FELUWA Pulsation Dampening
PULSORBER

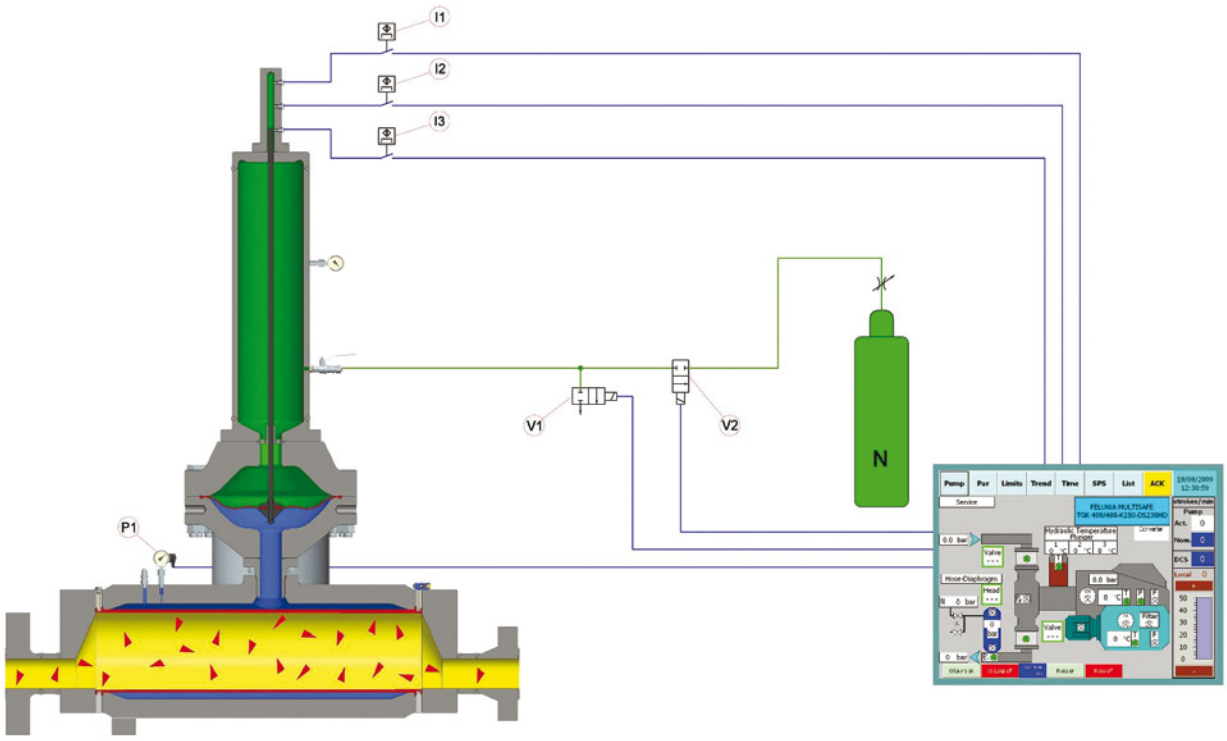

Fig. 1: FELUWA Pulsatrol hose-diaphragm pulsation dampener with roller diaphragm accumulator and automatic adaptation of the pre-compression to varying working pressures.

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With displacement pumps the oscillating movement of the pistons results in undesirable flow fluctuation and pressure pulsation. In order to avoid such pressure pulsation, pulsation dampeners are typically applied, especially for high pressure duties.

For conveyed fluids which do not allow for a contact with the air cushion in the pulsation dampener and for high pressure applications, FELUWA applies state-of-the-art hose-diaphragm pulsation dampeners with roller diaphragm accumulators (see front page, Fig. 1) or bladder-type accumulators (see Fig. 2), which are pre-charged to approx. 80 % of the operating pressure.

The discharge flow on each pump stroke that exceeds the average flow is stored by compression of the air volume within the accumulator. The stored volume is then released during the suction stroke. The conveyed fluid is hermetically sealed from the air cushion by single or double hose-diaphragms and actuation fluid.

With vertical designs of the pulsation dampener, as illustrated by Fig. 2, an additional air cushion is built up that serves as second pulsation dampener in the lower pressure range.

Fig. 3 illustrates the characteristics of different types of pulsation dampeners. Minimum pulsation is achieved by means of pulsation dampeners with automatic adaptation to the working pressure. But also the combination of vertically mounted hose-diaphragm pulsation dampeners with bladder-type accumulators (see Fig. 2) allows for minimum pulsation over a wide pressure range.

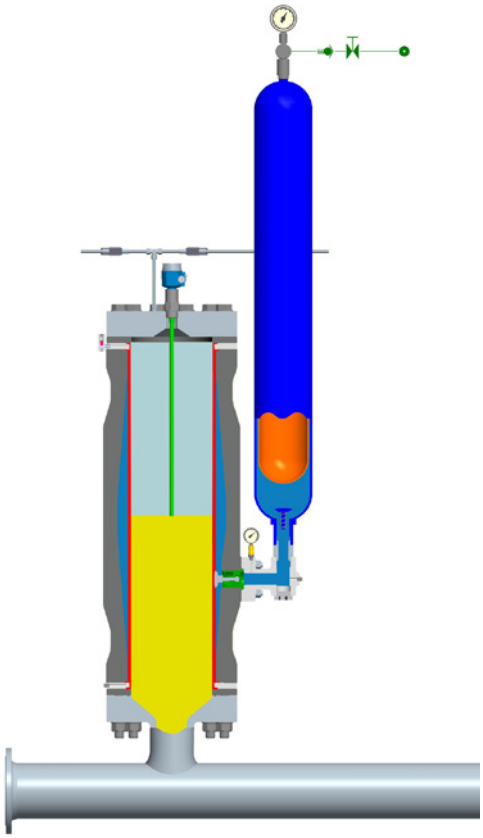

Fig. 2: Hose-diaphragm PULSORBER with air vessel character for applications with varying working pressure.

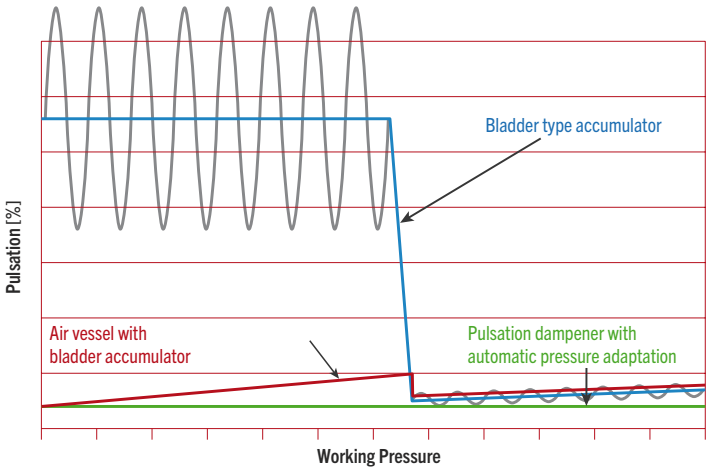

Fig. 3

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