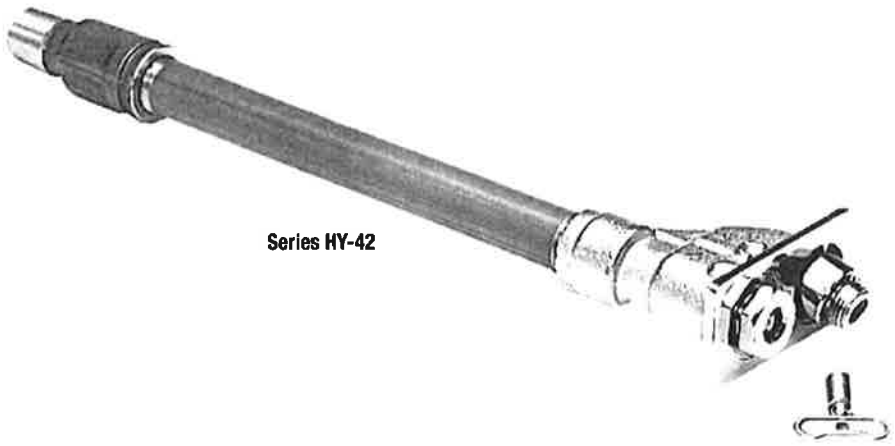
P-11

Series HY-42

Non-Freeze Wall Hydrants with Backflow Preventer

Sizes: Inlet ¾" (19mm) Female or 1" (24mm) Male I.P.S.



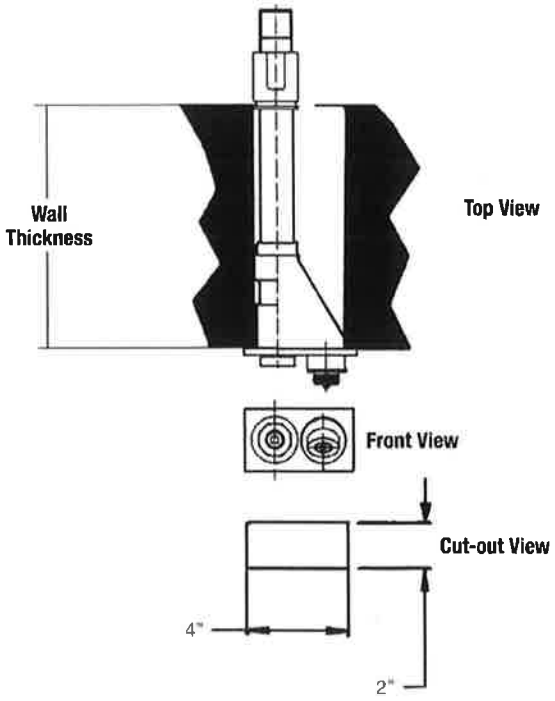
Series HY-42

Installation Instructions

1. Cut an opening 2" x 4" through the foundation wall or the floor joint band and insert the hydrant from the outside. (see figure)
2. Position the hydrant, as shown in figure, with the anti-siphon backflow preventer on the right hand side facing hydrant from outside.
3. Use brackets as required to secure the hydrant in place. (Field provide)
4. If inside connection is to be a sweat (soldered) connection, turn hydrant tee key counterclock-wise to the fully open position. Wrap hydrant side connection with a wet rag and or heat sink before applying heat.

To Assure Drainage:

Detach hose from anti-siphon backflow preventer.

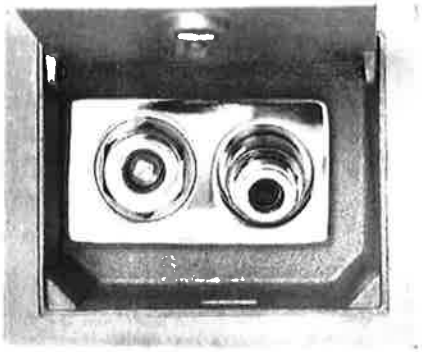


WATTS®

Series HY-42

Non-Freeze Wall Hydrants with Backflow Preventer and Mounting Box

Sizes: Inlet ¾" (19mm) Female or 1" (24mm) Male I.P.S.



Series HY-42 Box (Front View)

Figure 1

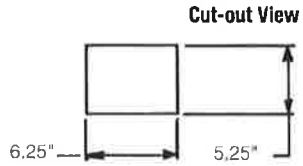
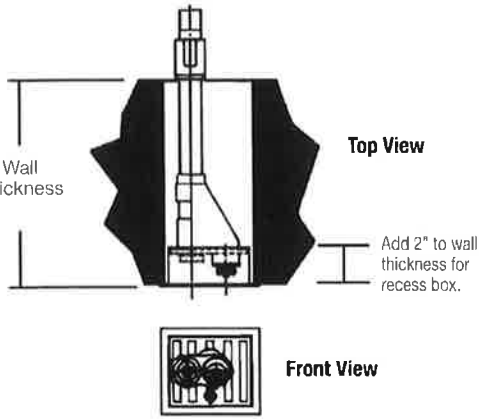


Figure 2



Installation Instruction

1. Cut an opening 6½" x 5¼" through the foundation wall or the floor joint and insert the hydrant from the outside. (see Figure 1)
2. Position the hydrant, as shown in figure 2, with the anti-siphon backflow preventer on the right hand side facing hydrant from outside.
3. Secure the hydrant in place with 2° - 4° pitch.
4. If inside connection is to be a sweat (soldered) connection, turn hydrant tee key counterclock-wise to the fully open position. Wrap hydrant side connection with a wet rag and or heat sink before applying heat.

To Assure Drainage:

Detach hose from anti-siphon backflow preventer.

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (California law requires this warning to be given to customers in the State of California.)

For more information: www.watts.com/prop65

WATTS®

Backflow Prevention Products

ISO 9001-2000 CERTIFIED

USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.watts.com

Canada: 5435 North Service Rd., Burlington, ONT, L7L 5H7; www.wattscanada.ca

Your Country [ ]

Keyword or Part # SEARCH

SELECT A PRODUCT CATEGORY

Drainage Products

Drainage Products

HY-420

Non-Freeze Wall Hydrant with Chrome Face, Integral Vacuum Breaker

Description:

Watts Drainage HY-420 non-freeze key operated wall hydrant with chrome plated face, integral vacuum breaker, 3/4 in.(19mm) hose connection, 3/4 in.19mm) female x 1 in.(25mm) male pipe connection, all bronze head, seat casting and internal working parts, bronze wall casing, and loose key. Complies with ASSE 1019-2004, UPC/IAMPO Listed. Max. operating pressure 125 psi.

Literature

Specification Sheet

There are currently no models listed for this product.

All Sizes HY-420

Select a View: 2D Front View

HY-420 All Sizes

Available Downloads

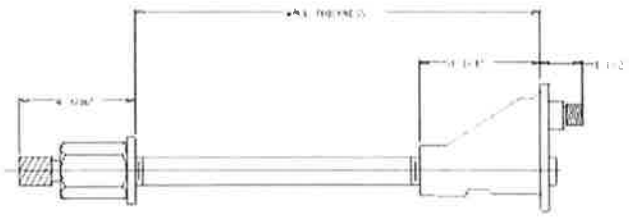
DWF

DWG

JPEG

PDF

Preview



For the latest product certification information and documentation, please visit our certification partner websites:

Limited Warranty:

Watts (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.

Service Policy:

For inoperative products beyond the warranty period, we assume no liability for replacement of valves due to service conditions beyond our control.

Returned Goods:

No material shall be returned without authorization. When credit is issued it will be at the price charged, or prevailing price if lower, less handling charges based on costs of reconditioning, boxing, etc. Products which are obsolete or made to special order are not returnable.

HY-420 / HY-500 O & M

Internal Assembly Replacement

1) With water turned off, use Loose Key HY-1 to open the hydrant fully.

2) Turn Head Nut HY-400-Y2 counterclockwise to remove.

3) Using vise grips, capture the square end of the stem assembly, and pull to remove the assembly.

4) Flush hydrant, making sure any rubber debris is removed from the drainage slot inside hydrant head.

5) Measure dimension "A" on the existing hydrant rod. Match the new hydrant rod HY-400-Y9 to the existing rod, and cut to length.

6) Assemble part HY-400-Y5, HY-400-7, HY-400-Y8, HY-400-Y9, HY-400-Y10. After confirming dimension "A", secure with Locktite HY-400-Y5 to HY-400-Y9, and HY-400-Y9 to HY-400-Y10

7) Replace the stem assembly into the hydrant, while hydrant remains in the open position.

8) *Important* – the front end of the Worm Sleeve HY-400-Y5 has two square corners, and two chamfered corners. The square corners should be in a vertical position, and aligned with grooves inside the hydrant head to prevent the sleeve from turning.

9) Replace the Head Nut HY-400-Y2, making sure the C-shaped clip remains in place inside the white fiber washer, while tightening the Head Nut.

10) *Note* – check the operation of the hydrant. If the plunger is not seated properly, water will squirt through weepholes in the face immediately after the hydrant is turned on. If this happens, remove the stem assembly, back the plunger out approx. ½ turn, and re-apply Locktite. This will keep the plunger seated until the weepholes are sealed.

Plunger Replacement

1) With water turned off, use Loose Key HY-1 to open the hydrant fully.

2) Turn Head Nut HY-400-Y2 counterclockwise to remove.

3) Using vise grips, capture the square end of the stem assembly, and pull to remove the assembly.

4) Flush hydrant, making sure any rubber debris is removed from the drainage slot inside hydrant head.

5) Measure dimension "A" on the removed stem assembly.

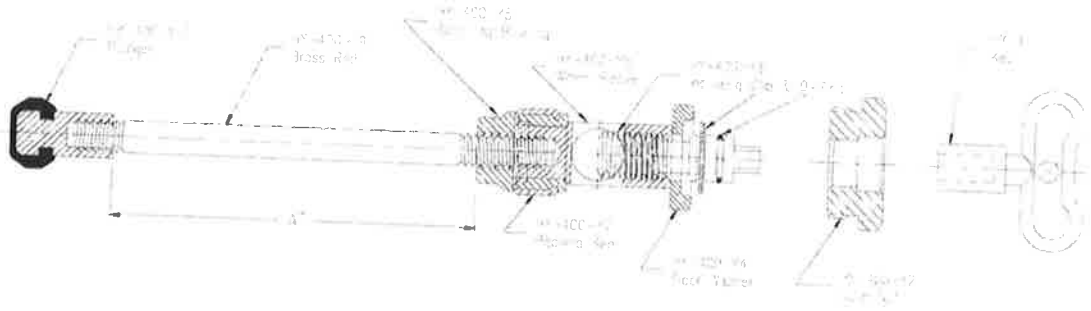
6) Remove and replace the Plunger HY-400-Y10. Confirm dimension "A", secure the new plunger with Locktite.

7) Replace the stem assembly into the hydrant, while hydrant remains in the open position.

8) *Important* – the front end of the Worm Sleeve HY-400-Y5 has two square corners, and two chamfered corners. The square corners should be in a vertical position, and aligned with grooves inside the hydrant head to prevent the sleeve from turning.

9) Replace the Head Nut HY-400-Y2, making sure the C-shaped clip remains in place inside the white fiber washer, while tightening the Head Nut.

10) *Note* – check the operation of the hydrant. If the plunger is not seated properly, water will squirt through weepholes in the face immediately after the hydrant is turned on. If this happens, remove the stem assembly, back the plunger out approx. ½ turn, and re-apply Locktite. This will keep the plunger seated until the weepholes are sealed.



Hydrants

Recommendations

Application	Product
Exterior Wall Non-Freeze	HY-420, HY-725
Exterior Wall Moderate Climate	HY-430, HY-330
Hot & Cold	HY-700
Interior Wall	HY-440, HY-450
Outdoor Deck	HY-500
Outdoor Post	HY-600, HY-800
Roof	HY-900

Standard Specifications

Watts standard hydrants are key operated, with a 3/4" hose connection, chrome plated face, and all bronze head, wall casing, seat casting, and internal working parts. The piping connection is dual threaded 3/4" male, 1" female. Non-freeze and moderate climate wall hydrants are furnished with a built-in vacuum breaker, which relieves negative pressure in the water supply piping, preventing back siphonage.

