

FACTS | FIGURES | DATA

Pressure retaining valve V186 · V86

V186 V86



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DN 10 to DN 100



V186 PVDF



V186 PP



V186 PVC

APPLICATION

The pressure retaining valve V 186 are used where a constant back pressure is required for operating process. Installed as bypass, it can also be used as a relief valve for reducing pressure peaks. The cavity free valve body design, without gasket, makes it particularly suitable for high purity applications and aggressive fluids.

FUNCTION

The pressure retaining valves are used to provide a constant back pressure in process plant. If the inlet pressure rises above a preset value, the diaphragm is raised against the spring force. The valve opens and the excess pressure escape into the outlet line.

If the pressure on the inlet side is reduced, the valve closes as the spring force pushes the diaphragm against the seal seat.

The spring force can be adjusted as required using the set screw and secured with the lock nut.

SPECIAL FEATURES

- Wetted parts made of high corrosion resistant plastics
- operating pressure adjusted with set up screw and secured with lock nut.
- No auxiliary energy necessary
- Setting can be lead sealed, on request
- Control deviations are kept low by the large control surface and the spiral spring
- Valve almost maintenance-free
- Variable installation position and compact design

MATERIALS

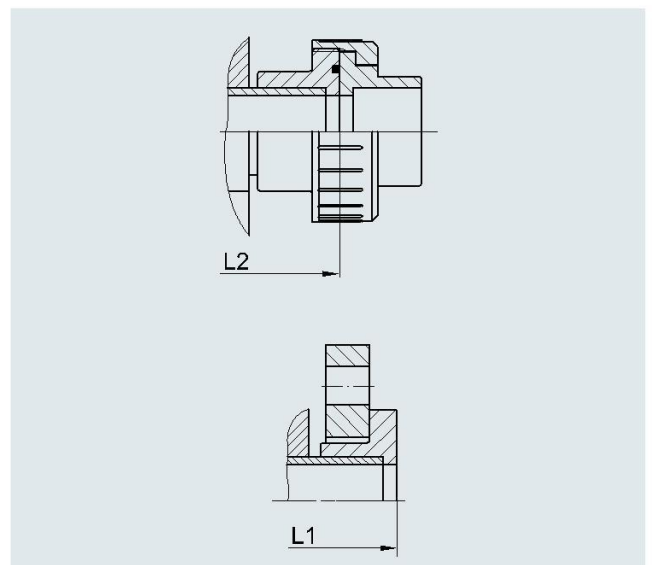
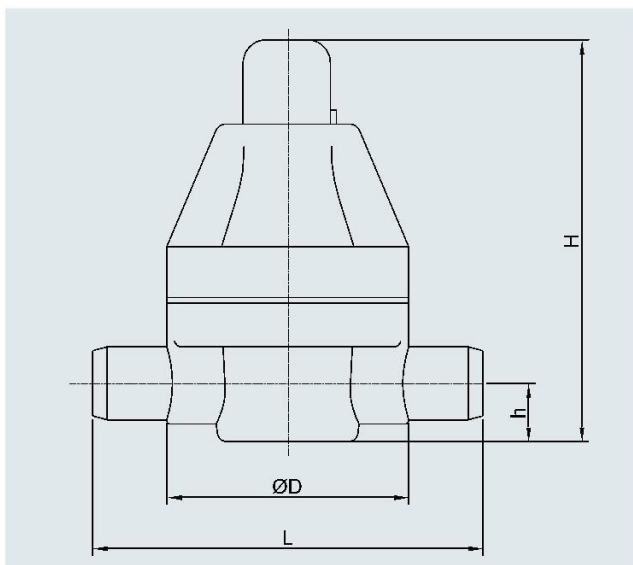
Body	operating temperature	Diphragme
PVC-U	0 to + 60°C	EPDM
PP-H	0 to + 80°C	EPDM/PTFE overlayed
PVDF	-20 to + 100°C	

TECHNICAL DATA

Type	Size	Pressure rate PN	Set Pressure range in bar
V 185	DN 10-50	10	0.5-9
V 85	DN 65-80	6	1-5
V 85	DN 100	4	1-3

