



SELF OPERATED PRESSURE REGULATORS

PRESSURE REDUCING VALVE MODEL **VD**

MAIN CHARACTERISTICS

Globe valve, simple seat, direct action and self-operated pressure reducing valve built with piston and specially designed to maintain constant outlet pressure.

Piston guided through 3 points.

Easy and very low maintenance.

Extremely hard baked enamel

Pressure range from 1,5 to 16 barg
(Standard range 1,5 – 8 barg)

Maximum admitted pressure 40 barg

Maximum admitted temperature 80 °C (NBR collars)
(Optionally, EPDM 125°C and VITON 150°C)

Fluids

Liquids, compressed air, gases.

Connections

Flanged DIN PN16 - PN40

Flanged ANSI Class 150 and 300 Lb.

Threaded, BSP and NPT female, up to 2"

Body material → Nodular Iron GGG40.3,
Bronze, Carbon steel GSC25N and Stainless steel AISI 316L (CF3M).

Trim material Stainless steel AISI 316L
(optionally Bronze).

Applications

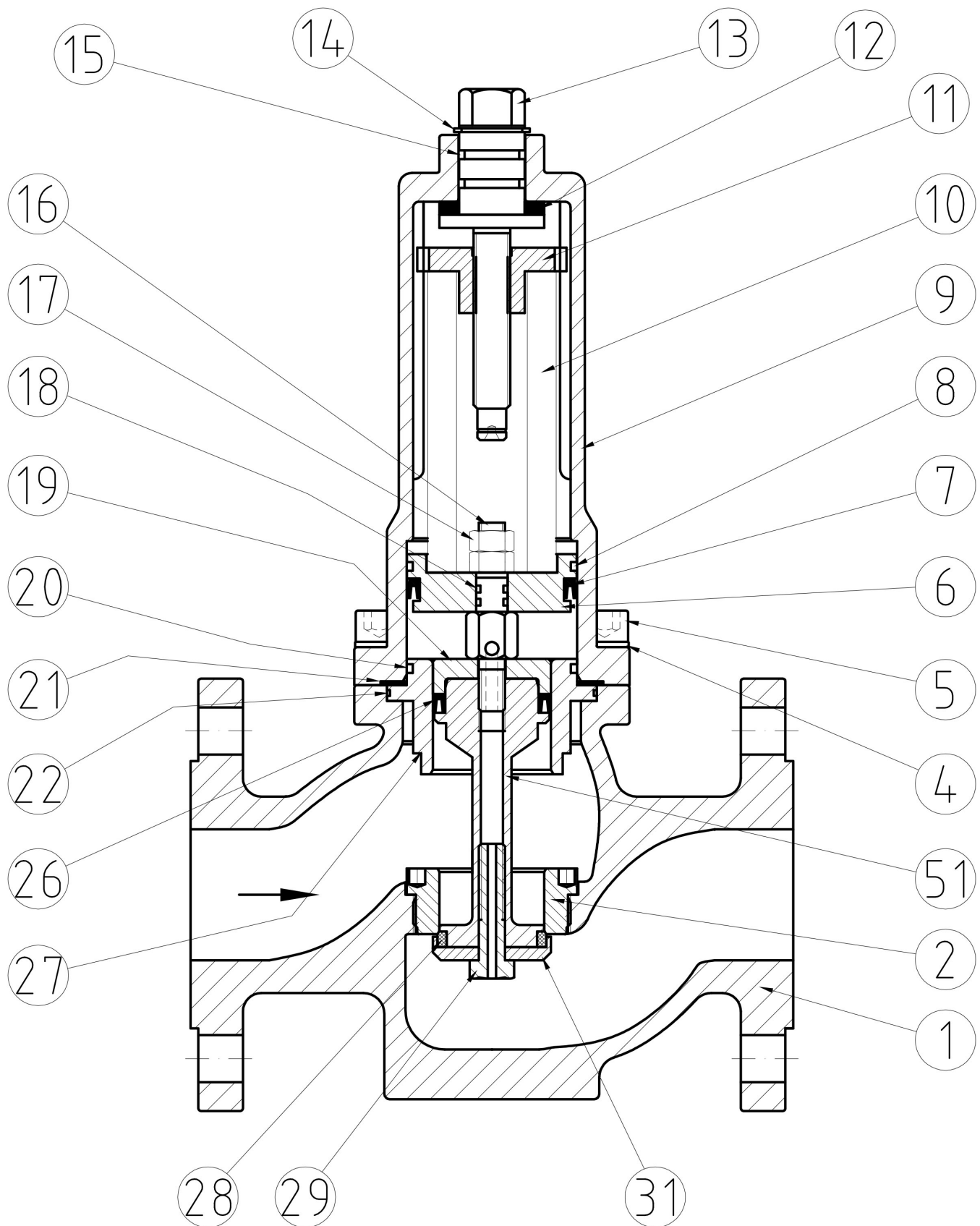
Chemical laboratory installations, waters distribution systems, installation of waste water, industrial, compressed air, sprinkler systems, fuel-oil,...



