

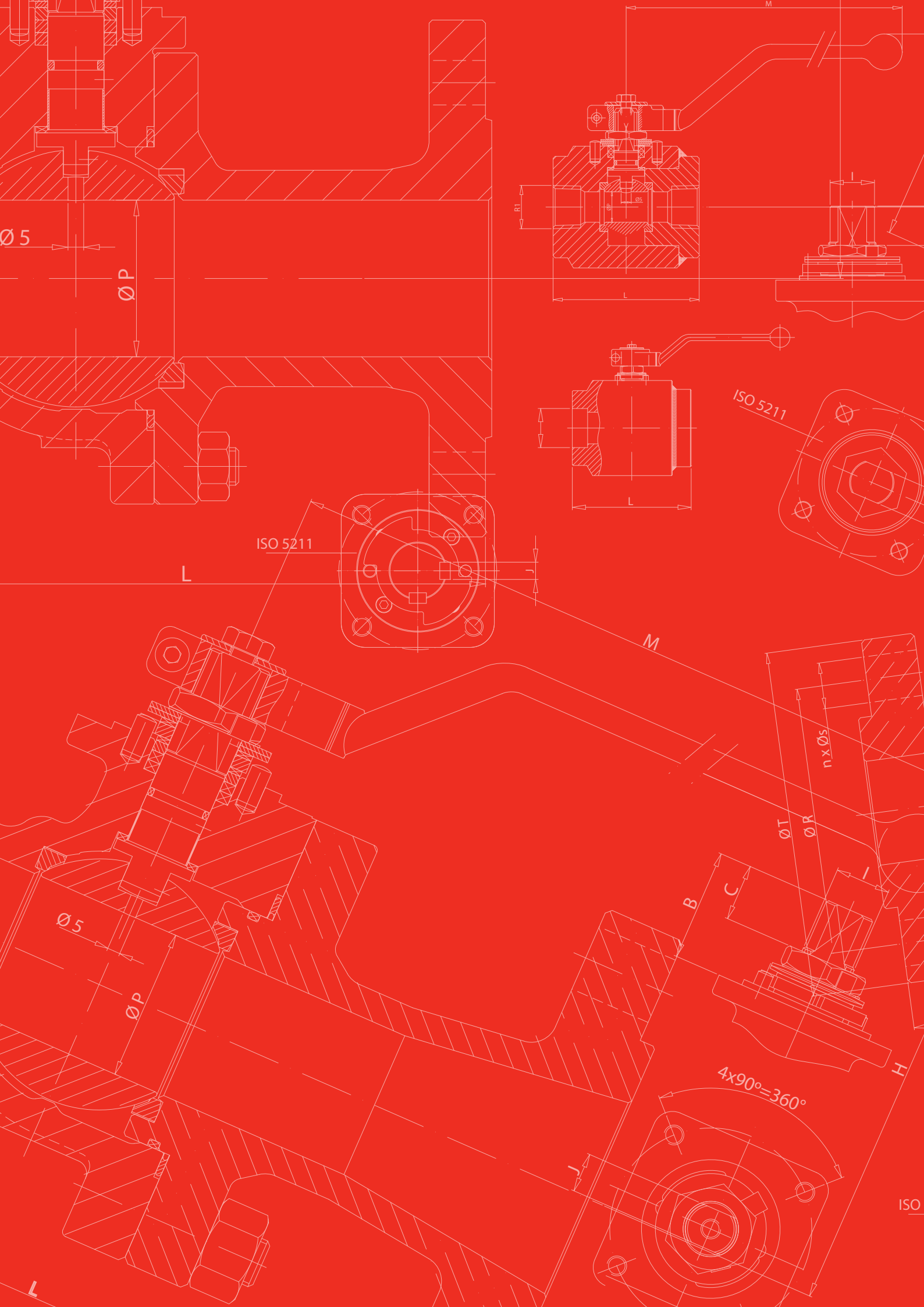
JC VALVES

The quality option



BALL VALVES

DN-300 (12) to DN-400 (16)
Class-150 & 300
DN-150 (6) to DN-300





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JC VALVES

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The quality option



"We make valves since 1968"

JC Fábrica de Válvulas S.A., established in 1968, is a multinational company specialised in the manufacture and sale of high quality industrial valves.

The expertise and know how acquired over the years coupled with the continued investments in the design of valves, has made JC a world renowned company in the field of valve applications.

» Market sectors

JC develops and designs valves for all applications, but the main focus is in Oil & Gas, Chemical, Petrochemical, Pulp & Paper and Energy sectors.



Oil



Chemical



Gas



Pulp & Paper



Petrochemical



Energy



» JC World Wide

JC Valves provides world wide coverage thanks to the strategic locations of its factories and offices:





» Global services

JC Fábrika de Válvulas S.A. offers its customers a world wide service, from technical advice to choose the right valve up to the design and manufacture of custom built valves to meet special service requirements.

Our R+D department is always ready to find solutions for severe applications and our global distribution network offers quick availability of JC valves and an efficient after sales service.





The quality option

» Quality assurance

JC Valves are designed and produced to meet the major international standards and we take great care and put a lot of emphasis on QUALITY, which provides our customers with a total guarantee and trouble free operation of their process. And in addition, we take great care to make our facilities and our products Environment friendly.

JC Quality Assurance System

- ISO 9001 : 2000 certified by BVQI
- API Q1 certified by the AMERICAN PETROLEUM INSTITUTE
- PED 97 / 23 / EC certified by BVQI

Products Approvals

- API 6D certified by the AMERICAN PETROLEUM INSTITUTE
- CE Marking (Module H, Category III) in accordance with PED 97 / 23 / EC certified by BVQI
- Fire Safe ISO 10947 : 2004 certified by SGS
- API 607 3rd., 4th. and 5th. Edition certified by SGS
- BS 6755 Part 2 certified by Lloyd's Register and SGS
- GOST "R" certified for Russian market
- SIL 3 (Safety integrity level) certified by BV
- Atex
- EN 13774

Environmental Certifications

- ISO 14001 : 2004 certified by BVQI
- ISO-EN 15848-1 certified by SGS



API 6D
API 6A
API 600



FUGITIVE
EMISSIONS
EN-ISO 15848-1



FIRE SAFE
ISO 10497 : 2004
API 607: 3rd, 4th, 5th edition



GENERAL HIGHLIGHTS

- » Full and Reduced bore
- » Floating and Trunnion mounted ball
- » Soft and Metal seats
- » Castings Quality as per ASME B16.34 Mandatory Appendix I to IV in ASME valves and Severity Levels S3-V3 to DIN 1690 and EN 10203 in EN-DIN valves
- » Polished ball Ra 1 in soft seated valves (in metal seated valves ball is lapped); grinded stem Ra 1.6
- » Full traceability of shell components, upon request, ball and stem as per EN 10204 3.1
- » Antistatic device integral with the stem
- » Viton A, Aflas or Kalrez primary stem seal and secondary graphite packing
- » NACE MR.01.75 wetted parts and bolting as Standard
- » Fire safe as standard construction ISO 10947 : 2004 and API 607 : 3rd, 4th, 5th edition
- » Fugitive emissions EN-ISO 15848-1
- » SIL 3 (Safety Integrity level 3)

| BALL VALVES |

METAL SEATED

½" - 24" | Class 150 - Class 1500
 DN 15 - DN 600 | PN 16 - PN 40



JC offers also a large range of metal seated ball valves for different services (slurries, pulp and liquors, high temperature, abrasive or sticking fluids, control).

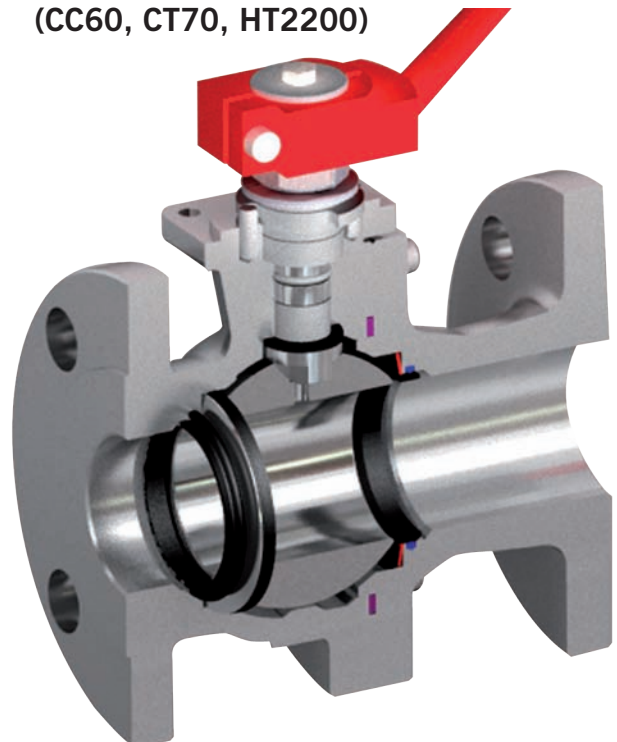
What is HT-65?

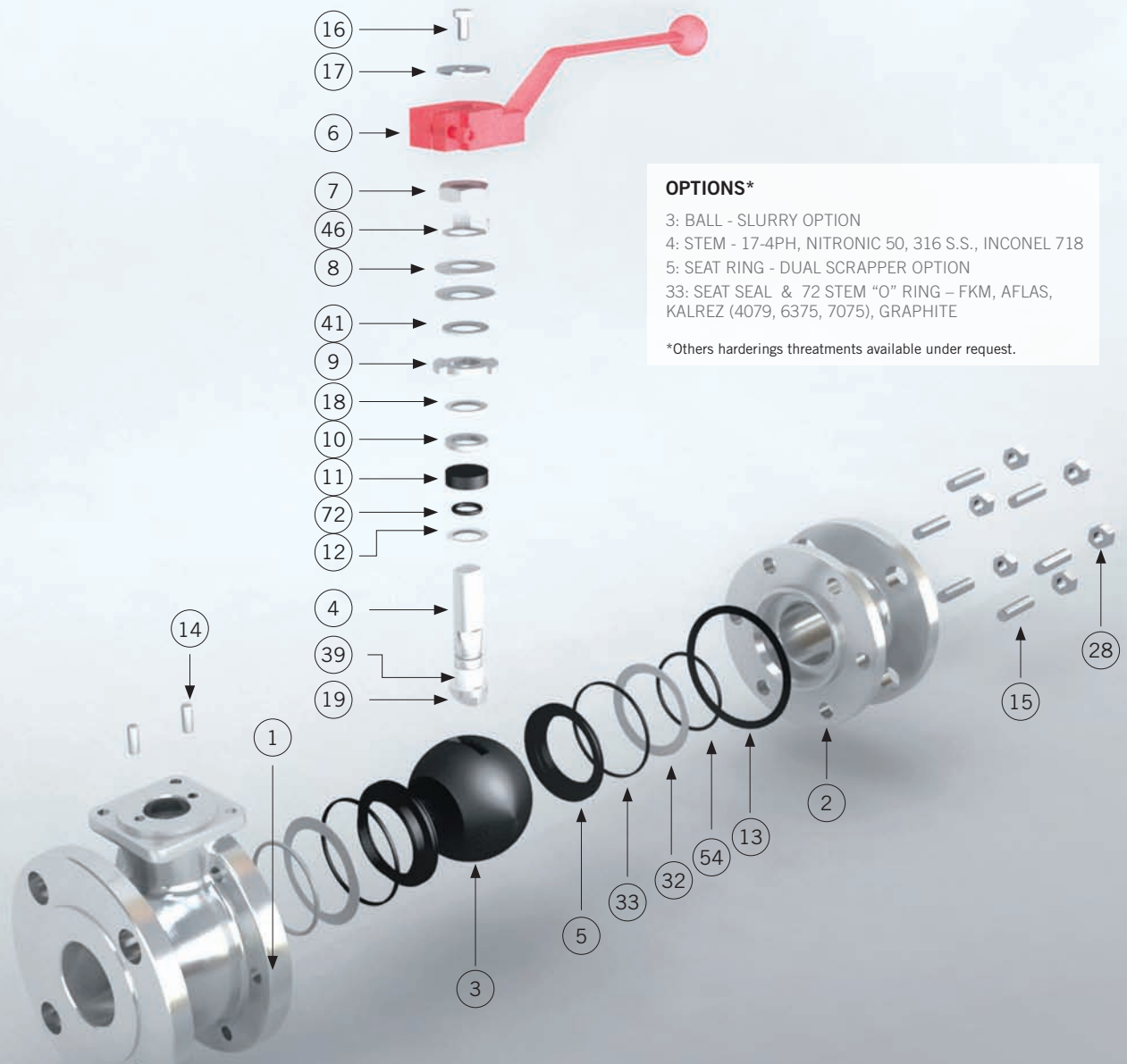
HT-65 is a thermal-chemical diffusion process where ferrous parts are heat treated at 565 °C (1050 °F) through an appropriate formulation to assure the interface of the materials being processed. The intrinsic properties of HT-65 are its low coefficient of friction as well as the degree of lubricity in both the dry state as well as under lubrication. This highly lubricious process prevents stainless steel from galling and, once HT-65 is applied, the surface becomes Rockwell 70 in hardness on the "C" scale. The HT-65 layer is highly resistant to wear, seizure & corrosion. Typically HT-65 penetrates the ferrous matrix to a depth of 0,2 to 0,25 mm (0,0079 to 0,01") to form the diffusion zone. Austenitic steels develop an extremely hard & complex compound zone distinctive from all ferrous metals, typically 17 to 22 microns (0,0007 to 0,0009") thick and a diffusion zone approximately 76 microns (0,003") deep.

HT-65 components have excellent sliding and running properties, a very low friction coefficient that minimizes the incidence of abrasion due to wear and galling.

With HT-65, JC can assure a bubble tight sealing up to temperatures of 327 °C and Class V up to 500 °C.

- » **Bubble tight sealing up to 327 °C and Class V up to 500 °C**
- » **Low coefficient of friction**
- » **Excellent sliding and running properties**
- » **Hardens the complete surface of ball and seats**
- » **Other hardening procedure under request (CC60, CT70, HT2200)**





OPTIONS*

3: BALL - SLURRY OPTION
 4: STEM - 17-4PH, NITRONIC 50, 316 S.S., INCONEL 718
 5: SEAT RING - DUAL SCRAPPER OPTION
 33: SEAT SEAL & 72 STEM "O" RING - FKM, AFLAS, KALREZ (4079, 6375, 7075), GRAPHITE

*Others hardenings threathments available under request.

| Item | Description | EN-DIN | | ASME | |
|------|-------------------------|--------------------------|----------------------|------------------------------|----------------------|
| | | 3516 AIM 3540 AIM | 3516 IIM 3540 IIM | 3515 AIM 3530 AIM | 3515 IIM 3530 IIM |
| 1 | Body | 1.0619 | 1.4408 | A216 Gr.WCB (C≤0,25%) | A351 Gr. CF8M |
| 2 | Body connector | 1.0619 | 1.4408 | A216 Gr.WCB (C≤0,25%) | A351 Gr. CF8M |
| 3 | Ball | 316 S.S. + HT-65 Lapped | | 316 S.S. + HT-65 Lapped | |
| 4 | Stem | See options | | See options | |
| 5 | Seat ring | 316 S.S. + HT-65 Lapped | | 316 S.S. + HT-65 Lapped | |
| 6 | Wrench | Nodular Iron | | Nodular Iron | |
| 7 | Gland nut | Zinc plated carbon steel | AISI 303 | Zinc plated carbon steel | AISI 303 |
| 8 | Disk spring | Carbon steel | ENP Carbon Steel | Carbon steel | ENP Carbon Steel |
| 9 | Stop plate | Carbon steel | AISI 304 | Carbon steel | AISI 304 |
| 10 | Gland | AISI 303 | AISI 316 | AISI 303 | AISI 316 |
| 11 | Gland packing | Graphite | | Graphite | |
| 12 | Stem thrust seal | 316 S.S. + HT-65 | | 316 S.S. + HT-65 | |
| 13 | Body connector seal | AISI 316L +Graphite | | AISI 316L + Graphite | |
| 14 | Stop pin | Carbon St. | Stainless St. | Carbon St. | Stainless St. |
| 15 | Stud (DN 32 to DN 100) | A4-70 | | A193Gr. B7M Zinc dichromate | A193 Gr. B8M |
| 15.1 | Bolt | A4-70 | | - | - |
| 16 | Bolt | DIN 933 A4-70 | | DIN 933 A4-70 | |
| 17 | Washer | Zinc plated carbon steel | AISI 304 | Zinc plated carbon steel | AISI 304 |
| 18 | Thrust washer | 316 S.S. + HT65 | | 316 S.S. + HT65 | |
| 19 | Antistatic device | Stainless St. | | Stainless St. | |
| 28 | Nut (DN 32 to DN 100) | A4-70 | | A194 Gr. 2HM Zinc dichromate | A194 Gr. 8M |
| 32 | Seat disk spring | Inconel X-750 | | Inconel X-750 | |
| 33 | Seat Ring | See options | | See options | |
| 39 | Stem bushing | 25% G.F. PTFE | | 25% G.F. PTFE | |
| 41 | Spacer (DN 40 to DN200) | Carbon steel | AISI 304 | Carbon steel | AISI 304 |
| 46 | Locking washer | AISI 304 | | AISI 304 | |
| 54 | Seat Seal | Graphite | | Graphite | |
| 72 | Stem "O" Ring | See options | | See options | |

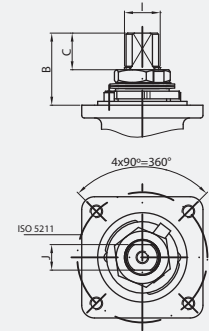
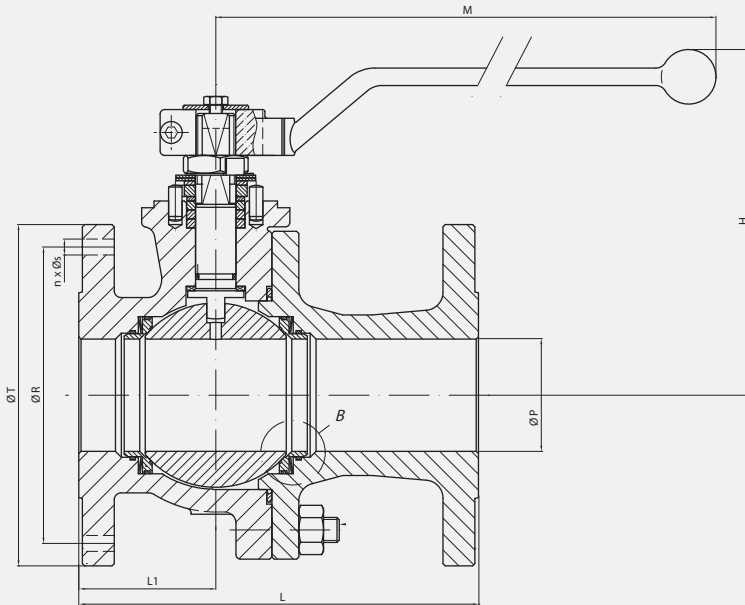
EN-DIN 3516 / 3540

PN 16 / 40

Full Bore

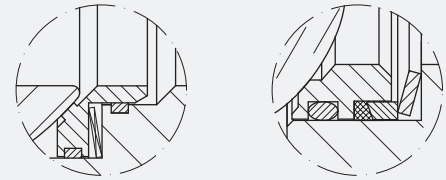
PN 16. From DN 65 to DN 200

PN 40. From DN 15 to DN 150



DETAIL B

ONLY DN-1/2" & 3/4"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

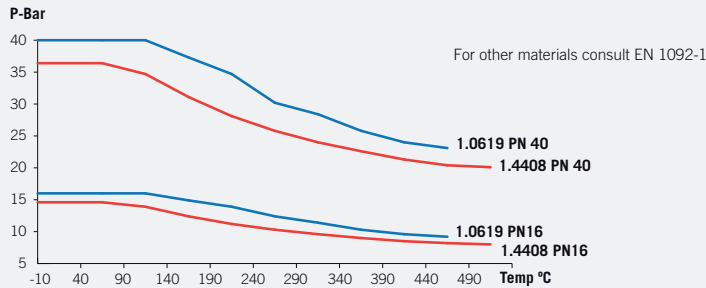


Fig. 3516 (PN 16)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT 3516 | WEIGHT 3316 | TORQUE | Kv |
|-----|-----|-----|-----|-----|--------|-----|-----|-----|----------|------|------|---------|----|-------------|-------------|--------|------|
| 65 | 65 | 170 | 76 | 145 | 4x18 | 185 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 16 | 18,3 | 121 | 550 |
| 80 | 80 | 180 | 82 | 160 | 8x18 | 200 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 22 | 25 | 161 | 1000 |
| 100 | 100 | 190 | 90 | 180 | 8x18 | 220 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 32 | 36 | 247 | 1650 |
| 125 | 125 | 325 | 120 | 210 | 8x18 | 250 | 262 | 698 | F12 | 56 | 27,6 | M35x2 | 25 | 52,5 | -- | 360 | 3000 |
| 150 | 151 | 350 | 135 | 240 | 8x22 | 285 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 76 | -- | 675 | 4200 |
| 200 | 203 | 400 | 200 | 295 | 12x22 | 340 | 352 | 868 | F14 | 72 | 39 | M45x2 | 32 | 111 | -- | 1130 | 9000 |

Fig. 3540 (PN 40)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT 3540 | WEIGHT 3340 | TORQUE | Kv |
|-----|-----|-----|-----|-----|--------|-----|-----|-----|----------|------|------|---------|----|-------------|-------------|--------|------|
| 15 | 15 | 115 | 53 | 65 | 4x14 | 95 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 2,8 | 3 | 26 | 20 |
| 20 | 20 | 120 | 52 | 75 | 4x14 | 105 | 117 | 164 | F05 | 13,2 | 9,2 | M12x1.5 | 9 | 3,6 | -- | 35 | 40 |
| 25 | 25 | 125 | 49 | 85 | 4x14 | 115 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 5 | 5,2 | 40 | 75 |
| 32 | 32 | 130 | 54 | 100 | 4x18 | 140 | 131 | 210 | F05 | 32 | 13,7 | M16x1.5 | 12 | 7 | 7,6 | 52 | 130 |
| 40 | 40 | 140 | 55 | 110 | 4x18 | 150 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 9 | 9,6 | 60 | 170 |
| 50 | 50 | 150 | 61 | 125 | 4x18 | 165 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 12 | 12,9 | 120 | 270 |
| 65 | 65 | 170 | 76 | 145 | 8x18 | 185 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 17 | -- | 160 | 550 |
| 80 | 80 | 180 | 75 | 160 | 8x18 | 200 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 23 | -- | 254 | 1000 |
| 100 | 100 | 190 | 91 | 190 | 8x22 | 235 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 35 | -- | 1650 | |
| 125 | 125 | 325 | 120 | 220 | 8x26 | 270 | 262 | 698 | F12 | 56 | 27,6 | M35x2 | 25 | 57 | -- | 3000 | |
| 150 | 151 | 350 | 135 | 250 | 8x26 | 300 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 83,5 | -- | 4200 | |

(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

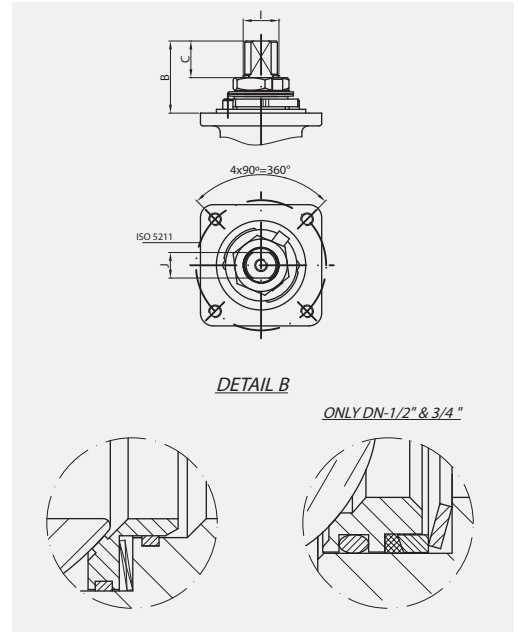
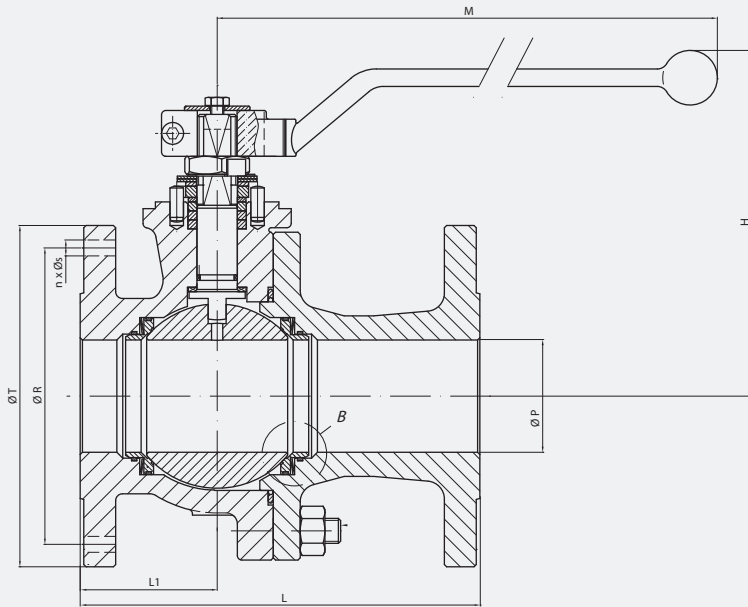
ASME 3515 / 3530

Class 150 / 300

Full Bore

Class 150. From 1/2" to 8"

Class 300. From 1/2" to 6"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

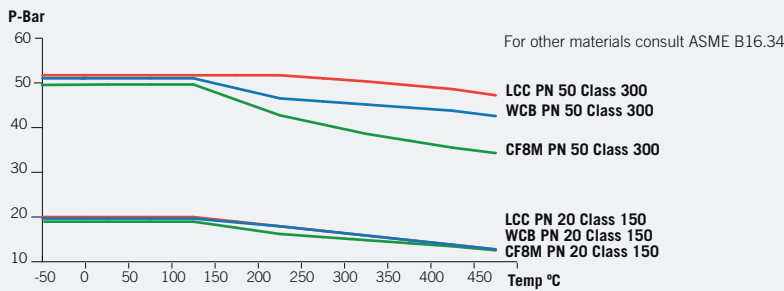


Fig. 3515 (Class 150)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-------------|-----|-----|-----|-------|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 (1/2") | 15 | 108 | 47 | 60,3 | 4x15,9 | 90 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 2 | 26 | 20 |
| 20 (3/4") | 20 | 117 | 50 | 69,9 | 4x15,9 | 100 | 117 | 164 | F05 | 13,2 | 9,2 | M12x1.5 | 9 | 3 | 32 | 40 |
| 25 (1") | 25 | 127 | 52 | 79,4 | 4x15,9 | 110 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 3,5 | 38 | 75 |
| 40 (1 1/2") | 40 | 165 | 65 | 98,4 | 4x15,9 | 125 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 8 | 55 | 170 |
| 50 (2") | 50 | 178 | 61 | 120,7 | 4x19 | 150 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 11 | 92 | 270 |
| 65 (2 1/2") | 65 | 190 | 75 | 139,7 | 4x19 | 180 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 16 | 140 | 550 |
| 80 (3") | 80 | 203 | 79 | 152,4 | 4x19 | 190 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 23 | 170 | 1000 |
| 100 (4") | 100 | 229 | 90 | 190,5 | 8x19 | 230 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 38 | 273 | 1650 |
| 150 (6") | 151 | 394 | 174 | 241,3 | 8x22,2 | 280 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 88 | 778 | 4200 |
| 200 (8") | 203 | 457 | 200 | 298,5 | 8x22,2 | 345 | 352 | 868 | F14 | 72 | 39 | M45x2 | 32 | 155 | 1313 | 9000 |

Fig. 3530 (Class 300)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-------------|-----|-----|-----|-------|---------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 (1/2") | 15 | 140 | 60 | 66,7 | 4x15,9 | 95 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 3 | 32 | 20 |
| 20 (3/4") | 20 | 152 | 65 | 82,6 | 4x19 | 115 | 117 | 164 | F05 | 13,2 | 9,2 | M12x1.5 | 9 | 4 | 40 | 40 |
| 25 (1") | 25 | 165 | 70 | 88,9 | 4x19 | 125 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 5 | 45 | 75 |
| 40 (1 1/2") | 40 | 190 | 80 | 114,3 | 4x22,2 | 155 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 11 | 70 | 170 |
| 50 (2") | 50 | 216 | 83 | 127 | 8x19 | 165 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 14 | 135 | 270 |
| 80 (3") | 80 | 283 | 118 | 168,3 | 8x22,2 | 210 | 207 | 445 | F07 | 44,5 | 19,7 | M25x1.5 | 18 | 32 | 286 | 550 |
| 100 (4") | 100 | 305 | 133 | 200 | 8x22,2 | 255 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 52 | | 1000 |
| 150 (6") | 151 | 403 | 160 | 269,9 | 12x22,2 | 320 | 298 | 698 | F10 | 68 | 38,5 | M40x1.5 | 29 | 94 | | 1650 |

(*) Dimensions in mm and weight in kg.

