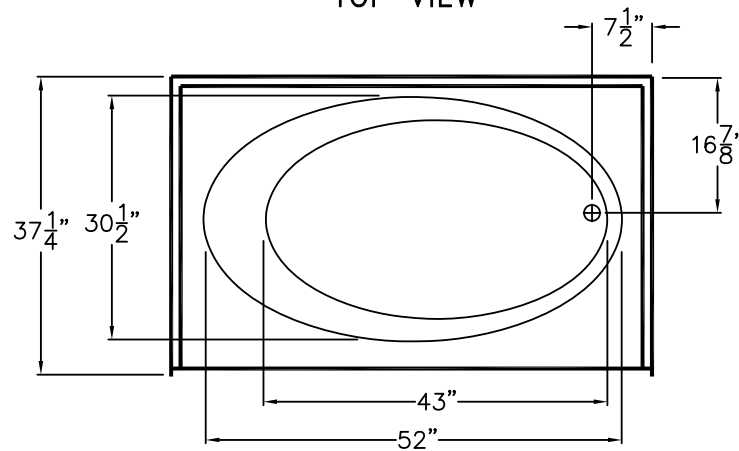
HANDED BY THE DRAIN

Model G GT 36 TO

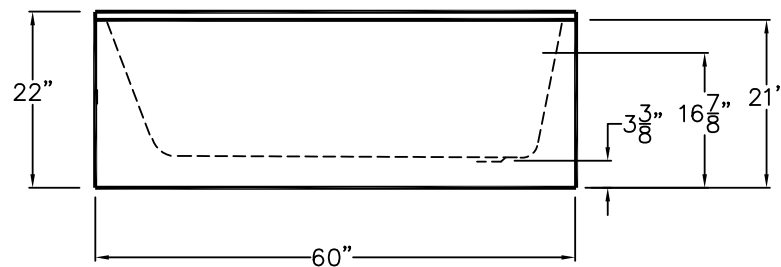
# Luxury Gelcoat Series

## SUBMITTAL DATA

TOP VIEW



FRONT VIEW



G GT36 TO. GELCOAT RECESS GARDEN STYLE BATHTUB  
WITH OVAL SHAPED WATER WELL AND INTEGRAL APRON SKIRT.  
BATHTUB HOLDS 55 US GALLONS MAXIMUM.

HANDED BY THE DRAIN LEFT OR RIGHT.

DUE TO THE NATURE OF THE MATERIALS  
DIMENSIONS MAY VARY  $\pm 1/2"$

Job Name:

AQUARIUS

Model No.: G GT 36 Gelcoat Bathtub.

Drawing#: G GT 36 TO

Approved by:

Date Approved:

Date: 1-26-01 Revised: 10-2-09

Rep.:

Wholesaler:

Quote No.:

PRAXIS INDUSTRIES, LLC.  
435 INDUSTRIAL RD - SAVANNAH, TN 38372  
1 (800) 443-7269 - FAX (731) 925-4290

**PF7611S series****Single Handle  
Tub and Shower Trim Kit****Product Features**

- Metal lever handle
- Brass shower arm and stainless steel flange
- Single function showerhead with easy-clean rubber nozzles
- Slip-fit spout for 1/2" copper pipe
- 100% factory pressure tested
- 1.75 gpm flow showerhead
- cUPC/IAPMO Listed
- ADA Compliant
- WaterSense Certified
- Use with ACCUFIT PF3001 series valve

**Model Numbers**

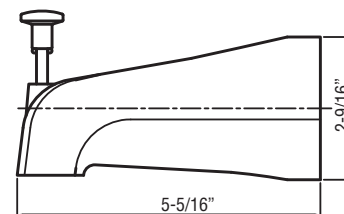
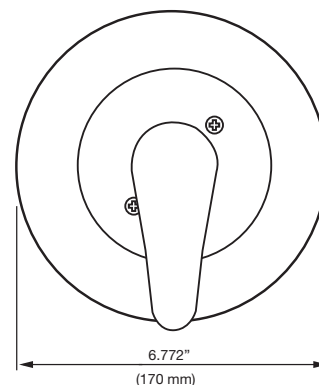
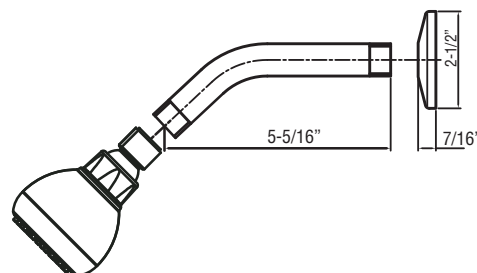
✓ PF7611SCP	Polished chrome
PF7611SBN	Brushed nickel
PF7611SORB	Oil rubbed bronze

**Available Parts**

PFS40	6" shower arm CP
PFS42	Shower arm flange CP
PF1096	Slip fit tub spout CP

**Warranty and Codes**

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ASME: A112.18.1.

**PF7611SCP****Product Specifications**

Distributed Exclusively by Ferguson and Wolsley Canada

PF3001

# ACCUFIT™ Pressure Balance Tub and Shower Valve with Stops



## Product Features

- Pressure balance valve with integral stops
- One-piece cartridge design for ease of maintenance
- Ceramic disc valve cartridge
- Back-to-back capability
- Cast bronze valve body
- Optional air test cap available
- Adjustable temperature limit stop
- 6.26 GPM flow rate at 60 psi
- IAPMO Approved
- Quick remove plaster guard
- Easy mounting brackets
- Meets or exceeds ASSE 1016-P standards (anti-scald)

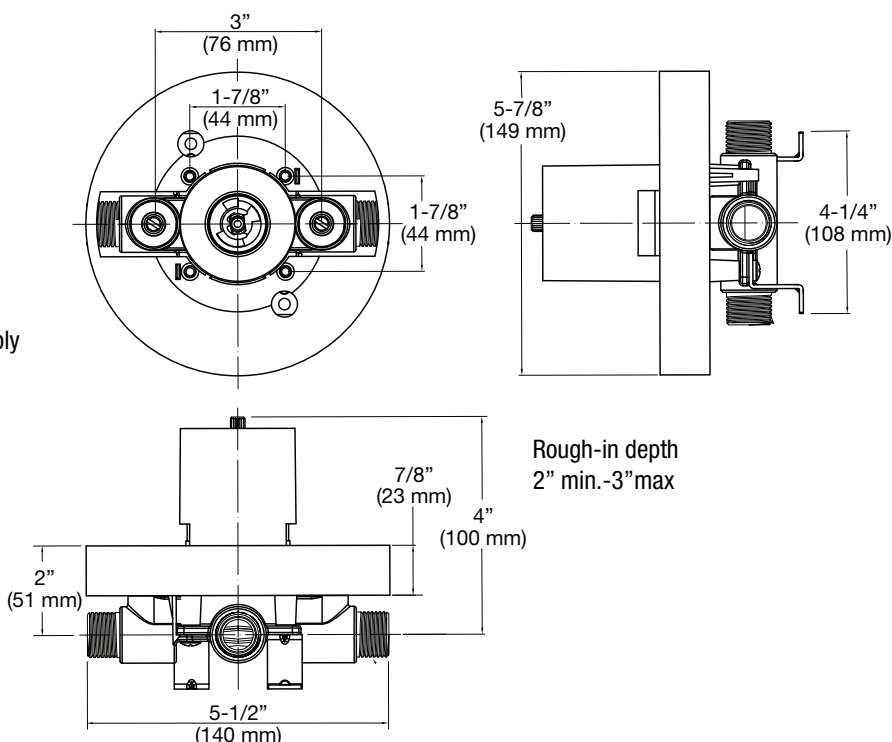


PF3001

## Model Numbers

- ✓ PF3001 Ceramic disc tub & shower valve with stops 1/2" MIP & SWT
- PF3001C Ceramic disc tub & shower valve with stops CPVC connection
- PF3001F Ceramic disc tub & shower valve with stops FIP
- PF3001P Ceramic disc tub & shower valve with stops PEX crimp connector

## Product Specifications



## Parts Available

- ACF3001CRT Replacement cartridge assembly
- ACF3001AIR Air test cap
- ACF3001GRD Plaster guard
- ACF3001EXTCP Deep rough extension kit CP
- ACF3001EXTBN Deep rough extension kit BN
- ACF3001EXTORB Deep rough extension kit ORB

## Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO product carries a limited lifetime warranty. This product meets ANSI: A112.18.1M and ASSE 1016-P





<u>T1H BATHTUB: QUANTITY 3-RIGHT HAND, 1-LEFT HAND</u>		
AGGT36TOLWH	AQUARIUS	60X36 LH SOAKER
G89-8SRC	PRICE PFISTER	1 HANDLE PRESSURE BALANCE LEVER 1.75 TUB AND SHOWER TRIM
OX8-310A	PRICE PFISTER	TUB AND SHOWER VALVE
15-IWDX	PRICE PFISTER	3 WAY DIVERTER VALVE
O16-SROC	PRICE PFISTER	LEVER HANDLE TRIM
O16-300C	PRICE PFISTER	HAND HELD SHOWER AND 30" SLIDE BAR

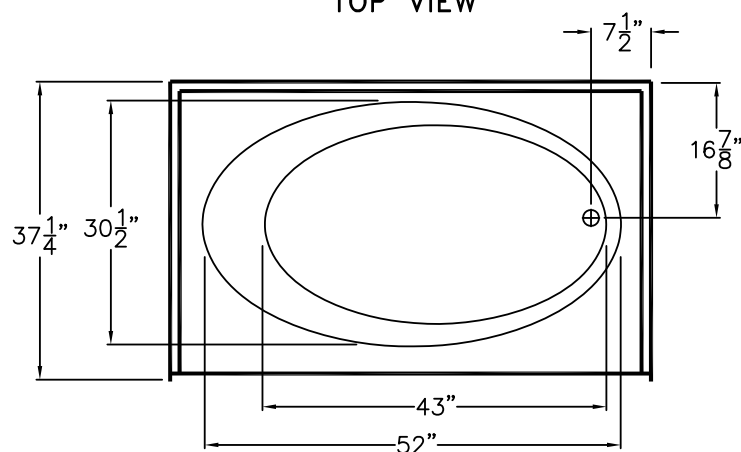
HANDED BY THE DRAIN

Model G GT 36 TO

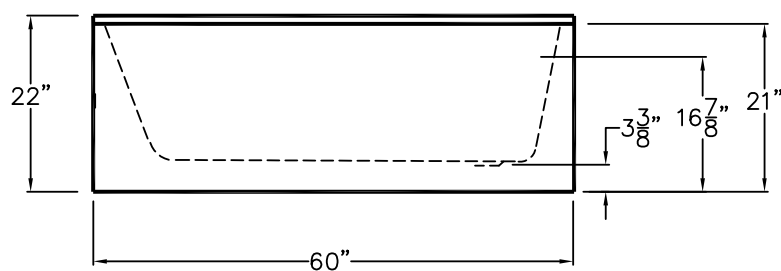
# Luxury Gelcoat Series

## SUBMITTAL DATA

TOP VIEW



FRONT VIEW



G GT36 TO. GELCOAT RECESS GARDEN STYLE BATHTUB  
WITH OVAL SHAPED WATER WELL AND INTEGRAL APRON SKIRT.  
BATHTUB HOLDS 55 US GALLONS MAXIMUM.

HANDED BY THE DRAIN LEFT OR RIGHT.

DUE TO THE NATURE OF THE MATERIALS  
DIMENSIONS MAY VARY  $\pm 1/2"$

Job Name:

AQUARIUS

Model No.: G GT 36 Gelcoat Bathtub.

Drawing#: G GT 36 TO

Approved by:

Date Approved:

Date: 1-26-01 Revised: 10-2-09

Rep.:

Wholesaler:

Quote No.:

PRAXIS INDUSTRIES, LLC.  
435 INDUSTRIAL RD - SAVANNAH, TN 38372  
1 (800) 443-7269 - FAX (731) 925-4290

# Pfister

T1H

**Serrano™**

*Tub & Shower Trim*

G89-7SRC Finish(CC) ☐

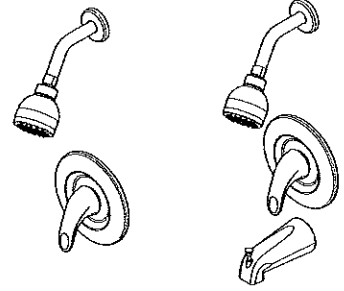
G89-7SRK Finish(KK) ☐

G89-7SRY Finish(Y) ☐

G89-8SRC Finish(CC) ☒

G89-8SRK Finish(KK) ☐

G89-8SRY Finish(Y) ☐



## Specifications

### Features

- EZ Clean
- Quick Connect Installation
- Round Flange
- Lever Handle
- Fits OX8 and JX8 Valve Bodies
- 2.0 GPM Shower Head
- Tub & Shower (8SR Only)
- Shower Only (7SR Only)
- Self-Cleaning Head
- Quick Connect Tub Spout (8SR Only)
- Pforever Warranty®

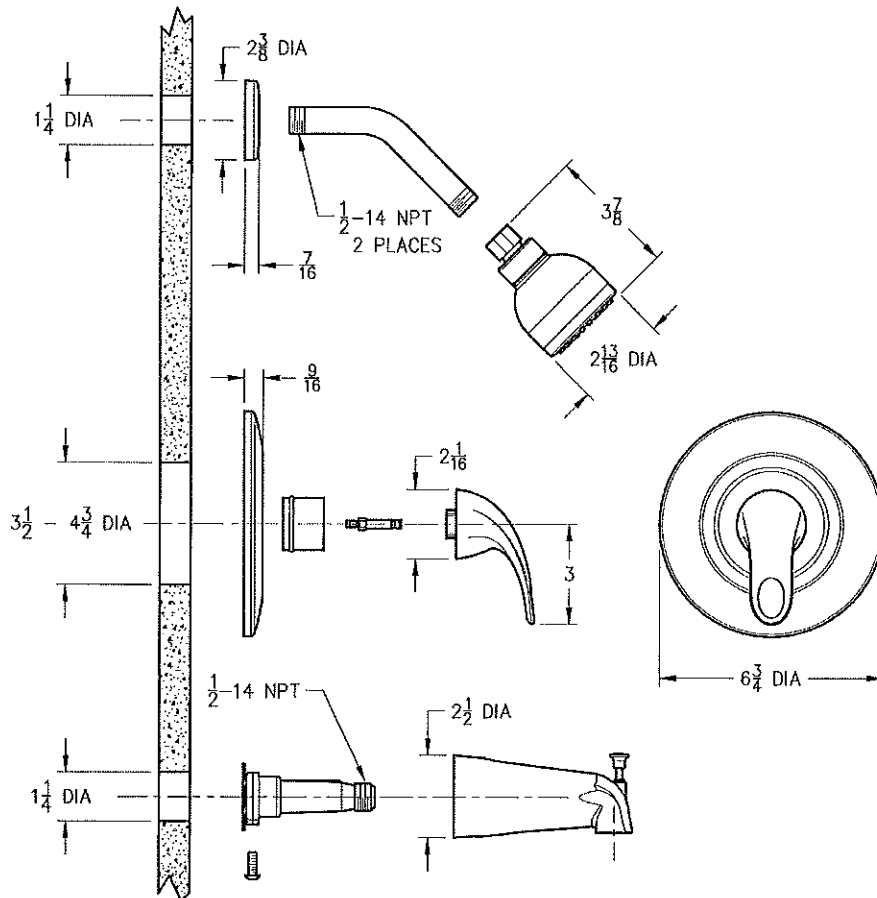
### Code Compliance

Pfister products are designed and manufactured in compliance with the following standards and codes:

- IAPMO Certified
- CSA B125 Certified
- ASME A112.18.1
- ASSE 1016
- Cal Green Compliant
- ADA Compliant-ANSI A177.1 (Lever handles only)



## Dimensions



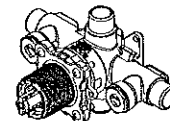
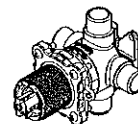


OX8-310A Finish(XX) ☒

OX8-340A Finish(XX) ☐

JX8-310A Finish(XX) ☐

JX8-340A Finish(XX) ☐



## Specifications

### Features

- Metal Stem
- Dual 1/2" I.P. or 1/2" Copper Sweat Connections
- Job Pack Quantities (JX8 Only)
- Integral Stops (340A Only)
- Back-to-Back Installation

- Temperature Limit Stop Included
- Anti-Scald Shower Cartridge
- Solid Brass Construction
- Spool Pressure Balance Valve
- Includes Plug for Shower Only
- Valve Only
- Pforever Warranty®

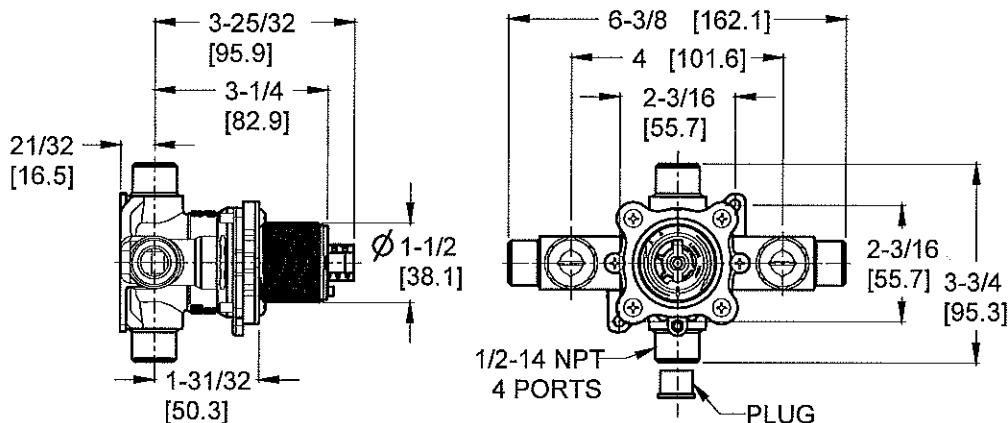
### Code Compliance

Pfister products are designed and manufactured in compliance with the following standards and codes:

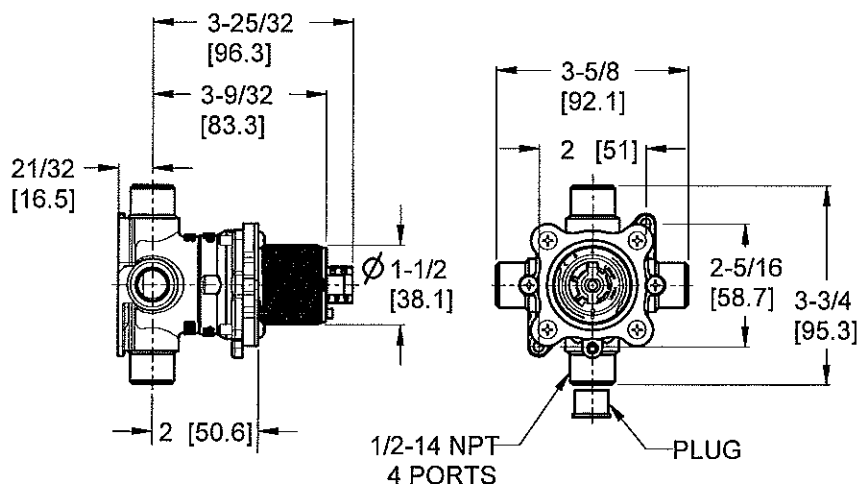
- IAPMO Certified
- CSA B125 Certified
- ASME A112.18.1
- ASSE 1016

## Dimensions

OX8-340A/ JX8-340



OX8-310A/ JX8-310



# Pfister

T1H

**Pfirst Series™**

*Hand-Held Shower*

016-300C Finish(CC) ☒

016-300K Finish(KK) ☐

016-300U Finish(UU) ☐

016-300Y Finish(Y) ☐

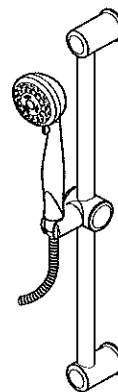
G16-300C Finish(CC) ☐

G16-300K Finish(KK) ☐

G16-300U Finish(UU) ☐

G16-300Y Finish(Y) ☐

- Valve Not Included
- 3 Function Hand Shower
- Includes Back Flow Prevention System
- 60" Metal Hose with Matching Finish



## Specifications

### Features

- 28" Brass Slide Bar
- 3 Function Hand Shower with Dual Check Valves
- 60" Metal Hose with Matching Finish
- Includes Back Flow Prevention
- Includes Hand Shower, Hose, Slide Bar, and Drop Elbow
- Self-Cleaning Spray Head
- 2.5 GPM Shower Head (016 Only)
- 2.0 GPM Shower Head (G16 Only)
- Pforever Warranty®

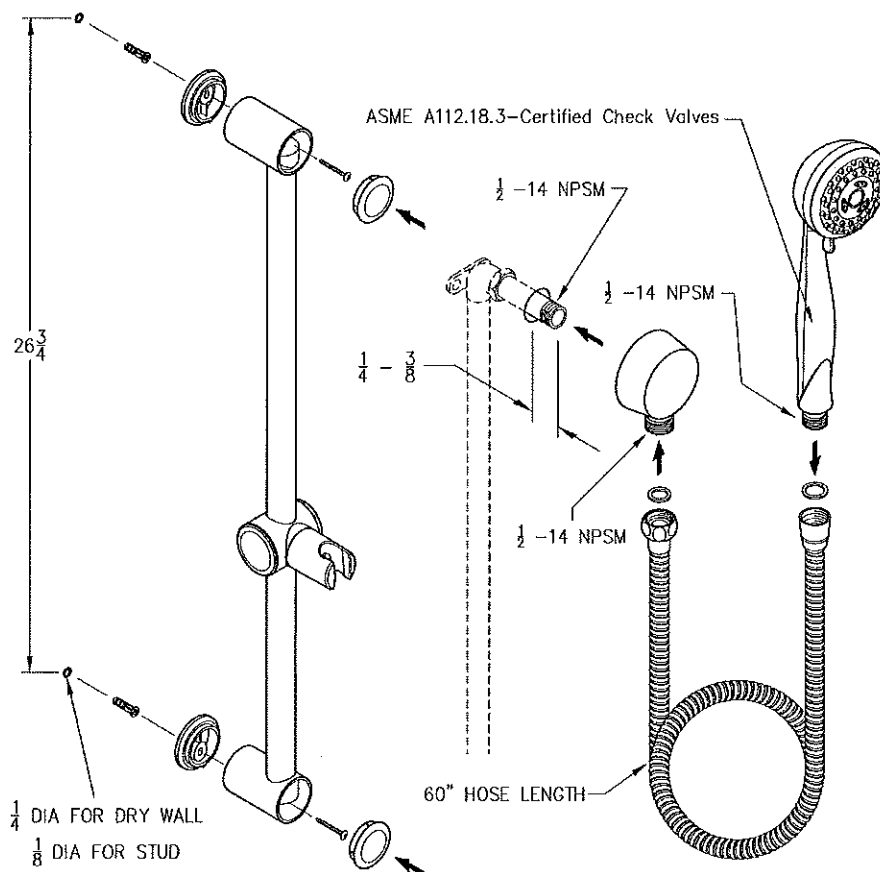
### Code Compliance

Pfister products are designed and manufactured in compliance with the following standards and codes:

- IAPMO Certified
- CSA B125 Certified
- ASME A112.18.1
- Cal Green Compliant (016 Only)



## Dimensions

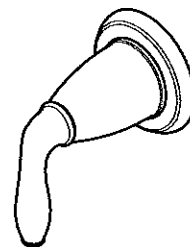


# Pfister

T1H

## Serrano™ Diverter Trim

016-SROC Finish(C) ☒  
016-SROK Finish(K) ☐  
016-SROY Finish(Y) ☐



## Specifications

- All Metal Construction

### Features

- All Metal Construction
- Pforever Warranty®

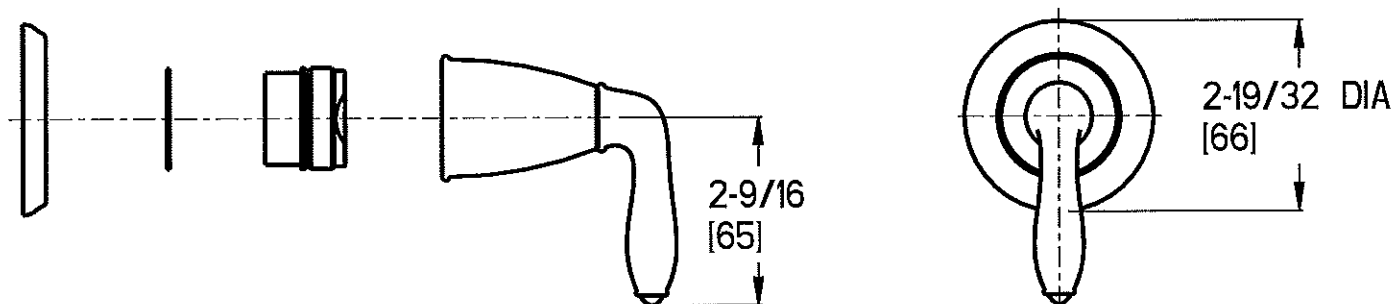
### Code Compliance

Pfister products are designed and manufactured in compliance with the following standards and codes:

- IAPMO Certified
- CSA B125 Certified
- ASME A112.18.1
- ADA Compliant-ANSI A117.1 (Lever handles only)



## Dimensions




## SPECIFICATION SUBMITTAL

**Highlights**

- 4-Port Diverter
- Solid Brass Construction
- 2 Functions Available

**Code Compliance**

Price Pfister products are designed and manufactured in compliance with the following standards and codes:

- IAPMO certified
- ASME A112.18.1
- CSA B125 certified
- ANSI A117.1 (Lever handles only) 

**15 Series****Diverter**

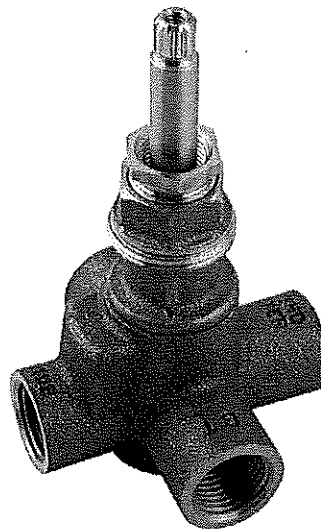

Handles Not Included  
Single Hole Installation  
Compression Valve

**Finishes**

Unfinished

15-IWDX  
X**Features**

Solid Brass Construction  
2 Functions Available  
4-Port Diverter  
Less Hubs & Handles  
½" Threaded Iron Pipe Connections  
Step-By-Step Installation  
Instructions Pforever Warranty®

15-IWDX  
X  
X  
X  
X  
X  
X  
X15-IWDX 

For additional information, please contact your Price Pfister representative, or visit our website at [www.pricepfister.com](http://www.pricepfister.com).

Project: \_\_\_\_\_

Contractor: \_\_\_\_\_

SS-015-03

**1-800-PFAUCET** [www.pricepfister.com](http://www.pricepfister.com)  
19701 DaVinci, Lake Forest, CA 92610  
02/28/06

**Price Pfister®**  
 Pfreshet Ideas In Pfaucets.



**SH1 SHOWER:**

S721211000  
PF7610SCP

STERLING  
PROFLO

48X34 VIKRELL SHOWER RECEPTOR ENSEMBLE WHITE  
CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 SHOWER TRIM

PF3001

PROFLO

CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS



ENSEMBLE™

## Features

- Compression molded from our exclusive solid Vikrell® material
- Available with tile or curve wall surrounds
- Durable high-gloss finish
- 10-year consumer/3-year commercial limited warranty
- 48-1/4" (122.6 cm) x 34" (86.4 cm) x 5-1/2" (14 cm) receptor rough-in dimensions include nailing flange
- 48" (121.9 cm) x 34" (86.4 cm) x 4-1/2" (11.4 cm) receptor finished dimensions

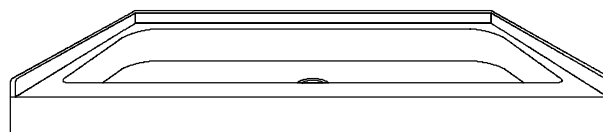
## 48" (121.9 cm) SHOWER RECEPTOR 72121100



## Codes/Standards Applicable

Specified model meets or exceeds the following:

- ANSI Z124.1.2
- CSA B45
- ASTM E162
- ASTM E662



## Colors/Finishes

- **0: White**
- Other: Refer to Price Book for additional colors/finishes

## Specified Model

Model	Description	Colors/Finishes	
		<input checked="" type="checkbox"/> 0	<input type="checkbox"/> Other_____
72121100	48" (121.9 cm) shower receptor		

# ENSEMBLE™

## Technical Information

Model	door maximum width	door maximum height
72121100	*44-5/8" (113.3 cm)	*NA
* Varies with alternative walls.		

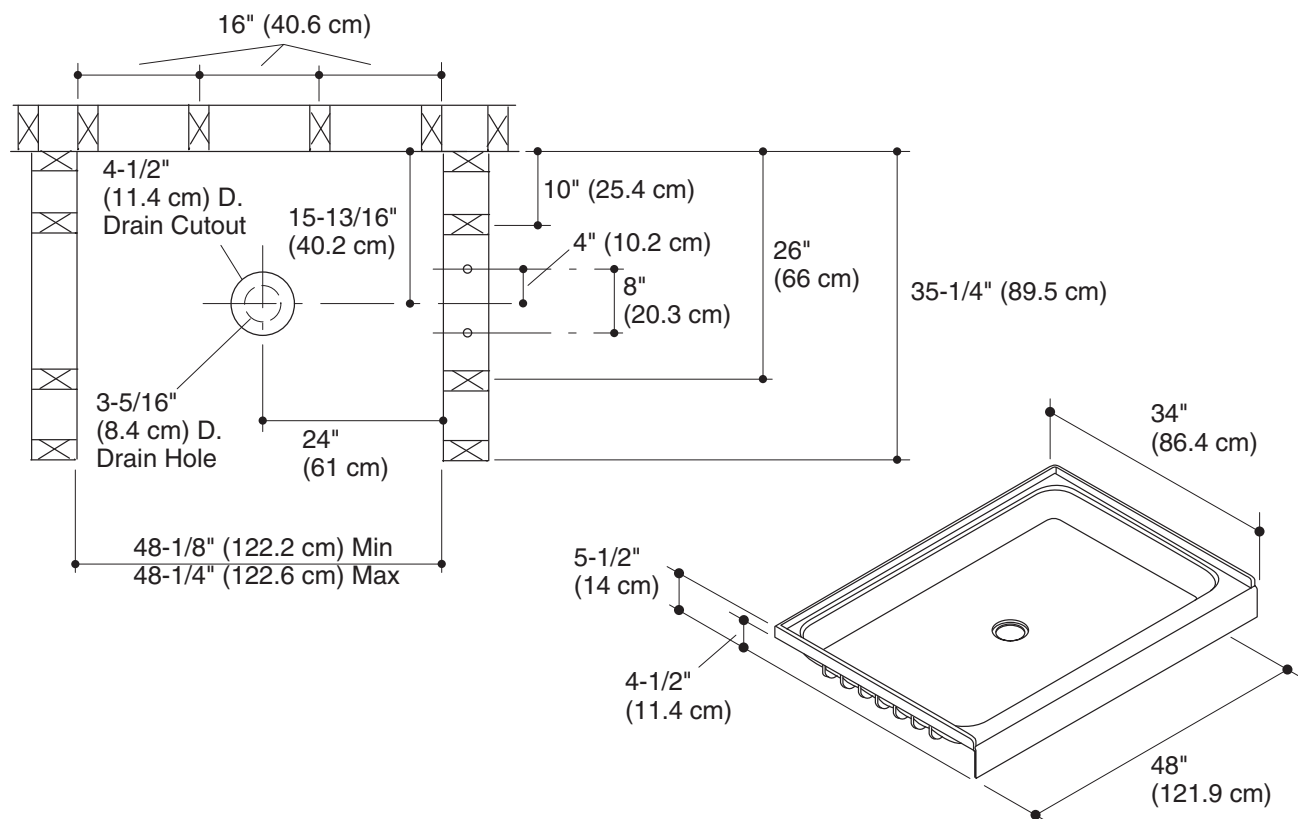
## Installation Notes

Install this product according to the installation guide.

Size the drain cutout to fit the drain assembly that will be used.

Double studding is recommended for pivot shower door installations.

Studs should be positioned roughly as shown.



## Product Diagram

ENSEMBLE™ 48" (121.9 cm) SHOWER RECEPTOR

Page 2 of 2

1032666-4-D

**STERLING**  
A KOHLER COMPANY

**PF7610S series****Single Handle  
Shower Only Trim Kit****Product Features**

- Metal lever handle
- Brass shower arm and stainless steel flange
- Single function showerhead with easy-clean rubber nozzles
- 100% factory pressure tested
- 1.75 gpm flow showerhead
- cUPC/IAPMO Listed
- ADA Compliant
- WaterSense Certified
- Use with ACCUFIT PF3001 series valve

**Model Numbers**

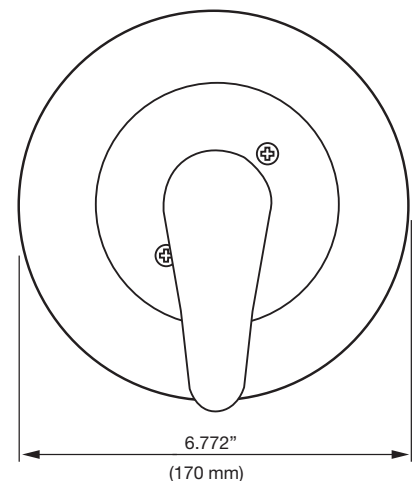
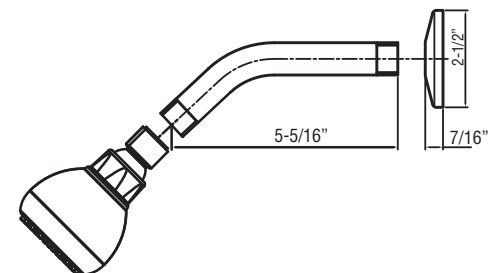
✓ PF7610SCP	Polished chrome
PF7610SBN	Brushed nickel
PF7610SORB	Oil rubbed bronze

**Available Parts**

PFS40	6" shower arm CP
PFS42	Shower arm flange CP

**Warranty and Codes**

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ASME: A112.18.1.

**PF7610SCP****Product Specifications**

Distributed Exclusively by Ferguson and Wolseley Canada



PF3001



# ACCUFIT™ Pressure Balance Tub and Shower Valve with Stops

## Product Features

- Pressure balance valve with integral stops
- One-piece cartridge design for ease of maintenance
- Ceramic disc valve cartridge
- Back-to-back capability
- Cast bronze valve body
- Optional air test cap available
- Adjustable temperature limit stop
- 6.26 GPM flow rate at 60 psi
- IAPMO Approved
- Quick remove plaster guard
- Easy mounting brackets
- Meets or exceeds ASSE 1016-P standards (anti-scald)

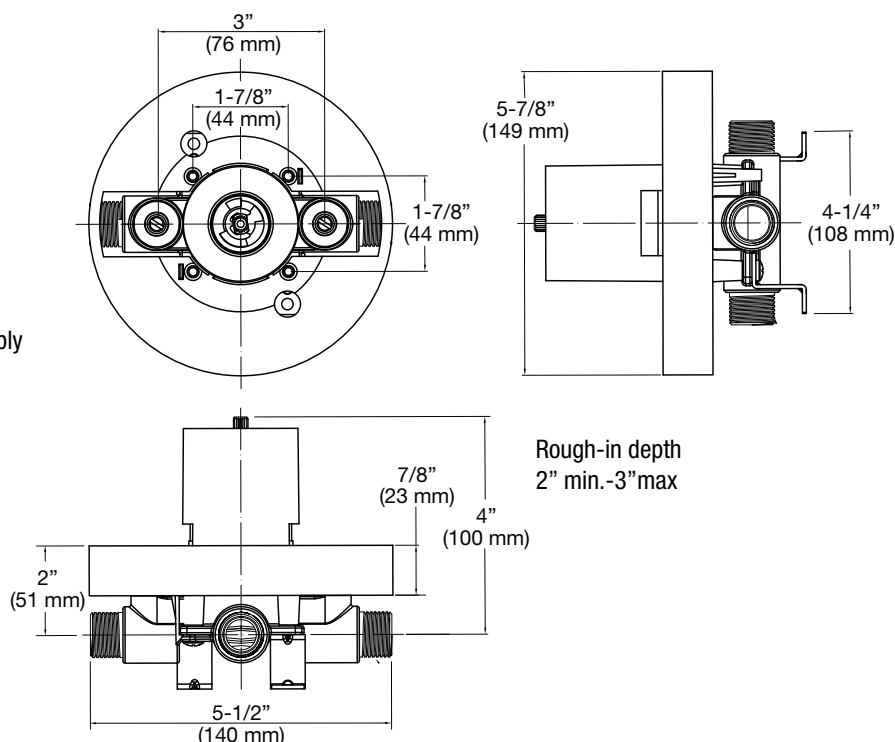


PF3001

## Model Numbers

- ✓ PF3001 Ceramic disc tub & shower valve with stops 1/2" MIP & SWT
- PF3001C Ceramic disc tub & shower valve with stops CPVC connection
- PF3001F Ceramic disc tub & shower valve with stops FIP
- PF3001P Ceramic disc tub & shower valve with stops PEX crimp connector

## Product Specifications



## Parts Available

- ACF3001CRT Replacement cartridge assembly
- ACF3001AIR Air test cap
- ACF3001GRD Plaster guard
- ACF3001EXTCP Deep rough extension kit CP
- ACF3001EXTBN Deep rough extension kit BN
- ACF3001EXTORB Deep rough extension kit ORB

## Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO product carries a limited lifetime warranty. This product meets ANSI: A112.18.1M and ASSE 1016-P





**SH1H:**

S721311000	STERLING	60 ENSEMBLE SHOWER RECEPTOR WHT
PF7610SCP	PROFLO	CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 SHOWER TRIM
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS
PF14BSCP	PROFLO	24 SLDBR CP WITH 7/8 BRASS BAR
PF05464CP	PROFLO	5 FUNCTION 1.75 SINGLE HAND SHOWER CHROME PLATED
PF05289CP	PROFLO	60 METAL SHOWER HOSE CHROME PLATED



ENSEMBLE™

## Features

- Compression molded from our exclusive solid Vikrell® material
- Available with tile or curve wall surrounds
- Durable high-gloss finish
- 10-year consumer/3-year commercial limited warranty
- 60-1/4" (153 cm) x 34" (86.4 cm) x 5-1/2" (14 cm) receptor rough-in dimensions include nailing flange
- 60" (152.4 cm) x 34" (86.4 cm) x 4-1/2" (11.4 cm) unit finished dimensions

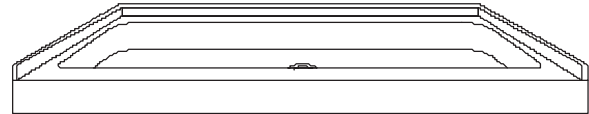
## 60" (152.4 cm) SHOWER RECEPTOR 72131100



## Codes/Standards Applicable

Specified model meets or exceeds the following:

- ANSI Z124.1.2
- CSA B45
- ASTM E162
- ASTM E662



## Colors/Finishes

- 0: White
- Other: Refer to Price Book for additional colors/finishes

## Specified Model

Model	Description	Colors/Finishes	
		<input checked="" type="checkbox"/> 0	<input type="checkbox"/> Other_____
72131100	60" (152.4 cm) shower receptor		

# ENSEMBLE™

## Technical Information

Model	door maximum width	door maximum height
72131100	*56-5/8" (143.8 cm)	*NA
* Varies with alternative walls.		

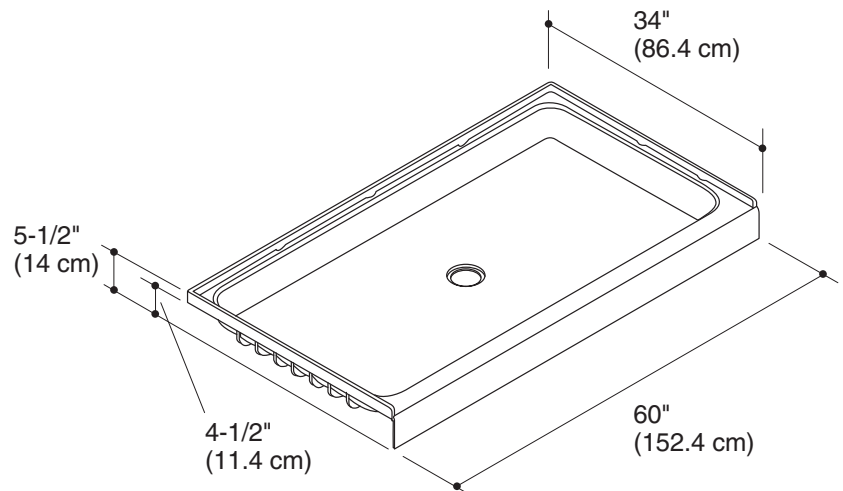
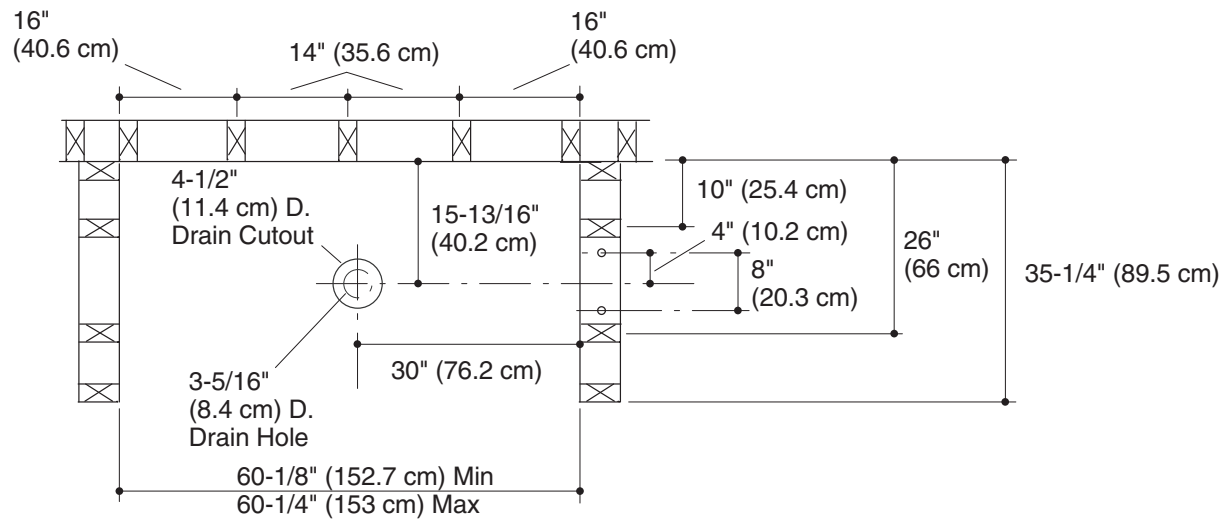
Size the drain cutout to fit the drain assembly that will be used.

Double studding is recommended for pivot shower door installations.

Studs should be positioned roughly as shown.

## Installation Notes

Install this product according to the installation guide.



## Product Diagram

**PF7610S series****Single Handle  
Shower Only Trim Kit****Product Features**

- Metal lever handle
- Brass shower arm and stainless steel flange
- Single function showerhead with easy-clean rubber nozzles
- 100% factory pressure tested
- 1.75 gpm flow showerhead
- cUPC/IAPMO Listed
- ADA Compliant
- WaterSense Certified
- Use with ACCUFIT PF3001 series valve

**Model Numbers**

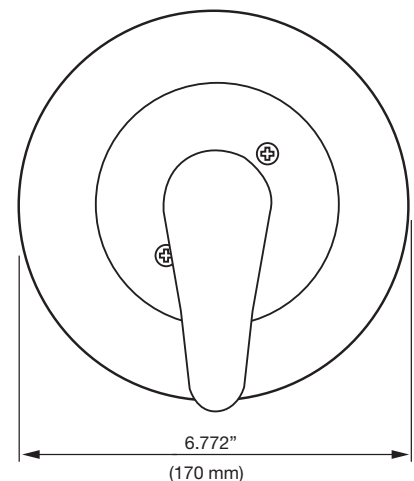
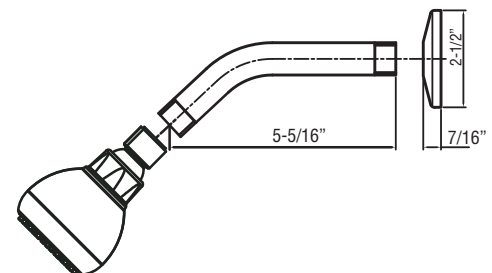
✓ PF7610SCP	Polished chrome
PF7610SBN	Brushed nickel
PF7610SORB	Oil rubbed bronze

**Available Parts**

PFS40	6" shower arm CP
PFS42	Shower arm flange CP

**Warranty and Codes**

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ASME: A112.18.1.

**PF7610SCP****Product Specifications**

Distributed Exclusively by Ferguson and Wolseley Canada

PF3001



## ACCUFIT™ Pressure Balance Tub and Shower Valve with Stops

### Product Features

- Pressure balance valve with integral stops
- One-piece cartridge design for ease of maintenance
- Ceramic disc valve cartridge
- Back-to-back capability
- Cast bronze valve body
- Optional air test cap available
- Adjustable temperature limit stop
- 6.26 GPM flow rate at 60 psi
- IAPMO Approved
- Quick remove plaster guard
- Easy mounting brackets
- Meets or exceeds ASSE 1016-P standards (anti-scald)

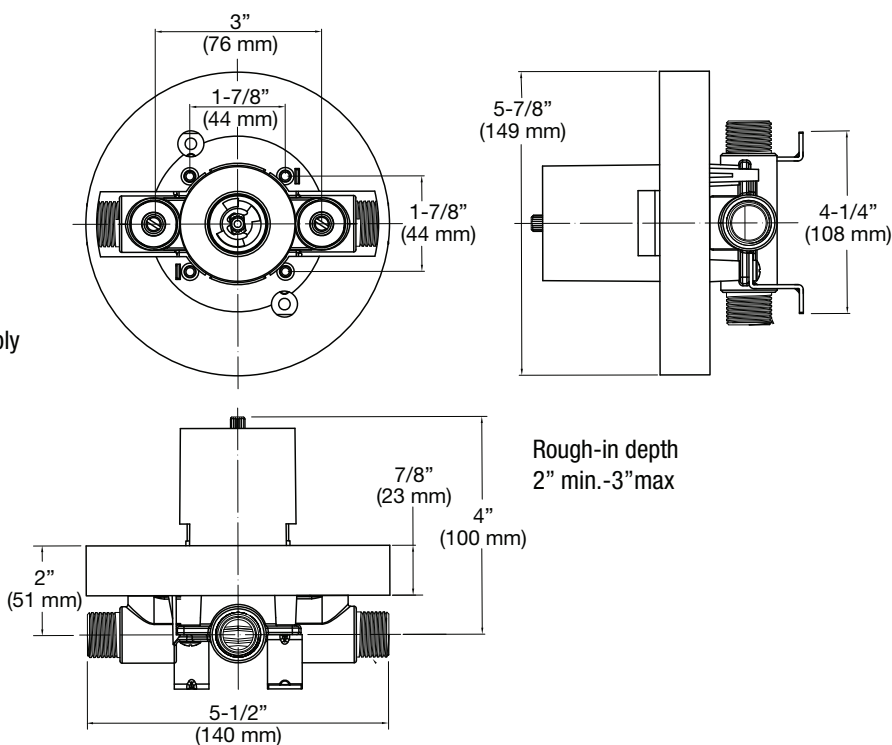


PF3001

### Model Numbers

- ✓ PF3001 Ceramic disc tub & shower valve with stops 1/2" MIP & SWT
- PF3001C Ceramic disc tub & shower valve with stops CPVC connection
- PF3001F Ceramic disc tub & shower valve with stops FIP
- PF3001P Ceramic disc tub & shower valve with stops PEX crimp connector

### Product Specifications



### Parts Available

- ACF3001CRT Replacement cartridge assembly
- ACF3001AIR Air test cap
- ACF3001GRD Plaster guard
- ACF3001EXTCP Deep rough extension kit CP
- ACF3001EXTBN Deep rough extension kit BN
- ACF3001EXTORB Deep rough extension kit ORB

### Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO product carries a limited lifetime warranty. This product meets ANSI: A112.18.1M and ASSE 1016-P



PF14BS



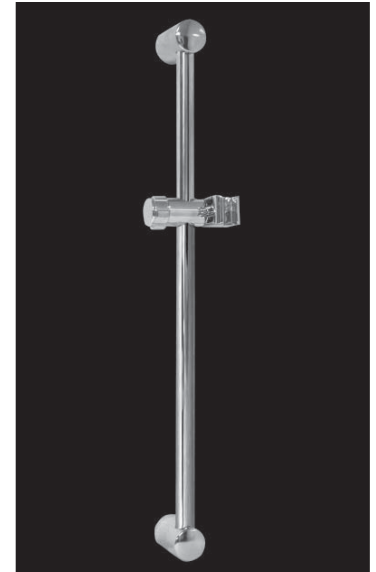
## Slide Bar For Hand Shower

### Product Features

- Slide bar with 7/8" brass bar
- 24" slide bar supports an adjustable handshower (not included)
- Available in chrome (CP) or brushed nickel (BN)
- Adjustable height handshower slides up and down the bar to customize your spray height
- The unit can be moved up and down the slide bar by loosening and tightening the nut

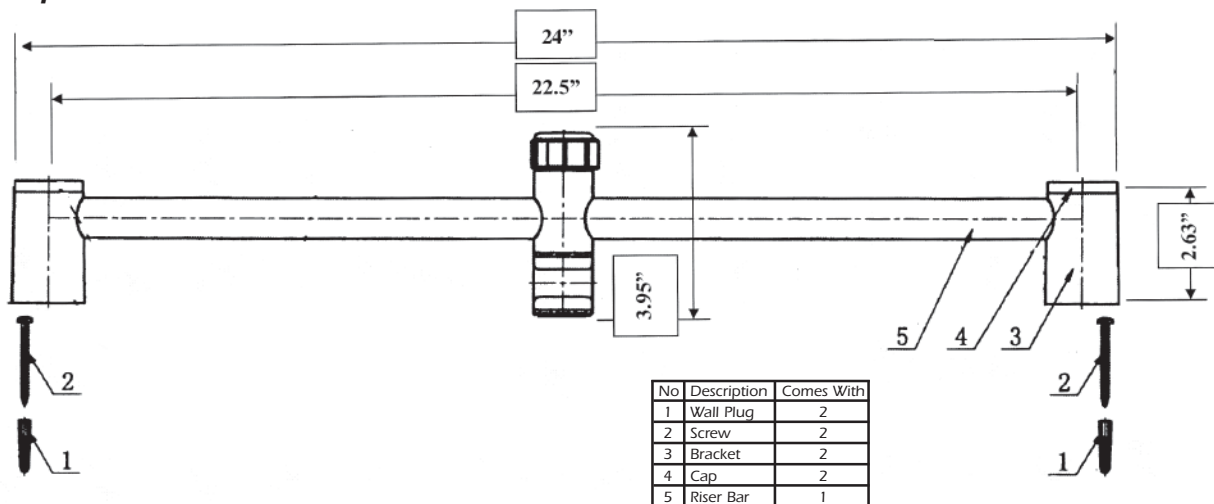
### Product Features

- ✓ PF14BSBN      Brushed nickel  
 PF14BSCP      Chrome plated



PF14BSBN

### Product Specifications



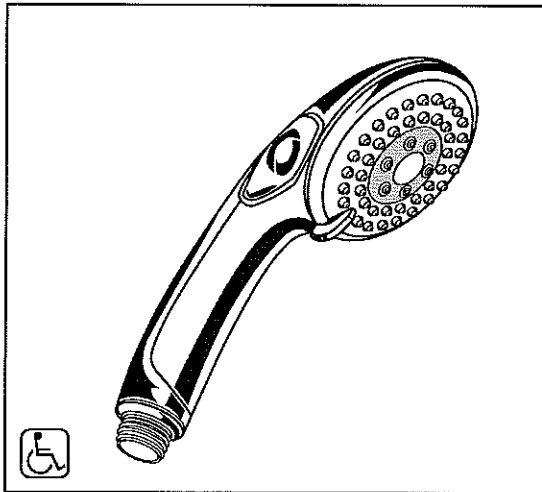
### Warranty and Codes

This PROFLO product carries a 1-year limited warranty. This product comes complete with installation, operating, care and maintenance instructions. This product meets ANSI: A112.18.1M.



SH1H

## 3-FUNCTION HAND SHOWER WITH PAUSE FEATURE

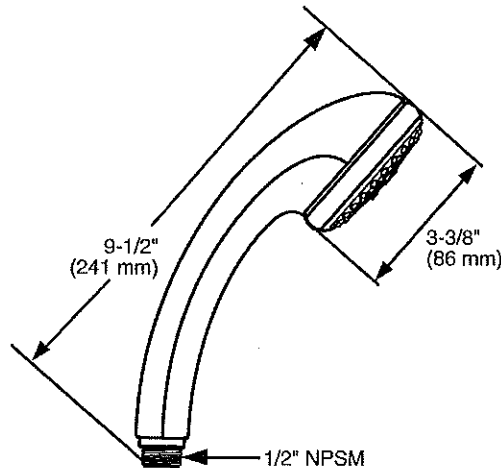


### MODEL NUMBER:

☒ **1660.766** 3-Function Hand Shower  
with Pause Feature - 1.5 gpm (5.7 L/min.)



☐ **1660.767** 3-Function Hand Shower  
with Pause Feature - 2.5 gpm (9.5 L/min.)



### GENERAL DESCRIPTION:

Hand shower has pause feature on handle to provide a non-positive shut-off that reduces the flow to a trickle. 3-Function hand shower adjusts from full spray to a combination to a massage. Easy clean rubber spray nozzles. Includes pressure compensating flow regulator and check valve. Hand showers available in 2 versions (1.5 gpm/5.7 L/min and 2.5 gpm/9.5 L/min. maximum flow rate.

### PRODUCT FEATURES:

**Pause Feature:** Non-positive shut-off button on handle reduces flow to a trickle to meet ADA requirement

**Water Saving:** 1.5 gpm version saves up to 40% in water usage

**Pressure Compensating Flow Control Device:** Provides consistent flow over a wide pressure range

**Easy Clean Spray Nozzles:** Allows for easy cleaning of lime and calcium build up. Rubber nozzles will not clog

### SUGGESTED SPECIFICATION

Hand shower shall include a non-positive shut-off to be ADA compliant. Shall also include a permanent built-in pressure compensating control device to provide consistent flow over a wide pressure range. A check valve to prevent back flow. Fitting shall be American Standard Model # 1660.76\_.





## 3-FUNCTION HAND SHOWER WITH PAUSE FEATURE

### CODES AND STANDARDS

These products meet or exceed the following codes and standards:

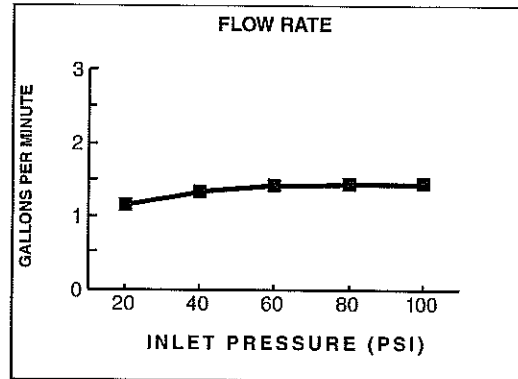
ASME A112.18.1  
CSA 125.1  
ANSI A117.1



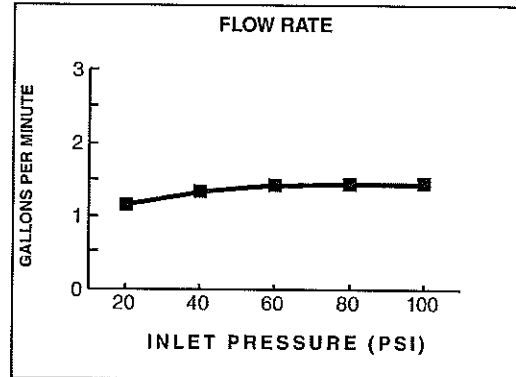
Product Number	Description	Finish Options	
		Polished Chrome	PVD Satin Nickel
		002	295
1660.766	3-Function Hand Shower with Pause Feature, 1.5 gpm		
1660.767	3-Function Hand Shower with Pause Feature, 2.5 gpm		



Meets the American Disabilities Act Guidelines and ANSI A117.1 Requirements for the physically challenged.



1660.766 - 1.5 gpm (5.7 L/min.)



1660.767 - 2.5 gpm (9.5 L/min.)

Hand Shower Accessories	
Product Number	Description
8888.035	59" Metal Shower Hose
8888.053	79" Metal Shower Hose (Chrome Only)
1660.400	Vacuum Breaker
1660.410	Shower Arm Diverter
8888.096	Shower Arm Bracket

Hand Shower Accessories	
Product Number	Description
8888.036	Fixed Wall Bracket
8888.037	Wall Supply
8888.068	Round Wall Supply
8888.069	Square Wall Supply
8888.038	Wall Supply Bracket



S721311000 PF7610SCP	STERLING PROFLO	<b><u>SH1:</u></b>
		60 ENSEMBLE SHOWER RECEPTOR WHT CCY 1 HANDLE PRESSURE BALANCE LEVER 1.75 SHOWER TRIM
PF3001	PROFLO	CERAMIC TUB AND SHOWER VALVE MIP AND SWEAT WITH STOPS



ENSEMBLE™

## Features

- Compression molded from our exclusive solid Vikrell® material
- Available with tile or curve wall surrounds
- Durable high-gloss finish
- 10-year consumer/3-year commercial limited warranty
- 60-1/4" (153 cm) x 34" (86.4 cm) x 5-1/2" (14 cm) receptor rough-in dimensions include nailing flange
- 60" (152.4 cm) x 34" (86.4 cm) x 4-1/2" (11.4 cm) unit finished dimensions

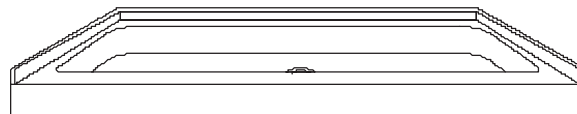
## 60" (152.4 cm) SHOWER RECEPTOR 72131100



## Codes/Standards Applicable

Specified model meets or exceeds the following:

- ANSI Z124.1.2
- CSA B45
- ASTM E162
- ASTM E662



## Colors/Finishes

- 0: White
- Other: Refer to Price Book for additional colors/finishes

## Specified Model

Model	Description	Colors/Finishes	
		<input checked="" type="checkbox"/> 0	<input type="checkbox"/> Other_____
72131100	60" (152.4 cm) shower receptor		

# ENSEMBLE™

## Technical Information

Model	door maximum width	door maximum height
72131100	*56-5/8" (143.8 cm)	*NA
* Varies with alternative walls.		

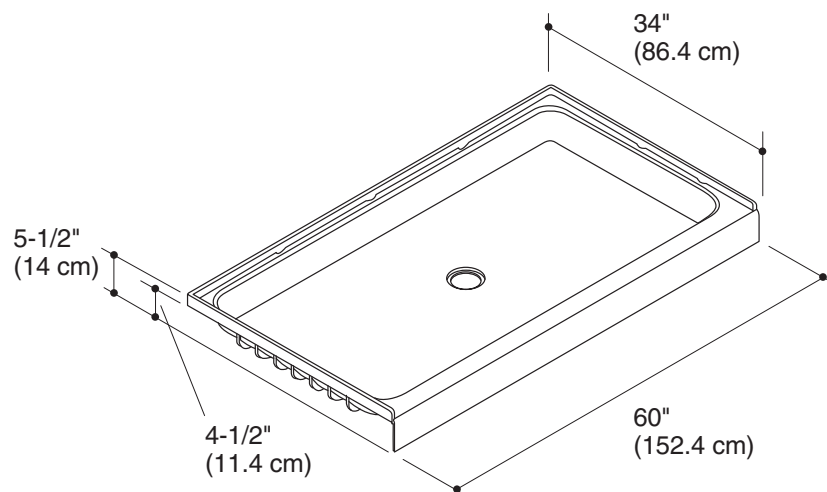
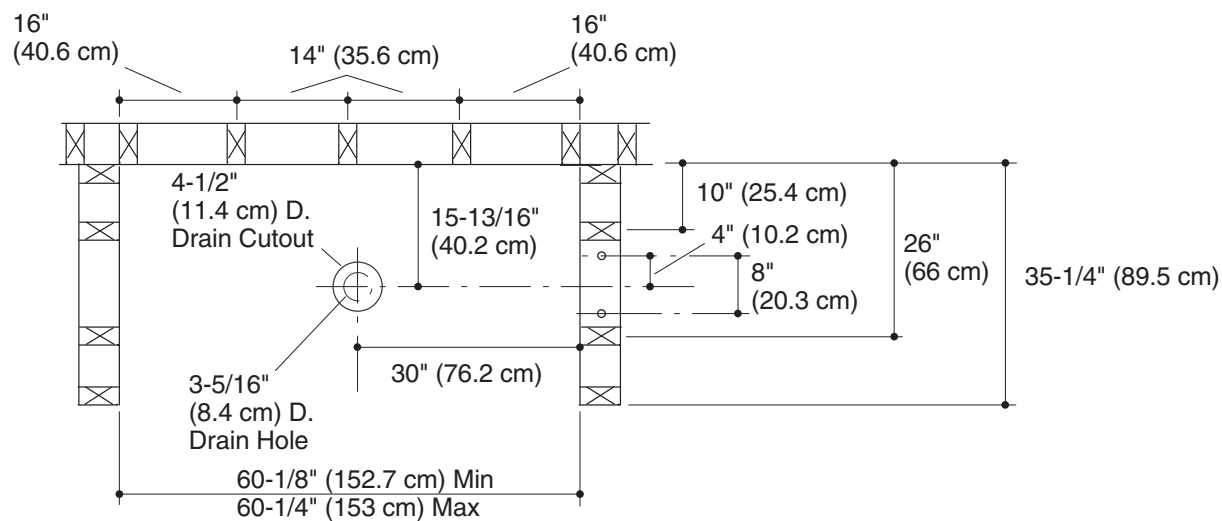
Size the drain cutout to fit the drain assembly that will be used.

