

VENETIA VALLEY SCHOOL
MIDDLE SCHOOL RESTROOM ADDITION
(SAN RAFAEL CITY SCHOOLS)

177 N. SAN PEDRO RD
SAN RAFAEL, CA 94903

PLUMBING FIXTURES

Prepared by:
tk1sc
Joel Baldovino, CPD
Job Number: #B2203109.000

February 23, 2023

**AFWALL® MILLENIUM™ FloWise® 1.28 GPF
FLUSHOMETER TOILET SYSTEM with EVERCLEAN®**

- ☐ **2856.128** 1.28 gpf Exposed Top Spud Bowl
and Manual Flush Valve

BOWL:

- Wall-mount elongated flushometer valve toilet
- Vitreous china
- High Efficiency. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Permanent EverClean® surface inhibits the growth of stain- and odor-causing bacteria, mold, and mildew on the surface
- Condensation channel
- Direct-fed siphon jet action
- 1-1/2" inlet spud
- Fully-glazed 2-1/8" trapway
- 10" x 12" water surface area
- 100% factory flush tested
- Bolt caps and seat not included
- Model 3351.101

MANUAL FLUSH VALVE:

- Manual Piston-Type Water Closet Flush Valve for floor-mounted or wall-hung 1-1/2" top spud bowls
- Self-cleaning brass piston with integral wiper spring prevents clogging and reduces maintenance
- Piston operation delivers superior flush accuracy and repeatability
- Piston valve remains closed and does not need to be reset after loss of water pressure
- ADA compliant non-hold open handle provides automatic shut-off after every flush
- Positive seal ensures leak-free performance
- No external volume adjustment
- Durable chrome-plated cast brass construction is ideal for commercial applications
- Chloramine-resistant EPDM seals
- Adjustable tailpiece for rough-in flexibility
- Can be installed left or right handed
- Model 6047.121.002

Includes:

- 047007-0070A Inlet spud (furnished with bowl)
- 1" I.P.S. angle stop with back-flow prevention and vandal-resistant cap
- Sweat solder kit including cover tube and wall flange
- High back pressure vacuum breaker with down tube
- Spud coupling & flange for 1-1/2" top spud

To Be Specified:

- ☐ Color: ☐ White
- ☐ Seat: 5901.100 American Standard Seat
- ☐ 5901.110 American Standard Seat with EverClean®
- ☐ Alternate Seat: 5905.100 Heavy Duty American Standard Seat
- ☐ 5905.110 Heavy Duty American Standard Seat with EverClean
- ☐ Carrier Fitting (by others):



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

High-Efficiency Toilet Systems:

- 20% water savings when compared to a 1.6 gpf toilet system

System MaP* Score:

- 1,000 grams of miso @ 1.28 gpf

* Maximum Performance (MaP) testing performed by IAPMO R&T Lab. MaP Report conducted by Veritec Consulting, Inc. and Koeller and Company.

Operating Pressure:

25 psi (flowing) - 80 psi (static)

Flow Requirement:

25gpm (94.6 L/min.)

Nominal Fixture Dimensions:

660 x 356 x 381mm (26" x 14" x 15")

EVERCLEAN®
Surface

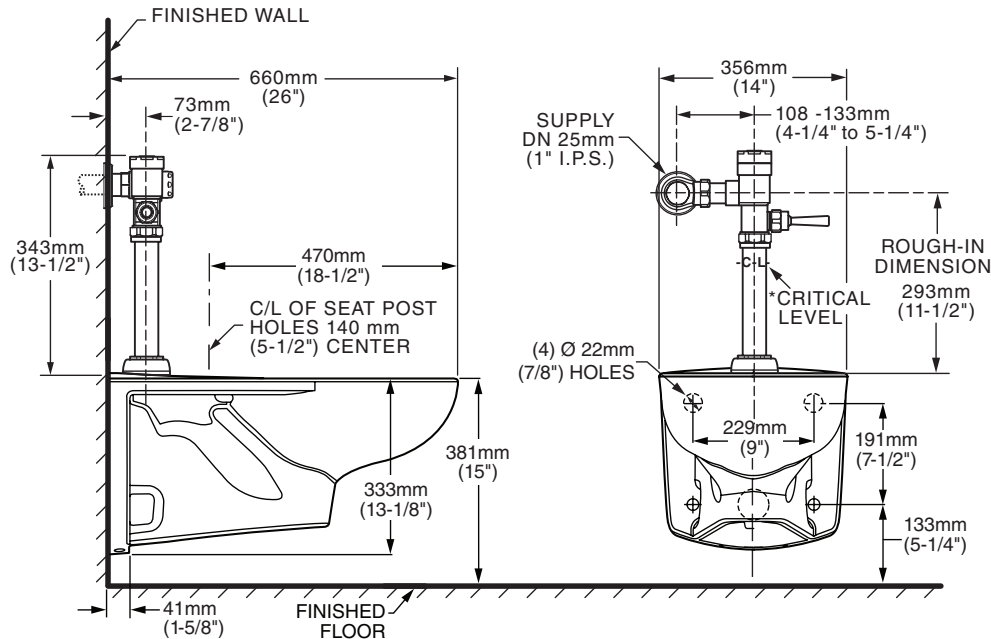


**Fixture Compliance Certifications -
Meets or Exceeds the Following
Specifications:**

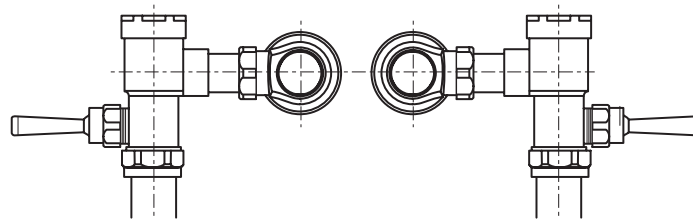
- ASME A112.19.2-2008 / CSA B45.1-08
for Vitreous China Fixtures

Valve Listings:

- ASSE 1037
- ANSI/ASME A112.19.2
- ADA Compliant



*Note: The Critical Line (-C-L-) on Vacuum Breaker must typically be a minimum of 6" (152mm) above fixture. Consult Codes for details.



VALVE LEFT or RIGHT HAND INSTALLATION



**MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES
AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND
FACILITIES - CHECK LOCAL CODES.**

- When installed so that top of seat is 432 to 483mm (17" to 19") from the finished floor.

NOTES:

WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED).

SUGGESTED 2mm (1/16") CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL. TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSHOMETER VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.

CARRIER FITTING AS REQUIRED TO BE FURNISHED BY OTHERS. PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORT.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2.

These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages

► Code Number

3910168

► Description

Exposed Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

► Flush Cycle

Model 111-1.28 High Efficiency (1.28 gpf/4.8 Lpf)

► Specifications

Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for left or right hand supply with the following features:

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- ADA Compliant Metal Oscillating Non-Hold-Open Handle with Triple Seal Handle Packing
- Spud Coupling and Flange for 1½" Top Spud
- Sweat Solder Adapter with Cover Tube & Cast Wall Flange with Set Screw
- Non-Hold-Open Handle, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Flush Accuracy Controlled by CID Technology
- Diaphragm, Handle Packing and Vacuum Breaker to be molded from PERMEX® Rubber Compound for Chloramine Resistance
- 1" I.P.S. Screwdriver Bak-Chek® Stop with free spinning vandal resistant stop cap

Valve Body, Cover and Tailpiece shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037.

► Accessories

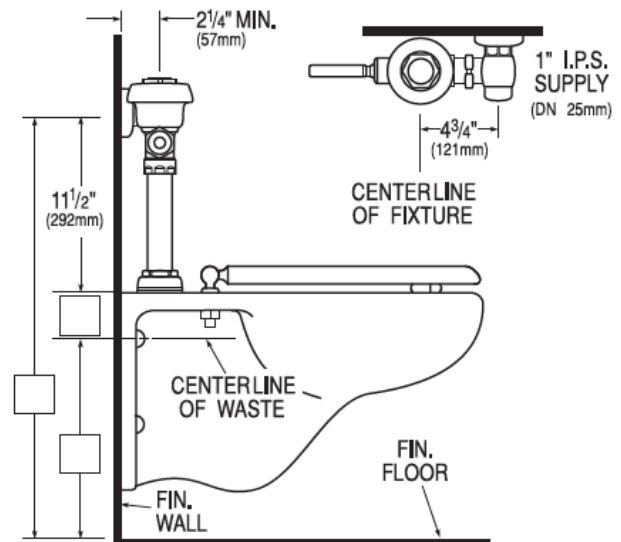
See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.

► Fixtures

Consult factory for matching Sloan brand fixture options.

► Variations

See Variation Section of the Sloan Catalog for details on these and other Flushometer accessories.



► Compliance & Certifications

Made In The
USA



This space for Architect/Engineer Approval

ADJUSTABLE FIXTURE SUPPORTS

FOR SIPHON JET WATER CLOSETS SHALLOW ROUGH-IN TYPE

NO-HUB HORIZONTAL FITTINGS

SINGLE

Thrust Bearing Nuts And Washers

DOUBLE

Rear Support Lug and -M51 Anchor
Foot Assembly Regularly Furnished.

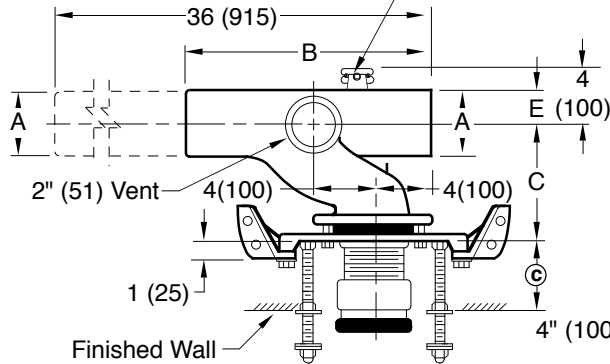


Fig. 0210RY
Top View

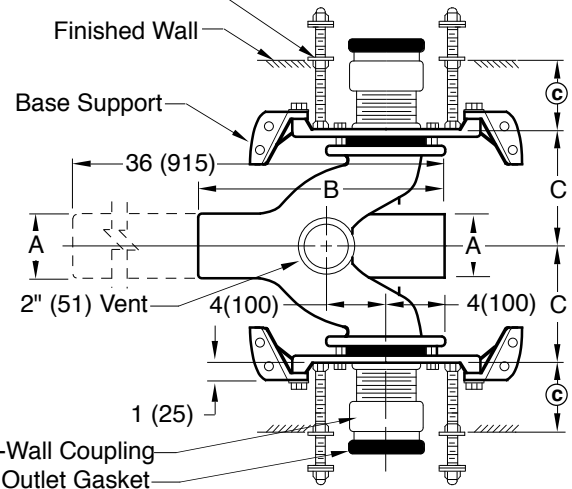
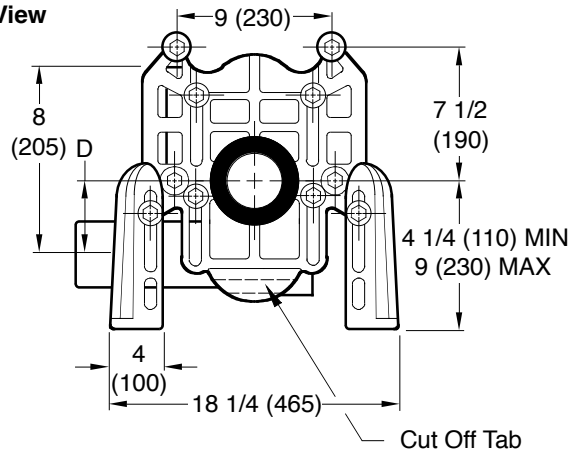


Fig. 0210DY
Top View

NOTE: Base support must be securely anchored to floor (with four 1/2" (13) bolts provided by contractor).

NOTE: Dimensions shown in parentheses are in millimeters.



Front View

The water closet gasket regularly furnished is made of molded neoprene and designed to fit water closet outlet dimensions and configurations shown in ANSI Standard A112.19.2M-1995, Figure 13B. If gasket is not found to be compatible to fixture due to nonconformance of said fixture to ANSI A112.19.2M, then fixture manufacturer shall be consulted for a suitable gasket recommendation. Jay R. Smith assumes no liability for connections to fixtures which do not conform to these standards.

