CLA-VAL

— SERIES — PV30
Split-Body Pinch Valve

INSTALLATION

1. All Cla-Val PV30 Pinch Valves have standard 125/150# flat faced flanges. Other flange standards are available. Consult factory for further information.

2. For best performance, a flat faced serrated flange should be mated to the pinch valve flange face.
   • smooth faced flanges may not seal properly
   • raised-faced flanges may damage the rubber flange

3. The valve body flanges are supplied with threaded holes. Care should be taken to use the correct length of bolts to prevent "bottoming" which may crack the housing.

4. Valve should be installed where it is easily accessible for service. Whenever possible allow room on all sides of valve for maintenance of valve components. Technicians should consult separate manufacturer's operating instructions for auxiliary controls.

5. Be sure that the pipeline and mating flanges are clean of any foreign or old gasket material, which may damage the valve or prevent proper sealing. Avoid using sharp tools (screwdrivers, crow bars etc.) to install the valve. These can damage the sealing faces and cause leakage.

6. Cla-Val PV30 Pinch Valves are designed to be installed in any position. However if the operating air is not dry then it is recommended that the valve should be rotated so that the "Drain Plug" is on the bottom to allow for proper drainage of condensate from the valve housing.

7. Cla-Val PV30 Pinch Valve is supplied with the diamond seal gasket extruded, pushing the rubber flanges away from the body. Do not trim the extruded gasket, it will reseat once the valve is bolted in the line. A 1/8" extrusion is normal and required for a good seal.

8. The mating pipeline should be properly aligned. Sufficient space should be allowed between mating flanges for the PV30 to be installed and a tight seal achieved once bolted.

Note: The valve **will not stretch** to accommodate any extra space. Flange gaskets which are normally not required may be used as spacers.

9. Tighten all flange bolts in a criss-cross pattern (see Figure 1) to the maximum torque recommended for the metal mating flanges. The rubber flange can not be over-torqued. It is

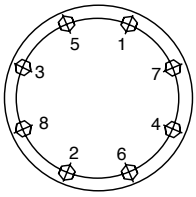

Figure 1

recommended that all hardware must be immediately checked after the valve is in operation to compensate for **rubber setting.**

OPERATION

Cla-Val PV30 Pinch Valves are a fully enclosed body, direct loaded pressure jacket type. These operate by a simple application of pneumatic or hydraulic pressure through the annular connection in the housing to the elastomeric sleeve. Pressure causes the sleeve to collapse and provide a tight seal.

NOTE: 2 WAY "BUBBLE TIGHT CLOSURE

Where a 2-way "Bubble Tight" closure is required (sizes 8" and above only), the elastomeric sleeve must be installed in one particular manner. The two arrows must be parallel with valve gaskets in the body casting.

Various control instruments (i.e. vacuum generators, solenoids pressure reducing valves etc.) can be connected to the valve to meet the required application.

1. Attach air supply to the valve housing at the threaded connection. (For operation of control instruments refer to the manufacturer's installation and operation manuals supplied).

CAUTION: For the successful operation of Cla-Val PV30 Pinch Valve, minimum amount of supply pressure should be used. Do not apply more supply pressure than specified to close the valve. Most Cla-Val PV30 valves require 30 psi supply pressure in addition to the line pressure. If 30 psi closes the valve then operating the valve at 45 or 50 psi will shorten the life of the sleeve, since the differential pressure across the sleeve is greater. This will cause premature sleeve failure.

2. Always use a pressure reducing valve and an integral gauge on the air supply line. This one single factor can affect sleeve life by 50%. The supply pressure can be cut back another 5 psi, after 2-3 weeks of operation (once the sleeve has been "set").

3. Only use clean, dry air or specified hydraulic fluid to operate the valve.

MAINTENANCE

Cla-Val PV30 Pinch Valves have no moving parts, and are maintenance free except for the replacement of rubber sleeve as required.

A spare sleeve and a set of diamond seal gaskets should always be ordered when the valve is placed in service.

1. The process line should be drained.
2. Valve sleeve should be fully open and air supply turned off.
3. Remove air supply from the valve body.
4. Remove valve from the line.
5. Remove body bolts & nuts. Check for fitness.
6. Before separating the two body halves, reference mark one end of each of the body halves. This will allow for same orientation reassembly.
7. Separate the housing and remove the sleeve and diamond seal gaskets.
8. Clean diamond seal gasket and recess. Carefully inspect the gasket for damage or deformation. It is recommended that a new gasket be used each time the valve is serviced. A damaged or deformed gasket will not allow for a proper seal.
9. Clean all housing mating surfaces giving special attention to mating flanges. Do not clean the surfaces with rough abrasive wheels. This may remove the machined grooves in the flange causing leakage. Do not use "Permatex" or "RTV Silicone" on the metal flange surfaces. These compounds will fill in the grooves, causing leakage.
10. Place the new sleeve in the body. If applicable see Note: 2 Way "Bubble Tight" Closure in the Operation section. Be sure to line up the flange bolt holes.
11. Replace the Diamond Seal gaskets in their grooves with the "Tail" towards the inside of the valve. Some Silicone may be applied to the gasket for it to stay in its groove while the castings are being bolted. It should be noted that 1/8" of the gasket will extrude to allow for a proper seal.
12. Replace the top half of the housing (be sure to match the reference marks on each end of both halves). Line up the body bolt holes.
13. Replace the bolts and tighten the nuts.
14. Re-install the valve in pipeline and re-connect the air supply.
15. Once the valve is in operation, recheck all hardware for tightness and fitness and periodically thereafter.

MAINTENANCE PARTS

1. Body Bolts.
2. Body (half section).
3. Diamond Seal Gasket.
4. Rubber Sleeve.
5. Body Nuts.