

Model 880/880V (2-1/2" - 10") Reduced Pressure Assembly

Physical Properties

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

Specifications

Reduced pressure backflow preventer assemblies include two independently operating check valves with an automatically operating, mechanically independent, hydraulically dependent pressure differential relief valve located between the two check valves.

During, and at the cessation of normal flow, the pressure in the zone between the two check valves is at least 2 PSI less than the upstream pressure. With no flow from the upstream side when the flow from the supply side drops to 2 PSI above the zone pressure, the relief valve will discharge water to maintain 2 PSI below the supply pressure.

When the pressure on the upstream side of the first check valves drops below 2 PSI above the zone pressure the relief valve is open. Under a backflow condition, when upstream pressure is 2 PSI or more, the relief valve discharges water, and the pressure in the zone is at least 1/2 PSI below upstream pressure.

The downstream or second check valve is internally loaded and will, at times, be drip-tight in the normal direction of flow with the inlet pressure at least 1 PSI and the outlet under atmospheric pressure. When the upstream pressure is atmospheric the pressure differential relief valve discharges water to keep the zone below 1-1/2 PSI.

Options

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

Application

Health Hazard

Compliance

- ASSE (Std 1013)
- ANSI/AWWA (C511-89)
- CAN/CSA (B64.4)
- UL*
- FM*
- cUL
- FCCC & HR

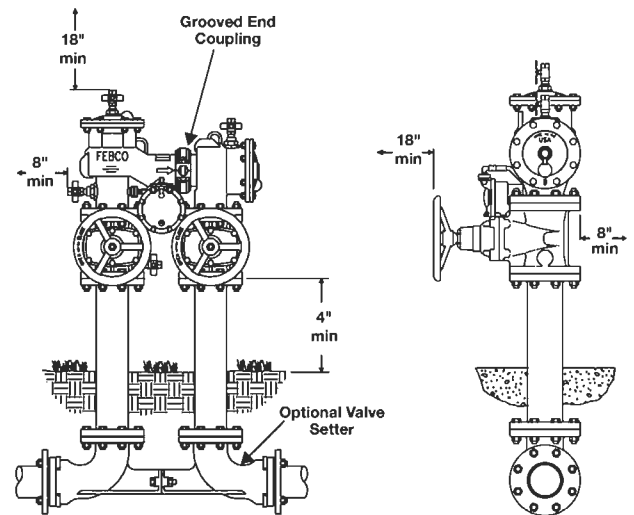
* Less gate not FM approved.
Less gate not UL listed unless installed with UL listed gated valves.

Flow Orientation

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

Vertical orientation is inlet and outlet flow vertical up.

