



Pekos®

V A L V E S



Ball valves

class 150, 300, 400, 600, 800, 900, 1500 and 2500

ANSI

Certifications and tests



Firesafe test



Final inspection



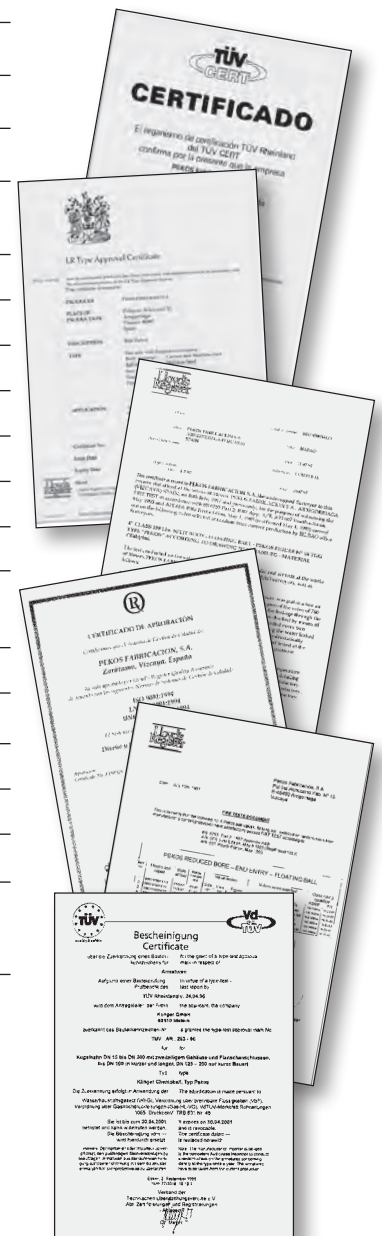
Cryogenic test

Certificates of the company

| | |
|--------------|--|
| ISO 14001 | Environmental Management system |
| ISO 9001 | Quality Management system |
| API Monogram | Standard API 6D. certificate number: 6D-0363 |

Certificates of the product

| | |
|--------------------------------|--|
| DNV Type Approval | Type approval |
| Lloyd's Type Approval | Fire Safe & type approval |
| TÜV A352.09 AD Merkblatt A4 | Design of the valves |
| TA - Luft ISO 15848 + VDI 2440 | Stem tightness for gas emissions |
| Directive 2014/68/EU | Pressure equipment directive (CE marking) |
| Directive 2014/34/EU | ATEX directive - (II2GD c Tx) |
| BS 6364 | Valves for cryogenic service |
| EN 161 / EN 23553 | Automatic shut-off valves for gas burners and gas equipment |
| Helium -40 °C | Leeds University test |
| EAC | TR CU 010 - TR CU 012 - TR CU 032 |
| Sanitary approval (Russian) | Food processing and Pharmaceutical industry |
| IEC 61508 | SIL3 CAPABLE |
| UKR SEPRO | Ukraine Certificate |
| DVGW-EN 13774 | Valves for gas distribution with maximum operating pressure less than or equal to 16 bar |



Some Company Approvals

- Repsol-YPF (Spain)
- Al Furat Petroleum (Syria)
- Sasol Technology (South Africa)
- EGPC (Egypt)
- China Petroleum (China)
- Qatar Petroleum (Qatar)
- Petroleum Development Oman (PDO)
- KUWAIT Oil Co. (KOC)
- Zadco (UAE)

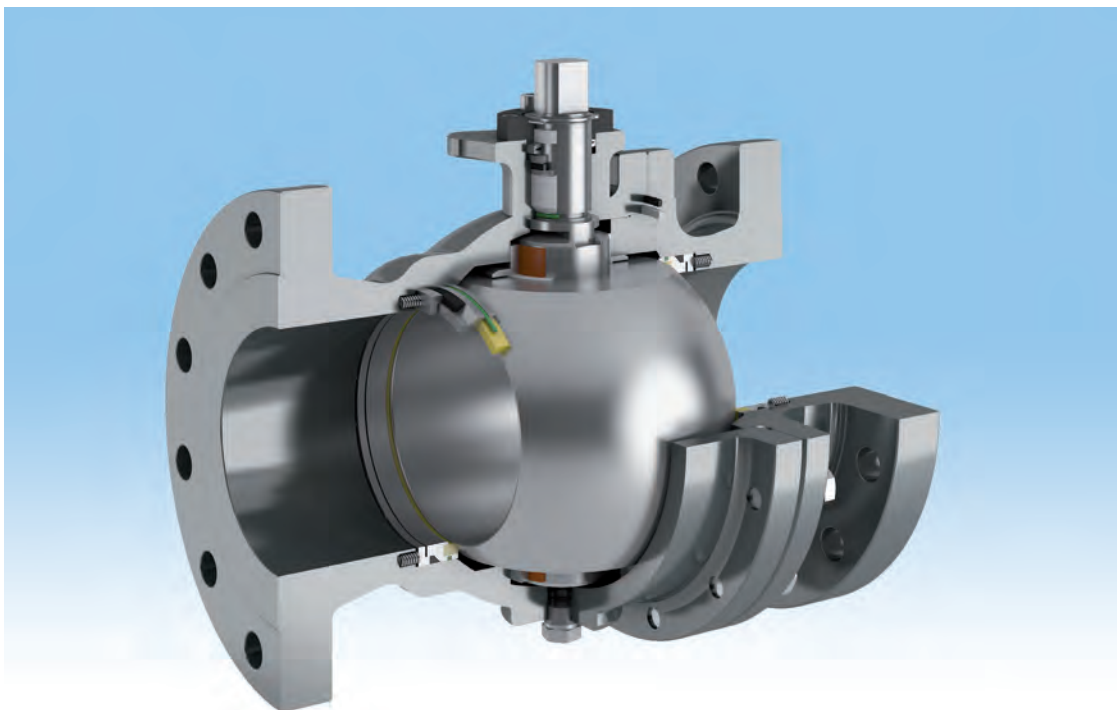
General features

- ▼ Design as per BS5351, ANSI B16.34, ISO 17292, API 6 D upon request
- ▼ ISO 5211 Top flange
- ▼ FIRE SAFE construction certified as per BS 6755 part 2, API 6FA, API 607 and ISO 10497
- ▼ Pressure testing according, API 598, ISO 5208, and API 6D upon request
- ▼ Face to face as per ANSI B16.10, API 6D
- ▼ End connections

