

Engineering Specification

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Tag _____

FD-100-C-A Floor Drain With Round Strainer Specification

Watts FD-100-C-A epoxy coated cast iron floor drain with anchor flange, reversible membrane clamp with primary and secondary weepholes, 1/4"(6) thick (specify diameter) adjustable nickel bronze (standard) strainer, and no hub (MJ) (standard) outlet.

Pipe Sizing		
Suffix	Description	
2	2"(51) Pipe Size	<input type="checkbox"/>
3	3"(76) Pipe Size	<input type="checkbox"/>
4	4"(102) Pipe Size	<input type="checkbox"/>
6	6"(152) Pipe Size	<input type="checkbox"/>

Outlet Type		
Suffix	Description	
NH	No Hub (MJ)	<input type="checkbox"/>
P	Push On	<input type="checkbox"/>
T	Threaded Outlet	<input type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Strainer		
Suffix	Description	
A5-1	5"(127) Dia., Nickel Bronze	<input type="checkbox"/>
A6-1	6"(152) Dia., Nickel Bronze	<input type="checkbox"/>
A7-1	7"(178) Dia., Nickel Bronze	<input type="checkbox"/>
A8-1	8"(206) Dia., Nickel Bronze	<input type="checkbox"/>

Options		
Suffix	Description	
-5	Sediment Bucket	<input type="checkbox"/>
-6	Vandal Proof	<input type="checkbox"/>
-8	Backwater Valve (2, 3, 4" Only)	<input type="checkbox"/>
-12	Galvanized Top	<input type="checkbox"/>
-13	All Galvanized	<input type="checkbox"/>
-15	Strainer Extension (DD-50)	<input type="checkbox"/>
-113M	Special Epoxy from 3M Range	<input type="checkbox"/>
-F4-50	4" Round Cast Iron Funnel	<input type="checkbox"/>
-F4-1	4" Round Nickel Bronze Funnel	<input type="checkbox"/>
-F6-1	6" Round Nickel Bronze Funnel	<input type="checkbox"/>
-G-50	4x9" Oval Cast Iron Funnel	<input type="checkbox"/>
-G-1	4x9" Oval Nickel Bronze Funnel	<input type="checkbox"/>
-S0	Side Outlet	<input type="checkbox"/>
-Z	Elastomeric Flange	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
-60	PVC Body w/Socket Outlet	<input type="checkbox"/>
-61	ABS Body w/Socket Outlet	<input type="checkbox"/>

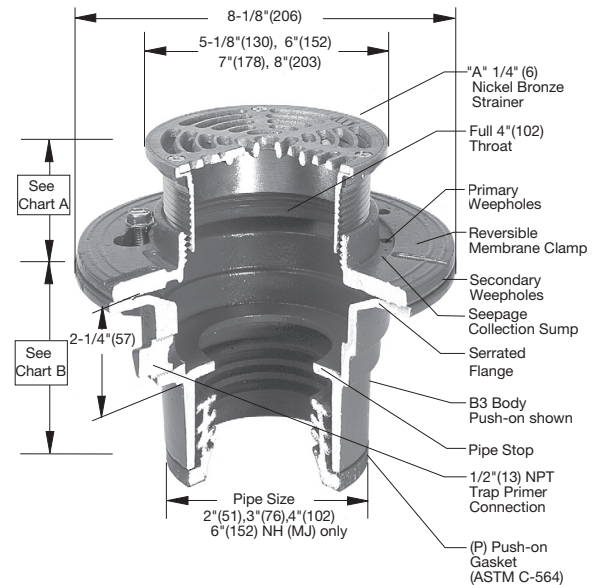


Chart A				
Str. Dia.	Min.	Max.	Load Rating	Free Area Sq. In.
5"(127)	13/16"(21)	2-1/2"(64)	*MD	8
6"(152)	7/8"(22)	2-3/4"(70)	*MD	9
7"(178)	11/16"(17)	2-1/2"(64)	*MD	12
8"(203)	7/8"(22)	2-7/8"(73)	*MD	18

