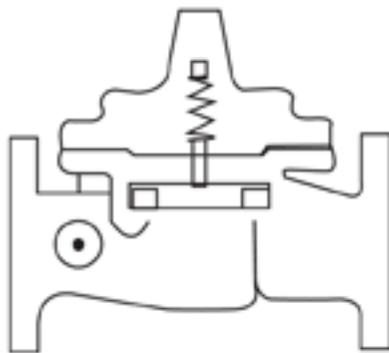


CLA-VAL

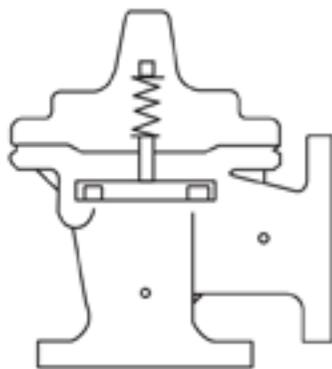
AUTOMATIC CONTROL VALVES

790-67

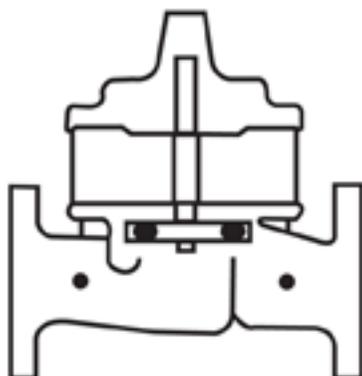
Place this manual with personal responsible
for maintenance of this valve



INSTALLATION



OPERATION



MAINTENANCE



CLA-VAL CO. NEWPORT BEACH, CALIFORNIA

CATALOG NO.
790-67

DRAWING NO.
200447

REV.
-

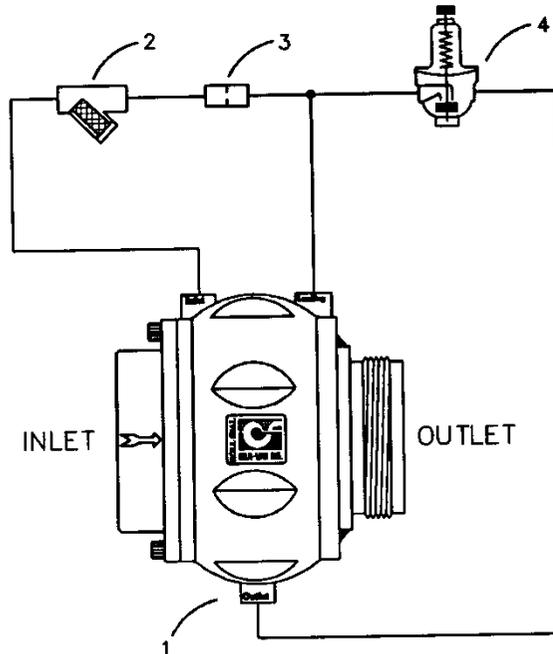
TYPE OF VALVE AND MAIN FEATURES

PRESSURE REDUCING VALVE EQUIPPED FOR HIGH PRESSURE SERVICE (FOR FIRE HYDRANT SERVICE)

DESIGN

| | | |
|-------|-----|---------|
| DRAWN | PLF | 1-14-99 |
| CHK'D | CA | 1-25-99 |
| APVD | CA | 1-25-99 |

----- NOT FURNISHED BY CLA-VAL CO. ----- OPTIONAL FEATURES



CAD REVISION RECORD - DO NOT REVERSE MANUALLY

| | |
|-----|---------|
| BY | DATE |
| PLF | 1-14-99 |

DESCRIPTION
- RELEASED FOR PRODUCTION. (NED 43931)

| ITEM NO. | BASIC COMPONENTS | QTY |
|----------|----------------------------------|-----|
| 1 | 100-42FH ROLL SEAL MAIN VALVE | 1 |
| 2 | RX43HP "Y" STRAINER | 1 |
| 3 | X58C RESTRICTION FITTING | 1 |
| 4 | RCRDHP PRESSURE REDUCING CONTROL | 1 |
| | | |
| | | |

| OPTIONAL FEATURE SUFFIX | ADDED TO CATALOG NUMBER |
|-------------------------|-------------------------|
| | |
| | |
| | |

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CLA-VAL CO.

NEWPORT BEACH, CALIFORNIA

CATALOG NO.

790-67

DRAWING NO.

200447

REV.

-

TYPE OF VALVE AND MAIN FEATURES

PRESSURE REDUCING VALVE EQUIPPED FOR HIGH PRESSURE SERVICE (FOR FIRE HYDRANT SERVICE)

DESIGN

DRAWN

PLF

1-14-99

CHK'D

CA

1-25-99

APVD

CA

1-25-99

OPERATING DATA

I. PRESSURE REDUCING FEATURE:

PRESSURE REDUCING CONTROL (4) IS A NORMALLY OPEN CONTROL THAT SENSES MAIN VALVE OUTLET PRESSURE CHANGES. AN INCREASE IN OUTLET PRESSURE TENDS TO CLOSE CONTROL (4) AND A DECREASE IN OUTLET PRESSURE TENDS TO OPEN CONTROL (4). THIS CAUSES MAIN VALVE LOADING CHAMBER PRESSURE TO VARY AND THE MAIN VALVE MODULATES (OPENS AND CLOSES) MAINTAINING A RELATIVELY CONSTANT OUTLET PRESSURE. PRESSURE REDUCING CONTROL (4) ADJUSTMENT: TURN THE ADJUSTING SCREW CLOCKWISE TO INCREASE THE SETTING.

II. CHECK LIST FOR PROPER OPERATION:

- () SYSTEM VALVES OPEN UPSTREAM AND DOWNSTREAM.
- () AIR REMOVED FROM THE MAIN VALVE LOADING CHAMBER AND PILOT SYSTEM AT ALL HIGH POINTS.
- () PERIODIC CLEANING OF STRAINER (2) IS RECOMMENDED.

CAD REVISION RECORD - DO NOT REVISE MANUALLY

DATE

BY

DESCRIPTION

LTR

SEE SHEET 1

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— SERIES — **100-42**

700 Series Roll Seal

DESCRIPTION

The Cla-Val Model 100-42 Roll Seal valve is a hydraulically operated valve used to control liquid flow by means of a flexible control element, the liner.

The basic valve consists of only two parts: a one piece, investment cast body and an elastomeric liner. The valve body is constructed with internal ribs and slots forming a grillwork which surrounds the liner to provide support. A normally closed type valve is formed by the installed liner which covers the grillwork and seats against the raised seating surface in the valve body.

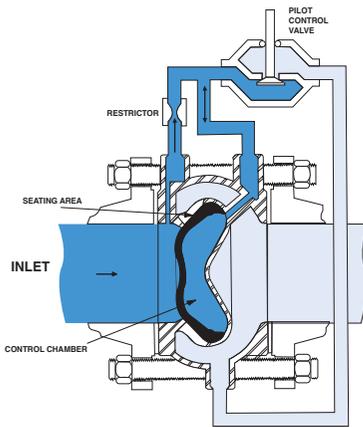
Upstream pressure actuates the valve to produce valve opening by rolling the liner off the seating surface and the slotted grillwork.

The valve is actuated by upstream pressure as the loading pressure (pressure supplied to the control chamber) is varied by an external pilot control system.

A typical pilot control system used to operate the Model 100-42 valve consists of a restriction and a suitable pilot connected to the valve.



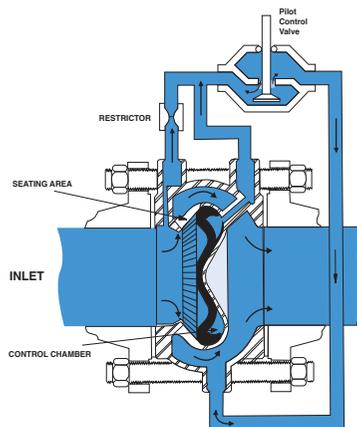
PRINCIPLE OF OPERATION



**Model 100-42 Valve
in Closed Position**

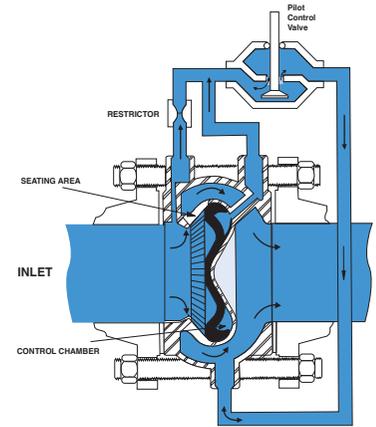
Upstream pressure is introduced to the control chamber (the chamber formed behind the liner) through the control piping and restrictor. When the pilot is closed, full inlet pressure is supplied to the control chamber, thus balancing the force developed by inlet pressure acting on the upstream face on the liner. Under these conditions, the liner remains in the fully closed position.

Since the operating pressure in the control chamber is greater than the outlet pressure, an additional closing force is developed across the liner, pressing the liner against the surrounding slotted grillwork area and seating surface.



**Model 100-42 Valve
in Partially Open Position**

As loading pressure is lowered slightly below inlet pressure, the central portion of the liner is forced to invert and come to rest against the tip of the control chamber cavity. Reducing the loading pressure further (but still higher than outlet pressure) causes the liner to drape over the cone shaped portion of the control chamber cavity. This action causes the outer section of the liner to roll off the seating surface and a portion of the grillwork to partially open the valve.