DIMENSIONS (mm)

d	DN	Face to face (L)		Face to face Flange (L1)			Face to face union (L2)			D	h	H
		PVC	PP/PVDF	PVC	PP	PVDF	PVC	PP	PVDF			
10	10	134	158	140	168	168	154	180	180	83	20	137
20	15	134	158	140	168	168	154	182	182	83	20	137
25	20	134	158	140	168	168	154	182	182	83	20	137
30	25	174	198	180	208	208	194	222	222	112	27	199
40	32	174	202	180	212	212	198	230	230	112	27	199
50	40	224	256	230	266	266	252	288	288	165	43	290
65	50	244	256	250	266	266	280	296	296	165	43	290
75	65	284	284	290	294	-	320	320	-	180	47,5	275
90	80	360	360	370	374	-	396	396	-	250	55	410
100	100	380	380	390	394	-	402	424	-	250	70	448



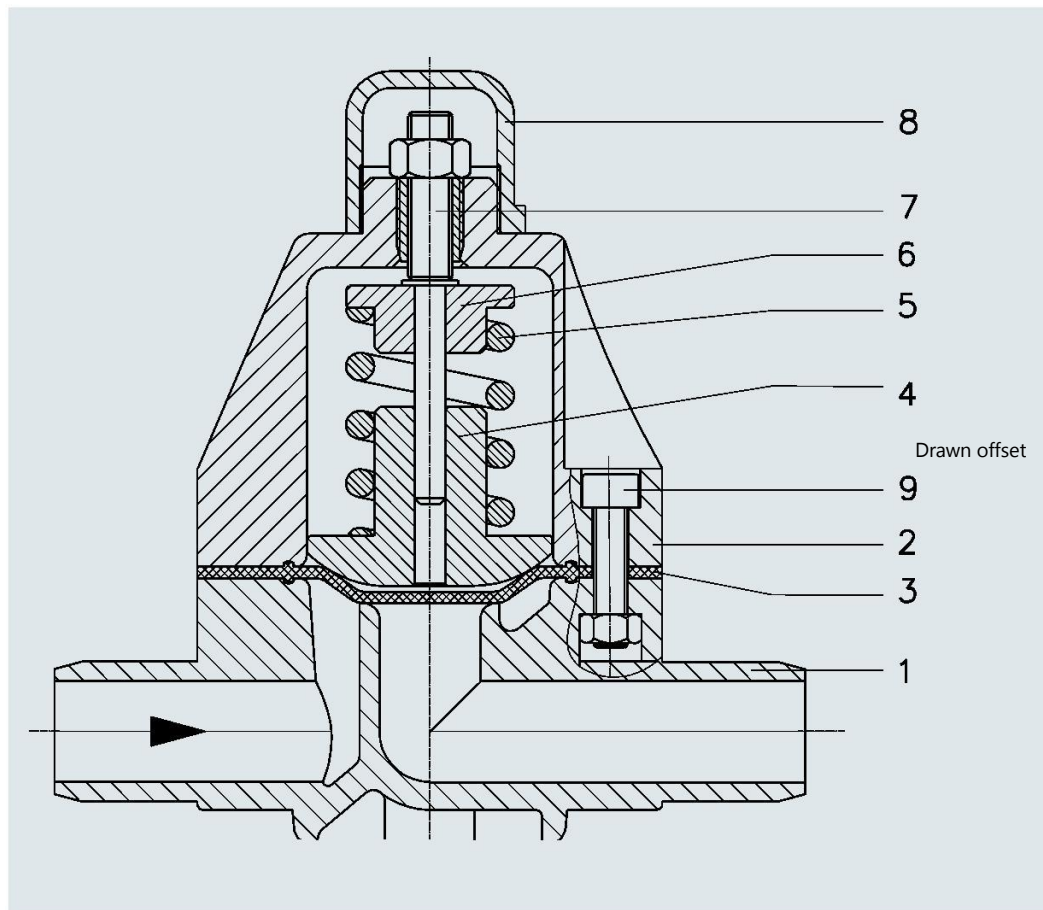
PART-No.

