

Series LAF Control Valves



- ▶ Pre-pinched design provides linear flow characteristics
- ▶ External stroke adjustment
- ▶ Pneumatic and Electropneumatic positioners available
- ▶ No packing to maintain or replace
- ▶ Bi-directional, drop-tight shutoff



The Series LAF pre-pinched control valve offers excellent linear flow characteristics. Precise control is easily obtained at valve openings from 15% to 80%.

The smooth, unobstructed design of the RKL series LAF Pinch Valve provides very low restriction to the media flow path, reducing the possibility of unwanted turbulence and virtually eliminating plugging. Being a high recovery valve, the pinch valve contributes very little pressure loss to the system when in the full open position.

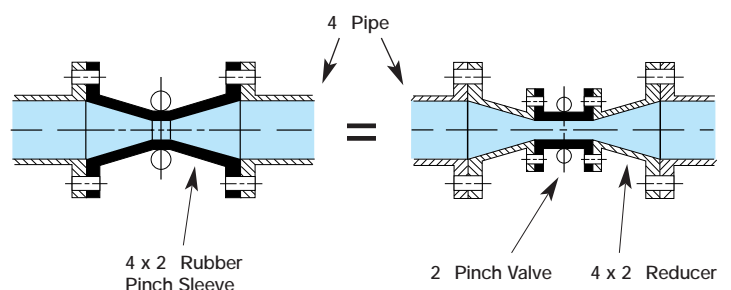
Cavitation is a problem engineers often encounter when designing control systems. Although extremely detrimental to most metal valves, normal cavitation creates little difficulty for an RKL Pinch Valve. The design of the valve and length of the sleeve reduce the possibility of cavitation. The pinched center portion of the sleeve tends to send cavitation liquid to the center of the flow stream long enough to prevent bubbles from impinging on the sleeve walls. The sleeve extends well past the vena contracta, confining cavitation to within the valve itself, thus reducing damage to companion piping. When severe cavitation does cause contact on the sleeve wall, the elastomer not only offers greater resistance to damage than most standard metals, but also helps to reduce vibration noise.

The high C_v rating, usually 80% of straight through pipe, offers the opportunity to use a smaller, less expensive valve in many instances.

Materials of Construction

- ▶ ANSI Class 125/150
- ▶ Cast-iron, aluminum or ductile iron body
- ▶ Sleeve available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM and Viton®

C_v valve for reduced port valve is the same, regardless of whether the reduction is accomplished by the use of reducers, by a taper built into the rubber sleeve or a combination of both.



RKL Controls has long been recognized in the pinch valve market for its leadership in the manufacture of engineered control valves. RKL successfully engineers pinch valves with all the pneumatic and electronic instrumentation required in today's modern automated process industries.

One of the most critical areas in modulating control valve applications is selecting the correct valve size for optimum and efficient control. Complete sizing data and calculations are available by requesting the new "RKL Control Pinch Valve Sizing Handbook." C_V and F_L figures in the sizing handbook were determined through laboratory research and testing. Current ISA and Fluid Controls Institute Standards and Procedures were employed to determine valve sizing constants and formulae.

LAF pinch valve housings are available in cast iron or aluminum, with ductile iron specific as an option. The valve stem and actuator stem are 303 stainless steel, and the pinch bar is solid cold rolled steel. Optional epoxy and PVC coatings are available at a small charge for extremely corrosive atmospheres. RKL pneumatic actuators are constructed of an Amalgon tube with aluminum end plates and a stainless-steel piston. The unique design of the pneumatic actuator is self-lubricating and extremely rugged for a long service life.

Sleeves are available in most elastomers to ensure maximum possible life in any combination of abrasive or corrosive applications. Options include a double-wall sleeve for increased abrasion resistance and a new cone sleeve for better throttling control.

In addition to valve positioners, a wide variety of complementary equipment can be supplied with an RKL pinch valve to meet the most demanding system requirements. Some of the more common accessories specified include:

- Solenoid valves
- Indicating switches
- Manual overrides
- Pressure-regulating instrumentation

Complete systems for very special customer requirements can be designed by the RKL engineering department to meet exact specifications.

The only maintenance required is routine lubrication of the operator and valve stem. RKL Series LAF Pinch Valves are capable of extremely long cycling life, and replacement of the elastomeric sleeve is simple and inexpensive.

Valve and Yolk Dimensions

Valve Size	Length L	Width W	Height H	Weight Cast Iron lbs	Weight Aluminum lbs	Working Pressure psi
1	6	5 1/4	11 5/16	14	5	200
1 1/2	6	6 1/8	11 1/2	15	6	200
2	8	7	11 7/8	30	13	200
2 1/2	10	8 7/8	14 1/4	38	17	175
3	12	10 1/4	14 1/2	50	24	175
4	16	12 1/8	18 3/4	100	45	150
5	15	13 1/4	19 5/16	160	74	125
6	18	15 7/8	19 13/16	160	74	125
8	24	18 3/4	27 5/16	260	141	125
10	30	22 1/2	29	385	190	100
12	36	27	31 5/8	620	311	100
14	42	29	33	825	450	75
16	48	33 3/4	34 1/8	1400	680	75
18	54	39 1/2	36 3/4	1925	N/A	75

Overall height is determined by actuator selection. Please consult factory.