- | | |
|--|--|
| | Fig. 0210LY. . . NO-HUB Left Hand |
| | Fig. 0210RY. . . NO-HUB Right Hand |
| | Fig. 0210DY. . . NO-HUB Double |
| | Fig. 0220LY. . . NO-HUB Left Hand Long Barrel |
| | Fig. 0220RY. . . NO-HUB Right Hand Long Barrel |
| | Fig. 0220DY. . . NO-HUB Double Long Barrel |

A SIZE	B	C	D		E
			MIN	MAX	
4 (100)	14 (355)	7 (180)	5/8 (16)	3 3/8 (86)	2 1/4 (57)
5 (125)	15 5/8 (397)	9 (230)	5/8 (16)	3 3/8 (86)	2 3/4 (70)

③ dimension = 4" (100) (regularly furnished)
consisting of nipple and Adjust-to-Wall
coupling permitting adjustment from 3" (76)
min. to 4" (100) max.

J H G F	10/09/99 7-1-98 1-23-98 6-1-94	Deleted Note Submittal Update Chg'd Callout Added Millimeters	JJ ASL EMB EMB	BS BS BS BS	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER 0210Y,0220Y
REV.	DATE	DESCRIPTION	BY	CKD. BY			



LUCERNE™ WALL-HUNG LAVATORY

- Wall-hung sink
- Vitreous china
- Front overflow
- D-shaped bowl
- Self-draining deck area with contoured back and side splash shields
- Faucet ledge
- Compliant with Texas accessibility standard (TAS) for children age group 13 and up

Faucet holes on 203mm (8") centers (Illus.):

- ☐ **0356.028** For exposed bracket support
Shown with 4801.862 Amarilis Heritage faucet with Triune Cross handles (not included)
- ☐ **0356.015** For wall hanger (included) or concealed arms support
- ☐ **0356.915** For wall hanger (included) or concealed arms support
 - Less overflow

Faucet holes on 102mm (4") centers:

- ☐ **0355.027** For exposed bracket support
- ☐ **0355.012** For wall hanger (included) or concealed arms support
- ☐ **0355.912** For wall hanger (included) or concealed arms support
 - Less overflow

Single center faucet hole (Illus.):

- ☐ **0356.041** For exposed bracket support
Shown with 1340.000 metering faucet (not included)
- ☐ **0356.421** For wall hanger (included) or concealed arms support
- ☐ **0356.921** For wall hanger (included) or concealed arms support
 - Less overflow
- ☐ **0356.439** For wall hanger (included) or concealed arms support
 - Single faucet hole on right
- ☐ **0356.066** For exposed bracket support
 - Single faucet hole on right

Nominal Dimensions:

521 x 464mm
(20-1/2" x 18-1/4")

Bowl sizes:

381mm (15") wide
254mm (10") front to back
165mm (6-1/2") deep

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2 / CSA B45.1 for Vitreous China Fixtures



0356.028



0356.041

SEE FOLLOWING PAGES FOR ROUGHING-IN DIMENSIONS

To Be Specified:

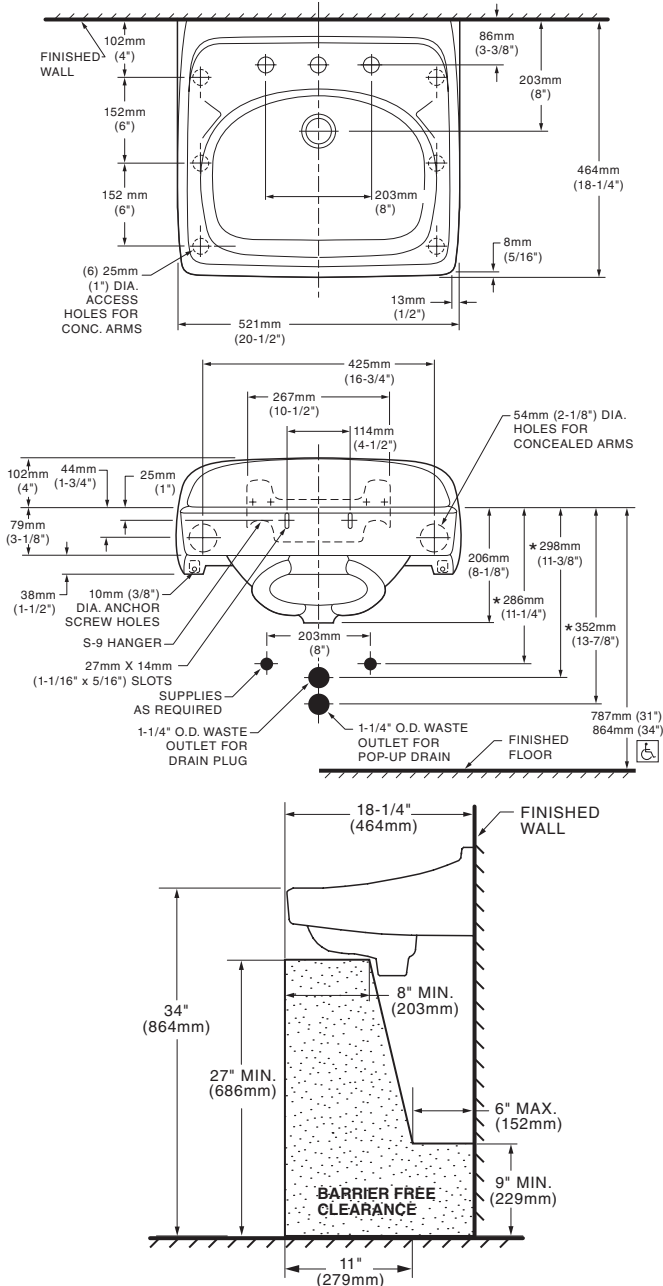
- ☐ Color: ☐ White
- ☐ Faucet*:
- ☐ Faucet Finish:
- ☐ Supplies:
- ☐ 1-1/4" Trap:
- ☐ Nipple:
- ☐ Bracket Support (by others):
- ☐ Concealed Arms Support (by others):

* See faucet section for additional models available

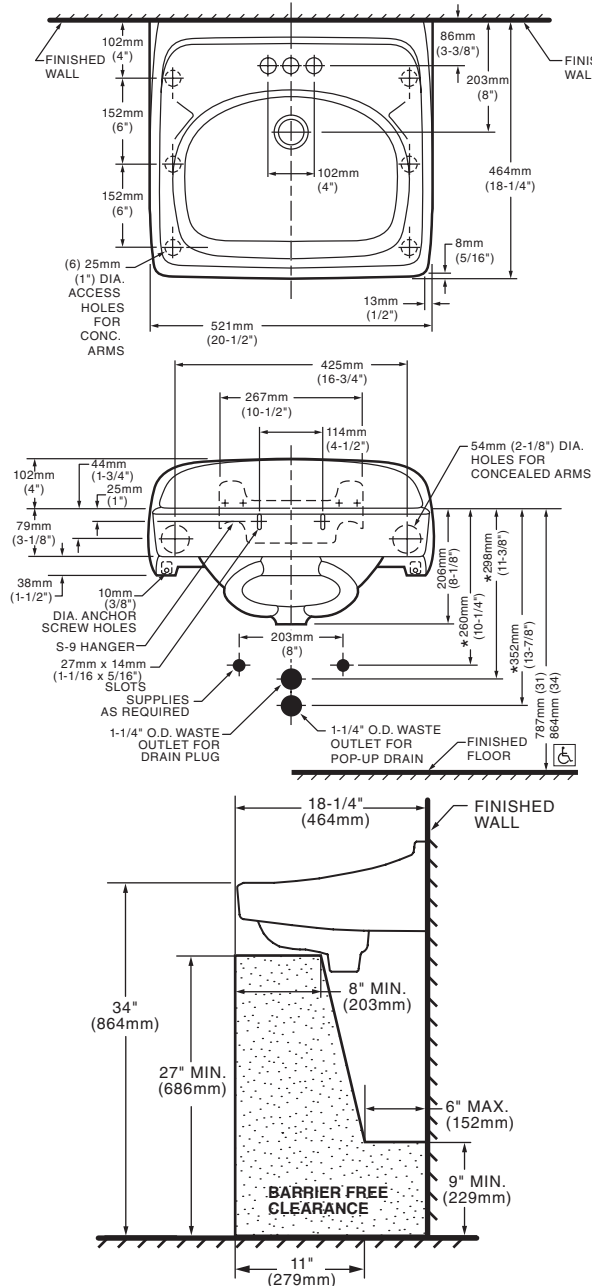


**MEETS THE AMERICANS WITH DISABILITIES ACT GUIDE-
LINES AND ANSI A117.1 ACCESSIBLE AND USABLE
BUILDINGS AND FACILITIES - CHECK LOCAL CODES.**
Top of front rim mounted 864mm (34") from finished floor.

- 0356.028** 8" CTRS FOR EXPOSED BRACKET SUPPORT
0356.015 8" CTRS FOR WALL HANGER
OR CONCEALED ARMS
0356.915 LESS OVERFLOW



- 0355.021** 4" CTRS FOR EXPOSED BRACKET SUPPORT
0355.012 4" CTRS FOR WALL HANGER OR
CONCEALED ARMS
0355.912 LESS OVERFLOW



NOTES:

* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
CONCEALED ARM SUPPORT AS REQUIRED TO BE FURNISHED BY OTHERS.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.



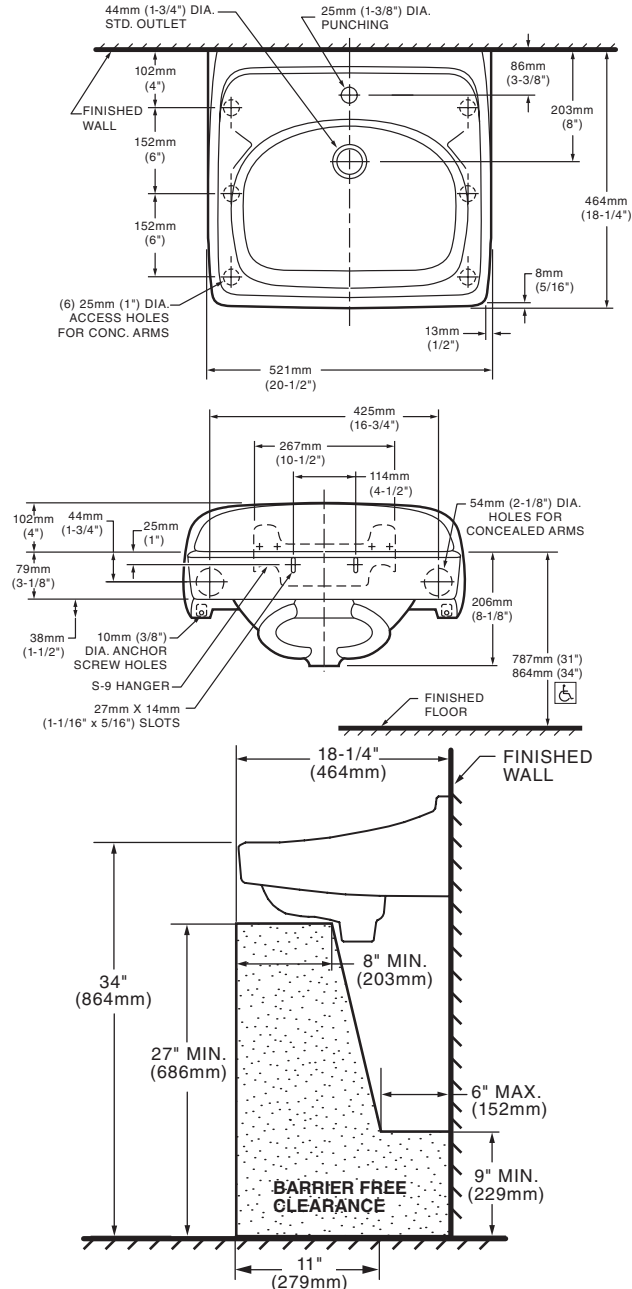
LAVATORY DESIGNED TO MEET ADA HANDICAPPED GUIDELINES WITH MOUNTING HEIGHT SET AT 864MM (34") ABOVE FINISHED FLOOR.