d	DN	Type	PVC/EPDM	PVC/PTFE	PP/EPDM IR-spigots	PP/PTFE IR-spigots	PVDF/PTFE IR-spigots
16	10	V186	17.000.134	17.000.149	17.005.472	17.005.479	17.005.486
20	15	V186	17.000.135	17.000.150	17.005.473	17.005.480	17.005.487
25	20	V186	17.000.136	17.000.151	17.005.474	17.005.481	17.005.488
32	25	V186	17.000.137	17.000.152	17.005.475	17.005.482	17.005.489
40	32	V186	17.000.138	17.000.153	17.005.476	17.005.483	17.005.490
50	40	V186	17.000.139	17.000.154	17.005.477	17.005.484	17.005.491
63	50	V186	17.000.140	17.000.155	17.005.478	17.005.485	17.005.492
75	65	V86	17.003.093	17.003.097	17.005.493	17.005.496	17.005.499
90	80	V86	17.003.101	17.003.105	17.005.494	17.005.497	–
110	100	V86	17.003.109	17.003.113	17.005.495	17.005.498	–

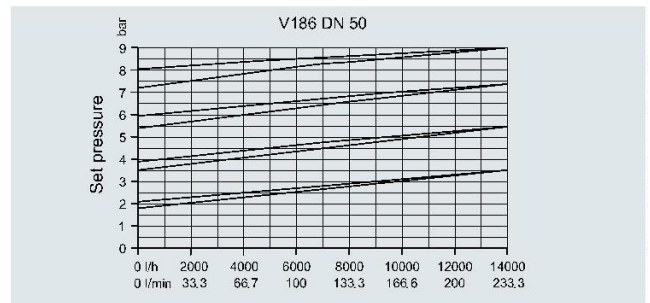
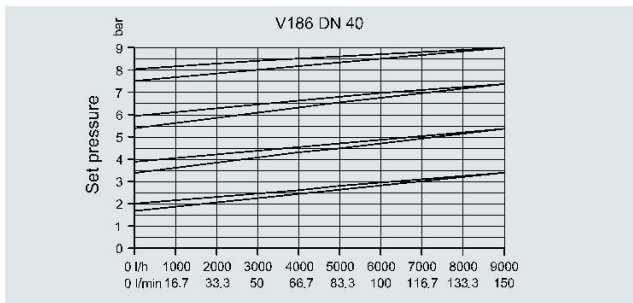
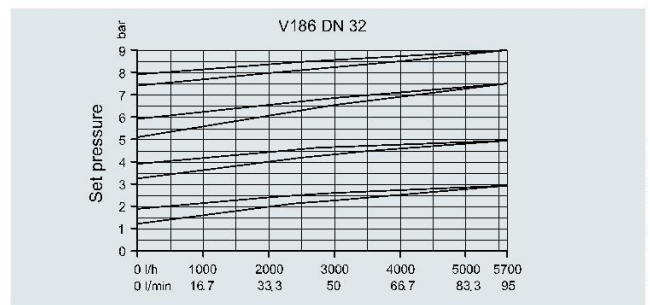
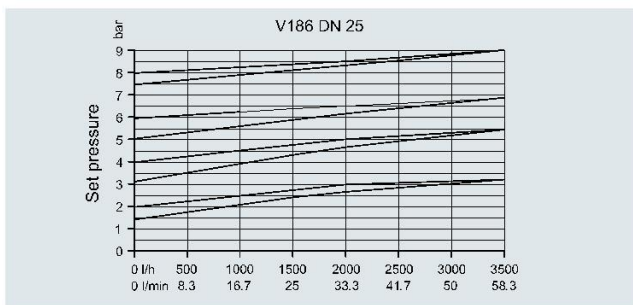
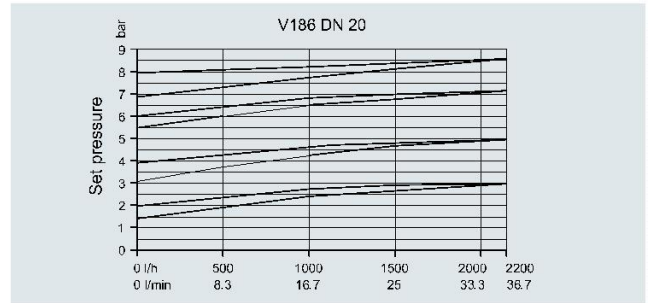
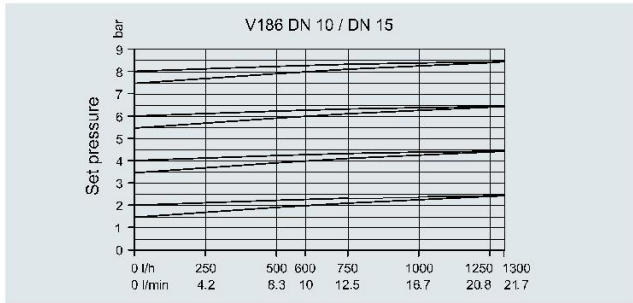
COMPONENTS

