SCHROEDAHL

we protect your business

Series BPV

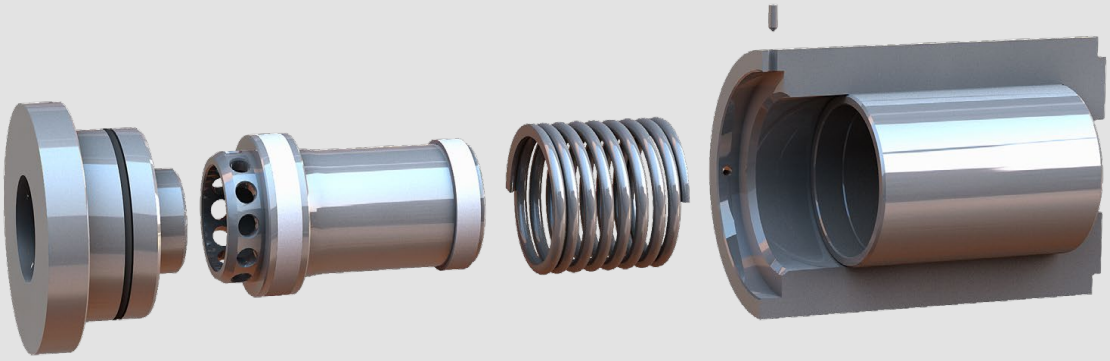
Back Pressure Valve to ensure
a defined back pressure

Application

Even the optimised and sophisticated pressure reduction methods of SCHROEDAHL Minimum Flow Valves and SCHROEDAHL Control Valves are put to their limits on the extreme conditions in some plants.

It is in just such cases that SCHROEDAHL Back Pressure Valves are put to work. They increase the clearance of the media evaporation pressure by generating a defined pressure differential. Unwanted evaporation and cavitation is prevented, ensuring gentle and cushioned operation.

Carefully matching the operating parameters between the Minimum Recirculation Valves together with Control and Back Pressure Valves gurantee ideal plant operation.



Description

Function

The designed pressure difference of the Back Pressure Valve pushes the bushing 204 against the compressible spring 237 in the direction of flow. That in turn releases the throttle opening on the bushing until the specified pressure difference is set. The selection of the differential pressure depends on the upstream valve, which should be protected by the BPV together with the saturation pressure of the given application.

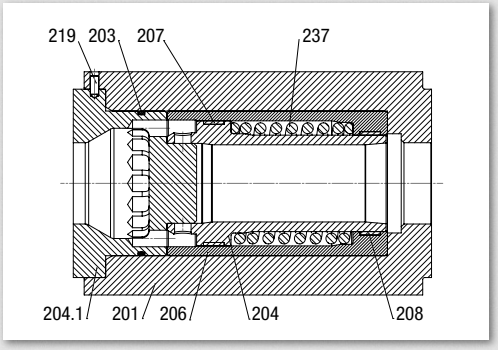


Fig. 1: BPV closed

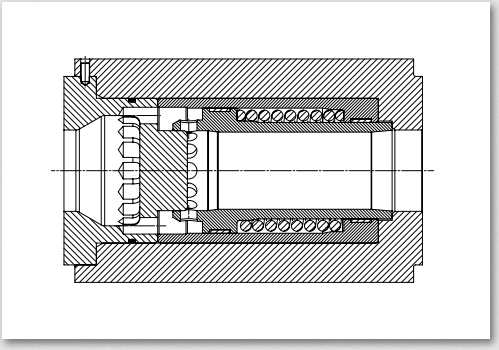


Fig. 2: BPV open

Pos.	Piece	Designation	Material
201	1	Housing	Carbon / Chromium steel
203	1	O-Ring	EPDM/NBR/FEPM...*
204	1	Bushing	Chromium steel/corrosion-resistant
204.1	1	Perforated Disc	Chromium steel/corrosion-resistant
206	1	Bushing	Chromium steel/corrosion-resistant
207	1	Guide Ring	High performance thermoplastic
208	1	Guide Ring	High performance thermoplastic
219	2	Set Screw	Chromium steel/corrosion-resistant
237	1	Coil Springs	Chromium steel/corrosion-resistant

* Media-dependent

Installation

The BPV is placed in the pipeline wherever a high pressure level is required. We recommend installing the BPV's just before the evaporator or feed water tank (as near as possible).

Sizes and pressure stages

The BPVs are supplied from DN 25 (1“) to DN 150 (6“) and from PN 16 (150lbs) to PN 400 (2500lbs). Special sizes on request.

Connection

They are available for installation between flanges according to EN 1092-1 and ASME. Other standards are available on request (e.g. BS, NF...).

Materials

Standard housing materials:
W.-Nr. 1.0460 (C22.8) ASTM A105
W.-Nr. 1.4404 (X2CrNiMo17132) ASTM 316L
The standard internals of the valves are made of stainless steel with a minimum chrome content of 13%. Other forged materials for housing and internals are available upon request. Selection of the seal material is done according to medium and temperature conditions. The housing material is selected according to medium, pressure and temperature conditions.

Design optimization and technical developments reserverd.

Code key

BPV [ ][ ][ ][ ] - [ ]

Nominal width		
DN 25	1"	05
DN 32	1¼"	06
DN 40	1½"	07
DN 50	2"	08
DN 65	2½"	09
DN 80	3"	10
DN 100	4"	11
DN 125	5"	12
DN 150	6"	13

Nominal pressure		
PN 16		2
PN 25	150 lbs	3
PN 40		4
PN 63	300 lbs	5
PN 100	600 lbs	6
PN 160	900 lbs	7
PN 250	1500 lbs	8
PN 320		9
PN 400	2500 lbs	0

Pipeline installation	
*Install between flanges according to EN	F
*Install between flanges according to ASME	U
Special model	S

Connection type	
Waver type	Z
Flange type	K
Special type	S

Materials	
*Carbon steel DIN/ ASTM: 1.0460/ A105	CS
Austemitic steel DIN/ ASTM 1.4404/ 316L	SS
Special material	SX

* Standard version
Example: BPV118UZ-CS (DN 4“, PN Class 1500lbs, ASME Standard, water type, housing carbon steel)

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Back Pressure Valve Technical Data

Customer:		Data sheet:	
Enquiry no.:		Quantity:	
Prior reference:		Ident-No.:	
Order no.:			
Project:			

Back Pressure Valve type:

Valve inlet [in.]	DN		PN		Code:
Valve outlet [in.]	DN		PN		Paint:

Mat.-/test certificates:

Materials

Housing: | Internals: | Seals:

Design data: Design temp.: °C

Design pressure: bar g

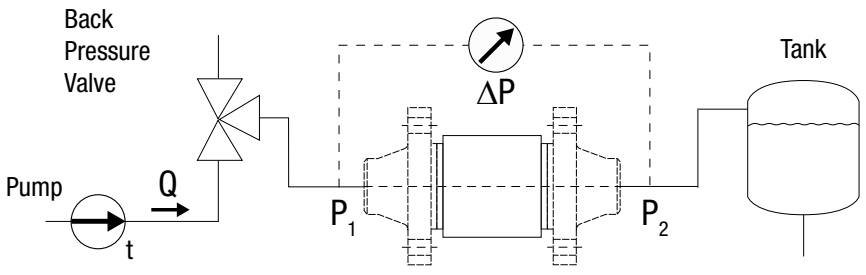
Load data:

Q = m³/h t = °C P_1*= bar g P_2= bar g

Medium: S.G.: kg/dm³

Notes:

Revision	Date	Description	Name	Signature



* Will be defined/approved by SCHROEDAHL

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