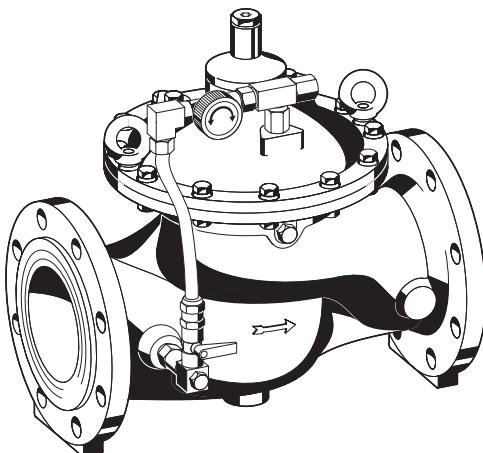


BV300

Basic valves

Product specification sheet**Application**

The basic valves are used as shutoff valves. They may be controlled by the common medium or by an external medium using the integral control valve. A manual, electro-magnetic solenoid or float valve can be used as the control valve.

Their compact construction makes them ideally suited for applications where space is limited, for example in ducts. They can be used for commercial or industrial applications within the scope of their specification.

Special Features

- High flow capacity
- Light weight
- Compact construction
- Powder coated inside and outside - Powder used is physiologically and toxicologically safe

Range of Application

Medium Water
Operating pressure Max. 16 bar

Technical Data

Operating temperature Max. 80 °C

Nominal pressure PN 16
PN 25 on request
Minimum pressure 0.7 bar
Connection size DN 50 - 450

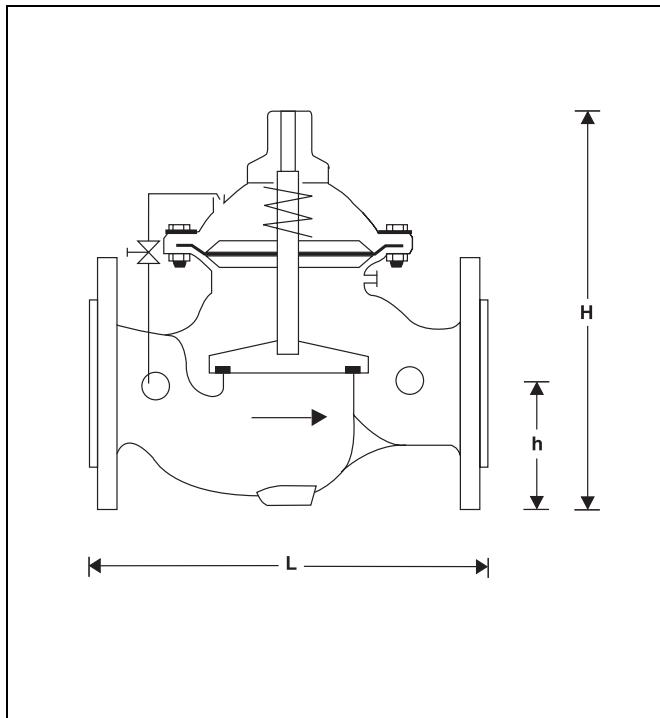
Construction

The basic valve comprises:

- Housing with PN16 flanges per ISO7005-2, EN1092-2

Materials

- Ductile iron housing, cover plate and diaphragm plate (ISO 1083), powder coated
- Red bronze/stainless steel regulating cone
- Stainless steel pressure spring and control rod
- Fibre-reinforced NBR diaphragm
- NBR and EPDM seals
- Stainless steel valve seat