Pos. Designation

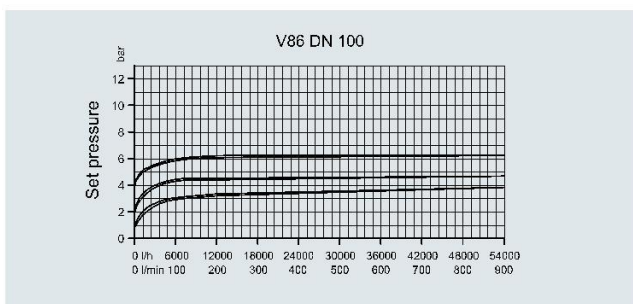
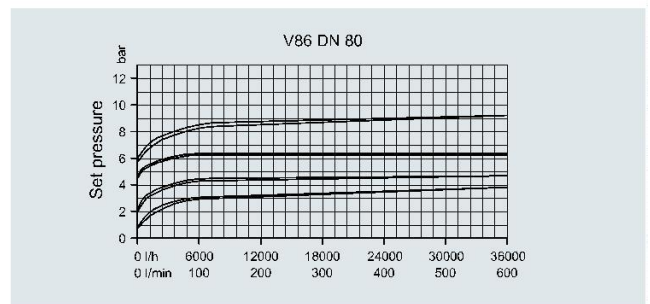
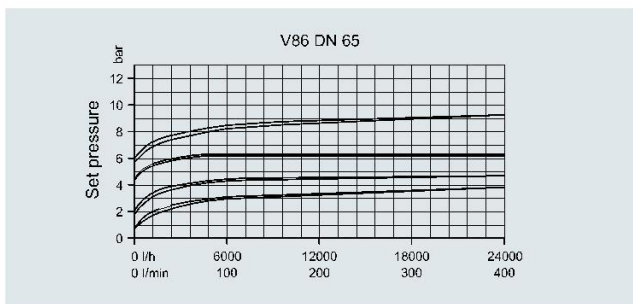
- 1 Body
- 2 Bonnet
- 3 Diaphragm
- 4 Compressor
- 5 Pressure spring
- 6 Spring plate
- 7 Set up screw
- 8 Cap
- 9 Set of screws



