

# WILKINS

## 975/ 975A/ 975XL/ 975XL2

## 975 XL MS/ 975 XLST

### SIZE

1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3", 4", 6", 8", 10"

### DESCRIPTION

This is a reduced pressure assembly. Production began in 1990. Starting in 2004 in sizes 3/8" and 1/2" a stainless steel body assembly was produced. The checks are similar to the one used in the 950 design. The 3/4"-2" size is a wye pattern poppet style check design with the disc holders made of a glass filled noryl. The relief valve has an internal relief valve sensing line. The body is constructed of bronze. In 2010 a 975XL2 was introduced which is made of lead free bronze. There are three versions of check seats available. The 975 version was discontinued in 1992 and had a non-replaceable check seat. The model 975A was discontinued in 1992 and had a replaceable bronze check seat. The model 975XL began production in 1993 and had a replaceable check seat made of glass filled noryl. A seat removal tool was needed to change the seats. The check discs in the 975XL were changed to silicon rubber. In 2001 the 975XL was made available with a stainless steel body in sizes 3/8"-1/2". The relief valve seat is replaceable. Checks and relief springs are not contained when the covers are removed. The 2 1/2"-10" was produced from 1990-2004. The 2 1/2"-10" size has a fused epoxy coated cast iron check body. The check seats are replaceable and the check springs are contained when the cover is removed. The relief valve is mounted to the check body and can be removed. The relief valve is a bronze bodied unit with an internal sensing line. The relief valve spring is contained when the cover is removed and the relief valve seat is replaceable. In 1995 the 975 XLMS was introduced. It is the same basic design as the 975 XL except the relief valve contains a 24 volt monitor switch which can send a signal when the relief valve is opened. The 975 XLBMS is a battery operated version.

### BASIC REPAIR KIT

Repair kit contains all rubber discs, rolling diaphragm or diaphragm, and O-rings

<u>SIZE</u>	<u>KIT NO 975 &amp; 975A</u>	<u>975XL&amp; 975XL2</u>	<u>AIR GAP DRAIN</u>
1/4"-1/2"		RK14-975XLR	AG8
3/4"-1"	RK34-975R	RK34-975XLR	AG4
1 1/4"-2"	RK114-975R	RK114-975XLR	AG5
2 1/2"-3"	975300 *		AG6
4"	975400 *		AG6
6"	975600 *		AG6
8"	975800 *		AG7
10"	975001 *		AG7

### IMPORTANT FEATURES

#### 3/4"2" SIZE

- ~Bronze bodied
- ~Replaceable check seat option
- ~Springs are not contained
- ~Factory repair information enclosed

#### 2 1/2"-10" SIZE

- ~Fused epoxy cast iron check body
- ~Contained spring
- ~Replaceable seats
- ~Relief valve can be detached from the check body
- ~Factory repair information enclosed



# MODEL 975XL

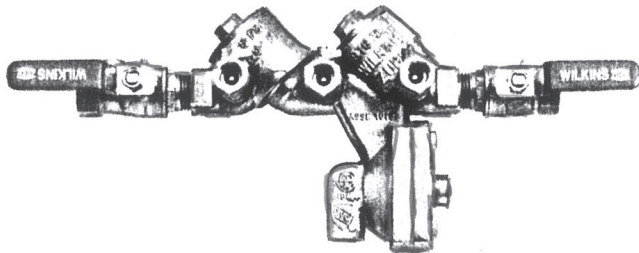
## Reduced Pressure Principle Backflow Preventers

Sizes: 1/4", 3/8", & 1/2"

# WILKINS



a step ahead of tomorrow



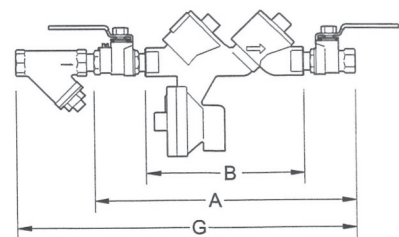
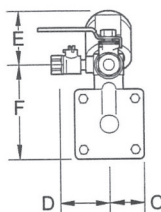
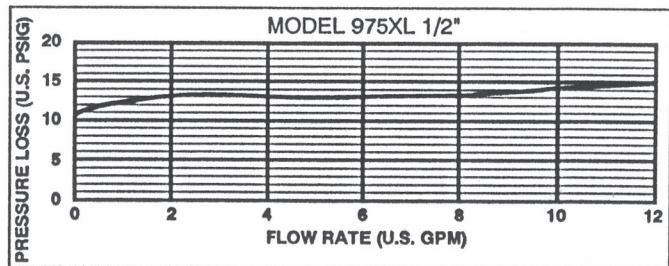
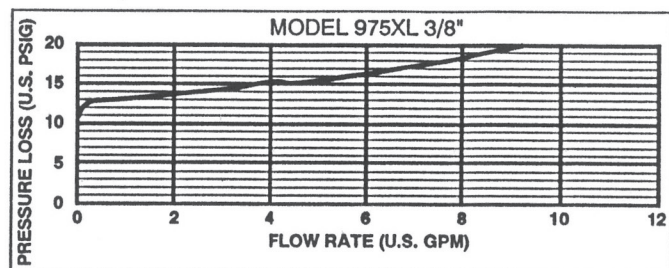
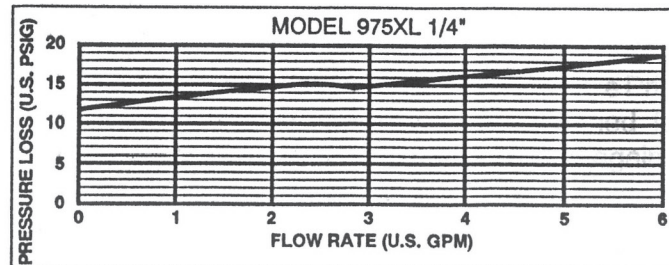
### FEATURES

