

## Pinch valve en closed body general situation

The SBM PTV Pinch Valve is a completely enclosed, manually operated valve. Its reliable, maintenance-free design is perfectly suited for tough slurries, abrasives, and corrosive chemical applications.

The enclosed body offers protection against moving parts and offers additional safety in the event of sleeve failure. **The heart of the Pinch Valve is a long-lasting, flexible rubber sleeve, available in a wide variety of elastomers suitable for any application.**

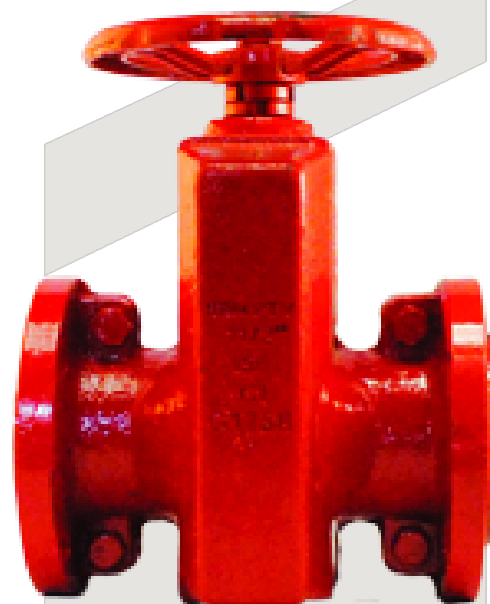
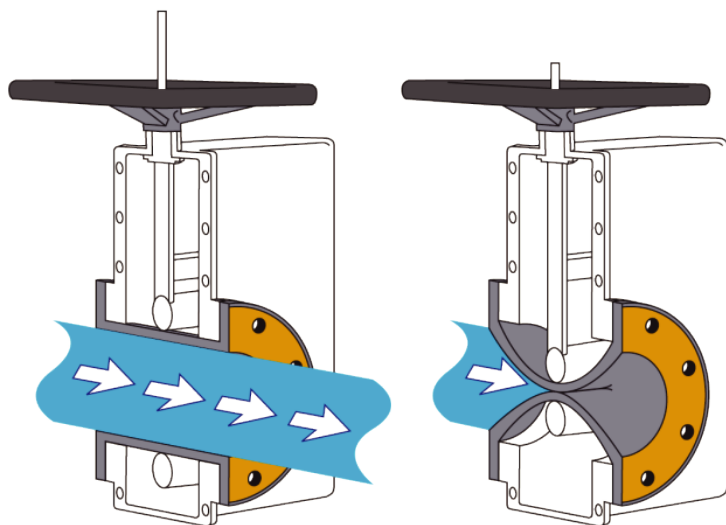
SBM PTV Pinch Valves provide excellent flow control compared to other valves due to their simple yet effective design. With its excellent control characteristics, the Pinch Valve can be used as a manual throttling control valve.

**In addition, the sleeve, which is the only part of the valve exposed to the line process, eliminates maintenance and the need for expensive, anticorrosion body materials.**

### How it works

During operation, two pinch bars squeeze the flexible rubber sleeve, allowing the Pinch Valve to achieve a variable and stable flow rate. Fully open, the valve allows for full, straight through flow, eliminating areas where solids could build up and impair operation.

Fully closed, the Pinch Valve maintains complete closure, with no leakage in either direction. Valve operation will not freeze and operating torques remain constant, even if the valve has remained in the open or closed position for years.



PTV<sup>®</sup> Brand is replacing SBM-PTV<sup>™</sup> from May 2023, which is made by Sino Base Metal Co., Ltd, Subsidiary of SBM group, 11C, No.1208 South Xizang Road, Shanghai, China Sino Base Metal Co., Ltd, reserves the right to change design/ specifications without further notices.