Double studding is recommended for pivot shower door installations.

Studs should be positioned roughly as shown.

## Installation Notes

Install this product according to the installation guide.



## Product Diagram

## PF7610S series

# Single Handle Shower Only Trim Kit



### Product Features

- Metal lever handle
- Brass shower arm and stainless steel flange
- Single function showerhead with easy-clean rubber nozzles
- 100% factory pressure tested
- 1.75 gpm flow showerhead
- cUPC/IAPMO Listed
- ADA Compliant
- WaterSense Certified
- Use with ACCUFIT PF3001 series valve

### Model Numbers

✓ PF7610SCP	Polished chrome
PF7610SBN	Brushed nickel
PF7610SORB	Oil rubbed bronze

### Available Parts

PFS40	6" shower arm CP
PFS42	Shower arm flange CP

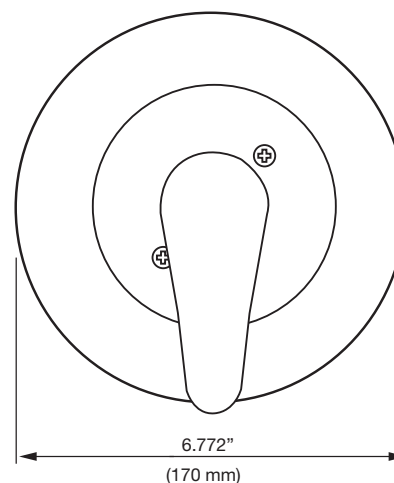
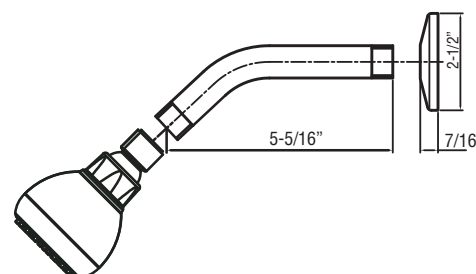
### Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ASME: A112.18.1.



PF7610SCP

### Product Specifications



Distributed Exclusively by Ferguson and Wolseley Canada

PF3001



# ACCUFIT™ Pressure Balance Tub and Shower Valve with Stops

## Product Features

- Pressure balance valve with integral stops
- One-piece cartridge design for ease of maintenance
- Ceramic disc valve cartridge
- Back-to-back capability
- Cast bronze valve body
- Optional air test cap available
- Adjustable temperature limit stop
- 6.26 GPM flow rate at 60 psi
- IAPMO Approved
- Quick remove plaster guard
- Easy mounting brackets
- Meets or exceeds ASSE 1016-P standards (anti-scald)

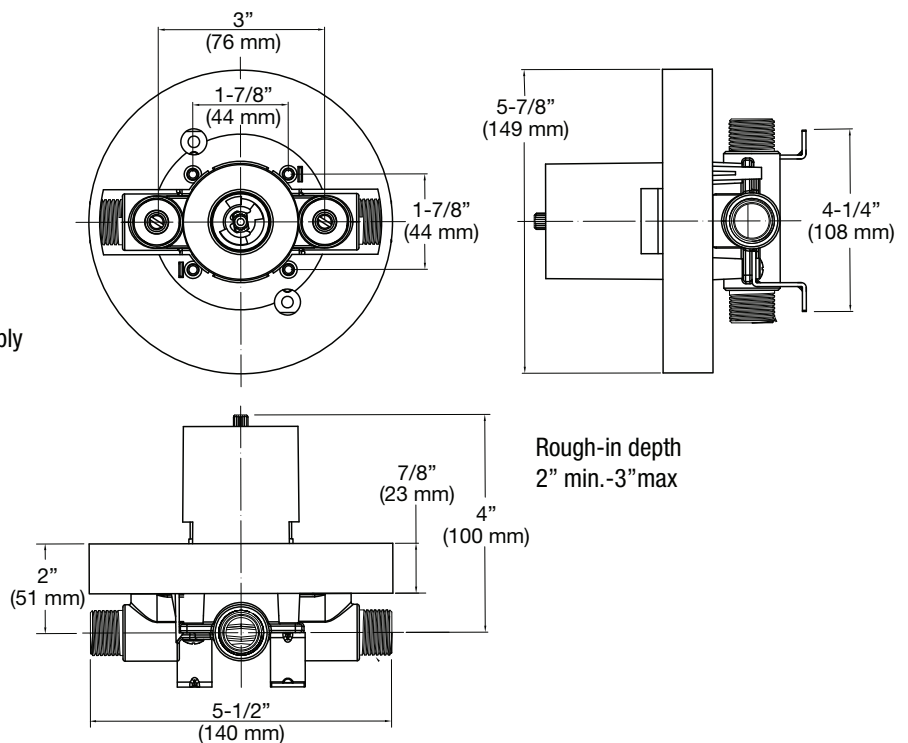


PF3001

## Model Numbers

- ✓ PF3001 Ceramic disc tub & shower valve with stops 1/2" MIP & SWT
- PF3001C Ceramic disc tub & shower valve with stops CPVC connection
- PF3001F Ceramic disc tub & shower valve with stops FIP
- PF3001P Ceramic disc tub & shower valve with stops PEX crimp connector

## Product Specifications



## Parts Available

- ACF3001CRT Replacement cartridge assembly
- ACF3001AIR Air test cap
- ACF3001GRD Plaster guard
- ACF3001EXTCP Deep rough extension kit CP
- ACF3001EXTBN Deep rough extension kit BN
- ACF3001EXTORB Deep rough extension kit ORB

## Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO product carries a limited lifetime warranty. This product meets ANSI: A112.18.1M and ASSE 1016-P





PFXC5150CP

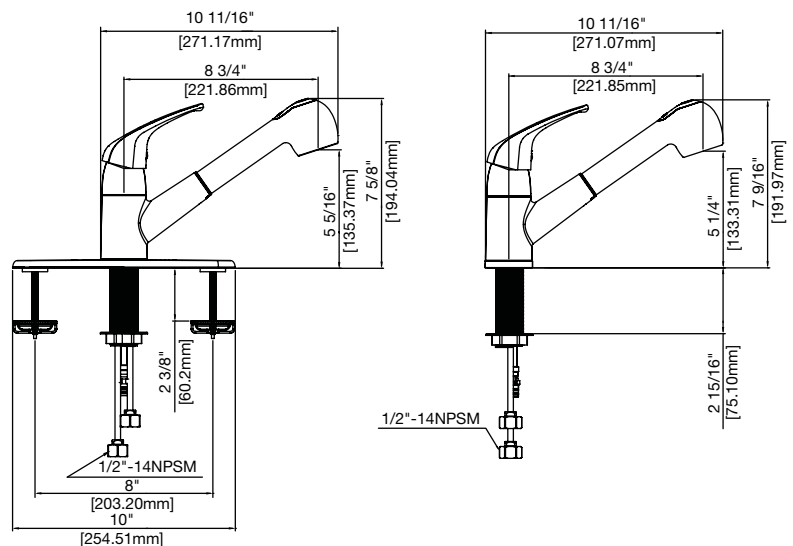
PROFLO

**KS1: SINK FBO**

CCY LEAD LAW COMPLIANT 1.5 1 HANDLE LEVER KITCHEN  
PULLOUT SPOUT POLISHED CHROME

**PFXC5150****Single Handle Kitchen  
Faucet with Pull Out Spray****Product Features**

- 1 or 3 hole installation
- Flow rate: 1.5 GPM
- Metal lever handle
- Ceramic disc cartridge
- 2 function sprayhead
- Optional deck plate included
- Max deck thickness for 1 hole: 2-15/16" for 3 hole: 2-3/8"
- Faucet drilling hole size: 1-1/4"
- 1/2" IPS connections
- Brass body construction
- Meets ANSI:A112.18.1M
- NSF 61 compliant
- cUPC/IAPMO listed

**PFXC5150CP****Product Specification****Model Numbers**

**PFXC5150CP**  
**PFXC5150BN**  
**PFXC51500RB**

chrome  
 brushed nickel  
 oil rubbed bronze

**Available Parts**

**PF3357061WTY**  
**PF67393CPWTY**  
**PF67393BNWTY**  
**PF673930RBWTY**

Cartridge  
 Chrome Spray Head and Hose  
 Brushed Nickel Spray Head and Hose  
 Oil Rubbed Bronze Spray Head and Hose

**Warranty and Codes**

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ANSI: A112.18.1M.

\*Compliant with lead content requirements of US Senate Bill S.3874







PFXC5150CP

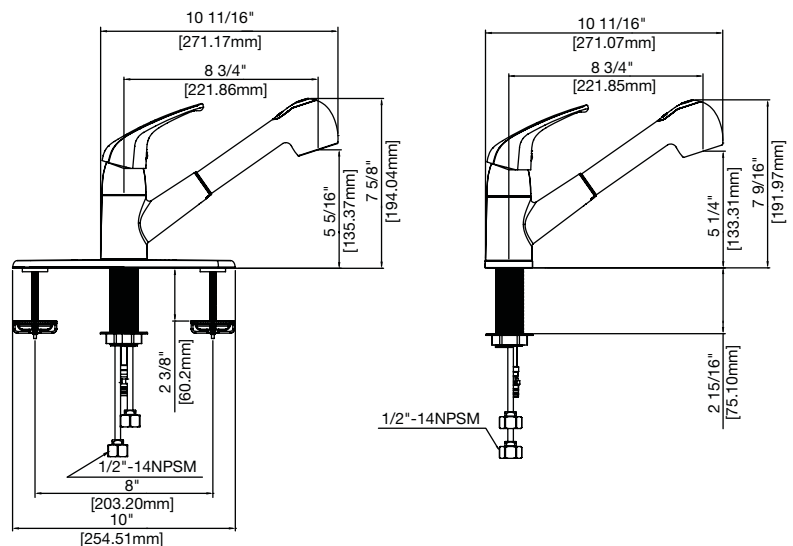
PROFLO

**KS1H: SINK FBO**

CCY LEAD LAW COMPLIANT 1.5 1 HANDLE LEVER KITCHEN  
PULLOUT SPOUT POLISHED CHROME

**PFXC5150****Single Handle Kitchen  
Faucet with Pull Out Spray****Product Features**

- 1 or 3 hole installation
- Flow rate: 1.5 GPM
- Metal lever handle
- Ceramic disc cartridge
- 2 function sprayhead
- Optional deck plate included
- Max deck thickness for 1 hole: 2-15/16" for 3 hole: 2-3/8"
- Faucet drilling hole size: 1-1/4"
- 1/2" IPS connections
- Brass body construction
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Cartridge  
 Chrome Spray Head and Hose  
 Brushed Nickel Spray Head and Hose  
 Oil Rubbed Bronze Spray Head and Hose

**Warranty and Codes**

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications. The warranty is five years in commercial applications. This product meets ANSI: A112.18.1M.

\*Compliant with lead content requirements of US Senate Bill S.3874





O38103

OATEY

WMB:  
CENTROII CPVC HAMM

## CENTRO II WASHING MACHINE OUTLET BOX



**TECHNICAL SPECIFICATION:** Oatey's Centro II Washing Machine Box is used for commercial and residential washing machine applications. Oatey's Centro WMOB can be mounted with the valves on the top or bottom. Oatey's WMOB comes with two support brackets and two piece uninstalled valves.



- Takes up less space and will fit almost anywhere
- WMOB made of PVC
- Brackets and Faceplate made of HIPS
- 2 knockout drain caps
- 2" Socket Hubs
- Mountable with valves on top or bottom
- 2 piece valves come uninstalled or installed
- Two support brackets
- Available in a wide variety of tailpiece configurations and packaging options
- Dimensions:
  - WMOB-8"W x 4-3/4"H x 3"D
  - Faceplate- 10"W x 6-3/4"H

PRODUCT NUMBER	DESCRIPTION	CTN. QTY.
<b>No Hammer Assembled</b>		
38100	¼ Turn, Copper, No Hammer, Assembled, Standard Pack	12
38102	¼ Turn, CPVC, No Hammer, Assembled, Standard Pack	12
38104	¼ Turn, ASTM F1807, No Hammer, Assembled, Standard Pack	12
38106	¼ Turn, ASTM F1960, No Hammer, Assembled, Standard Pack	12
38150	¼ Turn, Copper, No Hammer, Assembled, Contractor Pack	12
38153	¼ Turn, CPVC, No Hammer, Assembled, Contractor Pack	12
38151	¼ Turn, ASTM F1807, No Hammer, Assembled, Contractor Pack	12
38152	¼ Turn, ASTM F1960, No Hammer, Assembled, Contractor Pack	12
<b>Hammer Assembled</b>		
38101	¼ Turn, Copper, Hammer, Assembled, Standard Pack	12
38103	¼ Turn, CPVC, Hammer, Assembled, Standard Pack	12
38105	¼ Turn, ASTM F1807, Hammer, Assembled, Standard Pack	12
38107	¼ Turn, ASTM F1960, Hammer, Assembled, Standard Pack	12
38154	¼ Turn, Copper, Hammer, Assembled, Contractor Pack	12
38157	¼ Turn, CPVC, Hammer, Assembled, Contractor Pack	12
38155	¼ Turn, ASTM F1807, Hammer, Assembled, Contractor Pack	12
38156	¼ Turn, ASTM F1960, Hammer, Assembled, Contractor Pack	12

**CENTRO II WASHING MACHINE  
OUTLET BOX**



<b>No Hammer Unassembled</b>		
38108	¼ Turn, Copper, No Hammer, Unassembled, Standard Pack	12
38110	¼ Turn, CPVC, No Hammer, Unassembled, Standard Pack	12
38112	¼ Turn, ASTM F1807, No Hammer, Unassembled, Standard Pack	12
38114	¼ Turn, ASTM F1960, No Hammer, Unassembled, Standard Pack	12
<b>Hammer Unassembled</b>		
38109	¼ Turn, Copper, Hammer, Unassembled, Standard Pack	12
38111	¼ Turn, CPVC, Hammer, Unassembled, Standard Pack	12
38113	¼ Turn, ASTM F1807, Hammer, Unassembled, Standard Pack	12
38115	¼ Turn, ASTM F1960, Hammer, Unassembled, Standard Pack	12
<b>Plain Boxes</b>		
38120	Plain Box, Display Pack	4
38121	Plain Box, Standard Pack	12
<b>Accessories</b>		
38381	Centro II, Plastic Faceplate	12
38382	Brackets 4" Long Plastic	12
38383	Brackets 12" Long Plastic	12
38294	Hot/Cold Temperature Indicator Clips for Supply Valves (12 Red, 12 Blue)	24





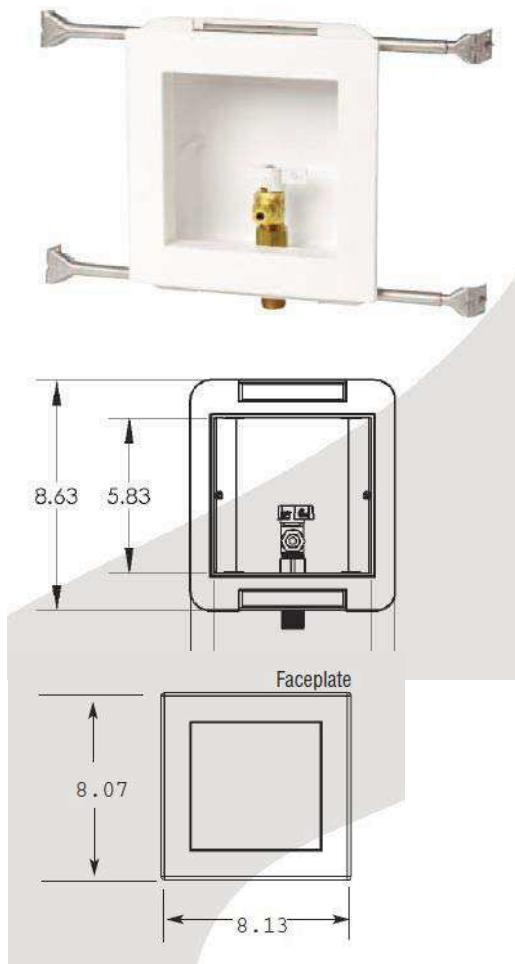
O39122

OATEY

IMB:

LF FIR WMOB QT HAMMER BV CPVC

 <p>® 4700 W. 160th St. Cleveland, OH 44135 PH:800-321-9532 FX:800-321-9535 www.oatey.com</p> <p><b>TECHNICAL SPECIFICATION</b></p>	<p><b>FIRE – RATED ICE MAKER OUTLET BOXES</b></p>	
<p><b>Engineering Specification:</b> Oatey Fire-Rated Ice Maker Outlet Boxes can be used in applications requiring supply valves recessed into a fire-rated wall. Unit shall allow for the mounting of supply lines from top or bottom on the left or right side. Unit shall be available with ¼ turn brass ball valves in configurations with and without water hammer arrestors listed to ASSE 1010. Adjustable metal support bracket shall be installed on top and bottom of unit for support in stud wall.</p>		<p><b>Job Reference</b></p>
<p><b>Materials:</b></p> <ul style="list-style-type: none"> <li>- <b>Outlet Box:</b> Bulk Molded Compound (BMC) Thermoset fire-rated plastic</li> <li>- <b>Adjustable Mounting Bracket:</b> Galvanized Steel</li> <li>- <b>Box Pad:</b> UL Classified FyreWrap Insulation Material FyreWrap is a registered trademark of Unifrax LLC.</li> </ul> <p><b>LISTINGS and APPROVALS:</b></p> <p><b>ASTM E814</b></p> <ul style="list-style-type: none"> <li>- 1-hour wall: 60 min. (F)</li> <li>- 1-hour wall: 32 min (T)</li> <li>- 2-hour wall: 120 min (F)</li> <li>- 2-hour wall: 85 min (T)</li> </ul> <p><b>CAN/ULC S115</b></p> <ul style="list-style-type: none"> <li>- 1-hour wall: 60 min. (F/FH)</li> <li>- 1-hour wall: 32 min (FT/FTH)</li> <li>- 2-hour wall: 120 min. (F/FH)</li> <li>- 2-hour wall: 85 min. (FT/FTH)</li> </ul> <p><b>Adjustable mounting Bracket:</b></p> <ul style="list-style-type: none"> <li>- Use nails or screws to secure into stud wall</li> <li>- <b>Faceplate:</b> Snap –on faceplate accommodates up to Two layers of 5/8" gypsum</li> </ul>		



✓	Product No.	Description	PACK	CARTON WEIGHT
	38486	¼ Turn Brass Ball Valve, Copper Sweat, Standard Pack	6	9
	38487	¼ Turn Brass Ball Valve, CPVC, Standard Pack	6	9
	38488	¼ Turn Brass Ball Valve, ½ " ASTM F1807 PEX, Standard Pack	6	9
	38489	¼ Turn Brass Ball Valve, ½ " ASTM F1960 PEX, Standard Pack	6	9
	38490	¼ Turn Brass Ball Valve with Water Hammer Arrestor, Copper Sweat, Standard Pack	6	15
	38491	¼ Turn Brass Ball Valve with Water Hammer Arrestor, CPVC, Standard Pack	6	15
	38492	¼ Turn Brass Ball Valve with Water Hammer Arrestor, ½ " ASTM F1807 PEX, Standard Pack	6	15
	38493	¼ Turn Brass Ball Valve with Water Hammer Arrestor, ½ " ASTM F1960 PEX, Standard Pack	6	15
	39117	¼ Turn Brass Ball Valve-Low Lead-Copper Sweat- Standard Pack	6	25
	39118	¼ Turn Brass Ball Valve-Low Lead- CPVC- Standard Pack	6	25
	39119	¼ Turn Brass Ball Valve-Low Lead-1/2" ASTM F1807 PEX- Standard Pack	6	25
	39120	¼ Turn Brass Ball Valve-Low Lead- ½ " ASTM F1960 PEX- Standard Pack	6	25
✓	39121	¼ Turn Brass Hammer Ball Valve-Low Lead- Copper Sweat Standard Pack	6	28
	39122	¼ Turn Brass Hammer Ball Valve-Low Lead- CPVC Standard Pack	6	28
	39123	¼ Turn Brass Hammer Ball Valve-Low Lead- ½ " ASTM F1807 PEX- Standard Pack	6	28
	39124	¼ Turn Brass Hammer Ball Valve-Low Lead- ½ " ASTM F1960 PEX- Standard Pack	6	28

Accessories				
✓	Product No.	Description	PACK	CARTON WEIGHT
	38495	Plain Fire Ice Maker Outlet Box, without faceplate or brackets	6	3
	38497	Ice Maker Outlet Box Faceplate	6	1
	38498	Adjustable Metal Support Bracket, 2-pieces	12	8





AENL36202172000 AO SMITH

WH1:

\*36G ELEC 4.5KW 240V 1PH WHTR LB



## Residential Electric Water Heaters

# ProMax®



ENL40 4.5KW 208V 1PH

### ENHANCED HEATING ELEMENTS

- Dual 4500 watt elements for fast recovery and reliable operation.\*
- Incoloy stainless steel lower element lasts longer than a standard copper element.

### DYNACLEAN™ DIFFUSER DIP TUBE

- Helps reduce lime and sediment buildup and maximizes hot water output. Made from long-lasting PEX cross-linked polymer.

### HIGH ENERGY FACTORS

- Eco-friendly non-CFC foam insulation, heat traps and other features combine to yield a higher Energy Factor that maximizes savings on operating costs.

### COREGARD™ ANODE ROD

- Our anode rods have a stainless steel core that extends the life of the anode rod allowing superior tank protection far longer than standard anode rods.

### BLUE DIAMOND® GLASS COATING

- Provides superior corrosion resistance compared to industry standard glass lining.

### ENHANCED-FLOW BRASS DRAIN VALVE

- Our residential water heaters have a solid brass, tamper resistant, enhanced-flow, ball type, drain valve.
- Uses a standard female hose fitting that allows for fast and easy draining during maintenance.
- Designed for easy operation, this valve includes an integral screwdriver slot that features a ¼ turn (open/close) radius, which not only permits full straight-through water flow but also a quick and positive shut off.

### CODE COMPLIANCE

- Meets UBC, CEC and HUD National Codes.
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1.
- Complies with the Federal Energy Conservation Standards effective April 16, 2015, in accordance with the Energy Policy and Conservation Act (EPCA), as amended.

### APPROVED FOR MANUFACTURED HOUSING

- All residential electric water heaters are compliant with HUD Standards for mobile homes/manufactured housing.

### CERTIFIED TO UL 174 FOR HOUSEHOLD ELECTRIC WATER HEATERS

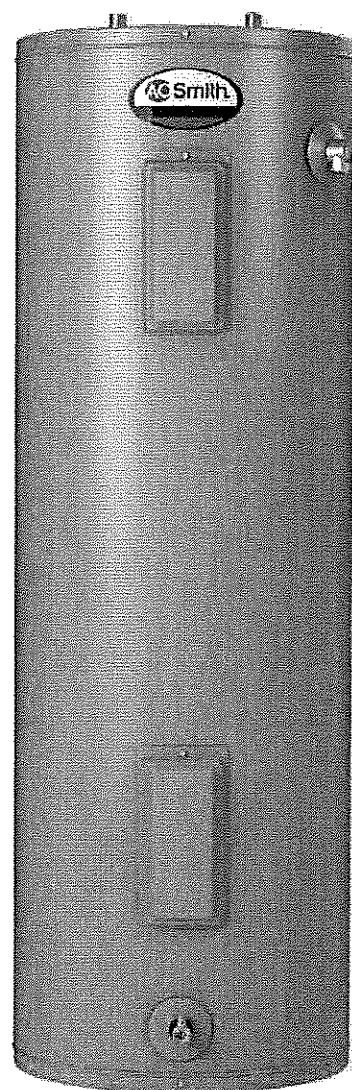
### CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

### DESIGN-LISTED BY UNDERWRITERS LABORATORIES

- Certified at 300 PSI test pressure and 150 PSI working pressure.
- Listed according to UL 174 standards governing storage tank-type electric water heaters.

### 6-YEAR LIMITED TANK AND PARTS WARRANTY

- For complete information, consult written warranty or go to [hotwater.com](http://hotwater.com).



\*Model ENL-20 has a single element.



## Residential Electric Water Heaters

Model Number	Gallon Capacity	First Hour Rating Gallon	Energy Factor	Recovery @ 90°F Rise Gallon Per Hour	Element Wattage 240V		Dimensions in Inches			Approx. Shipping Weight (lbs)
					Standard	Maximum	A	B	C	
Tall Models										
ENT-30†	30	47	0.95	21	4500	6000	46-1/2	39-1/2	19	95
ENT-40†	40	51	0.95	21	4500	6000	60-1/4	53-1/4	20	118
ENTB-50*	50	70	0.95	21	4500	6000	60-1/4	51-1/4	21	131
ENT-50†	50	71	0.95	21	4500	6000	60-1/2	51-1/4	22	134
ENT-55†	55	76	0.94	21	4500	6000	56-1/2	48-1/2	24	145
Short Models										
ENSB-30*	30	48	0.95	21	4500	6000	39	30-1/2	20	95
ENS-30†	30	49	0.95	21	4500	6000	39-3/4	30-1/2	22	94
ENS-40†	40	55	0.95	21	4500	6000	50	40-3/4	22	109
ENS-50†	50	62	0.95	21	4500	6000	49-3/4	40-3/8	24	161
Lowboy Top Connect Models										
ENL-20	19.5	N/A	N/A	21	4500	6000	30	21-1/4	20	65
ENLB-30*	28	40	0.95	21	4500	6000	30	21-3/4	22	96
ENL-30†	28	43	0.95	21	4500	6000	31-1/4	21-3/4	24	115
ENLB-40*	38	46	0.95	21	4500	6000	31-3/4	24	24	118
ENL-40†+	38	44	0.95	21	4500	6000	33-1/2	24	26	118

3/4" water connections on 8" center.

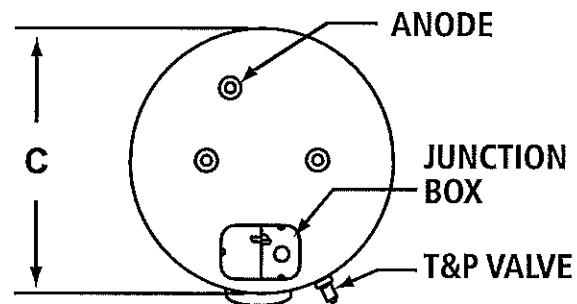
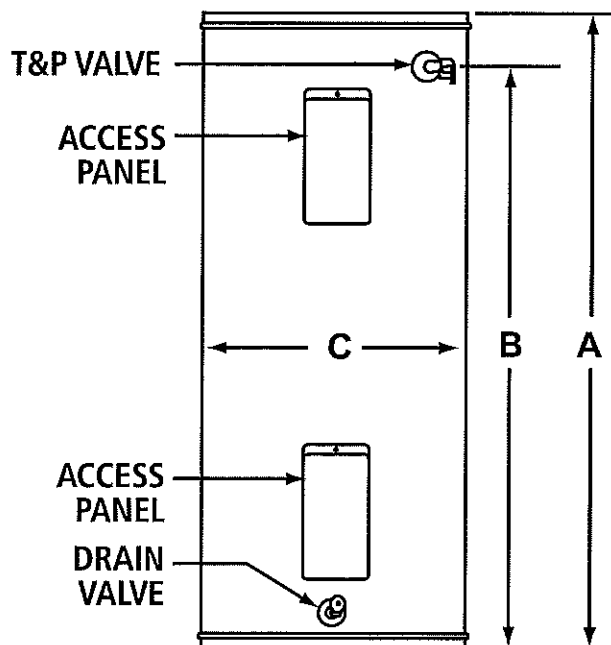
\*Models ship with supplied insulation blanket.

†For 10-year tank and 6-year parts warranty, change "E" to "P" in the model number (example: ENT-30 becomes PNT-30).

+ Top T&P option not available on this model.

ENL-20 is a single element configuration only

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



For technical information call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.



AENLB50202172000 AO SMITH

**WH2:**

48G 4.5KW 240V 1PH LB WHTR ALUM (WITH BLANKET)



## Residential Electric Water Heaters

# ProMax®



ENLB50 4.5KW 208V 1PH

### ENHANCED HEATING ELEMENTS

- Dual 4500 watt elements for fast recovery and reliable operation.\*
- Incoloy stainless steel lower element lasts longer than a standard copper element.

### DYNACLEAN™ DIFFUSER DIP TUBE

- Helps reduce lime and sediment buildup and maximizes hot water output. Made from long-lasting PEX cross-linked polymer.

### HIGH ENERGY FACTORS

- Eco-friendly non-CFC foam insulation, heat traps and other features combine to yield a higher Energy Factor that maximizes savings on operating costs.

### COREGARD™ ANODE ROD

- Our anode rods have a stainless steel core that extends the life of the anode rod allowing superior tank protection far longer than standard anode rods.

### BLUE DIAMOND® GLASS COATING

- Provides superior corrosion resistance compared to industry standard glass lining.

### ENHANCED-FLOW BRASS DRAIN VALVE

- Our residential water heaters have a solid brass, tamper resistant, enhanced-flow, ball type, drain valve.
- Uses a standard female hose fitting that allows for fast and easy draining during maintenance.
- Designed for easy operation, this valve includes an integral screwdriver slot that features a ¼ turn (open/close) radius, which not only permits full straight-through water flow but also a quick and positive shut off.

\*Model ENL-20 has a single element.

### CODE COMPLIANCE

- Meets UBC and ICC National Codes and listed with CEC.
- Complies with the Federal Energy Conservation Standards effective April 16, 2015, in accordance with the Energy Policy and Conservation Act (EPCA), as amended.

### APPROVED FOR MANUFACTURED HOUSING

- All residential electric water heaters are compliant with HUD Standards for mobile homes/manufactured housing.

### CERTIFIED TO UL 174 FOR HOUSEHOLD ELECTRIC WATER HEATERS

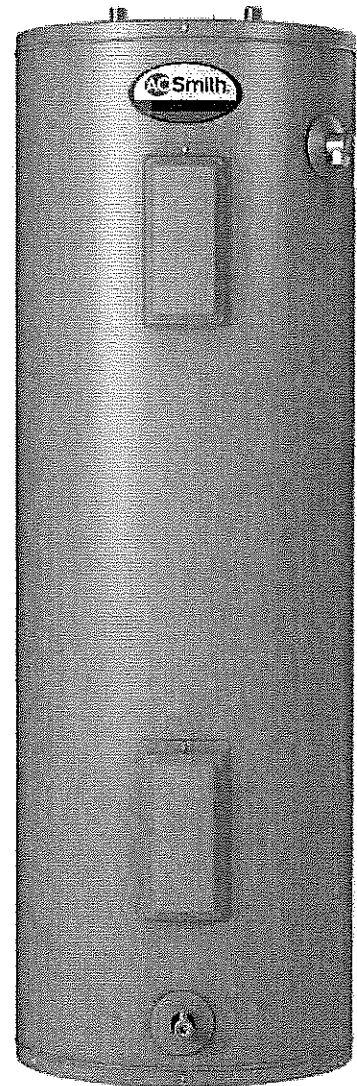
### CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

### DESIGN-LISTED BY UNDERWRITERS LABORATORIES

- Certified at 300 psi test pressure and 150 psi working pressure.
- Listed according to UL 174 standards governing storage tank-type electric water heaters.

### 6-YEAR LIMITED TANK AND PARTS WARRANTY

- For complete information, consult written warranty or go to [hotwater.com](http://hotwater.com).





# Residential Electric Water Heaters

✓ 4.5KW 208V 1PH

Model Number	Gallon Capacity	First Hour Rating Gallon	Energy Factor	Recovery @ 90°F Rise Gallon Per Hour	Element Wattage 240V		Dimensions in Inches			Approx. Shipping Weight (lbs)
					Standard	Maximum	A	B	C	
Tall Models										
ENT-30†	30	47	0.95	21	4500	6000	46-1/2	39-1/2	19	95
ENT-40†	40	51	0.95	21	4500	6000	60-1/4	53-1/4	20	118
ENT-50†	50	73	0.95	21	4500	6000	60-1/2	51-1/4	20-1/2	125
ENT-55†	55	76	0.94	21	4500	6000	56-1/2	48-1/2	24	145
Short Models										
ENS-30*	30	48	0.95	21	4500	6000	39	30-1/2	20	95
ENS-30†	30	49	0.95	21	4500	6000	39-3/4	30-1/2	22	94
ENS-40†	40	55	0.95	21	4500	6000	50	40-3/4	20-1/2	109
ENS-50†	50	62	0.95	21	4500	6000	49-3/4	40-3/8	23	161
Lowboy Top Connect Models										
ENL-20	19.5	N/A	N/A	21	4500	6000	30	21-1/4	20	65
ENLB-30*	28	40	0.95	21	4500	6000	30	21-3/4	20	90
ENL-30†	28	43	0.95	21	4500	6000	31-1/4	21-3/4	24	115
ENLB-40*	38	46	0.95	21	4500	6000	31-3/4	24	24	118
ENL-40†+	38	44	0.95	21	4500	6000	33-1/2	24	26	118
ENLB-50†	48	57	0.95	21	4500	6000	34	25	26-1/2	172

Male 3/4" water connections on 8" center.

\*Models ship with supplied insulation blanket.

†For 10-year tank and 6-year parts warranty, change "E" to "P" in the model number (example: ENT-30 becomes PNT-30).

+ Top T&P option not available on this model.

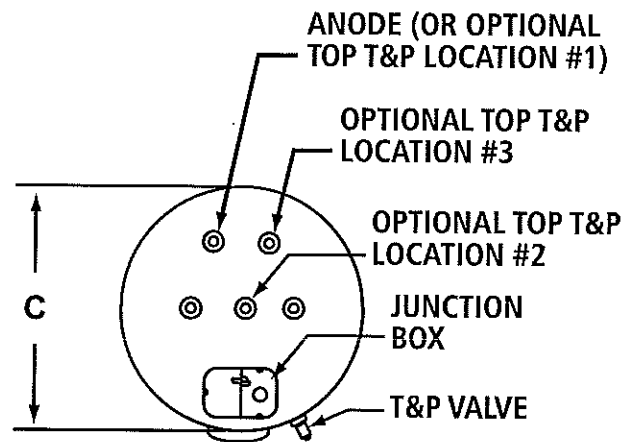
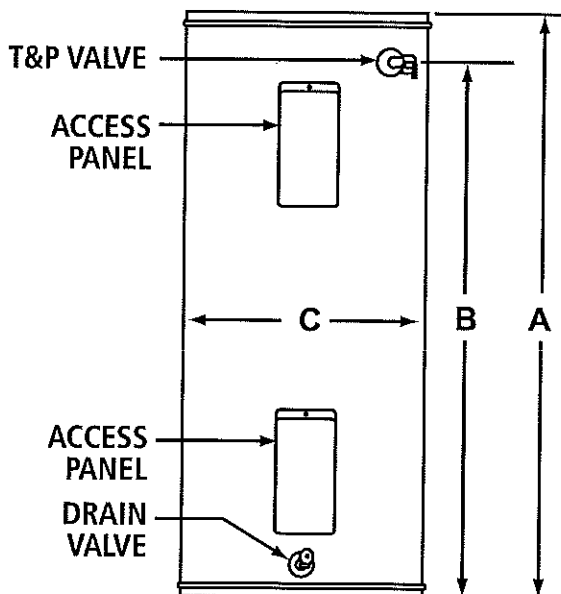
ENL-20 is a single element configuration only

Optional top T&P location #2 is used on the ENT-50, ENT-55, ENS-40 and ENS-50

Optional top T&P location #3 is used on the ENLB-50, ENL-30 and ENLB-30.

Top T&P is not available on the 10 year model PNLB-50.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



For technical information call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.



L546800101

LACAVALLC

**PL01: Leasing Restroom Sink**  
1H PORC LAV W/ O/FLOW WHIT

LACAVA®

## Aquagrande Lavatory Item #5468

### Features:

- Porcelain lavatory with overflow
- Wall-mount or above-counter installation
- Wall-mounting bolts included
- Faucet hole diameter is 1 3/8"
- European-size drain recommended(i.e. 7100-12 or 7100-16OF)
- Most standard American drains can also be used
- Unfinished back wall
- Current cut-out template can be requested
- Weight (with packaging): 53 lbs/24 kg
- Meets and exceeds the following standards/codes:
  - ASME A112.19.2-2013/CSA B45.1-13
  - CMR 248 (Mass. Code of Approval)
- It can be installed to meet ADA compliance

### Recommended Accessories:

- Item #5468B: Wall-mount wooden vanity with one drawer and open cubby
- Item #5468C: Wall-mount wooden cabinet with two drawers
- Item #5468S: Wall-mount structure made of brushed stainless steel
  - One shelf in wood or tempered glass and a towel bar

### Finish Options:

001 - White

### Faucet Hole Options:

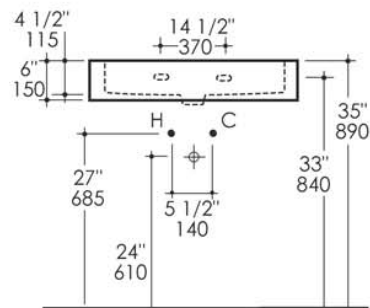
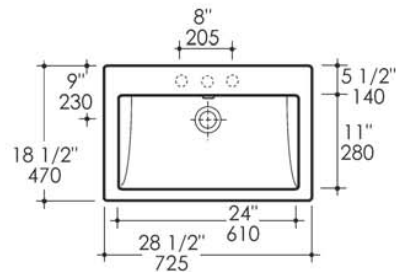
00 - None

01 - One

03 - Three in 8" spread



### Product Specifications:



#### IMPORTANT:

We use very fine clay to produce select porcelain lavatories. The many benefits of fine clay include low porosity, high brilliance of glaze, as well as high durability of the material and finish. However, fine clay is subject to relatively high level of shrinkage 12-15% during firing process at extremely high temperatures reaching over 2200°F / 1200°C. This process results in unavoidable low levels of deviation from the originally intended perfect shape. Each lavatory is therefore slightly unique and closely inspected for proper fit with the accompanying vanity. LACAVA strives to ensure long-lasting beauty and performance of our sanitary ware for complete customer satisfaction.

#### Notes:

Drawings provided herein are meant to give the user an idea of the product and are not made to scale. The size in inches is rounded up to the nearest 1/16". Slight variances can often occur with porcelain and woodwork. Therefore, LACAVA will not be held responsible for any cutouts, countertops, or furniture made without the actual product or template from LACAVA. Differences in color, grain, appearance and texture are inherent in all natural woodwork, and should be expected. Variances in these qualities are not deemed manufacturing defects, and will not be accepted as valid reasons to return or exchange any LACAVA woodwork. Plumbing specifications are only a guideline and may need to be altered based on the application.

Product specifications are not binding to the manufacturer and can be changed without notice at any time. Please refer to your shipment for product final sizes.

LACAVA is committed to the highest level of customer service. Please feel free to contact us at 1-888-522-2823 (toll free) or by email at [info@lacava.com](mailto:info@lacava.com) for technical assistance or any general inquiries.

Rev. 08-23-2016





LRA09821

LACAVALLC

**PL02: Leasing Restroom Trap Cover**  
LAVACA BRUSHED SS TRAP COVER

# LACAVA®

## Trap Cover Item #RA098

### *Features:*

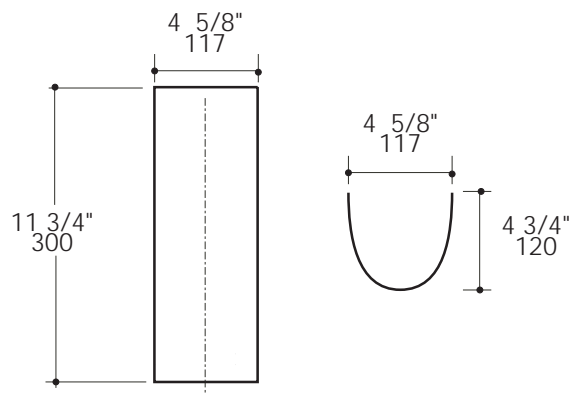
- Made of stainless steel
- Works with most American or European traps
- Easy clip-on installation without any tools or hardware
- Mounting clip covered with rubberized coat
- Weight: 2 lbs.



### *Finish Options:*

- 10 - polished stainless steel
- 21 - brushed stainless steel

### *Product Specifications:*



### Notes:

Drawings provided herein are meant to give the user an idea of the product and are not made to scale. The size in inches is rounded up to the nearest 1/16".

LACAVA is committed to the highest level of customer service. Please feel free to contact us at 1-888-522-2823 (toll free) or by email at [info@lacava.com](mailto:info@lacava.com) for technical assistance or any general inquiries.

Rev. 11-12-2014



H31080821

HANS GROHE

**PL03: Restrooms Faucet**

CCY LEAD LAW COMPLIANT E ONE HOLE 1 HANDLE FAUCET

\*METRIS BRUSHED NICKEL 1.5

**Metris****Metris 110 Single-Hole Faucet**Finishes : **Brushed Nickel** Part no. : **31080821****Description****Features**

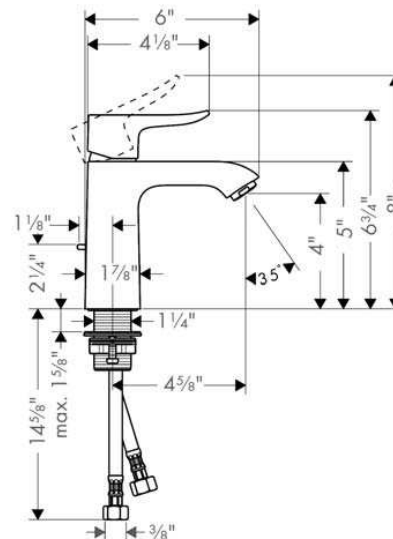
- Solid Brass
- Aerated spray
- Flow: 1.5 GPM
- Ceramic Cartridge
- Includes pop-up assembly

**Optional accessories**

- Base Plate, 6" (#06490USA)

**Item details**

List Price

**Technology****Compliance****Product image****Scale drawing**



K4309-0 KOHLER  
K4421-0 KOHLER  
PFTSCOFE2000WH PROFLO

**PL04: Restrooms Toilet**

CCY @ 12 ELONGATED BOWL WHITE ADA 1.28/1.6  
CCY @ 12 ROUGH IN CLOSET TANK WHITE 1.28  
ELONGATED CLOSET SEAT COMM OPEN FRONT L/COVER WHITE

**KOHLER®**

**Cimarron®**  
 Comfort Height® Toilet  
**K-3589**

**Features**

- Elongated bowl.
- 1.6 gpf (6.1 lpf).
- Left-hand trip lever.
- 2-1/8" (54 mm) glazed trapway.
- 28-3/4" (730 mm) x 17-5/8" (447 mm) x 30-3/4" (781 mm).

**Material**

- Vitreous china.

**Technology**

- AquaPiston® flushing system.

**Required Accessories**

ADA

K-4650-A Toilet Seat

**Optional Accessories**

K-1954 Touchless Toilet Flush Kit  
 K-4008 Toilet Seat  
 K-4108 Toilet Seat with Cleansing Functionality  
 K-4650 Toilet Seat  
 K-4652 Toilet Seat  
 K-4659 Toilet Seat  
 K-4660 Toilet Seat  
 K-4684 Toilet Seat  
 K-4688 Toilet Seat  
 K-4694 Toilet Seat  
 K-4709 Toilet Seat with Cleansing Functionality  
 K-4713 Toilet Seat  
 K-4732 Toilet Seat  
 K-4733 Toilet Seat  
 K-4737 Toilet Seat with Cleansing Functionality  
 K-4748 Toilet Seat  
 K-4774 Toilet Seat  
 K-4814 Toilet Seat  
 K-4888 Elongated Toilet Seat  
 K-5588 Elongated Toilet Seat  
 K-7637 Angle Supply with Stop (single)  
 K-4712-T Toilet Seat  
 K-4761-BN Toilet Seat  
 K-4761-CP Toilet Seat  
 K-9466-L Left-hand Trip Lever  
 K-9470-L Left-hand Trip Lever  
 K-4636 Toilet Seat

**Components**

Product includes:

K-4309 Elongated Toilet Bowl  
 K-4418 Toilet Tank

Additional included component/s: Tank cover, Trip lever, Tank accessory pack, and Bolt cap accessory pack.



ADA	CSA B651	OBC
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**Codes/Standards**

ASME A112.19.2/CSA B45.1

ADA

ICC/ANSI A117.1








CSA B651

OBC

**KOHLER® One-Year Limited Warranty**

See website for detailed warranty information.

**Available Color/Finishes***Color tiles intended for reference only.*

Color	Code	Description
	0	White
	96	Biscuit
	47	Almond
	NY	Dune
	95	Ice™ Grey
	G9	Sandbar
	7	Black Black™

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

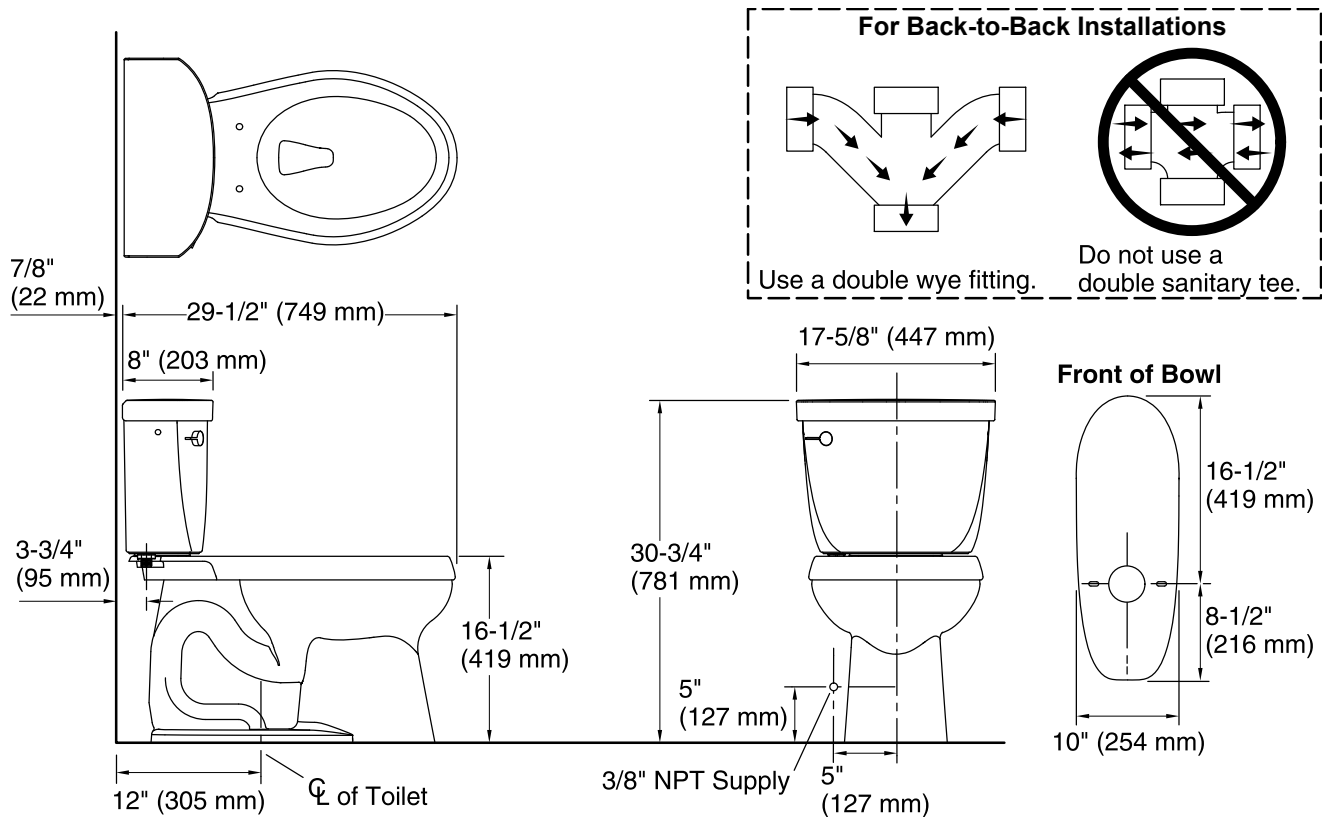
For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

1-24-2017 02:59

THE BOLD LOOK  
 OF **KOHLER®**

**KOHLER®**

**Cimarron®**  
 Comfort Height® Toilet  
**K-3589**

**Technical Information**

All product dimensions are nominal.

Toilet type:	Two-piece, Floor-mount
Bowl shape:	Elongated front
Flush type:	AquaPiston
Trap passageway:	2-1/8" (54 mm)
Water Consumption	
Full:	1.6 gpf (6 lpf)
Water surface size:	10-1/2" x 7-1/8" (267 mm x 181 mm)
Rim to water surface:	6-1/8" (156 mm)
Rough-in:	12" (305 mm)
Seat-mounting holes:	5-1/2" (140 mm)

**Notes**

Install this product according to the installation instructions.

For back-to-back toilet installations: Use only a 45° double wye fitting.

ADA, OBC, CSA B651 compliant when installed to the specific requirements of these regulations.

The Model Plumbing Codes require the installation of elongated open-front toilet seats on public bathrooms.

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

1-24-2017 02:59

THE BOLD LOOK  
 OF **KOHLER®**

**KOHLER®**

**Cimarron®**  
 Comfort Height® Toilet  
**K-3609**

**Features**

- Vitreous china.
- Two-piece toilet.
- Comfort Height® Elongated bowl.
- AquaPiston® flushing system.
- Includes left-hand polished chrome trip lever.
- 1.28 gpf (4.8 lpf).
- 2-1/8" (54 mm) fully glazed trapway.
- 12" (305 mm) rough-in.
- Less seat and supply.
- 10-1/2" (267 mm) x 7-1/8" (181 mm) water area.
- 28-3/4" (730 mm) x 17-5/8" (447 mm) x 30-3/4" (781 mm).
- Floor mount / Floor outlet.

**Recommended Accessories**

K-4650 Toilet Seat

K-7637 Angle Supply with Stop (single)

**Components**

Product includes:

K-4309 Elongated Toilet Bowl

K-4421 Toilet Tank

Additional included component/s: Tank cover, Trip lever, Bolt cap accessory pack, and Tank accessory pack.

**ADA****CSA B651****OBC****Codes/Standards**

ASME A112.19.2/CSA B45.1

DOE - Energy Policy Act 1992

EPA WaterSense®

ADA

ICC/ANSI A117.1








CSA B651

OBC

**KOHLER® One-Year Limited Warranty**

See website for detailed warranty information.

**Available Color/Finishes***Color tiles intended for reference only.*

Color	Code	Description
	0	White
	96	Biscuit
	47	Almond
	NY	Dune
	95	Ice™ Grey
	G9	Sandbar
	7	Black Black™

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

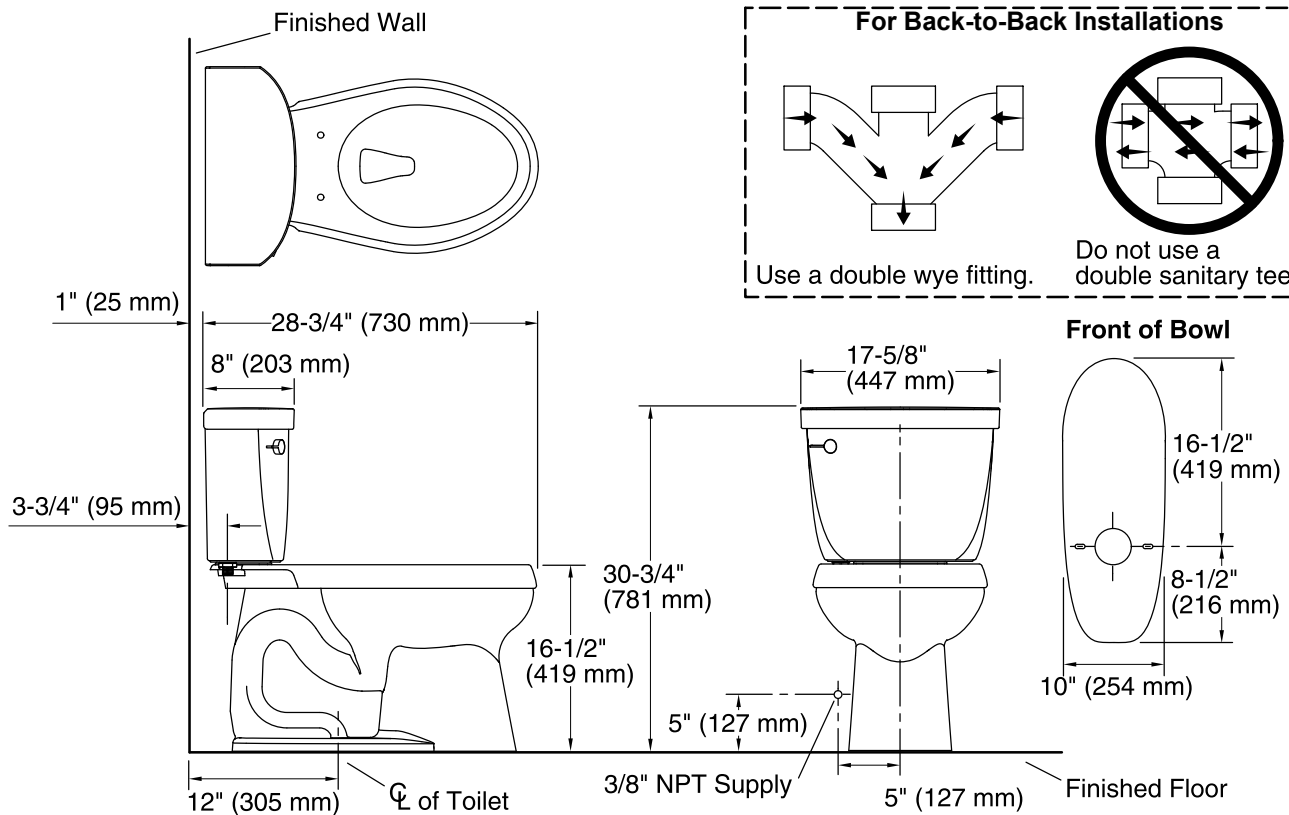
4-30-2016 04:52

THE BOLD LOOK  
 OF **KOHLER®**



**KOHLER®**

**Cimarron®**  
 Comfort Height® Toilet  
**K-3609**



### Technical Information

All product dimensions are nominal.

Toilet type:	Two-piece
Bowl shape:	Elongated front
Flush type:	AquaPiston
Trap passageway:	2-1/8" (54 mm)
Water Consumption	
Full:	1.28 gpf (4.8 lpf)
Water surface size:	10-1/2" x 7-7/8" (267 mm x 200 mm)
Rim to water surface:	6-3/8" (162 mm)
Rough-in:	12" (305 mm)
Seat-mounting holes:	5-1/2" (140 mm)

### Notes

Install this product according to the installation instructions.

For back-to-back toilet installations: Use only a 45° double wye fitting.

ADA, OBC, CSA B651 compliant when installed to the specific requirements of these regulations.

The Model Plumbing Codes require the installation of elongated open-front toilet seats on public bathrooms.

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

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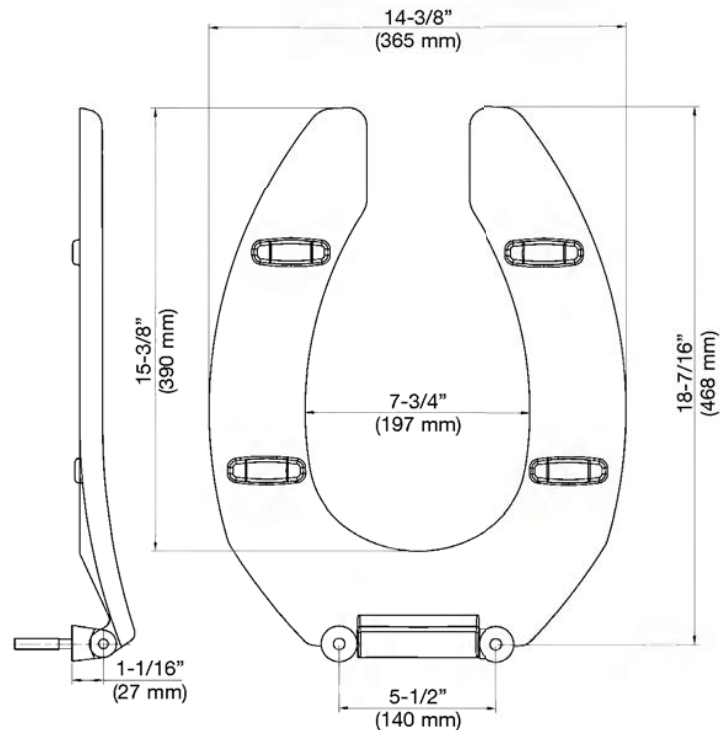
THE BOLD LOOK  
 OF **KOHLER®**

**PFTSC0FE2000WH****Commercial  
Toilet Seat****Product Features**

- Heavy weight molded solid plastic
- Open front less cover
- External check hinge
- 304 Series stainless steel hardware
- Easy installation
- Large, molded in bumpers
- Slip resistant pads
- Elongated only
- Conforms to ANSI Z124.5

**PFTSC0FE2000WH****External check hinge  
w/304 Series stainless  
steel hinge posts****Model Numbers**

✓ **PFTSC0FE2000WH** Elongated commercial toilet seat, white

**Product Specifications****Warranty and Codes**

PROFLO toilet seats carry a 1-year limited warranty. In an effort to continually improve our products, FEI will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.



