



# Model 450ST

## Double Check Valve Assembly

### Application

Designed for drop in replacement of competitor valves and new installation on potable water lines to protect against both backsiphonage and backpressure of polluted water into the potable water supply. The Model 450ST shall provide protection where a potential health hazard does not exist. Ideal for use where lead-free\* valves are required.

### Standards Compliance

(Vertical Up - Vertical Down Orientation only)

- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- ASSE® Listed 1015
- AWWA Compliant C510 (with gates only), and C550
- UL® Classified
- C-UL® Classified
- FM® Approved
- CSA® Certified B64.5
- Meets the requirements of NSF/ANSI/CAN 61\*

\*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

### Materials

Main valve body	304L Stainless steel
Access covers	304L Stainless steel
Internals	Stainless steel, 300 Series NORYL™, NSF Listed
Fasteners and springs	Stainless Steel, 300 Series
Seal ring	EPDM (FDA approved)
O-ring	Buna Nitrile (FDA approved)

### Features

Sizes:	4", 6", 8", 10"
Maximum working water pressure	175 psi
Minimum working water pressure	20 psi
Maximum working water temperature	140° F
Minimum working water temperature	33° F
Hydrostatic test pressure	350 psi
End connections	
(Grooved for steel pipe)	AWWA C606
(Flanged bolt pattern)	ASME B16.42 Class 150

### Dimensions & Weights (do not include pkg.)

SIZE	WEIGHT												
	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	
4	100	167	76	147	67	193	88	173	79	144	65	121	55
6	150	288	130	264	120	320	145	296	134	210	95	179	81
8	200	517	234	479	217	563	255	525	238	411	186	365	166
10	250	720	326	666	302	806	365	752	341	516	234	458	208

SIZE	DIMENSION (approximate)																
	A		B WITH GATE VALVES		B WITH BUTTERFLY 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	
4	100	14	356	22 1/4	565	19 7/8	505	22 1/2	572	9	229	14 1/2	368	9	230	4 3/4	121
6	150	16	406	27 7/8	708	24 3/4	630	30 1/2	775	10 1/2	267	18	457	10 1/4	260	6 1/4	160
8	200	18 1/2	470	34 7/8	886	29 1/8	740	37	940	12	305	22	560	12	305	8 7/8	225
10	250	21	533	38 3/4	984	35 3/4	908	45 5/8	1160	12	305	24 3/4	630	13	330	8 7/8	225



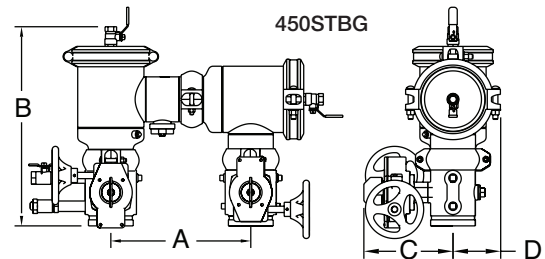
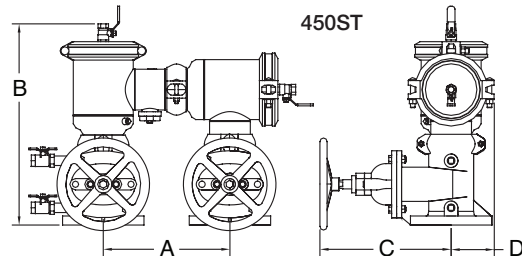
### Options (Suffixes can be combined)

- with NRS shut-off valves (standard)
- G - with groove end connections
- FG - with flanged inlet connection and grooved outlet connection
- 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
- RV - with shut-off valves on reverse side

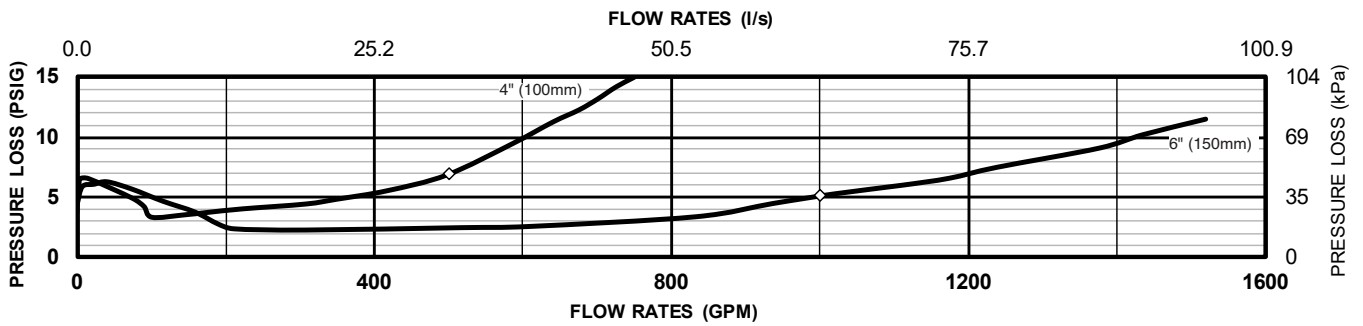
\*New Connected Product. Search ZCSM-PF on Zurn.com for details.