Duplex 2205 / Duplex 2507

## Features:

### A) Completely enclosed body

The enclosed body valve is the most common body type. Its enclosed design prevents premature sleeve deterioration and protects the sleeve from the environment, making it extremely safe to operate. Enclosed body pinch valves can be manufactured of cast iron, fabricated carbon steel, aluminum. Valve diameters begin from NPS 1".

### B) Optimum tightness

Even large solid particles are shut off by the sleeve, which is particularly resistant to abrasion and corrosion, hence shut off without leaks.

### C) Full port, streamlined centerline closure

Standard full port designs, streamlined centerline closure and Class VI shutoff provide outstanding elastomer wear life as well as precise, repeatable linear flow control.

### D) Self-cleaning, no plugging

Self-cleaning sleeve provide 100 % tight shut-off even if solids have built up on the sleeve wall. When compressed, any crystallized particles flake off the sleeve surface and are washed downstream.

### E) The sleeves inner lining reinforcing cords

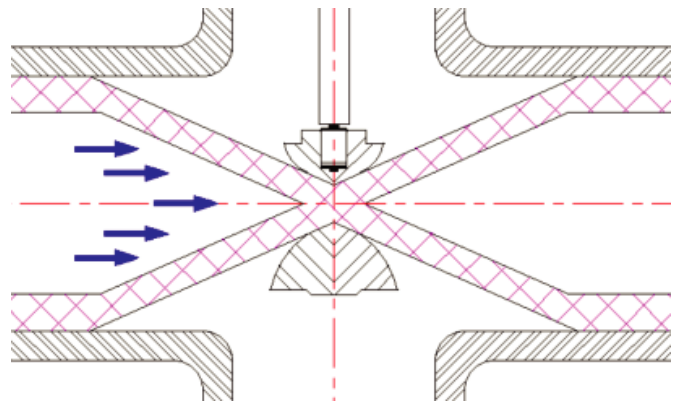
The sleeve is a reinforced construction making it the pressure containing part of the valve. The quality of the sleeve is crucial to the life time and anti-abrasion characteristics of the Pinch valve, SBM PTV Pinch Valve sleeves guarantee high wear and corrosion resistance, a trouble free operation, and extended lifetime.

### F) Easy maintenance

The sleeves and other parts can be replaced easily.

