

CLAVAL

RP I/ RPI-EX

SIZE

2", 2 1/2", 3", 4", 6", 8", 10"

DESCRIPTION

This is a reduced pressure assembly. The assembly was produced from approximately 1978 to 1990. The 2 1/2"-10" valve consists of two fused epoxy coated cast iron body toggle lever check valves and a bronze body differential relief valve. The 2" size has a bronze body check valve. There are two styles of check rubber discs and the serial numbers are needed to order the correct parts. Assemblies produced after 1986 are the RP1-EX design. The repair parts are the same as the RP1 series. The difference in the two models was the repositioning of the relief valve section below the first check body in the RP1-EX version. The RP1-EX was discontinued in 1990. The RP1 and RP1-EX series used the CDHS 20 relief valve section which can be detached from the check body. The relief valve spring was not contained when the relief valve body was disassembled. Most internal hardware parts in the R.V. are made of stainless steel. The R.V. utilizes a single external sensing line. Check and relief seats are replaceable on the assembly. A seat removal tool is needed to replace the check seats. The RP1 and RP1-EX models utilize the 3081 toggle lever check design. Check springs are not contained when the cover is removed. Most internal check hardware parts are made of bronze.

BASIC REPAIR KIT

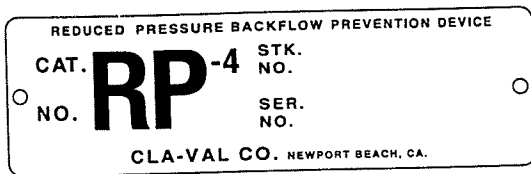
The repair kit contains all rubber discs, rolling diaphragm, diaphragm, gaskets, O-rings, washers, and cover seals.

<u>SIZE</u>	<u>KIT NO</u>
2"	RP1200 *
2 1/2"	RP1250 *
3"	RP1300 * ◆
4"	RP1400 *
6"	RP1600 *
8"	RP1800 *
10"	RP1001 *

IMPORTANT FEATURES

- ~2" has a bronze body
- ~2 1/2"-10" has a fused epoxy coated cast iron body
- ~All seats are replaceable
- ~Springs are not contained
- ~Detachable relief valve assembly
- ~Serial numbers are needed to order some parts
- ~Factory repair information enclosed





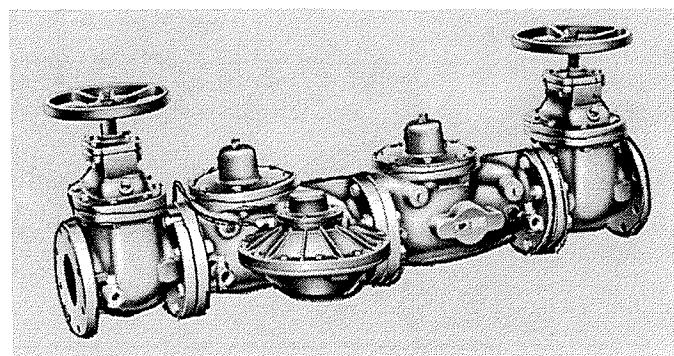
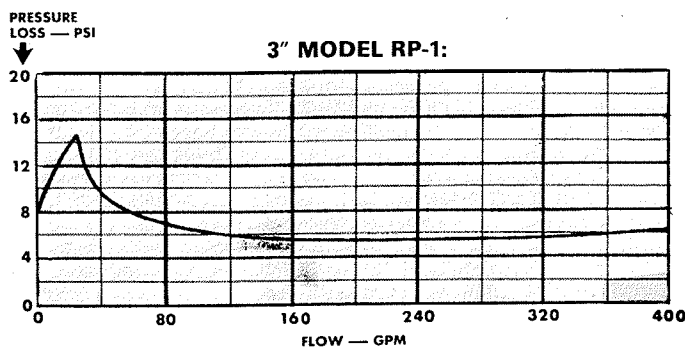
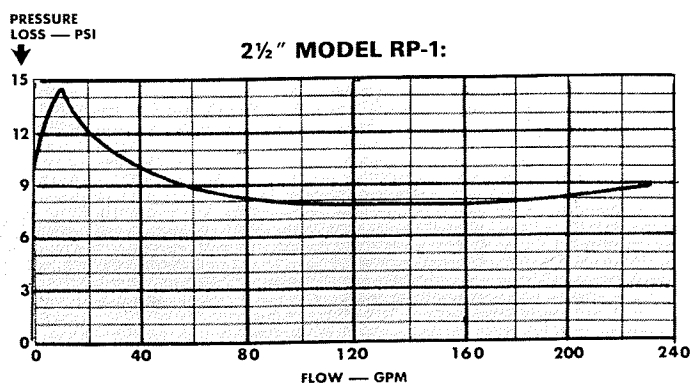
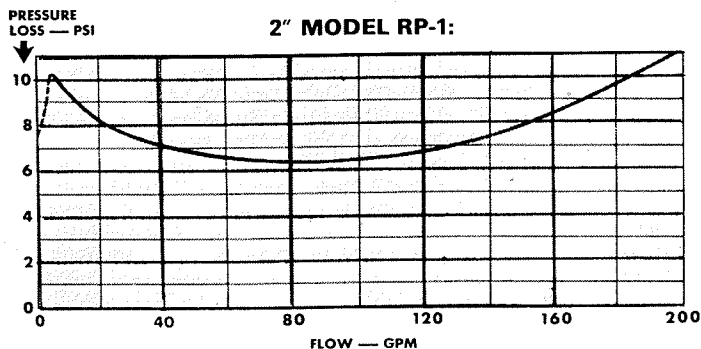
This brass plate is on our backflow prevention assemblies and is found on the side of the number two check. The serial number of the assembly is also stamped on the top of the inlet flange of the number one check.