Chart B					
Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60/61 PVC/ABS
2"(51)	3-5/8"(92)	4-1/4"(108)	4-1/4"(108)	4-1/2"(114)	3-3/4"(95)
3"(76)	3-5/8"(92)	4-1/4"(108)	4-1/4"(108)	4-1/2"(114)	3-3/4"(95)
4"(102)	3-5/8"(92)	4-1/4"(108)	4-1/4"(108)	4-1/2"(114)	4"(102)
6"(152)	3-1/2"(89)				

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

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



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Engineering Specification

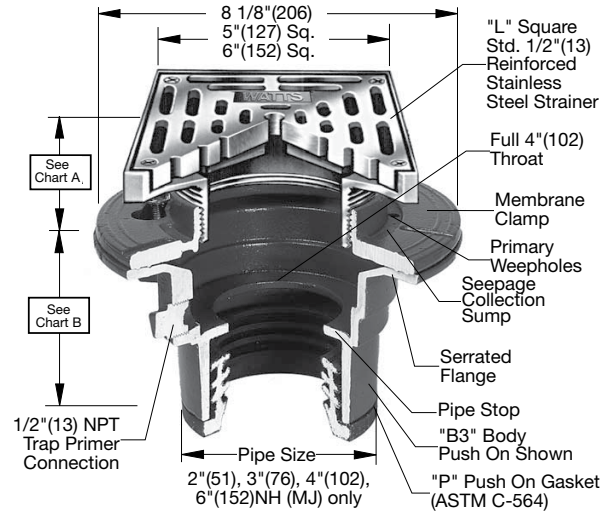
Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

FD-1100-C-L
Floor Drain with Square
Stainless Steel Strainer
Specification

Watts FD-1100-C-L epoxy coated cast iron floor drain with membrane clamp, weepholes, and adjustable square Type 304 cast stainless steel grate.

Call customer service if you need assistance with technical details.



Pipe Sizing		
Suffix	Description	
2	2"(51) Pipe Size	<input type="checkbox"/>
3	3"(76) Pipe Size	<input type="checkbox"/>
4	4"(102) Pipe Size	<input type="checkbox"/>
6	6"(152) Pipe Size	<input type="checkbox"/>

Outlet Type		
Suffix	Description	
NH	No Hub (MJ)	<input type="checkbox"/>
P	Push On	<input type="checkbox"/>
T	Threaded Outlet	<input type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Strainer		
Suffix	Description	
L5-3	5" x 5"(127x127), Stainless Steel	<input type="checkbox"/>
L6-3	6" x 6"(152x152), Stainless Steel	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
-60	PVC Body w/Socket Outlet	<input type="checkbox"/>
-61	ABS Body w/Socket Outlet	<input type="checkbox"/>

Options		
Suffix	Description	
-5	Sediment Bucket	<input type="checkbox"/>
-6	Vandal Proof	<input type="checkbox"/>
-8	Backwater Valve (3" & 4" only)	<input type="checkbox"/>
-10	Secured Top c/w Phillips Screws	<input type="checkbox"/>
-13	Galvanized Body	<input type="checkbox"/>
-15	Strainer Extension (DD-50)	<input type="checkbox"/>
-28	All Stainless Steel	<input type="checkbox"/>
-113M	Special Epoxy from 3M Range	<input type="checkbox"/>
-S0	Side Outlet	<input type="checkbox"/>

Chart A

Str. Dia.	Min.	Max.	Load Rating	Free Area Sq. In.
5"(127)	13/16"(21)	2 1/2"(64)	*XHD	6
6"(152)	7/8"(22)	2 3/4"(70)	*XHD	10

Chart B

Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60/61 PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3-3/4"(95)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3-3/4"(95)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)				

NOTICE

*The load classification are in accordance with the American National Standards ASME A112.21.1M ASME Ratings are as follows:
 XHD - Safe Live Load 7500-10,000 lbs.(3375-4500 kg)
 The above categories are given as a guide only. Please consult factory.

