

**SPECIFICATION SHEET**



# MasterSeries® 876V

## Double Check Detector Assemblies

**MASTER**  
series®

**Size: 2½" - 10" (65mm - 250mm)**

The FEBCO MasterSeries® 876V Double Check Detector Assemblies are designed for use in non-health hazard fire sprinkler systems.

Standard orientation is inlet flow vertical up, outlet flow vertical down. Vertical orientation is inlet and outlet flow vertical up.

### Materials

|                  |                                                           |
|------------------|-----------------------------------------------------------|
| Main Valve Body: | Ductile iron Grade 65-45-12                               |
| Coating:         | Fusion epoxy coated internal and external<br>AWWA C550-90 |
| Shutoff Valves:  | OS&Y resilient wedge gate<br>valves AWWA C509             |
| Trim:            | Bronze                                                    |
| Elastomer Discs: | EPDM                                                      |
| Spring:          | Stainless steel                                           |

### Models

- Valve Setter with MJ x MJ, MJ x FL, or FL x FL ends
- End Connections – Flanged ANSI B16.1 Class 125

### Pressure – Temperature

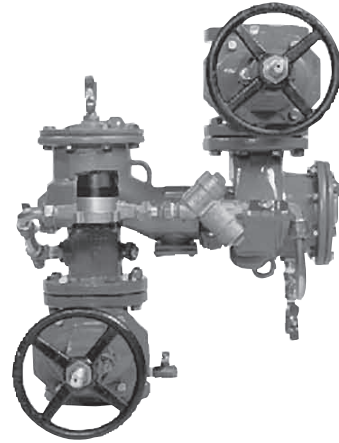
|                           |                             |
|---------------------------|-----------------------------|
| Maximum Working Pressure: | 175psi (12.1 bar)           |
| Hydrostatic Test Press:   | 350psi (24.1 bar)           |
| Temperature Range:        | 32°F to 140°F (0°C to 60°C) |

### Approvals – Standards

- ANSI/AWWA (C510)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

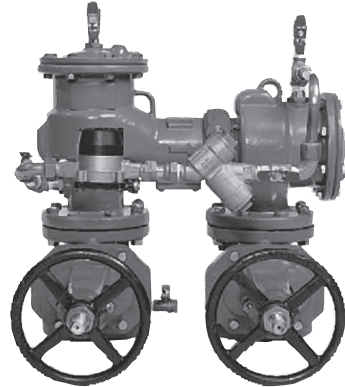


\* Less gate not FM approved. Less gate not UL Classified unless installed with UL Listed gate valves



**MODEL 876V DOUBLE CHECK DETECTOR ASSEMBLY**  
(Shown in vertical orientation)

U.S. Patent No. 4,989,635 • U.S. Patent No. 5,107,888  
U.S. Patent No. 5,385,166 • U.S. Patent No. 5,226,441  
U.S. Patent No. 5,392,803 • U.S. Patent No. 5,503,176