(**) Weights and dimensions can be changed without notice.

| BALL VALVES |

METAL SEATED UDV

1/2" - 2" | Class 800 - Class 1500

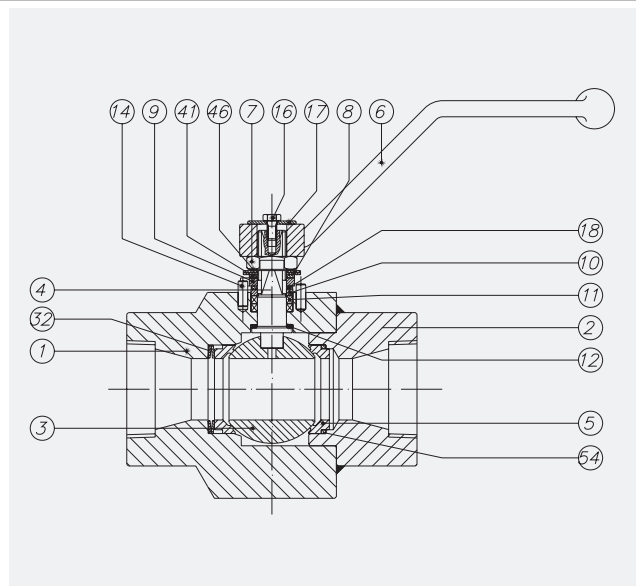
The Ultimate Drain Valve (UDV) it is a high temperature special design. The valve has got a monobloc welded body and it is reduced bore. This valve is designed to support high temperatures at high pressures.



Materials

METAL SEATED UDV

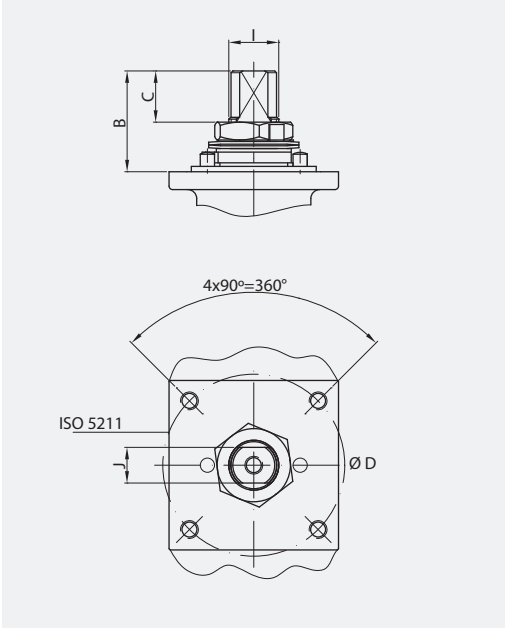
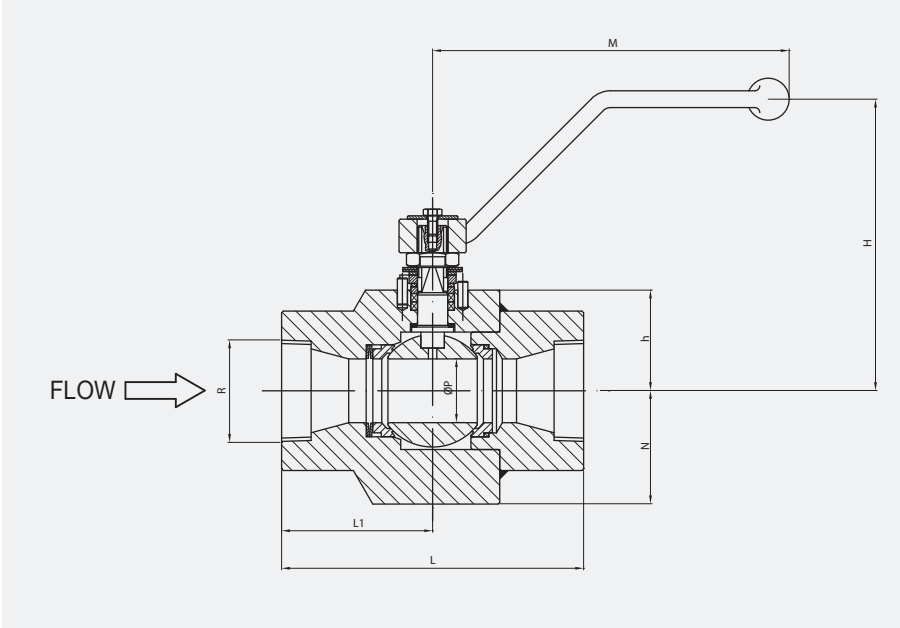
| Item | Description | C.S. BODY | S.S. BODY |
|------|------------------|-------------------------|-------------------|
| 1 | Body | A 105 | A 479 Type 316 |
| 2 | Body connector | A 105 | A 479 Type 316 |
| 3 | Ball | AISI 316 + HT-65 (*) | |
| 4 | Stem | 17-4 PH + HT-65 (*) | |
| 5 | Seat ring | AISI 316 + HT-65 | |
| 6 | Wrench | GGG-40 | |
| 7 | Gland nut | Zinc plated carbon st. | AISI 303 |
| 8 | Disk spring | Carbon St. | E.N.P. Carbon St. |
| 9 | Stop plate | Carbon St. | AISI 304 |
| 10 | Gland | AISI 316 + HT-65 | |
| 11 | Gland packing | Graphite | |
| 12 | Stem thrust seal | AISI 316 + HT-65 | |
| 14 | Stop pin | Carbon St. | Stainless St. |
| 16 | Bolt | DIN 933 5.6 Zinc plated | DIN 933 A2 |
| 17 | Washer | Carbon St. | Stainless St. |
| 18 | Thrust washer | AISI 316 + HT-65 | |
| 32 | Disk spring | Inconel 718 | |
| 41 | Spacer | Carbon St. | Stainless St. |
| 46 | Washer | AISI 304 | |
| 54 | Seat gasket | Graphite | |



(*) Other materials under request.

UDV CLASS 800 & 1500 AIM & IIM TYPE **Class 800 / 1500** **Reduced Bore**

Class 800. From 1/2" to 2" **Class 1500. From 1/2" to 2"**



(*) Diameter of drills ISO 5211 = n x F.

Pressure - Temperature

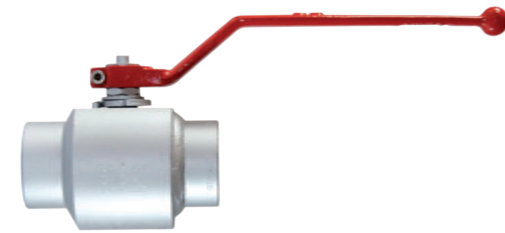
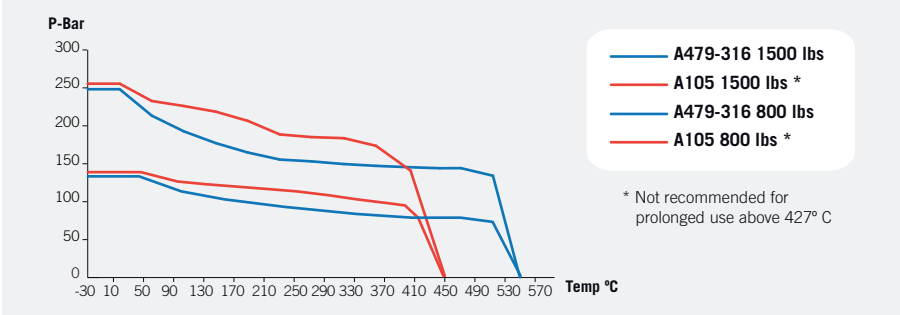


Fig. UDV (Class 800)

| DN | ØP | L | L1 | R | N | h | H | M | ISO 5211 | B | C | ØD | n x F | I | J | WEIGHT | TORQUE | Kv |
|--------|----|-----|----|-----|------|------|-----|-----|----------|------|------|----|--------|----------|----|--------|--------|----|
| 1/2" | 15 | 90 | 45 | NPT | 37,5 | 32 | 102 | 164 | F04 | 18,4 | 7,8 | 42 | 4 x M5 | M12 x1,5 | 9 | 3,5 | 30 | 11 |
| 3/4" | 15 | 110 | 55 | NPT | 37,5 | 32 | 102 | 164 | F04 | 18,4 | 7,8 | 42 | 4 x M5 | M12 x1,5 | 9 | 4,5 | 30 | 11 |
| 1" | 20 | 120 | 60 | NPT | 42,5 | 35,5 | 106 | 164 | F05 | 20 | 8,5 | 50 | 4 x M6 | M12 x1,5 | 9 | 5 | 37 | 14 |
| 1 1/2" | 28 | 150 | 75 | NPT | 60 | 50 | 111 | 210 | F05 | 31,5 | 15,5 | 50 | 4 x M6 | M16 x1,5 | 12 | 6 | 102 | 30 |
| 2" | 36 | 180 | 90 | NPT | 67,5 | 60 | 128 | 213 | F07 | 38,5 | 19 | 70 | 4 x M8 | M18 x1,5 | 13 | 10 | 173 | 72 |

Fig. UDV (Class 1500)

| DN | ØP | L | L1 | R | N | h | H | M | ISO 5211 | B | C | ØD | n x F | I | J | WEIGHT | TORQUE | Kv |
|--------|----|-----|----|-----|------|------|-----|-----|----------|------|------|----|--------|---------|----|--------|--------|----|
| 1/2" | 15 | 90 | 45 | NPT | 37,5 | 32 | 102 | 164 | F04 | 18,4 | 7,8 | 42 | 4 x M5 | M12x1,5 | 9 | 3,5 | 39 | 11 |
| 3/4" | 15 | 110 | 55 | NPT | 37,5 | 32 | 102 | 164 | F04 | 18,4 | 7,8 | 42 | 4 x M5 | M12x1,5 | 9 | 4,5 | 39 | 11 |
| 1" | 20 | 120 | 60 | NPT | 42,5 | 35,5 | 106 | 164 | F05 | 20 | 8,5 | 50 | 4 x M6 | M12x1,5 | 9 | 5 | 54 | 14 |
| 1 1/2" | 28 | 150 | 75 | NPT | 60 | 50 | 111 | 210 | F05 | 31,5 | 15,5 | 50 | 4 x M6 | M16x1,5 | 12 | 6 | 161 | 30 |
| 2" | 36 | 180 | 90 | NPT | 67,5 | 60 | 128 | 213 | F07 | 38,5 | 19 | 70 | 4 x M8 | M18x1,5 | 13 | 10 | 287 | 72 |

(*) Dimensions in mm and weight in kg.
 (**) Weights and dimensions can be changed without notice.

| BALL VALVES |

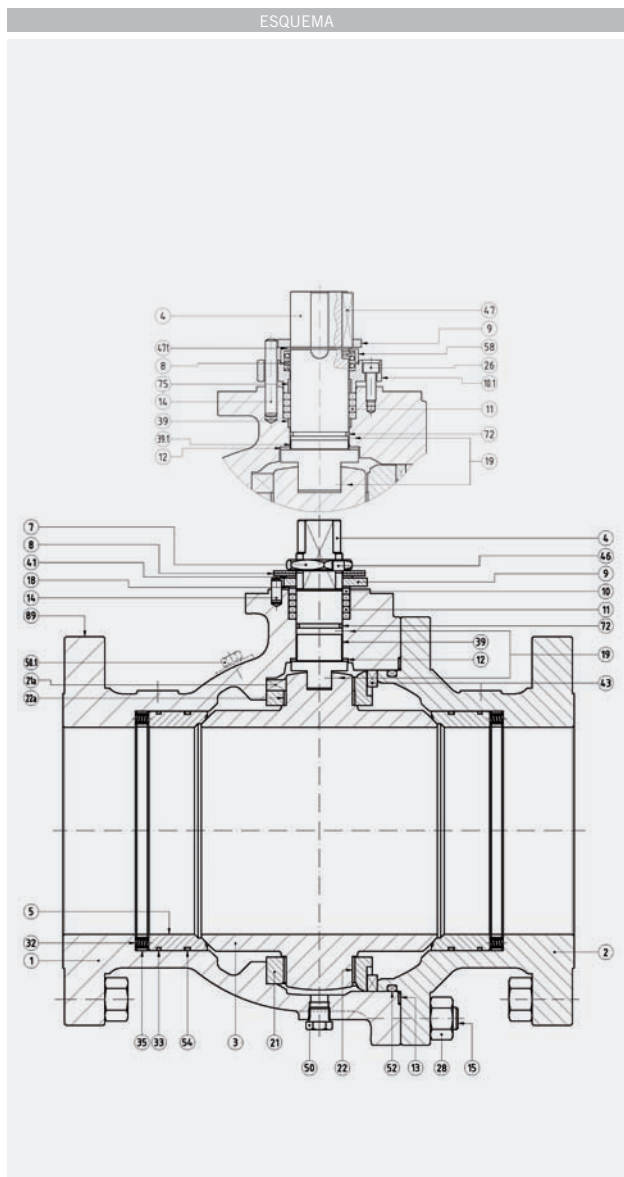
METAL SEATED TRUNNION

2" - 24" | Class 150 - Class 600

Materials METAL TO METAL TRUNNION

| Item | Description | AIM | IIM |
|----------|----------------------|---------------------------------------|---------------------|
| 1 | Body | A 216 Gr. WCB (C ≤ 0.25%) | A 351 Gr. CF8M |
| 2 | Body connector | A 216 Gr. WCB (C ≤ 0.25%) | A 351 Gr. CF8M |
| 3 | Ball | TP.316 + HT-65 | |
| 4 | Stem | NITRONIC-50 | |
| 5 | Seat ring | TP.316 + HT-65 | |
| 7 | Gland nut | Zinc Plated Carbon Steel | AISI-303 |
| 8 | Disk spring / Spring | Carbon St. * | E.N.P. Carbon St. * |
| 9 | Stop plate | Carbon St. | AISI-304 |
| 10 | Gland ring | AISI-303 + HT-65 | AISI-316 + HT-65 |
| 10.1 | Gland | AISI-303 | AISI-316 |
| 11 | Gland packing | Graphite | |
| 12 | Stem thrust seal | AISI-316 + HT-65 | |
| 13 | Body connector seal | AISI-316L + Graphite | |
| 14 | Stop pin | Carbon St. | Stainless St. |
| 15 | Stud | A 193 Gr. B7M Zinc dichromate | A 193 Gr. B8M ** |
| 18 | Thrust washer | 50% S.S. PTFE | |
| 19 | Antistatic device | Stainless St. | |
| 21 / 21a | Ball trunnion | A 351 Gr. CF8M | |
| 22 / 22a | Trunnion bearing | AISI-316 + PTFE | |
| 26 | Bolt | DIN 912 8.8 Zinc Plated | DIN 912 A2 |
| 28 | Nut | A 194 Gr. 2HM Zinc dichromate | A 194 Gr. 8M ** |
| 32 | Spring | Inconel - 750 | |
| 33 | O' Ring | FKM -- Note 1 -- | |
| 35 | Spring carrier | A 351 Gr. CF8M | |
| 39 | Stem bushing | 25% G.F. PTFE | |
| 39.1 | Stem bushing | AISI-316 + PTFE -- Note 2 & Note 3 -- | |
| 41 | Spacer | Carbon St. | Stainless St. |
| 43 | Key | AISI-316 | |
| 46 | Locking washer | AISI-304 | |
| 47 | Key | Carbon St. | |
| 50 | Drain plug | A 105 | AISI-316 |
| 50.1 | Vent plug | A 105 | AISI-316 |
| 52 | O' Ring | FKM -- Note 1 & Note 2 -- | |
| 54 | Seat carrier seal | Graphite | |
| 58 | Spring protection | Carbon St. | Stainless St. |
| 72 | O' Ring | FKM -- Note 1 -- | |
| 75 | Stem bushing | AISI-316 + PTFE -- Note 2 & Note 3 -- | |
| 89 | Identification plate | Stainless St. | |
| 471 | Retainer | Carbon St. | Stainless St. |

ESQUEMA



(*) On request Inconel X-750.

(**) On request B7M / 2HM Zinc Plated & Bichromated.

Note 1: Depending on design conditions AFLAS, KALREZ or KALREZ Spectrum.

Note 2: Only DN-350 & 400 and all Fig.2560.

Note 3: Over 350°C Steel Inconel + HT-625

CAST TRUNNION METAL 2515 / 2530 / 2560

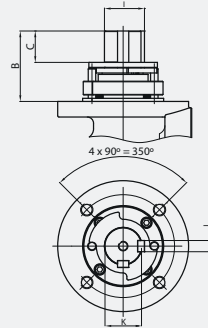
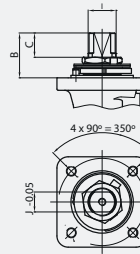
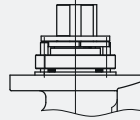
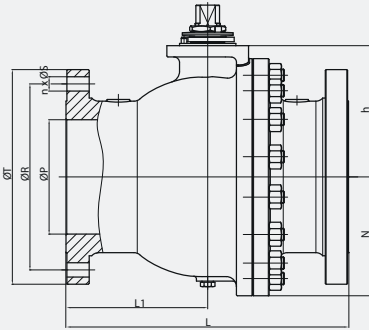
Class 150 / 300 / 600

Full Bore

Class 150. From 2" to 16"

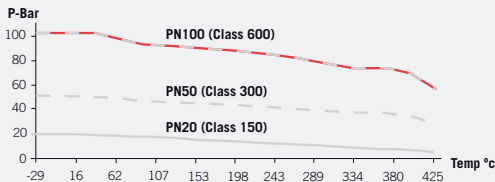
Class 300. From 2" to 16"

Class 600. From 2" to 12"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature



METAL SEATS

2" to 16"

For A216 Gr. WCB only.
For other materials consult ASME B16.34



Fig. 2515 (Class 150)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | h | N | ISO 5211 | B | C | I | J | K | WEIGHT | TORQUE |
|-----------|-----|-----|------|-------|---------|-----|-----|-------|----------|-----|-----|---------|----|------|--------|--------|
| 50 (2") | 50 | 178 | 78.5 | 120.7 | 4x19 | 150 | 84 | 80 | F07 | 42 | 17 | M22x1.5 | 16 | - | 13 | 118 |
| 80 (3") | 80 | 203 | 87 | 152.4 | 4x19 | 190 | 126 | - | F10 | 55 | 27 | M28x1.5 | 20 | - | 22 | 198 |
| 100 (4") | 100 | 229 | 101 | 190.5 | 8x19 | 230 | 152 | 120 | F12 | 56 | 27 | M35x2 | 25 | - | 39 | 340 |
| 150 (6") | 151 | 394 | 197 | 241.3 | 8x22.2 | 280 | 212 | 168 | F14 | 70 | 36 | M45x2 | 32 | - | 98 | 720 |
| 200 (8") | 203 | 457 | 230 | 298.5 | 8x22.2 | 345 | 233 | 208 | F14 | 70 | 37 | M45x2 | 32 | - | 124 | 1190 |
| 250 (10") | 254 | 533 | 267 | 362 | 12x25.4 | 405 | 256 | 243 | F14 | 70 | 37 | M45x2 | 32 | - | 175 | 1883 |
| 300 (12") | 305 | 610 | 305 | 431.8 | 12x25.4 | 485 | 297 | 287.5 | F14 | 106 | 58 | 50 | 14 | 53.5 | 295 | 2620 |
| 350 (14") | 337 | 686 | 343 | 476.3 | 12x28.5 | 535 | 333 | 323 | F16 | 103 | 49 | 60 | 18 | 64.2 | 580 | 2446 |
| 400 (16") | 388 | 762 | 381 | 539.8 | 16x28.5 | 595 | 412 | 358 | F25 | 159 | 103 | 90 | 25 | 95.3 | 750 | 3160 |

Fig. 2530 (Class 300)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | h | N | ISO 5211 | B | C | I | J | K | WEIGHT | TORQUE |
|-----------|-----|-----|-----|-------|---------|-----|-----|-----|----------|-----|-----|---------|----|------|--------|--------|
| 50 (2") | 50 | 216 | 84 | 127 | 8x19 | 165 | 84 | - | F07 | 42 | 17 | M22x1.5 | 16 | - | 16 | 167 |
| 80 (3") | 80 | 283 | 115 | 168.3 | 8x22.2 | 210 | 126 | - | F10 | 55 | 27 | M28x1.5 | 20 | - | 33 | 359 |
| 100 (4") | 100 | 305 | 133 | 200 | 8x22.2 | 255 | 152 | - | F12 | 56 | 27 | M35x2 | 25 | - | 43 | 626 |
| 150 (6") | 151 | 403 | 202 | 269.9 | 12x22.2 | 320 | 212 | 173 | F14 | 70 | 36 | M45x2 | 32 | - | 113 | 1290 |
| 200 (8") | 203 | 502 | 252 | 330.2 | 12x25.4 | 380 | 233 | 210 | F14 | 70 | 37 | M45x2 | 32 | - | 157 | 2162 |
| 250 (10") | 254 | 568 | 284 | 387.4 | 16x28.5 | 445 | 257 | 253 | F14 | 70 | 37 | M45x2 | 32 | - | 263 | 3050 |
| 300 (12") | 305 | 648 | 315 | 450.8 | 16x31.8 | 520 | 310 | 300 | F16 | 103 | 49 | 60 | 18 | 64.2 | 480 | 5670 |
| 350 (14") | 337 | 762 | 381 | 514.4 | 20x31.8 | 585 | 333 | 331 | F16 | 103 | 49 | 60 | 18 | 64.2 | 655 | 5326 |
| 400 (16") | 388 | 838 | 419 | 571.5 | 20x34.9 | 650 | 412 | 365 | F25 | 159 | 103 | 90 | 25 | 95.3 | 890 | 7187 |

Fig. 2560 (Class 600)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | h | N | ISO 5211 | B | C | I | J | K | WEIGHT | TORQUE |
|-----------|-----|-----|-----|-------|---------|-----|-----|-----|----------|-----|----|---------|----|------|--------|--------|
| 50 (2") | 50 | 292 | 96 | 127 | 8x19 | 165 | 84 | - | F07 | 42 | 17 | M22x1.5 | 16 | - | 20 | 190 |
| 80 (3") | 80 | 356 | 140 | 168.3 | 8x22.2 | 210 | 126 | 113 | F10 | 55 | 27 | M28x1.5 | 20 | - | 41 | 540 |
| 100 (4") | 100 | 432 | 160 | 215.9 | 8x25.2 | 275 | 152 | - | F12 | 56 | 27 | M35x2 | 25 | - | 77 | 1096 |
| 150 (6") | 151 | 559 | 246 | 292.1 | 12x28.5 | 355 | 212 | 188 | F14 | 97 | 49 | 45 | 14 | 48.5 | 192 | 2040 |
| 200 (8") | 203 | 660 | 315 | 349.2 | 12x31.8 | 420 | 237 | 235 | F14 | 113 | 64 | 50 | 14 | 53.5 | 329 | 4150 |
| 250 (10") | 254 | 787 | 340 | 431.8 | 16x34.9 | 510 | 275 | 273 | F16 | 103 | 49 | 60 | 18 | 64.2 | 460 | 6710 |
| 300 (12") | 305 | 838 | 404 | 489 | 20x34.9 | 560 | 345 | 335 | F16 | 127 | 73 | 65 | 18 | 69.2 | 570 | 7600 |

(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

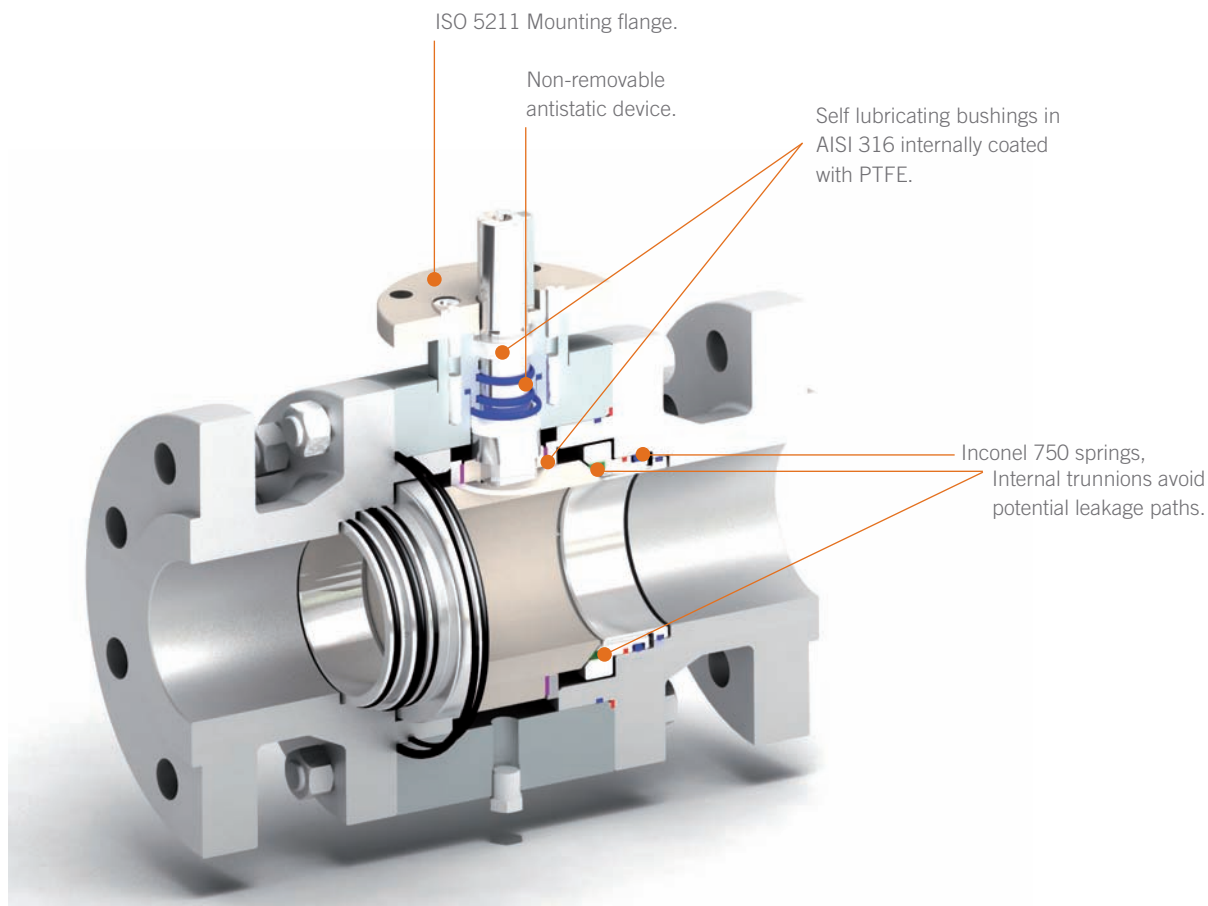
| BALL VALVES |

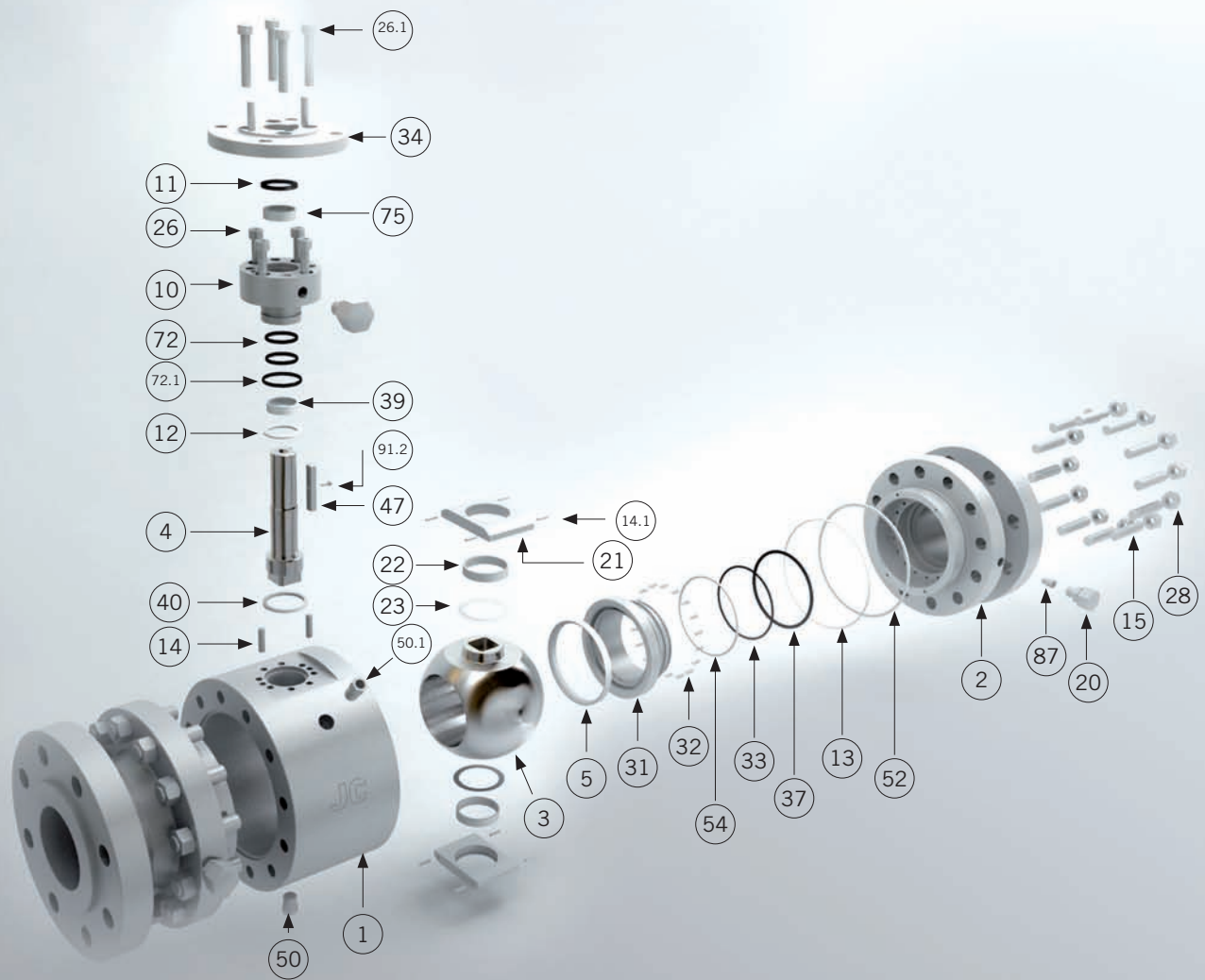
3-PIECE FORGED TRUNNION MOUNTED

2" - 42" | Class 150 - Class 2500

A trunnion ball valve has additional mechanical anchoring of the ball at the top and the bottom, suitable for larger and higher pressure valves.

