



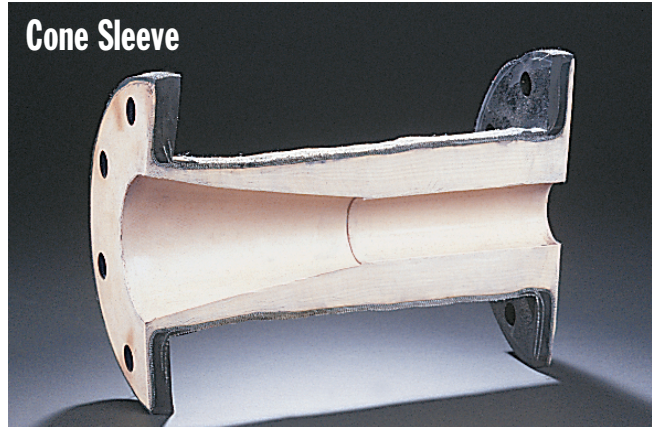
Cone Sleeve Technical Information

Advantages

Recommended for Throttling Service

Typically, Red Valve Control Pinch Valves are furnished with Cone Sleeve trims for throttling applications. Red Valve's Cone Sleeve trim is designed to have inherent linear flow characteristics. These linear characteristics result in flow rates that are directly proportional to the amount of sleeve travel throughout the stroke of the valve while under constant pressure and pressure-drop conditions. Red Valve Control Valves are often specified for liquid-level control and for flow-control applications requiring constant gain.

The Cone Sleeve trim creates a pressure drop designed to match the flow rate of the application. In most applications, Red Valve recommends a Cone Sleeve for throttling control. The additional rubber on the downstream side of the cone sleeve increases its service life while minimizing recovery inside the sleeve.



Cone Sleeve Advantages

Cone Sleeve Trim provides tighter control with a 20:1 turndown ratio and 0.89 recover factor. Pressure recovery occurs downstream of the sleeve, so cone sleeves can handle a higher pressure drop than other sleeve designs.

- 90% of throttling valves ship with a Cone Sleeve.
- Sleeve trim is sized to match the customer's flow rates.
- Better rangeability (the valve's ability to control over a wide operating range).
- Additional thickness of rubber downstream extends valve life.
- Outlasts Reduced Port Venturi Sleeves by up to 20:1.
- Patent protection.

Comparison of Pinch Valve Sleeve Trims		
	3" FULL-PORT SLEEVE	3" X 2" CONE SLEEVE
100% Cv	565	152
Minimum Controllable Cv	74	8
F_L at Min. Cv	.41	.86
Rangeability	8:1	19:1

For same Cv, the configuration of the Cone Sleeve will pass larger solids than throttled full-port. The sleeves are less likely to dam or bridge. Built-in port reduction increases the usable stroke.

