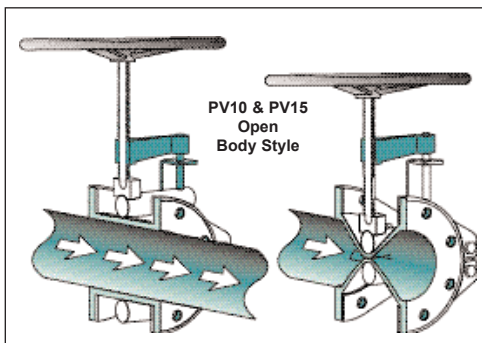




PINCH VALVES AND PRESSURE SENSOR'S

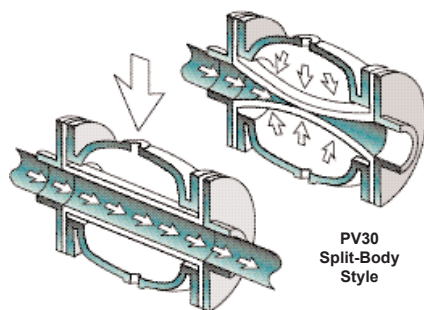


APPLICATION

Cla-Val CVPS Pressure Sensors offer a proven method of protecting pressure measurement and control instruments in process lines. CVPS sensors also effectively eliminate seal cavity blockage common to diaphragm pressure sensors due to their complete isolation from the process fluid using an elastomer sleeve. Use CVPS pressure sensors to protect gauges, transducers and other process control instrumentation to reduce maintenance costs.

OPERATION

CVPS Wafer Style Pressure Sensor has only one wetted part that is encased in a one-piece molded sleeve for simplicity and durability. Pressure in the pipeline or vessel is transmitted through the elastomer sleeve to the instrument resulting in accurate consistent readings of even hard to gauge liquids. In addition, because of the high amount of liquid displaced, when compared to conventional diaphragm sensors, multiple instruments can be installed. The wafer design and integral flange gaskets are ideally suited for mounting between ANSI flanges. A variety of sleeve materials is available for different process fluids. Sensors are available with alloy metal or plastic threaded connections.



APPLICATION

PV10, PV15 and PV20 Pinch Valves provide excellent flow control due to their simple yet effective design. The sleeve is the only valve part exposed to line fluid thus eliminating expensive breakdown of mechanical components that can occur in other valve designs.

OPERATION

Two pinch bars squeeze the flexible rubber sleeve, allowing the series PV 10, PV15, PV20. Valves to achieve variable and stable flow rates. Fully opened valves allow full linear flow, eliminating caves where solids collect to impair operation. Fully closed valves maintain complete closure, with no leakage either direction.



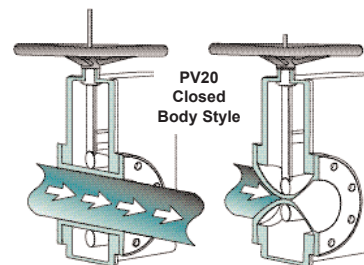
APPLICATION

Series PV30 Pinch Valves provide effective means of flow control for hard-to-handle media such as slurries, sludges, and dry solids.

OPERATION

A flexible elastomer sleeve is contained in a cast metal housing. The annular cavity between the sleeve and the housing acts as the valve's actuator.

As pressurized air or water enters the housing, the sleeve is pinched shut. Venting the pressure allows the valve sleeve to resume full normal flow position.



SLEEVE MATERIAL SELECTION

Ethylene Propylene Rubber

For applications involving water, steam or diluted acids.

Viton

Resists solvents, halogenated hydrocarbons, oxygen, weather, ozone, oils and chemicals.

Buna-N®

Resistant to kerosene, moderate chemicals, fats, oils grease and many hydrocarbons.

Natural Rubber (NR)

Good abrasion resistance, tensile strength and resiliency. also suitable when dealing with organic acids, alcohols, ketones and most moderate chemicals.

Hypalon (CSM)

Resists strong acids and basis, ozone, weathering, heat and oxidising chemicals.

Butyl

Good resistance to animal and vegetable fats, strong and oxidising chemicals, oils, heat and greases.

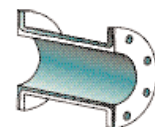
Neoprene (CR)

Generally resistant to oil and grease, moderate chemicals, fats, many hydrocarbons and ozone. Resistant to barnacle growth.

