D SERIES PULSATION DAMPENERS

For optimum performance of ASM D Series Diaphragm Pumps a Pulsation Dampener should be fitted to both Suction & Discharge sides of the pump. The Pulsation Dampener helps reduce the variations in flow & pressure produced by the single acting diaphragm pump. It reduces water hammer, vibration and noise whilst maximising pump efficiency & service life.

Discharge:
The PD1D & PD2D are an air filled vessel installed in the discharge pipe work as close to the pump discharge port as possible. The air is separated from the fluid by a flexible diaphragm. The dampener stores up and discharges part of the stroke volume by compressing and expanding in sync with the pump. It absorbs a portion of the pump displacement stores it momentarily before discharging during the suction stroke.

Suction
The PD1S & PD2S are a vessel installed in the suction pipe work as close to the pump suction port as possible.
During the suction stroke of the pump the diaphragm must overcome the inertia of the fluid in the suction pipework. At the end of the stroke the inertia must again be overcome to bring the fluid to rest. This constant acceleration and deceleration cycle causes pressure pulsations which may lead to water hammer, vibration and noise. During the suction stroke a vacuum is created behind the flexible diaphragm. This allows the dampener to absorb and store momentarily a portion of the suction line fluid during the discharge stroke of the pump



PD1S & PD1D
Port Size: 32NB BSP Female

PD2S & PD2D
Port Size: 50NB BSP Female

Selection Chart

Pump Size:	Suction:	Discharge:
D25 , D32	PD1S	PD1D
D38, D50 & D76	PD2S	PD2D

Materials of Construction

Diaphragm: Nitrile	Options: EPDM & Viton
Castings: Aluminium	Options: Bronze & Stainless

Typical Installation

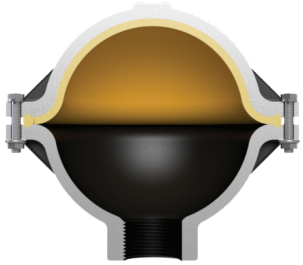


DT50 with PD2S and PD2D shown

Diaphragm Orientation



PD1D & PD2D



PD1S & PD2S

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