**Model 100-42 Valve
in Fully Open Position**

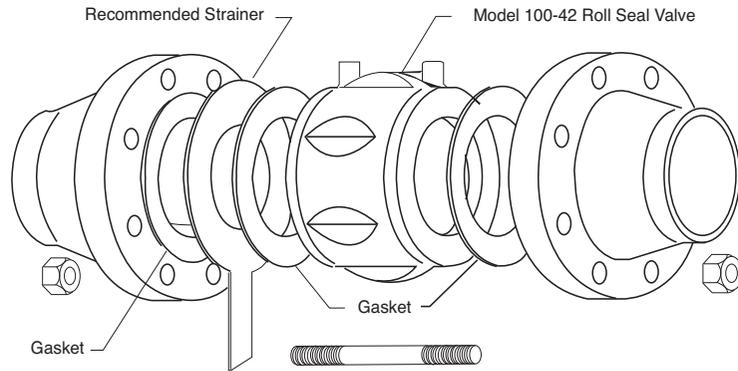
The valve is fully opened when loading pressure is sufficiently reduced to allow the liner to roll back completely and expose the full slot area. Restoring loading pressure reverses the liner rolling action to return the liner to the fully closed position.

INSTALLATION

The Cla-Val Model 100-42 Roll Seal valve in 2", 3", and 4" sizes are designed to mount between standard pipe flanges (ANSI 125, 150, 250, and 300 series) as a wafer type valve. The outer portion of the valve body is constructed with fluted (recessed) sections to provide clearance for the class 125 and 150 flange bolt pattern while the basic outside diameter of the body centers within the class 250 and 300 flange bolt pattern.

The Model 100-42 valve in 6" through 12" sizes are constructed with separable "slip-on" style flanges. Furnished standard in either class 150 or 300 raised face type, the flanges are removable and interchangeable. The class 150 flange may be bolted up to class 125 pipeline flanges and the class 300 flange may be mated against a class 250 flange.

Locate pilot system port connections at the top of valve in pipeline to allow easy air venting. A line size strainer is recommended, mounted on the valve inlet.



PROCEDURE

1. The valve should be given a visual inspection before installation to be sure no foreign materials have collected inside the valve during shipment or storage.
 2. Pipelines should be flushed out before the valve is installed in the system. New systems, especially, should be cleaned as contaminants such as welding beads, scale, rocks, etc. are commonly contained within the pipeline.
 3. The valve should be installed in a location allowing sufficient working space around the valve to provide easy access for maintenance and removal for servicing.
 4. For 2", 3", and 4" sizes only. Insert the lower half pattern of stud bolts through the bolt holes of the upstream and downstream pipeline flanges.
 - 4a. For 2" & 3" valves only. The 125 and 150 series flanges use a different number of bolts than the 250 and 300 series flanges. Hence, the wafer valve body configuration is inherently self centering regardless of the flange used.
 - 4b. For the 4" valve, ANSI pipe flanges use an 8 bolt pattern regardless of pressure ratings, although the 250 and 300 series use larger bolts on a larger bolt circle. The 4" valve can be centered in the larger 250 and 300 class flanges by rotating the valve body into full radial contact with the bolt studs prior to tightening.
 5. If an inline basket type strainer is to be included in the installation, insert the strainer into the upstream pipe, making sure a gasket is placed between the strainer and the upstream flange.
 6. Install the valve between the flanges being sure to include the appropriate flange gaskets between each end of the valve and the mating pipe flange.
- Note: The valve must be installed with the flow arrow on side of body pointing to the downstream piping section. Cla-Val 700 Series valves may be installed in any position in either vertical or horizontal installations without any effect on valve operation.
7. Insert the remaining stud bolts and nuts and tighten evenly using a diagonal cross-over type pattern.

Liner Retainer Removal 2"-12" Sizes

The 2" and 3" liner retainer is secured to the valve with an Allen screw. Loosen the Allen screw, pull the locking pin back towards center of retainer, and remove the retainer from valve.

To install, insert the retainer, (do not block inlet feed hole), push locking pin into position and tighten Allen screw.

The 4"-12" liner retainers are secured with a snap ring. Remove the snap ring and retainer.

To install, insert retainer and install snap ring into the groove of valve. Be sure snap ring is completely inserted into groove.

Liner Removal 2"-12" Sizes

The tool used for removal should be free of sharp edges to prevent damage to the liner, the valve body seat or control chamber surfaces. A motorcycle tire iron or similar tool works well.

1. Insert the tool between the liner and the valve body as deeply as possible.
2. Using the seat edge as a fulcrum, rock the end of the tool away from the valve in a manner to pull the liner bead out of the body. Grasp the liner and remove from the valve body.

Liner Installation 2", 3", 4" Sizes

Thoroughly clean out the interior of the valve body control chamber cavity.

Liberal apply glycerine inside the control chamber cavity and around the seal bead area of the liner.

DO NOT USE ANY HYDROCARBON OR SILICONE BASED LUBRICANTS ON LINERS AS THESE COMPOUNDS CAN SEVERELY ATTACK THE LINER MATERIAL.

3. Fold the liner as shown and install into the valve body control chamber as deeply as possible.
4. Continuing to force the liner into the control chamber cavity, again fold the liner as shown to insert the liner seal bead section under the valve body seat surface.
5. Work the folded section of the liner into place by pushing against the folded area to slide the seal bead down the conical face of the control chamber.

Liner Seating Instructions 2", 3", 4" Sizes

After installing the liner, it must be seated over the manifold ring in the valve body. The objective of this seating procedure is to place the inside lip of the liner over the outside lip of the manifold ring.

6. 4" valve with liner installed.
7. Pinch, pull and knead the liner 360° around to seat the liner on the manifold ring.
8. Using a dull tool or hammer handle, pry the outer part of the liner towards the center to help "seat" the liner.
9. Now push the liner down into the valve, holding your hand on the depressed liner, seal off the loading port with your finger.
10. Remove your hand from liner and continue holding your finger over the loading port. If liner is seated, it will be held in the open position as long as your finger is over the loading port. When you release your finger, the liner will pop up. If not seated, repeat with Step 7.

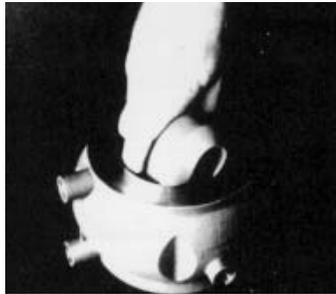
Install liner retainer into body.



1



2



3



4



5



6



7



8



9



10

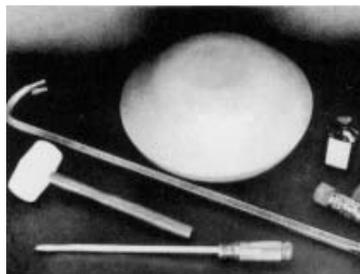
Liner Installation

6", 8", 10", 12" sizes

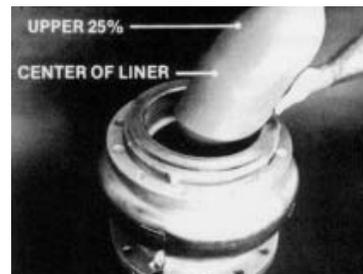
1. Tools required: Bottle of drugstore glycerine, 30" crowbar, double headed plastic hammer with 14" handle, rubber mallet and large flat blade screwdriver.
2. Liberally wipe glycerine on the inside of the valve and on the outer edge of the liner. Fold liner in half and insert into valve body.
3. Push liner in as far as possible forcing it out side ways.
4. Place the crowbar at the upper 25% point of the liner. Take your other hand and push on nose of liner to bend the liner over the crowbar. The less material folded over, the easier it will go into the valve. If too much is folded over, it will be difficult to complete liner installation.
5. Continue bending liner nose down into the valve. Use your hands and/or hammer handle to continue forcing it down into valve. It is important to keep the "V" of the bend near the 25% point. If it goes over the center, The liner won't go in, and it will be necessary to start over at Step 3.
6. Use the hammer to force the liner down and out into the valve body.
7. Use the hammer handle for the final insertion. Sometimes it is helpful to beat on the liner with the hammer for the final step.
8. To seat the liner on the manifold ring use the hammer handle to push down on the liner near bore of valve inlet and pry handle and liner towards the center. Continue this prying action for 360° around the liner for proper seating.
9. To test for liner seating, push down on the center of liner and close the loading port shut-off cock, or block it with your hand. When you release your hand from the liner, it should remain in the down position until the loading port is opened.
10. If liner appears seated, open loading port cock and liner should pop-up to the closed position. Repeat Steps 6-10 if liner is not seated.

When the liner is fully seated, the inside diameter of the liner will be seated over the outside diameter of the manifold ring. The manifold ring is a raised circular ridge at the bottom of the open cavity which provides for even distribution of the fluid coming in and going out the loading port.

Install liner retainer into body.



1



2



3



4



5



6



7



8



9



10

PLACING VALVE INTO OPERATION **Important Procedure for All Installations:**

In most instances, the 700 Series Cla-Val Control valves will be shipped complete with a pilot control system mounted on the Model 100-42 valve. Consult the appropriate start up and operation instructions for the pilot control used before pressurizing the system.