1/4" to 1/2"

- Bronze body construction - ASTM B584-89
- All internal parts made from corrosion resistant materials
- Low head loss
- Spring loaded center guided check valves
- All internal parts serviceable in-line
- Threaded inlet and outlet-ANSI B1.20.1
- Maximum working pressure - 175 PSI
- Temperature range - 33° F to 180° F

### MATERIALS

Main valve body	Cast bronze ASTM B 584
Access covers	Cast bronze ASTM B 584
Internals	Stainless steel, 300 Series
Elastomers	Silicone (FDA approved)
	Buna nitrile (FDA approved)
Polymers	Noryl™, NSF Listed
Springs	Stainless steel, 300 series



Relief Valve discharge port:  
1/4" - 1/2" - 0.38 sq. in.

### DIMENSIONS & WEIGHTS (do not include pkg.)

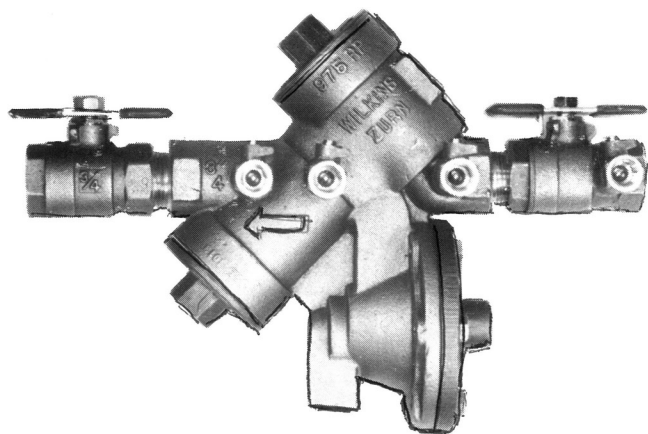
MODEL SIZE		DIMENSIONS (approximate)														WEIGHT			
		A		B		C		D		E		F		G		W/BV		L/BV	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg
1/4	8	9 1/2	241	5 3/4	146	1 1/2	38	2 3/4	70	2	51	4	102	N/A	N/A	7	3.2	6	2.7
3/8	10	9 1/2	241	5 3/4	146	1 1/2	38	2 3/4	70	2	51	4	102	N/A	N/A	7	3.2	6	2.7
1/2	15	10	254	5 3/4	146	1 1/2	38	2 3/4	70	2	51	4	102	13 1/2	343	7	3.2	6	2.7

# MODEL 975XL

**Reduced Pressure Principle  
Backflow Preventers**  
**Sizes 3/4", 1", 1 1/4", 1 1/2" & 2"**

# WILKINS

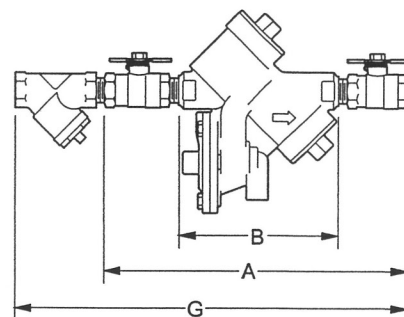
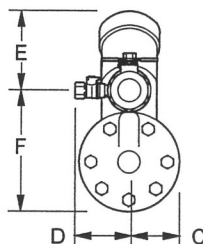
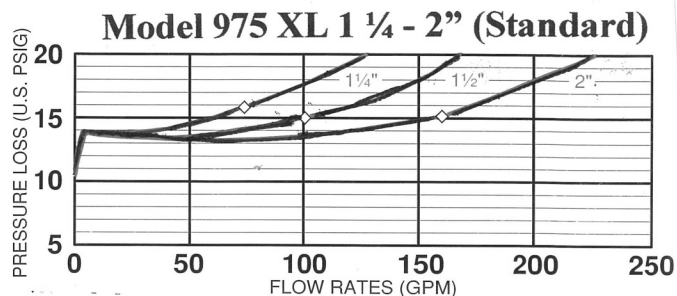
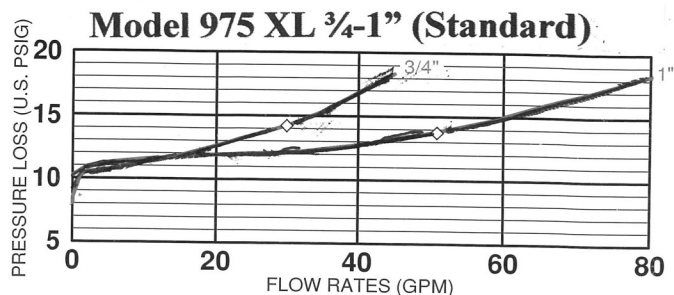
**ZURN** / a step ahead of tomorrow