The JC trunnion mounted ball valves are suitable to stand the harsh service conditions often presented in the hydrocarbon industry and in the gas storage and transportation field. In general, they are recommended for tight shut-off in high pressure and double block and bleed applications.





Materials

SERIES 6000 & 7000

| Item | Description | AIT | LIT | IIT |
|-----------|----------------------|-------------------------------|------------------------------|-----------------|
| 1 | Body | A 105N | A 350 Gr. LF2 Class. 1 | A182 F316 |
| 2 | Body Connector | A 105N | A 350 Gr. LF2 Class. 1 | A182 F316 |
| 3 | Ball | | A182 F316 or A351Gr. CF8M | |
| 4 | Stem | | A 479 Tp.316 | |
| 5 | Seat Ring | | RPTFE, PEEK, DEVLON | |
| 10 | Gland | A 105N | A 350 Gr. LF2 Class-1 | A 479 Tp.316 |
| 11 | Gland Packing | | Graphite | |
| 12 | Stem Thrust Seal | | 25% G.F. + PTFE | |
| 13 | Body Connector Seal | | Graphite | |
| 14 / 14.1 | Pin | Carbon St. | Carbon Steel | Stainless Steel |
| 15 | Stud | A 193 Gr. B7M Zinc dichromate | A 320 Gr. L7M | A 193 Gr. B8M |
| 19 | Antistatic Device | | Stainless St. | |
| 20 | Sealant Injector | Carbon Steel | Carbon Steel | Stainless Steel |
| 21 | Ball Trunnion | | A 479 Tp.316 | |
| 22 | Trunnion Bearing | | AISI 316 with inside in PTFE | |
| 23 | Bearing | | PTFE | |
| 26 / 26.1 | Bolt | A 193 Gr. B7M Zinc dichromate | A 320 Gr. L7M | A 193 Gr. B8M |
| 28 | Nut | A 194 Gr. 2HM Zinc dichromate | A 194 Gr. 7M | A 194 Gr. 8M |
| 31 | Seat Carrier | | A 479 Tp.316 / A182 F316 | |
| 32 | Spring | | Inconel - 750 | |
| 33 | "O" Ring | | FKM | |
| 34 | Mounting Flange | A 105N | A 350 Gr. LF2 Class-1 | A 479 Tp.316 |
| 37 | "O" Ring | | FKM | |
| 39 | Stem Bushing | | AISI 316 with inside in PTFE | |
| 40 | Gasket | | Graphite | |
| 47 | Key | Carbon Steel | Carbon Steel | Stainless St. |
| 50 | Drain Plug | A 105 | A 350 Gr. LF2 Class-1 | AISI 316 |
| 50.1 | Relieve Plug | A 105 | A 350 Gr. LF2 Class-1 | AISI 316 |
| 52 | "O" Ring | | FKM | |
| 54 | Seat Carrier Seal | | Graphite | |
| 72 / 72.1 | "O" Ring | | FKM | |
| 75 | Stem Bushing | | AISI 316 with inside in PTFE | |
| 87 | Check Valve | | Stainless St. | |
| 89 | Identification plate | | Stainless St. | |
| 91.2 | Bolt | | DIN 912 A2 | |

FORGED BALL VALVES 6015 / 6030 / 6060 / 6090 / 6050 / 6042

Full Bore

Class 150.
From 2" to 24"

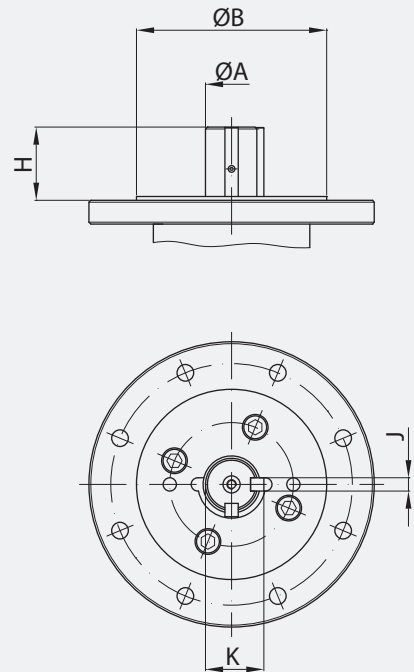
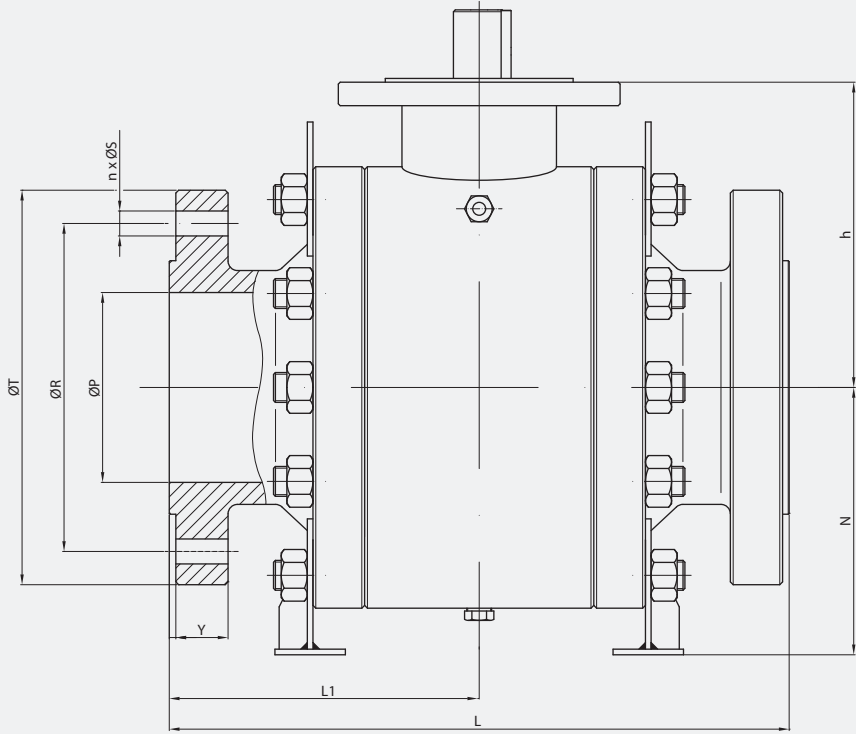
Class 300.
From 2" to 24"

Class 600.
From 2" to 24"

Class 900.
From 2" to 24"

Class 1500.
From 2" to 12"

Class 2500.
From 2" to 8"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

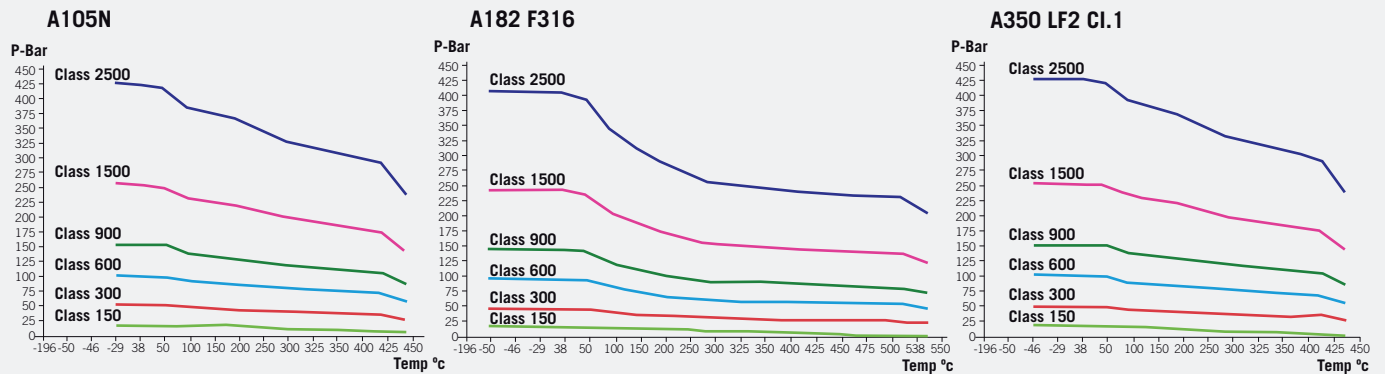


Fig. 6015 (Class 150)

| DN | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----|-----|-------|-------|-------|-----------|-----|----|-------|-------|----------|-------|------|----|-------|--------|--------|--------|
| 2" | 49 | 178 | 89 | 120.7 | 4 x 19 | 150 | 14 | 125 | 100 | F10 | 36,5 | 20 | 8 | 22,5 | 52 | 27 | 366 |
| 3" | 76 | 203 | 101,5 | 152.4 | 4 x 19 | 190 | 18 | 156,5 | 133,5 | F12 | 37,5 | 26 | 10 | 30 | 59 | 52 | 938 |
| 4" | 102 | 229 | 114,5 | 190.5 | 8 x 19 | 230 | 22 | 175 | 167 | F12 | 54 | 30 | 10 | 34 | 110 | 98 | 1.465 |
| 6" | 152 | 394 | 197 | 241.3 | 8 x 22 | 280 | 24 | 269 | 277 | F16 | 71 | 39,9 | 14 | 48,9 | 171 | 225 | 3.297 |
| 8" | 203 | 457 | 228,5 | 298.5 | 8 x 22.2 | 345 | 27 | 325 | 325 | F25 | 77 | 49,9 | 14 | 58,4 | 334 | 450 | 5.861 |
| 10" | 254 | 533 | 266,5 | 362 | 12 x 25.4 | 405 | 29 | 362 | 319 | F25 | 84,5 | 59,9 | 16 | 67 | 458 | 668 | 9.454 |
| 12" | 305 | 610 | 305 | 431.8 | 12 x 25.4 | 485 | 30 | 423 | 399 | F25 | 104 | 69,9 | 18 | 78 | 736 | 1.317 | 13.631 |
| 14" | 337 | 686 | 343 | 476.3 | 12 x 28.5 | 535 | 33 | 455 | 439 | F30 | 119 | 79,9 | 22 | 87,9 | 1.019 | 1.547 | 16.641 |
| 16" | 387 | 762 | 381 | 539.8 | 16 x 28.5 | 595 | 35 | 490 | 472 | F30 | 134 | 84,9 | 22 | 94,9 | 1.778 | 2.000 | 23.554 |
| 18" | 438 | 864 | 432 | 577.9 | 16 x 31.8 | 635 | 38 | 542 | 596 | F30 | 147,5 | 99,9 | 28 | 111,9 | 1.860 | 3.027 | 29.672 |
| 20" | 488 | 914 | 457 | 635 | 20 x 31.8 | 700 | 41 | 577 | 610 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.439 | 3.803 | 36.633 |
| 24" | 589 | 1.067 | 533,5 | 749.3 | 20 x 34.9 | 815 | 46 | 599 | 692 | F40 | 152 | 120 | 32 | 134 | 4.302 | 9.100 | 52.751 |

(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

Fig. 6030 (Class 300)

| DN | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----|-----|-------|-------|-------|-----------|-----|----|-------|-------|----------|-------|------|----|-------|--------|--------|--------|
| 2" | 49 | 216 | 108 | 127 | 8 x 19 | 165 | 21 | 125 | 95 | F10 | 36,5 | 20 | 8 | 22,5 | 60 | 49 | 366 |
| 3" | 76 | 283 | 141,5 | 168,3 | 8 x 22,2 | 210 | 27 | 156,5 | 133,5 | F12 | 37,5 | 26 | 10 | 30 | 72 | 107 | 938 |
| 4" | 102 | 305 | 152,5 | 200 | 8 x 22,2 | 255 | 30 | 175 | 167 | F12 | 54 | 30 | 10 | 34 | 120 | 210 | 1.465 |
| 6" | 152 | 403 | 201,5 | 269,9 | 12 x 22,2 | 320 | 35 | 269 | 277 | F16 | 71 | 39,9 | 14 | 48,9 | 195 | 522 | 3.297 |
| 8" | 203 | 502 | 251 | 330,2 | 12 x 25,4 | 380 | 40 | 325 | 325 | F25 | 77 | 49,9 | 14 | 58,4 | 352 | 1.060 | 5.861 |
| 10" | 254 | 568 | 284 | 387,4 | 16 x 28,5 | 445 | 46 | 362 | 319 | F25 | 84,5 | 59,9 | 16 | 67 | 534 | 1.559 | 9.454 |
| 12" | 305 | 648 | 324 | 450,8 | 16 x 31,8 | 520 | 49 | 423 | 399 | F25 | 104 | 69,9 | 18 | 78 | 847 | 3.125 | 13.631 |
| 14" | 337 | 762 | 381 | 514,4 | 20 x 31,8 | 585 | 52 | 455 | 439 | F30 | 119 | 79,9 | 22 | 87,9 | 1.221 | 3.642 | 16.641 |
| 16" | 387 | 838 | 419 | 571,5 | 20 x 34,9 | 650 | 56 | 490 | 472 | F30 | 134 | 84,9 | 22 | 94,9 | 1.831 | 4.732 | 23.554 |
| 18" | 438 | 914 | 457 | 628,6 | 24 x 34,9 | 710 | 59 | 542 | 596 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.057 | 7.000 | 29.672 |
| 20" | 488 | 991 | 495,5 | 685,8 | 24 x 34,9 | 775 | 62 | 577 | 610 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.721 | 8.959 | 36.633 |
| 24" | 589 | 1.143 | 571,5 | 812,8 | 24 x 41,3 | 915 | 68 | 599 | 673 | F40 | 152 | 120 | 32 | 134 | 5.525 | 23.400 | 52.751 |

Fig. 6060 (Class 600)

| DN | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----|-----|-------|-------|-------|-----------|-----|-----|-------|-------|----------|-------|-------|----|-------|--------|--------|--------|
| 2" | 49 | 292 | 146 | 127 | 8 x 19 | 165 | 25 | 125 | 100 | F10 | 36,5 | 20 | 8 | 22,5 | 63 | 85 | 366 |
| 3" | 76 | 356 | 178 | 168,3 | 8 x 22,2 | 210 | 32 | 156,5 | 138,5 | F12 | 37,5 | 26 | 10 | 30 | 78 | 196 | 938 |
| 4" | 102 | 432 | 216 | 213,9 | 8 x 25,4 | 275 | 38 | 175 | 164 | F12 | 54 | 30 | 10 | 34 | 132 | 392 | 1.465 |
| 6" | 152 | 559 | 279,5 | 292,1 | 12 x 28,5 | 355 | 48 | 268,5 | 277,5 | F16 | 71 | 44,9 | 14 | 51,4 | 262 | 1.007 | 3.297 |
| 8" | 203 | 660 | 330 | 349,2 | 12 x 31,8 | 420 | 56 | 325 | 296 | F25 | 77 | 54,9 | 14 | 61,4 | 490 | 2.057 | 5.861 |
| 10" | 254 | 787 | 393,5 | 431,8 | 16 x 34,9 | 510 | 64 | 362 | 365 | F25 | 84,5 | 59,9 | 16 | 67 | 728 | 3.013 | 9.454 |
| 12" | 305 | 838 | 419 | 489 | 20 x 34,9 | 560 | 67 | 423 | 418 | F25 | 104 | 69,9 | 18 | 78 | 1.218 | 6.079 | 13.631 |
| 14" | 337 | 889 | 444,5 | 527 | 20 x 38,1 | 605 | 70 | 455 | 450 | F30 | 119 | 79,9 | 22 | 87,9 | 1.374 | 7.062 | 16.641 |
| 16" | 387 | 991 | 495,5 | 603,2 | 20 x 41,3 | 685 | 76 | 490 | 504 | F30 | 134 | 84,9 | 22 | 94,9 | 2.474 | 9.196 | 23.554 |
| 18" | 438 | 1.092 | 546 | 654 | 20 x 44,5 | 745 | 83 | 542 | 567,5 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.595 | 13.485 | 29.672 |
| 20" | 488 | 1.194 | 597 | 723,9 | 24 x 44,5 | 815 | 89 | 577 | 581 | F35 | 147,5 | 99,9 | 28 | 111,9 | 3.183 | 17.381 | 36.633 |
| 24" | 589 | 1.397 | 698,5 | 838,2 | 24 x 50,8 | 940 | 102 | 599 | 694 | F40 | 157,5 | 119,8 | 32 | 133,6 | 6.250 | 40.100 | 52.751 |

Fig. 6090 (Class 900)

| DN | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----|-----|-------|-------|-------|-----------|-------|-------|-----|-----|----------|-----|-----|----|-----|--------|--------|--------|
| 2" | 51 | 368 | 184 | 165,1 | 8 x 25,4 | 215 | 38,1 | 120 | 101 | F10 | 35 | 23 | 8 | 27 | 52 | 199 | 366 |
| 3" | 77 | 381 | 190,5 | 190,5 | 8 x 25,4 | 240 | 38,1 | 153 | 124 | F14 | 37 | 33 | 10 | 38 | 80 | 545 | 938 |
| 4" | 102 | 457 | 228,5 | 235 | 8 x 31,8 | 290 | 44,5 | 170 | 151 | F16 | 37 | 33 | 10 | 38 | 170 | 786 | 1.465 |
| 6" | 152 | 610 | 305 | 317,5 | 12 x 31,8 | 380 | 55,6 | 214 | 380 | F25 | 59 | 46 | 14 | 53 | 390 | 1.330 | 3.297 |
| 8" | 203 | 737 | 368,5 | 393,7 | 12 x 38,1 | 470 | 63,5 | 258 | 428 | F25 | 75 | 58 | 18 | 67 | 640 | 2.536 | 5.861 |
| 10" | 254 | 838 | 419 | 469,9 | 16 x 38,1 | 545 | 69,9 | 303 | 489 | F25 | 113 | 68 | 20 | 78 | 1.070 | 4.950 | 9.454 |
| 12" | 305 | 965 | 482,5 | 533,4 | 20 x 38,1 | 610 | 79,4 | 348 | 525 | F25 | 111 | 68 | 20 | 78 | 1.610 | 7.850 | 13.631 |
| 14" | 324 | 1.029 | 514,5 | 558,8 | 20 x 41,3 | 640 | 85,8 | 381 | 545 | F25 | 110 | 88 | 24 | 100 | 1.760 | 10.868 | 16.641 |
| 16" | 375 | 1.130 | 565 | 616 | 20 x 44,5 | 705 | 88,9 | 418 | 580 | F25 | 110 | 88 | 24 | 100 | 2.240 | 18.112 | 23.554 |
| 18" | 425 | 1.219 | 609,5 | 685,8 | 20 x 50,8 | 785 | 101,6 | 464 | 630 | F35 | 130 | 120 | 32 | 136 | 3.000 | 28.738 | 29.672 |
| 20" | 473 | 1.321 | 660,5 | 749,3 | 20 x 54 | 855 | 108 | 507 | 672 | F35 | 130 | 120 | 32 | 136 | 4.360 | 43.470 | 36.633 |
| 24" | 571 | 1.549 | 774,5 | 901,7 | 20 x 66,7 | 1.040 | 139,7 | 596 | 760 | F35 | 127 | 148 | 32 | 164 | 7.050 | 55.555 | 52.751 |

Fig. 6050 (Class 1500)

| DN | øP | L ⁽¹⁾ | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----|-----|------------------|-------|-------|-----------|-----|-------|-----|-----|----------|-------|----|----|-----|--------|--------|--------|
| 2" | 51 | 371 | 185,5 | 165,1 | 8 x 25,4 | 215 | 38,1 | 129 | 107 | F12 | 31 | 23 | 8 | 27 | 55 | 369 | 366 |
| 3" | 77 | 473 | 236,5 | 203,2 | 8 x 31,8 | 265 | 47,7 | 156 | 137 | F14 | 36 | 33 | 10 | 38 | 105 | 942 | 938 |
| 4" | 102 | 549 | 274,5 | 241,3 | 8 x 34,9 | 310 | 54 | 193 | 168 | F16 | 39,5 | 38 | 10 | 43 | 205 | 1.425 | 1.465 |
| 6" | 146 | 711 | 355,5 | 317,5 | 12 x 38,1 | 395 | 82,6 | 242 | 395 | F25 | 69,5 | 46 | 14 | 53 | 525 | 2.795 | 3.297 |
| 8" | 194 | 841 | 420,5 | 393,7 | 12 x 44,5 | 485 | 92,1 | 292 | 445 | F25 | 112,5 | 68 | 20 | 78 | 890 | 4.468 | 5.861 |
| 10" | 241 | 1.000 | 500 | 482,6 | 12 x 50,8 | 585 | 108 | 336 | 505 | F25 | 110,5 | 78 | 20 | 88 | 1.560 | 7.486 | 9.454 |
| 12" | 289 | 1.146 | 573 | 571,5 | 16 x 54 | 675 | 123,9 | 399 | 565 | F25 | 110 | 88 | 24 | 100 | 2.355 | 10.626 | 13.631 |

Fig. 6042 (Class 2500)

| DN | øP | L ⁽¹⁾ | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|----|------|------------------|-------|-------|----------|-----|------|-----|-----|----------|-------|----|----|----|--------|--------|-------|
| 2" | 44,5 | 454 | 227 | 171,4 | 8 x 28,6 | 235 | 50,9 | 150 | 125 | F16 | 39 | 33 | 10 | 38 | 110 | 786 | 366 |
| 3" | 64 | 584 | 292 | 228,6 | 8 x 34,9 | 305 | 66,7 | 182 | 151 | F16 | 39 | 38 | 10 | 43 | 215 | 1.932 | 938 |
| 4" | 89 | 683 | 341,5 | 273,0 | 8 x 41,3 | 355 | 76,2 | 214 | 187 | F25 | 66 | 46 | 14 | 53 | 385 | 2.042 | 1.465 |
| 6" | 133 | 927 | 463,5 | 368,3 | 8 x 54 | 485 | 108 | 282 | 430 | F25 | 78,5 | 58 | 18 | 67 | 840 | 4.368 | 3.297 |
| 8" | 181 | 1.038 | 519 | 438,2 | 12 x 54 | 550 | 127 | 356 | 495 | F25 | 105,5 | 78 | 20 | 88 | 1.435 | 8.211 | 5.861 |

(*) Dimensions in mm and weight in kg.

(**) Weights and dimensions can be changed without notice.

(1) With RTS Flanges.