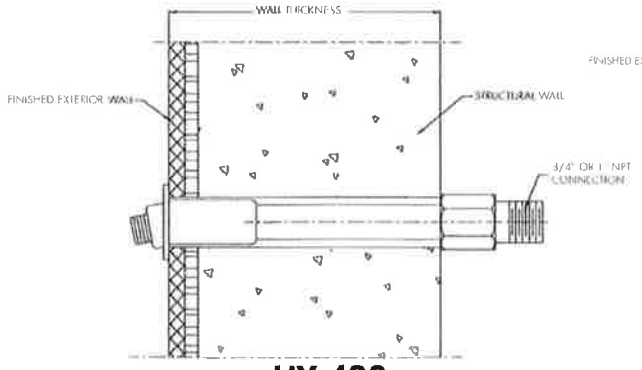
Hydrant Selection Factors

Flow rate
Standard 3/4" hydrants discharge approximately 10 GPM under normal operating conditions. Actual flow rates are dependent upon connection sizes and operating pressures.

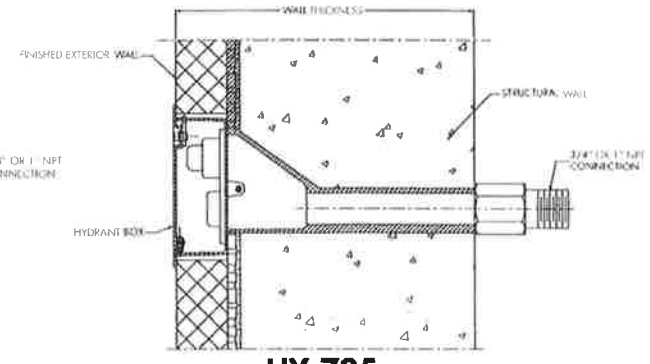
Non-freeze (frost-proof)
Non-freeze hydrants drain automatically when the water is turned off, preventing freezing, and potential damage to the hydrant or piping system.

Operating range
Watts hydrants are designed to operate within a pressure range of 8 PSI to 125 PSI, and a temperature range of 33°F to 130°F.

Typical Installations



HY-420
SIDE VIEW



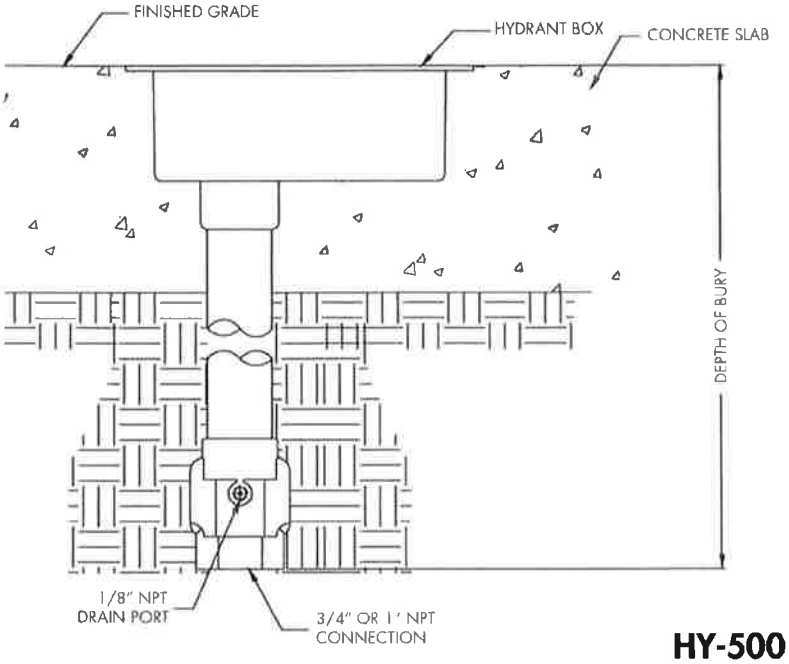
HY-725
TOP VIEW W/BOX

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

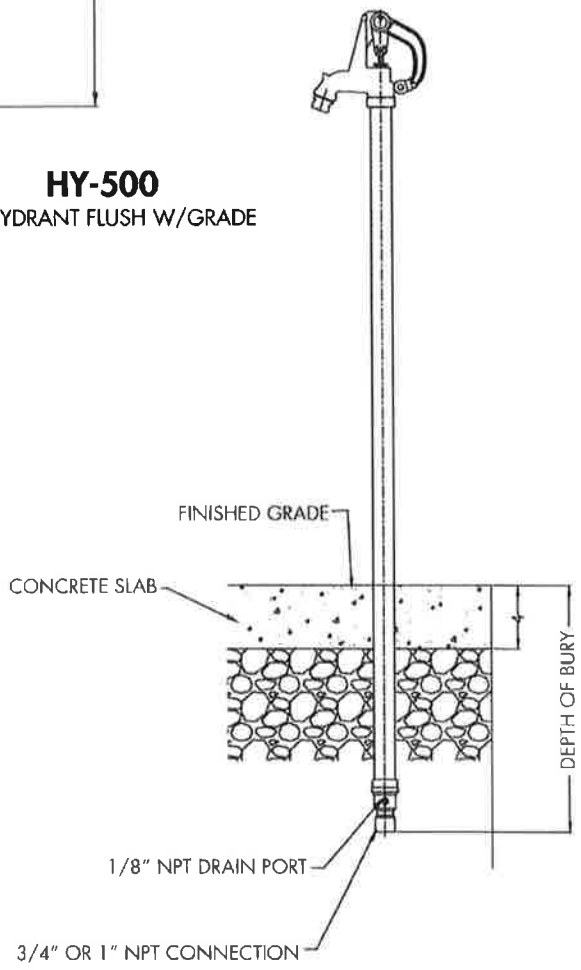
WATTS®

Hydrants

Typical Installations



HY-500
BOX HYDRANT FLUSH W/GRADE



HY-800
POST HYDRANT

P-12

INSTALLATION INSTRUCTIONS

WOODFORD

For more information contact...

WOODFORD MANUFACTURING COMPANY, LLC.

2121 Waynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032

To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com

Rev 06/10 Form No. IISRH.102

SRH-MS

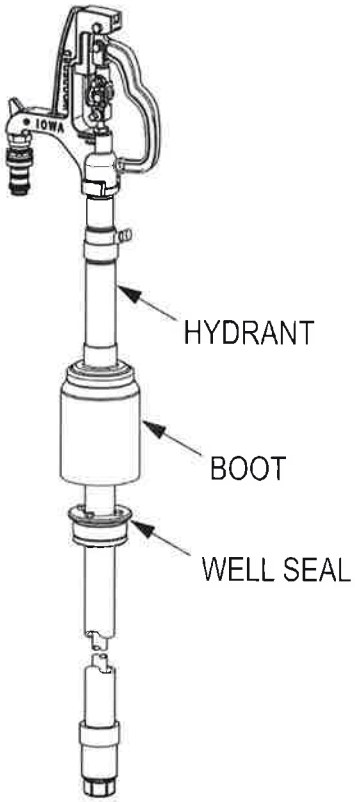
Sanitary Roof Hydrant

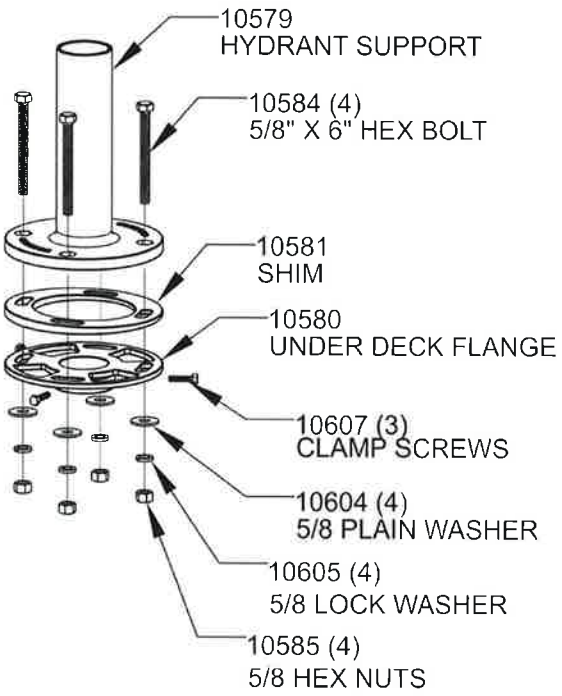
No drain line required!

- The complete SRH-MS Roof Hydrant with Mounting System is shipped in 2 separate cartons.

See carton contents below.

- Both cartons are required to complete the Roof hydrant installation.
- The following installation instructions are suggested for installing on a typical corrugated steel roof





SRH-MS
Complete Roof Hydrant & Mounting System
Shipped in Cartons 1 & 2

CARTON 1
SRH
CONTENTS

- SRH Hydrant
- Well Seal
- Boot

CARTON 2
RH-MS
CONTENTS

- Hydrant Support – cast iron
- 2" Shim – cast iron
- Under Deck Flange – cast iron
- Mounting Bolts, Nuts & Washers

INSTALLATION INSTRUCTIONS

WOODFORD

For more information contact...

WOODFORD MANUFACTURING COMPANY

2121 Waynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032 • Fax: (800) 765-4115

To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com

A Division of WCM Industries, Inc.

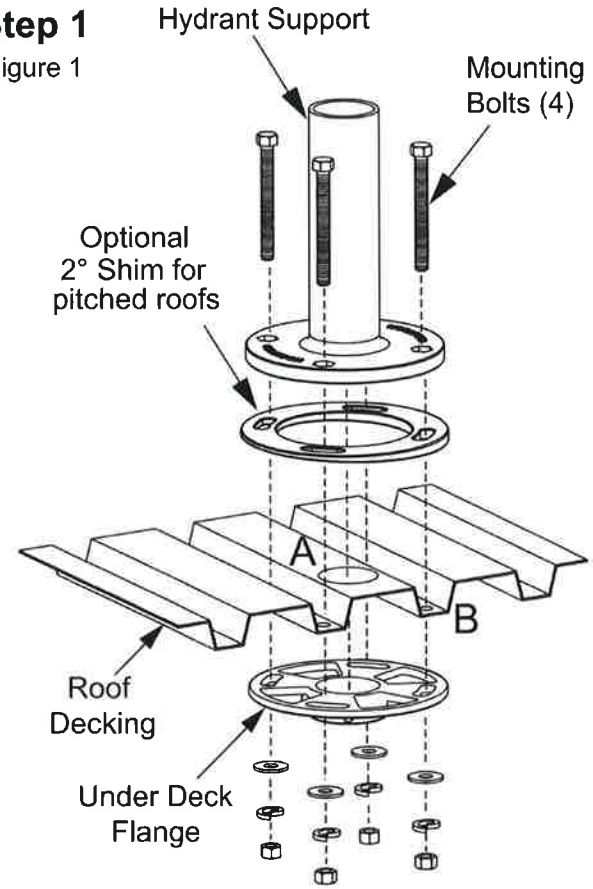
Rev 06/10 Form No. IISRH.102

RHMS

Mounting System

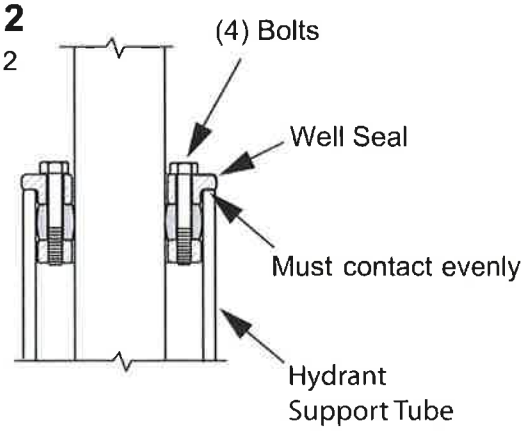
Step 1

Figure 1



Step 2

Figure 2



STEP 1 Figure 1

1. Set Hydrant Support in desired location on roof decking.
2. Transfer (5) hole locations using Hydrant Support flange as a template.
3. Set aside Hydrant Support and cut (1) 3" hole for the hydrant (A) and drill (4) 11/16" bolt holes (B) through roof decking.
4. Reposition Hydrant Support over holes in decking.
5. Drop (4) 5/8" X 6" Mounting Bolts through Hydrant Support flange. Heads should bottom in hex pockets.
6. From underneath roof decking, install Under Deck Flange. Position slots in Flange over the (4) bolts and secure with plain washers, lock washers and nuts.

