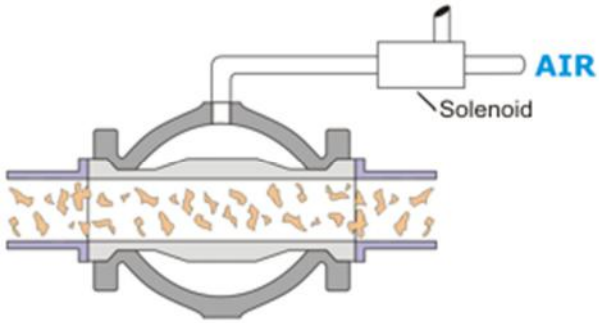
C-Series Pinch Valves (25mm - 1000mm)

As with the "K" & "KE" Series pinch valve, ATVAL is a market leader with this product and unlike most other manufacturers, the sleeve fitted to the valve has specially been designed for this application, making this an extremely simple valve, which has only one working part (the sleeve).



How it Works

The pinch valve works in the opposite way to the conventional pinch valve, because the sleeve is collapsed by air or fluid pressure, applied to its exterior surface. Therefore the closing medium pressure must exceed the pipeline pressure to achieve valve closure. This is referred to as the differential pressure , which in all cases does not exceed 2 bar. The pinch valve is offered for ON/ OFF duty as well as process control.

The valve closes like the shutter of a camera and leaves a pinhole at the centre of closure, therefore these valves are not drop-tight on clear fluids or gases. Any suspended solids in the pipeline medium assists closure by blocking the pinhole. Therefore all sizes will act as stop valves for such services as slurries, ash, dust, cement, powders and dirty water, etc.

Throttling control is normally by pneumatic controller and I/P converter. It is possible to achieve limited control using plant air controlled by a 3-way solenoid valve, as in dam level control. For process control, proportional control valves and/or volume boosters are required, together with electric to pneumatic valve transducers (I/P converter).

The valve body acts as a built in actuator, eliminating the need to fit costly conventional Pneumatic, Hydraulic, or Electric Actuators. By filling the body chamber of the valve with glycerine or a similar fluid the valve may be converted to act as a pressure gauge. These pinch valves are extensively used in Pneumatic Conveying, Food Processing, Sewage and Mineral Sands Industries.

Pressure Drop Considerations

Pressure drop is limited by flow conditions, which can produce flutter™ in the sleeve, which is indicated by valve and pipeline vibration. To prevent this the maximum pressure drop allowed across the valve should not exceed 25% of inlet pressure

- Fast and simple servicing
- Full bore, full flow conditions
- Sleeves specially manufactured for product
- Will not clog
- Bodies available in cast iron or aluminium
- Applications enhanced using pressure or volume boosters
- For full closure, medium must be at least 2 Bar more than line pressure
- Partial Sizes
- Inexpensive automatic control
- Reduced pipe line vibration and water hammer
- Full close around relatively large
- Pressure drop across the valve should not exceed 25%
- Changing the pressure or the closing medium can open, throttle or close the valve as required

Specifications

Valve Size (mm)	Max CWP (Bar)	A1 (BSP)	B	Dimensions (mm) C	D	L	Cast Iron Weight (kgs)	Volume (Litres)
16	16	Ã‚Â¼	60	115	115	134	6	0.1
40	16	Ã‚Â¼	75	150	150	166	7	0.2
50	16	Ã‚Â¼	82	165	165	198	10	0.3
80	16	Ã‚Â¼	103	200	200	262	19	1.2
100	10	Ã‚Â¼	117	220	220	312	22	2.5
150	10	Ã‚Â½	164	285	285	415	43	7.4
200	10	Ã‚Â½	202	340	340	530	74	17.0
250	10	Ã‚Â½	230	405	405	645	110	32.0
300	10	Ã‚Â½	300	460	460	760	140	55.0
350	10	Ã‚Â½	325	530	530	990	210	87.0
400	10	Ã‚Â½	450	590	600	1200	395	180
450	10	Ã‚Â½	450	640	650	1350	475	240
500	10	Ã‚Â½	500	700	700	1500	550	290