



— MODEL **790-63**  
**790-67**  
 High Pressure

# Fire Hydrant Pressure Reducing Valve



## Description

The Cla-Val Model 790-63/790-67 Fire Hydrant Pressure Reducing Valve is a hydraulically operated, pilot actuated automatic control valve for pressure reducing service. The main valve is made of 316L stainless steel with only one moving part, an elastomeric liner. The valve has a female fire hose connection on the inlet side of the valve and male hose on the outlet side. The valve is available for 2 1/2" or 4" threaded end connections. In either size, the Cla-Val Fire Hydrant Pressure Reducing Valve will control pressure right down to shutoff.

Pressure reducing valves are used to lower pipeline pressure to a predetermined set point. The Cla-Val Fire Hydrant Pressure Reducing Valve automatically controls downstream pressure, from no flow to full open flow, without regard to changes in inlet pressure. Outlet pressure control is smooth and precise since the friction and hysteresis of the valve and pilot is negligible.

Control systems are fully piped at the factory and the Cla-Val Fire Hydrant Pressure Reducing Valve is shipped complete, ready for installation.

## Performance Specification

Capacity:	See Technical Data Sheet
C <sub>f</sub> Factor:	0.9
Cavitation:	See Technical Data Sheet
Rangeability:	500:1
Bearing Friction:	No friction from slip-type bearings

## Design Specification

Sizes:	2 1/2" and 4"
End Detail Inlet:	Female American National Fire Hose Connection (Section Thread NFPA -194-1974)
End Detail Outlet:	Male American National Fire Hose Connection (Section Thread NFPA -194-1974)
Operating Pressure:	Determined by components as high as 720 psi maximum
Maximum Differential:	225 psid For higher differential consult factory
Reverse Pressure:	125 psid maximum
Temperature Range:	32 to 160 degrees F*

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

## Material Specification

Body:	316L Stainless Steel
Liner:	Natural Rubber, 65 durometer (standard) 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

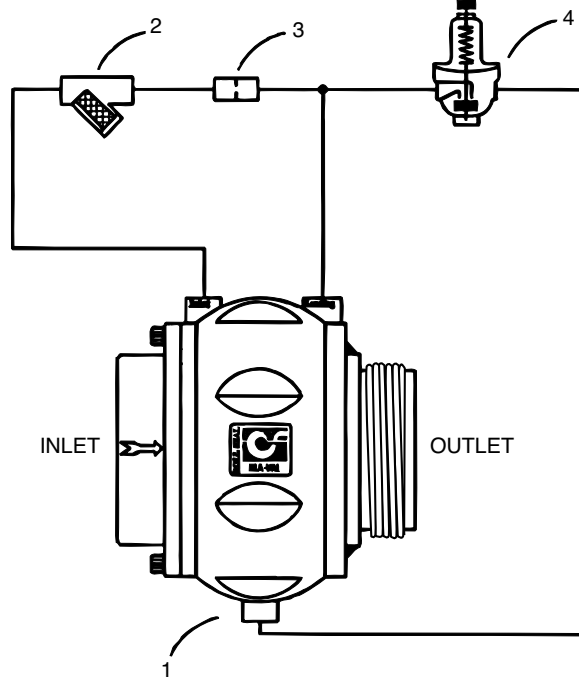
Shut-off Cock:	Brass*
"Y" Strainer:	Bronze*
Control Fittings:	Brass*

\* 316 Stainless Steel



### 790-63 Pressure Reducing Valve for Fire Hydrant Service

Maximum inlet pressure 400 psi



#### Basic Components

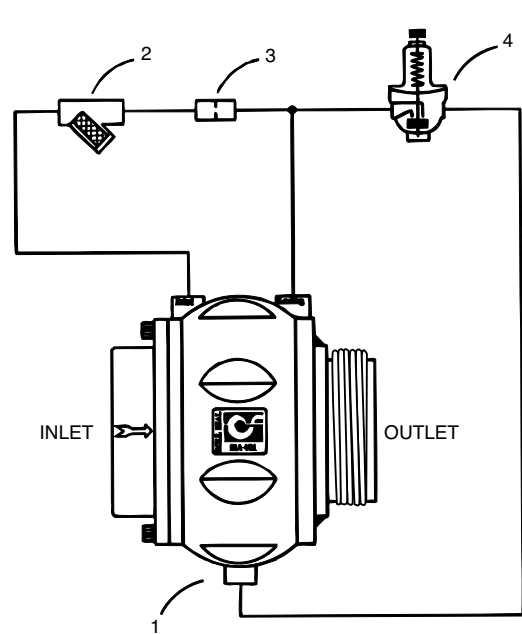
- 1 100-42FH Roll Seal (Main Valve)
- 2 X43 "Y" Strainer
- 3 X58C Restriction Fitting
- 4 CRD Pressure Reducing Control

#### Adjustment Spring Range:

2-30, 15-75, 30-300  
(30-300 standard)

### 790-67 Pressure Reducing Valve for High Pressure Fire Hydrant Service

Maximum inlet pressure 720 psi



#### Basic Components

- 1 100-42FH Roll Seal (Main Valve)
- 2 RX43HP "Y" Strainer
- 3 X58C Restriction Fitting
- 4 RCRDHP Pressure Reducing Control

#### Adjustment Spring Range:

0-50, 25-150, 100-250, 200-400  
(for higher pressure ranges,  
please consult factory)  
(25-150 standard)

#### Purchase Specification

Valve and control system shall lower line pressure to a predetermined set point and shall maintain that set point regardless of variations in flow or inlet pressure. Control valve shall be constructed of a stainless steel body and only one moving part, 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 the Cla-Val 790-63/790-67 Fire Hydrant Pressure Reducing Valve as manufactured by Cla-Val, Newport Beach, California.

#### When Ordering, Please Specify

1. Catalog No. 790-63 or 790-67
2. Valve Size, 2 1/2" or 4"
3. Inlet Pressure Range
4. Outlet Pressure Range
5. Maximum Differential Pressure
6. Minimum Differential Pressure
7. Maximum Flow Rate
8. Pilot Set Point



E-790-63/790-67 (R-7/04)

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