CHOOSE YOUR STYLE OF SLEEVE

Sleeves for Cla-Val series Pinch Valves Available in Different Styles.

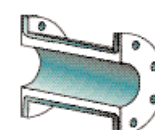
Pinch Valve Standard Sleeve



Pinch Valve Reduced Port Sleeve



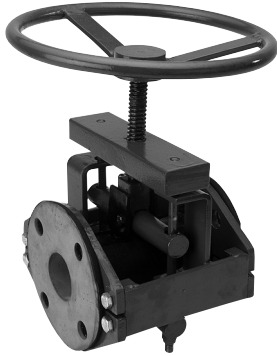
Pinch Valve Double Wall Sleeve





Series PV10

Open Body Pinch Valve



Quality Features at No Extra Cost!

- Short face-to-face
- Full port area
- Center sleeve closure
- Tight shut-off on solids
- Over pinch guard
- Positive pull opening tabs
- Valve position clearly visible

Heavy Construction at No Extra Cost!

- Rugged carbon steel body
- Easy to operate at high pressure
- Lubricated stem and bearing pad
- Stainless steel guide rods
- Reduced port sleeve for throttling flow
- Double wall sleeves for severe service

Many Synthetic Sleeve Materials Available:

Neoprene - Chlorobutyl - Hypalon - Buna-N® - Ethylene Propylene Rubber - Urethane and Viton
 When ordering above sleeve materials add the first letter of the material after the model number. ie: Model PV10.10N (N for Neoprene)

OPERATION

The Cla-Val Series PV10 Open Body Pinch Valves provide simple means to manually control the flow of abrasive and corrosive slurries, liquids and solids. The valve operates by turning the handwheel clockwise to close, counter-clockwise to open like a gate valve, but unlike a gate valve the PV10 series valve has no sliding or rubbing metal surfaces to wear out - the sleeve is merely squeezed to the desired open or closed position. As a standard sleeve material, pure gum rubber with reinforced polyester fabric is used for highest strength and longer lasting cycle life.

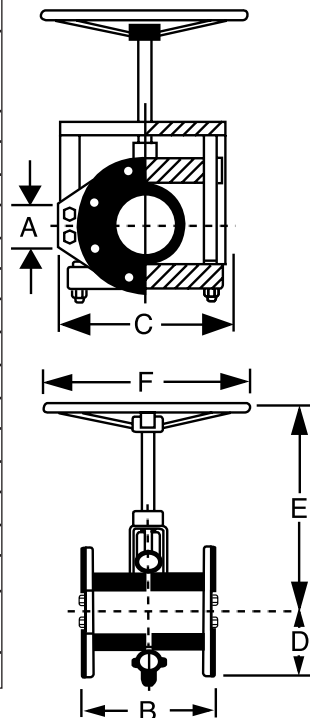
MAINTENANCE

Cla-Val Pinch Valves are basically maintenance free because the sleeve isolates all mechanical parts from the media. The sleeve is the only part typically inventoried for future replacement.

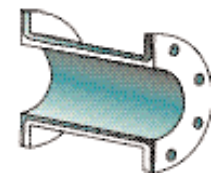
WHEN ORDERING, Please specify following information:			
Flange	<input type="checkbox"/> ANSI	<input type="checkbox"/> ANSI 300	
Drilling	<input type="checkbox"/> PN 6	<input type="checkbox"/> PN 10	
	<input type="checkbox"/> PN 16	<input type="checkbox"/> BS 10	
	<input type="checkbox"/> Other		

Sleeves Available in Different Styles.