IT IS IMPORTANT THAT THE PRESSURIZATION AND DEPRESSURIZATION OF ALL INSTALLATIONS BE CARRIED OUT IN A MANNER TO PREVENT IMPOSING A REVERSE PRESSURE CONDITION ON THE CLA-VAL MODEL 100-42 VALVE. PRESSURIZATION OF THE SYSTEM SHOULD BE ACCOMPLISHED BY PRESSURIZING THE INLET SIDE FIRST.

DEPRESSURIZATION OF THE SYSTEM SHOULD BE ACCOMPLISHED BY DEPRESSURIZING THE OUTLET SIDE FIRST. FAILURE TO FOLLOW THIS PROCEDURE COULD RESULT IN DISLODGE- MENT AND/OR DESTRUCTION OF THE RUBBER LINER.

START-UP INSTRUCTIONS

Pressure Reducing 790 Series Valves

The following instructions are for valves equipped with a Model CRD Pressure Reducing Pilot Control.

1. Remove the adjustment cap and back off adjustment screw setting (turn counterclockwise) of the CRD Pressure Reducing Pilot Control to fully relieve all loading on the range spring.
2. Slowly open the **upstream** main line block valve to pressurize the **inlet** section of the valve.
3. Bleed any entrapped air from the control chamber of the valve and tubing sections by loosening fittings at the highest points. Retighten fittings. Install gauge on downstream port of CRD.
4. Slowly increase tension on the range spring, by means of the adjustment screw (turn clockwise) until the desired downstream pressure is attained. Use a gauge.
5. Open the downstream main line block valve.
6. If required, reset the pilot adjustment screw setting to obtain the downstream pressure desired.
7. Tighten the adjustment screw lock nut and replace the adjustment cap.

Back Pressure Control 750 Series Valves

The following instructions are for valves equipped with a Model CRL Back Pressure Pilot Control.

1. Remove the adjustment cap and increase tension on the range spring, by means of the adjustment screw (turn clockwise) until maximum spring load is attained.
2. Slowly open the **upstream** main line block valve to pressurize the **inlet** section of the valve.
3. Bleed any entrapped air from the control chamber of the valve and tubing sections by loosening fittings at the highest points. Retighten fittings.
4. Open the downstream main line block valve.
5. Gradually decrease tension on the range spring by means of the adjustment screw (turn counterclockwise) until upstream pressure decreases to the desired setpoint.
6. Tighten the adjustment screw lock nut and replace the adjustment cap.

Relief Valve Applications 750 Series Valves

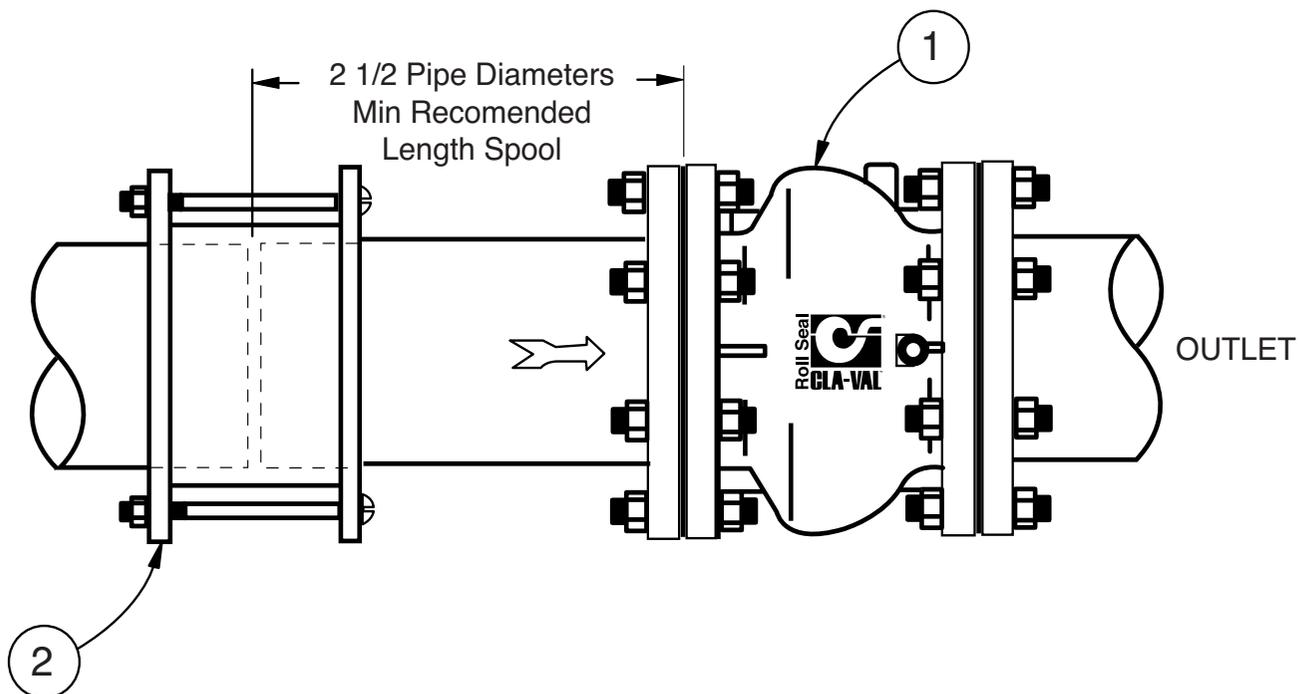
The following instructions are for valves equipped with a Model CRL Pressure Relief Pilot Control.

- Due to the nature of intended use, the system being protected with the relief valve will most likely not be able to furnish the pressure source needed to establish the proper setpoint of the pilot control. Due to this fact, in most instances, the relief valve setting procedures will either have to be carried out at other locations or an auxiliary pressure source will have to be supplied at the site in order to carry out the following procedure.
1. Remove the adjustment cap and increase tension on the range spring by means of the adjustment screw (turn clockwise) until maximum spring load is attained.
 2. Slowly introduce **inlet** pressure to the valve at the desired setpoint value. Bleed all air.
 3. Gradually decrease tension on the range spring by means of the adjustment screw (turn counterclockwise) until flow is initiated through the valve.
 4. Reduce system pressure back to normal value. Tighten the adjustment screw lock nut and replace the adjustment cap. The valve is now ready for service.

Taking Valve Out of Service

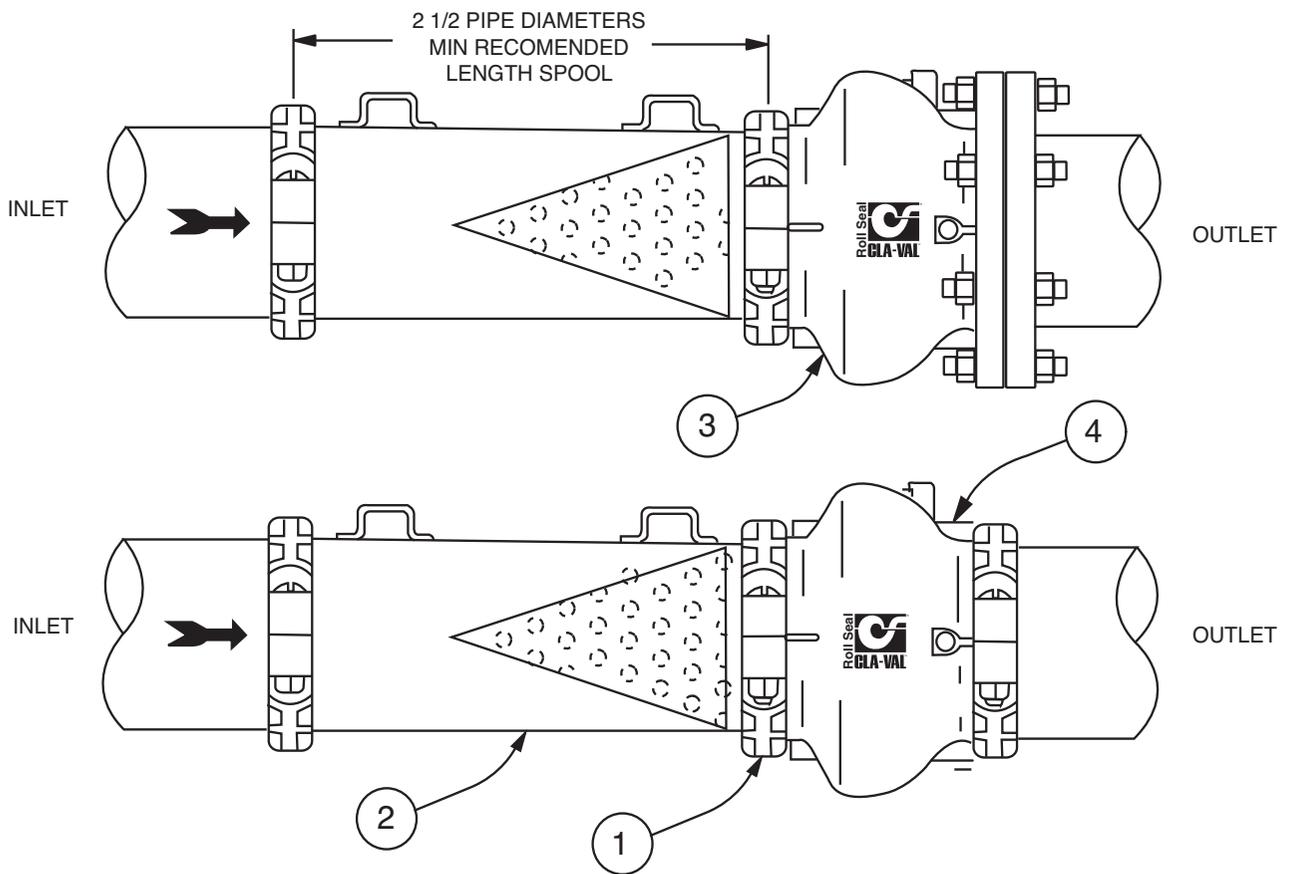
The following procedure should be followed when taking the Model 100-42 valve out of service.