FORGED BALL VALVES 7015 / 7030 / 7060 / 7090 / 7050 / 7042

Reduced Bore

Class 150.
From 3" to 30"

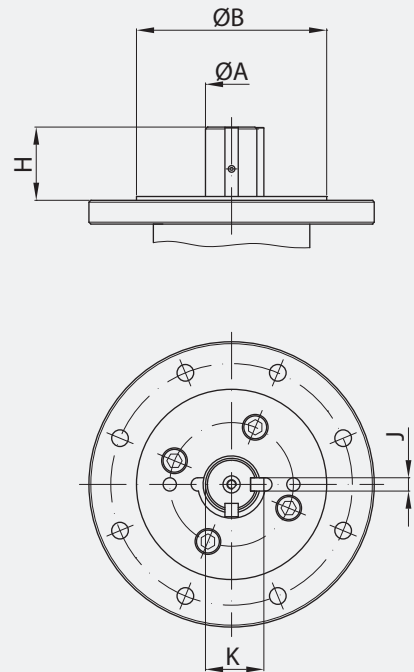
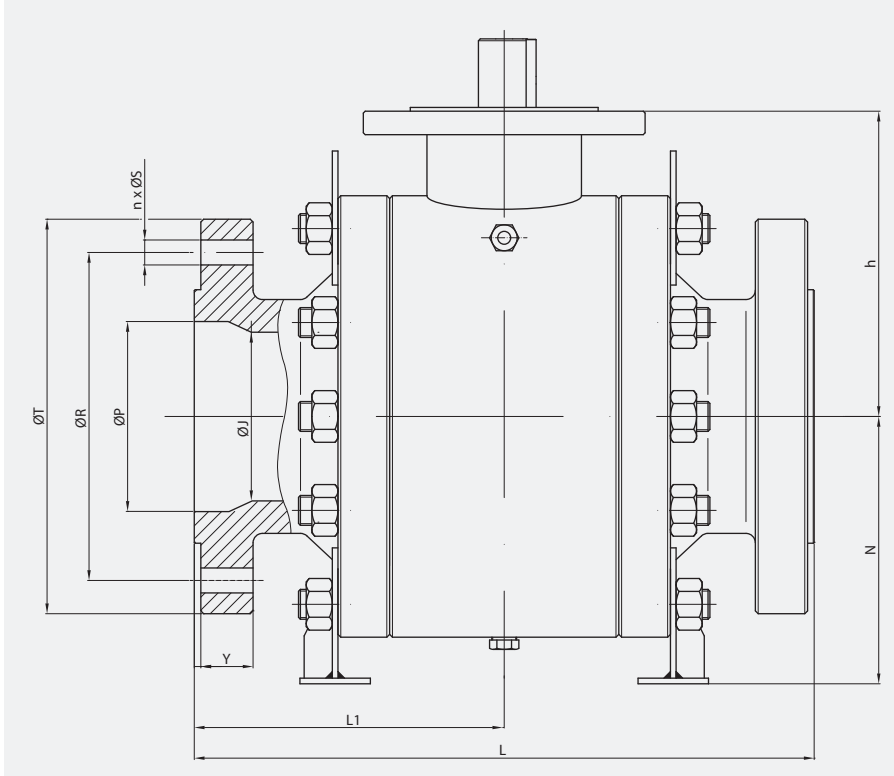
Class 300.
From 3" to 30"

Class 600.
From 3" to 30"

Class 900.
From 3" to 30"

Class 1500.
From 3" to 14"

Class 2500.
From 3" to 10"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature



Fig. 7015 (Class 150)

| DN | øJ | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-------|-------|-------|-----------|-----|----|-------|-------|----------|-------|------|----|-------|--------|--------|--------|
| 3" x 2" | 76 | 49 | 203 | 101,5 | 152,4 | 4 x 19 | 190 | 18 | 125 | 100 | F10 | 36,5 | 20 | 8 | 22,5 | 66 | 27 | 190 |
| 4" x 3" | 102 | 76 | 229 | 114,5 | 190,5 | 8 x 19 | 230 | 22 | 156,5 | 133,5 | F12 | 37,5 | 26 | 10 | 30 | 75 | 52 | 567 |
| 6" x 4" | 152 | 102 | 394 | 197 | 241,3 | 8 x 22 | 280 | 24 | 175 | 167 | F12 | 54 | 30 | 10 | 34 | 115 | 98 | 815 |
| 8" x 6" | 203 | 152 | 457 | 228,5 | 298,5 | 8 x 22.2 | 345 | 27 | 269 | 277 | F16 | 71 | 39,9 | 14 | 48,9 | 205 | 225 | 2.021 |
| 10" x 8" | 254 | 203 | 533 | 266,5 | 362 | 12 x 25,4 | 405 | 29 | 325 | 325 | F25 | 77 | 49,9 | 14 | 58,4 | 375 | 450 | 4.205 |
| 12" x 10" | 305 | 254 | 610 | 305 | 431,8 | 12 x 25,4 | 485 | 30 | 362 | 319 | F25 | 84,5 | 59,9 | 16 | 67 | 565 | 668 | 7.348 |
| 14" x 12" | 337 | 305 | 686 | 343 | 476,3 | 12 x 28,5 | 535 | 33 | 423 | 399 | F25 | 104 | 69,9 | 18 | 78 | 825 | 1.317 | 10.120 |
| 16" x 14" | 387 | 337 | 762 | 381 | 538,8 | 16 x 28,5 | 595 | 35 | 455 | 439 | F30 | 119 | 79,9 | 22 | 87,9 | 1.250 | 1.547 | 12.000 |
| 18" x 16" | 438 | 387 | 864 | 432 | 577,9 | 16 x 31,8 | 635 | 38 | 490 | 472 | F30 | 134 | 84,9 | 22 | 94,9 | 1.820 | 2.000 | 17.269 |
| 20" x 18" | 488 | 438 | 914 | 457 | 635 | 20 x 31,8 | 700 | 41 | 542 | 596 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.450 | 3.027 | 18.647 |
| 24" x 20" | 589 | 488 | 1.067 | 533,5 | 749,3 | 20 x 34,9 | 815 | 46 | 577 | 610 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.790 | 3.803 | 27.010 |
| 30" x 24" | 735 | 589 | 1.295 | 647,5 | 857 | 28 x 35 | 985 | 73 | 599 | 692 | F40 | 152 | 120 | 32 | 134 | 5.530 | 9.100 | 32.150 |

(**) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

Fig. 7030 (Class 300)

| DN | øJ | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-------|-------|-------|-----------|-------|----|-------|-------|----------|-------|------|----|-------|--------|--------|--------|
| 3" x 2" | 76 | 49 | 283 | 141,5 | 168,3 | 8 x 22,2 | 210 | 27 | 125 | 95 | F10 | 36,5 | 20 | 8 | 22,5 | 65 | 49 | 190 |
| 4" x 3" | 102 | 76 | 305 | 152,5 | 200 | 8 x 22,2 | 255 | 30 | 156,5 | 133,5 | F12 | 37,5 | 26 | 10 | 30 | 85 | 107 | 567 |
| 6" x 4" | 152 | 102 | 403 | 201,5 | 269,9 | 12 x 22,2 | 320 | 35 | 175 | 167 | F12 | 54 | 30 | 10 | 34 | 135 | 210 | 815 |
| 8" x 6" | 203 | 152 | 502 | 251 | 330,2 | 12 x 25,4 | 380 | 40 | 269 | 277 | F16 | 71 | 39,9 | 14 | 48,9 | 225 | 522 | 2.021 |
| 10" x 8" | 254 | 203 | 568 | 284 | 387,4 | 16 x 28,5 | 445 | 46 | 325 | 325 | F25 | 77 | 49,9 | 14 | 58,4 | 385 | 1.060 | 4.205 |
| 12" x 10" | 305 | 254 | 648 | 324 | 450,8 | 16 x 31,8 | 520 | 49 | 362 | 319 | F25 | 84,5 | 59,9 | 16 | 67 | 650 | 1.559 | 7.348 |
| 14" x 12" | 337 | 305 | 762 | 381 | 514,4 | 20 x 31,8 | 585 | 52 | 423 | 399 | F25 | 104 | 69,9 | 18 | 78 | 995 | 3.125 | 10.120 |
| 16" x 14" | 387 | 337 | 838 | 419 | 571,5 | 20 x 34,9 | 650 | 56 | 455 | 439 | F30 | 119 | 79,9 | 22 | 87,9 | 1.460 | 3.642 | 12.000 |
| 18" x 16" | 438 | 387 | 914 | 457 | 628,6 | 24 x 34,9 | 710 | 59 | 490 | 472 | F30 | 134 | 84,9 | 22 | 94,9 | 1.925 | 4.732 | 17.269 |
| 20" x 18" | 488 | 438 | 991 | 495,5 | 685,8 | 24 x 34,9 | 775 | 62 | 542 | 596 | F30 | 147,5 | 99,9 | 28 | 111,9 | 2.450 | 7.000 | 18.647 |
| 24" x 20" | 589 | 488 | 1.143 | 571,5 | 812,8 | 24 x 41,3 | 915 | 68 | 577 | 610 | F30 | 147,5 | 99,9 | 28 | 111,9 | 3.250 | 8.959 | 27.010 |
| 30" x 24" | 735 | 589 | 1.397 | 698,5 | 857 | 28 x 48 | 1.092 | 90 | 599 | 673 | F40 | 152 | 120 | 32 | 134 | 5.900 | 23.400 | 32.150 |

Fig. 7060 (Class 600)

| DN | øJ | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-------|-------|-------|-----------|-------|-----|-------|-------|----------|-------|-------|----|-------|--------|--------|--------|
| 3" x 2" | 76 | 49 | 356 | 178 | 168,3 | 8 x 22,2 | 210 | 32 | 125 | 100 | F10 | 36,5 | 20 | 8 | 22,5 | 72 | 85 | 190 |
| 4" x 3" | 102 | 76 | 432 | 216 | 215,9 | 8 x 25,4 | 275 | 38 | 156,5 | 138,5 | F12 | 37,5 | 26 | 10 | 30 | 93 | 196 | 567 |
| 6" x 4" | 152 | 102 | 559 | 279,5 | 292,1 | 12 x 28,5 | 355 | 48 | 175 | 164 | F12 | 54 | 30 | 10 | 34 | 169 | 392 | 815 |
| 8" x 6" | 203 | 152 | 660 | 330 | 349,2 | 12 x 31,8 | 420 | 56 | 268,5 | 277,5 | F16 | 71 | 44,9 | 14 | 51,4 | 301 | 1.007 | 2.021 |
| 10" x 8" | 254 | 203 | 787 | 393,5 | 431,8 | 16 x 34,9 | 510 | 64 | 325 | 296 | F25 | 77 | 54,9 | 14 | 61,4 | 555 | 2.057 | 4.205 |
| 12" x 10" | 305 | 254 | 838 | 419 | 489 | 20 x 34,9 | 560 | 67 | 362 | 365 | F25 | 84,5 | 59,9 | 16 | 67 | 829 | 3.013 | 7.348 |
| 14" x 12" | 337 | 305 | 889 | 444,5 | 527 | 20 x 38,1 | 605 | 70 | 423 | 418 | F25 | 104 | 69,9 | 18 | 78 | 1.426 | 6.079 | 10.120 |
| 16" x 14" | 387 | 337 | 991 | 495,5 | 603,2 | 20 x 41,3 | 685 | 76 | 455 | 450 | F30 | 119 | 79,9 | 22 | 87,9 | 1.751 | 7.062 | 12.000 |
| 18" x 16" | 438 | 387 | 1.092 | 546 | 654 | 20 x 44,5 | 745 | 83 | 490 | 504 | F30 | 134 | 84,9 | 22 | 94,9 | 2.625 | 9.196 | 17.269 |
| 20" x 18" | 488 | 438 | 1.194 | 597 | 723,9 | 24 x 44,5 | 815 | 89 | 542 | 567,5 | F30 | 147,5 | 99,9 | 28 | 111,9 | 3.111 | 13.485 | 18.647 |
| 24" x 20" | 589 | 488 | 1.397 | 698,5 | 838,2 | 24 x 50,8 | 940 | 102 | 577 | 581 | F35 | 147,5 | 99,9 | 28 | 111,9 | 4.250 | 17.381 | 27.010 |
| 30" x 24" | 735 | 589 | 1.651 | 825,5 | 857 | 28 x 54 | 1.130 | 108 | 599 | 694 | F40 | 157,5 | 119,8 | 32 | 133,6 | 7.125 | 40.100 | 32.150 |

Fig. 7090 (Class 900)

| DN | øJ | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-------|-------|-------|-----------|-------|-------|-----|-----|----------|-----|-----|----|-----|--------|--------|--------|
| 3" x 2" | 77 | 51 | 381 | 190,5 | 190,5 | 8 x 25,4 | 240 | 38,1 | 120 | 101 | F10 | 35 | 23 | 8 | 27 | 62 | 199 | 190 |
| 4" x 3" | 102 | 77 | 457 | 228,5 | 235 | 8 x 31,8 | 290 | 44,5 | 153 | 124 | F14 | 37 | 33 | 10 | 38 | 105 | 545 | 567 |
| 6" x 4" | 152 | 102 | 610 | 305 | 317,5 | 12 x 31,8 | 380 | 55,6 | 170 | 151 | F16 | 37 | 33 | 10 | 38 | 201 | 786 | 815 |
| 8" x 6" | 203 | 152 | 737 | 368,5 | 393,7 | 12 x 38,1 | 470 | 63,5 | 214 | 380 | F25 | 59 | 46 | 14 | 53 | 436 | 1.330 | 2.021 |
| 10" x 8" | 254 | 203 | 838 | 419 | 469,9 | 16 x 38,1 | 545 | 69,9 | 258 | 428 | F25 | 75 | 58 | 18 | 67 | 735 | 2.536 | 4.205 |
| 12" x 10" | 305 | 254 | 965 | 482,5 | 533,4 | 20 x 38,1 | 610 | 79,4 | 303 | 489 | F25 | 113 | 68 | 20 | 78 | 1.200 | 4.950 | 7.348 |
| 14" x 12" | 324 | 305 | 1.029 | 514,5 | 558,8 | 20 x 41,3 | 640 | 85,8 | 348 | 525 | F25 | 111 | 68 | 20 | 78 | 1.795 | 7.850 | 10.120 |
| 16" x 14" | 375 | 324 | 1.130 | 565 | 616 | 20 x 44,5 | 705 | 88,9 | 381 | 545 | F25 | 110 | 88 | 24 | 100 | 2.105 | 10.868 | 12.000 |
| 18" x 16" | 425 | 375 | 1.219 | 609,5 | 685,8 | 20 x 50,8 | 785 | 101,6 | 418 | 580 | F25 | 110 | 88 | 24 | 100 | 2.720 | 18.112 | 17.269 |
| 20" x 18" | 473 | 425 | 1.321 | 660,5 | 749,3 | 20 x 54 | 855 | 108 | 464 | 630 | F35 | 130 | 120 | 32 | 136 | 4.050 | 28.738 | 18.647 |
| 24" x 20" | 571 | 473 | 1.549 | 774,5 | 901,7 | 20 x 66,7 | 1.040 | 139,7 | 507 | 672 | F35 | 130 | 120 | 32 | 136 | 4.650 | 43.470 | 27.010 |
| 30" x 24" | 712 | 571 | 1.803 | 901,5 | 857,0 | 20 x 72 | 1.232 | 142,0 | 596 | 760 | F35 | 127 | 148 | 32 | 164 | 7.950 | 55.555 | 32.150 |

Fig. 7050 (Class 1500)

| DN | øJ | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-------|-------|-------|-----------|-----|-------|-----|-----|----------|-------|----|----|-----|--------|--------|--------|
| 3" x 2" | 77 | 51 | 473 | 236,5 | 203,2 | 8 x 31,8 | 265 | 47,7 | 129 | 107 | F12 | 31 | 23 | 8 | 27 | 80 | 369 | 190 |
| 4" x 3" | 102 | 77 | 549 | 274,5 | 241,3 | 8 x 34,9 | 310 | 54 | 156 | 137 | F14 | 36 | 33 | 10 | 38 | 156 | 942 | 567 |
| 6" x 4" | 146 | 102 | 711 | 355,5 | 317,5 | 12 x 38,1 | 395 | 82,6 | 193 | 168 | F16 | 39,5 | 38 | 10 | 43 | 325 | 1.425 | 815 |
| 8" x 6" | 194 | 146 | 841 | 420,5 | 393,7 | 12 x 44,5 | 485 | 92,1 | 242 | 395 | F25 | 69,5 | 46 | 14 | 53 | 603 | 2.795 | 2.021 |
| 10" x 8" | 241 | 194 | 1.000 | 500 | 482,6 | 12 x 50,8 | 585 | 108 | 292 | 445 | F25 | 112,5 | 68 | 20 | 78 | 950 | 4.468 | 4.205 |
| 12" x 10" | 289 | 241 | 1.146 | 573 | 571,5 | 16 x 54 | 675 | 123,9 | 336 | 505 | F25 | 110,5 | 78 | 20 | 88 | 1.825 | 7.486 | 7.348 |
| 14" x 12" | 318 | 289 | 1.276 | 638 | 635 | 16 x 60 | 750 | 133,4 | 399 | 565 | F25 | 110 | 88 | 24 | 100 | 2.750 | 10.626 | 10.120 |

Fig. 7042 (Class 2500)

| DN | øJ | øP | L | L1 | øR | n x øS | øT | Y | h | N | ISO 5211 | H | øA | J | K | WEIGHT | TORQUE | Kv |
|----------|-----|------|-------|-------|-------|----------|-----|------|-----|-----|----------|-------|----|----|----|--------|--------|-------|
| 3" x 2" | 64 | 44,5 | 584 | 292 | 228,6 | 8 x 34,9 | 305 | 66,7 | 150 | 125 | F16 | 39 | 33 | 10 | 38 | 140 | 786 | 190 |
| 4" x 3" | 89 | 64 | 683 | 341,5 | 273,0 | 8 x 41,3 | 355 | 76,2 | 182 | 151 | F16 | 39 | 38 | 10 | 43 | 250 | 1.932 | 567 |
| 6" x 4" | 133 | 89 | 927 | 463,5 | 368,3 | 8 x 54 | 485 | 108 | 214 | 187 | F25 | 66 | 46 | 14 | 53 | 520 | 2.042 | 815 |
| 8" x 6" | 181 | 133 | 1.038 | 519 | 438,2 | 12 x 54 | 550 | 127 | 282 | 430 | F25 | 78,5 | 58 | 18 | 67 | 1.000 | 4.368 | 2.021 |
| 10" x 8" | 226 | 181 | 1.292 | 646 | 539,8 | 12 x 66 | 675 | 165 | 356 | 495 | F25 | 105,5 | 78 | 20 | 88 | 1.850 | 8.211 | 4.205 |

(*) Dimensions in mm and weight in kg.
 (**) Weights and dimensions can be changed without notice.

| BALL VALVES |

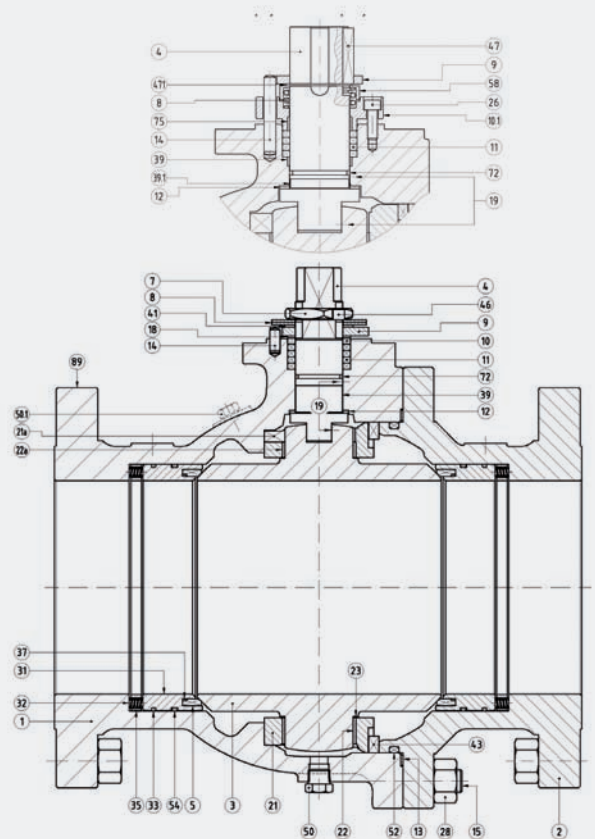
2-PIECE CAST TRUNNION MOUNTED CAST TRUNNION

2" - 16" | Class 150 - Class 600

Materials CAST TRUNNION

| Item | Description | AIT | IIT |
|----------|----------------------|-------------------------------|---------------------|
| 1 | Body | A 216 Gr. WCB (C ≤ 0.25%) | A 351 Gr. CF8M |
| 2 | Body connector | A 216 Gr. WCB (C ≤ 0.25%) | A 351 Gr. CF8M |
| 3 | Ball | A 351 Gr. CF8M | |
| 4 | Stem | A 479 Tp.316 | |
| 5 | Seat ring | PTFE | |
| 7 | Gland nut | Zinc Plated Carbon Steel | AISI-303 |
| 8 | Disk spring / Spring | Carbon St. * | E.N.P. Carbon St. * |
| 9 | Stop plate | Carbon St. | AISI-304 |
| 10 | Gland ring | AISI-303 | AISI-316 |
| 10.1 | Gland | AISI-303 | AISI-316 |
| 11 | Gland packing | Graphite | |
| 12 | Stem thrust seal | 25% G.F. PTFE | |
| 13 | Body connector seal | AISI-316L + Graphite | |
| 14 | Stop pin | Carbon St. | Stainless St. |
| 15 | Stud | A 193 Gr. B7M Zinc dichromate | A 193 Gr. B8M ** |
| 18 | Thrust washer | 25% G.F. PTFE | |
| 19 | Antistatic device | Stainless St. | |
| 21 / 21a | Ball trunnion | A 351 Gr. CF8M | |
| 22 / 22a | Trunnion bearing | AISI-316 + PTFE | |
| 23 | Bearing | PTFE | |
| 26 | Bolt | DIN 912 8.8 Zinc Plated | DIN 912 A2 |
| 28 | Nut | A 194 Gr. 2HM Zinc dichromate | A 194 Gr. 8M ** |
| 31 | Seat Carrier | A 351 Gr. CF8M | |
| 32 | Spring | Inconel - 750 | |
| 33 | O' Ring | FKM -- Note 1 -- | |
| 35 | Spring carrier | A 351 Gr. CF8M | |
| 37 | O' Ring | FKM -- Note 1 -- | |
| 39 | Stem bushing | 25% G.F. PTFE | |
| 39.1 | Stem bushing | AISI-316 + PTFE -- Note 2 -- | |
| 41 | Spacer | Carbon St. | Stainless St. |
| 43 | Key | AISI-316 | |
| 46 | Locking washer | AISI-304 | |
| 47 | Key | Carbon St. | |
| 50 | Drain plug | A 105 | AISI-316 |
| 50.1 | Vent plug | A 105 | AISI-316 |
| 52 | O' Ring | FKM -- Note 2 -- | |
| 54 | Seat carrier seal | Graphite | |
| 58 | Spring protection | Carbon St. | Stainless St. |
| 72 | O' Ring | FKM -- Note 1 -- | |
| 75 | Stem bushing | AISI-316 + PTFE -- Note 2 -- | |
| 89 | Identification plate | Stainless St. | |
| 471 | Retainer | Carbon St. | Stainless St. |

ESQUEMA

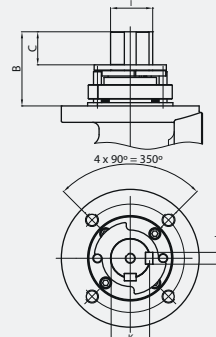
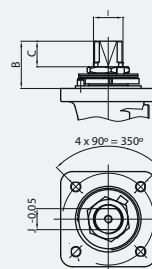
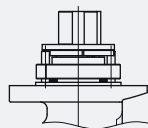
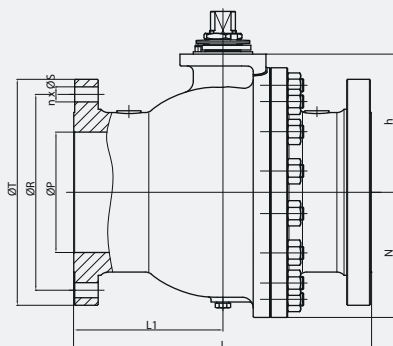


(*) On request Inconel X-750.

(**) On request B7M / 2HM Zinc Plated & Bichromated.

Note 1: Depending on design conditions AFLAS, KALREZ or KALREZ Spectrum.

Note 2: Only DN-350 & 400 and all Fig.2560.

CAST BALL VALVES 2515 / 2530 / 2560
Class 150 / 300 / 600
Full Bore
Class 150. From 2" to 16"
Class 300. From 2" to 16"
Class 600. From 2" to 12"

Pressure - Temperature


For A216 Gr. WCB only.
For other materials consult ASME B16.34

(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.


Fig. 2515 (Class 150)

| DN | øP | L | L1 | øR | n x øS | øT | h | N | ISO 5211 | B | C | I | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|------|-------|---------|-----|-----|-------|----------|-----|-----|---------|----|------|--------|--------|--------|
| 50 (2") | 50 | 178 | 78.5 | 120.7 | 4x19 | 150 | 84 | 80 | F07 | 42 | 17 | M22x1,5 | 16 | - | 13 | 70 | 366 |
| 80 (3") | 80 | 203 | 87 | 152.4 | 4x19 | 190 | 126 | - | F10 | 55 | 27 | M28x1,5 | 20 | - | 22 | 130 | 938 |
| 100 (4") | 100 | 229 | 101 | 190.5 | 8x19 | 230 | 152 | 120 | F12 | 56 | 27 | M35x2 | 25 | - | 39 | 340 | 1.465 |
| 150 (6") | 151 | 394 | 197 | 241.3 | 8x22.2 | 280 | 212 | 168 | F14 | 70 | 36 | M45x2 | 32 | - | 98 | 500 | 3.297 |
| 200 (8") | 203 | 457 | 230 | 298.5 | 8x22.2 | 345 | 233 | 208 | F14 | 70 | 37 | M45x2 | 32 | - | 124 | 800 | 5.861 |
| 250 (10") | 254 | 533 | 267 | 362 | 12x25.4 | 405 | 256 | 243 | F14 | 70 | 37 | M45x2 | 32 | - | 175 | 1.010 | 9.454 |
| 300 (12") | 305 | 610 | 305 | 431.8 | 12x25.4 | 485 | 297 | 287.5 | F14 | 106 | 58 | 50 | 14 | 53.5 | 295 | 1.800 | 13.631 |
| 350 (14") | 337 | 686 | 343 | 476.3 | 12x28.5 | 535 | 333 | 323 | F16 | 103 | 49 | 60 | 18 | 64.2 | 580 | 2.600 | 16.641 |
| 400 (16") | 388 | 762 | 381 | 539.8 | 16x28.5 | 595 | 412 | 358 | F25 | 159 | 103 | 90 | 25 | 95.3 | 750 | 3.500 | 23.554 |

Fig. 2530 (Class 300)

| DN | øP | L | L1 | øR | n x øS | øT | h | N | ISO 5211 | B | C | I | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-----|-------|---------|-----|-----|-----|----------|-----|-----|---------|----|------|--------|--------|--------|
| 50 (2") | 50 | 216 | 84 | 127 | 8x19 | 165 | 84 | - | F07 | 42 | 17 | M22x1,5 | 16 | - | 16 | 80 | 366 |
| 80 (3") | 80 | 283 | 115 | 168.3 | 8x22.2 | 210 | 126 | - | F10 | 55 | 27 | M28x1,5 | 20 | - | 33 | 140 | 938 |
| 100 (4") | 100 | 305 | 133 | 200 | 8x22.2 | 255 | 152 | - | F12 | 56 | 27 | M35x2 | 25 | - | 43 | 380 | 1.465 |
| 150 (6") | 151 | 403 | 202 | 269.9 | 12x22.2 | 320 | 212 | 173 | F14 | 70 | 36 | M45x2 | 32 | - | 113 | 700 | 3.297 |
| 200 (8") | 203 | 502 | 252 | 330.2 | 12x25.4 | 380 | 233 | 210 | F14 | 70 | 37 | M45x2 | 32 | - | 157 | 900 | 5.861 |
| 250 (10") | 254 | 568 | 284 | 387.4 | 16x28.5 | 445 | 257 | 253 | F14 | 70 | 37 | M45x2 | 32 | - | 263 | 1.300 | 9.454 |
| 300 (12") | 305 | 648 | 315 | 450.8 | 16x31.8 | 520 | 310 | 300 | F16 | 103 | 49 | 60 | 18 | 64.2 | 480 | 2.500 | 13.631 |
| 350 (14") | 337 | 762 | 381 | 514.4 | 20x34.9 | 585 | 333 | 331 | F16 | 103 | 49 | 60 | 18 | 64.2 | 655 | 3.750 | 16.641 |
| 400 (16") | 388 | 838 | 419 | 571.5 | 20x34.9 | 650 | 412 | 365 | F25 | 159 | 103 | 90 | 25 | 95.3 | 890 | 5.000 | 23.554 |

Fig. 2560 (Class 600)

| DN | øP | L | L1 | øR | n x øS | øT | h | N | ISO 5211 | B | C | I | J | K | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-----|-------|---------|-----|-----|-----|----------|-----|----|---------|----|------|--------|--------|--------|
| 50 (2") | 50 | 292 | 96 | 127 | 8x19.1 | 165 | 84 | - | F07 | 42 | 17 | M22x1,5 | 16 | - | 20 | 90 | 366 |
| 80 (3") | 80 | 356 | 140 | 168.3 | 8x22.2 | 210 | 126 | 113 | F10 | 55 | 27 | M28x1,5 | 20 | - | 41 | 170 | 938 |
| 100 (4") | 100 | 432 | 160 | 215.9 | 8x25.2 | 275 | 152 | - | F12 | 56 | 27 | M35x2 | 25 | - | 77 | 400 | 1.465 |
| 150 (6") | 151 | 559 | 246 | 292.1 | 12x28.5 | 355 | 212 | 188 | F14 | 97 | 49 | 45 | 14 | 48.5 | 192 | 900 | 3.297 |
| 200 (8") | 203 | 660 | 315 | 349.2 | 12x31.8 | 420 | 237 | 235 | F14 | 113 | 64 | 50 | 14 | 53.5 | 329 | 1.400 | 5.861 |
| 250 (10") | 254 | 787 | 340 | 431.8 | 16x34.9 | 510 | 275 | 273 | F16 | 103 | 49 | 60 | 18 | 64.2 | 460 | 3.050 | 9.454 |
| 300 (12") | 305 | 838 | 404 | 489 | 20x34.9 | 560 | 345 | 335 | F16 | 127 | 73 | 65 | 18 | 69.2 | 570 | 3.800 | 13.631 |

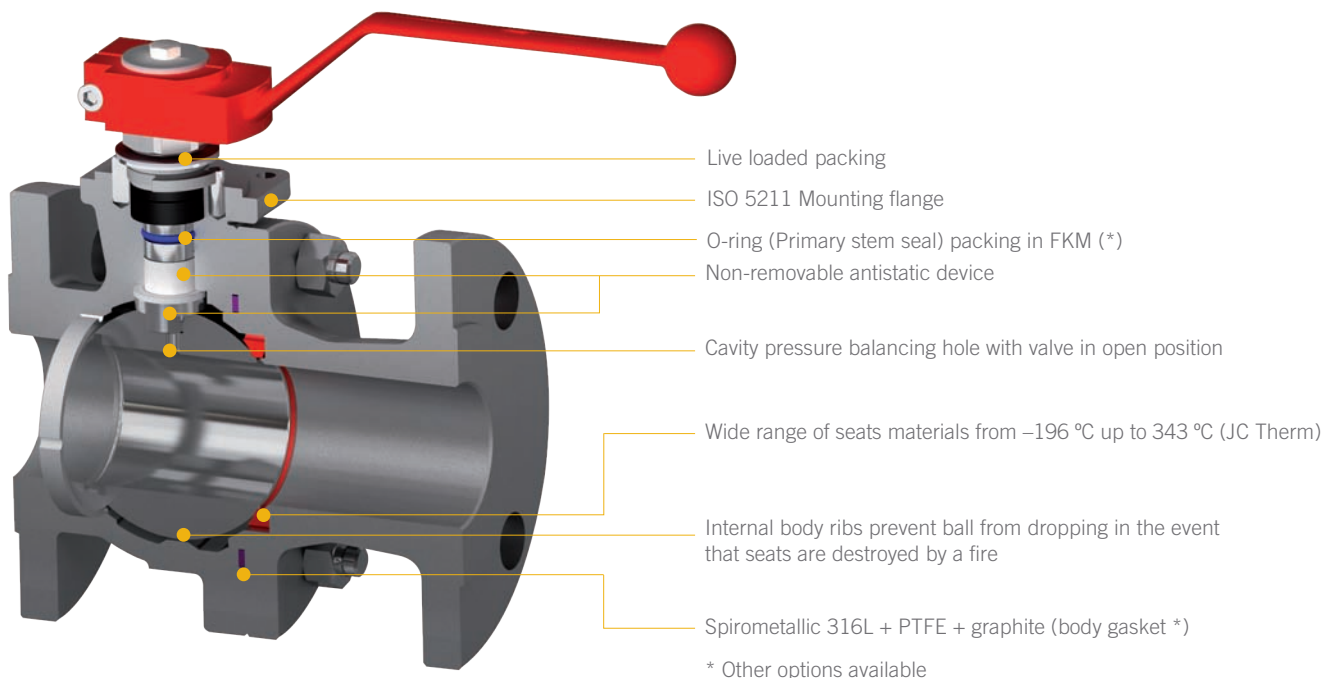
(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

