



# Model 450STDA

## Double Check Detector Assembly

### Application

Designed for drop in replacement of competitor valves and new installation on water lines in fire protection systems to protect against both backsiphonage and backpressure of polluted water into the potable water supply. Model 450STDA shall provide protection where a potential health hazard does not exist. Incorporates metered by-pass to detect leaks and unauthorized water use.

### 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 1048
- CSA® Certified B64.5
- AWWA Compliant C510 (with gates only), and C550
- UL® Classified
- C-UL® Classified
- FM® Approved
- Meets the requirements of NSF/ANSI 61\*

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

### By-Pass Backflow Assembly 3/4" Model 950XLDTCU 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)	AWWA C606
(Flanged bolt pattern)	ASME B16.42 Class 150

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

SIZE	WEIGHT								
	OS&Y GATE (GXF)		OS&Y GATE (GXG)		WITH BFLY (GXF)		WITH BFLY (GXG)		
	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	
4	100	201	91	181	82	152	69	129	59
6	150	328	149	304	138	218	99	187	85
8	200	575	261	537	243	425	193	379	172
10	250	818	371	764	346	524	238	466	211

SIZE	DIMENSIONS (approximate)														
	A		B WITH GATE VALVES		B WITH BFLY VALVES		C OS&Y OPEN		C OS&Y CLOSED		C WITH BFLY VALVES		D		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
4	100	14	350	22 1/4	565	19 7/8	505	22 1/2	572	9	229	9	230	10 1/8	254
6	150	16	400	27 7/8	708	24 3/4	630	30 1/2	775	10 1/2	267	10 1/4	260	10 5/8	266
8	200	18 1/2	463	34 7/8	886	29 1/8	740	37	940	12	305	12	305	12 7/8	323
10	250	21	525	38 3/4	984	35 3/4	908	45 5/8	1160	12	305	13	330	12 7/8	323



LEAD FREE



NSF/ANSI 61

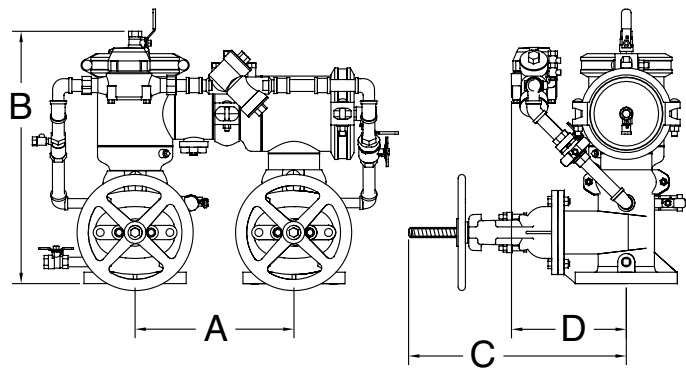
### Options

(Suffixes can be combined)

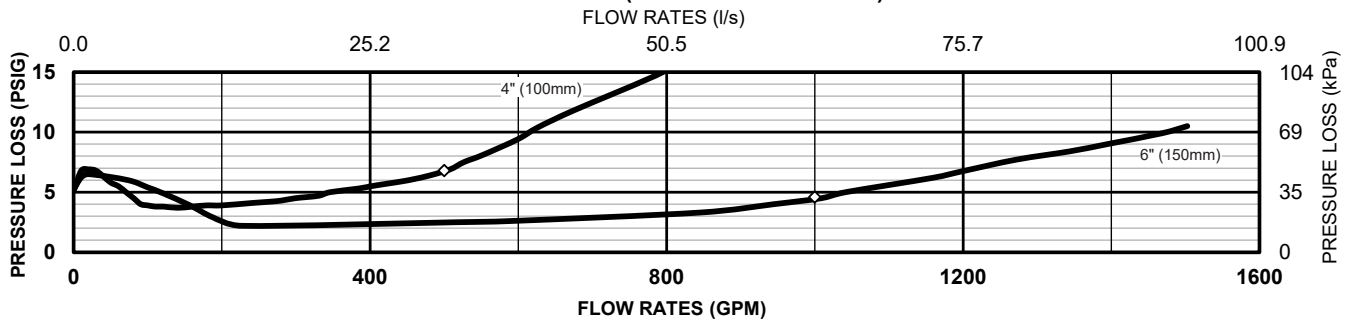
- with OS & Y gate valves (standard)
- LM - less water meter
- with gpm meter (standard)
- with cu ft/min meter
- G - with groove end gate valves
- FG - with flanged inlet gate connection and grooved outlet gate connection
- BG - with grooved end butterfly valves with integral supervisory switches
- BF - with flanged end butterfly valves with integral supervisory switches
- PI - with Post Indicator Gate Valve
- RV - with by-pass and shut-off valves on reverse side