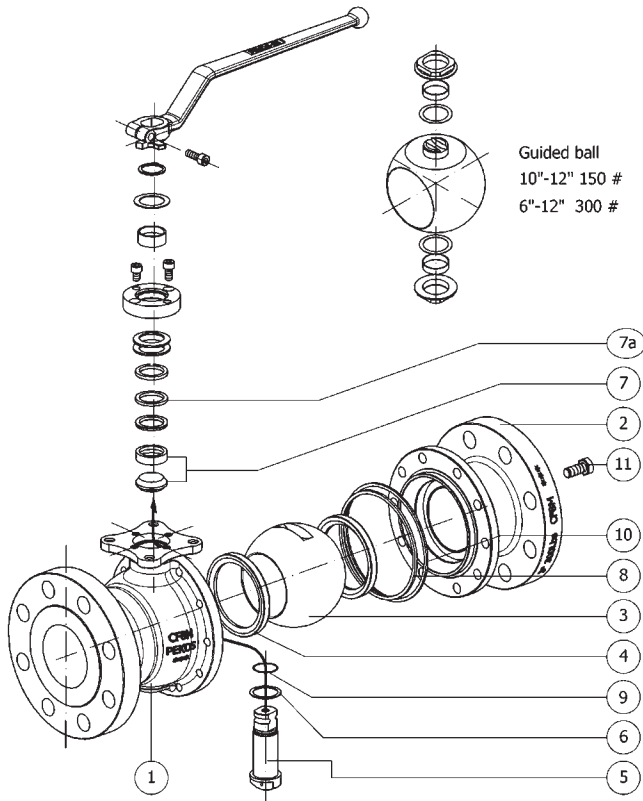
| | |
|----------------------|---------------------------|
| Flanged RF, RTJ..... | ANSI 16.5 |
| Socket Weld..... | ANSI 16.11 |
| Butt Weld..... | ANSI 16.25 |
| NPT..... | ANSI B1.20.1 |
| BSPP..... | BS 21, ISO 228/1, DIN 259 |
| BSPT..... | BS 21, ISO 7/1 |

Body constructions and desing advantages

- ▼ Floating ball
- ▼ Guided ball
- ▼ Full Trunnion
- ▼ Split body 2-3 pieces or 1 piece (side-entry)
- ▼ Full and Reduced bore
- ▼ Bidirectional
- ▼ ISO 5211 Top Flange
- ▼ Anti-blow out stem
- ▼ Antiestatic stem
- ▼ Autoadjustable packing / Maintenance free
- ▼ Standard construction Fire Safe
- ▼ Self cavity pressure relief
- ▼ Low emission design
- ▼ Double Block and Bleed

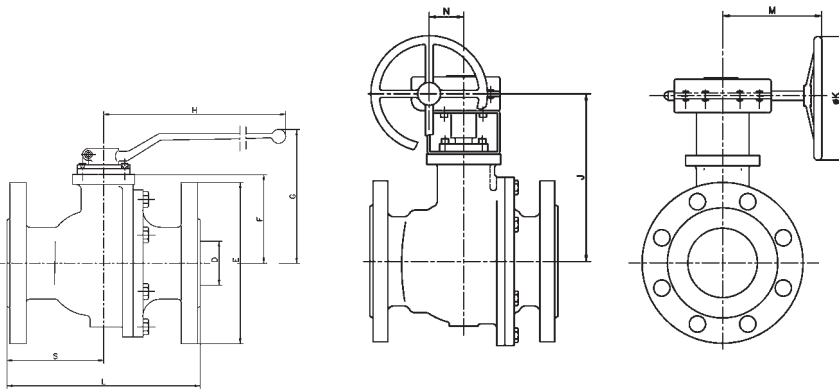


FULL BORE - FLOATING & GUIDED



Standard materials

| Item | Description | Figure | |
|------|-------------|--|--|
| | | Z14 TTTGV Z34 SSSGV Z64 SSSGV ZG14TTTGV ZG34 SSSGV | Z16 TTTGV Z36 SSSGV Z66 SSSGV ZG16TTTGV ZG36 SSSGV |
| 1-2 | Body | A216 WCC | A351CF8M |
| 3 | Ball | A351CF8M | |
| 4 | Seats | PTFE (T) PTFE+FG (R) PTFE + CG (S) | |
| 5 | Stem | AISI 316 | |
| 6 | Stem seal | PTFE + CG (S) | |
| 7 | Packing 1 | PTFE (T) | |
| 7a | Packing 2 | Graphite | |
| 8 | Seal body 1 | PTFE (T) | |
| 9 | Oring stem | Viton® | |
| 10 | Seal body 2 | Graphite | |
| 11 | Bolts body | A193 B7M | A193/A320 B8M Cl2 |



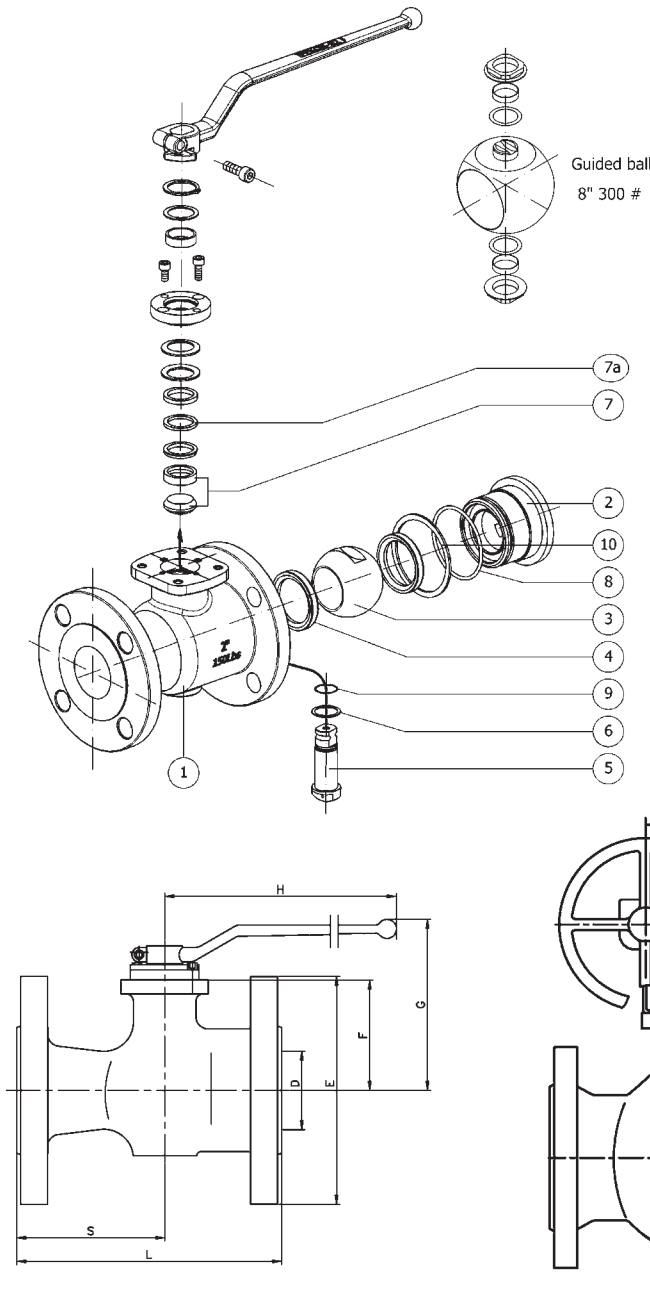
Weight (Kg)

