

Model RP-4 Reduced Pressure Principle 2" to 10"

FEATURES

- Meets AWWA Standard C511-89
- Extremely Low Head Loss
- Designed for Easy Field Testing

DESCRIPTION

Under a normal flow condition, both check valves are open and the pressure differential relief valve is closed. During normal flow and at the cessation of flow, the pressure in the zone between the two check valves is maintained at least 2 psi less than the supply pressure by action of the pressure differential relief valve.

Under a no flow condition, both check valves are closed. When supply pressure drops to 2 psi above the "zone" pressure, then the relief valve discharges as necessary to maintain the "zone" pressure at 2 psi below supply pressure. When supply pressure drops below 2 psi above the "zone" pressure, then the relief valve opens fully.

SPECIFICATIONS

The Cla-Val Model RP-4 Backflow Preventer protects potable water lines against contamination. This assembly combines protection against backflow with exceptionally low head loss characteristics. It operates on the reduced pressure principle, which is an accepted method of safeguarding potable water supplies against the hazards of cross-connections.

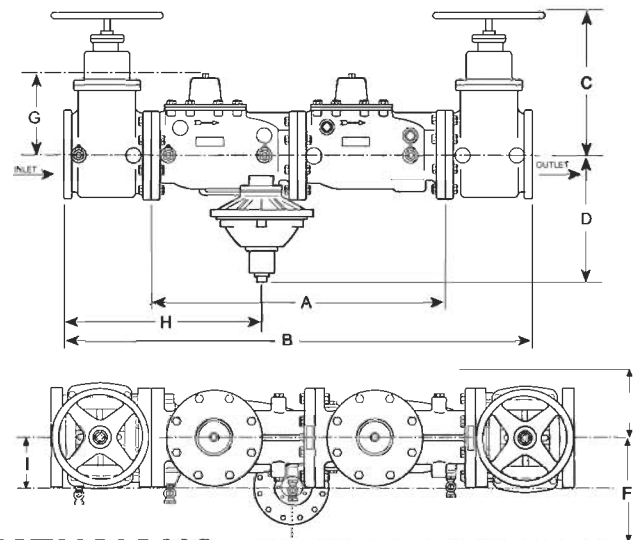
The Model RP-4 is carefully constructed of corrosion resisting materials. It consists of two independently acting toggle lever check valves, an automatic pressure differential relief valve located between the two check valves, two shutoff valves and four test cocks. The levers, links and pins are rugged, simple and direct with ample clearances to insure long, trouble free operation, even in very hard water and over prolonged periods of time.

INSTALLATION

The assembly is required to be installed in a horizontal position and provisions for adequate drainage must be made. Right hand mount of relief valve is standard. Left hand mount is optional. Shut-off valves on 2" are resilient seat ball valves. Standard shut-off valves on 2 1/2" and larger are a resilient seat non-rising stem design. When used in fire service, OS&Y shut-off valves must be used, which are available at extra cost.

Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. (2" Through 10")

Classified by Underwriters' Laboratories Inc. as to friction loss and body strength only. (3" Through 10")



DIMENSIONS

Valve Size	2" Screwed	2 1/2"	3"	4"	6"	8"	10"
A	20.06	26.06	26.06	30.06	40.06	50.81	59.56
B	33.16	42.19	42.19	48.19	61.19	73.94	85.69
C Max	5.25	13.12	15.25	17.50	21.00	24.85	29.38
D	7.94	9.44	9.44	12.56	13.56	14.75	17.06
E	4.00	4.00	4.50	5.00	6.00	8.00	10.00
F	10.75	10.75	10.75	14.38	14.38	14.38	14.38
G	5.25	7.25	7.25	8.31	11.00	13.00	15.75
H	14.74	18.56	18.56	20.56	26.81	32.94	38.31
I	7.70	7.70	7.70	9.00	9.00	9.00	9.00

We recommend providing adequate space around assembly for maintenance work and testing.

