

# SPECIFICATION SHEET MODEL 876/876V



## DOUBLE CHECK DETECTOR ASSEMBLY

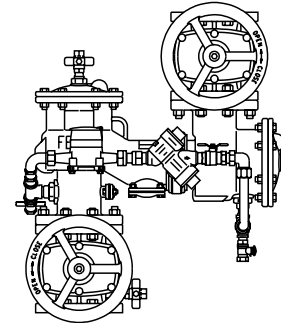
### Physical Properties

Size of Mainline	2-1/2", 3, 4", 6", 8", & 10"
Max. Working Pressure	175 PSI (1200 KPa)
Hydrostatic Test Press.	350 PSI (2400 KPa)
Temperature Range	32° F to 140° F (0° C to 60° C)
End Connections	Flanged ANSI B16.1 Class 125

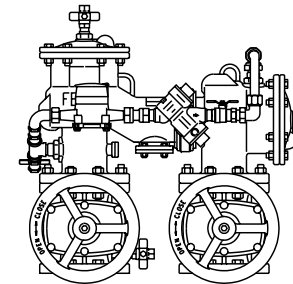
U.S. Patent No. 4,989,635 • U.S. Patent No. 5,107,888  
 U.S. Patent No. 5,385,166 • U.S. Patent No. 5,226,441  
 U.S. Patent No. 5,392,803 • U.S. Patent No. 5,503,176