| NPS | Class 150 | Class 300 | Class 600 | G.Box |
|--------|-----------|-----------|-----------|-------|
| 1/2" | 2,5 | 3 | 4 | - |
| 3/4" | 3,3 | 4,5 | 6 | - |
| 1" | 4,2 | 5 | 8 | - |
| 1 1/2" | 7,4 | 10,5 | 14 | - |
| 2" | 10,6 | 12,5 | 19 | - |
| 2 1/2" | 17 | 20 | 22,5 | - |
| 3" | 22 | 27 | - | - |
| 4" | 32 | 44 | - | - |
| 6" | 81 | 105 | - | 9 |
| 8" | 143 | 179 | - | 20 |
| 10" | 245 | 287 | - | 20 |
| 12" | 367 | 480 | - | 20/25 |

Dimensions

| NPS | Class 150 & 300 | | | | | | | | | | Class 600 | | | | | | Gearbox | | | | | |
|--------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|----|-----|-----|---------|----------|-----|-----|-----|-----|
| | D | L | | E | | F | G | H | S | | ISO 5211 | L | E | F | G | H | S | ISO 5211 | J | M | N | K |
| | | 150 | 300 | 150 | 300 | | | | 150 | 300 | | | | | | | | | | | | |
| 1/2" | 15 | 108 | 140 | 89 | 95 | 52 | 105 | 185 | 47 | 64 | F05s | 165 | 95 | 61 | 112 | 185 | 68 | F05 | - | - | - | - |
| 3/4" | 20 | 117 | 152 | 99 | 118 | 54 | 107 | 185 | 52 | 76 | F05s | 190 | 120 | 61 | 112 | 185 | 84 | F05 | - | - | - | - |
| 1" | 25 | 127 | 165 | 108 | 124 | 60 | 113 | 185 | 56 | 70 | F05 | 216 | 125 | 61 | 112 | 185 | 96 | F05 | - | - | - | - |
| 1 1/2" | 40 | 165 | 191 | 127 | 156 | 75 | 145 | 300 | 77 | 78 | F07 | 241 | 456 | 76 | 130 | 300 | 115 | F07 | - | - | - | - |
| 2" | 50 | 178 | 216 | 152 | 165 | 84 | 153 | 300 | 92 | 90 | F07 | 292 | 165 | 83 | 137 | 300 | 129 | F07 | - | - | - | - |
| 2 1/2" | 65 | 190 | 241 | 178 | 190 | 96 | 166 | 300 | 95 | 120 | F07 | 330 | 190 | 96 | 150 | 300 | 152 | F07 | - | - | - | - |
| 3" | 80 | 203 | 283 | 191 | 210 | 114 | 205 | 355 | 101 | 142 | F10 | - | - | - | - | - | - | - | - | - | - | - |
| 4" | 100 | 229 | 305 | 229 | 254 | 128 | 220 | 355 | 114 | 152 | F10 | - | - | - | - | - | - | - | - | - | - | - |
| 6" | 150 | 394 | 403 | 279 | 318 | 175 | 284 | 680 | 165 | 211 | F12 | - | - | - | - | - | - | - | 295 | 287 | 71 | 400 |
| 8" | 200 | 457 | 502 | 343 | 381 | 245 | 362 | 750 | 228 | 251 | F14 | - | - | - | - | - | - | - | 377 | 305 | 86 | 500 |
| 10" | 250 | 533 | 568 | 406 | 445 | 285 | - | - | 270 | 283 | F14 | - | - | - | - | - | - | - | 417 | 305 | 86 | 500 |
| 12" | 300 | 610 | 648 | 483 | 521 | 336 | - | - | 305 | 324 | F14 | - | - | - | - | - | - | - | 474 | 346 | 104 | 500 |