1. Close the upstream main line block valve first. Then close the downstream main line block valve.
 2. Vent the **downstream** section to fully relieve pressure in the outlet section of the valve.
 3. Vent the **upstream** section to fully relieve pressure in the inlet section and control chamber of the Model 100-42 valve.
 4. If the valve liner is to be inspected or replaced, remove the valve from the main line.
-
-



Recommended Pipe layout
6" - 12" Flange style 100-42

- 2 Pipe Coupling (Rubber Gasket Type)
- 1 100-42 Main Valve, Flange X Flange



Recommended Pipe layout
6" - 12" Grooved style 100-42

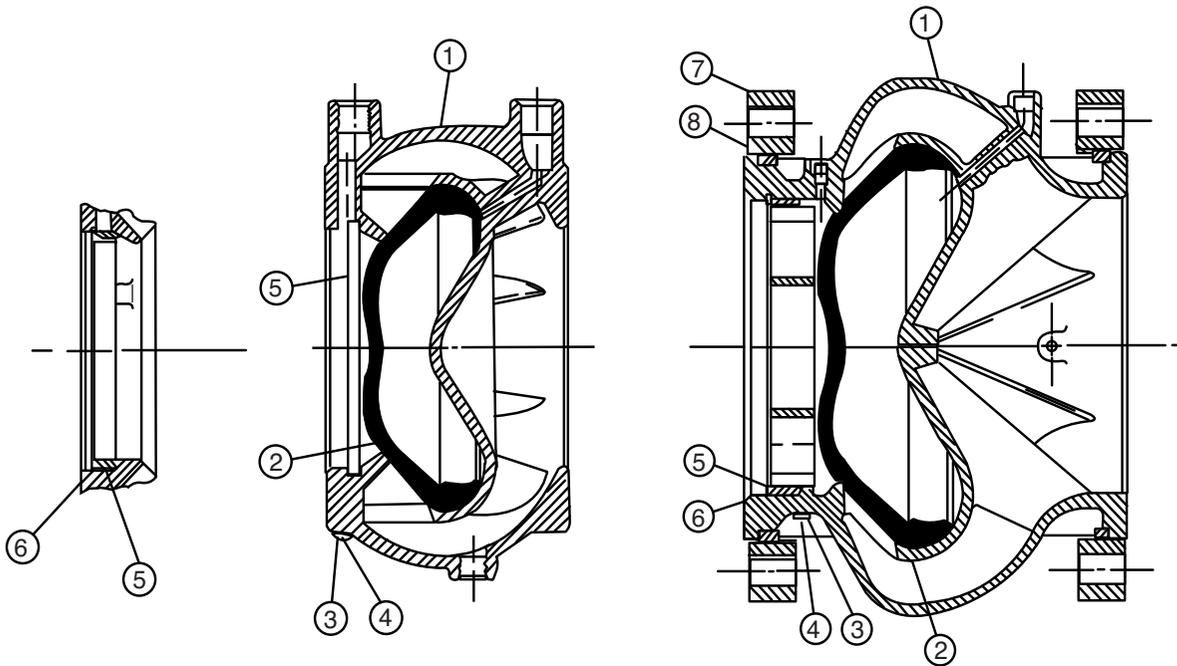
- 1 COUPLER FOR GROOVED PIPE
- 2 SPOOL STRAINER ASSEMBLY (WITH CONE)
- 3 100-42 MAIN VALVE, GROOVE X FLANGE
- 4 100-42 MAIN VALVE, GROOVE X GROOVE

**When ordering
please specify:**

- All nameplate data
- Description
- Part Numbers
- Item Number
- Material

| Item No. | Description | No. Req'd | Material (Standard) |
|----------|----------------------|-----------|--------------------------|
| 1 | Body | 1 | 316L Stainless Steel "L" |
| 2* | Liner | 1 | Natural Rubber |
| 3 | Nameplate | 1 | Aluminum |
| 4 | Drive Screw | 2 | 18-8 Stainless Steel |
| 5 | Liner Retainer | 1 | 316L Stainless Steel |
| 6 | Retaining Ring | 1 | 316L Stainless Steel |
| 7 | Slip-on Flange | 2 | Steel-Cad. Pl. |
| 8 | Flange Retainer Ring | 2 | Steel-Cad. Pl. |

*Recommended Spare Part



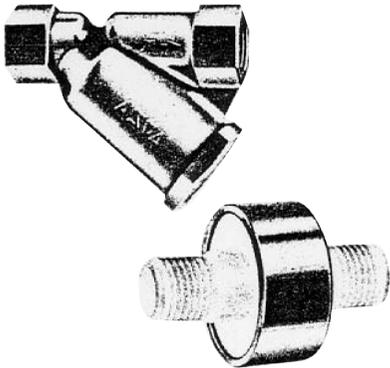
4" Wafer Style Valve

2-3" Wafer Style Valve

6"-12" Flanged Valve



— MODEL — **RX43Y**
2 Way Strainers



General Description

Forged Brass, Bronze, Cast Iron and Stainless Steel Bodies. These rugged self-cleaning "Y" type body strainers have an easily removable strainer element of perforated stainless steel sheet or wire mesh in cylindrical form. The total free hole area as specified in the table is the total area of all perforations or openings through the straining elements. They are suitable for air, water, oil and steam.

Plastic Body. These strainers have a straight through flow design with a large area orifice. The strainer can be easily removed from the line and cleaned by back flushing. They are suitable for air and water.

Applications

Strainers should be used wherever it is essential that the fluid flowing through pipe lines be maintained free of foreign solid matter. This is necessary to assure proper flow and to prevent damage to controls and other equipment.

Installation

The strainers may be mounted in any position. When installed with solenoid valves, the strainer should be connected in the upstream (inlet) side of the valve — as close to the valve as possible.

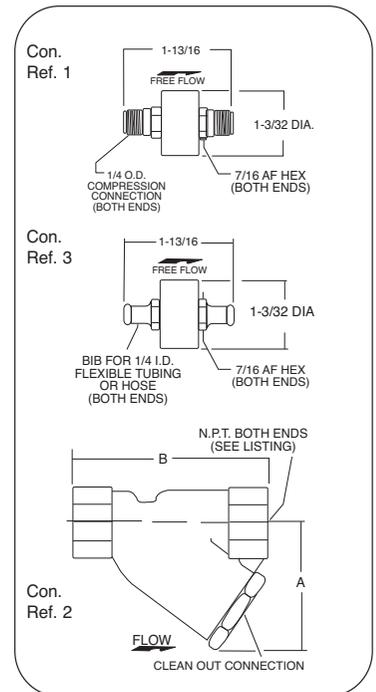
ORDERING INFORMATION
IMPORTANT:

We must have PIPE SIZE and CATALOG NO.