### Materials

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

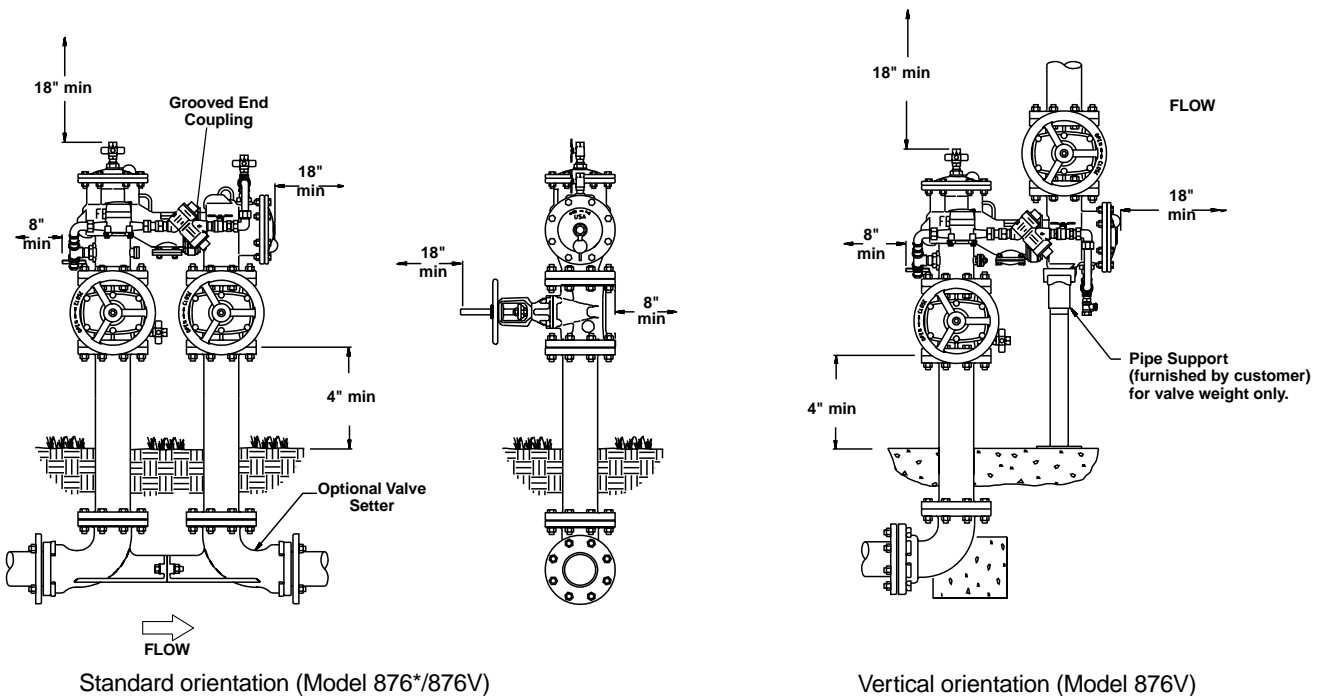


**MODEL 876V DOUBLE CHECK DETECTOR**  
(Shown in vertical position)



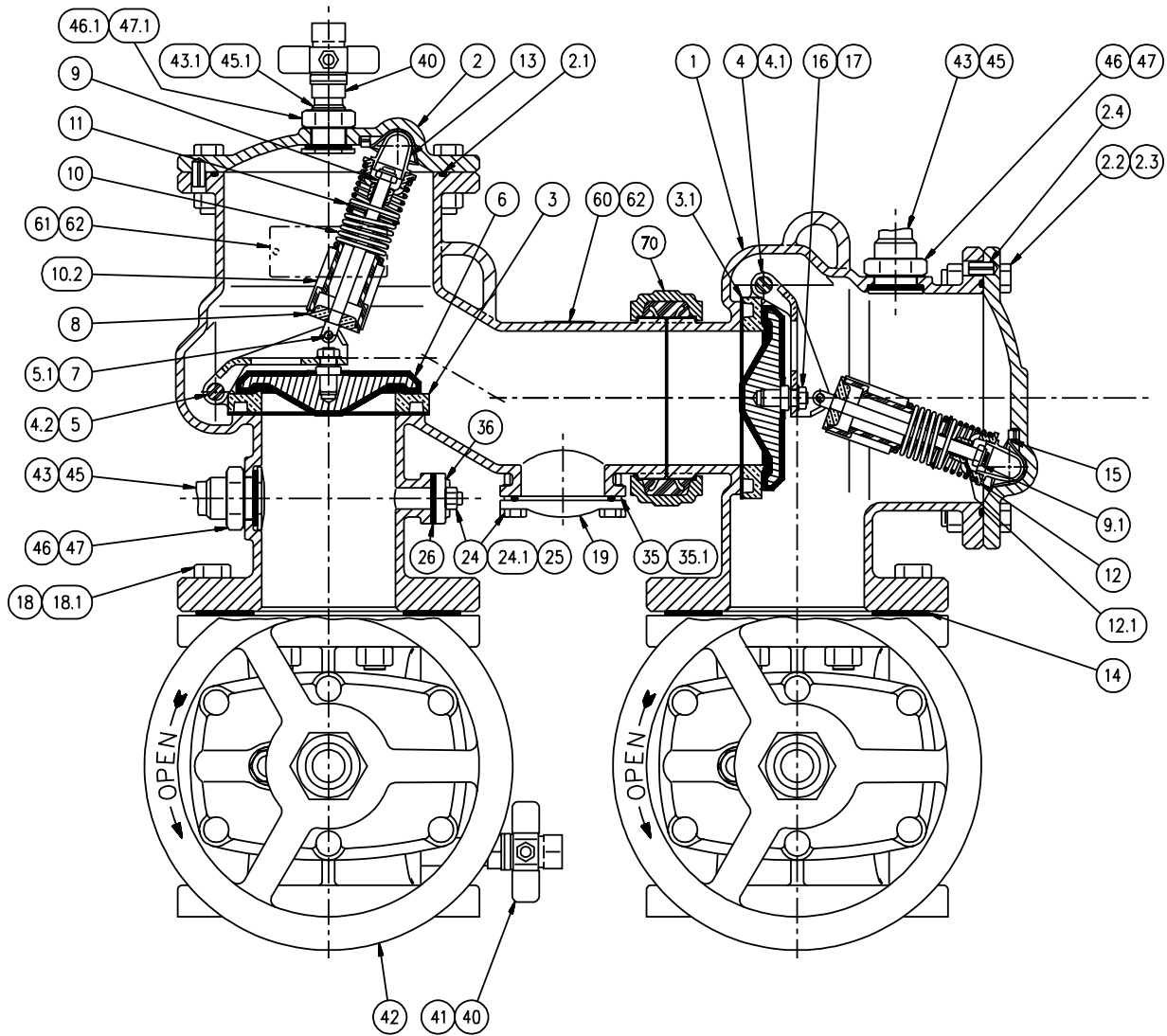
**MODEL 876/876V DOUBLE CHECK DETECTOR**  
(Shown in standard orientation)

### Installation Views



\* Note-Model 876 does not include grooved end coupling.

Recommended minimum clearances from permanent structures for ease of testing and maintenance.