STEP 2 Figure 2

7. Loosen, but do not remove, the (4) bolts on the Well Seal.
8. Install the hydrant through the top of the Hydrant Support.
9. Position the hydrant to desired height.
10. Slide the Well Seal down and seat into the Hydrant Support tube.
    Make sure that the top of the Well Seal contacts the top of the tube evenly all around.
11. Tighten the four bolts evenly until hydrant pipe is clamped securely.
    a. NOTE: Installer may desire to not tighten the well seal until supply and drain connections are attached.

INSTALLATION INSTRUCTIONS

WOODFORD

For more information contact...

WOODFORD MANUFACTURING COMPANY

2121 Waynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032 • Fax: (800) 765-4115

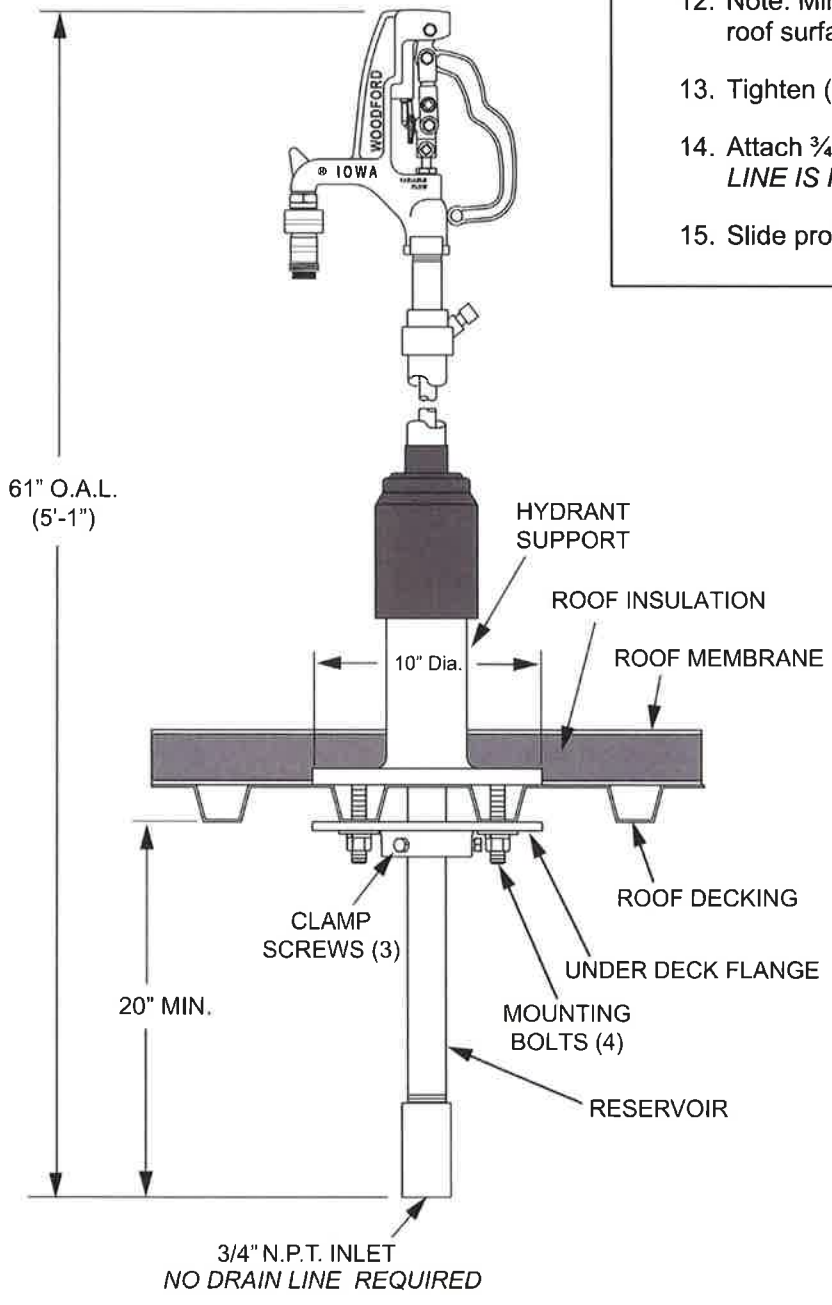
To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com

A Division of WCM Industries, Inc.

Rev 06/10 Form No. IISRH.102

SRH-MS

Roof Hydrant & Mounting System Rough-In



12. Note: Minimum rough-in length below interior roof surface is 20".
13. Tighten (4) Under-Deck Flange Clamp Screws.
14. Attach ¾" NPT supply line to inlet. *NO DRAIN LINE IS REQUIRED.*
15. Slide protective Boot down over Well Seal.

TECH-NOTE

WOODFORD®

For more information contact…

WOODFORD MANUFACTURING COMPANY, LLC.

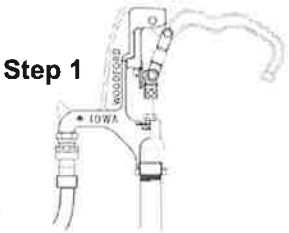
2121 Waynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032

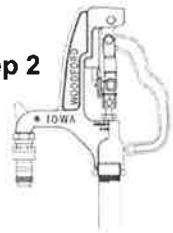
To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com

SRH OPERATING INSTRUCTIONS

(Sanitary Roof Hydrant)

Rev 08/10 Form No. TNSRH.101





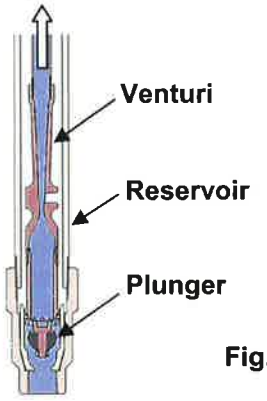
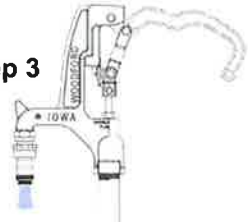
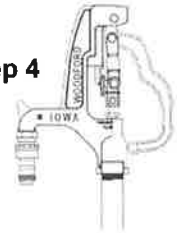


Fig. A

Fig. B





Run water for 15 seconds

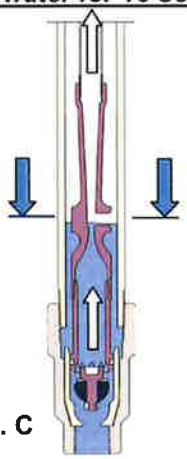


Fig. C

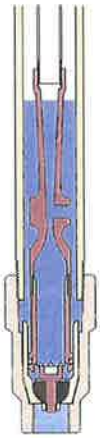


Fig. D

Operating Instructions

1. Turn on hydrant and use normally, with or without a hose.
2. Shut off hydrant
3. Remove hose, turn on hydrant and run for 5 to 15 seconds
4. Shut off hydrant

How the SRH Hydrant Works

The SRH (Sanitary Roof Hydrant) is an ASSE 1057 approved sanitary hydrant that is designed specifically for use on commercial roofs. The SRH works on a venturi principal to evacuate water out of the hydrant without the need for a drain source and ensure that the hydrant is frost proof.

When the hydrant is turned on (Fig A), the water flows around the plunger and through the venturi and operating pipe and out of the backflow preventer. The SRH will not evacuate water in the reservoir when a hose is attached.

When the hydrant is turned off (Fig B), the plunger is moved to the closed position. At this point the reservoir is full, along with the head and operating pipe. At this point the hydrant is not frost proof.

To ensure winterization, with the hose removed (Fig C), turn on hydrant and run for 5 to 15 seconds (depending on water pressure – see note on side of hydrant or catalog page). Water is allowed to flow unrestricted out the backflow preventer the venturi creates a suction and evacuates the water out of the reservoir.

When the hydrant is shut off (Fig D), the water in the head and operating pipe will drain down into the reservoir and the hydrant will be frost proof.

TERMS AND CONDITIONS OF SALE

Selling Policy - Possession of our price list or jobber discounts is not an offer to sell. All orders are subject to acceptance by the home office in Colorado Springs, Colorado.

Minimum Invoice - No invoice will be rendered for less than $25.00 list.

Cash Discount - 3% 15 days from date of invoice or 2% 10th Prox., Net EOM

Freight Allowance - All goods sold F.O.B shipping point. For shipments in the continental United States and Canada, **full freight will be allowed on orders of $3,500.00 or more list.** No freight allowance on smaller shipments. We reserve the right to ship the most economical way.

Foreign Shipments - (including **Alaska** and **Hawaii)** will be allowed full freight, according to the conditions listed above, to the embarkation point in the continental United States only.

Claims, Shortages and Damage - All claims for shortages or goods damaged in transit must be made within **10 days after receipt of merchandise.** (All claims should be made to Woodford Manufacturing Co., LLC by the consignee.)

Prices, Designs and Quotation - Prices, designs and dimensions of products are subject to change without notice. Quotations, unless otherwise stated, are for immediate acceptance and prices quoted are based on the sellers standard tolerances of materials. We reserve the right to invoice all merchandise at prices in effect at the time of shipment.

Cancellations - Orders covering special merchandise are not subject to cancellation without our written permission. Purchaser subject to expense incurred by cancellation of special orders.

Limited Warranty - All goods are sold with a limited warranty for one year against defects in material and workmanship. We will replace or issue credit (at our option) for defective goods that are returned for inspection and found to be defective within one year of purchase from Woodford.

Implied warranties - Implied warranties are limited to one year from date of purchase from Woodford.

Taxes and Government Regulations - Sales or manufactures tax imposed under any existing or future statutes shall be added to the price of merchandise effective at the time shipment is made.

Ordering Procedure - Purchase order must include the following: Model number, inlet size & type, handle type, wall thickness or depth of bury and type of finish required where applicable.

Returned Goods - Standard catalog material may be returned. All returns of resalable new and unused product is subject to a 25% restocking charge, plus the cost of reconditioning, not to exceed an additional 25% (50% total). Credit for used or freight damaged material to be determined by factory upon receipt of material.

We will not accept returns for:

1. Any non-defective return under $25.00 net or product over 18 months old.
2. Special lengths on any product.
3. Obsolete merchandise and product not listed in current price guide.
4. Competitor's product or product abused by installation.
5. Items not reviewed and RGA form signed by local Woodford representative before being sent back for factory approval.

