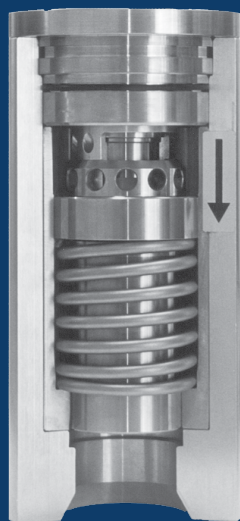


SCHROEDAHL

we protect your business

Serie BPV/-S

Installation and Maintenance
Instructions for the
Back Pressure Valve



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1. Dangers and safety precautions

For planning, installation, operation and maintenance the corresponding safety precautions and instructions are to be observed.

1.1 Danger to personal and materials

- The back pressure valve must only be operated according planning and within allowable limits
- No changes are to be made without our approval
- Only use original spare parts
- Safety precautions, instructions and site regulations are to be observed
- Please follow the instructions as given in this „Installation- Maintenance and Assembly instructions“

1.2 Avoid dangers

- Maintenance on Back Pressure Valves shall only be performed by trained and appointed personnel
- Before disassembly the installation must be shut off and the pipeline pressureless and cooled down
- Please make sure that these safety precautions can only be cancelled after ending the assembly
- Please note, that also in a pressureless Back Pressure Valve there might still be medium
- Wear protective clothing

2. Description

The Back Pressure Valve is a spring loaded self acting control valve which has the aim to increase the upstream system pressure. It will create a constant inlet pressure independent to the flow quantity. If the valve is used for typical bypass back pressure cavitation prevention for pump protection then the installation should be as near as possible to the dearator or feed water tank as the medium outlet velocity could be in some cases relatively high (flashing service possible).

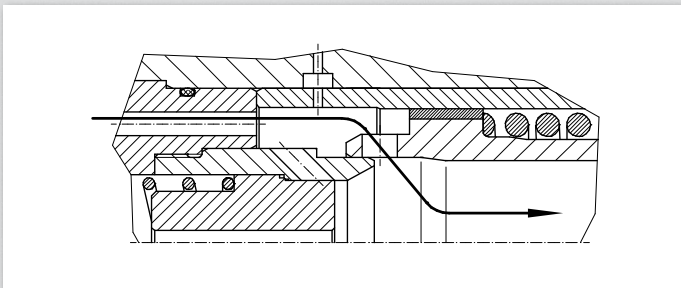
The BPV will control the upstream pressure to a specified pressure which will be designed by SCHROEDAHL or to meet other system specifications to prevent cavitation in the upstream valve.

Carefully matching these process conditions between the upstream valve and the BPV ensures an optimum protection. This will be the guarantee for a long and safe operation of the system.

The housing is manufactured using carbon or stainless steel, the internals are manufactured from forged stainless steel (standard construction).

Functioning:

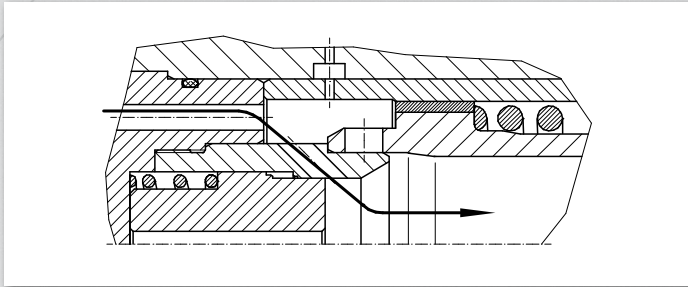
The pressure (pressure difference over the valve) moves the bushing 204 in the flow direction against the spring 237. By this the flow control area of the bushing is released until the defined pressure difference is established.



Overflow-function (only version -S):

In case of blocking and the bushing 204 does not open due to a malfunction (i.e. due to dirt), the inlet pressure before the Back Pressure Valve increases.

When the pressure difference reaches a determined value the safety module opens and ensures that the corresponding minimum flow is discharged. This happens at a higher pressure as with normal operation. This can be measured at the foreseen threaded connection. In this case the malfunctioning must be solved.



3. Delivery and marking

The Back Pressure Valve will be delivered in a carton or wooden box depending on the size.

Normal conservation is sufficient for storage -under roof and well ventilated- for approximately 6 months.

Special packing and conservation for longer duration's must be specified with the order.

The specific technical data are stamped on every valve housing.

When ordering spare parts it is important to indicate the SCHROEDAHL serial number, valve type and part number from the parts list.

4. Assembly and disassembly

All positions of installation are possible, however please indicate with order. For the assembly and disassembly of the Back Pressure Valve no special tools are required.

4.1 Installation on site

The complete Back Pressure Valve is to be installed at the provided location, the flow direction must be observed (arrow stamped on the valve housing). The standard waver type construction needs to be installed between flanges with corresponding longer boltings. If the BPV has flanges end construction, then it must be installed without tension and no damage should occurs to the flanges. Please make sure that the flanges and seals are free from foreign particles or dirt, before the bolts are tightened with the required torque.

5. Commissioning

When the BPV is used for cavitation prevention in the bypass line at pump protection valves, then the commissioning is conducted in conjunction with the commissioning of the pump.