### Accessories

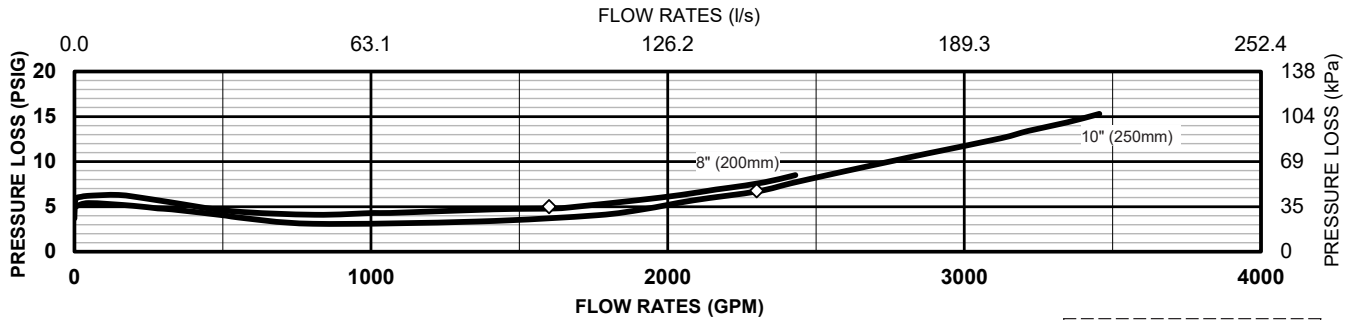
- Connected Pressure Monitor (Model ZCSM-PF)\*
- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- Valve setter (Model FLSST or MJSST or MJFSST)
- Gate valve tamper switch (OSY-40)
- QT-SET Quick Test Fitting Set
- 4" X 3" flanged setter adapters (RFK4X3-400ST)



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



**450ST 8" & 10" (STANDARD & METRIC)**

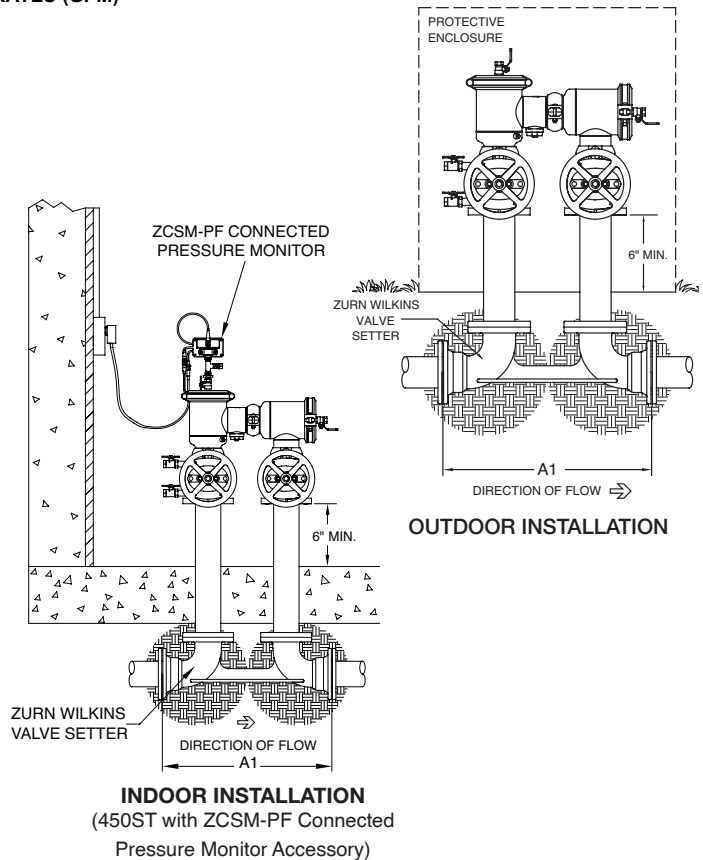


**Typical Installation**

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	27	686	30	762
6	150	32	813	35	890
8	200	36 1/2	927	39	991
10	250	43	1092	45	1143



**Specifications**

The Double Check Backflow Prevention Assembly 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 304L Stainless Steel, 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. The checks shall be accessible for maintenance without removing the device from the line. The Double Check Backflow Prevention Assembly shall be a ZURN WILKINS Model 450ST.