



BROADY

F L O W C O N T R O L

Type 180

Pressure Relief Valve



BROADY FLOW
CONTROL



Engineering complete solutions

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Type 180

Pressure Relief Valve

Valve Description

Direct acting spring operated proportional lift relief valve, is designed relieve gas, liquid or vapour to maximum set pressure of 23 Barg, ranging from ½" to 3" bore and can be constructed in Gunmetal or stainless steel as standard, with screwed connections. And can be supplied with a metal valve lid or soft seat valve lid (Viton insert).

Valve seat face is an integral part of the inlet adaptor which screwed into the body and sealed with an o ring, the valve lid sits onto the valve seat face and is guided by a machined bore in the body. Inside the valve lid is a ball, lower spring carrier, spring and upper spring carrier, these items are enclosed inside the body. The adjusting screw and lock nut are screwed in to the body and on to the spring carrier. A cap is fitted over the adjusting and onto the body

Brief Description of Valve Operation

Pressure enters the inlet of the valve and acts underneath the valve lid. When the load on the valve lid, created by the increase in inlet pressure, is greater than the load created by the compression of the spring, the valve lid will start to lift off the seat face thus allowing excess medium to be discharged through the outlet. Similarly, when the spring load over comes the lighter load imposed on the valve lid due to the decrease in pressure, the valve lid will drop down allowing the lid to sit back onto the seat face and closing the valve.

Installation

The relief valve should be mounted in the vertical position, this is to ensure the valve re-seats correctly. Ensure the pipe work is clear of system debris.

Maintenance

Periodically the valve lid and seat should be examined, if the contact faces are marked they should be refaced and lapped in, if the soft seat is damaged it should be replaced. The spring should be examined for any deterioration, such as cracking, thinning of the coils or reduction in length. The spring should be replaced if any defect is found. All parts should move freely in their respective guides.



Limits And Standards

Minimum Set Pressure: 0.35 Barg

Maximum Set Pressure: 24 Barg

Design Standard:

Sound Engineering Practice (in accordance with PED 2014/68/EU May 2014)

Materials of construction:

Gunmetal

Aluminium Bronze

Stainless Steel

Hastelloy

Key Features:

Hard or soft seating arrangements available depending on process requirements.



Type 180

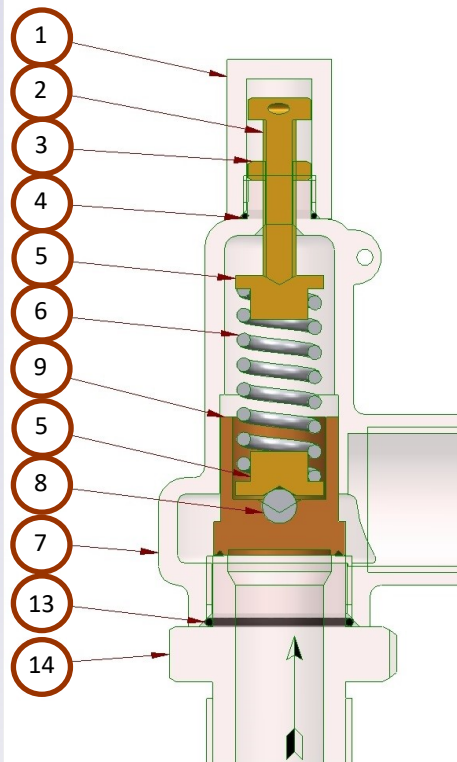
Pressure Relief Valve 15-25NB

14	Nozzle	1
13	O-Ring	1
11	Disc	1
10	Disc Holder	1
9	Valve Lid	1
8	Ball	1
7	Body	1
6	Spring	1
5	Spring Carrier	2
4	O-Ring	1
3	Locknut	1
2	Adjusting Screw	1
1	Cap	1
Item	Title	Quantity