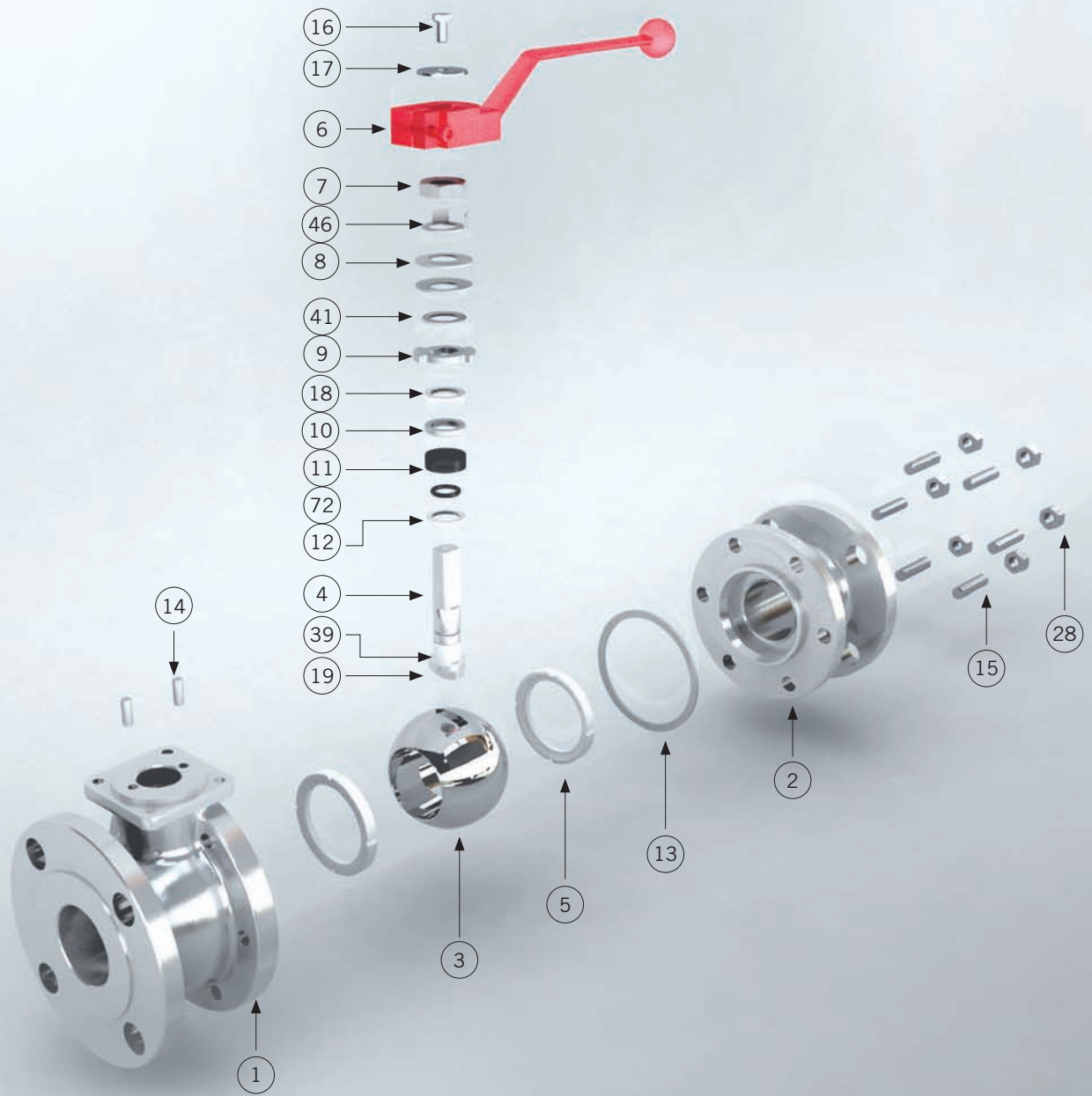
| BALL VALVES |

FLOATING ASME

3/8" - 12" | Class 150 - Class 2500

A floating ball valve is a valve with seats supported ball, that is pushed by upstream pressure towards the downstream seat to ensure sealing. The DN of the floating ball valves range is limited by the capability of the seats material to support the pressure, temperature and weight of the ball.





Materials ASME

| Item | Description | AIT | LIT | IIT |
|------|-----------------------------|-------------------------------|--|-------------------|
| 1 | Body | A 216 Gr. WCB (C ≤ 0,25%) | A 352 Gr. LCC | A 351 Gr. CF8M |
| 2 | Body connector | A 216 Gr. WCB (C ≤ 0,25%) | A 352 Gr. LCC | A 351 Gr. CF8M |
| 3 | Ball | | A 351 Gr. CF8M (DN 15 : 25 A 479 Tp.316) | |
| 4 | Stem | | A 479 Tp.316 | |
| 5 | Seat ring | | PTFE, PEEK, NYLON, DEVLON | |
| 6 | Wrench | | Nodular Iron | |
| 7 | Gland nut | Zinc plated carbon steel | AISI 303 | AISI 303 |
| 8 | Disk spring | Carbon St. | E.N.P. Carbon St. | E.N.P. Carbon St. |
| 9 | Stop plate | Carbon St. | AISI 304 | AISI 304 |
| 10 | Gland | AISI 303 | AISI 316 | AISI 316 |
| 11 | Gland packing | | Graphite | |
| 12 | Stem thrust seal | | 25% G.F. PTFE | |
| 13 | Body connector seal | | AISI 316L + PTFE + Graphite | |
| 14 | Stop pin | Carbon St. | Stainless St. | Stainless St. |
| 15 | Stud | A 193 Gr. B7M Zinc dichromate | A 193 Gr. L7M | A 193 Gr. B8M |
| 16 | Bolt | DIN 933 5.6 Zinc plated | DIN 933 A2 | DIN 933 A2 |
| 17 | Washer | Zinc plated carbon steel | AISI 304 | AISI 304 |
| 18 | Thrust washer | | 25% G.F. PTFE | |
| 19 | Antistatic device | | Stainless St. | |
| 28 | Nut | A 194 Gr. 2HM Zinc dichromate | A 194 Gr. 7M | A 194 Gr. 8M |
| 39 | Stem bushing (DN 25 to 200) | | 25% G.F. PTFE | |
| 41 | Spacer (DN 40 to 200) | Carbon St. | AISI 304 | AISI 304 |
| 46 | Washer | AISI-304 | AISI 304 | AISI 304 |
| 72 | "O" Ring | | FKM | |
| 89 | Identification plate | | Stainless St. | |

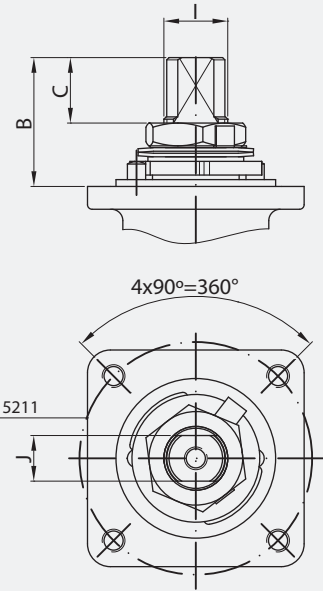
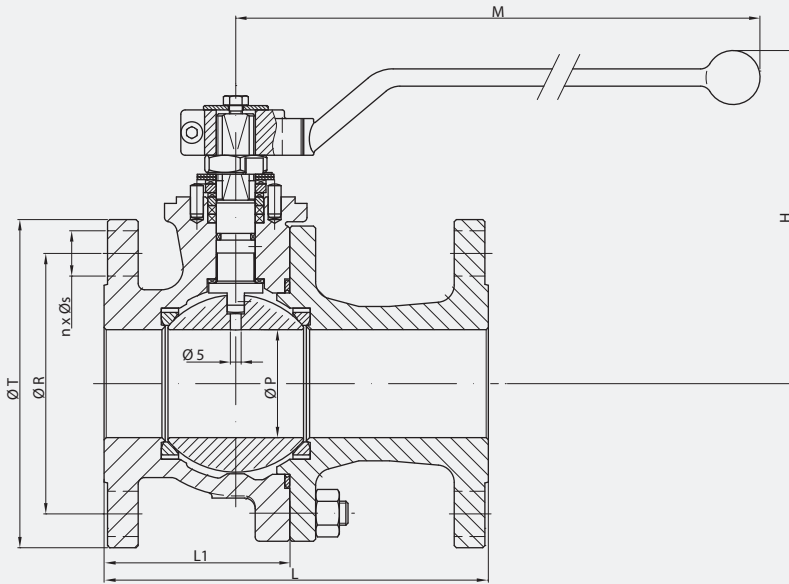
ASME 515 / 530

Class 150 / 300

Full Bore

Class 150. From ½" to 8"

Class 300. From ½" to 6"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

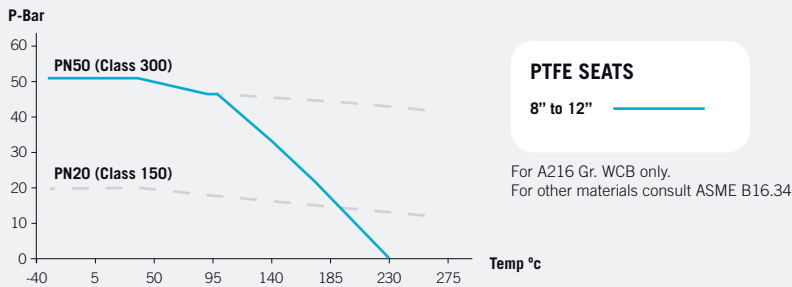


Fig. 515 (Class 150)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-----|-------|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 (½") | 15 | 108 | 47 | 60,3 | 4x15,9 | 90 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 2 | 8 | 20 |
| 20 (¾") | 20 | 117 | 50 | 69,9 | 4x15,9 | 100 | 117 | 164 | F05 | 13,2 | 9,2 | M12x1.5 | 9 | 3 | 10 | 40 |
| 25 (1") | 25 | 127 | 52 | 79,4 | 4x15,9 | 110 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 3,5 | 15 | 75 |
| 40 (1 ½") | 40 | 165 | 65 | 98,4 | 4x15,9 | 125 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 8 | 25 | 170 |
| 50 (2") | 50 | 178 | 61 | 120,7 | 4x19 | 150 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 11 | 40 | 270 |
| 65 (2 ½") | 65 | 190 | 75 | 139,7 | 4x19 | 180 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 16 | 60 | 550 |
| 80 (3") | 80 | 203 | 79 | 152,4 | 4x19 | 190 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 23 | 90 | 1000 |
| 100 (4") | 100 | 229 | 90 | 190,5 | 8x19 | 230 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 38 | 150 | 1650 |
| 150 (6") | 151 | 394 | 174 | 241,3 | 8x22,2 | 280 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 88 | 250 | 4200 |
| 200 (8") | 203 | 457 | 200 | 298,5 | 8x22,2 | 345 | 352 | 868 | F14 | 72 | 39 | M45x2 | 32 | 155 | 700 | 9000 |

Fig. 530 (Class 300)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-----|-------|---------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 (½") | 15 | 140 | 60 | 66,7 | 4x15,9 | 95 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 3 | 12 | 20 |
| 20 (¾") | 20 | 152 | 65 | 82,6 | 4x19 | 115 | 117 | 164 | F05 | 13,2 | 9,2 | M12x1.5 | 9 | 4 | 16 | 40 |
| 25 (1") | 25 | 165 | 70 | 88,9 | 4x19 | 125 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 5 | 20 | 75 |
| 40 (1 ½") | 40 | 190 | 80 | 114,3 | 4x22,2 | 155 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 11 | 35 | 170 |
| 50 (2") | 50 | 216 | 83 | 127 | 8x19 | 165 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 14 | 55 | 270 |
| 80 (3") | 80 | 283 | 118 | 168,3 | 8x22,2 | 210 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 32 | 150 | 1000 |
| 100 (4") | 100 | 305 | 133 | 200 | 8x22,2 | 255 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 52 | 230 | 1650 |
| 150 (6") | 151 | 403 | 160 | 269,9 | 12x22,2 | 320 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 94 | 342 | 4200 |

(*) Dimensions in mm, weight in kg and Torque in Nm.
(**) Weights and dimensions can be changed without notice.

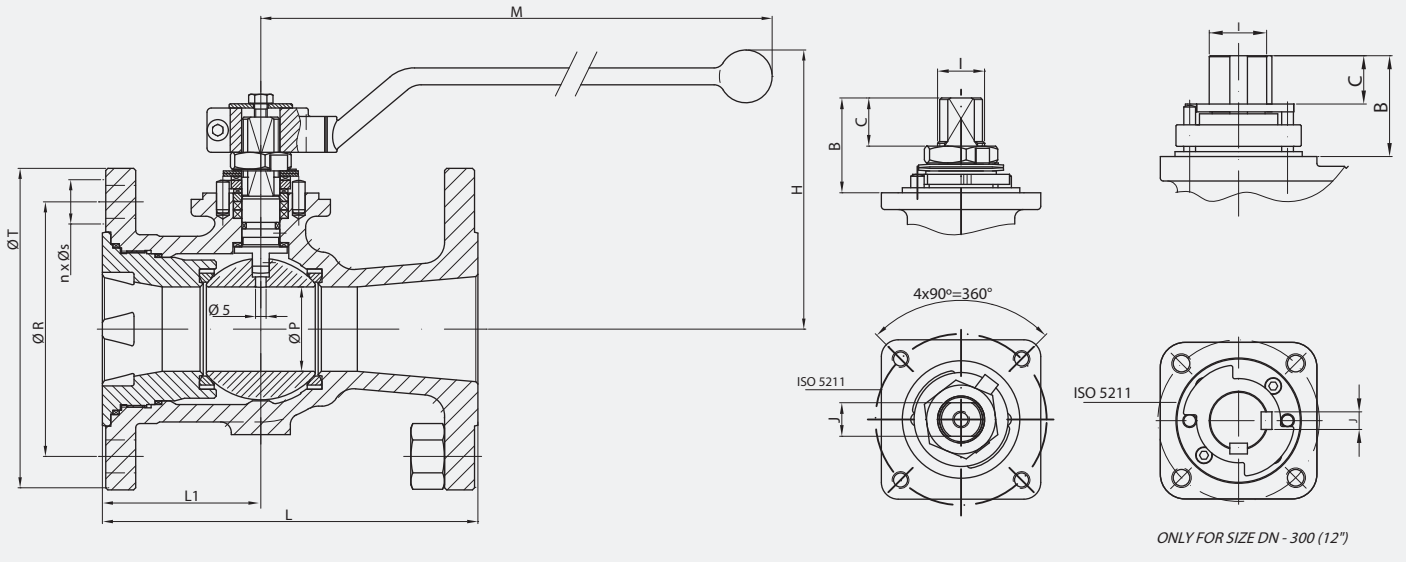
ASME 715 / 730

Class 150 / 300

Reduced Bore

Class 150. From 1/2" to 12"

Class 300. From 1/2" to 8"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

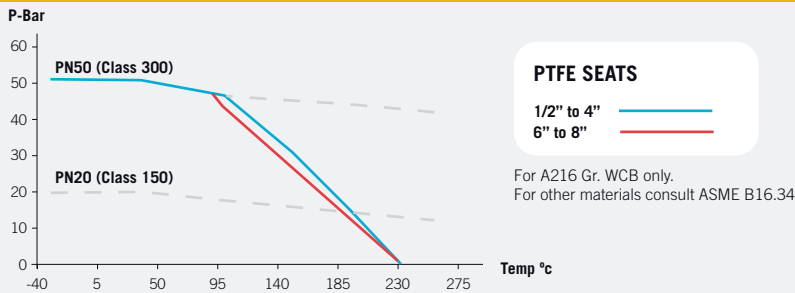


Fig. 715 (Class 150)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|---------------|-----|-----|-------|-------|---------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 (1/2") | 9,5 | 108 | 54 | 60,3 | 4x15,9 | 90 | 81 | 164 | F05 | 22 | 8,3 | M10x1.5 | 7 | 1,6 | 6 | 7 |
| 20 (3/4") | 15 | 117 | 60 | 69,9 | 4x15,9 | 100 | 98 | 164 | F05 | 22,7 | 9 | M12x1.5 | 9 | 2,1 | 9 | 10 |
| 25 (1") | 20 | 127 | 65 | 79,4 | 4x15,9 | 110 | 101 | 164 | F05 | 22,7 | 9 | M12x1.5 | 9 | 2,7 | 10 | 26 |
| 40 (1 1/2") | 32 | 165 | 72 | 98,4 | 4x15,9 | 125 | 117 | 210 | F05 | 34,5 | 14,7 | M16x1.5 | 12 | 5,1 | 21 | 107 |
| 50 (2") | 40 | 178 | 75,1 | 120,7 | 4x19 | 150 | 134 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 7,9 | 25 | 140 |
| 80 (3") | 58 | 203 | 88 | 152,4 | 4x19 | 190 | 149 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 14,3 | 40 | 300 |
| 100 (4") | 80 | 229 | 104,1 | 190,5 | 8x19 | 230 | 189 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 25,9 | 90 | 600 |
| 150 (6") | 111 | 267 | 125 | 241,3 | 8x22,2 | 280 | 227 | 495 | F12 | 56,5 | 29,2 | M28x1.5 | 20 | 43,8 | 180 | 1000 |
| 200 (8") | 144 | 292 | 135 | 298,5 | 8x22,2 | 345 | 264 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 77 | 250 | 2000 |
| 250 (10") | 187 | 330 | 164 | 362 | 12x25,4 | 405 | 307 | 698 | F12 | 72 | 39 | M45x2 | 32 | 114 | 600 | 4100 |
| (1) 300 (12") | 228 | 356 | 178 | 431,8 | 12x25,4 | 485 | - | - | F14 | 106 | 58 | Ø50 | 14 | 230 | 960 | 6900 |

Fig. 730 (Class 300)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-------------|-----|-----|-------|-------|---------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 (1/2") | 9,5 | 140 | 54 | 66,7 | 4x15,9 | 95 | 81 | 164 | F05 | 22 | 8,3 | M10x1.5 | 7 | 1,6 | 10 | 7 |
| 20 (3/4") | 15 | 152 | 60 | 82,6 | 4x19 | 115 | 98 | 164 | F05 | 22,7 | 9 | M12x1.5 | 9 | 2,1 | 12 | 10 |
| 25 (1") | 20 | 165 | 65 | 88,9 | 4x19 | 125 | 101 | 164 | F05 | 22,7 | 9 | M12x1.5 | 9 | 4,1 | 16 | 26 |
| 40 (1 1/2") | 32 | 190 | 72 | 114,3 | 4x22,2 | 155 | 117 | 210 | F05 | 34,5 | 14,2 | M16x1.5 | 12 | 8,2 | 30 | 107 |
| 50 (2") | 40 | 216 | 75,1 | 127 | 8x19 | 165 | 134 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 10,9 | 35 | 140 |
| 80 (3") | 58 | 283 | 88 | 168,3 | 8x22,2 | 210 | 149 | 348 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 21,4 | 60 | 300 |
| 100 (4") | 80 | 305 | 104,1 | 200 | 8x22,2 | 255 | 189 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 28,9 | 150 | 600 |
| 150 (6") | 111 | 403 | 125 | 269,9 | 12x22,2 | 320 | 227 | 495 | F12 | 56,5 | 29,2 | M28x1.5 | 20 | 70 | 280 | 1000 |
| 200 (8") | 144 | 419 | 135 | 330,2 | 12x25,4 | 380 | 264 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 110,5 | 420 | 2000 |

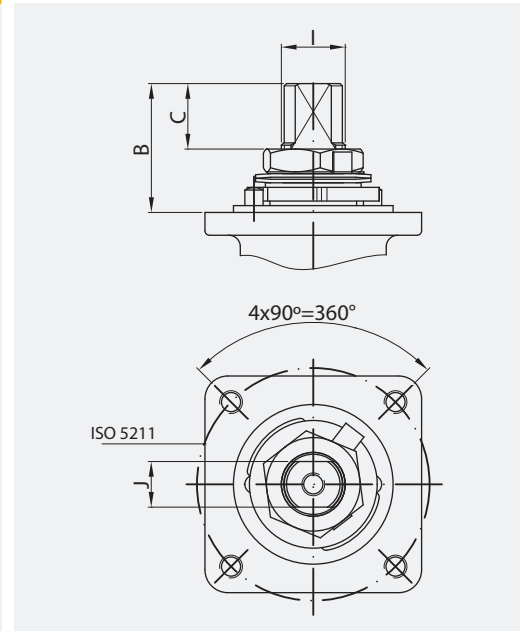
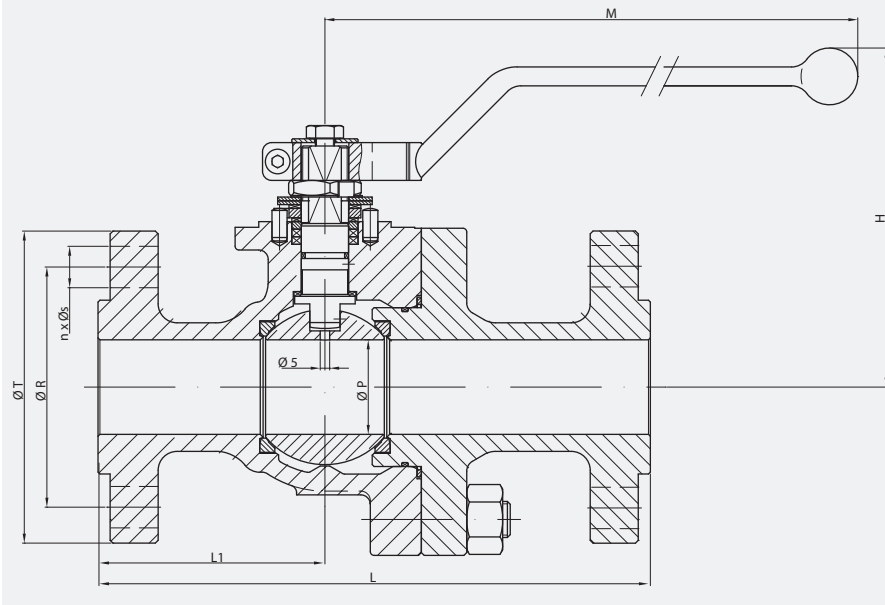
(*) Dimensions in mm, weight in kg and Torque in Nm.
 (**) Weights and dimensions can be changed without notice.
 (1) Body and Body connector joint is not threaded, is with screws.

ASME 560

Class 600

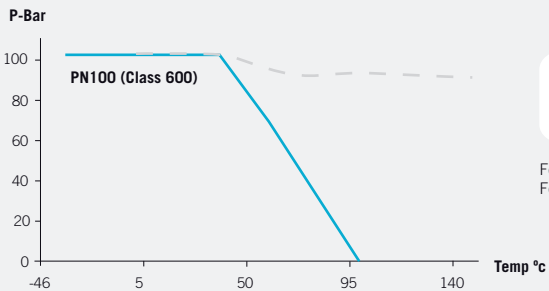
Full Bore

Class 600. From 2" to 4"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature



NYLON SEATS

2" to 4"

For A216 Gr. WCB only.
For other materials consult ASME B16.34



Fig. 560 (Class 600)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|----------|-----|-----|-----|-------|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 50 (2") | 50 | 292 | 120 | 127 | 8x19 | 165 | 180 | 445 | F10 | 45 | 20,2 | M25x1.5 | 18 | 29 | 135 | 270 |
| 80 (3") | 80 | 356 | 151 | 168,3 | 8x22,2 | 210 | 228 | 698 | F12 | 55,5 | 27 | M35x2 | 25 | 42 | 325 | 1000 |
| 100 (4") | 100 | 432 | 172 | 215,9 | 8x25.4 | 275 | 245 | 698 | F12 | 55 | 26,5 | M35x2 | 25 | 78 | 450 | 1650 |

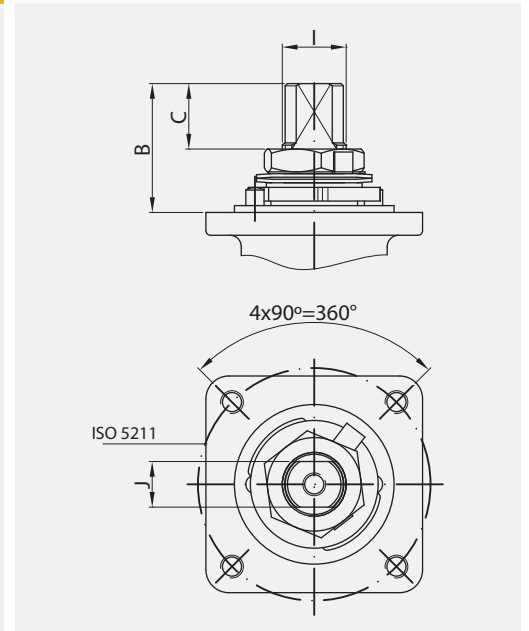
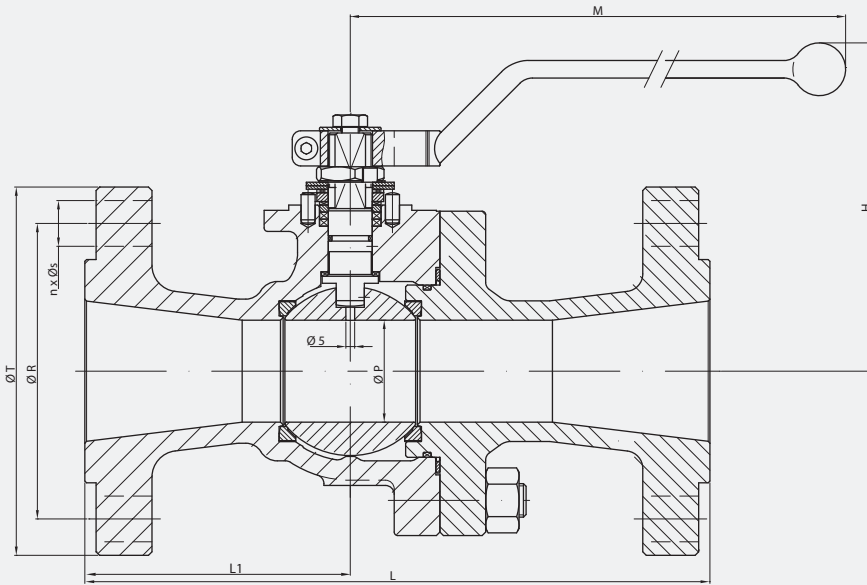
(*) Dimensions in mm, weight in kg and Torque in Nm.
(**) Weights and dimensions can be changed without notice.