PERFORMANCE DIAGRAMS V186



PERFORMANCE DIAGRAMS V86

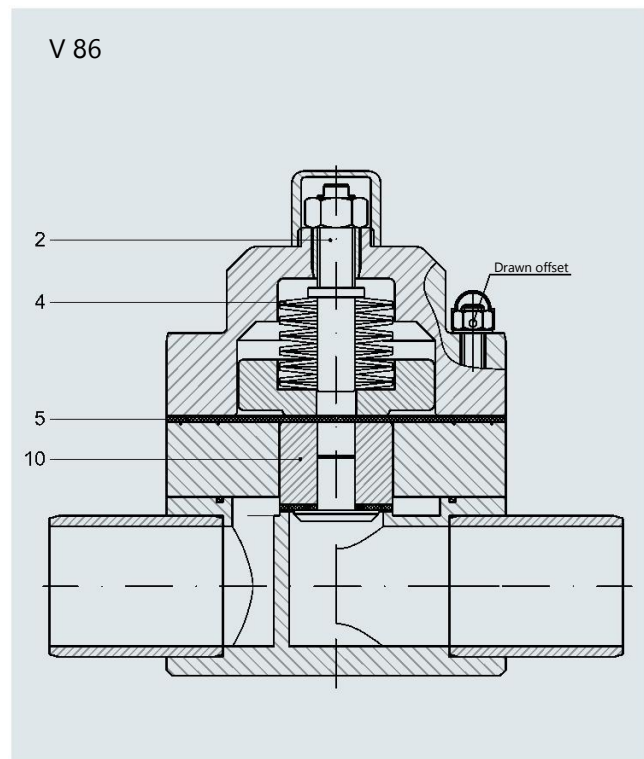
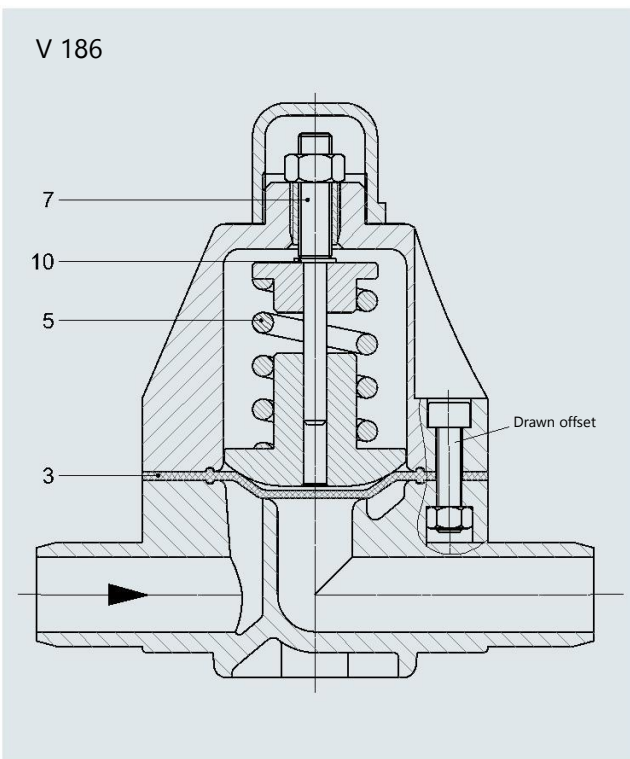


The characteristic curves on the graphs show the increase in the set pressure from 0 through to the maximum permissible flow rate. The upper and lower lines plot the course of the opening and closing pressure respectively. All characteristic curves apply to water at a temperature of 20 °C.

