

SPECIFICATION SHEET MODEL 870/870V



DOUBLE CHECK ASSEMBLY

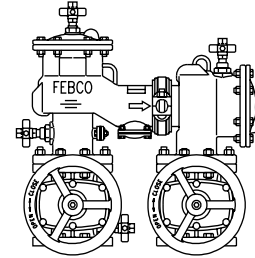
Physical Properties

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

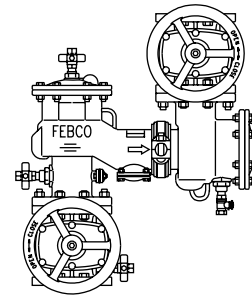
U.S. Patent No. 4,989,635 • U.S. Patent No. 5,107,888
 U.S. Patent No. 5,385,166 • U.S. Patent No. 5,226,441
 U.S. Patent No. 5,392,803 • U.S. Patent No. 5,503,176

Materials

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

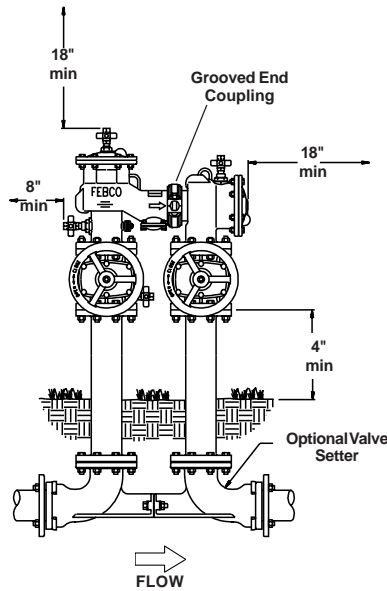


MODEL 870V DOUBLE CHECK ASSEMBLY

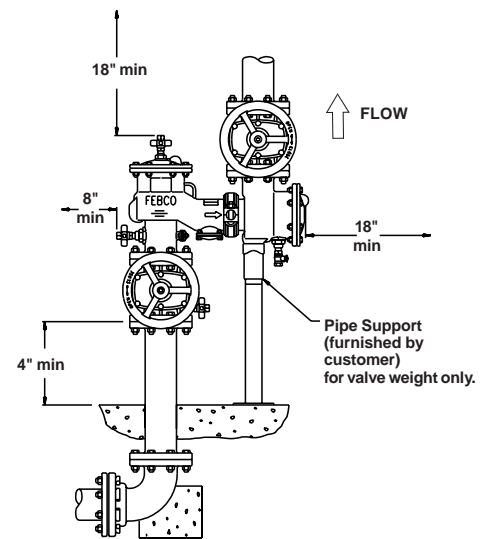
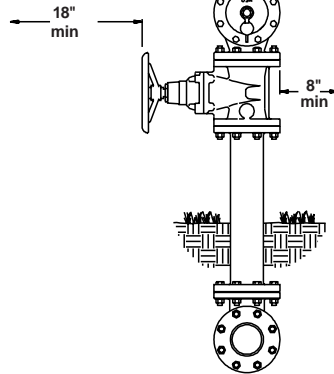


MODEL 870V DOUBLE CHECK ASSEMBLY
(Shown in vertical position)

