

### Application

Designed for installation on water lines in fire protection systems to protect against both backsiphonage and back-pressure of polluted water into the potable water supply. Assembly shall provide protection where a potential health hazard does not exist.

### Standards Compliance

(Unless otherwise noted, applies to sizes 4" thru 10")

- ASSE® Listed 1048
- CSA® Certified (4" & 6")
- AWWA Compliant C 510, and C550
- UL® Classified
- C-UL® Classified
- FM® Approved
- NYC MEA 26-00-M VOL 3
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- NSF® Listed-Standard 61, Annex G\*  
\*(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)<br>Buna Nitrile (FDA approved) |
| Polymers        | NORYL™, NSF Listed                                 |
| 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)<br>(Flanged) | AWWA C606<br>ANSI B16.1<br>Class 125 |



Certified to NSF/ANSI 61-G

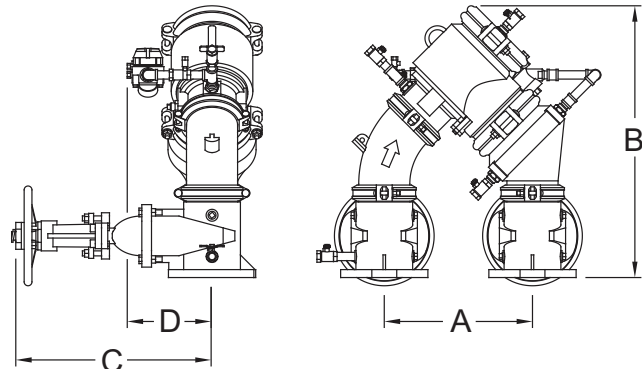
### Options

(Suffixes can be combined)

- with OS & Y gate valves (standard)
- L - less shut-off valves (grooved body connections)
- LM - less water meter
- with remote reading 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
- FS - with cast iron wye type strainer (flanged only)
- FSC - with epoxy coated wye type strainer (flanged only)
- BGVIC - with grooved end butterfly valves with integral supervisory switches
- PI - with Post Indicator Gate Valve (3"-10")

### Accessories

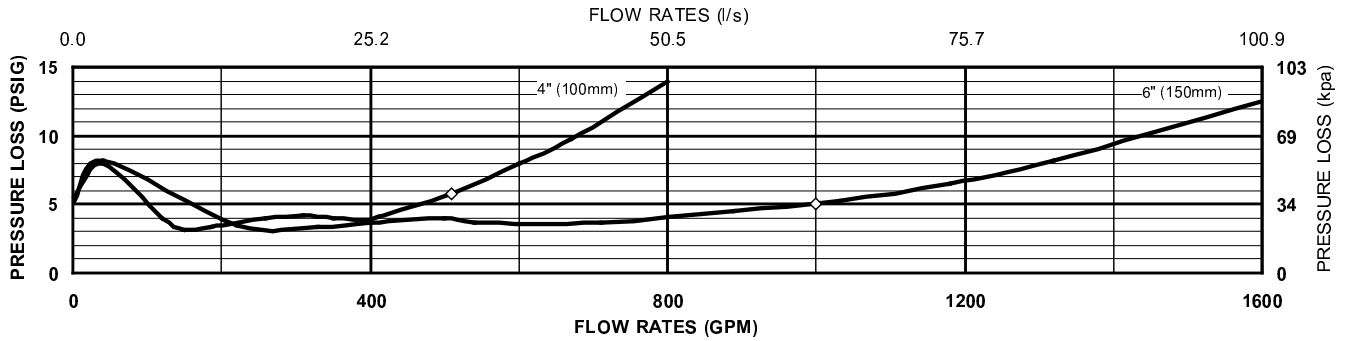
- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- Valve setter (Model FLS or MJS or MJFS)
- Gate valve tamper switch (OSY-40)
- Flange by groove adapter (FLA)
- QT-SET Quick Test Fitting Set



