DOROT S300-RE

Aquestia
Directing the Flow

Waterworks

Surge Anticipating Valve

Operation

The Dorot Series 300 Surge Anticipating Valve ('S300-RE') is an automatic controlled valve, activated by the pressure of the pipeline. The valve protects the pumping system from water hammer, caused by sudden pump shut-off (case of power failure, for example). The valve, assembled on a T-junction of the main pipeline, instantly opens when the pump stops, relieving the returning high pressure wave. The valve slowly closes once the pressure returns to the static level. The valve also functions as a pressure relieve valve.

S300 Features

Superb performance

- Regulates at a stable mode, regardless of valve-size, down to near-zero flow. Thus, eliminating the need for a special low flow plug-design (such as 'V-port') or a bypass valve.
- 'Floating', low-friction internal-trim design, guided by a unique LPT® device.

High reliability

- All control ports are fitted with SST sleeves for preventing corrosion-blockage.
- Pre-shaped reinforced diaphragm – for easier assembly and improved longevity.

Reduced periodic inspection / maintenance labor

- The control-trim is fitted with a self-flushing, inline control-filter.
- Easy in-situ adjustment and maintenance.

Versatility

- A standard and simple single-chamber valve design, provides smooth operation. Conversion to a double chamber is a patented option.

Standard Materials

- Body & Cover – Ductile Iron
  Optional – Cast Steel, SST, N.A.B, S.Duplex
- Main Internal – SST (1.5"-6), Coated Steel (8"-32")
  Optional – Cast Steel, SST, N.A.B, S.Duplex
- Elastomers – EPDM
  Optional – NBR, Neoprene, Viton or others
- Coating – Polyester, Epoxy / Optional – Halar and others
- Control Trim – Brass, PA / Optional – SST316, Duplex

Purchase Specifications

- The valve will be hydraulic, pilot-operated globe type.
- Face-to-face length dimension meets ISO 5752 Standard.
- The stem will be guided at the top by a replaceable guide bearing and at the bottom by a stainless steel unique LPT® device.
- The valve will regulate any flow within the specified range without the need for a smaller bypass valve or throttling plug.
- All control ports will be corrosion free protected by stainless steel 316 inserts.

Design Considerations

- The valve should be suited for the maximal flow.
- Install a manual separation / throttling valve, upstream of the valve position.
- The valve sensor tube must be connected to the main line.

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Quick Sizing

- Maximum recommended flow velocity for momentary operation 15 m / sec (50 ft. / sec).
- If the set pressure is >5 bar, a downstream orifice should be added - Please consult with Dorot Eng.

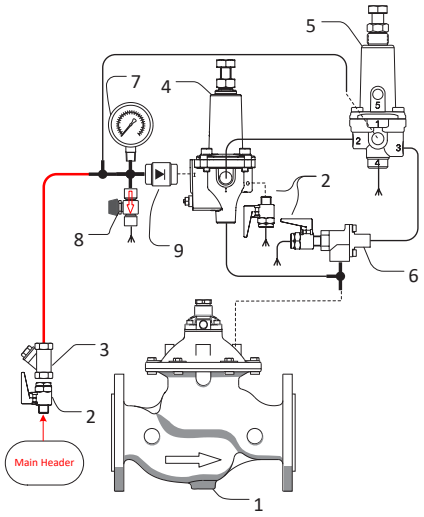
Pressure Rating

- Model 30, 30A for medium pressure (PN16 bar / 250 psi)
- Model 31, 31A for high pressure (PN25 bar / 360 psi)

Main Control System Components*

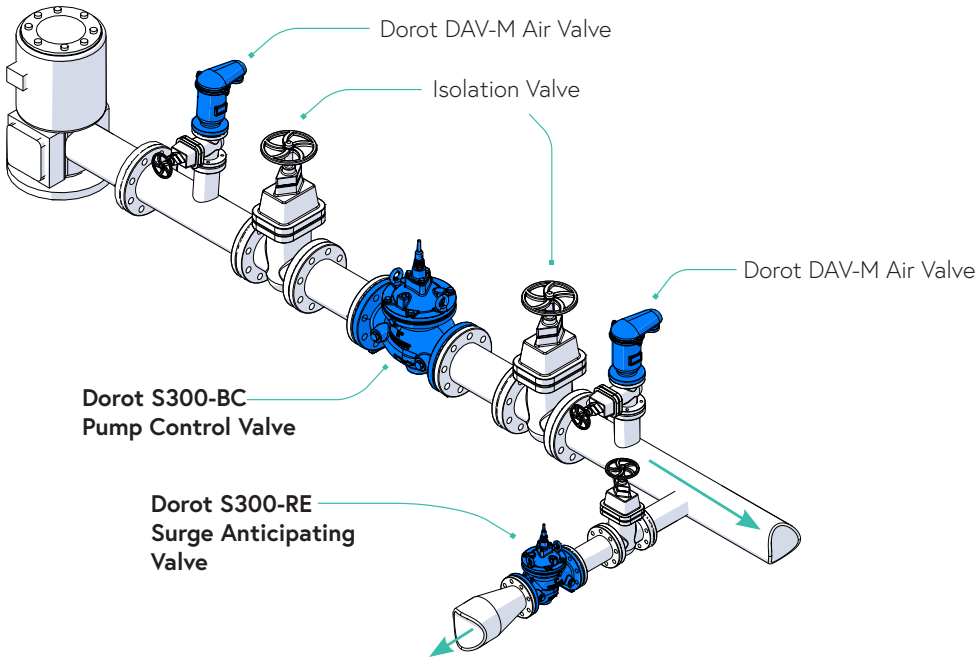
1. Main Valve
2. Ball Valve
3. Filter
4. 2W Pilot Valve
5. 3W Pilot Valve
6. Fast Acting Relay
7. Pressure Gauge
8. Needle Valve
9. Check Valve

* Indicative drawing



Typical Installation

Typical applications include Pressure Sustaining Valve Model S300-RE. The Dorot Surge Anticipating Valve prevents water-hammer surges caused by an unexpected pump shut-off.



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