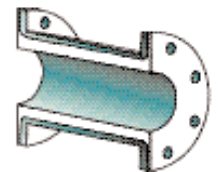
Series PV10 Open Body Pinch Valves									
Model No.	Pipe Size Inches A	Length B	Working Pressure PSI	Width C	D	E	Handwheel Diameter F	Weight (est.) lbs	
PV10.05	1/2	4	200	3 1/2	1 3/4	4 1/8	6	5	
PV10.75	3/4	5	200	5	2	5	6	7	
PV10.100	1	5 1/2	150	6	2 1/8	7 3/8	6	10	
PV10.150	1 1/2	6 1/2	150	6 5/8	2 1/2	9	6	15	
PV10.2	2	7	150	8 3/8	3	10 9/16	8	24	
PV10.250	2 1/2	7 1/2	150	9 1/4	3 1/2	11 3/16	10	30	
PV10.3	3	8	150	10 1/8	3 3/4	13 1/4	12	37	
PV10.4	4	9	150	11 3/4	4 1/2	15 1/8	12	55	
PV10.5	5	10	125	14	5	18	16	73	
PV10.6	*6	10 1/2	125	15 1/2	5 1/2	20	16	88	
PV10.8	*8	16	75	20	6 3/4	23	20	142	
PV10.10	*10	20	75	24	8	29 3/8	26	275	
PV10.12	*12	24	75	28	9 1/2	33 3/8	32	378	
PV10.14	*14	28	50	31 3/8	10 1/2	38 3/8	36	440	
PV10.16	*16	32	50	35	11 3/4	44	40	500	
PV10.18	*18	36	50	37 1/4	12 1/2	47 9/16	44	550	
PV10.20	*20	40	50	44	13 3/4	44	48	650	
PV10.24	*24	48	50	51 3/4	16	54	54	900	



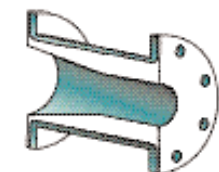
Pinch Valve Standard Sleeve



Pinch Valve Double Wall Sleeve



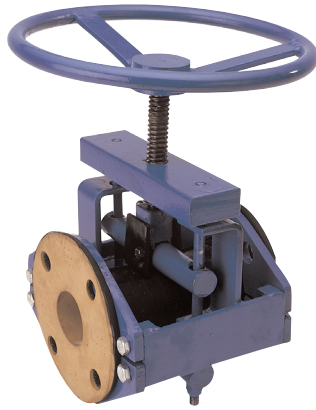
Pinch Valve Reduced Port Sleeve



* Available with bevel gear or manual hydraulic operator
 Series PV10 up to 6" have ANSI B16-10-5-FF lengths. For special designs contact factory



Series PV15 -High Pressure- Open Body Pinch Valve



Quality Features at No Extra Cost!

- Short face-to-face
- Full port area
- Center sleeve closure
- Tight shut-off on solids
- Over pinch guard
- Positive pull opening tabs
- Valve position clearly visible

Heavy Construction at No Extra Cost!

- Rugged carbon steel body
- Easy to operate at high pressure
- Lubricated stem and bearing pad
- Stainless steel guide rods
- Reduced port sleeve for throttling flow
- Double wall sleeves for severe service

Many Synthetic Sleeve Materials Available:

Neoprene - Chlorobutyl - Hypalon - Buna-N® - Ethylene Propylene Rubber - Urethane and Viton
When ordering above sleeve materials add the first letter of the material after the model number. ie: Model PV15-N (N for Neoprene)

OPERATION

The Cla-Val Series PV15 Open Body Pinch Valves provide simple means to manually control the flow of abrasive and corrosive slurries, liquids and solids.

The valve operates by turning the handwheel clockwise to close, counter-clockwise to open like a gate valve, but unlike a gate valve the PV15 series valve has no sliding or rubbing metal surfaces to wear out - the sleeve is merely squeezed to the desired open or closed position. As a standard sleeve material, pure gum rubber with reinforced polyester fabric is used for highest strength and longer lasting cycle life.

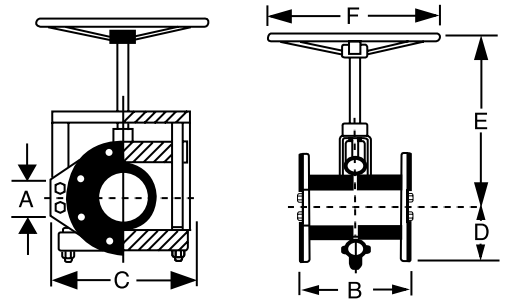
MAINTENANCE

Cla-Val Pinch Valves are basically maintenance free because the sleeve isolates all mechanical parts from the media. The sleeve is the only part typically inventoried for future replacement.

Applications

Mining - Waste and Water Treatment - Food Processing, Plants

The body of the PV15 Series Valve is available in carbon steel, aluminum or stainless steel. the open-frame design is standard.