ASME 660

Class 600

Reduced Bore

Class 600. From 2" to 4"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

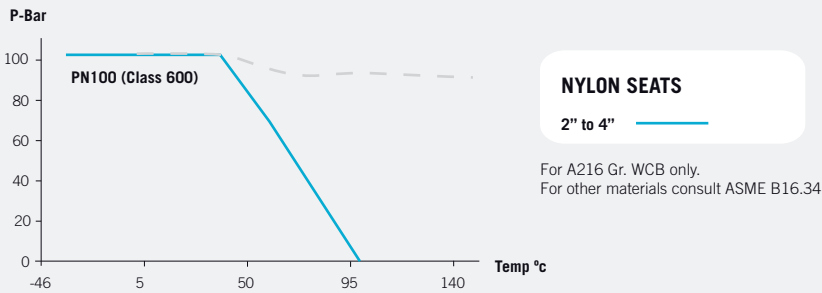
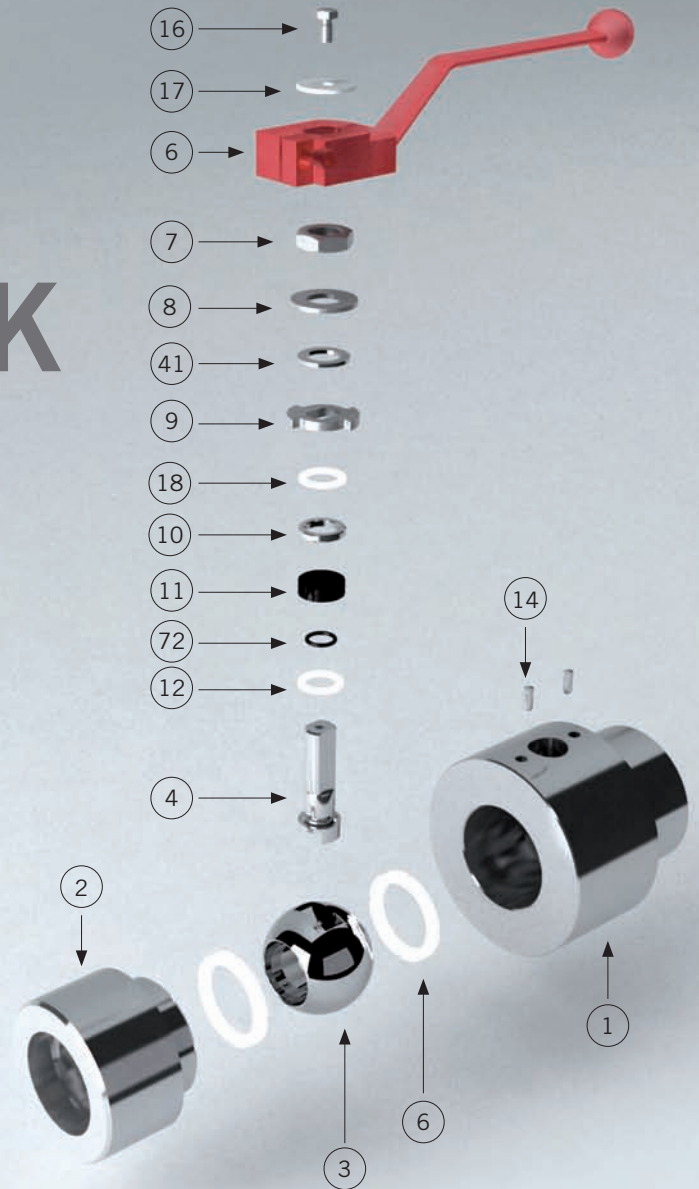


Fig. 660 (Class 600)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|----------|----|-----|-----|-------|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|-----|
| 50 (2") | 40 | 292 | 120 | 127 | 8x19 | 165 | 137 | 348 | F07 | 43 | 18,7 | M22x1.5 | 16 | 17 | 95 | 140 |
| 80 (3") | 58 | 356 | 151 | 168.3 | 8x22,2 | 210 | 228 | 698 | F10 | 44 | 19,2 | M25x2 | 18 | 30 | 185 | 300 |
| 100 (4") | 80 | 432 | 190 | 215.9 | 8x25.4 | 275 | 228 | 698 | F10 | 55,5 | 27 | M35x2 | 25 | 64 | 325 | 600 |

(*) Dimensions in mm, weight in kg and Torque in Nm.
(**) Weights and dimensions can be changed without notice.

| BALL VALVES | MONOBLOCK VALVES



Materials MONOBLOCK

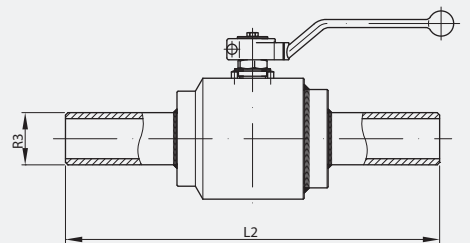
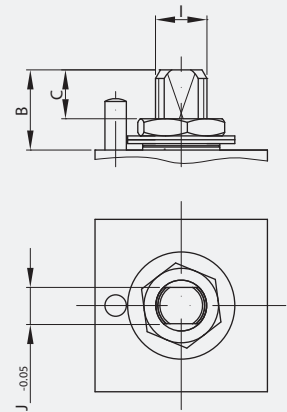
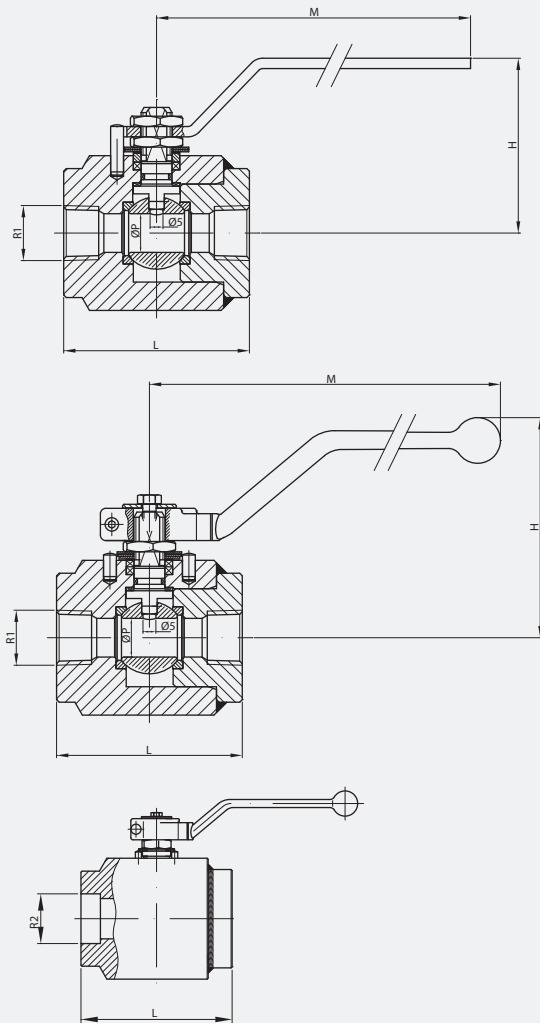
| Item | Description | L.I.CG. | L.I.CG. |
|------|--------------------------|-----------------------|-----------------------------|
| 1 | Body | A 350 Gr. LF2 Class 1 | A 479 Tp.316L |
| 2 | Body connector | A 350 Gr. LF2 Class 1 | A 479 Tp.316L |
| 3 | Ball | | A 351 Gr. CF8M |
| 4 | Stem | | AISI 410 |
| 5 | Seat ring | | Carbon graphite filled PTFE |
| 6 | Wrench (DN-1½" & 2") | | Nodular iron |
| 6.1 | Wrench (DN-3/8" ~ 1") | | AISI-316 |
| 7 | Gland nut | | AISI 303 |
| 8 | Disk spring | | E.N.P. Carbon Steel |
| 9 | Stop plate (DN-1½" & 2") | | AISI 304 |
| 10 | Gland | | AISI 316 |
| 11 | Gland packing | | Graphite |
| 12 | Stem thrust seal | | 25% G.F. PTFE |
| 14 | Stop pin | | Stainless St. |
| 16 | Bolt (DN-1½" & 2") | | DIN 933 A2 |
| 17 | Washer (DN-1½" & 2") | | AISI 304 |
| 18 | Thrust washer | | 25% G.F. PTFE |
| 19 | Antistatic device | | Stainless St. |
| 41 | Spacer (DN-40 & 50) | | AISI 304 |
| 72 | "O" Ring | | FKM |
| 89 | Identification plate | | Stainless St. |

ASME 400

Class 800

Full Bore

Class 800. From 3/8" to 2"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

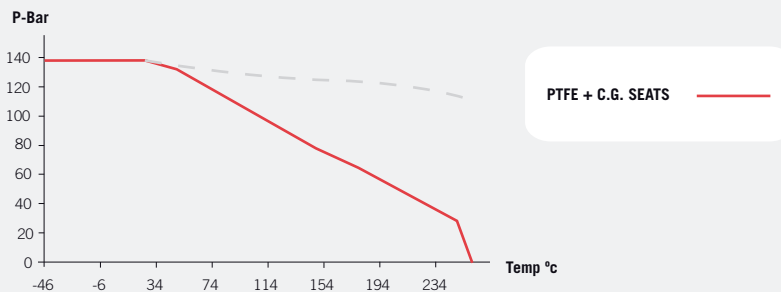


Fig. 400 (Class 800)

| DN | øP | L | L2 | R1 | R2 | R3 | H | M | B | C | I | J | WEIGHT | TORQUE 20 bar | TORQUE 55 bar | TORQUE 138 bar |
|--------|-----|-----|-----|------------|-----------|-----------|-----|-----|------|------|---------|----|--------|---------------|---------------|----------------|
| 3/8" | 9,5 | 70 | 240 | 3/8" NPT | 3/8" SW | 3/8" BW | 86 | 158 | 16 | 8,1 | M10x1.5 | 7 | 1 | 6 | 9 | 16 |
| 1/2" | 15 | 72 | 240 | 1/2" NPT | 1/2" SW | 1/2" BW | 91 | 158 | 18,7 | 10,6 | M12x1.5 | 9 | 1,6 | 8 | 12 | 20 |
| 3/4" | 20 | 90 | 240 | 3/4" NPT | 3/4" SW | 3/4" BW | 94 | 158 | 19,2 | 11,1 | M12x1.5 | 9 | 2,4 | 10 | 16 | 25 |
| 1" | 25 | 95 | 240 | 1" NPT | 1" SW | 1" BW | 98 | 158 | 19,7 | 11,1 | M12x1.5 | 9 | 3,1 | 15 | 20 | 30 |
| 1 1/2" | 40 | 130 | 260 | 1 1/2" NPT | 1 1/2" SW | 1 1/2" BW | 128 | 213 | 38,5 | 19,2 | M18x1.5 | 13 | 10 | 25 | 35 | 50 |
| 2" | 50 | 140 | 260 | 2" NPT | 2" SW | 2" BW | 141 | 348 | 41 | 19,2 | M22x1.5 | 16 | 14,6 | 40 | 55 | 70 |

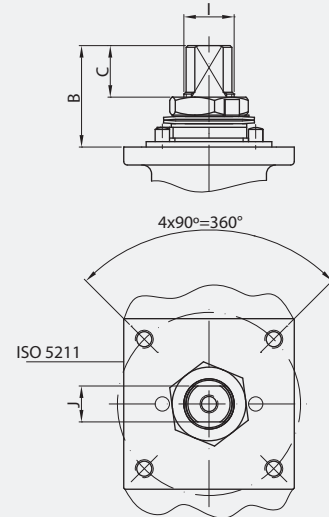
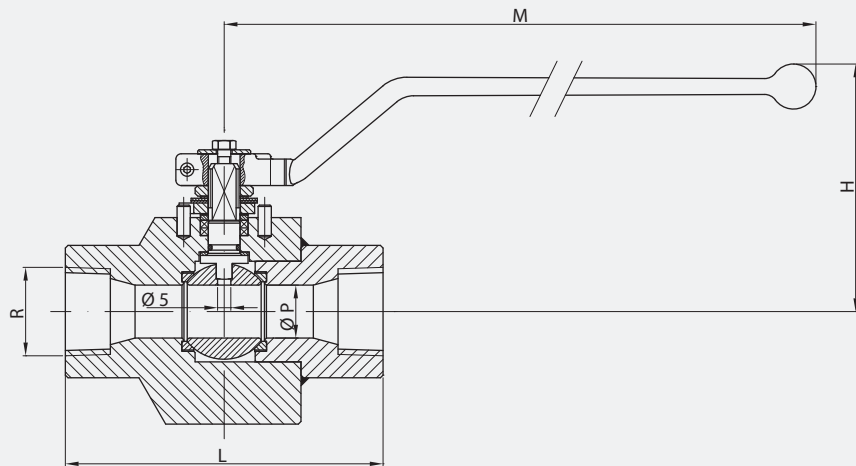
(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

ASME 411N

Class 800

Reduced Bore

Class 800. From 1/2" to 2"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

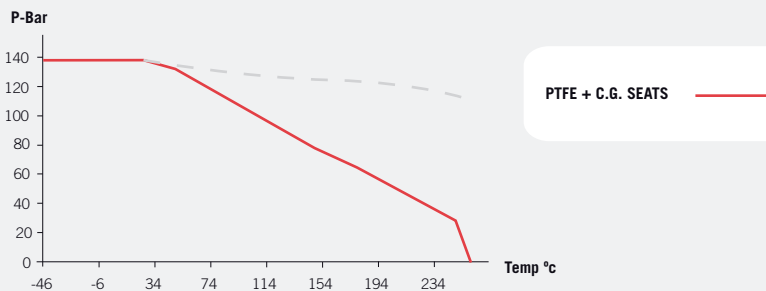


Fig. 411N (Class 800)

| DN | ØP | L | R | H | M | B | C | I | J | WEIGHT | TORQUE 20 bar | TORQUE 55 bar | TORQUE 138 bar |
|--------|----|-----|-----|-----|-----|------|------|---------|----|--------|---------------|---------------|----------------|
| 1/2" | 15 | 90 | NPT | 101 | 164 | 18,7 | 7,8 | M12x1.5 | 9 | 3,5 | 7 | 10 | 16 |
| 3/4" | 15 | 110 | NPT | 101 | 164 | 18,7 | 7,8 | M12x1.5 | 9 | 4,5 | 7 | 10 | 16 |
| 1" | 20 | 120 | NPT | 105 | 164 | 20 | 8,6 | M12x1.5 | 9 | 5 | 9 | 14 | 25 |
| 1 1/2" | 28 | 150 | NPT | 111 | 210 | 31,5 | 15,5 | M16x1.5 | 12 | 6 | 19 | 34 | 71 |
| 2" | 36 | 180 | NPT | 128 | 213 | 38,5 | 19,2 | M18x1.5 | 13 | 10 | 43 | 79 | 164 |

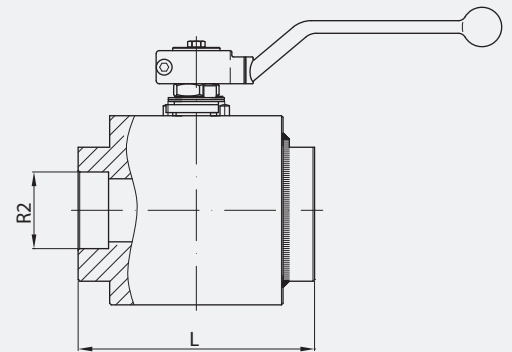
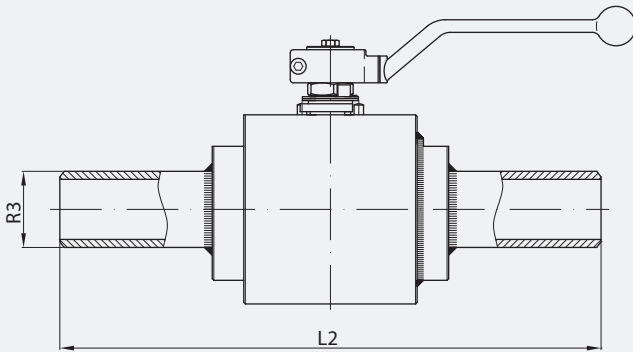
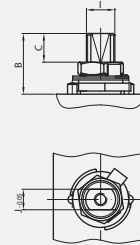
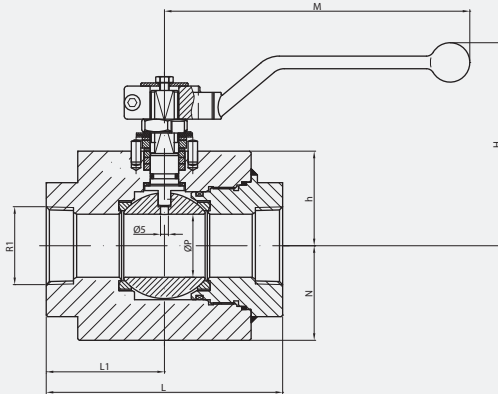
(*) Dimensions in mm and weight in kg.
 (**) Weights and dimensions can be changed without notice.

ASME 41500

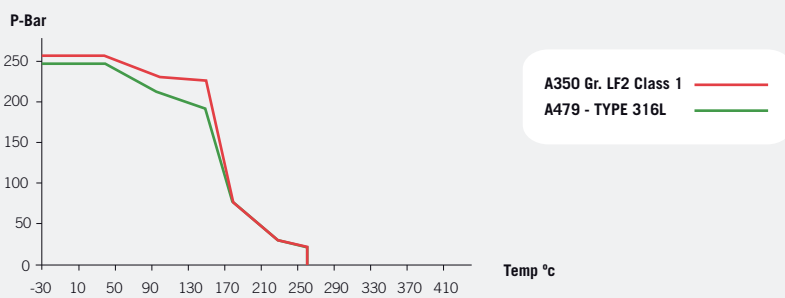
Class 1500

Reduced Bore

Class 1500. From 3/8" to 2"



Pressure - Temperature



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.



Fig. 41500 (Class 1500)

| DN | ØP | L | L1 | L2 | R1 | R2 | R3 | h | N | H | M | B | C | I | J |
|-----------------|-----|-----|----|-----|------------|-----------|-----------|----|------|------|-----|------|-----|---------|----|
| 3/8" | 9,5 | 80 | 35 | 240 | 3/8" NPT | 3/8" SW | 3/8" BW | 25 | 25 | 80,5 | 164 | 16 | 6 | M10x1,5 | 7 |
| 1/2" x 3/8" | 9,5 | 90 | 35 | 250 | 1/2" NPT | 1/2" SW | 1/2" BW | 25 | 25 | 80,5 | 164 | 16 | 6 | M10x1,5 | 7 |
| 1/2" | 15 | 90 | 35 | 250 | 1/2" NPT | 1/2" SW | 1/2" BW | 29 | 25 | 99 | 164 | 19,5 | 8 | M12x1,5 | 9 |
| 3/4" x 1/2" | 15 | 110 | 50 | 270 | 3/4" NPT | 3/4" SW | 3/4" BW | 29 | 25 | 99 | 164 | 19,5 | 8 | M12x1,5 | 9 |
| 3/4" | 20 | 110 | 50 | 270 | 3/4" NPT | 3/4" SW | 3/4" BW | 32 | 34 | 102 | 164 | 19,5 | 8 | M12x1,5 | 9 |
| 1" x 3/4" | 20 | 119 | 49 | 279 | 1" NPT | 1" SW | 1" BW | 32 | 34 | 102 | 164 | 19,5 | 8 | M12x1,5 | 9 |
| 1" | 25 | 119 | 49 | 279 | 1" NPT | 1" SW | 1" BW | 36 | 37,5 | 107 | 164 | 19,5 | 7,5 | M12x1,5 | 9 |
| 1 1/2" x 1.1/4" | 32 | 150 | 75 | 310 | 1.1/2" NPT | 1.1/2" SW | 1.1/2" BW | 36 | 37,5 | 116 | 210 | 30,5 | 14 | M16x1,5 | 12 |
| 1 1/2" | 40 | 150 | 75 | 310 | 1.1/2" NPT | 1.1/2" SW | 1.1/2" BW | 60 | 60 | 128 | 213 | 38,5 | 19 | M18x1,5 | 13 |
| 2 x 1 1/2" | 40 | 161 | 66 | 321 | 2" NPT | 2" SW | 2" BW | 60 | 60 | 128 | 213 | 38,5 | 19 | M18x1,5 | 13 |
| 2" | 50 | 161 | 66 | 321 | 2" NPT | 2" SW | 2" BW | 73 | 73 | 141 | 348 | 40,5 | 19 | M22x1,5 | 16 |

(*) Dimensions in mm, weight in kg and Torque in Nm.
 (**) Weights and dimensions can be changed without notice.

| BALL VALVES |

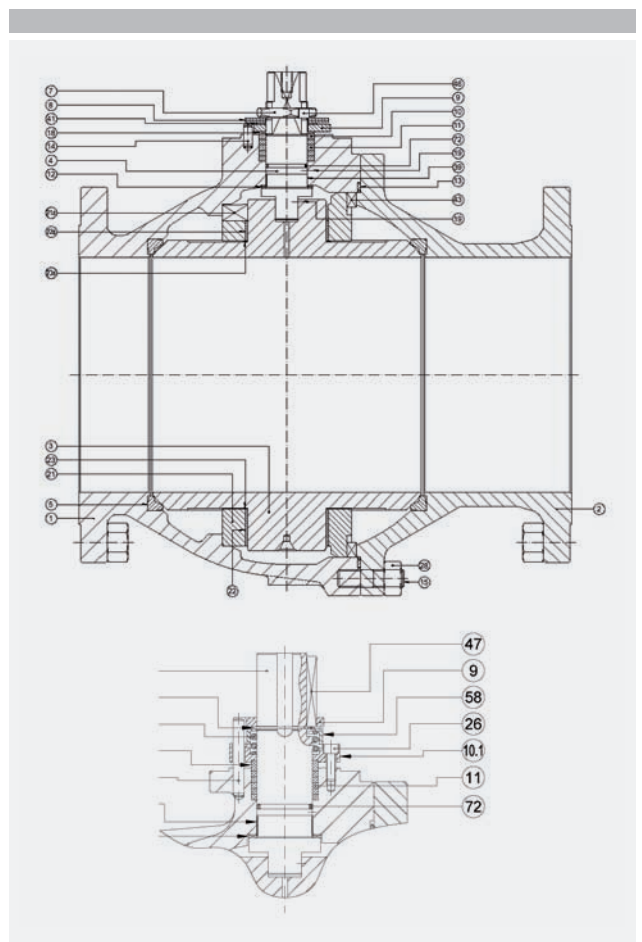
SEMI-TRUNNION BALL VALVES

8" - 12" | Class 150 - Class 300

DN 200 - DN 300 | PN 16 - PN 40

Materials CAST TRUNNION

| Item | Description | AIM | IIM |
|---------|----------------------|-------------------------------|-------------------|
| 1 | Body | A 216 Gr. WCB (C ≤ 0,25%) | A 351 Gr. CF8M |
| 2 | Body connector | A 216 Gr. WCB (C ≤ 0,25%) | A 351 Gr. CF8M |
| 3 | Ball | A 351 Gr. CF8M | |
| 4 | Stem | A 479 Tp.316 | |
| 5 | Seat ring | PTFE | PTFE |
| 7 | Gland nut | Zinc plated carbon steel | AISI 303 |
| 8 | Disk spring | Carbon St. | E.N.P. Carbon St. |
| 9 | Stop plate | Carbon St. | AISI 304 |
| 10 | Gland | AISI 303 | AISI 316 |
| 10.1 | Gland | AISI 303 | AISI 316 |
| 11 | Gland packing | Graphite | |
| 12 | Stem thrust seal | 25% G.F. PTFE | |
| 13 | Body connector seal | AISI 316L + Graphite | |
| 14 | Stop pin | Carbon St. | Stainless St. |
| 15 | Stud | A 193 Gr. B7M Zinc dichromate | A 193 Gr. B8M |
| 18 | Thrust washer | 25% G.F. PTFE | |
| 19 | Antistatic device | Stainless St. | |
| 21 /21a | Ball Trunnion | AISI 316 | |
| 22 /22a | Trunnion Bearing | PTFE + 50% SS | |
| 23 | Bearing | PTFE | |
| 26 | Bolt | DIN 912 8.8 Zinc plated | DIN 912 A2 |
| 28 | Nut | A 194 Gr. 2HM Zinc dichromate | A 194 Gr. 8M |
| 39 | Stem Bushing | 25% G.F. PTFE * | |
| 41 | Spacer | Carbon St. | Stainless St. |
| 43 | Key | AISI 316 | |
| 46 | Locking washer | AISI 304 | |
| 47 | Key | AISI 316 | |
| 58 | Spring Protection | Carbon St. | Stainless St. |
| 72 | O Ring | FKM | |
| 89 | Identification plate | Stainless St. | |
| 471 | Retainer | Steel | Stainless St. |



(*) AISI 316 + PTFE only in DN300 (12").

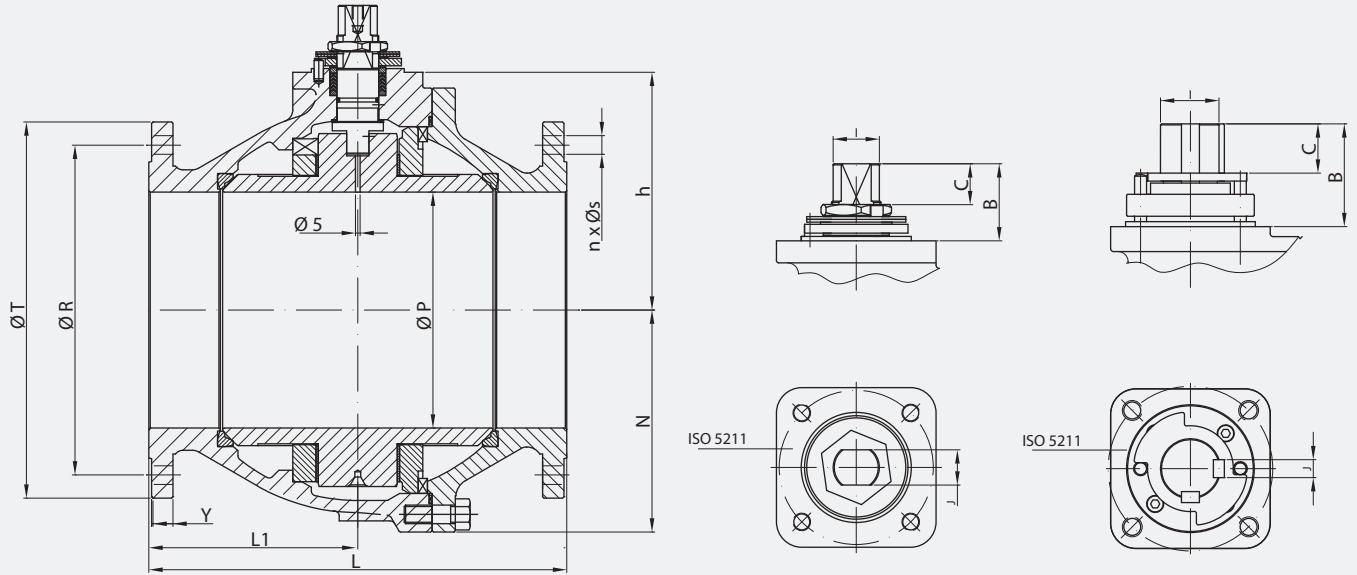
ASME 1515 / 1530

Class 150 / 300

Full Bore

Class 150. From 10" to 12"

Class 300. From 8" to 12"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

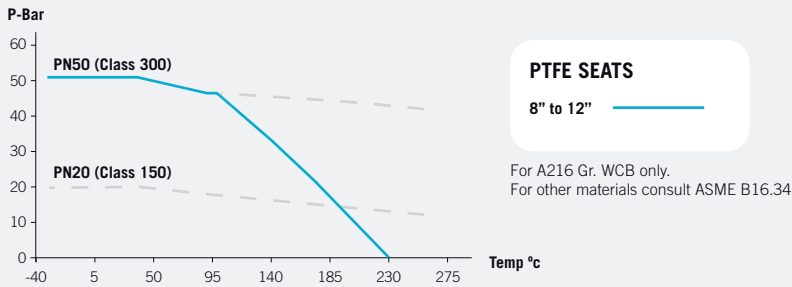


Fig. 1515 (Class 150)

| DN | øP | L | L1 | øR | n x øS | Y | øT | h | N | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-----|-------|---------|------|-----|-----|-------|----------|-----|----|-------|----|--------|--------|-------|
| 250 (10") | 254 | 533 | 225 | 362 | 12x25,4 | 28,7 | 405 | 256 | 239 | F14 | 72 | 39 | M45x2 | 32 | 237 | 1280 | 15000 |
| 300 (12") | 305 | 610 | 245 | 431,8 | 12x25,4 | 30,2 | 485 | 297 | 287,5 | F14 | 106 | 58 | 50 | 14 | 357 | 2000 | 20800 |

Fig. 1530 (Class 300)

| DN | øP | L | L1 | øR | n x øS | Y | øT | h | N | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----------|-----|-----|-----|-------|---------|------|-----|-----|-------|----------|-----|----|-------|----|--------|--------|-------|
| 200 (8") | 203 | 502 | 239 | 330,2 | 12x25,4 | 39,6 | 380 | 233 | 208 | F14 | 72 | 39 | M45x2 | 32 | 189 | 1280 | 9000 |
| 250 (10") | 254 | 568 | 225 | 387,4 | 16x28,5 | 46,2 | 445 | 256 | 252,5 | F14 | 72 | 39 | M45x2 | 32 | 301 | 1480 | 15000 |
| 300 (12") | 305 | 648 | 315 | 450,8 | 16x31,8 | 49,2 | 520 | 310 | 300 | F14 | 106 | 58 | 50 | 14 | 520 | 2550 | 20800 |

(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.

