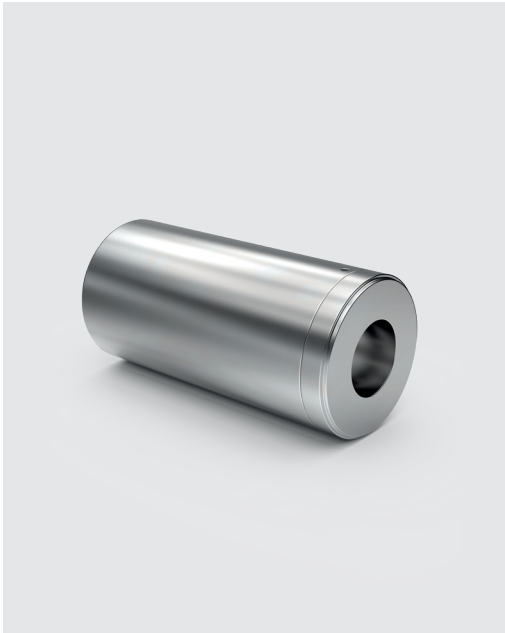
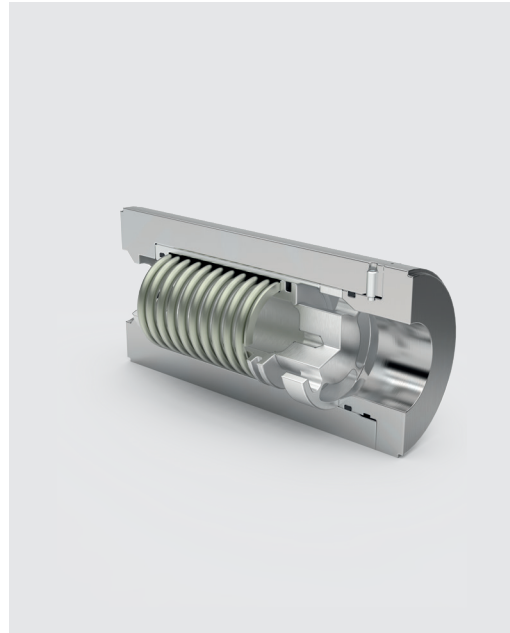


## Type BPV

Back pressure regulator to guarantee a defined back pressure



> Type BPV, front view



> Type BPV, sectional view

### Product features

- Prevents evaporation and cavitation and ensures smooth operation
- Forged housing material, carbon steel or stainless steel
- Special material possible
- Internal operation (no external energy source required)
- Easy to install
- Low maintenance

### Application

- Maintaining the pressure in the flow recirculation or return line to the tank

# Type BPV

Back pressure regulator to guarantee a defined back pressure

## Technical data

Nominal diameter	DN 25–300 / NPS 1–12
Pressure class	PN 16–400 / Class 150–2500
Temperature (max.)	Up to 230 °C / 446 °F (other temperatures on request)
Housing material	1.0460 / A105 1.0571 / LF2 1.4404 / F316L 1.4501 / F55
Housing type	Forged
Media	Liquids of all kinds (water, oils, chemicals...)
Flanges	As intermediate flange version (Z version) or with integrated flanges (K version)
Number of stages (max.)	1
Number of controlled stages (max.)	1
Operation Range	Delta p up to max. 10 bar

# Type BPV

Back pressure regulator to guarantee a defined back pressure

## Function

Even the optimal and sophisticated pressure reduction of the SCHROEDAHL automatic recirculation valves and control valves set extreme conditions limits in some installations.

SCHROEDAHL back pressure regulators type BPV are used in such cases.

They increase the distance to the evaporation pressure of the medium by generating a defined pressure difference. This prevents unwanted evaporation and cavitation and ensures smooth and gentle operation.

Careful adjustment of the operating parameters between minimum flow or control and back pressure valves ensures optimum system operation.

The pressure difference at the back pressure valve as specified in the design shifts the bushing (item 204) in the direction of flow against the pressure spring (item 237). This releases the throttle cross sections at the bushing until the specified pressure difference is attained.

## Installation information

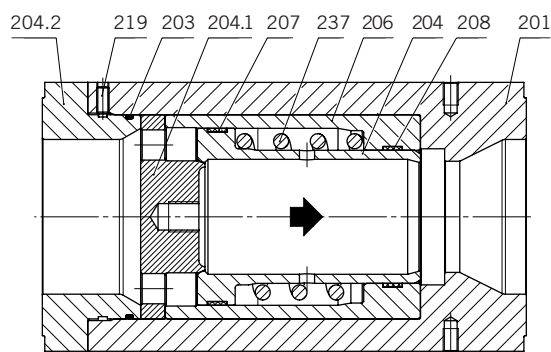
The BPV is used in the pipeline at the point where the highest pressure level is required. We recommend installation directly to the tank.

