

Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 12/1/2022
Return Request: 12/11/2022
Project: New Dormitories – Bldg. 6
Supplier: Little Rock Winnelson
Manufacturer: Various
Submittal: Domestic Water Piping Specialties
Submittal Number: 22 11 19-01
Drawing # and Installation: Plumbing Drawings

ARCHITECT

Stocks Mann Architects
401 W. Capitol, Suite 402
Little Rock, AR 72201
501-370-9207

ENGINEER

Bernhard TME
1 Allied Drive #2600, Building 2
Little Rock, AR 72202
501-666-6776

GENERAL CONTRACTOR

Alessi Keyes Construction
10623 Maumelle Blvd.
N. Little Rock, AR 72113
501-225-6699

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.

22-102

jon@comfortar.com

ALESSI KEYES CONSTRUCTION
REVIEWED FOR GENERAL COMPLIANCE
WITH CONTRACT DOCUMENTS
Charley Dawson 1/17/2023

FPWH WALL HYDRANT



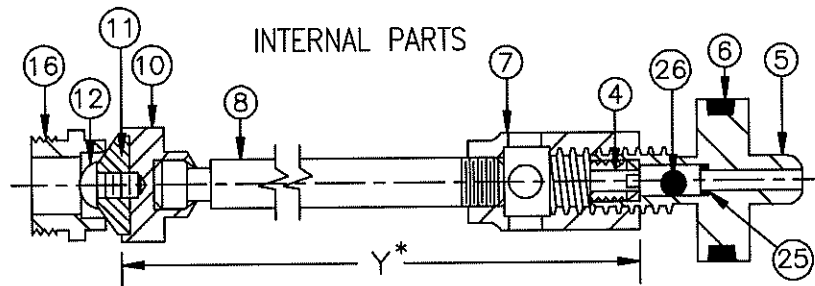
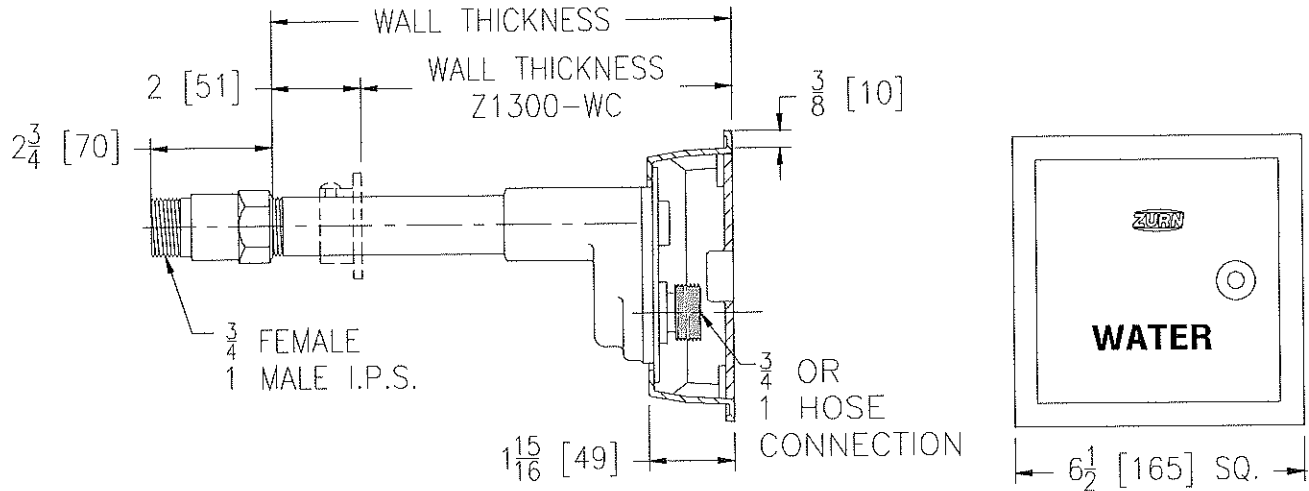
Z1300

ECOLOTROL WALL HYDRANT
Encased, Non-Freeze, Anti-Siphon, Automatic Draining

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Wall Thickness Inches [mm]	Approx. Wt. Lbs. [kg]
6, 8 [152, 203]	9 [4]
10, 12, 14 [254, 305, 356]	12 [5]
16, 18 [406, 457]	15 [7]
20, 22, 24 [508, 559, 610]	18 [8]

ENGINEERING SPECIFICATION: ZURN Z1300

Encased Ecolotrol "anti-siphon" automatic draining wall hydrant for flush installation. Complete with non-freeze type integral backflow preventer, bronze casing, all bronze interior parts, non-turning operating rod with free-floating compression closure valve, replaceable bronze seat and seat washer, and combination 3/4" female or 1" male straight IP inlet. Nickel bronze box and hinged cover with operating key lock and "WATER" cast on cover.

OPTIONS (Check/specify appropriate options)

SUFFIXES

- ___ -CL Cylinder Lock
- ___ -PB Polished Bronze Face
- ___ -RA4 24 [610] Replacement Rod Assembly with Repair Kit (-RK)
- ___ -RK Hydrant Parts Repair Kit
- ___ -SS Stainless Steel Box and Cover
- ___ -WC Wall Clamp
- ___ -34FS 3/4 [19] Solder Female Inlet Adapter
- ___ -34UN 3/4 [19] IP 90° Inlet Elbow w/Union Nut

PARTS LIST

Item	Name	Quan.
6	O-Ring	1
4	Screw	1
5	Operating Screw	1
7	Operating Coupling	1
8	Operating Rod	1
10	Washer Guide	1
11	Washer (neoprene)	1
12	Screw	1
16	Removable Seat	1
25	O-Ring	1
26	Ball	1

* Regularly furnished unless otherwise specified.

Zurn Industries, LLC | Specification Drainage Operation
1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 · Ph. 855-663-9876, Fax 814-454-7929
In Canada | Zurn Industries Limited
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 · Ph. 905-405-8272, Fax 905-405-1292
www.zurn.com

Rev. H
Date: 09/27/2017
C.N. No. 137994
Prod. | Dwg. No. Z1300

RPZ-1 BACKFLOW PREVENTER

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

□ 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.

