



Model 450STR

Double Check Valve Assembly

Application

Designed for drop in replacement of Zurn Wilkins Model 450 and new installation on potable water lines to protect against both backsiphonage and backpressure of polluted water into the potable water supply. The Model 450STR 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*
(0.025% 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	lbs.	kg
4 100	174	79	154	70	200	91	180	81	147	67	124	56
6 150	295	134	271	123	327	148	303	138	213	97	182	83
8 200	548	248	510	231	594	269	556	252	425	193	379	172
10 250	761	345	707	320	847	384	793	359	534	242	476	216

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	in.	mm
4	100	18 5/16	465	22 1/4	565	19 7/8	505	22 1/2	572	9	229	14 1/2	368	9	229	4 3/4	119
6	150	18 11/16	475	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	158
8	200	29	737	34 7/8	886	29 1/8	743	37	940	12	305	22	560	12	305	8 7/8	223
10	250	29	737	38 3/4	984	35 3/4	910	45 5/8	1159	12	305	24 3/4	630	13	330	8 7/8	223



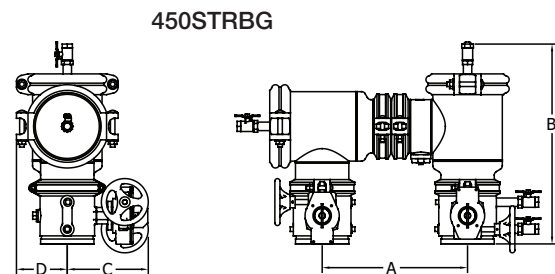
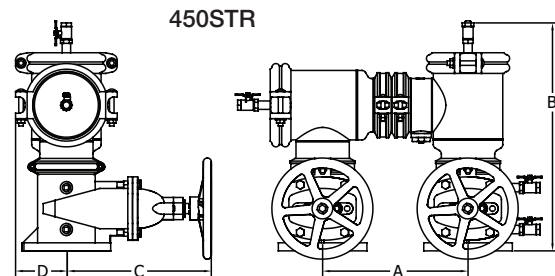
Options (Suffixes can be combined)

- ☐ - 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.

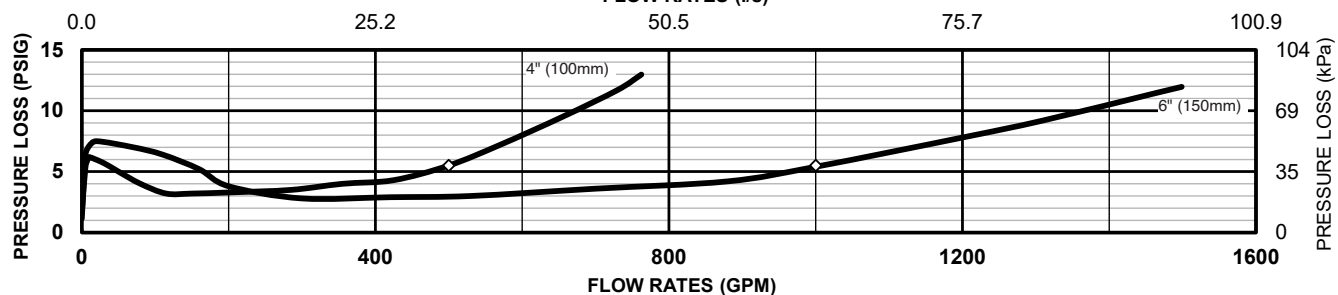
Accessories

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

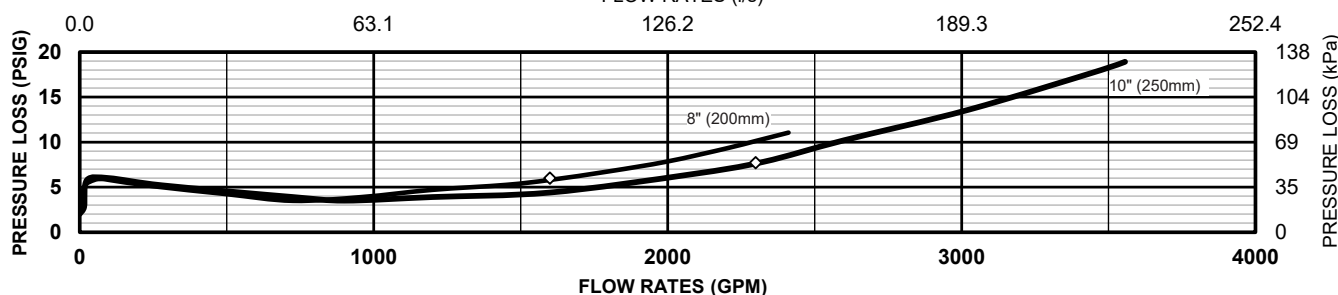


450STR 4" & 6" (STANDARD & METRIC)

FLOW RATES (l/s)

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

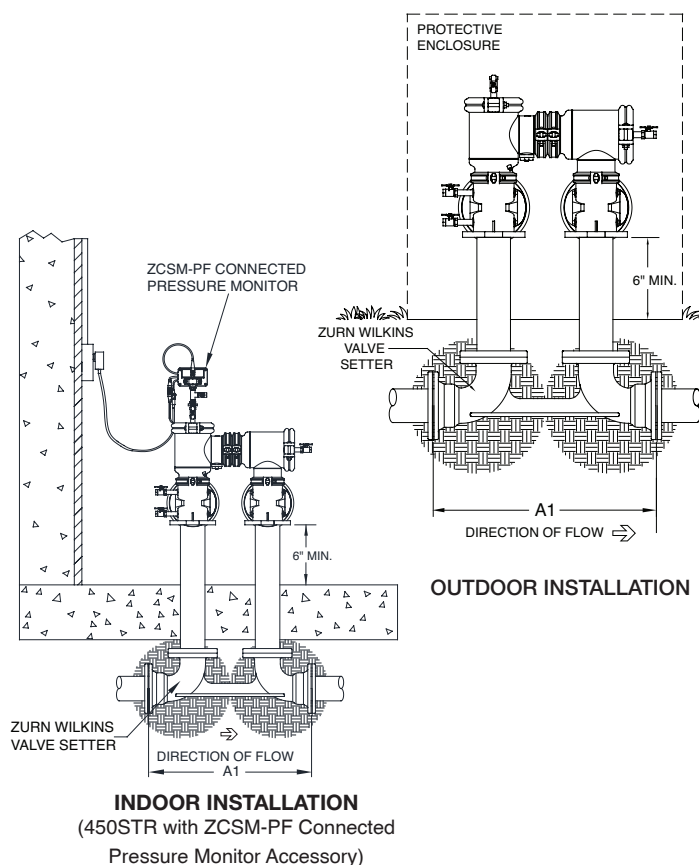
FLOW RATES (l/s)

**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 Backflow Prevention Assembly shall be certified to NSF/ANSI/CAN 61, ASSE® Listed 1015, and supplied with full port gate valves. The main body, spool, 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 450STR.