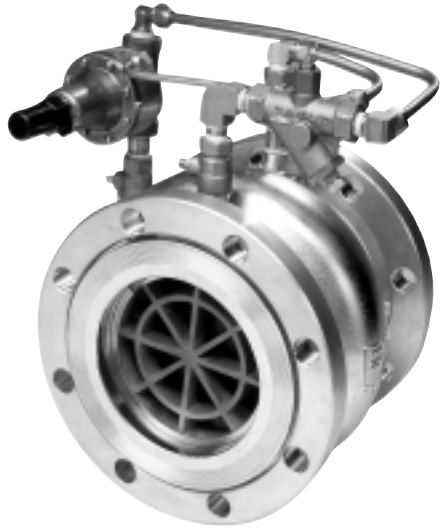




— MODEL — **750-01**

# Pressure Relief, Sustaining & Back Pressure Valve



## Description

The Cla-Val Model 750-01 is a hydraulically operated pilot actuated automatic control valve for pressure sustaining, relief and/or back pressure service. The main valve consists of only two parts, a stainless steel body and an elastomeric liner or control element.

The main valve will open when inlet pressure begins to exceed a preset pressure and will allow enough flow to maintain that inlet pressure. In pressure sustaining service, Model 750-01 will conserve pressure in an upper system during periods of high demand in a system below. In pressure relief service, the Model 750-01 will modulate to exhaust line pressure to keep it below a set point maximum. On a pump bypass system, the valve will allow flow back to the pump suction when pump discharge pressure exceeds the set point.

Cla-Val Model 750-01 will control from no flow to full open flow without any chattering or slamming under low flow conditions. For this reason, on by-pass, relief, and pressure sustaining service, there is never a region of control instability. There is no slip-type friction because the valve has no bearings. Cla-Val Model 750-01 valves have excellent resistance to cavitation with a  $C_f$  factor of 0.9.

These valves can be supplied as combination control valve with check. Pilot controls, options, and accessories are fully piped at the factory and the Cla-Val Model 750-01 is shipped ready for installation.

## Performance Specification

Capacity:	See Technical Data Sheet
$C_f$ Factor:	0.9
Cavitation:	See Technical Data Sheet
Rangeability:	500:1
Bearing Friction:	No friction from slip-type bearings

## Design Specification

Sizes:	2, 3, and 6 inch wafer style 6, 8, 10, and 12 inch flanged
End Detail Wafer:	Fits ANSI B16.5 class 125, 150, 250, and 300 flanges
End Detail Flanged:	ANSI B16.5 class 150 (fits class 125) or ANSI B16.5 class 300 (fits class 250)
End Detail Victaulic®:	Fits standard steel pipe
Operating Pressure:	720 psi maximum Victaulic® Ends - 300 psi max.
Maximum Differential:	150 psid continuous, 225 psid intermittent*
Reverse Pressure:	125 psid maximum
Temperature Range:	32 to 160 degrees F*
Flange Operating Pressure:	Class 125-175 psi maximum Class 150-275 psi maximum Class 250-300 psi maximum Class 300-720 psi maximum
Victaulic® Ends Rating:	300 psi maximum

\*Standard natural rubber 65 durometer in water service. Temperature range depends on liner material. Higher differential pressure ratings available.

## Purchase Specification

Valve and control system shall maintain inlet pressure at a predetermined set point; shall open as pressure starts to increase above the set point, and close as pressure falls below the set point. Control valve shall be constructed of two parts: a stainless steel body and an elastomeric liner or control element. Minimum rangeability shall be 500:1 based on capacity at flowing pressure conditions.  $C_f$  shall be greater than or equal to 0.9. Valve and control system shall be similar in all respects to Cla-Val Model 750-01 as manufactured by Cla-Val, Newport Beach, California.

## Material Specification

Body:	316L Stainless Steel
Liner:	Natural Rubber, 65 durometer (std) Viton, EPDM, Nitrile, Silicone (available)
Liner Retainer:	316 Stainless Steel

## Pilot

Body:	ASTM B62 Bronze*
Spring Cover:	ASTM B62 Bronze*
Wetted Parts:	Bronze/Stainless Steel* Buna-N®

## Accessories

Shut-off Cock:	Brass*
Speed Controls:	Brass*
Check Controls:	Brass*
“Y” Strainer:	Bronze*
Control Piping:	Copper*
Control Fittings:	Brass*