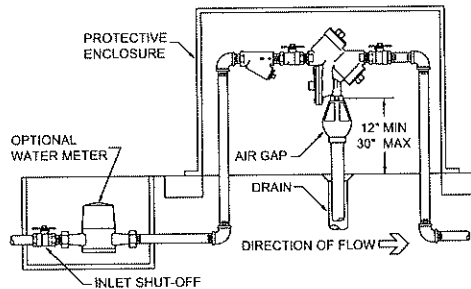
Proper performance is dependent upon following these installation instructions and prevailing governmental and industry standards and codes. Failure to do so, according to WILKINS Limited Warranty "...releases WILKINS of any liability that it might otherwise have with respect to that device." Such failure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

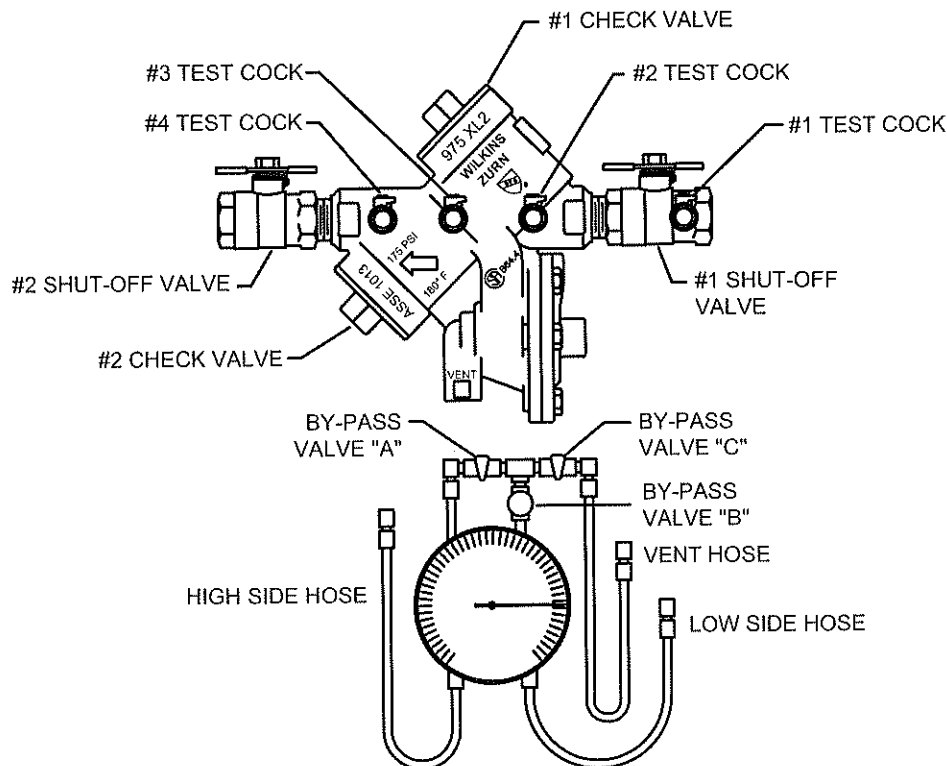
To test operation of the differential relief valve.

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.



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.

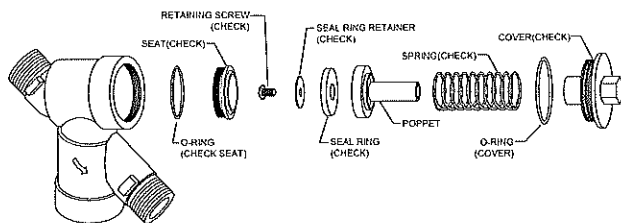
The Model 975XL2 Reduced Pressure Principle Assemblies should be thoroughly flushed after backflow conditions occur to prevent any type of corrosive deterioration to its components. Failure to do so could result in malfunction of the device.

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

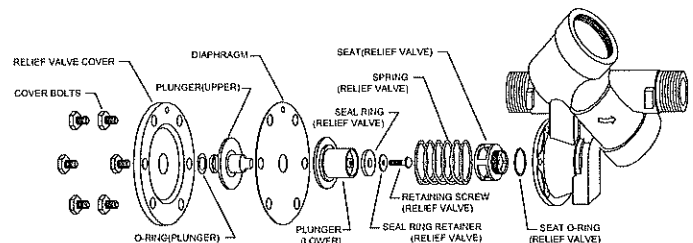
1. Close inlet and outlet shut-off valves.
2. Open No. 2, No. 3 and No. 4 test cocks to release pressure from valve.
3. Unscrew check valve covers using appropriate size wrench (**CAUTION: Cover is spring loaded**). To avoid injury, hold cover down firmly with one hand while unscrewing.
4. Remove check 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	<ol style="list-style-type: none"> 1. Drop in inlet pressure. 2. Sudden increase in downstream pressure due to water hammer from quick closing shut-off valve installed downstream. 	<ol style="list-style-type: none"> 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 than 4 feet.
2. LIGHT INTERMITTENT DRIP	<ol style="list-style-type: none"> 1. Slightly fouled #1 check. 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Fouled #1 check. 2. Fouled relief valve seat. 3. Fouled #2 check 	<ol style="list-style-type: none"> 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

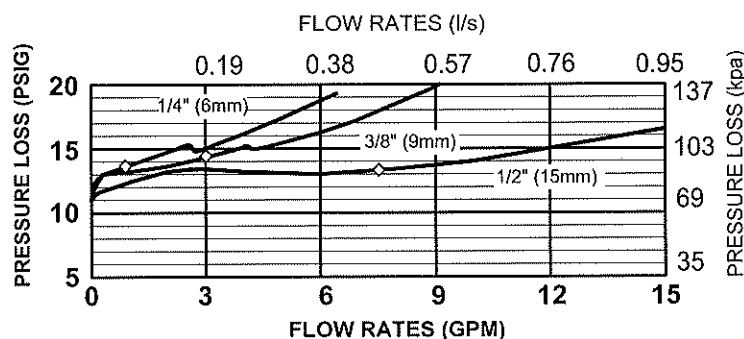
Maximum working water pressure	175 PSI
Maximum working water temperature	180°F
Hydrostatic test pressure	350 PSI
End connections	Threaded NPT ANSI B1.20.1

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

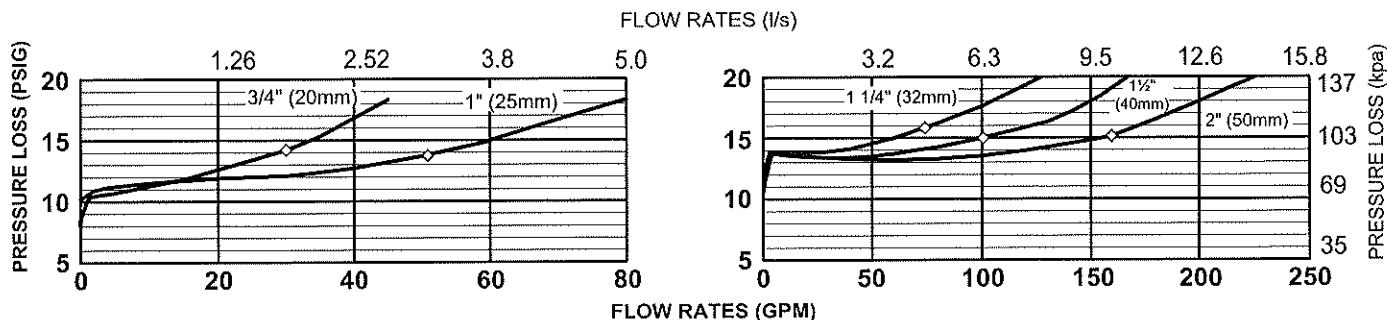
FLOW CHARACTERISTICS

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.