SPECIFICATIONS

| Pipe Size (ins.) | CV Flow Factor | Screen Mesh Size ③ | Total Free Hole Area (in. ²) | Particle Retention Size ③ | | Blow-off Pipe Size (ins.) | Maximum Fluid Temp. °F. ⑥ | Safe Working Pressure (psi) ⑥ | Catalog Number | Con. Ref No. | Dimensions (ins.) | |
|--|----------------|--------------------|--|---------------------------|--------|---------------------------|---------------------------|-------------------------------|----------------|--------------|-------------------|---------|
| | | | | Microns | Inches | | | | | | A | B |
| Acetal Body with Stainless Steel Strainer Element and Buna "N" Seals | | | | | | | | | | | | |
| ① ⑤ | 0.5 | 80x80 | .116 | 178 | .007 | - | 130 | 50 | 86044 | 1 | ② | ② |
| ① ⑤ | 0.5 | 80x80 | .116 | 178 | .007 | - | 130 | 175 | 86042 | 1 | ② | ② |
| ④ | 0.5 | 80x80 | .116 | 178 | .007 | - | 130 | 50 | 86045 | 3 | ② | ② |
| ④ ⑤ | 0.5 | 80x80 | .116 | 178 | .007 | - | 130 | 175 | 86043 | 3 | ② | ② |
| Forged Brass Body with Stainless Steel Strainer Element and Teflon* or Viton* ⑧ Seals | | | | | | | | | | | | |
| 1/8 | 1.0 | 60x60 | .325 | 155 | .0061 | - | 400 | 750 | 8600A1 ⑦ ⑧ | 2 | 1 11/32 | 2 |
| 1/4 | 1.7 | 60x60 | .325 | 155 | .0061 | - | 400 | 750 | 8600A2 ⑦ ⑧ | 2 | 1 11/32 | 2 |
| 3/8 | 1.9 | 100x100 | .35 | 155 | .0061 | - | 400 | 750 | 8600A13 ⑦ | 2 | 1 5/8 | 1 29/32 |
| 1/2 | 2.6 | 100x100 | .50 | 155 | .0061 | - | 400 | 750 | 8600A14 ⑦ | 2 | 1 13/16 | 2 9/32 |
| 3/4 | 4.7 | 100x100 | .75 | 155 | .0061 | - | 400 | 750 | 8600A15 ⑦ | 2 | 2 3/32 | 2 3/4 |
| Bronze Body with Stainless Steel Strainer Element | | | | | | | | | | | | |
| 1 | 20 | 40x40 | 3.83 | 510 | .015 | 3/4 | 150 | 500 | 8600B6 | 2 | 3/2 | 4 7/8 |
| 1 1/4 | 27 | 40x40 | 4.98 | 510 | .015 | 3/4 | 150 | 500 | 8600B7 | 2 | 4 3/16 | 5 3/8 |
| 1 1/2 | 40 | 40x40 | 6.95 | 510 | .015 | 3/4 | 150 | 500 | 8600B8 | 2 | 4 3/4 | 6 3/8 |
| 2 | 70 | 40x40 | 7.05 | 510 | .015 | 1 | 150 | 500 | 8600B9 | 2 | 5 11/16 | 7 1/2 |
| Cast Iron Body with Stainless Steel Strainer Element | | | | | | | | | | | | |
| 1/4 | 2.0 | 40x40 | 1.01 | 510 | .015 | 1/4 | 150 | 300 | 8602B12 | 2 | 2 3/16 | 2 7/8 |
| 3/8 | 3.5 | 40x40 | 1.01 | 510 | .015 | 1/4 | 150 | 300 | 8602B13 | 2 | 2 3/16 | 2 7/8 |
| 1/2 | 6.5 | 40x40 | 1.62 | 510 | .015 | 3/8 | 150 | 300 | 8602B14 | 2 | 2 11/16 | 3 7/16 |
| 3/4 | 12 | 40x40 | 2.94 | 510 | .015 | 1/2 | 150 | 300 | 8602B15 | 2 | 3 3/8 | 4 3/8 |
| 1 | 20 | 40x40 | 3.83 | 510 | .015 | 3/4 | 150 | 300 | 8602B16 | 2 | 3 1/2 | 4 7/8 |
| 1 1/4 | 27 | 40x40 | 4.98 | 510 | .015 | 1 | 150 | 300 | 8602B17 | 2 | 4 3/16 | 5 3/8 |
| 1 1/2 | 40 | 40x40 | 6.95 | 510 | .015 | 1 1/4 | 150 | 300 | 8602B18 | 2 | 4 1/2 | 6 3/8 |
| 2 | 70 | 40x40 | 7.05 | 510 | .015 | 1 1/2 | 150 | 300 | 8602B19 | 2 | 5 7/16 | 7 1/2 |
| 2 1/2 | 90 | 40x40 | 10.88 | 510 | .015 | 1 1/4 | 150 | 300 | 8602B20 | 2 | 6 3/4 | 8 5/8 |
| Stainless Steel Body with Stainless Steel Strainer Element and Teflon* Seals | | | | | | | | | | | | |
| 3/8 | 2.1 | 60x60 | .23 | 250 | .0098 | 1/4 | 450 | 1500 | 86014 | 2 | 1 27/32 | 1 29/32 |
| 1/2 | 3.0 | 60x60 | .35 | 250 | .0098 | 1/4 | 450 | 1500 | 86015 | 2 | 2 | 2 9/32 |

DIMENSIONS (in inches)



- ① 1/4" O.D. compression connection. Fittings are not supplied.
 - ② See Dimensions.
 - ③ Other mesh sizes may be available; consult factory.
 - ④ Bibs for 1/4" I.D. flexible tubing or hose.
 - ⑤ Where pressure exceeds 50 psi, it is advisable to use hose or tubing clamps.
 - ⑥ Metal body strainers are rated for steam at 250 psi maximum pressure and 406°F. maximum temperature.
 - ⑦ UL recognized component.
 - ⑧ Valve supplied with Viton seal.
- * DuPont Co. trademark



NEWPORT BEACH, CALIFORNIA

CATALOG NO.
X58C

DRAWING NO.
48834

REV
AP

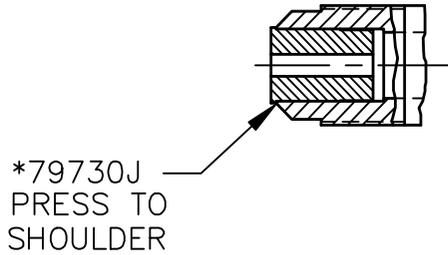
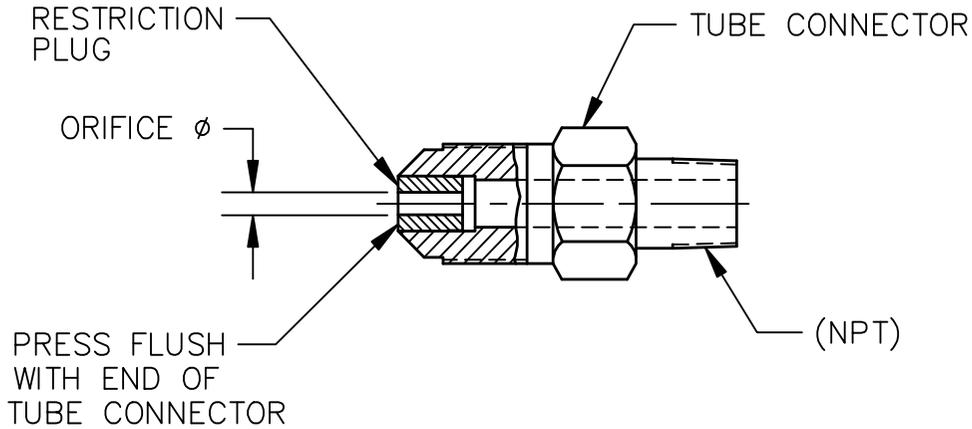
TYPE OF VALVE AND MAIN FEATURES

X58C RESTRICTION ASSEMBLIES

| | | |
|--------|----|----------|
| DESIGN | | |
| DRAWN | JC | 12-3-85 |
| CHK'D | JC | 12-4-85 |
| APV'D | CH | 12-11-85 |

| | |
|-----|---|
| TLC | 10-18-94 |
| AK | 09-15-98 |
| EK | 9-29-11 |
| AM | REINSTATED PN 68565B & 64673H (ECO 15043) |
| AN | ADDED PN 48834-05F (NED 43663) |
| AP | ADDED PN 48834-06D (NED 75779) |

| | |
|--|-------------------|
| CAD REVISION RECORD - DO NOT REVISE MANUALLY | |
| DESCRIPTION | DATE |
| BY | |
| EK | 11-18-93 |
| AL REDRAWN ON CAD (ECO 14229) | |
| LTR | |
| A-AK | SEE REVISION FILE |



NOTES:

1. *FOR IDENTIFICATION, THESE STOCK NO'S ARE TO BE STAINED BLUE WITH 74234-03.
2. **FOR IDENTIFICATION, THESE STOCK NO'S ARE TO BE STAINED RED WITH 74234-05.
3. SEE DWG 76740 FOR STAINLESS STEEL X58C.
4. SEE SHEETS 3 & 4 FOR UL APPROVED DRAWING.

| | | | |
|--|---|-----------------------------|---|
|  CLA-VAL CO. NEWPORT BEACH, CALIFORNIA | CATALOG NO. X58C | DRAWING NO. 48834 | REV AP |
| | TYPE OF VALVE AND MAIN FEATURES <p style="text-align: center;">X58C RESTRICTION ASSEMBLIES</p> | | DESIGN DRAWN JC 12-3-85 CHK'D JC 12-4-85 APV'D CH 12-11-85 |

| X58C STOCK NO. | TUBE CONNECTOR | | RESTRICTION PLUG | |
|----------------|------------------|----------|------------------|----------|
| | SIZE TUBE X NPT | MATERIAL | ORIFICE DIA | MATERIAL |
| **44734C | 3/8 X 3/8-18 NPT | ALUMINUM | .125 (1/8) | S. STEEL |
| | <u>37° FLARE</u> | | | |
| *37814B | 1/4 X 1/8-27 NPT | BRASS | .031 (1/32) | S. STEEL |
| *80500C | 1/4 X 1/8-27 NPT | BRASS | .062 (1/16) | S. STEEL |
| *67739D | 3/8 X 1/8-27 NPT | BRASS | .040 | S. STEEL |
| *64672K | 3/8 X 3/8-18 NPT | BRASS | .062 (1/16) | S. STEEL |
| *99329-01D | 3/8 X 3/8-18 NPT | BRASS | .094 (3/32) | S. STEEL |
| **79730J | 1/2 X 1/2-14 NPT | BRASS | .125 (1/8) | S. STEEL |
| **48834-05F | 3/8 X 3/8-18 NPT | BRASS | .125 (1/8) | S. STEEL |
| *85484E | 1/4 X 1/8-27 NPT | BRASS | .031 (1/32) | DELTRIN |
| *85486K | 1/4 X 1/8-27 NPT | BRASS | .040 | DELTRIN |
| **48834-03A | 1/4 X 1/8-27 NPT | BRASS | .125 (1/8) | DELTRIN |
| *48834-04J | 1/4 X 1/8-27 NPT | BRASS | .093 | DELTRIN |
| *88409-01G | 3/8 X 1/8-27 NPT | BRASS | .031 (1/32) | DELTRIN |
| *88409J | 3/8 X 1/8-27 NPT | BRASS | .052 | DELTRIN |
| *42346H | 3/8 X 1/8-27 NPT | BRASS | .062 (1/16) | DELTRIN |
| **48834-01E | 3/8 X 1/8-27 NPT | BRASS | .125 (1/8) | DELTRIN |
| *42775H | 3/8 X 1/4-18 NPT | BRASS | .062 (1/16) | DELTRIN |
| **63604D | 3/8 X 1/4-18 NPT | BRASS | .156 (5/32) | DELTRIN |
| *10253D | 3/8 X 3/8-18 NPT | BRASS | .031 (1/32) | DELTRIN |
| *46946A | 3/8 X 3/8-18 NPT | BRASS | .062 (1/16) | DELTRIN |
| **64673H | 3/8 X 3/8-18 NPT | BRASS | .125 (1/8) | DELTRIN |
| *68565B | 3/8 X 3/8-18 NPT | BRASS | .094 (3/32) | DELTRIN |
| **43302K | 3/8 X 3/8-18 NPT | BRASS | .188 (3/16) | DELTRIN |
| **12900H | 1/2 X 1/2-14 NPT | BRASS | .125 (1/8) | DELTRIN |
| **48834-02C | 1/2 X 1/2-14 NPT | BRASS | .188 (3/16) | DELTRIN |
| **48834-06D | 1/2 X 1/2-14 NPT | BRASS | .250 (1/4) | DELTRIN |
| | | | | |

