



BBF/FSK-V-HS

BALL VALVE WITH FLANGES SHORT PATTERN

DN 150-1000 | PN 25

FULL BORE

INFORMATION

Ball valve with Flanges

/// Operating temperature up to +150 °C

/// Flange drilled and dimensioned according to EN 1092 - pressure rating PN 25.
Observe pressure-temperature rating
Flange dimensions: see supplementary sheet

/// Trunnion mounted ball is standard

/// The worm gear with handwheel is included in the scope of delivery.

MATERIALS

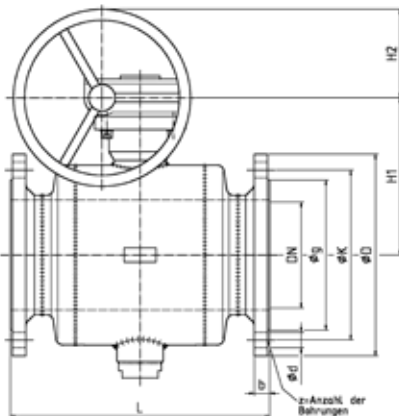
| | |
|-------------------|---|
| Body | Forged Steel / Steel |
| Flanges | Steel |
| Ball | Stainless steel; From DN 450: Steel chemically nickel plated |
| Ball Seals | PTFE |
| Stem Seals | EPDM |

OPTIONS

- /// Suitable for steam
- /// Further options for this ball valve according to the list on the „Options“ supplementary sheet
- /// For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.
- /// On request, the ball valves are also available automated with electric or pneumatic actuators.



On request, we can also supply this ball valve in a version with double blocking, in accordance with DGV 103-002.



| DN [mm] | PN [bar] | L [mm] | D [mm] | H1 [mm] | H2 [mm] | Weight [kg] | Article-No. |
|---------|----------|-----------|--------|---------|---------|-------------|-------------|
| 150 | 25 | 350 | 300 | 349 | 150 | 76 | 075.0295 |
| 200 | 25 | 400 | 360 | 384 | 150 | 115 | 075.0298 |
| 250 | 25 | 650 | 425 | 355 | 200 | 286 | 075.0301 |
| 300 | 25 | 750 | 485 | 404 | 200 | 495 | 075.0304 |
| 350 | 25 | 850 | 555 | 431 | 200 | 660 | 075.0307 |
| 400 | 25 | 950 | 620 | 531 | 200 | 960 | 075.0310 |
| 450 | 25 | on demand | 670 | 567 | 200 | on demand | on demand |
| 500 | 25 | on demand | 730 | 608 | 250 | on demand | on demand |
| 600 | 25 | on demand | 845 | 737 | 300 | on demand | on demand |
| 700 | 25 | on demand | 960 | 870 | 300 | on demand | on demand |
| 800 | 25 | on demand | 1085 | 942 | 400 | on demand | on demand |
| 900 | 25 | on demand | 1185 | 1051 | 400 | on demand | on demand |
| 1000 | 25 | on demand | 1320 | 1180 | 400 | on demand | on demand |

Ball valves of nominal size DN450 are made to order in accordance with the customer's requirements. Please refer to the corresponding drawings in case of order.

OPTIONS

| | Underground Ball valves HE | | | | | Standard Ball valves HS | | | | | | |
|--|----------------------------|-----------|-----------|-------------------------------------|-----------------------------------|-------------------------|----------------|-------|--|-----------|-------|-----------------------------------|
| | KSF V KSF R | ELF/ESF V | EMG/ESF V | KSF V KSF R Tie-in ball valve | KSF V (Hot tapping ball valve) | KSF V KSF R | FSK V FSK R | FSL V | FSL/KSF V + FSK/KSF V FSL/KSF R + FSK/KSF R | KSG/KSF V | KSG V | KSF V (Hot tapping ball valve) |
| Variable lengths for underground installation ¹ | ✓ | | | | | | | | | | | |
| Special lengths | | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | |
| Variable stem extensions for underground installation ² | ✓ | | | | | | | | | | | |
| Stem extension 60 mm /100 mm | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Spigot for drain and vent ball valve | ✓ | | | | | | | | | | | |
| Test connection from DN150 (with plug or ball valve) | | | | | | ✓ | ✓ | ✓ | | | | |
| greater wall thicknesses for extreme axial loads or corrosion surcharges | ✓ | | | | | | | | | | | |
| With Flange/Weld end from DN125 | | | | | ✓ | | | | | | | |
| Suitable for steam | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | |

¹Variable overall lengths for installation in the ground:

The overall lengths specified in the catalog correspond to the standard dimensions. Other overall lengths are available on request as special production.

²Variable spindle extensions for buried installation:

The dome height of 350 mm shown in the catalog corresponds to the standard. In addition, dome heights of 500 mm, 750 mm and 1000 mm can be manufactured on request.

Tender specification texts are available for download on our website.