Method of Operation

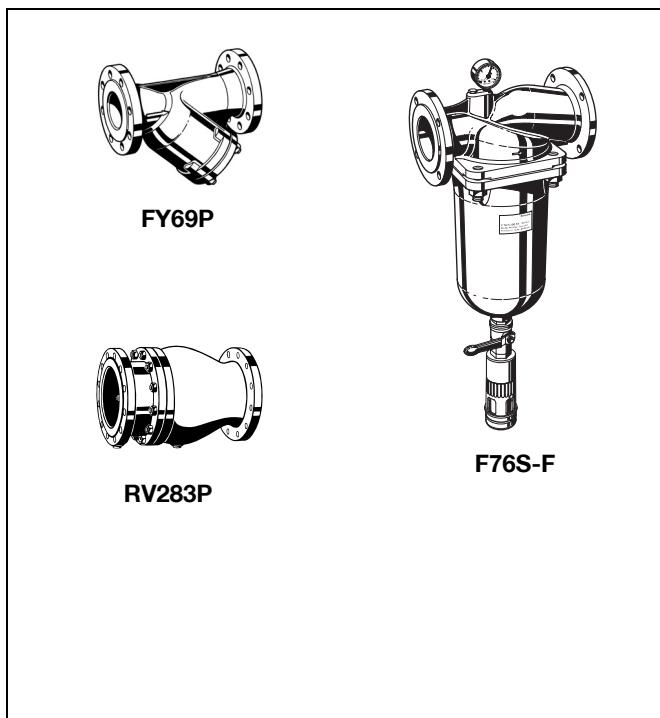
For the valve to operate, a pilot valve (such as an electro-magnetic solenoid valve or float operated valve) must be fitted. Under zero pressure conditions the basic valve is closed. If the supply to the valve is opened, water flows into the inlet section and the rising pressure opens the valve so that water can flow into the outlet section. If the pilot valve is closed the pressure from the inlet side passes via the fine regulation valve and increases the pressure in the chamber above the diaphragm. The diaphragm surface subjected in this way to the inlet pressure is somewhat greater than valve plate surface which is also subjected to the inlet pressure, so the basic valve closes. As soon as the pilot valve opens, the pressure in the chamber above the diaphragm is reduced and the inlet pressure on the valve plate surface causes the basic valve to begin to open.

Options

BV300- ... A = Housing with flange, PN 16,
ISO 7005, EN 1092-2

BV300- ... Z = PN 25, on request
Connection size

| Connection size | DN | 50 | 65 | 80 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 |
|---|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| Weight approx. kg | | 12 | 13 | 22 | 37 | 80 | 157 | 245 | 405 | 510 | 822 | 945 |
| Dimensions (mm) | | | | | | | | | | | | |
| L | | 230 | 292 | 310 | 350 | 480 | 600 | 730 | 850 | 980 | 1100 | 1200 |
| H | | 235 | 294 | 400 | 433 | 558 | 650 | 823 | 944 | 990 | 1250 | 1250 |
| h | | 83 | 93 | 100 | 110 | 143 | 173 | 205 | 230 | 260 | 290 | 310 |
| Flow rate (Q_{max}) in m ³ /h - V=5.5 m/s | | 40 | 40 | 90 | 160 | 350 | 480 | 970 | 1400 | 1900 | 2500 | 3150 |
| k_{vs} -value m ³ /h | | 43 | 43 | 103 | 167 | 407 | 676 | 1160 | 1600 | 1600 | 3300 | 3300 |



Accessories

FY69P Strainer

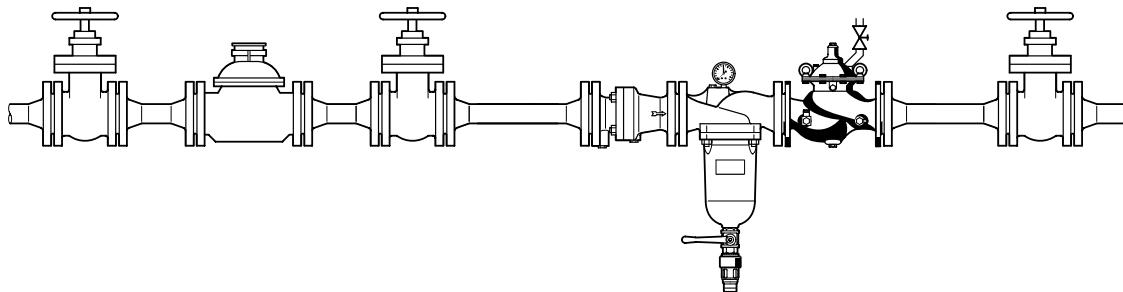
With double mesh, grey cast iron housing, powder coated inside and outside.
A = Mesh size approximately 0.5 mm

