

## Hydraulic shock

Hydraulic shock (colloquial: water hammer; fluid hammer) is a pressure surge or wave caused when a fluid, usually a liquid but sometimes also a gas, in motion is forced to stop or change direction suddenly; a momentum change. This phenomenon commonly occurs when a valve closes suddenly at an end of a pipeline system, and a pressure wave propagates in the pipe.

## Piston Type Water Hammer Eliminator

SBM PTV Piston type water hammer eliminator can effectively eliminate the irregular water shock wave oscillation caused by the external hammer and surge of various types of fluid in the transmission system without stopping the flow of fluid, so as to achieve Eliminate destructive shock waves for the purpose of protection.

### How it Works

Internal body has a closed container gas chamber , the lower end of a piston, when the shock into the water hammer eliminator, water hammer wave acting on the piston, the piston will go receiving gas chamber direction movement, with the stroke movement of the piston receiving chamber gas pressure of the gas therein, the size of the water shock wave, the gas piston in the dual role of certain water hammer pressure and irregular wave, up and down movement, forming a dynamic balance, thus effectively The elimination of irregular water shock wave shock.

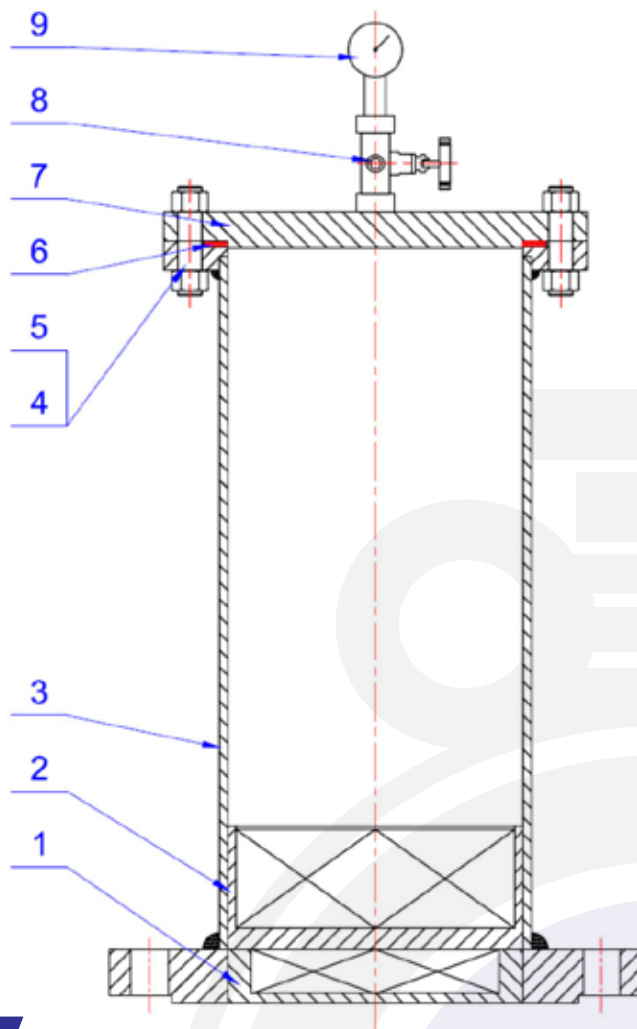


### Performance Standard

1. Design & Manufacture standard as to: ASME B16.34
2. Height 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

### Technical Data

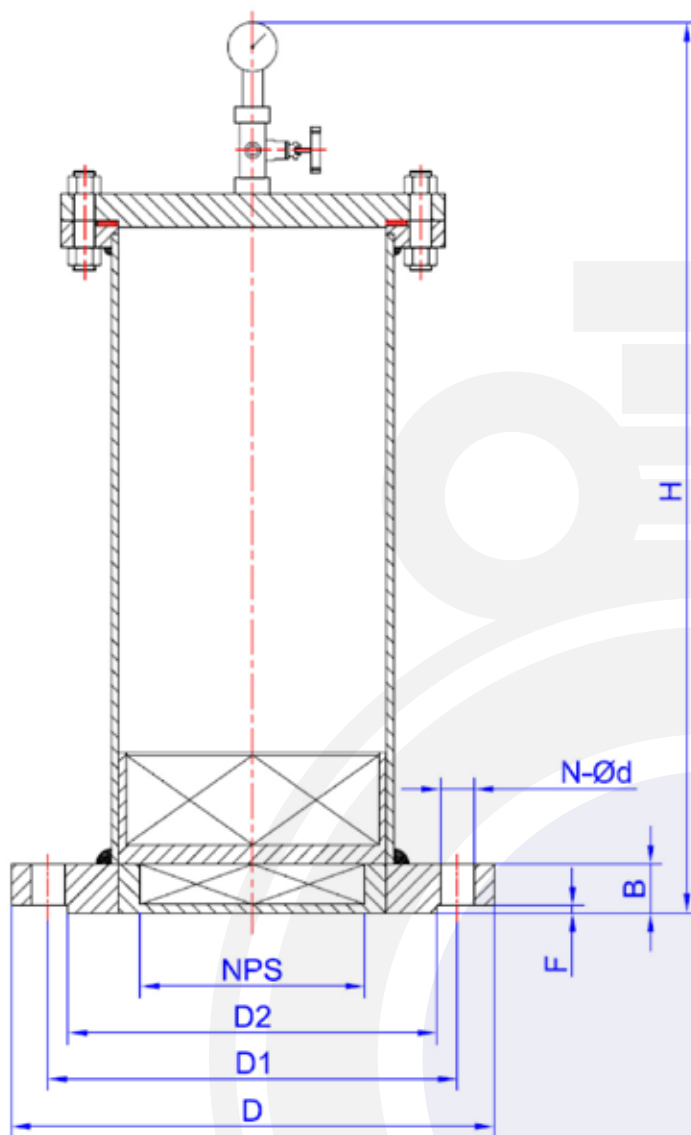
1. Size range: NPS 2"~6"
2. Pressure ratings: 150LB
3. Working temperature: -29°C ~ +85°C
4. Working pressure: 150LB ≤ 290 PSI  
300LB ≤ 725 PSI
5. Suitable medium: Water, Oil, Liquid. etc
6. Body material: SS304 / SS316  
/ Duplex 2205
7. Trim material: SS304 / SS316  
/ Duplex 2205



Part List:

Piston Type Water Hammer Eliminator

No.	Part Name	Material	Standard
1.	Bonnet	SS304	ASTM A276
		SS316	ASTM A276
		Duplex 2205	ASTM A182
2.	Plug	SS304	ASTM A276
		SS316	ASTM A276
		Duplex 2205	ASTM A182
3.	Body	SS304	ASTM A276
		SS316	ASTM A276
		Duplex 2205	ASTM A182
4.	Body Bolt	B8 / B8M	ASTM A193
5.	Body Nut	8 / 8M	ASTM A194
6.	Gasket	Viton	MFR-STD
7.	Cover	SS304	ASTM A276
		SS316	ASTM A276
		Duplex 2205	ASTM A182
8.	Inflating valve (Needle Valve)	F304	ASTM A182
9.	Pressure Gage	SS304	ASTM A276



## Main Dimensions:

### Piston Type Water Hammer Eliminator Flanged ends RF 150LB

NPS	L	D1	D2	D3	B	N-Φ	F
2"	490	Φ150	Φ120.7	Φ92	17.5	4-Φ19	2
2 1/2"	540	Φ180	Φ139.7	Φ105	21	4-Φ19	2
3"	540	Φ190	Φ152.4	Φ127	22.5	4-Φ19	2
4"	610	Φ230	Φ190.5	Φ157	22.5	8-Φ19	2
6"	700	Φ280	Φ241.3	Φ216	24	8-Φ22	2