CAD REVISION RECORD - DO NOT REVISE MANUALLY
 DATE
 BY
 DESCRIPTION
 SEE SHEET 1
 LTR

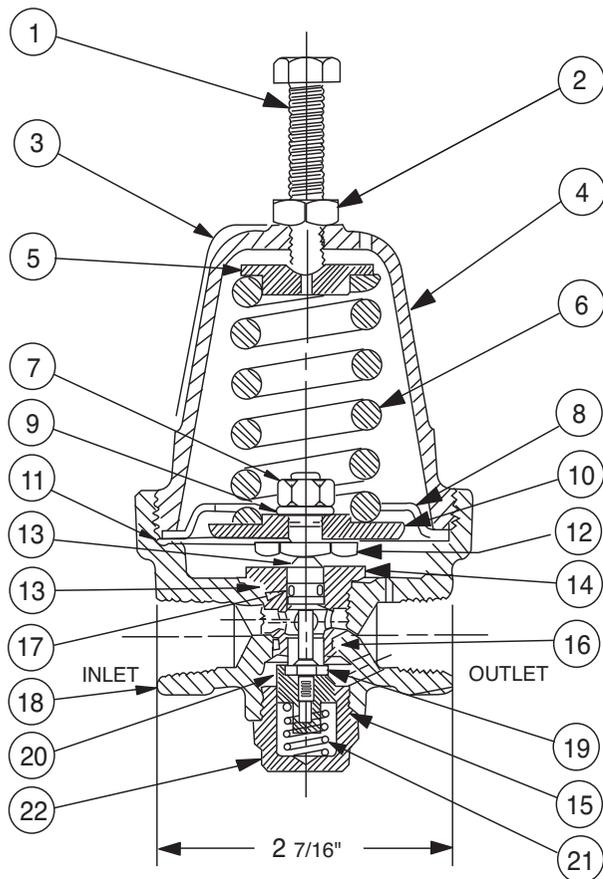
THIS DRAWING IS THE PROPERTY OF CLA-VAL CO. AND SAME AND COPIES MADE THEREOF, IF ANY, SHALL BE RETURNED TO IT UPON DEMAND. DELIVERY AND DISCLOSURE HEREOF ARE SOLELY UPON CONDITION THAT THE SAME SHALL NOT BE USED, COPIED OR REPRODUCED, NOR SHALL THE SUBJECT HEREOF BE DISCLOSED IN ANY MANNER TO ANYONE FOR ANY PURPOSE, EXCEPT AS HEREIN AUTHORIZED, WITHOUT PRIOR WRITTEN APPROVAL OF CLA-VAL CO. THIS DRAWING IS SUBMITTED CONFIDENTIALLY AND MAY NOT BE USED IN THE MANUFACTURE OF ANY MATERIAL OR PRODUCT OTHER THAN SUCH MATERIALS AND PRODUCTS FURNISHED TO CLA-VAL CO. WHETHER OR NOT THE EQUIPMENT OR INFORMATION SHOWN HEREON IS PATENTED OR OTHERWISE PROTECTED, FULL TITLE AND COPYRIGHTS, IF ANY, IN AND TO THIS DRAWING AND/OR INFORMATION DELIVERED OR SUBMITTED ARE FULLY RESERVED CLA-VAL CO.



RCRDHP

High Pressure Reducing Control

#18947



Specification

Size 3/8" NPT screwed

Temperature Range Water: 180° F Max.

Materials

Body & Cover: Cast Bronze ASTM B-62
Trim: Brass & Stainless Steel 303
Rubber: Buna-N® (Fabric Reinforced)

Max. Inlet PSI 720 psi

Adjustment Ranges

psi: 0/50 - Cla-Val #R807303
 25/150 - Cla-Val #R807301
 100/200 - Cla-Val #R807306

Mounting Positions

Multi-poise
 (operates in any position)

Weight 3lbs

Repair Kit Cla-Val #R2000202J

When Ordering, Please Specify

1. Adjustment Range Desired

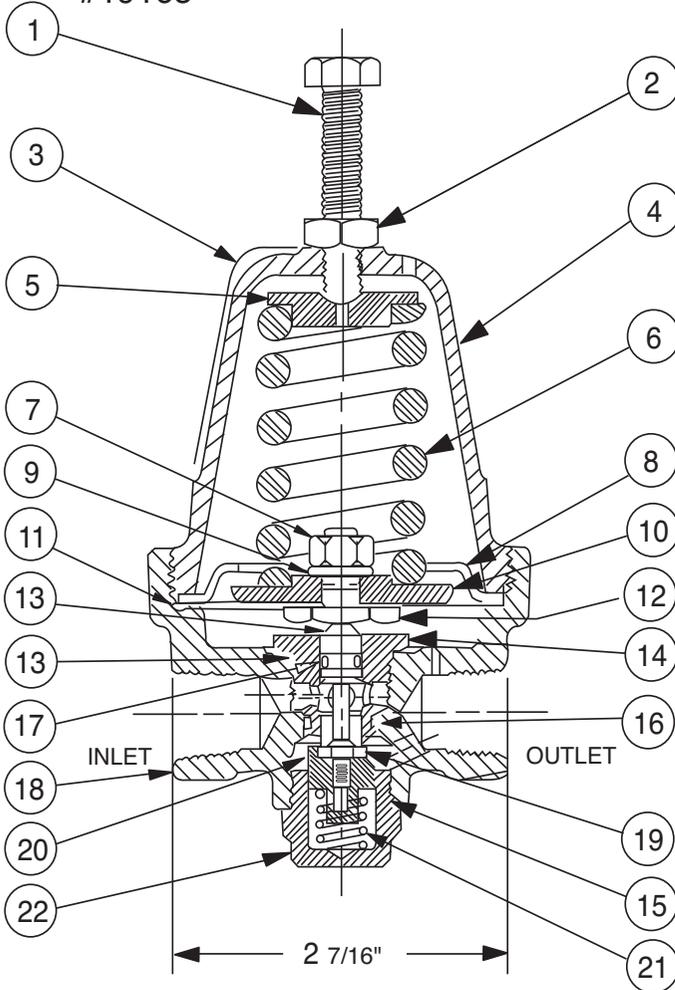
LIST OF MATERIALS

| ITEM | QTY | PART NO. | DESCRIPTION | MATERIAL | ITEM | QTY | PART NO. | DESCRIPTION | MATERIAL |
|------|-----|----------|--------------------|----------|------|-----|----------|---------------|----------|
| 1 | 1 | 16107 | Adjusting Screw | 302 SST | 13 | 1 | 17635 | Pusher Post | 303 SST |
| 2 | 1 | 16684 | Lock Nut | SST | 14 | 1 | 17634 | Cylinder | 303 SST |
| 3 | 1 | 17632 | Name Plate | Aluminum | 15 | 2 | 8273* | O-ring | Buna-N® |
| 4 | 1 | 2151 | Spring Chamber | Brass | 16 | 1 | 8664* | O-ring | Buna-N® |
| 5 | 1 | 8225 | Spring Button | Brass | 17 | 1 | 9288* | O-ring | Buna-N® |
| 6 | 1 | -- | Pressure Spring | 302 SST | 18 | 1 | 17636 | Body | Brass |
| 7 | 1 | 1353 | Nut | Steel | 19 | 1 | 17637* | Seat Disc | Forged |
| 8 | 1 | 8243 | Diaphragm Stop | Brass | 20 | 1 | 17638* | Piston | Buna-N® |
| 9 | 1 | 8226 | Washer | Steel | 21 | 1 | 10197 | Piston Spring | Brass |
| 10 | 1 | 8227 | Pressure Plate | Brass | 22 | 1 | 8274 | Bottom Plug | 302 SST |
| 11 | 1 | 17633* | Diaphragm | Buna-N® | | | | | Brass |
| 12 | 1 | 8265 | Pusher Post Button | Brass | | | | | |

* Recommended spare part (kit).

Note: Lubricate O-ring #9288 before re-assembly pilot with a kit.