MODEL RPI

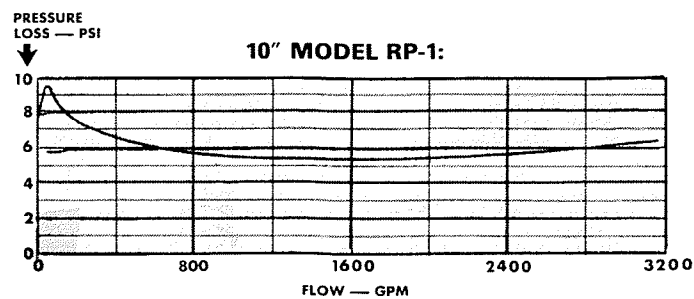
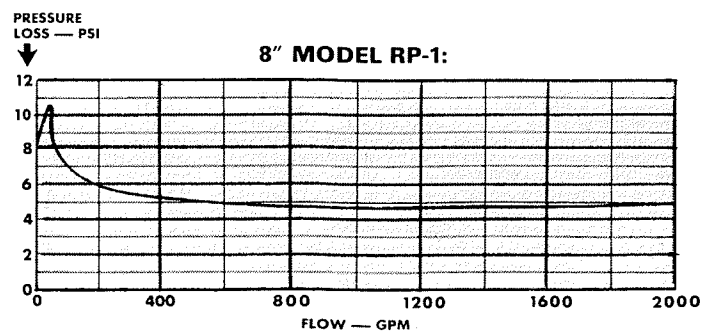
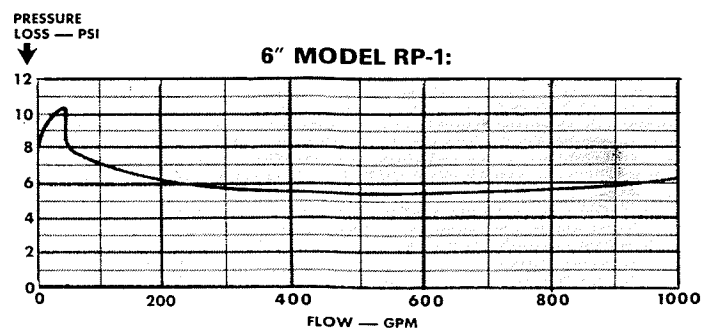
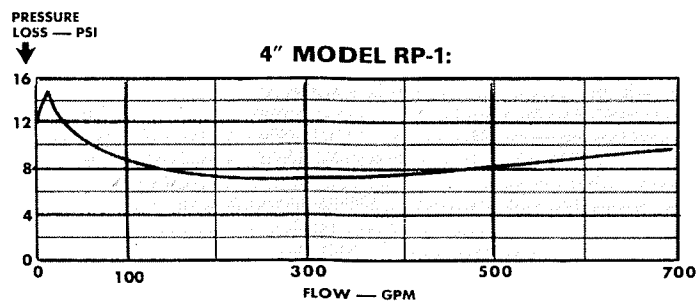
REDUCED PRESSURE PRINCIPLE

