

SDV

Back Pressure Device



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overview



PN 10-PN 400
ANSI 150-2500



up to
 Δp 20 bar

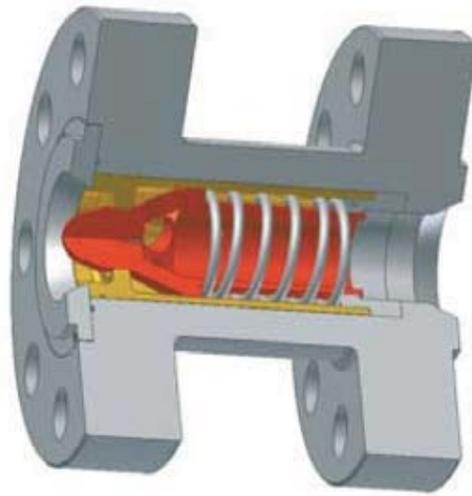


SDV

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SDV – Schroeder Back Pressure Device

Range of application

The SDV is a back pressure device, which keeps the static pressure within the pipeline above a defined minimum value without reference to flow rate. That means, the pressure will not fall below the given minimum value over the whole operating range. Normally back pressure devices are used to avoid cavitation and partial evaporation in the pipeline. Due to the increased pressure level in the protected plant section they prevent a lower deviation from the local vapor pressure. The SDV has an integrated non return-valve function, i.e. the piping is also protected against returning flow.

Mode of operation

The function of the SDV is based on a spring loaded cone. Cone and spring are adjusted in a way, that the force of the static pressure lifts the cone of the seat and does not allow a flow rate before reaching the minimum pressure value. Compared with other pressure devices the Schroeder SDV has a regulating trim, so that the throttling area of the cone seat is attuned to the current flow. With this design feature the tendency of spring loaded shut-off

cones to hammer at low flow rate is minimized. So the SDV is suitable for plants with large flow range and frequent part load condition, too.

Technical data

The Schroeder pressure device is manufactured in the nominal sizes DN25-DN200/NPS 1"-NPS 8", for pressure ratings up to PN 400/ANSI 2500 and a max. operating temperature of 400 °C/750 °F. Higher pressure ratings are possible on request. The flange-type body is normally made of 1.0460/ASTM SA105. Referring to medium, several alloyed steels are also deliverable. The regulating trim is made of Cr-steel or aluminium-bronze.

Design

The design is according to specification AD 2000 and particularly to EN 13445. As per Pressure Equipment Directive 97/23 EG the SDV is provided with the CE marking and the Declaration of Conformity. Certified according to the Module H1 (Pressure Equipment Directive 97/23 EG) all dangerous material classes of category 1 to 4 are covered.

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