## MATERIALS

Main valve body	Cast Bronze ASTM B 584
Access covers	Cast Bronze ASTM B 584
Fasteners	Stainless Steel, 300 Series
Elastomers	Silicone (FDA Approved)
	Buna Nitrile (FDA Approved)
Polymers	Noryl™, NSF Listed
Springs	Stainless steel, 300 series

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.

## DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL SIZE		DIMENSIONS (approximate)																WEIGHT			
		A		A UNION BALL VALVES		B LESS BALL VALVES		C		D		E		F		G		LESS BALL VALVES		WITH BALL VALVES	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg
3/4	20	12	305	14	356	7 3/4	197	2 1/8	54	3	76	3 1/2	89	5	127	15 3/4	400	10	4.5	12	5.5
1	25	13	330	14 1/4	362	7 3/4	197	2 1/8	54	3	76	3 1/2	89	5	127	17 3/4	451	10	4.5	14	6.4
1 1/4	32	17	432	19	483	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	22	559	22	10	28	12.7
1 1/2	40	17 3/8	441	20	508	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	23 1/8	587	22	10	28	12.7
2	50	18 1/2	470	21 1/4	540	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	25 1/2	648	22	10	34	15.4

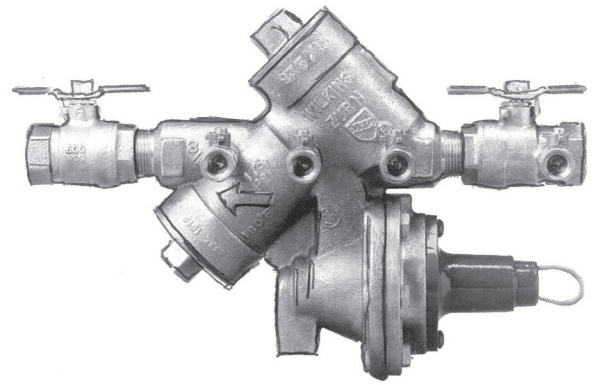


# MODEL 975XLMS & 975XLBMS

## APPLICATION

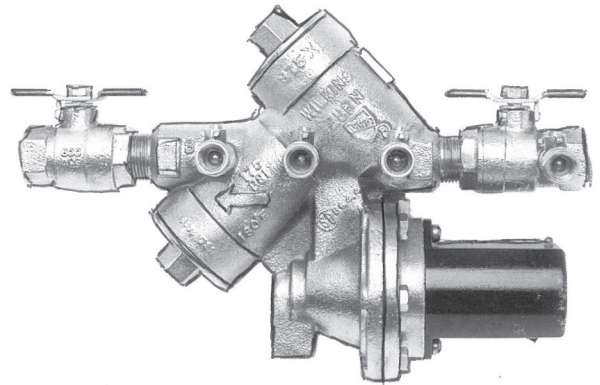
The WILKINS Model 975XLMS Reduced Pressure Principle Backflow Preventer has been designed for installation in potable water lines to protect against both backsiphonage and backpressure of contaminated water into the potable water supply in high hazard conditions.

The integral relief valve monitor switch, when connected to a low voltage alarm circuit, electrically supervises the relief valve in the closed position. In the event of a backflow condition, the relief valve closes an electrical contact, signaling that a possible relief valve discharge may be occurring. The integral relief valve monitor switch is ideal for use in mechanical rooms, basements and enclosures where undetected relief valve discharge could potentially cause water damage. Additionally, it will alert the proper authorities of the backflow condition so that it may be corrected.



**MODEL 975XLMS**

3/4" - 2"

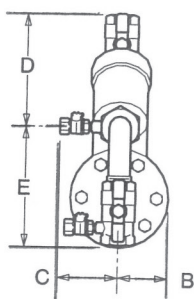
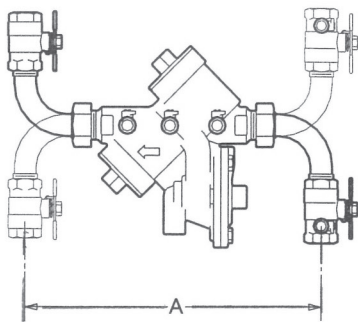
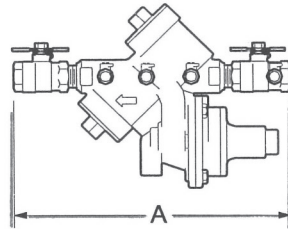
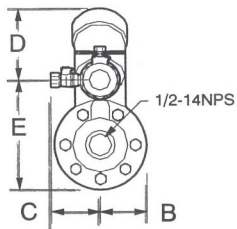


**MODEL 975XLBMS**

3/4" - 2"