H04507801

HANSGROHE

**PL09: Clubroom Bar Faucet**

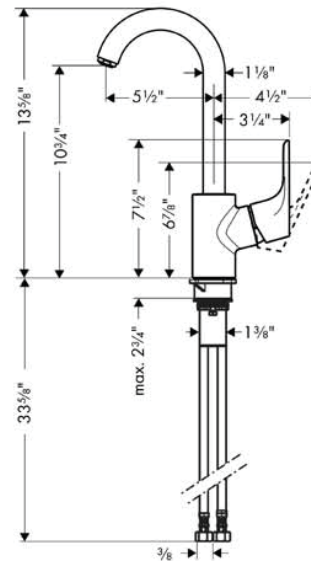
LEAD LAW COMPLIANT NOT CERTIFIED 1.5 GPM 1 HANDLE BAR  
FAUCET \*FOCUS STAINLESS STEEL

**Focus****Focus Bar Faucet**Finishes : **Steel Optic**    Part no. : **04507801****Description****Features**

- Swivel range 150°
- Aerated spray
- Flow: 1.5 GPM
- Ceramic cartridge
- $\frac{3}{8}$ " hoses

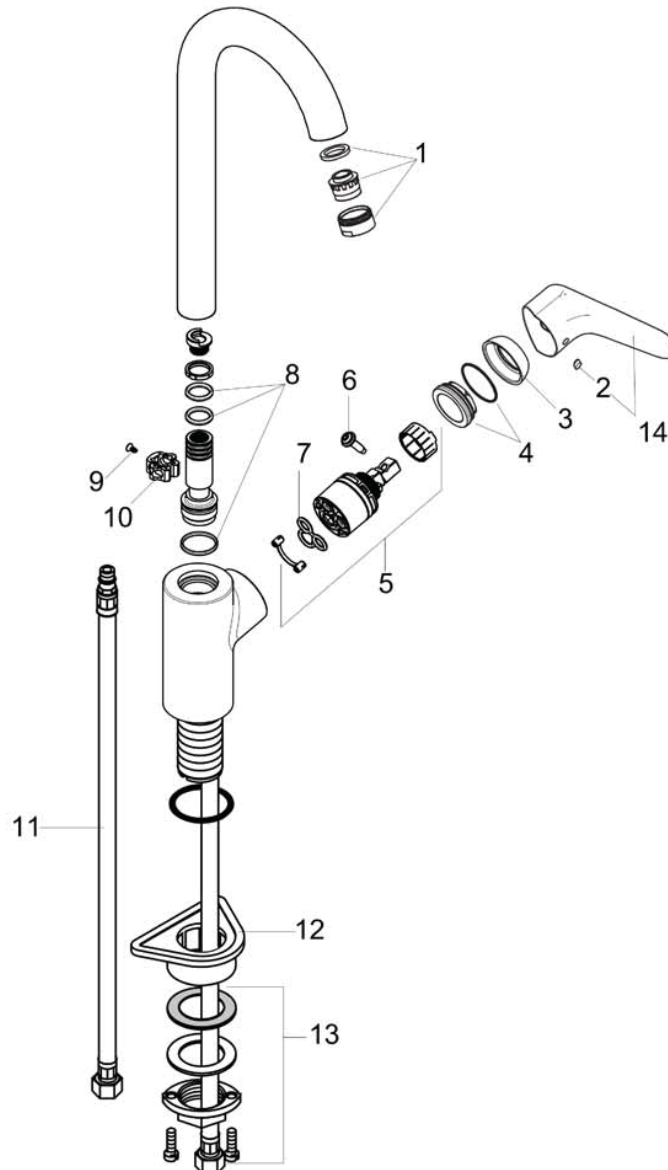
**Optional accessories**

- Base Plate for Traditional Single-Hole Faucets 6" (#14018USA)

**Item details**
[www.hansgrohe-usa.com](http://www.hansgrohe-usa.com)
[www.hansgrohe.com](http://www.hansgrohe.com)
**Technology****Compliance****Product image****Scale drawing**

**Focus****Focus Bar Faucet**Finishes : **Steel Optic**Part no. : **04507801****Exploded drawing**

Year of production: &gt;01/14



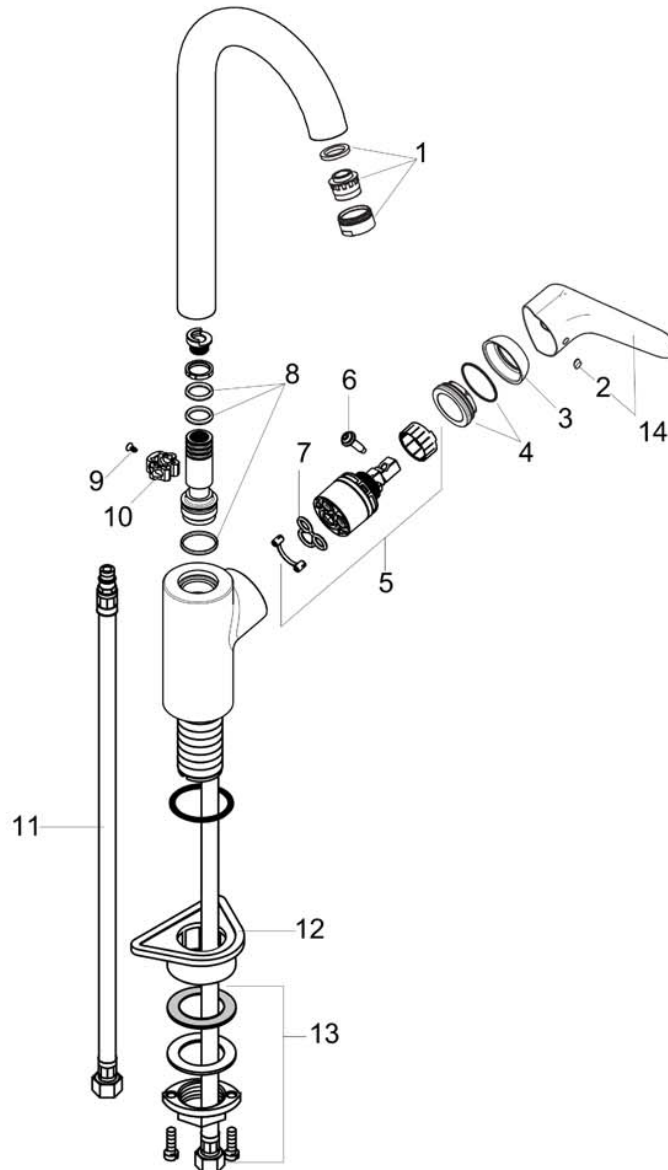
**Focus****Focus Bar Faucet**Finishes : **Steel Optic** Part no. : **04507801****Spare parts list**

Year of production: &gt;01/14

Pos.	Description	Part no.	Price	PU
1	aerator M24x1 (5 l/min)	88744800	-	1
2	screw cover	96338000	-	1
3	flange	95498800	-	1
4	nut	97209000	-	1
5	cartridge, assy	92730000	-	1
6	locking screw for handle	95140000	-	1
7	seal	95008000	-	1
8	sealing set	92646000	-	1
9	screw	97662000	-	1
10	axialring	97558000	-	1
11	connection hose 35½" M8x0,75 3/8"	96316001	-	1
12	support	97523000	-	1
13	fixing set (Ø 34)	95049000	-	1
14	handle	98460800	-	1

**Focus****Focus Bar Faucet**Finishes : **Steel Optic**Part no. : **04507801****Exploded drawing**

Year of production: &gt;01/14



**Focus****Focus Bar Faucet**Finishes : **Steel Optic**    Part no. : **04507801****Spare parts list**

Year of production: &gt;01/14

Pos.	Description	Part no.	Price	PU
1	aerator M24x1 (5 l/min)	88744800	-	1
2	screw cover	96338000	-	1
3	flange	95498800	-	1
4	nut	97209000	-	1
5	cartridge, assy	92730000	-	1
6	locking screw for handle	95140000	-	1
7	seal	95008000	-	1
8	sealing set	92646000	-	1
9	screw	97662000	-	1
10	axialring	97558000	-	1
11	connection hose 35½" M8x0,75 3/8"	96316001	-	1
12	support	97523000	-	1
13	fixing set (Ø 34)	95049000	-	1
14	handle	98460800	-	1

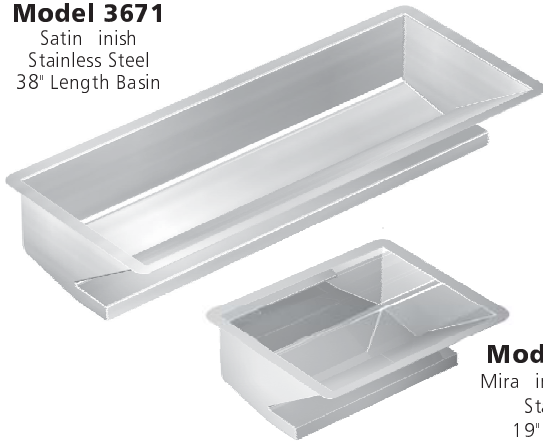




SP-N3671-L006

NEO METRO

**PL10: Clubroom Bar Sink**  
NEO METRO SATIN SS SINK

NEO-METRO® **M1**Models **3668, 3670, 3671****Deep Ebb® Basin****Model 3671**Satin finish  
Stainless Steel  
38" Length Basin**Model 3670-HP**Mira finish (High Polish)  
Stainless Steel  
19" Length Basin

\* U.S. Design Patents D468,815 &amp; D474,835

- **HIDDEN DRAIN BASIN (Patented Design)**
- **"Deep" Depth of 7-1/4" (184 mm)**
- **Heavy 14-Gage Stainless Steel Construction**
- **Standard Overall Lengths:**  
Model 3668 (16" or 406 mm)  
Model 3670 (19" or 483 mm)  
Model 3671 (38" or 965 mm)  
**PLEASE CONTACT NEO-METRO FOR CUSTOM LENGTHS**  
(Separate Specification Sheet Available)
- **Satin Finish is Standard;**  
Optional Mira High Polish Finish, White Gloss Powdercoat or Black Matte Powdercoat are available
- **Can be Installed as a Drop-in or Undermount Inset Basin**
- **Fold can be Installed Towards or Away from Faucet**
- **Laminar (Soft Flow) Faucet is Recommended (FAUCET NOT INCLUDED)**
- **Ebb Basin is also available in Shallow and Symmetric Configurations.**

This product is compliant with  
Canadian UPC and IAPMO requirements.Member of  
U.S. Green  
Building  
CouncilRecyclable  
Product**DESCRIPTION****MODEL/OPTION #****ORDERING OPTIONS**

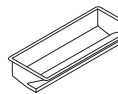
INITIALS

**16" Length Deep Ebb Basin**

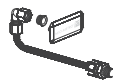
- |   |            |
|---|------------|
| <input type="checkbox"/> Satin (standard)       | 3668       |
| <input type="checkbox"/> Mira (high polish)     | 3668-HP    |
| <input type="checkbox"/> White Gloss Powdercoat | 3668-EG-10 |
| <input type="checkbox"/> Black Matte Powdercoat | 3668-EG-22 |

**19" Length Deep Ebb Basin**

- |   |            |
|---|------------|
| <input type="checkbox"/> Satin (standard)       | 3670       |
| <input type="checkbox"/> Mira (high polish)     | 3670-HP    |
| <input type="checkbox"/> White Gloss Powdercoat | 3670-EG-10 |
| <input type="checkbox"/> Black Matte Powdercoat | 3670-EG-22 |

**38" Length (Trough) Deep Ebb Basin**

- |  |            |
|--|------------|
| <input checked="" type="checkbox"/> Satin (standard) | 3671       |
| <input type="checkbox"/> Mira (high polish)          | 3671-HP    |
| <input type="checkbox"/> White Gloss Powdercoat      | 3671-EG-10 |
| <input type="checkbox"/> Black Matte Powdercoat      | 3671-EG-22 |

**Option for Ebb Basin**

- |  |      |
|--|------|
| <input type="checkbox"/> Overflow Waste Outlet | - OF |
|--|------|

**The Deep EBB Basin  
is available as an inset  
basin. It is also the  
featured basin  
in the EBB Concept.**

**EBB Basin**3668  
3670  
3671**EBB Concept Models**9108 or 9108-WM  
9110 or 9110-WM  
9112 or 9112-WM**APPROVAL FOR MANUFACTURE**

COMPANY: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

SIGNEE'S NAME WRITTEN CLEARLY: \_\_\_\_\_

DATE: \_\_\_\_\_

AUTHORIZED SIGNATURE: \_\_\_\_\_

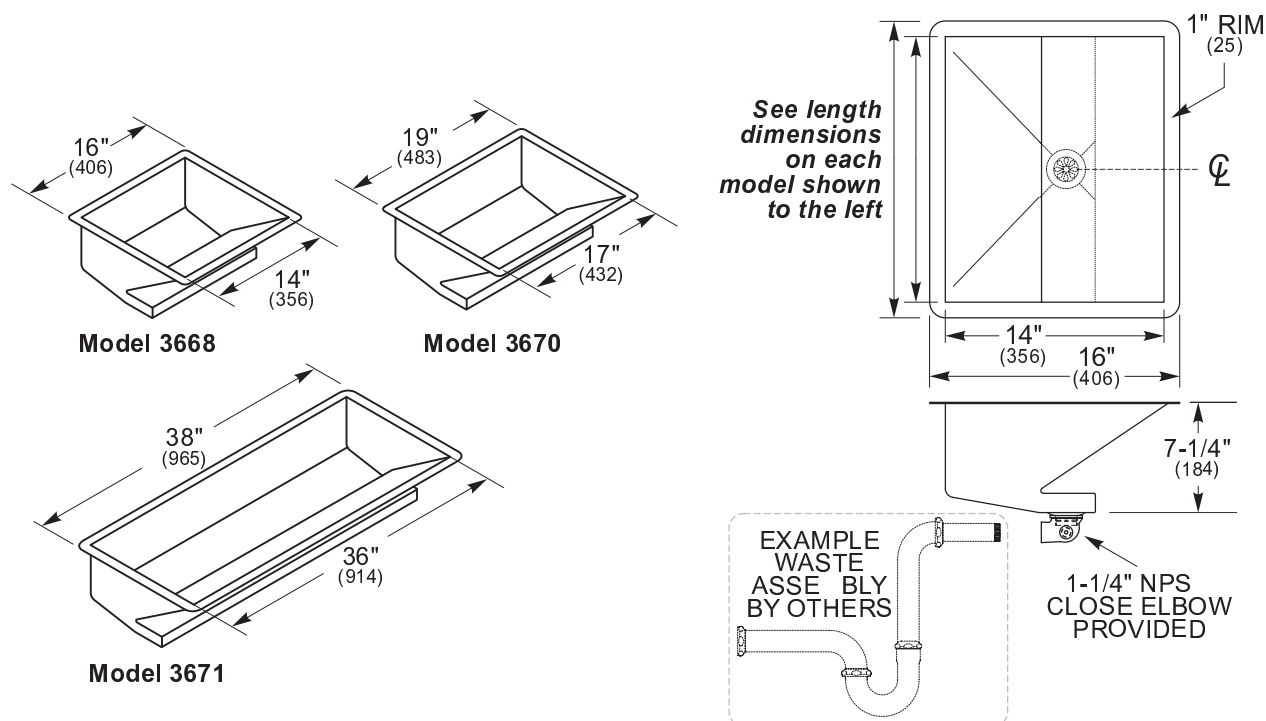
Latest product information [www.neo-metro.com](http://www.neo-metro.com)Tech Sheet: **TS3670** Page **1 of 2** Last Revised: **8/4/10****NEO-METRO**15125 Proctor Ave. • City of Industry, CA 91746 USA  
TF 800.591.9050 • PH 626.855.4854 • FX 626.937.4725  
Neo-Metro is Member of Acorn Engineering's Family of Companies

NEO-METRO® **N1**Models **3668, 3670, 3671****Deep Ebb® Basin**

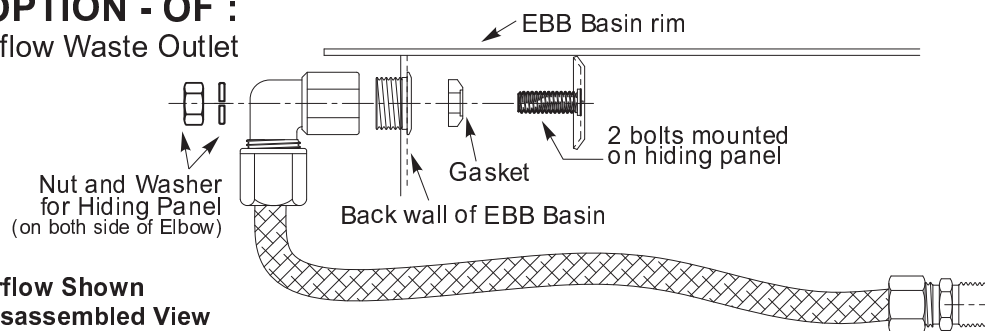
**PRODUCT Specification . . .** The Deep Ebb Basin is manufactured from 14-gage, Type 304 stainless steel. Satin Finish stainless steel basin is standard. Mira (High Polish Finish), White Gloss Powdercoated and Black Matte Powdercoated stainless steel fixtures are also available. The basin includes a patented design feature of a sloped surface hiding the drain opening (U.S. Design Patents D468,815 and D474,835). Basin can be installed with fold facing towards or away from faucet (not included). The basin can be installed in a drop-in or undermount

application. The basin shall have a "Deep" depth of 7-1/4" (184 mm). The basin is available in standard overall lengths of 16" (406), 19" (483 mm) or 38" (965 mm).

**PLUMBING Specification . . .** The Ebb Basin is recommended for drop-in or undermount applications. Laminar (soft flow) faucet is recommended. Faucet and waste assembly not provided. However, a 1-1/4" NPSM close elbow is provided.



### OPTION - OF : Overflow Waste Outlet



Neo-Metro assumes no responsibility for use of void or suspended data. All dimensions are nominal and subject to manufacturer change

## INSTALLATION INSTRUCTIONS ARE AVAILABLE

Latest product information [www.neo-metro.com](http://www.neo-metro.com)

Tech Sheet: **TS3670** Page **2 of 2** Last Revised: **8/4/10**

**NEO-METRO**  
15125 Proctor Ave. • City of Industry, CA 91746 USA  
TF 800.591.9050 • PH 626.855.4854 • FX 626.937.4725  
Neo-Metro is Member of Acorn Engineering's Family of Companies



K2882-0

KOHLER

**PL11: Restrooms Undermount Sink**  
VERTICYL RECT UC LAV



**Verticyl®**  
Under-mount Bathroom Sink  
**K-2882**

### Features

- Vitreous china.
- Under-mount.
- Rectangular basin with contemporary design.
- With overflow.
- No faucet holes; requires wall- or counter-mount faucet.
- 17-1/4" (438 mm) x 13" (330 mm)

### Recommended Accessories

K-8998 P-Trap

### Components

Additional included component/s: Basin clamp assembly.



ADA

### Codes/Standards

ASME A112.19.2/CSA B45.1

ADA

ICC/ANSI A117.1

### KOHLER® One-Year Limited Warranty

See website for detailed warranty information.

### Available Color/Finishes

*Color tiles intended for reference only.*

Color	Code	Description
	0	White
	96	Biscuit
	47	Almond
	NY	Dune
	95	Ice™ Grey
	G9	Sandbar
	33	Mexican Sand™
	K4	Cashmere
	58	Thunder™ Grey
	7	Black Black™

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

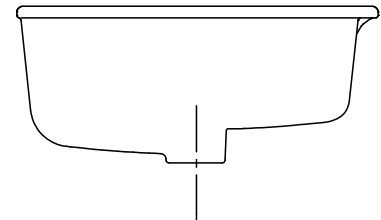
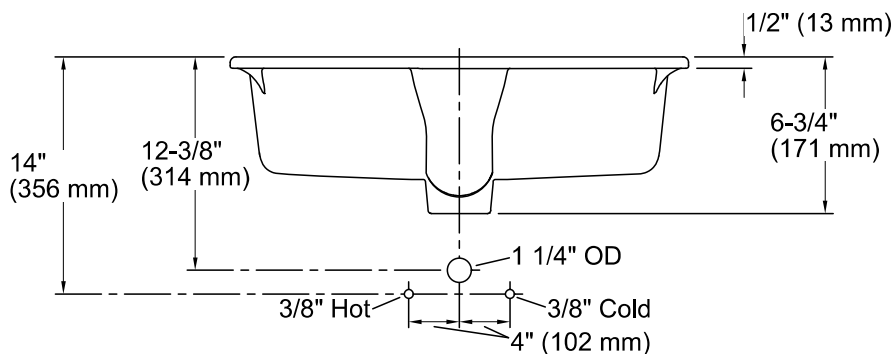
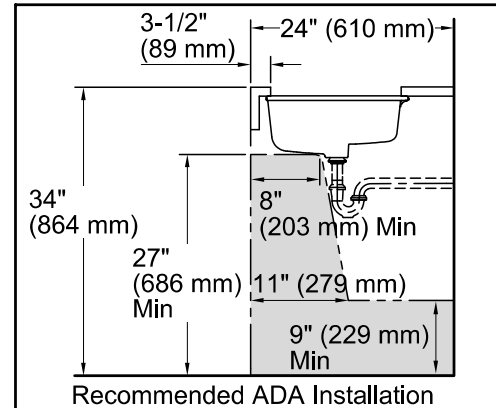
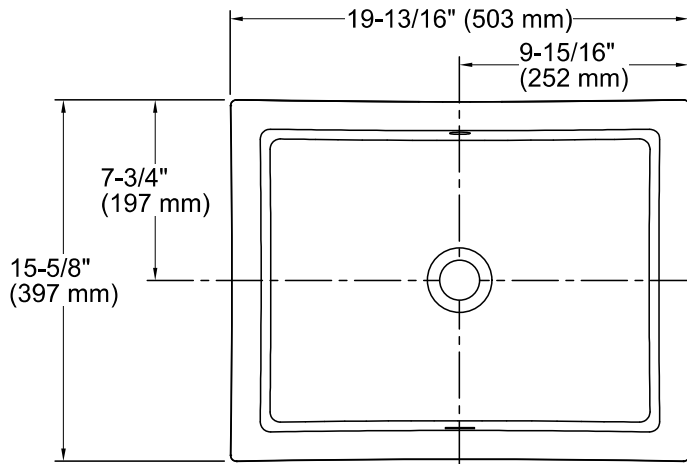
For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

4-30-2016 04:35

THE BOLD LOOK  
OF **KOHLER®**

**KOHLER®****Verticyl®**

Under-mount Bathroom Sink

**K-2882****Technical Information**

All product dimensions are nominal.

Bowl configuration:	Single
Installation:	Under-mount
Bowl area (Only)	Length: 17-1/4" (438 mm)
	Width: 13" (330 mm)
	Water depth: 3-1/8" (79 mm)
	Drain hole: 1-3/4" (44 mm)
Template:	Under-mount, 1109226-7, required, not included

**Notes**

Install this product according to the installation instructions.

NOTICE: Countertop manufacturer or cutter must use the current product template available at [www.kohler.com](http://www.kohler.com), or by calling 1-800-4KOHLER. Kohler Co. is not responsible for cutout errors when the incorrect cutout template is used.

ADA compliant when installed to the specific requirements of these regulations.

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

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THE BOLD LOOK  
OF **KOHLER®**



K2590-0

KOHLER

**PL13: Male Restroom Urinal**  
0.5 GPF BARDON TOUCHL LITE

**KOHLER®**
**Bardon™**  
 Touchless Urinal  
**K-2590**
**Features**

- Washout urinal.
- 1/2" rear spud.
- Delivers dependable water-saving performance and added hygiene.
- Patented backwall geometry and extended rim, limit splash-back for a cleaner user experience.
- Battery operated Touchless electronic flush valve powered by four AA alkaline batteries.
- Includes tank cover and tank cover locks.
- 0.5 gpf (1.9 lpf)

**Material**

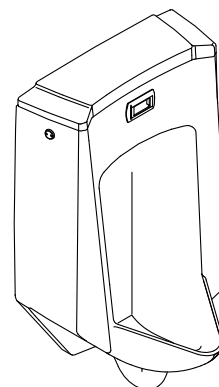
- Vitreous china

**Water Conservation & Rebates**

- 0.5 gallons per flush.
- ADA-compliant when rim is mounted no higher than 17" from finished floor.
- This product can help a building earn Water Efficiency points in the LEED® Green Building Rating System.

**Components**

Additional included component/s: Stop valve assembly, 2" outlet spud, Strainer, Hangers (2), Flush Valve, Tank cover locks (pair), and 4 alkaline AA cell batteries.

**ADA****CSA B651****OBC****Codes/Standards**

ASME A112.19.2/CSA B45.1  
 DOE - Energy Policy Act 1992  
 EPA WaterSense®  
 ADA  
 ICC/ANSI A117.1  
 CSA B651  
 OBC

**KOHLER® One-Year Limited Warranty**

See website for detailed warranty information.

**K2590-0**

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

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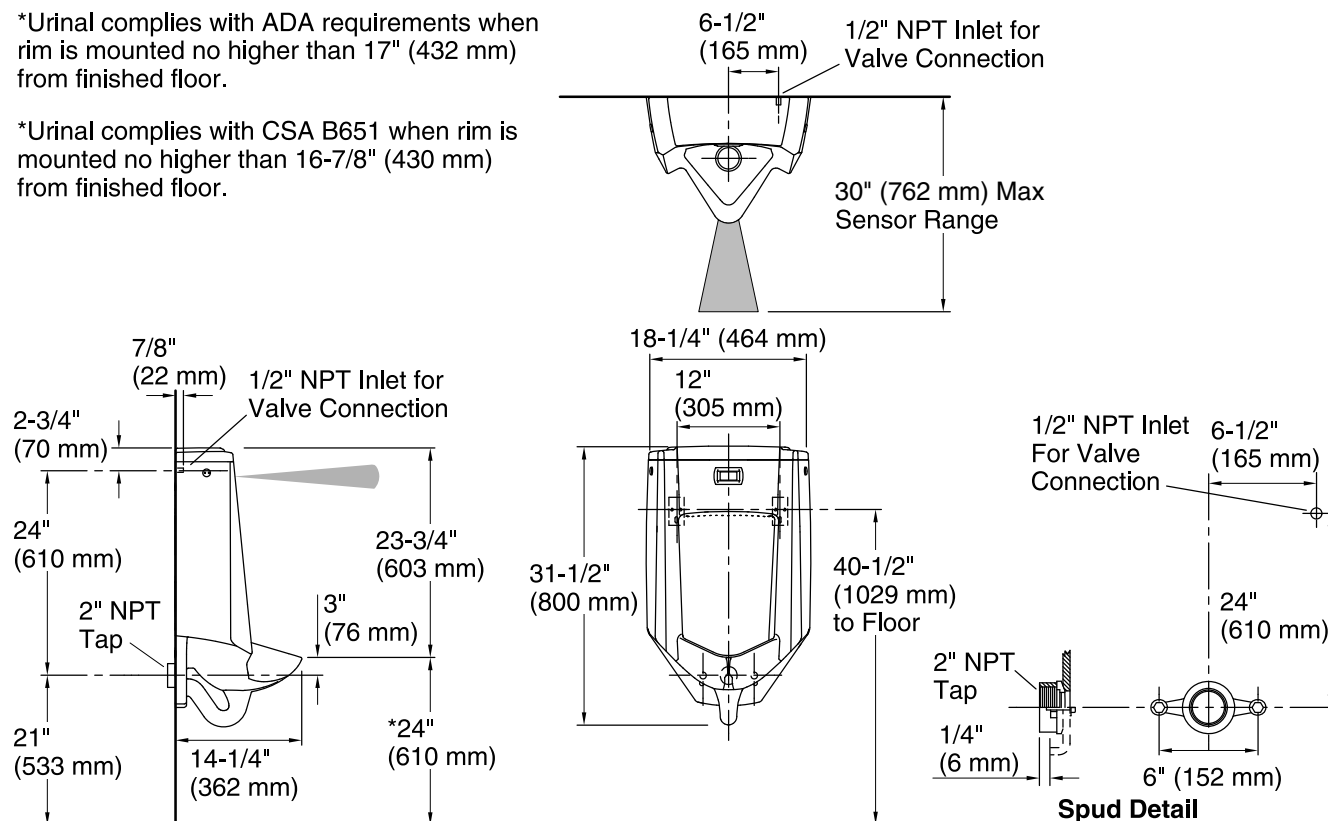
THE BOLD LOOK  
 OF **KOHLER®**



**KOHLER**<sup>®</sup>**Bardon™**  
Touchless Urinal  
**K-2590**

\*Urinal complies with ADA requirements when rim is mounted no higher than 17" (432 mm) from finished floor.

\*Urinal complies with CSA B651 when rim is mounted no higher than 16-7/8" (430 mm) from finished floor.

**Technical Information**

All product dimensions are nominal.

Flush outlet                      Washout

technology:

Spud size:                      1/2", Inlet, Rear

Max. Water per Flush: 0.5 gal (1.9 L)

**Pressure and Supply Requirements**

Fixture pressure min    25 psi (172.4 kPa)  
(static):

Fixture pressure max    80 psi (551.6 kPa)  
(static):

Power source:              AA 1.5 V, included

**Notes**

Install this product according to the installation guide.

ADA, OBC, CSA B651 compliant when installed to the specific requirements of these regulations.

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to [www.kohler.com](http://www.kohler.com).

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THE BOLD LOOK  
OF **KOHLER**<sup>®</sup>

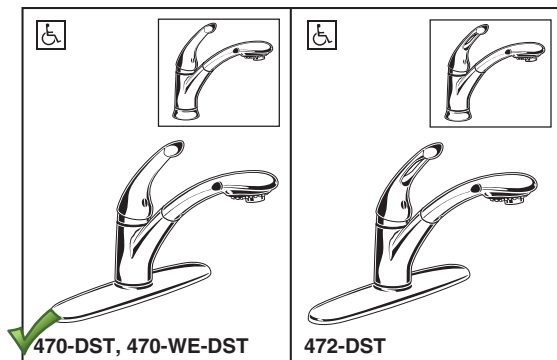


D470ARDST

DELTA

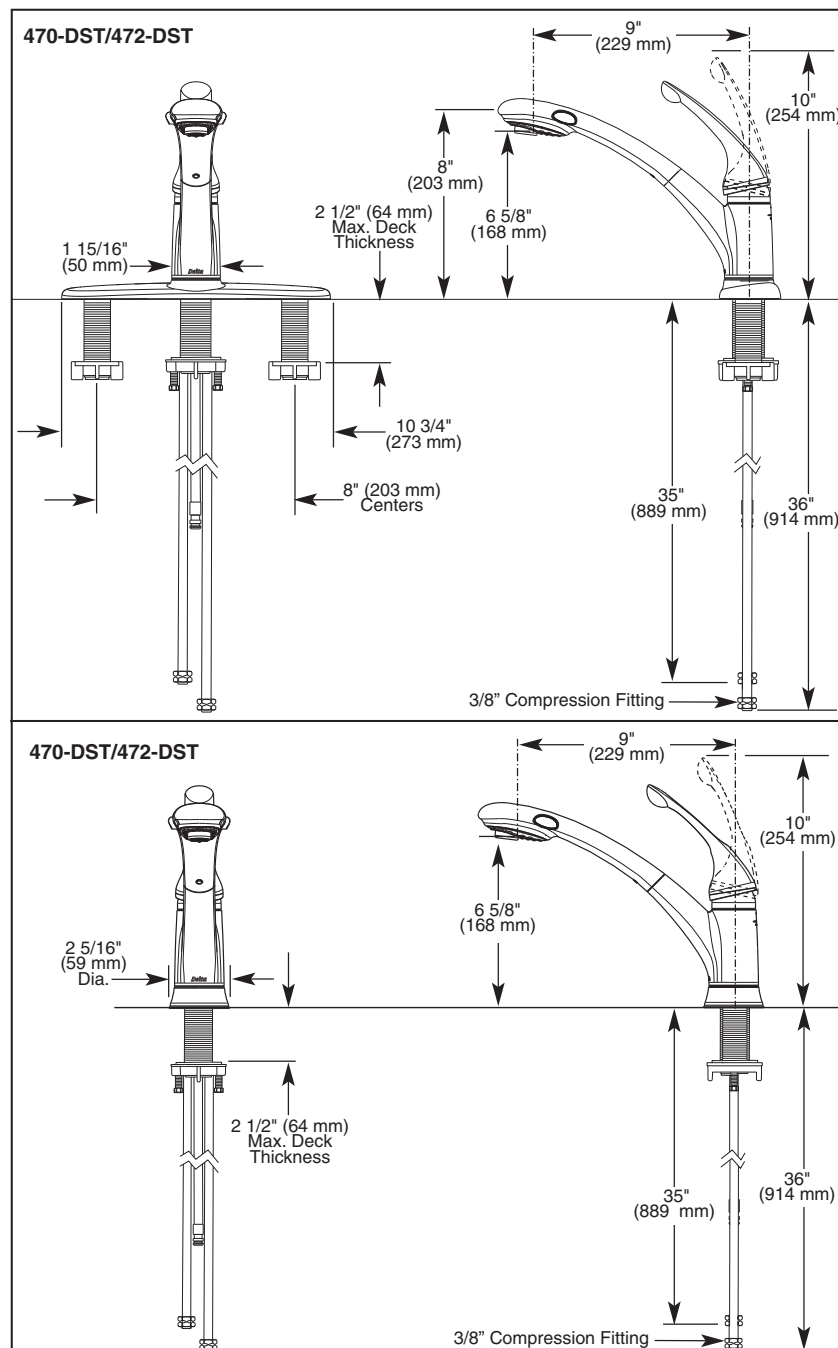
**PL15: Workroom Faucet**

CCY LEAD LAW COMPLIANT 1.8 1 HANDLE KITCHEN PULLOUT  
SPRAY FAUCET STAINLESS STEEL



Submitted Model No.:

Specific Features: AR- ARCTIC STAINLESS



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. See current full-line price book or [www.specselect.com](http://www.specselect.com) for finish options and product availability.

DSP-K-470-DST Rev. C



## KITCHEN FAUCETS

- Signature® Pull-Out Series
- Single Handle Deck Mount
- Single or 3 Hole Sink Applications

### STANDARD SPECIFICATIONS:

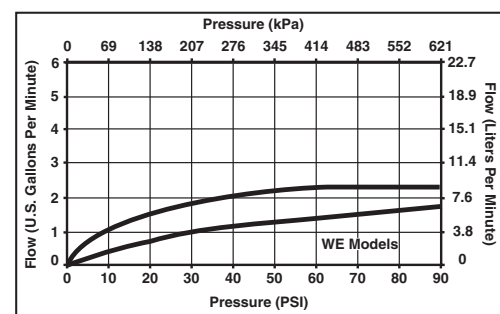
- Single handle kitchen faucets for exposed mounting on single and three hole sinks.
- Centermount or 8" (203 mm) centers with optional included 10 3/4" (273 mm) long escutcheon.
- 8" (203 mm) high, 9" (229 mm) long spout [includes 6 1/4" (159 mm) long pull-out spray] nestled in all metal hub assembly, swings 120°.
- Spout is connected to valve body with a 53" (1346 mm) long hose that extends to 34" (864 mm) usable length.
- Pull-out spout operates in an aerated or spray mode via an easy side-to-side push lever.
- Lever or loop handle shall return to neutral position when faucet is turned off.
- Control mechanism shall be the diamond coated ceramic cartridge.
- Red/blue graphics on handle button to indicate hot/cold temperature.
- Touch-Clean® sprayhead.
- 3/8" O.D. straight, staggered pex supply tubes – 35" (889 mm) and 36" (914 mm) long.
- Standard 3/8" (10 mm) compression gasket fittings.
- Integral double check valves in spout.

### WARRANTY

- Lifetime Faucet and Finish Limited Warranty to the original consumer purchaser to be free from defects in material and workmanship.
- 5 Year Limited Warranty for usage in all industrial, commercial and business applications.

### COMPLIES WITH:

- ASME A112.18.1 / CSA B125.1
- Indicates compliance to ICC/ANSI A117.1



55 E. 111th Street, Indianapolis, Indiana 46280  
395 Matheson Blvd. E., Mississauga, ON L4Z 2H2  
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ELRADQ221965PD ELKAY

**PL16: Workroom, Dog Wash, Bike Room Sink**  
ELKAY 22X19X6.5 TOP MOUNT SINK

Elkay Lustertone Stainless Steel 22" x 19-1/2" x 6-1/2"  
 Single Bowl Top Mount Sink with Perfect Drain  
**Model(s) LRADQ221965PD**
**PRODUCT SPECIFICATIONS**

Elkay Lustertone Stainless Steel 22" x 19-1/2" x 6-1/2", Single Bowl Top Mount Sink with Perfect Drain. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustertone finish, Rear Center drain placement, and Full spray sides and bottom.

<b>Installation Type:</b>	Top Mount
<b>Material:</b>	304 Stainless Steel
<b>Special Features:</b>	Perfect Drain, Quick-Clip Mounting System
<b>Finish:</b>	Lustertone
<b>Gauge:</b>	18
<b>Sound Deadening:</b>	Full spray sides and bottom
<b>Number of Bowls:</b>	1
<b>Sink Dimensions:</b>	22" x 19-1/2" x 6-1/2"
<b>Bowl 1 Dimensions:</b>	18" x 14" x 6-3/8"
<b>Drain Size:</b>	3-3/8" (86mm)
<b>Drain Location:</b>	Rear Center
<b>Minimum Cabinet Size:</b>	27"
<b>Mounting Hardware:</b>	Included for 3/4" (19mm) countertop
<b>Cutout Template #:</b>	<a href="#">1000001255</a>

Template is available for download at [elkay.com](#)

**Cutout Dimensions for Top Mount Installation:**

21-3/8" x 18-7/8" (543mm x 479mm) with 1-1/2" (38mm) corner radius

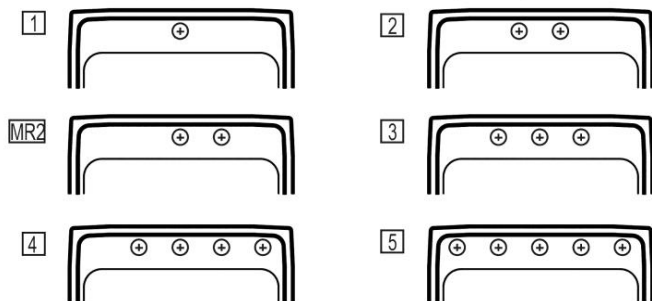


This sink is compliant to ADA and ANSI/ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

**Perfect Drain:** Seamlessly welded stainless steel collar eliminates the gap between a traditional drain and the sink for a sanitary and gap free installation. An InSinkErator® garbage disposer can be installed on either sink bowl for user convenience. **Patent Pending**

**Hole Drilling Configurations:**

1-1/2" (38mm) Diameter Faucet Holes on 4" (102mm) Centers



PART: \_\_\_\_\_ QTY: \_\_\_\_\_

PROJECT: \_\_\_\_\_

CONTACT: \_\_\_\_\_

DATE: \_\_\_\_\_

NOTES: \_\_\_\_\_

APPROVAL: \_\_\_\_\_



**Included with Product:** One LKPD1 Perfect Drain and Strainer

AMERICAN PRIDE. A LIFETIME TRADITION. Like your family, the Elkay family has values and traditions that endure. For almost a century, Elkay has been a family-owned and operated company, providing thousands of jobs that support our families and communities.



Sinks are listed by IAPMO® as meeting the applicable requirements of the Uniform Plumbing Code®, International Plumbing Code®, and National Plumbing Code of Canada.

**Product Compliance:** ADA & ICC A117.1  
 ASME A112.19.3/CSA B45.4  
 BUY AMERICAN ACT  
 Accessory: ASME A112.18.2/CSA B125.2

[Clean and Care Manual \(PDF\)](#)

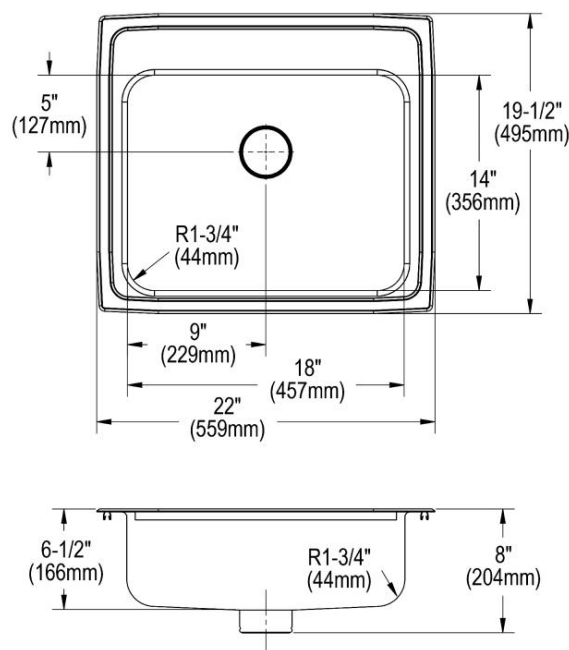
[Installation Instructions \(PDF\) - 74180271](#)

[Installation Instructions \(PDF\) - 74180289 Disposer](#)

[Installation Instructions \(PDF\) - 74180340-USA Drain](#)

[Limited Lifetime Warranty \(PDF\)](#)

**Similar models are available with:** U Channel mounting system



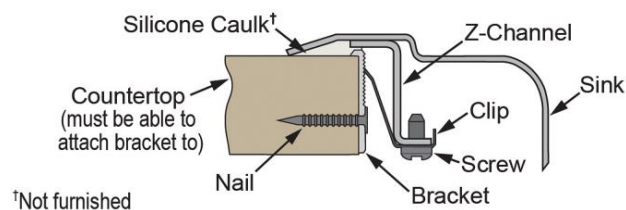
In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit [elkay.com](#) for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

# ELKAY<sup>®</sup>

## SPECIFICATIONS

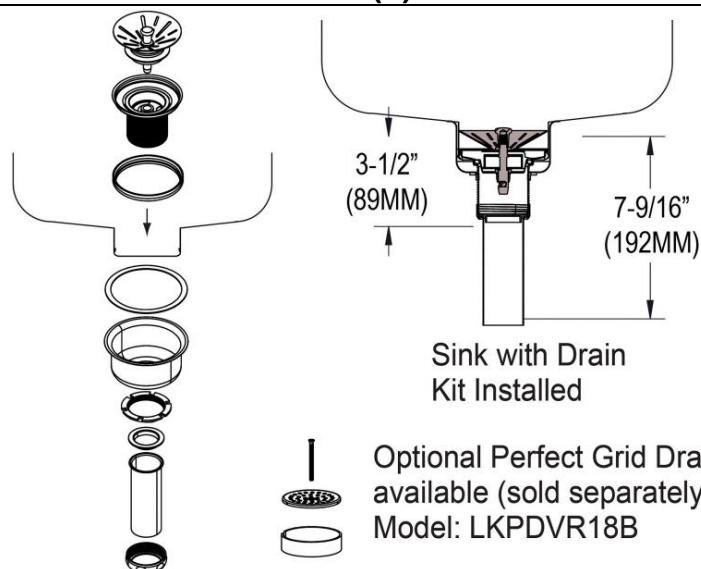
### Elkay Lustertone Stainless Steel 22" x 19-1/2" x 6-1/2" Single Bowl Top Mount Sink with Perfect Drain Model(s) LRADQ221965PD

#### Installation Profile:



#### OPTIONAL ACCESSORIES

<b>Cutting Board:</b>	CBS1418
<b>Drain:</b>	LKPDVR18B, LKPDAD18B, LKDS99
<b>Faucet:</b>	LKGT1041, LKGT2041
<b>Rinsing Basket:</b>	LKWRB1418SS, LKWERBSS
<b>Sinkmate:</b>	LKSM17, LKSMHOOK, LKSMSPONGE, LKSMHSL
<b>Soap Dispenser:</b>	LKGT1054



in sink erator<sup>®</sup>

Elkay<sup>®</sup> Perfect Drain<sup>™</sup> sinks are designed and approved for compatible disposers manufactured by InSinkEerator<sup>®</sup> utilizing the Quick Lock<sup>®</sup> mounting configuration. Use of non-approved disposers may void Elkay warranty.

InSinkEerator, Quick Lock and the mounting collar configuration are trademarks of Emerson Electric Co.



In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit [elkay.com](http://elkay.com) for the most current version of Elkay product specification sheets. 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.



PFMB3624S

PROFLO

**PL17: Janitor Closet Mop Sink**  
36X24X10 MOP BASIN W/ SS DRAIN

**PFMB Series****Mop Basins****Product Features**

- Molded high density composite basin
- Stainless Steel drain body
- Stainless steel dome strainer/lint basket
- 36" model includes integrally molded, self-draining mop shelf

**Model Numbers**

✓ PFMB2424S	Mop Service Basin 24" X 24"
✓ PFMB3624S	Mop Service Basin 24" X 36"
PFMB2424	Mop Service Basin 24" X 24" with integral molded drain
PFBG24S	24" Stainless Steel Bumper Guard
PFBG36S	36" Stainless Steel Bumper Guard
PFBG24V	24" Vinyl Bumper Guard
PFBG36V	36" Vinyl Bumper Guard
PFWG24S	24" Stainless Steel Wall Guard Set
PFWG36S	36" Stainless Steel Wall Guard Set

**PFMB2424****PFMB3624S Shown with PFWG36S****Available Parts**

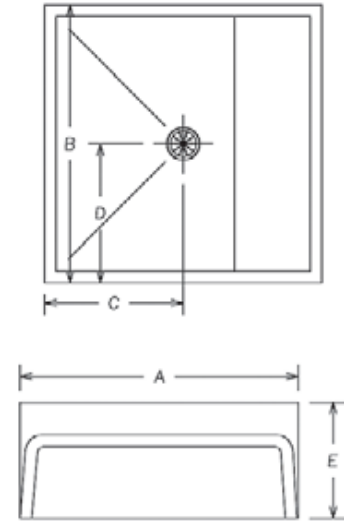
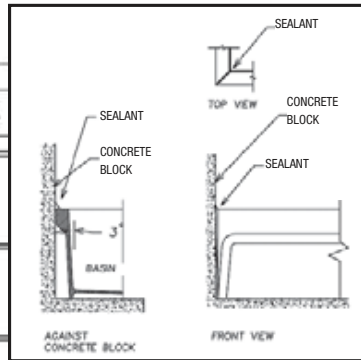
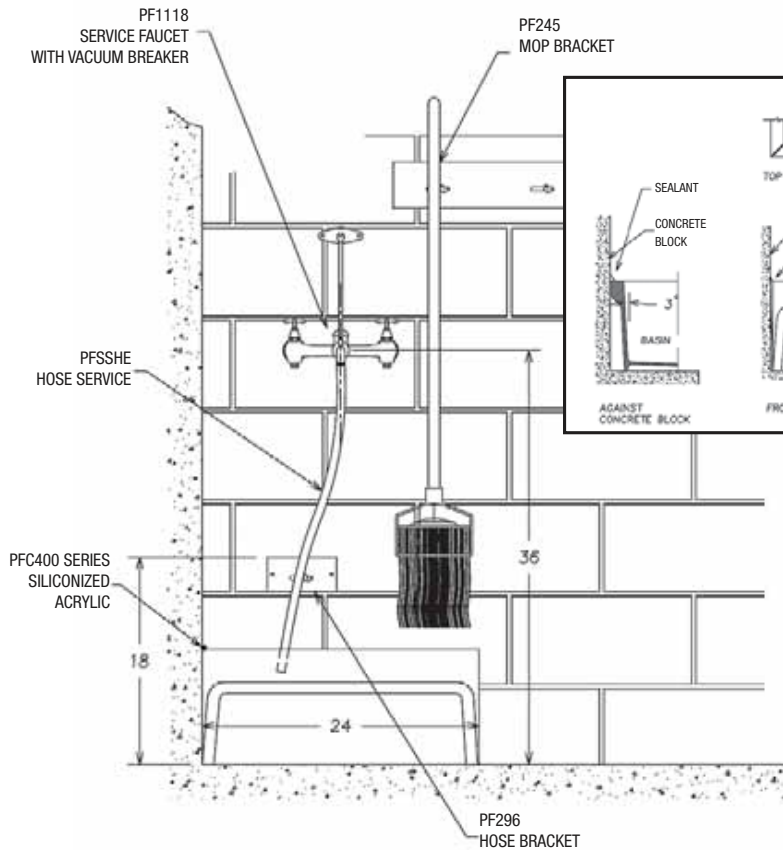
Part #	Description
PFMBDRN	3" Strainer and gasket for PVC drain
PFMBSSDRN	3" Strainer and gasket for SS drain
PF245	Mop Hanger
PFSSHE	Service Hose
PF296	Service Hose Bracket
PFMBQD	Pipe reducer for Stainless Steel Drain (3" to 2")
Fiat QIC3SN	Quick Drain Connector for 3" cast iron soil pipe (integral drains)
Fiat QIC32	Quick Drain Connector for 2" pipe (integral drains)
Fiat QDC-3XH	Gasket for extra heavy cast iron soil pipe and Schedule 40 steel pipe (SS Drains)
Fiat QDC-3SN	Gasket for hubless cast iron pipe and service weight cast iron soil pipe (SS Drains)

**Warranty and Codes**

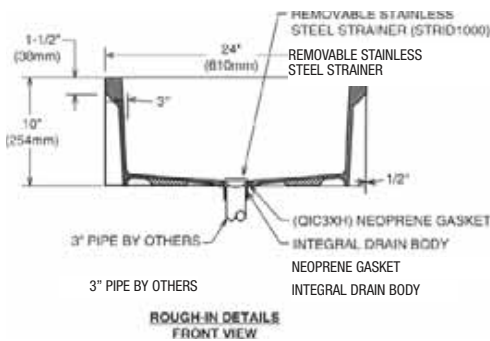
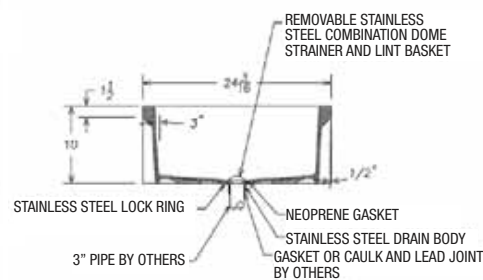
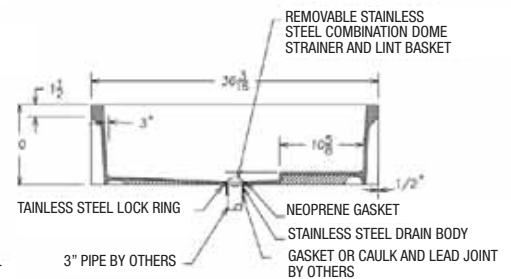
These products come complete with installation, operating, care and maintenance instructions. All PROFLO basins carry a 1- year limited warranty. These products meet or exceed ANSI Z124.2. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.





**PFMB Series****Mop Basins****Suggested Installation**

MODEL NO.	A	B	C	D	E
<b>PFMB2424</b>	24"	24"	12"	12"	10"
<b>PFMB2424S</b>	24-3/16"	24-3/16"	12"	12"	10"
<b>PFMB3624S</b>	36-3/16"	24-3/16"	18"	12"	10"

**PFMB2424****Rough-In Details Front View****PFMB2424S****PFMB3624S**



ELKB940C

ELKAY

**PL18: Janitor Closet Faucet**

2 HANDLE WALL MOUNT SERVICE SINK FAUCET 2.2 GALLONS PER  
MINUTE

# ELKAY<sup>®</sup>

## SPECIFICATIONS

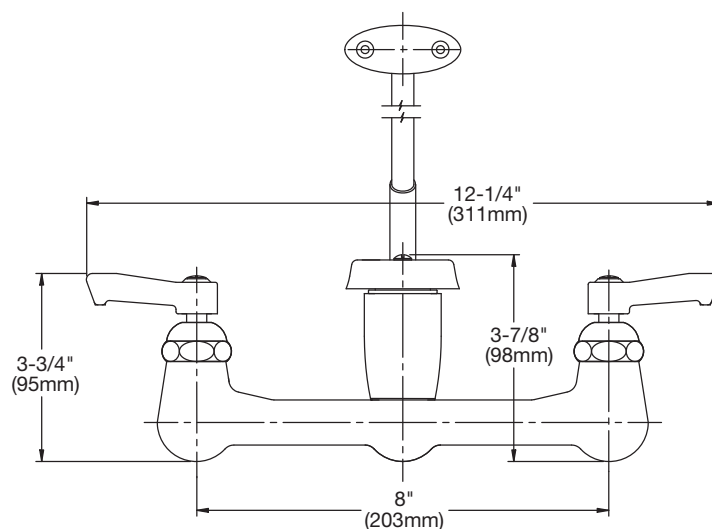
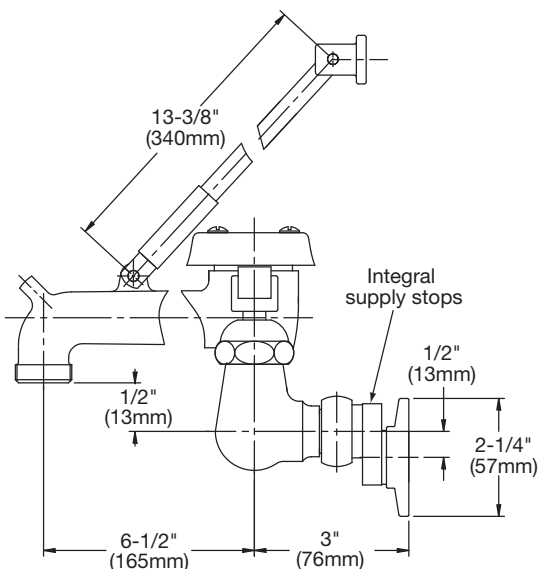
### Wall Mount 8" (203mm) Center Bucket Hook Rough 7" (178mm) Commercial Faucet ✓ Model LKB940C

#### GENERAL FEATURES

- Quarter turn ceramic disc cartridge
- Solid brass construction
- Rough chrome finish
- Integral supply stops
- Replacement cartridge A70001 for cold
- Replacement cartridge A70002 for hot
- 1/2" (13mm) NPT female inlets

#### CODES/STANDARDS

- ASME/ANSI A112.18.1
- NSF/ANSI 61
- ADA
- UPC/CUPC
- IAPM Listed
- ASSE-1001



SEE OTHER PAGE FOR REPLACEMENT PARTS INFORMATION

#### ELKAY LIMITED FIVE YEAR FAUCET WARRANTY ON COMMERCIAL FAUCETS

##### Limited Five Year Functional and Finish Warranty

Elkay warrants to the original consumer purchaser that the Elkay faucet will be free from defects in material and workmanship for Five Years from the original installation date. Elkay will, at its option, supply replacement parts (or if no longer available a comparable product) if the faucet fails due to a defect in material or workmanship. This warranty does not apply in the event of produce surface damage caused by abuse, misuse or improper care and maintenance. This warranty excludes damage caused by harsh or abrasive cleaners and/or materials. This warranty includes all industrial, commercial and business use. Product replacement does not include transportation cost or labor installation cost. Elkay reserves the right to examine product in question and its installation prior to replacement.

##### OTHER WARRANTY CONDITIONS ON FAUCETS

Our warranty does not cover product failure or damage caused by abusive treatment, misuse, environmental factors, improper care and cleaning, 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  
Attention: Consumer Services  
2222 Camden Court  
Oak Brook, IL 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**

elkayusa.com

2222 Camden Court  
Oak Brook, IL 60523

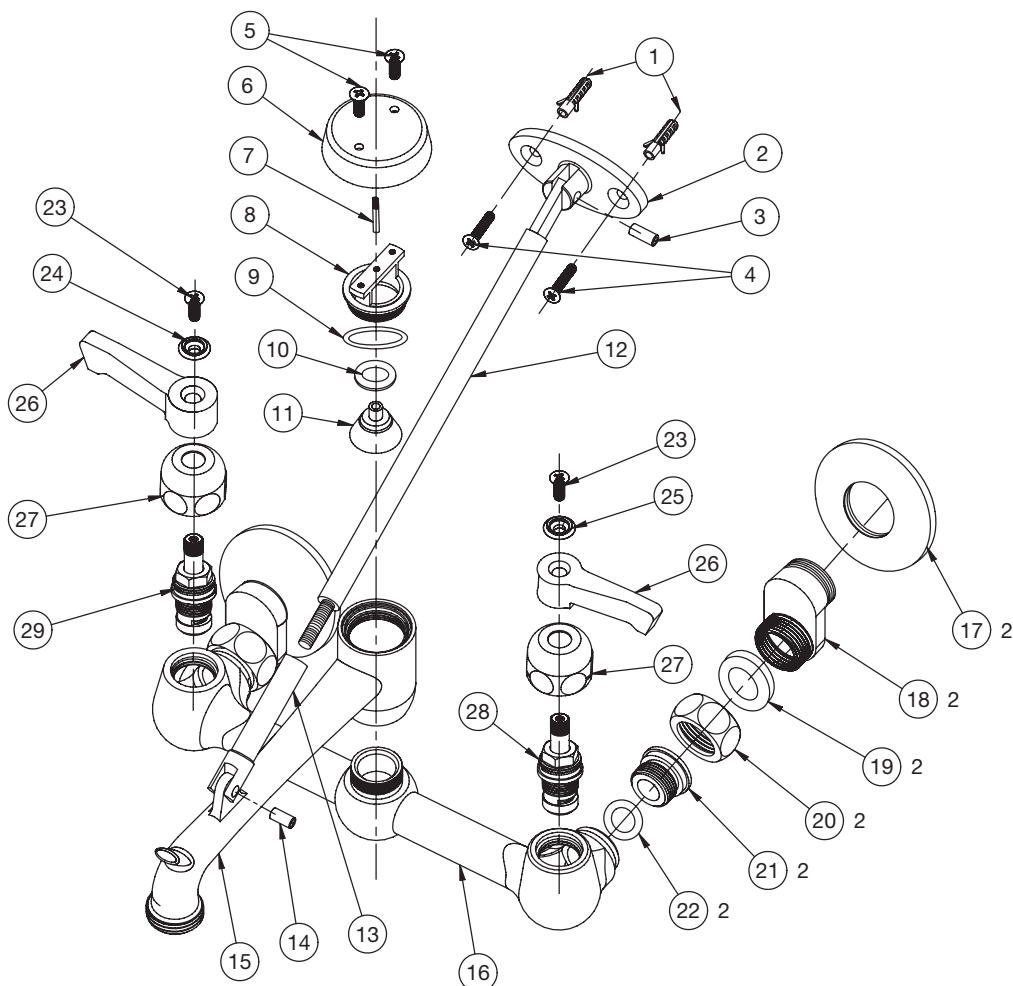
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(Rev. 1/10) 17-82A

**Wall Mount 8" (203mm) Center Bucket Hook  
Rough 7" (178mm) Commercial Faucet  
Model LKB940C**

**ELKAY®  
SPECIFICATIONS**

**Replacement Parts**



Item No.	Description
1	Plug
2	Brace - Stator
3	Pin - Long
4	Screw - Phil Oval HD
5	Screw - Phil Oval HD
6	Handle
7	Leader
8	Bonnet
9	"O" Ring
10	Washer
11	Seat
12	Brace
13	Adapter
14	Pin - Short
15	Spout

Item No.	Description
16	Body
17	Cap - Wall
18	Adapter "S" w/ Integral Supply Stops
19	Washer
20	Nut
21	Adapter
22	"O" Ring
23	Screw - Phil Oval HD
24	Ring - Red Mark
25	Ring - Blue Mark
26	Handle
27	Bonnet
28	Right Handle Cartridge Assembly - A70001
29	Left Handle Cartridge Assembly - A70002

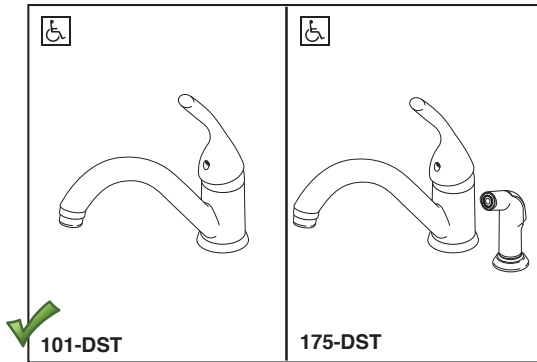


D101DST

DELTA

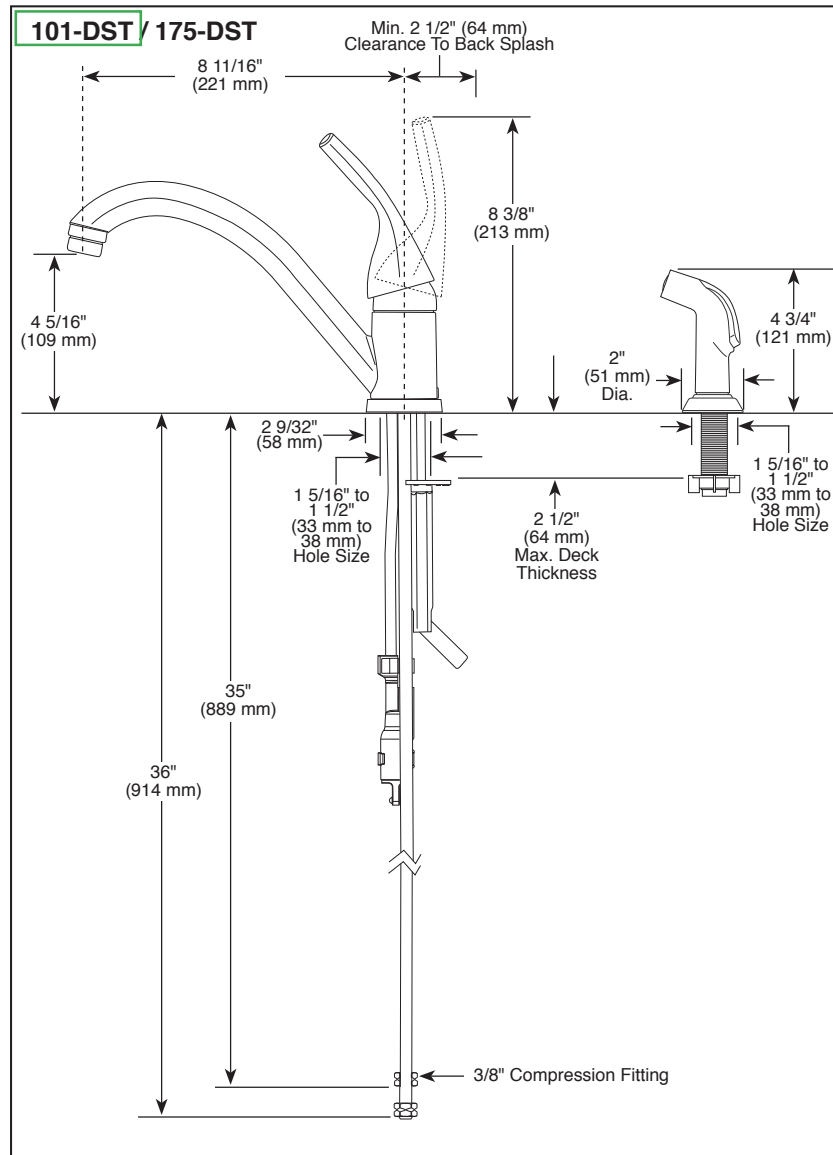
**PL20: Dog Wash & Bike Room Faucet**

CCY LEAD LAW COMPLIANT 1.8 1 HANDLE KIT FAUCET LESS  
SPRAY POLISHED CHROME



Submitted Model No.: \_\_\_\_\_

Specific Features: \_\_\_\_\_



## DELTA<sup>®</sup>

### KITCHEN FAUCETS

- Single Handle Deck Mount
- 1 and 2 Hole Sink Applications
- DIAMOND Seal<sup>®</sup> Technology
- Integrated Supply Tubes

#### STANDARD SPECIFICATIONS:

- 8 11/16" (221 mm) long spout swings 180°.
- Lever handle shall return to neutral position when valve is turned off.
- Control mechanism shall be the diamond coated ceramic cartridge.
- Model 175 series with spray attachment has anti-siphon device as integral part of faucet.
- Vegetable sprayer hose installation on model 175 series.
- 3/8" O.D. straight, staggered pex supply tubes - 35" (889 mm) and 36" (914 mm) long.
- Standard 3/8" (10 mm) compression gasket fittings.

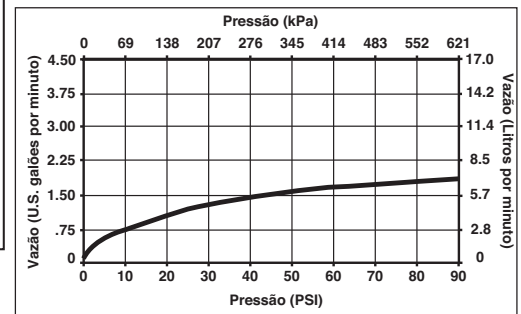
#### WARRANTY

- Lifetime limited warranty on parts (other than electronic parts and batteries) and finishes: or, for commercial users, for 5 years from date of purchase.
- 5 year limited warranty on electronic parts (other than batteries); or, for commercial users, for 1 year from the date of purchase. No warranty is provided on batteries.