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

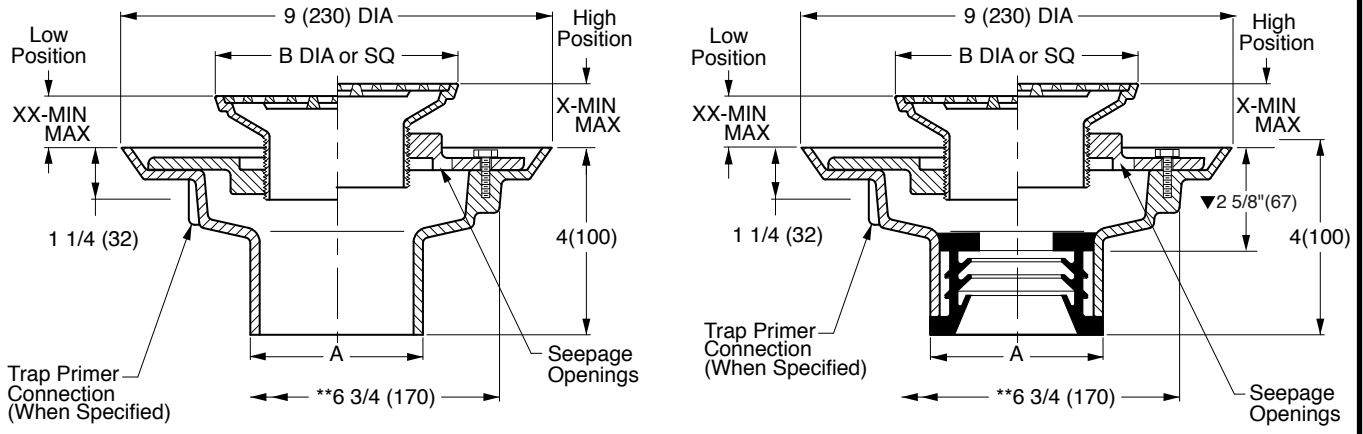


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U		  	LOCATION
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FLOOR OR SHOWER DRAINS WITH ADJUSTABLE STRAINER HEADS

General service floor drain for use in showers, toilets, kitchens and other finished areas where foot traffic is expected.
 Load Rating: Light Duty having a Safe Live (Static) Load less than 2,000 lbs. (900 kg) per ASME A112.6.3 Floor Drain Standard.
 For the specific Safe Live Load rating of any grate, contact the Smith representative or factory direct.



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

SPEEDI-SET OUTLET

- Fig. 2005L.....(A) ROUND TOP
- Fig. 2005L.....(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

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.



NOTE: Dimensions shown in parentheses are in millimeters.

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

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]

SEE PM 0457 FOR OPTIONAL STRAINER HEADS.