METHOD OF FUNCTION

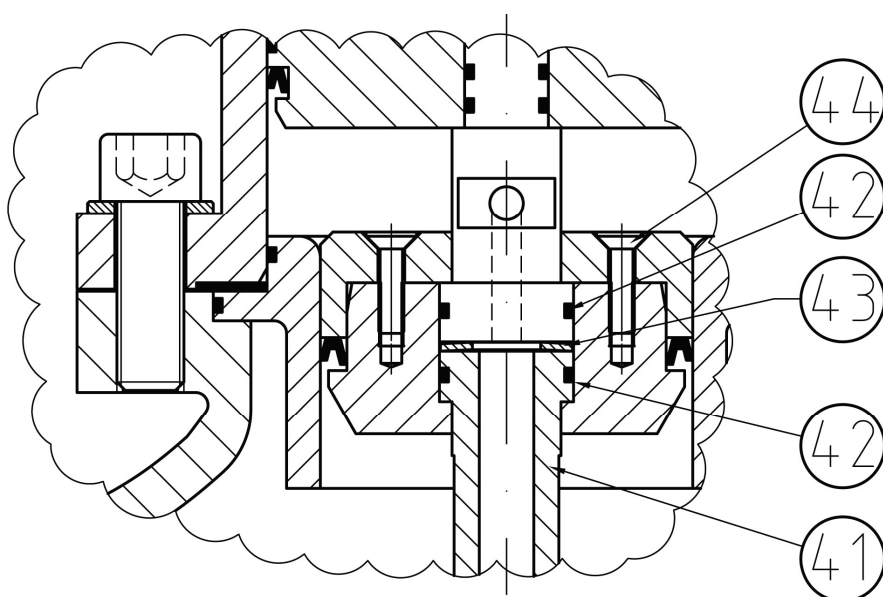
Medium flows through the valve as indicated by the arrow and force stem-piston-gasket (3 – 19 – 26) to close the valve. Inlet and outlet forces are balanced. Outlet pressure is controlled rotating the stem (13) in clockwise. This causes displacement of the spring (10), which itself acts on the seal, opening the valve until it reaches the required downstream pressure.

Any variation on the upstream pressure will be absorbed by reducing by compensating piston (26) and downstream by the bushing (8).





| | Description | Material | | Description | Material |
|----|-------------------------|---|----|-------------------------|-----------------------------------|
| 1 | Body | Stainless steel CF8M-316 Bronze RG10 Carbon steel WCB Nodular Iron GGG40.3 | 18 | O-ring | NBR |
| 2 | Seat | 1.4404 - SS 316L | 19 | Lower bushing | 1.4404 - SS 316L |
| 3 | Stem (DN65-100) | 1.4404 - SS 316L | 20 | O-ring | NBR |
| 4 | Washer | Stainless steel A2-70 | 21 | Flat Gasket | PTFE |
| 5 | Bolts | Stainless steel A2-70 | 22 | O-ring | NBR |
| 6 | Piston | 1.4404 - SS 316L | 26 | Balanced gasket | NBR Graphited PTFE + St. steel |
| 7 | Gasket | NBR | 27 | Lower bushing guide | 1.4404 - SS 316L |
| 8 | O-ring | NBR | 28 | Seal | NBR Graphited PTFE |
| 9 | Spring cover | Stainless steel CF3M-316 | 29 | Screw | Stainless steel A2-70 |
| 10 | Spring | Steel spring | 30 | Guide seal(DN65-100) | 1.4404 - SS 316L |
| 11 | Regulation nut | Steel 1.1191 | 31 | Support seal | 1.4404 - SS 316L |
| 12 | Ball bearing | 1.3505 (Bearing steel 100 Cr 6) | | | |
| 13 | Regulation stem | 1.4404 - SS 316L | 41 | Stem (DN100) | Stainless steel Aisi 316L |
| 14 | Safety reg. stem washer | Stainless steel A2-70 | 42 | O-ring (DN100) | NBR |
| 15 | Block Pin | Stainless steel A2-70 | 43 | Washer spring(DN100) | Stainless steel Aisi 316L |
| 16 | Piston stem | 1.4404 - SS 316L | 44 | Screw (DN100) | Stainless steel A2-70 |
| 17 | Nut(s) | Stainless steel A2-70 | 51 | Stem (DN15-50) | 1.4404 - SS 316L |
| | | | | Recommended spare parts | |