#### COMPLIES WITH:

- ASME A112.18.1 / CSA B125.1
- ASME A112.18.6
- Indicates compliance to ICC/ANSI A117.1
- Verified compliant with .25% weighted average Pb content regulations.



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. See current full-line price book or [www.deltafaucet.com](http://www.deltafaucet.com) for finish options and product availability.

DSP-K-101-DST Rev. D

**DELTA<sup>®</sup>**  
FAUCET COMPANY

55 E. 111th Street, Indianapolis, Indiana 46280  
350 South Edgeware Road, St. Thomas, ON N5P 4L1  
© 2013 Masco Corporation of Indiana



AENL36202172000 AO SMITH

**WH3:**

\*36G ELEC 4.5KW 240V 1PH WHTR LB



## Residential Electric Water Heaters

# ProMax®



ENL40 4.5KW 208V 1PH

### ENHANCED HEATING ELEMENTS

- Dual 4500 watt elements for fast recovery and reliable operation.\*
- Incoloy stainless steel lower element lasts longer than a standard copper element.

### DYNACLEAN™ DIFFUSER DIP TUBE

- Helps reduce lime and sediment buildup and maximizes hot water output. Made from long-lasting PEX cross-linked polymer.

### HIGH ENERGY FACTORS

- Eco-friendly non-CFC foam insulation, heat traps and other features combine to yield a higher Energy Factor that maximizes savings on operating costs.

### COREGARD™ ANODE ROD

- Our anode rods have a stainless steel core that extends the life of the anode rod allowing superior tank protection far longer than standard anode rods.

### BLUE DIAMOND® GLASS COATING

- Provides superior corrosion resistance compared to industry standard glass lining.

### ENHANCED-FLOW BRASS DRAIN VALVE

- Our residential water heaters have a solid brass, tamper resistant, enhanced-flow, ball type, drain valve.
- Uses a standard female hose fitting that allows for fast and easy draining during maintenance.
- Designed for easy operation, this valve includes an integral screwdriver slot that features a ¼ turn (open/close) radius, which not only permits full straight-through water flow but also a quick and positive shut off.

### CODE COMPLIANCE

- Meets UBC, CEC and HUD National Codes.
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1.
- Complies with the Federal Energy Conservation Standards effective April 16, 2015, in accordance with the Energy Policy and Conservation Act (EPCA), as amended.

### APPROVED FOR MANUFACTURED HOUSING

- All residential electric water heaters are compliant with HUD Standards for mobile homes/manufactured housing.

### CERTIFIED TO UL 174 FOR HOUSEHOLD ELECTRIC WATER HEATERS

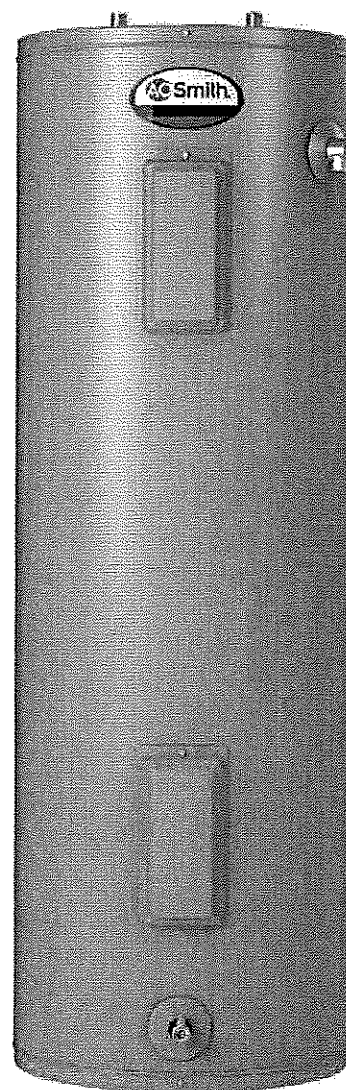
### CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

### DESIGN-LISTED BY UNDERWRITERS LABORATORIES

- Certified at 300 PSI test pressure and 150 PSI working pressure.
- Listed according to UL 174 standards governing storage tank-type electric water heaters.

### 6-YEAR LIMITED TANK AND PARTS WARRANTY

- For complete information, consult written warranty or go to [hotwater.com](http://hotwater.com).



\*Model ENL-20 has a single element.





## Residential Electric Water Heaters

Model Number	Gallon Capacity	First Hour Rating Gallon	Energy Factor	Recovery @ 90°F Rise Gallon Per Hour	Element Wattage 240V		Dimensions in Inches			Approx. Shipping Weight (lbs)
					Standard	Maximum	A	B	C	
Tall Models										
ENT-30†	30	47	0.95	21	4500	6000	46-1/2	39-1/2	19	95
ENT-40†	40	51	0.95	21	4500	6000	60-1/4	53-1/4	20	118
ENTB-50*	50	70	0.95	21	4500	6000	60-1/4	51-1/4	21	131
ENT-50†	50	71	0.95	21	4500	6000	60-1/2	51-1/4	22	134
ENT-55†	55	76	0.94	21	4500	6000	56-1/2	48-1/2	24	145
Short Models										
ENSB-30*	30	48	0.95	21	4500	6000	39	30-1/2	20	95
ENS-30†	30	49	0.95	21	4500	6000	39-3/4	30-1/2	22	94
ENS-40†	40	55	0.95	21	4500	6000	50	40-3/4	22	109
ENS-50†	50	62	0.95	21	4500	6000	49-3/4	40-3/8	24	161
Lowboy Top Connect Models										
ENL-20	19.5	N/A	N/A	21	4500	6000	30	21-1/4	20	65
ENLB-30*	28	40	0.95	21	4500	6000	30	21-3/4	22	96
ENL-30†	28	43	0.95	21	4500	6000	31-1/4	21-3/4	24	115
ENLB-40*	38	46	0.95	21	4500	6000	31-3/4	24	24	118
ENL-40†+	38	44	0.95	21	4500	6000	33-1/2	24	26	118

3/4" water connections on 8" center.

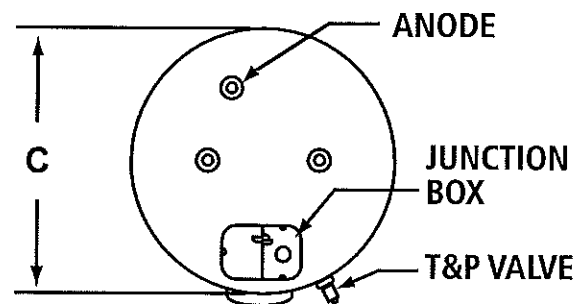
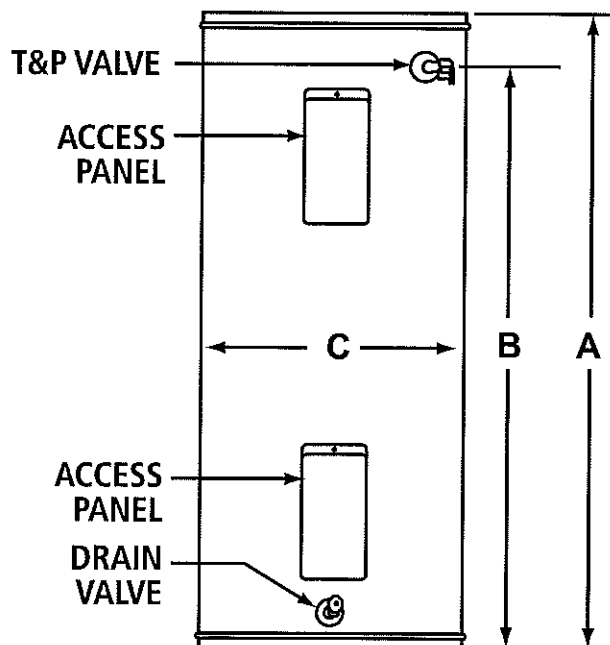
\*Models ship with supplied insulation blanket.

†For 10-year tank and 6-year parts warranty, change "E" to "P" in the model number (example: ENT-30 becomes PNT-30).

+ Top T&P option not available on this model.

ENL-20 is a single element configuration only.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



For technical information call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.



# INSTANT-FLOW® MICRO - LOW FLOW

**APPLICATION:** commercial, industrial, residential, public lavatories, kitchen/bar sink

## PRODUCT FEATURES

- Uses a digital microprocessor for temperature control  
Ultra quick response times for temperature variations - 120 times per second. Microprocessor use is the most energy efficient means of heating water
- Unlimited hot water
- Ideal for sensor /hands-free faucets with the 104°F factory preset setting; no mixing valve needed
- Saves water and energy - 99% energy efficient
- Meet all CAL GREEN low flow requirements
- Vandal resistant rugged cast aluminum housing
- Space saving compact size:  
6-1/4" (H) x 9-5/8" x 2-3/4"
- Meets applicable building codes including ADA, UL, IAPMO, UPC, CSA.
- Environmentally friendly
- Made in the U.S.A.

Chronomite Instant-Flow® Micro - Low Flow models are manufactured to provide reliable point-of-use hot water. There is no pressure and temperature relief valve needed (unless required by code), saving time and money on installation.

**Housing** is fabricated from rugged cast aluminum alloy.

**Element assembly** is fabricated from Celcon plastic.

**Heating coils** are nichrome.

**Faucet flow controls** are supplied with each unit. 3/8" compression fittings are supplied (standard). Optional 1/2" male NPT water connections available.



Member of  
U.S. Green  
Building Council

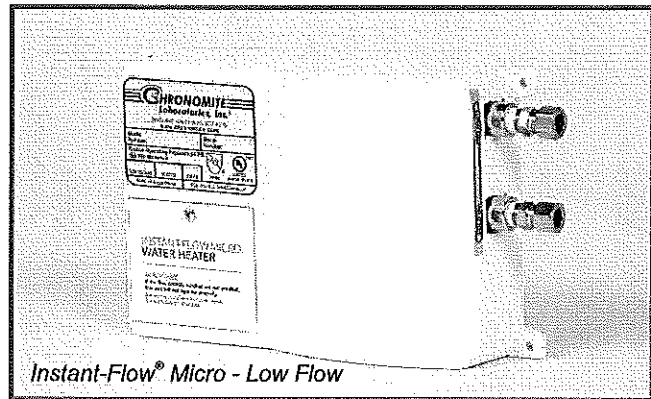


Water  
Conserving  
Product



Made in  
the USA

For the model being selected, please place the corresponding amps and volts values in the Guide Specifications to the right.



Instant-Flow® Micro - Low Flow

## GUIDE SPECIFICATION

Tankless Water Heater shall be a Chronomite Laboratories Model

<b>M -</b> _____ <b>L /</b> _____	<b>OPTIONS</b>
x 100 WATTS      VOLTS	

with \_\_\_\_\_ Amps and \_\_\_\_\_ Volts

to heat to a preset temperature of:

- ☐ 104°F      ☐ 110°F (Meets ADA)      ☐ Other temperature settings available upon request (specify below)
- ☐ 120°F (Meets health code)

Unit shall be provided with Celcon waterways, and Nichrome heating coils.

Temperature controlled by microprocessor.

## OPTIONS

- ☐ PA 765 ABS Housing (P)
- ☐ Satin Finish Stainless Steel Housing (SS)
- ☐ High Polish Finish Stainless Steel (SSP)
- ☐ Pressure & Temp Relief Valve Assembly (TP)
- ☐ 1/2" Male NPT (NPT08)
- ☐ Disconnect Switch, Rotary 40A - Lockable Nema 4X (2095-1)

MODEL	AMPS	VOLTS	WATTS	ACTIVATION GPM	TEMP RISE @ 0.30 GPM	TEMP RISE @ 1.00 GPM	TEMP RISE @ 2.00 GPM
M-15L / 277	15	277	4150	0.35	35	28	-
M-20L / 120	20	120	2400	0.35	20	-	-
M-20L / 208	20	208	4160	0.35	36	28	-
M-20L / 240	20	240	4800	0.35	41	33	-
M-20L / 277	20	277	5540	0.35	47	38	-
M-30L / 120	30	120	3600	0.35	31	25	-
M-30L / 208	30	208	6240	0.35	53	43	21
M-30L / 240	30	240	7200	0.35	61	49	25
M-30L / 277	30	277	8320	0.35	71	57	28
M-40L / 208	40	208	8320	0.35	71	57	28
M-40L / 240	40	240	9600	0.35	82	66	33

Complies  
with  
Standards  
for:

LISTED TO:  
UL STD 499

CERTIFIED TO:  
CAN/CSA STD C22.2 NO. 88



LISTED  
ELECTRIC HEATING  
APPLIANCE  
214T

Intertek  
5001365

CALGreen

## CHRONOMITE LABORATORIES, INC.

17451 Hurley St. :: City of Industry, CA 91744  
Phone 800-447-4962 :: 626-937-4270  
Fax 626-937-4279 :: www.chronomite.com

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INTERNATIONAL



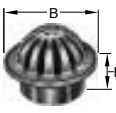

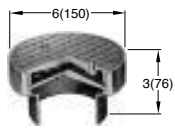
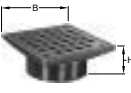

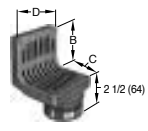
S2005L04A05NBP05 SMITH  
0

FD1:  
4 SV FLR DRN W/ 5 NB TOP & TP

<b>FIGURE NUMBER</b>	<b>2005</b>	<b>DRAWN BY:</b> PJ	<b>CHECKED BY:</b> TD	<b>APPROVED BY:</b> TD	<b>DATE:</b> 5-17-85	<b>SCALE:</b> NONE	<b>SIZE</b> A	<b>DRAWING NUMBER</b> S2005	<b>S</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <b>SMITH® JAY R. SMITH MFG. CO.®</b>  <small>MEMBER OF MORRIS GROUP INTERNATIONAL            POST OFFICE BOX 3237            MONTGOMERY, ALABAMA 36109-0237 (USA)            TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</small> </div> <div style="text-align: center;">   <small>MEMBER OF:</small> </div> <div style="text-align: right;"> <b>LOCATION</b>  <div style="border: 1px solid black; height: 40px; width: 100%;"></div> </div> </div>																																																														
									<h2 style="margin: 0;">FLOOR OR SHOWER DRAINS</h2> <h3 style="margin: 0;">WITH ADJUSTABLE STRAINER HEADS</h3>																																																															
									<p><b>FUNCTION:</b> General service floor drain for use in showers, toilets, kitchens and other finished areas where foot traffic is expected. The round top strainer head is used for all types of poured finished floors. The square top is particularly adaptable to floors that are finished in material of square or straight line pattern. Reversible flashing collar permits adjustment of the strainer to meet finished floor level.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div>																																																															
									<p style="text-align: center;">A (Pipe Size) = 02(50), 03(75), 04(100), 05(125) or 06(150)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p style="text-align: center;"><b>NO-HUB OUTLET</b></p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> Fig. 2005Y.....(A) ROUND TOP  <input type="checkbox"/> Fig. 2005Y.....(B) SQUARE TOP         </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Outlet Size</th> <th>Nickel Bronze Strainer Head</th> </tr> </thead> <tbody> <tr> <td>▲ 02(50)</td> <td>05(125) DIA or SQ</td> </tr> <tr> <td>▲ 03(75)</td> <td>06(150) DIA or SQ</td> </tr> <tr> <td>▲ 04(100)</td> <td>08(205) DIA or SQ</td> </tr> </tbody> </table> <p>▼ This dimension to internal stop of speedi-set gasket.            • Add 3/8"(10) to all min/max dimensions for round strainers.            * Collar is reversible to obtain extreme high and low strainer positions.            ** Not available for 5"(125) size strainer.            ** MIN 6 3/4"(170) hole required for core drilled application.</p> </div> <div style="width: 48%;"> <p style="text-align: center;"><b>SPEEDI-SET OUTLET</b></p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;"> <input checked="" type="checkbox"/> Fig. 2005L.....(A) ROUND TOP  <input type="checkbox"/> Fig. 2005L.....(B) SQUARE TOP         </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Strainer Size B</th> <th colspan="2">*Collar In High Position X</th> <th colspan="2">*Collar In Low Position XX</th> <th colspan="2">Free Area SQ IN (SQ CM)</th> </tr> <tr> <th>MIN</th> <th>MAX</th> <th>MIN</th> <th>MAX</th> <th>ROUND</th> <th>SQUARE</th> </tr> </thead> <tbody> <tr> <td>05 (125)</td> <td>1 1/4(32)</td> <td>2 1/4(57)</td> <td>3/4(19)</td> <td>1 5/8(41)</td> <td>7(45)</td> <td>6.5(42)</td> </tr> <tr> <td>06 (150)</td> <td>1 1/4(32)</td> <td>2 1/4(57)</td> <td>3/4(19)</td> <td>1 5/8(41)</td> <td>9(58)</td> <td>12.5(81)</td> </tr> <tr> <td>07 (180)</td> <td>1 1/4(32)</td> <td>2 1/4(57)</td> <td>7/8(22)</td> <td>1 7/8(48)</td> <td>14(90)</td> <td>11(71)</td> </tr> <tr> <td>08 (205)</td> <td>1 1/2(38)</td> <td>2 1/2(64)</td> <td>1(25)</td> <td>1 7/8(48)</td> <td>17(110)</td> <td>14(90)</td> </tr> <tr> <td>*09 (230)</td> <td>1 1/2(38)</td> <td>2 3/8(60)</td> <td>1(25)</td> <td>1 7/8(48)</td> <td>18(116)</td> <td>16(103)</td> </tr> <tr> <td>*10 (255)</td> <td>1 1/2(38)</td> <td>2 3/8(60)</td> <td>1(25)</td> <td>1 7/8(48)</td> <td>23(48)</td> <td>16(103)</td> </tr> </tbody> </table> </div> </div>										Outlet Size	Nickel Bronze Strainer Head	▲ 02(50)	05(125) DIA or SQ	▲ 03(75)	06(150) DIA or SQ	▲ 04(100)	08(205) DIA or SQ	Strainer Size B	*Collar In High Position X		*Collar In Low Position XX		Free Area SQ IN (SQ CM)		MIN	MAX	MIN	MAX	ROUND	SQUARE	05 (125)	1 1/4(32)	2 1/4(57)	3/4(19)	1 5/8(41)	7(45)	6.5(42)	06 (150)	1 1/4(32)	2 1/4(57)	3/4(19)	1 5/8(41)	9(58)	12.5(81)	07 (180)	1 1/4(32)	2 1/4(57)	7/8(22)	1 7/8(48)	14(90)	11(71)	08 (205)	1 1/2(38)	2 1/2(64)	1(25)	1 7/8(48)	17(110)	14(90)	*09 (230)	1 1/2(38)	2 3/8(60)	1(25)	1 7/8(48)
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<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>REGULARLY FURNISHED:</b>            Duco Cast Iron Body with Flashing Collar and Adjustable Strainer Head as Indicated by Suffix Letter Selected.</p> </div> <div style="width: 35%;"> <p><b>VARIATIONS:</b></p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;"> <input type="checkbox"/> Flapper Type Backwater Valve -V  <input type="checkbox"/> Hinged Grate -H  <input type="checkbox"/> L Speedi-Set Service Weight 2(50), 3(75) &amp; 4"(100) only  <input type="checkbox"/> LXH Speedi-Set Extra Heavy 2(50), 3(75) &amp; 4"(100) only  <input checked="" type="checkbox"/> Sediment Bucket -B  <input checked="" type="checkbox"/> Trap Primer Connection -P050 1/2" (13) &amp; -P075 3/4" (19)  <input type="checkbox"/> Vandal Proof Screws -U  <input type="checkbox"/> Wide Flanged Strainer (Specify Fig. DX2005)  <input type="checkbox"/> T Threaded Outlet  <input type="checkbox"/> Heelproof Grate -HP -AHP (Round) or -BHP (Square)  <input type="checkbox"/> Quad Close Trap Seal (Specify Fig. 2692)         </div> </div> </div> <div style="width: 30%;"> <p><b>OPTIONAL MATERIALS:</b></p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;"> <input type="checkbox"/> Bronze Body -BB  <input type="checkbox"/> Chrome Plated Strainer -CP  <input type="checkbox"/> Galvanized Cast Iron Body -G  <input checked="" type="checkbox"/> Nickel Bronze Strainer -NB  <input type="checkbox"/> Polished Bronze Strainer -PB  <input type="checkbox"/> All Stainless Steel (Specify Fig. 9700)  <input type="checkbox"/> Stainless Steel Strainers -SS [Available in 05(125) &amp; 06(150) sizes only]         </div> </div> </div> </div>																																																																								
<p style="text-align: right;"><b>SEE PM0457 FOR OPTIONAL STRAINER HEADS.</b></p>																																																																								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;"><b>S</b></td> <td style="width: 10%; text-align: center;">11-3-16</td> <td style="width: 30%; text-align: center;"><b>Revised Optional Materials</b></td> <td style="width: 10%; text-align: center;"><b>TBW</b></td> <td style="width: 10%; text-align: center;"><b>CL</b></td> <td style="width: 10%; text-align: center;"><b>WEIGHT POUNDS</b></td> <td style="width: 10%; text-align: center;"><b>VOLUME CUBIC FEET</b></td> <td style="width: 10%; text-align: center;"><b>FIGURE NUMBER</b></td> </tr> <tr> <td style="text-align: center;"><b>R</b></td> <td style="text-align: center;">6-10-15</td> <td style="text-align: center;"><b>Revised Variations</b></td> <td style="text-align: center;"><b>TBW</b></td> <td style="text-align: center;"><b>CL</b></td> <td></td> <td></td> <td style="text-align: center;"><b>2005</b></td> </tr> <tr> <td style="text-align: center;"><b>Q</b></td> <td style="text-align: center;">11-18-11</td> <td style="text-align: center;"><b>Rev. Dwg., Var.</b></td> <td style="text-align: center;"><b>TBW</b></td> <td style="text-align: center;"><b>CR</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;"><b>P</b></td> <td style="text-align: center;">11-20-09</td> <td style="text-align: center;"><b>Revised Variations</b></td> <td style="text-align: center;"><b>RN</b></td> <td style="text-align: center;"><b>BW</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;"><b>REV.</b></td> <td style="text-align: center;"><b>DATE</b></td> <td style="text-align: center;"><b>DESCRIPTION</b></td> <td style="text-align: center;"><b>BY</b></td> <td style="text-align: center;"><b>CKD. BY</b></td> <td></td> <td></td> <td></td> </tr> </table>										<b>S</b>	11-3-16	<b>Revised Optional Materials</b>	<b>TBW</b>	<b>CL</b>	<b>WEIGHT POUNDS</b>	<b>VOLUME CUBIC FEET</b>	<b>FIGURE NUMBER</b>	<b>R</b>	6-10-15	<b>Revised Variations</b>	<b>TBW</b>	<b>CL</b>			<b>2005</b>	<b>Q</b>	11-18-11	<b>Rev. Dwg., Var.</b>	<b>TBW</b>	<b>CR</b>				<b>P</b>	11-20-09	<b>Revised Variations</b>	<b>RN</b>	<b>BW</b>				<b>REV.</b>	<b>DATE</b>	<b>DESCRIPTION</b>	<b>BY</b>	<b>CKD. BY</b>																										
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<b>H</b>	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p><b>SMITH® JAY R. SMITH MFG. CO.®</b>  MEMBER OF MORRIS GROUP INTERNATIONAL  POST OFFICE BOX 3237  MONTGOMERY, ALABAMA 36109-0237 (USA)  TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</p> </div> <div style="flex: 1; text-align: center;"> <p>MEMBER OF:</p> </div> <div style="flex: 1; text-align: center;"> <p>MEMBER OF:</p> </div> </div>					<b>LOCATION</b> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>																																																				
	OPTIONAL STRAINER HEADS																																																									
DRAWING NUMBER	<div style="display: flex; justify-content: space-between;"> <div>PM0457 SH 1 of 2</div> <div>SIZE <b>A</b></div> <div>SCALE <b>NONE</b></div> <div>DATE: <b>5-17-85</b></div> <div>APPROVED BY: <b>TD</b></div> <div>CHECKED BY: <b>TD</b></div> <div>DRAWN BY: <b>PJ</b></div> </div>																																																									
	ASSUME NO RESPONSIBILITY OR USE OF SUPERSEDED OR VOID DATA DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE																																																									
2010 SERIES OPTIONAL STRAINER HEADS	ROUND STRAINER					FLAPPER TYPE BACKWATER VALVE																																																				
	<p><b>MATERIALS:</b>  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB  Stainless Steel  Strainers -SS [Available in 05(125) &amp; 06(150) sizes only]</p> <p><b>VARIATIONS:</b>  *Hinged Grate (Specify Suffix -AH)  Sediment Bucket -B  Vandal Proof Screws -U</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th>B DIA</th><th>05 (125)</th><th>06 (150)</th><th>07 (180)</th><th>08 (205)</th><th>09 (230)</th><th>10 (255)</th></tr> <tr><td>H</td><td>2 (51)</td><td>2 (51)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td><td>2 1/2 (64)</td><td>2 3/4 (70)</td></tr> <tr><td>X MIN</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/2 (38)</td><td>1 1/2 (38)</td><td>1 1/2 (38)</td></tr> <tr><td>X MAX</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td><td>2 1/2 (64)</td><td>2 3/4 (70)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: A05NB  *Not available for 05" (125) size</p>					B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)	X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)	X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)	<p><b>FUNCTION:</b> Provides backwater protection at point where protection is needed.</p> <p><b>MATERIALS:</b>  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB</p> <p><b>VARIATIONS:</b>  *Hinged Grate (Specify Suffix -AH)  Vandal Proof Screws -U</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th>B DIA</th><th>05 (125)</th><th>06 (150)</th><th>07 (180)</th><th>08 (205)</th></tr> <tr><td>H</td><td>2 (51)</td><td>2 (51)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td></tr> <tr><td>X MIN</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/2 (38)</td></tr> <tr><td>X MAX</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: AV05NB  *Not available for 05" (125) size</p>					B DIA	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)
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SUFFIX -A					SUFFIX -AV																																																					
SQUARE STRAINER					STRAINER HEAD w/SQUARE HINGED COVER																																																					
<p><b>MATERIALS:</b>  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB</p> <p><b>VARIATIONS:</b>  Flapper Type Backwater Valve (Specify Suffix -BV) 05 (125), 06 (150), 07 (180) or 08" (205) sizes only  *Hinged Grate (Specify Suffix -BH)  Sediment Bucket -B  Vandal Proof Screws -U</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th>B DIA</th><th>05 (125)</th><th>06 (150)</th><th>07 (180)</th><th>08 (205)</th><th>09 (230)</th><th>10 (255)</th></tr> <tr><td>H</td><td>2 (51)</td><td>2 (51)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td></tr> <tr><td>X MIN</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/2 (38)</td><td>1 1/2 (38)</td><td>1 1/2 (38)</td></tr> <tr><td>X MAX</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td><td>2 1/4 (57)</td><td>2 3/8 (60)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: B05NB  *Not available for 05" (125) size</p>					B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 1/4 (57)	X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)	X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 3/8 (60)	<p><b>MATERIALS:</b>  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB</p> <p><b>VARIATIONS:</b>  Gasketed Water Tight Cover -GC  Secured Cover -SC  Secondary Strainer Grate -SG</p> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: BSNB</p>																									
B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)																																																				
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SUFFIX -B					SUFFIX -BS																																																					
REINFORCED ROUND STRAINER					REINFORCED TRACTOR STRAINER																																																					
<p><b>FUNCTION:</b> Used in finished floors where light wheeled loads are anticipated.</p> <p><b>MATERIALS:</b>  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB</p> <p><b>VARIATIONS:</b>  Flapper Type Backwater Valve (Specify Suffix -CV)  Sediment Bucket -B  Vandal Proof Screws -U</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th>B DIA</th><th>05 (125)</th><th>06 (150)</th><th>08 (205)</th><th>10 (255)</th></tr> <tr><td>H</td><td>2 (51)</td><td>2 (51)</td><td>2 1/2 (64)</td><td>2 3/4 (70)</td></tr> <tr><td>MIN</td><td>1 1/4 (32)</td><td>1 1/4 (32)</td><td>1 1/2 (38)</td><td>1 7/8 (48)</td></tr> <tr><td>MAX</td><td>2 1/4 (57)</td><td>2 1/4 (57)</td><td>2 1/2 (64)</td><td>2 3/4 (70)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: C06NB</p>					B DIA	05 (125)	06 (150)	08 (205)	10 (255)	H	2 (51)	2 (51)	2 1/2 (64)	2 3/4 (70)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 7/8 (48)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 3/4 (70)	<p><b>FUNCTION:</b> Used in finished floors where medium weight wheeled loads are anticipated and loose set non-tilt tractor grate is desired.</p> <p><b>MATERIALS:</b>  Cast Iron -CI  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB</p> <p><b>VARIATIONS:</b>  Flapper Type Backwater Valve (Specify Suffix -DV or -EV)  Sediment Bucket -B  Vandal Proof Screws -U</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th>SUFFIX</th><th>B DIA</th><th>H</th><th colspan="2">X</th></tr> <tr><td>-D</td><td>07 (180)</td><td>3 1/4 (83)</td><td>2 5/8 (67)</td><td>3 1/2 (89)</td></tr> <tr><td>-E</td><td>09 (230)</td><td>3 1/2 (89)</td><td>2 3/4 (70)</td><td>3 1/2 (89)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: D09PB  E09PB</p>					SUFFIX	B DIA	H	X		-D	07 (180)	3 1/4 (83)	2 5/8 (67)	3 1/2 (89)	-E	09 (230)	3 1/2 (89)	2 3/4 (70)	3 1/2 (89)														
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SUFFIX -C					SUFFIX -D-E																																																					
TILE FLANGE					ADJUSTABLE STRAINER HEAD																																																					
<p><b>FUNCTION:</b> Provides integral flange set 5/32" (4) below rim to receive floor covering. Flange may have option of tapped holes for securing pan and gasket.</p> <p><b>MATERIALS:</b>  Chrome Plated -CP  Polished Bronze -PB  Nickel Bronze -NB</p> <p><b>VARIATIONS:</b>  Flapper Type Backwater Valve (Specify Suffix -FV)  Holes in Flange -SH  Sediment Bucket -B  Vandal Proof Screws -U</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th colspan="2">X</th></tr> <tr><td>MIN</td><td>1 1/4 (32)</td></tr> <tr><td>MAX</td><td>2 1/8 (54)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: F06NB</p>					X		MIN	1 1/4 (32)	MAX	2 1/8 (54)	<p><b>FUNCTION:</b> Used in a non-traffic area when a funnel type strainer head is required and space does not allow use of the 3500 series funnel. The extended rim allows use as an anti-flood and anti-splash drip pan.</p> <p><b>VARIATIONS:</b>  Flapper Type Backwater Valve (Specify Suffix -F37V or F38V)</p> <p><b>MATERIALS:</b>  Cast Iron -CI  Chrome Plated -CP  Galvanized Cast Iron -G  Polished Bronze -PB  Nickel Bronze -NB</p> <table border="1" style="width: 100%; font-size: 0.8em;"> <tr><th>SUFFIX</th><th>-F37</th><th>-F38</th></tr> <tr><td>B DIA</td><td>07 (180)</td><td>09 (230)</td></tr> <tr><td>H</td><td>3 1/4 (83)</td><td>3 1/2 (89)</td></tr> <tr><td>MIN</td><td>2 5/8 (67)</td><td>2 3/4 (70)</td></tr> <tr><td>X MAX</td><td>3 1/2 (89)</td><td>3 1/2 (89)</td></tr> </table> <p style="text-align: center;">Specify Type, Size &amp; Finish eg: F37NB F38CP</p>					SUFFIX	-F37	-F38	B DIA	07 (180)	09 (230)	H	3 1/4 (83)	3 1/2 (89)	MIN	2 5/8 (67)	2 3/4 (70)	X MAX	3 1/2 (89)	3 1/2 (89)																												
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H G F	11-3-16 10-4-01 8-24-99 6-11-99	Revised Suffix-A Revised Suffix-BS Revised Revised Tables	TBW RN TBW CMD	CL CL BS	FIGURE NUMBER																																																					
2010 SERIES OPTIONAL STRAINER HEADS 1 of 2																																																										
REV.	DATE	DESCRIPTION	BY	CKD. BY																																																						

NOTE: Dimensions shown in parentheses are in millimeters.

<div>FIGURE NUMBER</div> <div>2010 SERIES OPTIONAL STRAINER HEADS</div> <div>CHECKED BY: TD</div> <div>APPROVED BY: TD</div> <div>DATE: 5-17-85</div> <div>SCALE: NONE</div> <div>SIZE: A</div> <div>DRAWING NUMBER: PM0457 SH 2 of 2</div>	<div>SMITH® JAY R. SMITH MFG. CO.®</div> <div>MEMBER OF MORRIS GROUP INTERNATIONAL</div> <div>POST OFFICE BOX 3237</div> <div>MONTGOMERY, ALABAMA 36109-0237 (USA)</div> <div>TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</div> <div>CUSTOMER DRIVEN SINCE 1926</div> <div>ASPE</div> <div>PD</div> <div>MEMBER OF:</div>	<div>LOCATION</div>	<div>OPTIONAL STRAINER HEADS</div>									
			<div>LOW DOME STRAINER</div>		<div>SOLID HINGED COVER</div>		<div>SPANNER WRENCH COVER</div>					
			<div>FUNCTION: Used in gutters and recessed areas where excessive debris build-up is expected. Dome insures drainage even when partly covered.</div>		<div>FUNCTION: Used in areas where intermittent drain use is required. Solid cover prevents intrusion of chips, saw-dust, etc., which are swept up before cover is opened for washdown. The secondary strainer prevents debris from entering the waste line.</div>		<div>FUNCTION: Solid gas tight, vandal proof, threaded cover for areas where intermittent drain use is required.</div>					
			<div>  <div> <div>B</div> <div>H</div> </div> </div>		<div>  <div> <div>B</div> <div>H</div> </div> </div>		<div>  <div> <div>6 (150)</div> <div>3 (76)</div> </div> </div>					
			<div> <div>FUNCTION: Flapper Type Backwater Valve (Specify Suffix -GV)</div> <div>FUNCTION: Sediment Bucket -B</div> <div>FUNCTION: Vandal Proof Screws -U</div> </div>		<div> <div>MATERIALS:</div> <div>Chrome Plated -CP</div> <div>Polished Bronze -PB</div> <div>Nickel Bronze -NB</div> </div>		<div> <div>MATERIALS:</div> <div>Chrome Plated -CP</div> <div>Polished Bronze -PB</div> <div>Nickel Bronze -NB</div> </div>					
			<div> <div>B DIA</div> <div>05 (125)</div> <div>06 (150)</div> <div>08 (205)</div> </div>		<div> <div>B DIA</div> <div>05 (125)</div> <div>06 (150)</div> <div>07 (180)</div> <div>08 (205)</div> </div>		<div> <div>B DIA</div> <div>05 (125)</div> <div>06 (150)</div> <div>07 (180)</div> <div>08 (205)</div> </div>					
			<div> <div>H</div> <div>2 (51)</div> <div>2 (51)</div> <div>2 1/2 (64)</div> </div>		<div> <div>H</div> <div>2 (51)</div> <div>2 (51)</div> <div>2 1/4 (57)</div> <div>2 1/2 (64)</div> </div>		<div> <div>H</div> <div>2 (51)</div> <div>2 (51)</div> <div>2 1/4 (57)</div> <div>2 1/2 (64)</div> </div>					
			<div> <div>MIN</div> <div>1 1/4 (32)</div> <div>1 1/4 (32)</div> <div>1 1/2 (38)</div> </div>		<div> <div>MIN</div> <div>1 1/4 (32)</div> <div>1 1/4 (32)</div> <div>1 1/4 (32)</div> <div>1 1/2 (38)</div> </div>		<div> <div>MIN</div> <div>1 1/4 (32)</div> <div>1 1/4 (32)</div> <div>1 1/4 (32)</div> <div>1 1/2 (38)</div> </div>					
			<div> <div>MAX</div> <div>2 1/4 (57)</div> <div>2 1/4 (57)</div> <div>2 1/2 (64)</div> </div>		<div> <div>MAX</div> <div>2 1/4 (57)</div> <div>2 1/4 (57)</div> <div>2 1/4 (57)</div> <div>2 1/2 (64)</div> </div>		<div> <div>MAX</div> <div>2 1/4 (57)</div> <div>2 1/4 (57)</div> <div>2 1/4 (57)</div> <div>2 1/2 (64)</div> </div>					
			<div> <div>SUFFIX -G</div> <div>Specify Type, Size &amp; Finish eg: G08PB</div> </div>		<div> <div>SUFFIX -H</div> <div>Specify Type, Size &amp; Finish eg: H05CP</div> </div>		<div> <div>SUFFIX -J</div> <div>Specify Type, Size &amp; Finish eg: J06NB</div> </div>					
			<div> <div>REINFORCED SQUARE STRAINER</div> </div>		<div> <div>RECTANGULAR STRAINER</div> </div>		<div> <div>ANGLE STRAINER</div> </div>					
			<div> <div>FUNCTION: Used in finished floors where some light wheeled traffic is anticipated.</div> </div>		<div> <div>FUNCTION: Used in finished floors where light wheeled loads and or heavy foot traffic are anticipated.</div> </div>		<div> <div>FUNCTION: Shower room drain set at wall and floor junction. Vertical grate openings prevent drain stoppage should flat surface become covered.</div> </div>					
			<div> <div>MATERIALS:</div> <div>Chrome Plated -CP</div> <div>Polished Bronze -PB</div> <div>Nickel Bronze -NB</div> </div>		<div> <div>MATERIALS:</div> <div>Chrome Plated -CP</div> <div>Polished Bronze -PB</div> <div>Nickel Bronze -NB</div> </div>		<div> <div>MATERIALS:</div> <div>Cast Iron -CI</div> <div>Chrome Plated -CP</div> <div>Polished Bronze -PB</div> <div>Nickel Bronze -NB</div> </div>					
			<div>  <div> <div>B</div> <div>H</div> </div> </div>		<div>  <div> <div>B x B'</div> <div>H</div> </div> </div>		<div>  <div> <div>D</div> <div>B</div> <div>C</div> <div>2 1/2 (64)</div> </div> </div>					
			<div> <div>B SQ</div> <div>05 (125)</div> <div>06 (150)</div> <div>07 (180)</div> <div>08 (205)</div> </div>		<div> <div>SUFFIX</div> <div>L</div> <div>M</div> <div>N</div> <div>P</div> <div>R</div> <div>T</div> </div>		<div> <div>SUFFIX</div> <div>B</div> <div>C</div> <div>D</div> <div>MIN</div> <div>MAX</div> </div>					

**NOTE:** Dimensions shown in parentheses are in millimeters



S2005D07CIBP050 SMITH

FD2:  
SMITH FLOOR DRAIN 24"



<b>FIGURE NUMBER</b>	<b>2005</b>	<b>DRAWN BY:</b> PJ	<b>CHECKED BY:</b> TD	<b>APPROVED BY:</b> TD	<b>DATE:</b> 5-17-85	<b>SCALE:</b> NONE	<b>SIZE</b> A	<b>DRAWING NUMBER</b> S2005	<b>S</b>	<div style="display: flex; align-items: center;"> <div> <b>SMITH® JAY R. SMITH MFG. CO.®</b>  <small>MEMBER OF MORRIS GROUP INTERNATIONAL          POST OFFICE BOX 3237          MONTGOMERY, ALABAMA 36109-0237 (USA)          TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</small> </div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> </div>	<b>LOCATION</b>  							
									<h2 style="margin: 0;">FLOOR OR SHOWER DRAINS</h2> <h3 style="margin: 0;">WITH ADJUSTABLE STRAINER HEADS</h3>									
									<p><b>FUNCTION:</b> General service floor drain for use in showers, toilets, kitchens and other finished areas where foot traffic is expected. The round top strainer head is used for all types of poured finished floors. The square top is particularly adaptable to floors that are finished in material of square or straight line pattern. Reversible flashing collar permits adjustment of the strainer to meet finished floor level.</p>									
									<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> </div> <div style="width: 45%;"> </div> </div>									

A (Pipe Size) = 02(50), 03(75), 04(100), 05(125) or 06(150)

**NO-HUB OUTLET**

☐ Fig. 2005Y.....(A) ROUND TOP  
☐ Fig. 2005Y.....(B) SQUARE TOP

Outlet Size	Nickel Bronze Strainer Head
▲ 02(50)	05(125) DIA or SQ
▲ 03(75)	06(150) DIA or SQ
▲ 04(100)	08(205) DIA or SQ

**SPEEDI-SET OUTLET**

☐ Fig. 2005L.....(A) ROUND TOP  
☐ Fig. 2005L.....(B) SQUARE TOP

Strainer Size B DIA or SQ	*Collar In High Position X		*Collar In Low Position XX		Free Area SQ IN (SQ CM)	
	MIN	MAX	MIN	MAX	ROUND	SQUARE
05 (125)	1 1/4(32)	2 1/4(57)	3/4(19)	1 5/8(41)	7(45)	6.5(42)
06 (150)	1 1/4(32)	2 1/4(57)	3/4(19)	1 5/8(41)	9(58)	12.5(81)
07 (180)	1 1/4(32)	2 1/4(57)	7/8(22)	1 7/8(48)	14(90)	11(71)
08 (205)	1 1/2(38)	2 1/2(64)	1(25)	1 7/8(48)	17(110)	14(90)
*09 (230)	1 1/2(38)	2 3/8(60)	1(25)	1 7/8(48)	18(116)	16(103)
*10 (255)	1 1/2(38)	2 3/8(60)	1(25)	1 7/8(48)	23(48)	16(103)

▼ This dimension to internal stop of speedi-set gasket.  
 • Add 3/8"(10) to all min/max dimensions for round strainers.  
 \* Collar is reversible to obtain extreme high and low strainer positions.  
 \*\* Not available for 5"(125) size strainer.  
 \*\* MIN 6 3/4"(170) hole required for core drilled application.

**REGULARLY FURNISHED:**  
 Duco Cast Iron Body with Flashing Collar and Adjustable Strainer Head as Indicated by Suffix Letter Selected.

**VARIATIONS:**

- ☐ Flapper Type Backwater Valve -V
- ☐ Hinged Grate -H
- ☐ L Speedi-Set Service Weight 2(50), 3(75) & 4"(100) only
- ☐ LXH Speedi-Set Extra Heavy 2(50), 3(75) & 4"(100) only
- ☒ Sediment Bucket -B
- ☒ Trap Primer Connection -P050 1/2" (13) & -P075 3/4" (19)
- ☐ Vandal Proof Screws -U
- ☐ Wide Flanged Strainer (Specify Fig. DX2005)
- ☐ T Threaded Outlet
- ☐ Heelproof Grate -HP -AHP (Round) or -BHP (Square)
- ☐ Quad Close Trap Seal (Specify Fig. 2692)

**OPTIONAL MATERIALS:**

- ☐ Bronze Body -BB
- ☐ Chrome Plated Strainer -CP
- ☐ Galvanized Cast Iron Body -G
- ☐ Nickel Bronze Strainer -NB
- ☐ Polished Bronze Strainer -PB
- ☐ All Stainless Steel (Specify Fig. 9700)
- ☐ Stainless Steel Strainers -SS [Available in 05(125) & 06(150) sizes only]





**NOTE:** Dimensions shown in parentheses are in millimeters.

▲ Meets ASME Standard A112.6.3-2001 02(50), 03(75) or 04"(100) sizes only.

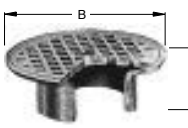
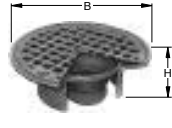
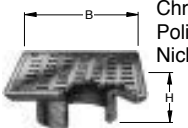
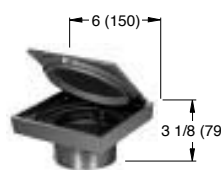
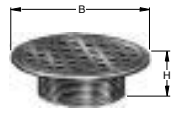

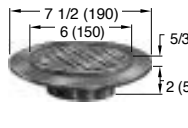
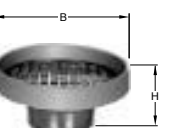
**SEE PM0457 FOR OPTIONAL STRAINER HEADS.**

REV.	DATE	DESCRIPTION	BY	CKD. BY	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
							<b>2005</b>




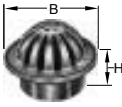

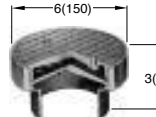
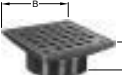

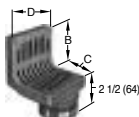
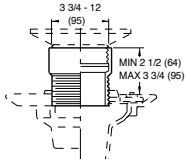
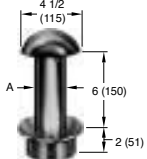

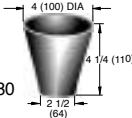
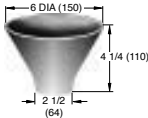
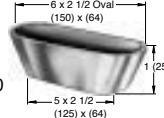
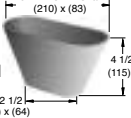


<b>H</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p><b>SMITH® JAY R. SMITH MFG. CO.®</b> MEMBER OF MORRIS GROUP INTERNATIONAL POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</p> </div> <div style="text-align: center;">  <p>MEMBER OF:</p> </div> <div style="text-align: center;">  <p>MEMBER OF:</p> </div> <div style="text-align: center;">  <p>MEMBER OF:</p> </div> </div>					<b>LOCATION</b>  		
	OPTIONAL STRAINER HEADS							
DRAWING NUMBER <b>PM0457 SH 1 of 2</b>	SIZE <b>A</b>	SCALE <b>NONE</b>	DATE: <b>5-17-85</b>	APPROVED BY: <b>TD</b>	CHECKED BY: <b>TD</b>	DRAWN BY: <b>PJ</b>	DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE	
							ASSUME NO RESPONSIBILITY OR USE OF SUPERSEDED OR VOID DATA	
2010 SERIES OPTIONAL STRAINER HEADS								
FIGURE NUMBER								

ROUND STRAINER	FLAPPER TYPE BACKWATER VALVE																																																
 <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB Stainless Steel Strainers -SS [Available in 05(125) &amp; 06(150) sizes only]</p> <p><b>VARIATIONS:</b> *Hinged Grate (Specify Suffix -AH) Sediment Bucket -B Vandal Proof Screws -U</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> <th>09 (230)</th> <th>10 (255)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/2 (64)</td> <td>2 3/4 (70)</td> </tr> <tr> <td>X MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> <td>1 1/2 (38)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>X MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/2 (64)</td> <td>2 3/4 (70)</td> </tr> </table> <p><b>SUFFIX -A</b> Specify Type, Size &amp; Finish eg: A05NB *Not available for 05" (125) size</p>	B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)	X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)	X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)	 <p><b>FUNCTION:</b> Provides backwater protection at point where protection is needed.</p> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> *Hinged Grate (Specify Suffix -AH) Vandal Proof Screws -U</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>X MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>X MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> </table> <p><b>SUFFIX -AV</b> Specify Type, Size &amp; Finish eg: AV05NB *Not available for 05" (125) size</p>	B DIA	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)
B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)																																											
H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)																																											
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)																																											
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)																																											
B DIA	05 (125)	06 (150)	07 (180)	08 (205)																																													
H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)																																													
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)																																													
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)																																													
SQUARE STRAINER	STRAINER HEAD w/SQUARE HINGED COVER																																																
 <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -BV) 05 (125), 06 (150), 07 (180) or 08" (205) sizes only *Hinged Grate (Specify Suffix -BH) Sediment Bucket -B Vandal Proof Screws -U</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> <th>09 (230)</th> <th>10 (255)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> </tr> <tr> <td>X MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> <td>1 1/2 (38)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>X MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/4 (57)</td> <td>2 3/8 (60)</td> </tr> </table> <p><b>SUFFIX -B</b> Specify Type, Size &amp; Finish eg: B05NB *Not available for 05" (125) size</p>	B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 1/4 (57)	X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)	X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 3/8 (60)	 <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Gasketed Water Tight Cover -GC Secured Cover -SC Secondary Strainer Grate -SG</p> <p>Specify Type, Size &amp; Finish eg: BSNB</p> <p><b>SUFFIX -BS</b></p>																				
B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)																																											
H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 1/4 (57)																																											
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)																																											
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 3/8 (60)																																											
REINFORCED ROUND STRAINER	REINFORCED TRACTOR STRAINER																																																
<p><b>FUNCTION:</b> Used in finished floors where light wheeled loads are anticipated.</p>  <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -CV) Sediment Bucket -B Vandal Proof Screws -U</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>08 (205)</th> <th>10 (255)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/2 (64)</td> <td>2 3/4 (70)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> <td>1 7/8 (48)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 3/4 (70)</td> </tr> </table> <p><b>SUFFIX -C</b> Specify Type, Size &amp; Finish eg: C06NB</p>	B DIA	05 (125)	06 (150)	08 (205)	10 (255)	H	2 (51)	2 (51)	2 1/2 (64)	2 3/4 (70)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 7/8 (48)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 3/4 (70)	<p><b>FUNCTION:</b> Used in finished floors where medium weight wheeled loads are anticipated and loose set non-tilt tractor grate is desired.</p>  <p><b>MATERIALS:</b> Cast Iron -CI Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -DV or -EV) Sediment Bucket -B Vandal Proof Screws -U</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th>SUFFIX</th> <th>B DIA</th> <th>H</th> <th colspan="2">X</th> </tr> <tr> <td>-D</td> <td>07 (180)</td> <td>3 1/4 (83)</td> <td>2 5/8 (67)</td> <td>3 1/2 (89)</td> </tr> <tr> <td>-E</td> <td>09 (230)</td> <td>3 1/2 (89)</td> <td>2 3/4 (70)</td> <td>3 1/2 (89)</td> </tr> </table> <p><b>SUFFIX -D-E</b> Specify Type, Size &amp; Finish eg: D09PB E09PB</p>	SUFFIX	B DIA	H	X		-D	07 (180)	3 1/4 (83)	2 5/8 (67)	3 1/2 (89)	-E	09 (230)	3 1/2 (89)	2 3/4 (70)	3 1/2 (89)													
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TILE FLANGE	ADJUSTABLE STRAINER HEAD																																																
<p><b>FUNCTION:</b> Provides integral flange set 5/32" (4) below rim to receive floor covering. Flange may have option of tapped holes for securing pan and gasket.</p>  <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -FV) Holes in Flange -SH Sediment Bucket -B Vandal Proof Screws -U</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th colspan="2">X</th> </tr> <tr> <td>MIN</td> <td>MAX</td> </tr> <tr> <td>1 1/4 (32)</td> <td>2 1/8 (54)</td> </tr> </table> <p><b>SUFFIX -F</b> Specify Type, Size &amp; Finish eg: F06NB</p>	X		MIN	MAX	1 1/4 (32)	2 1/8 (54)	<p><b>FUNCTION:</b> Used in a non-traffic area when a funnel type strainer head is required and space does not allow use of the 3500 series funnel. The extended rim allows use as an anti-flood and anti-splash drip pan.</p>  <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -F37V or F38V)</p> <p><b>MATERIALS:</b> Cast Iron -CI Chrome Plated -CP Galvanized Cast Iron -G Polished Bronze -PB Nickel Bronze -NB</p> <table border="1" style="width:100%; text-align: center;"> <tr> <th>SUFFIX</th> <th>-F37</th> <th>-F38</th> </tr> <tr> <td>B DIA</td> <td>07 (180)</td> <td>09 (230)</td> </tr> <tr> <td>H</td> <td>3 1/4 (83)</td> <td>3 1/2 (89)</td> </tr> <tr> <td>MIN</td> <td>2 5/8 (67)</td> <td>2 3/4 (70)</td> </tr> <tr> <td>X MAX</td> <td>3 1/2 (89)</td> <td>3 1/2 (89)</td> </tr> </table> <p><b>SUFFIX -F37-F38</b> Specify Type, Size &amp; Finish eg: F37NB F38CP</p>	SUFFIX	-F37	-F38	B DIA	07 (180)	09 (230)	H	3 1/4 (83)	3 1/2 (89)	MIN	2 5/8 (67)	2 3/4 (70)	X MAX	3 1/2 (89)	3 1/2 (89)																											
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<b>FIGURE NUMBER</b> <b>2010 SERIES OPTIONAL STRAINER HEADS</b> <b>1 of 2</b>																																																	

NOTE: Dimensions shown in parentheses are in millimeters.

<b>J</b>	<b>SMITH® JAY R. SMITH MFG. CO.®</b> MEMBER OF MORRIS GROUP INTERNATIONAL POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com	 MEMBER OF:	 MEMBER OF:	 MEMBER OF:	<b>LOCATION</b>																																																																													
<b>PM0457 SH 2 of 2</b>	<b>A</b>	<b>NONE</b>	<b>5-17-85</b>	<b>TD</b>	<b>TD</b>	<b>PJ</b>	<b>2010 SERIES OPTIONAL STRAINER HEADS</b>	OPTIONAL STRAINER HEADS																																																																										
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<p><b>FUNCTION:</b> Used in gutters and recessed areas where excessive debris build-up is expected. Dome insures drainage even when partly covered.</p> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -GV) Sediment Bucket -B Vandal Proof Screws -U</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: G08PB</p>		B DIA	05 (125)	06 (150)	08 (205)	H	2 (51)	2 (51)	2 1/2 (64)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	<p><b>FUNCTION:</b> Used in areas where intermittent drain use is required. Solid cover prevents intrusion of chips, saw-dust, etc., which are swept up before cover is opened for washdown. The secondary strainer prevents debris from entering the waste line.</p> <p><b>MATERIALS:</b> Cast Iron -CI Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -GV) Vandal Proof Screws -U</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: H05CP</p>		B DIA	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	<p><b>FUNCTION:</b> Solid gas tight, vandal proof, threaded cover for areas where intermittent drain use is required.</p> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -JV) Sediment Bucket -B</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th colspan="2">X</th> </tr> <tr> <th>MIN</th> <th>MAX</th> </tr> <tr> <td>2 (51)</td> <td>3 (76)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: J06NB</p>				X		MIN	MAX	2 (51)	3 (76)																																	
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<p><b>FUNCTION:</b> Used in finished floors where some light wheeled traffic is anticipated.</p> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -KV) Sediment Bucket -B Vandal Proof Screws -U</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th>B SQ</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: K07CP</p>		B SQ	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	<p><b>FUNCTION:</b> Used in finished floors where light wheeled loads and or heavy foot traffic are anticipated.</p> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Sediment Bucket -B Vandal Proof Screws -U</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th>SUFFIX</th> <th>L</th> <th>M</th> <th>N</th> <th>P</th> <th>R</th> <th>T</th> </tr> <tr> <td>B x B</td> <td>4 1/2 (115) x 8 (205)</td> <td>4 (100) x 12 (305)</td> <td>5 (125) x 9 (230)</td> <td>5 (125) x 13 (330)</td> <td>6 (150) x 10 (255)</td> <td>5 (125) x 17 (430)</td> </tr> <tr> <td>H</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/4 (57)</td> <td>3 (76)</td> <td>2 1/4 (57)</td> <td>3 (76)</td> </tr> <tr> <td>MIN</td> <td>1 3/8 (35)</td> <td>1 7/8 (48)</td> <td>1 3/8 (35)</td> <td>2 1/8 (54)</td> <td>1 3/8 (35)</td> <td>2 1/4 (57)</td> </tr> <tr> <td>MAX</td> <td>2 3/8 (60)</td> <td>2 3/4 (70)</td> <td>2 3/8 (60)</td> <td>3 (76)</td> <td>2 3/8 (60)</td> <td>3 1/8 (79)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: LNB</p>		SUFFIX	L	M	N	P	R	T	B x B	4 1/2 (115) x 8 (205)	4 (100) x 12 (305)	5 (125) x 9 (230)	5 (125) x 13 (330)	6 (150) x 10 (255)	5 (125) x 17 (430)	H	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	3 (76)	2 1/4 (57)	3 (76)	MIN	1 3/8 (35)	1 7/8 (48)	1 3/8 (35)	2 1/8 (54)	1 3/8 (35)	2 1/4 (57)	MAX	2 3/8 (60)	2 3/4 (70)	2 3/8 (60)	3 (76)	2 3/8 (60)	3 1/8 (79)	<p><b>FUNCTION:</b> Shower room drain set at wall and floor junction. Vertical grate openings prevent drain stoppage should flat surface become covered.</p> <p><b>MATERIALS:</b> Cast Iron -CI Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Vandal Proof Screws -U</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th>SUFFIX</th> <th>B</th> <th>C</th> <th>D</th> <th>X</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>MIN MAX</td> </tr> <tr> <td>-V</td> <td>3 1/2 (89)</td> <td>3 1/2 (89)</td> <td>4 1/2 (115)</td> <td>1 5/8 (41) 2 5/8 (67)</td> </tr> <tr> <td>-W</td> <td>6 3/4 (170)</td> <td>6 3/4 (170)</td> <td>6 1/2 (165)</td> <td>1 5/8 (41) 2 5/8 (67)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: VPB, WNB</p>				SUFFIX	B	C	D	X					MIN MAX	-V	3 1/2 (89)	3 1/2 (89)	4 1/2 (115)	1 5/8 (41) 2 5/8 (67)	-W	6 3/4 (170)	6 3/4 (170)	6 1/2 (165)	1 5/8 (41) 2 5/8 (67)
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EXTENSION ADAPTOR		OVERFLOW WITH STANDPIPE		HEAVY DUTY ADJUSTABLE																																																																														
<p><b>FUNCTION:</b> Used when a strainer head must be raised to accommodate deeper floor fill.</p> <p><b>REGULARLY FURNISHED:</b> Ducto Cast Iron -CI</p> <p><b>MATERIALS:</b> Cast Bronze -CB Galvanized Cast Iron -G</p>  <p><b>NOTE:</b> Extension can be stacked for increased maximum adjustment.</p> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: X06PB</p>		<p><b>FUNCTION:</b> Used as overflow drain in decorative pools, fish ponds or similar areas. Dome prevents floating objects from entering drain line.</p> <p><b>MATERIALS:</b> Chrome Plated -CP Nickel Bronze -NB Polished Bronze -PB</p> <p><b>VARIATIONS:</b> Less Dome -LD Standpipe Height other than 6" (150) (Specify Height)</p>  <table border="1" style="width: 100%; font-size: 0.7em;"> <tr> <th>SUFFIX</th> <th>A SIZE</th> <th>MIN</th> <th>MAX</th> </tr> <tr> <td>-Y</td> <td>2 (51)</td> <td>3/4 (19)</td> <td>2 1/8 (54)</td> </tr> <tr> <td>-Z</td> <td>3 (76)</td> <td>3/4 (19)</td> <td>2 1/8 (54)</td> </tr> </table> <p style="text-align: right;">Specify Type, Size &amp; Finish eg: YCP, ZCP</p>		SUFFIX	A SIZE	MIN	MAX	-Y	2 (51)	3/4 (19)	2 1/8 (54)	-Z	3 (76)	3/4 (19)	2 1/8 (54)	<p><b>FUNCTION:</b> Used in finished floors where light wheeled loads and or heavy foot traffic are anticipated.</p> <p><b>MATERIALS:</b> Polished Bronze -PB Rough Bronze -RB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -69V) Sediment Bucket -B Vandal Proof Screws -U</p>  <p style="text-align: right;">Specify Type, Size &amp; Finish eg: A06NB-69</p>																																																																		
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S5519SAP

SMITH

WHYD:  
BOX TYPE WALL HYD

<b>D</b>	<b>5519</b>	DRAWING NUMBER <b>5519</b>	SIZE <b>A</b>	SCALE: <b>NONE</b>	DATE: <b>3-24-03</b>	APPROVED BY: <b>CEL</b>	CHECKED BY: <b>CL</b>	DRAWN BY: <b>RN</b>	<b>5519</b>	DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE																
		<b>JAY R. SMITH MFG. CO.®</b> 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																								
		<b>ASPE</b> MEMBER OF:																								
		<b>LOCATION</b> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>																								
<b>GUARDIAN DUAL CHECK</b> <b>1/4 TURN NON-FREEZE WALL HYDRANT WITH AUTOMATIC DRAINING</b> <b>INTEGRAL VACUUM BREAKER, DUAL CHECK VALVE AND STAINLESS STEEL BOX</b> <b>BOX TYPE WITH CONCEALED HOSE CONNECTION</b>																										
<p><b>FUNCTION:</b> Provides positive non-freeze protection where water is required at the outside of the building and features an integral vacuum breaker and dual check valve. The stainless steel recessed box conceals the nozzle and operating mechanism. The locking cover prevents unauthorized use.</p> <p style="text-align: center;"><b>1/4 Turn of the Key or Wheel Handle Allows Full Flow to Be Obtained</b></p>																										
<p style="text-align: center;"><b>FRONT VIEW with COVER OPEN</b></p>					<p style="text-align: center;"><b>TOP VIEW</b></p>																					
<p style="text-align: center;"><b>FRONT VIEW</b></p>					<p style="text-align: center;"><b>FRONT VIEW</b></p>																					
<p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. Recommended wall opening 3 3/16 (83) x 8 1/2 (215).</li> <li>2. When ordering, specify wall thickness in 1 (25) increments as follows 5,6,7,8,9.....24.</li> <li>3. All Jay R. Smith hydrants are manufactured with "NO-LEAD" brazing rings, and USDA approved lubricants.</li> <li>4. When wall clamp -WC is desired, increase wall thickness dimension by 2 (51).</li> <li>5. Add 3/4 (19) to Overall Length When Specified</li> <li>6. Add 3/8 (10) When Optional Box Face Material is Specified.</li> <li>7. When specifying Fig. 5519 (-SAP) the wall thickness shall be 3 (76).</li> <li>8. Dimensions shown in parentheses are in millimeters.</li> </ol>																										
<p><b>REGULARLY FURNISHED:</b>          Bronze Quarter Turn Non-Freeze Automatic Draining Hydrant with Stainless Steel Face, Hose Connection, Integral Vacuum Breaker and Dual Check Valve, "T" Handle Key, Wheel Handle and Stainless Steel Box with Full 180° Cover Opening.</p>																										
<p><b>VARIATIONS:</b></p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Adjustable Wall Clamp -WC (Note 4)  <input checked="" type="checkbox"/> 1 (25) Hose Connection -HC1  <input type="checkbox"/> 1 (25) Male NPT Inlet Connection -IC1 (Note 5)  <input type="checkbox"/> Mild Climate -SAP (Note 7)  <input type="checkbox"/> Cylinder Lock -CL         </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Polished Bronze Box Face -PB  <input type="checkbox"/> Nickel Bronze Box Face-NB  <input type="checkbox"/> Rough Bronze Box Face-RB  <input type="checkbox"/> Chrome Plated Box Face-CP         </td> </tr> </table>											<input type="checkbox"/> Adjustable Wall Clamp -WC (Note 4) <input checked="" type="checkbox"/> 1 (25) Hose Connection -HC1 <input type="checkbox"/> 1 (25) Male NPT Inlet Connection -IC1 (Note 5) <input type="checkbox"/> Mild Climate -SAP (Note 7) <input type="checkbox"/> Cylinder Lock -CL	<input type="checkbox"/> Polished Bronze Box Face -PB <input type="checkbox"/> Nickel Bronze Box Face-NB <input type="checkbox"/> Rough Bronze Box Face-RB <input type="checkbox"/> Chrome Plated Box Face-CP														
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<p>Meets ANSI A112.21.3M Specifications          Complies w/ ASSE 1019-B,1052 and 1053.          IAPMO Listed- File #2749          Patent No. US 6,752,167</p>																										
<p style="border: 1px solid black; padding: 5px; font-size: small;">Seepage of a small amount of water may occur from the vacuum breaker upon the initial opening and closing of this hydrant. This is normal operation.</p>																										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">REV.</td> <td style="width: 15%; text-align: center;">DATE</td> <td style="width: 30%; text-align: center;">DESCRIPTION</td> <td style="width: 10%; text-align: center;">BY</td> <td style="width: 10%; text-align: center;">CKD. BY</td> <td style="width: 10%; text-align: center;">WEIGHT POUNDS</td> <td style="width: 10%; text-align: center;">VOLUME CUBIC FEET</td> <td style="width: 10%; text-align: center;">FIGURE NUMBER</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center; font-size: large;"><b>5519</b></td> </tr> </table>											REV.	DATE	DESCRIPTION	BY	CKD. BY	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER								<b>5519</b>
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MONTGOMERY, ALABAMA 36109-0237 (USA)  
TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com



MEMBER OF:

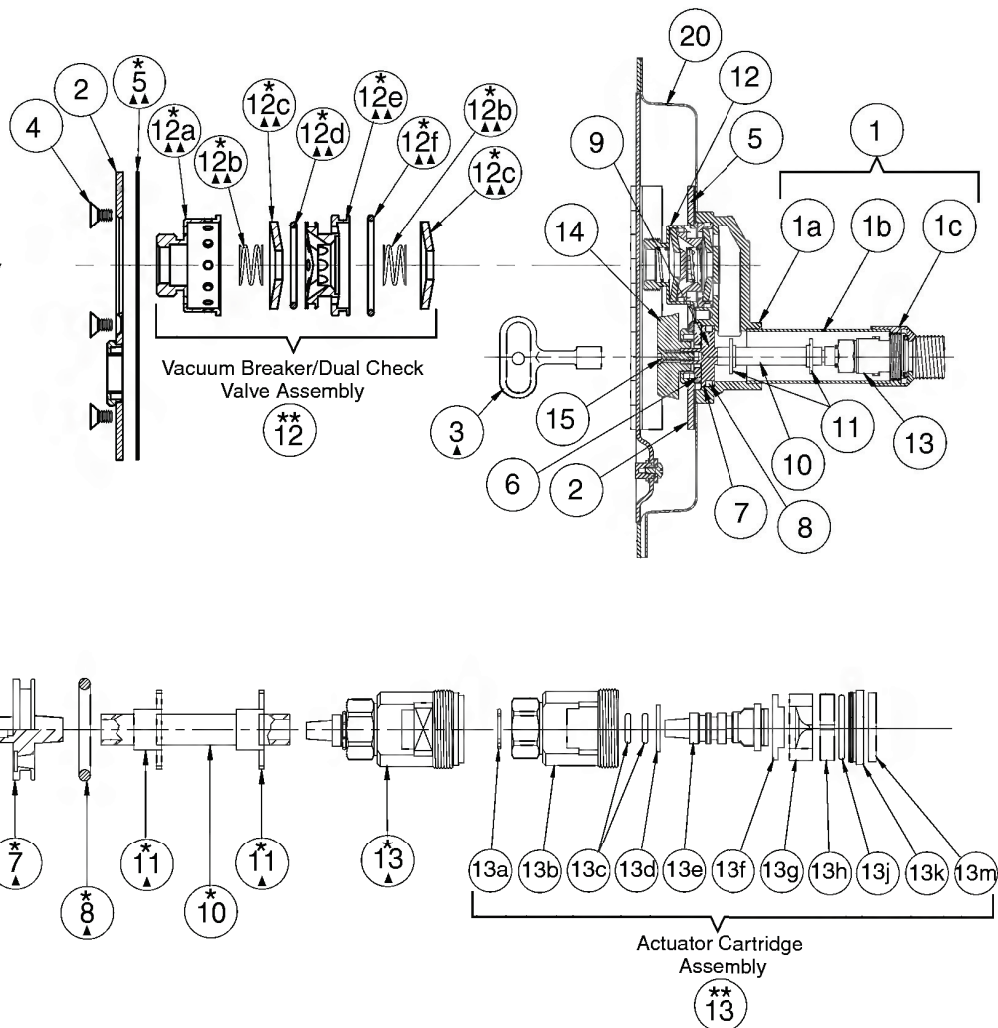


LOCATION

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# GUARDIAN DUAL CHECK HYDRANT PARTS LIST

- ▲ These Replacement Parts Available in HPRK-19  
▲▲ These Replacement Parts Available in HPRK-19VB  
\* These Parts Accessible from Face of Hydrant by Removing Wall Plate Assembly.  
\*\* Parts supplied as an assembly only, see part 12 or 13.