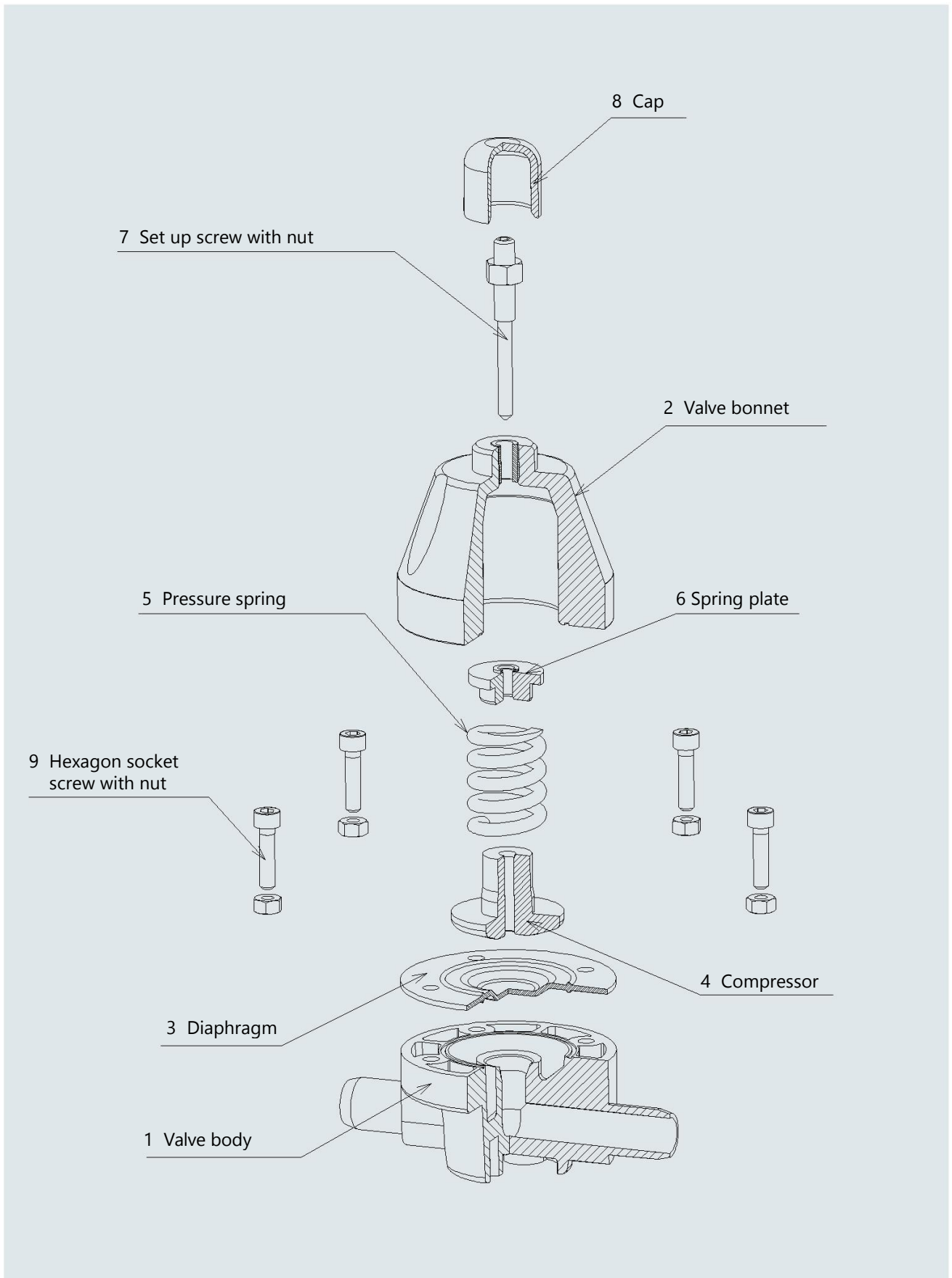
SPARE PART KITS

Set consisting of:	Type	DN	PVC/EPDM	PVC/PTFE	PP/EPDM	PP/PTFE	PVDF/PTFE
			Part No.	Part No.	Part No.	Part No.	Part No.
Pos. 3 diaphragm	V 186	10/15/20	17.006.007	17.006.020	17.006.007	17.006.020	17.006.020
Pos. 5 compression ring	V 186	25/32	17.006.008	17.006.021	17.006.008	17.006.021	17.006.021
Pos. 7 adjustment screw	V 186	40/50	17.006.009	17.006.022	17.006.009	17.006.022	17.006.022
Pos. 10 washer							

Set consisting of:	Type	DN	PVC/EPDM	PVC/PTFE	PP/EPDM	PP/PTFE	PVDF/PTFE
			Part No.	Part No.	Part No.	Part No.	Part No.
Pos. 5 diaphragm	V 86	65	17.006.256	17.006.259	17.006.268	17.006.271	17.006.275
Pos. 4 spring assembly	V 86	80	17.006.257	17.006.260	17.006.269	17.006.272	–
Pos. 2 adjustment screw	V 86	100	17.006.258	17.006.261	17.006.270	17.006.273	–
Pos. 10 piston, complete							



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