

Anti-hammer relief valve



A pressure relief valve is a safety appliance which is capable of instantaneously evacuating a high flow rate.

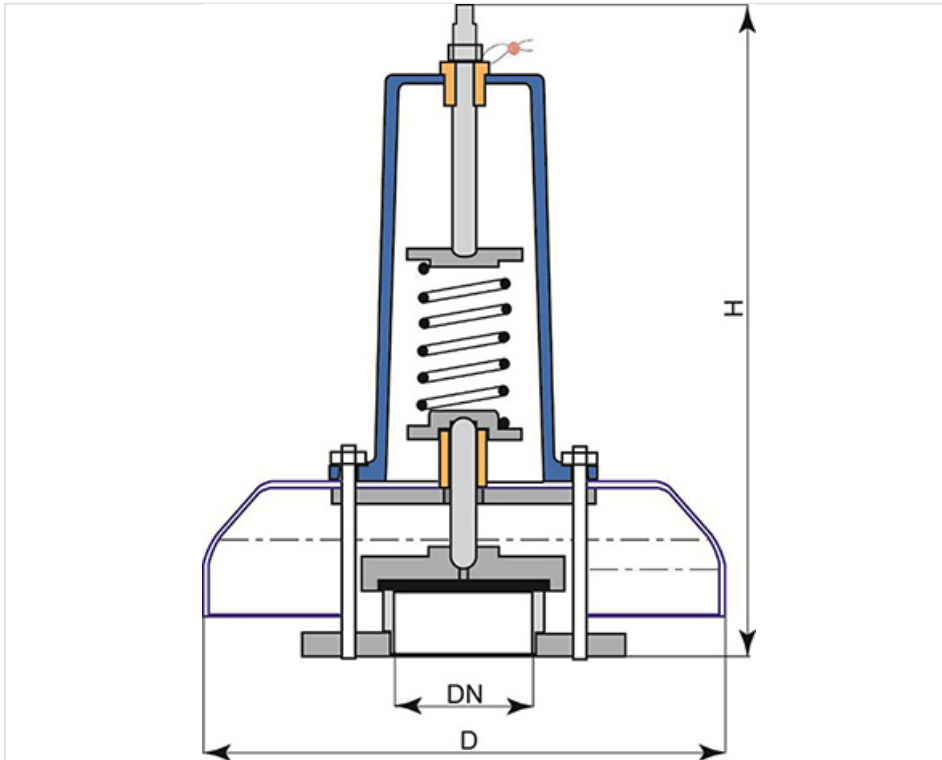
It protects networks against overpressure due to sudden changes in flow rates (water hammer effects) for example when closing a valve too quickly or in case of sudden moving of air pockets inside the pipes.

The range goes from DN60 to DN200, PFA10, 16 or 25 bars.

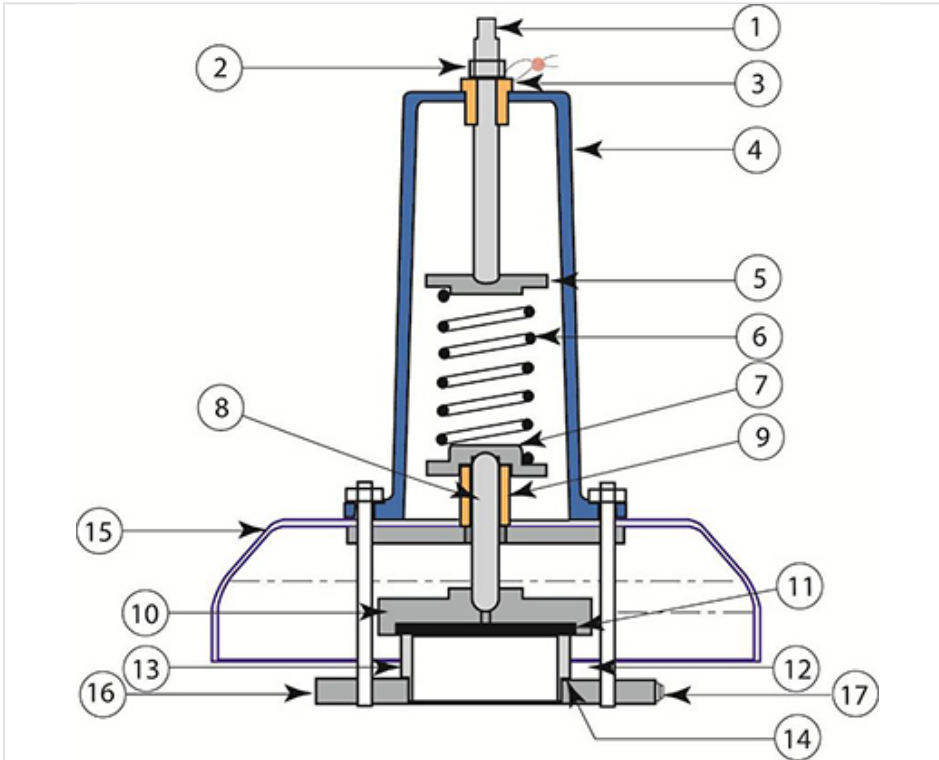
The valve pressure set point has to be indicated by the customer at the order time.