HYDRANT PARTS LIST							
NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
1	Casing Assembly	7	Moveable Operator Piece	12d	**Small O-Ring	13f	**Nylon Thrust Washer
1a	Head	8	Moveable Operator O-Ring	12e	**Flow Diverter	13g	**Rotating Ceramic Disc
1b	Casing	9	Drain Hole Seal (2)	12f	**Large O-Ring	13h	**Fixed Ceramic Disc
1c	Valve Housing	10	Operator Rod	13	Actuator Cartridge Assembly	13j	**O-Ring
2	Wall Plate Assembly	11	Operator Rod Guides (2)	13a	**Retaining Ring	13k	**O-Ring Gasket Retainer
3	Key	12	Vacuum Breaker/Dual Check Valve Assembly	13b	**Valve Body	13m	**Rubber Seal
4	Wall Plate Securing Screw (5)	12a	**Vacuum Breaker Housing	13c	**Actuator O-Ring (2)	14	Wheel Handle
5	Wall Plate Gasket	12b	**Spring (2)	13d	**Nylon Thrust Spacer	15	Wheel Handle Screw
6	Stationary Operator Piece	12c	**Cone Washer (2)	13e	**Valve Actuator	20	Box Assembly

REV.	DATE	DESCRIPTION	BY	CKD. BY

WEIGHT  
POUNDSVOLUME  
CUBIC FEET

FIGURE NUMBER

**5519BS**DRAWING NUMBER  
5519BSSIZE  
ASCALE:  
NONEDATE:  
3-24-03APPROVED BY:  
CELCHECKED BY:  
CLDRAWN BY:  
RN**5519BS**FIGURE  
NUMBER

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DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE




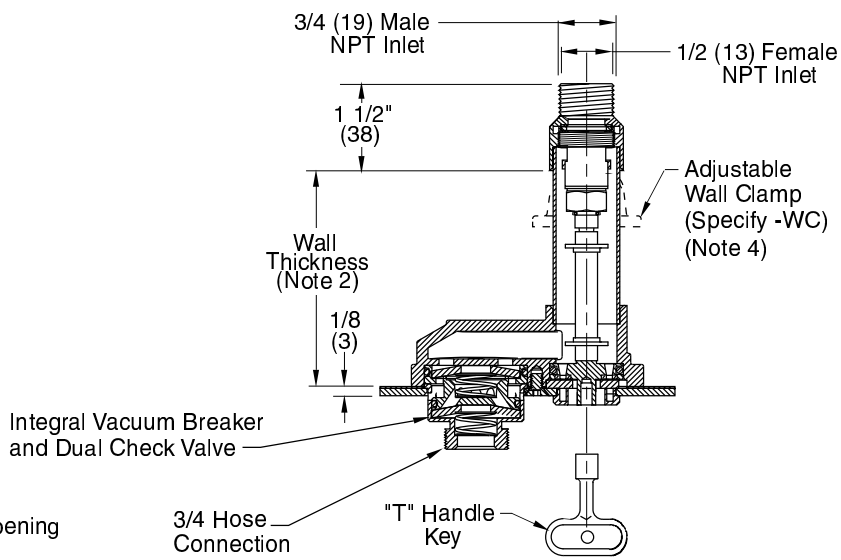
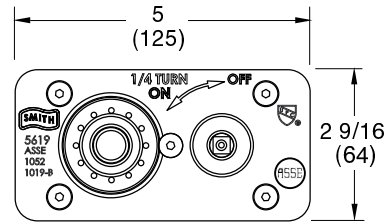


S5619SAP

SMITH

HB:

1/4 TURN HYD VAC BRKR DUAL CHK

<b>G</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p><b>SMITH® JAY R. SMITH MFG. CO.®</b>  <small>MEMBER OF MORRIS GROUP INTERNATIONAL™          POST OFFICE BOX 3237          MONTGOMERY, ALABAMA 36109-0237 (USA)          TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</small></p> </div> <div style="text-align: center;">  <p><b>ASPE</b>  <small>AMERICAN SOCIETY OF PROFESSIONAL ENGINEERS</small></p> </div> <div style="text-align: center;">  <p><b>ASSE</b>  <small>AMERICAN SOCIETY OF SHUTTERING AND DRAPING ENGINEERS</small></p> </div> </div>					<div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>																																											
	<b>GUARDIAN DUAL CHECK</b> <b>1/4 TURN NON-FREEZE WALL HYDRANT WITH AUTOMATIC DRAINING</b> <b>INTEGRAL VACUUM BREAKER AND DUAL CHECK VALVE</b>																																																
	<b>EXPOSED HOSE CONNECTION</b>																																																
	<p><b>UNCTION:</b> For installation in interior or exterior building walls where an exposed hose connection is acceptable. Provides positive non-freeze protection. Adaptable to all types of wall construction.</p> <p style="text-align: center;"><b>1/4 Turn of the Key Allows Full Flow to Be Obtained</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="width: 45%;"> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. Recommended wall opening 2 1/4 (57) x 4 (100).</li> <li>2. When ordering, specify wall thickness in 1 (25) increments as follows 4,5,6,7,8.....24.</li> <li>3. All Jay R. Smith hydrants are manufactured with "NO-LEAD" brazing rings, and USDA approved lubricants.</li> <li>4. When wall clamp -WC is desired, increase wall thickness dimension by 2 (51).</li> <li>5. Add 3/4 (19) to Overall Length When Specified</li> <li>6. When specifying Fig. 5619 (-SAP) the wall thickness shall be 2 (51).</li> <li>7. Dimensions shown in parentheses are in millimeters.</li> <li>8. The AB1953, California Lead Law, and NSF/ANSI Standard 61-2008 - Drinking Water System Components are not applicable to Jay R. Smith hydrants as they do not convey/dispense water for human consumption through drinking or cooking.</li> <li>9. <b>FOR IRRIGATION PURPOSES ONLY.</b></li> </ol> </div> <div style="width: 50%; text-align: center;">  <p><b>TOP VIEW</b></p>  <p><b>FRONT VIEW</b></p> <p><b>FIG. 5619</b></p> </div> </div>																																																
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<b>G</b>	<b>2-4-13</b>	<b>Revised Notes</b>	<b>TBW</b>	<b>CL</b>	<b>WEIGHT</b>	<b>VOLUME</b>	<b>FIGURE NUMBER</b>																																										
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Seepage of a small amount of water may occur from the Vacuum Breaker upon the initial opening and closing of this hydrant. This is normal operation.



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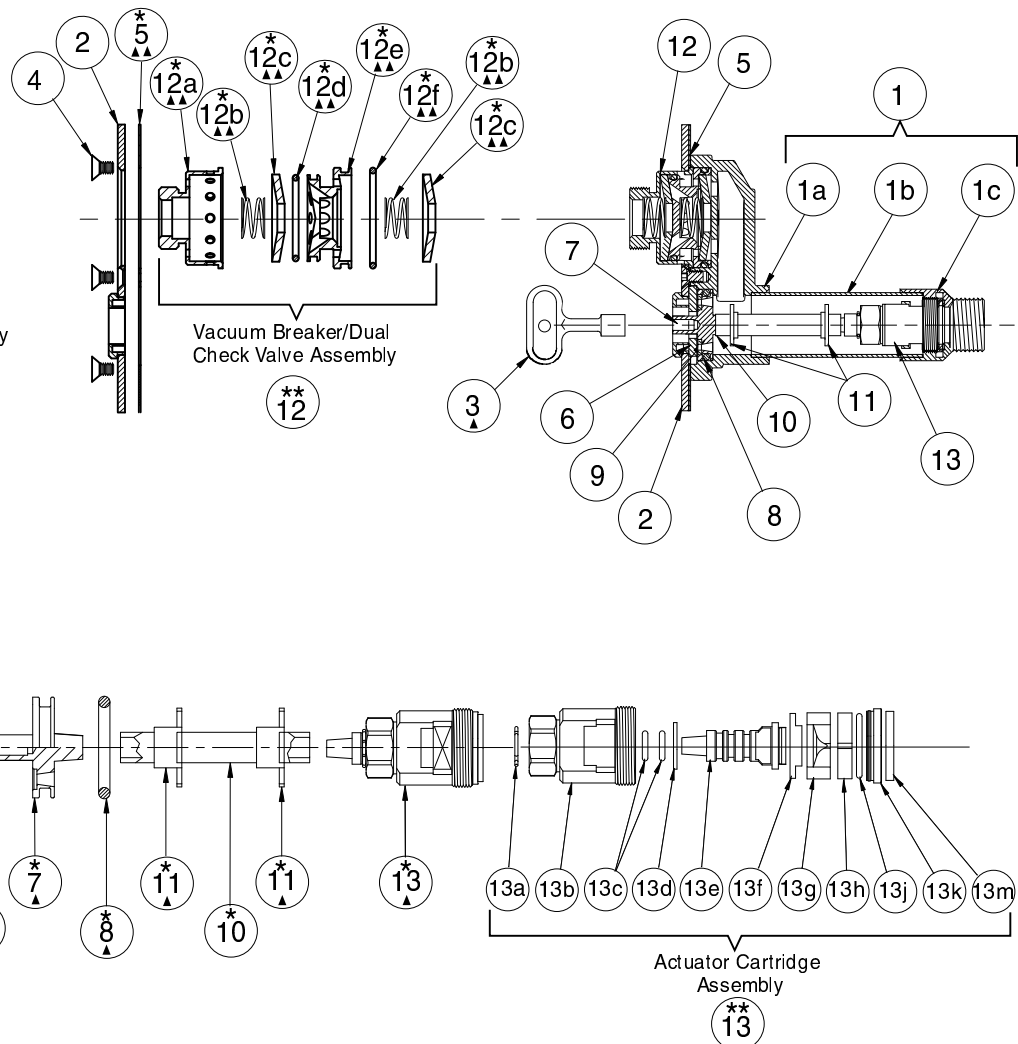
MEMBER OF:

LOCATION

# GUARDIAN DUAL CHECK HYDRANT PARTS LIST

- ▲ These Replacement Parts Available in HPRK-19
- ▲▲ These Replacement Parts Available in HPRK-19VB
- \* These Parts Accessible from Face of Hydrant by Removing Wall Plate Assembly.

\*\* Parts supplied as an assembly only, see part 12 or 13.



HYDRANT PARTS LIST							
NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
1	Casing Assembly	7	Moveable Operator Piece	12d	**Small O-Ring	13f	**Nylon Thrust Washer
1a	Head	8	Moveable Operator O-Ring	12e	**Flow Diverter	13g	**Rotating Ceramic Disc
1b	Casing	9	Drain Hole Seal (2)	12f	**Large O-Ring	13h	**Fixed Ceramic Disc
1c	Valve Housing	10	Operator Rod	13	Actuator Cartridge Assembly	13j	**O-Ring
2	Wall Plate Assembly	11	Operator Rod Guides (2)	13a	**Retaining Ring	13k	**O-Ring Gasket Retainer
3	Key	12	Vacuum Breaker/Dual Check Valve Assembly	13b	**Valve Body	13m	**Rubber Seal
4	Wall Plate Securing Screw (5)	12a	**Vacuum Breaker Housing	13c	**Actuator O-Ring (2)		
5	Wall Plate Gasket	12b	**Spring (2)	13d	**Nylon Thrust Spacer		
6	Stationary Operator Piece	12c	**Cone Washer (2)	13e	**Valve Actuator		

REV. DATE DESCRIPTION BY CKD. BY

WEIGHT  
POUNDS

VOLUME  
CUBIC FEET

FIGURE NUMBER

**5619BS**



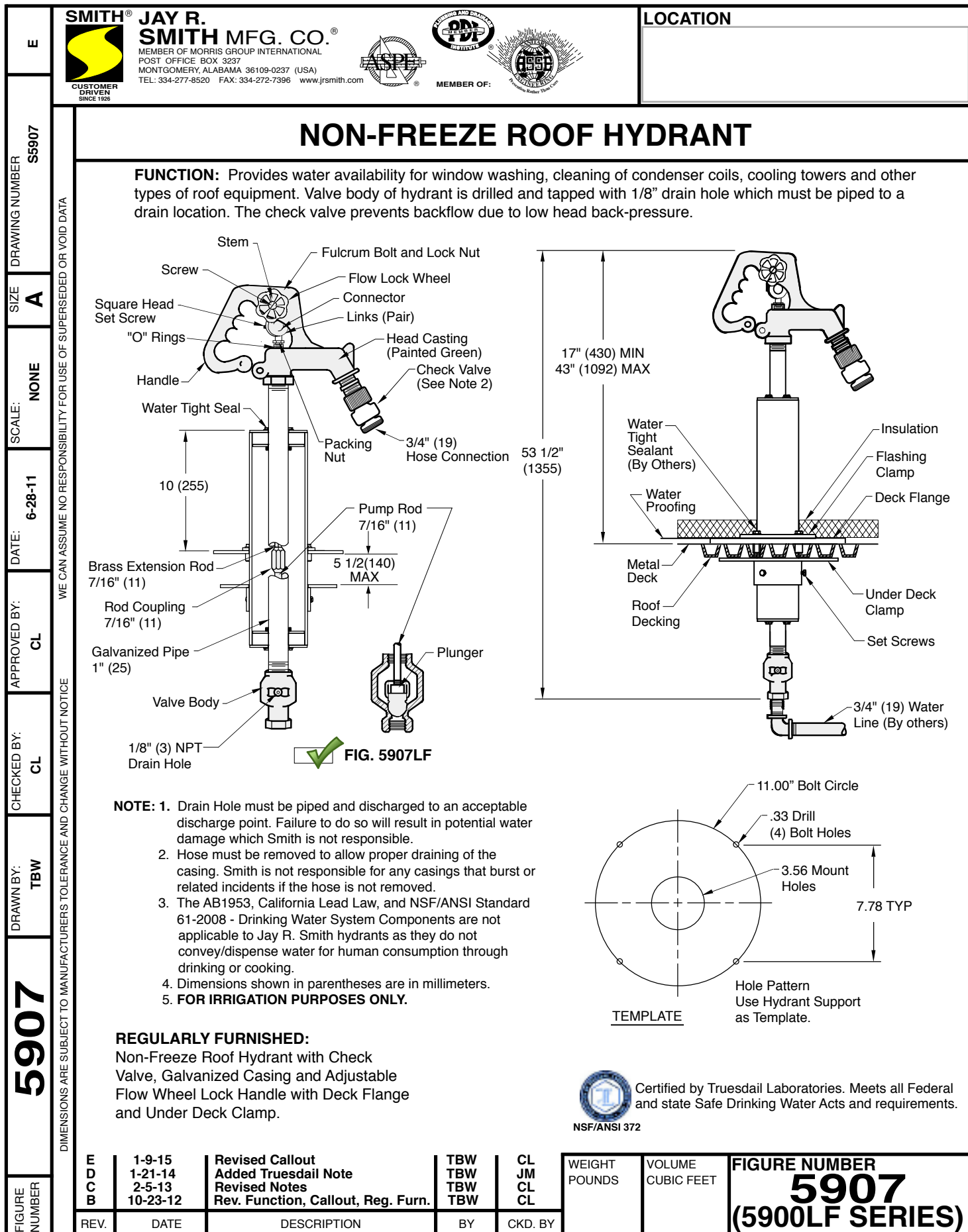


S5907

SMITH

RHYD:

NF ROOF HYDRANT W/ DUAL CHK VB





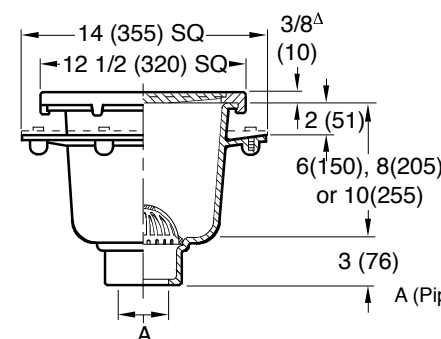
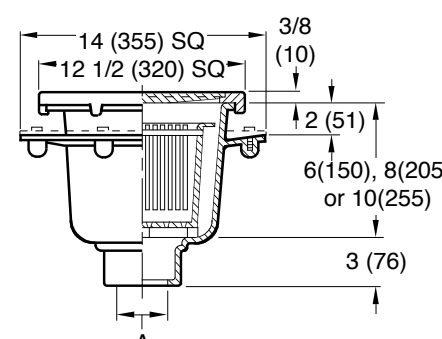




S3150UP050

SMITH

FS:  
SMITH FLOOR SINK

<b>L</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p><b>SMITH® JAY R. SMITH MFG. CO.®</b>          MEMBER OF MORRIS GROUP INTERNATIONAL™          POST OFFICE BOX 3237          MONTGOMERY, ALABAMA 36109-0237 (USA)          TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</p> </div> <div style="text-align: center;">  <p>MEMBER OF:</p> </div> <div style="text-align: center;">  <p>PDH INSTITUTE</p> </div> <div style="text-align: center;">  </div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>LOCATION</b>  <div style="height: 40px; border: 1px solid black;"></div> </div>																																																									
	<h2 style="margin: 0;">SANI-CEPTOR® ACID RESISTANT COATED FLOOR &amp; INDIRECT WASTE DRAINS</h2> <h3 style="margin: 0;">SQUARE NICKEL BRONZE TOP</h3> <h4 style="margin: 0;">12 1/2" (320) TOP - MEDIUM, DEEP &amp; EXTRA DEEP RECEPTORS</h4>																																																									
DRAWING NUMBER <b>S3140</b>	SIZE <b>A</b>	SCALE: <b>NONE</b>	DATE: <b>9-19-85</b>	APPROVED BY: <b>SJM</b>	CHECKED BY: <b>JD</b>	DRAWN BY: <b>PJ</b>	FIGURE NUMBER																																																			
WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA																																																										
<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;">  <p style="text-align: center;"><b>WITH DOME BOTTOM STRAINER</b></p> <p>6"(150) deep    8"(205) deep    10"(255) deep</p> <p>Fig. ... <input type="checkbox"/> 3140C ... <input type="checkbox"/> 3150C ... <input type="checkbox"/> 3160C ... CAULK OUTLET ...</p> <p>Fig. ... <input type="checkbox"/> 3140Y ... <input type="checkbox"/> 3150Y ... <input type="checkbox"/> 3160Y ... NO-HUB OUTLET ...</p> </div> <div style="width: 45%;">  <p style="text-align: center;"><b>WITH SEDIMENT BUCKET</b></p> <p>6"(150) deep    8"(205) deep    10"(255) deep</p> <p>Fig. ... <input type="checkbox"/> 3141C ... <input type="checkbox"/> 3151C ... <input type="checkbox"/> 3161C</p> <p>Fig. ... <input type="checkbox"/> 3141Y ... <input type="checkbox"/> 3151Y ... <input type="checkbox"/> 3161Y</p> </div> </div> <div style="text-align: center; margin-top: 10px;"> <p>Free Area 42 SQ IN (271) SQ CM</p> <p>A (Pipe Size) = 02(50), 03(75) or 04(100)</p> </div>																																																										
<h3 style="margin: 0;">FEATURES, OPTIONS &amp; ORDERING INFORMATION</h3>																																																										
<p><b>REGULARLY FURNISHED:</b> Cast Iron Flanged Receptor with Seepage Holes, Acid Resistant Coated Interior, Nickel Bronze Rim and Secured Grate. Aluminum Dome Bottom Strainer or White ABS Sediment Bucket as Indicated by Figure Number.</p>																																																										
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>OPTIONAL MATERIALS:</b></p> <p><input type="checkbox"/> All Duco Cast Iron Receptor -CI</p> <p><input type="checkbox"/> All Galvanized Receptor -G</p> </div> <div style="width: 45%;"> <p><b>VARIATIONS:</b></p> <p><input type="checkbox"/> Aluminum Flat Bottom Strainer -FBS</p> <p><input type="checkbox"/> Flashing Clamp -C</p> <p><input type="checkbox"/> Less Flange (Fig. 3155, 3156 only)</p> <p><input type="checkbox"/> Polished Aluminum Dome Bottom Strainer -PDBS</p> <p><input type="checkbox"/> Vandal Proof Screws -U</p> <p><input type="checkbox"/> L Speedi-Set Service Weight 02(50), 03(75) &amp; 04"(100) sizes only</p> <p><input type="checkbox"/> LXH Speedi-Set Extra Heavy 02(50), 03(75) &amp; 04"(100) sizes only</p> </div> </div>																																																										
<p style="text-align: center; font-size: 8px;">NOTE: Dimensions shown in parentheses are in millimeters.</p>																																																										
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REV.	DATE	DESCRIPTION	BY	CKD. BY																																																						



S4111L03NS

SMITH

FCO:

3 SV FLR CO W/ RD NB TOP

<b>L</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 30%;"> <p><b>JAY R. SMITH MFG. CO.®</b> 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</p> </div> <div style="width: 30%; text-align: center;"> <p>MEMBER OF:</p> </div> <div style="width: 30%; text-align: center;"> <p>INSTITUTE</p> </div> </div>					<div style="border: 1px solid black; padding: 5px; min-height: 40px;"> <b>LOCATION</b> </div>				
	<b>FINISHED FLOOR CLEANOUTS WITH "TWIS-TO-FLOOR®" ADJUSTABLE TOPS</b>									
	<b>ROUND EXTRA HEAVY DUTY NICKEL BRONZE TOP</b> <b>FUNCTION:</b> Used in hospitals, schools, institutional and industrial buildings where floors are subject to heavy load traffic.									
	<p style="text-align: center;"><b>TWIS-TO-FLOOR® ADJUSTMENT</b></p> <p style="text-align: center;"><b>SPEEDI-SET OUTLET ▲</b></p> <p style="text-align: center;">"A" (Pipe Size) = 02(50), 03(75) or 04(100)</p> <p style="text-align: right;">* This Dimension to Internal Stop of Speedi-set Gasket.</p>									
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> Fig. 4111L.....Gasket Seal - ABS Plug            Fig. 4112L.....Gasket Seal - Bronze Plug            Fig. 4113L.....Taper Thread - Bronze Plug            Fig. 4114L.....Taper Thread - ABS Plug</p> </div> <div style="width: 50%;"> <p>(Twis-to-Floor® design shown with gasketed plug.)</p> <p><b>NOTE:</b> Dimensions shown in parentheses are in millimeters.</p> </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>REGULARLY FURNISHED:</b>            Duco Cast Iron Cleanout with Round Adjustable Scoriated Secured Nickel Bronze Top. Closure Plug Type as Indicated By Figure Number Selected.</p> </div> <div style="width: 30%;"> <p><b>VARIATIONS:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Flashing Flange -F</li> <li><input type="checkbox"/> Flange with Flashing Clamp -F-C</li> <li><input type="checkbox"/> Vandal Proof Top -U</li> </ul> </div> <div style="width: 30%;"> <p><b>OPTIONAL MATERIALS:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Galvanized Cast Iron -G</li> <li><input type="checkbox"/> Polished Bronze Top -PB</li> </ul> <p>▲ Available in Extra Heavy, Service Weight or NO-HUB.</p> </div> </div>										
<b>FIGURE NUMBER</b>	<b>4111 SERIES</b>		<b>WEIGHT POUNDS</b>		<b>VOLUME CUBIC FEET</b>		<b>FIGURE NUMBER</b>			
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REV.	DATE	DESCRIPTION	BY	CKD. BY						



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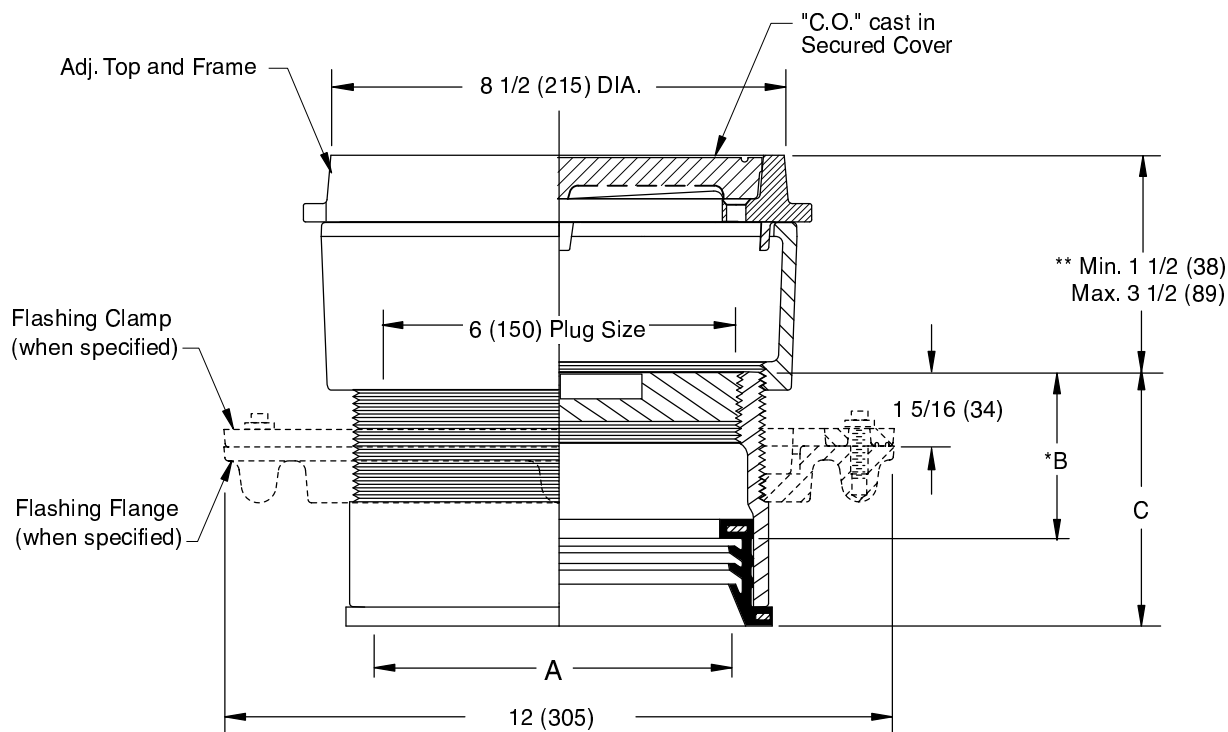


LOCATION

## FINISHED FLOOR CLEANOUTS WITH "TWIS-TO-FLOOR®" ADJUSTABLE TOPS

### ROUND EXTRA HEAVY DUTY NICKEL BRONZE TOP

**FUNCTION:** Used in hospitals, schools, institutional and industrial buildings where floors are subject to heavy load traffic.



#### SPEEDI-SET OUTLET ▲

"A" (Pipe Size) = 06(150) & 08(200)

A SIZE	B	C
06(150)	*3(76)	4 9/16(117)
08(200)	*3 1/4(83)	4 13/16(121)

▲ Available in "L" Service Weight, "LXH" Extra Heavy or "LPVC" PVC or ABS. "LPVC" applicable to 06(150) Pipe Size only.

\* This Dimension to Internal Stop of Speedi-Set Gasket.

\*\* When Flange-F is specified Min. 1 1/2 (38) becomes 2 (51)

#### "TWIS-TO-FLOOR®" ADJUSTMENT

##### SPEEDI-SET OUTLET ▲

☐ Fig. 4113L.....Taper Thread - Bronze Plug

#### REGULARLY FURNISHED:

Duco Cast Iron Cleanout with Taper Thread Bronze Plug and Round Adjustable Scoriated Secured Nickel Bronze Top.

#### VARIATIONS:

- ☐ Flashing Flange -F  
☐ Flange with Flashing Clamp -F-C  
☐ Vandal Proof Top -U

#### OPTIONAL MATERIALS:

- ☐ Galvanized Cast Iron -G  
☐ Polished Bronze Top -PB

**NOTE:** Dimensions shown in parentheses are in millimeters.

DRAWING NUMBER  
S4111BSSIZE  
ASCALE:  
O EDATE:  
5-5-06APPROVED BY:  
CELCHECKED BY:  
CLDRAWN BY:  
R

4113

WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA

DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

REV.	DATE	DESCRIPTION	BY	CKD. BY

WEIGHT  
POUNDS

VOLUME  
CUBIC FEET

FIGURE NUMBER

4113



S4472T03

SMITH

WCO:

3 BRZ TPR THRD PLUG W/CVR



<b>F</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 40%;"> <b>SMITH® JAY R. SMITH MFG. CO.®</b>  <small>MEMBER OF MORRIS GROUP INTERNATIONAL            POST OFFICE BOX 3237            MONTGOMERY, ALABAMA 36109-0237 (USA)            TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</small> </div> <div style="width: 20%; text-align: center;">   <small>MEMBER OF:</small> </div> <div style="width: 20%; text-align: center;">   <small>MEMBER OF:</small> </div> <div style="width: 20%; text-align: center;">   <small>MEMBER OF:</small> </div> </div>					<b>LOCATION</b> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>															
	CLEANOUT PLUGS AND COVERS																				
	TAPER THREAD PLUG WITH ROUND COVER																				
	<p><b>FUNCTION:</b> Used in Female Pipe Size openings in Drainage piping where a cleanout is required. Countersunk plugs have slot sized to receive 1/2"(13) thick steel bar stock. Face-of-wall cover is desirable on finished walls.</p>																				
DRAWING NUMBER <b>S4470</b>	SIZE <b>A</b>	SCALE: <b>NONE</b>		DATE: <b>2-16-70</b>	APPROVED BY: <b>JM</b>	CHECKED BY: <b>BH</b>	DRAWN BY: <b>RK</b>	WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA													
<b>COUNTERSUNK PLUG</b> <input checked="" type="checkbox"/> Fig. 4470T . . . . . LESS COVER AND SCREW <input type="checkbox"/> Fig. 4472T . . . . . WITH COVER AND SCREW																					
<table border="1" style="margin: auto;"> <thead> <tr> <th>A SIZE</th> <th>B DIA</th> </tr> </thead> <tbody> <tr> <td>0150(40), 02(50), 0250(65)</td> <td>4 1/4(110)</td> </tr> <tr> <td>03(80), 0350(90), 04(100)</td> <td>5 1/2(140)</td> </tr> <tr> <td>05(125)</td> <td>7(180)</td> </tr> <tr> <td>06(150)</td> <td>9 1/4(235)</td> </tr> <tr> <td>08(200), 10(250)</td> <td>11 1/4(285)</td> </tr> </tbody> </table>										A SIZE	B DIA	0150(40), 02(50), 0250(65)	4 1/4(110)	03(80), 0350(90), 04(100)	5 1/2(140)	05(125)	7(180)	06(150)	9 1/4(235)	08(200), 10(250)	11 1/4(285)
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<p><b>NOTE:</b> Dimensions shown in parentheses are in millimeters.</p>																					
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>REGULARLY FURNISHED:</b>            Cast Bronze Taper Thread Plug with            Stainless Steel Round Cover and            Screw as indicated by Figure Number.</p> </div> <div style="width: 30%;"> <p><b>VARIATIONS:</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Longer Screw (Specify Length)  <input type="checkbox"/> "T" Handle Plug -TH                Plug tapped 1/4"(6) - 20 Thread  <input type="checkbox"/> Vandal Proof Screw -U           </div> <div style="width: 45%;"> <input type="checkbox"/> Polished Bronze Cover -PB  <input type="checkbox"/> Prime Coated Steel Cover -PC  <input type="checkbox"/> Stainless Steel Plug                (See Fig. 9775)           </div> </div> </div> </div>																					
FIGURE NUMBER	FED C		10-7-14 1-11-96 7-27-94 6-15-94		Revised Variations Added Millimeters Submittal Update Chg'd Title		TBW EMB EMB EMB	BW BS BS BS	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER  <b>4470, 4472</b>										
REV.	DATE		DESCRIPTION		BY	CKD. BY															



# The Green Solution

TRAP GAURD @ WTR HEATER  
CLOSET/ AND BASE BLDG

## Inline 3" Floor Drain Trap Sealer Model SS3009V

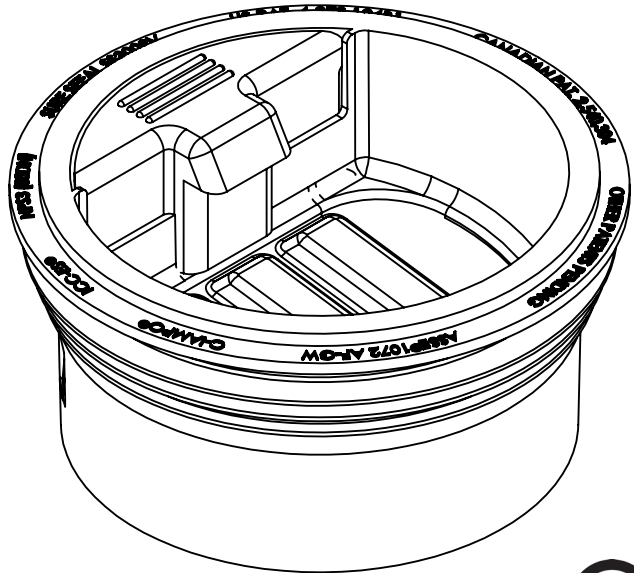
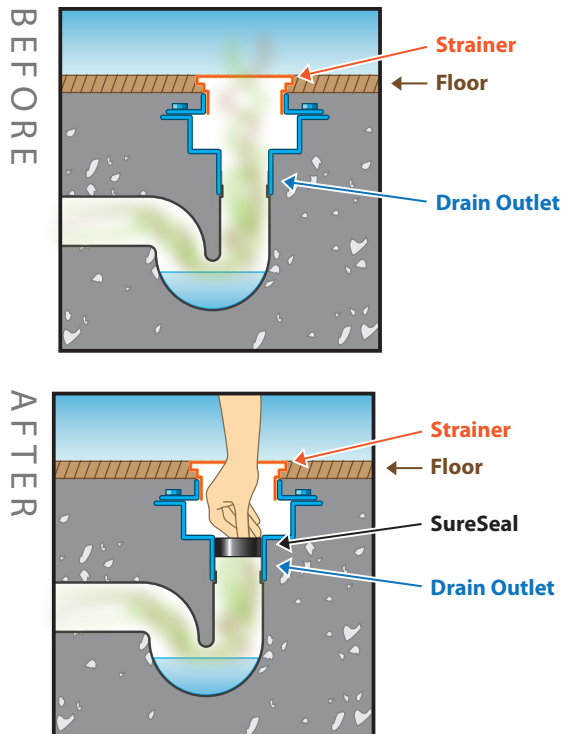


**Specification:** SureSeal Model SS3009V 3" Inline Floor Drain Trap Seal. Commercial grade UV and Ozone resistant ABS plastic housing with proprietary EPDM rubber diaphragm and soft rubber sealing gasket. Floor rating ASSE – 1072 AF-GW.

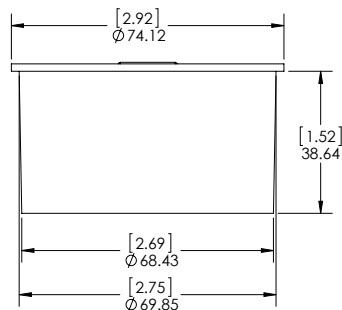
**Function:** Installed into the outlet of drain bodies, drain strainers, or drain hubs to protect the trap seal from evaporation. Creates a physical barrier that blocks sewer gases and their odors from escaping. Provides waterless trap seal protection equivalent to water based trap primers.

- **New Construction:** Used as a trap primer replacement or in conjunction with a trap primer to provide protection against escaping sewer gases. Eliminates the need to repair/replace trap primers when they fail.
- **Retrofit:** Used in situations where trap primers have failed or where trap primers were never installed.

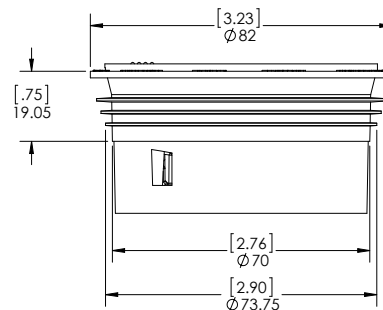
**Benefits:** Simple to install, eliminates the need for complex, time consuming, and expensive repairs. ECO friendly providing 100% water savings efficiency over traditional methods.



ICC-ES Listed: PMG-1070 IAPMO Listed: C-4165 Patents Pending



HOUSING (NO GASKET)



HOUSING & GASKET



## Water Specialties

### Application

The Zurn Wilkins Model ZW209 Pilot Operated Pressure Reducing Valve is designed for many applications where the reduction of high inlet pressures to safe and stable outlet pressure is required. The pilot assembly reacts to changes in downstream pressure allowing the main valve to modulate between the closed and open position ensuring a constant downstream set pressure. Once the downstream pressure reaches the pilot setting, the main valve will seal shut preventing damage downstream. Pressure regulation is not dependent upon flow rate, resulting in minimal pressure loss through the valve. In addition the Model ZW209 comes standard with epoxy coating internally and externally for corrosion protection, as well as isolation valves and pressures gauges for quick and easy maintenance or repair.

### Standards Compliance:

- ANSI/AWWA C530
- Meets the requirements of NSF/ANSI 61\*

\*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

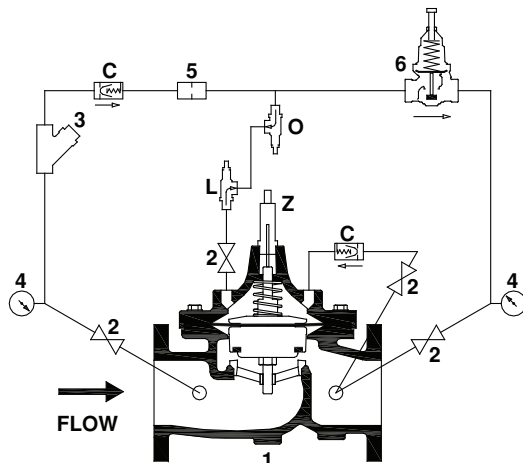
### Materials

Main Valve Body	Ductile Iron ASTM A536
Main Valve Bonnet	Ductile Iron ASTM A536
Disc Guide	Stainless Steel
Seat	Stainless Steel
Disc	Buna-N Rubber
Diaphragm	Nylon Reinforced Buna-N
Stem	Stainless Steel
Spring	Stainless Steel

\*The closing speed control (optional) on this valve should always be open at least three (3) turns off its seat.

### Schematic Diagram

Item	Description of Standard Features
1	Main Valve
2	850XL Isolation Valve
3	SXL "Wye" Type Strainer
4	Pressure Gauge
5	Restriction Fitting
6	PRXL Pressure Reducing Control



NSF/ANSI 61

BODY CONFIGURATIONS		GLOBE STYLE BODY		ANGLE STYLE BODY
END CONNECTION	PRESSURE RATING	FULL PORT	REDUCED PORT	
Threaded	400 psi max.	1 1/4"-3"	n/a	1 1/4"-3"
Flanged	ANSI Class 150, 250 psi max.	1 1/2"-16"	3"-10"	1 1/2"-10"
	ANSI Class 300, 400 psi max.			
Grooved	300 psi max.	1 1/2"-10"	n/a	1 1/2"-10"
MINIMUM INLET PRESSURE 10 PSI				

TEMPERATURE RATING: ☐ Water 33°F to 140°F

PILOT SPRING RANGE: ☐ 15-150 psi

### Standard Features

- ☐ Epoxy Coated, FDA Approved
- ☐ Pilot Assembly
  - "Wye" Type Strainer
  - Opening Speed Control (sizes 1 1/4" - 4")
  - Isolation Valves
- ☐ Inlet and Outlet Pressure Gauges
- ☐ ANSI Class 150 Flanges
- ☐ Copper Tubing and Brass Fittings

### Options (Add suffix letters to ZW209)

#### Function

- ☐ C - 40XL2 Hydraulic Check with Isolation Valve
- ☐ L - SC1 Closing Speed Control\*
- ☐ O - SC1 Opening Speed Control (Standard 1 1/4" -4")

#### Body

- ☐ A - Angle Style Body
- ☐ R - Reduced Port Body

#### Connections

- ☐ G - IPS Grooved
- ☐ TH - NPT Threaded
- ☐ Y - ANSI Class 300 Flanges

#### Main Valve Options

- ☐ V - Viton Rubber Internals, rated 180°F (1-1/4"-6", only available with "LP" or "HP" Option)
- ☐ Z - ZPI Visual Position Indicator

#### Pilot System

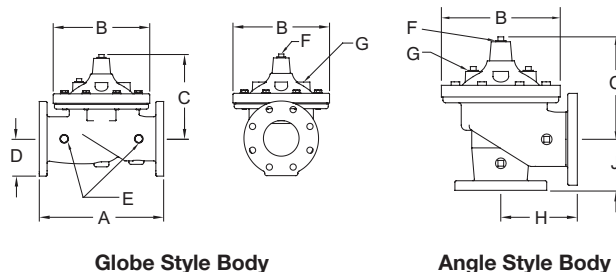
- ☐ LP - 5-25 psi Low Pressure Range PV-PRD Pilot (replaces PRXL)
- ☐ HP - 30-300 psi High Pressure Range PV-PRD Pilot (replaces PRXL)
- ☐ SP - All Stainless Steel Pilotry (replaces all brass fittings, pilot valve and copper tubing. "GL" Option included)
- ☐ SH - Stainless Steel Braided Hoses (only replaces Copper Tubing)
- ☐ RV - Pilot on Reverse Side
- ☐ GL - Liquid Filled Gauge

## Globe and Angle Main Valve Dimensions

DIM	FULL PORT	VALVE SIZE INCHES (mm)											
		1 1/4 (32)	1 1/2 (38)	2 (50)	2 1/2 (65)	3 (80)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)
A	Threaded	7 1/4	7 1/4	9 7/16									
	Class 150 Flange		8 1/2	9 3/8	11	12	15	20	25 3/8	29 3/4	34	39	41 3/8
	Class 300 Flange		9	10	11 5/8	13 1/4	15 5/8	21	26 7/16	31 1/8	35 1/2	40 1/2	43 1/2
	Grooved		8 1/2	9	11	12 1/2	15	20	25 3/8	29 3/4			
B	Diameter	5 5/8	5 5/8	6 3/4	8	9 3/16	11 11/16	15 3/4	20 1/8	23 11/16	27 1/2	31 3/4	34 1/2
C	Max.	5 3/4	5 3/4	6 3/16	7 3/8	8	10 3/16	12 5/16	15 9/16	17 5/8	20 3/16	22 13/16	25 7/8
D	Threaded/Grooved	1 3/8	1 3/8	1 3/4	2 1/8	2 9/16	3 7/16	5	5	5 13/16	6 3/4	8 7/8	8 13/16
	Class 150 Flange		2 1/2	3	3 1/2	3 3/4	4 1/2	5 1/2	6 3/4	8	9 1/2	10 1/2	11 3/4
	Class 300 Flange		3	3 1/4	3 3/4	4 1/8	5	6 1/4	7 1/2	8 3/4	10 1/4	11 1/2	12 3/4
E	NPT Body Tap	3/8	3/8	3/8	1/2	1/2	3/4	3/4	1	1	1	1	1
F	NPT Cvr. Plug Tap	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1	1	1	1
G	NPT Cover Tap	3/8	3/8	3/8	1/2	1/2	3/4	3/4	1	1	1	1	1
H	Threaded	3 1/4	3 1/4	4 3/4	5 1/2	6 1/4							
	Class 150 Flange		4	4 3/4	5 1/2	6	7 1/2	10	12 11/16	14 7/8			
	Class 300 Flange		4 1/4	5	6	6 7/16	8	10 1/2	13 1/4	15 9/16			
	Grooved		4 7/16	4 3/4	5 1/2	6	7 1/2	10	12 11/16	14 7/8			
J	Threaded	1 15/16	1 15/16	3 1/4	4	4 1/2							
	Class 150 Flange		4	3 1/4	4	4	5	6	8	8 5/8			
	Class 300 Flange		4 1/4	3 1/2	4 5/16	4 7/16	5 5/16	6 1/2	8 1/2	9 5/16			
	Grooved		3 3/16	3 1/4	4	4 1/4	5	6	8	8 5/8			
Valve Stem Internal Thread		10-32	10-32	10-32	10-32	1/4-20	1/4-20	1/4-20	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16
Stem Travel (in)		7/16	7/16	3/4	7/8	1	1 3/16	1 3/4	2 3/8	2 13/16	3 7/16	3 13/16	4 5/16
Approx. Wt. (lbs)		22	26	36	55	70	130	240	440	720	820	1200	1550

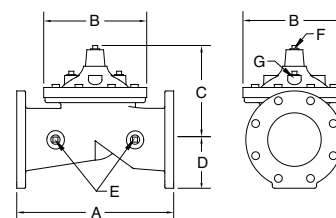
## Reduced Port Main Valve Dimensions

DIM		VALVE SIZE INCHES (mm)				
		3" (80)	4" (100)	6" (150)	8" (200)	10" (250)
A	Class 150 Flange	10 1/4	14	17 3/4	21 7/16	26
	Class 300 Flange	11	14 1/2	18 11/16	22 7/16	27 7/16
B	Dia	6 3/4	9 3/16	11 11/16	15 3/4	20 1/8
C	Max	6 3/8	8 7/16	12 5/16	13 1/4	16 3/4
D	Class 150 Flange	3 3/4	4 1/2	5 1/2	6 3/4	8
	Class 300 Flange	4 1/8	5	6 1/4	7 1/2	8 3/4
E	NPT Body Tap	3/8	1/2	3/4	3/4	1
F	NPT Cvr. Plug Tap	3/8	1/2	3/4	3/4	1
G	NPT Cvr. Tap	3/8	1/2	3/4	3/4	1
Valve Stem Internal Thread		10-32	1/4-20	1/4-20	3/8-16	3/8-16
Stem Travel (in)		3/4	1	1 1/5	1 3/4	2 3/8
Approx. Wt. (Lbs)		35	80	140	275	480



Globe Style Body

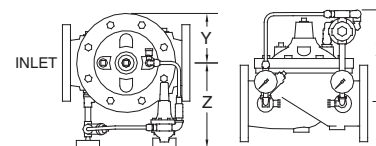
Angle Style Body



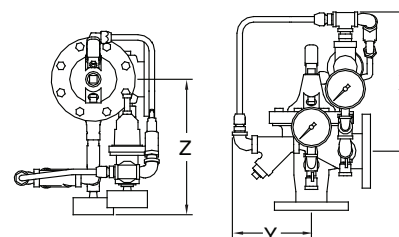
Reduced Port Body

## Pilot System Dimensions

PILOT SYSTEM DIMENSIONS		VALVE SIZE INCHES (mm)											
	DIM	1-1/4 (32)	1-1/2 (40)	2" (50)	2-1/2" (65)	3" (80)	4" (100)	6" (150)	8" (200)	10" (250)	12" (300)	14" (350)	16" (400)
Full Port Body	X	8 1/2	8 1/2	8 1/2	8 1/2	9 1/2	12	13	14	17 1/2	20	23	26
	Y	4	4	3 1/2	4	4 1/2	6	8	10	12	14	16	17 1/2
	Z	8 1/2	8 1/2	9	9	9 1/2	10	11 1/2	13	14 1/2	17	19	20 1/2
Reduced Port Body	X					8 1/2	9 1/2	12	13	14			
	Y					3 1/2	4 1/2	6	8	10			
	Z					9	9 1/2	10	11 1/2	13			
Angle Body	X	9	9	9	9	10	12 1/2	13 1/2	14 1/2	18			
	Y	5	5	5	5	5	6	8	10	12			
	Z	9	9	9 1/2	9 1/2	10	10 1/2	12	13 1/2	15			



Globe Pilot System Dimensions



Angle Pilot System Dimensions

## Flow Characteristics

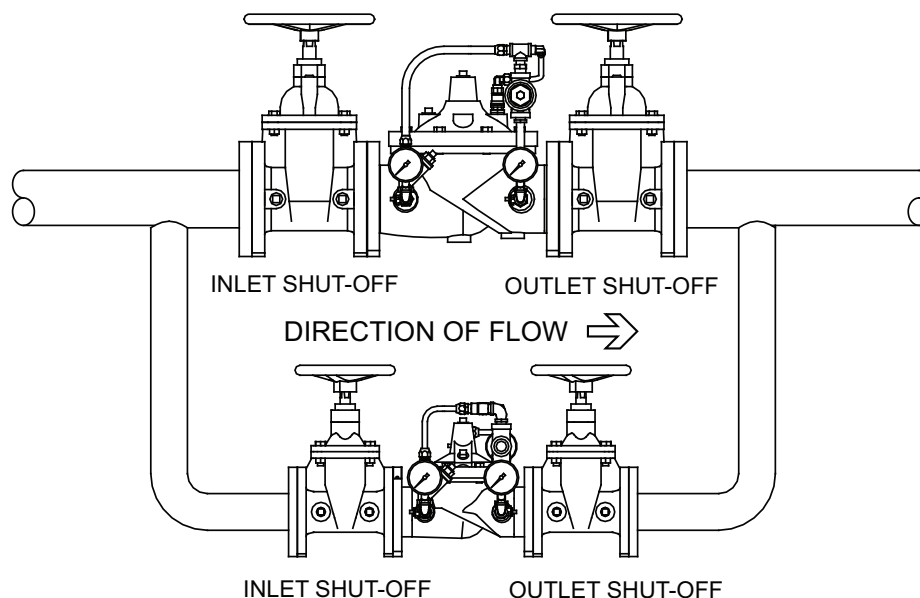
Full Port Globe and Angle Valve size	inches (mm)	1 1/4 (32)	1 1/2 (40)	2 (50)	2 1/2 (65)	3 (80)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)
Reduced Port Globe Valve Size	inches (mm)			3 (80)			4 (100)	6 (150)	8 (200)	10 (250)			
Suggested Flow (GPM)	Max. Continuous	93	125	210	300	460	800	1800	3100	4900	7000	8400	11000
	Max Intermittent	120	160	260	375	600	1000	2250	4000	6150	8700	10500	13800
	Min. Continuous	10	10	15	20	30	50	115	200	300	435	530	690
Suggested Flow (Liters/sec)	Max. Continuous	6	8	13	19	29	50	113	195	309	550	665	870
	Max. Intermittent	7.6	10	16.4	23	37	62	142	246	388	440	530	95
	Min. Continuous	.6	.6	0.9	1.3	1.9	3.2	7.2	13	19	28	33	43

Suggested flow calculations are based on flow through Schedule 40 Pipe. Maximum continuous flow is approx. 20 ft./sec (6.1 meters/sec) & maximum intermittent is approx. 25 ft./sec (7.6 meters/sec) and minimum continuous flow is approx. 1.25 ft./sec (0.4 meters/sec). Many factors should be considered in sizing pressure reducing valves including inlet pressure, outlet pressure and flow rates.

## Operation

The Model ZW209 utilizes a pressure reducing pilot valve that installs on the discharge side of the control circuitry. The pilot is a direct acting, normally open, spring loaded, diaphragm actuated valve. The operation of the ZW209 begins with accurately sizing the valve, then fine tuning the control circuit by adjusting the pilot spring to the desired downstream pressure. Inlet pressure is piped to the inlet port of the pressure reducing pilot. A sensing line runs internally from the discharge side of the pilot to its lower control chamber under the diaphragm. Thus, downstream pressure exceeding the preset acts to close the pilot while the adjustable spring seeks to keep it open. The result is a modulating action in the pilot that is transmitted to the bonnet of the main valve. This creates a mirror modulation of the diaphragm assembly in the main valve. Downstream pressure is maintained within narrow limits regardless of changing flow rates or varying inlet pressures.

## Typical Installation

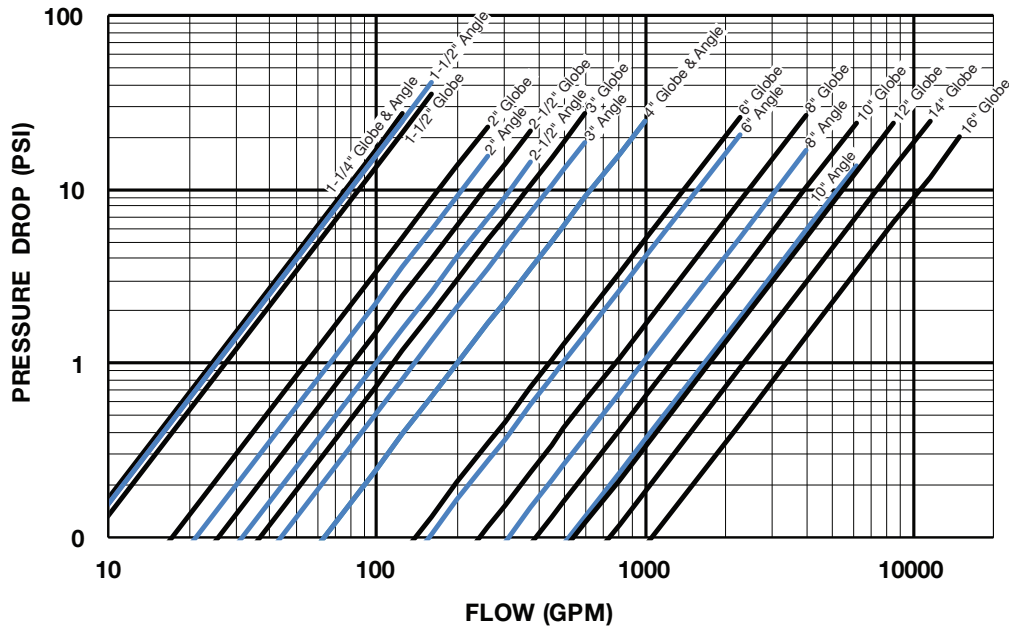
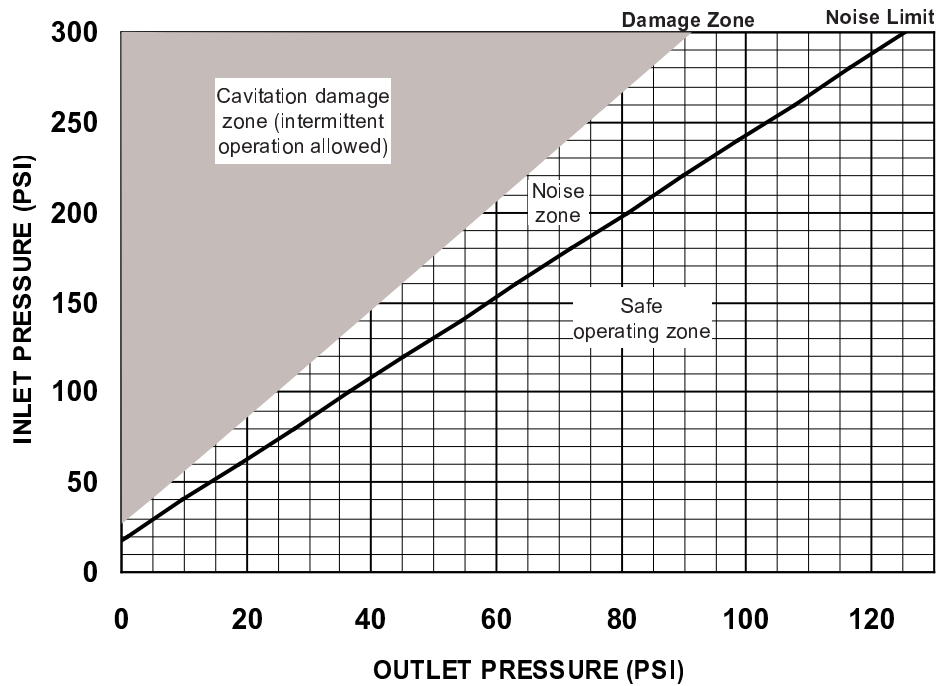


## Notice:

In cases where design flow falls below the minimum continuous flow rate, a low flow by-pass shall be installed.