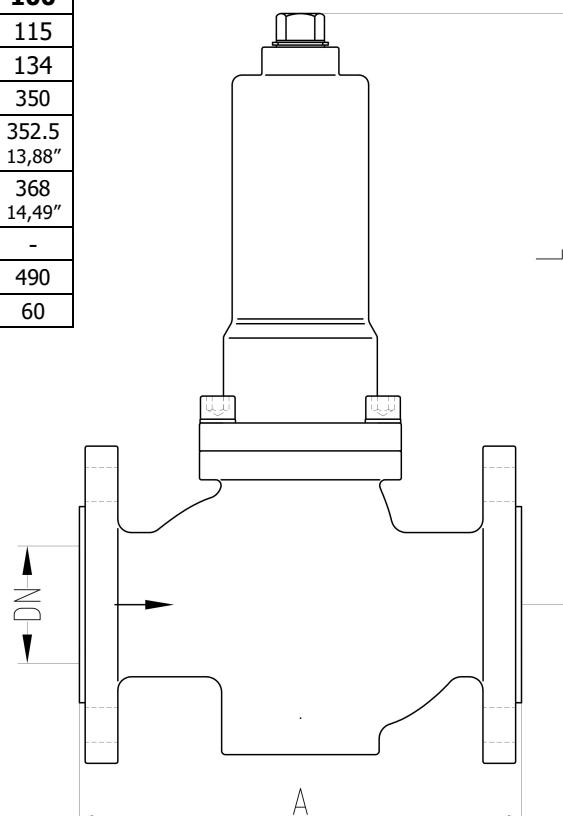
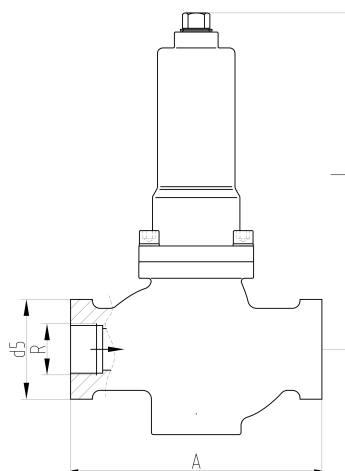
DN100 scheme



Dimensions, weight and Kv value

| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
|-----------------------------------|------|------|--------------|-------|--------------|---------------|--------------|-----------------|-----------------|
| Kv (m³/h) | 3.5 | 5 | 9 | 13.5 | 22 | 32 | 57 | 82 | 115 |
| Cv (gpm) | 4 | 5.8 | 10.4 | 15.6 | 25 | 37 | 66 | 95 | 134 |
| A DIN (mm) | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 |
| A ANSI150 (mm) (inches) | ○ | ○ | 184 7,25" | - | 222 8,75" | 254 10" | 276 10,9" | 298.5 11,75" | 352.5 13,88" |
| A ANSI300 (mm) (inches) | ○ | ○ | 197 7,76" | - | 235 9,25" | 267 10,51" | 292 11,5" | 317.5 12,50" | 368 14,49" |
| B Threaded BSP / NPT | 1/2" | 3/4" | 1" | 1.25" | 1.5" | 2" | - | - | - |
| L (mm) | 240 | 240 | 250 | 250 | 300 | 300 | 415 | 430 | 490 |
| Weight (kg.) | 10 | 10 | 12 | 13 | 16 | 18 | 35 | 50 | 60 |

○ Available under request



INSTALLATION DRAWING

Installation is recommended according to the following drawing:

