PULSATION DAMPENER

EVOL

INSTRUMENT

EVOL PULSATION DAMPENER

Bladder Type Pulsation Dampener

Positive displacement pumps create destructive pulsation and hydraulic shock due to the reciprocating nature of their stroking action, potentially damaging piping and system components. **EVOL Bladder Type Pulsation Dampener** is the most efficient way to reduce or eliminate pressure variations and all system shock on the discharge of the pump. This pulsation dampener works actively with compressed air/gas, usually nitrogen, and an elastomeric bladder. The elastomeric bladder ensures there is no leakage of compressed air/gas into the process fluid. Therefore, this will enhance the performance and produce a steady process fluid flow in municipal, industry, sanitary and chemical transfer applications.

Bladder type pulsation dampener

With EVOL bladder type pulsation dampener, it achieves the protection of entire pumping system from the damaging effects of shock. Typical applications of bladder type pulsation dampener are pulsation absorption, noise elimination, volume compensation and pressure compensation.

Wide applications in field of:

1 Oil and Gas Industry | 2 Chemical Industry | 3 Shipbuilding Industry | 4 Papermaking Industry | 5 Pharmaceutical Factory | 6 Hydraulic Industry

1 2 3 4 5 6

Features

Quick installation

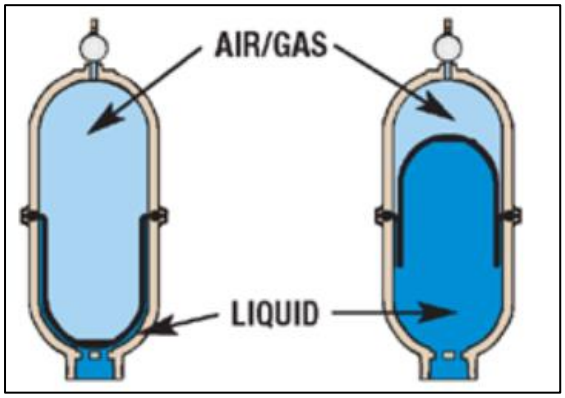
Bladder materials made to resist chemicals such as ketones and caustics
Body material made with 316L stainless steel, excellent corrosion-resistant
In-line maintenance
Pressure gauge with standard size (60 mm diameter & thread head M14 × 1.5)
Inflation valve connection with M14 × 1.5 (Male)

Highlights

Various models with different volume sizes

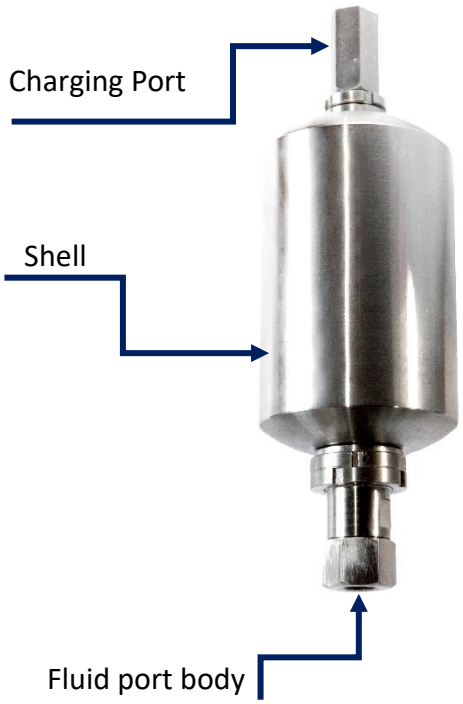
Protects pumping system from pulsation, water hammer and vibrations
Connection size can be customized based on customer's requirement
Produces near steady fluid flow
99% pulsation and vibration free

WORKING PRINCIPLE



During the pulse is created by positive displacement discharge pump, fluid enters the wetted chamber of the bladder type pulsation dampener. The fluid pressure in lower part of pulsation dampener increases, which is higher than the compressed gas pressure. The elastomeric bladder will absorb the shock and further to decrease the fluid pressure. Then, the gas expands and pushes the fluid back to the process line, which produces an almost steady fluid flow.