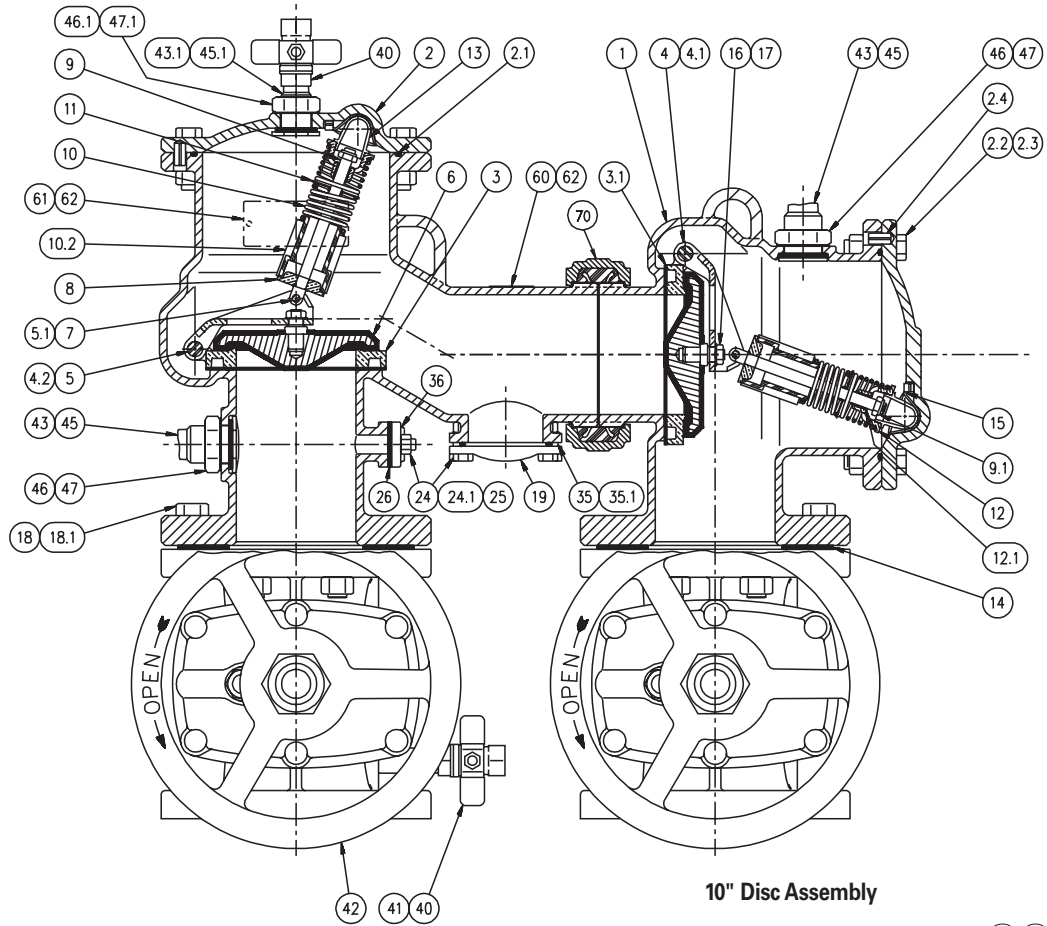
**MODEL 876V DOUBLE CHECK DETECTOR ASSEMBLY**  
(Shown in standard orientation)

Job Name \_\_\_\_\_  
Job Location \_\_\_\_\_  
Engineer \_\_\_\_\_  
Approval \_\_\_\_\_

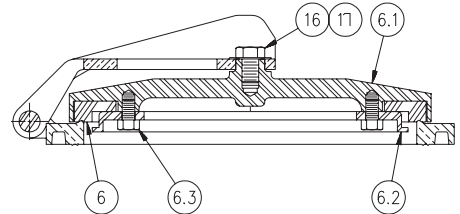
Contractor \_\_\_\_\_  
Approval \_\_\_\_\_  
Contractor's P.O. No. \_\_\_\_\_  
Representative \_\_\_\_\_

FEBCO product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact FEBCO. FEBCO reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on FEBCO products previously or subsequently sold.