SIZE	DIMENSIONS (inches)							WEIGHT (lbs.)	
	A	A UNION BALL VALVES	A LESS BALL VALVES	B	C	D	E	LESS BALL VALVES	WITH BALL VALVES
3/4"	12.00	14.00	7.75	2.10	3.00	3.50	5.00	10.00	12.00
1"	13.00	14.25	7.75	2.10	3.00	3.50	5.00	10.00	13.00
1-1/4"	17.00	N/A	10.92	2.70	3.50	5.00	6.70	22.00	26.00
1-1/2"	17.40	20.00	10.92	2.70	3.50	5.00	6.70	22.00	26.00
2"	18.50	21.25	10.92	2.70	3.50	5.00	6.70	22.00	33.00

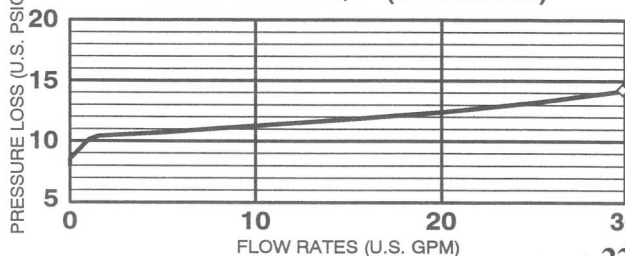
## DIMENSIONS & WEIGHTS



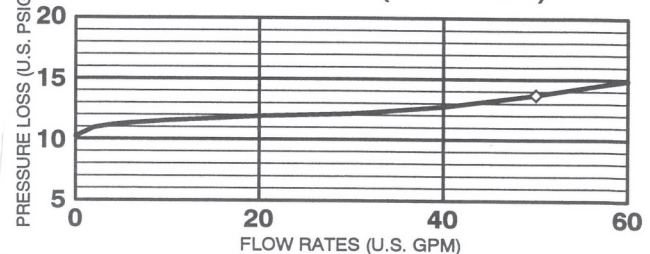
## MODEL 975XLV

	DIMENSIONS(inches)					WEIGHTS (lbs)
	A	B	C	D	E	
3/4"	12.25	2.10	3.00	4.75	5.00	14.00
1"	12.25	2.10	3.00	5.00	5.25	15.00