REDUCED BORE - SIDE ENTRY - FLOATING



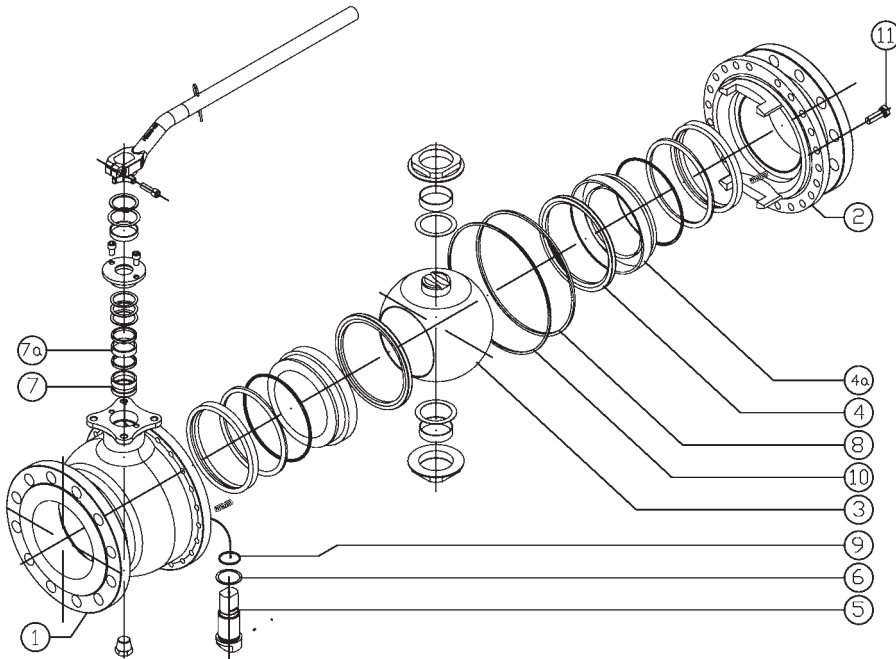
Standard materials

| Item | Description | Figure | |
|------|-------------|--|--------------------------|
| | | ZRB14 TTGW ZRB34 SSGW | ZRB16 TTGW ZRB36 SSGW |
| 1-2 | Body | A216 WCC | A351CF8M |
| 3 | Ball | A351CF8M | |
| 4 | Seats | PTFE (T) PTFE+FG (R) PTFE + CG (S) | |
| 5 | Stem | AISI 316 | |
| 6 | Stem seal | PTFE + CG (S) | |
| 7 | Packing 1 | PTFE (T) | |
| 7a | Packing 2 | Graphite | |
| 8 | Seal body 1 | Viton® | |
| 9 | Oring stem | Viton® | |
| 10 | Seal body 2 | Graphite | |

Dimensions

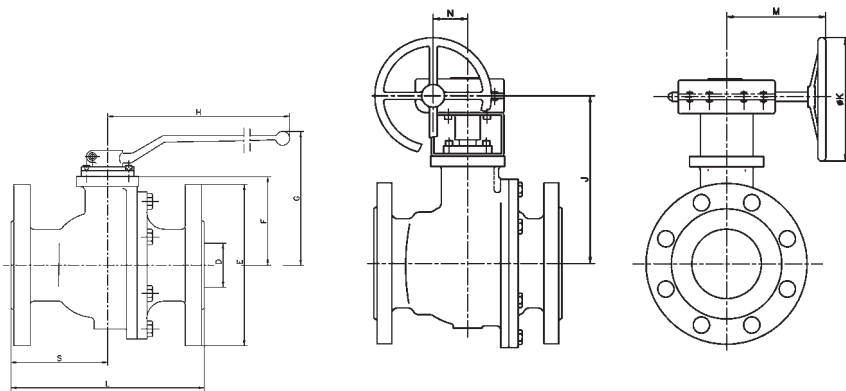
| NPS | D | L | | E | | F | G | H | S | | ISO 5211 | G. box | | | | Weight (kg) | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|--------|-----|----|-----|-------------|-----|-------|
| | | 150 | 300 | 150 | 300 | | | | 150 | 300 | | J | M | N | K | 150 | 300 | G.box |
| 1/2" x 1/4" | 10 | 108 | - | 89 | - | 43 | 91 | 185 | 61 | - | F05s | - | - | - | - | 2 | 2,5 | - |
| 3/4" x 1/2" | 15 | 117 | 152 | 99 | 118 | 46 | 94 | 185 | 57 | 92 | F05s | - | - | - | - | 2,5 | 3,6 | - |
| 1" x 3/4" | 20 | 127 | 165 | 108 | 124 | 54 | 102 | 185 | 72 | 104 | F05s | - | - | - | - | 3,5 | 4,8 | - |
| 1 1/2" x 1" | 32 | 165 | 191 | 127 | 156 | 65 | 118 | 185 | 93 | 118 | F05 | - | - | - | - | 5,5 | 9 | - |
| 2" x 1 1/2" | 40 | 178 | 216 | 152 | 165 | 75 | 145 | 300 | 108 | 146 | F07 | - | - | - | - | 9 | 12 | - |
| 3" x 2" | 65 | 203 | 283 | 191 | 210 | 96 | 166 | 300 | 123 | 203 | F07 | - | - | - | - | 17 | 25 | - |
| 4" x 3" | 80 | 229 | 305 | 229 | 254 | 114 | 205 | 355 | 137 | 203 | F10 | - | - | - | - | 25 | 39 | - |
| 6" x 4" | 100 | 267 | 403 | 279 | 318 | 148 | 257 | 680 | 147 | 283 | F12 | - | - | - | - | 46 | 75 | - |
| 8" x 6" | 144 | 292 | 419 | 343 | 381 | 172 | 281 | 680 | 157 | 284 | F12 | - | - | - | - | 80 | 118 | - |
| 10" x 8" | 187 | 330 | - | 406 | - | 237 | - | - | 170 | - | F14 | 369 | 305 | 86 | 500 | 124 | - | 20 |
| 12" x 10" | 235 | 356 | - | 483 | - | 266 | - | - | 178 | - | F14 | 398 | 305 | 86 | 500 | 196 | - | 20 |

FULL TRUNNION - 2 PIECES



Standard materials

| Item | Description | Figure | |
|------|-------------|--|----------------------------|
| | | ZGS14 TTTGV ZGS34 SSSGV | ZGS16 TTTGV ZGS36 SSSGV |
| 1-2 | Body | A216 WCC | A351CF8M |
| 3 | Ball | A351CF8M | |
| 4 | Seats | PTFE (T) PTFE + FG (R) PTFE + CG (S) | |
| 4a | Ring Seat | AISI 316 | |
| 5 | Stem | A182 F51 | |
| 6 | Stem seal | PTFE + CG (S) | |
| 7 | Packing 1 | PTFE (T) | |
| 7a | Packing 2 | Graphite | |
| 8 | Seal body 1 | PTFE (T) | |
| 9 | Oring stem | Viton® | |
| 10 | Seal body 2 | Graphite | |
| 11 | Bolts body | A193 B7M | A193/A320 B8M C12 |