DN (mm)	PFA	A (mm)	B (mm)	Flow rate	Overpressure	Version	Mass (kg)	References
60	16 bar	400	720	46 l/s	1.5 bar	with spring 1 to 7 bar	34.00	172525
60	1016 bar	400	720	65 l/s	1.8 bar	with spring 6 to 12 bar	34.00	161866
60	16 bar	400	720	85 l/s	2.5 bar	with spring 10 to 17 bar	34.00	161849
60	25 bar	400	720	95 l/s	3.5 bar	with spring 16 to 25 bar	34.00	161850
65	16 bar	400	720	46 l/s	1.5 bar	with spring 1 to 7 bar	34.00	167036
65	1016 bar	400	720	65 l/s	1.8 bar	with spring 6 to 12 bar	34.00	161853
65	16 bar	400	720	85 l/s	2.5 bar	with spring 10 to 17 bar	34.00	161863
65	25 bar	400	720	95 l/s	3.5 bar	with spring 16 to 25 bar	34.00	161852
80	16 bar	400	720	85 l/s	1.5 bar	with spring 1 to 7 bar	38.00	167045
80	1016 bar	400	720	130 l/s	2 bar	with spring 6 to 12 bar	38.00	167046
80	16 bar	400	720	160 l/s	2.5 bar	with spring 10 to 17 bar	38.00	167047
80	25 bar	400	720	180 l/s	3.7 bar	with spring 16 to 25 bar	38.00	161854

DN (mm)	PFA	A (mm)	B (mm)	Flow rate	Overpressure	Version	Mass (kg)	References
100	16 bar	400	720	120 l/s	1.6 bar	with spring 1 to 7 bar	42.00	167065
100	1016 bar	400	720	180 l/s	2 bar	with spring 6 to 12 bar	42.00	161872
100	16 bar	400	720	260 l/s	2.6 bar	with spring 10 to 17 bar	42.00	167068
100	25 bar	400	720	300 l/s	3.8 bar	with spring 16 to 25 bar	42.00	167066
125	16 bar	470	720	160 l/s	1.8 bar	with spring 1 to 7 bar	54.00	161855
125	1016 bar	470	720	290 l/s	2.5 bar	with spring 6 to 12 bar	54.00	161856
125	16 bar	470	720	350 l/s	2.8 bar	with spring 10 to 17 bar	54.00	161857
125	25 bar	470	720	405 l/s	3.8 bar	with spring 16 to 25 bar	54.00	167077
150	16 bar	530	820	280 l/s	2 bar	with spring 1 to 7 bar	78.00	161858
150	1016 bar	530	820	400 l/s	2.5 bar	with spring 6 to 12 bar	78.00	167093
150	16 bar	530	820	480 l/s	3 bar	with spring 10 to 17 bar	78.00	173616
150	25 bar	530	820	525 l/s	4 bar	with spring 16 to 25 bar	78.00	167091
200	10 bar	580	820	390 l/s	2 bar	with spring 1 to 7 bar	88.00	161860
200	10 bar	580	820	680 l/s	2.7 bar	with spring 6 to 12 bar	88.00	167105
200	16 bar	580	820	680 l/s	2.7 bar	with spring 6 to 12 bar	88.00	161861
200	16 bar	580	820	886 l/s	3.5 bar	with spring 10 to 17 bar	88.00	167106
200	25 bar	580	820	960 l/s	5 bar	with spring 16 to 25 bar	88.00	161875