0356.041 SINGLE CENTER HOLE FOR EXPOSED
BRACKET SUPPORT

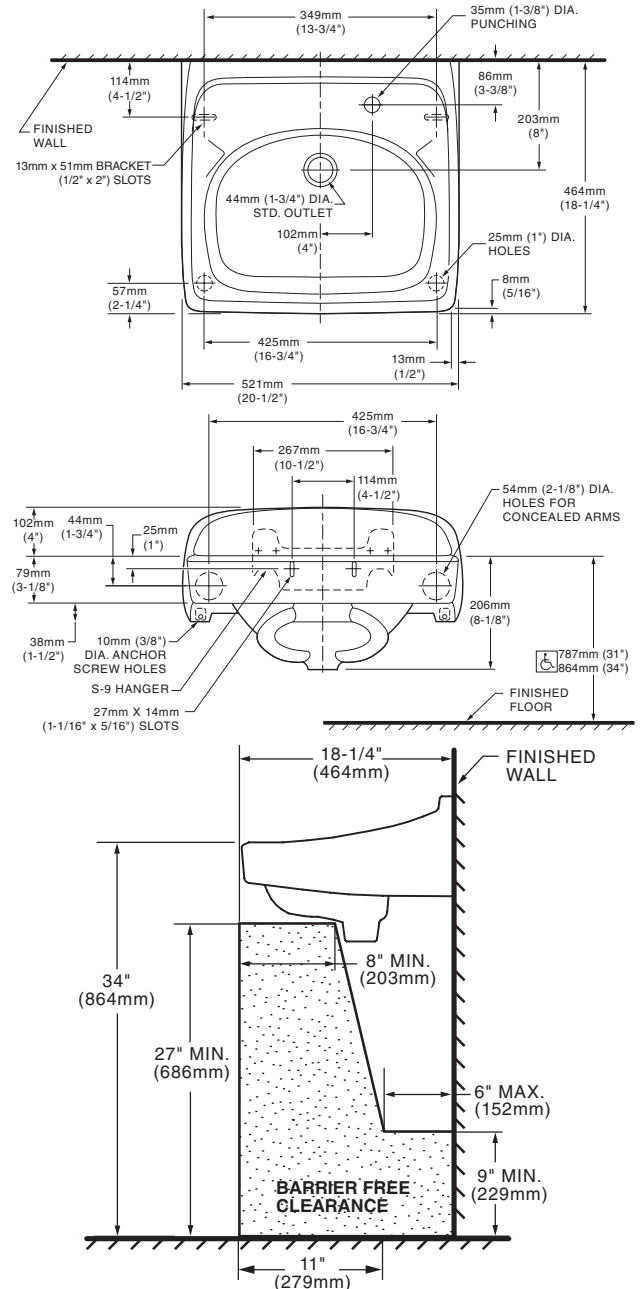
0356.421 SINGLE CENTER HOLE FOR WALL
HANGER OR CONCEALED ARMS

0356.921 LESS OVERFLOW



0356.439 SINGLE CENTER HOLE ON RIGHT FOR WALL
HANGER OR CONCEALED ARMS

0356.066 SINGLE CENTER HOLE ON RIGHT FOR
EXPOSED BRACKET SUPPORT



NOTES:

* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
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**LAVATORY DESIGNED TO MEET ADA HANDICAPPED GUIDELINES WITH MOUNTING HEIGHT
SET AT 864MM (34") ABOVE FINISHED FLOOR.**

3600-E39VPAB

Manual Faucets

Product Type

Deck Mounted 4" Fixed Centers Hot and Cold Water Metering Mixing Sink Faucet

Features & Specifications

- 4" Fixed Centers
- 0.35 GPM (1.3 L/min) Vandal Proof Non-Aerating Outlet
- MVP Metering Adjustable Cycle Time Closure Cartridge
- Stainless Steel Hoses Included
- 5-5/8" Center to Center Integral Cast Brass Spout
- ECAST® design provides durable construction with total lead content equal to or less than 0.25% by weighted average
- CFNow! Item Ships in 3 Days

Performance Specification

- Rated Operating Pressure: 20-125 PSI
- Rated Operating Temperature: 40-140°F

Warranty

- Lifetime Limited Faucet Warranty
- 5-Year Limited Cartridge Warranty
- 1-Year Limited Finish Warranty

Codes & Standards

- ASME A112.18.1/CSA B125.1
- Certified to NSF/ANSI 61, Section 9 by CSA
- California Health and Safety Code 116875 (AB1953-2006)
- Vermont Bill S.152
- NSF/ANSI 372 Low Lead Content
- ADA ANSI/ICC A117.1
- CALGreen

Job Name _____

Item Number _____

Section/Tag _____

Model Specified _____

Architect _____

Engineer _____

Contractor _____

☐ Submitted as Shown

☐ Submitted with Variations

Date _____

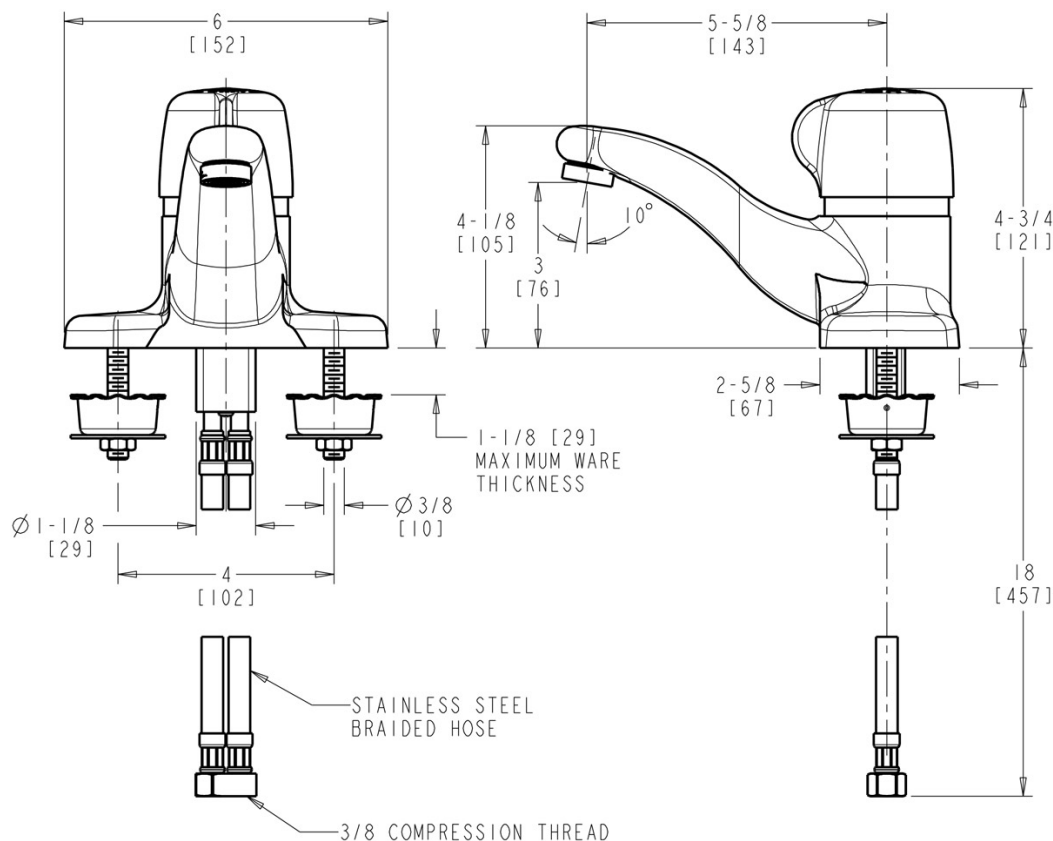


ECAST

ECAST products are intended for installation where state laws and local codes mandate lead content levels or in any location where lead content is a concern.

Architect/Engineer Specification

Chicago Faucets No. 3600-E39VPAB, Sink Faucet for hot and cold water, metering, deck-mounted with 4" fixed centers, chrome plated. Integral cast brass spout, 5-5/8" center-to-center. 0.35 GPM (1.3 L/min) vandal-proof, pressure compensating, Econo-Flo, non-aerating spray. MVP self-closing, auto-timed metering cartridge, adjustable run time from 2 to 15 seconds, opens with push, 0.20 max gallon/cycle. Stainless steel supply hoses included. ECAST® construction with less than 0.25% lead content by weighted average.



Operation and Maintenance

Installation should be in accordance with local plumbing codes. Flush all pipes thoroughly before installation. After installation, remove spout outlet or flow control and flush faucet thoroughly to clear any debris. Care should be taken when cleaning the product. Do not use abrasive cleaners, chemicals or solvents as they can result in surface damage. Use mild soap and warm water for cleaning and protecting the life of Chicago Faucet products. For specific operation and maintenance refer to the installation instructions and repair parts documents that are located at www.chicagofaucets.com.

Chicago Faucets, member of the Geberit Group, is the leading brand of commercial faucets and fittings in the United States, offering a complete range of products for schools, laboratories, hospitals, office buildings, food service, airports and sport facilities. Call 1.800.TECTRUE or 1.847.803.5000 Option 1 for installation or other technical assistance.



FLORWELL™ SERVICE SINK

- Enameled cast iron
- 3" outlet
- Corner model

☐ **7741.000** Fixture only - Less rim guard

☐ **7745.811** Removable vinyl rim guard

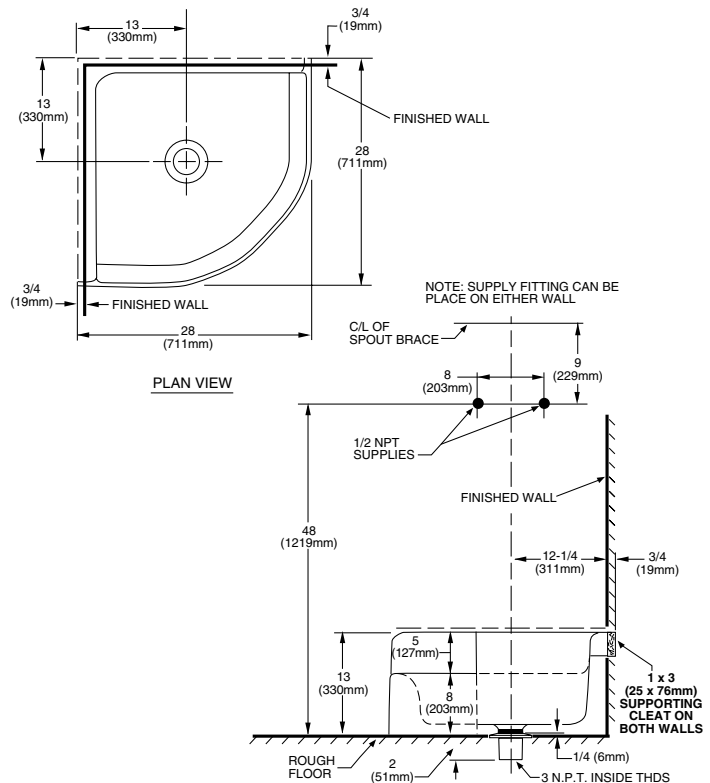
Nominal Dimensions:

711 x 711 x 330mm
(28" x 28" x 13")

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.1 for Cast Iron Plumbing Fixtures



To Be Specified:

- ☐ Faucet: 8344.112 faucet with top brace, stops, and vacuum breaker
- ☐ Alternative Faucet:
- ☐ Drain: 7721.038 flat grid drain
- ☐ Removable vinyl-coated rim guard: 7745.811 (black)

NOTES:
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

Manual Sink Faucets 897-CP

SS-1

**CHICAGO
FAUCETS®**
Geberit Group

Product Type

Wall-mounted manual faucet with 8" centers

Features & Specifications

- Handles include color-coded index
- Integral supply stops
- 8" body, adjustable arms 7-5/8" - 8-3/8" centers
- Vandal Proof 2-3/8" lever handle
- Ceramic 1/4-turn operating cartridge, right-hand
- Ceramic 1/4-turn operating cartridge, left-hand
- Arm, 3/16 Offset
- Vacuum breaker assembly



Performance Specification

- Rated Operating Pressure: 20-125 PSI
- Rated Operating Temperature: 40-140°F

Warranty

- 5-Year Limited Cartridge Warranty
- Lifetime Limited Faucet Warranty
- 1-Year Limited Finish Warranty

