



BASIC DESIGN STANDARDS

| | |
|--------------|-----------------|
| Basic Design | DIN 3352 / 3840 |
| Flanges | DIN 2501 |
| Rating | DIN 2401 |
| Face to Face | DIN 3202 |
| Bore | Full |

TEST PRESSURE TO API 598 bar

| Class | Shell (water) | Seat (water) | Seat (air) |
|-------|---------------|--------------|------------|
| PN40 | 60 | 48 | 6 |
| PN100 | 150 | 120 | 6 |

** Also available BALL check valve type

BILL OF MATERIALS STANDARD ACCORDING TO ASTM

| No | Part Name | Carbon Steel | Stainless Steel |
|-----|-------------|------------------------------------|------------------------|
| | | A105/F6 | SS316 |
| 01 | Rivet | Carbon Steel | Carbon Steel |
| 02 | Name Plate | Aluminium | Inox |
| 03 | Bolts B/C | EN 10269 (1.7709) 21CrMoV 5.7 | A2-70 |
| 04 | Spring | X5CrNiMo17-12-2 1.4401 | X5CrNiMo17-12-2 1.4401 |
| 05 | Cover | DIN 17243 (1.0460) C22.8 – P250GH | X5CrNiMo17-12-2 1.4401 |
| 06* | Gasket B/B | F316 + Graphoil | F316 + Graphoil |
| 07 | Piston/Ball | EN 10088-3 (1.4021) X20Cr13 + ST.6 | X5CrNiMo17-12-2 1.4401 |
| 08 | Seat | EN 10088-3 (1.4021) X20Cr13 + ST.6 | X5CrNiMo17-12-2 1.4401 |
| 09 | Body | DIN 17243 (1.0460) C22.8 – P250GH | X5CrNiMo17-12-2 1.4401 |

* Recommended Spare Parts

UNI PN40/100

| SIZE (Full Bore) | | PN40 RF - DIMENSION in mm | | | | |
|------------------|----|---------------------------|-----|---|----|----------------|
| Inches | mm | A | B | C | D | Kg (HANDWHEEL) |
| 1/2" | 15 | 130 | 75 | - | 15 | 4 |
| 3/4" | 20 | 150 | 85 | - | 20 | 4.5 |
| 1" | 25 | 160 | 100 | - | 25 | 6.5 |
| 1-1/4" | 32 | 180 | 110 | - | 32 | 11 |
| 1-1/2" | 40 | 200 | 140 | - | 40 | 14 |
| 2" | 50 | 230 | 160 | - | 50 | 19 |

| SIZE (Full Bore) | | PN100 RF - DIMENSION in mm | | | | |
|------------------|----|----------------------------|-----|---|----|----------------|
| Inches | mm | A | B | C | D | Kg (HANDWHEEL) |
| 1/2" | 15 | 210 | 68 | - | 12 | 5.8 |
| 3/4" | 20 | 230 | 92 | - | 17 | 10 |
| 1" | 25 | 230 | 98 | - | 22 | 12 |
| 1-1/4" | 32 | 260 | 105 | - | 24 | 16.5 |
| 1-1/2" | 40 | 260 | 140 | - | 29 | 16.5 |
| 2" | 50 | 300 | 148 | - | 31 | 19 |

ANSI CLASS
PN40 / PN100

PRESSURE – TEMPERATURE RATINGS TO ANSI B16.34

| Temperature °C | WORKING PRESSURE (bar.g) | | | |
|-------------------|---------------------------------------|-------|----------------------------|-------|
| | DIN 17243 (1.0460) C22.8 – P250GH (a) | | X5CrNiMo17-12-2 1.4401 (c) | |
| | PN40 | PN100 | PN40 | PN100 |
| -29 to 38 | 39.0 | 102.1 | 37.3 | 99.3 |
| 93 | 37.2 | 93.1 | 36.4 | 85.5 |
| 149 | 34.1 | 90.7 | 33.8 | 77.2 |
| 204 | 31.7 | 87.6 | 31.3 | 70.7 |
| 260 | 28.4 | 82.8 | 29.3 | 65.9 |
| 316 | 26.0 | 75.5 | 27.6 | 62.1 |
| 343 | 23.5 | 74.1 | 25.8 | 61.4 |
| 371 | 21.9 | 73.4 | 24.9 | 60.0 |
| 399 | 21.6 | 69.7 | 24.5 | 59.0 |
| 427 | 21.1 | 56.9 | 24.0 | 58.3 |
| 454 | | | 23.8 | 57.6 |
| 482 | | | 22.6 | 57.2 |
| 510 | | | 21.5 | 53.4 |
| 538 | | | 19.7 | 48.3 |

(a) Permissible, but not recommended for prolonged usage above 427 °C
 (b) Permissible, but not recommended for prolonged usage above 594 °C
 (c) For welding end valves only: Flanged end ratings terminate at 538°C

FORGED STEEL PISTON VALVES CLASS PN40 PN100 RF