

Model 860 (2-1/2" - 10") Reduced Pressure Assembly

Features

Ductile iron body for superior strength and light weight.
Patented spring-loaded swing checks for reliability and low head loss.
100% fusion epoxy coated inside and out.
Modular bottom mount relief valve.
Simple service procedures require no tools.
Cast in lifting hooks for easy, safe installation.
Bulkhead fittings eliminate all threaded holes in body and cover.

Characteristics

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.

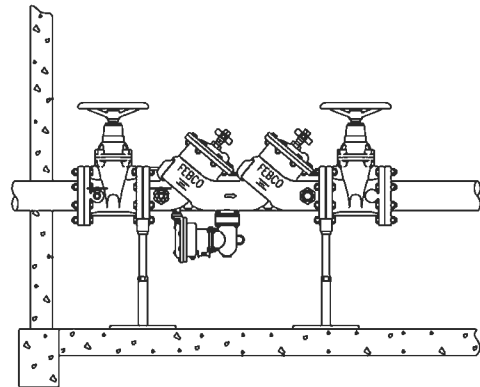
When the pressure on the upstream side of the first check valves drops below 2 PSI above the zone pressure the relief valve is open. Under a backflow condition, when upstream pressure is 2 PSI or more, the relief valve discharges water, and the pressure in the zone is at least 1/2 PSI below upstream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

Options

- Air Gap Drain
- UL FM OS&Y RW Gate Valves
- Y - Strainer

Application

Reduced pressure backflow preventers are used to protect against contamination from hazardous (toxic) fluids in potable water supply systems servicing: Office buildings, industrial plants, hospitals, apartment complexes, shopping malls, private homes, laundries, shipyards, mortuaries, irrigation systems, steam boilers, chemical plants and many others.

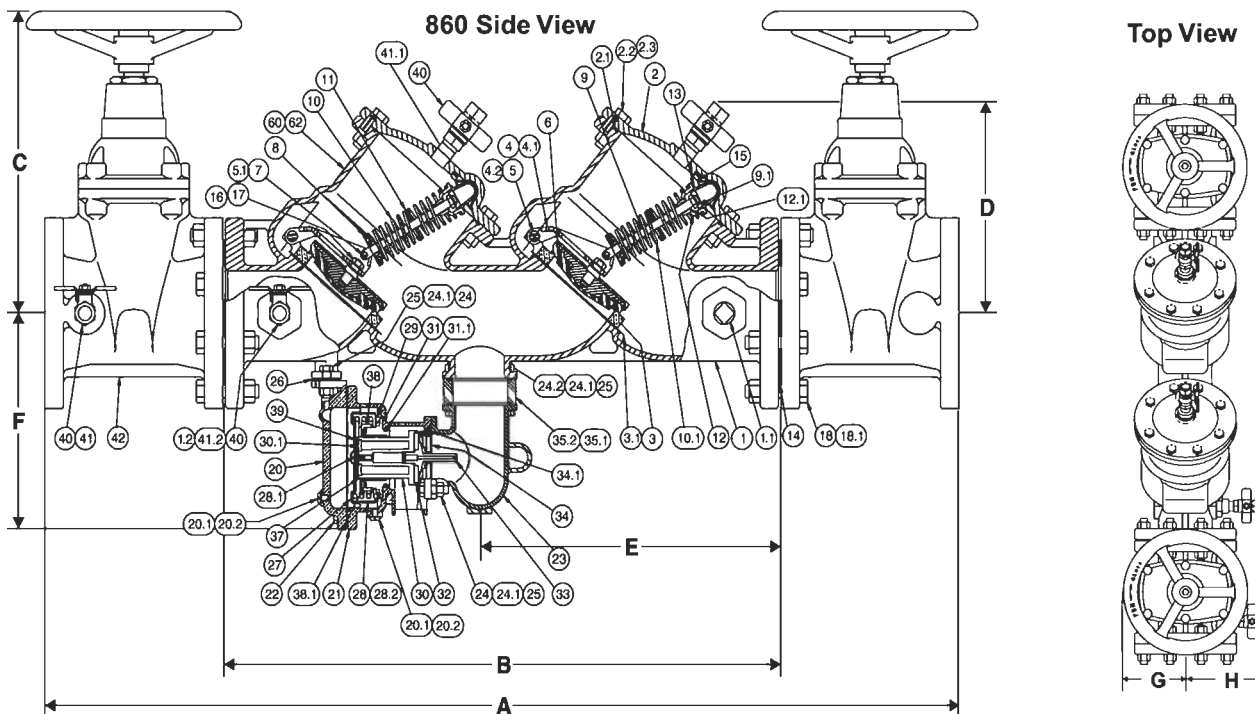


Installation

A Reduced Pressure Backflow Preventer should be installed with a suggested minimum clearance of 12" between port and floor or grade. It must be installed so discharge will not be objectionable and can be positively drained away. Installation should promote easy maintenance, testing, and freeze protection. Thermal water expansion and/or water hammer downstream can cause excessive pressure, which may cause damage to the system and assembly.

