

## AIR CAPACITY CHART (l/s) @ 0.3 BARG OR 10% OVERPRESSURE\* AND 15°C

| Set Pressure (Barg) | Valve Type 716 (BS6759 Pt2) |      |      |      |      |      |
|---------------------|-----------------------------|------|------|------|------|------|
|                     | DN15                        | DN20 | DN25 | DN32 | DN40 | DN50 |
| 0.35                | 18.3                        | 52.6 | 69.6 | 111  | 180  | 279  |
| 1.0                 | 31.2                        | 89.9 | 119  | 189  | 308  | 476  |
| 2.0                 | 48.8                        | 140  | 186  | 295  | 481  | 744  |
| 3.0                 | 63.5                        | 183  | 242  | 384  | 626  | 968  |
| 4.0                 | 79.7                        | 230  | 303  | 482  | 786  | 1215 |
| 5.0                 | 95.9                        | 276  | 365  | 580  | 945  | 1462 |
| 6.0                 | 112                         | 323  | 427  | 678  | 1105 | 1708 |
| 7.0                 | 128                         | 369  | 488  | 776  | 1265 | 1955 |
| 8.0                 | 144                         | 416  | 550  | 874  | 1424 | 2202 |
| 9.0                 | 161                         | 463  | 611  | 972  | 1584 | 2449 |
| 10.0                | 177                         | 509  | 673  | 1070 | 1744 | 2696 |
| 12.0                | 209                         | 603  | 796  | 1267 | 2063 | 3189 |
| 12.5                | 217                         | 626  | 827  | 1316 | 2143 | 3313 |
| 14.0                | 242                         | 696  | 920  | 1463 | 2382 | 3683 |
| 16.0                | 274                         | 789  | 1043 | 1659 | 2701 | 4177 |
| 18.0                | 306                         | 882  | 1166 | 1855 | 3021 | 4670 |
| 20.0                | 339                         | 976  | 1289 |      |      |      |
| 22.0                | 371                         | 1069 |      |      |      |      |
| 24.0                | 403                         | 1162 |      |      |      |      |
| 26.0                | 436                         |      |      |      |      |      |
| 28.0                | 468                         |      |      |      |      |      |
| 30.0                | 501                         |      |      |      |      |      |
| 32.0                | 533                         |      |      |      |      |      |

\* Minimum overpressure = 0.07 Barg at set pressure less than 1.0 Barg.

### Useful Conversions

Nm<sup>3</sup>/h = 1/sec x 3.60

SCFM = 1/sec x 2.12

### Other Gases

If you wish to use the valve on other compatible gases, the sizing details above can be used. The valve capacity will however change depending on the specific gravity of the flowing gas. Multiply the valve air capacity by  $1/\sqrt{SG}$  to give the gas capacity. SG = specific gravity (relative to air = 1).

## STEAM CAPACITY CHART (kg/h)

| Set Pressure (Barg) | Saturated Steam Temp. °C | Valve Type<br>716 (BS6759 Pt1 @ 5% Overpressure)† |      |      |      |      |       |
|---------------------|--------------------------|---|------|------|------|------|-------|
|                     |                          | DN15  | DN20 | DN25 | DN32 | DN40 | DN50  |
| 0.35                | 108                      | 35.6  | 103  | 136  | 216  | 351  | 543   |
| 1.0                 | 120                      | 70.5  | 203  | 269  | 427  | 696  | 1075  |
| 2.0                 | 134                      | 125   | 359  | 475  | 755  | 1230 | 1902  |
| 3.0                 | 144                      | 167   | 480  | 635  | 1010 | 1645 | 2543  |
| 4.0                 | 152                      | 209   | 602  | 795  | 1265 | 2060 | 3185  |
| 5.0                 | 159                      | 251   | 723  | 955  | 1519 | 2475 | 3826  |
| 6.0                 | 165                      | 293   | 844  | 1115 | 1774 | 2889 | 4467  |
| 7.0                 | 170                      | 335   | 965  | 1276 | 2029 | 3304 | 5108  |
| 8.0                 | 175                      | 377   | 1086 | 1436 | 2283 | 3719 | 5750  |
| 9.0                 | 180                      | 419   | 1207 | 1596 | 2538 | 4134 | 6391  |
| 10.0                | 184                      | 461   | 1329 | 1756 | 2793 | 4549 | 7032  |
| 12.0                | 192                      | 545   | 1571 | 2076 | 3302 | 5378 | 8315  |
| 12.5                | 193                      | 566   | 1632 | 2156 | 3429 | 5586 | 8636  |
| 14.0                | 198                      | 629   | 1831 | 2397 | 3811 | 6208 | 9598  |
| 16.0                | 204                      | 714   | 2056 | 2717 | 4321 | 7038 | 10880 |
| 18.0                | 210                      | 798   | 2298 | 3037 | 4830 | 7867 | 12163 |
| 20.0                | 215                      | 882   | 2540 | 3357 |      |      |       |
| 22.0                | 220                      | 966   | 2783 |      |      |      |       |
| 24.0                | 224                      |   |      |      |      |      |       |
| 26.0                | 228                      |   |      |      |      |      |       |
| 28.0                | 232                      |   |      |      |      |      |       |
| 30.0                | 236                      |   |      |      |      |      |       |
| 32.0                | 239                      |   |      |      |      |      |       |

\* Minimum overpressure = 0.07 Barg at set pressure less than 0.7 Barg.

† Minimum overpressure = 0.07 Barg at set pressure less than 1.0 Barg.