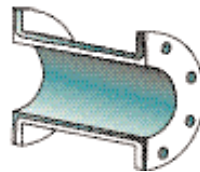


WHEN ORDERING,

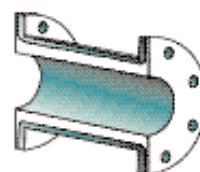
Note: please specify following information:

- | | | |
|----------|--------------------------------|-----------------------------------|
| Flange | <input type="checkbox"/> ANSI | <input type="checkbox"/> ANSI 300 |
| Drilling | <input type="checkbox"/> PN 6 | <input type="checkbox"/> PN 10 |
| | <input type="checkbox"/> PN 16 | <input type="checkbox"/> BS 10 |
| | <input type="checkbox"/> Other | <input type="text"/> |

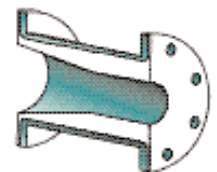
Pinch Valve Standard Sleeve



Pinch Valve Double Wall Sleeve



Pinch Valve Reduced Port Sleeve



ID ¹	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
F/F ¹	4 -1/2	5 -1/2	6	6	8	10	12	16	20	24	32	40	48	42	48	54	60	72
W ¹	3 -1/2	6	6	6 -1/2	8	9	10	11 -3/4	13-1/2	15-1/2	19	25	28	31-3/8	37	40	44	51-3/4
A ¹	1 -3/4	2	2 -1/4	2 -1/2	3	3 -1/2	3 -3/4	4 -1/2	5	5-1/2	6-3/4	8	9-1/2	10-1/2	11-3/4	12-1/2	13-3/4	16
B ¹	4 -1/8	5	7	8	9-1/4	10	12	14 -1/4	16	18	20	22	26	32	36	40	44	54
C ¹	4	4	6	8	9	10	12	14	16	18	20	26	32	36	40	44	48	54
Max. Work Pressure ²	200	200	200	200	200	200	150	150	150	150	150	150	150	150	150	150	150	150
Weight ³ (est.)	5	7	10	15	32	42	51	68	102	123	198	385	529	616	700	770	910	1260

1-inches

2-psi

3-pounds

Dimensions can be revised to fit custom specifications.



Series PV20

Closed Body Pinch Valve



Quality Features at No Extra Cost!

- Short face-to-face
- Full port area
- Center sleeve closure
- Tight shut-off on solids
- Over pinch guard
- Positive pull opening tabs
- Valve position clearly visible

Heavy Construction at No Extra Cost!

- Rugged Cast Iron body
- Easy to operate at high pressure
- Lubricated stem and bearing pad
- Stainless steel guide rods
- Reduced port sleeves for throttling flow
- Double wall sleeves for severe application

Many Synthetic Sleeve Materials Available:

Neoprene - Chlorobutyl - Hypalon - Buna-N® - Ethylene Propylene Rubber - Urethane and Viton
 When ordering above sleeve materials add the first letter of the material after the model number.
 ie: Model PV20.10N (N for Neoprene)

OPERATION

The Cla-Val Series PV20 Closed Body Pinch Valves provide simple means to manually control the flow of abrasive and corrosive slurries, liquids and solids. The valve operates by turning the handwheel clockwise to close, counter-clockwise to open like a gate valve, but unlike a gate valve the PV20 series valve has no packing or metal surfaces to wear out - the sleeve is merely squeezed to the desired open or closed position. The standard sleeve material, pure gum rubber, is made with reinforced polyester fabric for highest strength and longer lasting cycle life. Sizes 8" and larger are available with bevel gear operators for automatic operation.

MAINTENANCE

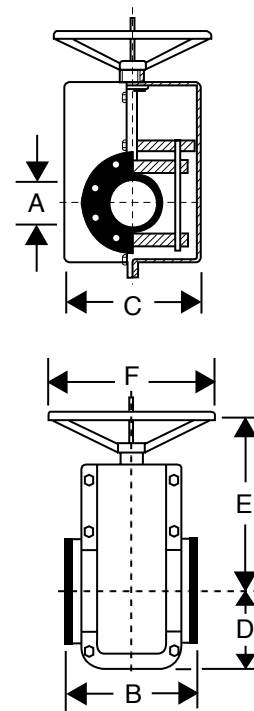
Cla-Val Pinch Valves are basically maintenance free because the sleeve isolates all mechanical parts from the media. The sleeve is the only part typically inventoried for future replacement.