All items claimed defective must be returned prepaid to address shown on back cover:

Model 19 Limited 5 Year Warranty

*All **Model 19** Wall faucets are sold with a limited warranty for five (5) years against defects in material and workmanship. We will replace or issue credit (at our option) for defective goods that are returned for inspection and found to be defective within five (5) years of purchase from Woodford. In addition, Woodford will pay up to $5,000.00 toward the cost to repair damages incurred as a result of a defective Model 19 Wall Faucet that was properly installed. This limited warranty does not cover defects caused by: modification, alteration or repair of the product by anyone other than Woodford; physical abuse to, or misuse of, the product or operation thereof in a manner contrary to accompanying instructions.*

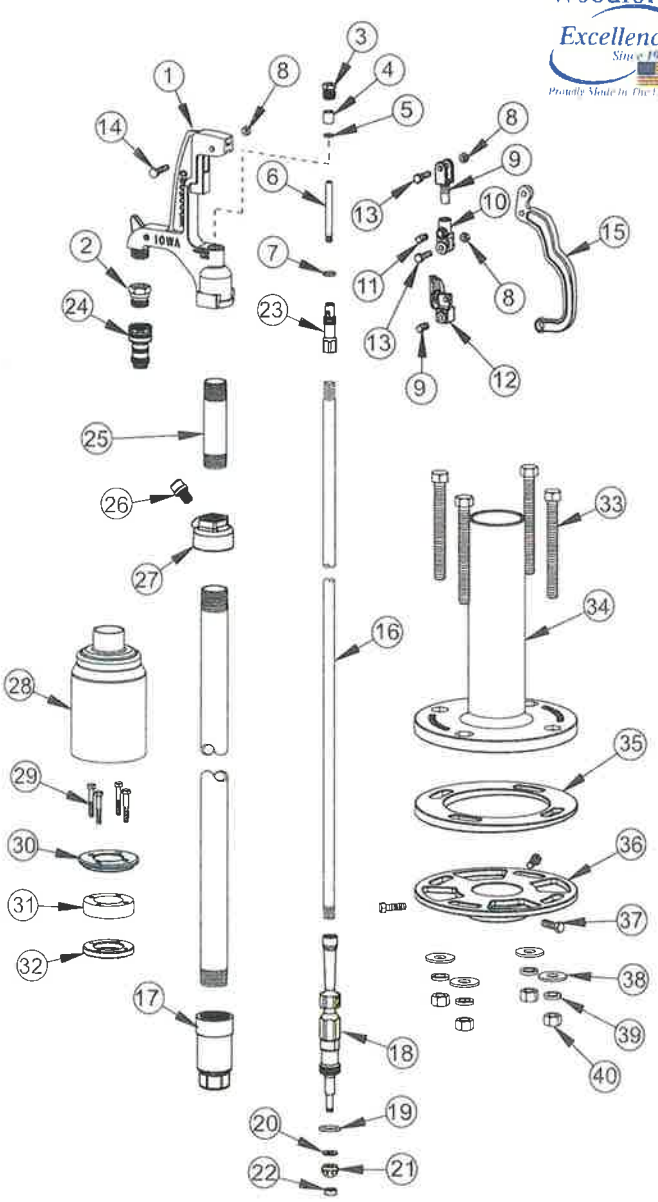
Commercial Limited 5 Year Warranty

*All **Commercial Wall hydrants and Roof hydrants** shown in this brochure are sold with a limited warranty for five years against defects in material and workmanship. We will replace or issue credit (at our option) for defective goods that are returned for inspection and found to be defective within five years of purchase from Woodford.*

Patented and Patents Pending: See https://www.woodfordmfg.com/patents for details
For Individual Spec Sheets, Installation and Troubleshooting Instructions
Go to https://**www.woodfordmfg.com or Call Customer Service 1-800-621-6032**

MODEL SRH-MS PARTS LIST

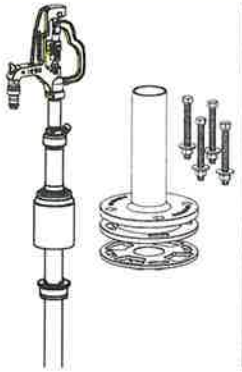
ITEM	PART#	DESCRIPTION
	15126	SRH Head Assembly (Includes Items 1-15, 23 & 24)
1	10632	SRH Head
2	10004	3/4" Brass Hose Nozzle
3	10100	Packing Nut
4	10101	Packing
5	10102	Packing Support Washer
6	15121	Brass Rod Stem
7	10117	O-Ring - 206
8	10206	Hex Nut (3)
9	10614	RH Upper Link
10	15242	RH Lower Link (Includes Item 11)
11	10019	Set Screw (2)
12	15243	RH Cam & Clevis Assembly
13	10020	Link Bolt (2)
14	10021	Lever Bolt
15	10613	RH Lever
16	10024	Operating Pipe
17	15122	Valve Body (3/4" NPT Inlet)
18	15123	Venturi Assembly
19	10118	Valve Body O-Ring
20	50027	Support Washer
21	51013	Ball Valve Rubber
22	50028	Round Brass Nut
23	10116	Sealing Head Coupling
24	50H-BR	50H Backflow Preventer
25	15120	Upper Pipe Assembly
26	15124	SRH Vent Assembly
27	15125	SRH Casing Cover
28	10608	RH Boot, EPDM
29	10625	Bolt, Allen Head 1/4-20 X 1 3/4" (4)
30	10626	Well Seal-1 1/2", Top
31	10119	Well Seal-1 1/2", EPDM
32	10627	Well Seal-1 1/2", Bottom
33	10584	Bolt, Hex Head 5/8-11 X 6" (4)
34	10579	Hydrant Support, Casting
35	10581	2° Shim, Casting
36	10580	Under Deck Flange
37	10607	Screw, Clamp 3/8-16 Hex Head X 1 3/4" (3)
38	10604	Washer, Plain 5/8 (4)
39	10605	Washer, Lock 5/8 (4)
40	10585	Nut, Hex 5/8-11 UNC (4)
	RK-SRH	Repair Kit (Includes items 3-7, 19-22)
	RK-RHL	Repair Kit (Includes items 8-15)



When ordering, specify SRH part number option listed below.

Part# SRH-MS Consists of the complete Roof Hydrant system:
Qty.1 **SRH** Hydrant shipped in 1 carton.
Qty. 1 **RH-MS** Mounting System shipped in 1 carton.

Total Shipping Wt. 2 cartons: 50 lbs

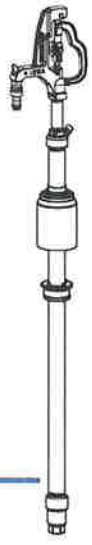


Part# RH-MS
Carton contents consists of:
Mounting System/ Rough-In Components (Parts 33-40 above)
- Hydrant Support
- 2° Shim,
- Under Deck Flange
- Mounting Bolts, Nuts, Washers.

Shipped in 1 Carton.
Shipping Wt. - 30 lbs

Part# SRH
Carton contents consists of:
- Hydrant Assembly (Parts 1-32 above)
- Well Seal (Parts 28-32 above)
- Boot (Part 28 above)

Shipped in 1 Carton.
Shipping Wt. - 20 lbs



For more information contact...

WOODFORD MANUFACTURING COMPANY, LLC

2121 Waynoka Road, Colorado Springs, Colorado 80915 • **Phone:** (800) 621-6032
To view our complete product line visit: ***www.woodfordmfg.com*** *or email:* ***sales@woodfordmfg.com***

P-13

Model 975XL2 LEAD-FREE*

Reduced Pressure Principle Assembly (1/4" - 2")

*This product contains a weighted average lead content less than 0.25% for wetted surfaces.
*Meets the requirements of NSF/ANSI 61

ZURN® WILKINS

❑ Installation ❑ Testing ❑ Maintenance Instructions

CAUTION: Installation of Backflow Preventers must be performed by qualified, licensed personnel. The installer should be sure the proper device has been selected for the particular installation. Faulty installation could result in an improperly functioning device.

WILKINS Model 975XL2 Reduced Pressure Principle Backflow Preventers are for use on potable water lines where a health hazard could exist if a backflow situation were to occur.

Proper performance is dependent upon following these installation instructions and prevailing governmental and industry standards and codes. Failure to do so, according to WILKINS Limited Warranty "...releases WILKINS of any liability that it might otherwise have with respect to that device." Such failure could also result in an improperly functioning device.

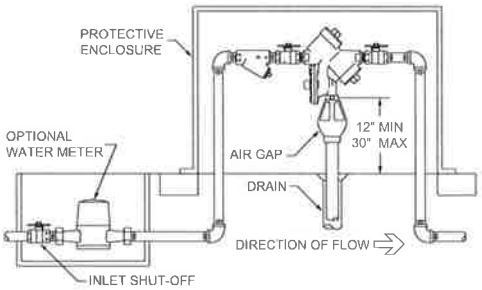
Damage to the device could result wherever water hammer and/or water thermal expansion could create excessive line pressure. Where this could occur, shock arresters and/or pressure relief valves should be installed downstream of the device.

1. Before installing a Model 975XL2 Backflow Preventer, flush the line thoroughly to remove all debris, chips and other foreign matter. If required, a strainer should be placed upstream of the Backflow Preventer. **CAUTION: Do not use a strainer in seldom used emergency waterlines such as fire lines.**

2. The Model 975XL2 must be installed in a horizontal position to provide proper operation of the relief valve.

3. Provide adequate space around the installed unit so that the test cocks will be accessible for testing and servicing.

If installation of a Model 975XL2 is in a building, provide a suitable drain arrangement to drain off spillage from the relief valve. An air gap at least two times the pipe diameter must be provided between the relief valve and the drain piping to prevent a cross-connection.



CAUTION: Do not pipe the relief valve solidly to a floor drain, sewer or sump.

4. Install valve at least 12 inches above surrounding flood level.

5. Always consult local codes for installation methods, approvals and guidance.

OUTDOOR INSTALLATION

Model 975XL2 Backflow Preventer may be installed outdoors only if the device is protected against freezing conditions. Exposure to freezing conditions will result in improper function or damage to the device. The installation location must be kept above 32°F. All the basic installation instructions apply.

If installation is in a pit or vault, the Backflow Preventer must never be submerged in water because this could cause a cross-connection. Make sure that the pit or vault always remains dry by providing ample drainage.

INDOOR INSTALLATION

Indoor installation is preferred in areas that are subject to freezing conditions. All the basic installation instructions apply to such installations.

PARALLEL INSTALLATION

Where uninterrupted service from a single meter connection must be maintained, two or more Backflow Preventers may be connected in parallel. All the basic installation instructions apply to parallel installation. Be sure to allow adequate room between the units for testing and repair.

PLACING THE DEVICE IN SERVICE

After the installation of a Model 975XL2 has been completed, place the unit in service as follows:

975XL2 REDUCED PRESSURE PRINCIPLE

1. Start with both shut-off valves closed. Slowly open the inlet shut-off valve until the backflow preventer is completely pressurized. A brief discharge from the relief valve may occur while the device is pressurizing. The discharge should cease by the time the shut-off valve is fully open. Device should function properly. If the discharge does not stop, refer to "MAINTENANCE INSTRUCTIONS" for repair procedures.

2. After the device has been pressurized, vent all trapped air from both check valve by slightly opening each of the four test cocks.

3. Slowly open the downstream shut-off valve. The Model 975XL2 Reduced Pressure Principle Backflow Preventer is now in service.

4. If "spitting" or intermittent discharges from the relief valve are noted, it could be a result of pressure fluctuation and/or a water hammer condition in the system. If such conditions exist, install water pressure reducing valves or water hammer shock arresters in compliance with industry standards as needed.

5. After the Model 975XL2 has been properly installed, test the device (see "TEST PROCEDURES"). If the device fails the test, remove the first and second check valves and thoroughly flush the device. If the relief valve fails to operate properly, inspect the sensing passage for clogging (see "MAINTENANCE INSTRUCTIONS"). Clean rubber seals of all debris and place unit back in service.

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et néfastes sur la reproduction - www.P65Warnings.ca.gov

Testing Procedures

MODEL 975XL2 REDUCED PRESSURE PRINCIPLE ASSEMBLY

Equipment Required: Differential pressure gauge test kit.

975XL2 TEST NO. 1

Purpose:
Test #2 check valve for tightness against reverse flow.
Requirement:
The valve must close tight against reverse flow under all pressure differentials.
Procedure:

1. Attach the "HIGH" hose to test cock #2 and the "LOW" hose to test cock #3.
2. Close #2 shut-off valve.
3. Open test cocks #2 and #3.
4. Open by-pass valves "C" and "A" and bleed to atmosphere until all air is expelled.
5. Close by-pass valve "A". Open by-pass valve "B" and bleed to atmosphere until all air is expelled. Close by-pass valves "B" and "C".
6. Attach the "VENT" hose to test cock #4.
7. Slowly open by-pass valves "A" and "C" and keep by-pass valve "B" closed.
8. Open test cock #4.
9. Indicated pressure differential will drop slightly. If pressure differential does not continue to decrease, the #2 check valve is considered tight.