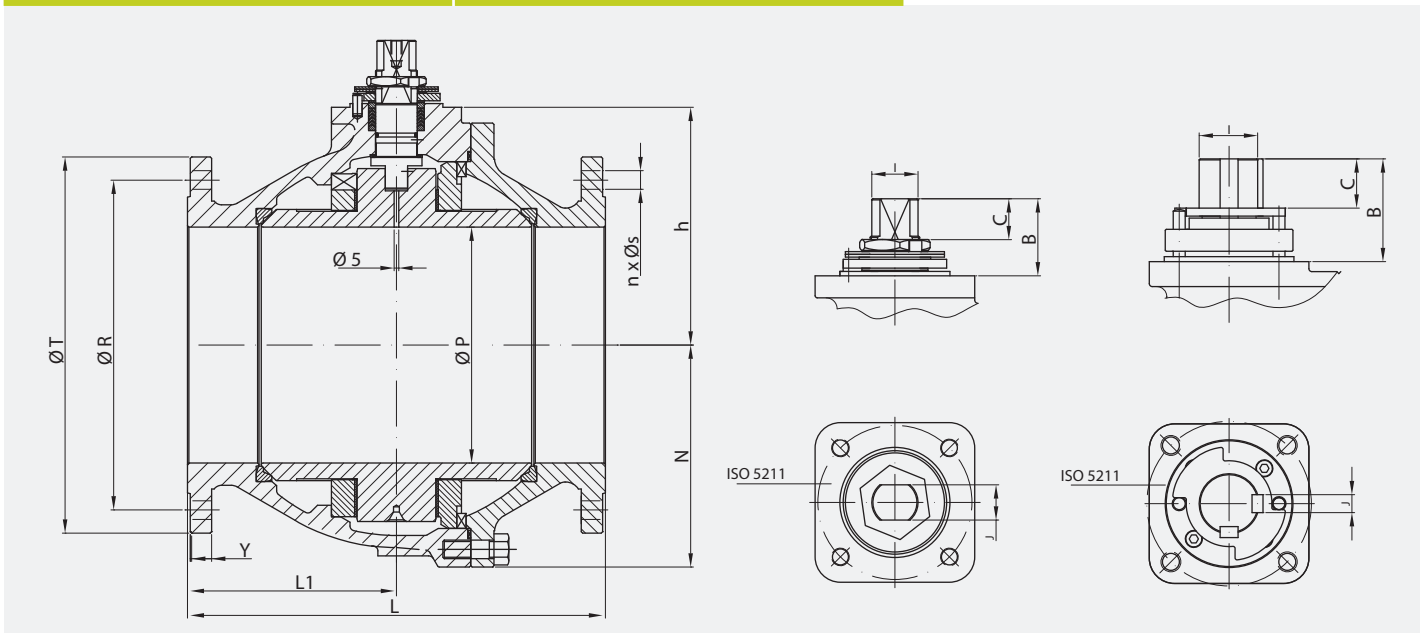
EN-DIN 1516 / 1540

PN 16 / PN 40

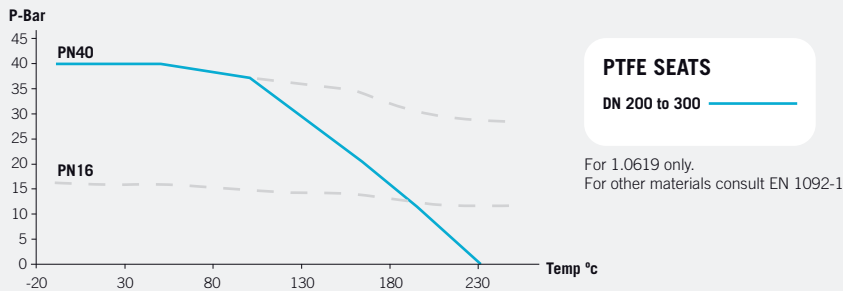
Full Bore

PN 16. From DN 250 to DN 300

PN 40. From DN 200 to DN 300



Pressure - Temperature



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.
 (**) Only DN300



Fig. 1516 (PN 16)

| DN | øP | L | L1 | øR | n x øS | Y | øT | h | N | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----|-----|-----|-----|-----|--------|----|-----|-----|-----|----------|-----|----|-------|----|--------|--------|-------|
| 250 | 254 | 450 | 225 | 355 | 12x26 | 26 | 405 | 256 | 239 | F14 | 72 | 39 | M45x2 | 32 | 223 | 1120 | 15000 |
| 300 | 305 | 500 | 245 | 410 | 12x26 | 26 | 460 | 297 | 288 | F14 | 106 | 58 | 50 | 14 | 323 | 1800 | 20800 |

Fig. 1540 (PN 40)

| DN | øP | L | L1 | øR | n x øS | Y | øT | h | N | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----|-----|-----|-----|-----|--------|----|-----|-----|-----|----------|-----|----|-------|----|--------|--------|-------|
| 200 | 203 | 400 | 200 | 320 | 12x30 | 34 | 375 | 233 | 208 | F14 | 72 | 39 | M45x2 | 32 | 162 | 1000 | 9000 |
| 250 | 254 | 450 | 199 | 385 | 12x33 | 38 | 450 | 256 | 253 | F14 | 72 | 39 | M45x2 | 32 | 264 | 1400 | 15000 |
| 300 | 305 | 500 | 240 | 450 | 16x33 | 42 | 515 | 310 | 300 | F14 | 106 | 58 | 50 | 14 | 440 | 2300 | 20800 |

(*) Dimensions in mm and weight in kg.
 (**) Weights and dimensions can be changed without notice.

NOTES

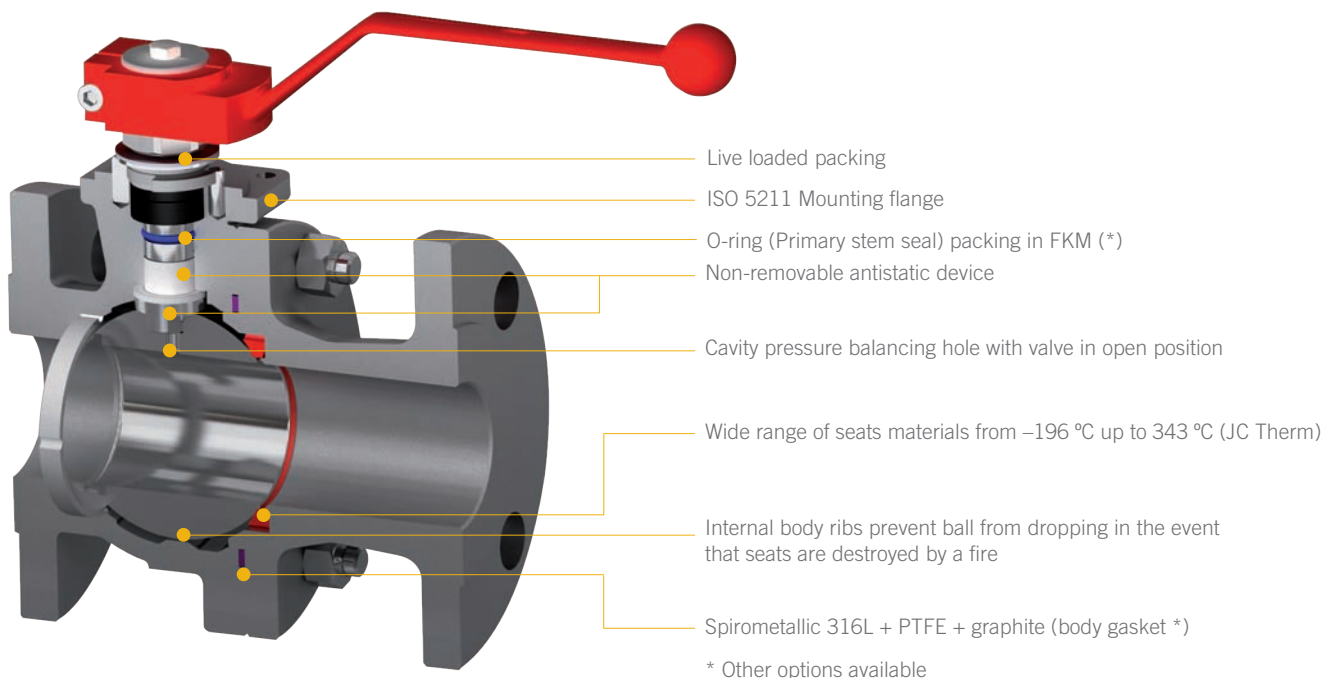
A series of horizontal dotted lines spanning the width of the page, intended for writing notes.

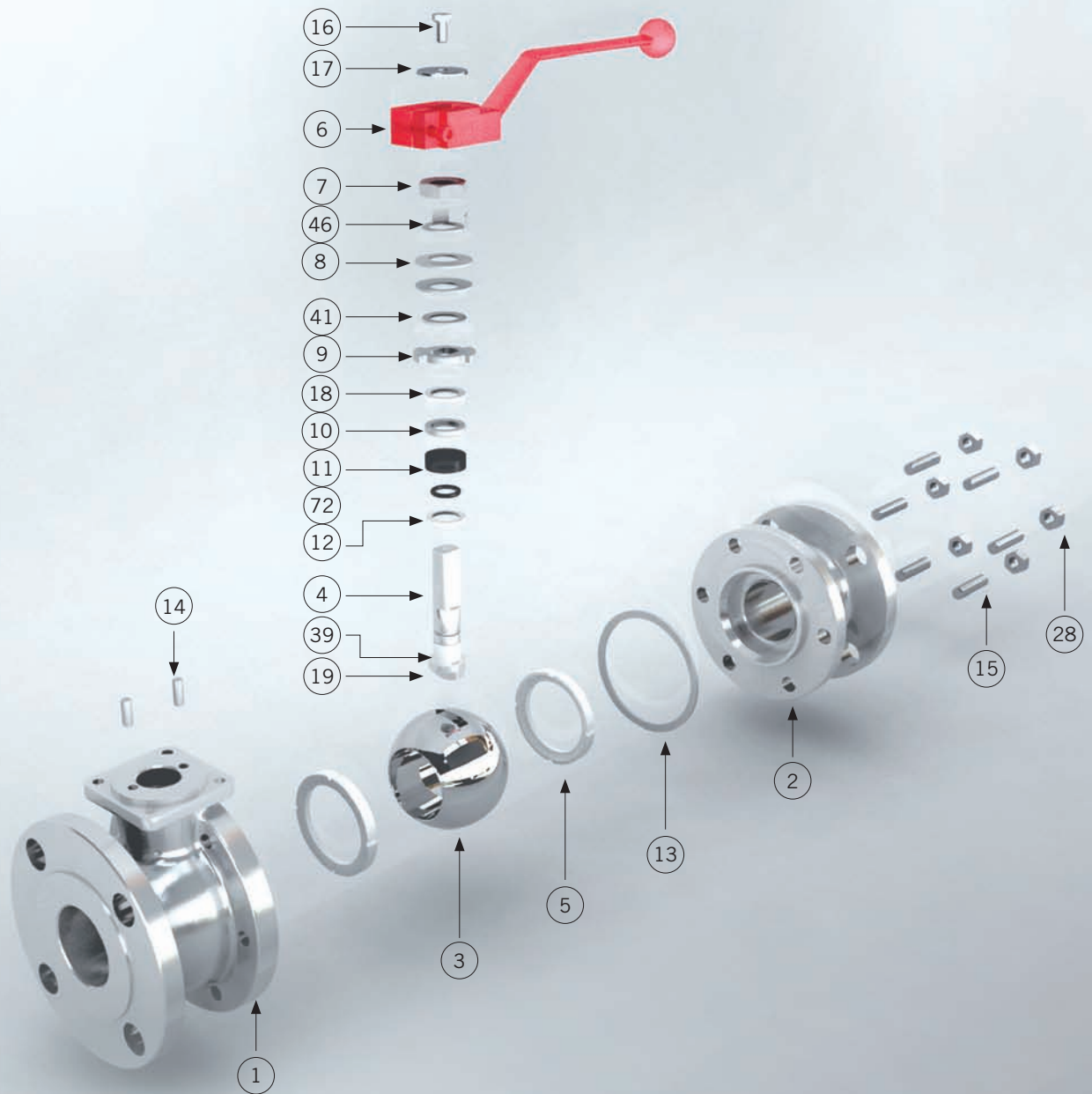
| BALL VALVES |

FLOATING EN-DIN

DN 15 - DN 200 | PN 16 - PN 40

A floating ball valve is a valve with seats supported ball, that is pushed by upstream pressure towards the downstream seat to ensure sealing. The DN of the floating ball valves range is limited by the capability of the seats material to support the pressure, temperature and weight of the ball.





Materials EN-DIN

| Item | Description | AIT | IIT |
|------|--------------------------------|--|-------------------|
| 1 | Body | 1.0619 | 1.4408 |
| 2 | Body connector | 1.0619 | 1.4408 |
| 3 | Ball | A 351 Gr. CF8M (DN 15 : 25 A 479 Tp.316) | |
| 4 | Stem | A 479 Tp.316 | |
| 5 | Seat ring | PTFE | |
| 6 | Wrench | Nodular Iron | |
| 7 | Gland nut | Zinc plated carbon steel | AISI 303 |
| 8 | Disk spring | Carbon St. | E.N.P. Carbon St. |
| 9 | Stop plate | Carbon St. | AISI 304 |
| 10 | Gland | AISI 303 | AISI 316 |
| 11 | Gland packing | Graphite | |
| 12 | Stem thrust seal | 25% G.F. PTFE | |
| 13 | Body connector seal | AISI 316L + PTFE + Graphite | |
| 14 | Stop pin | Carbon St. | Stainless St. |
| 15 | Bolt (DN 32 to DN 100 Stud) | DIN 933 A4-70 (DN 32 to DN 100 : A4-70) | |
| 16 | Bolt | DIN 933 A4-70 | |
| 17 | Washer | Zinc plated carbon steel | AISI 304 |
| 18 | Thrust washer | 25% G.F. PTFE | |
| 19 | Antistatic device | Stainless St. | |
| 28 | Nut (DN 32 to DN 100) | DIN 934 A4-70 | |
| 39 | Stem bushing (DN 25 to DN 200) | 25% G.F. PTFE | |
| 41 | Spacer (DN 40 to 200) | Carbon St. | AISI 304 |
| 46 | Washer | AISI 304 | AISI 304 |
| 72 | "O" Ring | FKM | |
| 89 | Identification plate | Stainless St. | |

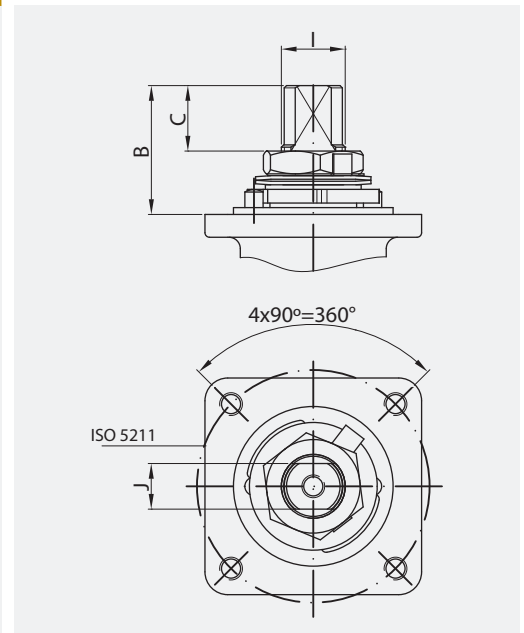
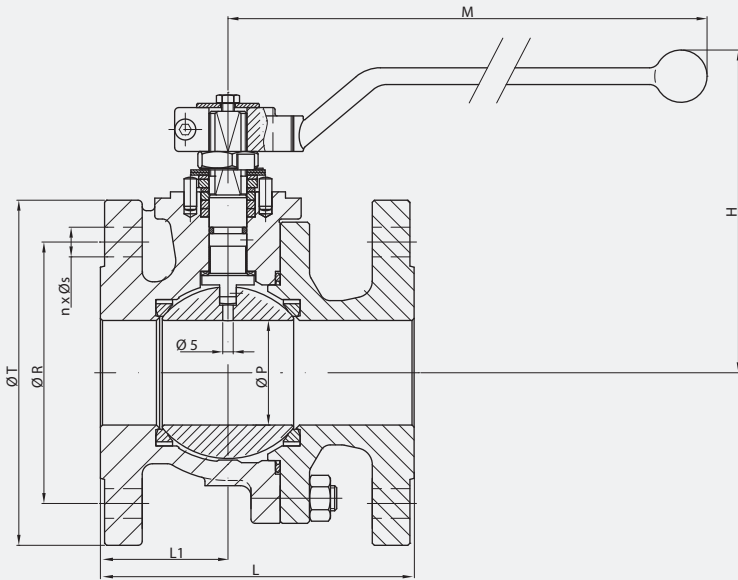
EN-DIN 516 / 540

PN 16 / 40

Full Bore

PN 16. From DN 65 to DN 200

PN 40. From DN 15 to DN 150



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

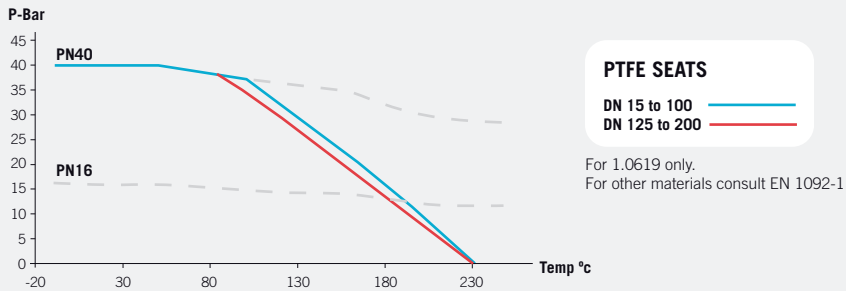


Fig. 516 (PN 16)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----|-----|-----|-----|-----|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 65 | 65 | 170 | 76 | 145 | 4x18 | 185 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 16 | 55 | 550 |
| 80 | 80 | 180 | 82 | 160 | 8x18 | 200 | 207 | 445 | F10 | 44,5 | 18,7 | M25x1.5 | 18 | 22 | 85 | 1000 |
| 100 | 100 | 190 | 90 | 180 | 8x18 | 220 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 32 | 130 | 1650 |
| 125 | 125 | 325 | 120 | 210 | 8x18 | 250 | 262 | 698 | F12 | 56 | 27,6 | M35x2 | 25 | 52,5 | 180 | 3000 |
| 150 | 151 | 350 | 135 | 240 | 8x22 | 285 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 76 | 250 | 4200 |
| 200 | 203 | 400 | 200 | 295 | 12x22 | 340 | 352 | 868 | F14 | 72 | 39 | M45x2 | 32 | 111 | 580 | 9000 |

Fig. 540 (PN 40)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----|-----|-----|-----|-----|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|------|
| 15 | 15 | 115 | 53 | 65 | 4x14 | 95 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 2,8 | 10 | 20 |
| 20 | 20 | 120 | 52 | 75 | 4x14 | 105 | 117 | 164 | F05 | 13,2 | 9,2 | M12x1.5 | 9 | 2,8 | 10 | 20 |
| 25 | 25 | 125 | 49 | 85 | 4x14 | 115 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 5 | 16 | 75 |
| 32 | 32 | 130 | 54 | 100 | 4x18 | 140 | 131 | 210 | F05 | 32 | 13,7 | M16x1.5 | 12 | 7 | 25 | 130 |
| 40 | 40 | 140 | 55 | 110 | 4x18 | 150 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 9 | 30 | 170 |
| 50 | 50 | 150 | 61 | 125 | 4x18 | 165 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 12 | 55 | 270 |
| 65 | 65 | 170 | 76 | 145 | 8x18 | 185 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 17 | 80 | 550 |
| 80 | 80 | 180 | 75 | 160 | 8x18 | 200 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 23 | 130 | 1000 |
| 100 | 100 | 190 | 91 | 190 | 8x22 | 235 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 35 | 150 | 1650 |
| 125 | 125 | 325 | 120 | 220 | 8x26 | 270 | 262 | 698 | F12 | 56 | 27,6 | M35x1.5 | 25 | 57 | 240 | 3000 |
| 150 | 151 | 350 | 135 | 250 | 8x26 | 300 | 298 | 698 | F12 | 68 | 38,5 | M40x1.5 | 29 | 83,5 | 480 | 4200 |

(*) Dimensions in mm, weight in kg and Torque in Nm.
 (**) Weights and dimensions can be changed without notice.

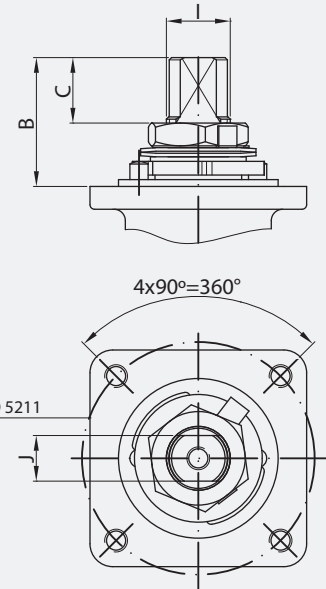
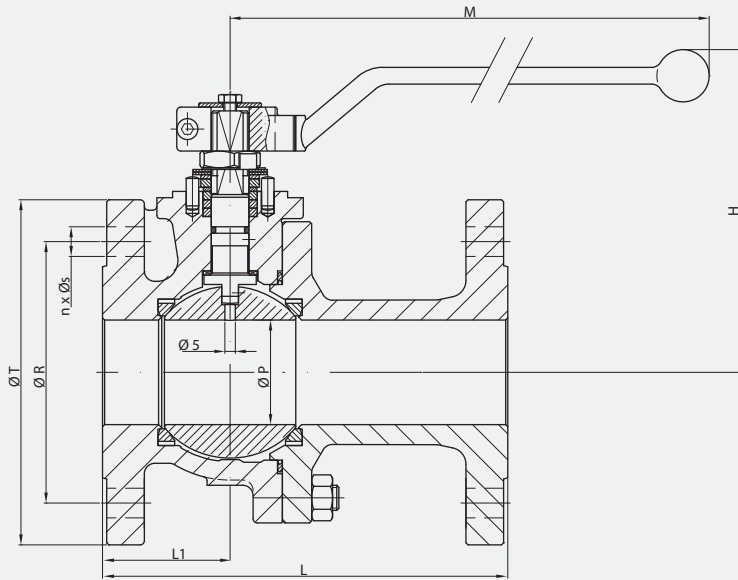
EN-DIN 316 / 340

PN 16 / 40

Full Bore

PN 16. From DN 65 to DN 100

PN 40. From DN 15 to DN 50



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

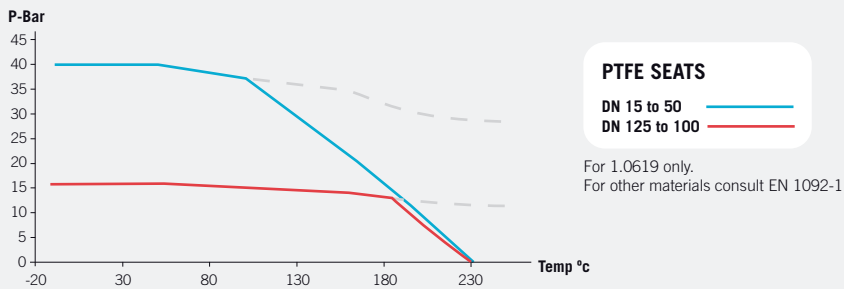


Fig. 316 (PN 16)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|-----|-----|-----|----|-----|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|-------|
| 65 | 65 | 290 | 76 | 145 | 4x18 | 185 | 169 | 348 | F07 | 44 | 19,7 | M22x1.5 | 16 | 18,3 | 55 | 550 |
| 80 | 80 | 310 | 82 | 160 | 8x18 | 200 | 207 | 445 | F10 | 44,5 | 19,7 | M25x1.5 | 18 | 24 | 85 | 1000 |
| 100 | 100 | 350 | 90 | 180 | 8x18 | 220 | 231 | 495 | F10 | 56,5 | 29,2 | M28x1.5 | 20 | 36 | 130 | 16500 |

Fig. 340 (PN 40)

| DN | ØP | L | L1 | ØR | n x ØS | ØT | H | M | ISO 5211 | B | C | I | J | WEIGHT | TORQUE | Kv |
|----|----|-----|----|-----|--------|-----|-----|-----|----------|------|------|---------|----|--------|--------|-----|
| 15 | 15 | 130 | 53 | 65 | 4x14 | 95 | 110 | 164 | F05 | 11,2 | 5,7 | M12x1.5 | 9 | 3 | 10 | 20 |
| 25 | 25 | 160 | 49 | 85 | 4x14 | 115 | 129 | 164 | F05 | 22,7 | 10,2 | M12x1.5 | 9 | 5,2 | 16 | 75 |
| 32 | 32 | 180 | 54 | 100 | 4x18 | 140 | 131 | 210 | F05 | 32 | 13,7 | M16x1,5 | 12 | 7,6 | 25 | 130 |
| 40 | 40 | 200 | 55 | 110 | 4x18 | 150 | 148 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 9,6 | 30 | 170 |
| 50 | 50 | 230 | 61 | 125 | 4x18 | 165 | 155 | 213 | F07 | 41,5 | 19,2 | M18x1.5 | 13 | 12,9 | 55 | 270 |

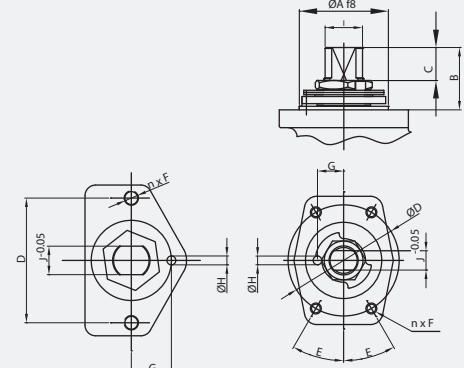
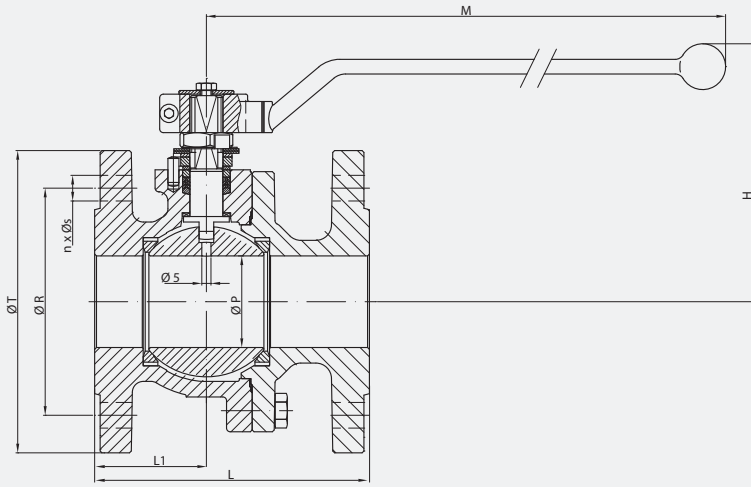
(*) Dimensions in mm, weight in kg and Torque in Nm.
 (***) Weights and dimensions can be changed without notice.