DRAWING NUMBER S2005
SCALE: NONE
DATE: 5-17-85
APPROVED BY: TD
CHECKED BY: TD
DRAWN BY: PJ
FIGURE NUMBER 2005

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
							2005



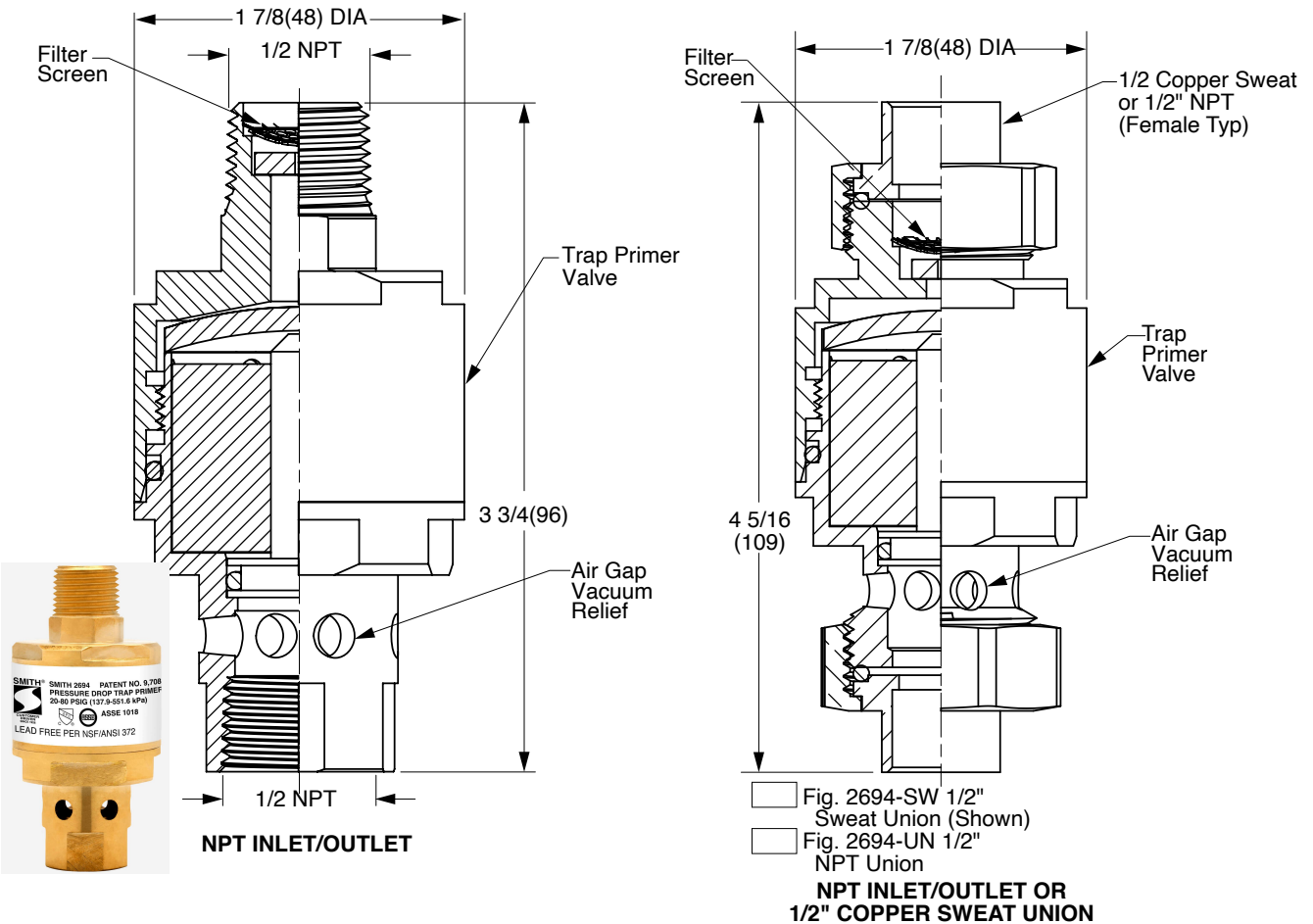
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FLUID
CONTROLS™

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POST OFFICE BOX 3237
MONTGOMERY, ALABAMA 36109-0237 (USA)
TEL: 334-277-8520 FAX: 888-377-7818 www.jrsmith.com

LOCATION

PRESSURE DROP ACTIVATED TRAP SEAL PRIMER

TRAP-DEFENDER™



REGULARLY FURNISHED:
Lead Free Brass with 1/2" NPT Connections as illustrated.

DISTRIBUTION UNITS
(See Submittals)
Fig. 2694DA
Fig. 2683

OPTIONAL MATERIALS:
 Nickel Plated -NP

NOTES:

- Minimum Pressure Drop 3 PSI - Reacts to positive or negative changes in water pressure
- Operating Pressure Range 20-80 PSIG (138-552 kPa)
- The Trap Seal Primer must be installed on a cold water line of 1/2"(13)-1 1/2"(38) pipe size.
- Solder Sweat Connections while Disassembled to Prevent Elastomer Damage
- Dimensions shown in parentheses are in millimeters.
- Assembled & Tested in the USA

CAUTION: MUST BE LOCATED IN AN ACCESSIBLE LOCATION.
The 2694 should not be subjected to continuous, large pressure fluctuations from pumps or other equipment that can cause such fluctuations.