\*316 stainless steel available

For other than standard ANSI flanges consult factory

**Din drilling available on all sizes**



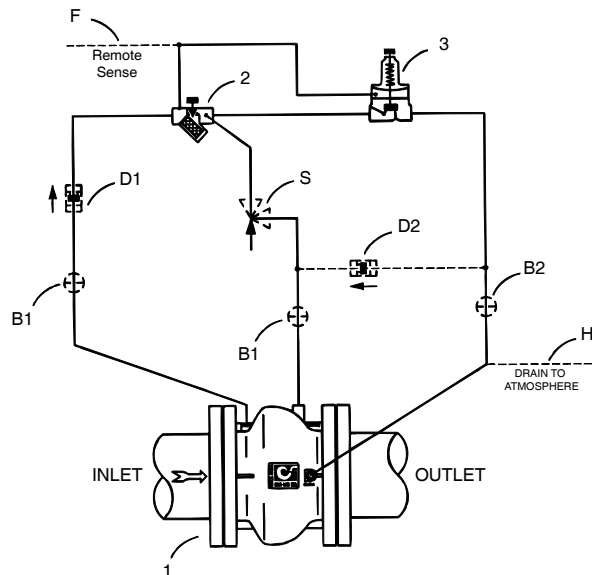
## 750-01 Basic Components

Item	Description
1	100-42 Roll Seal Main Valve
2	X42N-2 Strainer & Needle Valve (1/4 turn min. opening)
3	CRL Pressure Relief Control

## Optional Features

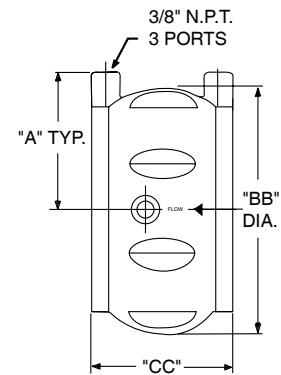
Item	Description
B	CK2 Cock (Isolation Valve)
D	Check Valves (125 psid max. reverse pressure)
F	Remote Pilot Sensing
H	Drain to Atmosphere
S	CV Speed Control (Opening)*

\* The opening speed control (optional) on this valve should always be open at least 3 turns off their seats, at start-up



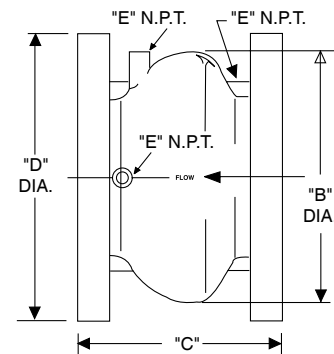
## Dimensions (100-42 Main Valve)

Valve Size (Inches)	2	3	4	6	8	10	12
A	2 7/8	3 9/16	4 1/8	5 1/4	—	—	—
B	—	—	—	10 7/8	14 3/8	18	21 5/8
BB	4 3/8	5 7/8	7 3/8	9 13/16	—	—	—
C	—	—	—	9	11	13	15 1/4
CC	2 1/2	3 1/4	4	8	—	—	—
D (ANSI 150)	—	—	—	11	13 1/2	16	19
D (ANSI 300)	—	—	—	12 1/2	15	17 1/2	20 1/2
E (Ports)	—	—	—	3/8	3/8	1/2	1/2
Approx. Wt. (150 lbs.)	4	7 1/2	14	58	115	190	290
Approx. Wt. (300 lbs.)	4	7 1/2	14	87	155	250	375



2", 3", 4" and 6" Wafer Style

VALVE SIZE (mm)	50	80	100	150	200	250	300
A	73	90	105	133	-	-	-
B	-	-	-	276	365	457	549
BB	111	149	187	249	-	-	-
C	-	-	-	229	279	330	387
CC	64	83	102	202	-	-	-
D (ANSI 150)	-	-	-	279	343	406	483
D (ANSI 300)	-	-	-	318	381	445	521
E (Ports) -	-	-	10	10	13	13	-
Approx. kg. (150lbs.)	1.81	3.63	6.35	30	54.43	89	151.50
Approx. kg. (150lbs.)with Studs & Nuts	2.72	4.54	10	-	-	-	-
Approx. kg. (300lbs.)	1.81	3.63	6.35	41.73	72.57	116.57	191
Approx. kg. (300Lbs.)with Studs & Nuts	5	6.35	11.80	-	-	-	-



6", 8", 10" and 12" Flanged Style

## When Ordering, Please Specify

- Catalog No. 750-01
- Valve Size
- Fluid Being Handled
- Fluid Temperature Range
- Inlet Pressure Range
- Outlet Pressure Range
- Maximum Differential Pressure
- Minimum Differential Pressure
- Maximum Flow Rate
- Pilot Set Point



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