Material and coating



Item	Designation	Material	Coating
1	Adjusting screw	Stainless steel 18/8	
2	Nut	Stainless steel A2	
3	Nut	Bronze UE 7	
4	Cap	Ductile Iron	Epoxy 200 microns
5	Spring holder	Steel XC 38	
6	Spring	Spec Steel	
7	Spring holder	Steel XC 38	
8	Pin	Stainless steel	
9	Bearing	Bronze UE 7	
10	Clapper	Steel XC 38	
11	Clapper gasket	Polyurethane	
12	Upper stem	Stainless steel 18/8	
13	Seat	Stainless steel 18/8	
14	O'ring	Nitrile	

Item	Designation	Material	Coating
15	Skirt	Steel A40	Epoxy 200 microns
16	Flange	Steel XC 38	Epoxy 200 microns
17	Pressure ¼' gas		

Hydraulic characteristics

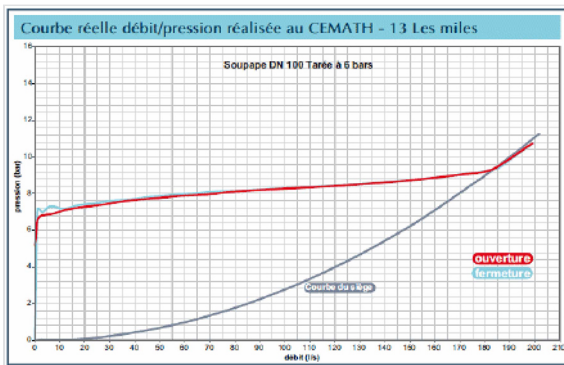
The pressure values to be considered are:

- PMS : network maximum service Pressure,
- Valve pressure set point : Pressure at beginning of opening,
- Overpressure: Pressure increase, compared with the pressure set point, to reach the maximum drained flow rate.

The valve pressure set point has to be indicated by the customer at the order time.

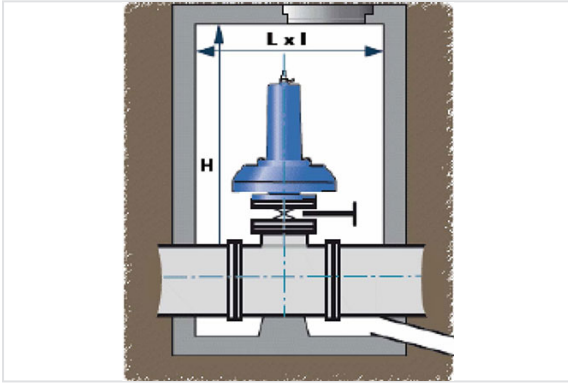
The valve pressure set point is given by the network maximum service Pressure (PMS) increased by 5 to 10 %.

Choice of DN



DN of the appliance is determined as a function of the flow rate to be evacuated. As a general rule we should choose the flow rate of the pipe on which the relied valve is located

Installation



The pressure relief valve is to be installed in a vertical position as close as possible to the source of the water hammer effects.

If it is installed in a manhole, an evacuation pipe must be provided. An isolating valve is recommended to enable work to be carried out on the relief valve (regulating, maintenance...) without interrupting the operation of the network.

DN mm	H mm	Lx1 mm
60/65	1200	1500
80	1200	1500
100	1200	1500
125	1500	1700
150	1700	1700
200	1700	1700

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