**Model 975XLV 3/4" (STANDARD)**



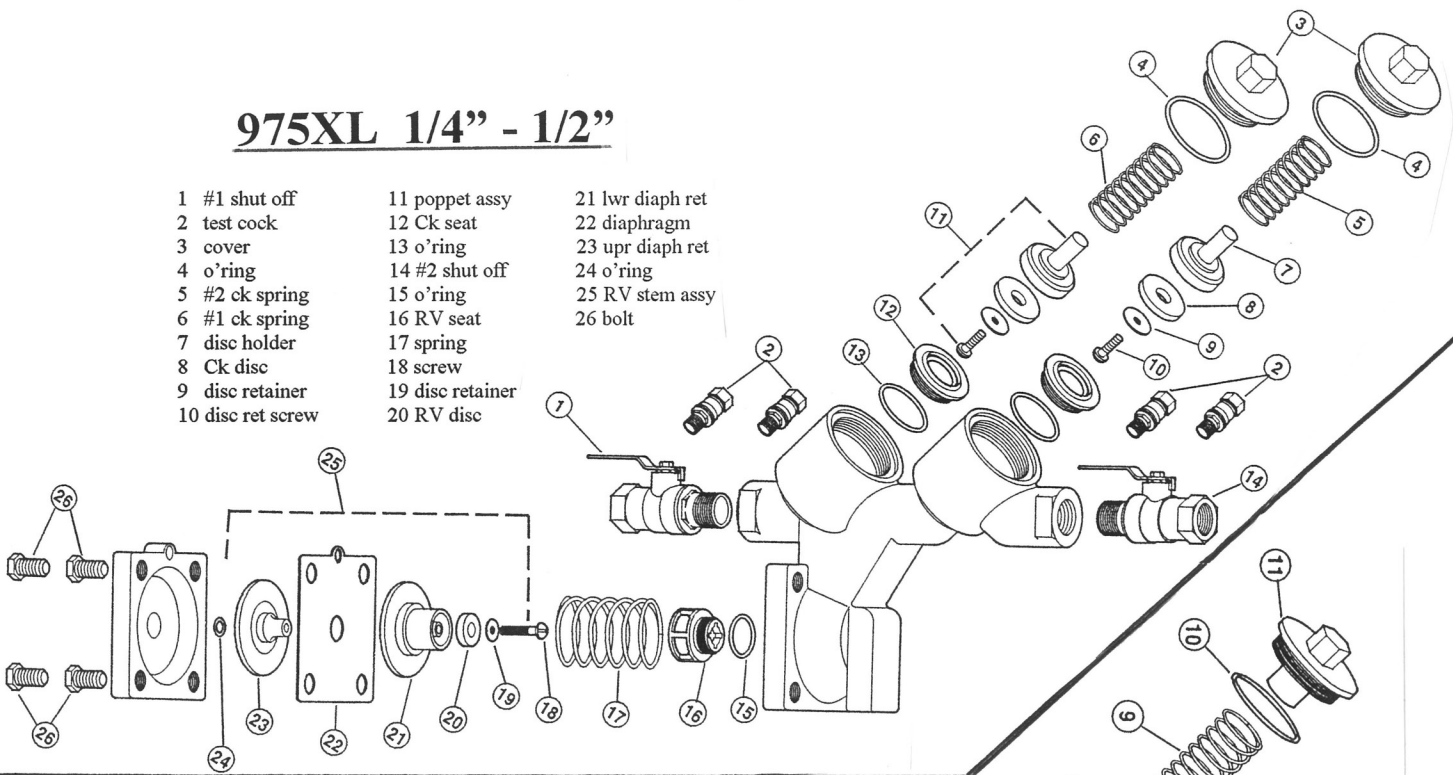
**Model 975XLV 1" (STANDARD)**



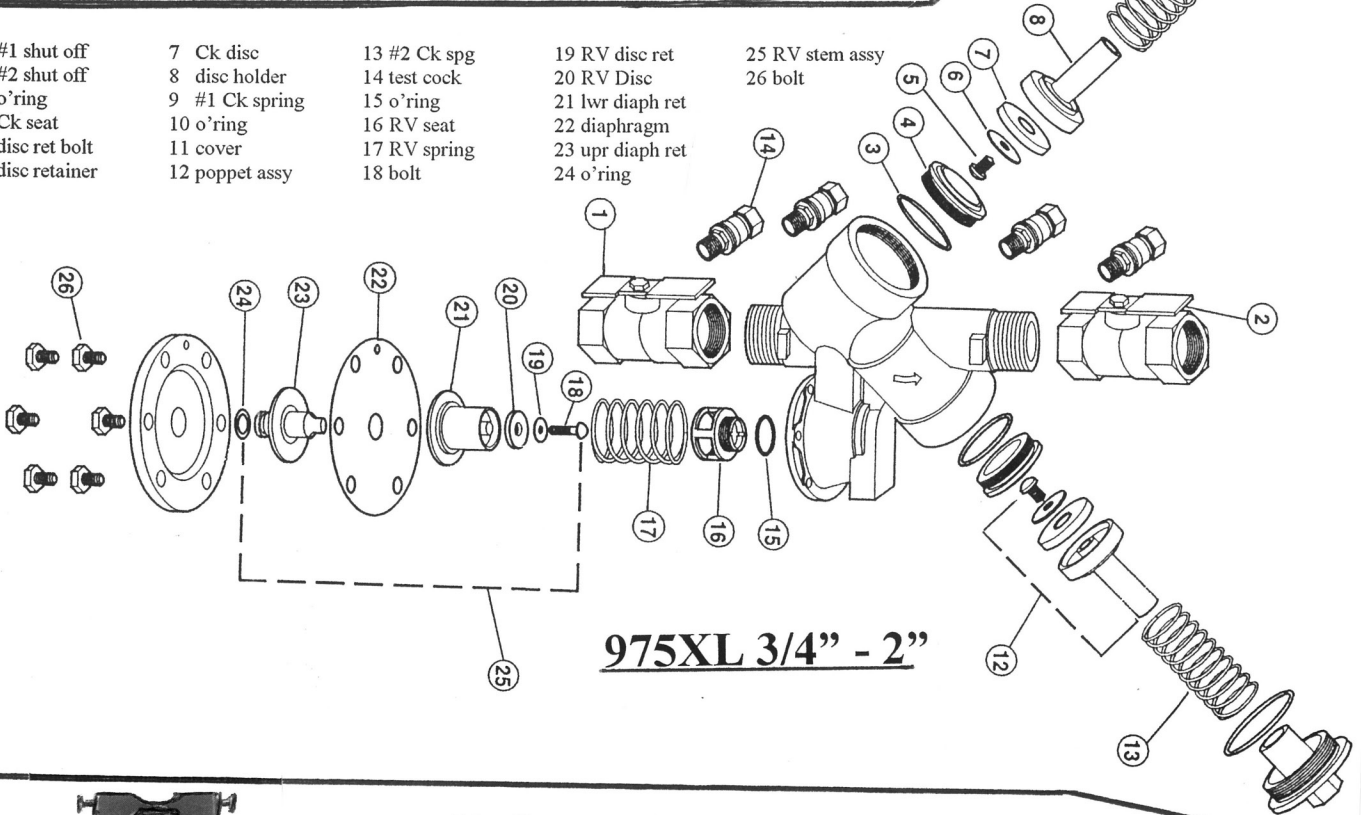


## 975XL 1/4" - 1/2"

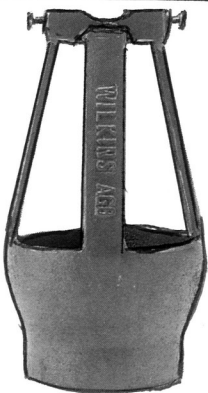
- |                   |                  |                  |
|-------------------|------------------|------------------|
| 1 #1 shut off     | 11 poppet assy   | 21 lwr diaph ret |
| 2 test cock       | 12 Ck seat       | 22 diaphragm     |
| 3 cover           | 13 o'ring        | 23 upr diaph ret |
| 4 o'ring          | 14 #2 shut off   | 24 o'ring        |
| 5 #2 ck spring    | 15 o'ring        | 25 RV stem assy  |
| 6 #1 ck spring    | 16 RV seat       | 26 bolt          |
| 7 disc holder     | 17 spring        |                  |
| 8 Ck disc         | 18 screw         |                  |
| 9 disc retainer   | 19 disc retainer |                  |
| 10 disc ret screw | 20 RV disc       |                  |