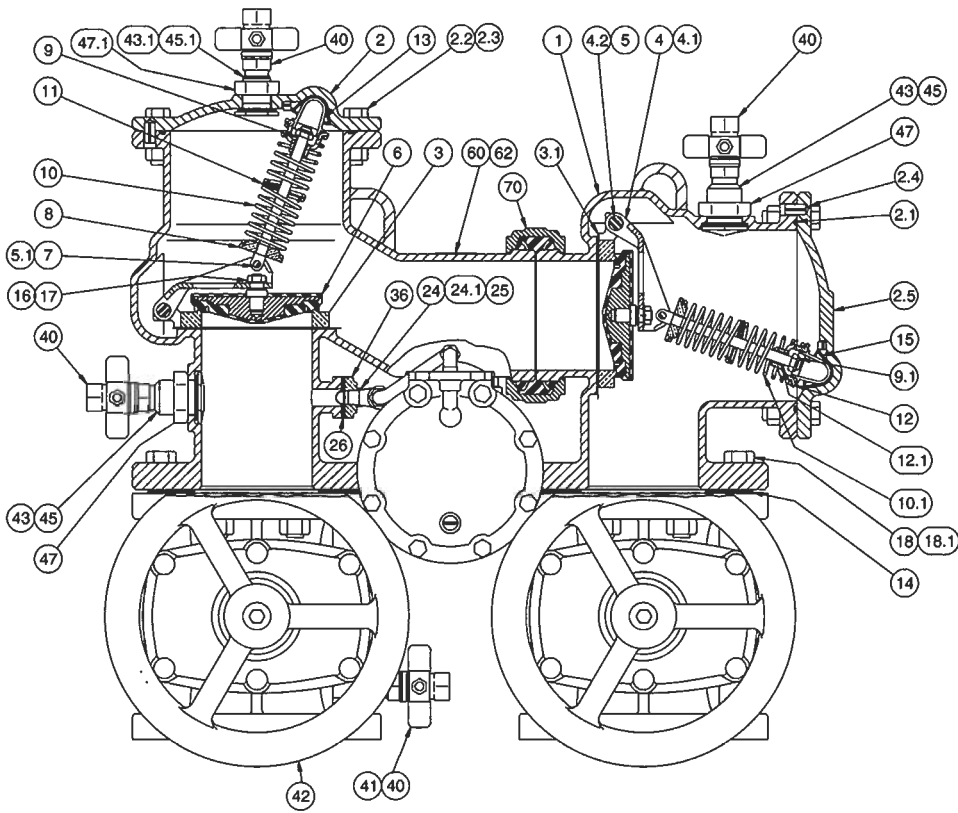
Installation



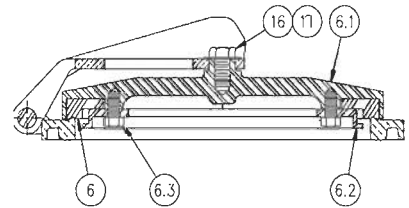
Standard orientation (Model 880*/880V)

* Note-Model 880 does not include grooved end coupling.

