



Model 450 Double Check Valve Assembly

Application

Designed for installation on potable water lines to protect against both backsiphonage and backpressure of polluted water into the potable water supply. Assembly shall provide protection where a potential health hazard does not exist. Ideal for use where lead-free* valves are required.

Standards Compliance

- ASSE® Listed 1015
- IAPMO® Listed
- CSA® Certified B64.5
- AWWA Compliant C510, and C550
- UL® Classified
- C-UL® Classified
- FM® Approved
- NYC MEA 213-99-M VOL 3
- 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)

Materials

Main valve body	Ductile Iron ASTM A 536 Grade 4
Access covers	Ductile Iron ASTM A 536 Grade 4
Coatings	FDA Approved fusion epoxy finish
Fasteners	Stainless Steel, 300 Series
Elastomers	EPDM (FDA approved) Buna Nitrile (FDA approved)
Polymers	NORYL™
Springs	Stainless Steel, 300 Series

Features

Sizes:	4", 6", 8", 10"
Maximum working water pressure	175 psi
Maximum working water temperature	140° F
Hydrostatic test pressure	350 psi
End connections	
(Grooved for steel)	AWWA C606
(Flanged)	ANSI B16.42 Class 150

Dimensions & Weights (do not include pkg.)

MODEL 450 SIZE	WEIGHT														
	LESS SHUTOFF VALVES		NRS GATE VALVES FLANGED		NRS GATE VALVES GROOVED		OS&Y GATE VALVES FLANGED		OS&Y GATE VALVES GROOVED		BUTTERFLY VALVES FLANGED		BUTTERFLY VALVES GROOVED		
	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	
4	100	90	41	270	122	250	113	280	127	260	118	170	77	147	67
6	150	159	72	443	201	413	187	459	208	429	195	279	127	248	113
8	200	386	175	838	380	798	362	862	391	822	373	596	270	550	249
10	250	404	183	1032	468	980	445	1078	489	1026	465	703	319	645	293

MODEL 450 SIZE	DIMENSION (approximate)																		
	A		B WITH GATE VALVES		B WITH BUTTERFLY VALVES		B LESS SHUTOFF VALVES		C OS&Y OPEN		C OS&Y CLOSED		C NRS		C WITH BUTTERFLY VALVES		D		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
4	100	18 5/16	465	30	762	27 5/8	702	21	533	22 1/2	572	18 1/4	464	14 1/2	368	9	229	5	127
6	150	18 11/16	475	35 1/2	902	32	813	25	635	30 1/2	775	24 1/4	616	18	457	10 1/4	260	6	152
8	200	29	737	46	1168	42 1/2	1080	34 7/16	875	37	940	28 1/2	724	21 1/8	537	12	305	10	254
10	250	29	737	47 1/2	1207	44 1/2	1130	34 7/16	875	45 5/8	1159	34 3/4	883	24 3/4	629	13	330	10	254



Options (Suffixes can be combined)

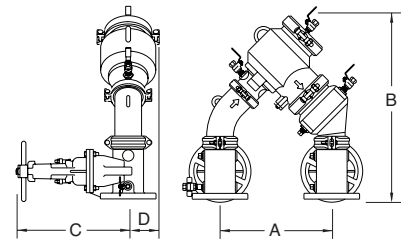
- with NRS shut-off valves (standard)
- FSC - with epoxy coated wye type strainer (flanged only)
- G - with groove end connections
- FG - with flanged inlet connection and grooved outlet connection
- L - less shut-off valves (grooved body connections)
- OSY - with OS & Y gate valves
- BG - with grooved end butterfly valves with integral supervisory switches
- PI - with Post Indicator Gate Valve
- BF - with flanged end butterfly valves with integral supervisory switches

*New Connected Product. Search [ZCSM-PF on Zurn.com](https://www.zurn.com) for details.

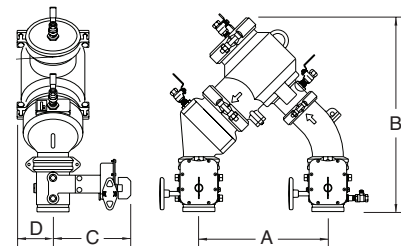
Accessories

- Connected Pressure Monitor (Model ZCSM-PF)*
- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- Valve setter (Model FLS or MJS or MJFS)
- Gate valve tamper switch (OSY-40)
- QT-SET Quick Test Fitting Set