### Accessories

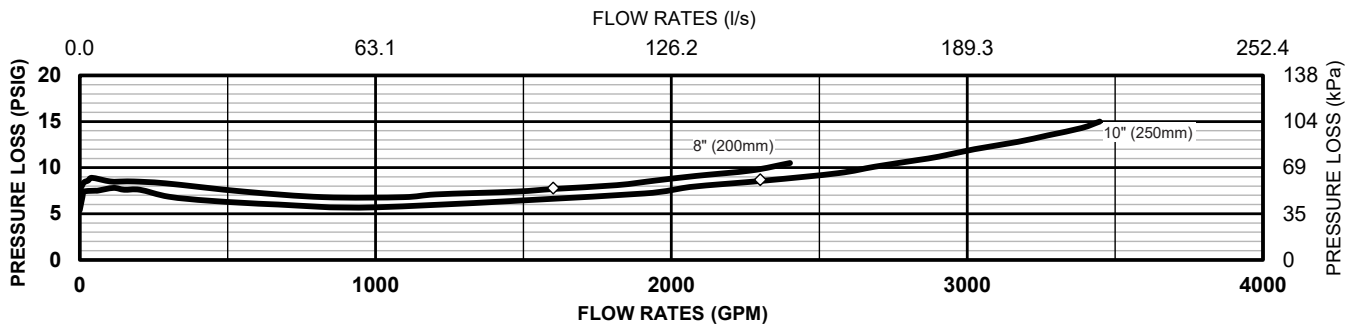
- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- Valve setter (Model FLSST or MJSST or MJFSST)
- Gate valve tamper switch (OSY-40)
- QT-SET Quick Test Fitting Set



**450STDA 4" & 6" (STANDARD & METRIC)**



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

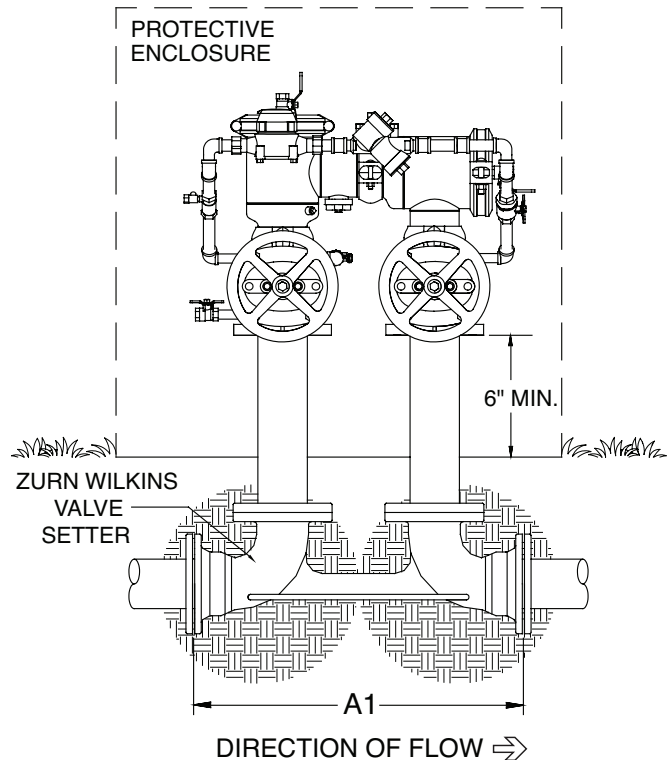


**Typical Installation**

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



OUTDOOR INSTALLATION

**Specifications**

The Double Check Detector Backflow Prevention Assembly shall be certified to NSF/ANSI 61, ASSE® Listed 1048, 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™ (NSF Listed), the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The first and second check valves shall be accessible for maintenance without removing the device from the line. The Double Check Detector Backflow Prevention Assembly shall be a ZURN WILKINS Model 450STDA.