#19165



Specification

Size 3/8" NPT screwed

Temperature Range Water: 180°F Max.

Materials

Body & Cover: Cast Bronze ASTM B-62
 Trim: Brass & Stainless Steel 303
 Rubber: Buna-N® (Fabric Reinforced)

Max. Inlet PSI 720 psi

Adjustment Range

psi: 200/400 - Cla-Val #R803707

Mounting Positions

Multi-poise
 (operates in any position)

Weight 3lbs

Repair Kit Cla-Val #R2000202J

When Ordering, Please Specify

1. Adjustment Range Desired

LIST OF MATERIALS

| ITEM | QTY | PART NO. | DESCRIPTION | MATERIAL |
|------|-----|----------|--------------------|----------|
| 1 | 1 | 16107 | Adjusting Screw | 302 SST |
| 2 | 1 | 16684 | Lock Nut | SST |
| 3 | 1 | 14273 | Spring Chamber | Bronze |
| 4 | 1 | 8353 | Name Plate | Aluminum |
| 5 | 1 | 8225 | Spring Button | Brass |
| 6 | 1 | 14272 | Pressure Spring | 302 SST |
| 7 | 1 | 8265 | Pusher Post Button | Brass |
| 8 | 1 | 1353 | Nut | Steel |
| 9 | 1 | 8226 | Washer | Steel |
| 10 | 1 | 12094 | Pressure Plate | Brass |
| 11 | 1 | 17633* | Diaphragm | Buna-N® |
| 12 | 1 | 8243 | Diaphragm Stop | Brass |

| ITEM | QTY | PART NO. | DESCRIPTION | MATERIAL |
|------|-----|----------|------------------|--------------|
| 13 | 1 | 17744 | Piston Sub Assy. | |
| 13a | 1 | 9288* | O-ring | Buna-N® |
| 13b | 1 | 17634 | Cylinder | 303 SST |
| 13c | 2 | 8273* | O-ring | Buna-N® |
| 13d | 1 | 8664* | O-ring | Buna-N® |
| 13e | 1 | 17635 | Pusher Post | 303 SST |
| 13f | 1 | 17638* | Piston | Brass |
| 13g | 1 | 17637* | Seat Disc | Buna-N® |
| 14 | 1 | 17636 | Body | Brass-Forged |
| 15 | 1 | 9162 | Piston Spring | 302 SST |
| 16 | 1 | 8274 | Bottom Plug | Brass |
| 17 | 1 | | | |

* Recommended spare part (kit).

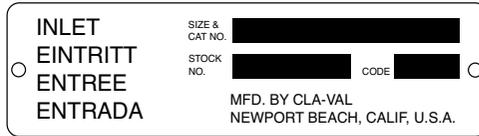
Note: Lubricate O-ring #9288 before re-assembly pilot with a kit.

Proper Identification

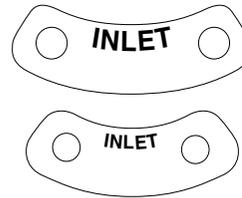
For ordering repair kits, replacement parts, or for inquiries concerning valve operation, it is important to properly identify Cla-Val products already in service by including all nameplate data with your inquiry. Pertinent product data includes valve function, size, material, pressure rating, end details, type of pilot controls used and control adjustment ranges.

Identification Plates

For product identification, cast-in body markings are supplemented by identification plates as illustrated on this page. The plates, depending on type and size of product, are mounted in the most practical position. **It is extremely important that these identification plates are not painted over, removed, or in any other way rendered illegible.**



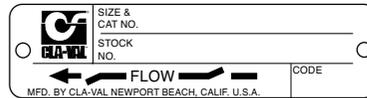
This brass plate appears on valves sized 2 1/2" and is located on the top of the inlet flange.



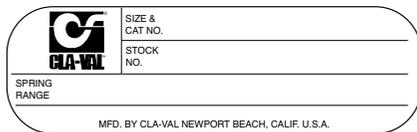
These two brass plates appear on 3/8", 1/2", and 3/4" size valves and are located on the valve cover.



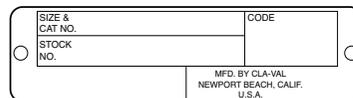
This brass plate appears on altitude valves only and is found on top of the outlet flange.



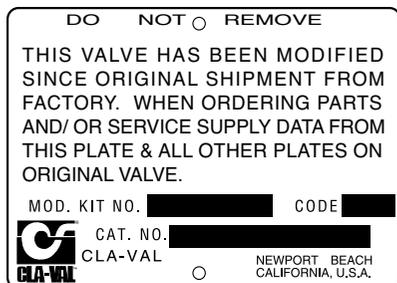
These two brass plates appear on threaded valves 1" through 3" size or flanged valves 1" through 2". It is located on only one side of the valve body.



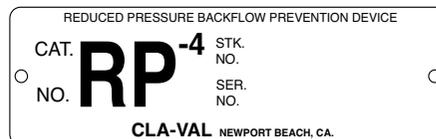
This tag is affixed to the cover of the pilot control valve. The adjustment range appears in the spring range section.



This brass plate is used to identify pilot control valves. The adjustment range is stamped into the plate.



This aluminum plate is included in pilot system modification kits and is to be wired to the new pilot control system after installation.



This brass plate is used on our backflow prevention assemblies. It is located on the side of the Number Two check (2" through 10"). The serial number of the assembly is also stamped on the top of the inlet flange of the Number One check.

HOW TO ORDER

Because of the vast number of possible configurations and combinations available, many valves and controls are not shown in published product and price lists. For ordering information, price and availability on product that are not listed, please contact your local Cla-Val office or our factory office located at:

P. O. Box 1325
Newport Beach, California 92659-0325
(949) 722-4800
FAX (949) 548-5441

SPECIFY WHEN ORDERING

- Model Number
- Globe or Angle Pattern
- Adjustment Range (As Applicable)
- Valve Size
- Threaded or Flanged
- Body and Trim Materials
- Optional Features
- Pressure Class

UNLESS OTHERWISE SPECIFIED

- Globe or angle pattern are the same price
- Ductile iron body and bronze trim are standard
- X46 Flow Clean Strainer or X43 "Y" Strainer are included
- CK2 Isolation Valves are included in price on 4" and larger valve sizes (6" and larger on 600 Series)

LIMITED WARRANTY

Automatic valves and controls as manufactured by Cla-Val are warranted for three years from date of shipment against manufacturing defects in material and workmanship that develop in the service for which they are designed, provided the products are installed and used in accordance with all applicable instructions and limitations issued by Cla-Val. Electronic components manufactured by Cla-Val are warranted for one year from the date of shipment.

We will repair or replace defective material, free of charge, that is returned to our factory, transportation charges prepaid, if upon inspection, the material is found to have been defective at time of original shipment. This warranty is expressly conditioned on the purchaser's providing written notification to Cla-Val immediate upon discovery of the defect.

Components used by Cla-Val but manufactured by others, are warranted only to the extent of that manufacturer's guarantee.

This warranty shall not apply if the product has been altered or repaired by others, Cla-Val shall make no allowance or credit for such repairs or alterations unless authorized in writing by Cla-Val.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY

The foregoing warranty is exclusive and in lieu of all other warranties and representations, whether expressed, implied, oral or written, including but not limited to any implied warranties or merchantability or fitness for a particular purpose. All such other warranties and representations are hereby cancelled.

Cla-Val shall not be liable for any incidental or consequential loss, damage or expense arising directly or indirectly from the use of the product. Cla-Val shall not be liable for any damages or charges for labor or expense in making repairs or adjustments to the product. Cla-Val shall not be liable for any damages or charges sustained in the adaptation or use of its engineering data and services. No representative of Cla-Val may change any of the foregoing or assume any additional liability or responsibility in connection with the product. The liability of Cla-Val is limited to material replacements F.O.B. Newport Beach, California.

TERMS OF SALE

ACCEPTANCE OF ORDERS

All orders are subject to acceptance by our main office at Newport Beach, California.

CREDIT TERMS

Credit terms are net thirty (30) days from date of invoice.

PURCHASE ORDER FORMS

Orders submitted on customer's own purchase order forms will be accepted only with the express understanding that no statements, clauses, or conditions contained in said order form will be binding on the Seller if they in any way modify the Seller's own terms and conditions of sales.

PRODUCT CHANGES

The right is reserved to make changes in pattern, design or materials when deemed necessary, without prior notice.

PRICES

All prices are F.O.B. Newport Beach, California unless expressly stated otherwise on our acknowledgement of the order. Prices are subject to change without notice. The prices at which any order is accepted are subject to adjustment to the Seller's price in effect at the time of shipment. Prices do not include sales, excise, municipal, state or any other Government taxes. Minimum order charge \$100.00.

RESPONSIBILITY

We will not be responsible for delays resulting from strikes, accidents, negligence of carriers, or other causes beyond our control. Also, we will not be liable for any unauthorized product alterations or charges accruing there from.

RISK

All goods are shipped at the risk of the purchaser after they have been delivered by to the carrier. Claims for error, shortages, etc., must be made upon receipt of goods.

EXPORT SHIPMENTS

Export shipments are subject to an additional charge for export packing.