EN-DIN 512

PN 16

Full Bore

PN 16. From DN 15 to DN 200



ONLY DN 15, DN 20 & DN 25

Pressure - Temperature

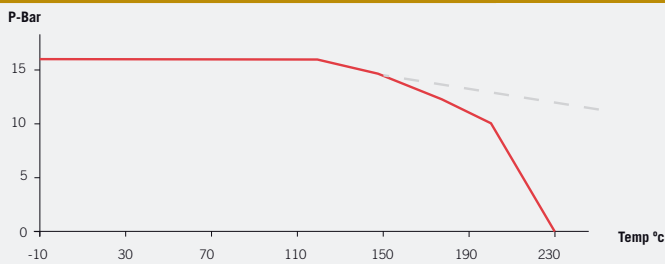


Fig. 512 (PN 16)

| DN | ØP | L | L1 | ØR | N x ØS | ØT | H | M | WEIGHT | TORQUE | Kv |
|-----|-----|-----|------|-----|--------|-----|-----|-----|--------|--------|------|
| 15 | 15 | 115 | 50 | 65 | 4x14 | 95 | 99 | 164 | 2,39 | 8 | 20 |
| 20 | 20 | 120 | 52 | 75 | 4x14 | 105 | 102 | 164 | 3,19 | 10 | 40 |
| 25 | 25 | 125 | 52 | 85 | 4x14 | 115 | 106 | 164 | 3,9 | 15 | 75 |
| 32 | 32 | 130 | 54 | 100 | 4x18 | 140 | 117 | 210 | 6,3 | 22 | 130 |
| 40 | 40 | 140 | 55 | 110 | 4x18 | 150 | 133 | 213 | 8 | 25 | 170 |
| 50 | 50 | 150 | 61 | 125 | 4x18 | 165 | 141 | 213 | 10,7 | 40 | 270 |
| 65 | 65 | 170 | 75 | 145 | 4x18 | 185 | 152 | 348 | 15,4 | 55 | 550 |
| 80 | 80 | 180 | 78,5 | 160 | 8x18 | 200 | 189 | 445 | 20,2 | 85 | 1000 |
| 100 | 100 | 190 | 90 | 180 | 8x18 | 220 | 220 | 495 | 25,8 | 130 | 1650 |
| 125 | 125 | 325 | 141 | 210 | 8x18 | 250 | 254 | 698 | 49,5 | 180 | 3000 |
| 150 | 150 | 350 | 160 | 240 | 8x22 | 285 | 281 | 698 | 74,1 | 250 | 4200 |
| 200 | 200 | 400 | 200 | 295 | 12x22 | 340 | 338 | 868 | 110,5 | 580 | 9000 |

ACTUATOR CONNECTION

| DN | ØA | B | C | D | E | N x F | G | ØH | I | J |
|-----|----|------|------|------|-----|-------|------|----|---------|----|
| 15 | 29 | 20 | 8,5 | 40 | - | 2xM6 | 13,3 | 5 | M12x1.5 | 9 |
| 20 | 29 | 20 | 8,5 | 40 | - | 2xM6 | 13,3 | 5 | M12x1.5 | 9 |
| 25 | 29 | 20 | 8,5 | 40 | - | 2xM6 | 13,3 | 5 | M12x1.5 | 9 |
| 32 | 34 | 30 | 13 | Ø50 | 30° | 4xM6 | 15 | 5 | M16x1.5 | 12 |
| 40 | 39 | 40,5 | 20 | Ø56 | 30° | 4xM10 | 18 | 6 | M18x1.5 | 13 |
| 50 | 39 | 40,5 | 20 | Ø56 | 30° | 4xM10 | 18 | 6 | M18x1.5 | 13 |
| 65 | 47 | 41 | 18,5 | Ø65 | 30° | 4xM10 | 22 | 6 | M22x1.5 | 16 |
| 80 | 55 | 41,5 | 18,5 | Ø74 | 30° | 4xM10 | 24 | 8 | M25x1.5 | 18 |
| 100 | 59 | 53,5 | 28,2 | Ø82 | 30° | 4xM10 | 26 | 8 | M28x1.5 | 20 |
| 125 | 68 | 53 | 27,5 | Ø100 | 40° | 4xM12 | 30 | 8 | M35x2 | 25 |
| 150 | 74 | 65 | 38,5 | Ø104 | 40° | 4xM12 | 33 | 8 | M40x2 | 29 |
| 200 | 94 | 66 | 37 | Ø130 | 40° | 4xM16 | 42 | 10 | M45x2 | 32 |

(*) Dimensions in mm and weight in kg.

(**) Weights and dimensions can be changed without notice.

| BALL VALVES |

FLOATING 3 WAY BALL VALVES

1" - 8" | Class 150

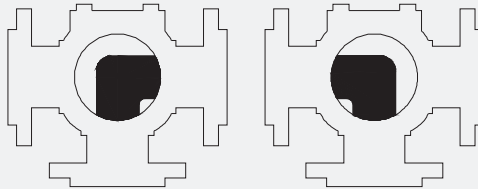
DN 25 - DN 200 | PN 16

The JC Three way ball valves, have been designed to divert the flow at 90° in several options between two pipes. Three way ball valves are available with either "L" and double "L" (X) port, or T-port design. The full port design is easily automated and is available with various seat materials.

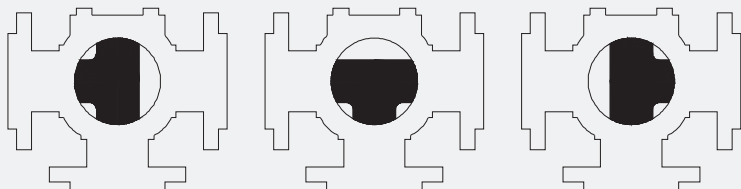


PORT COMBINATIONS

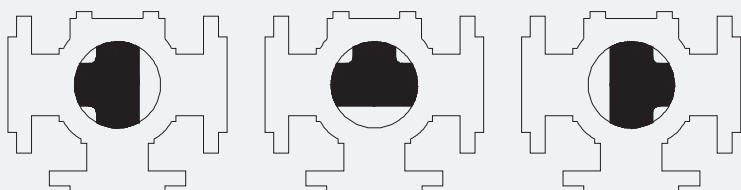
3 WAY L PORT

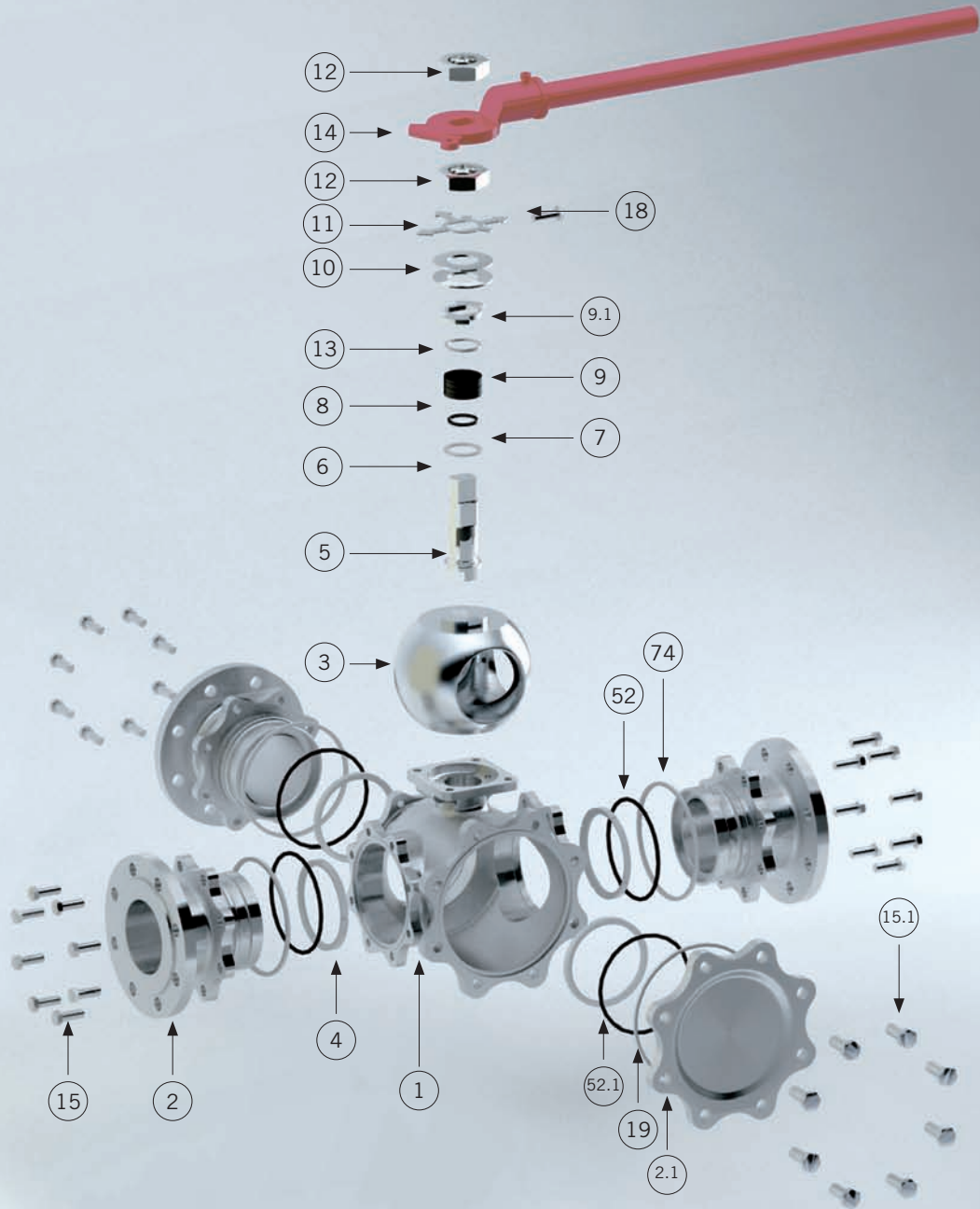


3 WAY T PORT



3 WAY INVERTED PORT





Materials

EN-DIN

ASME

916 AIT

916 IIT

915 AIT

915 IIT

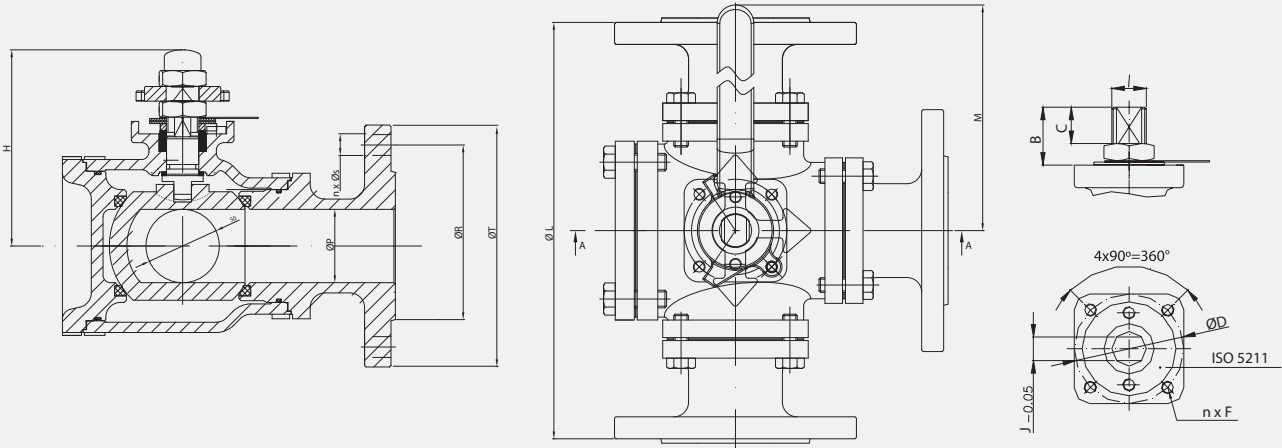
| Item | Description | Material | | Material | |
|------|----------------------|--------------------------|----------|-------------------------------------|---------------|
| 1 | Body | 1.0619 | 1.4408 | A216 Gr. WCB (C _s 0,25%) | A351 Gr. CF8M |
| 2 | Body connector | 1.0619 | 1.4408 | A216 Gr. WCB (C _s 0,25%) | A351 Gr. CF8M |
| 2.1 | Side Cover | 1.0619 | 1.4408 | A216 Gr. WCB (C _s 0,25%) | A351 Gr. CF8M |
| 3 | Ball | A 351 Gr. CF8M | | A 351 Gr. CF8M | |
| 4 | Seat ring | PTFE | | PTFE | |
| 5 | Stem | A 479 Type 316 | | A 479 Type 316 | |
| 6 | Stem thrust seal | 25%GF PTFE | | 25%GF PTFE | |
| 7 | O'ring | FKM | | FKM | |
| 8 | Stem packing | Graphite | | Graphite | |
| 9 | Gland | AISI 303 | AISI 316 | AISI 303 | AISI 316 |
| 9.1 | Stop plate | F114 | AISI 304 | F114 | AISI 304 |
| 10 | Disk spring | E.N.P Carbon steel | | E.N.P Carbon steel | |
| 11 | Look. Wash. Pointer | Rilsan coated Carbon St. | | Rilsan coated Carbon St. | |
| 12 | Gland nut | Zinc plated carbon steel | AISI 303 | Zinc plated carbon steel | AISI 303 |
| 13 | Antifricion washer | 25%GF. PTFE | | 25%GF. PTFE | |
| 14 | Wrench | Nodular iron | | Nodular iron | |
| 15 | Bolt | DIN 933 A4 - 70 | | DIN 933 A4 - 70 | |
| 15.1 | Bolt | DIN 933 A4 - 70 | | DIN 933 A4 - 70 | |
| 18 | Stop bolt | A4-70 | | A4-70 | |
| 19 | Body cover seal | PTFE | | PTFE | |
| 52 | O'ring | FKM | | FKM | |
| 52.1 | O'ring | FKM | | FKM | |
| 74 | Body connector seal | PTFE | | PTFE | |
| 89 | Identification plate | Stainless St. | | Stainless St. | |

ASME 915

Class 150

Full Bore

Class 150. From 1" to 8"



Pressure - Temperature

(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

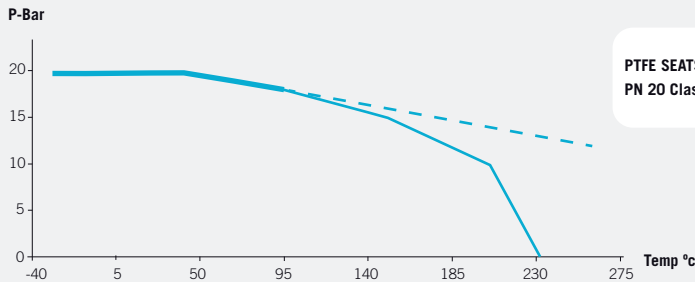
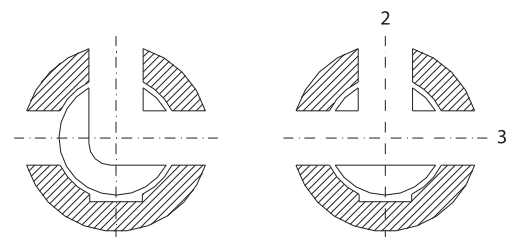


Fig. 915 (Class 150)

| DN | øP | øL | A | A1 | øR | n x øS | øT | H | M | ISO 5211 | B | C | I | J | WEIGHT |
|-----|-----|-----|-------|-----|-------|--------|-----|-----|-----|----------|----|------|---------|----|--------|
| 1" | 25 | 212 | 106 | 70 | 79,4 | 4x15,9 | 110 | 96 | 170 | F05 | 22 | 12,2 | M12x1,5 | 8 | 8 |
| 1½" | 40 | 262 | 131 | 80 | 98,4 | 4x15,9 | 125 | 121 | 200 | F07 | 33 | 19,2 | M18x1,5 | 12 | 17 |
| 2" | 50 | 290 | 145 | 90 | 120,7 | 4x19 | 150 | 134 | 350 | F07 | 34 | 20,2 | M22x1,5 | 15 | 25 |
| 2½" | 65 | 325 | 162,5 | 107 | 139,7 | 4x19 | 180 | 180 | 350 | F10 | 34 | 19,2 | M22x1,5 | 15 | 34 |
| 3" | 80 | 370 | 185 | 117 | 152,4 | 4x19 | 190 | 189 | 465 | F10 | 45 | 27,7 | M28x1,5 | 19 | 51 |
| 4" | 100 | 430 | 215 | 148 | 190,5 | 8x19 | 230 | 230 | 475 | F12 | 56 | 32,2 | M36x1,5 | 24 | 77 |
| 6" | 150 | 500 | 250 | 194 | 241,3 | 8x22.2 | 280 | 280 | 855 | F14 | 69 | 41 | M48x3 | 32 | 138 |
| 8" | 200 | 600 | 300 | 270 | 298,5 | 8x22.2 | 345 | 325 | 855 | F14 | 69 | 34 | M48x3 | 32 | |

| TORQUE | | |
|------------|----------------------------------|-----|
| VALVE SIZE | AT MAXIMUM DIFFERENTIAL PRESSURE | |
| | L | T |
| 25 (1") | 32 | 32 |
| 40 (1 ½") | 71 | 71 |
| 50 (2") | 130 | 130 |
| 65 (2½") | 195 | 195 |
| 80 (3") | 260 | 260 |
| 100 (4") | 494 | 494 |
| 150 (6") | 689 | 689 |
| 200 (8") | 850 | 850 |

| Kv | | | |
|------------|--------|--------|--------|
| VALVE SIZE | PORT L | PORT T | |
| | | PORT 2 | PORT 3 |
| 25 (1") | 20,4 | 28,9 | 51 |
| 40 (1 ½") | 51,85 | 51,85 | 149,6 |
| 50 (2") | 42,5 | 80,75 | 249,9 |
| 65 (2½") | 136,85 | 136,85 | 478,55 |
| 80 (3") | 206,55 | 291,55 | 732,7 |
| 100 (4") | 323 | 323 | 1217,2 |
| 150 (6") | 726,75 | 726,75 | 3087,2 |
| 200 (8") | 920 | 920 | 4810 |



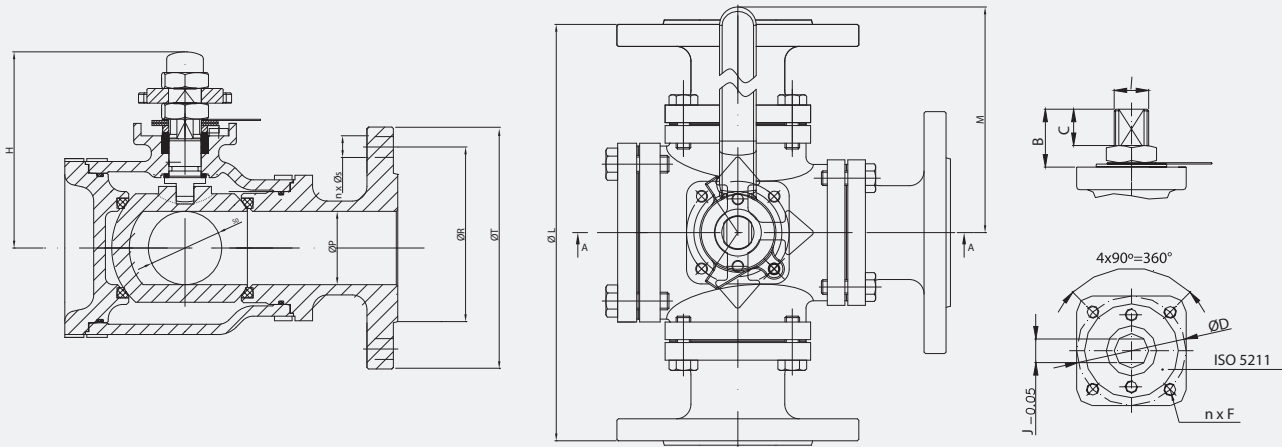
(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.
Torque Values in Nm.
Kv Values in m3/h.

EN-DIN 916

PN 16

Full Bore

PN 16. From DN 25 to DN 200



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

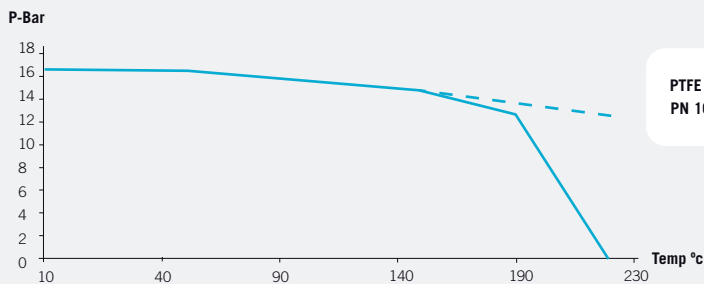
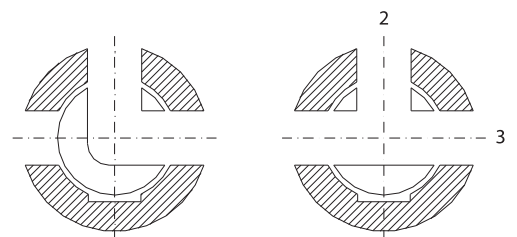


Fig. 916 (PN 16)

| DN | ϕP | ϕL | A | A1 | ϕR | $n \times \phi S$ | ϕT | H | M | ISO 5211 | B | C | I | J | WEIGHT |
|-----|----------|----------|-------|-----|----------|-------------------|----------|-----|-----|----------|----|------|---------|----|--------|
| 25 | 25 | 212 | 106 | 70 | 85 | 4x14 | 115 | 96 | 170 | F05 | 22 | 12,2 | M12x1,5 | 8 | 8 |
| 40 | 40 | 262 | 131 | 80 | 110 | 4x18 | 150 | 121 | 200 | F07 | 33 | 19,2 | M18x1,5 | 12 | 17 |
| 50 | 50 | 290 | 145 | 90 | 125 | 4x18 | 165 | 134 | 350 | F07 | 34 | 20,2 | M22x1,5 | 15 | 25 |
| 65 | 65 | 325 | 162,5 | 107 | 145 | 8x18 | 185 | 180 | 350 | F10 | 34 | 19,2 | M22x1,5 | 15 | 34 |
| 80 | 80 | 370 | 185 | 117 | 160 | 8x18 | 200 | 189 | 465 | F10 | 45 | 27,7 | M28x1,5 | 19 | 51 |
| 100 | 100 | 430 | 215 | 148 | 180 | 8x18 | 220 | 230 | 475 | F12 | 56 | 32,2 | M36x1,5 | 24 | 77 |
| 150 | 150 | 500 | 250 | 194 | 240 | 8x22 | 285 | 280 | 855 | F14 | 69 | 41 | M48x3 | 32 | 138 |
| 200 | 200 | 600 | 300 | 270 | 295 | 12x22 | 340 | 325 | 855 | F14 | 69 | 34 | M48x3 | 32 | |

| VALVE SIZE | TORQUE | |
|-------------|----------------------------------|-----|
| | AT MAXIMUM DIFFERENTIAL PRESSURE | |
| | L | T |
| 25 (1") | 32 | 32 |
| 40 (1 1/2") | 71 | 71 |
| 50 (2") | 130 | 130 |
| 65 (2 1/2") | 195 | 195 |
| 80 (3") | 260 | 260 |
| 100 (4") | 494 | 494 |
| 150 (6") | 689 | 689 |
| 200 (8") | 850 | 850 |

| VALVE SIZE | Kv | | |
|-------------|--------|--------|--------|
| | PORT L | PORT T | |
| | | PORT 2 | PORT 3 |
| 25 (1") | 20,4 | 28,9 | 51 |
| 40 (1 1/2") | 51,85 | 51,85 | 149,6 |
| 50 (2") | 42,5 | 80,75 | 249,9 |
| 65 (2 1/2") | 136,85 | 136,85 | 478,55 |
| 80 (3") | 206,55 | 291,55 | 732,7 |
| 100 (4") | 323 | 323 | 1217,2 |
| 150 (6") | 726,75 | 726,75 | 3087,2 |
| 200 (8") | 920 | 920 | 4810 |



(*) Dimensions in mm and weight in kg.
 (***) Weights and dimensions can be changed without notice.
 Torque Values in Nm.
 Kv Values in m³/h.

| BALL VALVES |

SPECIAL CONSTRUCTIONS

JC Ball Valves can be delivered in special constructions as following:

STEAM JACKET

When viscous materials are handled, JC steam jacketed ball valves are recommended to prevent valve to be blocked in closed position.

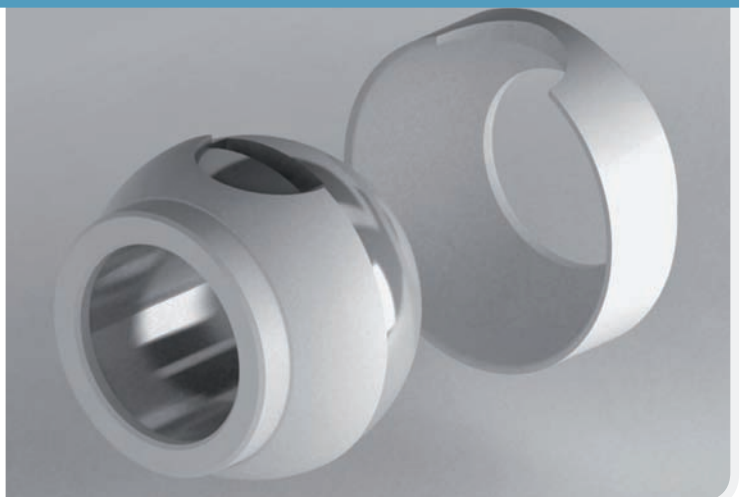
The maximum steam jacket pressure is 10 Bar (1.0 Mpa) and maximum temperature is 260°.



CAVITY FILLER

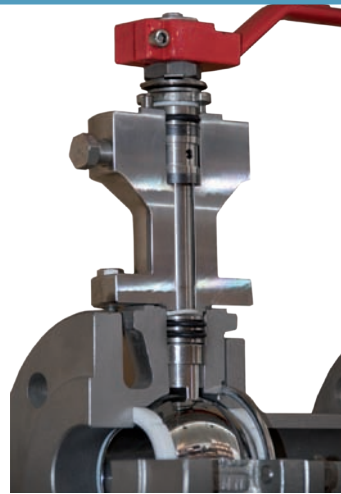
Some of the roughest process controls problems involve fluids that can polymerize in place. That means they can polymerize inside body cavities and could block the valve. Cavity-filler seats are available in PTFE, Stansit, TFM.

Applications: Styrene, Butadiene, Monomers, Pharmaceuticals, Food process, ...



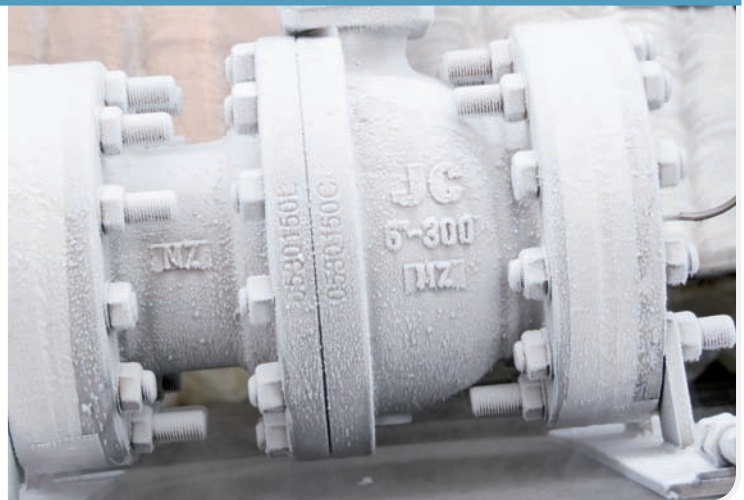
DOUBLE PACKING

Today's concern for the containment of fugitive emissions has brought forth in the industry a wide range of stem sealing concepts and designs aimed to eliminating stem leakage. For these applications where it is imperative that fluid containment has to be assured, double packing can be adapted to any JC ball valve.



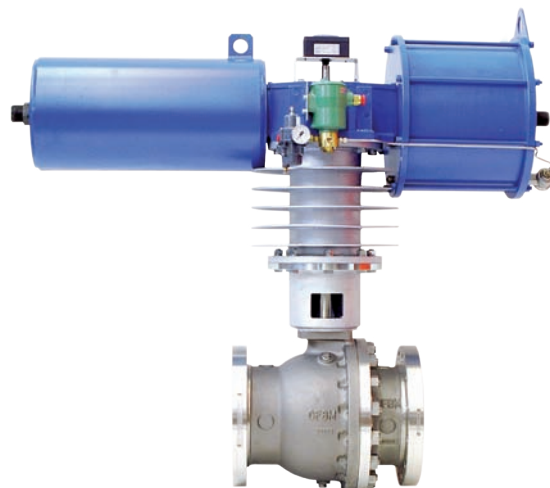
LOW TEMPERATURE OR CRYOGENIC SERVICE

JC ball valves have been widely used in low temperature and cryogenic applications, including some gas treatment processes (LNG, Methane, LPG...), requiring valves able to be operated and to assure helium leakage rates within specified limits at low temperatures. In these cases JC offers valves designed with special seats, bonnets and materials for low temperature or cryogenic service.



FULLY AUTOMATED BALL VALVES

JC Valves can be delivered with pneumatic, electric, hydraulic or gas-over-oil actuators as per customer requirements.



JC VALVES

The quality option

MORE PRODUCTS



GATE, GLOBE & CHECK VALVES - STRAINERS

ACCESSORIES



PNEUMATIC ACTUATOR - ELECTRIC ACTUATOR - HYDRAULIC ACTUATOR
GAS OVER OIL ACTUATOR - WORM GEAR - LOCKING DEVICES - STEM EXTENSIONS

BALL VALVES

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See our full stocklist at our website: -
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ISO