WHEN ORDERING, Please specify following information:			
Flange	<input type="checkbox"/> ANSI	<input type="checkbox"/> ANSI 300	
Drilling	<input type="checkbox"/> PN 6	<input type="checkbox"/> PN 10	
	<input type="checkbox"/> PN 16	<input type="checkbox"/> BS 10	
	<input type="checkbox"/> Other		

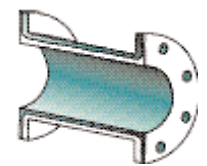
Sleeves Available in Different Styles.

Series PV20 Closed Body Pinch Valves								
Model No	Pipe Size A	Length B	Working Pressure psi.	Width C	D	E	Diameter F	Weight (est.) lbs
PV20.100	1	5 1/2	150	5 1/4	3	7 1/2	4	12
PV20.150	1 1/2	6 1/2	150	5 3/8	4	7 1/2	4	25
PV20.2	2	7	150	7 1/8	4 1/2	9 3/8	8	34
PV20.250	2 1/2	7 1/2	150	9 3/4	5	9 3/8	8	43
PV20.3	3	8	150	8 1/4	5	10 1/2	8	52
PV20.4	4	9	150	9 1/2	5 1/2	12	12	123
PV20.5	5	10	125	12 1/2	6 1/2	16	11	200
PV20.6	6	10 1/2	125	13	8	18	18	300
PV20.8	8	16	75	18 1/2	10	22	22	345
PV20.10	10	20	75	22 1/2	11	24	22	410
PV20.12	12	24	75	25	12	25	22	472
PV20.14	14	28	50	29	14	29	30	588
PV20.16	16	32	50	33	15	32	30	930
PV20.18	18	36	50	35	16	35	36	1150
PV20.20	20	40	50	39	17	37	36	1300
PV20.24	24	48	50	50 1/2	23	43	48	1510

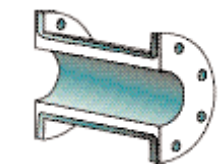
Sizes 8" & larger available with bevel gear operators. Sizes up to 6" have ANSI B16-10-51-FF lengths or special lengths available upon request.



Pinch Valve Standard Sleeve



Pinch Valve Double Wall Sleeve



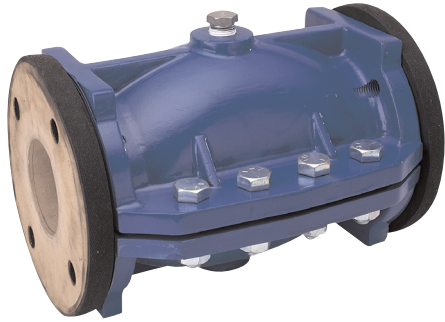
Pinch Valve Reduced Port Sleeve





Series PV30

Split-Body Pinch Valve



OPERATION

The Cla-Val Series PV30 Pinch Valves provide a positive means to control flow of hard to handle aggressive media such as slurries, sludges and dry solids. The standard, pure gum elastomer sleeve, the only moving part of the valve, is contained in a cast iron or aluminum housing. The annular space surrounding the sleeve and the housing becomes the valve actuator when charged with air or water.

As pressurized air or water enters the annular space, the elastomer sleeve is squeezed shut. Venting the pressurized air or water opens the valve.

MAINTENANCE

Cla-Val Split Body Pinch Valve is truly maintenance free because it has no mechanical moving parts. The only wetted part is the elastomer sleeve, made of reinforced polyester fabric for longer lasting cycle life. The sleeve is the only part ever needed for future replacement.

Quality Features at No Extra Cost!

- Simple open/close operation
- Only one moving part
- Long cycle life
- Full port area
- Tight shutoff, even on trapped solids
- Suitable for vacuum service

Heavy Duty Construction

- Cast Iron or Aluminum two piece
- Split body-easy sleeve replacement
- Extra thick wear lining
- Only reinforced polyester fabric is used for higher strength sleeves!
- Many elastomers to choose:
 - Food grade and double wall sleeves
 - Reduced port sleeves for throttling flow
 - Special service construction available

Many Synthetic Sleeve Materials Available:

