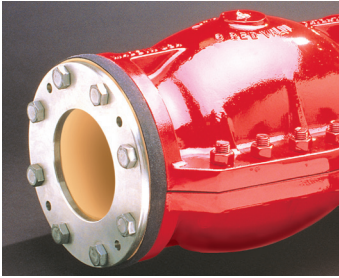


## PAV - Type A Air-Actuated Pinch Valve



- Closes drop-tight on entrapped solids
- Body functions as built-in actuator
- No cavities or dead spots
- Full Port, Double Wall or Cone Sleeve trim
- Simple design not affected by harsh external environments
- No packing to replace or maintain
- Cost effective, virtually maintenance free

Invented by Red Valve, the Type A Air-Actuated Pinch Valve offers a unique, cost-effective solution to flow control problems. The secret is in the rubber sleeve – the valve's only wetted part.

The Type A's closing action, or actuation, is accomplished by air or hydraulic pressure placed on the valve's sleeve. The Type A's body acts as a built-in actuator, eliminating costly pneumatic, hydraulic or electric actuators.

Modulating the air pressure within the annular space between the body and the sleeve can open, throttle or close the Type A valve. Approximately 35 psi over line pressure is required for closure.

The Type A sleeve's flexibility allows the valve to close drop-tight around entrapped solids, eliminating hang-ups that could damage the valve. The sealing area is equal to 95% of the valve's length. There are no seats or packing to replace and no cavities or dead spots to collect debris and bind valve operation.

The Type A Valve's abrasion resistance is unmatched. When the valve is open, it operates like a straight piece of pipe in the line. Type A Valves are often used on remote locations or in harsh environments because there are no external links, levers, pistons or rotating parts to cause downtime.

### Control

Throttling control is accomplished by using a booster or proportional relay to modulate air pressure to the Type A Valve. A changing air signal through the proportional relay will modulate the Type A Valve.

### Type A with Double Wall Sleeve

Designed for highly abrasive applications, the Type A Valve with a Double-Wall Sleeve can even outlast V-ball valves and metal-seated valves with hardened trim on abrasive slurries. To compensate for the extra sleeve thickness, the valve body is increased to the next size.

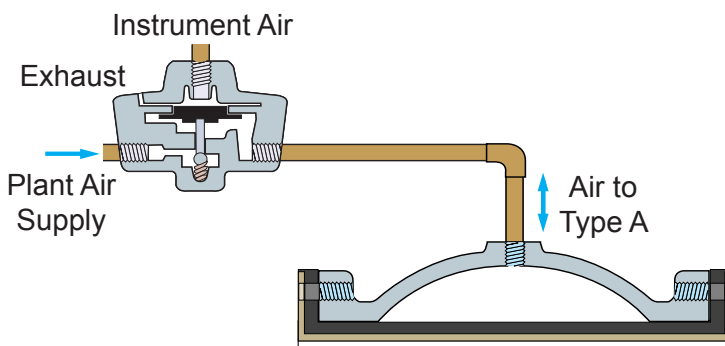
### Type A with Cone Sleeve

The Type A Valve with a Cone Sleeve is designed specifically for throttling control applications. The  $C_v$  of the valve can be matched to any requirement by reducing the port at the center of the sleeve. The port reduction is maintained through the downstream half of the sleeve for increased wear resistance, and because pressure recovery occurs downstream of the valve, cavitation is minimized.