MODEL 975XL2 and 975XL

Reduced Pressure Principle – Backflow Preventers 3/4" to 2"



Repair Kit Components		3/4" and 1"							1-1/4" - 2"								
Item #	Item Description	RK34-975XL	RK34-975XLC	RK34-975XLR	RK34-975XLSK	RK34-975XLA	RK34-CK-COVER	RK34-RV-COVER	RK34-975XLRVR	RK114-975XL	RK114-975XLC	RK114-975XLR	RK114-975XLSK	RK114-975XLA	RK114-CK-COVER	RK114-RV-COVER	RK114-975XLRVR
1	O-Ring, Check Seat		•(x2)		•(x2)	•(x2)					•(x2)		•(x2)	•(x2)			
2	Check Seat		•(x2)		•(x2)	•(x2)					•(x2)		•(x2)	•(x2)			
3	Retaining Bolt		•(x2)								•(x2)						
4	Seal Ring Retainer		•(x2)								•(x2)						
5	Seal Ring	•(x2)	•(x2)	•(x2)		•(x2)				•(x2)	•(x2)	•(x2)		•(x2)			
6	Poppet		•(x2)								•(x2)						
7	#1 Check Spring	•	•			•				•	•			•			
8	O-Ring, Cover	•(x2)	•(x2)	•(x2)		•(x2)	•(x2)			•(x2)	•(x2)	•(x2)		•(x2)	•(x2)		
9	Check Cover						•(x2)								•(x2)		
10	#2 Check Spring	•	•			•				•	•			•			
11	O-Ring, Relief Valve Seat		•		•	•					•		•	•			
12	Relief Valve Seat		•		•	•					•		•	•			
13	Relief Valve Spring	•	•			•				•	•			•			
14	Relief Valve Retaining Bolt		•								•						
15	Relief Valve Seal Ring Retainer		•								•						
16	Relief Valve Seal Ring	•	•	•		•			•	•	•	•		•			•
17	Relief Valve Lower Plunger		•								•						
18	Relief Valve Diaphragm	•	•	•		•			•	•	•	•		•			•
19	Relief Valve Upper Plunger		•								•						
20	O-Ring, Relief Valve Stem	•	•	•		•			•	•	•	•		•			•
21	Relief Valve Cover Bolt							•(x7)								•(x7)	
22	Relief Valve Cover							•								•	
	RV and Check Seat Tool					•								•			

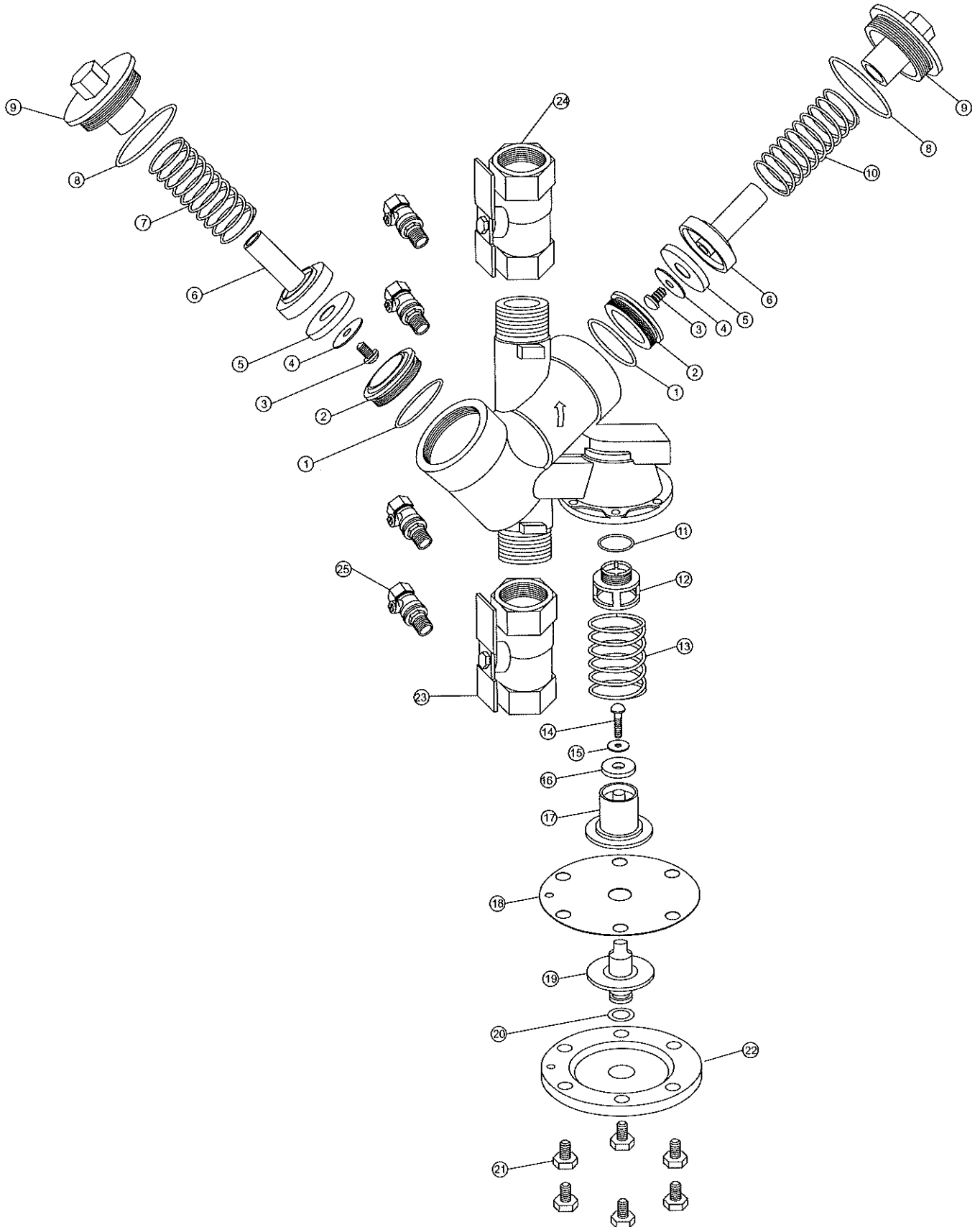
Whole Goods (Available for individual sale)						
Item #	Item Description	3/4"	1"	1-1/4"	1-1/2"	2"
23	Ball Valve, Tapped 975XL2	34-850TXL	1-850TXL	114-850TXL	112-850TXL	2-850TXL
	Ball Valve, Tapped 975XL	34-850T	1-850T	114-850T	112-850T	2-850T
	Butterfly Valve, Tapped		N/A	114-49BRXLT	112-49BRXLT	2-49BRXLT
24	Ball Valve, 975XL2	34-850XL	1-850XL	114-850XL	112-850XL	2-850XL
	Ball Valve, 975XL	34-850	1-850	114-850	112-850	2-850
	Butterfly Valve		N/A	114-49BRXL	112-49BRXL	2-49BRXL
25	Test Cock		18-860		14-860	
	Check Seat Tool (x6)		BRK34-SEATTOOL		BRK114-SEATTOOL	

