

INSTALLATION

1. All E.V.R. 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 bolt to prevent "bottoming".
4. Occasionally the sleeve may be longer than the housing. To install the valve in the line stroke actuator to 50% closed position (refer to Actuator I.O.M. or consult factory for details). This will tighten the sleeve against the flange plate. After installing the valve in the line, return the valve to the fully open position.
5. Whenever possible allow room on all sides of valve for maintenance of valve components. Technicians should consult separate manufacturer's operating instructions for optional components such as actuators, positioners and solenoids.

Installation in a horizontal pipeline with top mounted actuator is the preferred and recommended orientation. The valve can also be used with actuator mounted below the valve, although in dirty environments this may cause wear on the actuator stem and packing.

6. Installation in a vertical pipeline may require additional support for the actuator. The Series 2400 Pinch Valve closes on centerline. This means that the actuator will rise as the valve closes. Ensure adequate clearances and if supports are used, make sure that this movement is not restricted.

OPERATION

Pneumatic

Pneumatically actuated Series 2400 Pinch Valves, when supplied with control devices are preset at the factory as follows.

- solenoid - energize to open
- current positioner - 4mA closed and 20mA open
- pneumatic positioner - 3 psi closed and 15 psi open

The pneumatic actuator has two air connections: one on the head (rod end), air applied here will open the valve; and one on the cap, air applied here closes the valve. Spring return actuators for fail-open or fail-close operation normally use only one of these connections.

Consult factory for other settings and recommended air pressures.

CAUTION

ALWAYS TURN OFF MAIN POWER OR AIR SUPPLY BEFORE ATTEMPTING TO SERVICE OR REMOVE ACTUATORS FROM THE VALVE. REFER TO ACTUATOR AND CONTROL I.O.M. OR CONSULT FACTORY FOR DETAILS.

SPRING RETURN ACTUATORS : DO NOT TAMPER WITH THE TIE RODS OR ATTEMPT TO REPLACE SEALS. CONTACT FACTORY.

Electric

Electric actuators limit and torque switches are preset at the factory to suit valve stroke. (refer to Actuator I.O.M. and wiring diagram for on site adjustments).

MAINTENANCE

Valve Sleeve replacement

1. To replace a sleeve, the entire valve must be removed from the line.
2. Remove the bolts from the casting and remove the bottom half (with the drain plug.)
3. Remove the bolts from the positive opening tabs (upper & lower pinch bars.)
4. Stroke mechanism with right hand thread (in the piston rod) and left-hand thread (in the upper Pinch mechanism), may have to be turned to allow for removal of rubber sleeve.
5. If the valve is fail-close (spring to close), apply air to the cylinder to retract, place a block of wood or suitable material between the pinch bars before attempting to remove the sleeve. This will prevent the pinch mechanism from closing.
6. Unfasten the hex "Nylock" and hex jam nuts on the tie rods, and pull the lower pinch mechanism fully out of the body to ease sleeve removal.
7. Install the new sleeve and follow the above steps in reverse.
8. Silicone gasket the mating surfaces of the two casting halves.

Valve Lubrication

- no special lubrication required

Removing Actuator (valve installed in a horizontal pipe line with top mounted actuator)

- 1.) Before removing the actuator the valve has to be in open position. Piston rod has to be retracted during the process of actuator removal. It means that in the case of fail close actuator air pressure has to be applied during the process of actuator removal. It will keep piston rod retracted.
- 2.) If the valve closes on center line (center pinch), insert two wooden blocks, next to tie rods at each side, in between body and yoke plate. The blocks will keep yoke plate stationary.
- 3.) Remove the bolts fastening the actuator to the yoke plate. Suspend the actuator from above (not necessary for smaller actuators.)
- 4.) Turn stroke adjustment mechanism clock wise(looking from above the actuator) until the piston rod is disengaged from stroke adjustment mechanism. Check the actuator suspension. Smaller actuators may be hand held during the disengagement with stroke adjustment mechanism.
- 5.) **DO NOT ALLOW THE ACTUATOR TO REST ON THE STROKE ADJUSTMENT MECHANISM. IT CAN DESTROY THE THREADS OF STROKE ADJUSTMENT MECHANISM.**
- 6.) Remove the actuator.
To connect the actuator to the valve follow the above steps in reverse.

Valve Stroke Adjustment - Pneumatic & Hydraulic

- if the valve sleeve does not close tightly after a period of time, the sleeve may be starting to wear
- loosen the jam nuts on the stroke adjustment mechanism and turn the mechanism until a tight seal in the closed position is achieved
- tighten the jam nuts and all other hardware

Valve Stroke Adjustment - Electric

- stroke the valve and reset the torque and limit switches in the actuator (refer to the Actuator I.O.M. or consult factory for details)

MAINTENANCE PARTS

- refer to E.V.R. Drawing S2400-GA-DA-IN218 for Pneumatic Actuator installation and parts list.
- refer to E.V.R. Drawing S2400-GA-EA-IN500 for Electric Actuator installation and parts list.

It is recommended that a replacement sleeve should be ordered when the valve is placed in service