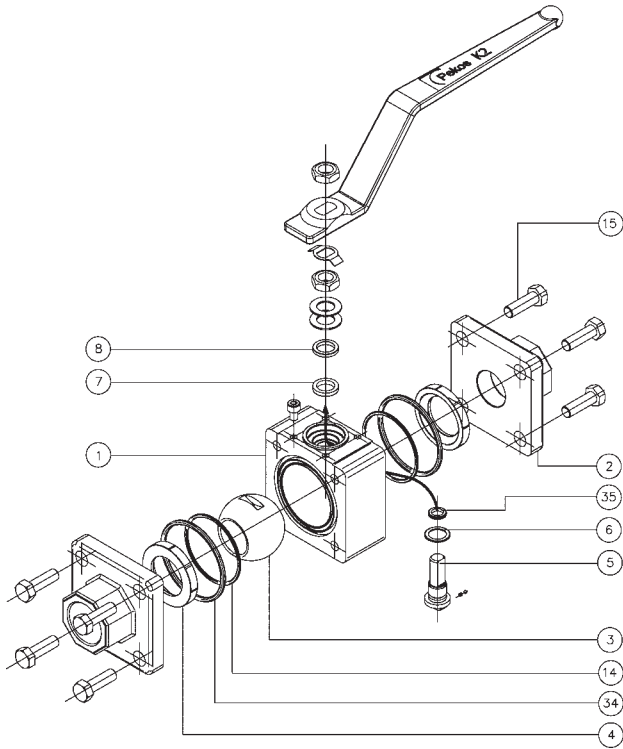
Weight (Kg)

| NPS | Class 150 | Class 300 | G.Box |
|--------|-----------|-----------|-------|
| 2" | 10,6 | 12,5 | - |
| 2 1/2" | 17 | 20 | - |
| 3" | 22 | 27 | - |
| 4" | 32 | 44 | - |
| 6" | 100 | 117 | 9 |
| 8" | 148 | 197 | 20 |
| 10" | 241 | 284 | 20 |
| 12" | 374 | 400 | 20/25 |

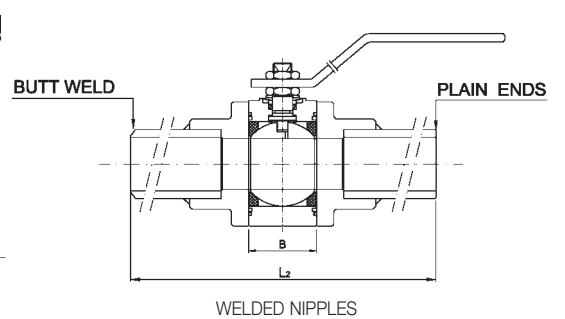
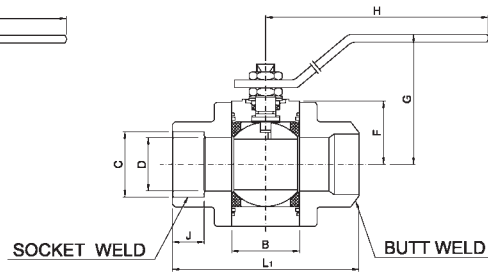
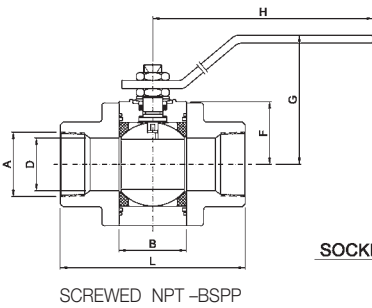
Dimensions

| NPS | Class 150 & 300 | | | | | | | | | | Gear Box | | | | |
|--------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|
| | D | L | | E | | F | G | H | S | | ISO 5211 | J | M | N | K |
| | | 150 | 300 | 150 | 300 | | | | 150 | 300 | | | | | |
| 2" | 50 | 178 | 216 | 152 | 165 | 84 | 153 | 300 | 92 | 90 | F07 | - | - | - | - |
| 2 1/2" | 65 | 190 | 241 | 178 | 190 | 96 | 166 | 300 | 95 | 120 | F07 | - | - | - | - |
| 3" | 80 | 203 | 283 | 191 | 210 | 114 | 205 | 355 | 101 | 142 | F10 | - | - | - | - |
| 4" | 100 | 229 | 305 | 229 | 254 | 128 | 220 | 355 | 114 | 152 | F10 | - | - | - | - |
| 6" | 150 | 394 | 403 | 279 | 318 | 175 | 284 | 680 | 165 | 211 | F12 | 295 | 287 | 71 | 400 |
| 8" | 200 | 457 | 502 | 343 | 381 | 245 | 362 | 750 | 228 | 251 | F14 | 377 | 305 | 86 | 500 |
| 10" | 250 | 533 | 568 | 406 | 445 | 285 | - | - | 270 | 283 | F14 | 417 | 305 | 86 | 500 |
| 12" | 300 | 610 | 648 | 483 | 521 | 336 | - | - | 305 | 324 | F14 | 474 | 346 | 104 | 500 |

3 PIECES FORGED STEEL VALVES



| Item | Qty | Description | Materials | |
|------|---------|---------------|----------------------------|----------------------------|
| | | | K809 SGSGV KRB809 SGSGV | K806 SGSGV KRB806 SGSGV |
| 1 | 1 | Body 1 | A350 LF2/A105 | A182 F316L/F316 |
| 2 | 2 | Body 2 | A350 LF2/A105 | A 182 316L |
| 3 | 1 | Ball | AISI 316 | |
| 4 | 2 | Seats | PTFE+CG (S) | |
| 5 | 1 | Stem | AISI 316 | |
| 6 | 1 | Stem seals | PTFE+CG (S) | |
| 7 | 1 | Packing ring | Graphite (G) | |
| 8 | 1 | Gland packing | AISI 316 | |
| 14 | 2 | Body seal 1 | PTFE+CG (S) | |
| 15 | 8-12-16 | Body bolt | A320 L7M | A193 B8MA |
| 34 | 2 | Body seal 2 | Graphite (G) | |
| 35 | 1 | Oring stem | Viton® (V) | |