Item No.	Repair Kit Description
3/4" and 1"	
RK34-975XL	Standard Repair Kit, 3/4" and 1" 975XL2 and 975XL
RK34-975XLC	Complete Repair Kit, 3/4" and 1" 975XL2 and 975XL
RK34-975XLR	Rubber Repair Kit, 3/4" and 1" 975XL2 and 975XL
RK34-975XLSK	Seat Repair Kit 3/4" and 1" 975XL2 and 975XL
RK34-975XLA	Complete Repair Kit w/seats, 3/4" and 1" 975XL2 and 975XL
RK34-CK-COVER	Check Cover Repair Kit 3/4" and 1" 975XL2 and 975XL
RK34-RV-COVER	Relief Valve Cover Repair Kit 3/4" and 1" 975XL2 and 975XL
RK34-975XLRVR	Relief Valve Rubber Repair Kit 3/4" and 1" 975XL2 and 975XL
1-1/4" - 2"	
RK114-975XL	Standard Repair Kit, 1-1/4" - 2" 975XL2 and 975XL
RK114-975XLC	Complete Repair Kit, 1-1/4" - 2" 975XL2 and 975XL
RK114-975XLR	Rubber Repair Kit, 1-1/4" - 2" 975XL2 and 975XL
RK114-975XLSK	Seat Repair Kit 1-1/4" - 2" 975XL2 and 975XL
RK114-975XLA	Complete Repair Kit w/seats, 1-1/4" - 2" 975XL2 and 975XL
RK114-CK-COVER	Check Cover Repair Kit 1-1/4" - 2" 975XL2 and 975XL
RK114-RV-COVER	Relief Valve COVER Repair Kit 1-1/4" - 2" 975XL2 and 975XL
RK114-975XLRVR	Relief Valve Rubber Repair Kit 1-1/4" - 2" 975XL2 and 975XL

MODEL 975XL2 and 975XL

Reduced Pressure Principle - Backflow Preventers 3/4" to 2"

Parts Drawing



Transmittal

PROJECT: New Dormitories - Phase 2, Bldg. 6
Booneville Human Development Center
Booneville, Arkansas

SMA PROJECT NO: 2002B

DATE: January 19, 2023

TO: Alessi Keyes Construction
10623 Maumelle Blvd.
North Little Rock, AR 72113

If enclosures are not as noted, please
inform us immediately.

If checked below, please:

ATTN: Charley Dawson

Acknowledge receipt of enclosures.

Return enclosures to us.

WE TRANSMIT:

Herewith Under separate cover

VIA:

Courier Mail E-mail
 Overnight delivery Fax Other

FOR YOUR:

Approval/Action Information Use as requested
 Review & comment Use Other

THE FOLLOWING:

Drawings Specifications Digital Files - PDF
 Submittals Proposal Request Digital Files - Other
 Change Order Samples Other

COPIES	DATE	REV. NO.	DESCRIPTION	ACTION CODE
1	1/19/2023		Domestic Water Piping Specialties	A

ACTION CODE A. No action required B. Action indicated on item transmitted C. For signature and return to this office D. For signature and forwarding as noted below under REMARKS E. See REMARKS below

REMARKS

COPIES TO: (with enclosures)

Rex Morris, Morris AE

By: Randy Stocks

Submittal Comment Sheet

To: Randy Stocks, Stocks-Mann Architects
From: Rob Adams, BTME
Date: January 19, 2023
Project: Booneville HDC Building #6
Project #: 01-20-0003
Ref: 22 11 19 Domestic Water Piping Specialties Submittal
Submitted By: Alessi Keyes Construction

APPROVED	<input type="checkbox"/>
REJECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
REFER TO SUBMITTAL COMMENT SHEET	<input checked="" type="checkbox"/>

This review performed by Bernhard TME, LLC, is only for general conformance with the design concept of the project and general compliance with the information provided in the Contract Documents. Corrections or comments made on the submittal and/or shop drawings during this review do not relieve the Contractor from compliance with the requirements of the plans, specifications, and other contract documents. Approval of a specific item shall not indicate an approval of an assembly of which the item is a component. Contractor is responsible for the following: all quantities; configuration of components; dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences, and procedures of construction; coordination of the work with that of all other trades; and, for performing all work in a safe and satisfactory manner.

Bernhard TME
Engineering

DATE: 01/19/23 BY: R. Adams

Below find our response for the submittal received on Wednesday January 18, 2023.

- | | |
|----------|-----------------|
| 1. WB-1 | APPROVED |
| 2. SB-1 | APPROVED |
| 3. FPWH | APPROVED |
| 4. RPZ-1 | APPROVED |
| 5. WHA | APPROVED |

- End of Submittal Comments -

THIS REVIEW PERFORMED BY BERNHARD TME, LLC, IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. CORRECTIONS OR COMMENTS MADE ON THE SUBMITTAL AND/OR SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS. APPROVAL OF A SPECIFIC ITEM SHALL NOT INDICATE AN APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING: ALL QUANTITIES; CONFIGURATION OF COMPONENTS; DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE JOBSITE; INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESS OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION; COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES; AND, FOR PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.



SUBMITTAL SHEET

Alessi Keyes Construction Co.
AKC-505 - Booneville HDC New Dorm

Project: AKC-505
Booneville HDC New Dorm

Spec Section Num: 22 11 19
Submittal: 22.07
Revision: 0
Package: Plumbing
Date: 1/19/2023 UTC

Submittal Title: Domestic Water Pipe Specialties
Submittal Detail:
Response Due By: 2/21/2023 UTC

Contractor:
Charley Dawson
Alessi-Keyes Construction Co.