MODEL 880 / 880V



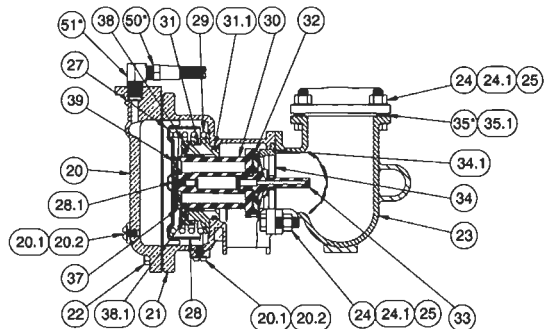
10" Disc Assembly



Materials of Construction

ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
1	Body	A536 GR 65-45-12	12	Upr Spring Retnr	Alloy	32	Seat Disc - RV	EPDM ASTM D2000
2	Cover 1 st Check	A536 GR 65-45-12	12.1	Bushing-Spr. Stem	Acetal Resin	33	Lower Guide	Acetal Resin
2.1	O-Ring	EPDM ASTM D2000	13	Pivot Bearing	Alloy	34	Seat Disc	Alloy
2.2	Capscrew	Plated Steel	14	Flange Gasket	Rubber/Fabric	34.1	O-Ring	FDA EPDM
2.3	Hex Nut	Plated Steel	15	Bearing Socket	Acetal Resin	35	O-Ring	Acetal Resin
2.4	Expansion Pin	SS	16	Hex Jam Nut	SS	35.1	Back-Up Ring	EPDM ASTM D2000
2.5	Cover 2 nd Check	A536 GR 65-45-12	17	Washer	SS	36	Adaptor Plate	Alloy
3	Seat Ring	B584 Alloy C83600	18	Flange Bolt	Plated Steel	37	Sm. Diaphragm	Nitrile ASTM D2000
3.1	Gasket	EPDM ASTM D2000	18.1	Flange Nut	Plated Steel	38	Retainer	Alloy
4	Arm	B584 Alloy C83600	20	R.V. Cover	Alloy	38.1	Slip Ring	Acetal Resin
4.1	Bushing Swing Pin	Acetal Resin	20.1	Bleed Screw	SS	39	Flow Washer	Acetal Resin
4.2	Swing Pin	SS	20.2	Gasket	HDPE	40	Ball Valve	Alloy
5	Retaining Clip	SS	21	R.V. Body	Alloy	41	Nipple	Brass
5.1	Hairpin Cotter	SS	22	Cover Bolt	SS	42	Gate Valve	AWWA C509
6	Check Disk	EPDM Coated GR, 45	23	Elbow	A536 GR 65-45-12	43	Bulkhead Fitting	Alloy
6.1	Disk Holder (10")	Ductile Iron w/ SS Stem	24	RV Mtg Bolt	Plated Steel	43.1	Bulkhead Fitting	Alloy
6.2	Disk Retainer (10")		24.1	Washer - RV	Plated Steel	45	Gasket	EPDM ASTM D2000
6.3	Capscrew (10")		25	RV Mtg Bolt	Plated Steel	45.1	Gasket	EPDM ASTM D2000
7	Load Pin	SS	27	Lrg. Diaphragm	Nitrile ASTM D2000	47	Nut	Alloy
9	Spring Stem	SS	28	Button	A240 304 SS	50	Sensing Line	SAE Hydraulic Hose
9.1	Elastic Stop Jam Nut	SS	28.1	Flow Screw	Acetal Resin	51	Street Elbow	Alloy
10	Spring 1 st Check	SS	29	RV Spring	SS	60	Identification Plate	Alloy
10.1	Spring 2 nd Check	SS	30	Stem - RV	Acetal Resin	62	Drive Screw	SS
11	Spring Guide	SS	31	Main Guide - RV	Alloy	70	Clamp (880V)	AWWA C606
			31.1	O-Ring - RV	FDA EPDM			

Relief Valve Detail



American Backflow Specialties

www.americanbackflow.com

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(619) 527-2525

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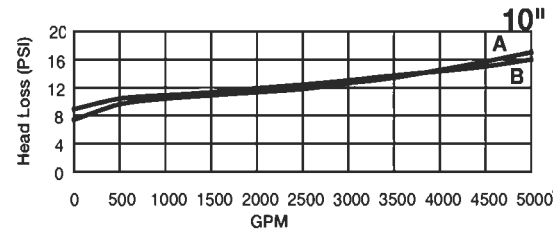
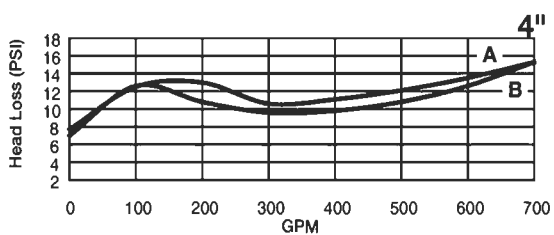
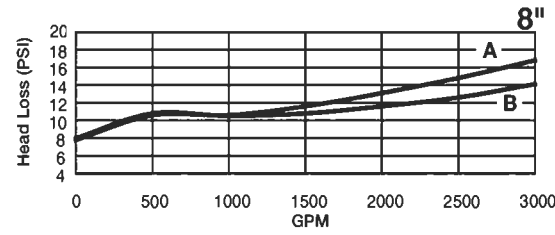
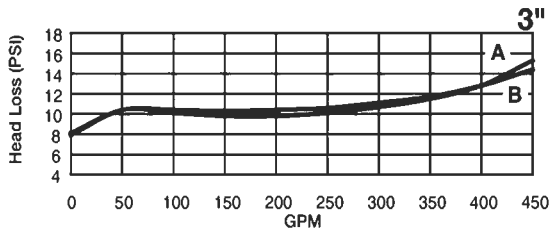
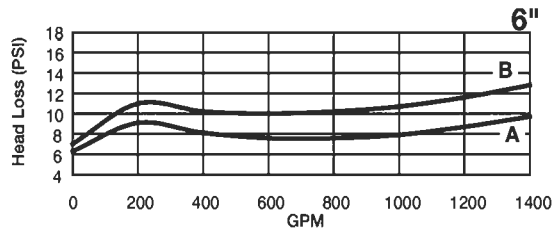
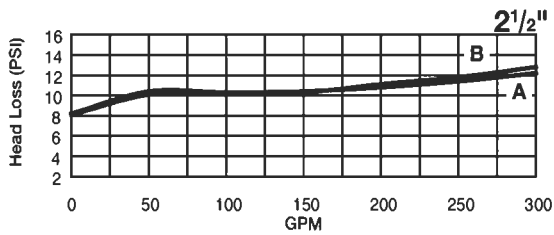
MODEL 880 / 880V