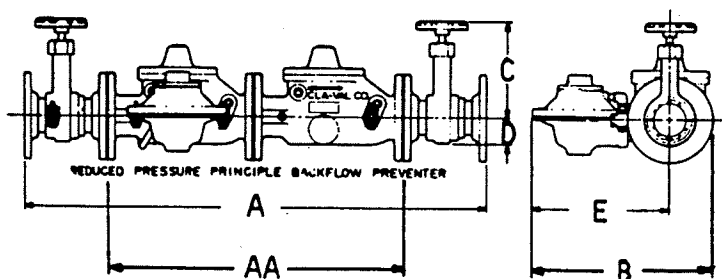
Sizes 2" through 10"

FLOW CURVES



4" size illustrated

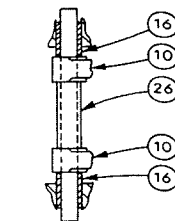
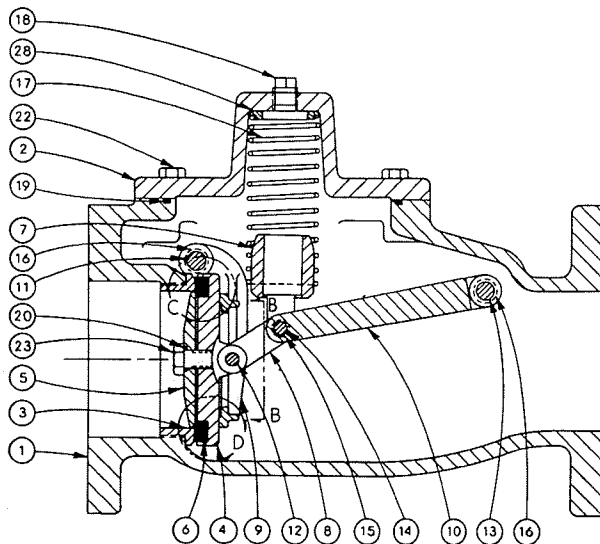
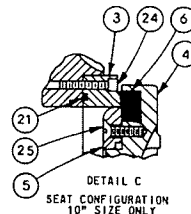
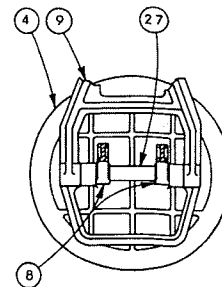
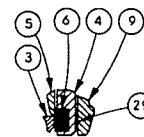


**CLA-VAL CO.****BACKFLOW
PREVENTER****Model
RP-1****DIMENSIONS****DIMENSION TABLE**

SIZE	2" SCR	2" FLG	2½	3	4	6	8	10
A END TO END	29¼	33	42¾	42¾	48¼	61¼	74	86
AA LESS G.V.	22¾	20½	27¾	27 1/16	30¾	40¾	50¾	59½
B OVERALL WIDTH	12¾	12¾	15½	15¾	20¾	22½	26¾	30¾
C CENTER TO TOP	8½	8½	13¾	15	17½	20¾	25	29½
D CENTER TO BOTTOM	2	2	3	3	3½	4½	5¾	8
E CENTER TO OUTSIDE	9¾	9¾	11¾	11¾	14¾	16	17	19¾
TEST COCKS	¼	¼	½	½	½	¾	¾	¾

SHUT-OFF VALVES ON 2" ARE RISING STEM.**SHUT-OFF VALVES ON 2½" & LARGER ARE NON-RISING STEM STANDARD****SPECIFICATIONS**

SIZES	2"- 10"
END DETAIL	125 ANSI
MAXIMUM WORKING PRESSURE	150 PSI
HYDROSTATIC TEST PRESSURE	300 PSI
TEMPERATURE RANGE	to 110°F.
FLUID	Water
MATERIAL	2" main valve body and cover: Bronze ASTM B-61 2½" and larger main valve body and cover: Cast Iron ASTM A-126 interior epoxy coated Main valve trim: Bronze ASTM B-61 Differential relief valve: Bronze ASTM B-61 with Stainless Steel 316 Trim