Installation Views

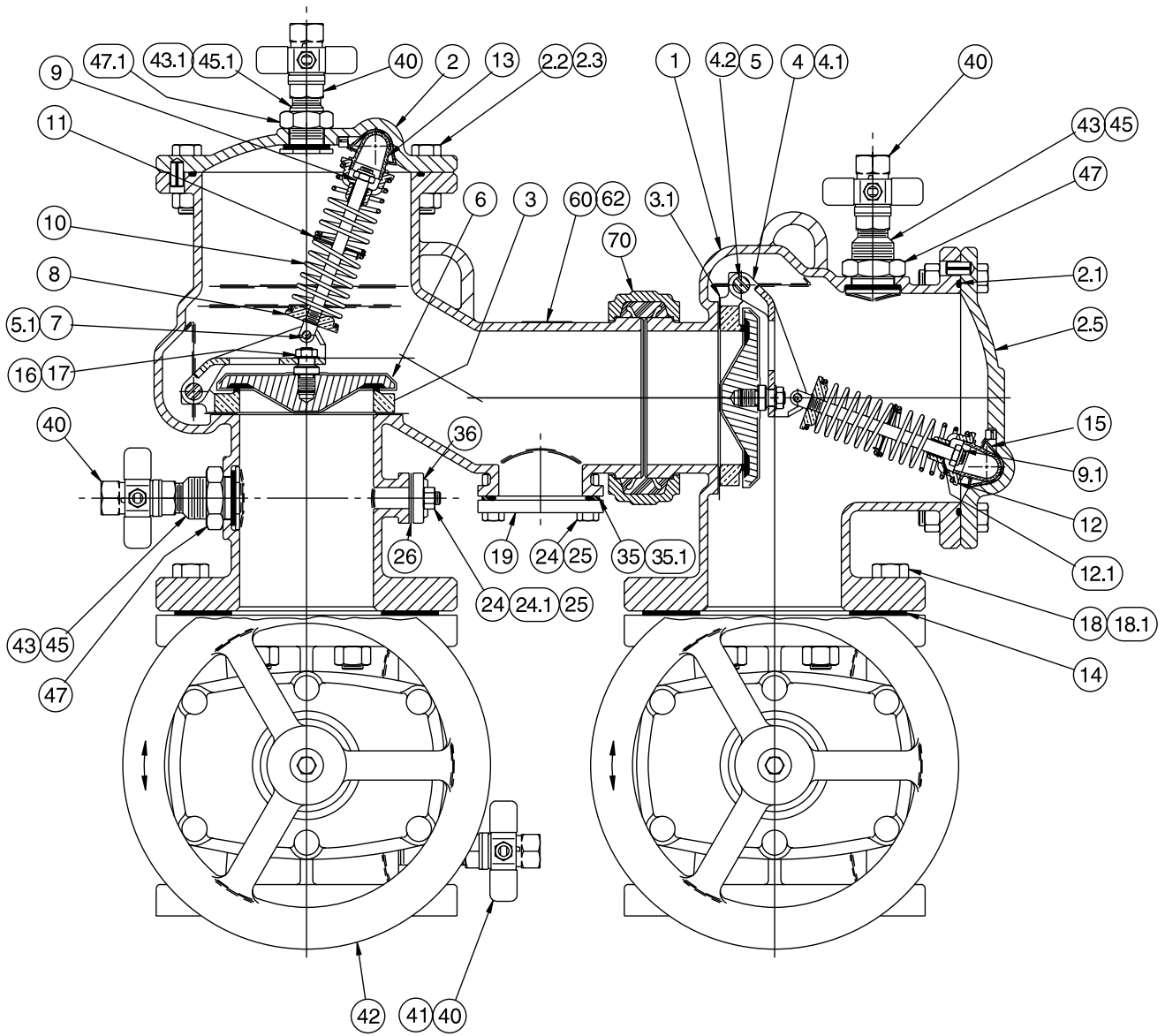


Standard orientation 870V



Vertical orientation 870V

Recommended minimum clearances from permanent structures for ease of testing and maintenance are shown on above drawings.