### 876/876V Materials of Construction

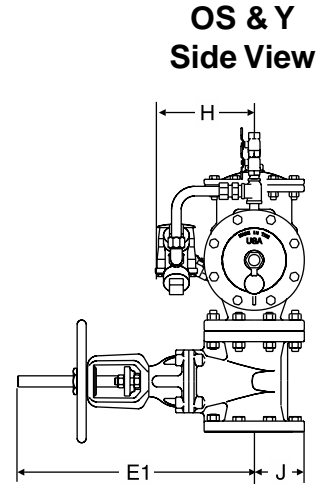
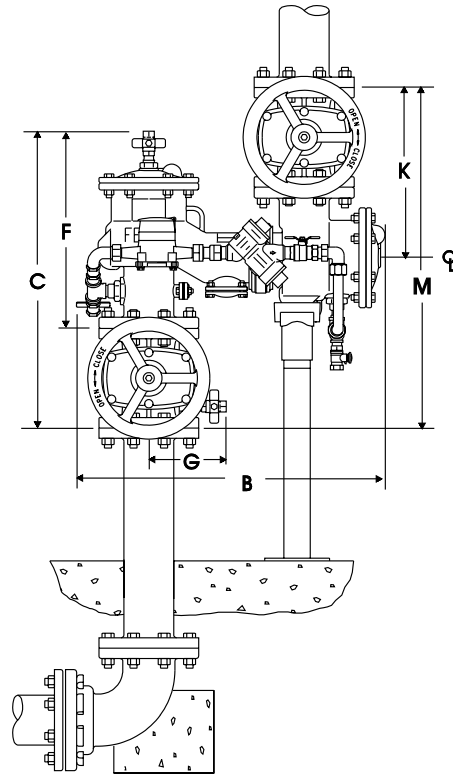
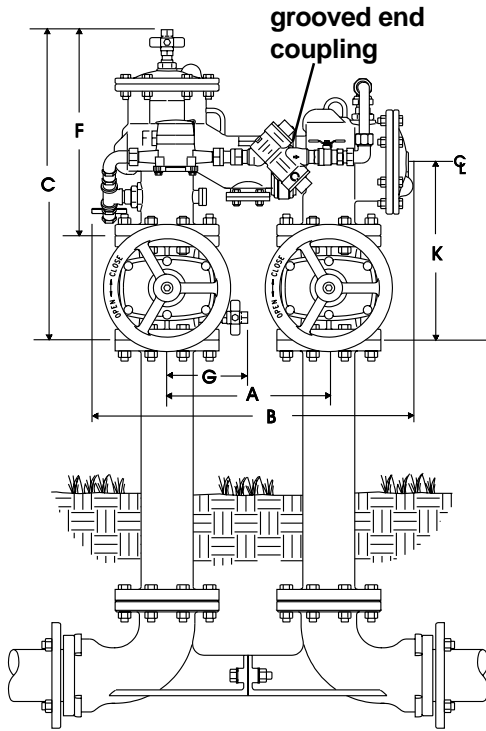
ITEM	DESCRIPTION	MATERIALS	ITEM	DESCRIPTION	MATERIALS	ITEM	DESCRIPTION	MATERIALS
1	Body	A536 GR 65-45-12	8	Lower Spring Retainer	B584 Alloy C83600	26	Gasket	EPDM ASTM D2000
2	Cover	A536 GR 65-45-12	9	Spring Stem	304SS	35	O-ring	EPDM ASTM D1999
2.1	O-ring	EPDM ASTM D2000	9.1	Elastic Stop Jam Nut	18-8 SS	35.1	Back Up Ring	Acetal Resin
2.2	Cap Screw	Plated Steel	10	Spring	A313 Type 631 SS	36	Cover	B584 Alloy C83600
2.3	Hex Nut	Plated Steel	10.2	Spring Shim	Acetal Resin	40	Ball Valve	B584 Alloy C83600
2.5	Cover (w/o holes)	A536 GR 65-45-12	10.3	Spring Shim	Acetal Resin	41	Nipple	Brass
3	Seat Ring	B524 Alloy C83600	11	Spring Guide	B130 Alloy C22000	42	Gate Valve (OS&Y)	AWWA C509
3.1	Gasket	EPDM ASTM D2000	12	Upper Spring Retainer	B584 Alloy C83600	43	Bulkhead Fitting	B584 Alloy C83600
4	Arm	B584 Alloy C83600	12.1	Bushing Spring Stem	Acetal Resin	43.1	Bulkhead Fitting	B584 Alloy C83600
4.1	Bushing-Swing Pin	Acetal Resin	13	Pivot Bearing	B585 Alloy C83600	44	Bulkhead Fitting	B584 Alloy C83600
4.2	Swing Pin	304 SS	14	Flange Gasket	Rubber/Fabric	45	Gasket	EPDM ASTM D2000
5	Retaining Clip	302 SS	15	Bearing Socket	Acetal Resin	45.1	Gasket	EPDM ASTM D2001
5.1	Retaining Clip	302 SS	16	Hex Jam Nut	18-8 SS	46	Washer	B36 Alloy 260
6	Check Disk (2-1/2" - 8")	EPDM Coated GR, 45 Ductile Iron w/ type 304 SS	17	Washer	302 SS	46.1	Washer	B36 Alloy 260
	Seat Disc (10" Only)	Silicone ASTM D2000	18	Flange Nut	Plated Steel	47	Nut	B584 Alloy C83601
6.1*	Disc Holder (10" Only)	ASTM A743 304 SS	18.1	Flange Nut	Plated Steel	47.1	Nut	B584 Alloy C83602
6.2*	Disc Retainer (10" Only)	ASTM A743 304 SS	19	Cover	A36 Stl. Epoxy Coated	60	Identification Plate	B36 Alloy C26000
6.3*	Capscrew (10" Only)	18-8 SS	24	Bolt	Plated Steel	61	Identification Plate	B36 Alloy C26000
7	Load Pin	304SS	24.1	Washer	Plated Steel	62	Drive Screw	Stainless Steel
			25	Bolt	Plated Steel	70	Clamp 876V Only	AWWA C606