MODEL RP-4

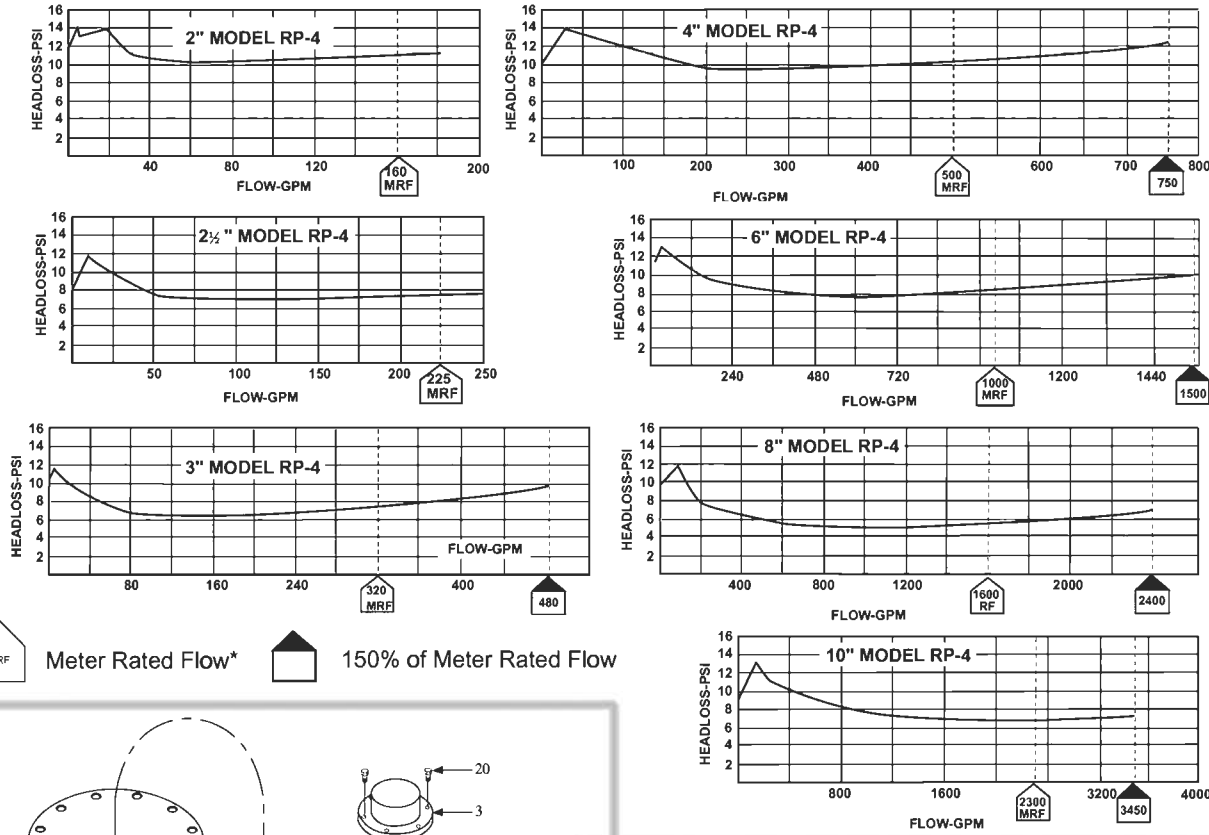
SPECIFICATIONS

End Detail: 125 lb. ANSI B16.1 (Flanged)
 Maximum working pressure: 175 PSI
 Hydrostatic test pressure: 350 PSI
 Temperature range: up to 110°F
 Fluid: Water

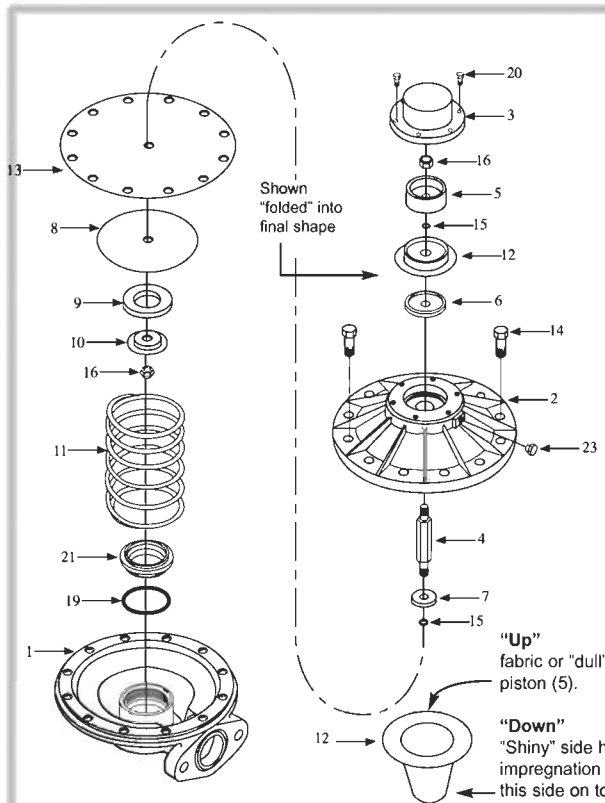
MATERIALS

Main Valve Body and Cover: Cast Iron ASTM A-126 int & ext epoxy coated AWWA C550
Main Valve Trim: Bronze ASTM B-61
Differential Relief Valve: Bronze ASTM B-61 with Stainless Steel 316 Trim
Shut-off Valves: Resilient Seat Non-Rising Stem Type Epoxy Coated Int & Ext AWWA C550

FLOW CURVES



Meter Rated Flow* 150% of Meter Rated Flow



REPAIR KITS - CDHS-20 Relief Valves
 1-1/4" - Used on 2" & 3" RP-4 88418-K
 2" - Used on 4" to 10" RP-4 88419-H

1	Body
2	Intermediate
3	Cover
4	Stem
5	Piston
6	Retainer
7	Diaphragm Washer
8	Disc Retainer
9	Disc
10	Disc Guide

CDHS-20 & CDHS-24 Pressure Differential Relief Valves

11	Spring
12	Rolling Diaphragm
13	Diaphragm
14	Hex Head Screw
15	Stem O-Ring
16	Self Locking Nut
19	Seat O-Ring
20	Fill Head Screw
23	Pipe Plug

"Up" fabric or "dull" side against piston (5).

"Down" "Shiny" side has coating or impregnation of rubber on it. Put this side on top of retainer (6).