RETURNED GOODS

1. Customers must obtain written approval from Cla-Val prior to returning any material.
2. Cla-Val reserves the right to refuse the return of any products.
3. Products more than six (6) months old cannot be returned for credit.
4. Specially produced, non-standard models cannot be returned for credit.
5. Rubber goods such as diaphragms, discs, o-rings, etc., cannot be returned for credit, unless as part of an unopened vacuum sealed repair kit which is less than six months old.
6. Goods authorized for return are subject to a 35% (\$100 minimum) restocking charge and a service charge for inspection, reconditioning, replacement of rubber parts, retesting, repainting and repackaging as required.
7. Authorized returned goods must be packaged and shipped prepaid to Cla-Val, 1701 Placentia Avenue, Costa Mesa, California 92627.



E-Product I.D. (R-3/2011)

CLA-VAL

PO Box 1325 Newport Beach CA 92659-0325
Phone: 949-722-4800 • Fax: 949-548-5441

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Canada L0R 1B4
Phone: 905-563-4963
Fax: 905-563-4040

CLA-VAL EUROPE

Chemin des Mesanges 1
CH-1032 Romanel/
Lausanne, Switzerland
Phone: 41-21-643-15-55
Fax: 41-21-643-15-50

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Represented By:



—MODEL—

REPAIR KITS

Complete Replacement Diaphragm Assemblies for 100-01 and 100-20 Hytrol Main Valves
For: Hytrol Main Valves with Ductile Iron, Bronze Trim Materials—**125/150 Pressure Class Only.**
FACTORY ASSEMBLED
 Includes: Stem, Disc Guide, Disc, Disc Retainer, Spacer Washers, Diaphragm, Diaphragm Washer and Stem Nut.

| Valve Size | Diaphragm Assembly Stock Number | | Valve Size | Diaphragm Assembly Stock Number | |
|---------------------------|---------------------------------|--------|------------|---------------------------------|--------|
| | 100-01 | 100-20 | | 100-01 | 100-20 |
| 3/8" (Also 81-01) | 49097K | N/A | 6" | 40456G | 33273E |
| 1/2" - 3/4" (Also 81-01) | C2518D | N/A | 8" | 45276D | 40456G |
| 1" | C2520K | N/A | 10" | 81752J | 45276D |
| 1 1/4"-1 1/2" | C2522 F | N/A | 12" | 85533J | 81752J |
| 2" | C2524B | N/A | 14" | 89067D | N/A |
| 2 1/2" | C2523D | N/A | 16" | 89068B | 85533J |
| 3" | C2525J | C2524B | 20" | N/A | 89068B |
| 4" | 33273E | C2525J | 24" | N/A | 89068B |

Repair Kits for 100-01/100-20 Hytrol Valves

For: Hytrol Main Valves—**125/150 Pressure Class Only.**
 Includes: Diaphragm, Disc (or Disc Assembly) and spare Spacer Washers.

| Buna-N® Standard Material | | | | Viton (For KB Valves) | | | |
|---------------------------|-------------------------|----------|---------------------------|-------------------------|----------|--|--|
| Valve Size | Repair Kit Stock Number | | Valve Size | Repair Kit Stock Number | | | |
| | 100-01 | 100-20 | | 100-01 | 100-20 | | |
| 3/8" (Also 81-01) | 9169801K | N/A | 3/8" (Also 81-01) | 9169806J | N/A | | |
| 1/2" - 3/4" (Also 81-01) | 9169802H | N/A | 1/2" - 3/4" (Also 81-01) | 9169807G | N/A | | |
| 1" | 9169803F | N/A | 1" | 9169808E | N/A | | |
| 1 1/4" - 1 1/2" | 9169804D | N/A | 1 1/4" - 1 1/2" | 9169809C | N/A | | |
| 2" | 9169805A | N/A | 2" | 9169810A | N/A | | |
| 2 1/2" | 9169811J | N/A | 2 1/2" | 9169817F | N/A | | |
| 3" | 9169812G | 9169805A | 3" | 9169818D | 9169810A | | |
| 4" | 9169813E | 9169812G | 4" | 9169819B | 9169818D | | |
| 6" | 9169815K | 9169813E | 6" | 9169820K | 9169819B | | |
| 8" | 9817901D | 9169815K | 8" | 9169834A | 9169820K | | |
| 10" | 9817902B | 9817901D | | | | | |
| 12" | 9817903K | 9817902B | | | | | |
| 14" | 9817904H | N/A | | | | | |
| 16" | 9817905E | 9817903K | | | | | |
| 20" | N/A | 9817905E | | | | | |
| 24" | 9817906C | 9817905E | | | | | |

When ordering, please give complete nameplate data of the valve and/or control being repaired.
MINIMUM ORDER CHARGE APPLIES.

Repair Kits for 100-02/100-21 Powertrol and 100-03/100-22 Powercheck Main Valves

For: Powertrol and Powercheck Main Valves—125/150 Pressure Class Only

Includes: Diaphragm, Disc (or Disc Assembly) and O-rings and full set of spare Spacer Washers.

| Valve Size | Kit Stock Number 100-02 | Valve Size | Kit Stock Number | |
|-----------------|----------------------------|------------|------------------|-----------------|
| | | | 100-02 & 100-03 | 100-21 & 100-22 |
| 3/8" | 9169901H | 2 1/2" | 9169910J | N/A |
| 1/2" & 3/4" | 9169902F | 3" | 9169911G | 9169905J |
| 1" | 9169903D | 4" | 9169912E | 9169911G |
| 1 1/4" & 1 1/2" | 9169904B | 6" | 9169913C | 9169912E |
| | 9169905J | 8" | 99116G | 9169913C |
| | | 10" | 9169939H | 99116G |
| | | 12" | 9169937B | 9169939H |

Repair Kits for 100-04/100-23 Hy-Check Main Valves

Larger Sizes: Consult Factory.

For: Hy-Check Main Valves—125/150 Pressure Class Only

Includes: Diaphragm, Disc and O-Rings and full set of spare Spacer Washers.

| Valve Size | Kit Stock Number | | Valve Size | Kit Stock Number | |
|------------|------------------|-----------|------------|------------------|-----------|
| | 100-04 | 100-23 | | 100-04 | 100-23 |
| 4" | 20210901B | N/A | 12" | 20210905H | 20210904J |
| 6" | 20210902A | 20210901B | 14" | 20210906G | N/A |
| 8" | 20210903K | 20210902A | 16" | 20210907F | 20210905H |
| 10" | 20210904J | 20210903K | 20" | N/A | 20210907F |
| | | | 24" | N/A | 20210907F |

Repair Kits for Pilot Control Valves (In Standard Materials Only)

Larger Sizes: Consult Factory.

Includes: Diaphragm, Disc (or Disc Assembly), O-Rings, Gaskets or spare Screws as appropriate.

| BUNA-N® (Standard Material) | | | | VITON (For KB Controls) | |
|-----------------------------|------------------|-------------------------|------------------|-------------------------------|------------------|
| Pilot Control | Kit Stock Number | Pilot Control | Kit Stock Number | Pilot Control | Kit Stock Number |
| CDB | 9170006C | CFM-7 | 1263901K | CDB-KB | 9170012A |
| CDB-30 | 9170023H | CFM-7A | 1263901K | CRA-KB | N/A |
| CDB-31 | 9170024F | CFM-9 | 12223E | CRD-KB (w/bucking spring) | 9170008J |
| CDB-7 | 9170017K | CRA (w/bucking spring) | 9170001D | CRL-KB | 9170013J |
| CDH-2 | 18225D | CRD (w/bucking spring) | 9170002B | CDHS-2BKB | 9170010E |
| CDHS-2 | 44607A | CRD (no bucking spring) | 9170003K | CDHS-2FKB | 9170011C |
| CDHS-2B | 9170004H | CRD-18 | 20275401K | CDHS-18KB (no bucking spring) | 9170009G |
| CDHS-2F | 9170005E | CRD-22 | 98923G | 102C-KB | 1726202D |
| CDHS-3C-A2 | 24657K | CRL (55F, 55L) | 9170007A | | |
| CDHS-8A | 2666901A | CRL/55L-60 | 9170033G | | |
| CDHS-18 | 9170003K | CRL-4A | 43413E | | |
| CDS-4 | 9170014G | CRL-5 (55B) | 65755B | | |
| CDS-5 | 14200A | CRL-5A (55G) | 20666E | | |
| CDS-6 | 20119301A | CRL-18 | 20309801C | | |
| CDS-6A | 20349401C | CV | 9170019F | | |
| | | X105L (O-ring) | 00951E | Buna-N® | |
| CFCM-M1 | 1222301C | 102B-1 | 1502201F | CRD Disc Ret. (Solid) | C5256H |
| CFM-2 | 12223E | 102C-2 | 1726201F | CRD Disc Ret. (Spring) | C5255K |
| | | 102C-3 | 1726201F | | |

Repair Assemblies (In Standard Materials Only)

| Control | Description | Stock Number |
|-------------|--|--------------|
| CF1-C1 | Pilot Assembly Only | 89541H |
| CF1-CI | Complete Float Control less Ball and Rod | 89016A |
| CFC2-C1 | Disc, Distributor and Seals | 2674701E |
| CSM 11-A2-2 | Mechanical Parts Assembly | 97544B |
| CSM 11-A2-2 | Pilot Assembly Only | 18053K |
| 33A 1" | Complete Internal Assembly and Seal | 2036030B |
| 33A 2" | Complete Internal Assembly and Seal | 2040830J |

When ordering, please give complete nameplate data of the valve and/or control being repaired. MINIMUM ORDER CHARGE APPLIES