## Model 876V / Materials of Construction

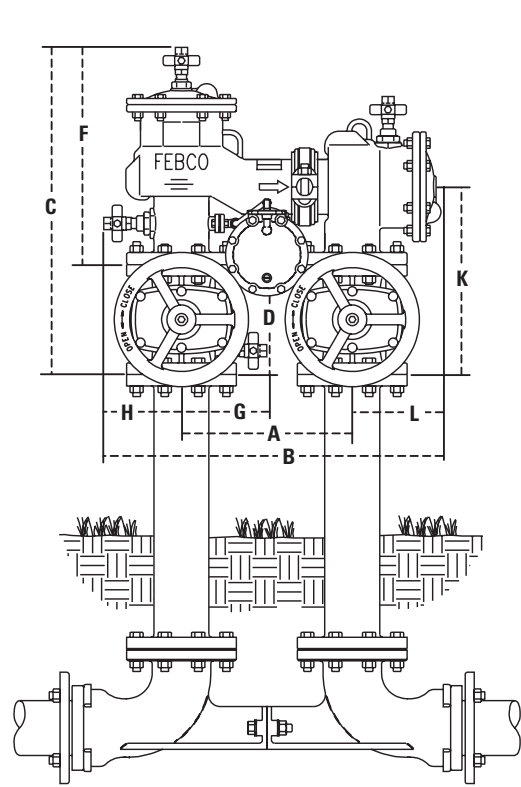


10" Disc Assembly



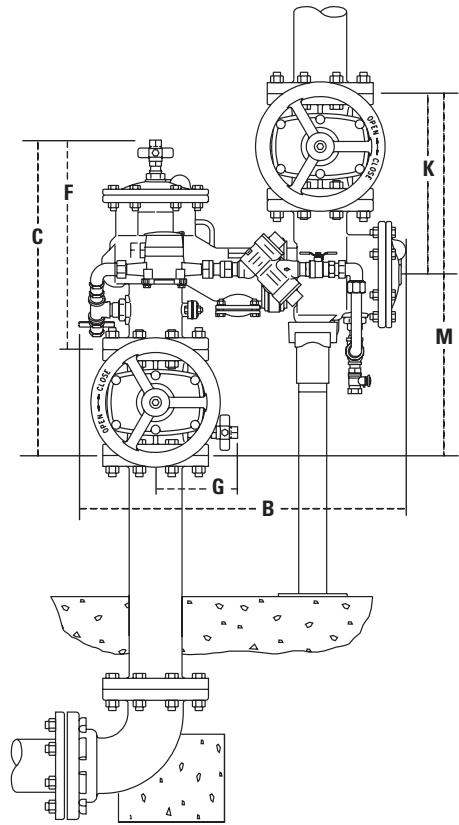
| #    | DESCRIPTION              | MATERIAL             | #    | DESCRIPTION          | MATERIAL              | #        | DESCRIPTION          | MATERIAL          |
|------|--------------------------|----------------------|------|----------------------|-----------------------|----------|----------------------|-------------------|
| 1    | Body                     | A536 GR 65-45-12     | 8    | Lower Sprg. Retainer | B584 Alloy C83600     | 350-ring |                      | EPDM ASTM D1999   |
| 2    | Cover                    | A536 GR 65-45-12     | 9    | Spring Stem          | 304SS                 | 35.1     | Back Up Ring         | Acetal Resin      |
| 2.1  | O-ring                   | EPDM ASTM D2000      | 9.1  | Elastic Stop Jam Nut | 18-8 SS               | 36       | Cover                | B584 Alloy C83600 |
| 2.2  | Cap Screw                | Plated Steel         | 10   | Spring               | A313 Type 631 SS      | 40       | Ball Valve           | B584 Alloy C83600 |
| 2.3  | Hex Nut                  | Plated Steel         | 10.2 | Spring Shim          | Acetal Resin          | 41       | Nipple               | Brass             |
| 2.5  | Cover (w/o holes)        | A536 GR 65-45-12     | 10.3 | Spring Shim          | Acetal Resin          | 42       | Gate Valve (OS&Y)    | AWWA C509         |
| 3    | Seat Ring                | B524 Alloy C83600    | 11   | Spring Guide         | B130 Alloy C22000     | 43       | Bulkhead Fitting     | B584 Alloy C83600 |
| 3.1  | Gasket                   | EPDM ASTM D2000      | 12   | Upper Sprg. Retainer | B584 Alloy C83600     | 43.1     | Bulkhead Fitting     | B584 Alloy C83600 |
| 4    | Arm                      | B584 Alloy C83600    | 12.1 | Bushing Sprg. Stem   | Acetal Resin          | 44       | Bulkhead Fitting     | B584 Alloy C83600 |
| 4.1  | Bushing-Swing Pin        | Acetal Resin         | 13   | Pivot Bearing        | B585 Alloy C83600     | 45       | Gasket               | EPDM ASTM D2000   |