Agency Compliance

- ANSI/AWWA (C511-89) - 2 1/2" - 10"
- ASSE (Std. 1013) - 2 1/2" - 10"
- CAN/CSA (B64.4) - 2 1/2" - 8"
- UL Listed - 2 1/2" - 8"
- FM Approved - 2 1/2" - 8"
- cUL - 2 1/2" - 8"
- FCCC & HR - 2 1/2" - 8"



Dimensions and Weights

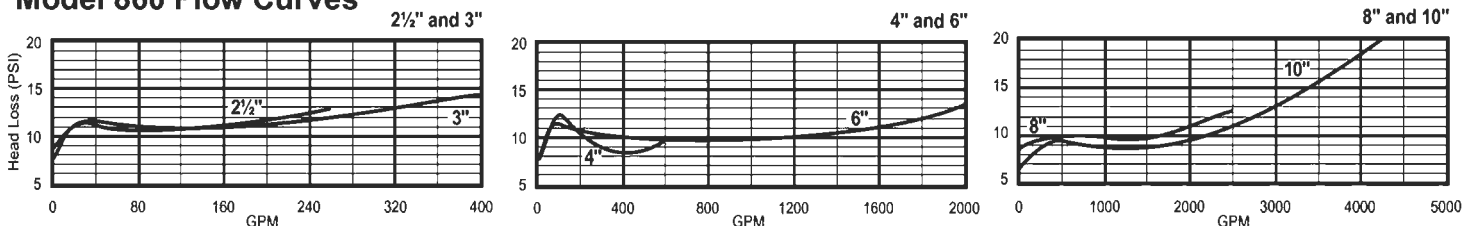
SIZE	U.S. - Inches								Net Wt.	Net Wt.
	A	B	C	D	E	F	G	H	Lbs. (Kgs.) NRS	Lbs. (Kgs.) OS&Y
2 1/2"	40 3/4	25 1/2	12 5/8	10	12 7/8	10	4 1/2	7 1/8	219	223
3"	41 7/8	25 5/8	12 7/8	10	13	10	4 1/2	7 3/8	231	233
4"	46 1/4	28	14 3/8	10 1/8	15 1/8	10 1/8	5 1/2	8 1/8	317	334
6"	56	34 3/4	18 7/8	12 3/4	20 3/4	11 1/8	6 1/2	9 7/8	481	516
8"	65	41 3/4	23 1/2	15 5/8	26 7/8	12 1/4	7	11 1/8	734	796
10"	72 5/8	46 3/8	27 1/2	15 3/4	28 1/4	12 3/8	9	12 3/8	946	1008

Note: Dimensions are nominal. Allowances must be made for normal manufacturing tolerances.