### Materials of Construction

- **Body:** Cast iron or aluminum
- **Sleeves:** Pure Gum Rubber, Ethylene Propylene Diene Terpolymer (EPDM)\*, Acrylonitrile-Butadiene (NBR), Fluoroelastomer (FKM)\*, Chloroprene (CR)\*, Chlorosulfonated Polyethylene (CSM), Chloro-Isobutylene-Isoprene (CIIR)  
\* White food grade options available.
- **Drilled and tapped flanges:** ASME 150, ASME B16.1 125 cast flanges, AWWA C110 125 flanges, EN1092 PN 6, EN1092 PN 10, EN1092 PN 16, JIS 5K, JIS 10K. Other drill patterns available upon request.
- **Accessories:** Controls and control systems

### Controlling a Type A with Proportional Relay

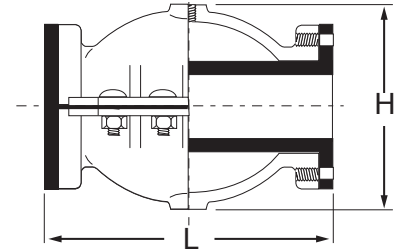


Red Valve recommends an adjustable relay instead of a fixed proportional relay.

# PAV - Type A Air-Actuated Pinch Valve

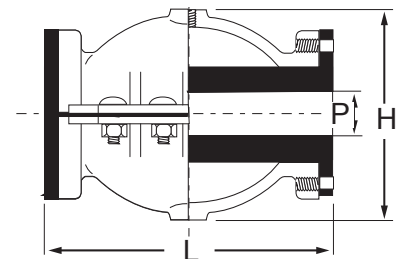
## Type A - Full Port Sleeve

VALVE SIZE	DIMENSIONS in/mm		AIR INLET NPT	WORKING PRESSURE psi/kPa	WEIGHT CAST IRON lbs/kg****	AIR VOLUME ft³
	LENGTH L	HEIGHT H				
1" 25mm	5.00 127	4.25 10	0.25	150 1030	9 4	.002
1.5" 40mm	7.00 178	5.00 127	0.25	150 1030	17 8	.007
2" 50mm	9.00 229	6.50 165	0.25	150 1030	32 15	.016
2.5" 65mm	10.00 254	7.00 178	0.25	150 1030	40 18	.028
3" 80mm	12.00 305	8.00 203	0.25	150 1030	55 25	.049
4" 100mm	12.50 318	10.63 270	0.25	150 1030	85 39	.091
5" 125mm	16.50 419	11.50 292	0.25	150 1030	119 54	.187
6" 150mm	20.00 508	13.00 330	0.25	150 1030	166 75	.327
8" 200mm	22.00 559	16.25 413	0.25	125 860	235 107	.640
10" 250mm	24.00 610	21.00 533	0.25	100 690	425 193	1.09
12" 300mm	26.00 660	24.00 610	0.25	100 690	640 290	1.70
14" 350mm	30.00 762	22.00 559	0.25	75 520	780 354	2.39
16" 400mm	34.00 864	29.50 749	0.25	75 520	910 413	3.59
18" 450mm	39.00 991	30.50 775	0.75	50 350	1275 578	5.27
**20"x24" 500mmx600mm	43.00 1092	31.00 787	1.00	50 350	1704 773	7.25
**24"x28" 600mmx700mm	51.00 1295	38.50 978	1.00	50 350	2100 953	12.50