F76S-F Reverse-rinsing filter

Red bronze housing and filter bowl. Available in sizes DN 65 to DN 100, with filter mesh sizes 100 µm or 200 µm

RV283P Check valve

Grey cast iron housing, powder coated inside and outside. DIN/DVGW tested in compulsory test sizes DN 65, DN 80 and DN 100

Installation Example**Installation Guidelines**

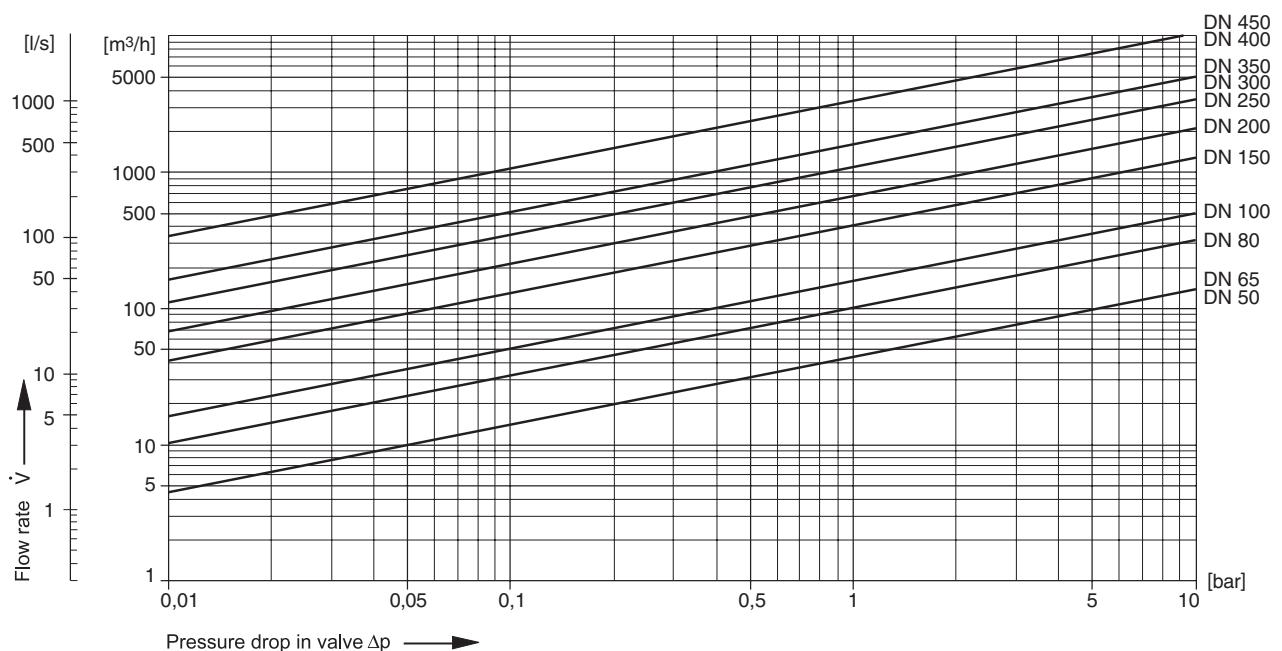
- Install shutoff valves on both sides of the pressure sustaining valves
- Install strainer upstream of basic valve
 - Protects against damage from coarse dirt
 - Note flow direction (indicated by arrow)
- Ensure good access
 - Simplified maintenance and cleaning