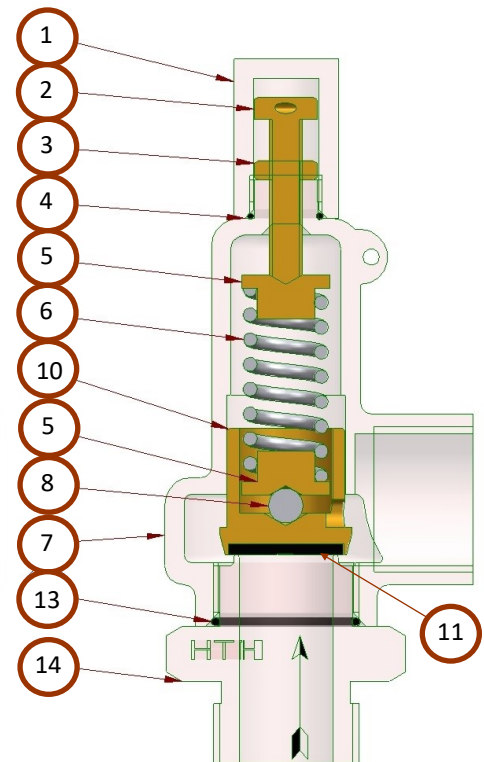
	Pressure Range	Size Limitation	
Spring	Barg	Type 180	Type 180-S
Red	0.35-1.79	15NB to 80 NB	15NB to 50 NB
Blue	1.80-5.50		
Green	5.51-10.34		
Orange	10.35-13.79		
Purple	13.80-17.24	15NB to 50NB	
Yellow	17.25-20.69		
White	20.70-24.00		

How To Order

To Enable Broady flow Control to offer the most suitable valve for your service, please provide the following information at the enquiry stage:



15/25NB Type 180
Metal - Metal Seat

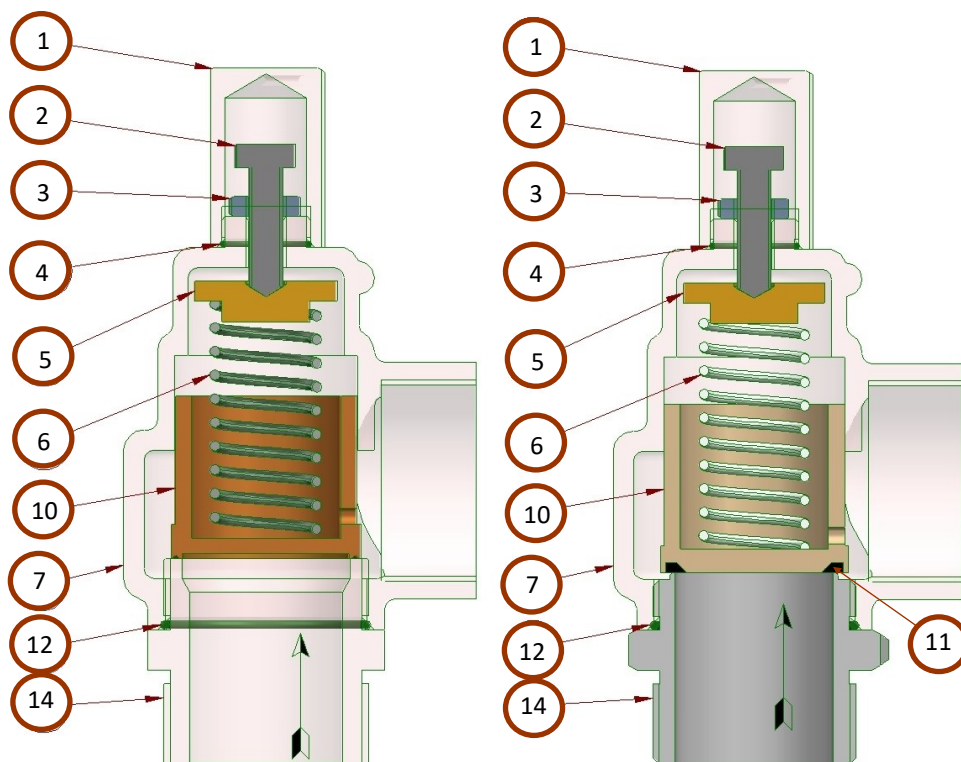


15/25NB Type 180
Soft Seat

*Above drawings and parts list are for sizes 15NB to 25 NB only

Type 180

Pressure Relief Valve 32-80NB



32/80NB Type 180
Metal - Metal Seat

32/50NB Type 180
Soft Seat

*Above drawings and parts list are for sizes 32NB to 80NB only

14	Nozzle	1
12	Joint or ORing	1
11	Disc	1
10	Disc Holder	1
7	Body	1
6	Spring	1
5	Spring Carrier	1
4	Joint or O-Ring	1
3	Locknut	1
2	Adjusting Screw	1
1	Cap	1
Item	Title	Quantity

	Pressure Range	Size Limitation	
Spring	Barg	Type 180	Type 180-S
Red	0.35-1.79	15NB to 80 NB	15NB to 50 NB
Blue	1.80-5.50		
Green	5.51-10.34		
Orange	10.35-13.79		
Purple	13.80-17.24	15NB to 50NB	
Yellow	17.25-20.69		
White	20.70-24.00		

Please contact the Broady Flow Control sales team who will be happy to assist you in selecting the correct valve for your requirements.