## Specifications

The Pressure Reducing Valve shall be a diaphragm actuated, pilot controlled valve. The main valve body shall be ductile iron ASTM A 536. The stem of the basic valve shall be guided top and bottom. The diaphragm shall not be used as a seating surface. All internal and external ferrous surfaces shall be coated with a high quality, fusion epoxy coating. The pilot control shall be field adjustable from 15 psi to 150 psi. The valve shall be certified to NSF/ANSI Standard 61. The Pressure Reducing Valve shall be a ZURN WILKINS Model ZW209.

**BODY MINIMUM FRICTION LOSS****PRESSURE REDUCTION LIMIT****\* Notes for Body Minimum Friction Loss Chart:**

Minimum inlet pressure is 10 psi higher than set point or the additional body friction loss at intended flow, whichever is higher. (friction loss may be important at flows above 20 ft/s)

Example: A 6" valve intended to flow 2000 GPM at 150 psi has a friction loss of 20 psi at 2000 GPM. The minimum inlet pressure would be  $150 + 20 = 170$  psi. When inlet pressure is below set point, the outlet pressure will be the pressure at the inlet minus the friction loss.

Job Name \_\_\_\_\_ Contractor \_\_\_\_\_

Job Location \_\_\_\_\_ Engineer \_\_\_\_\_





# Model 375XL

## Reduced Pressure Principle Assembly

### Application

Ideal for use where Lead-Free\* valves are required. Designed for installation on potable water lines to protect against both backsiphonage and backpressure of contaminated water into the potable water supply. Assembly shall provide protection where a potential health hazard exists.

### Standards Compliance

- ASSE® Listed 1013
- IAPMO® Listed
- CSA® Certified B64.4
- AWWA compliant C511
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- UL® Classified (less shut-off valves only, 3/4"-2")
- C-UL® Classified (less shut-off valves only, 3/4"-2")
- Certified to NSF/ANSI 372\* by IAPMO R&T
- NSF® Listed-Standard 61, Annex G\*

\*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

### Materials

Housing	Reinforced Nylon, FDA approved
Fasteners	Stainless Steel, 300 Series
Elastomers	Silicone (FDA Approved)
	Buna Nitrile (FDA Approved)
Internals	Delrin, Nylon, NSF Listed
Springs	Stainless Steel, 300 series
Ball Valves	Cast Bronze, ASTM B 584
Struts	Forged Brass, ASTM B 124

### Features

**Sizes:** 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

Maximum working water pressure	175 PSI
Maximum working water temperature	180°F
Hydrostatic test pressure	350 PSI
End connections Threaded FNPT	ANSI B1.20.1



Certified to NSF/ANSI 61-G

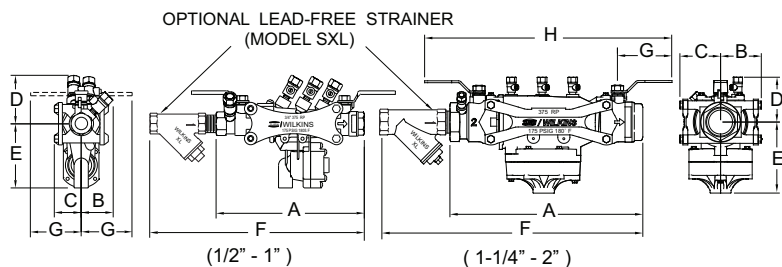
### Options

(Suffixes can be combined)

- ☐ - with full port QT ball valves (standard)
- ☐ L - less ball valves, male pipe thread
- ☐ S - with Model SXL lead-free bronze "Y" type strainer
- ☐ SH - with stainless steel handles
- ☐ FT - with integral male 45° flare SAE test fitting
- ☐ AG - with air gap
- ☐ SAG - with Model SXL lead-free bronze "Y" strainer and air gap
- ☐ BOF - with Blow out/Flush fitting
- ☐ B - with black fusion epoxy coated ball valves & struts for theft protection

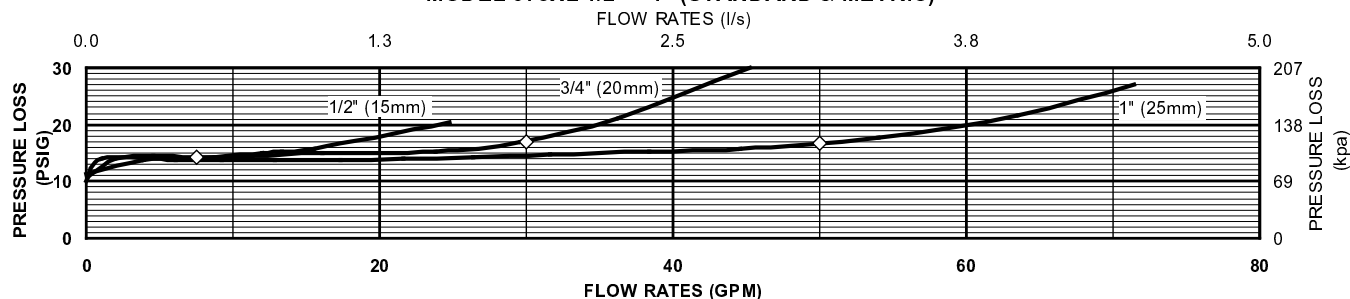
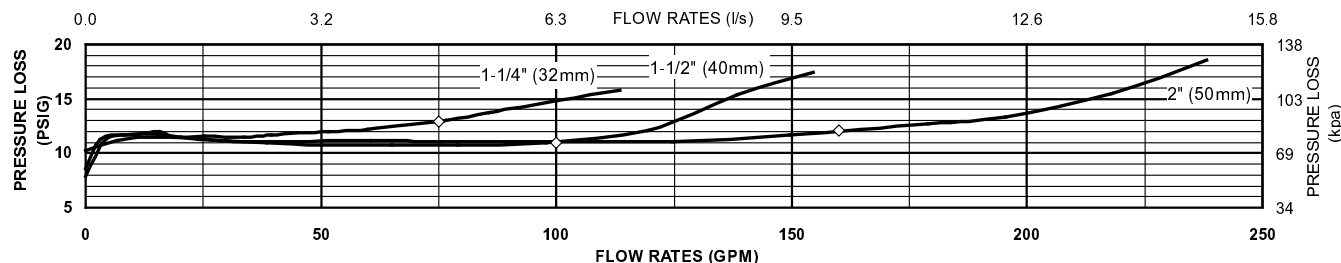
### Accessories

- ☐ Repair kits
- ☐ Thermal expansion tank (Mdl. XT)
- ☐ Soft seated check valve (Mdl. 40XL2)
- ☐ Shock arrester (Model 1250XL)
- ☐ QT-SET Quick Test Fitting Set
- ☐ Blow out / Flush fitting (RK34-375BOF (1/2" or 3/4"), RK1-375BOF or RK114-350-375BOF)



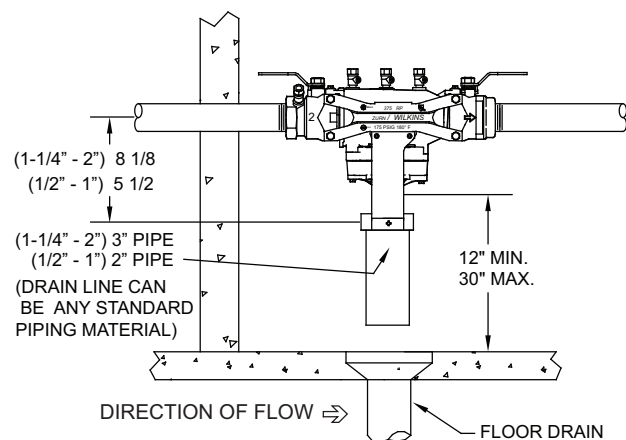
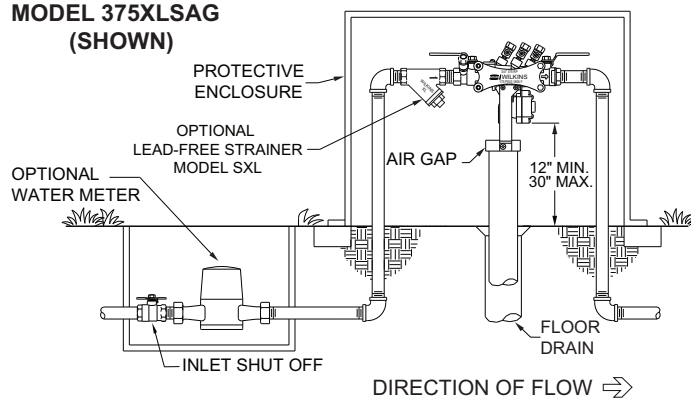
### Dimensions & Weights (do not include pkg.)

MODEL 375XL SIZE		DIMENSIONS (approximate)																		WEIGHT					
		A		A LESS BALL VALVES		B		C		D		E		F		G		H		J		LESS BALL VALVES		WITH BALL VALVES	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg
1/2	20	8 7/8	225	n/a	n/a	115/16	49	1 5/8	41	2 15/16	75	3 7/8	98	12 1/4	311	3	76	10 7/8	276	12 1/4	311	4.7	2.1	5.7	2.6
3/4	20	8 7/8	225	7 1/8	181	115/16	49	1 5/8	41	2 15/16	75	3 7/8	98	12 5/8	321	3	76	11	279	12 1/4	311	4.7	2.1	5.7	2.6
1	25	11 3/16	284	8 7/8	225	2 1/4	57	2 1/4	57	3 7/16	87	4	102	14 9/16	370	4	102	13 3/4	349	15 1/4	387	8.2	3.7	9.7	4.4
1-1/4	32	14 7/8	378	14 3/8	367	3 3/8	86	3 3/8	86	3 3/4	95	5 3/4	146	20 1/2	521	3 3/4	95	18	457	18 1/2	470	18.7	8.5	20.5	9.3
1-1/2	40	15 1/4	387	14 3/8	367	3 3/8	86	3 3/8	86	3 3/4	95	5 3/4	146	22	559	4 1/2	114	18 3/4	476	20 1/4	514	18.3	8.0	21.5	9.8
2	50	16	406	14 3/8	367	3 3/8	86	3 3/8	86	3 3/4	95	5 3/4	146	24	610	4 3/4	120.7	20 3/4	527	20 3/4	527	19.4	8.8	23.5	10.7

**MODEL 375XL 1/2" - 1" (STANDARD & METRIC)****MODEL 375XL 1-1/4" - 2" (STANDARD & METRIC)****Typical Installation**

Local codes shall govern installation requirements. To be installed in accordance with the manufacturers' instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
3/8"	3	4	6	9
1/2"	5	7	9	14
3/4"	8	12	17	25
1"	13	20	27	40
1 1/4"	23	35	47	70
1 1/2"	32	48	63	95
2"	52	78	105	167

**INDOOR INSTALLATION****MODEL 375XLSAG (SHOWN)****OUTDOOR INSTALLATION****Specifications**

The Reduced Pressure Principle Backflow Preventer shall be certified to NSF/ANSI 372, ASSE® Listed 1013, rated to 180°F, and supplied with full port ball valves. The main body shall be Nylon and the seat disc elastomers shall be silicone. If installed indoors, the installation shall be supplied with an air gap adapter. The Reduced Pressure Principle Backflow Preventer shall be a ZURN WILKINS Model 375XL.

### Application

Designed for installation on potable water lines to protect against both backsiphonage and backpressure of contaminated water into the potable water supply. The Model 375A provides protection where a potential health hazard exists. Ideal for use where Lead-Free\* valves are required.

### Standards Compliance

- ASSE® Listed 1013
- AWWA Compliant C511 (with gates only), and C550
- IAPMO® Listed
- Certified to NSF/ANSI 372\* by IAPMO R&T
- CSA® Certified
- UL® Classified
- C-UL® Classified
- FM® Approved
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California.
- NYC MEA 484-04-M
- NSF® Listed-Standard 61, Annex G\*

\*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

### Materials

Main valve body	Ductile Iron ASTM A 536 Grade 4
Access covers	Ductile Iron ASTM A 536 Grade 4
Coatings	FDA Approved electrostatic epoxy finish
Internals	Stainless Steel, 300 Series
	NORYL™, NSF Listed
Fasteners & Springs	Stainless Steel, 300 Series
Seal rings	EPDM (FDA approved)
O-rings	Buna Nitrile (FDA approved)
Sensing line	Stainless Steel, braided hose

### Features

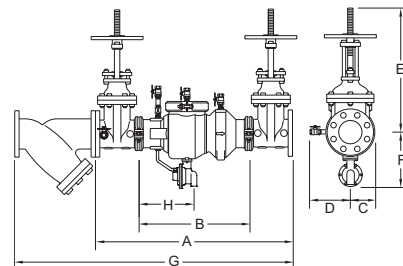
Sizes:	2 1/2", 3", 4", 6", 8", 10"
Maximum working water pressure	175 PSI
Maximum working water temperature	140°F
Hydrostatic test pressure	350 PSI
End connections (Grooved for steel pipe)	AWWA C606
(Flanged)	ANSI B16.1
	Class 125

\*2 1/2 & 3" sizes use 4" body & reducer couplings

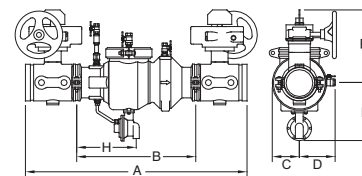
### Dimensions & Weights (do not include pkg.)

MODEL 375A SIZE	WEIGHT															
	WITHOUT GATES		WITH NRS GATES (GXF)		WITH OS&Y GATES (GXF)		WITH NRS GATES (GXG)		WITH OS&Y GATES (GXG)		WITH BUTTERFLY VALVES (GXG)		WITH BUTTERFLY VALVES (GXF)			
	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
2 1/2	65	97	44	191	87	199	90	183	83	191	87	139	63	149	68	
3	80	96	43.5	211	96	217	98	201	91	207	94	141	64	154	70	
4	100	83	38	227	103	237	108	201	91	211	96	131	59	153	69	
6	150	136	62	356	162	372	169	326	148	342	155	210	95	240	109	
8	200	305	139	757	344	781	355	757	344	757	344	449	204	495	225	
10	250	358	162	985	447	1043	473	863	391	921	418	574	260	632	287	

**MODEL  
375A with OSY  
& FSC option**



**MODEL  
375A with  
BG option**



Relief Valve  
discharge port:  
2 1/2" - 6" - 2.75 sq. in.  
8" - 10" - 3.69 sq. in.

Attention: Model 375A (grooved body) and Model 375 (flange body) have different lay lengths.

	DIMENSION (approximate)																								
MODEL 375A SIZE	A		A WITH BUTTERFLY VALVES		B LESS GATE VALVES		C		D		E OS&Y OPEN		E OS&Y CLOSED		E NRS GATE		E WITH BUTTERFLY VALVES		F		G		H		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
2 1/2	65	35 1/8	892	32 1/8	816	20 1/8	511	4 1/2	114	7 1/4	184	16 3/8	416	13 7/8	352	11 3/8	289	8 1/4	210	11	279	45 1/4	1150	9 5/8	247
3	80	36 1/8	918	33	838	20 1/8	511	4 1/2	114	7 1/4	184	18 7/8	479	15 5/8	397	12 3/8	314	8 1/2	216	11	279	46 7/8	1191	9 5/8	247
4	100	38 1/4	972	33 1/4	845	19 7/8	505	4 1/2	114	8	203	22 3/4	578	18 1/4	464	14 3/4	375	9	229	11	279	53 3/8	1356	9 5/8	247
6	150	47 1/4	1200	40 1/4	1022	25 7/8	657	5 1/2	140	10	254	30 1/8	765	23 3/4	603	19	483	10 1/4	260	12 3/8	314	65 3/8	1661	13	330
8	200	62	1575	55	1397	38 1/2	978	10	254	11	279	37 3/4	959	29 1/4	743	22 1/2	572	12	305	15 3/8	391	86 3/8	2194	17 5/16	440
10	250	64 5/8	1641	58 1/2	1485	38 1/2	978	10	254	12	305	45 3/4	1162	35 3/8	899	26 1/2	673	13	330	15 3/8	391	94 3/8	2398	17 1/8	435



# Pumps

# DBPS - Domestic Booster Pump System

SAMS CROSSING-ATLANTA

PHILLIPS GRADICK

All Bidders

GARY BAUER 770-591-1800

REPCO Sales, Inc. (770) 591-1800



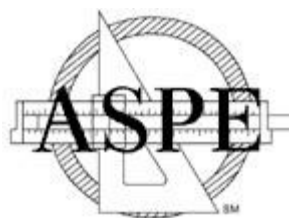
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## Packaged

## Pumping

## System

## Submittal



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NSF 61 Certification #N-5946  
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PACKAGED BOOSTER SIZING SHEET	
Prepared By	PHILLIPS GRADICK
Project Name	SAMS CROSSING-ATLANTA

#### Sizing Criteria Provided

Building Height	TDH As Entered	Residual PSI	Suction PSI
	183		50
Drawing From Pressurized Supply		Street Pressure	50 PSI

#### Available Suction Pressure

Suction Supply			50
Supply Piping Loss	Backflow Preventer	Water Meter	
0	0	0	
Minus Suction Losses of			0
Total Available Suction Pressure = A - B			50

#### Net Boost Required

System Pressure Set Point (PSI)	129.24
Available Suction Pressure (PSI)	(50.00)
Package Losses of 5 PSI	0.00
Differential Boost Pressure Required (PSI)	79.24

#### Selected System

You have selected a Duplex System	RAW SYSTEM CAPACITY BEFORE REDUNDANCY	180	GPM
	RECOMMENDED REDUNDANCY FLOW ADDER	0	GPM
	TOTAL SYSTEM FLOW AFTER REDUNDANCY	180	GPM
	BOOST REQUIRED IN TOTAL DYNAMIC HEAD	183.04	TDH



# Configuration Sheet



## Production Release Data

Serial #		Project	SAMS CROSSING-ATLANTA
Einstein #	63590	Rep	REPCO Sales, Inc.
Release Date	4/14/2017	Model	Prodigy E2
System Pressure (PSI)	129.239	Suction Pressure	50
Control Type	Variable Speed	Number of Pumps	2 Duplex

## Control Panel Data


Whips?	Enclosure	Mfr	VFD HP	Voltage	Phase	Hz	Fan Location
False	NEMA 3R Indoor Only	Hoffman	5	460	3	60	Side
Deadfront?	Enclosure Model		Enclosure Size	Mounting Type			Supply Type
False	20.20124/41		30" x 24" x 10"	Horizontal Skid			Street Pressure
	HMI Type	Low Suction PSI	Suction Gauge Range	Discharge Gauge Range			
	6 in Color Touch Screen	7 PSI	30 - 0 - 100 PSI	0 - 100 PSI			

Breakers and Power Components		QuantumFlo Part #	Wire Ga.	Part Number
Disconnect Size	30	20.10208	14	OT30F3
Pump VFD Breaker	10	20.10154	14	10A 3P Mini
Secondary Breaker	3 AMPS	20.10191	14	L9-3/3/C
Power Supply Model #	Eaton Cuttler-Hammer	20.10005	14	C-H PSG60F
Transmitter Range	0-100 PSI	20.13622		Ashcroft G2 Series

## Motor/Drive Data

Motor H.P.	Motor FLA	MFR	Model	Frame	Enclosure	Drive Model #	QFlo #
5	5.9	Factory Choice	60.25216	184	TEFC	WJ200-030HF	20.19862

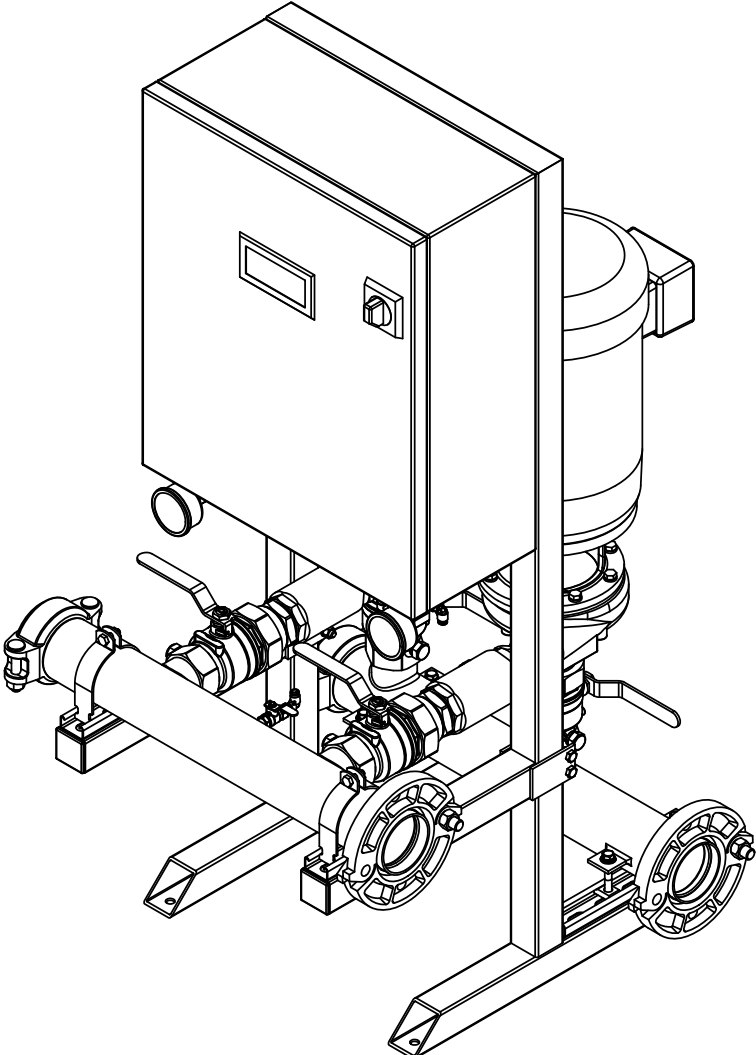
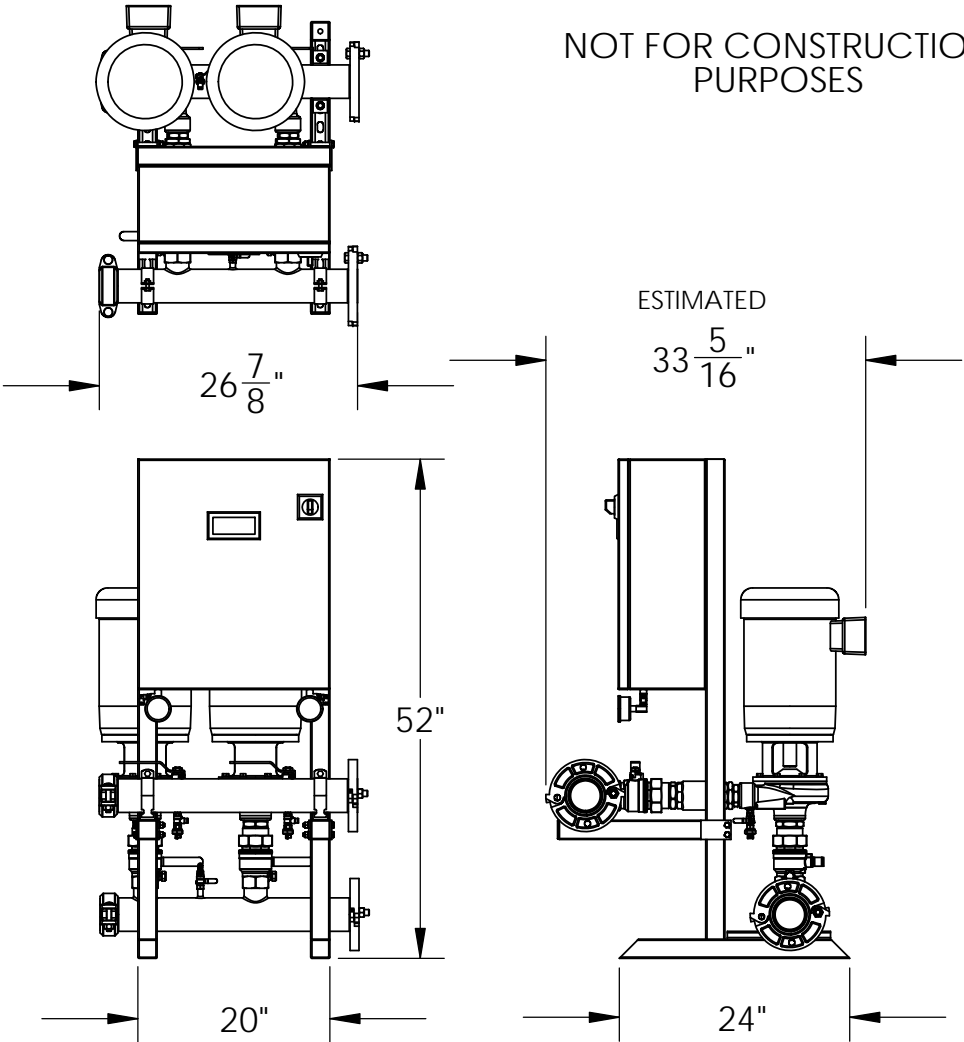
## Pump Data

	Pump Model #	GPM	TDH	Boost (PSI)	Suction	Discharge	Check Valve
	32-160B-5, 1.25x2	90	183.0421	79.239	1.25	1.25	1.25
	NSF 61 Rated Pumps	Impeller Trim			Flanged Connection		3" Header

## OPTIONS

Option Number	Description
28	NSF 61 Certification Requirement - Build in Compliance with Low Lead

NOT FOR CONSTRUCTION  
PURPOSES



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REPRODUCTION IN PART OR AS A WHOLE  
WITHOUT THE WRITTEN PERMISSION OF  
QUANTUMFLO, INC. IS PROHIBITED.

NOTES: DIMENSIONS AND FINISH OF PARTS MAY DIFFER FROM THOSE LISTED.		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 5$ deg. BEND $\pm$ TWO PLACE DECIMAL $\pm$ THREE PLACE DECIMAL $\pm$	DRAWN	BT	10/26/07
			CHECKED	MC	01/06/09
			ENG APPR.	DC	01/06/09
			MFG APPR.		
		FRAME MATERIAL:	Q.A.		
		MANIFOLD MATERIAL:	QUANTUMFLO, INC. 210 SPRINGVIEW COMMERCE DR. BLDG. #150 DEBARY, FL 32713 PHONE - 386-753-9702 E-FAX - 386-753-9703		
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			



TITLE:

PRODIGY 150  
TYPICAL

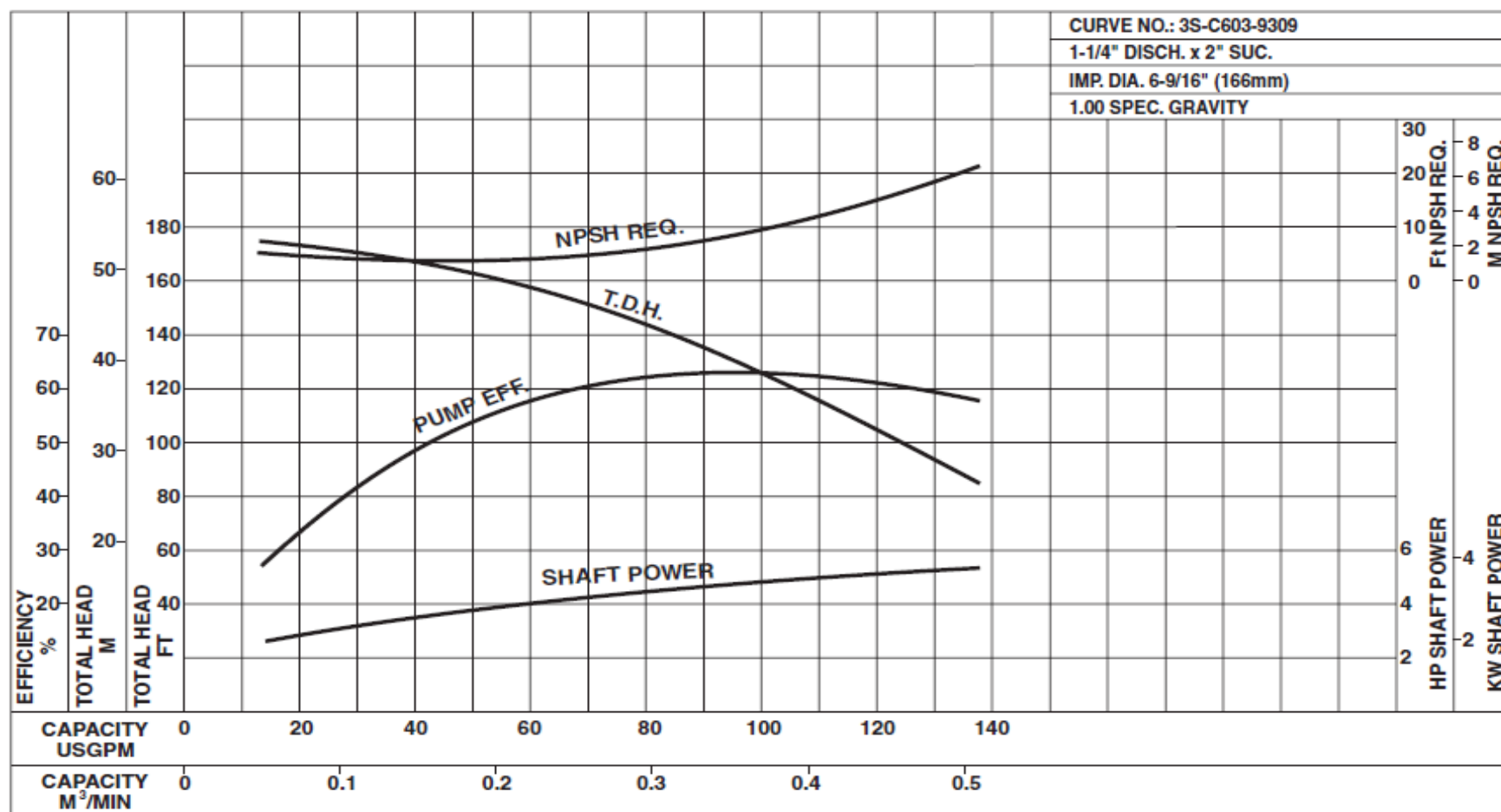
SIZE	DWG. NO.	REV
A	QF-XXXXXX	
SCALE: VAR		WEIGHT:
		SHEET 1 OF 1



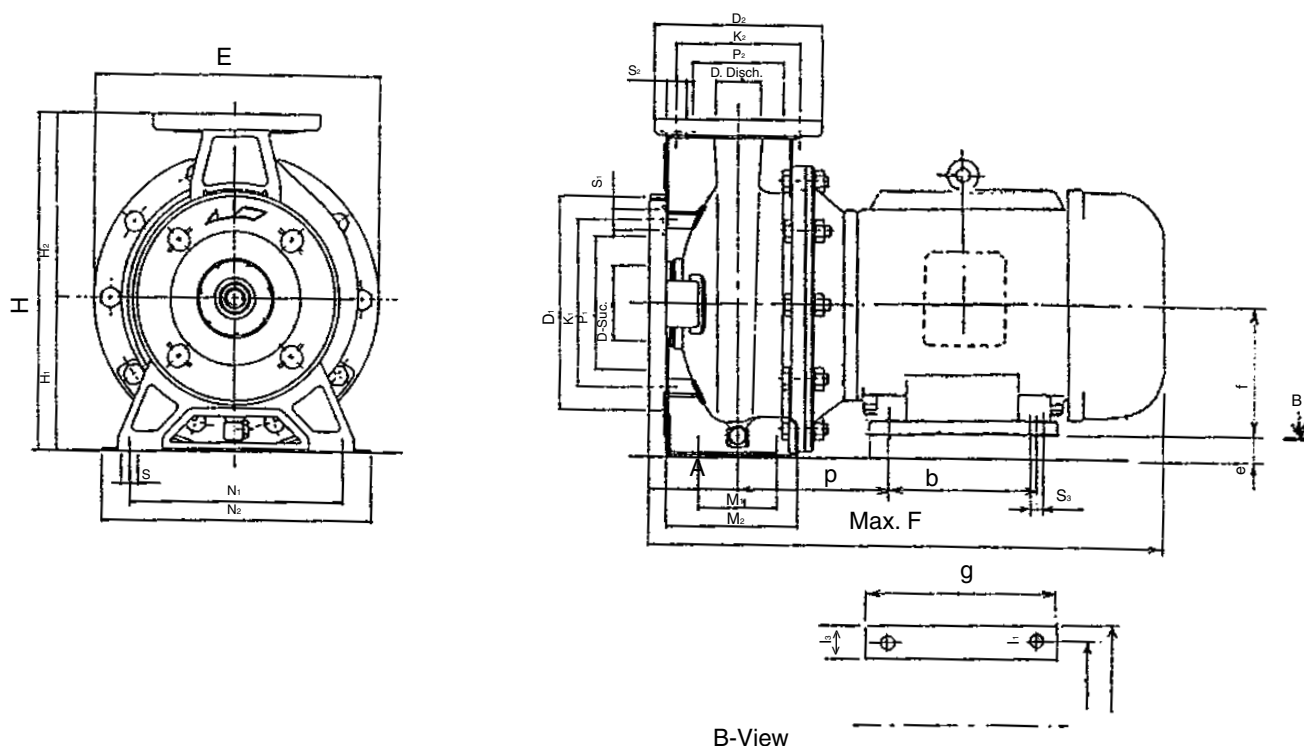
## SUBMITTAL DATA

### NSF 61 Rated Pump Curves

Suction	2"
Discharge	1 1/4"
Rated HP	5



**Pump Dimensions**



Unit: inch

Model	Size	Flange										Pump									
		Suction					Discharge														
		D Suc.	P <sub>1</sub>	K <sub>1</sub>	D <sub>1</sub>	S <sub>1</sub>	D Disch.	P <sub>2</sub>	K <sub>2</sub>	D <sub>2</sub>	S <sub>2</sub>	A	E	H	H <sub>1</sub>	H <sub>2</sub>	M <sub>1</sub>	M <sub>2</sub>	N <sub>1</sub>	N <sub>2</sub>	S
32-125-3HP	1 1/4 x 2 x 5 3/16	2	3 3/4	4 15/16	6 1/2	1 1/16	1 1/4	2 1/2	3 1/2	5 1/2	5/8	3 1/8	8 3/8	9 15/16	4 7/16	5 1/2	2 3/4	4 1/2	5 1/2	7 1/2	9/16
32-160A-5HP	1 1/4 x 2 x 5 15/16	2	3 3/4	4 15/16	6 1/2	1 1/16	1 1/4	2 1/2	3 1/2	5 1/2	5/8	3 1/8	10	11 1/2	5 3/16	6 5/16	2 3/4	4 5/8	7 1/2	9 7/16	9/16
32-160B-5HP	1 1/4 x 2 x 6 9/16	2	3 3/4	4 15/16	6 1/2	1 1/16	1 1/4	2 1/2	3 1/2	5 1/2	5/8	3 1/8	10	11 1/2	5 3/16	6 5/16	2 3/4	4 5/8	7 1/2	9 7/16	9/16
32-200-7 1/2HP	1 1/4 x 2 x 7 5/16	2	3 3/4	4 15/16	6 1/2	1 1/16	1 1/4	2 1/2	3 1/2	5 1/2	5/8	3 1/8	11 9/16	13 3/8	6 5/16	7 1/16	2 3/4	4 11/16	7 1/2	9 7/16	9/16
32-200-10HP	1 1/4 x 2 x 7 7/8	2	3 3/4	4 15/16	6 1/2	1 1/16	1 1/4	2 1/2	3 1/2	5 1/2	5/8	3 1/8	11 9/16	13 3/8	6 5/16	7 1/16	2 3/4	4 11/16	7 1/2	9 7/16	9/16
40-125A-5HP	1 1/2 x 2 1/2 x 4 15/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	1 1/2	2 7/8	3 7/8	5 7/8	5/8	3 1/8	8 3/8	9 15/16	4 7/16	5 1/2	2 3/4	4 1/2	6 5/16	8 1/4	9/16
40-125B-5HP	1 1/2 x 2 1/2 x 5 1/2	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	1 1/2	2 7/8	3 7/8	5 7/8	5/8	3 1/8	8 3/8	9 15/16	4 7/16	5 1/2	2 3/4	4 1/2	6 5/16	8 1/4	9/16
40-160-7 1/2HP	1 1/2 x 2 1/2 x 5 15/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	1 1/2	2 7/8	3 7/8	5 7/8	5/8	3 1/8	10	11 1/2	5 3/16	6 5/16	2 3/4	4 5/8	7 1/2	9 7/16	9/16
40-160-1-10HP	1 1/2 x 2 1/2 x 6 9/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	1 1/2	2 7/8	3 7/8	5 7/8	5/8	3 1/8	10	11 1/2	5 3/16	6 5/16	2 3/4	4 5/8	7 1/2	9 7/16	9/16
40-200A-15HP	1 1/2 x 2 1/2 x 7 3/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	1 1/2	2 7/8	3 7/8	5 7/8	5/8	3 15/16	11 9/16	13 3/8	6 5/16	7 1/16	2 3/4	4 1/2	8 3/8	10 7/16	9/16
40-200B-15HP	1 1/2 x 2 1/2 x 7 7/8	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	1 1/2	2 7/8	3 7/8	5 7/8	5/8	3 15/16	11 9/16	13 3/8	6 5/16	7 1/16	2 3/4	4 1/2	8 3/8	10 7/16	9/16
50-125-7 1/2HP	2 x 2 1/2 x 5 3/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	2	3 3/4	4 15/16	6 1/2	11/16	3 15/16	10	11 1/2	5 3/16	6 5/16	2 3/4	4 1/2	7 1/2	9 7/16	9/16
50-125-10HP	2 x 2 1/2 x 5 1/2	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	2	3 3/4	4 15/16	6 1/2	11/16	3 15/16	10	11 1/2	5 3/16	6 5/16	2 3/4	4 1/2	7 1/2	9 7/16	9/16
50-160-10HP	2 x 2 1/2 x 6 3/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	2	3 3/4	4 15/16	6 1/2	11/16	3 15/16	11 11/16	13 3/8	6 5/16	7 1/16	2 3/4	4 1/2	8 3/8	10 7/16	9/16
50-160-1-15HP	2 x 2 1/2 x 6 9/16	2 1/2	4 9/16	5 11/16	7 5/16	1 1/16	2	3 3/4	4 15/16	6 1/2	11/16	3 15/16	11 11/16	13 3/8	6 5/16	7 1/16	2 3/4	4 1/2	8 3/8	10 7/16	9/16

## Pump Dimensions ..... BG: \*%FUYX Stainless Steel Centrifugal Pumps

Unit: inch

Model	JM Frame	Motor									
		b	e	f	g	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	P	S <sub>3</sub>	F
32-125	145JM	5	15/16	3 1/2	5 15/16	5 1/2	6 1/2	1	6 9/16	11/32	18 15/16
	182JM	4 1/2	-1/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	19 3/16
32-160 <sup>A/B</sup>	182JM	4 1/2	11/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	19 3/16
	184JM	5 1/2	11/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	20 5/8
32-200	184JM	5 1/2	1 13/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	22 1/8
	213JM	5 1/2	1 1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	20 3/4
	215JM	7	1 1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	21 7/8
40-125 <sup>A/B</sup>	182JM	4 1/2	-1/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	19 3/16
	184JM	5 1/2	-1/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	20 3/4
40-160	184JM	5 1/2	11/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	22 1/8
	213JM	5 1/2	-1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	20 3/4
	215JM	7	-1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	21 7/8
40-200	215JM	7	1 1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	22 11/16
50-125	184JM	5 1/2	11/16	4 1/2	6 1/2	7 1/2	8 1/2	1	7 3/16	13/32	22 15/16
	213JM	5 1/2	-1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	21 9/16
	215JM	7	-1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	22 11/16
50-160	213JM	5 1/2	1 1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	21 9/16
	215JM	7	1 1/16	5 1/4	8	8 1/2	9 1/2	1	8 3/16	13/32	22 11/16

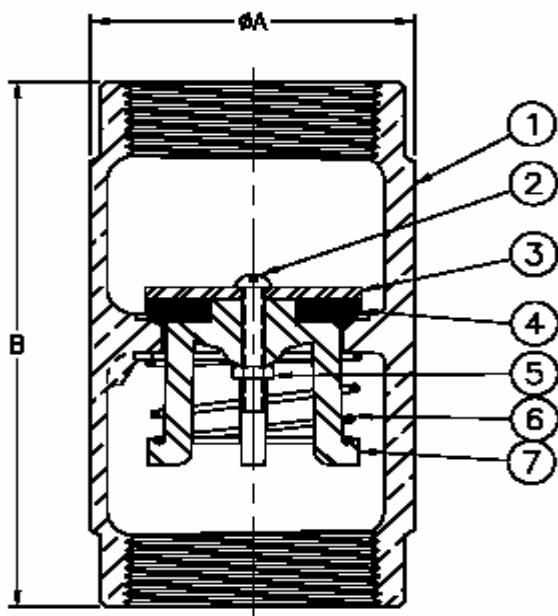
### Remarks:

1. "e" dimensions (-) means H<sub>1</sub><f.  
In this case, need distance piece under the pump.
2. "F" dimension indicate maximum dimension.

# SUBMITTAL DATA

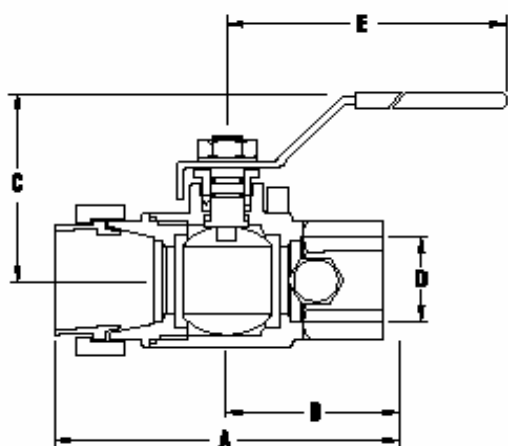
## 1" thru 2" Pipe Fittings

### Check & Isolation Valves



Dimensions			
SIZE	Dim. "A"	Dim. "B"	Weight
1	1 7/8	3 9/16	1 7/16
1 1/4	2 3/16	4 3/16	1 11/16
1 1/2	2 9/16	4 5/8	2 11/16
2	3	5 1/4	4

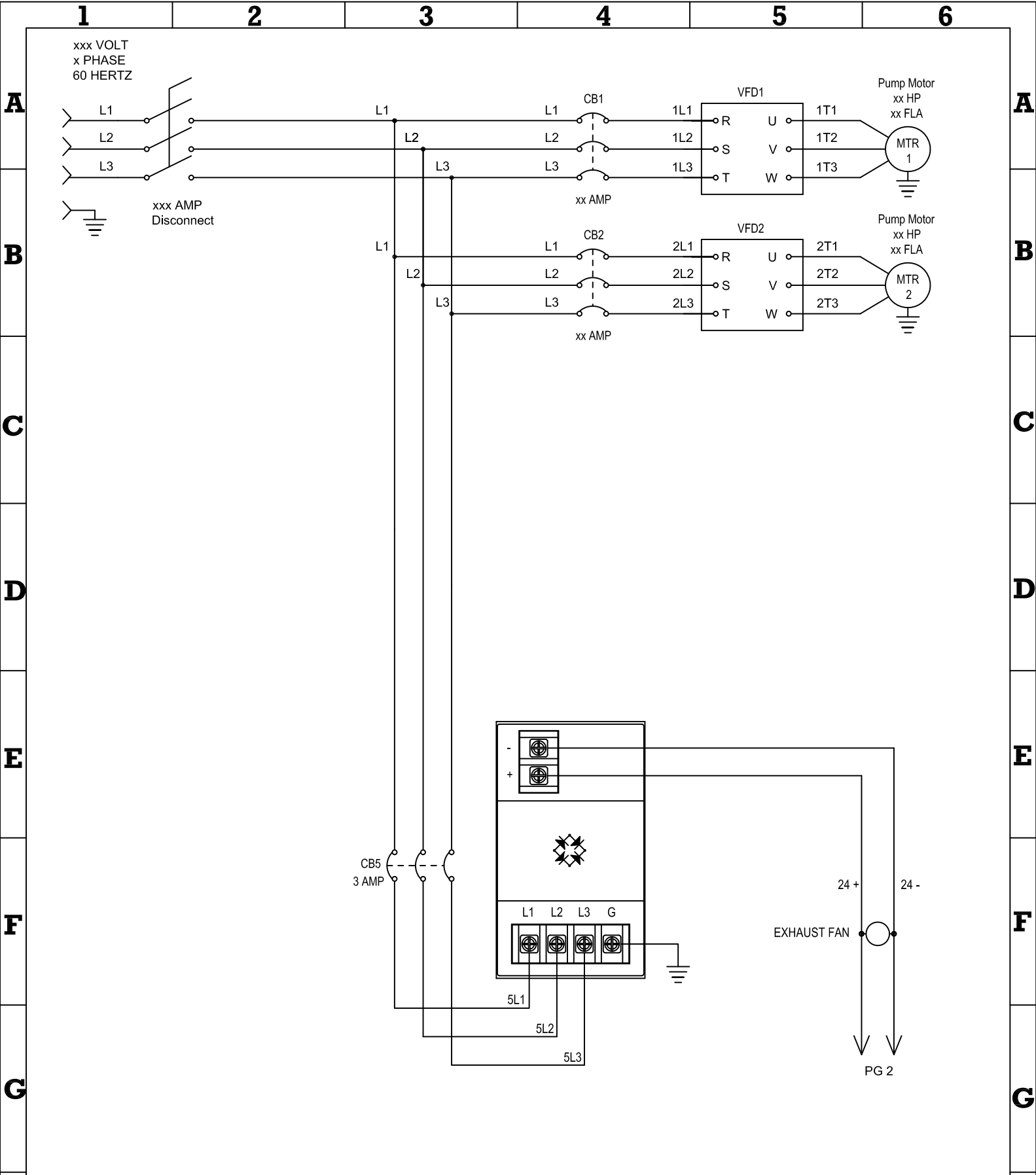
Materials:		
Item #	Description	Material
1	Body	304 S.S.
2	Bolt	304 S.S.
3	Washer	Nylon
4	Washer	304 S.S.
5	Disc	Viton
6	Nut	304 S.S.
7	Spring	304 S.S.
8	Guide	304 S.S.



Materials		
No.	Part Name	Materials
1	Body	Forged Brass
2	Ball	Chrome Plated Brass
3	O Rings (2)	Viton®
4	Female Tail Piece	Forged Brass
5	Union Nut	Forged Brass

Dimensions					
Size	A	B	C	D	E
1"	4.19	2.5	2.36	1	4.72
1-1/4"	5.01	2.87	2.59	1.26	4.72
1-1/2"	5.57	3.22	3.22	1.57	5.9
2"	6.31	3.58	3.5	2	5.9

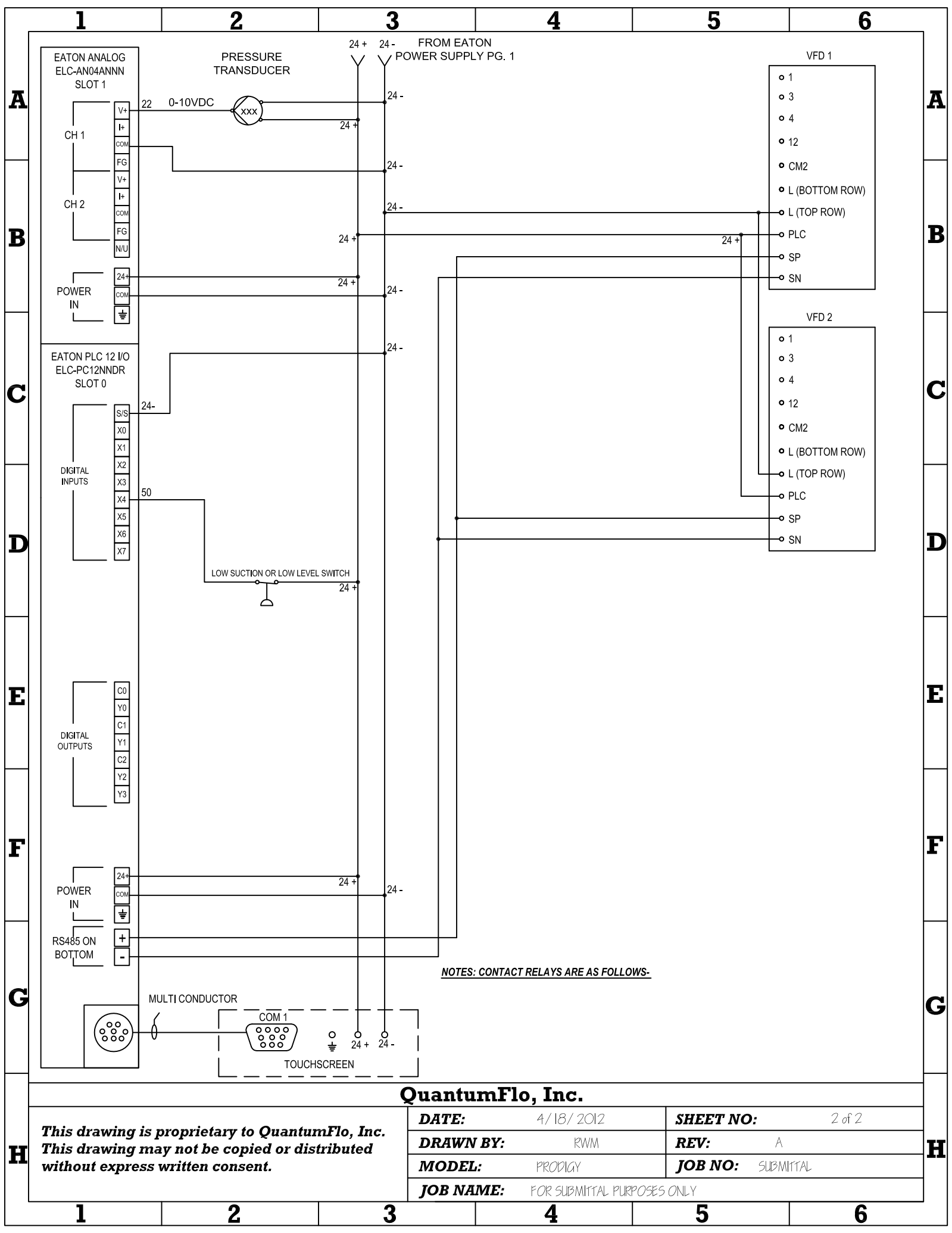
**Pressure Rating:** 500 PSI W.O.G. Non-Shock



**QuantumFlo, Inc.**

<b>DATE:</b>	4/18/ 2012	<b>SHEET NO:</b>	1 of 2
<b>DRAWN BY:</b>	RWM	<b>REV:</b>	A
<b>MODEL:</b>	PRODIGY	<b>JOB NO:</b>	SUBMITAL
<b>JOB NAME:</b>	FOR SUBMITAL PURPOSES ONLY		

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**without express written consent.**

<b>DATE:</b>	4/18/2012	<b>SHEET NO:</b>	2 of 2
<b>DRAWN BY:</b>	RWM	<b>REV:</b>	A
<b>MODEL:</b>	PRODIGY	<b>JOB NO:</b>	SUBMITTAL
<b>JOB NAME:</b>	FOR SUBMITTAL PURPOSES ONLY		



Pursuing the Ideal Compact Inverter

# WJ200 Series

Designed for excellent performance and user friendliness



# Standard Specifications

## 1-phase 200V class

Models WJ200-			001SF	002SF	004SF	007SF	015SF	022SF	
Applicable motor size *1		kW	VT	0.2	0.4	0.55	1.1	2.2	3.0
			CT	0.1	0.2	0.4	0.75	1.5	2.2
		HP	VT	1/4	1/2	3/4	1.5	3	4
			CT	1/8	1/4	1/2	1	2	3
Rated capacity (kVA)		200V	VT	0.4	0.6	1.2	2.0	3.3	4.1
			CT	0.2	0.5	1.0	1.7	2.7	3.8
		240V	VT	0.4	0.7	1.4	2.4	3.9	4.9
			CT	0.3	0.6	1.2	2.0	3.3	4.5
Input Rating	Rated input voltage (V)		1-phase: 200V-15% to 240V +10%, 50/60Hz ±5%						
	Rated input current (A)		VT	2.0	3.6	7.3	13.8	20.2	24.0
			CT	1.3	3.0	6.3	11.5	16.8	22.0
Output Rating	Rated output voltage (V) *2		3-phase: 200 to 240V (proportional to input voltage)						
	Rated output current (A)		VT	1.2	1.9	3.5	6.0	9.6	12.0
			CT	1.0	1.6	3.0	5.0	8.0	11.0
Minimum value of resistor (Ω)			100	100	100	50	50	35	
Weight		kg	1.0	1.0	1.1	1.6	1.8	1.8	
		lb	2.2	2.2	2.4	3.5	4.0	4.0	

## 3-phase 200V class

Models WJ200-			001LF	002LF	004LF	007LF	015LF	022LF	037LF	055LF	075LF	110LF	150LF	
Applicable motor size *1		kW	VT	0.2	0.4	0.75	1.1	2.2	3.0	5.5	7.5	11	15	18.5
			CT	0.1	0.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15
		HP	VT	1/4	1/2	1	1.5	3	4	7.5	10	15	20	25
			CT	1/8	1/4	1/2	1	2	3	5	7.5	10	15	20
Rated capacity (kVA)		200V	VT	0.4	0.6	1.2	2.0	3.3	4.1	6.7	10.3	13.8	19.3	23.9
			CT	0.2	0.5	1.0	1.7	2.7	3.8	6.0	8.6	11.4	16.2	20.7
		240V	VT	0.4	0.7	1.4	2.4	3.9	4.9	8.1	12.4	16.6	23.2	28.6
			CT	0.3	0.6	1.2	2.0	3.3	4.5	7.2	10.3	13.7	19.5	24.9
Input Rating	Rated input voltage (V)		3-phase: 200V-15% to 240V +10%, 50/60Hz ±5%											
	Rated input current (A)	VT	1.2	1.9	3.9	7.2	10.8	13.9	23.0	37.0	48.0	68.0	72.0	
		CT	1.0	1.6	3.3	6.0	9.0	12.7	20.5	30.8	39.6	57.1	62.6	
Output Rating	Rated output voltage (V) *2		3-phase: 200 to 240V (proportional to input voltage)											
	Rated output current (A)	VT	1.2	1.9	3.5	6.0	9.6	12.0	19.6	30.0	40.0	56.0	69.0	
		CT	1.0	1.6	3.0	5.0	8.0	11.0	17.5	25.0	33.0	47.0	60.0	
Minimum value of resistor (Ω)			100	100	100	50	50	35	35	20	17	17	10	
Weight		kg	1.0	1.0	1.1	1.2	1.6	1.8	2.0	3.3	3.4	5.1	7.4	
		lb	2.2	2.2	2.4	2.6	3.5	4.0	4.4	7.3	7.5	11.2	16.3	



## 3-phase 400V class

Models WJ200-			004HF	007HF	015HF	022HF	030HF	040HF	055HF	075HF	110HF	150HF	
Applicable motor size *1		kW	VT	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5
			CT	0.4	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15
		HP	VT	1	2	3	4	5	7.5	10	15	20	25
			CT	1/2	1	2	3	4	5	7.5	10	15	20
Rated capacity (kVA)		200V	VT	1.3	2.6	3.5	4.5	5.7	7.3	11.5	15.1	20.4	25.0
			CT	1.1	2.2	3.1	3.6	4.7	6.0	9.7	11.8	15.7	20.4
		240V	VT	1.7	3.4	4.4	5.7	7.3	9.2	14.5	19.1	25.7	31.5
			CT	1.4	2.8	3.9	4.5	5.9	7.6	12.3	14.9	19.9	25.7
Input Rating	Rated input voltage (V)		3-phase: 380V-15% to 480V +10%, 50/60Hz ±5%										
	Rated input current (A)	VT	2.1	4.3	5.9	8.1	9.4	13.3	20.0	24.0	38.0	44.0	
		CT	1.8	3.6	5.2	6.5	7.7	11.0	16.9	18.8	29.4	35.9	
Output Rating	Rated output voltage (V) *2		3-phase: 380 to 480V (proportional to input voltage)										
	Rated output current (A)	VT	2.1	4.1	5.4	6.9	8.8	11.1	17.5	23.0	31.0	38.0	
		CT	1.8	3.4	4.8	5.5	7.2	9.2	14.8	18.0	24.0	31.0	
Minimum value of resistor (Ω)			180	180	180	100	100	100	70	70	70	35	
Weight		kg	1.5	1.6	1.8	1.9	1.9	2.1	3.5	3.5	4.7	5.2	
		lb	3.3	3.5	4.0	4.2	4.2	4.6	7.7	7.7	10.4	11.5	

\*1: The applicable motor refers to Hitachi standard 3-phase motor (4p). When using other motors, care must be taken to prevent the rated motor current (50/60Hz) from exceeding the rated output current of the inverter.

\*2: The output voltage varies as the main supply voltage varies (except when using the AVR function). In any case, the output voltage cannot exceed the input power supply voltage.

# General Specifications

Item			General Specifications	
Protective housing *3			IP20	
Control method			Sinusoidal Pulse Width Modulation (PWM) control	
Carrier frequency			2kHz to 15kHz (derating required depending on the model)	
Output frequency range *4			0.1 to 400Hz	
Frequency accuracy			Digital command: ±0.01% of the maximum frequency Analog command: ±0.2% of the maximum frequency (25°C ±10°C)	
Frequency setting resolution			Digital: 0.01Hz; Analog: max. frequency/1000	
Volt. / Freq. characteristic			V/f control (constant torque, reduced torque, free-V/F): base freq. 30Hz– 400Hz adjustable, Sensorless vector control, Closed loop control with motor encoder feedback (only V/f control).	
Overload capacity			Dual rating: CT (Heavy duty): 60 sec. @150% VT (Normal duty): 60 sec. @120%	
Acceleration / deceleration time			0.01 to 3600 seconds, linear and S-curve accel/ decel, second accel / decel setting available	
Starting torque			200% @0.5Hz (sensorless vector control)	
DC braking			Variable operating frequency, time, and braking force	
Input signal	Freq. setting	Operator panel	  keys / Value settings	
		External signal *6	0 to 10 VDC (input impedance 10kΩ), 4 to 20mA (input impedance 100Ω), Potentiometer (1k to 2kΩ, 2W)	
		Via network	RS485 ModBus RTU, other network option	
	FWD / REV run	Operator panel	Run / Stop (Forward / Reverse run change by command)	
		External signal *6	Forward run / stop, Reverse run / stop	
		Via network	RS485 ModBus RTU, other network option	
	Intelligent input terminal	Terminals	7 terminals, sink / source changeable by a short bar	
		68 functions assignable	Functions	FW (forward run command), RV (reverse run command), CF1–CF4 (multi-stage speed setting), JG (jog command), DB (external braking), SET (set second motor), 2CH (2-stage accel./ decel. command), FRS (free run stop command), EXT (external trip), USP (startup function), CS (commercial power switchover), SFT (soft lock), AT (analog input selection), RS (reset), PTC (thermistor thermal protection), STA (start), STP (stop), F/R (forward /reverse), PID (PID disable), PIDC (PID reset), UP (remote control up function), DWN (remote control down function), UDC (remote control data clear), OPE (operator control), SF1–SF7 (multi-stage speed setting; bit operation), OLR (overload restriction), TL (torque limit enable), TRQ1 (torque limit changeover1), TRQ2 (torque limit changeover2), BOK (Braking confirmation), LAC (LAD cancellation), PCLR (position deviation clear), ADD (add frequency enable), F-TM (force terminal mode), ATR (permission of torque command input), KHC (Cumulative power clear), MI1–MI7 (general purpose inputs for EzSQ), AHD (analog command hold), CP1–CP3 (multistage-position switches), ORL (limit signal of zero-return), ORG (trigger signal of zero-return), SPD (speed/position changeover), GS1,GS2 (STO inputs, safety related signals), 485 (Starting communication signal), PRG (executing EzSQ program), HLD (retain output frequency), ROK (permission of run command), EB (rotation direction detection of B-phase), DISP (display limitation), NO (no function)
	Output signal	Intelligent output terminal	Functions	RUN (run signal), FA1–FA5 (frequency arrival signal), OL,OL2 (overload advance notice signal), OD (PID deviation error signal), AL (alarm signal), OTQ (over /under torque threshold), UV (under-voltage), TRQ (torque limit signal), RNT (run time expired), ONT (power ON time expired), THM (thermal warning), BRK (brake release), BER (brake error), ZS (0Hz detection), DSE (speed deviation excessive), POK (positioning completion), ODc (analog voltage input disconnection), OIdc (analog current input disconnection), FBV (PID second stage output), NDC (network disconnect detection), LOG1–LOG3 (Logic output signals), WAC (capacitor life warning), WAF (cooling fan warning), FR (starting contact), OHF (heat sink overheat warning), LOC (Low load), MO1–MO3 (general outputs for EzSQ), IRDY (inverter ready), FWR (forward operation), RVR (reverse operation), MJA (major failure), WCO (window comparator O), WCOI (window comparator OI), FREF (frequency command source), REF (run command source), SETM (second motor in operation), EDM (STO (safe torque off) performance monitor), OP (option control signal), NO (no function)
Monitor output (analog)		Output freq., output current, output torque, output voltage, input power, thermal load ratio, LAD freq., heat sink temperature, general output (EzSQ)		
Pulse train output (0–10VDC, 32kHz max.)	[PWM output] Output freq., output current, output torque, output voltage, input power, thermal load ratio, LAD freq., heat sink temperature, general output (EzSQ) [Pulse train output] Output frequency, output current, pulse train input monitor			
Alarm output contact			ON for inverter alarm (1c contacts, both normally open or closed available.)	
Other functions			Free-V/f, manual /automatic torque boost, output voltage gain adjustment, AVR function, reduced voltage start, motor data selection, auto-tuning, motor stabilization control, reverse running protection, simple position control, simple torque control, torque limiting, automatic carrier frequency reduction, energy saving operation, PID function, non-stop operation at instantaneous power failure, brake control, DC injection braking, dynamic braking (BRD), frequency upper and lower limiters, jump frequencies, curve accel and decel (S, U, inverted U,EL-S), 16-stage speed profile, fine adjustment of start frequency, accel and decel stop, process jogging, frequency calculation, frequency addition, 2-stage accel / decel, stop mode selection, start /end freq., analog input filter, window comparators, input terminal response time, output signal delay / hold function, rotation direction restriction, stop key selection, software lock, safe stop function, scaling function, display restriction, password function, user parameter, initialization, initial display selection, cooling fan control, warning, trip retry, frequency pull-in restart, frequency matching, overload restriction, over current restriction, DC bus voltage AVR	
Protective function			Over-current, over-voltage, under-voltage, overload, brake resistor overload, CPU error, memory error, external trip, USP error, ground fault detection at power on, temperature error, internal communication error, driver error, thermistor error, brake error, safe stop, overload at low speed, modbus communication error, option error, encoder disconnection, speed excessive, EzSQ command error, EzSQ nesting error, EzSQ execution error, EzSQ user trip	
Operating environment	Temperature	Operating (ambient): -10 to 50°C / Storage: -20 to 65°C *7		
	Humidity	20 to 90% humidity (non-condensing)		
	Vibration *8	5.9m/s <sup>2</sup> (0.6G), 10 to 55 Hz		
	Location	Altitude 1,000m or less, indoors (no corrosive gasses or dust)		
Coating color			Black	
Options			Remote operator unit, cables for the units, braking unit, braking resistor, AC reactor, DC reactor, EMC filter	

\*3: The protection method conforms to JEM 1030.