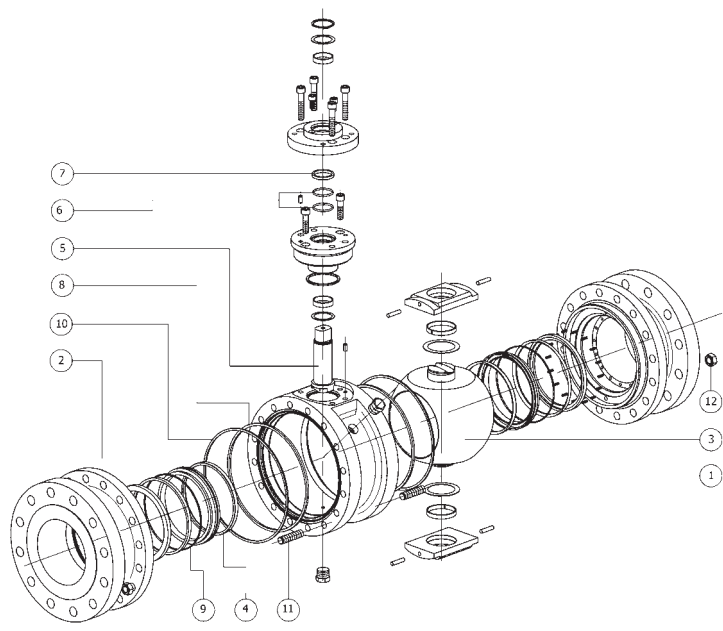
Full Bore

| NPS | Class | A | B | D | F | G | H | L | L ₁ | L ₂ | C | J (min.) | Weight Kg |
|--------|--------|--------|----|----|-----|-----|-----|-----|----------------|----------------|------|----------|-----------|
| 1/4" | 800 | 1/4" | 19 | 11 | 31 | 82 | 145 | 75 | 75 | 275 | 14.5 | 9.5 | 1,0 |
| 3/8" | | 3/8" | 19 | 11 | 31 | 82 | 145 | 75 | 75 | 275 | 18 | 9.5 | 1,0 |
| 1/2" | | 1/2" | 21 | 15 | 34 | 85 | 145 | 80 | 80 | 280 | 22 | 9.5 | 1,2 |
| 3/4" | | 3/4" | 28 | 21 | 39 | 101 | 180 | 100 | 100 | 300 | 27.5 | 12.5 | 2,2 |
| 1" | | 1" | 37 | 25 | 38 | 105 | 180 | 110 | 110 | 310 | 34 | 12.5 | 3,1 |
| 1 1/4" | | 1 1/4" | 44 | 32 | 41 | 108 | 180 | 120 | 120 | 320 | 43 | 12.5 | 4,5 |
| 1 1/2" | 1 1/2" | 51 | 38 | 47 | 110 | 233 | 140 | 140 | 340 | 49 | 12.5 | 5,5 | |
| 2" | 600 | 2" | 60 | 49 | 58 | 119 | 233 | 142 | 191 | - | 61.5 | 16 | 10,0 |
| 2 1/2" | | 2 1/2" | 72 | 62 | 70 | 143 | 425 | 170 | 210 | - | 74 | 16 | 13,5 |
| 3" | 400 | 3" | 72 | 76 | 88 | 170 | 425 | 229 | 305 | - | 90 | 16 | 17,5 |

Reduced Bore

| NPS | Class | A | B | D | F | G | H | L | L ₁ | L ₂ | C | J (min.) | Weight Kg |
|--------|-------|--------|----|----|----|-----|-----|-----|----------------|----------------|-------|----------|-----------|
| 1/2" | 800 | 1/2" | 19 | 11 | 31 | 82 | 145 | 75 | 75 | 275 | 22 | 9.5 | 1,0 |
| 3/4" | | 3/4" | 21 | 15 | 34 | 85 | 145 | 80 | 80 | 280 | 27.5 | 12.5 | 1,2 |
| 1" | | 1" | 28 | 21 | 39 | 101 | 180 | 100 | 100 | 300 | 34 | 12.5 | 2,2 |
| 1 1/4" | | 1 1/4" | 37 | 25 | 38 | 105 | 180 | 110 | 110 | 310 | 43 | 12.5 | 3,1 |
| 1 1/2" | | 1 1/2" | 44 | 32 | 41 | 108 | 180 | 120 | 120 | 320 | 49 | 12.5 | 4,5 |
| 2" | | 2" | 51 | 38 | 47 | 110 | 233 | 140 | 140 | 340 | 61.5 | 16 | 5,5 |
| 2 1/2" | 600 | 2 1/2" | 60 | 49 | 58 | 119 | 233 | 142 | 191 | - | 74 | 16 | 10,0 |
| 3" | | 3" | 72 | 62 | 70 | 143 | 425 | 170 | 210 | - | 90 | 16 | 13,5 |
| 4" | 400 | 4" | 72 | 76 | 88 | 170 | 425 | 229 | 305 | - | 115.5 | 19 | 17,5 |

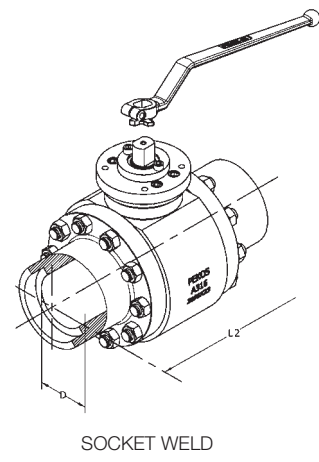
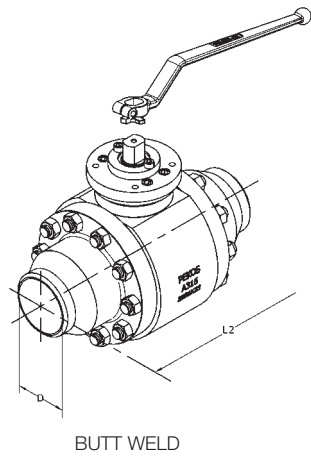
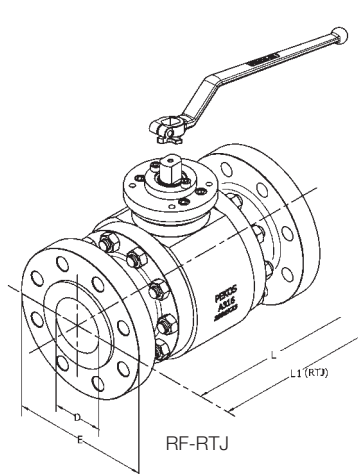
FULL TRUNNION



Standard materials

| Item | Description | Figure* | |
|------|-------------|---|---|
| | | GKS14 SGSGV GKS34 SGSGV GKS64 SGSGV GKS904 NGGVV GKS154 NGGVV GKS254 NGGVV | GKS16 SGSGV GKS36 SGSGV GKS66 SGSGV GKS906 NGGVV GKS156 NGGVV GKS256 NGGVV |
| 1-2 | Body | A216 WCC A105N/LF2 | A351 CF8M A182 F316 |
| 3 | Ball | A351 CF8M / LF2+ENP | |
| 4 | Seats | PTFE (T) PTFE +FG (R) PTFE+CG(S) DEVLON (N) | |
| 5 | Stem | A182 F51 | |
| 6 | Stem O-ring | Viton® | |
| 7 | Packing | Graphite | |
| 9 | Seat seal | Graphite | |
| 8-10 | Body seal | Viton® - Graphite | |
| 11 | Studs | A320 L7M | A193/A320 B8M Cl2 |
| 12 | Nuts | A194 7M | A194 8M |