Codes & Standards

-  ASME A112.18.1/CSA B125.1
-  ADA ANSI/ICC A117.1

Job Name _____

Item Number _____

Section/Tag _____

Model Specified _____

Architect _____

Engineer _____

Contractor _____

☐ Submitted as Shown ☐ Submitted with Variations

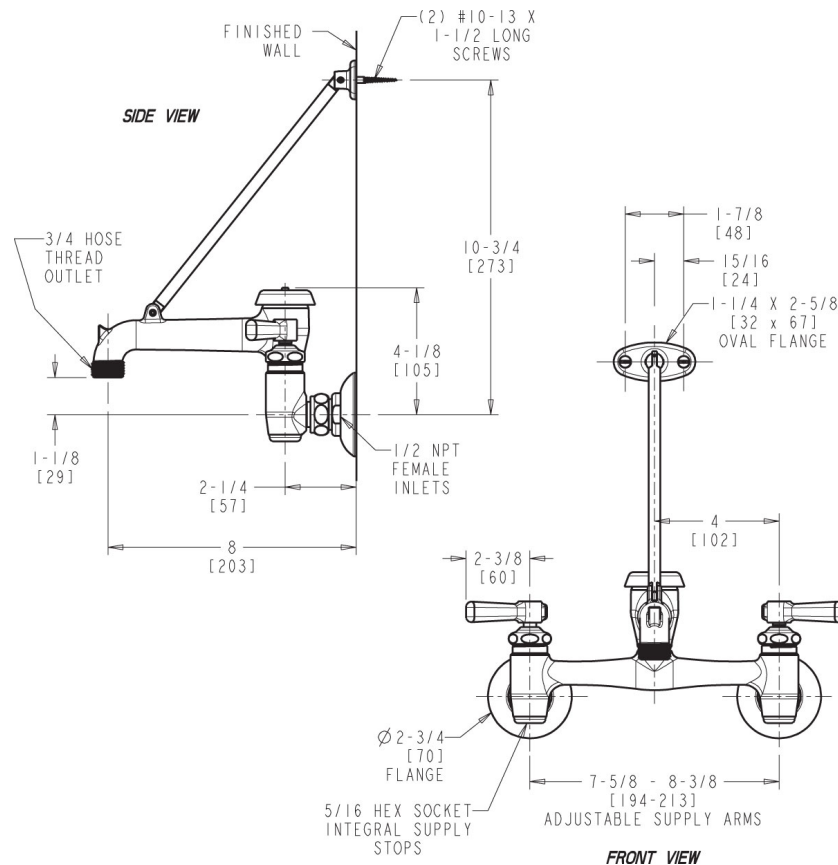
Date _____



2100 South Clearwater Drive
Des Plaines, IL
P: 847/803-5000
F: 847/803-5454
Technical: 800/TEC-TRUE
www.chicagofaucets.com

Architect/Engineer Specification

Chicago Faucets No. 897-CP, Sink Faucet for hot and cold water, wall-mounted with 7-5/8" - 8-3/8" adjustable centers. Chrome plated. Vacuum breaker spout with pail hook and wall brace. 2-3/8" metal, vandal-proof, lever handles with sixteen-point, tapered broach and secured blue and red index buttons. Ceramic 1/4-turn operating cartridge, opens and closes 90°, closes with water pressure, features square, tapered stem. Adjustable supply arms include 1/2" NPT female union nut. 3/4" male hose thread outlet. Integral stop valves for servicing the faucet. NOTE: Atmospheric vacuum breaker is NOT intended for continuous pressure applications. This product meets ADA ANSI/ICC A117.1 requirements and is tested and certified to industry standards: ASME A112.18.1/CSA B125.1.

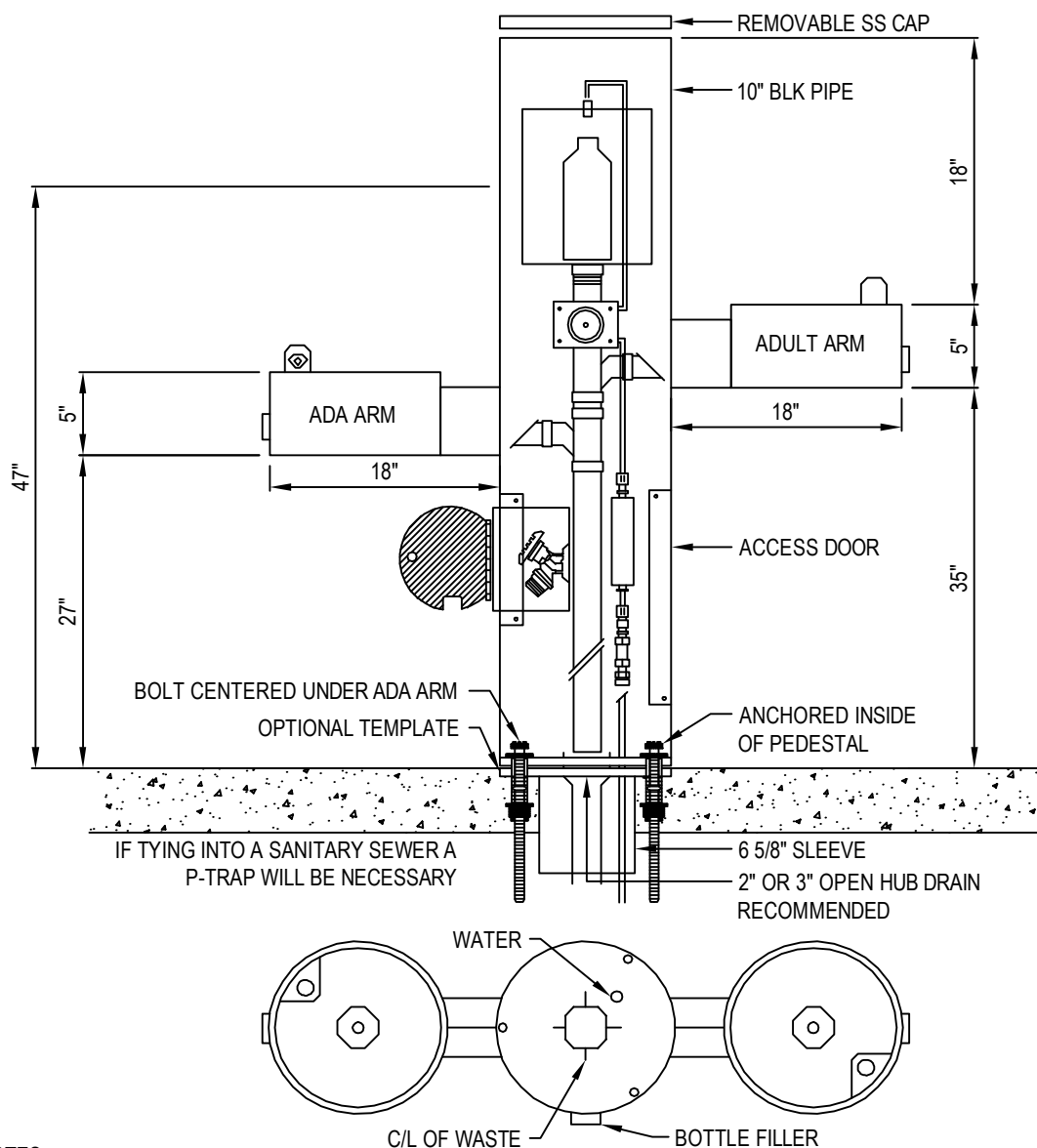


Operation and Maintenance

Installation should be in accordance with local plumbing codes. Flush all pipes thoroughly before installation. After installation, remove spout outlet or flow control and flush faucet thoroughly to clear any debris. Care should be taken when cleaning the product. Do not use abrasive cleaners, chemicals or solvents as they can result in surface damage. Use mild soap and warm water for cleaning and protecting the life of Chicago Faucet products. For specific operation and maintenance refer to the installation instructions and repair parts documents that are located at www.chicagofaucets.com.

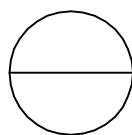
Chicago Faucets, member of the Geberit Group, is the leading brand of commercial faucets and fittings in the United States, offering a complete range of products for schools, laboratories, hospitals, office buildings, food service, airports and sport facilities. Call 1.800.TECTRUE or 1.847.803.5000 Option 1 for installation or other technical assistance.





NOTES:

1. OPTIONAL STAINLESS STEEL SURFACE CARRIER RECOMMENDED.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-17.8.



MODEL 10145SM

10145SM W/ FILTERED BOTTLE FILLER, W/ RECESS HOSS BIBB W/ LOCK DOOR, SHOWN W/ OPTIONAL TEMPLATE



For Residential, Commercial and Institutional Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series LFMMV Thermostatic Mixing Valves

Sizes: ½" – 1" (15 – 25mm)

Series LFMMV Thermostatic Mixing Valves maintain and limit mixed hot water to a desired, selectable temperature. The LFMMV series can be set to any temperature between 80°F and 120°F with flow rates as low as 0.5 gpm and as high as 12 gpm (refer to capacity chart on back). This mixing valve series is listed under ASSE 1017 for valves used in hot water source applications, ASSE 1069 for single-pipe, tempered water applications and ASSE 1070 for valves used in individual or multiple fixture applications and also listed IAPMO cUPC. The LFMMVs feature Lead Free* construction to comply with Lead Free* installation requirements.

The LFMMV-M1 uses a double throttling design to control both the hot and cold water supply to the mixed outlet. The superior flow characteristics of this valve provide accurate temperature control (±3°F) with low pressure drop across the rated flow range. As an added feature, the LFMMV-M1 series incorporates integral inlet filter washers and check valves in both the hot and cold water inlets to protect against cross flow.

The LFMMV-M1 is available with either union thread (-UT), union solder (-US), CPVC (-CPVC) Quick-Connect (-QC) or PEX (-PEX) end connectors or w/press.

Features

- Lead Free* cast copper silicon alloy body construction
- Solid wax hydraulic principle thermostat assures dependable mixing of hot and cold water
- Thermostat controls both hot and cold water
- Solder, threaded, PEX or CPVC, Quick-Connect end connection or w/press
- Adjustment cap with locking feature
- ASSE 1017 listed
- ASSE 1069 listed
- ASSE 1070 listed
- IAPMO cUPC listed
- Integral filter washers and check valves

Specifications

A Thermostatic Mixing Valve shall be installed on the hot water supply to fixture. The valve shall be ASSE 1017, ASSE 1069, ASSE 1070 and IAPMO cUPC listed. It shall have a Lead Free* cast copper silicon alloy body. Lead Free* thermostatic valves shall comply with state codes and standards, where applicable, requiring reduced lead content. The valve shall include integral filter washers and check valves and an adjustment cap with locking feature. The valve shall be provided with solder (-US), threaded (-UT), CPVC, (-CPVC) Quick Connect (-QC) or PEX (-PEX) or w/press union connections. The valve shall be a Watts Series LFMMV-M1.

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

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.

Triple Listed!
ASSE 1017,
ASSE 1069 & ASSE 1070



Applications

The LFMMV-M1 Thermostatic Mixing Valves are ideal for supplying sinks, baths, showers or lavatories with tempered water. The LFMMV-M1 valves can be used in residential, commercial and institutional environments. These thermostatically modulated mixing valves can be used anywhere preset water temperature is required for point-of-use installations such as in homes, schools, restaurants, hospitals, beauty salons, and public restrooms. The LFMMV-M1 is provided with an adjustment cap that includes a locking feature.

The LFMMV-M1 valves should be used prior to the fixture to reduce the hot water supply to a safe temperature.

⚠ WARNING

When used in an ASSE 1017 application at the hot water source, the Watts Thermostatic Mixing Valve Series LFMMV cannot be used by itself to control final temperature at fixtures where ASSE Standard 1016 or ASSE Standard 1070 listed devices are required. Such use may result in severe bodily injury (i.e. scalding or chilling) and/or death. ASSE Standard 1016, ASSE 1069 or ASSE Standard 1070 listed devices, such as Watts Series LFUSG, LFL111 or LFMMV, should be used at point-of-use to prevent possible injury. Consult all product manuals, and instruction guides before installing any referenced product.

Recirculation systems should recirculate water at temperatures over 140°F to reduce the risk of bacterial growth in the piping. This valve should not be used at the hot water source in recirculation systems.

⚠ WARNING

Water temperatures in excess 110°F (43°C) are dangerous and may cause scalding, severe injury or death! This valve can be adjusted to deliver water at temperatures exceeding 110°F (43°C). Consequently, when used in an ASSE 1016, ASSE 1069 or ASSE 1070 application, the installer must check the mixed water outlet temperature at the point of use and adjust the Watts Thermostatic Mixing Valve Series LFMMV to ensure delivery of water at a safe temperature not exceeding 110°F (43°C). Mechanical valves are not fail-safe. Due to the effects of various water conditions, periodic verification of outlet water temperature is required.