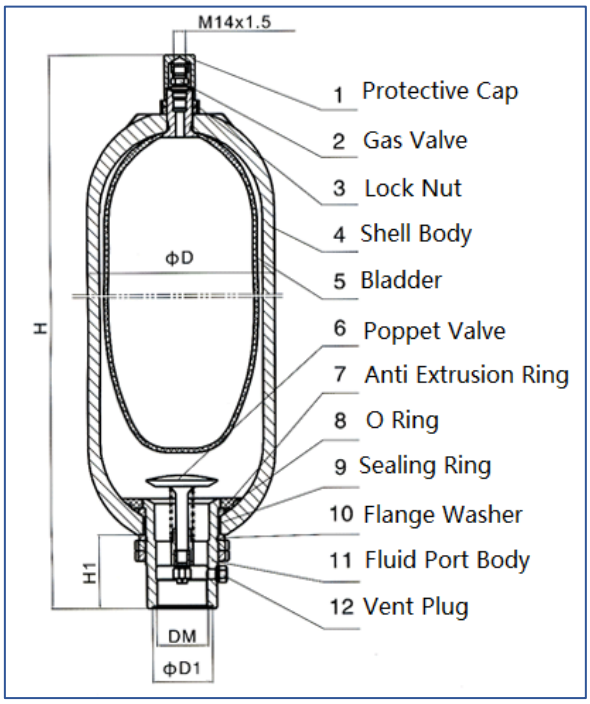
PRODUCT DESIGN & MATERIALS



Standard Materials

Parts	Materials
Shell	316L Stainless Steel
Inflation valve	316L Stainless Steel
Bladder	❖ Nitrile rubber ❖ Hydrogenated rubber ❖ Butyl rubber ❖ EPDM ❖ Viton
Sealing	❖ Nitrile rubber ❖ Hydrogenated rubber ❖ Butyl rubber ❖ EPDM ❖ Viton

MODEL SPECIFICATIONS

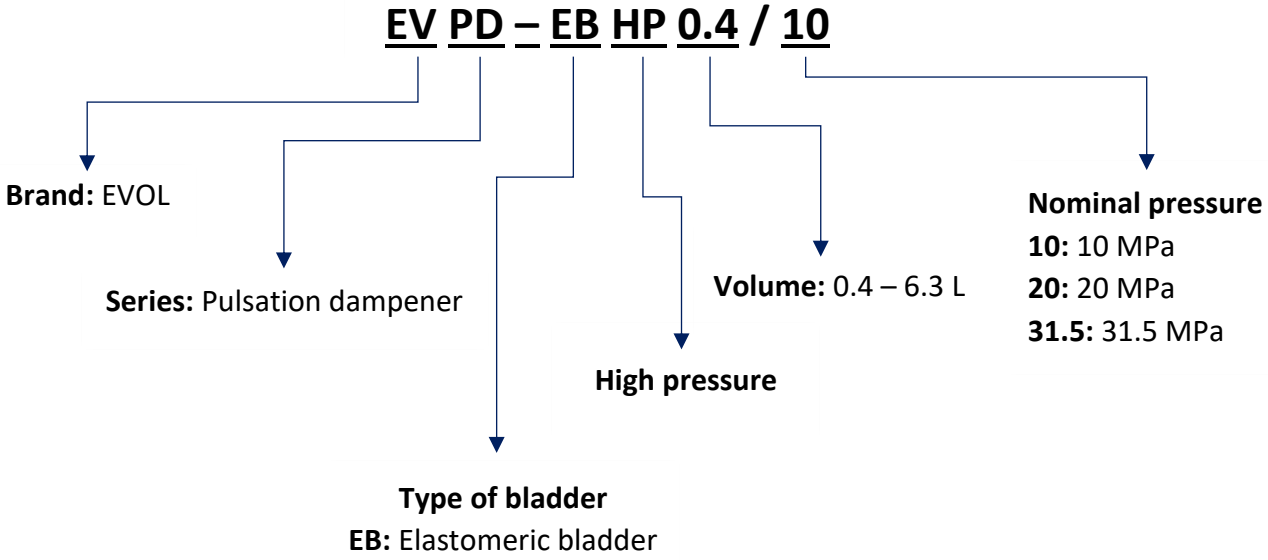


Model	Nominal pressure (MPa)	Air / Gas Volume (L)	Dimensions (mm)					Weight* (kg)
			DM	ØD	ØD1	H*	H1	
EVPD-HP0.4/X	10/20/31.5	0.4	M27 x 2	89	32	250	52	3
EVPD-HP0.63X		0.63	M27 x 2	89	32	315	52	3.5
EVPD-HP1.0/X		1.0	M27 x 2	114	32	320	52	5.5
EVPD-HP1.6/X		1.6	M27 x 2	152	50	355	66	12.5
EVPD-HP2.5/X		2.5	M27 x 2	152	50	420	66	15
EVPD-HP4.0/X		4.0	M27 x 2	152	50	530	66	18.5
EVPD-HP6.3/X		6.3	M27 x 2	152	50	700	66	25.5

Remarks:

1. “X” is nominal pressure for different model types.
2. *Actual height and weight are varied based on the flanges size and rating.
3. Standard connection in metric thread.
4. Connection can be customized into thread, welding or flanges based on customer’s requirement.

MODEL NUMBER



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Revision: EV-IB-PD-20-01