Materials of Construction

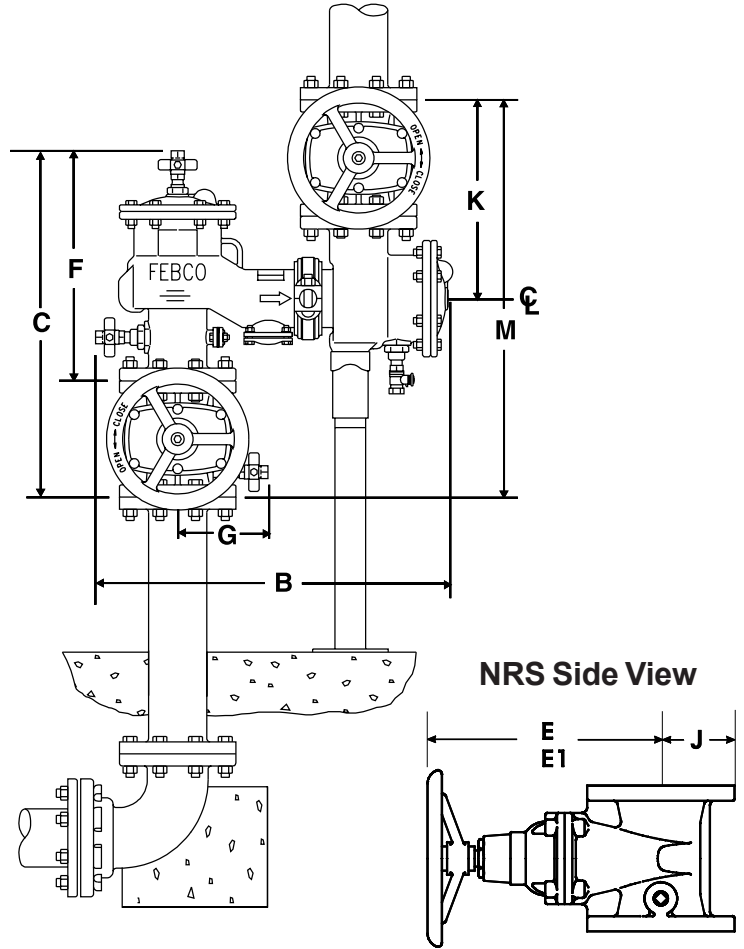
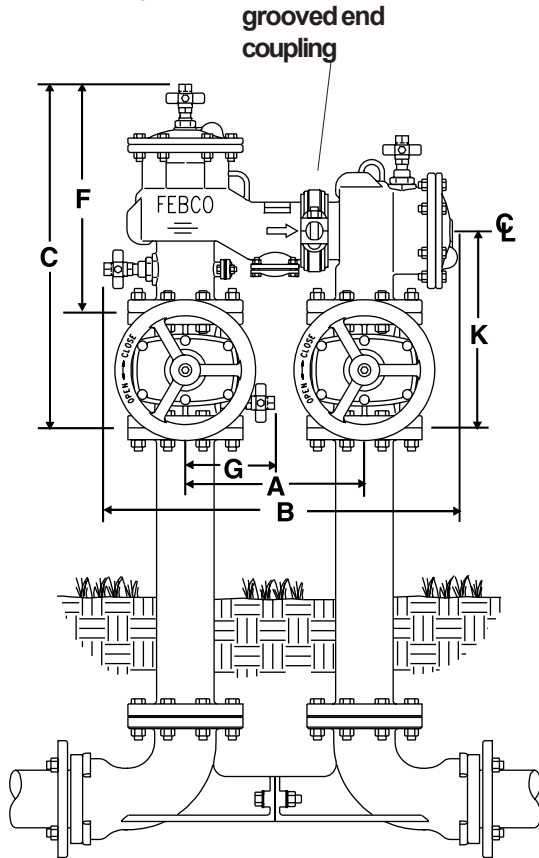
ITEM	DESCRIPTION	MATERIALS	ITEM	DESCRIPTION	MATERIALS	ITEM	DESCRIPTION	MATERIALS
1	Body	A536 GR 65-45-12	7	Load Pin	304SS	26	Gasket	EPDM ASTM D2000
2	Cover	A536 GR 65-45-12	8	Lower Spring Retainer	B584 Alloy C83600	35	O-ring	EPDM ASTM D1999
2.1	O-ring	EPDM ASTM D2000	9	Spring Stem	304SS	35.1	Back Up Ring	Acetal Resin
2.2	Cap Screw	Plated Steel	9.1	Elastic Stop Jam Nut	18-8 SS	36	Cover	B584 Alloy C83600
2.3	Hex Nut	Plated Steel	10	Spring	A313 Type 631 SS	40	Ball Valve	B584 Alloy C83600
2.5	Cover (w/o holes)	A536 GR 65-45-12	11	Spring Guide	B130 Alloy C22000	41	Nipple	Brass
3	Seat Ring	B524 Alloy C83600	12	Upper Spring Retainer	B584 Alloy C83600	42	Gate Valve (NRS)	AWWA C509
3.1	Gasket	EPDM ASTM D2000	12.1	Bushing Spring Stem	Acetal Resin	43	Bulkhead Fitting	B584 Alloy C83600
4	Arm	B584 Alloy C83600	13	Pivot Bearing	B585 Alloy C83600	43.1	Bulkhead Fitting	B584 Alloy C83600
4.1	Bushing-Swing Pin	Acetal Resin	14	Flange Gasket	Rubber/Fabric	45	Gasket	EPDM ASTM D2000
4.2	Swing Pin	304 SS	15	Bearing Socket	Acetal Resin	45.1	Gasket	EPDM ASTM D2001
5	Retaining Clip	302 SS	16	Hex Jam Nut	18-8 SS	47	Nut	B584 Alloy C83601
5.1	Retaining Clip	302 SS		Capscrew (10" Only)	18-8 SS	47.1	Nut	B584 Alloy C83602
6	Check Disk (2-1/2" - 8")	EPDM Coated GR, 45 Ductile Iron w/ type 304 SS	17	Washer	302 SS	60	Identification Plate	B36 Alloy C26000
	Seat Disc (10" Only)	Silicone ASTM D2000	18	Flange Nut	Plated Steel	62	Drive Screw	Stainless Steel
6.1*	Disc Holder (10" Only)	ASTM A743 304 SS	18.1	Flange Nut	Plated Steel	70	Clamp 870V Only	AWWA C606
6.2*	Disc Retainer (10" Only)	ASTM A743 304 SS	19	Cover	A36 Stl. Epoxy Coated			
6.3*	Capscrew (10" Only)	18-8 SS	24	Bolt	Plated Steel			
			24.1	Washer	Plated Steel			
			25	Bolt	Plated Steel			

