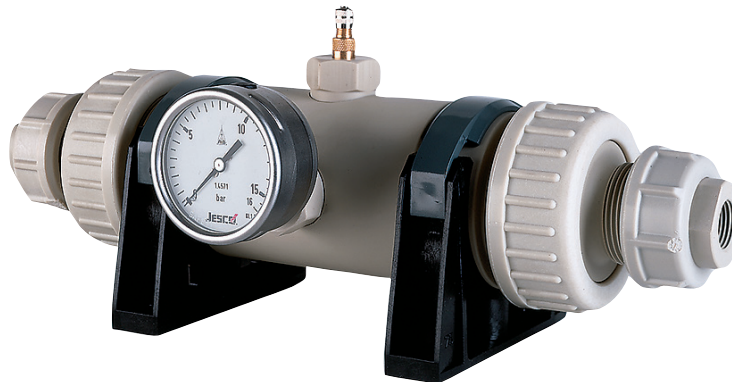


Easy dosing during large pressure fluctuations

Pulsation dampener PDS



Easy dosing

The typical acceleration and deceleration of media displaced by dosing pumps may cause considerable trouble if this characteristic is not taken into account. On the suction side, cavitation and thus interruption of the suction flow may occur as a result of high acceleration. On the discharge side, strong forces produced in long lines may damage the dosing pump. Furthermore damaging pulsations occurring in piping systems may also lead to destruction of the equipment. Flow meters require a rather uniform flow for perfect function. Float element flow meters cannot be installed at all on the discharge side of dosing pumps without special precautions, because the float element would move extremely up and down.

The function is based on an energy-converting compression and expansion of a gas cushion. During the pressure increase, a portion of the conveyed medium is saved and returned to the pipe network after the pressure has been reduced. Pulsation dampers are divided between those with and those without a separating diaphragm. In pulsation dampers without a separating diaphragm, the medium is in immediate contact with the gas pocket, which is formed during the compressed air previously locked in. After start-up, this compressed air is compressed to the volume to be dampened. As the compressed air is gradually dissolved in the medium, periodic ventilation in a depressurised condition is necessary. This disadvantage can be avoided by the use of a pulsation damper with separating diaphragms. This method separates the dampening gas pocket from the medium conveyed through an elastic diaphragm, thus preventing absorption.

Functions

- Stroke volume 15 – 1200 ml/stroke
- Hose as a separating diaphragm
- Compressed air as a dampening gas pocket
- Integration in the pressure line is possible

Technical data

PDS		80	250	750	2500	7500
Stroke volume*	ml/stroke	15	40	120	400	1200
perm. operating pressure	bar	10				4
Pre-tension pressure	bar	Max. 6				2.5
temperature	°C	Max. 50				

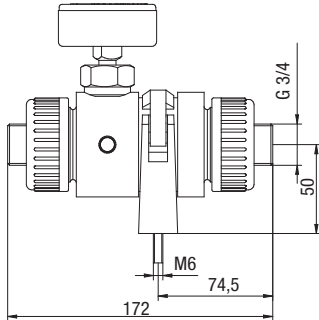
*applies for the residual deviation +/- 10% of the nominal pressure with simple pumps.

For further options see "Selection guide" on page 2.

Dimensions

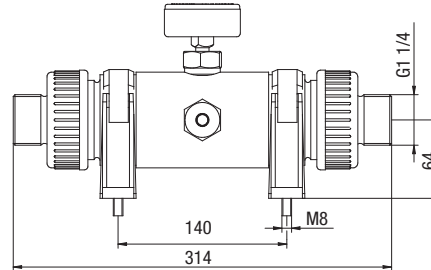
PDS 80

All dimensions in mm



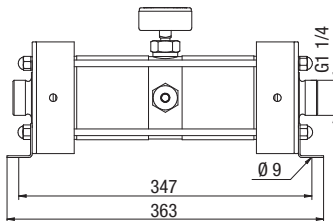
PDS 250

All dimensions in mm



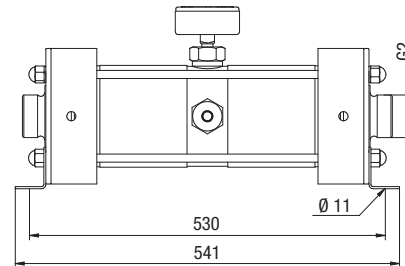
PDS 750

All dimensions in mm



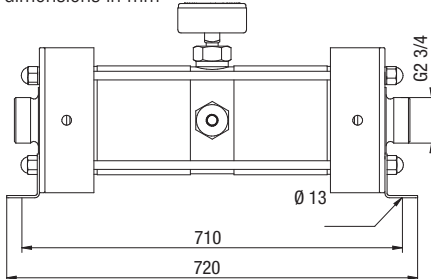
PDS 2500

All dimensions in mm



PDS 7500

All dimensions in mm



Selection guide