# Type BPV

Back pressure regulator to guarantee a defined back pressure

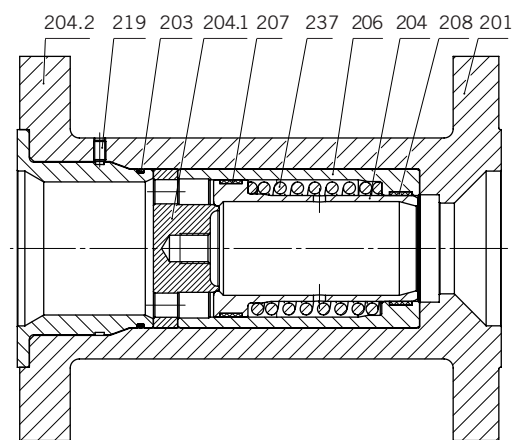
## Sectional drawing

(z-type)



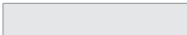
## Sectional drawing

(k-type)



## Parts list

Pos.	Item	Material
201	Housing	*
203	O-Ring	*
204	Control bushing	1.4057
204.1	Orifice plate	1.4404
204.2	Flange	*
206	Bushing	1.4057
207 / 207.1**	O-Ring and glyd ring / guide ring	*
208 / 208.1**	O-Ring and glyd ring / guide ring	*
219	Grub screw	45H
237	Spring	1.4310

 Recommended spare/wear parts

\* Depending on customer requirements

\*\* Depending on size and pressure rating

Parts list as an example of the standard configuration

# Type BPV

Back pressure regulator to guarantee a defined back pressure

## Dimensions EN (z-type)

DN <sub>1</sub> / DN <sub>2</sub>	PN	Type	L (mm)	Ø (mm)
25	25	053	170	71
	40	054	170	71
	63	055	170	86
	100	056	170	86
	160	057	170	82
	250	058	170	83
	320	059	170	93
	400	050	170	105
32	25	063	170	82
	40	064	170	82
	63	065	170	88
	100	066	170	88
	160	067	-	-
	250	068	-	-
	320	069	-	-
	400	060	-	-
40	25	073	220	92
	40	074	220	92
	63	075	220	103
	100	076	220	103
	160	077	220	103
	250	078	220	109
	320	079	220	119
	400	070	220	135
50	25	083	220	107
	40	084	220	107
	63	085	220	113
	100	086	220	119
	160	087	220	119
	250	088	220	124
	320	089	220	134
	400	080	220	150
65	25	093	260	127
	40	094	260	127
	63	095	260	138
	100	096	260	144
	160	097	260	144
	250	098	260	154
	320	099	260	170
	400	090	260	192
80	25	103	260	142
	40	104	260	142
	63	105	260	148
	100	106	260	154
	160	107	260	154
	250	108	260	170
	320	109	260	190
	400	100	260	207
100	25	113	320	168
	40	114	320	168
	63	115	320	174
	100	116	320	180
	160	117	320	180
	250	118	320	202
	320	119	320	229
	400	110	320	256
125	25	123	320	194
	40	124	320	194
	63	125	320	210
	100	126	320	217
	160	127	320	217
	250	128	320	242
	320	129	320	274
	400	120	320	301
150	25	133	320	224
	40	134	320	224
	63	135	320	247
	100	136	320	257
	160	137	320	257
	250	138	320	284
	320	139	320	311
	400	130	320	348
200	25	153	-	284
	40	154	-	290
	63	155	-	309
	100	156	-	324
	160	157	-	324
	250	158	-	358
	320	159	-	398
	400	150	-	442

Dimensions EN (k-type): on request

# Type BPV

Back pressure regulator to guarantee a defined back pressure

## Dimensions ASME (z-type)

DN <sub>1</sub> / DN <sub>2</sub>	PN	Type	L (mm)	Ø (mm)
NPS 1	150	053	170	63,5
	300	055	-	69,8
	600	056	170	69,8
	900	057	170	76,2
	1500	058	170	76,2
	2500	050	170	82,6
NPS 1,25	150	063	-	73,2
	300	065	170	79,5
	600	066	170	79,5
	900	067	-	85,9
	1500	068	170	85,9
	2500	060	170	101,6
NPS 1,5	150	073	170	82,9
	300	075	170	91,9
	600	076	-	91,9
	900	077	170	95,6
	1500	078	220	95,6
	2500	070	220	114,3
NPS 2	150	083	220	101,6
	300	085	220	107,9
	600	086	220	107,9
	900	087	220	139,7
	1500	088	-	139,7
	2500	080	220	143,1
NPS 2,5	150	093	220	120,5
	300	095	-	127
	600	096	220	127
	900	097	220	162,1
	1500	098	220	162,1
	2500	090	220	155,1
NPS 3	150	103	-	133,3
	300	105	220	145,7
	600	106	260	145,7
	900	107	-	165,1
	1500	108	260	171,4
	2500	100	260	193,5

DN <sub>1</sub> / DN <sub>2</sub>	PN	Type	L (mm)	Ø (mm)
NPS 4	150	113	320	171,4
	300	115	320	177,8
	600	116	320	190,5
	900	117	320	203,1
	1500	118	320	206,2
	2500	110	320	232
NPS 5	150	123	320	193,5
	300	125	320	212,6
	600	126	320	238,3
	900	127	320	244,3
	1500	128	320	251
	2500	120	320	276,1
NPS 6	150	123	320	218,9
	300	125	320	247,3
	600	126	320	263,7
	900	127	320	285,7
	1500	128	320	279,4
	2500	120	320	314,5
NPS 8	150	123	320	279,1
	300	125	320	304,8
	600	126	320	318
	900	127	320	355,6
	1500	128	320	349,2
	2500	120	320	384,4

Dimensions ASME (k-type): on request