



Driving
TECHNOLOGICAL
EXCELLENCE

PULSATION DAMPENER

A pulsation dampener is a device that is used to absorb the pressure spikes generated during the working of reciprocating pumps in the hydraulic circuits. It also acts as a leakage compensator, shock absorber, and energy storage device as well. The body is constructed using SA276 SS316L materials and designed in compliance with ASME section VII Div-1. Based on the requirements other materials like carbon steel, Duplex and super duplex can also be used.

The rubber bladder with effective fluid compatibility with work fluid is specially designed which enclosed in metal body. Nitrogen gas fill valve kit is fitted at the top of the metal body to enhance the gas filling.

The connection size is available in various threaded and flanged connections. The design is validated by conducting hydrotest at 1.5 times more than its design pressure to ensure the safety equipment.

TECHNICAL SPECIFICATION

DESIGN DATA

- ▶ Volume Range: 0.05 - 50 Litres, higher volume on request
- ▶ Pressure Range: Up to 690 Bar. G
- ▶ Temperature Range: -45°C - 120°C

MOC

- ▶ Top Head/Bowl/Shell: SS316L, Duplex, CS, 34 CrMo4, Upon request
- ▶ Bladder: FKM (Viton), NBR, HNBR, EPDM, other special grades on Request
- ▶ Sealing: NBR / FKM (Viton)



DESIGN CODES AND APPROVALS

- ▶ ASME Sec VIII Div. -1 with or without U stamp
- ▶ BSEN 14359: 2007 with or without PED
- ▶ Other standards on request



GAS FILL VALVE

- ▶ 1/4" BSPP / 5/8" UNF / Others
- ▶ MOC of Gas fill valve: SS 316/L

PROCESS CONNECTION

- ▶ Process connections are available in socketed, threaded & flanged connections
- ▶ Socketed: 1/4", 3/8", 1/2", 3/4", 1" & 2"
- ▶ Threaded: - 1/4", 3/8", 1/2", 3/4", 1" NPTF
- ▶ Flanged: - 1/2" to 3" -150# to 2500# pressure rating -RF, RTJ
- ▶ Other connections and pressure ratings up on request.



MATERIAL CERTIFICATIONS

- ▶ 3.1 MTC as per EN 10204 for all pressurized parts.
- ▶ Hydro test certificate.
- ▶ NAMCE Compliance as per MR 0175. (Optional)
- ▶ ASME certificate. (Optional)