* Not Shown

**Model 870/870V
Standard Orientation**

**Model 870V
Vertical Orientation**

Note: The Model 870V is shipped in the standard (N-Shape) orientation as shown below. Model 870 does not include grooved end coupling.



**Dimensions
(U.S. Inches)**

SIZE	A	B	C	E NRS	E1 OS&Y Full Open	F	G	J	K	M	Net NRS (lbs.)	Net OS&Y (lbs.)
											Approximate	
2 1/2"	12 1/2	25 3/4	24 1/4	12 5/8	16 3/8	16 5/8	6 1/4	3 1/2	13 5/8	27 1/4	190	200
3"	12 1/2	25 3/4	24 3/4	12 7/8	22 1/4	16 5/8	6 1/4	3 3/4	14 1/8	28 1/4	260	270
4"	14	27 7/8	26 3/4	14 3/8	23 1/4	17 3/4	7	4 1/2	15 1/2	31	300	320
6"	16	32 1/4	32 1/4	18 7/8	30 1/8	21 4/7	8	5 1/2	18 5/8	37 1/4	460	500
8"	18 1/2	37 1/2	36 3/8	23 1/2	37 3/4	24 7/8	9 1/4	6 3/4	20 3/4	41 1/2	780	840
10"	21	42 1/2	40 3/4	27 1/2	48	27 1/2	10	8	24	48	1320	1450

(Metric - mm)

SIZE	A	B	C	E NRS	E1 OS&Y Full Open	F	G	J	K	M	Net NRS (kgs.)	Net OS&Y (kgs.)
											Approximate	
2 1/2"	317.50	654.05	615.95	320.68	415.93	422.28	158.75	88.90	346.08	692.15	86.18	90.72
3"	317.50	654.05	628.65	327.03	565.15	422.28	158.75	95.25	358.78	717.55	117.93	122.47
4"	355.60	708.03	679.45	365.13	590.55	450.85	177.80	114.30	393.70	787.40	136.08	145.15
6"	406.40	819.15	819.15	479.43	765.18	547.91	203.20	139.70	473.08	946.15	208.65	226.80
8"	469.90	952.50	923.93	596.90	958.85	631.80	234.95	171.45	527.05	1054.10	353.80	381.02
10"	533.40	1079.50	1035.05	698.50	1219.20	698.50	254.00	203.20	609.60	1219.20	598.74	657.71

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.

Options

- Valve Setter with MJ x FL or FL x FL ends
- UL/FM OS&Y RW Gate Valves
- Relief Valve Air Gap Drain Funnel
- Wye Strainer