\* Not Shown

**Model 876V**  
**Standard Orientation**

Model 876V  
Vertical Orientation

Note: The Model 876V is shipped in the standard (N-Shape) orientation as shown below.



**Dimensions**

Size	A	B	C	E1 OS&Y OPEN	F	G	H	J	K	M	Approximate Net. OS&Y (Lbs.)
<b>2½"</b>	12½	25¾	24¼	16⅜	16⅝	6¼	11½	3½	13⅝	27¼	230
65	317.50	654.05	615.95	415.93	422.28	158.75	292.10	88.90	346.08	692.15	104.33
<b>3"</b>	12½	25¾	24¾	22¼	16⅝	6¼	11½	3¾	14⅞	28¼	300
80	317.50	654.05	628.65	565.15	422.28	158.75	292.10	95.25	358.78	717.55	136.08
<b>4"</b>	14	27⅞	26¾	23¼	17¾	7	13	4½	15½	31	330
100	355.60	708.03	679.45	590.55	450.85	177.80	330.20	114.30	393.70	787.40	149.69
<b>6"</b>	16	32¼	32¼	30⅞	21 <sup>4</sup> / <sub>7</sub>	8	13	5½	18⅝	37¼	520
150	406.40	819.15	819.15	765.18	547.9	203.20	330.20	139.70	473.08	946.15	235.87
<b>8"</b>	18½	37½	36⅜	37¾	24 <sup>7</sup> / <sub>8</sub>	9¼	14½	6¾	20¾	41½	860
200	469.90	952.50	923.93	958.85	631.80	234.95	368.30	171.45	527.05	1054.10	390.09
<b>10"</b>	21	42½	40¾	48	27½	10	15	8	24	48	1460
250	533.40	1079.50	1035.05	1219.20	698.50	254.00	381.00	203.20	609.60	1219.20	662.24

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 SS VS for details on valve setter.

