



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.

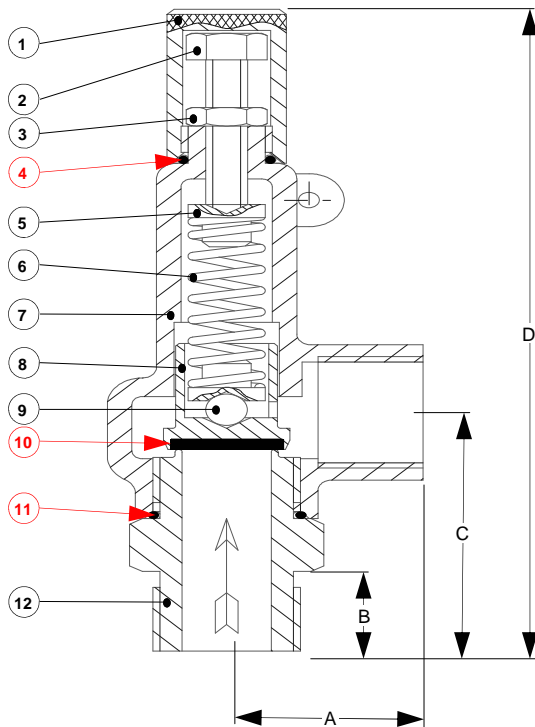
Both relief valves are available with the option of metal to metal precision lapped seats or Viton soft seats.

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.

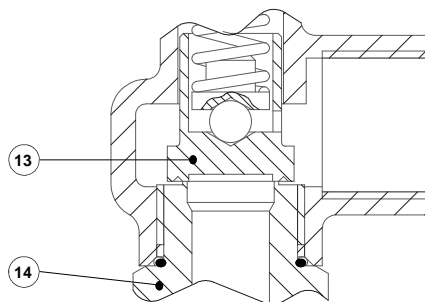
Valve for Air, Gas and Water Applications



| 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 Nm³/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 | - | - |

Disclaimer

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