ASSE 1018 LISTED
SEAL NO. 143



File 3437

COMPLIES with LEAD PLUMBING LAW
"CERTIFIED by IAPMO R & T"
FILE NO. 8477
(NSF/ANSI 372)

PATENT NO. 9,708,808
10,190,306

DRAWING NUMBER s2694
SIZE A
SCALE: NONE
DATE: 3-1-17
APPROVED BY: AS
CHECKED BY: AS
DRAWN BY: TBW
FIGURE NUMBER 2694

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
							2694



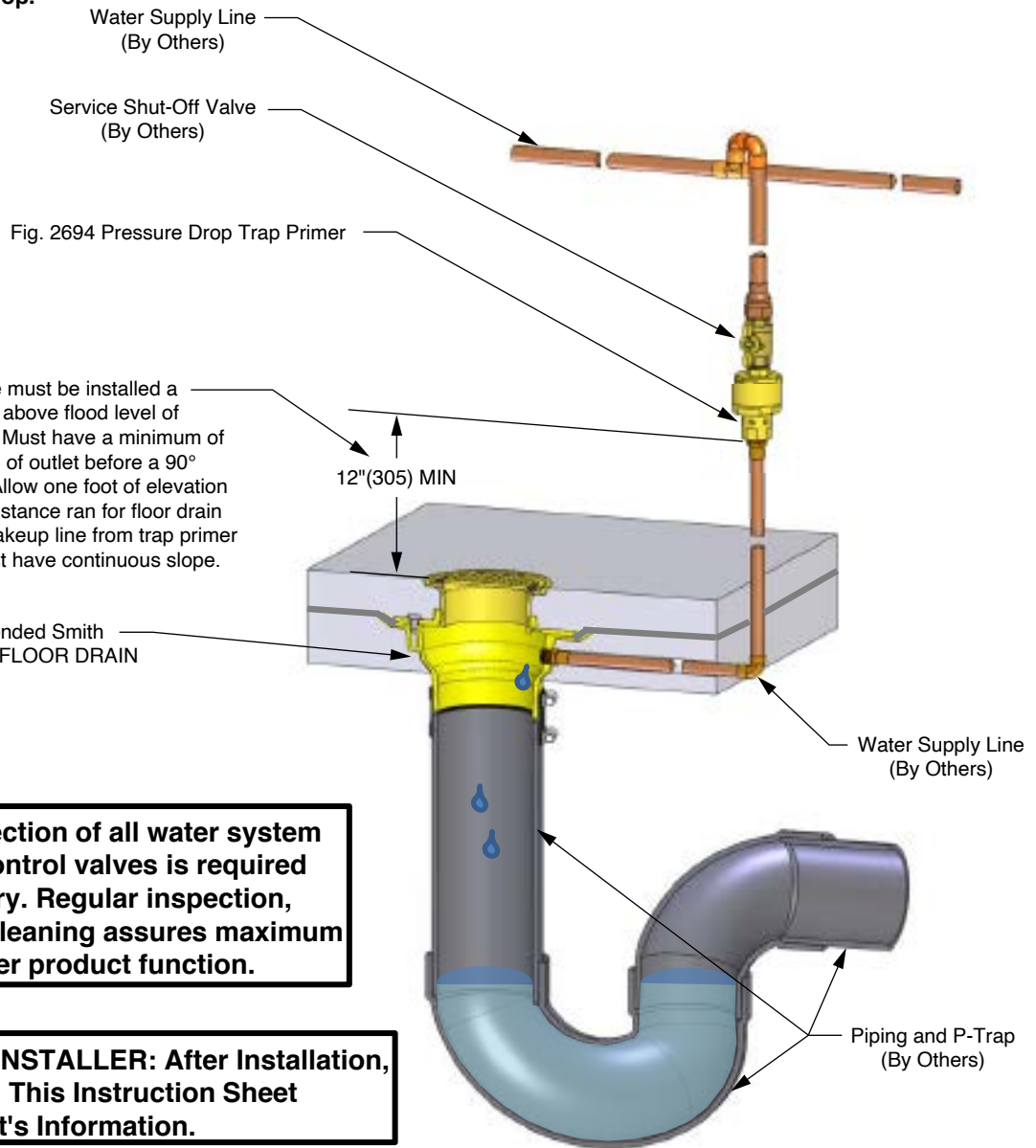
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LOCATION