Contractor's Stamp

Architect:
Trey Tassin
Stocks-Mann Architects

Architect's Stamp

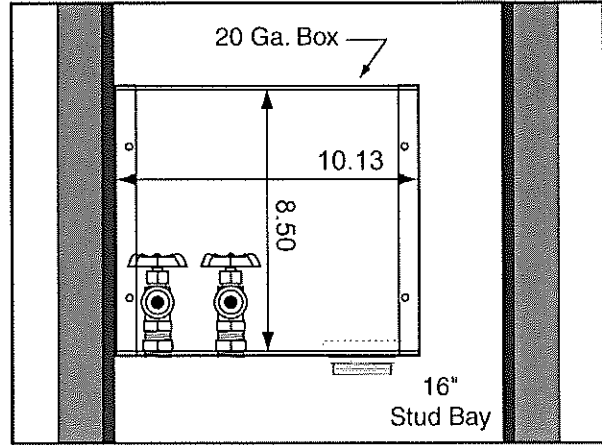
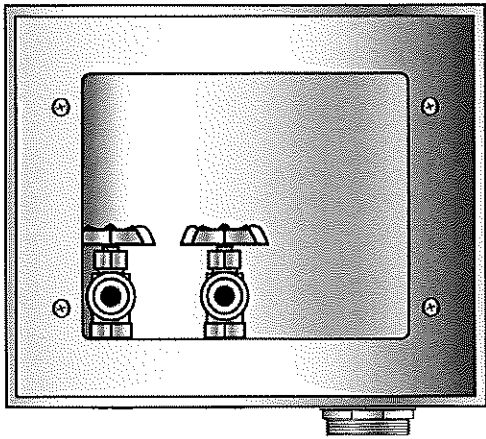
Response:
Comment:

WB-1 WASHER BOX
GUY GRAY FB200 WASHER BOX
WITH VALVES

SPECIFICATION SUBMITTAL SHEET



RIGHT DRAIN GALVANIZED WMOB with Domestic Valves



Specifications:

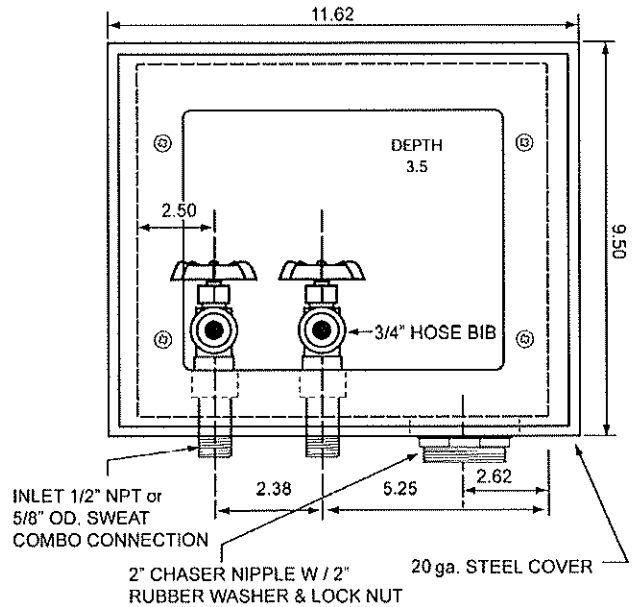
Furnish and install right drain galvanized washing machine outlet box with domestic valves. Unit shall be Guy Gray product code as manufactured by IPS Corporation.

Box Material:

G90 Hot Dipped Galvanized Steel (unpainted)
20 gauge box and 20 gauge faceplate

Valve & Drain Options:

Domestic Valve kit with 1/2" MIP/Sweat connection furnished. 1-1/2" or 2" Threaded Drain. Valves comply with ASME A112.18.1.



Item #	Product Description	Model #	Quantity
82030	1/2" MIP/Sweat Conx. Valve, 1-1/2" Threaded Drain Fitting	FB150	
82039	1/2" MIP/Sweat Conx. Valve, 2" Threaded Drain Fitting	FB200	←
96997	Tamper resistant cover for Models B, BB, WB, FB, & BIM	BTRC	

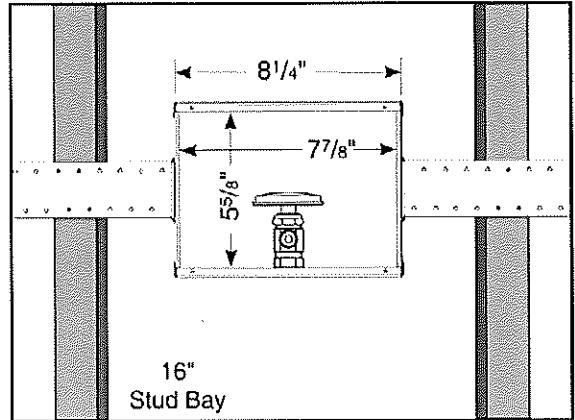
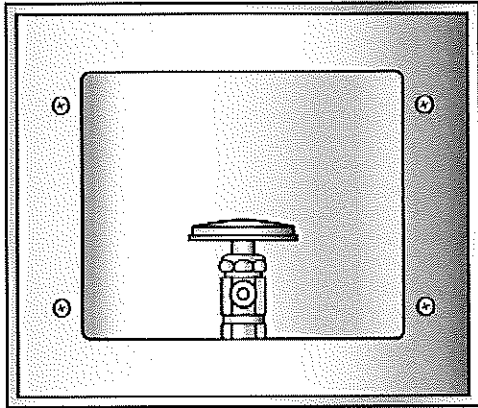


SB-1 WASHER BOX
GUY GRAY BIM 875 ICE MAKER BOX
WITH VALVE

SPECIFICATION SUBMITTAL SHEET



GALVANIZED ICE MAKER OUTLET BOX with Lead Free Domestic Valve



Specifications:

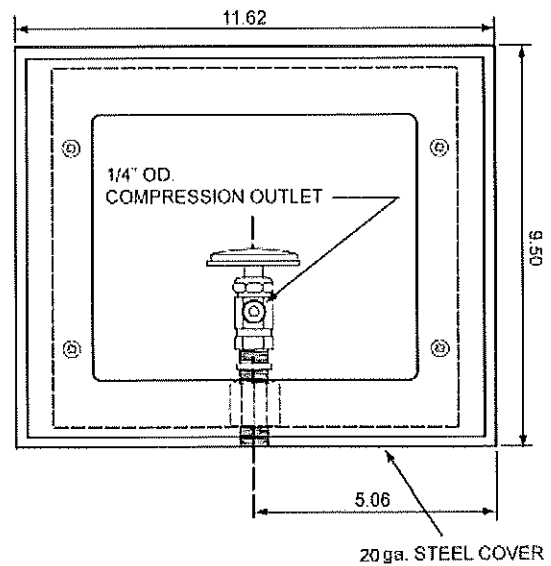
Furnish and install galvanized ice maker box. Unit shall be Guy Gray product code checked below as manufactured by IPS Corporation.

Box Material:

G90 Hot Dipped Galvanized Steel (unpainted)
20 gauge box with 20 gauge faceplate

Valve & Drain Options:

Lead free Domestic Valve with 1/2" MIP/Sweat, CPVC or PEX connection. Valves comply with ASME A112.18.1.