975XL2 TEST NO. 2

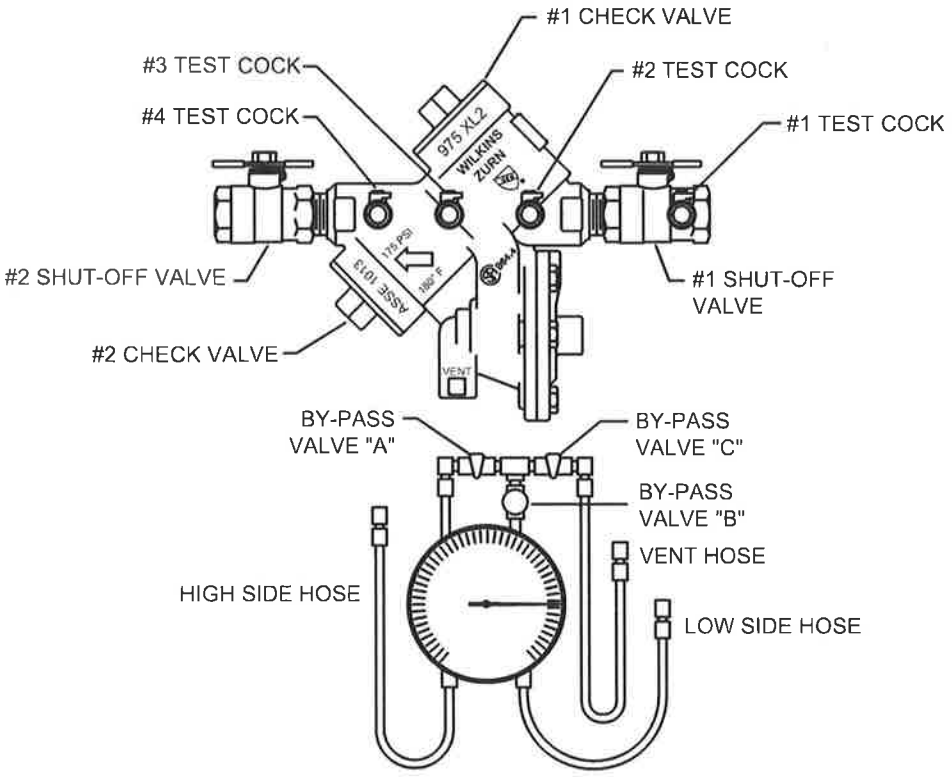
Purpose:
Test #1 check valve for tightness and record pressure drop across #1 check valve.
Requirement:
The static pressure drop across #1 check valve shall be greater than the relief valve opening point (test #1), and at least 5.0 psid.
Procedure:

1. Close by-pass valve "A"
2. Close test cock #4, and disconnect "VENT" hose from test cock #4.
3. Open by-pass valves "B" and "C" bleeding to atmosphere, then close by-pass valve "B" restoring the system to normal static condition.
4. Observe the pressure differential gauge and note this as the #1 check valve psid.

975XL2 TEST NO. 3

Purpose:
To test operation of the differential relief valve.
Requirement:
The pressure differential relief valve must operate to maintain the "ZONE" between the two check valves at least 2 PSID less than the supply pressure.
Procedure:

1. Close by-pass valve "C" and open by-pass valve "A".
2. Open by-pass valve "B" very slowly until differential gauge needle starts to drop. Hold the valve at this position and observe the gauge reading at the moment the first discharge is noted from the relief valve. Record this as the opening differential pressure of the relief valve.



ZURN WILKINS
1747 Commerce Way, Paso Robles, CA 93446 Phone:855-663-9876 Fax:805-238-5766
www.zurn.com

Maintenance Instructions

All Model 975XL2 Reduced Pressure Principle Backflow Preventers must be inspected and maintained by licensed personnel at least once a year or more frequently as specified by local codes. Replacement of worn or damaged parts must only be made with genuine "WILKINS" parts. The WILKINS Certificate of Limited Warranty provides that failure to do so "...releases WILKINS of any liability that it might otherwise have with respect to that device." Such failure could also result in an improperly functioning device.

The Model 975XL2 Reduced Pressure Principle Assemblies should be thoroughly flushed after backflow conditions occur to prevent any type of corrosive deterioration to its components. Failure to do so could result in malfunction of the device.

GENERAL MAINTENANCE

1. Clean all parts thoroughly with water after disassembly.
2. Carefully inspect rubber seal rings, diaphragms and o-rings for damage.
3. Test unit after reassembly for proper operation (see "Testing Procedures").

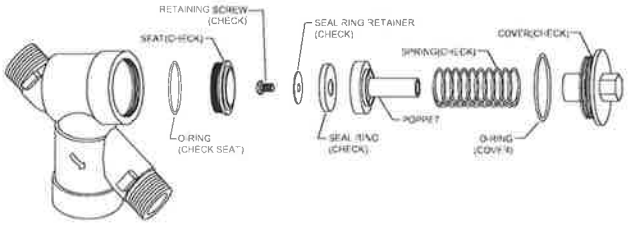
SERVICING CHECK VALVES

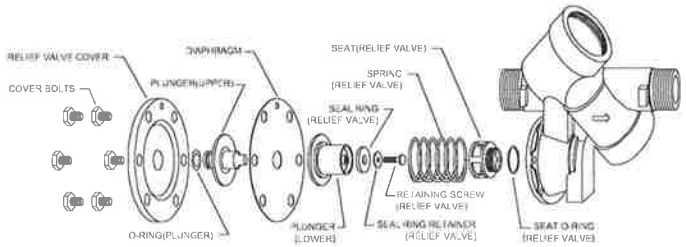
1. Close inlet and outlet shut-off valves.
2. Open No. 2, No. 3 and No. 4 test cocks to release pressure from valve.
3. Unscrew check valve covers using appropriate size wrench **(CAUTION: Cover is spring loaded).** To avoid injury, hold cover down firmly with one hand while unscrewing.
4. Remove check valve cover, spring and poppet assembly.
5. Inspect the rubber seal ring for cuts or embedded debris. To remove seal ring, remove screw and seal ring retainer. If the reverse side of the seal ring is unused, it is possible to invert the seal ring. This would be considered a temporary solution to fixing a fouled check and should be replaced with a new seal ring as soon as possible.
6. Inspect valve cavity and seating area. Remove any debris.
7. If installed with removable seat, unscrew seat from body and replace with new seat and lightly grease o-ring.*
8. Reverse the above procedures to reinstall check valve assembly. Care should be taken to make sure the heavy spring is installed in the No. 1 check valve. For the 3/4"-1" 975XL2SE the No. 2 poppet has a cupped seal retainer. For the 1 1/4"-2" 975XL2SE the No. 1 seat has a taller seat profile than the No. 2 seat.

SERVICING RELIEF VALVE

1. Remove relief valve cover bolts and cover. Gently pull on diaphragm to remove the cartridge assembly.
2. Inspect seal ring for cuts and embedded debris. Turn over or replace if required.
3. Disassemble cartridge by unscrewing relief valve retaining screw.
4. Inspect diaphragm and o-rings for damage. Replace required parts and apply a light coat of grease to plunger o-ring.
5. Carefully reassemble cartridge assembly.
6. Inspect relief valve seat for wear on seating surface. If damaged, replace seat and seat o-ring.*
7. Insert cartridge assembly into relief valve body.
8. Replace relief valve cover and cover bolts.
9. Place device in service and test per "TESTING PROCEDURES".

*For seat removal assistance, consult factory.





Troubleshooting

When the relief valve discharges intermittently it can be almost always assumed that the device is functioning correctly and that the discharge is caused by systems such as inlet pressure fluctuations or water hammer due to quick closing valves.

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. **SUDDEN OR RAPID SPITTING**	1. Drop in inlet pressure. 2. Sudden increase in downstream pressure due to water hammer from quick closing shut-off valve installed downstream.	A. Install an in-line spring loaded check valve upstream of backflow. B. Install pressure reducing valve upstream of backflow unit. C. Install in-line spring loaded check valve downstream of backflow as close to source as possible, but not closer that 4 feet.
2. **LIGHT INTERMITTENT DRIP**	1. Slightly fouled #1 check.	A. Clean #1 check and turn check valve seal ring over or replace.

Continuous discharge of the relief valve signifies a failure of some part of the device. To help determine the specific area of failure, close the #2 shut-off valve. If the discharge stops, the #2 check requires service. If the discharge continues, the #1 check requires service.

1. **CONTINUOUS DISCHARGE**	1. Fouled #1 check. 2. Fouled relief valve seat. 3. Fouled #2 check	A. Clean check valves and turn check valve seal rings over or replace. B. Clean relief valve seat and turn relief valve seal ring over or replace.

In summation, the amount of discharge is proportional to degree of fouling. Most problems occur in the #1 check which is where debris enters the backflow preventer first.

Performance Characteristics

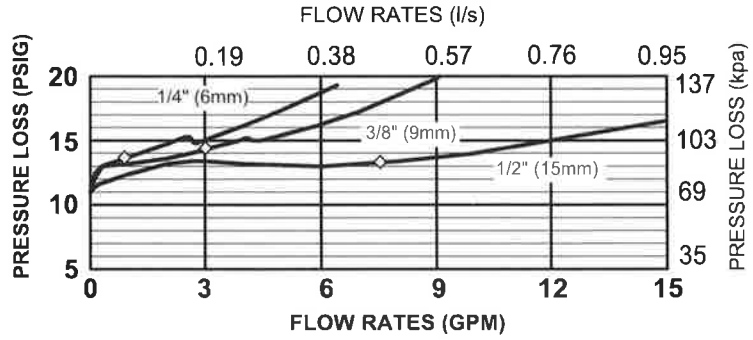
SPECIFICATIONS

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

Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
1/8"	1	1	2	3
1/4"	2	2	3	5
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

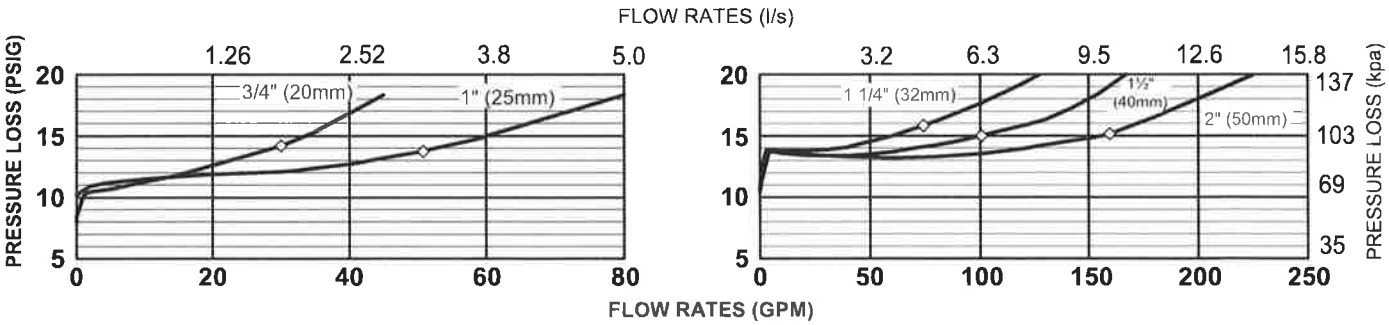
FLOW CHARACTERISTICS

MODEL 975XL2 1/4", 3/8" & 1/2" (STANDARD & METRIC)



◇ Rated Flow (Established by approval agencies)

MODEL 975XL2 3/4", 1", 1 1/4", 1 1/2" & 2" (STANDARD & METRIC)



◇ Rated Flow (Established by approval agencies)

Proper performance is dependent upon licensed, qualified personnel performing regular, periodic testing according to WILKINS' specifications and prevailing governmental & industry standards and codes and upon following these installation instructions. Failure to do so releases WILKINS of any liability that it might otherwise have with respect to that device. Such failure could also result in an improperly functioning device.