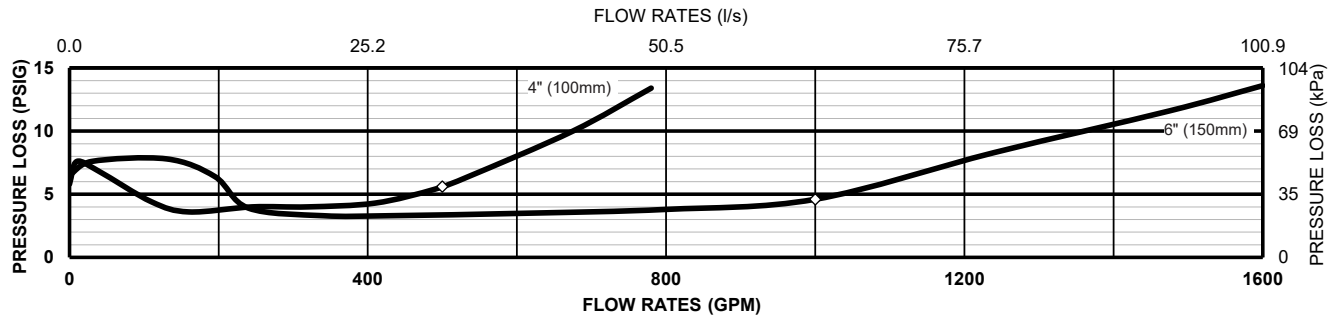
Model 450



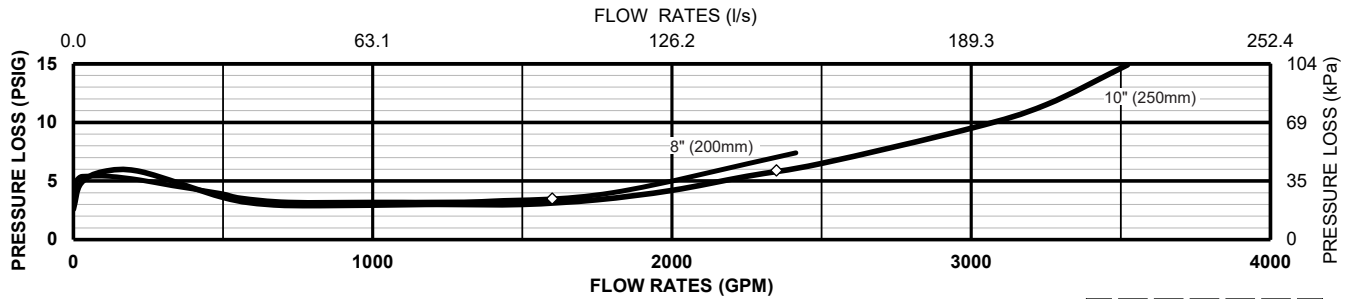
Model 450BG



MODEL 450 4" & 6" (STANDARD & METRIC)



MODEL 450 8" & 10" (STANDARD & METRIC)

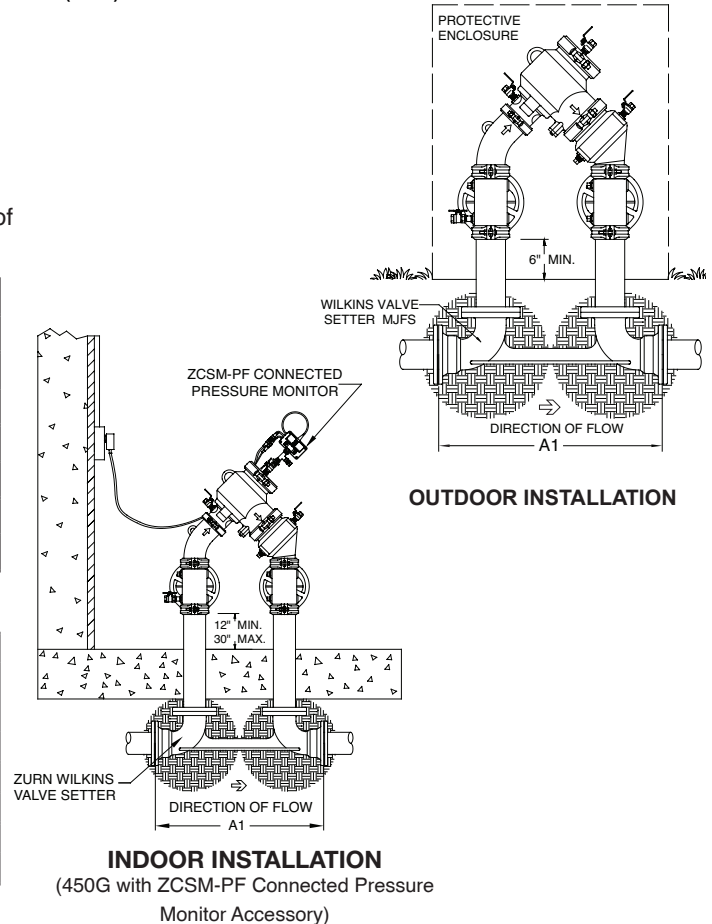


Typical Installation

Local codes shall govern installation requirements. To be installed in accordance with the manufacturer's instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted 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 (GPM)				
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

MODEL SIZE		DIMENSIONS (approximate)			
		A1 SETTER END TO END FLS		A1 SETTER END TO END MJS	
in.	mm	in.	mm	in.	mm
4	100	31 5/16	795	29.313	745
6	150	34 3/4	884	32.75	832
8	200	47	1194	44.625	1133
10	250	51	1295	47	1194



Specifications

The Double Check Valve Backflow Preventer shall be certified to NSF/ANSI/CAN 61, ASSE® Listed 1015, and supplied with full port gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536 Grade 4), the seat ring and check valve shall be NORYL™, the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. Center stem guided design shall incorporate two torsion springs to bias the check in the closed position. The checks shall be accessible for maintenance without removing the device from the line. The Double Check Valve Backflow Preventer shall be a ZURN WILKINS Model 450.