The reduced bore valves figure begins with GKS RB



Weight (kg)

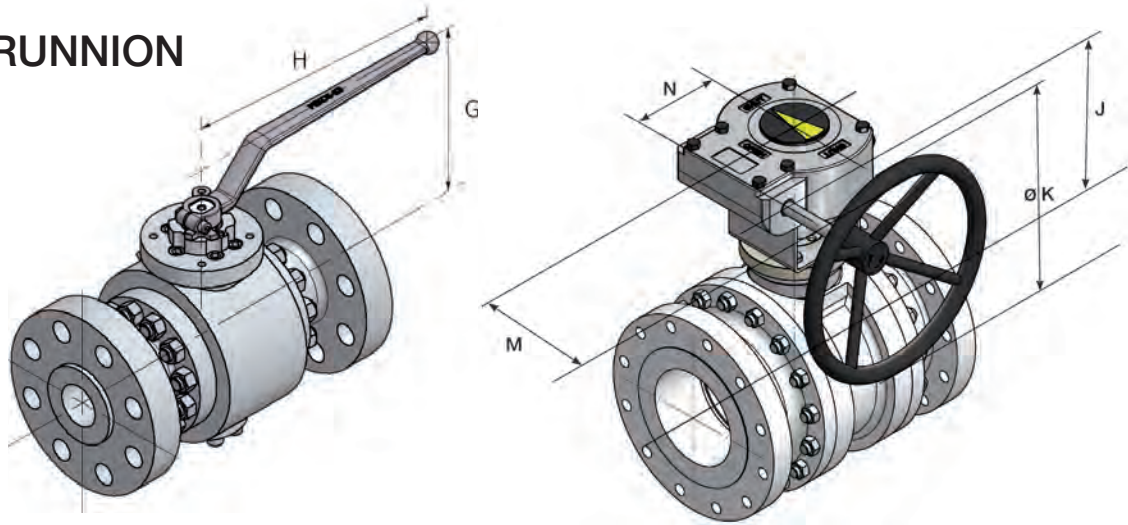
Full Bore

| NPS | Class 150 | Class 300 | Class 600 | Class 900 | Class 1500 | Class 2500 |
|-----|-----------|-----------|-----------|-----------|------------|------------|
| 2" | 12 | 25 | 30 | 45 | 49 | 115 |
| 3" | 25 | 37 | 63 | 105 | 110 | 208 |
| 4" | 37 | 77 | 108 | 165 | 182 | 340 |
| 6" | 116 | 138 | 232 | 380 | 390 | 712 |
| 8" | 199 | 239 | 415 | 640 | 650 | 1859 |
| 10" | 387 | 437 | 659 | 952 | 960 | 2817 |
| 12" | 516 | 729 | 880 | 1312 | 1320 | 3892 |
| 14" | 688 | 928 | 1400 | 1595 | 1320 | - |
| 16" | 890 | 1200 | 1696 | 1692 | 2360 | - |
| 18" | 1700 | 1550 | 2994 | 2755 | - | - |
| 20" | 2100 | 2200 | 3475 | 3752 | - | - |
| 24" | 3550 | 3730 | 5200 | - | - | - |

Reduced Bore

| NPS | Class 150 | Class 300 | Class 600 | Class 900 | Class 1500 | Class 2500 |
|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 3 "x 2" | 22 | 31 | 38 | 82 | 96 | 128 |
| 4" x 3" | 32 | 62 | 69 | 110 | 146 | 236 |
| 6" x 4" | 71 | 105 | 120 | 207 | 286 | 387 |
| 8" x 6" | 133 | 239 | 258 | 525 | 520 | 811 |
| 10" x 8" | 229 | 437 | 461 | 702 | 805 | 2129 |
| 12"x 10" | 445 | 729 | 732 | 1190 | 1140 | 3232 |
| 14"x 10" | 593 | 928 | 977 | 1580 | 1660 | - |
| 16" x 12" | 791 | 1200 | 1554 | 2330 | 2068 | - |
| 18" x 14" | 1023 | 1550 | 1883 | 3200 | - | - |
| 20" x 16" | 1955 | 2200 | 3323 | 4270 | - | - |
| 24" x 20" | 2415 | 2800 | 4160 | - | - | - |

FULL TRUNNION



Dimensions

Class 150/300/600

| NPS | | D | | L (RF) | | | L1(RTJ) | | | L2 (BW) (SW) | | | E | | |
|-----|-----------|------------|------------|--------|------|------|---------|------|------|--------------|------|------|-----|-----|-----|
| FB | RB | 150-600 FB | 150-600 RB | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 |
| 2" | - | 50 | - | 178 | 216 | 292 | 191 | 232 | 295 | 216 | 216 | 292 | 152 | 165 | 165 |
| 3" | 3" x 2" | 75 | 50 | 203 | 283 | 356 | 215 | 300 | 359 | 283 | 283 | 356 | 191 | 210 | 210 |
| 4" | 4" x 3" | 100 | 75 | 229 | 305 | 432 | 241 | 321 | 435 | 305 | 305 | 432 | 229 | 254 | 273 |
| 6" | 6" x 4" | 150 | 100 | 394 | 403 | 559 | 406 | 419 | 562 | 457 | 457 | 559 | 279 | 318 | 356 |
| 8" | 8" x 6" | 201 | 150 | 457 | 502 | 660 | 470 | 518 | 663 | 521 | 521 | 660 | 343 | 381 | 419 |
| 10" | 10" x 8" | 252 | 201 | 533 | 568 | 787 | 545 | 584 | 790 | 559 | 559 | 787 | 406 | 445 | 508 |
| 12" | 12" x 10" | 303 | 252 | 610 | 648 | 838 | 622 | 664 | 841 | 635 | 635 | 838 | 483 | 521 | 559 |
| 14" | 14" x 10" | 334 | 252 | 686 | 762 | 889 | 698 | 778 | 891 | 762 | 762 | 889 | 535 | 585 | 605 |
| 16" | 16" x 12" | 385 | 303 | 762 | 838 | 991 | 774 | 854 | 877 | 838 | 838 | 991 | 595 | 650 | 685 |
| 18" | 18" x 14" | 438 | 334 | 864 | 914 | 1092 | 877 | 930 | 1095 | 914 | 914 | 1092 | 635 | 710 | 745 |
| 20" | 20" x 16" | 487 | 385 | 914 | 991 | 1194 | 927 | 1007 | 1200 | 991 | 991 | 1194 | 700 | 775 | 815 |
| 24" | 24" x 20" | 589 | 487 | 1067 | 1143 | 1397 | 1080 | 1165 | 1407 | 1143 | 1143 | 1397 | 815 | 915 | 940 |