Valves comply with the requirements of NSF 61-G and the "Reduction of Lead in Drinking Water Act" (Federal Public Law 111-380)

Item #	Product Description	Model #	Quantity
88158	Lead Free Domestic Valve - 1/2" Sweat Conx.	BIM875AB	←
96997	Tamper resistant cover for Models B, BB, WB, FB, & BIM	BTRC	



FPWH WALL HYDRANT
ZURN Z1300 ECOLOTROL BOXED
FROSTPROOF WALL HYDRANT



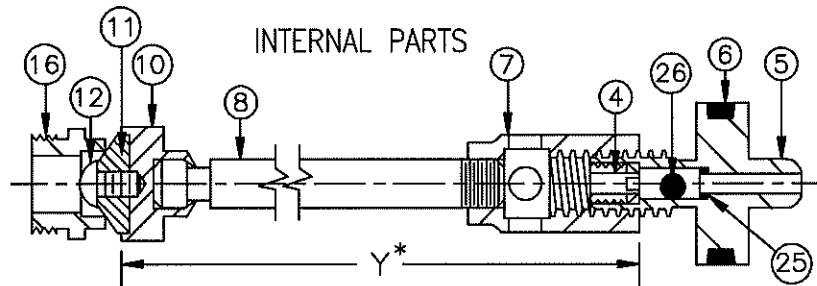
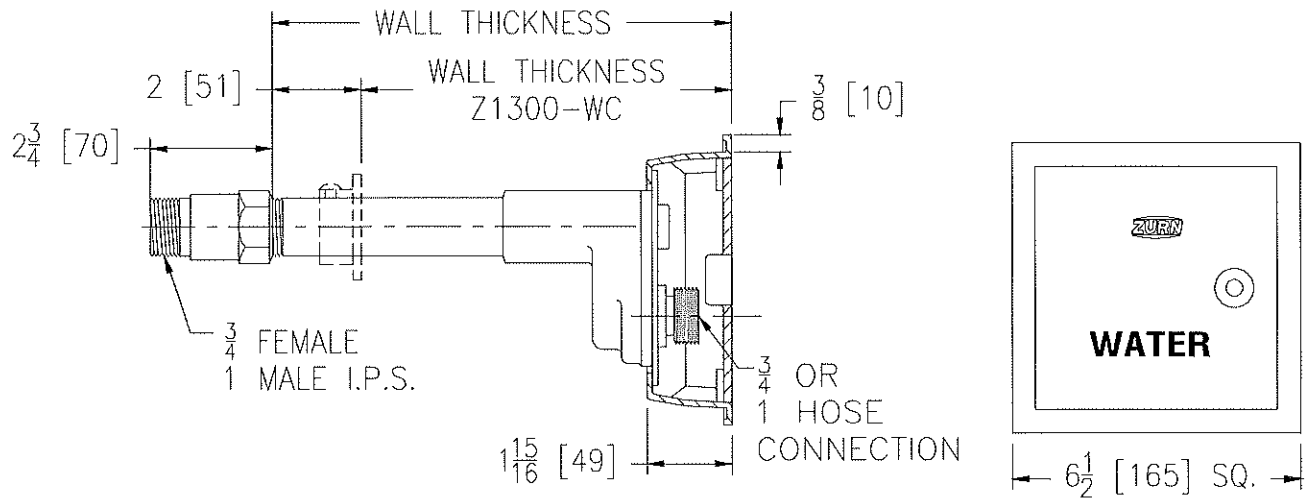
Z1300

ECOLOtrol WALL HYDRANT
Encased, Non-Freeze, Anti-Siphon, Automatic Draining

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Wall Thickness Inches [mm]	Approx. Wt. Lbs. [kg]
6, 8 [152, 203]	9 [4]
10, 12, 14 [254, 305, 356]	12 [5]
16, 18 [406, 457]	15 [7]
20, 22, 24 [508, 559, 610]	18 [8]

ENGINEERING SPECIFICATION: ZURN Z1300

Encased Ecolotrol "anti-siphon" automatic draining wall hydrant for flush installation. Complete with non-freeze type integral backflow preventer, bronze casing, all bronze interior parts, non-turning operating rod with free-floating compression closure valve, replaceable bronze seat and seat washer, and combination 3/4" female or 1" male straight IP inlet. Nickel bronze box and hinged cover with operating key lock and "WATER" cast on cover.

PARTS LIST

OPTIONS (Check/specify appropriate options)

SUFFIXES

- ___ -CL Cylinder Lock
- ___ -PB Polished Bronze Face
- ___ -RA4 24 [610] Replacement Rod Assembly with Repair Kit (-RK)
- ___ -RK Hydrant Parts Repair Kit
- ___ -SS Stainless Steel Box and Cover
- ___ -WC Wall Clamp
- ___ -34FS 3/4 [19] Solder Female Inlet Adapter
- ___ -34UN 3/4 [19] IP 90° Inlet Elbow w/Union Nut

Item	Name	Quan.
6	O-Ring	1
4	Screw	1
5	Operating Screw	1
7	Operating Coupling	1
8	Operating Rod	1
10	Washer Guide	1
11	Washer (neoprene)	1
12	Screw	1
16	Removable Seat	1
25	O-Ring	1
26	Ball	1

* Regularly furnished unless otherwise specified.

Zurn Industries, LLC | Specification Drainage Operation
1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 · Ph. 855-663-9876, Fax 814-454-7929
In Canada | Zurn Industries Limited
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 · Ph. 905-405-8272, Fax 905-405-1292
www.zurn.com

Rev. H
Date: 09/27/2017
C.N. No. 137994
Prod. | Dwg. No. Z1300

RPZ-1 BACKFLOW PREVENTER
WILKINS 2" 975XL2 REDUCED PRESSURE
BACKFLOW PREVENTER WITH STRAINER
AND AIR GAP



Model 975XL2

Reduced Pressure Principle Assembly

Application

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

Standards Compliance

- ASSE® Listed 1013
- IAPMO® Listed
- CSA® Certified B64.4
- AWWA Compliant C511
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- Meets the requirements of NSF/ANSI/CAN 61

*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

- UL® Classified (less shut-off valves or with OS&Y valves)
- C-UL® Classified

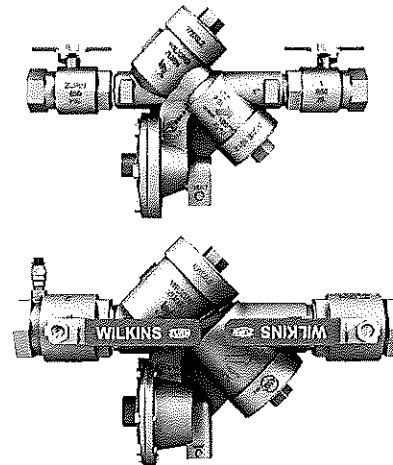
Materials

Main valve body	Low Lead Cast Bronze ASTM B 584
Access covers	Low Lead Cast Bronze ASTM B 584
Fasteners	Stainless Steel, 300 Series
Elastomers	Silicone
	Buna Nitrile
Polymers	Noryl™
Springs	Stainless Steel, 300 series
Ball valve handles	Stainless Steel

Features

Sizes:	3/4", 1", 1-1/4", 1-1/2", 2"
Maximum working water pressure	175 PSI
Maximum working water temperature	180°F
Hydrostatic test pressure	350 PSI
End connections Threaded	ANSI B1.20.1

Relief Valve discharge port:	
3/4" - 1"	- 0.63 sq. in.
1 1/4" - 2"	- 1.19 sq. in.