Materials of Construction

ITEM	DESCRIPTION	MATERIALS	ITEM	DESCRIPTION	MATERIALS	ITEM	DESCRIPTION	MATERIALS
1	Body	A536 GR 65-45-12	10	Spring	A313 Type 631 SS	28	Button	A240 304 SS
1.1	Pipe Plug	Galv. SII.	10.1	Spring 2nd Check	A313 Type 631 SS	28.1	Flow Washer	Acetal Resin
1.2	Bushing (2 1/2"-4" Only)	Brass	10.2	Spring Shim 2nd Check	Acetal Resin	29	RV Spring	A313 Type 302 SS
2	Cover	A536 GR 65-45-12	11	Spring Guide	B130 Alloy C22000	30	RV Stem	Acetal Resin
2.1	O-Ring	EPDM ASTM D2000	12	Upr Spring Retnr	B584 Alloy C83600	31	Main Guide	B584 Alloy C83600
2.2	Cap Screw	Plated Steel	12.1	Bushing-Spr. Stem	Acetal Resin	31.1	Main Guide O-Ring	FDA EPDM
2.3	Hex Nut	Plated Steel	13	Pivot Bearing	B585 Alloy C83600	32	Seat Disc	EPDM AST D2000
3	Seat Ring	B584 Alloy C83600	14	Flange Gasket	Rubber/Fabric	33	Lower Guide	Acetal Resin
3.1	Gasket	EPDM ASTM D2000	15	Bearing Socket	Acetal Resin	34	Seat Ring	B584 Alloy C83600
3.2	Socket Head Screw	18-8 SS	16	Hex Jam Nut	18-8 SS	34.1	O-ring	FDA EPDM
3.3	Washer	304 SS	17	Washer	302 SS	35.1	O-Ring	EPDM ASTM D2000
3.4	Elastic Stop Nut	18-8 SS	18	Flange Nut	Plated Steel	35.2	Extension	Acetal Resin
4	Arm	B584 Alloy C83600	18.1	Flange Nut	Plated Steel	37	Sm. Diaphragm	Nitrile ASTM D2000
4.1	Bushing-Swing Pin	Acetal Resin	20	R.V. Cover	B584 Alloy C83600	38	Retainer	B584 Alloy C83600
4.2	Swing Pin	304 SS	20.1	Bleed Screw	18-8 SS	38.1	Slip Ring	Acetal Resin
5	Retaining Clip	302 SS	20.2	Gasket	HDPE	39	Flow Washer	Acetal Resin
5.1	Retaining Clip	302 SS	21	R.V. Body	B584 Alloy C83600	40	Ball Valve	B584 Alloy C84400
6	Check Disk	EPDM Coated GR, 45Ductile Iron with A276 type 304SS stem	22	Cover Bolt	18-8 SS	41	Nipple	Brass
7	Load Pin	B150 Alloy C61300	23	Elbow	A536 GR 65-45-12	41.1	Nipple	Brass
8	Lwr Spring Retnr	B584 Alloy C83600	24	RV Mtg Bolt	Plated Steel	41.2	Nipple	Brass
9	Spring Stem	304 SS	24.1	Washer	Plated Steel	42	Gate Valve (NRS)	AWWA C509
9.1	Elastic Stop Jam Nut	18-8 SS	25	RV Mtg Nut	Plated Steel	60	Identification Plate	B36 Alloy C26000
			26	Gasket	EPDM	62	Drive Screw	Stainless Steel
			27	Lrg. Diaphragm	Nitrile ASTM D2000	70	Clamp	AWWA C506 (10" Only)

Model 860 Flow Curves



American Backflow Specialties
www.americanbackflow.com

(800) 66-BKFLO

(619) 527-2525

Fax: (619) 527-2527

REPAIR KITS: MODEL 860 (2 1/2" - 10")

Kit Description	2 1/2"	3"	4"	6"	8"	10"
Check Replacement Kit						
Items	860 (inlet)	905-543	905-543	905-546	905-550	905-554
2.1, 3, 3.1, 3.2, 3.4, 4, 4.1, 4.2,	860 (outlet)	905-527	905-527	905-547	905-551	905-555
13, 15, 16, 17	880(V) (inlet)	905-544	905-544	905-548	905-552	905-554
	880(V) (outlet)	905-545	905-545	905-549	905-553	905-555
860/880 RP Inlet Spring Module						
Items						
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)
860/880 RP Outlet Spring Module						
Items						
2.1, 5.1, 7, 8, 9, 9.1, 10.1, 10.2*, 11, 12, 12.1		905-142	905-142	905-143	905-144	905-145 905-146(880)
860 Disc Assembly						
2.1, 6, 16, 17		905-182	905-182	905-183	905-184	905-185 905-185
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)
860 Rubber Parts Kit (Checks and RV)						
2.1, 3.1, 6, 15, 16, 17, 26, 27, 31.1, 32, 34.1, 35.1, 35.2, 45, 45.1		905-187	905-187	905-188	905-189	905-190 905-190
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
860 Cover Assembly Both Checks						
2, 2.1, 15		905-167	905-167	905-168	905-169	905-170 905-171(880)
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.						
Items						
44, 45.1, 46.1, 47.1		905-278	905-278	905-278	-	-
Bulkhead Plug Assembly 2nd Check Cover (N & V Units) Early Prod.						
Items						
44, 45, 46, 47		-	-	-	905-279	905-279 905-279
860 Relief Valve Assembly						
24, 24.1, 24.2, 25, 35.1, 35.2, 201		905-294	905-294	905-294	905-294	905-294 905-294
860 Check Rubber Kit						
2.1, 3.1, 6, 15, 16, 17, 26, 35.1, 35.2, 45, 45.1		905-409	905-409	905-410	905-411	905-412 905-412
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.

Note: Bulkhead fittings are not furnished on the Model 860.

* 8" only