REPAIR KITS FOR 860 / 880 / 880V

Kit Description	2½"	3"	4"	6"	8"	10"
Check Replacement Kit						
2.1, 3, 3.1, 3.2, 3.4, 4, 4.1, 4.2, 880(V) (inlet)	905-544	905-544	905-548	905-552	905-554	905-556
13, 15, 16, 17 880(V) (outlet)	905-545	905-545	905-549	905-553	905-555	905-557
860/880 RP Inlet Spring Module						
2.1, 5.1, 7, 8, 9, 9.1, 10, 11, 12, 12.1	905-172	905-172	905-173	905-174	905-175	905-176
880 RP Outlet Spring Module						
2.1, 5.1, 7, 8, 9, 9.1, 10.1, 10.2*, 11, 12, 12.1 (* 8" only)	905-142	905-142	905-143	905-144	905-145	905-146
880 (V) Disc Assembly						
6, 16, 17 - (10" - item 6 only)	905-224	905-224	905-225	905-226	905-185	400-145
Seat Ring / Arm Assembly						
3, 3.1, 3.2, 3.3, 3.4, 4, 4.1, 4.2, 5	905-157	905-157	905-158	905-159	905-160	905-161
880 (V) Rubber Kit (Checks and RV)						
2.1, 3.1, 6, 15, 16, 17, 26, 27, 31.1, 32, 34.1, 35, 35.1, 37, 45, 45.1	905-227	905-227	905-228	905-229	905-190	905-191
Relief Valve Repair Kit						
26, 27, 28, 29, 30, 31.1, 31.2, 32, 33, 34, 34.1, 37	905-192	905-192	905-192	905-192	905-192	905-192
Relief Valve Internal Assembly Kit						
27, 28, 28.1, 29, 30, 31, 31.1, 32, 33, 37, 38, 38.1, 39	905-320	905-320	905-320	905-320	905-320	905-320
880 (V) Inlet Check Only						
2, 2.1, 15	905-167	905-167	905-168	905-169	905-170	905-171(880)
880 (V) Cover Assembly Outlet Check Only						
2.1, 2.5, 15	905-244	905-244	905-245	905-246	905-247	905-248
Bulkhead Fittings Assembly Cover						
43.1, 45.1, 46.1, 47.1	905-275	905-275	905-275	-	-	-
Bulkhead Fittings Assembly Body						
43, 45, 46, 47	905-276	905-276	905-276	-	-	-
Bulkhead Fittings Assembly Body and Cover						
43, 45, 46, 47	-	-	-	905-277	905-277	905-277
Bulkhead Plug Assembly 2nd Check Cover (N & V Units) Early Prod.						
44, 45.1, 46.1, 47.1	905-278	905-278	905-278	-	-	-
Bulkhead Plug Assembly 2nd Check Cover (N & V Units) Early Prod.						
44, 45, 46, 47	-	-	-	905-279	905-279	905-279
880 (V) Relief Valve Assembly						
24, 24.1, 25, 26, 35.1, 36, 50, 51, 201	905-295	905-295	905-295	905-295	905-295	905-295
880(V) Check Rubber Kit						
2.1, 3.1, 6, 15, 16, 17, 26, 35, 35.1, 45, 45.1	905-413	905-413	905-414	905-415	905-412	905-416
860 / 880 (V) Relief Valve Rubber Kit						
26, 27, 31.1, 32, 34.1, 37	905-316	905-316	905-316	905-316	905-316	905-316

Some of the above items are only available as part of a repair kit.