LEAD FREE



UPC



NSF/ANSI/CAN 61

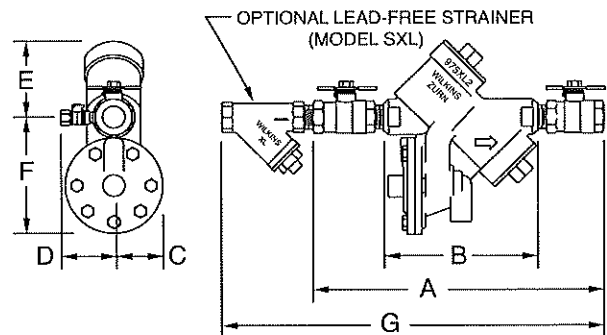
Options

(Suffixes can be combined)

- with full port QT ball valves (standard)
- S - with bronze "Y" type strainer
- FT - with integral male 45° flare SAE test fitting
- TCU - with test cocks up
- SE - with street elbows (3/4" & 1")
- U - with union ball valves

Accessories

- Air gap (Model AG)
- Repair kits (rubber only)
- Thermal expansion tank (Mdl. XT)
- Soft seated check valve (Model 40XL2)
- Shock arrester (Model 1260XL)
- QT-SET Quick Test Fitting Set



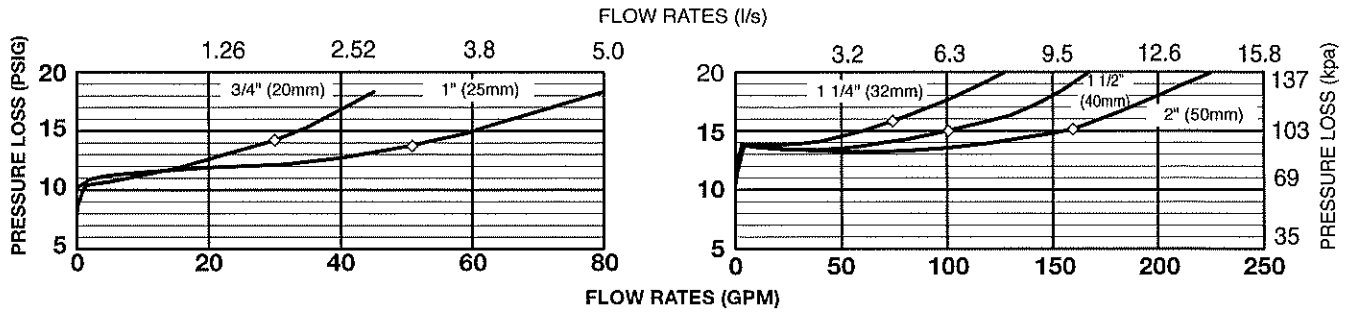
Dimensions & Weights (do not include pkg.)

MODEL SIZE		DIMENSIONS (approximate)														WITH BALL VALVES	
		A		B		C		D		E		F		G			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg
3/4	20	12	305	7 3/4	197	2 1/8	54	3	76	3 1/2	89	5	127	16 1/8	410	12	5.5
1	25	13	330	7 3/4	197	2 1/8	54	3	76	3 1/2	89	5	127	17 3/8	441	14	6.4
1 1/4	32	17	432	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	22 9/16	573	28	12.7
1 1/2	40	17 3/8	441	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	24 1/16	611	28	12.7
2	50	18 1/2	470	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	26 1/2	673	34	15.4

Zurn Industries, LLC | Wilkins
 1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph. 855-663-9876, Fax 805-238-5766
 In Canada | Zurn Industries Limited
 7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, 877-892-5216
www.zurn.com

Rev. J
 Date: 8/20
 Document No. BF-975XL2(LG)
 Product No. Model 975XL2(LG)
 Patent zurn.com/patents

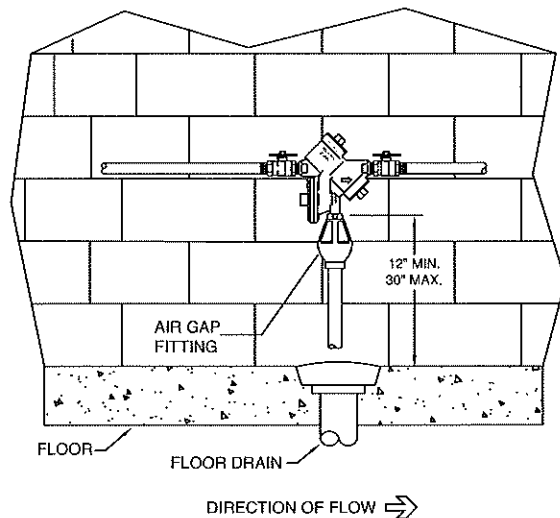
MODEL 975XL2 3/4", 1", 1 1/4", 1 1/2" & 2" (STANDARD & METRIC)



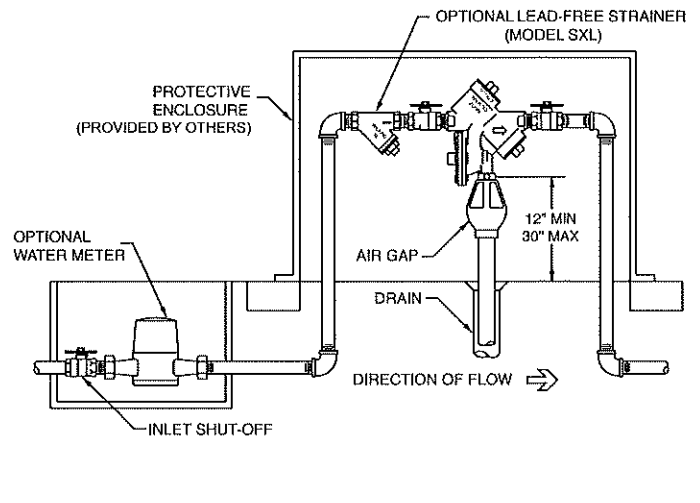
Typical Installation

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

Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
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



INDOOR INSTALLATION



OUTDOOR INSTALLATION

Specifications

The Reduced Pressure Principle Backflow Preventer shall be certified to NSF/ANSI/CAN 61, shall be ASSE® Listed 1013, rated to 180°F, and supplied with full port ball valves. The main body and access covers shall be low lead bronze (ASTM B 584), the seat ring and all internal polymers shall be Noryl™ and the seat disc elastomers shall be silicone. The first and second checks shall be accessible for maintenance without removing the relief valve or the entire device from the line. If installed indoors, the installation shall be supplied with an air gap adapter. The Reduced Pressure Principle Backflow Preventer shall be a ZURN WILKINS Model 975XL2.