Email: sales@broady.co.uk



Type 180

Capacity Tables

Saturated Steam Capacities In Kg/Hr with 10% Accumulation

Set Pressure (Barg)	Valve Size							
	15	20	25	32	40	50	65	80
0.7	10	23	42	65	94	166	260	378
1.0	13	29	52	81	118	108	325	472
2.0	19	45	78	123	177	297	498	715
3.0	26	59	103	164	234	415	657	944
4.0	31	71	129	200	293	512	812	1155
6.0	44	102	180	282	410	716	1144	1630
8.0	53	129	229	358	500	902	1430	2040
10.0	70	157	280	440	631	1135	1748	2495
12.0	86	188	331	501	758	1338	-	-
18.0	123	270	482	763	1080	1900	-	-
24.0	160	363	641	1022	1427	2557	-	-

Air Capacities in Nm³/hr with 10% Accumulation

Set Pressure (Barg)	Valve Size							
	15	20	25	32	40	50	65	80
0.7	10	22	40	63	91	154	251	359
1.0	12	25	46	74	106	180	295	423
2.0	17	40	71	111	161	271	449	644
3.0	23	52	94	149	213	364	593	848
4.0	30	66	118	184	268	454	742	1070
6.0	41	90	162	257	367	365	1032	1465
8.0	51	115	206	322	466	814	1270	1864
10.0	63	144	255	393	575	983	1584	2270
12.0	75	168	300	466	676	1152	-	-
18.0	110	244	429	702	982	1662	-	-
24.0	144	319	576	935	1259	2248	-	-

Type 180

Capacity Tables

Water Capacities in L/Min with 10% Accumulation

	Valve Size							
Set Pressure (Barg)	15	20	25	32	40	50	65	80
0.7	4	11	20	32	46	79	126	183
1.0	6.4	14	25	40	57	99	158	230
2.0	9.5	20	36	57	86	145	231	331
3.0	11	25	45	70	99	179	277	404
4.0	13	29	51	80	115	204	320	463
6.0	16	34	61	97	143	249	393	572
8.0	18	41	72	114	163	290	455	657
10.0	21	46	80	129	184	325	504	730
12.0	22	50	88	138	199	356	-	-
18.0	27	60	109	168	243	348	-	-
24.0	31	69	125	195	281	504	-	-



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Quality



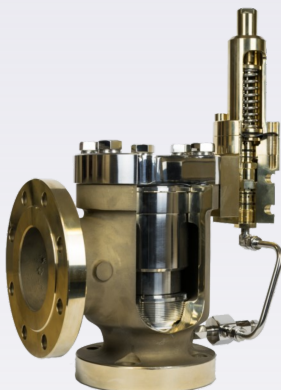
Broady Flow Control Limited, over its many years of trading, has developed into a highly efficient and customer focused organisation, well placed to satisfy the ever changing requirements of the industry. Renowned for innovation, flexibility and integrity.

Broady has a well established and robust quality management system which supports order processing and manufacturing, ensuring the highest standards are maintained at all times.



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Valves from the Broady Product Range



3500 Series Pressure Safety Valves



Fire Fighting (Hydrant Valves)



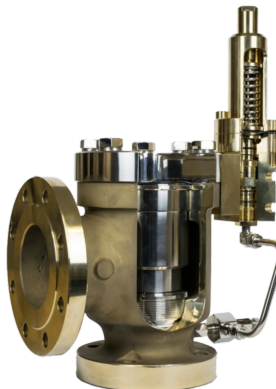
**Type 3600, 2600, 180 & 180-S
Safety Valves**



**Sustaining Valves
(Type A, Type D, Type 8, Type 9)**



Reducing Valves (A, AB, C, D, B2)



Type 4000 Pilot Operated Safety Relief Valve

Please Contact The
Broady Flow Control Sales
department for more
information on our
extensive product range.



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Engineering complete solutions

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