| 4.2  | Swing Pin                | 304 SS               | 14   | Flange Gasket        | Rubber/Fabric         | 45.1     | Gasket               | EPDM ASTM D2001   |
| 5    | Retaining Clip           | 302 SS               | 15   | Bearing Socket       | Acetal Resin          | 46       | Washer               | B36 Alloy 260     |
| 5.1  | Retaining Clip           | 302 SS               | 16   | Hex Jam Nut          | 18-8 SS               | 46.1     | Washer               | B36 Alloy 260     |
| 6    | Check Disk (2 1/2" - 8") | EPDM Coated GR, 45   |      | Capscrew (10")       | 18-8 SS               | 47       | Nut                  | B584 Alloy C83601 |
|      |                          | Ductile Iron w/ type | 17   | Washer               | 302 SS                | 47.1     | Nut                  | B584 Alloy C83602 |
|      |                          | 304 SS               | 18   | Flange Nut           | Plated Steel          | 60       | Identification Plate | B36 Alloy C26000  |
|      | Seat Disc (10")          | Silicone ASTM D2000  | 18.1 | Flange Nut           | Plated Steel          | 61       | Identification Plate | B36 Alloy C26000  |
| 6.1* | Disc Holder (10")        | ASTM A743 304 SS     | 19   | Cover                | A36 Stl. Epoxy Coated | 62       | Drive Screw          | Stainless Steel   |
| 6.2* | Disc Retainer (10")      | ASTM A743 304 SS     | 24   | Bolt                 | Plated Steel          | 70       | Clamp 876V Only      | AWWA C606         |
| 6.3* | Capscrew (10")           | 18-8 SS              | 24.1 | Washer               | Plated Steel          |          |                      |                   |
| 7    | Load Pin                 | 304SS                | 25   | Nut                  | Plated Steel          |          |                      |                   |
|      |                          |                      | 26   | Gasket               | EPDM ASTM D2000       |          |                      |                   |