With closed process control valve in the main line, or low process load condition, the prescribed bypass line flow is running through the Back Pressure Valve. The correct functioning can be checked by measuring the pump pressure / flow in the main line, or the flow / pressure in the bypass line.

6. Maintenance instructions

The Back Pressure Valve is constructed in such a way , that no special maintenance is required.

Maintenance is restricted to cleaning the internals with the same interval as the maintenance of the pump.

With re-assembly of the Back Pressure Valve it should be observed that new seals are installed.

7. Warranty conditions

If no special conditions have been agreed with the order, our standard guarantee is 8000 hours of operation or 12 months after delivery, whichever occurs first.

The warranty does not include damage caused by improper handling, incorrect operation, dirt in the medium and normal wear and tear.

8. Instructions in case of damages

To evaluate a possible damage the following information is required:

- 1.) Serial number of the valve, i.e:
K..-.... (Year of manufacturing / production number)
- 2.) Valve type and size
BPV i.e. DN..., PN...

The info from 1.) and 2.) is to be taken from the name

- 3.) A description of the system in which the valve is installed

9. Contact Details for Service

In case information is required or in case of technical problems please contact:

Factory and Headquarter:

SCHROEDAHL Arapp GmbH & Co KG

GERMANY

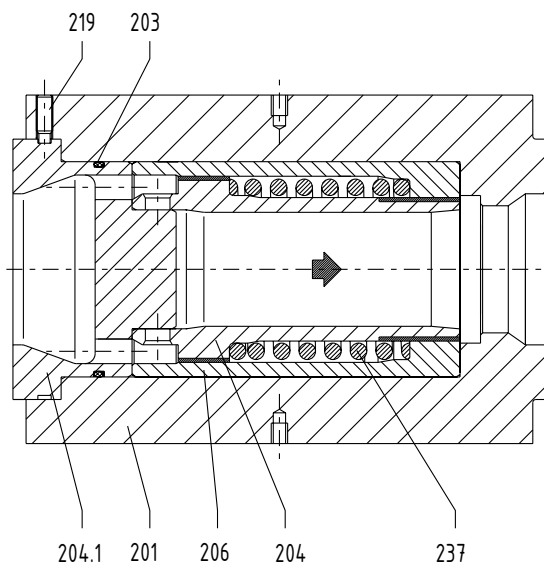
Tel.: +49 2265 9927 -0

Fax: +49 2265 9927-927

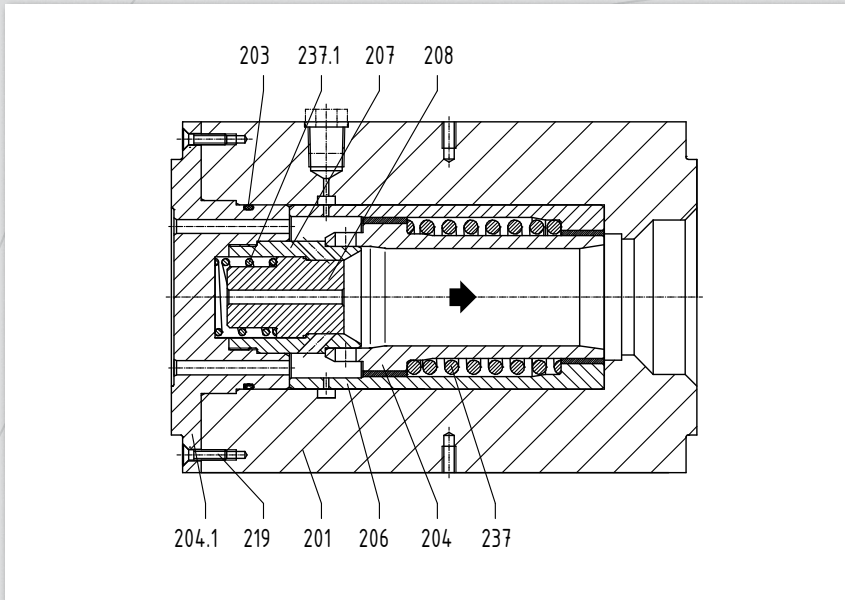
Email: info@schroedahl.de

10. Drawing and Parts list

BPV



BPV-S



Pos.	Description	Material
201	Housing	1.0460
203 ^x	O-Ring	EPDM
204	Bushing	1.4122
204.1	Orifice plate	1.0460
206	Bushing	1.4122
207	Bushing	1.4122
208*	Bushing	1.4122
219	Countersunk screw	8.8
237 ^x	Spring	1.4310
237.1	Feder	1.4310

Only for „S“ type
 X = Empfohlene Ersatzteile

Please refer to original order documentation for special material / construction.

SCHROEDAHL

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SCHROEDAHL-ARAPP

Spezialarmaturen GmbH & Co. KG

Schoenenbacher Str. 4

51580 Reichshof-Mittelagger

Germany

Phone +49 2265 9927-0

Fax +49 2265 9927-927

www.schroedahl.com

info@schroedahl.com

SCHROEDAHL International Corporation

2400 Augusta Dr. Suite 285

Houston, Texas 77057

United States of America

Phone +1 713 9758351

Fax +1 713 7800421

sic@schroedahl.com