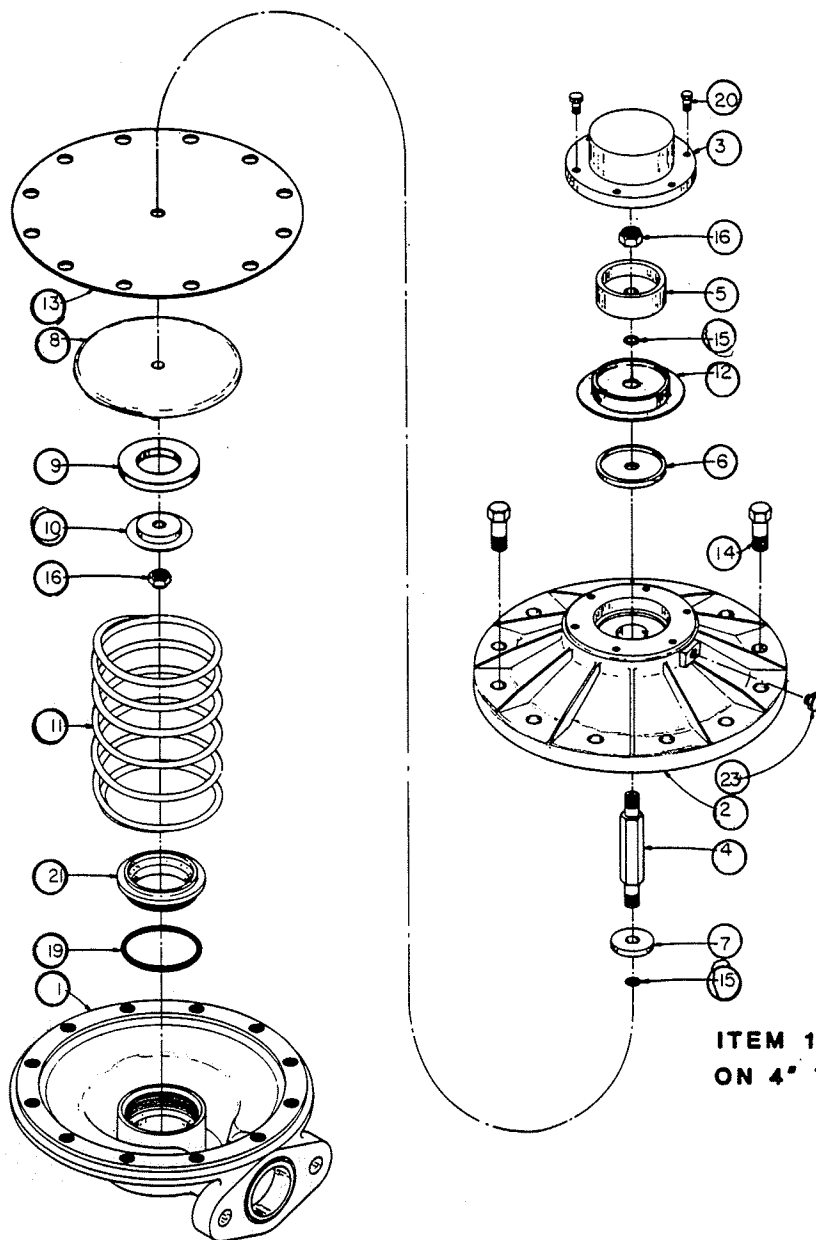
3081 TOGGLE LEVER CHECK VALVE**VIEW A-A
LEVER ARM SPACER
8" & 10" SIZE ONLY****DETAIL C
SEAT CONFIGURATION
10" SIZE ONLY****VIEW B-B
LINK SPACER
10" SIZE ONLY****DETAIL D
HINGE BUMPER
2", 2½",
& 3" SIZE ONLY**

PARTS LIST
When ordering parts
specify item No.,
Description,
all
name Plate data,
and valve size

ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	BODY	13	LEVER ARM PIN	22	CAP SCREWS
2	COVER	14	LINK PIN	23	DISC GUIDE BOLT (1" THRU 8")
3	SEAT	15	PIN RETAINER	24	SEAT SCREW (10" ONLY)
4	DISC RETAINER	16	BUSHING	25	DISC GUIDE SCREW (10" ONLY)
5	DISC GUIDE	17	SPRING	26	LEVER ARM SPACER (8" & 10" ONLY)
6	DISC	18	PLUG	27	LINK SPACER (10" ONLY)
7	YOKE	19	COVER SEAL	28	SPRING WASHER (2" ONLY)
8	LINK	20	DISC GUIDE "O" RING (4", 6", 8" ONLY)	29	HINGE BUMPER (2", 2½" & 3" ONLY)
9	HINGE	21	SEAT "O" RING (10" ONLY)		
10	LEVER ARM				
11	HINGE PIN				
12	DISC RETAINER PIN				

