

Model RP8N / RP8V Reduced Pressure Principle 2-1/2" to 10"

CHARACTERISTICS

Max. Working Pressure	175 PSI
Hydrostatic Test Press.	350 PSI
Temperature Range	32° F to 140° F

End Connections	Flanged ANSI B16.1 Class 125
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DESCRIPTION & 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 valve 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.

MATERIALS

Main valve body:	Ductile iron grade 65-45-12 ASTM A536
Coating:	Fusion epoxy, int & ext AWWA C550-90
Shut-offs:	NRS & OS&Y resilient wedge AWWA C509 gate valves
Trim:	Bronze, Alloy C83600
Elastomer discs:	EPDM
Spring:	Stainless steel

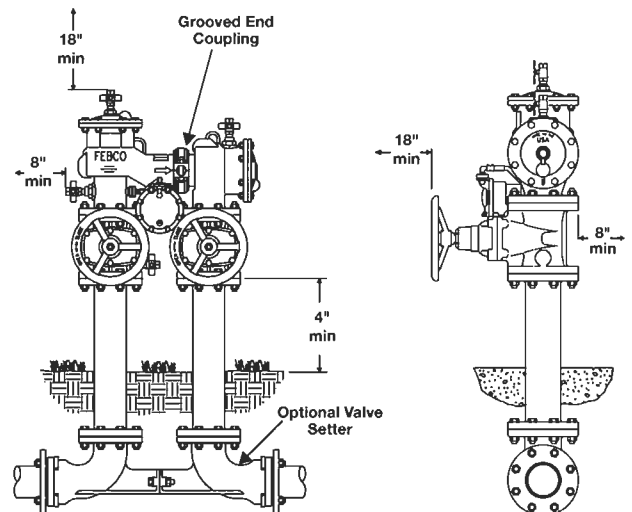
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FLOW ORIENTATION

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

Vertical orientation is inlet and outlet flow vertical up.

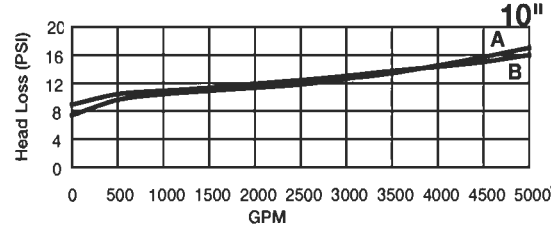
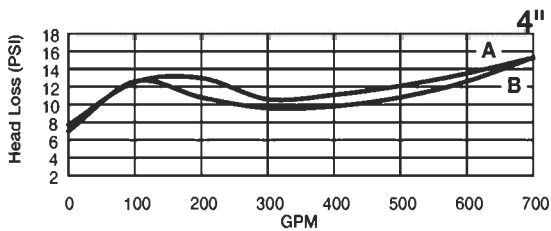
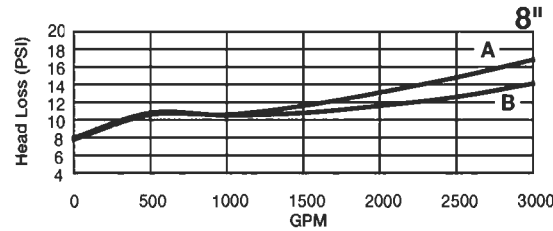
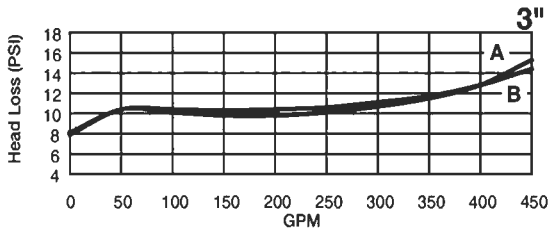
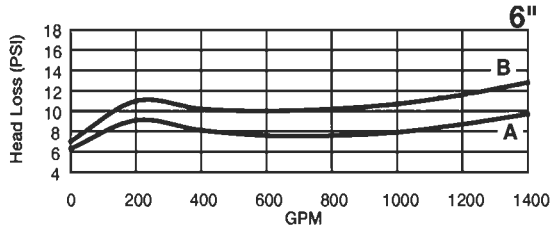
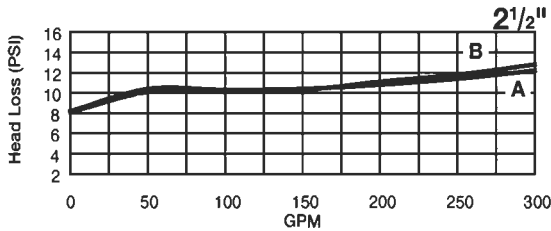
INSTALLATION



Standard orientation

Model RP8n & RP8V

FLOW CURVES



A-Vertical orientation
B-Standard orientation

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

DIMENSIONS & WEIGHTS

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 5/8	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.

