

Shock absorber with bladder

Description and operation

The damper consists of a cylindrical welded steel vessel protected inside and out by various coatings.

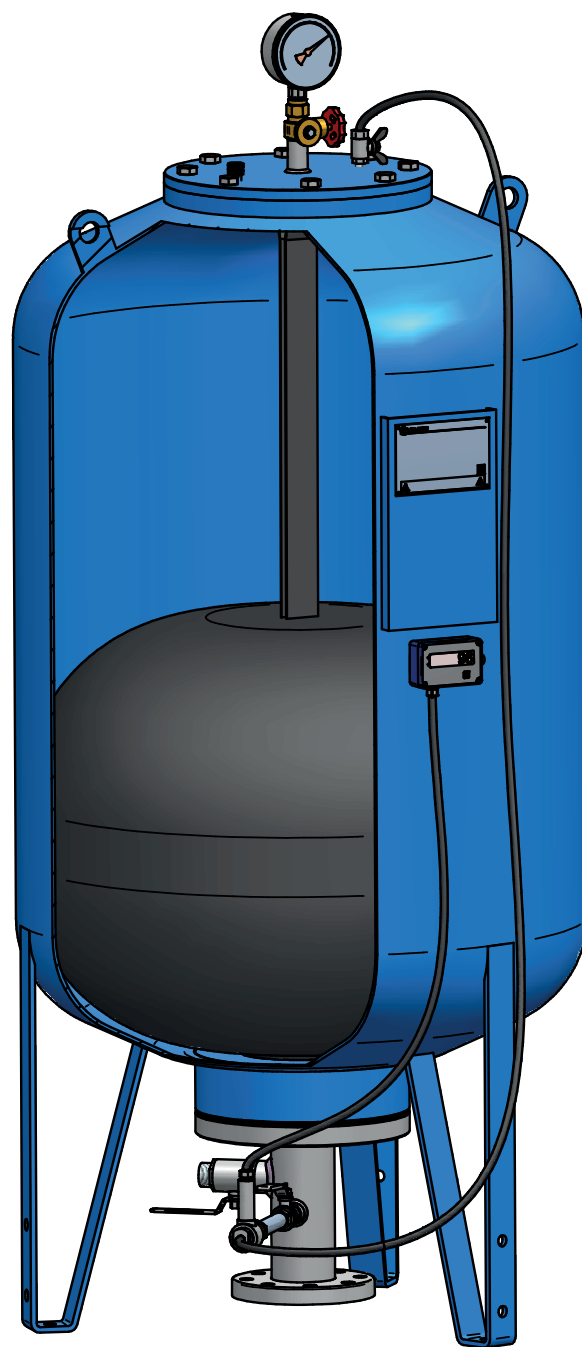
The vessel is fitted with a caoutchouc bladder, which is fixed at the top of the vessel. The sieve plate at the fluid connection prevents any damaging of the bladder when emptying or when the damper is filled only with gas.

The connection to the pressure pipe is carried out via the connecting flange at the lower section of the accumulator. The damper is available for vertical or horizontal operation.

Before commissioning, the damper must be precharged to a previously calculated nitrogen pressure level compressing the bladder in the vessel.

At the beginning of the pumping process, water penetrates into the bladder and compresses the gas around the bladder. With increasing pressure, the water compresses the gas filling up to the static or dynamic pressure of the installation.

When suddenly disconnecting the pump(s), the pressure drops in the pipe. The damper returns the stored water volume to the pressure pipe. After having reversed the direction in the column, the water returns to the damper and compresses the gas again. These processes are repeated as many times as necessary until the system pressure is again stabilized and the gas and water pressure are in balance.



Volume range: 100 to 20'000 l,
other volumes on request

Pressure range: small volumes up to 100 bar,
big volumes up to 40 bar