## Application

Non-Health Hazard Fire Sprinkler Systems

## Flow Orientation

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

## Options

- Valve Setter with MJ x FL, MJ x MJ  
or FL x FL ends

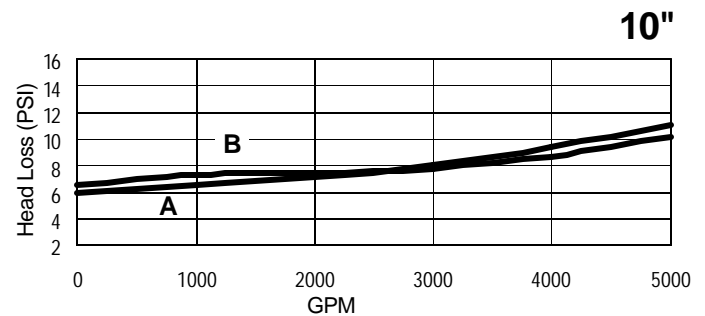
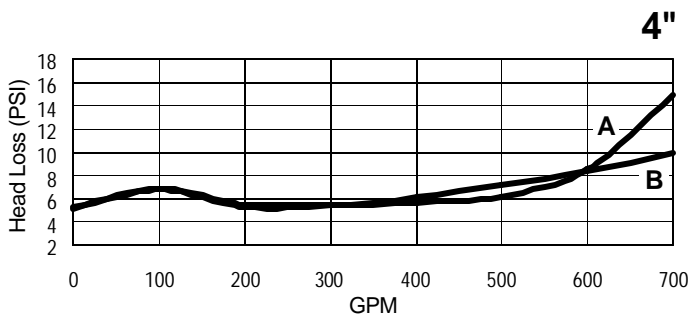
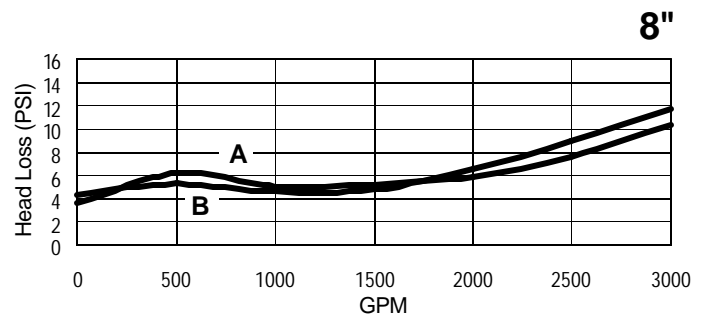
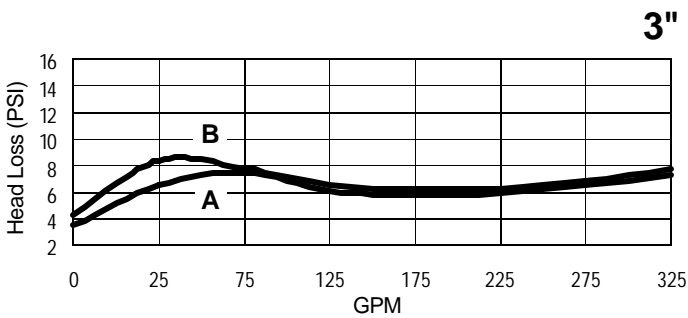
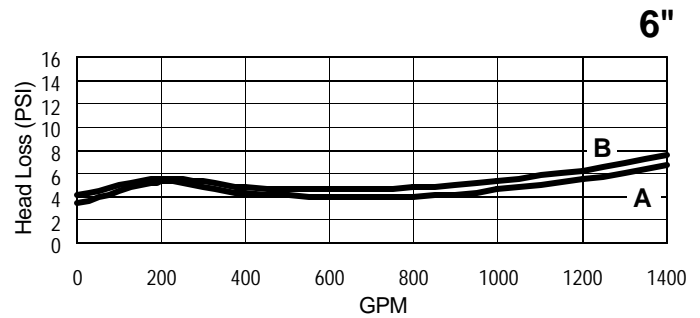
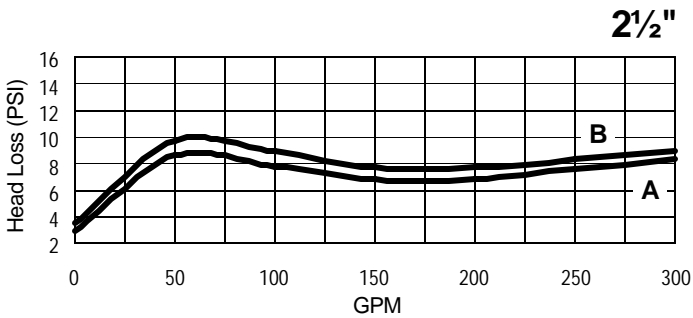
## Agency Compliance

- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California.
- ASSE (Std. 1048)
- ANSI/AWWA (C510-89)
- CAN/CSA (B64.5)
- FM\*
- UL\*
- cUL

\* Less gate not FM approved.

Less gate not UL listed unless installed with UL listed gated valves.

## Model 876/876V Flow Curves



A-Vertical orientation (model 876V)

B-Standard orientation (model 876)

The 6" and 10" flow curves in the standard orientation include the FEBCO valve setter model 611.

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**FEBCO**  
BACKFLOW PREVENTION