Model 876V  
Standard Orientation

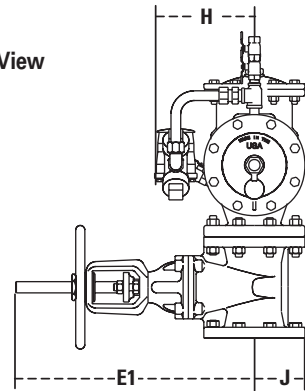


**Note:** The Series 876V is shipped in the standard (N-Shape) orientation as shown above.

Model 876V  
Vertical Orientation



OS&Y Side View



Dimensions – Weights

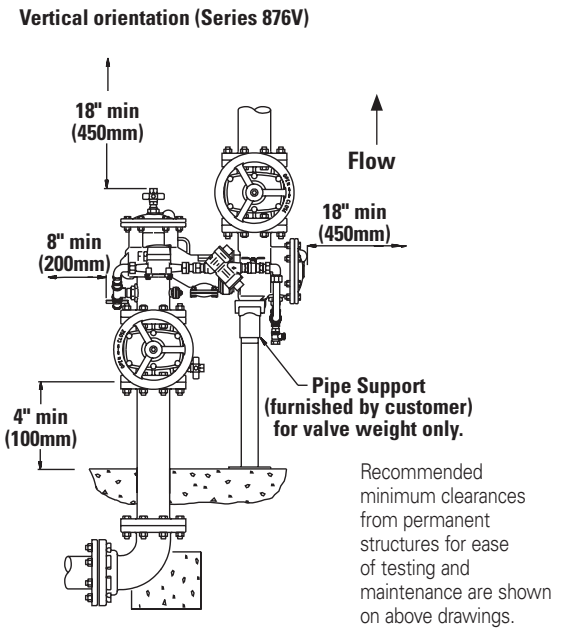
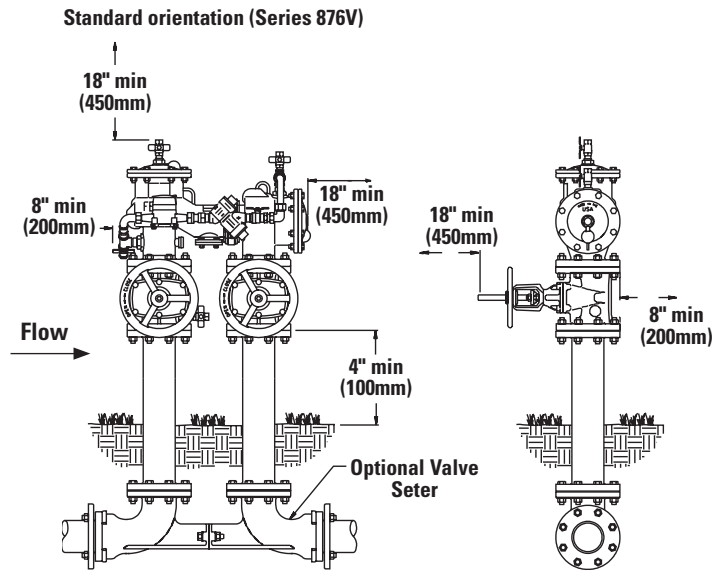
Size: 2½" - 10" (65 - 250mm)

| SIZE (DN)  |           |            |           | DIMENSIONS |           |            |           |            |           |            |           |            |           |            |           |            |           |            |           |            |           | WEIGHT      |             |  |  |
|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|-------------|-------------|--|--|
|            |           | A          |           | B          |           | C          |           | E1 OS&Y*   |           | F          |           | G          |           | H          |           | J          |           | K          |           | M          |           | OS&Y        |             |  |  |
| <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>in.</i> | <i>mm</i> | <i>lbs.</i> | <i>kgs.</i> |  |  |
| 2½         | 65        | 12½        | 318       | 25¾        | 654       | 24¼        | 616       | 16⅝        | 416       | 16⅝        | 422       | 6¼         | 159       | 11½        | 292       | 3½         | 89        | 13⅝        | 346       | 27¼        | 692       | 230         | 104         |  |  |
| 3          | 80        | 12½        | 318       | 25¾        | 654       | 24¾        | 629       | 22¼        | 565       | 16⅝        | 422       | 6¼         | 159       | 11½        | 292       | 3¾         | 95        | 14⅞        | 359       | 28¼        | 718       | 300         | 136         |  |  |
| 4          | 100       | 14         | 356       | 27⅞        | 708       | 26¾        | 680       | 23¼        | 591       | 17¾        | 451       | 7          | 178       | 13         | 330       | 4½         | 114       | 15½        | 394       | 31         | 787       | 330         | 150         |  |  |
| 6          | 150       | 16         | 406       | 32¼        | 819       | 32¼        | 819       | 30⅞        | 765       | 21⅞        | 548       | 8          | 203       | 13         | 330       | 5½         | 140       | 18⅝        | 473       | 37¼        | 946       | 520         | 236         |  |  |
| 8          | 200       | 18½        | 470       | 37½        | 953       | 36⅞        | 924       | 37¾        | 959       | 24⅞        | 632       | 9¼         | 235       | 14½        | 368       | 6¾         | 172       | 20¾        | 527       | 41½        | 1054      | 860         | 390         |  |  |
| 10         | 250       | 21         | 533       | 42½        | 1080      | 40¾        | 1035      | 48         | 1219      | 27½        | 699       | 10         | 254       | 15         | 381       | 8          | 203       | 24         | 610       | 48         | 1219      | 1460        | 662         |  |  |