WHA WATER HAMMER ARRESTOR
ZURN Z1700 STAINLESS STEEL WATER
HAMMER ARRESTOR

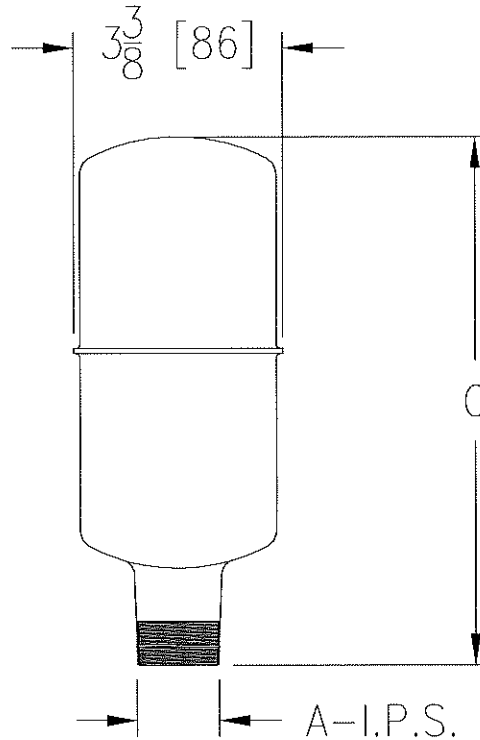


Z1700
SHOKTROL WATER HAMMER ARRESTORS

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	A Inches [mm]	C Inches [mm]	Approx. Wt. Lbs. [kg]	Fixture Unit Capacity
100	3/4 [19]	3-1/2 [90]	1 [.5]	1-11
200	3/4 [19]	3-1/2 [90]	1-1/2 [.7]	12-32
300	1 [25]	4-1/2 [114]	1-3/4 [.8]	33-60
400	1 [25]	6-5/8 [168]	2-3/4 [1.2]	61-113
500	1 [25]	7-1/2 [191]	3-1/4 [1.5]	114-154
600	1 [25]	8-1/2 [216]	3-3/4 [1.7]	155-330

Pressure and Temperature Requirements:
 Maximum Working Pressure: 125 psi [862 Kpa]
 Maximum Static Pressure: 250 psi [1724 Kpa]
 Operating Temperature Range: 33 °F to 300 °F [1 °C to 149 °C]

ENGINEERING SPECIFICATION: ZURN Z1700

Shoktrol Water Hammer Arrestors are regularly furnished in all stainless steel construction. Pipe threads are accurately machined to assure tight connection. 3/4" [19mm] male I.P.S. inlet is standard for the 100 and 200 size units, while 1" [25mm] male I.P.S. inlet is standard for sizes 300 thru 600.

All sizes of Zurn Z1700 Shoktrol Water Hammer Arrestors comply with the following specifications:

- PDI WH-201
- ANSI A112.26.1M
- ASSE 1010

Where required in piping systems, properly sized water hammer arrestors shall be ZURN Z1700 (specify size) with nesting type bellows contained within a casing having sufficient displacement volume to dissipate the calculated kinetic energy generated, in the piping system. Both casing and bellows constructed of Type 304 stainless steel.

* Regularly furnished unless otherwise specified.

Domestic Water Pipe Specialties
Alessi Keyes Construction Co.
AKC-505 - Booneville HDC New Dorm



Comments



History

**JANUARY 19,
2023 UTC**

Trey Tassin (Stocks-Mann Architects) - VIEWED
3:04 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED
3:05 AM UTC

Updated On:

Old: 1/19/23 at 2:51:22 AM UTC

New: 1/19/23 at 3:05:03 AM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED
2:51 AM UTC

Public Visibility:

Old: False

New: True

Updated On:

Old: 1/17/23 at 11:46:10 PM UTC

New: 1/19/23 at 2:51:22 AM UTC

**JANUARY 18,
2023 UTC**

Chay Slater (Bernhard TME) - VIEWED
4:30 PM UTC

**JANUARY 17,
2023 UTC**

Charley Dawson (Alessi-Keyes Construction Co.) - IN REVIEW
11:46 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED
11:46 PM UTC

Due from Approver:

Old:

New: 2/21/23 UTC

Due Date:

Old:

New: 2/21/23 UTC

In Review Date:

Old:

New: 1/17/23 UTC

Updated On:

Old: 1/17/23 at 11:45:27 PM UTC

New: 1/17/23 at 11:46:10 PM UTC

CC Participants:

Old:

New: Bernhard TME Project, Randy Stocks

Additional Approvers:

Old:

New: Tommy Pauley, Chay Slater, Garrett Thompson

Assigned From:

Old: Matthew Aldridge

New: Charley Dawson

Assigned To:

Domestic Water Pipe Specialties

Alessi Keyes Construction Co.

AKC-505 - Booneville HDC New Dorm



Old: Charley Dawson

New: Trey Tassin

Approver:

Old:

New: Trey Tassin

Charley Dawson (Alessi-Keyes Construction Co.) - UPLOADED

FileName: 22 11 19 - Domestic Water Piping Specialties.pdf

11:45 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - SUBMITTED

11:45 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED

11:45 PM UTC

Submitted Date:

Old:

New: 1/17/23 UTC

Updated On:

Old: 1/17/23 at 11:45:20 PM UTC

New: 1/17/23 at 11:45:27 PM UTC

Assigned From:

Old: Charley Dawson

New: Matthew Aldridge

Assigned To:

Old: Matthew Aldridge

New: Charley Dawson

Charley Dawson (Alessi-Keyes Construction Co.) - ISSUED

11:45 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED

11:45 PM UTC

Issued Date:

Old:

New: 1/17/23 UTC

Updated By:

Old:

New: Charley Dawson (Alessi-Keyes Construction Co.)

Updated On:

Old:

New: 1/17/23 at 11:45:20 PM UTC

Assigned From:

Old:

New: Charley Dawson

Assigned To:

Old:

New: Matthew Aldridge

Charley Dawson (Alessi-Keyes Construction Co.) - CREATED

11:44 PM UTC

Domestic Water Pipe Specialties

Alessi Keyes Construction Co.

AKC-505 - Booneville HDC New Dorm



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