TECHNICAL INFORMATION

Wall thicknesses for ball valves for underground installation

The pipe ends used for BÖHMER inground district heating ball valves comply with the requirements of AD-Merkblatt B9 for the necking of pipes. Necking for drain and vent lines can be carried out on these pipes without falling below the minimum

wall thickness requirements of EN488. The following wall thicknesses refer to the pipe material used. These are machined at the weld preparation by wall thickness adjustment.

| DN | 20 | 25 | 32 | 40 | 50 |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Pipe dimensions | 26,9 x 3,2 | 33,7 x 3,2 | 42,4 x 3,2 | 48,3 x 3,6 | 60,3 x 3,6 |
| DN | 65 | 80 | 100 | 125 | 150 |
| Pipe dimensions | 76,1 x 4,0 | 88,9 x 4,5 | 114,3 x 4,5 | 139,7 x 4,5 | 168,3 x 5,0 |
| DN | 200 | 250 | 300 | 350 | 400 |
| Pipe dimensions | 219,1 x 6,3 | 273,0 x 7,1 | 323,9 x 8,0 | 355,6 x 8,0 | 406,4 x 8,8 |

Flange dimensions

For all ball valves the standard for flange connections EN1092 is complied with. Below you will find an overview of the flange connection dimensions for pressure ratings PN10 - PN40, which

were not listed in the data sheets for reasons of clarity. The flange sheet thicknesses may deviate upwards from the dimensions required in the standard for manufacturing reasons.

| DN | PN10 | PN16 | PN25 | PN40 | D | g | K | b | z | d |
|-----|------|------|------|------|-----|-----|-----|----|----|----|
| 10 | X | X | X | X | 90 | 40 | 60 | 16 | 4 | 14 |
| 15 | X | X | X | X | 95 | 45 | 65 | 16 | 4 | 14 |
| 20 | X | X | X | X | 105 | 58 | 75 | 18 | 4 | 14 |
| 25 | X | X | X | X | 115 | 68 | 85 | 18 | 4 | 14 |
| 32 | X | X | X | X | 140 | 78 | 100 | 18 | 4 | 18 |
| 40 | X | X | X | X | 150 | 88 | 110 | 18 | 4 | 18 |
| 50 | X | X | X | X | 165 | 102 | 125 | 20 | 4 | 18 |
| 65 | X | X | | | 185 | 122 | 145 | 22 | 4 | 18 |
| 65 | | | X | X | 185 | 122 | 145 | 22 | 8 | 18 |
| 80 | X | X | X | X | 200 | 138 | 160 | 24 | 8 | 18 |
| 100 | X | X | | | 220 | 158 | 180 | 20 | 8 | 18 |
| 100 | | | X | X | 235 | 162 | 190 | 24 | 8 | 22 |
| 125 | X | X | | | 250 | 188 | 210 | 22 | 8 | 18 |
| 125 | | | X | X | 270 | 188 | 220 | 26 | 8 | 26 |
| 150 | X | X | | | 285 | 212 | 240 | 22 | 8 | 22 |
| 150 | | | X | X | 300 | 218 | 250 | 28 | 8 | 26 |
| 200 | X | | | | 340 | 268 | 295 | 24 | 8 | 22 |
| 200 | | X | | | 340 | 268 | 295 | 24 | 12 | 22 |
| 200 | | | X | | 360 | 278 | 310 | 30 | 12 | 26 |
| 200 | | | | X | 375 | 285 | 320 | 34 | 12 | 30 |
| 250 | X | | | | 395 | 320 | 350 | 26 | 12 | 22 |
| 250 | | X | | | 405 | 320 | 355 | 26 | 12 | 26 |
| 250 | | | X | | 425 | 335 | 370 | 32 | 12 | 30 |
| 250 | | | | X | 450 | 345 | 385 | 38 | 12 | 33 |
| 300 | X | | | | 445 | 370 | 400 | 26 | 12 | 22 |
| 300 | | X | | | 460 | 378 | 410 | 28 | 12 | 26 |
| 300 | | | X | | 485 | 395 | 430 | 34 | 16 | 30 |
| 300 | | | | X | 515 | 410 | 450 | 42 | 16 | 33 |
| 350 | X | | | | 505 | 430 | 460 | 26 | 16 | 22 |
| 350 | | X | | | 520 | 438 | 470 | 30 | 16 | 26 |
| 350 | | | X | | 555 | 450 | 490 | 38 | 16 | 33 |
| 350 | | | | X | 580 | 465 | 510 | 46 | 16 | 36 |
| 400 | X | | | | 565 | 482 | 515 | 26 | 16 | 26 |
| 400 | | X | | | 580 | 490 | 525 | 32 | 16 | 30 |
| 400 | | | X | | 620 | 505 | 550 | 40 | 16 | 36 |
| 400 | | | | X | 660 | 535 | 585 | 50 | 16 | 39 |