SPARES AND ACCESSORIES

BLADDER ASSEMBLY KIT

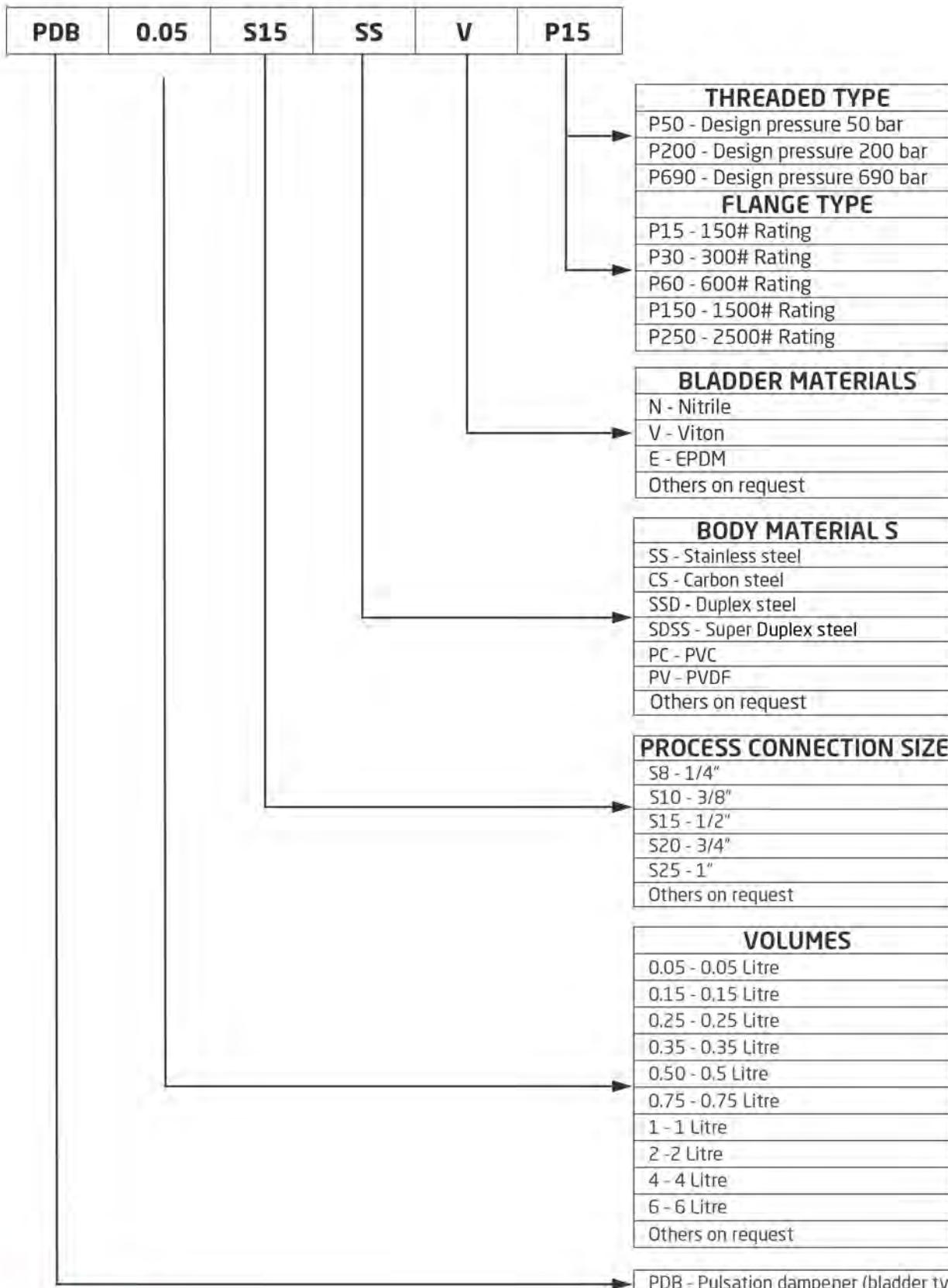
The bladder assembly kit can be ordered with the following De-codification PDB-0.05-V-BR format with suitable volume. The bladder is higher volume 2 litre and above comes with stem O-ring, lock nut. These higher volume bladder stems generally come with SS304/316 material, and we shall supply carbon steel on special request. The bladders are available in a wide range of materials like NBR, FKM and EPDM supplied based on the requirement.

O-RING AND GASKET ASSEMBLY

The Seal kit can be ordered with the following De-codification PDB-0.05-V-OR format with suitable volume. As a standard material in order to have an excellent chemical resistance and to withstand higher temperature resistance, FKM is used as a standard material. The higher volume bladders are set of 3 (Fluid port, bladder stem) nos. O-rings will be supplied with a Backup ring. The O-ring material shall be customized based on the requirement.

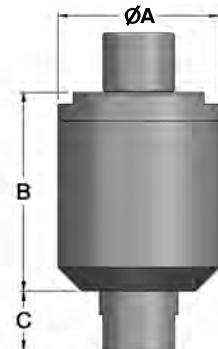


ORDERING INFORMATION AND MODEL DECODIFICATION



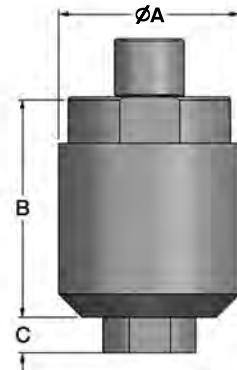
THREADED DIMENSION UPTO 200 BAR.G

MODEL	VOLUMES (LITRES)	M.W.P (BAR.G)	DIMENSIONS (MM)			WEIGHT (KG)
			ØA	B	C	
P200-0.05	0.05	200	68	84	25	2.0
P200-0.15	0.15	200	86	97	25	3.0
P200-0.35	0.35	200	102	140	25	5.3
P200-0.75	0.75	200	112	195	25	8.2
P200-1	1	200	114	230	25	10