INSTALLATION INSTRUCTIONS

The Fig. 2694 Trap Primer should be connected to a 1/2(13) - 1 1/2(38) pipe size cold water line only. Do not install on a cold water line serving a drinking fountain only. These devices should be installed in the vertical position, as shown, connected to a tee on the supply line leading to a frequently used fixture or at the end of a supply line and should be accessible for servicing. Before installing Fig. 2694, it is mandatory to flush out the line to remove dirt and scale that may foul trap primer internals. The trap primer valve must be installed a minimum of 12"(305) above flood level of device being served. Must have a minimum of 12"(305) from bottom of outlet before a 90° elbow can be used. Allow one foot of elevation for every 20 feet of distance ran for floor drain make up line. The makeup line from trap primer to the floor drain must have continuous slope. Note flow arrow direction on the trap primer label. Maximum supply pressure 80 psi. Note: A 3 psi (34 kPa) pressure drop across the valve is required to activate delivery of a metered amount of water to the floor drain trap. For supply, pressures below 20 psi or above 80 psi consult factory. The Minimum discharge rate is 0.10 mL Per Pressure Drop.



The trap primer valve must be installed a minimum of 12"(305) above flood level of device being served. Must have a minimum of 12"(305) from bottom of outlet before a 90° elbow can be used. Allow one foot of elevation for every 20 feet of distance ran for floor drain make up line. The makeup line from trap primer to the floor drain must have continuous slope.

Annual inspection of all water system safety and control valves is required and necessary. Regular inspection, testing and cleaning assures maximum life and proper product function.

ATTENTION INSTALLER: After Installation, Please Leave This Instruction Sheet For Occupant's Information.

DRAWING NUMBER
S2694BS

SIZE
A

SCALE:
NONE

DATE:
5-15-18

APPROVED BY:
AS

CHECKED BY:
AS

DRAWN BY:
TBW

FIGURE NUMBER
2694BS

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
C	7-31-20	Revised Instructions	MW	CL
B	3-9-20	Revised Instructions, Dimen.	MW	CL
A	2-24-20	Removed ASSE Code	MW	CL