### G) Low pressure drop

### H) Bi-directional

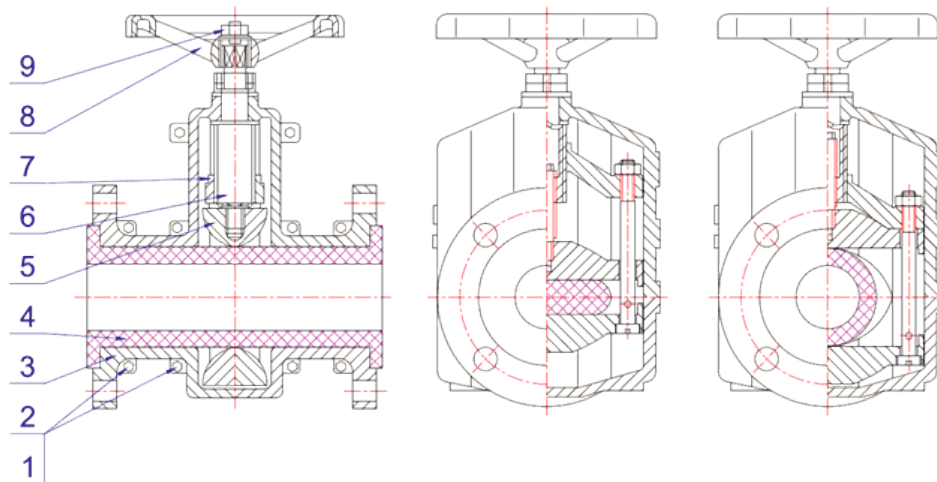


## Technical Data

1. Size range: NPS 1"~12"
2. Pressure ratings: 125LB / 150LB
3. Working temperature: -29    ☒ ~ +85    ☒
4. Working pressure: ≤ 150 PSI
5. Suitable Medium: tough slurries, abrasives, and corrosive chemical applications.
6. Industrial areas: Minerals processing. Metallurgy.  
Cement and fibrocement. Pigment and granulates.  
Ceramics-, glass-, plastic industry. Pulp and paper.  
Sewage water and mud industry.  
Marble- and granite industry. Tannery. etc
7. Body Material: Cast Iron / Aluminum  
14" and larger body sizes are of fabricated steel design.
8. Sleeves Material: NR / NBR / EPDM

## Performance Standard

1. Design & Manufacture standard as to: ASME B16.34
2. Face to Face dimension standard as to: MFR-STD
3. Flange dimension conforms as to: ASME B16.5
4. Testing And Inspection as to: API 598
5. Pressure-temperature conforms as to: ASME B16.34



**Part List:**

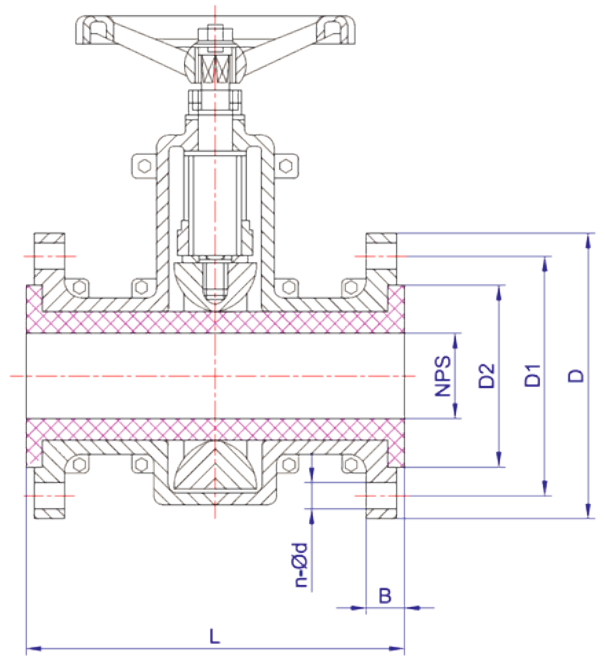
**PTV Pinch valve enclosed body**

No.	Part Name	Material	Standard
1.	Body Bolt	B7	ASTM A193
2.	Body Nut	2H	ASTM A194
3.	Body	Cast Iron	ASTM A126 Gr.B
		Aluminum	ASTM B108
4.	Sleeve	NR / NBR / EPDM	MFR-STD
5.	Closure	Carbon Steel	AISI 1025
6.	Stem	Carbon Steel	AISI 1025
7.	Retainer Steel Bar	Carbon Steel	AISI 1025
8.	Handwheel	Ductile Iron	ASTM A536
9.	Stem nut	2H	ASTM A194