GENERAL TERMS AND CONDITIONS

PRICE AND TERMS OF PAYMENT

Terms are net, payable 30 days from date of invoice. All pricing in U.S. currency. The Buyer shall pay all sales, consumers, or other applicable taxes. A 1-1/2% monthly (18% annual) service charge will be added to the outstanding balance of all past due invoices.

Minimum invoice $250.00. Zurn Water, LLC ("Zurn") reserves the right to apply a minimum order charge in order to meet the $250.00 minimum invoice requirement. All orders are subject to credit approval by the Zurn Credit Department prior to the acceptance of an order. Orders may be refused, delivery may be withheld, or shipment stopped in transit without any liability on Zurn's part at Zurn's sole discretion based upon Buyer's credit worthiness as determined by Zurn.

FREIGHT

All sales are F.O.B. seller's location. Zurn will allow full freight allowance when any of the following conditions are met: 1) Plumbing fixture only orders totaling $10,000 or more; 2) Zurn One System orders of $7,500 or more; 3) Any combination of Specification Drainage, Commercial Drainage, Finish Plumbing, Zurn Wilkins, Linear Drainage and Chemical Drainage orders of $5,000 or more; 4) Commercial Drainage only orders totaling $3,500 or more; or 5) PEX only orders totaling $3,000 or more. This full freight allowance applies when the shipment is within the continental United States and has a single destination of a Buyer's standard address or job location. Routing of shipment shall be determined at the sole direction of Zurn. Shipping dates are estimates and time of delivery shall not be of the essence of this sale contract. Under no circumstances will the Seller have any responsibility on account of any delays in manufacture, transportation, or otherwise. Terms of Export Shipment on application.

NOTE: Shipments in excess of 90" long or 3,000 lbs may be subject to additional charges, and shall be defined as an oversized and/or overweight product and Zurn's standard FFA terms may not apply. Please contact our Customer Service Department for guidance on potential additional shipping charges. This new policy supersedes any existing agreements.

These charges and restrictions apply in addition to Zurn standard terms and conditions for sale unless otherwise agreed upon by the parties.

LIMITED WARRANTY

Zurn goods sold hereunder are warranted to be free from defects in material and factory workmanship for the period of time from the date of purchase: AquaVantage® Flush Valves, AquaFlush® Flush Valves, Commercial Fixtures, Faucets, Showers, Occupancy Lights and Tubular Brass: three years; Chemical Drainage, Linear Drainage, Commercial Drainage, Specification Drainage, Zurn Wilkins, and Flush Valve, Faucets, and Tubular Brass decorative finishes: one year; PHIX® Cartridge: ten years; FOG-ceptor®: Lifetime. Where permitted by law, **THE IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO THE ABOVE IDENTIFIED PERIOD OF TIME AND SHALL BE LIMITED SOLELY TO THE REPLACEMENT OF THE DEFECTIVE GOODS.** A damaged/broken test cock or ball valve is not considered defective. Please contact Zurn Customer Care for assistance.

Zurn will replace goods at no cost that prove defective provided Zurn is notified in writing of such defect and the goods are returned prepaid at the specified Zurn location with evidence that they have been properly maintained and used in accordance with instructions. **ZURN SHALL NOT BE RESPONSIBLE FOR ANY LABOR CHARGES OR ANY LOSS, INJURY, OR DAMAGES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES.** The sole and exclusive remedy shall be limited to the replacement of the defective goods. Before installation and use, the purchaser shall determine the suitability of the product for his intended use and the purchaser assumes all risk and liability whatever in the connection therewith. All weights stated in Zurn catalogs and lists are approximate and are not guaranteed.

RETURNED GOODS

Standard cataloged material may be returned only with the written permission of Zurn. Returned goods are subject to a 25% restocking charge of total saleable material returned, plus the cost of reconditioning, if necessary, to make material sellable. Transportation charges are the responsibility of the Buyer. Credit allowance will be in the form of merchandise credit only – not cash credit. The value of the return must total at least $100.00 to qualify for credit allowance. No credit will be allowed for parts unless originally ordered and invoiced as parts. No credit will be allowed for discontinued or made-to-order items. Items that have been specially made are not subject to return or cancellation except by special negotiation. Material must be returned within one year of invoice date for credit to be issued for Commercial Fixtures, Flush Valve Products, Specification Drainage, Flo-Thru, Tubular Brass, Zurn Wilkins, Chemical Drainage, Linear Drainage, and Commercial Drainage. . No credit is allowed for Linear Drainage products that have been cut and Specification Drainage product with auxiliary tappings. Flush Valve material over one year old will be subject to a 50% handling charge. Flush Valve material over five years old will not be accepted. Commercial Drainage and Specification Drainage galvanized material will be credited at value of Dura-Coated cast iron, and chrome-plated at value of bronze. Zurn Wilkins damaged/broken test cocks or ball valves are not considered defective.

ILLUSTRATIONS OF TYPICAL INSTALLATIONS

The typical installations for various products found in each product section are intended to illustrate the products and potential options for the use of these products. Under no circumstances are they to be construed as recommended installation procedures. Consult local codes and project specifications for proper installation instructions.

SHORTAGE/DAMAGE CLAIMS

Notification of material shortages or incorrect filling of orders must be made to Zurn within 10 days of receipt. No claims over three months old will be honored. Buyer agrees to make all complaints for damage in transit or "short count" directly to the carrier; before the contents are unloaded have the carrier agent's acknowledgment of such damage noted on the bill of lading and to present to the carrier its agent's acknowledgment of such damaged material with formal claim covering said damage.

GENERAL

Zurn reserves the right to make changes in design or equipment of any item or product without incurring any obligation on previously sold items, and to discontinue items at any time, without notice. Possession of this Catalog or other sales literature is not to be construed as an offer to sell. All orders are subject to acceptance by Zurn. Catalog printed in U.S.A.

Zurn flush valves are designed to comply with Army Corp of Engineers and Naval guide specifications, Military Specification MIL.V.29193 and Federal Specification WWP541.

Zurn flush valves comply with the following standards: ASME A112.18.1/CSA B125.1, A112.19.5, A112.19.2, A112.19.6, ASSE 1037 and 101 are listed by the following agencies: Canadian Standards, IAPMO/UPC/CUPC, and CSA 125.3. Zurn flush valves are manufactured from dezincification resistant alloys. For additional compliances, contact Zurn Water, LLC, Finish Plumbing Operation, or 1-800-997-3876.

Zurn is not responsible for typographical errors. The contents of this guide are subject to revision without notice.

Service Center Locations

Support

Our Brands

Elkay

World Dryer

Just Manufacturing

Hadrian

Follow Us

Terms & Conditions | Privacy Policy

by Zurn Elkay Water Solutions

Give Feedback

Model 375AST(R) & 375ASTDA(R)

Reduced Pressure Principle Assembly (2 1/2", 3", 4" & 6")
Reduced Pressure Detector Assembly (2 1/2", 3", 4" & 6")

LEAD-FREE*

*This product contains a weighted average lead content less than 0.25% for wetted surfaces.

(Patent zurn.com/patents)

❑ Installation ❑ Testing ❑ Maintenance Instructions

INSTALLATION INSTRUCTIONS

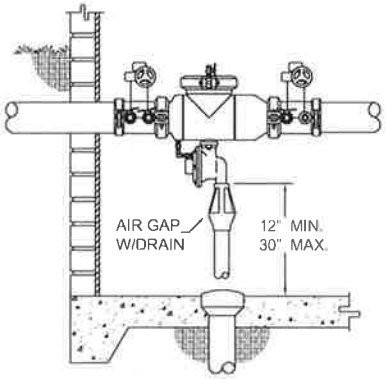
CAUTION: Installation of Backflow Preventers must be performed by qualified, licensed personnel. The installer should be sure the proper device has been selected for the particular installation. Faulty installation could result in an improperly functioning device.

ZURN WILKINS Model 375AST Series Assemblies are for use on potable water lines where a health hazard exists in the event of a backflow situation.

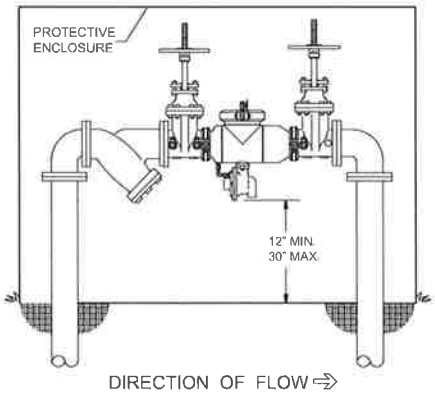
Damage to the device could result wherever water hammer and/or water thermal expansion could create excessive line pressure. Where this could occur, shock arrestors, check valves and/or pressure relief valves should be installed downstream of the device.

If installation is in a pit or vault, the Backflow Preventer must never be submerged in water because this could cause a cross-connection. Make sure that the pit or vault always remains dry by providing ample drainage. (Consult local codes.)

1. Before installing a Model 375AST Series Backflow Preventer, flush the line thoroughly to remove all debris, chips and other foreign matter. If required, a strainer should be placed upstream of the Backflow Preventer. CAUTION: Do not use a strainer in seldom used emergency waterlines such as fire lines.
2. Provide adequate space around the installed unit so that the test cocks will be accessible for testing and servicing.
3. Install valve at least 12 inches above surrounding flood level.
4. The Model 375 series has been tested and approved in the horizontal position. Contact factory before installing in other orientations.
5. Always consult local codes for installation methods, approvals and guidance.



ZURN WILKINS MODEL 375ASTBG
INDOOR HORIZONTAL INSTALLATION



ZURN WILKINS MODEL 375AST
OUTOOR HORIZONTAL INSTALLATION

INDOOR INSTALLATION

Indoor installation is preferred in areas that are subject to freezing conditions. All the basic installation instructions apply to such installations. **CAUTION: An adequately sized drain is required to prevent possible water damage due to relief valve discharge.**

OUTDOOR INSTALLATION

The Model 375AST Series Backflow Preventer may be installed outdoors only if the device is protected against freezing conditions. Exposure to freezing conditions will result in improper function or damage to the device. The installation location must be kept above 32°F. All the basic installation instructions apply.

PLACING THE DEVICE IN SERVICE

1. Start with both shut-off valves closed. Slowly open the inlet shut-off valve until the backflow preventer is completely pressurized. A brief discharge from the relief valve may occur while the device is pressurizing. The discharge should cease by the time the shut-off valve is fully open. If the discharge does not stop, refer to "MAINTENANCE INSTRUCTIONS" for repair procedures.
2. After the device has been pressurized, vent all trapped air by slightly opening each of the four test cocks.
3. Slowly open the downstream shut-off valve. The Model 375AST Series Backflow Preventer is now in service.
4. If spitting or intermittent discharges from the relief valve are noted, it could be a result of pressure fluctuation and/or a water hammer condition in the system. If such conditions exist, install water pressure reducing valves or water hammer shock arrestors in compliance with industry standards as needed.
5. After the Model 375AST Series has been properly installed, test the device (see "TEST PROCEDURES"). If the device fails the test, remove the first and second check valves and thoroughly flush the device. If the relief valve fails to operate properly, inspect the sensing passage for clogging (see "MAINTENANCE INSTRUCTIONS"). Clean rubber seals of all debris and place unit back in service.

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et néfastes sur la reproduction - www.P65Warnings.ca.gov

Proper performance is dependent upon licensed, qualified personnel performing regular, periodic testing according to ZURN WILKINS' specifications and prevailing governmental & industry standards and codes and upon following these installation instructions. Failure to do so releases ZURN WILKINS of any liability that it might otherwise have with respect to that device. Such failure could also result in an improperly functioning device.

Testing Procedures

MODEL 375AST SERIES ASSEMBLY

Equipment Required: Differential pressure gauge test kit.

TEST NO. 1 - RELIEF VALVE OPENING POINT

REQUIREMENT:

The differential pressure relief valve must operate to maintain the zone between the two check valves at least 2 psi less than the supply pressure.