- |                 |                |              |                  |                 |
|-----------------|----------------|--------------|------------------|-----------------|
| 1 #1 shut off   | 7 Ck disc      | 13 #2 Ck spg | 19 RV disc ret   | 25 RV stem assy |
| 2 #2 shut off   | 8 disc holder  | 14 test cock | 20 RV Disc       | 26 bolt         |
| 3 o'ring        | 9 #1 Ck spring | 15 o'ring    | 21 lwr diaph ret |                 |
| 4 Ck seat       | 10 o'ring      | 16 RV seat   | 22 diaphragm     |                 |
| 5 disc ret bolt | 11 cover       | 17 RV spring | 23 upr diaph ret |                 |
| 6 disc retainer | 12 poppet assy | 18 bolt      | 24 o'ring        |                 |

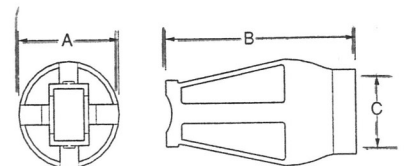


## 975XL 3/4" - 2"



## Air Gaps

MODEL	DIMENSIONS (INCHES)				WEIGHT (LBS)
	SIZES	A	B	C OUTLET PIPE SIZE	
AG-8	1/4" - 1/2"	2.50	3.50	1" NPT	2.00
AG-4	3/4" - 1"	3.20	5.00	1" NPT	2.00
AG-5	1 1/4" - 2"	4.50	8.00	2" NPT	3.00
AG-6	2 1/2" - 6"	5.40	10.00	3" NPT	5.00
AG-7	8" - 10"	7.00	11.00	4" NPT	8.00



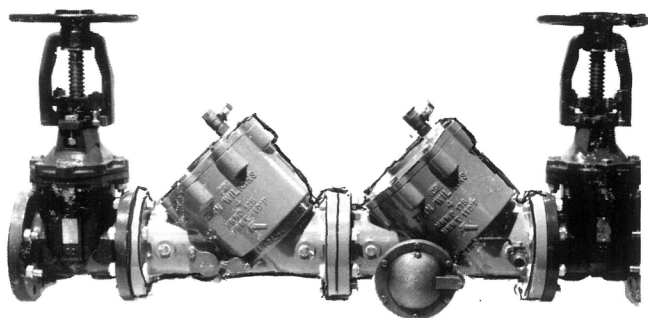
# MODEL 975

Reduced Pressure Principle  
Backflow Preventers  
Sizes 2 1/2" to 10"

# WILKINS



a step ahead of tomorrow

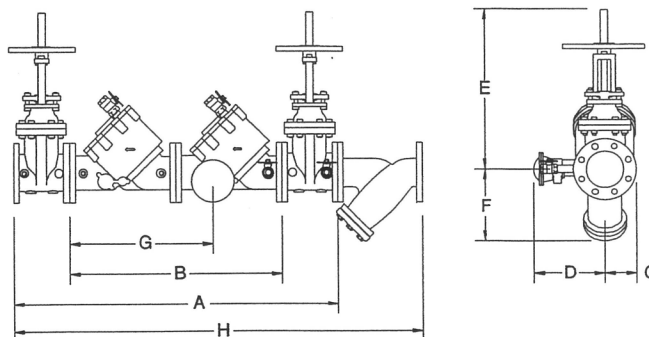
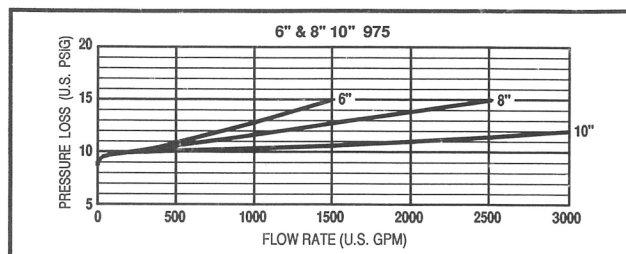
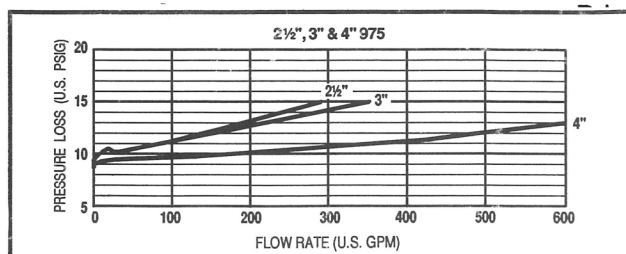