\*4: To operate the motor beyond 50 / 60Hz, consult the motor manufacturer for the maximum allowable rotation speed.

\*5: The braking torque via capacitive feedback is the average deceleration torque at the shortest deceleration (stopping from 50 / 60Hz as indicated). It is not continuous regenerative braking torque. The average deceleration torque varies with motor loss. This value decreases when operating beyond 50Hz. If a large regenerative torque is required, the optional regenerative braking unit and a resistor should be used.

\*6: The frequency command is the maximum frequency at 9.8V for input voltage 0 to 10VDC, or at 19.6mA for input current 4 to 20mA. If this characteristic is not satisfactory for your application, contact your Hitachi representative.

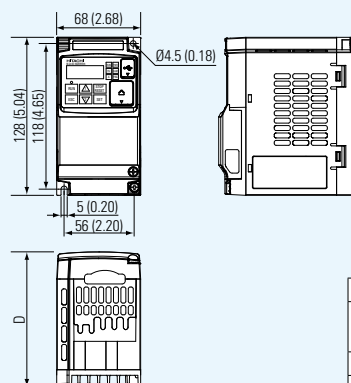
\*7: The storage temperature refers to the short-term temperature during transportation.

\*8: Conforms to the test method specified in JIS C0040 (1999). For the model types excluded in the standard specifications, contact your Hitachi sales representative.

# Dimensions

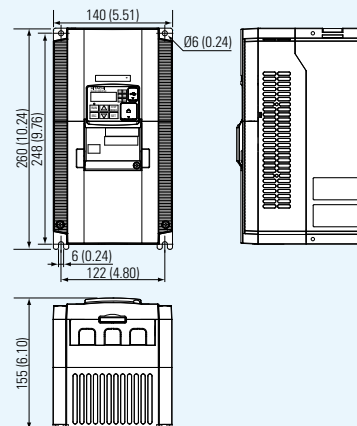
[Unit: mm(inch)]  
Inches for reference only

- WJ200-001LF-007LF
- WJ200-001SF-004SF

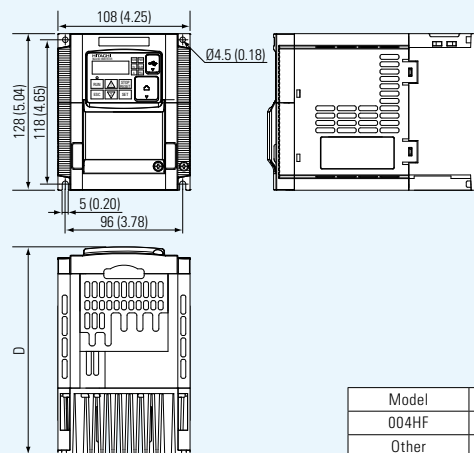


Model	D
001LF, 002LF	109 (4.29)
001SF, 002SF	122.5 (4.82)
004LF, 004SF	122.5 (4.82)
007LF	145.5 (5.73)

- WJ200-055LF
- WJ200-075LF
- WJ200-055HF
- WJ200-075HF

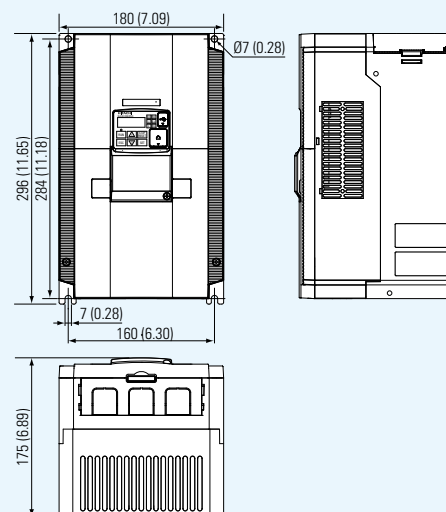


- WJ200-015LF, 022LF
- WJ200-007SF-022SF
- WJ200-004HF-030HF

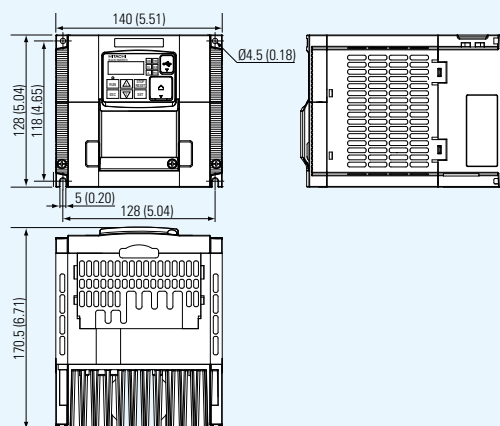


Model	D
004HF	143.5 (5.65)
Other	170.5 (6.71)

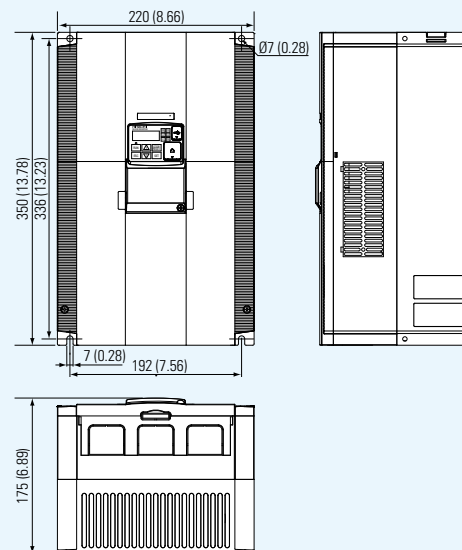
- WJ200-110LF
- WJ200-110HF
- WJ200-150HF



- WJ200-037LF
- WJ200-040HF



- WJ200-150LF





# IAPMO RESEARCH AND TESTING, INC.

5001 East Philadelphia Street, Ontario, California 91761-2816 • (909) 472-4100 Fax (909) 472-4244 • [www.iapmo.org](http://www.iapmo.org)



NSF/ANSI 61

## CERTIFICATE OF LISTING

IAPMO Research and Testing, Inc. is a product certification body which tests and inspects samples taken from the supplier's stock or from the market or a combination of both to verify compliance to the requirements of applicable codes and standards. This activity is coupled with periodic surveillance of the supplier's factory and warehouses as well as the assessment of the supplier's Quality Assurance System. This listing is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO Research and Testing, Inc. of the product acceptance by Authorities Having Jurisdiction.

The most updated information on this Certificate of Listing is available online at [pld.iapmo.org](http://pld.iapmo.org)

Effective Date: November 2016

Void After: November 2017

Product: Drinking Water System Components - Health Effects

File No. N-5946

Issued To: Quantumflo, Inc  
210 Springview Commerce Dr.  
Bldg #150  
Debarry, FL 32713

Identification: Each product shall be permanently and legibly marked with the manufacturer's name or trademark. The product may also be marked with the standard designation "NSF/ANSI 61".

Characteristics: Materials or products that come into contact with drinking water and/or drinking water treatment chemicals. Products and materials may include process media, protective materials, joining and sealing materials, pipes and related products, mechanical devices used with treatment/transmission/distribution systems, and mechanical plumbing devices. To be installed in accordance with the manufacturer's instruction. Lead free requirements are addressed under a separate certificate of listing.

Products listed on this certificate have been tested by an IAPMO R&T recognized laboratory. This recognition has been granted based upon the laboratory's compliance to the applicable requirements of ISO/IEC 17025.

  
Chairman, Product Certification Committee

  
CEO, The IAPMO Group



This listing period is based upon the last date of the month indicated on the Effective Date and Void After Date shown above. Any change in material, manufacturing process, marking or design without having first obtained the approval of the Product Certification Committee, or any evidence of non-compliance with applicable codes and standards or of inferior workmanship, may be deemed sufficient cause for revocation of this listing. Production of or reference to this form for advertising purposes may be made only by specific written permission of IAPMO Research and Testing, Inc. Any alteration of this certificate could be grounds for revocation of the listing. This document shall be reproduced in its entirety.

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**NSF/ANSI 61**

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Void After: November 2017

Product: Drinking Water System Components - Health Effects

File No. N-5946

Issued To: Quantumflo, Inc

Products are in compliance with the following standard(s):

NSF/ANSI 61-2012

# IAPMO RESEARCH AND TESTING, INC.

## CERTIFICATE OF LISTING

NSF/ANSI 61

Page 3

Void After: November 2017

Product: Drinking Water System Components - Health Effects

File No. N-5946

Issued To: Quantumflo, Inc

### MODELS:

<u>Model No.</u>	<u>Description</u>
Prodigy	Duplex variable speed booster system
Genius E1	Simplex variable speed booster system
Genius E2	Duplex variable speed booster system
Genius E3	Triplex variable speed booster system
Genius E4	Quadplex variable speed booster system
Genius V1	Simplex variable speed booster system
Genius V2	Duplex variable speed booster system
Genius V3	Triplex variable speed booster system
Genius V4	Quadplex variable speed booster system
WisperFlo V1	Simplex variable speed booster system
WisperFlo V2	Duplex variable speed booster system
WisperFlo V3	Triplex variable speed booster system
WisperFlo V4	Quadplex variable speed booster system
WisperFlo H1	Simplex variable speed booster system
WisperFlo H2	Duplex variable speed booster system
WisperFlo H3	Triplex variable speed booster system
WisperFlo H4	Quadplex variable speed booster system

Note: Nitrosamine requirement effective date 12/31/15

Surge protection devices

# Eaton SP2 surge protection device

Compact, cost-effective surge protection

**With a wide range of voltages and configurations to meet equipment protection needs in light commercial and machine control panel applications, the SP2 delivers superior surge protection and eliminates the need for additional overcurrent protection – reducing space, cost and downtime.**

## **Eaton® SP2 features and benefits:**

**Enhance equipment protection:** Tap a wide range of voltage-specific models to protect electrical systems and equipment better than a “one-size-fits-all” or economy SPD solution.

**Reduce costs:** Lower equipment and installation costs with the SP2’s unique thermal disconnect technology, which mitigates the need for additional equipment investments in overcurrent devices.

**Maximize space:** Simplify installation and control panel building with the SP2’s compact form-factor.

**Simplify troubleshooting and maintenance:** Obtain real-time status of surge protection devices with highly visible LED indicators that provide surge protection status at a glance.

**Increase deployment flexibility:** Apply the SP2 in indoor or outdoor environments with a compact UV-resistant NEMA 4X enclosure. The device can also be used on single-phase, split-phase, wye and delta systems to simplify equipment protection.

## **Product ratings:**

- Type 1 UL 1449 3rd Edition listed
- Short circuit current rating (SCCR) of 200 kAIC
- Voltages from 120 to 600 Vac
- Peak surge current (I<sub>max</sub>) rating of 45 kA
- Nominal discharge current (I<sub>n</sub>) rating of 10 kA
- RoHS compliant
- Designed and tested to:
  - IEEE C62.41.1
  - IEEE C62.41.2
  - IEEE C62.43-2005
  - IEEE C62.45-2002
  - IEEE C62.48-2005
  - IEEE C62.62-2010
- Eight part numbers
- Two-year warranty



**Introducing SP2 for light commercial and UL 508A panel applications**



*Powering Business Worldwide*

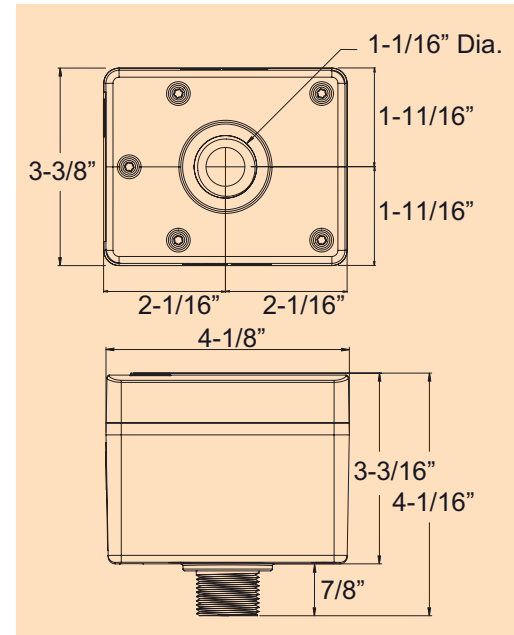


## SP2 SURGE PROTECTION DEVICE MODEL SELECTION GUIDE

Catalog number	Nominal system voltage	Maximum continuous operating AC voltage (MCOV)	System type	Voltage protection ratings (VPR)	Connection points
SP2-120	120	150	Single-phase, two-wire	700 L-N	2
SP2-240	240	320	Single-phase, two-wire	1200 L-N	2
SP2-240S	120/240	150	Split-phase, three-wire	700 L-N, 120 L-L	3
SP2-240D	240	320	Three-phase delta, three-wire + ground	1200 L-G, 2500 L-L	4
SP2-480D	480	550	Three-phase delta, three-wire + ground	1800 L-G, 3000 L-L	4
SP2-208Y	120/208	150	Three-phase wye, three-wire + ground	700 L-G, 1200 L-L	4
SP2-480Y	277/470	320	Three-phase wye, three-wire + ground	1200 L-G, 2500 L-L	4
SP2-600Y	347/600	420	Three-phase wye, three-wire + ground	1500 L-G, 2500 L-L	4

## SP2 SURGE PROTECTION DEVICE SPECIFICATIONS

Description	Specification
Markets	Light commercial and UL 508A panels
Product warranty	2 years
System types	Single, split, delta and wye
Nominal system voltage	120, 208, 240, 480, 600 Vac
Installation	Two-, three-, four-wire
Maximum continuous operating AC voltage	Matched to nominal voltage
MCOV	150-550 Vac (see table above)
L-N protection	Yes (single-phase units)
L-L protection	Yes
L-G protection	Yes (three-phase units)
N-G protection	No
Protection	Surges and transients
SCCR	200 kA
Nominal discharge current (8 x 20 μs) In	10 kA
Maximum discharge current (8 x 20 μs) I <sub>max</sub>	45 kA
Response time tA	<25 ns
Voltage protection ratings (VPRs)	See technical data in table above
Frequency	50/60 Hz
Operating status / fault indication	One bi-color LED – green (good) / red (replace)
Conductor gauge / length	10 AWG stranded copper / 18 inches
Mounting	Chase nipple / bracket
Enclosure rating	NEMA 4X – UL 94-5VA
Degree of protection (installed state)	IP20 (finger-safe)
Install location	Indoor / outdoor
Circuit location	Lineside / loadside
Standards / agency information	UL 1449 3rd Edition Type 1 Listed SPD – cULus, RoHS compliant
Operating temperature	–40°C to +65°C
Maximum operating altitude	12,000 feet



Featuring the SP2 enclosure  
Dimensions in inches (mm)

For details, please visit [Eaton.com/SPD](http://Eaton.com/SPD)  
For technical support, call: 800-809-2772, option 4, option 2  
For other queries, email: [spd@eaton.com](mailto:spd@eaton.com)

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Publication No. PA158006EN  
March 2014

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HMi Operator Interface



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Drawings  
Online



An Eaton  
Green Solution

Product Description

Positioned between the ELC graphics panels and the XV series of operator interfaces, **HMi** is the workhorse of the industry. Ideal for machinery OEMs, the **HMi** series provides the most value with the latest technology and advanced feature set in an economical hardware and software package. All units offer RS-232, RS-485 and RS-422 communications. The 4-, 7-, 8- and 10-inch units also offer Ethernet communication options.

Features

- Auto-scale application from 10 to 4 inches
- Screen and backlight saver
- Pop-up screens
- Animated graphics
- Conditional visibility
- Application lock for IP protection
- Data archiving
- Multi-language
- Eight levels of security
- Ethernet communication drivers
- Ethernet, COMM port and USB upload/download
- USB ports for data storage
- Three serial ports
- Up to four simultaneous protocols
- Math and logic functions
- CSV import/export tags and recipes
- Macro capability
- Alarm/event recording and viewing
- Real-time and historical trending
- Online and offline simulation

HMi/VU Exclusive Features

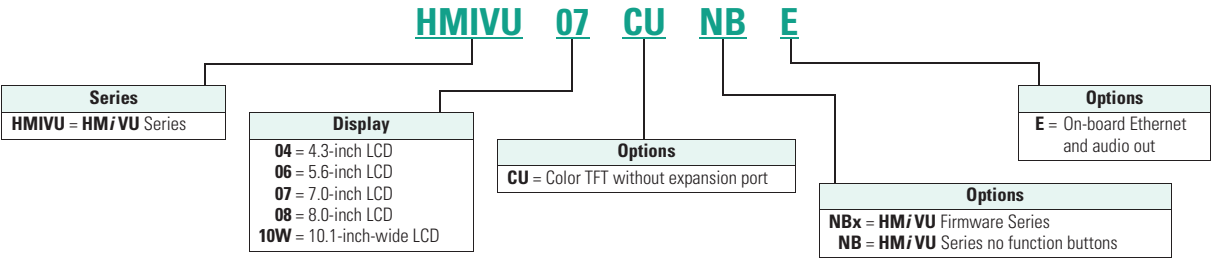
- VU server
- VU remote
- Multi-link
- Onboard Ethernet on some models
- Audio and SD on some models
- Supports USB mouse and other industrial pointing devices



Catalog Number Selection

HM*i* Operator Interface

HM*i*



5

Product Selection

HMI\_

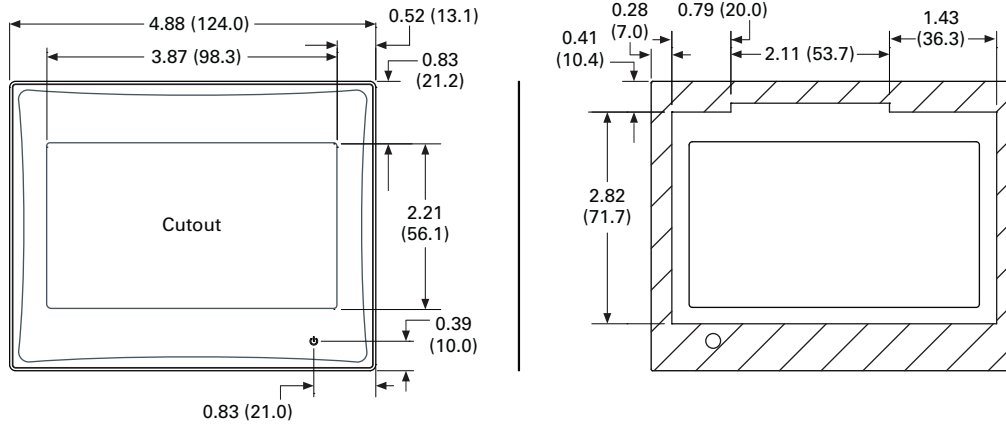
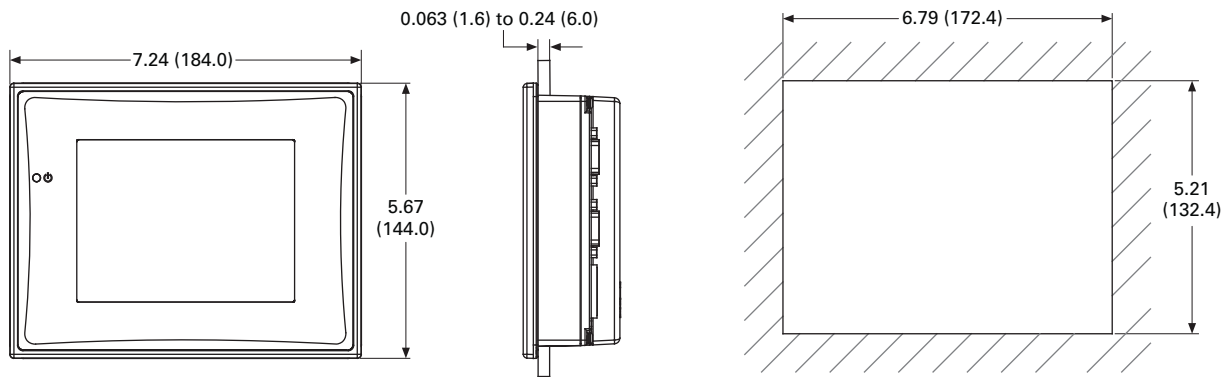
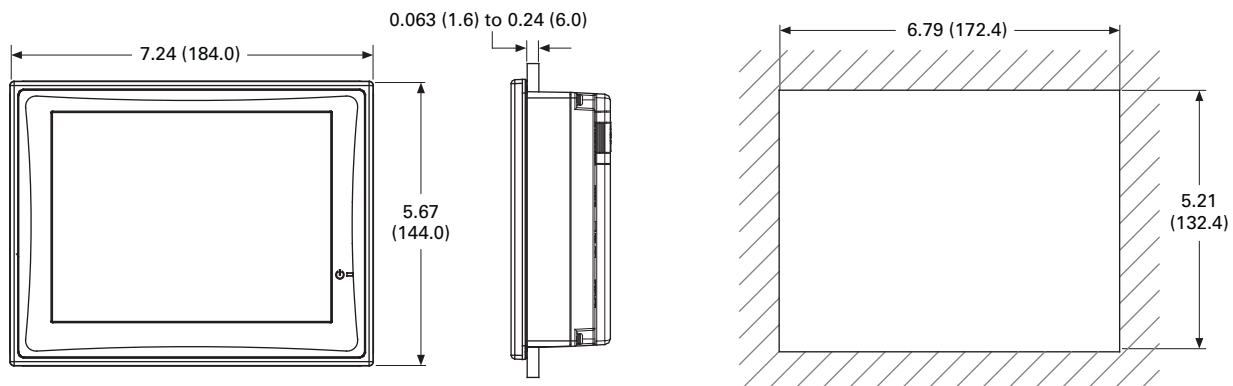
HM*i* VU Products



Description	Catalog Number
4-inch color TFT, no function buttons, on-board Ethernet	HMIVU04CUNBE
6-inch color TFT, no function buttons, no Ethernet	HMIVU06CUNB1
7-inch color TFT, no function buttons, on-board Ethernet	HMIVU07CUNBE
8-inch color TFT, no function buttons, on-board Ethernet	HMIVU08CUNBE
10-inch color TFT, no function buttons, on-board Ethernet	HMIVU10WCUNBE

**Dimensions**

Approximate Dimensions in Inches (mm)

**HMIVU04****HMIVU06****HMIVU07**

## ELC Series Programmable Logic Controllers



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## Description

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## Product Overview

## Controllers

## ELC2 Modular Controllers

The ELC lineup is focused on compact size, powerful features, and affordability. Whether your needs involve discrete standalone control, necessitate distributed control networks, or even a control system using centralized control with distributed I/O, ELCs provide the solution your application demands.

While the ELCs are perfectly suited for small applications of <40 I/O with a diverse mix of I/O, they can also expand to hundreds of I/O points when needed. These controllers are modular, with a wide range of digital, analog, thermocouple, RTD, and even motion expansion modules. Despite a world-class small footprint—with controllers as small as 1.00-inch wide, these controllers perform like much larger PLCs.

With online editing, high-speed processing (basic instructions as fast as 0.24 microseconds), multiple high-speed inputs/outputs (up to 200 kHz), and multiple independent master communication channels, these controllers excel where only the largest PLCs could go only a few years ago.

## ELCM Modular Brick-Style Controllers

The next member of the ELC portfolio of controllers is the ELCM. This midrange family comprises “brick-style” controllers, with expansion I/O modules. These all-in-one controllers combine inputs, outputs, logic processing, and an integrated AC power supply into a compact package—but also provide the means to expand as applications change or grow. The controller also provides 24 Vdc power for sensors, eliminating the space, wiring, and expense of an additional power supply. And with three communication ports, the ELCM is able to interface into a local operator interface, connect to other controllers or supervisory computers, and still maintain an open port for programming.

## Electrical/EMC

- ESD Immunity
  - 8 kV air discharge
- EFT Immunity
  - Power Line: 2 kV
  - Digital I/O: 1 kV
  - Analog and Communication I/O: 250V
- Damped-Oscillatory Wave
  - Power Line: 1 kV
  - Digital I/O: 1 kV
- RS Immunity
  - 26 MHz–1 GHz, 10 V/m

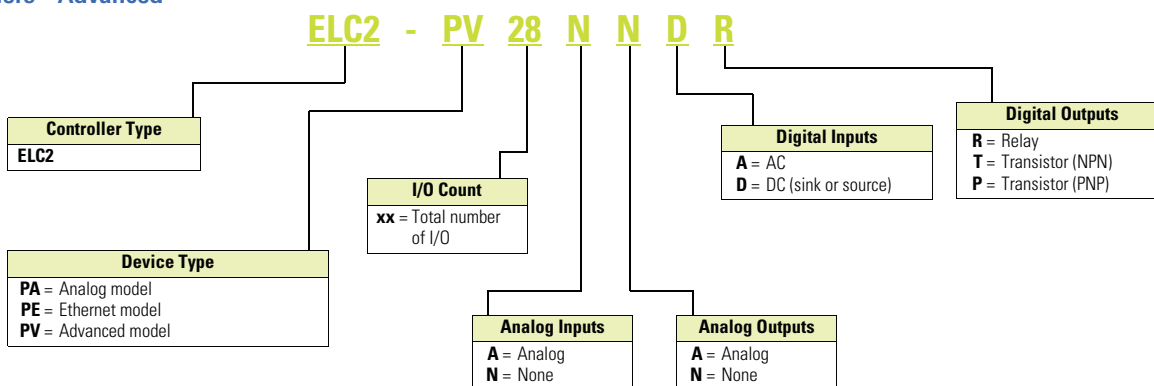
## Standards and Certifications

- cULus
- CE
- C-Tick
- RoHS



## Controllers—Advanced

4



## Controllers—Advanced

All models (except ELC2-PE) include RS-232 and RS-485 programming/communication ports and can be expanded with up to 14 extension modules on the right-hand side bus.

## ELC2-PA20\_

**ELC2-PA Advanced Analog Controllers**

- Built-in 4 analog inputs and 2 analog outputs
- Expandable with left side communication modules
- 2 built-in potentiometers
- Retentive flash memory

On-Board I/O	Program Memory Steps	Inputs 24 Vdc	Outputs Relay 1.5 A	NPN 0.5 A	PNP 0.5 A	Analog Inputs	Analog Outputs	High Speed Inputs 10 kHz	High Speed Inputs 20 kHz	High Speed Inputs 100 kHz	High Speed Inputs 200 kHz	High Speed Outputs 10 kHz	High Speed Outputs 100 kHz	High Speed Outputs 200 kHz	Catalog Number
20	16 k	8	6	—	—	4	2	6	—	2	—	—	—	—	ELC2-PA20AADR
20	16 k	8	—	6	—	4	2	6	—	2	—	2	2	—	ELC2-PA20AADT
20	16 k	8	—	—	6 ①	4	2	6	—	2	—	2	2	—	ELC2-PA20AADP

## ELC2-PE\_

**ELC2-PE Ethernet Controllers**

- Built-in Ethernet and USB port
- Expandable with left side communication modules
- Retentive flash memory

On-Board I/O	Program Memory Steps	Inputs 24 Vdc	Outputs Relay 1.5 A	NPN 0.5 A	PNP 0.5 A	Analog Inputs	Analog Outputs	High Speed Inputs 10 kHz	High Speed Inputs 20 kHz	High Speed Inputs 100 kHz	High Speed Inputs 200 kHz	High Speed Outputs 10 kHz	High Speed Outputs 100 kHz	High Speed Outputs 200 kHz	Catalog Number
12	16 k	8	4	—	—	—	—	6	—	2	—	—	—	—	ELC2-PE12NNDR
12	16 k	8	—	4	—	—	—	6	—	2	—	2	2	—	ELC2-PE12NNDT

## ELC2-PV\_

**ELC2-PV Large Capacity Advanced Controllers**

- 4, 200 kHz inputs and 4, 200 kHz outputs
- Expandable with left side communication modules
- 2 built-in potentiometers
- Self-charging lithium-ion battery
- Retentive flash memory and SRAM

On-Board I/O	Program Memory Steps	Inputs 24 Vdc	Outputs Relay 1.5 A	NPN 0.5 A	PNP 0.5 A	Analog Inputs	Analog Outputs	High Speed Inputs 10 kHz	High Speed Inputs 20 kHz	High Speed Inputs 100 kHz	High Speed Inputs 200 kHz	High Speed Outputs 10 kHz	High Speed Outputs 100 kHz	High Speed Outputs 200 kHz	Catalog Number
28	30 k	16	12	—	—	—	—	12	—	—	4	—	—	—	ELC2-PV28NNDR
28	30 k	16	—	12	—	—	—	12	—	—	4	—	—	4	ELC2-PV28NNDT
28	30 k	16	—	—	12	—	—	12	—	—	4	—	—	4	ELC2-PV28NNDP

**Note**

① PNP transistor outputs are only 0.3 A.

**ELC-AN04ANNN****Analog Input and Output Modules (Right Side Bus)**

Analog input/output modules uses voltage or current mode for any channel—see table for resolution based on type and mode.

Description	Input Points	Resolution	Mode	Output Points	Resolution	Mode	Maximum Current Consumption (at 24 Vdc)	Catalog Number
4 Analog input module	4	V = 14 bit I = 13 bit	±10 V ±20 mA	—	—	—	90 mA	<b>ELC-AN04ANNN</b>
2 Analog output module	—	—	—	2	12 bit	0–20 mA; 4–20 mA 0–10 V; 2–10 V	125 mA	<b>ELC-AN02NANN</b>
4 Analog output module	—	—	—	4	12 bit	0–20 mA; 4–20 mA 0–10 V; 2–10 V	170 mA	<b>ELC-AN04NANN</b>
6 Analog input/output module	4	V = 12 bit I = 11 bit	±10 V ±20 mA	2	12 bit	0–20 mA 0–10 V	170 mA	<b>ELC-AN06AANN</b>

# Series L9 UL489 Miniature Circuit Breakers

Industrial Circuit  
Breakers for Branch  
Circuit Protection  
up to 63 Amps



## L9 Series B Circuit Breakers

*Series B L9 UL489 circuit breakers offer new features, expanded amp ranges and bus bar accessories. This catalog section reflects the new Series B L9 circuit breakers. It is important to note that the Series B L9 devices and the previous version are not dimensionally the same or interchangeable with respect to accessories and the bus bar system.*

Sprecher+Schuh includes a line of circuit breakers approved for branch circuit applications in the United States and Canada and certified as a Miniature Circuit Breaker for IEC applications.

## Broad product range & flexibility

The Sprecher + Schuh L9 Miniature Circuit Breakers provide a variety of product configurations by offering current ranges of 0.5A to 63A with voltage ranges of 240V AC and 480Y/277V AC. The Series L9 DIN Rail-mounted circuit breakers are similar in width and current range to circuit breakers with the added benefit of providing listed branch circuit protection circuit breaker for US/Canada applications.

Also available for control circuit applications are add-on auxiliary and signal contacts plus shunt trip modules to provide modern control circuit applications. A lock-off attachment is available for applications requiring that feature.

## Safety features provide enhanced protection

The series L9 Miniature Circuit Breakers feature finger-safe IP20 from the front of the circuit breaker to guard against accidental contact with live parts.

To aid troubleshooting, a color-coded indicator provides positive visual indication of the device status (green for OFF, red for ON and isolation function).

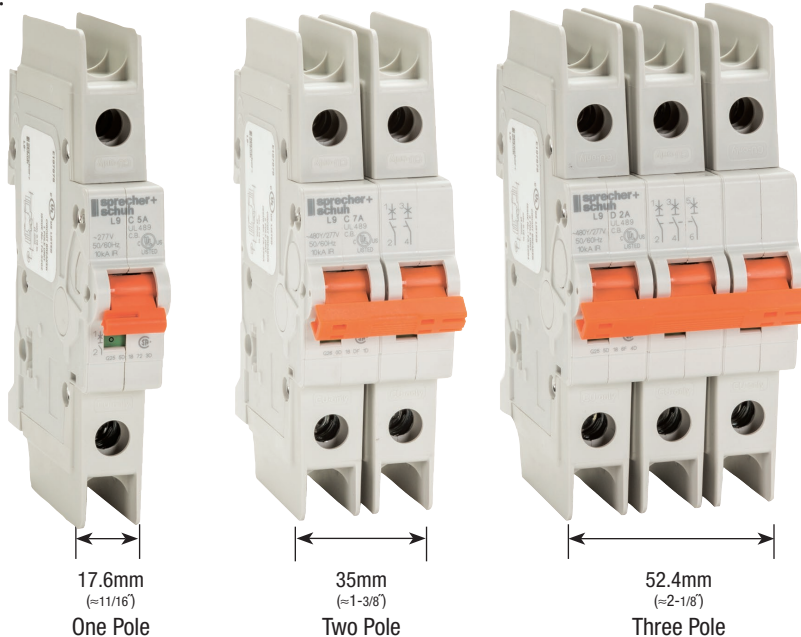
The Series L9 also incorporate a trip free mechanism - ensuring that the device operation cannot be defeated by holding the operator in the ON position.

## Easy installation

The Series L9 Miniature Circuit Breakers mount on a standard 35mm DIN-rail. Wire terminals accept multiple conductors. In addition, power to the circuit breakers can be fed from the line or load side.

## Global approvals for worldwide acceptance

The Sprecher + Schuh L9 Circuit Breakers are UL489 listed, CSA 22.2 No. 5.1 approved and meets IEC 60 947-2. The Series L9 also have an HACR rating (heating and air conditioning) as well as a "Switching Duty" (SWD) rating from 0.5 to 20A. Switching Duty ratings are related to fluorescent light applications only, not High intensity discharge (HID) lights or any other types of loads. Advanced features and global approvals make the Series L9 an ideal product for use in industrial equipment installed throughout the world.





## Product Design & Application

The Series L9 products are thermal-magnetic (inverse time) circuit breakers offering the benefits of a modern circuit breaker design in a compact size. The L9 is used mainly in control circuit applications where branch circuit approved circuit breakers are required.

Because of its range of protection (from 0.5 to 63A) many customers may use this product for protection of load devices where fuses or other supplementary protector devices previously were used in the U.S. and Canada.

Protection of PLC I/O, solenoids, power supplies and control transformers along with providing the listed branch circuit protection is available in one device.

## Description

L9 Circuit Breakers for Branch Circuit protection are available one (1)-, two (2)-, and three (3)- pole construction and are rated 0.5 to 63A at 240V AC and 0.5 to 40A at 480Y/277V AC for

North American applications (UL 489 and CSA 22.2 No. 5.1). For IEC applications, the products are rated 415V AC 0.5 to 40A.

## Continuous Current Rating

Standard current ratings are: 0.5A, 1A, 1.6A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 10A, 15A, 16A, 20A, 25A, 30A, 32A, 35A, 40A, 50A, 60A and 63A.

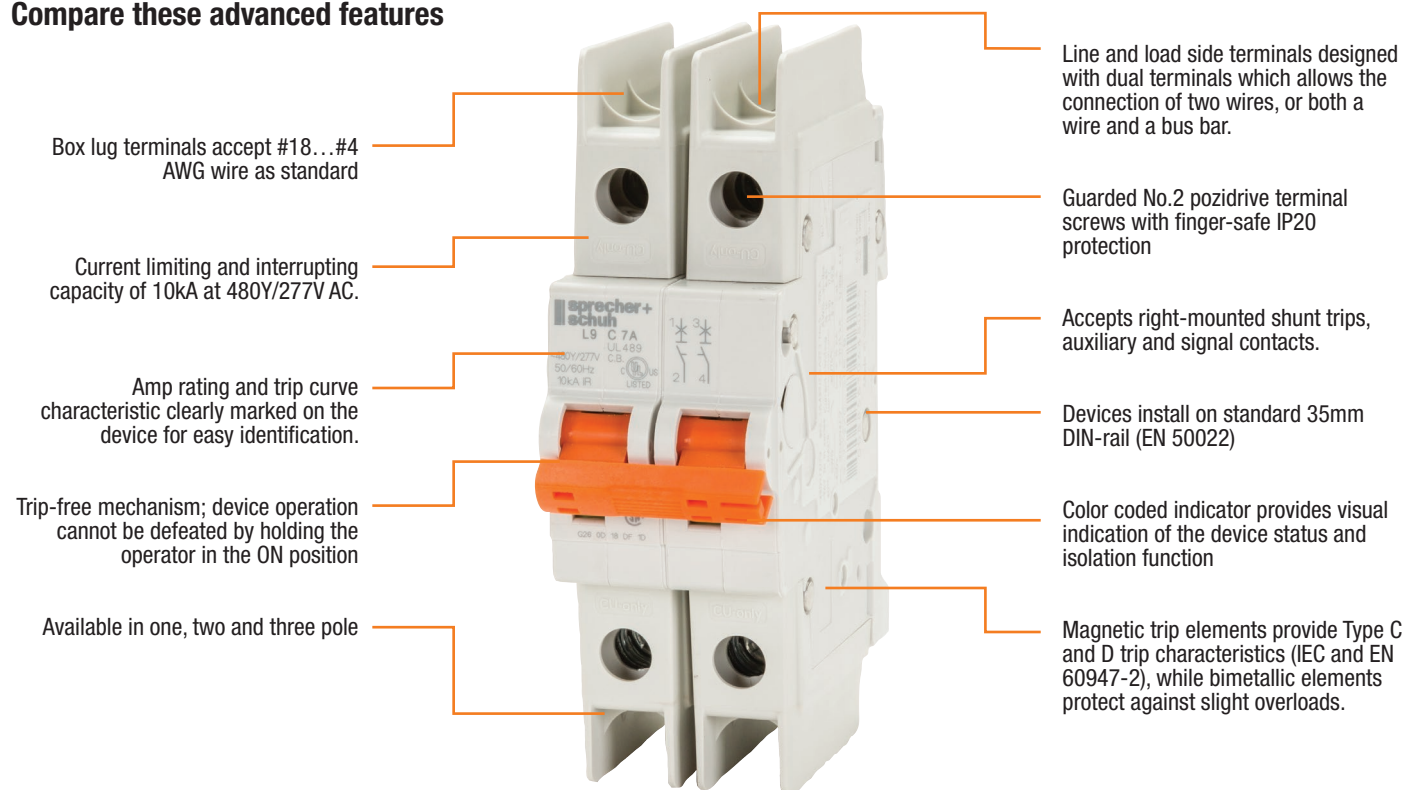
The L9 circuit breakers are rated in RMS amperes at 40°C (104°F) ambient temperature per the UL 489 (CSA 22.2 No. 5.1) standard. This temperature is generally used as the average temperature within an industrial enclosure. If a circuit breaker is applied in a temperature that exceeds 40°C (104°F) ambient, then the circuit breaker should be derated. For IEC 60 947-2 standard, the products carry an ambient rating of 30° C. Follow standard IEC application considerations for temperature rating in different ambient temperatures.

The characteristic trip curves are shown on page M39. The trip bands shown for each breaker represent current tripping limits for a circuit breaker and are within the limits established by UL.

For a specific current at 40°C (104°F), a circuit breaker will open ("clear the circuit") automatically at some total time that will be within the "Minimum" and "Maximum" time shown on the curves.

Example: The L9 time-current graph on page M34 shows that a one-pole, 15 A, L9 circuit breaker trips in not less than 10 sec, and not more than 120 sec. on a 30 A current. Because the UL standard defines this time spread, users should not specify exact tripping time. The lower current portion of the curves (upper left) depict the time to trip due to thermal action and reflect overload protection of the wire and connect load. The higher current portion of the curves (lower right) depicts the trip due to the magnetic action of the circuit breaker and reflects protection due to short circuit level currents.

## Compare these advanced features



### Trip Characteristic C (5~10 x I<sub>N</sub>) – Inductive loads ⑥

① UL/CSA Max. Volt.	Interrupt Rating (kA)	Rated Current (A)	1 Pole ②			2 Pole ③			3 Pole		
			Catalog Number	Price Each	Std. Pkg.	Catalog Number	Price Each	Std. Pkg.	Catalog Number	Price Each	Std. Pkg.
480Y/277	10	0.5	L9-0.5/1/C	97	2	L9-0.5/2/C	185	1	L9-0.5/3/C	251	1
		1	L9-1/1/C	97	2	L9-1/2/C	185	1	L9-1/3/C	251	1
		1.6	L9-1.6/1/C	97	2	L9-1.6/2/C	185	1	L9-1.6/3/C	251	1
		2	L9-2/1/C	97	2	L9-2/2/C	185	1	L9-2/3/C	251	1
		3	L9-3/1/C	97	2	L9-3/2/C	185	1	L9-3/3/C	251	1
		4	L9-4/1/C	97	2	L9-4/2/C	185	1	L9-4/3/C	251	1
		5	L9-5/1/C	97	2	L9-5/2/C	185	1	L9-5/3/C	251	1
		6	L9-6/1/C	97	2	L9-6/2/C	185	1	L9-6/3/C	251	1
		7	L9-7/1/C	97	2	L9-7/2/C	185	1	L9-7/3/C	251	1
		8	L9-8/1/C	97	2	L9-8/2/C	185	1	L9-8/3/C	251	1
		10	L9-10/1/C	97	2	L9-10/2/C	185	1	L9-10/3/C	251	1
		13	L9-13/1/C	97	2	L9-13/2/C	185	1	L9-13/3/C	251	1
		15	L9-15/1/C	97	2	L9-15/2/C	185	1	L9-15/3/C	251	1
		16	L9-16/1/C	97	2	L9-16/2/C	185	1	L9-16/3/C	251	1
		20	L9-20/1/C	97	2	L9-20/2/C	185	1	L9-20/3/C	251	1
		25	L9-25/1/C	107	2	L9-25/2/C	198	1	L9-25/3/C	251	1
		30	L9-30/1/C	110	2	L9-30/2/C	211	1	L9-30/3/C	279	1
		32	L9-32/1/C	110	2	L9-32/2/C	211	1	L9-32/3/C	279	1
		35	L9-35/1/C ④	110	2	L9-35/2/C ④	211	1	L9-35/3/C ④	279	1
		40	L9-40/1/C ④	115	2	L9-40/2/C ④	227	1	L9-40/3/C ④	292	1
240	10	50	L9-50/1/C ⑤	133	2	L9-50/2/C ⑤	256	1	L9-50/3/C ⑤	351	1
		60	L9-60/1/C ⑤	133	2	L9-60/2/C ⑤	256	1	L9-60/3/C ⑤	351	1
		63	L9-63/1/C ⑤	133	2	L9-63/2/C ⑤	256	1	L9-63/3/C ⑤	351	1

NEW

NEW

#### L9 Miniature Circuit Breaker Features:

- UL-489 listed for Branch Circuit protection and CSA 22.2 No. 5.1 Approved
- Thermal magnetic protection
- Trip characteristic based on 40°C ambient for UL/CSA
- All ratings are HACR rated (SWD rated up to 20 A)
- Finger safe design (front)
- DIN rail mounting

① See page M28 for IEC 60947-2 miniature circuit breaker ratings.

② 1-Pole 277V AC 0.5...40A; 240V AC 50...63A, 48V DC 0.5...63A

③ 2-Pole (series) 96V DC 0.5...63A

④ New 480Y/277VAC ratings for Series B only.

⑤ New extended amp range for Series B only.

⑥ This table represents L9 Series B offering.

PSG Series



PSG Series

Product Description

Eaton’s PSG Series of power supplies is designed to be a high-performance, high-quality line of products covering a majority of 12 Vdc and 24 Vdc control applications. With global certifications, a compact size and an impressive operating temperature range, the PSG Series fits a wide variety of applications at a competitive price.

Our expansive 22 model offering is able to provide solutions for most applications with PSG outputs ranging from 12 Vdc at 1.25A up to 24 Vdc at 40A, plus redundancy and buffer modules to ensure uptime.

Application Description

The PSG Series is a line of general-purpose power supplies for use in a wide variety of industrial control applications. Applications include communication networks, sensors, PLCs and many other electrical systems. Each model is equipped with the options of a rugged metal or plastic housing, heavy-duty screw or finger-safe terminals and a variety of protection features, making the PSG one of the most versatile industrial power supply lines on the market.

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easyRelay Power Supply	V7-T6-25
Sensor Power Supply	V7-T6-29

Features, Benefits and Functions

- Universal input voltages: 100–240 Vac for single-phase units, 400–500 Vac for three-phase units
- General-purpose 12 Vdc and 24 Vdc adjustable output
- 150% power surge output
- Wide operating temperature range: –25°C to +80°C
- MTBF up to 1,000,000 hours ensures uptime and reliability
- Protection from overvoltage, overcurrent and over-temperature conditions
- Rugged aluminum and plastic housings provide the durability required to stand up to harsh environments
- All-metal DIN rail mounting hardware
- Heavy-duty screw and finger-safe terminals
- LED indicating light for DC OK simplifies troubleshooting
- Conformal coated electronics
- Hazardous Location Class I, Division 2 rated models
- NEC® Class II rated model
- Redundancy modules keep loads up and running in the event of a device failure
- Buffer module has the stored power needed to keep loads running through a short duration power failure
- Three-year standard warranty

Standards and Certifications

- cULus listed—UL 508
- CSA listed—CSA 22.2 No. 107.1-01
- Hazardous Location, Class I, Div. 2, Groups A, B, C, D
- IEC
- EN
- NEC Class 2

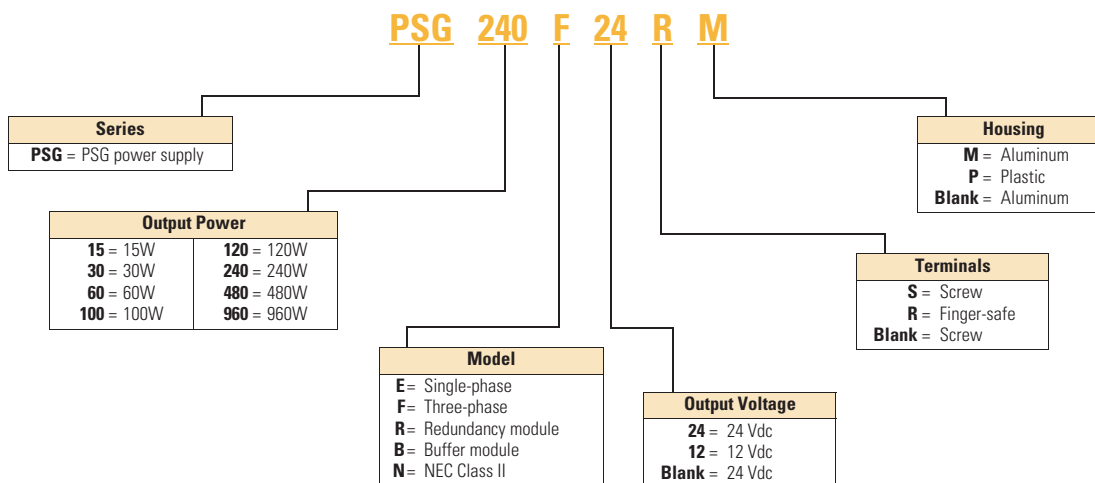
- CE marked
- RoHS compliant



**Note:** Some models may not carry all certifications listed.

## Catalog Number Selection

## PSG Series



**Note:** Not all combinations are available. See Pages **V7-T6-5–V7-T6-12** for all available combinations.

## Technical Data and Specifications

## PSG Series

208-230V  
1 or 3 Phase

	Single-Phase PSG15E12SP	PSG30E12SP	PSG60E12SM	PSG100E12SM	PSG60E	PSG60E24SP	PSG60E24RM
<b>Input</b>							
Nominal voltage	100–240 Vac	100–240 Vac	100–240 Vac	100–240 Vac	100–240 Vac	100–240 Vac	100–240 Vac
AC input range	85–264 Vac	85–264 Vac	85–264 Vac	85–264 Vac	85–264 Vac	85–264 Vac	85–264 Vac
DC input range	120–375 Vdc	120–375 Vdc	120–375 Vdc	120–375 Vdc	120–375 Vdc	120–375 Vdc	120–375 Vdc
Frequency	47–63 Hz	47–63 Hz	47–63 Hz	47–63 Hz	47–63 Hz	47–63 Hz	47–63 Hz
Nominal current <sup>①</sup>	<0.37A	<0.7A	<1.35A	<2.5A	1.1A	<1.10A	<1.4A
Inrush current limitation <sup>①</sup>	<30A	<30A	<50A	<100A	30A	<40A	<20A
Internal fuse	T3.15AH / 250V	T3.15AH / 250V	T3.15AH / 250V	T3.15AH / 250V	T3.15AH / 250V	T3.15AH / 250V	T3.15AH / 250V
External fusing	4A or 6A	4A or 6A	6A, 10A or 16A	6A, 10A or 16A	6A, 10A or 16A	6A, 10A or 16A	6A, 10A or 16A
Leakage current	<1 mA	<1 mA	<1 mA	<1 mA	<1 mA	<1 mA	<1 mA
<b>Output</b>							
Power	15W	30W	60W	100W	60W	60W	60W
Nominal output voltage	12 Vdc ±2%	12 Vdc ±2%	12 Vdc ±2%	12 Vdc ±2%	24 Vdc ±2%	24 Vdc ±2%	24 Vdc ±2%
Adjustment range	11–14 Vdc	11–14 Vdc	11–14 Vdc	11–14 Vdc	22–28 Vdc	22–28 Vdc	24–28 Vdc
Nominal current	1.25A	2.5A	5A	8.33A	2.5A	2.5A	2.5A
Startup with capacitive loads	Max. 5000 µF	Max. 6600 µF	Max. 8000 µF	Max. 10,000 µF	Max. 8000 µF	Max. 8000 µF	Max. 8000 µF
Efficiency	>84% at 115 Vac, >83% at 230 Vac	>85% at 115 Vac and 230 Vac	>85% at 115 Vac and 230 Vac	>85.5% at 115 Vac, >87.5% at 230 Vac	>85% typ	>86% at 115 Vac, >87% at 230 Vac	>90% at 115 Vac and 230 Vac
Current surge	1.875A	3.75A	7.5A	12.495A	3.75A	3.75A	3.75A
Current surge time	3s	3s	3s	3s	1s (at 10s intervals)	3s	5s
Residual ripple/peak switching (20 MHz)	<100m Vpp	<100m Vpp	<100m Vpp	<100m Vpp	<50m V / <240m Vpp	<50m V / <240m Vpp	<50m Vpp / <150m Vpp
Turn-on time	<2.5s	<2.5s	<2.5s	<0.6s	<2.5s	<3s	<2s
Mains buffering at nominal load (typ.) <sup>①</sup>	>22 ms	>22 ms	>22 ms	>22 ms	>20 ms	>20 ms	>20 ms
Parallel operation	With o-ring diode	With o-ring diode	With o-ring diode	With o-ring diode	PSG480R24RM / PSG960R24RM / With o-ring diode	PSG480R24RM / PSG960R24RM / With o-ring diode	PSG480R24RM / PSG960R24RM / With o-ring diode
<b>Galvanic Isolation</b>							
Input/output	4k Vac	4k Vac	4k Vac	4k Vac	4k Vac (type test) / 3k Vac (routine test)	4k Vac	4k Vac
Input/ground	1.5k Vac	1.5k Vac	1.5k Vac	1.5k Vac	1.5k Vac (type test) / 1.5k Vac (routine test)	1.5k Vac	1.5k Vac
Output/ground	1.5k Vac	1.5k Vac	1.5k Vac	1.5k Vac	1.5k Vac (type test) / 500 Vac (routine test)	1.5k Vac	1.5k Vac
<b>General/Physical Data</b>							
Housing material	Plastic	Plastic	Aluminum	Aluminum	Aluminum	Plastic	Aluminum
Signals	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK
MTBF	>1,000,000 hr	>1,000,000 hr	>800,000 hr	>800,000 hr	>800,000 hr	>800,000 hr	>1,000,000 hr
Dimensions (L)	100 mm	100 mm	121 mm	121 mm	121 mm	120.6 mm	121 mm
Dimensions (W)	32 mm	32 mm	32 mm	50 mm	32 mm	32 mm	32 mm
Dimensions (H)	100.6 mm	100.6 mm	120 mm	118.7 mm	120 mm	113 mm	125 mm
Weight (kg)	0.18	0.2	0.33	0.64	0.37	0.33	0.37
Terminals	Screw	Screw	Screw	Screw	Screw	Screw	Finger-safe, removable
Wire size	AWG 22–14	AWG 22–14	AWG 22–14	AWG 18–24	AWG 22–14	AWG 22–14	AWG 22–12
Operating temperature	–20°C to +75°C	–20°C to +75°C	–20°C to +75°C	–20°C to +75°C	–20°C to +75°C	–20°C to +75°C	–20°C to +80°C
Storage temperature	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C

**Note**<sup>①</sup> Ratings for single-phase models are at 115 Vac; three-phase models are at 400 Vac.

## PSG Series, continued

**460-480V**  
**3-Phase**

	Three-Phase PSG60F24RM	PSG120F24RM	PSG240F24RM	PSG480F24RM	PSG960F24RM
<b>Input</b>					
Nominal voltage	3 x 400–500 Vac	3 x 400–500 Vac	3 x 400–500 Vac	3 x 400–500 Vac	3 x 400–500 Vac
AC input range	3 x 320–600 Vac	3 x 320–600 Vac	3 x 320–600 Vac	3 x 320–600 Vac	3 x 320–600 Vac
DC input range	450–800 Vdc	450–800 Vdc	450–800 Vdc	450–800 Vdc	450–800 Vdc
Frequency	47–63 Hz	47–63 Hz	47–63 Hz	47–63 Hz	47–63 Hz
Nominal current <sup>①</sup>	<0.3A	<0.5A	<0.75A	<1A	<1.7A
Inrush current limitation <sup>①</sup>	<30A	<30A	<40A	<50A	<40A
Internal fuse	T 3.15AH / 500V, 600V	T 3.15AH / 500V, 600V	T 3.15AH / 500V, 600V	T 3.15AH / 500V	T 4 AH / 500V
External fusing	3 x circuit breakers 6A, 10A or 16A	3 x circuit breakers 6A, 10A or 16A	3 x circuit breakers 6A, 10A or 16A	3 x circuit breakers 6A, 10A or 16A	3 x circuit breakers 10A or 16A
Leakage current	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA
<b>Output</b>					
Power	60W	120W	240W	480W	960W
Nominal output voltage	24 Vdc ±2%	24 Vdc ±2%	24 Vdc ±2%	24 Vdc ±2%	24 Vdc ±2%
Adjustment range	24–28 Vdc	24–28 Vdc	24–28 Vdc	24–28 Vdc	24–28 Vdc
Nominal current	2.5A	5A	10A	20A	40A
Startup with capacitive loads	Max. 10,000 µF	Max. 10,000 µF	Max. 10,000 µF	Max. 10,000 µF	Max. 10,000 µF
Efficiency	>86% at 3 x 400 Vac and 3 x 500 Vac	>88% at 3 x 400 Vac and 3 x 500 Vac	>92% at 3 x 400 Vac and 3 x 500 Vac	>91% at 3 x 400 Vac and 3 x 500 Vac	>92% at 3 x 400 Vac and 3 x 500 Vac
Current surge	3.75A	7.5A	15A	30A	60A
Current surge time	5s	5s	5s	5s	5s
Residual ripple/peak switching (20 MHz)	<50m Vpp	<50m Vpp	<150m Vpp	<150m Vpp	<240m Vpp
Turn-on time	<1s	<1s	<1s	<1s	<1.5s
Mains buffering at nominal load (typ.) <sup>①</sup>	>20 ms	>20 ms	>20 ms	>20 ms	>20 ms
Parallel operation	PSG480R24RM / PSG960R24RM / With o-ring diode	PSG480R24RM / PSG960R24RM / With o-ring diode	PSG480R24RM / PSG960R24RM / With o-ring diode	PSG480R24RM / PSG960R24RM / With o-ring diode	PSG960R24RM / With o-ring diode
<b>Galvanic Isolation</b>					
Input/output	4k Vac	4k Vac	4k Vac	4k Vac	4k Vac
Input/ground	2k Vac	2k Vac	2k Vac	2k Vac	2k Vac
Output/ground	1.5k Vac	1.5k Vac	1.5k Vac	1.5k Vac	1.5k Vac
<b>General/Physical Data</b>					
Housing material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Signals	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK	Green LED for DC OK
MTBF	>500,000 hr	>500,000 hr	>300,000 hr	>500,000 hr	>300,000 hr
Dimensions (L)	121 mm	121 mm	121 mm	121 mm	121 mm
Dimensions (W)	50 mm	50 mm	70 mm	140 mm	255 mm
Dimensions (H)	117.3 mm	117.3 mm	117.3 mm	117.3 mm	117.3 mm
Weight (kg)	0.66	0.66	0.89	1.35	2.6
Terminals	Finger-safe, fixed	Finger-safe, fixed	Finger-safe, fixed	Finger-safe, fixed	Finger-safe, fixed
Wire size	AWG 18–12	AWG 18–12	AWG 18–12 (input) AWG 16–12 (output)	AWG 18–8 (input) AWG 12–10 (output)	AWG 18–8 (input) AWG 12–10 (output)
Operating temperature	–25°C to +75°C	–25°C to +75°C	–25°C to +75°C	–25°C to +80°C	–25°C to +65°C
Storage temperature	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C	–25°C to +85°C

**Note**

<sup>①</sup> Ratings for single-phase models are at 115 Vac; three-phase models are at 400 Vac.

# 8.1

## Terminal Blocks, Fuse Blocks and Fuse Holders

IEC—XB Series

Single Level



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8

### Single Level

#### Product Description

The XBQT IDC terminal block has the fastest connection time in a compact design. The space-saving front connection design offers additional space for wiring between the cable ducts. The double bridge shaft can

accommodate individual chain bridging and step-down bridging from other terminal blocks. The XBQT ground blocks are the same shape as the feed-through terminal blocks with the same wide range of cross-sections

available. They easily snap onto the DIN rail to make a reliable mechanical and electrical contact that meets all requirements of IEC 60-947-7-2.

#### Product Selection

XBQT25



#### IDC—Single Level Terminal Blocks

Terminal Width	Maximum Wire Size	Connection Data in V/A/AWG	EN 50 019 ① in V/A/AWG	UL-cUL Ratings in V/A/AWG	Color	Standard Pack	Catalog Number
5.2 mm	16 AWG/1.5 mm <sup>2</sup>	800/17.5/24–16	550/16/24–16	600/10/24–16	Gray	50	XBQT15
					Blue	50	XBQT15BU
6.2 mm	14 AWG/2.5 mm <sup>2</sup>	800/24/20–14	—	600/15/20–14	Gray	50	XBQT25
					Blue	50	XBQT25BU



IDC Terminal Blocks



## Contents

### Description

#### IDC Terminal Blocks

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Disconnect and Component Terminal Blocks ..	<b>V7-T8-77</b>
Hybrid Terminal Blocks .....	<b>V7-T8-79</b>



Drawings  
Online

## IDC (Insulation Displacement Connection) Terminal Blocks Overview

### Product Description

The superior design of Eaton's Insulation Displacement Connection (IDC) technology terminal blocks reduces wiring installation time and labor, especially in high-volume applications. IDC terminal blocks are suited for applications in automated equipment and machine tools, packaging and material handling machinery, railway/mass transit systems, petrochemical, and any other application requiring high-volume connections for low-voltage control and signal circuitry where labor cost reduction and ease of assembly is desired. These terminal blocks are designed for long-term use under demanding conditions.

The XBQT Series allows for wire to be connected without any prior stripping. The quick connection provides up to 60% reduction in wiring time. One turn of a standard screwdriver results in a simple, fast and reliable connection.

### Application Description

The XBQT is operated with a standard screwdriver. The switching states are clearly signaled by engagement points in the start and end positions. Solid and stranded wires of 0.25 to 2.5 mm<sup>2</sup> can be wired without the use of ferrules. Stripping the wire is not required—the wire's insulation is cut open when it is properly connected. The wire is securely placed in the end position where it makes large-area, gas-tight contact. Connections are made in seconds!