### Useful Conversions

lbs/h = kg/h x 2.2046

### Other Temperatures

The above tables are based on saturated steam, at the temperatures shown.

For steam systems operating at higher temperatures, the above capacities will need to be derated by using the super heat correction factor.

## WATER CAPACITY CHART (l/min) @ 10% OVERPRESSURE\* @ 20°C

| Set Pressure (Barg) | Valve Type 716 (BS6759 Pt3) |      |      |      |      |      |
|---------------------|-----------------------------|------|------|------|------|------|
|                     | DN15                        | DN20 | DN25 | DN32 | DN40 | DN50 |
| 0.35                | 27.6                        | 79.4 | 105  | 167  | 272  | 420  |
| 1.0                 | 44.6                        | 129  | 170  | 270  | 440  | 680  |
| 2.0                 | 63.1                        | 182  | 240  | 382  | 622  | 962  |
| 3.0                 | 77.3                        | 223  | 294  | 468  | 762  | 1178 |
| 4.0                 | 89.3                        | 257  | 340  | 540  | 880  | 1361 |
| 5.0                 | 99.8                        | 287  | 380  | 604  | 984  | 1521 |
| 6.0                 | 109                         | 315  | 416  | 662  | 1078 | 1667 |
| 7.0                 | 118                         | 340  | 449  | 715  | 1164 | 1800 |
| 8.0                 | 126                         | 364  | 481  | 764  | 1245 | 1924 |
| 9.0                 | 134                         | 386  | 510  | 811  | 1320 | 2041 |
| 10.0                | 141                         | 406  | 537  | 854  | 1392 | 2152 |
| 12.0                | 155                         | 445  | 589  | 936  | 1525 | 2357 |
| 12.5                | 158                         | 454  | 601  | 955  | 1556 | 2406 |
| 14.0                | 167                         | 481  | 636  | 1011 | 1647 | 2546 |
| 16.0                | 179                         | 514  | 680  | 1081 | 1760 | 2722 |
| 18.0                | 189                         | 545  | 721  | 1146 | 1867 | 2887 |
| 20.0                | 200                         | 575  | 760  |      |      |      |
| 22.0                | 209                         | 603  |      |      |      |      |
| 24.0                | 219                         | 639  |      |      |      |      |
| 26.0                | 227                         |      |      |      |      |      |
| 28.0                | 236                         |      |      |      |      |      |
| 30.0                | 244                         |      |      |      |      |      |
| 32.0                | 252                         |      |      |      |      |      |

\* Minimum overpressure = 0.07 Barg at set pressure less than 0.7 Barg.

### Useful Conversions

l/gpm = 1/min x 0.22  
 m<sup>3</sup>/min = 1/min x 0.001

### Other Liquids

If you wish to use the valve on other compatible liquids, the sizing details above can be used. The valve capacity will however change depending on the specific gravity of the flowing liquid. Multiply the valve water capacity by  $1/\sqrt{SG}$  to give the liquid capacity.  
 SG = specific gravity (relative to water = 1).

## HOT WATER CAPACITY CHART (kW) FOR A PRESSURISED (un-vented) SYSTEM

| Set Pressure (Barg) | Valve Type<br>716 (BS6759 Pt1 @ 5% Overpressure)† |      |      |      |      |      |
|---------------------|---|------|------|------|------|------|
|                     | DN15  | DN20 | DN25 | DN32 | DN40 | DN50 |
| 0.35                | 54.5  | 157  | 208  | 330  | 538  | 832  |
| 1.0                 | 61.9  | 178  | 236  | 374  | 611  | 944  |
| 2.0                 | 78.2  | 225  | 298  | 473  | 771  | 1192 |
| 3.0                 | 105   | 301  | 398  | 633  | 1031 | 1594 |
| 4.0                 | 131   | 377  | 498  | 792  | 1291 | 1996 |
| 5.0                 | 157   | 453  | 599  | 952  | 1551 | 2398 |
| 6.0                 | 184   | 529  | 699  | 1112 | 1811 | 2799 |
| 7.0                 | 210   | 605  | 799  | 1271 | 2071 | 3201 |
| 8.0                 | 236   | 681  | 900  | 1431 | 2331 | 3603 |
| 9.0                 | 263   | 757  | 1000 | 1590 | 2591 | 4005 |
| 10.0                | 289   | 833  | 1100 | 1750 | 2851 | 4407 |
| 12.0                | 342   | 984  | 1301 | 2069 | 3370 | 5211 |
| 12.5                | 355   | 1022 | 1351 | 2149 | 3500 | 5412 |
| 14.0                | 394   | 1136 | 1501 | 2388 | 3890 | 6015 |
| 16.0                | 447   | 1288 | 1703 | 2708 | 4410 | 6818 |
| 18.0                | 500   | 1440 | 1903 | 3027 | 4930 | 7622 |
| 20.0                | 553   | 1592 | 2104 |      |      |      |
| 22.0                | 605   | 1744 |      |      |      |      |
| 24.0                |   |      |      |      |      |      |
| 26.0                |   |      |      |      |      |      |
| 28.0                |   |      |      |      |      |      |
| 30.0                |   |      |      |      |      |      |
| 32.0                |   |      |      |      |      |      |

\* Minimum overpressure = 0.07 Barg at set pressure less than 0.7 Barg.

† Minimum overpressure = 0.07 Barg at set pressure less than 1.0 Barg.

**NOTE:**

**Pressurised (un-vented) hot water systems** have the entire discharge capacity handled solely by the valve.

**Open vented systems** take into account the discharge capacities of the vent. Hence the equivalent discharge of the valve is considered to be double the above chart capacities.