Materials

Body:	Lead Free* cast copper silicon alloy
Disc:	Stainless steel
Thermostat Assembly:	Copper
O-rings:	Buna-N; EPDM
Pistons:	Polysulfone (PSU)
Springs:	Stainless Steel

Pressure — Temperature — Flow Rate

Minimum Supply Pressure Static: 30psi (207 kPa)

Inlet Temperatures: hot inlet, 120°F – 180°F (49°C – 82°C),
cold inlet, 39°F – 85°F (4°C – 29°C)

Hot Water Inlet to Outlet Differential Temperature: 5°F (3°C)
above set point

Temperature Out: Field range: 80°F – 120°F (27°C – 49°C),
adjustable. Accurate within ±3°F (1.7°C)

Maximum Temperature: 200°F (93°C)

Maximum Pressure: 150psi (1034 kPa)

Minimum Flow: 0.5 gpm (1.9 lpm) @ 0.8psi (0.55 kPa)†

Maximum Flow: 20 gpm (76 lpm) @ 125psi (862 kPa)†

Maximum Pressure Differential between Hot & Cold Water Supplies:
25%

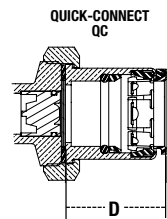
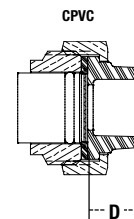
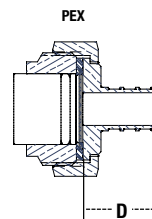
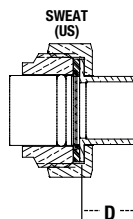
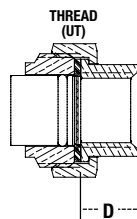
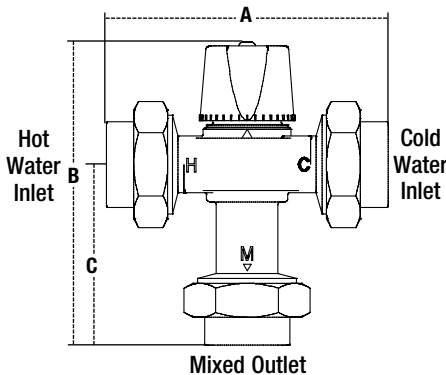


Listing: ASSE 1017, ASSE 1069, ASSE 1070 and IAPMO cUPC

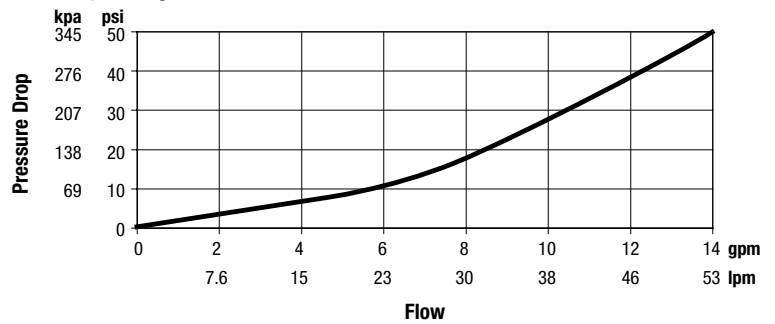
† When tested in accordance with ASSE 1017, ASSE 1069 & ASSE 1070

Viega Pro-Press™ connections are optional factory installed fitting on each end of the approved/certified assembly.

Dimensions — Weights

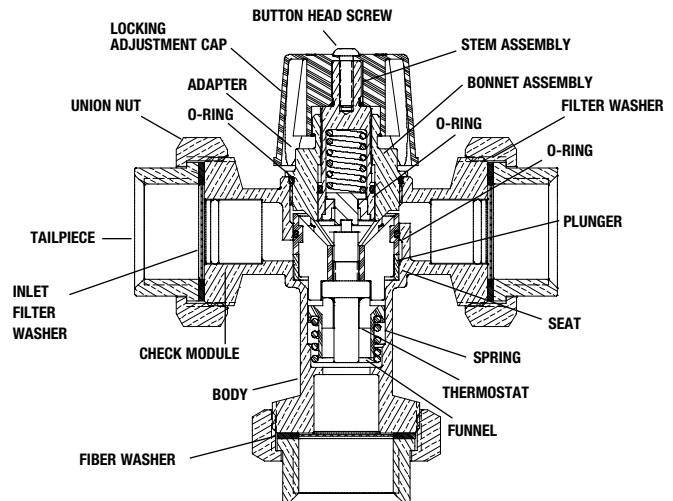


Capacity**



Flow curves are for reference. Actual flows may vary depending on system temperatures and/or pressures.
**Flow curve with integral inlet filters and check valves

Basic Construction



SIZE (DN)		MODEL	DIMENSIONS						WEIGHT	
in.	mm		A		B		C		D	
			in.	mm	in.	mm	in.	mm	in.	mm
1/2	15	LFMMV-UT-M1	4 7/8	124	5 1/16	137	3 3/16	80	5/8	16
3/4	20		4 7/8	124	5 1/16	137	3 3/16	80	5/8	16
1	25		5 5/16	135	5 5/8	143	3 3/8	86	3/4	20
1/2	15	LFMMV-US-M1	4 13/16	123	5 3/8	137	3 1/8	80	5/8	15
3/4	20		5 5/16	135	5 5/8	143	3 3/8	86	7/8	22
1	25		5 13/16	148	5 7/8	149	3 5/8	92	1 1/8	28
1/2	15	LFMMV-PEX-M1	5 1/4	133	5 9/16	142	3 3/16	85	1 3/16	21
3/4	20		5 1/2	140	5 11/16	145	3 7/16	88	1 5/16	24
1	25		5 7/8	149	5 7/8	150	3 3/8	93	1 1/8	29
1/2	15	LFMMV-CPVC-M1	4 3/4	121	5 5/16	136	3 1/16	79	9/16	14
3/4	20		5 1/4	133	5 9/16	142	3 3/16	85	1 3/16	21
1	25		5 11/16	144	5 9/16	147	3 3/16	90	1	26
1/2	15	LFMMV-QC-M1	6 5/8	168	6 1/4	159	4	102	1 1/2	38
3/4	20		6 5/8	177	6 1/16	163	4 1/16	106	1 11/16	42
1	25		7 1/8	181	6 1/2	165	4 1/4	108	1 3/4	44

Note: Consult factory for dimensions w/press



USA: Tel: (978) 689-6066 • Fax: (978) 975-8350 • Watts.com

Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • Watts.ca

Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • Watts.com

L	DRAWING NUMBER S3140	SIZE A	SCALE: NONE	DATE: 9-19-85	APPROVED BY: SJM	CHECKED BY: JD	DRAWN BY: PJ	3140-3161 Series	SMITH® JAY R. SMITH MFG. CO.® 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	ASPE	MEMBER OF:	LOCATION FS-1
									SANI-CEPTOR® ACID RESISTANT COATED FLOOR & INDIRECT WASTE DRAINS			
									SQUARE NICKEL BRONZE TOP			
									12 1/2" (320) TOP - MEDIUM, DEEP & EXTRA DEEP RECEPTORS			
									FUNCTION: Used in kitchens, hospitals, food markets, restaurants, schools and all types of food handling areas where the ultimate in sanitation is desirable and a medium capacity receptor is required.			
		Free Area 42 SQ IN (271) SQ CM										
WITH DOME BOTTOM STRAINER		WITH SEDIMENT BUCKET										
6"(150) deep 8"(205) deep 10"(255) deep		6"(150) deep 8"(205) deep 10"(255) deep										
Fig. ... 3140C ... 3150C ... 3160C ... CAULK OUTLET ...		Fig. ... 3141C ... 3151C ... 3161C ...										
Fig. ... 3140Y ... 3150Y ... 3160Y ... NO-HUB OUTLET ...		Fig. ... 3141Y ... 3151Y ... 3161Y ...										
FEATURES, OPTIONS & ORDERING INFORMATION												
REGULARLY FURNISHED: 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.												
OPTIONAL MATERIALS:												
<input type="checkbox"/> All Duco Cast Iron Receptor -CI												
<input type="checkbox"/> All Galvanized Receptor -G												
NOTE: Dimensions shown in parentheses are in millimeters.												
VARIATIONS:												
<input type="checkbox"/> Aluminum Flat Bottom Strainer -FBS												
<input type="checkbox"/> Flashing Clamp -C												
<input type="checkbox"/> Less Flange (Fig. 3155, 3156 only)												
<input type="checkbox"/> Polished Aluminum Dome Bottom Strainer -PDBS												
<input type="checkbox"/> Vandal Proof Screws -U												
<input type="checkbox"/> L Speedi-Set Service Weight												
02(50), 03(75) & 04"(100) sizes only												
<input type="checkbox"/> LXH Speedi-Set Extra Heavy												
02(50), 03(75) & 04"(100) sizes only												
SUFFIX NUMBER SQUARE RIM DESCRIPTION												
<input type="checkbox"/> -10 Less NB Rim and Grate												
<input type="checkbox"/> -11 Less Grate w/NB Rim												
<input type="checkbox"/> -12 With NB Rim and 1/2 Grate												
<input type="checkbox"/> -13 With NB Rim and 3/4 Grate												
<input type="checkbox"/> -14 With NB Rim and Grate with 2 1/2"(64) SQ Center Hole												
<input type="checkbox"/> -15 With NB Rim and Aluminum Recessed Grate												
<input type="checkbox"/> -19 With NB Rim and Hinged Grate												
<input type="checkbox"/> -21 With NB Rim and Grate with 4"(100) DIA NB Funnel												
<input type="checkbox"/> -22 With NB Rim and Grate with 6"(150) DIA NB Funnel												
<input type="checkbox"/> -25 With NB Rim and Grate with 8 1/4(210) x 3 1/4(83) x 4 1/2"(115) High Oval NB Funnel												
<input type="checkbox"/> -26 With NB Rim and Grate with 6(150) x 2 1/2(64) x 1"(25) High Oval NB Funnel												
<input type="checkbox"/> -41 With NB Rim and Solid Cover												
<input type="checkbox"/> -42 With NB Rim and 1/2 Solid Cover												
<input type="checkbox"/> -43 With NB Rim and 3/4 Solid Cover												
<input type="checkbox"/> -44 With NB Rim and Solid Cover with 2 1/2"(64) DIA Center Hole												
<input type="checkbox"/> -69 With NB Rim and XH Stainless Steel Secured Grate [^Δ 3/8"(10) dimension becomes 1"(25)]												
L K J H	8-4-14 6-10-14 10-31-12 01/20/11	Revised Variations Revised Reg. Furn., Var. Revised Variations Updated Logo	TBW TBW TBW JJ	CL TWK BW TW	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER 3140-3161 Series					
REV.	DATE	DESCRIPTION	BY	CKD. BY								



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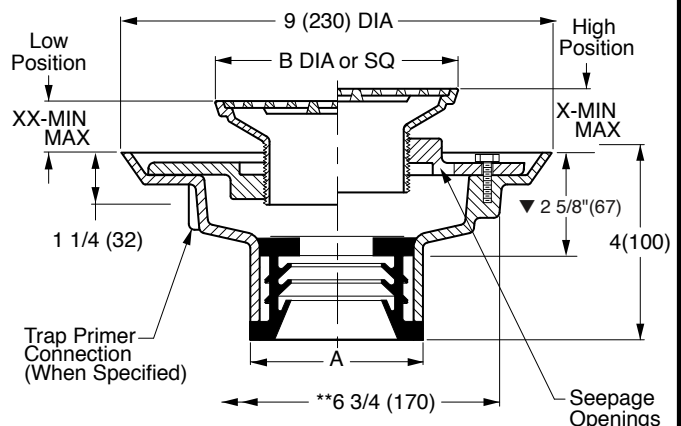
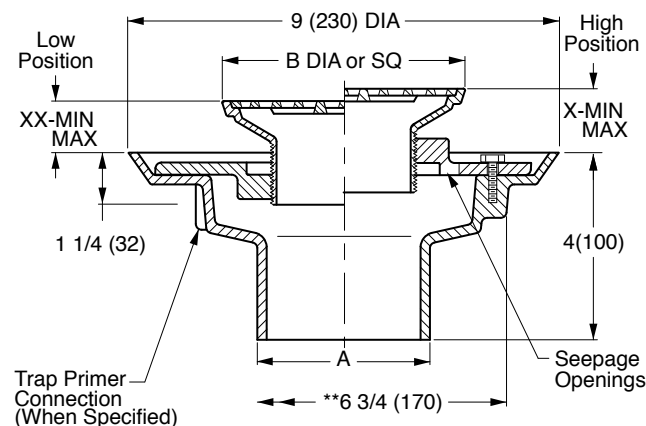


LOCATION

FD-1

FLOOR OR SHOWER DRAINS WITH ADJUSTABLE STRAINER HEADS

FUNCTION: 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.