### Features

- Quick connection capability
- Global acceptance
- Flexible plug-in bridge system
- Large surface area for marking
- Standardized testing system

### Standards and Certifications

- UL recognized—File No. E67464
- CE approved
- LVD <sup>①</sup>
  - EN 60947-7-1
  - EN 60947-7-2
  - EN 60998-2-3
  - EN 60352-4/A1
- ATEX approval (Ex e applications)



### Note

- <sup>①</sup> Not all standards apply to all terminal blocks. Contact Eaton for details.



## Model G2 Pressure Transducer



### APPLICATIONS

*The G2 pressure transducer combines performance with value to meet the demanding needs of the original equipment manufacturer in applications found in:*

- Off-road Equipment
- Construction Machinery
- Compressor Control
- HVAC and Refrigeration
- Agricultural Implements
- Process Automation and Control
- Hydraulic & Pneumatic Sensing
- Pump Monitoring

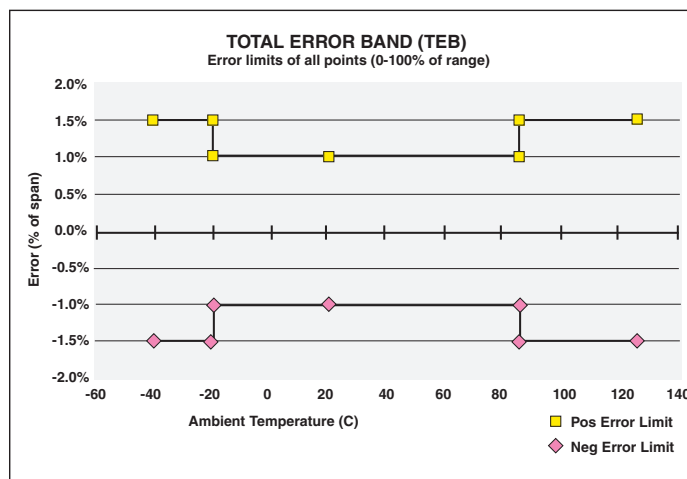
### FEATURES

- 1% Total Error Band Accuracy
- Broad Temperature Capability
- All-welded pressure construction
- High EM/RFI rating
- Ranges 30 psi through 20,000 psi
- IP 67 Ingress rating
- Diagnostic rails

The Ashcroft® Type G2<sup>+</sup> pressure transducer has been specifically designed with the high volume OEM in mind.

A  $\pm 1\%$  Total Error Band accuracy is accomplished by marrying a high performance ASIC to a very stable, field proven polysilicon thin film pressure sensor. The sensor is electron beam welded to a pressure fitting of stainless steel, which provides excellent overpressure capability and outstanding durability in the presence of shock and vibration.

The circuitry is held within an internal cage and housed in an enclosure of reinforced Nylon.



### PERFORMANCE SPECIFICATIONS

Ref. Condition 21°C  $\pm 1^\circ\text{C}$  (72°F  $\pm 2^\circ\text{F}$ )

#### Accuracy:

Total Error Band includes combined effects of temperature, non-linearity (Terminal Point Method), hysteresis, non repeatability, zero offset and span setting errors

**$\pm 1\%$  of Span:** From -20 to 85°C (-4 to 185°F)

**$\pm 1.5\%$  of Span:** From -40 to -20°C (-40 to -4°F)

**$\pm 1.5\%$  of Span:** From 85 to 125°C (185 to 257°F)

**Note:** Static accuracy  $\pm 0.25\%$  of span BFSL (Best Fit Straight Line Method); includes non-linearity, hysteresis and non-repeatable effects at reference temperature 72°F (21°C)

**Stability:** Less than  $\pm 0.25\%$  span/year

**Durability:** Tested to 50 million cycles

### ENVIRONMENTAL SPECIFICATIONS

#### Temperature:

Compensated -40 to 125°C (-40 to 257°F)

Operating -40 to 125°C (-40 to 257°F)

Storage -40 to 125°C (-40 to 257°F)

**Humidity:** 0 to 100% R.H., no effect

### FUNCTIONAL SPECIFICATIONS

Select from over 25 pressure ranges starting at 30 psi and running through 20,000 psi gauge.

Compound (vacuum & pressure) ranges are also available, see "To Order" on back.

#### Overpressure (F.S.): Proof Burst

750 psi & below 200% F.S. 1000% F.S.

1500 psi 200% F.S. 500% F.S.

3000 psi 200% F.S. 500% F.S.

5000 psi 150% F.S. 500% F.S.

7500 psi 120% F.S. 500% F.S.

10,000 psi 120% F.S. 240% F.S.

20,000 psi 120% F.S. 240% F.S.

**Vibration:** Random vibration (20 g) over temperature range (-40° to 125°C). Exceeds typical MIL-STD. requirements

**Shock:** 100gs, 6 ms

**Drop Test:** Withstands 1 meter on concrete 3 axis

**Response Time:** Less than 1 msec

**Warm-up Time:** Less than 500 msec typical

**Position Effect:** Less than  $\pm 0.01\%$  span, typical

### ELECTRICAL SPECIFICATIONS

#### Output Signals Available:

Voltage Output	Excitation	Supply Current
0-5 Vdc, 3 wire	9-36 Vdc	5mA
0-10 Vdc, 3 wire	14-36 Vdc	5mA
1-5 Vdc, 3 wire	9-36 Vdc	4mA
1-6 Vdc, 3 wire	9-36 Vdc	4mA

#### Ratiometric Output:

0.5-4.5 Vdc, 3 wire 5 Vdc  $\pm 0.5$  Vdc 3.5mA

#### Current Output:

4-20mA, 2 wire 9-36 Vdc

**Reverse Polarity & Miswired Protected:** Yes

**Insulation Breakdown Voltage:** 100 Vac

**Insulation Resistance:** Greater than 100 megohms at 100 Vdc

**CE Compliance:** Per EN 61326: 1997+ A1: 1998

## Model G2 Pressure Transducer

+ A2: 2001, Annex A (Heavy Industrial)

### PHYSICAL SPECIFICATIONS

**Pressure Connection:** 304 stainless steel

**Sensor Material:** 17-4PH SS

**Housing:** 20% Glass Reinforced Nylon, Fire retardant to UL94 V1

### Available Process Connections (Male):

1/8 NPT, 1/4 BSP, 1/4 NPT, G 1/4 B, 7/16-20 UNF-2A

For other connections consult factory

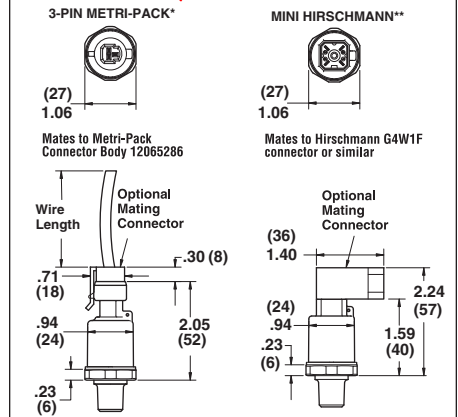
**Ingress Rating:** IP67

### ELECTRICAL TERMINATION

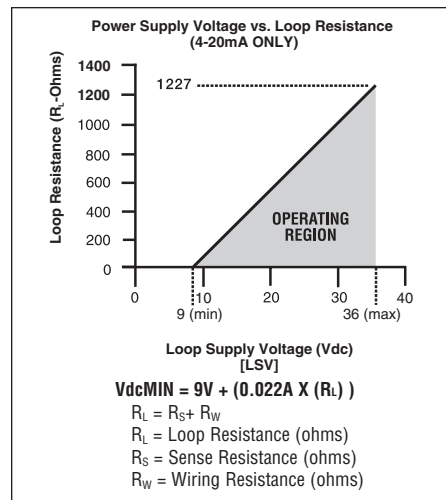
- Shielded Cable: 3' standard, 24 AWG, PVC Jacket
- Flying Lead: 3' standard, 18 AWG
- Metri-Pack 150 series\*
- Hirschmann G series\*\*

\*Metri-Pack is a trademark of Delphi Packard Electric Systems

### DIMENSIONS



Shielded cable and flying lead designs share similar dimensions to those shown.



### How To Order

<b>G 2</b>	<b>7</b>							<b>X</b>
Type Configuration (G2)	Accuracy	Output Signal	Electrical Termination	Pressure Ranges	Compound Ranges	Measurement Type	Optional X-Variations	
	1.0% Total Error Band -20°C/+85°C 1.5% Total Error Band -40°C/-20°C, 85/125°C	05 = 0-5 Vdc <b>10 = 0-10 Vdc</b> 13 = 1-3 Vdc 16 = 1-6 Vdc 42 = 4-20mA RM = 0.5-4.5 Vdc Ratio Metric to 5Vdc supply	Metri-Pack GN = no mating conn. <b>G2 = mating conn. 3' cable</b> G3 = mating conn. 10' cable G1 = mating conn. w/customer specified length Hirschmann G Series HM = no mating conn. M1 = with mating conn. no cable M2 = mating conn. 3' cable P9 = mating conn. w/customer specified length Flying Leads W2 = 3' flying leads W9 = customer specified length Shielded Cable F2 = 3' shielded cable F3 = 10' shielded cable P1 = customer specified length	psi Ranges 30# = 30 psi 50# = 50 psi 60# = 60 psi 100# = 100 psi 150# = 150 psi 200# = 200 psi 300# = 300 psi 500# = 500 psi 750# = 750 psi 1000# = 1000 psi 1500# = 1500 psi 2000# = 2000 psi 3000# = 3000 psi 5000# = 5000 psi 6000# = 6000 psi 7500# = 7500 psi 10000# = 10000 psi 20000# = 20000 psi	30#&vac = 30 psi/-14.7 psi 45#&vac = 45 psi/-14.7 psi 60#&vac = 60 psi/-14.7 psi 85#&vac = 85 psi/-14.7 psi 100#&vac = 100 psi/-14.7 psi 150#&vac = 150 psi/-14.7 psi 200#&vac = 200 psi/-14.7 psi 300#&vac = 300 psi/-14.7 psi	G = Gauge Pressure	Consult Factory for Available Options	
		Pressure Connection M01 1/4 NPT-male <b>M02 1/4 NPT-male</b> MEK 1/4-20 GAF-male w/Buna-N O-ring MS2 1/4-19 bsp male MG2 G 1/4 B male						
		Consult Factory Other Connections						

## Type 1008A/AL Stainless Steel Metric Case Commercial Gauge



### FEATURES

- 63mm (2½") and 100mm (4" case sizes
- Corrosion-resistant stainless steel case/ring
- Dry, field-fillable or liquid-filled versions
- Patented PowerFlex™ movement
- True Zero™ indication, a unique safety feature
- Two-year warranty on liquid-filled gauges

Ashcroft® Type 1008A gauges are synonymous with durability, flexibility and exceptional quality.

The Type 1008A case and ring assembly is constructed of durable, corrosion-resistant stainless steel. The gauge enclosure is sealed to provide maximum protection in adverse environmental conditions. The core of the Type 1008A is the patented PowerFlex™ movement. This movement provides a higher level of resistance to shock, vibration and pulsation than conventional gauge movements.

Both 63mm and 100mm Type 1008A gauges are available dry, field fillable, glycerin filled or silicone filled. Weld nuts are standard on all back connection gauges, therefore, any back-connection gauge with the addition of a U-clamp accessory kit, can be panel mounted. For limited space constraints, the front-flange mounting kit is offered. Where it is necessary to convert a larger panel opening to a smaller size, the retrofit flange kit is available. Custom dials and metric sockets are also available.

True Zero™ indication, a unique safety feature standard on these gauges, is the accurate indication of zero pressure being applied to the gauge. In addition to the increased safety benefits, this means reduced inspection and manufacturing costs for you and your customer.

### PRODUCT SPECIFICATIONS:

**Ashcroft® Model No.:** 1008A/AL

**Size:** 63mm (2½"), 100mm (4")

**Case:** 304 stainless steel, dry (1008A) or liquid filled (1008AL)

**Fill Fluid:** Glycerin (20° to 150°F ambient; -7°C to 65°C)

**Ring:** 304 stainless steel, crimped

**Window:** Polycarbonate

**Dial:** Black figures on white background, aluminum

**Pointer:** Black, aluminum

**Bourdon Tube:** – C-shaped Bronze (vac.-600 psi and compound)

– Helical Bronze (1000 psi-6000 psi)

– Helical stainless steel (10,000 psi-15,000 psi)

**Movement:** Patented PowerFlex™ movement

**Socket:** Brass, with O-ring case seal

**Restrictor:** Brass throttle plug, 0.013" orifice (except for vacuum 15 psi ranges)

**Connection:** ¼ NPT lower and back

**Ranges:** Vac. thru 15,000 psi and compound. Equivalent metric ranges available

**Accuracy:** ASME B40.100, Grade B, ±3-2-3%

**Operating Temp.:** -40°F to 150°F, -40°C to 65°C (dry gauge)

### OPTIONAL FEATURES:

**Case:** Sealed case, field fillable (LJ)  
Silicone filled (GV)  
(-40°F to 150°F; -40°C to 65°C)

**Mounting Hardware:** U-clamp (UC), Front flange (FF), Retrofit flange (RF)

**Socket:** Throttle Plugs, 0.007", 0.020", 0.063" JIS, DIN and other connections on application

**Others:** Customized dials, Nonstandard ranges, Special calibration on application  
FlutterGuard™ (eliminates rapid pointer flutter on most vibration/ pulsation applications – dry gauges only)

### COMMONLY USED ON

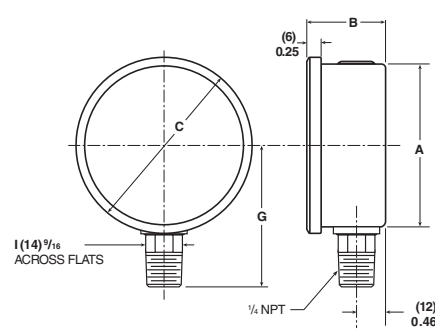
*Hydraulic systems, machine tools, pressure washers/sprayers, compressors, irrigation equipment, a variety of other applications*

### HOW TO ORDER (Typical example)

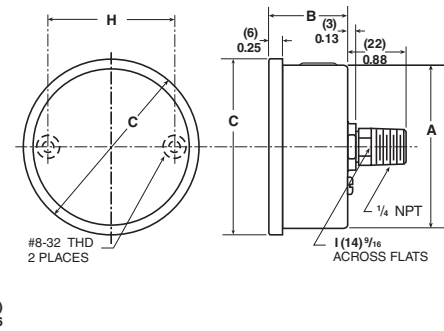
Dial Size: 63mm \_\_\_\_\_ **63**    **1008A**    **L**    **02L**    **1000#**  
 Case Type Number: 1008A \_\_\_\_\_  
 (SS case / bronze tube / brass socket / PowerFlex movement)  
 Liquid Filled Case \_\_\_\_\_  
 Connection Size/Location: ¼ NPT Lower \_\_\_\_\_  
 Range: 1000 psi \_\_\_\_\_

# Type 1008A/AL Stainless Steel Metric Case Commercial Gauge

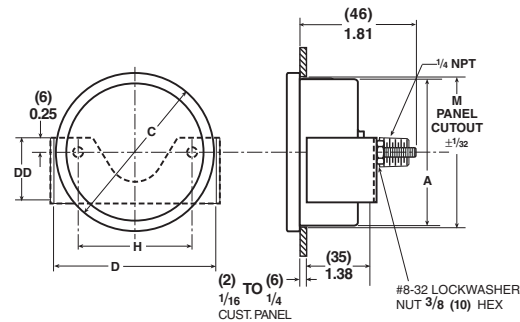
## DIMENSIONS



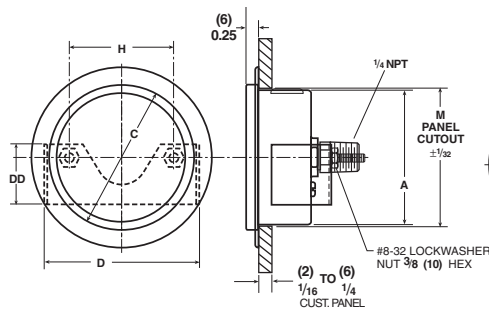
63/100mm 1008A/AL Lower Connection



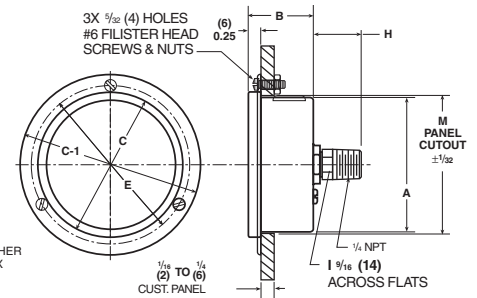
63/100mm 1008A/AL Back Connection



63/100mm 1008A/AL Back Connection  
(XUC) U-Clamp



63/100mm 1008A/AL Back Connection  
(XRF) Front Flange Retrofit



63/100mm 1008A/AL Back Connection  
(XFF) Front Flange

SIZE/TYPE	A	B	C	CC	D	DD	E	G	H	M	LOWER		BACK	
											Weight oz / kg Dry	Weight oz / kg Wet	Weight oz / kg Dry	Weight oz / kg Wet
63mm, 1008A/AL	(63) 2.48	(31) 1.21	(69) 2.71	(86) 3.36	(75) 2.95	(28) 1.12	(75) 2.95	(56) 2.20	(49) 1.94	(65) 2.54	3.88 oz 0.110 kg	7.48 oz 0.212 kg	4.09 oz 0.116 kg	7.69 oz 0.218 kg
100mm, 1008A/AL	(100) 3.94	(31) 1.24	(106) 4.16	(133) 5.22	(107) 4.20	(28) 1.12	(116) 4.57	(74) 2.92	(76) 3.00	(101) 3.97	8.11 oz 0.230 kg	15.80 oz 0.448 kg	7.13 oz 0.202 kg	14.82 oz 0.420 kg

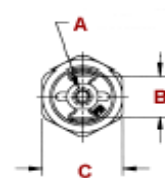
Dimensions in (mm) inches.

## SUBMITTAL DATA

### Pressure Switches

#### EMERGENCY SECONDARY HIGH SYSTEM PRESSURE SWITCH\*

Specifications:	
Wetted Parts	Diaphragm: Nitrile Standard (Optional Viton®, Neoprene, or EPDM) Fitting: Zinc Plated Steel (Optional 316 SS)
Operating Temperature*	Nitrile: 15°F to 230°F (-10°C to 110°C) Viton®: 0°F to 230°F (-18°C to 110°C) EPDM: -40°F to 230°F (-40°C to 110°C)
Switch**	100 VA Max
Electrical Termination	Exposed Terminals IP00, IP Option IP66
Proof Pressure	6000 psi (414 bar)
Burst Pressure	9000 psi (600 bar)
Approvals	CE (Limits switch voltage to 42 Vdc)
Weight, Approximate	0.14 lbs. (0.06 kg) Steel



<b>A</b>	Adjustment Screw
<b>B</b>	0.54" (14)
<b>C</b>	.15/16" A.F. (24)

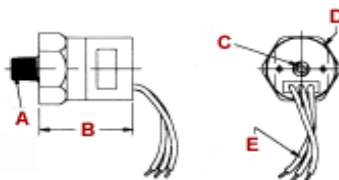
\* Not Included in Prodigy Series Products.

#### EMERGENCY LOW SUCTION PRESSURE SWITCH

Specifications:	
Wetted Parts	Diaphragm: Nitrile Standard (Optional Viton®, Neoprene, or EPDM) Fitting: Brass (Optional 316 SS)
Operating Temperature	see table below
Switch	see table below
Repeatability	see table below
Electrical Termination	DIN 43650A IP65; Terminals IP00; Conduit with Flying Leads IP65
Proof Pressure	350 psi (24 bar)
Burst Pressure	700 psi (48 bar)
Approvals	CE, UL Approved units available
Weight, Approximate	0.3 lbs. (0.14 kg) Brass



<b>A</b>	See Ordering Info
<b>B</b>	1.58" (40)
<b>C</b>	1/8 Allen Wrench Adjustable Screw
<b>D</b>	1.1" (28)
<b>E</b>	Red, NO.; Green, NC.; Black, COM.





# [ Warranty Agreement ]



## **Covered Product:**

QuantumFlo Commercial Plumbing Packages Single or Multi-Pump Skid with integrated Controls

**Model Numbers:** Prodigy, Genius E, Genius V and WisperFlo

## **Limitation of Damages**

In no event shall QuantumFlo, Inc. be liable for consequential damages for breach of this warranty. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to the buyer.

## **Warranty Coverage**

QuantumFlo, Inc. warrants the Covered Product to be free of all defects in material and workmanship for Five Years (5) from the date of shipment. This warranty extends to the original buyer (only or and each successive buyer within the warranty period).

Within the period of this warranty, QuantumFlo, Inc. will repair or replace, free of charge; any part which has been **proven to be defective in materials or workmanship**. All warranty repairs and service must be performed by an authorized QuantumFlo, Inc. technician, its assigns or at an authorized QuantumFlo, Inc. service facility at the discretion of QuantumFlo.

All expenses related to replacing or repairing a defective part under this warranty shall be assumed by QuantumFlo, Inc. except for the following expenses, which shall be assumed by the buyer:

- Removal and replacement of the defective part(s)
- Any technical evaluation by the component manufacturer that did not result in a warranty claim or damage caused by parts not procured or not procured through QuantumFlo.
- Damage as a result of poor power conditions or acts of God, such as a direct lightning strike.
- Damage as a result of shipping or other negligence, either hidden or obvious due to mishandling of the product, dropping or impacts by moving machinery.

## **Warranty Exclusions**

This warranty does not apply to any costs, repairs, or services for the following:

- Service calls to correct the installation of the Covered Product, or commissioning related activities.
- Repairs necessitated by use other than normal usage as per Operations & Maintenance Manuals.
- Damage resulting from misuse, abuse, accidents, alterations, or improper installation.
- Corrective work necessitated by repairs made by anyone other than a QuantumFlo, Inc. authorized service technician.
- Normal maintenance items such as filters, seals, grease and other maintenance required by Operations Manual.

## **How to obtain warranty service**

The buyer should carefully pack the Covered Product, preferably in the original packing materials or replacement part packing, and deliver it, together with a copy of the return material authorization form, to QuantumFlo or the Authorized Motor Service Center for motors (only):

- If the buyer sends the product by U.S. mail, we recommend that the buyer insure it and send it return receipt requested. We accept no liability for products lost or misplaced in shipment.
- Upon discovery of any defect, malfunction, or nonconformity in the Covered Product, the buyer may choose one of the following options for obtaining warranty service and repairs

**QuantumFlo local representative responsibilities include:**

- Assistance in the return or repair of the Covered Product to conform to the applicable warranty via RMA.
- Direct the buyer to a reasonably close independent repair or service facility. (i.e. Motor repairs)
- Replace the Covered Product with goods that are identical or reasonably equivalent to the warranted goods.

The Local Representative (at his option) may secure the services of an independent factory authorized repair or service facility for the service or repair of the Covered Product, when service or repair of the goods can be economically accomplished and when the buyer is not furnished appropriate relief. **It is the responsibility of the Local Sales Representative to compensate said local independent authorized repair or service facility at his own expense for labor related to this repair or service.**

**Start-up and Commissioning:**

It is the responsibility of the Local Representative to properly document and send in registration documentation or on-line commissioning data as necessary for the Covered Product to be registered as equipment subject to this Warranty. This will facilitate any warranty repairs or service, if needed. **QuantumFlo reserves the right to deny service on any equipment that has not been appropriately documented for inclusion into service.**

**Notice to Buyer**

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. You have the right to bring any action at law or equity to resolve disputes concerning or to enforce the provisions of this warranty.

If the buyer disagrees over either's performance under the terms of this warranty, the buyer may submit the matter for resolution to QuantumFlo within 30 Days of the Commissioning of the system. The buyer shall not be responsible for expenses incurred in submitting a dispute for resolution under the terms of this paragraph. The buyer is required to submit any dispute for resolution under this paragraph before pursuing any legal remedies to which he or she may be entitled.

SP – Sump Pump

Liberty ELV290 Oil Minder Type Sump Pump



# Liberty Pumps®

## ELV-Series

50 GALLON PER MINUTES  
EVELATORS #3, #4



Level Sensor



Control Panel



Alarm



### **Elevator Sump Pump Systems with OilTector® Control**

*Ideal for elevators,  
garages and areas  
where the discharge of  
oil/hydrocarbons into the  
environment is prohibited.  
Compliant with ASME A17.1  
and local building and  
safety codes.*

#### **Features:**

- Complete packaged system
- 1/3, 1/2 or 3/4 hp Sump Pump
- **1-1/2" Discharge**
- OilTector® Control
- Remote Alarm
- 115 or 230 volt models
- Easy clamp-mount installation,  
with plug-in ready wiring



innovate. evolve.

# ELV-Series System with OilTector® Control

The OilTector® control system is designed and approved for safe operation of pumping, alarming and monitoring of elevator sump pits, transformer vaults and other applications where oil and water must be detected. The OilTector® system will activate the pump to remove water from elevator pits in accordance with ASME A17.1, and will provide pumping of only water - even if an oil condition is detected. The OilTector® cycles the pump only in the water range. Oil and other harmful substances are not discharged into the environment. An alarm is activated in the event of a high water condition or high oil condition.

## OilTector® Description of Operation

On water rise, the pump will activate when the water level reaches the "start" probe. Pump will remain on until the water level is below the "off" probe. When the "off" probe no longer senses water it turns the pump off, air or oil are ignored and an oil layer (if present) will not be pumped out of the sump. If the liquid level reaches the "alarm" probe and mechanical float, the system will differentiate between water and oil and activate the appropriate alarm.

## ELV-Series Complete Sump Pump Systems (Pump, OilTector® Control, Alarm)

Model	hp.	Volts	Wgt. lbs.
ELV250	1/3	115 v.	34
ELV280	1/2	115 v.	40
ELV280HV	1/2	230 v.	40
ELV290	3/4	115 v.	42
ELV290HV	3/4	230 v.	42

## Pump Only Models

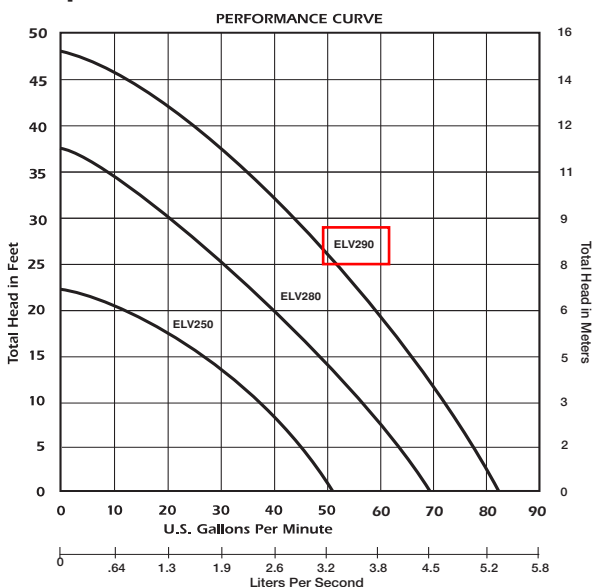
Model	hp.	Volts	Wgt. lbs.
EV250	1/3	115 v.	24
EV280	1/2	115 v.	30
EV280HV	1/2	230 v.	30
EV290	3/4	115 v.	32
EV290HV	3/4	230 v.	32

See 250-Series, 280-Series and 290-Series literature for complete pump specifications

## OilTector® Control and Alarm Only

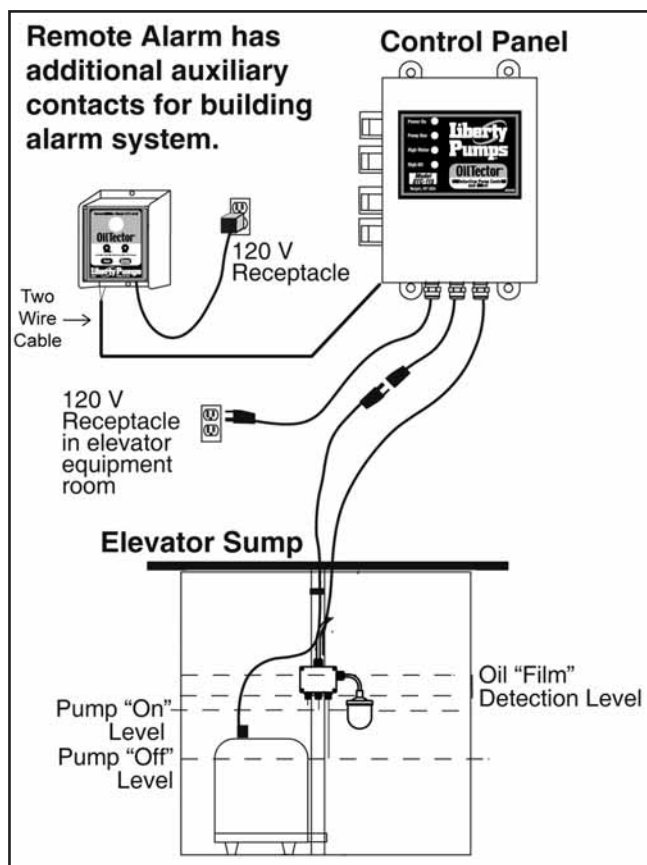
Model	Volts	Max. hp	Wgt. lbs.
OTC-115	115	1	9
OTC-230	230	2	9

## Pump Performance Curve



## Features:

- Heavy-duty 1/3, 1/2 or 3/4 hp. cast iron sump pump
- Oil resistant SJEOOW cord (25' standard length)
- Easy, clamp mounted pre-set level sensor holder
- No field adjustments required. OilTector® will turn pumps on and off, sound the high water alarm and high oil alarm with one easy installation.
- Control panel with separate pump and control circuits - Nema 1 enclosure. Height 8.75" x Width 6.5" x Depth 5"
- Plug-in ready pump cord and power to panel cord for quick and easy installation
- Remote alarm with additional auxiliary (24 VDC) contacts for connection to building automation system or SCADA system. Audio/visual warning. 120 volt primary and 9 volt back-up powered.
- Power on, Pump Run, High water and High oil lights.
- ASME A17.1 Compliant



Specifications subject to change without notice.

**OilTector<sup>®</sup>**

**Liberty Pumps<sup>®</sup>**

# **Submittal Data**

## **OTC-115**

**Liberty Pumps<sup>®</sup>**

7000 Apple Tree Avenue, Bergen, NY 14416 Phone: (800) 543-2550-Fax: (585) 494-1839-[www.libertypumps.com](http://www.libertypumps.com)



NOTES: 1. WARNING! Electrical Shock Hazard! Disconnect power before servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.  
2. Install in accordance with National Electric Code, NFPA 70, Seal all boxes, fittings and conduit with appropriate seal devices to prevent moisture and gases from entering enclosure.  
3. Connect all grounds to a good ground. 4. Dashed lines represent field wiring - Use only 60 deg C Copper Wire 5. Branch Circuit Protection Device/Disconnect Means Field Provided.

REV:  
A

DWG # 7235000G SHEET: 1 OF 1

TITLE: DATE: 11/12/09

OilTector OTC-115

DRAWN BY: B. Klabunde

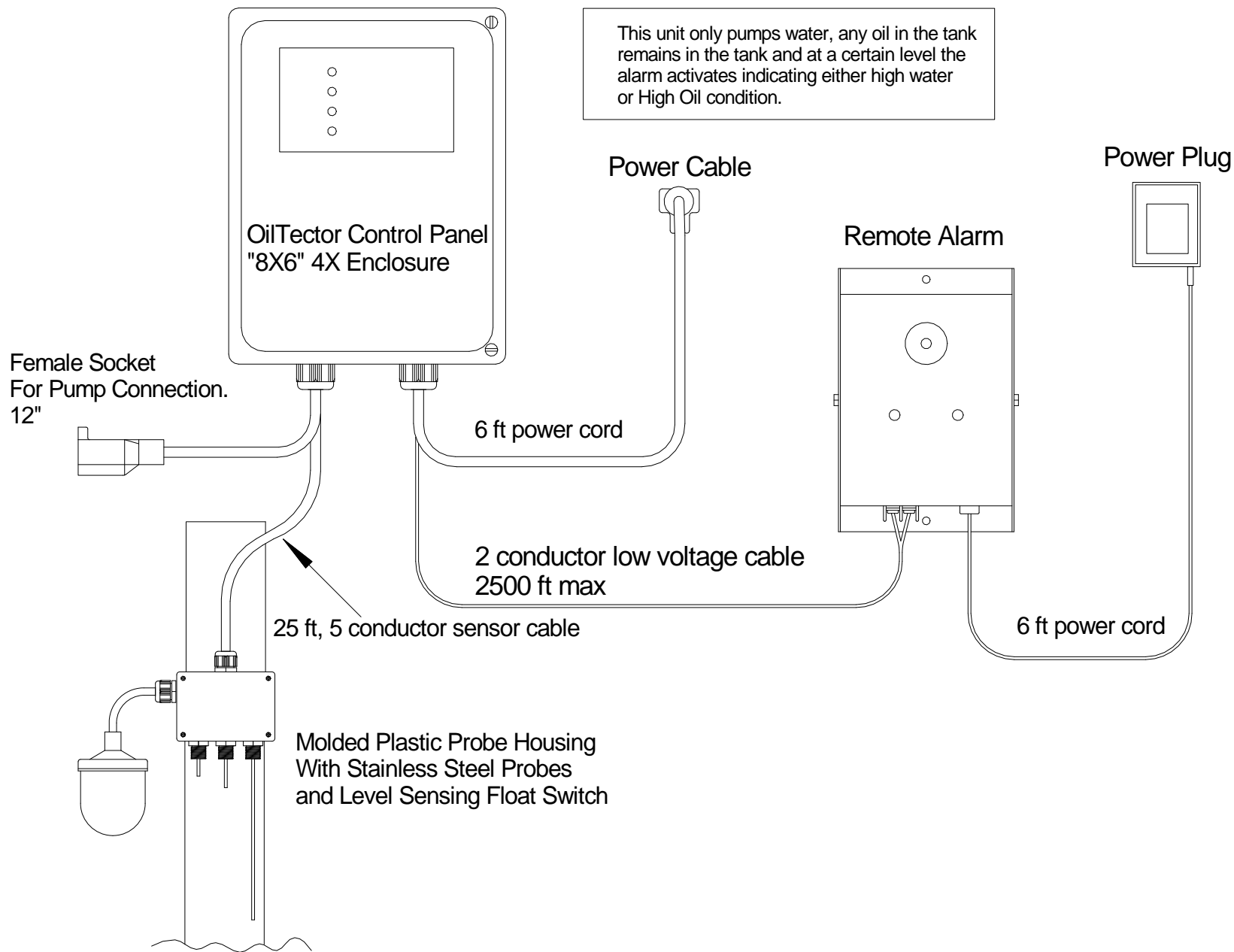
**LINE VOLTAGE: 120**

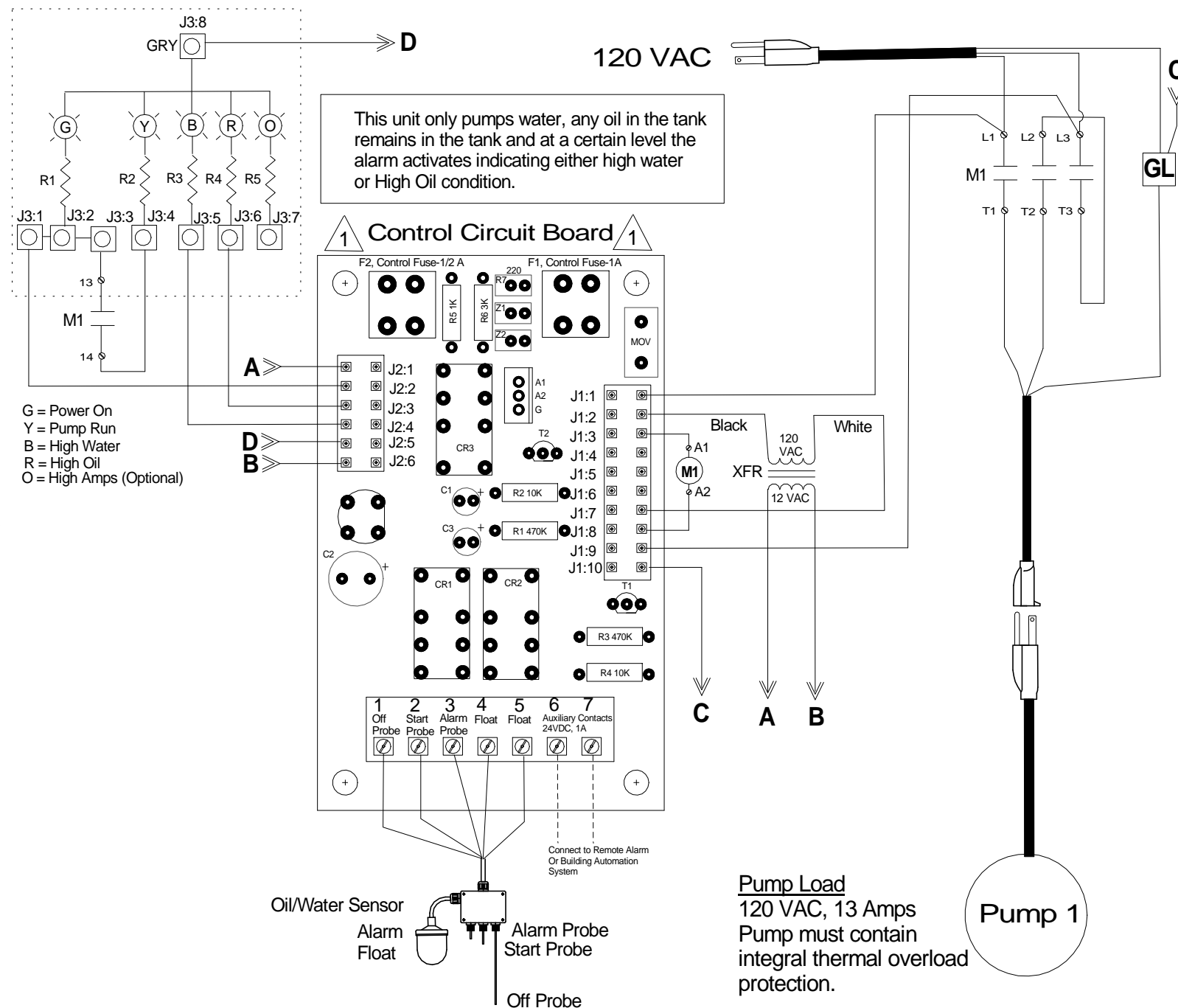
**PHASE: 1**

**HERTZ: 60**

AWG. OR CIRCULAR MILL SIZE	TIGHTENING TORQUE IN INCH POUNDS	
	SCREW DRIVER	EXTERNAL DRIVE WRENCH
14	35	75
12	35	75
10	35	75
8	40	75
6	45	110
4	45	110
2	50	150
1	50	150
1/0	50	180
2/0	50	180

FIELD WIRING  TERMINAL BLOCK

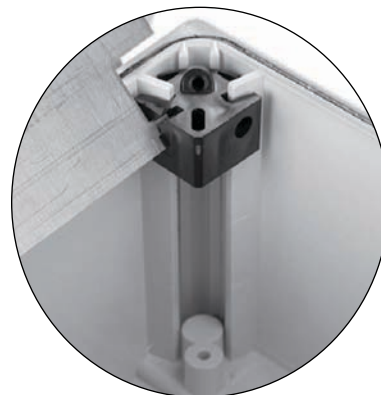




# PolyPro™ Type 4X Polyester Enclosures



**POLYPRO™**  
ENCLOSURES



Internal rail system detail

## Application

Designed to safely house electrical and electronic controls in indoor and outdoor applications. Provides excellent corrosion protection against a wide range of common chemical agents. Provides flame resistance and excellent ultraviolet protection while maintaining a high environmental seal. These enclosures are suitable for use in industries including petroleum and chemical processing, waste water processing, pulp and paper, outdoor monitoring, and many other applications.

## Features

- Overlapping tongue-and-groove raised cover and seamless foam-in-place gasket provide a secure seal
- Removable snap hinge cover allows for easy access to cover and body for modifications
- Molded layout grid on inside of body and solid covers assists with component mounting
- Screw cover and padlockable non-metallic snap-down latch provisions provided
- Solid and window door options
- Includes polyester mounting brackets and four adjustable panel blocks

## Construction

- Polyester non-glass-filled (PBT) material
- Bolt-on continuous top and bottom mounting provisions
- External snap-together body/door hinge provisions
- Type 4-rated gasket
- Integrated rail system allows for panel height adjustment within top 5 in. of enclosure
- Embosses for rear panel mounting

## Finish

RAL 7035 light gray textured finish inside and out.

## Industry Standards

UL 508A, File No. E61997: Type 4, 4X, 12, 13  
NEMA/EEMAC Type 4, 4X, 12, 13  
Enclosure flammability evaluated per UL 508A  
Window flammability evaluated per UL 508A  
CSA File No. 42186: Type 4, 4X, 12, 13  
IEC 60529, IP66

## Accessories

Adjustable Panel Block Kit  
Aluminum Swing-Out Panel  
Panels  
Polyester Mounting Bracket Kits  
Stainless Steel Padlockable Latches

## Modification Services Program

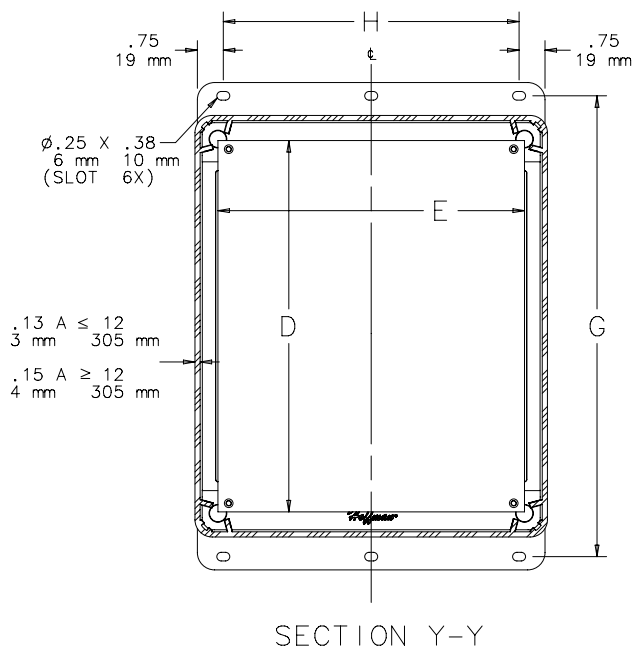
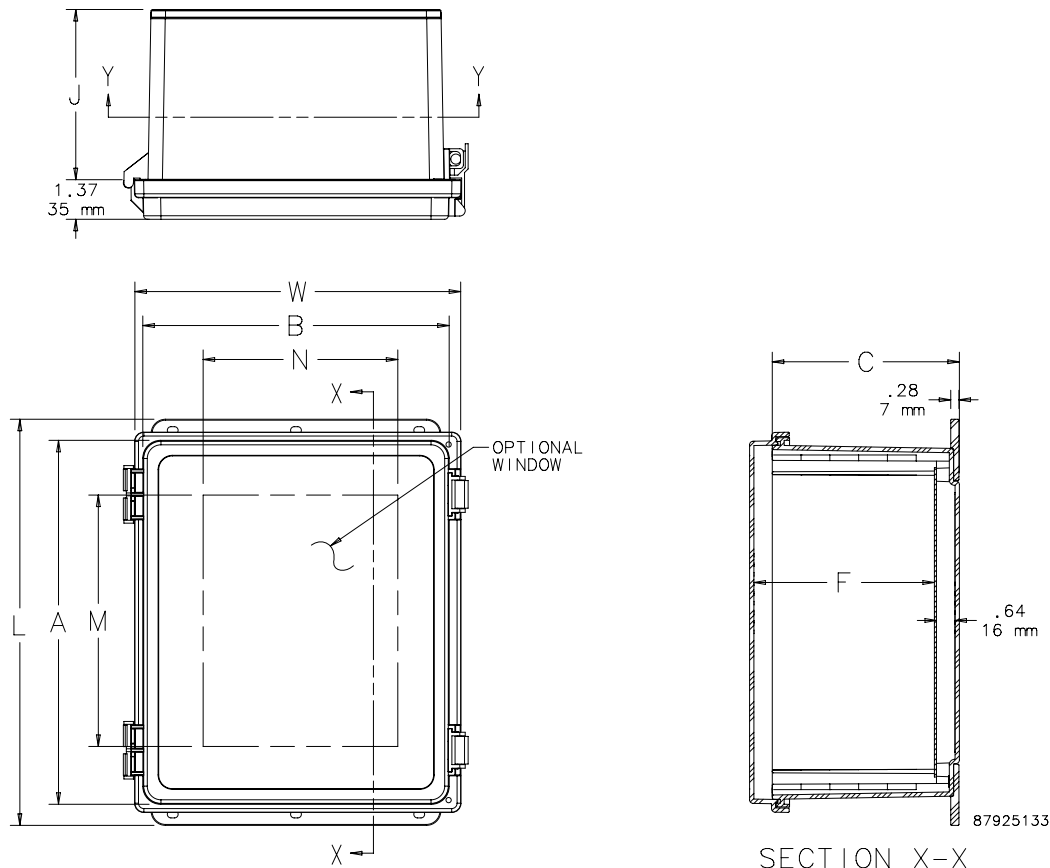
You can customize this product to your unique requirements by specifying from these options:

- Holes and Cutouts
- Non-Metallic Hole Seals
- Panels
- Aluminum Swing-out Panels
- Tapped Holes and Fasteners in Panels
- Stainless Steel Padlockable Latches

For details, see Modification Services at [hoffmanonline.com](http://hoffmanonline.com). To order, contact your local Hoffman sales representative.

**NOTE:** For information about modifications outside the scope of the Modification Services program, contact your Hoffman sales representative.

# PolyPro™ Type 4X Polyester Enclosures



# PolyPro™ Type 4X Polyester Enclosures

## Standard Sizes PolyPro Type 4X Polyester Enclosures

Enclosure Catalog Number		Enclosure Size A x B x C in. (mm)	Aluminum Panel Catalog Number <sup>a</sup>	Panel Size D X E in. (mm)	F in. (mm)	G in. (mm)	H in. (mm)	J in. (mm)	L in. (mm)	M <sup>b</sup> in. (mm)	N <sup>b</sup> in. (mm)	W in. (mm)
Solid Door	Window Door											
A644PHC	A644PHCW	6.12 x 4.12 x 4.38 (155 x 105 x 111)	A6P4AL	4.88 x 2.88 (124 x 73)	4.32 (110)	7.38 (187)	2.56 (65)	3.91 (99)	8.15 (207)	4.25 (108)	2.25 (57)	5.23 (133)
A664PHC	A664PHCW	6.12 x 6.12 x 4.38 (155 x 155 x 111)	A6P6AL	4.88 x 4.88 (124 x 124)	4.32 (110)	7.38 (187)	4.56 (116)	3.91 (99)	8.15 (207)	4.25 (108)	4.25 (108)	7.23 (184)
A864PHC	A864PHCW	8.12 x 6.12 x 4.38 (206 x 155 x 111)	A8P6AL	6.75 x 4.88 (171 x 124)	4.32 (110)	9.38 (238)	4.56 (116)	3.91 (99)	10.15 (258)	6.25 (159)	4.25 (108)	7.23 (184)
A884PHC	A884PHCW	8.12 x 8.12 x 4.38 (206 x 206 x 111)	A8P8AL	6.75 x 6.88 (171 x 175)	4.32 (110)	9.38 (238)	6.56 (167)	3.91 (99)	10.15 (258)	6.25 (159)	6.25 (159)	9.23 (234)
A1084PHC	A1084PHCW	10.12 x 8.12 x 4.38 (257 x 206 x 111)	A10P8AL	8.75 x 6.88 (222 x 175)	4.32 (110)	11.38 (289)	6.56 (167)	3.91 (99)	12.15 (309)	8.25 (210)	6.25 (159)	9.23 (234)
A10106PHC	A10106PHCW	10.05 x 10.02 x 6.38 (255 x 255 x 162)	A10P10AL	8.75 x 8.88 (222 x 226)	6.32 (161)	11.31 (287)	8.56 (217)	5.91 (150)	12.08 (307)	8.25 (210)	8.25 (210)	11.23 (285)
A12106PHC	A12106PHCW	12.08 x 10.09 x 6.38 (307 x 256 x 162)	A12P10AL	10.75 x 8.88 (273 x 226)	6.27 (159)	13.34 (339)	8.56 (217)	5.91 (150)	14.08 (358)	10.25 (260)	8.25 (210)	11.32 (288)
A14128PHC	A14128PHCW	14.02 x 12.01 x 8.35 (356 x 305 x 212)	A14P12AL	12.75 x 10.88 (324 x 276)	8.27 (210)	15.27 (388)	10.56 (268)	7.91 (201)	16.04 (407)	12.25 (311)	10.25 (260)	13.32 (339)
A16148PHC	A16148PHCW	16.02 x 14.01 x 8.35 (407 x 356 x 212)	A16P14AL	14.75 x 12.88 (375 x 327)	8.27 (210)	17.27 (439)	12.56 (319)	7.91 (201)	18.04 (458)	14.25 (362)	12.25 (311)	15.32 (389)
A181610PHC	A181610PHCW	17.95 x 15.94 x 10.35 (456 x 405 x 263)	A18P16AL	16.75 x 14.88 (425 x 378)	10.27 (261)	19.20 (488)	14.56 (370)	9.91 (252)	19.97 (507)	16.25 (413)	14.25 (362)	17.32 (440)

<sup>a</sup> Purchase panels separately. Panels are available in aluminum, mild steel, stainless steel, conductive and composite materials.

<sup>b</sup> Window door enclosures only.



## TeSys™ D-Line Contactors and Starters

### Selection of Contactors for Motor Control

The tables below show the kilowatt ratings (for international applications) and horsepower ratings (for North American applications) of contactors for motor control.

#### AC and DC Control Circuit — 3-pole Contactors with Touch-safe Terminals for Power Cabling (AC-3 category)

Maximum horsepower ratings						Maximum Inductive Current in AC-3 Category 600 V	Standard power ratings of 3-phase motors 50/60 Hz in category AC-3								Rated Operating Current in AC-3 up to 440 V	Instantaneous Auxiliary Contacts		Catalog Number ▼◆	Weight lb (kg)
1-phase 50/60 Hz		3-phase 50/60 Hz																	
115/ 120 V	230/ 240 V	200/ 208 V	220/ 240 V	460/ 480 V	575 V 600 V		220 V 230 V	380 V 400 V	415 V	440 V	500 V	660 V 690 V	1000 V						
HP	HP	HP	HP	HP	HP	A	kW	kW	kW	kW	kW	kW	kW	A	N.O.	N.C.			
0.5	1	2	2	5	7.5	9	2.2	4	4	4	5.5	5.5	—	9	1	1	LC1D09●●	0.71 (0.320)	
1	2	3	3	7.5	10	12	3	5.5	5.5	5.5	7.5	7.5	—	12	1	1	LC1D12●●	0.72 (0.325)	
1	3	5	5	10	15	18	4	7.5	9	9	10	10	—	18	1	1	LC1D18●●	0.73 (0.330)	
2	3	7.5	7.5	15	20	25	5.5	11	11	11	15	15	—	25	1	1	LC1D25●●	0.82 (0.370)	
2	5	10	10	20	30	32	7.5	15	15	15	18.5	18.5	—	32	1	1	LC1D32●●	0.83 (0.375)	
Not for North American applications ■						38	9	18.5	18.5	18.5	18.5	18.5	—	38	1	1	LC1D38●●	0.84 (0.380)	
3	5	10	10	30	30	40	11	18.5	22	22	22	30	22	40	1	1	LC1D40●●	3.11 (1.400)	
3	7.5	15	15	40	40	50	15	22	25	30	30	33	30	50	1	1	LC1D50●●	3.11 (1.400)	
5	10	20	20	50	50	65	18.5	30	37	37	37	37	37	65	1	1	LC1D65●●	3.11 (1.400)	
7.5	15	25	30	60	60	80	22	37	45	45	55	45	45	80	1	1	LC1D80●●	3.53 (1.590)	
Not for North American applications ■						95	25	45	45	45	55	45	45	95	1	1	LC1D95●●	3.58 (1.610)	
—	—	30	40	75	100	115	30	55	59	59	75	80	75	115	1	1	LC1D115●●	5.38 (2.420)	
—	—	40	50	100	125	150	40	75	80	80	90	100	90	150	1	1	LC1D150●●	5.42 (2.440)	

- ◆ For LC1D09 to LC1D38: clip-on mounting on 35 mm DIN rail **AM1DP** or screw mounting.  
For LC1D40 to LC1D95: clip-on mounting on 35 mm DIN rail **AM1DE** or 75 mm DIN rail **AM1DL** or screw mounting.  
For LC1D115 and LC1D150: clip-on mounting on 2 x 35 mm DIN rails **AM1DP** or screw mounting.
- ▼ Use voltage codes on page 115 "Voltage Code Table" to complete catalog number.
- Devices are UL Listed at the same HP ratings as 32 and 80 amp devices, respectively.

LC1D09●●



LC1D65●●



LC1D150●●



(1) 100 GALLON PER MINUTE ELVATOR 1&2

# Liberty Pumps®

## LE70-Series

### Sewage Pumps

**3/4 hp  
2" Solids-Handling**

#### Features:

- Rugged 2 vane, semi-open cast iron impellers
- Cast iron housings and volute with all stainless and brass fasteners
- 416 stainless steel rotor shaft
  - Oil-filled, hermetically sealed motors
- Built-in thermal protection on single phase models
- 2" or 3" flanged discharge
- Permanently lubricated upper and lower ball bearings
  - Unitized shaft seals
- Single float mechanical level control with series plug for manual bypass operation—standard on single-phase automatic models
- Adjustable pumping range
- Quick-disconnect 10' standard power cord allows replacement of cord in seconds without breaking seals to motor (25' and 35' length optional)



#### Models:

##### SINGLE PHASE

LE71M 115V, 12a, manual  
LE71A 115V, 12a, automatic  
LE72M 208-230V, 6a, manual  
LE72A 208-230V, 6a, automatic

##### 3-PHASE

LE73M 208-230V, 4.1a, manual\*  
LE74M 440-480V, 2.1a, manual\*

\*NOTE: 3-phase models require control panel for automatic operation. See sewage accessories literature for complete information on all Simplex and Duplex controls.

innovate. evolve.

# LE70-SERIES

## TECHNICAL SPECIFICATIONS

### ALL MODELS: 3/4 HP, 1725 RPM

#### PUMP

The pump(s) shall be model \_\_\_\_\_ as manufactured by Liberty Pumps, Bergen, N.Y. or equal. The pump(s) shall have a capacity of \_\_\_\_\_ GPM at a total dynamic head of \_\_\_\_\_ feet. Motor size shall be 3/4 horsepower, \_\_\_\_\_ phase, 60 hz. and \_\_\_\_\_ volt operation.

#### MOTOR

The pump motor shall be of the submersible type, oil filled, and hermetically sealed. Single phase motors shall have thermal overload protection embedded in the windings, and shall automatically reset when motor cools. Three-phase motors shall have overloads incorporated into the control panel, properly sized for the horsepower and amperage of the pump(s).

The rotor shaft shall be made of 17-4 PH stainless steel and shall be supported by upper and lower ball bearings.

The power cord shall be of the quick-disconnect design.

The pump impeller shall be cast iron, 2 vane, semi-open, and shall be capable of passing a 2" spherical solid.

#### SEAL

The shaft seal shall be of the carbon/ceramic unitized design, with BUNA N elastomers and stainless housings.

#### EXTERNAL CONSTRUCTION

The pump volute, legs and motor housing shall be heavy gray iron castings, class 25 or better. All castings shall be powder coated before assembly.

All fasteners shall be of 300-series stainless steel.

#### LEVEL CONTROL

The pump shall be controlled by an adjustable mechanical switch sealed in a PVC float, and shall have a series plug for manual bypass operation.

#### IMPELLER

	MODELS	VOLTS	PHASE	AMPS	DISCHARGE	AUTOMATIC
SINGLE PHASE	LE71M2	115	1	12	2" FLANGED	NO
	LE71A2	115	1	12	2" FLANGED	YES
	LE72M2	208-230	1	6	2" FLANGED	NO
	LE72A2	208-230	1	6	2" FLANGED	YES
	LE71M3	115	1	12	3" FLANGED	NO
	LE71A3	115	1	12	3" FLANGED	YES
	LE72M3	208-230	1	6	3" FLANGED	NO
	LE72A3	208-230	1	6	3" FLANGED	YES
3-PHASE	LE73M2-2	208-230	3	4.1	2" FLANGED	NO
	LE74M2-2	440-480	3	2.1	2" FLANGED	NO
	LE73M3-2	208-230	3	4.1	3" FLANGED	NO
	LE74M3-2	440-480	3	2.1	3" FLANGED	NO

10' cord standard on single phase models. For 25' cord option, add a "-2" suffix to model number. Example: LE71A2-2  
For 35' cord option, add a "-3" suffix to model number. Example: LE71A2-3.

NOTE: 3-Phase models require panel for automatic operation. See sewage accessories literature for complete information on all simplex and duplex controls.

#### DIMENSIONAL DATA:

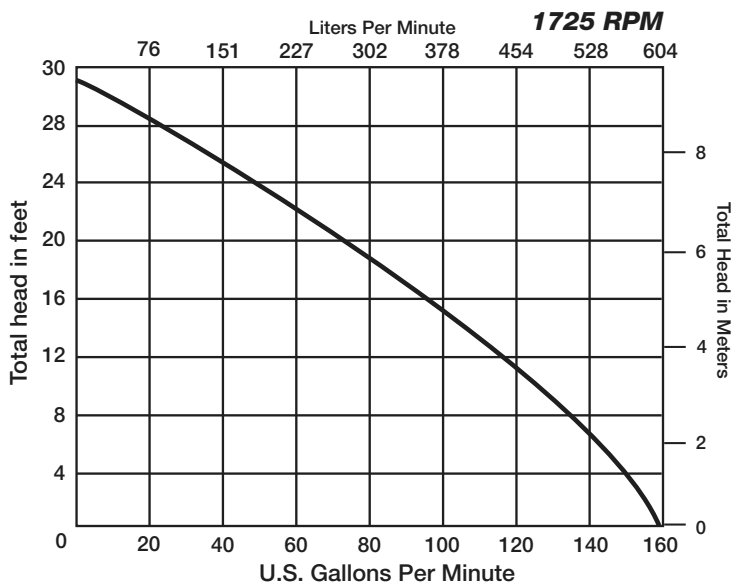
Weight: LE71M: 62 LBS.

Height: 18.9"

Major Width: 12.5"

Maximum fluid temperature 140° F.

#### PERFORMANCE CURVE 60HZ



Dual Safety certification for the United States and Canada.



Specifications are subject to change without notice.

Sewer Ejector Pump

Parking Deck Basement

# PF93015

## Simplex Sewage Pump Kit



### Pump Features

- 1/2 HP Cast Iron Sewage Pump (PF93501)
- 2" Discharge
- Handles 2" spherical solids
- Wide angle Float Switch
- Non-clogging vortex impeller
- Will handle temperatures up to 120° F
- Stainless steel fasteners
- UL listed

### Basin Features

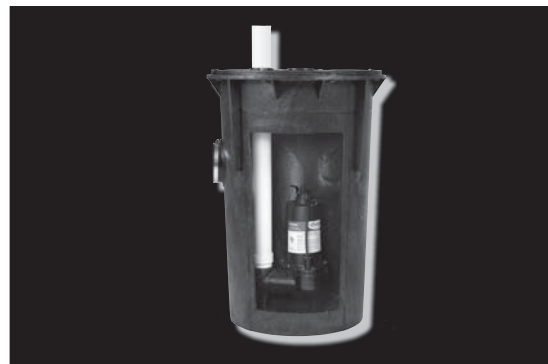
- Structural foam construction
- Corrosion resistant
- 18" x 30" - 30 gallon capacity
- Premium structural foam cover with 8 bolt configuration
- Air tight, molded, reuseable PVC seal
- Pre-plumbed with 2" PVC pipe, 30" long
- 4" Inlet with Snap-In-Hub
- 2" Discharge & Vent

### Pre-plumbed system includes:

- 1/2 HP Cast Iron Sewage Pump (PF93501)
- 18" x 30" Structural foam basin with cover
- 2" x 30" of PVC pipe

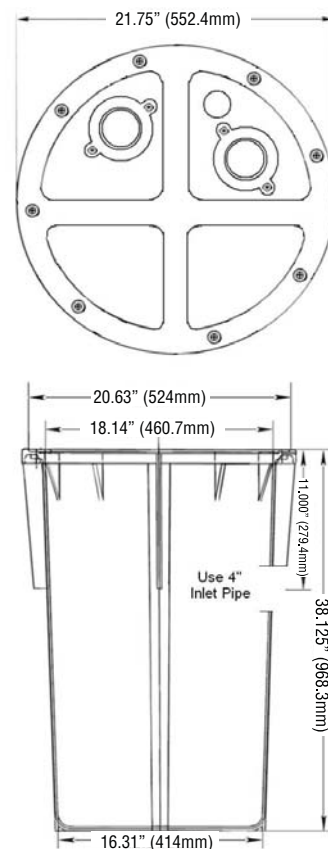
### Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO pump carries a 3-year limited warranty. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to ship newly designed products to fill any order unless we agree in writing to do otherwise.



PF93015

### Product Specifications



\* All measurements are nominal. Please verify before actual installation.