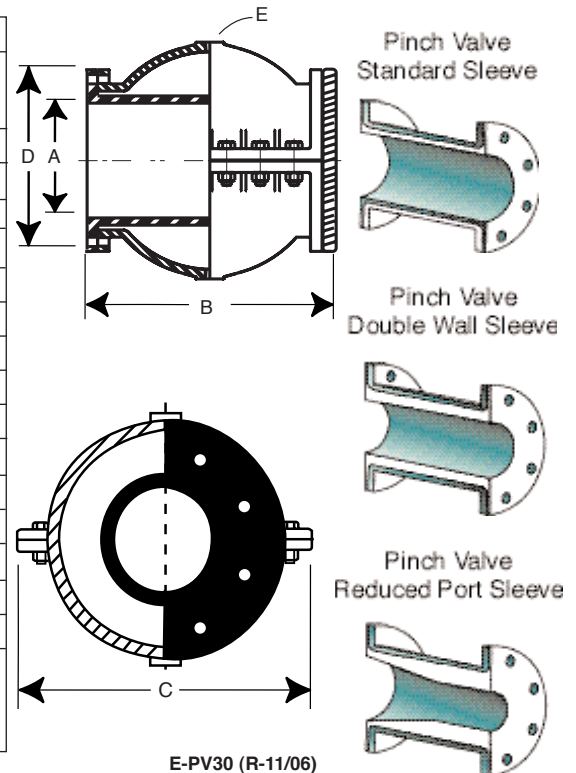
Neoprene - Chlorobutyl - Hypalon - Buna-N® - Ethylene Propylene Rubber - Urethane and Viton

When ordering above sleeve materials add the first letter of the material after the model number.

ie: Model PV30.10N (N for Neoprene)

Sleeves Available in Different Styles.

Series PV30 Split Body Pinch Valves								
Model No	Size A	Length B	Width C	Height D	Control Port E	Working Pressure	Weight Cast Iron	Weight Aluminum
PV30.05	1/2	3	4 1/4	3 1/2	1/4" NPT	125	5	2
PV30.75	3/4	4	5	3 7/8	1/4" NPT	125	7	4
PV30.100	1	5	5 3/4	4 1/4	1/4" NPT	125	9	6
PV30.150	1 1/2	7	6 1/2	5	1/2" NPT	125	17	8
PV30.2	2	9	8 1/2	7 1/8	1/2" NPT	125	32	15
PV30.250	2 1/2	10	9	7 1/2	1/2" NPT	125	40	20
PV30.3	3	12	10	8 1/8	1/2" NPT	125	51	23
PV30.4	4	12 1/2	11 3/4	10 5/8	1/2" NPT	100	70	34
PV10.5	5	16 1/2	11 3/4	11 1/2	1/2" NPT	75	137	60
PV30.6	6	20	15 1/4	13 1/2	1/2" NPT	75	180	88
PV30.8	8	22	17 1/2	18	1/2" NPT	75	257	120
PV30.10	10	24	19 3/8	22 3/8	1" NPT	50	440	195
PV30.12	12	26	21 1/2	25	1" NPT	50	485	252
PV30.14	14	30	24	27 1/2	1" NPT	50	825	291
PV30.16	16	34	25	29 1/2	1" NPT	50	933	340
PV10.18	18	39	28 1/4	32 5/8	1" NPT	25	1300	560
PV30.20	20	43	29	36 1/2	1" NPT	25	1555	670
PV30.24	24	51	37 1/2	47	1" NPT	25	2525	790



E-PV30 (R-11/06)

Mini-Pinch Valve



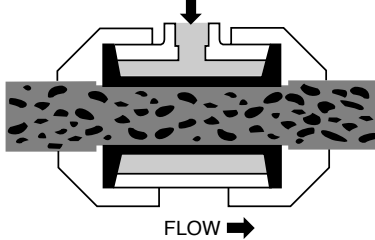
- Full port design
- Simple actuation
- On-Off or throttling
- Only 2 wetted parts
- Broad range of materials
- Tight shutoff even on trapped solids

Often, in slurry or dry powder systems, process is interrupted by gate, globe, plug or butterfly valves that have been clogged with material. There is a solution, Mini-Pinch Valves.

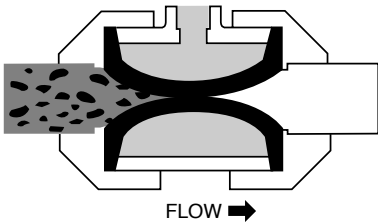
Designed for easy installation. Mini-Pinch Valves can be used to effectively control viscous or abrasive material flow. The rugged design delivers consistent and long life.