- Shown with optional OS&Y Gate Valves

## MATERIALS

Main valve body	Cast iron, ASTM A 126 Class B
Access covers	Cast iron, ASTM A 126 Class B
Coatings	Fusion epoxy finish (FDA approved)
Internals	Stainless steel, 300 Series
	Cast bronze, ASTM B 584
Elastomers	EPDM (FDA approved)
	Buna nitrile (FDA approved)
Polymers	Acetal (Delrin™), NSF® Listed
Springs	Stainless steel, 300 Series
Maximum working water pressure	175 psi
Maximum working water temperature	140° F
End connections flanged	ANSI B16.1
	Class 125

## FLOW CHARACTERISTICS



## DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL SIZE		DIMENSIONS (approximate)																		WEIGHT					
		A		B WITHOUT GATE VALVES		C		D		E OS&Y GATE VALVE OPEN		E OS&Y GATE VALVE CLOSED		E NRS GATE VALVE		F		G		WITHOUT GATE VALVES		WITH NRS GATE VALVES		WITH OS&Y GATE VALVES	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg
2 1/2	65	37 1/8	943	22	559	4	102	10	254	16 3/8	416	13 7/8	352	11 3/8	289	8 3/8	213	16	406	91	41.3	193	87.6	201	91.3
3	80	38 1/8	968	22	559	4	102	10	254	18 7/8	479	15 5/8	397	12 3/8	314	9 1/4	235	16	406	91	41.3	215	97.6	221	100.3
4	100	50 1/4	1276	32 1/8	816	5	127	10	254	22 3/4	578	18 1/4	464	14 3/4	375	12 1/2	318	22	559	232	105.3	412	187	422	191.6
6	150	62 1/8	1578	41	1041	6	152	11	279	30 1/8	765	23 3/4	603	19	483	14	356	30	762	526	238.8	810	367.7	826	375
8	200	71 1/8	1807	48	1219	7 1/2	191	12	305	37 3/4	959	29 1/4	743	22 1/2	572	17 3/4	451	31	787	837	380	1289	585.2	1313	596
10	250	84 1/8	2137	58	1473	9	229	14	356	45 3/4	1162	35 3/8	899	26 1/2	673	21 1/4	540	41	104	1400	635.6	2160	980.6	2218	1007

# MODEL 975MS & 975BMS 2 1/2" Thru 10"

## Reduced Pressure Principle With Patented Integral Relief Valve Monitor Switch

### FEATURES

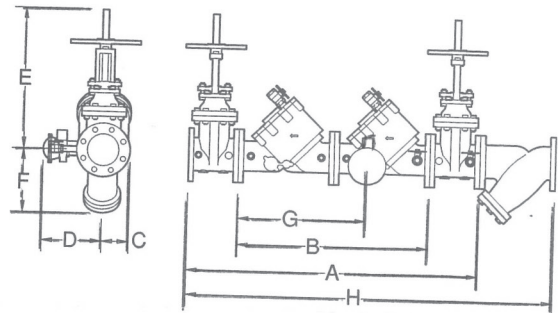
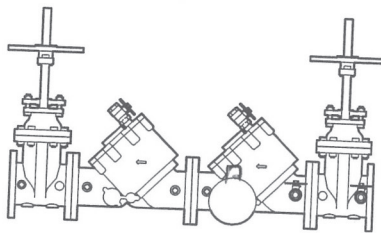
- ☐ Sizes 2 1/2", 3", 4", 6", 8", 10"
- ☐ Fusion epoxy coated maincase inside and out with an FDA approved material
- ☐ Replaceable seats
- ☐ Entire unit serviceable in line
- ☐ Temperature range 33°F-140°F
- ☐ Maximum pressure 175 psi
- ☐ UL® recognized switch – supplied with normally open contacts
- ☐ Switch is factory installed and ready for immediate installation to appropriate electrical circuit
- ☐ U.S. Patent No. 5,425,393
- ☐ ASSE® Listed 1013, IAPMO® Listed, AWWA, CSA® Certified
- ☐ Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California

### 975MS

- ☐ Reduced pressure principle backflow preventer with patented integral relief valve monitor switch
- ☐ When connected to a low voltage alarm circuit, the monitor switch electrically supervises the relief valve in the closed position
- ☐ In the event of a backflow condition, the relief valve closes an electrical circuit, signaling that a possible relief valve discharge may be occurring
- ☐ Weather-resistant housing and wiring leads (975MS)
- ☐ Switch contact rating: 3A @ 24VAC (975MS)

### 975BMS

- ☐ Reduced pressure principle backflow preventer with self-contained battery powered switch
- ☐ In the event of a backflow condition, the 975BMS sounds audible alarm, signaling that a possible relief valve discharge may be occurring
- ☐ Features manual on/off switch and LED indicating battery charge
- ☐ Built-in delay to prevent false signal due to intermediate pressure fluctuations