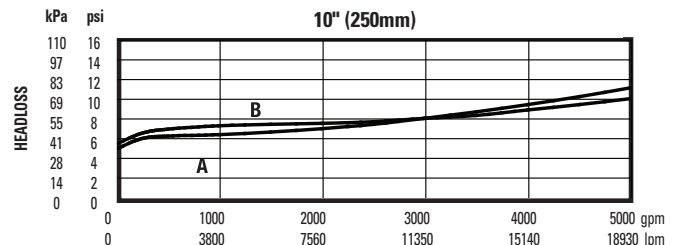
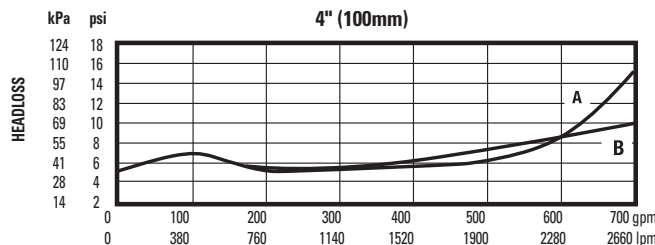
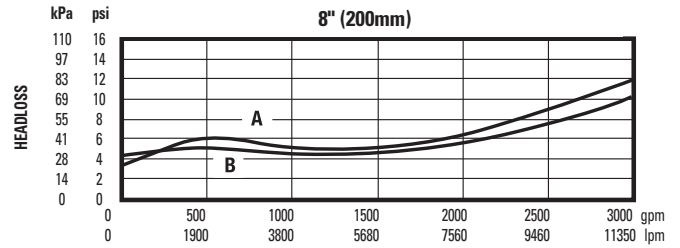
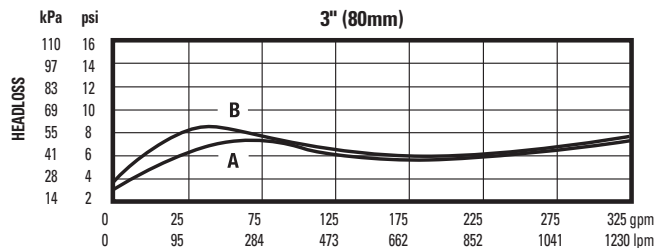
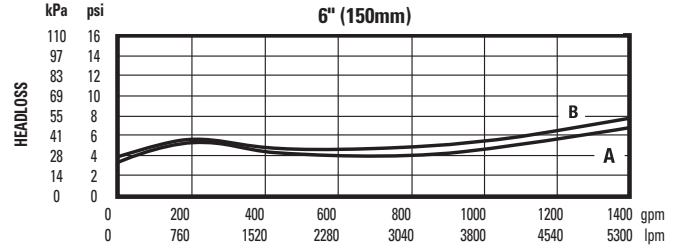
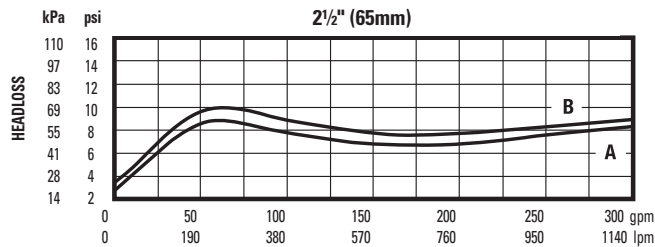
\*OS&Y OPEN

Weights do not include risers or optional valve setter.  
Note: Dimensions shown are nominal. Allowances must be made for normal manufacturing tolerances.  
Refer to Specification Sheet ES-F-611, ES-F-611 Flange and ES-F-611MJ for details on valve setter.

## Typical Installation



## Capacity



A-Vertical orientation  
B-Standard orientation

The 6" and 10" flow curves (B-standard orientation) include the FEBCO Valve Seter Series 611.



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