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	*Collar In High Position X		*Collar In Low Position XX		Free Area SQ IN (SQ CM)	
	DIA or SQ	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
☐ Stainless Steel (Specify Fig. 9700-A)

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
R	6-10-15	Revised Variations	TBW	CL
Q	11-18-11	Rev. Dwg., Var.	TBW	CR
P	11-20-09	Revised Variations	RN	BW
N	12/18/08	Addition to Variations	JJ	BW

WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
		2005

G						LOCATION																																																
	OPTIONAL STRAINER HEADS																																																					
	ROUND STRAINER					FLAPPER TYPE BACKWATER VALVE																																																
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>MATERIALS: Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: •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 1/2 (38)</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>Specify Type, Size & Finish eg: A05NB *Not available for 05" (125) size</p> </div> <div style="width: 45%;"> <p>FUNCTION: Provides backwater protection at point where protection is needed.</p> <p>MATERIALS: Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: •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>Specify Type, Size & Finish eg: AV05NB *Not available for 05" (125) size</p> </div> </div>					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 1/2 (38)	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)	<p style="text-align: center;">SUFFIX -A</p> <p style="text-align: center;">SUFFIX -AV</p>	
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X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)																																																		
<p style="text-align: center;">SQUARE STRAINER</p> <p>MATERIALS: Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: (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>Specify Type, Size & 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 style="text-align: center;">STRAINER HEAD w/SQUARE HINGED COVER</p> <p>MATERIALS: Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: Gasketed Water Tight Cover -GC Secured Cover -SC Secondary Strainer Grate-SG</p> <p>Specify Type, Size & Finish eg: BSNB</p> <p style="text-align: center;">SUFFIX -B</p> <p style="text-align: center;">SUFFIX -BS</p>																					
B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)																																																
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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 style="text-align: center;">REINFORCED ROUND STRAINER</p> <p>FUNCTION: Used in finished floors where light wheeled loads are anticipated.</p> <p>MATERIALS: Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: 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>Specify Type, Size & Finish eg: C06NB</p> <p style="text-align: center;">SUFFIX -C</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 style="text-align: center;">REINFORCED TRACTOR STRAINER</p> <p>FUNCTION: Used in finished floors where medium weight wheeled loads are anticipated and loose set non-tilt tractor grate is desired.</p> <p>MATERIALS: Cast Iron -CI Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: 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></td> <td></td> <td></td> <td>MIN</td> <td>MAX</td> </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>Specify Type, Size & Finish eg: D09PB E09PB</p> <p style="text-align: center;">SUFFIX -D-E</p>		SUFFIX	B DIA	H	X					MIN	MAX	-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)								
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)																																																		
SUFFIX	B DIA	H	X																																																			
			MIN	MAX																																																		
-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)																																																		
<p style="text-align: center;">TILE FLANGE</p> <p>FUNCTION: 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>MATERIALS: Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p>VARIATIONS: 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>Specify Type, Size & Finish eg: F06NB</p> <p style="text-align: center;">SUFFIX -F</p>					X		MIN	MAX	1 1/4 (32)	2 1/8 (54)	<p style="text-align: center;">ADJUSTABLE STRAINER HEAD</p> <p>FUNCTION: 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>VARIATIONS: Flapper Type Backwater Valve (Specify Suffix -F37V or F38V)</p> <p>MATERIALS: 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>X 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>Specify Type, Size & Finish eg: F37NB F38CP</p> <p style="text-align: center;">SUFFIX -F37-F38</p>		SUFFIX	-F37	-F38	B DIA	07 (180)	09 (230)	H	3 1/4 (83)	3 1/2 (89)	X MIN	2 5/8 (67)	2 3/4 (70)	X MAX	3 1/2 (89)	3 1/2 (89)																											
X																																																						
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1 1/4 (32)	2 1/8 (54)																																																					
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X MAX	3 1/2 (89)	3 1/2 (89)																																																				
<p style="text-align: center;">2010 SERIES OPTIONAL STRAINER HEADS</p>					<p style="text-align: center;">FIGURE NUMBER</p> <p style="text-align: center;">2010 SERIES OPTIONAL STRAINER HEADS</p> <p style="text-align: center;">1 of 2</p>																																																	

NOTE: Dimensions shown in parentheses are in millimeters.



Precision Plumbing Products

"Specify with Confidence - Install with Pride"

P1-500 AND P2-500 PRESSURE DROP ACTIVATED SUBMITTAL TRAP PRIMER

TP-1

www.pppinc.net

The P1-500 and P2-500 are adjustable to the static line pressure by use of the adjusting screw. System operating range is 20 psi minimum to 80 psi (138 to 552 kpa) maximum.

The valve requires a 10 psi (70 kpa) pressure drop across the valve to activate and will deliver a metered amount of water to the floor drain. The trap Primer is to be connected to a cold water supply only.

Constructed of 360 brass, EPDM E70 O-rings, Dow #7 Silicone, #60 stainless steel mesh screen, stainless steel adjustment screw.

Model P1-500 will prime 1-4 floor drains using our patented DU-U Distribution unit.

Model P2-500 will prime 1-2 floor drains using our patented DU-U Distribution unit.

Model P-1

Model P-2



PROJECT SUBMITTAL

Project: _____

Contractor: _____

Engineer: _____

Date Submitted: _____

Prepared By: _____

FLOOR DRAIN TRAP PRIMER VALVE

MODELS: P1-500 & P2-500

INSTALLATION REQUIREMENTS

This valve is designed to be installed on 1/2" to 1 1/2" cold water line, feeding a flush valve or other open and closing valve supply line that is frequently used.

Trap Primer valve makeup line to floor drain is recommended to be a minimum of 12" off the finished floor before a 90° elbow can be installed.

The furthest recommended distance of makeup line is 20' to the floor drain.

Trap primer make up line must have continuous slope to the floor drain (consult local code requirements).

Install with a shut off valve for servicing on the inlet side and a union connection on the outlet side.

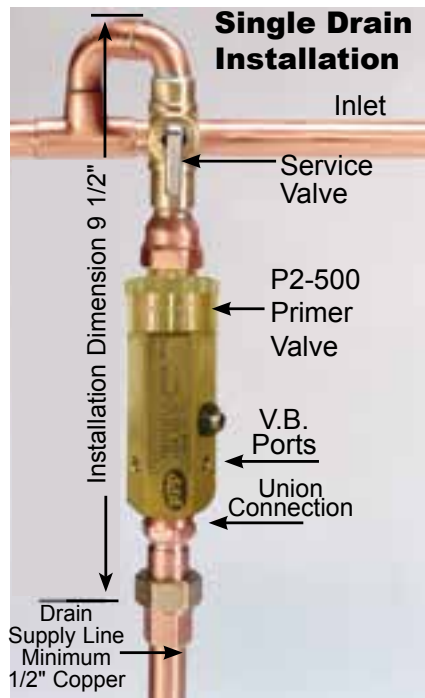
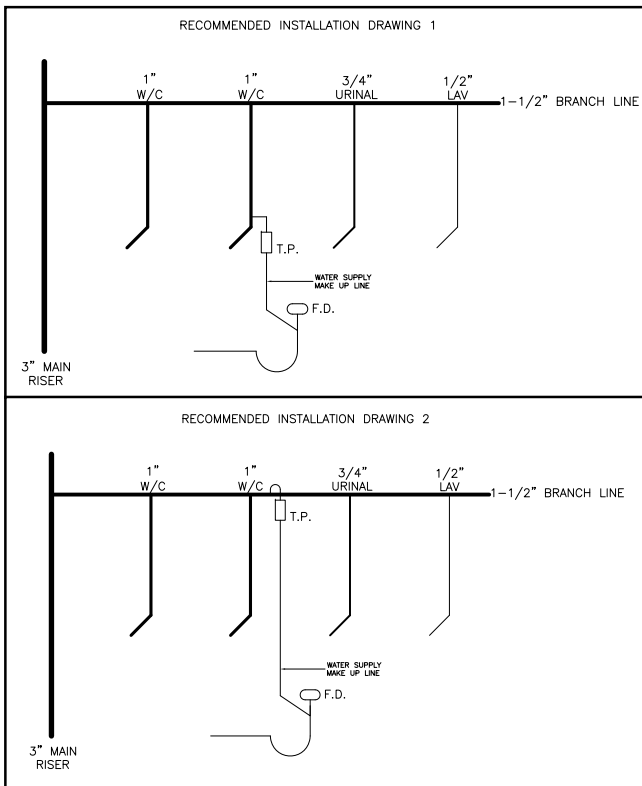
The valve must be installed level.

If using the distribution unit the clear plastic cover must be used.

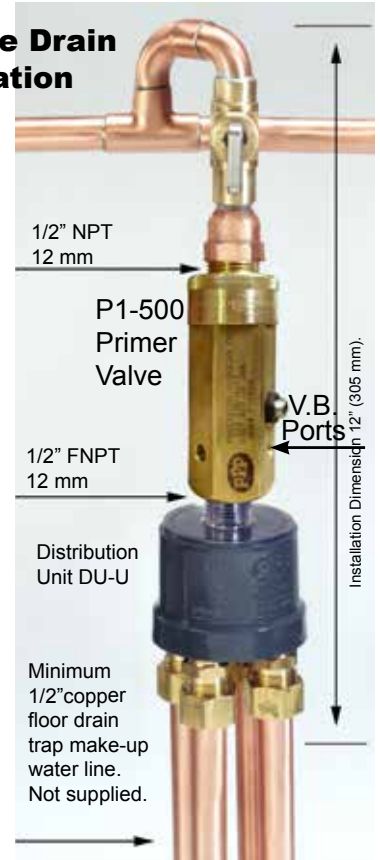
Do not subject the valve to rough in pressure test.

FLOOR DRAIN TRAP PRIMER DISTRIBUTION CHART

Primer Model	# of Drains	Distribution Units
P2-500	1	N/A
P2-500	2	DU-4/DU-U
P1-500	3	DU-4/DU-U
P1-500	4	DU-4/DU-U



Multiple Drain Installation



Precision Plumbing Products

Division of JL Industries, Inc.

802 SE 199th Ave
Portland, Oregon 97233

T (503) 256-4010

F (503) 253-8165

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Rev 07/15



Precision Plumbing Products

"Specify with Confidence - Install with Pride"

LEAD FREE

THREADED WATER HAMMER ARRESTORS

WHA-1

www.pppinc.net

ONLY ONE MOVING PART!

**WATER HAMMER ARRESTORS ARE
SPECIFIED FOR COMMERCIAL,
INDUSTRIAL AND RESIDENTIAL USES.**

**PPP WATER HAMMER ARRESTORS
SPECIFIED FOR MANY
INSTALLATIONS!**



A maintenance-free installation is assured when using this type of arrestor...the only moving part is the free-moving piston furnished with "O"ring seals which have been tested for reliability in excess of normal operating ranges.

SC-500A - SC-2000F

FLUID HAMMER IN FLUID TRANSMISSION LINES – a definition.

Fluid Hammer is a series of hydraulic shock waves generated within the confines of a piping system due to the sudden stopping of fluid flow. This condition is caused by fast closing of positive valves incorporated within the system. The effect of fluid hammer is damaging if allowed to exist for any length of time and will result in broken pipes and damage to other components in the system.

U.S. Patent No. 3,633,627

**40 Years
of outstanding
performance**



Low Lead



Complies with low lead law.



We do not export jobs.



SPECIFICATIONS & INSTALLATIONS



B

INSTALLATION: May be installed in new or existing plumbing systems with a standard pipe tee.

MAINTENANCE: Maintenance free – the piston is the only moving part.

TEMPERATURE RANGE: -40° F to + 212° F (-4.4° C to + 100° C)

CONSTRUCTION: Barrel-fabricated of type "L" hard drawn copper.

Cap: Copper or free turning brass.

Piston: Machined of Composite Material

Threaded Adapter: Machined of C69300 Low Lead Brass

A Seals: "O"rings: EPDM.