In operation, flow passes smoothly through the full port elastomer sleeve. To close the valve, plant or instrument air is introduced into the valve body. The increased pressure collapses the sleeve and stops the flow, even against trapped solids. To reopen the valve, the compressed air is vented and regular flow is restored. By changing the air pressure, flow rate can be controlled. Pulsing the air flow to the valve body can loosen packed material. The Cla-Val MPV valve features machined steel body and end fittings with corrosion resistant electroplate finish.

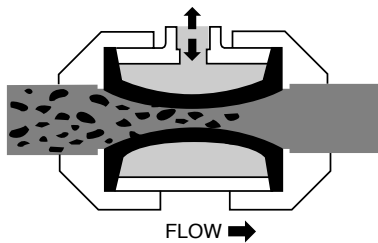
PRINCIPLES OF OPERATION



Valve is in open and normal flow of heavy slurries or dry powder materials is maintained.



Valve closes when compressed air is introduced into valve forcing the flexible sleeve to tighten, stopping flow.



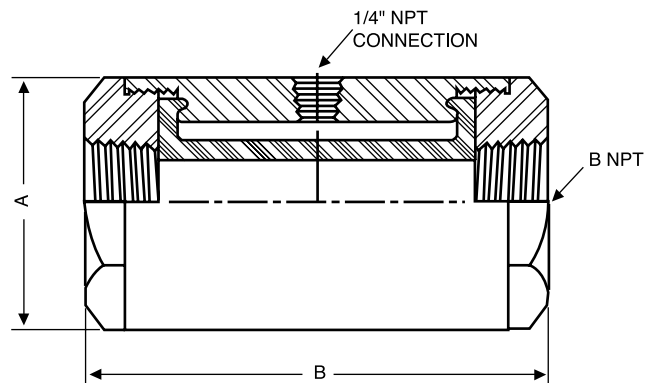
Flow is resumed when air pressure is released. Packed material can be loosened by pulsing the air supply which creates a throttling or flexing action of the sleeve.

Typical Applications

- Mining
- Pulp and Paper
- Food Processing
- Pharmaceutical
- Petrochemical
- Waste and Water treatment
- Paint, Ink and Resins

Typical Advantages

- Full port design
- On-off and throttling
- Wide material range
- Simple actuation
- Only 2 wetted parts
- Bubble tight closure even against solids



Size	Pipe Size NPT	A	B	Working Pressure
01	1/4	1 1/2	3	60 PSI
02	3/8	2 1/8	3 1/2	60 PSI
03	1/2	2 1/8	3 1/2	60 PSI
04	3/4	2 1/4	4	60 PSI
05	1	2 1/2	4 1/2	60 PSI
07	1 1/2	3 3/4	6 1/2	50 PSI
08	2	4	7	50 PSI
09	3	5	9	25 PSI

Cla-Val Pressure Sensor



Wafer Style

- Full port design
- Accurate pressure instrument protection
- One wetted part
- Operates multiple instruments

The Cla-Val CVPS Pressure Sensors provide the ideal method of protecting pressure measurement and control instruments in process lines. The full port flow through design of CVPS sensors is self cleaning, eliminating the problem of seal cavity blockage that is common with diaphragm type pressure sensors. The instrumentation is completely isolated from the process fluid line.

The CVPS wafer style pressure sensors contain only one wetted part, with integral flange gaskets provided by the one piece molded sleeve, and are available to suit all ANSI flange classifications. A variety of sleeve materials is available to provide optimum abrasion and corrosion resistance for different process fluids. Threaded style pressure sensors are available with alloy metal and plastic threaded ends for small diameter piping systems.