PROCEDURE:

1. Flush water through test cocks #1, #2 (open #2 slowly), #3 and #4 by opening and closing each test cock one at a time,to eliminate foreign material.
2. Install appropriate fittings to test cocks. Attach hose from the high side of the differential pressure gauge to the #2 test cock then attach hose from the low side of the gauge to the #3 test cock. Open test cock #3 slowly and then bleed all air from the hose and gauge by opening the low side bleed needle valve.
3. Maintain the low side bleed needle valve in the open position while test cock #2 is opened slowly. Open the high side bleed needle valve to bleed all air from the hose and gauge. Close the high side bleed needle valve, then close the low side bleed needle valve after the gauge reading has reached the upper end of the scale.
4. Close the #2 shut-off valve. If the gauge reading drops to the low end of the gauge scale and the differential pressure relief valve discharges continuously, then the #1 check valve is leaking If this occurs, Tests #1, #2 and #3 cannot be completed (See USC Maintenance Guide). However, should the gauge reading remain above the differential pressure relief valve opening point, then observe the gauge reading. This is the apparent pressure drop across the #1 check valve.
5. Open the high side control needle valve approximately one turn, and then open the low side control needle valve no more than 1/4 turn to by-pass water from the #2 test cock to the #3 test cock. Observe the differential pressure reading as it slowly drops to the relief valve opening point. Record this opening point value when the first discharge of water is detected. Close the low side needle valve.

TEST NO. 2 - TIGHTNESS OF #2 CHECK VALVE

REQUIREMENT:

The #2 check valve shall be tight against backpressure.

PROCEDURE:

1. Maintain the #2 shut-off valve in the closed position (from Test #1). Vent all air through the vent hose by opening the vent needle valve. Close the vent needle valve only (The high side control needle valve is to remain open).
2. Attach the vent hose from the gauge to the #4 test cock, then open the #4 test cock. Bleed water from the zone by opening the low side bleed needle valve on the gauge in order to re-establish the normal reduced pressure within the zone. Once the gauge reading reaches a value above the #1 check valve pressure drop, close the low side bleed needle valve.
3. Open the vent needle valve. If the indicated differential pressure reading remains steady then the #2 check valve is reported as "closed tight." Go to Test #3. If the differential pressure reading falls to the relief valve opening point, bleed water through the low side bleed needle valve until the gauge reading reaches a value above the #1 check valve pressure drop. If the gauge reading settles above the relief valve opening point, record the #2 check valve as "closed tight," and proceed to Test #3. If the differential pressure reading falls to the relief valve opening point again, then the #2 check valve is noted as "leaking," and Test #3 cannot be completed. If the differential pressure reading drops, but stabilizes above the relief valve opening point, the #2 check valve can still be reported as "closed tight."

Note: Due to disc compression, you may need to bleed off water through low side bleed needle valve several times before the gauge reading will settle above relief valve opening point.

Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687

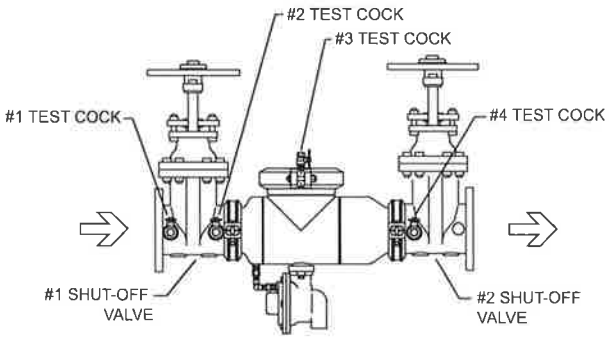
TEST NO.3 - TIGHTNESS OF #1 CHECK VALVE

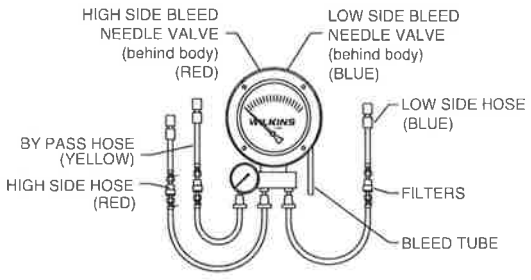
REQUIREMENT:

The static pressure drop across #1 check valve shall be greater than the relief valve opening point (test #1), and at least 5.0 psid.

PROCEDURE:

1. With the vent hose connected to test cock #4 as in step 3 of Test #2, bleed water from the zone through the low side bleed needle valve on the gauge until the reading exceeds the #1 check valve pressure drop. Close the low side bleed needle valve. After the gauge reading settles, the steady state differential pressure reading indicated (reading is not falling on the gauge) is the actual static (i.e., no flow) pressure drop across check valve #1 and is to be recorded as such.
2. Close all test cocks, slowly open shutoff valve #2 and remove equipment.





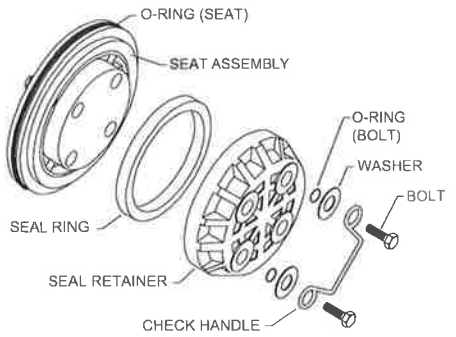
SPECIFICATIONS

Maximum working water pressure: 175 PSI
Maximum working water temperature: 140°F
Hydrostatic test pressure: 350 PSI
End connections: Flanged ANSI B16.1 Class 125
Grooved AWWA C606

Zurn Water, LLC - WILKINS
1747 Commerce Way, Paso Robles, CA 93446 Phone:855-663-9876 Fax:805-238-5766
www.zurn.com

Maintenance Instructions

CHECK ASSEMBLY



(2 ½" - 6")

All Model 375AST Series Backflow Preventers must be inspected and maintained by licensed personnel at least once a year or more frequently as specified by local codes. Replacement of worn or damaged parts must only be made with genuine "ZURN WILKINS" parts.

GENERAL MAINTENANCE

1. Clean all parts thoroughly with water after disassembly.
2. Carefully inspect rubber seal rings and o-rings for damage.
3. Test unit after reassembly for proper operation (refer to "TESTING PROCEDURES").

SERVICING RELIEF VALVE

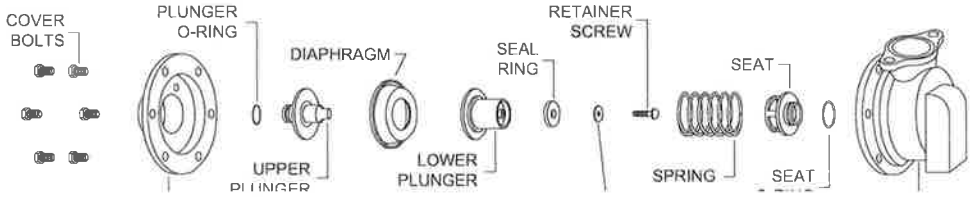
1. Remove relief valve cover bolts and cover. Gently pull on diaphragm to remove the cartridge assembly.
2. Inspect seal ring for cuts and embedded debris. Turn over or replace if required.
3. Disassemble cartridge by unscrewing relief valve retaining screw.
4. Inspect diaphragm and o-rings for damage. Replace required parts and apply a light coat of lubricant to plunger o-ring.
5. Carefully reassemble cartridge assembly. Tighten retainer screw to 13-17 in/lbs.
6. Inspect relief valve seat for wear on seating surface. If damaged, replace seat and seat o-ring. Install spring over seat guides.
7. Insert cartridge assembly into relief valve body.
8. Replace relief valve cover and cover bolts.
9. Place the device in service and test per "TESTING PROCEDURES" on page 2.

NOTE: Disassembly of the seat assembly is not recommended. If the seat assembly needs repair, please contact factory.

SERVICING CHECK VALVES

1. Close the outlet and then the inlet shut-off valves.
2. Open No. 2, 3 and 4 test cocks to release internal pressure. Leave them open during check removal and reinstallation.
3. Loosen and remove the two nuts, bolts and gasket from the grooved coupling around the access cover.
4. If the valve has a plastic retainer on the #1 check, grasp one of the exposed ends, push down and then pull toward the #2 check. The retainer should "spiral" out of the groove around the check.
5. Remove the #2 check by locating one of the two spring-loaded plate retainers around the face of the check. Pinch the sides of the spring together and rotate the plates out of the body groove one at a time. Remove the 2nd retainer the same way.
6. **Always service the checks one at a time to avoid mixing parts.** Start by removing the hardware and o-rings from the back of the check assembly (See "Check Assembly" illustration). Separate the seal retainer from the assembly to expose the seal ring.
7. Inspect the seal ring for cuts or embedded debris. If the reverse side of the seal is unused, the seal ring can be inverted and used temporarily until a new seal is obtained. Inspect seat o-ring and replace if cut or damaged in any way.
8. Inspect valve cavity and seating areas. Flush with water to remove any debris.
9. Reassembly, Lubricate the #2 check o-ring, install in the body and close the #4 test cock. Install the #2 check retainers into he body groove one plate at a time, squeezing the spring ends together to clear the stops on the face of the seat.
10. Lubricate and install the #1 check. Close the #2 test cock. Install the plastic retainer by inserting one end into the body groove and then sliding your hand around the face of the retainer, pushing it into the groove as you go. The retainer will "snap" into place when fully seated.
11. Lubricate the outside surface of the grooved coupling gasket. Reassemble access cover and grooved coupling, making sure the ends of the coupling touch each other. Close any remaining open test cocks and place valve back in service.

RELIEF VALVE ASSEMBLY



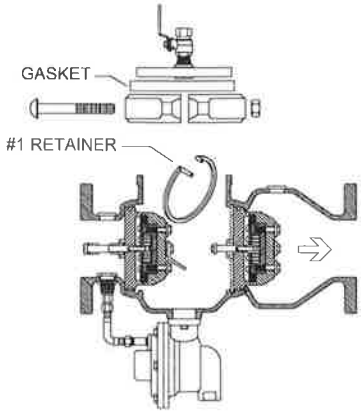


FIGURE 1

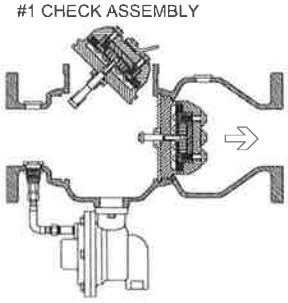


FIGURE 2

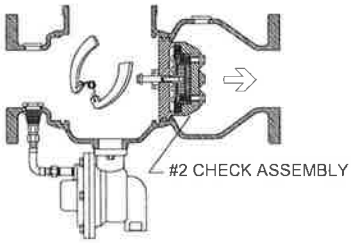


FIGURE 3

Troubleshooting

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. SUDDEN OR RAPID SPITTING	1. Drop in inlet pressure.	1. Install an in-line spring loaded check valve or pressure reducing valve upstream of Backflow Preventer.
	2. Sudden increase in downstream pressure due to waterhammer from quick closing shut-off valve installed downstream.	2. Install an in-line spring loaded check valve or pressure reducing valve downstream of Backflow Preventer.
2. LIGHT INTERMITTENT DRIP	1. Slightly fouled #1 check.	1. Clean #1 check and/or turn check valve seal ring over or replace.
	2. Slightly fouled relief valve seat.	2. Clean relief valve seat and/or turn relief valve seal ring over or replace.
3. CONTINUOS DISCHARGE	1. Fouled #1 check and/or #2 check.	1. Clean check valves and/or turn check valve seal ring over or replace.
	2. Fouled relief valve seat.	2. Clean relief valve seat and/or turn relief valve seal ring over or replace.