Seal Lubricant: Dow-Corning Silicone Compound #111, FDA listed for use in potable water systems.

Nickel Plated: For Salt Water Application.

OPERATING PRESSURE: Designed to operate on all domestic and commercial systems.

Normal operating pressure 0 to 80 PSIG. Max spike pressure 400 PSIG. System Pressures above 80 PSI consult factory.

SIZING INFORMATION

For equipment and fixtures not listed below, size in accordance with load values (WSFU) assigned the same.

Extract from: PDI WH201-06

FIXTURE	TYPE OF SUPPLY CONTROL	WEIGHT IN FIXTURE UNITS			
		Public		Private	
		C.W.	H.W.	C.W.	H.W.
Water Closet	Flush Valve	8	-	5	-
Water Closet	Flush Tank	5	-	2.5	-
Pedestal Urinal	Flush Valve	4	-	-	-
Stall or Wall Urinal	Flush Valve	4	-	-	-
Lavatory	Faucet	1 1/2	1 1/2	1	1
Bathtub	Faucet	2	3	1 1/2	1 1/2
Shower Head	Mixing Valve	2	3	1	2
Bathroom Group	Flush Valve Closet	-	-	8	3
Bathroom Group	Flush Tank Closet	-	-	6	3
Separate Shower	Mixing Valve	-	-	1	2
Service Sink	Faucet	3	3	-	-
Laundry Tubs (1-3)	Faucet	-	-	3	3
Comb. Fixture	Faucet	-	-	3	3

PDI SIZING AND SELECTION TABLE

PIPE SIZE	FIXTURE UNITS	CROSS REF. PDI
1/2"	1-11	A
3/4"	12-32	B
1"	33-60	C
1 1/4"	61-113	D
1 1/2"	114-154	E
2"	155-330	F

Extract from: PDI WH201

NO ACCESS PANEL REQUIRED (CONSULT LOCAL CODES)

DIMENSIONAL AND AIR LOADING DATA

PART NUMBER	A OAL	B NPT	NITROGEN PRELOAD PSI
SC-500A	6 1/4"	1/2" brass	60
SC-750B	7 1/4"	3/4" brass	60
SC-1000C	9 1/4"	1" brass	60
SC-1250D	9 1/2"	1" brass	60
SC-1500E	11 1/4"	1" brass	60
SC-2000F	12"	1" brass	60

PROJECT SUBMITTAL

Project: _____

Contractor: _____

Engineer: _____

Date Submitted: _____

Prepared By: _____

Precision Plumbing Products

Division of JL Industries, Inc.



802 SE 199th Avenue
Portland, Oregon 97233

T (503) 256-4010
F (503) 253-8165

www.pppinc.net



Complies with low lead law.

Rev 01/15



Hose & Supply Boxes 8101 Series

Lumaloy Recessed Hose Box (Single Temperature)



8104

Fixture May Show Some Available Options

Please visit www.acorneng.com for most current specifications.

Lumaloy Recessed Hose Box (Single Temperature)

Lumaloy, Recessed Hose Boxes are CUPC® certified by IAPMO for U.S. and Canada. Boxes are designed for attractive service in both interior and exterior walls not subject to freezing. Recessed design prevents accidents which are common to surface-mounted or protruding hose valves.

Hose Box is a one piece cast construction and is furnished with two stainless steel angles for anchoring to the wall construction.

Door and Frame are of cast Lumaloy. Door includes a recessed cam latch, which is operable with a loose key by others or with the removable wheel handle on the valve.

Valve and Stop Body is cast bronze with exposed parts chrome-plated. Valve and Stop feature tamper-resistant lockshield bonnet and replaceable cartridge containing all wearing parts including the seat. The body casting is gasketed where it joins the box and is securely anchored with stainless steel tamper-resistant screws. Supply inlet is 3/4" NPT female. Outlet is 3/4" male hose thread.

-SSLF stainless steel lead free option provides a rough finish, cast stainless steel valve body, stainless steel stop assembly, stainless steel lockshield cartridge and meets the lead free requirements where the wetted surface of this product contacted by water contains less than .25% lead. On models that include vacuum breakers, a lead-free brass vacuum breaker is provided.

Screwdriver Stop in supply permits servicing the control valve without shutting down the water supply. Vacuum breaker models prevent contamination of the potable water supply. Vacuum breakers are atmospheric type and conform to the requirements of ASSE Standard 1011. Check local code authority for vacuum breaker requirements.

GUIDE SPECIFICATION

Box shall be one piece cast construction, fabricated from Lumaloy with plain finish. Frame and door shall have a prime coat finish. Door shall have a recessed cam latch operable with a loose key by others or with the removable wheel handle on the valve. Valve shall be a replaceable cartridge type with vandal-resistant lockshield bonnet, removable loose key wheel handle and screwdriver operated stop.

Hose & Supply Boxes 8101 Lumaloy Recessed Hose Box (Single Temperature)



BASE MODEL NUMBER (Must Specify)

HOSE BOX LESS DOOR AND FRAME

- ☐ -8101 Single Temperature Less Vacuum Breaker
- ☐ -8102 Single Temperature With Vacuum Breaker

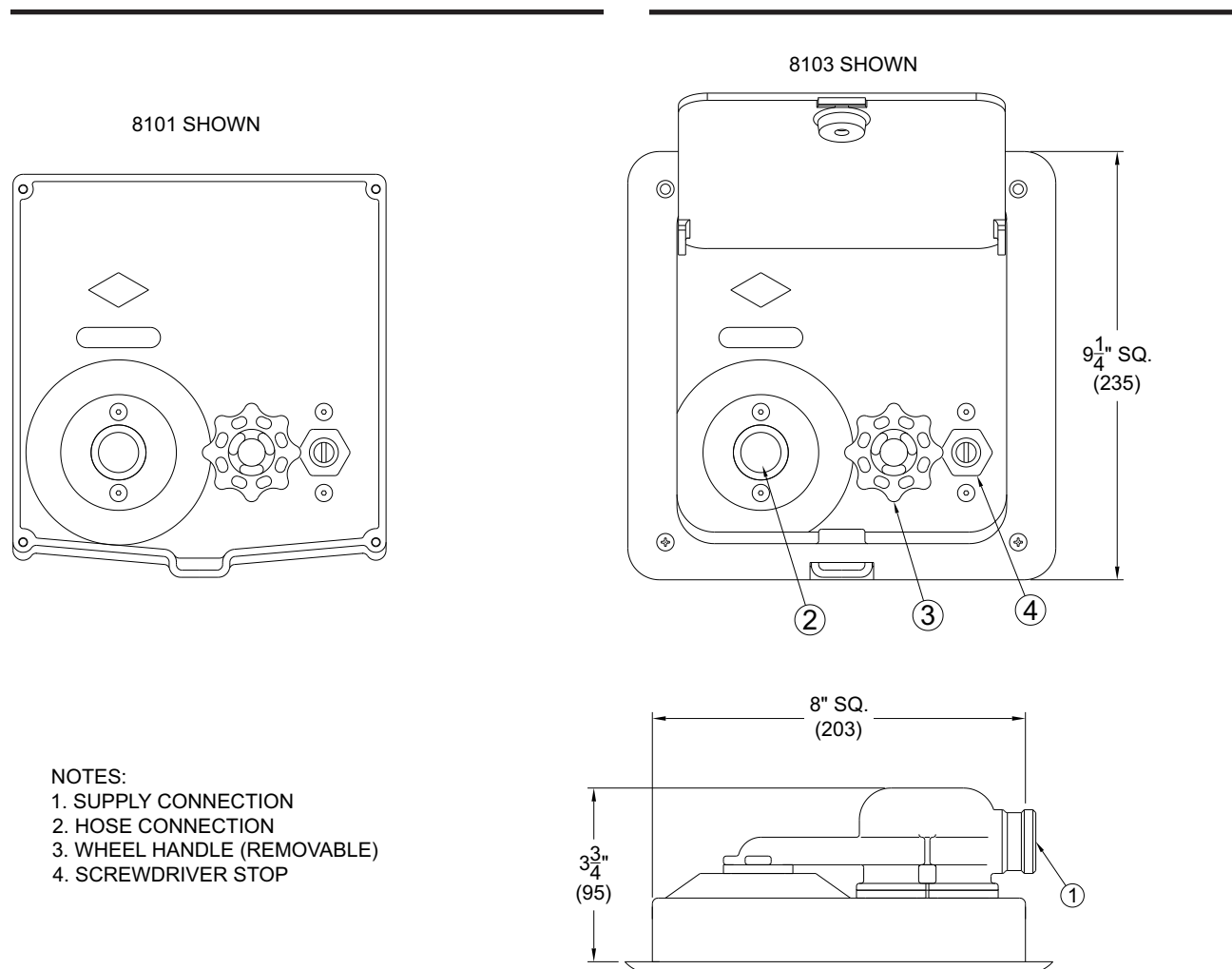
HOSE BOX WITH DOOR AND FRAME

- ☐ -8103 Single Temperature Less Vacuum Breaker
- ☐ -8104 Single Temperature With Vacuum Breaker

PRODUCT OPTIONS (Must Specify)

- ☐ -SSLF Stainless Steel Lead Free

Please visit www.acorneng.com
for most current specifications.



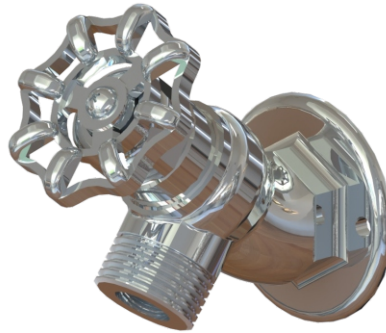
Important: Installation instructions and current rough-in are furnished with each fixture. Do not rough in without certified dimensions.
Dimensions are subject to manufacturer's tolerance of plus or minus 1/4" and change without notice. Acorn assumes no responsibility for use of void or superseded data. © Copyright 2006 Acorn Engineering Company

Selection Summary Model No. & Option _____ Quantity _____	Approved for Manufacturing Company _____ Title _____ Signature _____ Date _____
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Hose & Supply Boxes 8120-LF Series

Hose Valves



8120CP-LF



8125CR-LF

Fixture May Show Some Available Options

Please visit www.acorneng.com for most current specifications.

Acorn Hose Valves are CUPC certified by IAPMO for U.S. and Canada. Hose valves are recommended for installation in indoor and outdoor locations not subject to freezing. Hose valves include a heavy rough brass body, furnished with a lockshield bonnet and removable loose key wheel handle. Valves close with the water pressure and feature a replaceable cartridge which contains all wearing parts including the seat. Inlet is 3/4" NPTI, outlet is 3/4" NPSH. Vacuum breakers are atmospheric type and conform to the requirements of ASSE Standard 1011. Hose valves meets the lead free requirements where the wetted surface of this product contacted by water contains less than 0.25% lead. Check local code authority for vacuum breaker requirements

Installation: The 8120-LF and 8121-LF, horizontally supplied valves have integral wall flanges and both are used indoor and outdoor. 8125-LF and 8126-LF, vertically standpipe valves are normally used in outdoor planting areas and often provided in a rough brass finish.

GUIDE SPECIFICATION

Provide and install Acorn Hose Valves model (specify model number) cartridge - operated hose valve with lock shield bonnet and removable loose key handle. Interior wall hose valves shall be polished chrome finish, exterior valves shall be rough chrome-plated.