Flow Orientation

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

Application

Non-Health Hazard

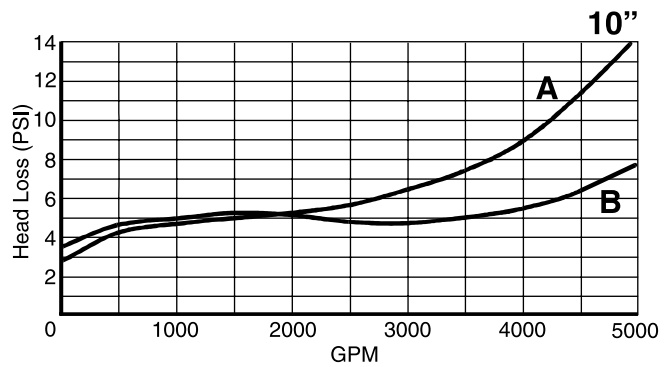
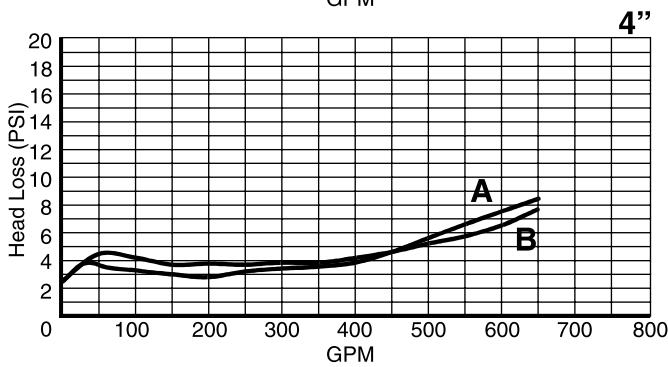
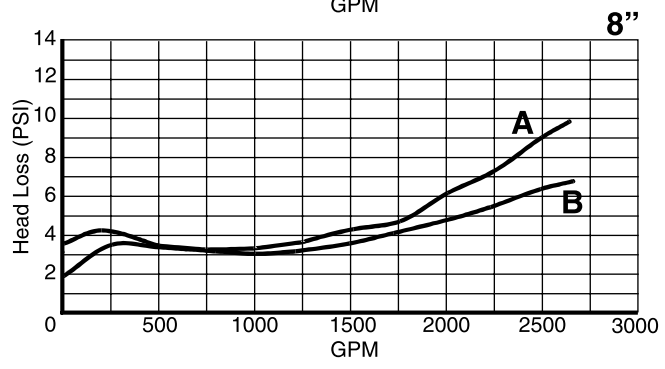
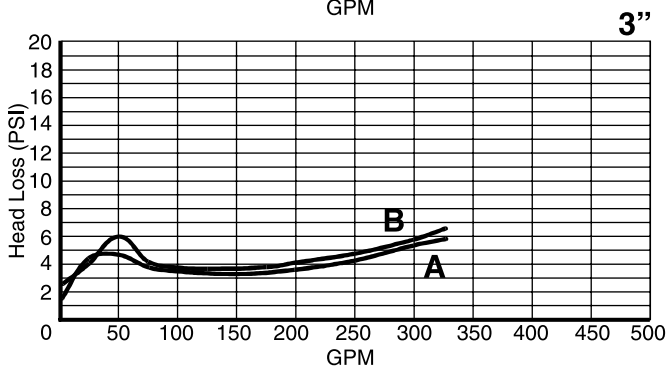
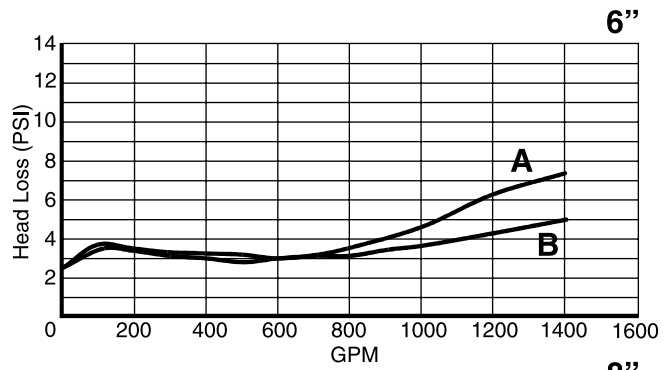
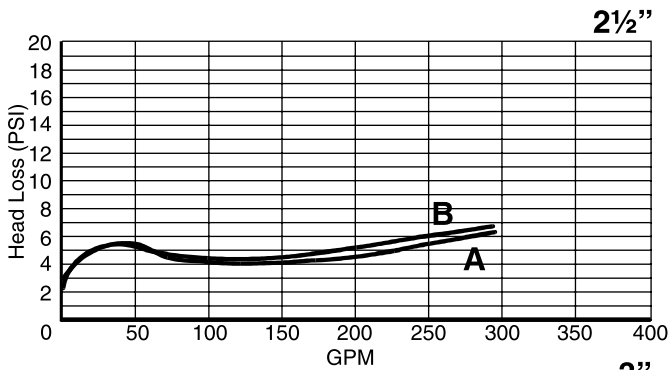
Agency Compliance

Model 870/870V (Sizes 2-1/2" through 10")

- ASSE (Std 1015)
- ANSI/AWWA (C510-89)
- CAN/CSA (B64.5)
- FM*
- UL*
- cUL
- 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 listed unless installed with UL listed gated valves.

Model 870/870V Flow Curves



A-Vertical orientation (model 870V)
B-Standard orientation (model 870 and 870V)

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

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