**Main Dimensions:**

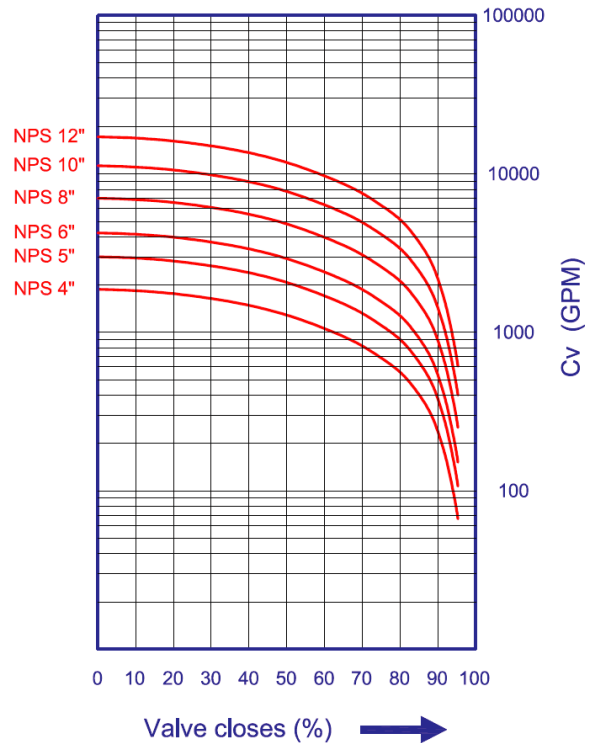
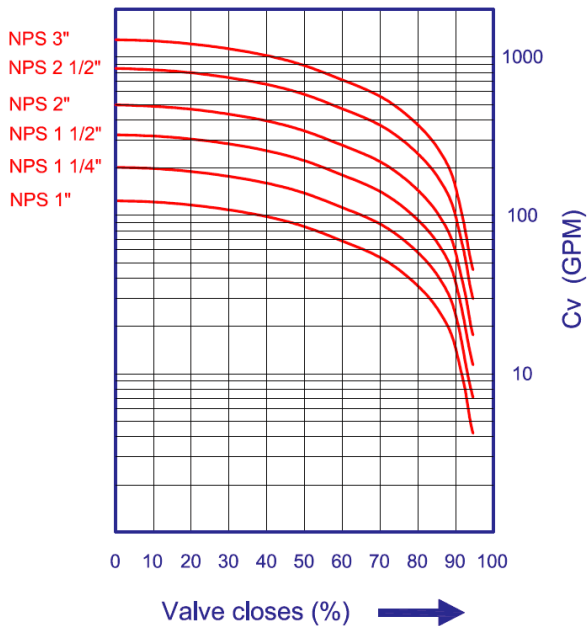
Pinch valve enclosed body  
Flanged ends RF ASME B16.5 125LB / 150LB

NPS	L	D	D1	D2	B	N-Φ	Weight (Kg)
1"	145	Φ110	Φ79.4	Φ51	13	4-1/2" - Unc	5.5
1 1/4"	160	Φ115	Φ88.9	Φ64	14.5	4-Φ16	6.8
1 1/2"	180	Φ125	Φ98.4	Φ73	16	4-Φ16	8
2"	210	Φ150	Φ120.7	Φ92	17.5	4-Φ19	13.5
2 1/2"	250	Φ180	Φ139.7	Φ105	21	4-Φ19	17
3"	300	Φ190	Φ152.4	Φ127	22.5	4-Φ19	23.5
4"	350	Φ230	Φ190.5	Φ157	22.5	8-Φ19	27
5"	430	Φ255	Φ215.9	Φ186	22.5	8-Φ22	46
6"	500	Φ280	Φ241.3	Φ216	24	8-Φ22	59
8"	650	Φ345	Φ298.5	Φ270	27	8-Φ22	107
10"	800	Φ405	Φ362.0	Φ324	29	12-Φ25.5	186
12"	950	Φ485	Φ431.8	Φ381	31	12-Φ25.5	215



**Engineering Data**

Cv values for SBM PTV Pinch valve enclosed body NPS 1"~12"  
(Standard full port)



## ORDERING CODE:

**Example: 1000LT-222-1-200**

Ball Valve, SS316 CF8M Body, SS316 CF8M ball and stem,  
RPTFE Seat, NPT Thread, Size 2"

## Available Body Material Code:

SS304 CF8 Stainless Steel: 1

SS316 CF8M Stainless Steel: 2

SS316L CF3M Stainless Steel: 3

## Available Ball and Stem Material:

SS304 CF8 Stainless

Steel: 1 SS316 CF8M

Stainless Steel: 2 SS316L

CF3M Stainless Steel: 3

## Available End Code:

Female NPT Thread: 1

Female BSP Thread: 2

## Available Seat Material Code:

PTFE: 1

RPTFE: 2