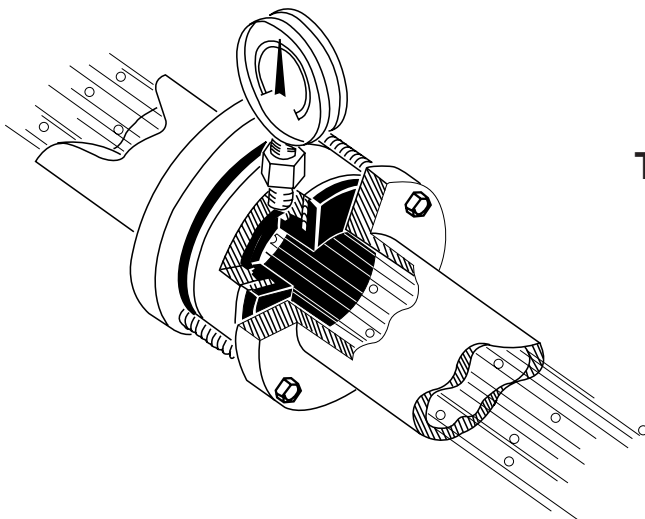
Applications

- Pump Protection
- Control Loop Feedback
- Pump Head Control
- Liquid Level Control and Indication
- Remote and Local Pressure Indications

Changes in the pipeline or vessel pressure are transmitted through the elastomer sleeve to the sensing fluid which operates the pressure instrument mechanism. The CVPS pressure sensor's provides numerous advantages over commonly used diaphragm type sensors.

The large sensing area results in consistently accurate pressure readings, even with normally hard to gauge process fluids. Because of the high volume of sensing fluid available for displacement, compared to conventional diaphragm seals, multiple instrument arrangements are possible and a variety of pressure instruments can be used.

The CVPS pressure sensors can be used to protect gauges, sensors, transducers, and transmitters in a variety of pressure measurement and control applications.

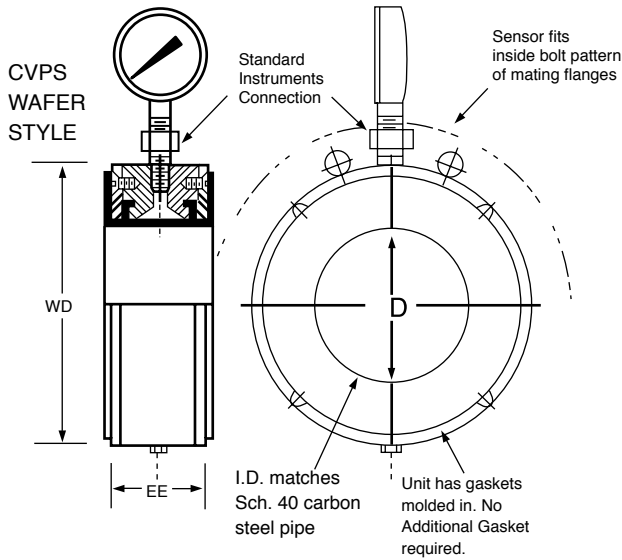


Threaded Style

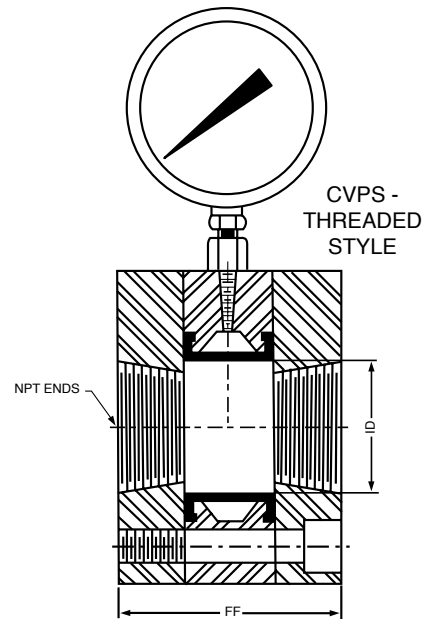


Pressure Sensor

Wafer Style



Threaded Style



Wafer Style - CVPS-W		
Size D	Length EE	Diameter OD
1	1 7/8	2 1/4
1 1/2	1 7/8	3 1/4
2	1 7/8	4
2 1/2	1 7/8	4 3/4
3	1 7/8	5 1/4
4	2 1/8	6 3/4
5	2 1/4	7 5/8
6	2 1/4	8 5/8
8	2 1/4	10 7/8
10	2 13/16	13 1/4
12	3 1/2	16

Threaded Style - CVPS-T		
Inside Diameter ID	Outer Diameter OD	Face to Face FF
1/2"	2 1/2"	2 7/8"
3/4"	3"	3"
1"	3"	3 3/8"
1 1/2"	4"	3 3/8"
2"	4 3/4"	3 3/8"