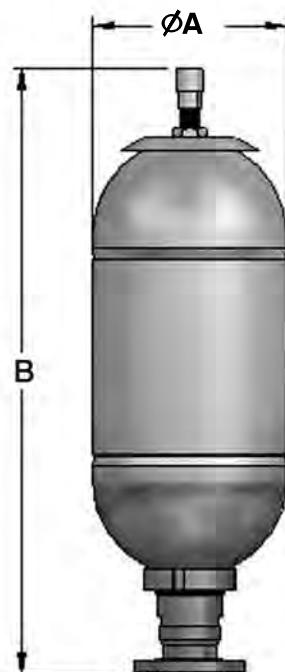
THREADED DIMENSION UPTO 690 BAR.G

MODEL	VOLUMES (LITRES)	M.W.P (BAR.G)	DIMENSIONS (MM)			WEIGHT (KG)
			ØA	B	C	
P690-0.05	0.05	690	78	95	15	2.9
P690-0.15	0.15	690	86	104	15	6.2
P690-0.35	0.35	690	102	140	15	7.0
P690-0.75	0.75	690	130	247		21
P690-1	1	200	130	280		22.5



FLANGED DIMENSION 2 & above litres

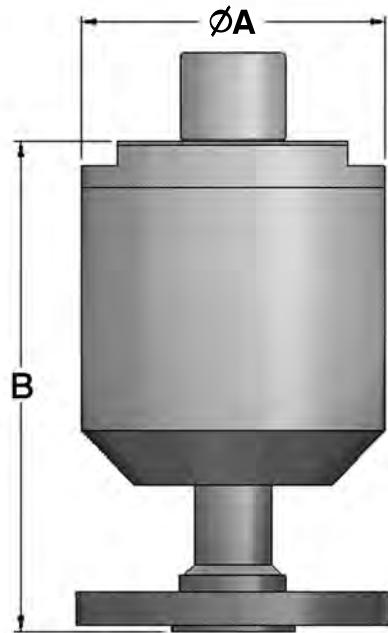
VOLUMES (LITRES)	FLANGED END CONNECTIONS & DIMENSIONS		WEIGHT (KG)
	ØA	B	
2	114	500	9.7
4	168	440	14.4
6	168	565	19.0
10	219	587	32.0
15	219	850	43.5
20	219	995	47.8
25	219	1150	70.4
30	219	1370	84.5
35	219	1530	90



The mentioned length dimension may vary based on connection.

FLANGED DIMENSION UPTO 1 LITRE

VOLUMES (LITRES)	FLANGED END CONNECTIONS & DIMENSIONS		
	CLASS	ØA	B
0.05	150	68	125
0.05	300	68	132
0.05	600	68	138
0.05	900/1500	68	148
0.15	150	86	138
0.15	300	86	145
0.15	600	86	151
0.15	900/1500	86	161
0.35	150	102	181
0.35	300	102	188
0.35	600	102	194
0.35	900/1500	102	204
0.75	150	112	236
0.75	300	112	245
0.75	600	112	251
0.75	900/1500	112	261
1	150	114	271
1	300	114	278
1	600	114	284
1	900/1500	114	295



Note: Customised models and materials are available based on requirements.

Above data are only for reference purpose and subject to change without any prior notice due to constant efforts on product improvement.

GAS CHARGING KIT

The gas charging kit is an important equipment used for Charging, discharging any gas such as air, nitrogen, etc., and to check the pressure of the gas inside the Accumulators or any other pressure equipment. This charging kit is a firm and rigid in design which can work up to the maximum pressure of 690 Bar.G. Generally, the charging kit comes with a ring nut have 1/4" BSP which is considered as a universal gas charging thread connection size. The body consist of s of ports suitable for gauge mounting and hose connection.

THE CHARGING KIT WILL CONSIST OF,

- ▶ Valve body with ring nut
- ▶ Pressure gauges
- ▶ Charging Hose
- ▶ Carrying case
- ▶ Seals spares kit



VALVE BODY WITH RING NUT

The Valve body is capable of charging Maximum pressure of 690 Bar.G. Material can be either carbon steel with blackening or Duplex SS selected to enhance high strength to weight ratio. The threads are machined to high accuracy using the latest cutting-edge technology to achieve the utmost quality.

PRESSURE GAUGES

In order to measure the charging pressure, each charging kit is comprised of a pressure gauge. Pressure gauges are available in wide ranges as per the pressure requirement. These pressure gauges come with standard connections (i.e.) 1/4" NPT connections. Other connections are supplied on special request.

CHARGING HOSE

The high-pressure microbore hoses with antileak ends are supplied along with the charging kit. These hoses are attached with suitable leak-proof end connections. These hoses are highly flexible and have long durability in life. The hose provides safety and a controlled charging process. The length of the hose will be 2.0 M as standard. Other lengths will be available as an option.

MINIMIZE COUPLING

The minimize coupling acts as a non-return valve. It allows the gas to pass through in one direction and retains the gas from entering back. The minimize coupling is made up of CS / SS316L material.



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