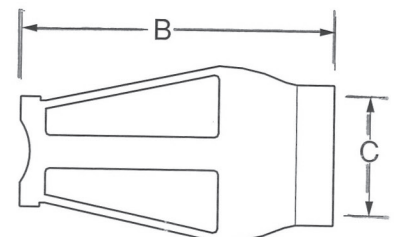
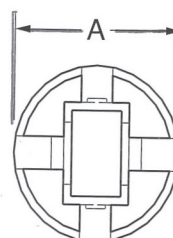
### DIMENSIONS & WEIGHTS

SIZE	DIMENSIONS (in.)										WEIGHT (lbs)		
	A	B LESS GATES	C	D	E OS&Y OPEN	E OS&Y CLOSED	E NRS	F	G	H	WITHOUT GATES	WITH NRS GATES	WITH OS&Y GATES
2 1/2"	37.12	22.00	4.00	10.00	16.00	14.00	13.00	8.38	16.00	47.10	163	271	263
3"	38.12	22.00	4.00	10.00	20.00	16.00	13.00	9.25	16.00	48.75	163	287	273
4"	50.28	32.16	5.00	10.00	23.00	19.00	15.00	12.50	22.00	65.25	381	547	551
6"	62.12	41.00	6.00	11.00	31.00	25.00	19.00	14.00	30.00	80.12	614	876	917
8"	71.12	48.00	7.50	12.00	39.00	30.00	24.00	17.75	31.00	95.37	1169	1579	1597
10"	84.12	58.00	9.00	14.00	46.00	36.00	27.00	21.25	41.00	113.80	1497	2209	2189

## 975 2 1/2" - 10" Air Gap Drain

### Dimensions & Weights

MODEL	DIMENSIONS (INCHES)				WEIGHT (LBS)
	SIZES	A	B	C OUTLET PIPE SIZE	
AG-6	2 1/2" - 6"	5.40	10.00	3" NPT	5.00
AG-7	8" - 10"	7.00	11.00	4" NPT	8.00





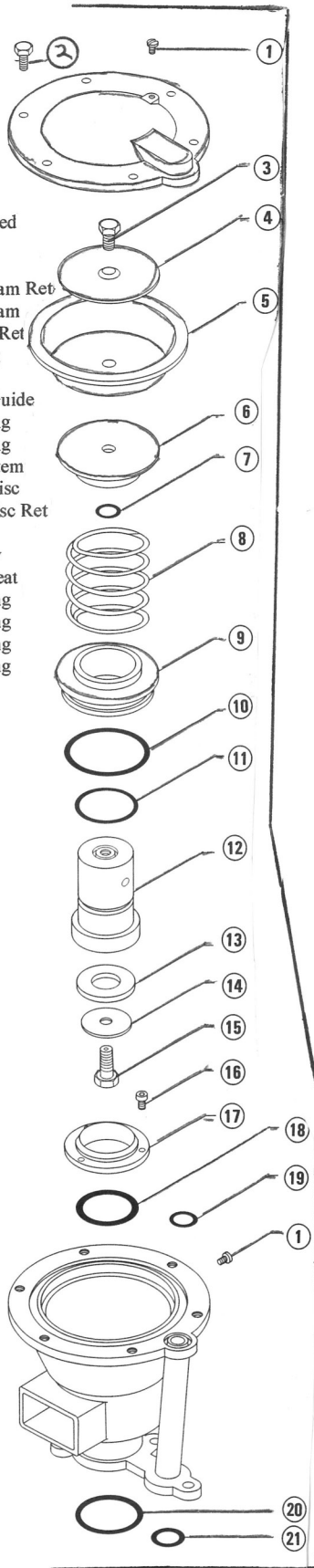
# 975 2 1/2-10"

RV

- 1 Air Bleed
- 2 Bolt
- 3 Bolt
- 4 Bellofram Ret
- 5 Bellofram
- 6 Spring Ret
- 7 O'Ring
- 8 Spring
- 9 Stem Guide
- 10 O'Ring
- 11 O'Ring
- 12 RV Stem
- 13 RV Disc
- 14 Rv Disc Ret
- 15 Bolt
- 16 Screw
- 17 RV Seat
- 18 O'Ring
- 19 O'Ring
- 20 O'Ring
- 21 O'Ring

ITEM NO.	DESCRIPTION
1	GATE VALVE, TAPPED
	GATE VALVE, TAPPED, OS&Y
2	BOLT, FLANGE
3	NUT, FLANGE
4	GASKET, FLANGE
5	STUD, FLANGE
6	O-RING, SMALL
7	O-RING, LARGE
8	RELIEF VALVE
9	BOLT, RELIEF VALVE
10	COVER
11	O-RING, COVER
12	BOLT, COVER
13	NIPPLE, SHORT

ITEM NO.	DESCRIPTION
14	BALL VALVE
15	O-RING, SEAT
16	SEAT
17	BOLT, SEAT
18	LWR STEM GUIDE
19	NUT, STEM
20	RETAINING PLATE
21	SEAL RING
22	NO. 1 POPPET ASSEMBLY
23	NO. 2 POPPET ASSEMBLY
24	UPPER STEM GUIDE
25	NIPPLE, LONG
26	PLUG



RV ASSY