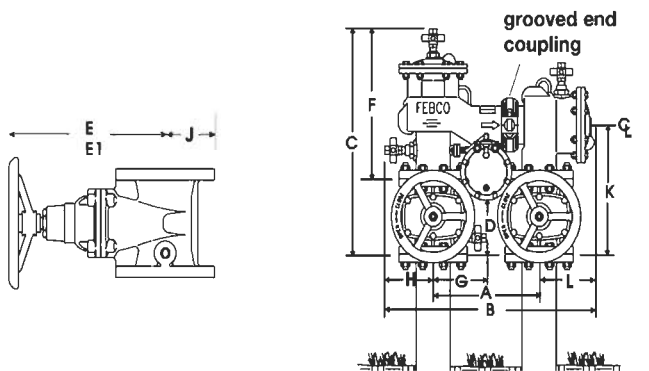
A-Vertical orientation (model 880V)
B-Standard orientation (model 880 and 880V)

The 6" & 10" flow curves (B-standard orientation) include the FEBCO valve setter model 611.

Dimensions U.S. - Inches

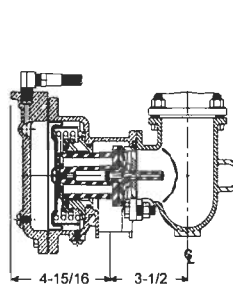
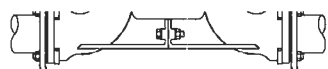
Size	E1													NRS (Lbs.)	OS&Y (Lbs.)
	A	B	C	D	E NRS	OS&Y OPEN	F	G	H	J	K	L	M		
2 1/2"	12 1/2	25 3/4	24 1/4	4 15/16	12 5/8	16 3/8	16 5/8	6 1/4	5 1/2	3 1/2	13 3/8	7 1/4	27 1/4	210	220
3"	12 1/2	25 3/4	24 3/4	5 7/16	12 7/8	22 1/4	16 5/8	6 1/4	5 1/2	3 3/4	14 1/8	7 1/4	28 1/4	280	290
4"	14	27 7/8	26 3/4	6 9/16	14 3/8	23 1/4	17 3/4	7	6	4 1/2	15 1/2	7 1/4	31	320	350
6"	16	32 1/4	32 1/4	8 9/16	18 7/8	30 1/8	21 4/7	8	7 1/2	5 1/2	18 5/8	9 1/2	37 1/4	480	530
8"	18 1/2	37 1/2	36 3/8	9 9/16	23 1/2	37 3/4	24 7/8	9 1/4	8 3/4	6 3/4	20 3/4	10 1/4	41 1/2	810	880
10"	21	42 1/2	40 3/4	11 1/2	27 1/2	48	27 1/2	10	9 3/4	8	24	11 1/2	48	1350	1480

Weights do not include risers or optional valve setter. Dimensions shown are nominal. Make allowances for normal manufacturing tolerances.

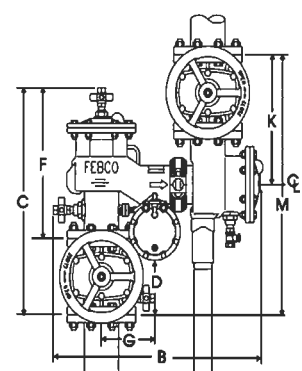


NRS Side View

**Model 880/880V
Standard Orientation**



Relief Valve Detail
Relief shipped on right side (shown)
field reversible to left side.



**Model 880V
Vertical Orientation**