WEIGHT POUNDS	VOLUME CUBIC FEET
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FIGURE NUMBER 2694BS



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

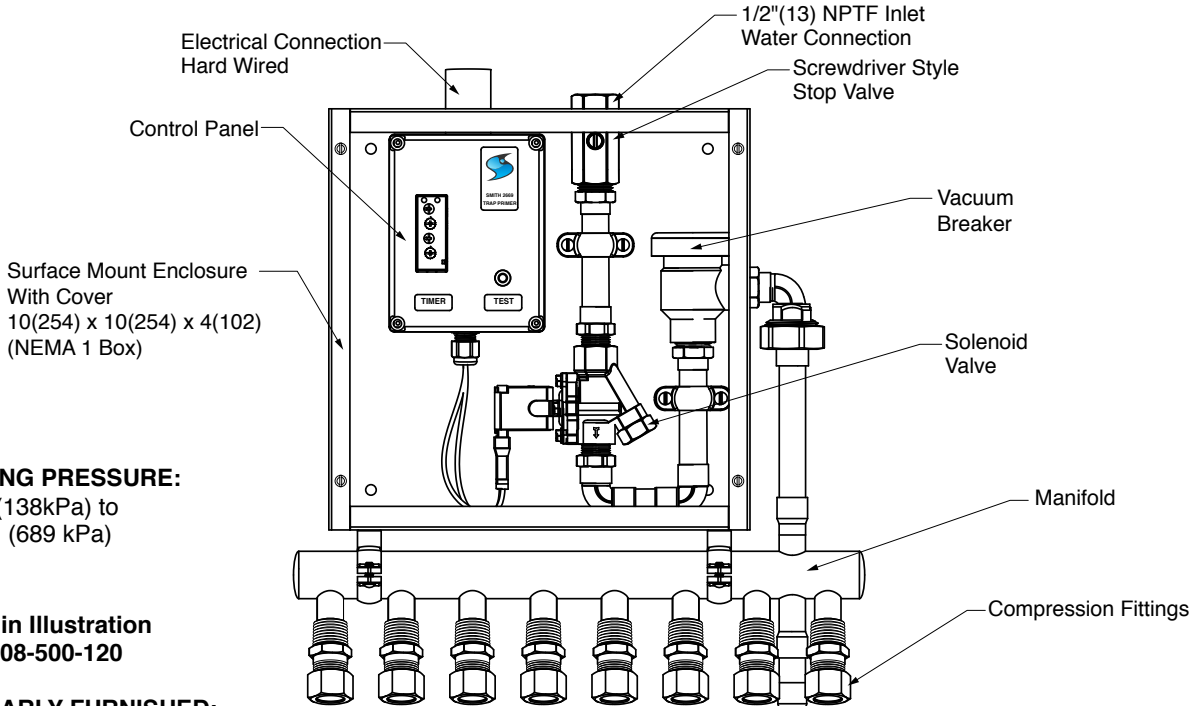


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LOCATION

ELECTRONIC TRAP PRIMING DEVICE

WITH SURFACE MOUNT ENCLOSURE



WORKING PRESSURE:
 20 PSI (138kPa) to
 100 PSI (689 kPa)

Shown in Illustration
 270SM-08-500-120

REGULARLY FURNISHED:
 A Surface Mount, Floor Drain Trap Priming Device consisting of **Enclosure with Cover**, a Solenoid Valve, Vacuum Breaker, a Timer (factory preset to discharge once per twenty-four-hour period) and a Manifold with multiple Compression Discharge Ports (specify number of outlets) allowing the unit to serve multiple floor drain traps. This device is supplied with hardwired type electrical connections and has provisions to interface with a Building Management System (BMS) where applicable.

SPECIFY AC VOLTAGE: HARDWIRED

- 24V -024
- 120V -120
- 240V -240

SPECIFY NUMBER OF OUTLETS:

- 04 06 08 10 12
- 14 16

SPECIFY OUTLET TYPES:

- 1/2"(13) OD Compression Fittings -500
- 5/8"(16) OD Compression Fittings -625

NOTES:

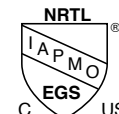
- All wiring must follow and be in accordance with National, State and Local Electrical Codes.
- The outlet of the trap primer valve shall be a minimum of 12"(305) above the finished floor before a 90° elbow can be installed. See Installation Instructions.
- Dimensions shown in parentheses are millimeters unless otherwise specified.
- Unit must be installed level and be accessible.

270SM-XX-XXX-XXX

— Voltage
 — Outlet Size
 — Number of Outlets
 — Surface Mount
 — Figure Number



FILE 3253



UL 1951
 CSA C22.2 NO 68
 CSA C22.2 NO 14
 FILE E10084

VARIATIONS:

- Vandal Proof Cover Screws -U
- Interface with Facilities Energy Management System -EMS



STD. 1044

DRAWING NUMBER
 S270SM SERIES

SIZE
 A

SCALE:
 NONE

DATE:
 4-24-19

APPROVED BY:
 JM

CHECKED BY:
 JM

DRAWN BY:
 TBW

270SM SERIES

FIGURE NUMBER

DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

J	12-15-20	Revised Reg Furn. /Callout	TBW	CL	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER 270SM SERIES
H	04-29-20	Revised ASSE/UPC Conformities	MW	CL			
G	04-23-20	Added UPC	MW	CL			
F	02-28-20	Added IAPMO EGS Conformity	MW	CL			
REV.	DATE	DESCRIPTION	BY	CKD. BY			