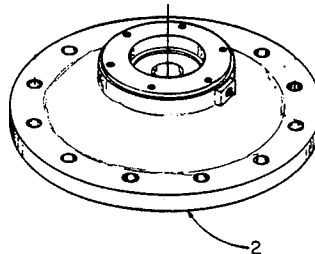
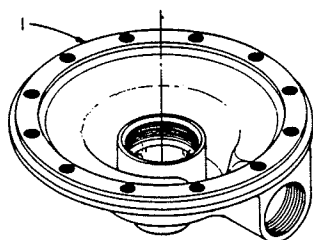
CDHS 20

PRESSURE DIFFERENTIAL RELIEF VALVES FOR RP-1 BACKFLOW PREVENTER ALL PARTS TYPICAL EXCEPT AS NOTED



ITEM NO.	DESCRIPTION
1	Body
2	Intermediate Body
3	Cover
4	Stem
5	Piston
6	Retainer Plate
7	Diaphragm Washer
8	Disc Retainer
9	Disc
10	Disc Guide
11	Spring
12	Bellofram
13	Diaphragm
14	Hex Head Screw
15	Stem O-Ring
16	Self Locking Nut
19	Seat O-Ring
20	Fill Head Screw
21	Seat
23	Pipe Plug

ITEM 1 & 2 SHOWN FOR USE
ON 4" THRU 10" MODEL RP-1



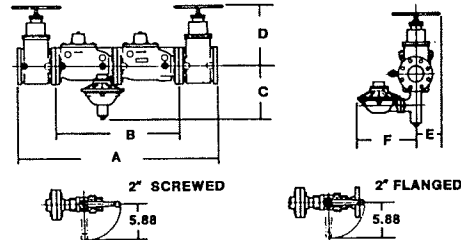
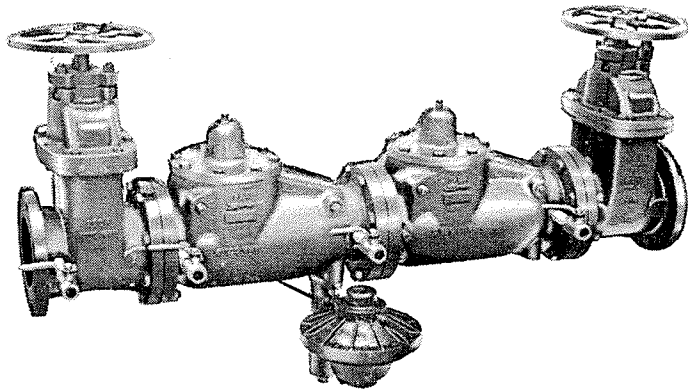
ITEM 1 & 2 SHOWN FOR USE ON 2" THRU 3" MODEL RP-1



MODEL

RP-1EX

Backflow Preventer



Dimensions (IN INCHES)

Size	2"	2"	2 1/4"	3"	4"	6"	8"	10"
	screwed	flanged						
A	33.66	37.16	42.19	42.19	48.19	61.19	73.94	85.69
B	20.06	20.06	27.06	27.06	30.06	40.06	50.81	59.56
C	7.94	7.94	9.44	9.44	12.56	13.56	14.75	17.06
D Max	5.25	5.25	19.00	19.00	24.75	31.25	40.25	48.50
E	5.88	5.88	4.50	4.50	5.00	6.00	8.00	10.00
F	9.25	9.25	9.25	9.25	14.25	14.25	14.25	14.25
End Details	2-11 1/4 NPT screwed	150 Lb ANSI B 16.24	125 Lb ANSI B 16.21					

Specifications

Sizes

2", 2 1/2", 3", 4", 6", 8", 10"

End Detail

125 ANSI B16.1

Maximum Working Pressure

175 PSI

Hydrostatic Test Pressure

350 PSI

Temperature Range
to 110° F

Fluid

Water

Material

2" main valve body and cover:
Bronze ASTM B-61

2 1/2" and larger

main valve body and cover:

Cast Iron ASTM A-126

interior epoxy coated

main valve trim:

Bronze ASTM B-61

Differential relief valve:

Bronze ASTM B-61 with

Stainless Steel 316 Trim

RP-1EX Reduced Pressure Principle Backflow Preventer Flow Curves