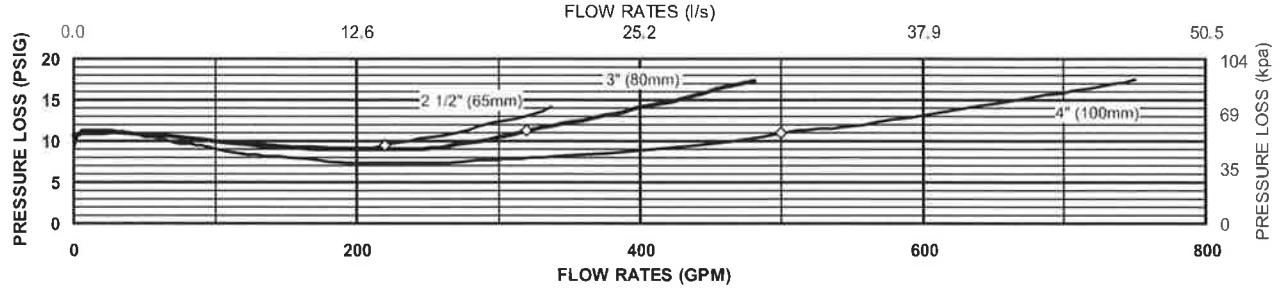
Repair Kits

SIZE	MODEL	MODEL 375 RELIEF RUBBER ONLY	MODEL 375 RELIEF COMPLETE	MODEL 375 CHECKS ONLY
2 1/2" - 4"	375AST/375ASTDA	RK212-375R	RK212-375	RK4-350ST
6"	375AST/375ASTDA	RK212-375R	RK212-375	RK6-350ST

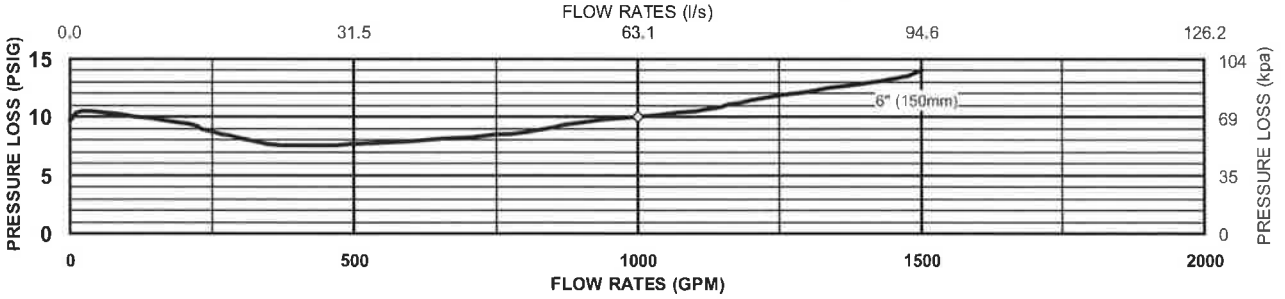
Performance Characteristics

FLOW CHARACTERISTICS

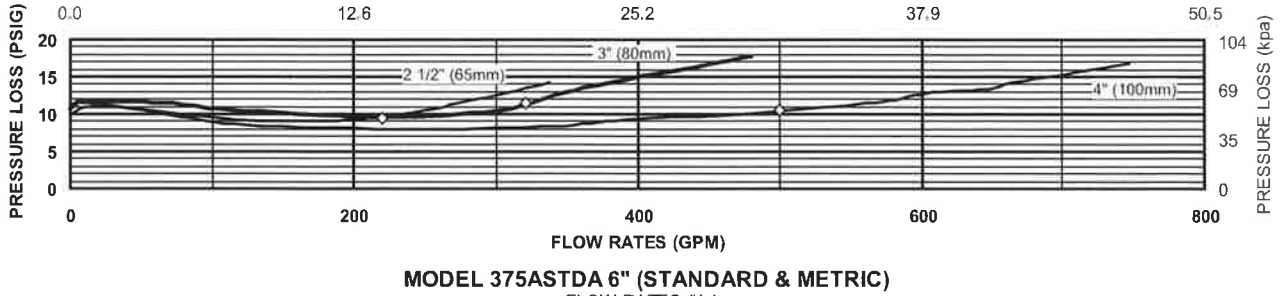
MODEL 375AST 2 1/2", 3" & 4" (STANDARD & METRIC)



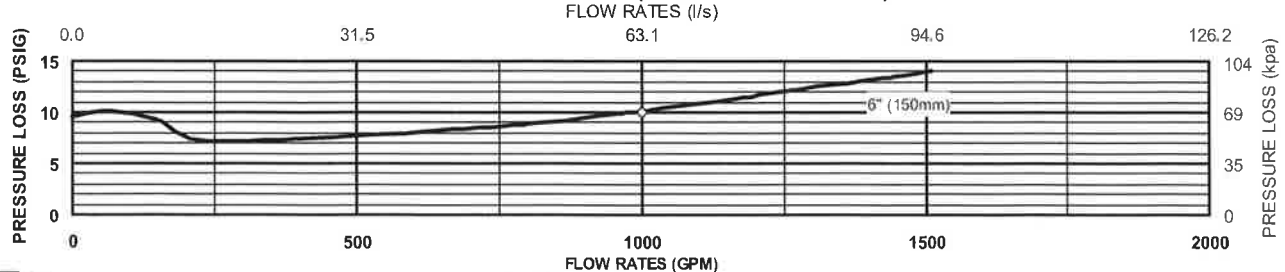
MODEL 375AST 6" (STANDARD & METRIC)



MODEL 375ASTDA 2 1/2", 3" & 4" (STANDARD & METRIC)



MODEL 375ASTDA 6" (STANDARD & METRIC)



◇ Rated Flow (Established by approval agencies)

GENERAL TERMS AND CONDITIONS

PRICE AND TERMS OF PAYMENT

Terms are net, payable 30 days from date of invoice. All pricing in U.S. currency. The Buyer shall pay all sales, consumers, or other applicable taxes. A 1-1/2% monthly (18% annual) service charge will be added to the outstanding balance of all past due invoices.

Minimum invoice $250.00. Zurn Water, LLC ("Zurn") reserves the right to apply a minimum order charge in order to meet the $250.00 minimum invoice requirement. All orders are subject to credit approval by the Zurn Credit Department prior to the acceptance of an order. Orders may be refused, delivery may be withheld, or shipment stopped in transit without any liability on Zurn's part at Zurn's sole discretion based upon Buyer's credit worthiness as determined by Zurn.

FREIGHT

All sales are F.O.B. seller's location. Zurn will allow full freight allowance when any of the following conditions are met: 1) Plumbing fixture only orders totaling $10,000 or more; 2) Zurn One System orders of $7,500 or more; 3) Any combination of Specification Drainage, Commercial Drainage, Finish Plumbing, Zurn Wilkins, Linear Drainage and Chemical Drainage orders of $5,000 or more; 4) Commercial Drainage only orders totaling $3,500 or more; or 5) PEX only orders totaling $3,000 or more. This full freight allowance applies when the shipment is within the continental United States and has a single destination of a Buyer's standard address or job location. Routing of shipment shall be determined at the sole direction of Zurn. Shipping dates are estimates and time of delivery shall not be of the essence of this sale contract. Under no circumstances will the Seller have any responsibility on account of any delays in manufacture, transportation, or otherwise. Terms of Export Shipment on application.

NOTE: Shipments in excess of 90" long or 3,000 lbs may be subject to additional charges, and shall be defined as an oversized and/or overweight product and Zurn's standard FFA terms may not apply. Please contact our Customer Service Department for guidance on potential additional shipping charges. This new policy supersedes any existing agreements.

These charges and restrictions apply in addition to Zurn standard terms and conditions for sale unless otherwise agreed upon by the parties.

LIMITED WARRANTY

Zurn goods sold hereunder are warranted to be free from defects in material and factory workmanship for the period of time from the date of purchase: AquaVantage® Flush Valves, AquaFlush® Flush Valves, Commercial Fixtures, Faucets, Showers, Occupancy Lights and Tubular Brass: three years; Chemical Drainage, Linear Drainage, Commercial Drainage, Specification Drainage, Zurn Wilkins, and Flush Valve, Faucets, and Tubular Brass decorative finishes: one year; PHIX® Cartridge: ten years; FOG-ceptor®: Lifetime. Where permitted by law, **THE IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO THE ABOVE IDENTIFIED PERIOD OF TIME AND SHALL BE LIMITED SOLELY TO THE REPLACEMENT OF THE DEFECTIVE GOODS.** A damaged/broken test cock or ball valve is not considered defective. Please contact Zurn Customer Care for assistance.

Zurn will replace goods at no cost that prove defective provided Zurn is notified in writing of such defect and the goods are returned prepaid at the specified Zurn location with evidence that they have been properly maintained and used in accordance with instructions. **ZURN SHALL NOT BE RESPONSIBLE FOR ANY LABOR CHARGES OR ANY LOSS, INJURY, OR DAMAGES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES.** The sole and exclusive remedy shall be limited to the replacement of the defective goods. Before installation and use, the purchaser shall determine the suitability of the product for his intended use and the purchaser assumes all risk and liability whatever in the connection therewith. All weights stated in Zurn catalogs and lists are approximate and are not guaranteed.

RETURNED GOODS

Standard cataloged material may be returned only with the written permission of Zurn. Returned goods are subject to a 25% restocking charge of total saleable material returned, plus the cost of reconditioning, if necessary, to make material sellable. Transportation charges are the responsibility of the Buyer. Credit allowance will be in the form of merchandise credit only – not cash credit. The value of the return must total at least $100.00 to qualify for credit allowance. No credit will be allowed for parts unless originally ordered and invoiced as parts. No credit will be allowed for discontinued or made-to-order items. Items that have been specially made are not subject to return or cancellation except by special negotiation. Material must be returned within one year of invoice date for credit to be issued for Commercial Fixtures, Flush Valve Products, Specification Drainage, Flo-Thru, Tubular Brass, Zurn Wilkins, Chemical Drainage, Linear Drainage, and Commercial Drainage. . No credit is allowed for Linear Drainage products that have been cut and Specification Drainage product with auxiliary tappings. Flush Valve material over one year old will be subject to a 50% handling charge. Flush Valve material over five years old will not be accepted. Commercial Drainage and Specification Drainage galvanized material will be credited at value of Dura-Coated cast iron, and chrome-plated at value of bronze. Zurn Wilkins damaged/broken test cocks or ball valves are not considered defective.

ILLUSTRATIONS OF TYPICAL INSTALLATIONS

The typical installations for various products found in each product section are intended to illustrate the products and potential options for the use of these products. Under no circumstances are they to be construed as recommended installation procedures. Consult local codes and project specifications for proper installation instructions.

SHORTAGE/DAMAGE CLAIMS

Notification of material shortages or incorrect filling of orders must be made to Zurn within 10 days of receipt. No claims over three months old will be honored. Buyer agrees to make all complaints for damage in transit or "short count" directly to the carrier; before the contents are unloaded have the carrier agent's acknowledgment of such damage noted on the bill of lading and to present to the carrier its agent's acknowledgment of such damaged material with formal claim covering said damage.

GENERAL

Zurn reserves the right to make changes in design or equipment of any item or product without incurring any obligation on previously sold items, and to discontinue items at any time, without notice. Possession of this Catalog or other sales literature is not to be construed as an offer to sell. All orders are subject to acceptance by Zurn. Catalog printed in U.S.A.

Zurn flush valves are designed to comply with Army Corp of Engineers and Naval guide specifications, Military Specification MIL.V.29193 and Federal Specification WWP541.

Zurn flush valves comply with the following standards: ASME A112.18.1/CSA B125.1, A112.19.5, A112.19.2, A112.19.6, ASSE 1037 and 101 are listed by the following agencies: Canadian Standards, IAPMO/UPC/CUPC, and CSA 125.3. Zurn flush valves are manufactured from dezincification resistant alloys. For additional compliances, contact Zurn Water, LLC, Finish Plumbing Operation, or 1-800-997-3876.

Zurn is not responsible for typographical errors. The contents of this guide are subject to revision without notice.

Service Center Locations

Support

Our Brands

Elkay

World Dryer

Just Manufacturing

Hadrian

Follow Us

Terms & Conditions | Privacy Policy

by Zurn Elkay Water Solutions

Give Feedback