Hose & Supply Boxes 8120-LF: Hose Valves

BASE MODEL NUMBER (Must Specify)

HOSE VALVE

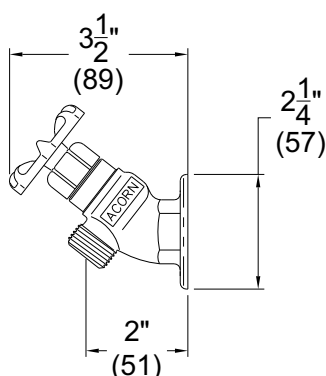
BENT NOSE WITH FLANGE

- ☐ 8120-LF Less Vacuum Breaker
- ☐ 8120CP-LF Polished Chrome-Plated Less Vacuum Breaker
- ☐ 8120CR-LF Rough Chrome-Plated Less Vacuum Breaker
- ☐ 8121-LF With Vacuum Breaker
- ☐ 8121CP-LF Polished Chrome-Plated With Vacuum Breaker
- ☐ 8121CR-LF Rough Chrome-Plated With Vacuum Breaker

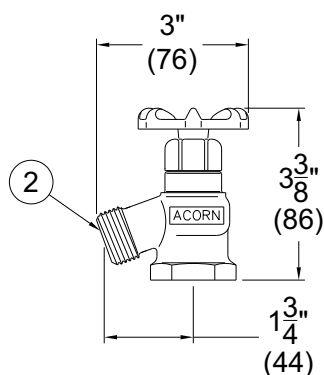
BENT NOSE

- ☐ 8125-LF Less Vacuum Breaker
- ☐ 8125CP-LF Polished Chrome-Plated Less Vacuum Breaker
- ☐ 8125CR-LF Rough Chrome-Plated Less Vacuum Breaker
- ☐ 8126-LF With Vacuum Breaker
- ☐ 8126CP-LF Polished Chrome-Plated With Vacuum Breaker
- ☐ 8126CR-LF Rough Chrome-Plated With Vacuum Breaker

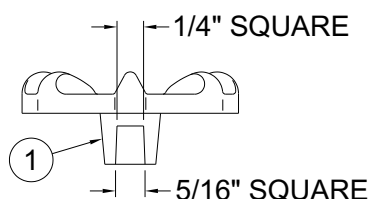
Please visit www.acorneng.com for most current specifications.



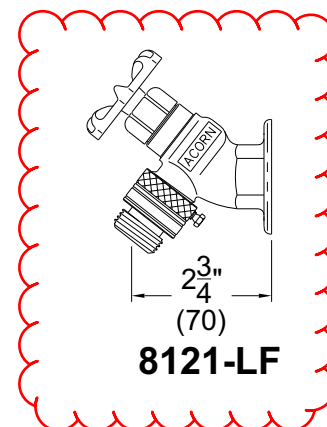
8120-LF



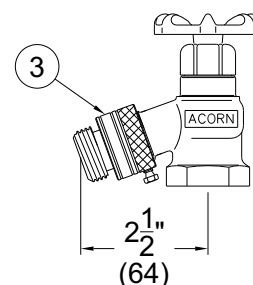
8125-LF



SCALE 2X



8121-LF



8126-LF

NOTES:

1. Wheel Handle (removable).
2. 3/4"-11.5 NHE Hose Connection.
3. Vacuum Breaker.

<p>Important: Installation instructions and current rough-in are furnished with each fixture. Do not rough in without certified dimensions. Dimensions are subject to manufacturer's tolerance of plus or minus 1/4" and change without notice. Acorn assumes no responsibility for use of void or superseded data. © Copyright 2008 Acorn Engineering Company</p>	
<p>Selection Summary</p> <p>Model No. & Option _____</p> <p>Quantity _____</p>	<p>Approved for Manufacturing</p> <p>Company _____ Title _____</p> <p>Signature _____ Date _____</p>

ElectriFLEX LD™ (Light Duty) Commercial Utility Electric Water Heater

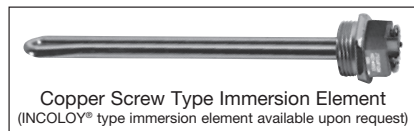


Photo is of
LE112T3-1

Bradford White ElectriFLEX LD™ Utility Electric Models Feature:

- **Fully Automatic Thermostat Controls**—Fast acting surface-mount thermostats with a maximum setpoint of 175°F and a high limit energy cut-off (manual reset) for safety.
- **Direct Heat Transfer With a Single Immersed Element**—Transfers heat directly and efficiently to the water. Screw-in style element.
- **Vitraglas® Lining with Microban®**—An exclusively engineered enamel formula that provides superior tank protection from the corrosive effects of water; and with Microban® antimicrobial product protection to help prevent the growth of bacteria, mold and mildew on the surface of the tank lining.
- **Insulation System**—1" (25mm) Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.
- **Water Connections**—3/4" (19mm) NPT factory-installed true dielectric fittings extend water heater life and simplify water line connections. Located on the side for easier installation (Fittings packaged separately inside carton).
- **Protective Anode Rod**—Provides added protection against corrosion for long trouble-free service.
- **Steel Tank**—Heavy gauge steel automatically formed, rolled, and welded.
- **Voltages Available**—120V, 208V, 240V, 277V, 380V, 415V, 480V.
- **Single Phase Operation Only.**
- **Field Conversion Kits**—Change voltage, and kW in the field (see options on following page).
- **T&P Relief Valve**—Installed.

FEATURING:



3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit www.bradfordwhite.com

For products installed in USA, Canada, and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

Microban® antimicrobial product protection helps prevent the growth of bacteria, mold and mildew that may affect the product. The built-in antimicrobial properties do not protect users or others from disease-causing organisms. Microban® is a registered trademark of Microban Products Company.



MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,682,666; 7,634,976; 5,660,165; 5,954,492; 6,056,542; 6,935,280; 5,372,185; 5,485,879; 5,574,822; 7,971,560; 7,992,526; 6,684,821; 7,334,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,142,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,133; 7,559,293; 7,900,589; 5,943,984; 8,082,888; 5,988,117; 7,621,238; 7,650,859; 5,761,379; 7,409,925; 5,277,171; 8,146,772; 7,458,341; 2,262,174. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 2,314,845; 2,504,824; 2,108,186; 2,143,031; 2,409,271; 2,548,958; 2,112,515; 2,476,685; 2,239,007; 2,092,105; 2,107,012. Vitraglas® is a registered trademark of Bradford White® Corporation. Microban® is a registered trademark of Microban Products Company.

ElectriFLEX LD™ (Light Duty) Commercial Utility Electric Water Heater

ElectriFLEX LD™ Utility Electric Models

C.E.C. Listed

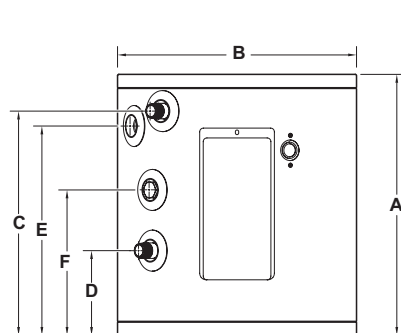
Model Number	Nominal Gal. Capacity		Recovery at 100°F Rise*		A Floor to Top of Heater	B Jacket Dia.	C Floor to C/L of Hot Water Conn.	D Floor to C/L of Cold Water Conn.	E Floor to T&P Conn.	F Floor to Anode Rod	Water Conn. NPT	Approx. Shipping Weight
	U.S. Gal.	Imp. Gal.	U.S. GPH	Imp. GPH	in.	in.	in.	in.	in.	in.	in.	lbs.
LE16U3-1†	6	5	6	5	16 1/2	14	10 1/8	3 1/8	10 1/8	N/A	3/4	33
LE110U3-1	10	8	6	5	17 1/2	16	15	5 11/16	14	9 11/16	3/4	48
LE112T3-1†	12	10	6	5	27 3/4	14	21 1/8	3	21 1/8	N/A	3/4	48
LE115U3-1	15	13	6	5	20 1/4	18	17 3/4	6 1/8	16 3/4	10 1/8	3/4	55
LE120U3-1	19	16	6	5	24 3/4	18	18 1/2	3	18 1/2	N/A	3/4	59

Model Number	Nominal Liter Capacity	Recovery 56°C Rise*		A Floor to Top of Heater	B Jacket Dia.	C Floor to C/L of Hot Water Conn.	D Floor to C/L of Cold Water	E Floor to T&P Conn.	F Floor to Anode Rod	Water Conn. NPT	Approx. Shipping Weight
		Liters/Hour		mm.	mm.	mm.	mm.	mm.	mm.	mm.	kg.
LE16U3-1†	23	23		419	356	257	79	257	N/A	19	15
LE110U3-1	38	23		445	406	381	144	355	246	19	22
LE112T3-1†	45	23		705	356	537	76	537	N/A	19	22
LE115U3-1	57	23		514	457	451	156	425	257	19	25
LE120U3-1	72	23		629	457	470	76	470	N/A	19	27

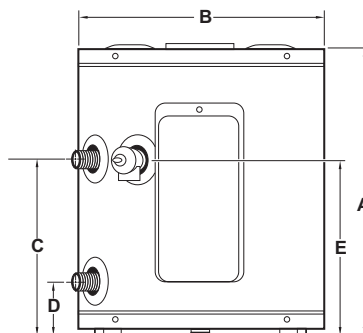
Specify wattage and voltage when ordering. Use chart below for maximum wattages at certain voltages.

† Maximum wattage at any voltage is 3000W. For 5 year models, change suffix "3" to "5".

Single element only. *Based on 1500W operation. NSF Kits available when ordering.



10 & 15 Gallon Models



6, 12, & 20 Gallon Models

Wattage	Recovery S GPH Temperature Rise °F						Wattage	Recovery S LPH Temperature Rise °C					
	60	80	90	100	120	150		34	45	50	56	67	19
1500W	10	8	7	6	5	4	1500W	38	30	26	23	19	19
2000W	14	10	9	8	7	6	2000W	53	38	34	30	26	26
2500W	17	13	11	10	9	8	2500W	64	49	42	38	34	34
3000W	21	15	14	12	10	9	3000W	79	57	53	45	38	38
3500W	24	18	16	14	12	10	3500W	91	68	61	53	45	45
4000W	28	21	18	16	14	12	4000W	106	79	68	61	53	53
4500W	31	23	21	19	15	12	4500W	117	87	79	72	57	57
5000W	34	26	23	21	17	14	5000W	129	98	87	79	64	64
5500W	38	29	25	23	19	15	5500W	144	110	95	87	72	72
6000W	41	31	28	25	21	17	6000W	155	117	106	95	79	79

Voltage and Wattage Conversion Kits

Single Element Wattage	Voltage						
	120V	208V	240V	277V	380V	415V	480V
1500W	415-46409-01	415-46409-05	415-46409-13	415-46409-16	415-46409-24	415-46409-41	415-46409-32
2000W	415-46409-02*	415-46409-06	415-46409-05	415-46409-17	415-46409-43	415-46409-24	415-46409-33
2500W	415-46409-03*	415-46409-07	415-46409-06	415-46409-18	415-46409-25	415-46409-43	415-46409-34
3000W	415-46409-04*	415-46409-08	415-46409-14	415-46409-19	415-46409-26	415-46409-25	415-46409-35
3500W	N/A	415-46409-09	415-46409-07	N/A	415-46409-54	415-46409-26	N/A
4000W	N/A	415-46409-49	415-46409-08	415-46409-20	415-46409-56	415-46409-54	415-46409-36
4500W	N/A	415-46409-11	415-46409-09	415-46409-51	415-46409-57	415-46409-55	415-46409-59
5000W	N/A	415-46409-50	415-46409-15	415-46409-52	415-46409-58	415-46409-56	415-46409-38
5500W	N/A	415-46409-65*	415-46409-49	415-46409-61**	415-46409-63	415-46409-57	415-46409-62**
6000W	N/A	415-46409-66*	415-46409-48*	415-46409-53	415-46409-64	415-46409-58	415-46409-60

Wattage Limitations	Voltage						
	120V	208V	240V	277V	380V	415V	480V
1500W	yes	yes	yes	yes	yes	yes	yes
2000W	yes	yes	yes	yes	yes	yes	yes
2500W	yes	yes	yes	yes	yes	yes	yes
3000W	yes	yes	yes	yes	yes	yes	yes
3500W	no	yes	yes	no	yes	yes	no
4000W	no	yes	yes	yes	yes	yes	yes
4500W	no	yes	yes	yes	yes	yes	yes
5000W	no	yes	yes	yes	yes	yes	yes
5500W	no	yes	yes	no	yes	yes	yes
6000W	no	yes	yes	yes	yes	yes	yes

Note: Above chart can be used to determine maximum wattage at certain voltages. **INCOLOY® element only. * 415-46409-02, -03, -04, -48, -65, & -66 contain only one element. These kits cannot be wired as simultaneous. These are non-simultaneous kits only. Except where noted above, each kit will include two replacement elements, two gaskets, a rating plate overlay and one set of instructions. For water heaters with only one element, please retain the extra element and gasket as a service part.

General:

All models are exempt from NAECA requirements and ASHRAE Standard 90.1b. All models UL® listed. These heaters are wired Single Phase, 120V with one 1500W element, unless otherwise specified. All water and electrical connections are 3/4" (19mm) NPT. All models certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). Applicable models CSA verified for energy performance in accordance with C191.1-M90.

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

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