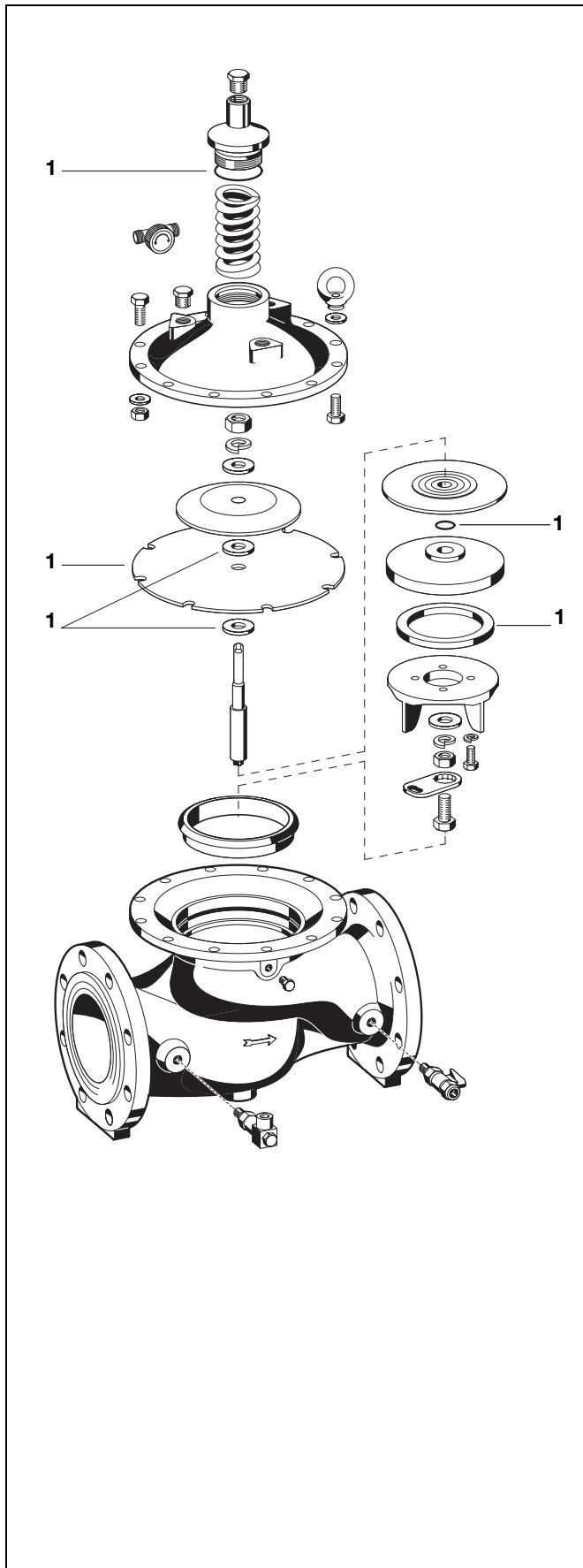
Typical Applications

Basic valves of this type are for installation within the scope of their specification in commercial and industrial systems as well as in central water supply networks

The following are some typical applications:

- Potable water supply
- Swimming pools
- Firefighting systems - sprinkler installations
- Ship construction (fire tenders)
- Watering systems in market gardens and in agriculture
- Water supply networks in large building developments (eg. high rise blocks)
- Hydrant systems at airports and dockyards
- Mining applications
- Gravel pits, concrete mixing plants etc.

Flow Diagram

**Spare Parts****Basic valves BV300, from 2002 onwards**

| No. | Description | Dimension | Part No. |
|-----|--------------|-----------|----------|
| 1 | Set of seals | DN 50 | 0903750 |
| | | DN 65 | 0903751 |
| | | DN 80 | 0903752 |
| | | DN 100 | 0903753 |
| | | DN 150 | 0903754 |
| | | DN 200 | 0903755 |
| | | DN 250 | 0903756 |
| | | DN 300 | 0903757 |
| | | DN 350 | 0903758 |
| | | DN 400 | 0903759 |
| | | DN 450 | 0903760 |

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