



## TYPE 180 PRESSURE RELIEF VALVE

The 180/180-S pressure relief valves are suitable for use on compressed air, gases, water, oil and steam.

The 180 is available in sizes from 1/2" to 3" in Bronze. The 180-S is available in sizes from 1/2" to 2", both have screwed BSP ends male inlet x female outlet, although other end connections are available on request.

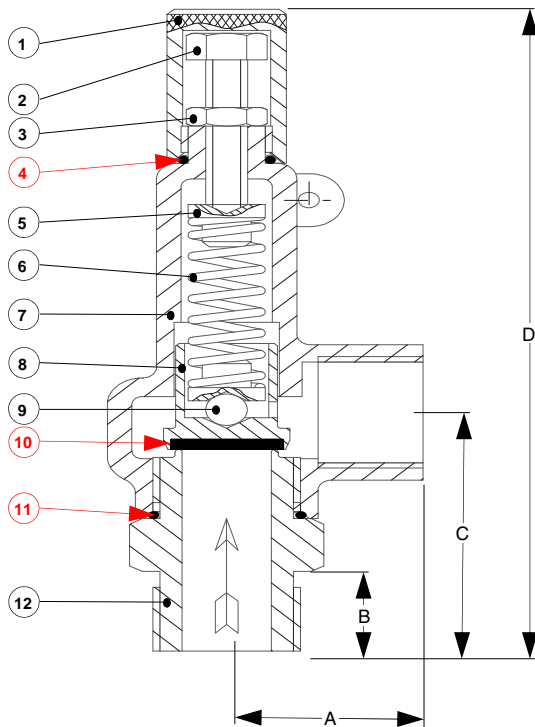
Both relief valves are available with the option of metal to metal precision lapped seats or Viton soft seats.

**Installation** : The relief valve should be mounted

with the body in the vertical position, this is to ensure the valve reseats correctly. Ensure that 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.

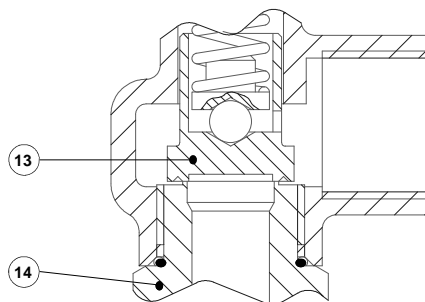
Valve for Air, Gas and Water Applications



Item	Description	Material (180)	Material (180-S)
1	Bonnet	Brass	Stainless Steel
2	Adjusting Screw	Stainless Steel	Stainless Steel
3	Locknut	Stainless Steel	Stainless Steel
4	O-Ring	Nitrile	Nitrile
5	Spring Carrier	Brass	Stainless Steel
6	Spring	Carbon Steel	Stainless Steel
7	Body	Gunmetal	Stainless Steel
8	Disc Holder	Brass	Stainless Steel
9	Ball	Stainless Steel	Stainless Steel
10	Disc	Viton	Viton
11	O-Ring	Nitrile	Nitrile
12	Inlet (Disc)	Aluminium Bronze	Stainless Steel
13	Valve Lid	Aluminium Bronze	Stainless Steel
14	Inlet (metal to metal)	Aluminium Bronze	Stainless Steel

Size	A	B	C	D	Weight (kg)
15NB	28	15	45	122	0.30
20NB	34	15	48	130	0.50
25NB	38	19	59	160	1.00
32NB	47	23	68	171	1.50
40NB	52	24	80	197	2.50
50NB	62	28	84	214	3.00
65NB	90	33	117	313	8.00
80NB	90	35	130	325	9.00

Valve for Steam Applications



Colour Code	Pressure Range		Size Limitations	
	Bar g	Psi g	Type 180	Type 180-S
Red	0.35 - 1.79	5 - 25	15NB to 80NB	15NB to 50NB
Blue	1.80 - 5.50	26 - 80		
Green	5.51 - 10.34	81 - 150		
Orange	10.35 - 13.79	151 - 200	15NB to 50NB	
Purple	13.80 - 17.24	201 - 250		
Yellow	17.25 - 20.69	251 - 300		
White	20.70 - 24.00	301 - 350		

These Items are recommended spares.

## TYPE 180 DISCHARGE CAPACITY TABLES

### Saturated Steam Capacities in kg/hr with 10% Accumulation

Set Pressure (Bar g)	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	208	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 Nm<sup>3</sup>/hr with 10% Accumulation

Set Pressure (Bar g)	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	635	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	-	-

### Water Capacities in l/min with 25% Accumulation

Set Pressure (Bar g)	Valve Size							
	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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