## Type A - Double Wall Sleeve

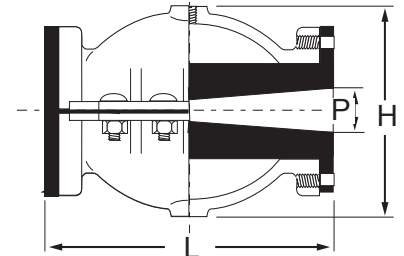
VALVE SIZE	DIMENSIONS in/mm			AIR INLET NPT	WORKING PRESSURE psi/kPa****	WEIGHT CAST IRON lbs/kg
	PORT SIZE P	LENGTH L	HEIGHT H			
1" 25mm	0.50 13	5.00 127	4.25 108	0.25	150 1030	11 5
2" 50mm	1.00 25	9.00 229	6.50 165	0.25	150 1030	33 15
2.5" 65mm	1.50 38	10.00 254	7.00 178	0.25	150 1030	42 19
3" 80mm	2.00 51	12.00 305	8.00 203	0.25	150 1030	57 26
4" 100mm	2.50 64	12.50 318	10.63 270	0.25	150 1030	88 40
4" 100mm	3.00 76	12.50 318	10.63 270	0.25	150 1030	88 40
5" 125mm	4.00 102	16.50 419	11.50 292	0.25	150 1030	123 56
6" 150mm	5.00 127	20.00 508	13.00 330	0.25	150 1030	171 78
8" 200mm	6.00 152	22.00 559	16.25 413	0.25	125 860	239 108
10" 250mm	8.00 203	24.00 610	21.00 533	0.25	100 690	423 192
12" 300mm	10.00 254	26.00 660	24.00 610	0.25	100 690	648 294
14" 350mm	12.00 305	30.00 762	22.00 559	0.25	75 520	826 375
16" 400mm	14.00 356	34.00 864	29.50 749	0.25	75 520	970 440
18" 450mm	16.00 406	39.00 991	30.50 775	0.75	50 350	1343 609
**20"x24" 500mmx600mm	18.00 457	43.00 1092	31.00 787	1.00	50 350	1800 816
**24"x28" 600mmx700mm	20.00 508	51.00 1295	38.50 978	1.00	50 350	2365 1073



# PAV - Type A Air-Actuated Pinch Valve

## Type A - Cone Sleeve

VALVE SIZE	DIMENSIONS in/mm		AIR INLET NPT	WORKING PRESSURE psi/kPa	WEIGHT CAST IRON lbs/kg****	
	AVAILABLE PORT SIZES P***	LENGTH L				HEIGHT H
1" 25mm	0.25, 0.50, 0.75 6, 13, 19	5.00 127	4.25 108	0.25	150 1030	9 4
1.5" 40mm	0.75, 1.00, 1.25 19, 25, 32	7.00 178	5.00 127	0.25	150 1030	17 8
2" 50mm	0.75, 1.00, 1.50 19, 25, 38	9.00 229	6.50 165	0.25	150 1030	32 15
2.5" 65mm	1.00, 1.50, 2.00 25, 38, 51	10.00 254	7.00 178	0.25	150 1030	40 18
3" 80mm	1.50, 2.00, 2.50 38, 51, 64	12.00 305	8.00 203	0.25	150 1030	55 25
4" 100mm	2.00, 2.50, 3.00 51, 64, 76	12.50 318	10.63 270	0.25	150 1030	85 39
5" 125mm	2.50, 3.00, 4.00 64, 76, 102	16.50 419	11.50 292	0.25	150 1030	119 54
6" 150mm	3.00, 4.00, 5.00 76, 102, 127	20.00 508	13.00 330	0.25	150 1030	166 75
8" 200mm	4.00, 5.00, 6.00 102, 127, 152	22.00 559	16.25 413	0.25	125 860	235 107
10" 250mm	5.00, 6.00, 8.00 127, 152, 203	24.00 610	21.00 533	0.25	100 690	425 193
12" 300mm	6.00, 8.00, 10.00 152, 203, 254	26.00 660	24.00 610	0.25	100 690	640 290
14" 350mm	8.00, 10.00, 12.00 203, 254, 305	30.00 762	22.00 559	0.25	75 520	810 367
16" 400mm	10.00, 12.00, 14.00 254, 305, 356	34.00 864	29.50 749	0.25	75 520	940 426
18" 450mm	12.00, 14.00, 16.00 305, 356, 406	39.00 991	30.50 775	0.75	50 350	1321 599
**20"x24" 500mmx600mm	14.00, 16.00, 18.00 356, 406, 457	43.00 1092	31.00 787	1.00	50 350	1770 803
**24"x28" 600mmx700mm	16.00, 18.00, 20.00 406, 457, 508	51.00 1295	38.50 978	1.00	50 350	2277 1033



\*\* Valve uses extended flange.

\*\*\* Other port sizes available, consult factory.

\*\*\*\* Weight for aluminum bodies, consult factory.