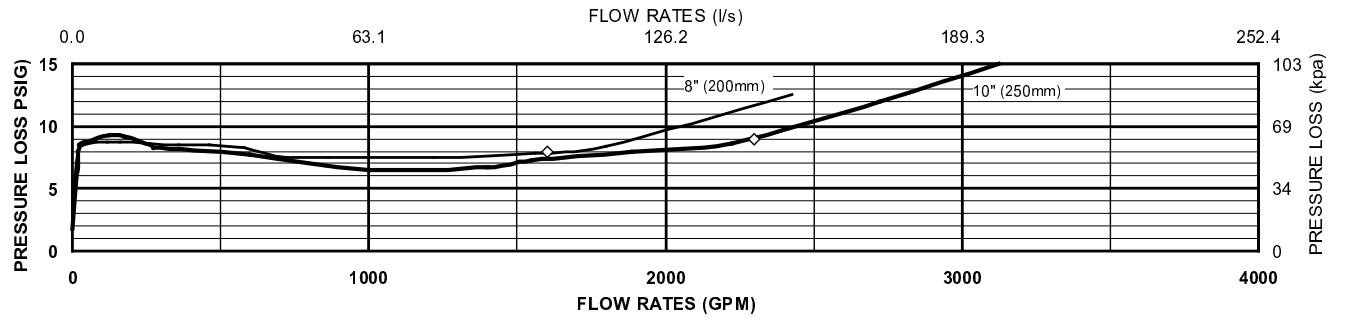
### Dimensions & Weights (do not include pkg.)

| MODEL<br>450DA<br>SIZE | DIMENSIONS (approximate) |          |                          |        |                          |         |                          |         |                   |        |                     |        |                          |         |     |    | WEIGHT                 |     |                        |      |                        |     |     |
|------------------------|--------------------------|----------|--------------------------|--------|--------------------------|---------|--------------------------|---------|-------------------|--------|---------------------|--------|--------------------------|---------|-----|----|------------------------|-----|------------------------|------|------------------------|-----|-----|
|                        | A                        |          | B<br>WITH GATE<br>VALVES |        | B<br>WITH BFLY<br>VALVES |         | B<br>LESS GATE<br>VALVES |         | C<br>OS&Y<br>OPEN |        | C<br>OS&Y<br>CLOSED |        | C<br>WITH BFLY<br>VALVES |         | D   |    | LESS<br>GATE<br>VALVES |     | OS&Y<br>GATE<br>VALVES |      | WITH<br>BFLY<br>VALVES |     |     |
|                        | in.                      | mm       | in.                      | mm     | in.                      | mm      | in.                      | mm      | in.               | mm     | in.                 | mm     | in.                      | mm      | in. | mm | lbs.                   | kg  | lbs.                   | kg   | lbs.                   | kg  |     |
| 4                      | 100                      | 18 5/16  | 465                      | 30     | 762                      | 27 3/4  | 705                      | 21      | 533               | 22 3/4 | 578                 | 18 1/4 | 460                      | 9 1/2   | 241 | 8  | 203                    | 105 | 47.7                   | 295  | 134                    | 143 | 65  |
| 6                      | 150                      | 18 11/16 | 475                      | 35 1/2 | 902                      | 32 1/8  | 816                      | 25      | 635               | 30 1/8 | 765                 | 23 3/4 | 603                      | 10 1/2  | 267 | 10 | 254                    | 174 | 79                     | 474  | 215                    | 230 | 104 |
| 8                      | 200                      | 29       | 737                      | 46     | 1168                     | 42 9/16 | 1081                     | 34 7/16 | 845               | 37 3/4 | 959                 | 29 1/4 | 743                      | 13      | 330 | 13 | 330                    | 402 | 182.5                  | 878  | 399                    | 524 | 238 |
| 10                     | 250                      | 29       | 737                      | 47 1/2 | 1207                     | 47 1/2  | 1207                     | 34 7/16 | 845               | 45 3/4 | 1162                | 35 3/8 | 899                      | 13 5/16 | 338 | 13 | 330                    | 420 | 191                    | 1076 | 489                    | 606 | 275 |

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

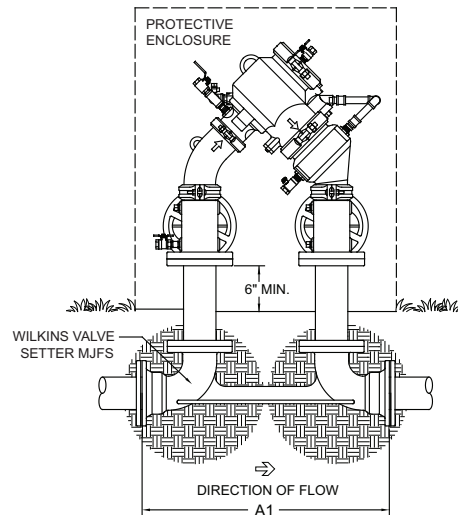


**MODEL 450DA 8" & 10" (STANDARD & METRIC)**



**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.



**OUTDOOR INSTALLATION**

| 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<br>END TO<br>END FLS |      | A1 SETTER<br>END TO END<br>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 Detector Backflow Preventer shall be ASSE® Listed 1048 and supplied with full port OS & Y 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. The checks shall be accessible for maintenance without removing the device from the line. The Double Check Detector Backflow Preventer shall be a ZURN WILKINS Model 450DA.