| NPS | | Class 150 | | | | | | | Class 300 | | | | | | | Class 600 | | | | | | | |
|-----|------------------------|-----------|-----|-----|-----|-----|-----|----------|-----------|-----|-----|-----|-----|-----|----------|-----------|-----|-----|-----|-----|-----|----------|-----|
| FB | RB | G | H | J | K | M | N | ISO 5211 | G | H | J | K | M | N | ISO 5211 | G | H | J | K | M | N | ISO 5211 | |
| 2" | 3" x 2" | 154 | 293 | - | - | - | - | F07 | 153 | 293 | - | - | - | - | F07 | 154 | 293 | - | - | - | - | F07 | |
| 3" | 4" x 3" | 207 | 350 | - | - | - | - | F10 | 205 | 350 | - | - | - | - | F10 | 181 | 350 | - | - | - | - | F10 | |
| 4" | 6" x 4" | 221 | 350 | - | - | - | - | F10 | 220 | 350 | - | - | - | - | F10 | - | - | - | 397 | 500 | 189 | 86 | F12 |
| 6" | 8" x 6" | 268 | 680 | - | - | - | - | F12 | - | - | 372 | 500 | 189 | 86 | F12 | - | - | 401 | 500 | 189 | 86 | F14 | |
| 8" | 10" x 8" | - | - | 347 | 500 | 189 | 86 | F14 | - | - | 427 | 500 | 189 | 86 | F14 | - | - | 397 | 500 | 230 | 105 | F16 | |
| 10" | 12" x 10" 14" x 10" | - | - | 392 | 500 | 230 | 105 | F14 | - | - | 472 | 500 | 230 | 105 | F14 | - | - | 456 | 500 | 275 | 130 | F16 | |
| 12" | 16" x 12" | - | - | 454 | 500 | 230 | 105 | F14 | - | - | 545 | 500 | 230 | 105 | F14 | - | - | 526 | 500 | 335 | 211 | F25 | |
| 14" | 18" x 14" | - | - | 504 | 500 | 275 | 130 | F16 | - | - | 517 | 500 | 275 | 130 | F16 | - | - | 619 | 600 | 300 | 182 | F25 | |
| 16" | 20" x 16" | - | - | 554 | 600 | 300 | 182 | F16 | - | - | 561 | 600 | 300 | 182 | F16 | - | - | 600 | 669 | 388 | 263 | F25 | |
| 18" | - | - | - | 621 | 600 | 388 | 263 | F25 | - | - | 621 | 600 | 388 | 263 | F25 | - | - | 600 | 689 | 429 | 278 | F30 | |
| 20" | 24" x 20" | - | - | 655 | 600 | 429 | 278 | F25 | - | - | 671 | 600 | 429 | 278 | F25 | - | - | 700 | 736 | 499 | 431 | F30 | |
| 24" | - | - | - | 791 | 700 | 499 | 431 | F30 | - | - | 791 | 700 | 499 | 431 | F30 | - | - | 700 | 816 | 499 | 431 | F30 | |

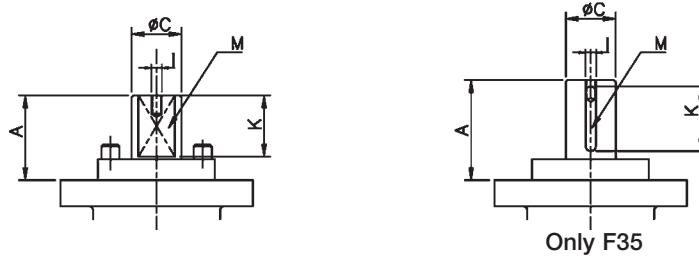
Class 900/1500/2500

| NPS | | D | | | | | | L (RF) | | | L1(RTJ) | | | L2 (BW) (SW) | | | E | | |
|-----|-----------|--------|--------|---------|---------|---------|---------|--------|------|------|---------|------|------|--------------|------|------|-----|------|------|
| FB | RB | 900 FB | 900 RB | 1500 FB | 1500 RB | 2500 FB | 2500 RB | 900 | 1500 | 2500 | 900 | 1500 | 2500 | 900 | 1500 | 2500 | 900 | 1500 | 2500 |
| 2" | - | 50 | - | 50 | - | 42 | - | 368 | 368 | 451 | 371 | 371 | 454 | 368 | 368 | 451 | 215 | 215 | 235 |
| 3" | 3" x 2" | 75 | 50 | 75 | 50 | 62 | 42 | 381 | 470 | 578 | 384 | 473 | 584 | 381 | 470 | 578 | 240 | 265 | 305 |
| 4" | 4" x 3" | 100 | 75 | 100 | 75 | 87 | 62 | 457 | 546 | 673 | 460 | 549 | 683 | 457 | 546 | 673 | 290 | 310 | 355 |
| 6" | 6" x 4" | 150 | 100 | 144 | 100 | 131 | 87 | 610 | 705 | 914 | 613 | 711 | 927 | 610 | 705 | 914 | 380 | 395 | 485 |
| 8" | 8" x 6" | 201 | 150 | 192 | 144 | 179 | 131 | 737 | 832 | 1022 | 740 | 841 | 1038 | 737 | 832 | 1022 | 470 | 485 | 550 |
| 10" | 10" x 8" | 252 | 201 | 239 | 192 | 223 | 179 | 838 | 991 | 1270 | 841 | 1000 | 1292 | 838 | 991 | 1270 | 545 | 585 | 675 |
| 12" | 12" x 10" | 303 | 252 | 287 | 239 | 265 | 223 | 965 | 1130 | 1422 | 968 | 1146 | 1445 | 965 | 1130 | 1422 | 610 | 675 | 760 |
| 14" | 14" x 10" | 334 | 252 | 315 | 239 | - | - | 1029 | 1250 | - | 1039 | 1276 | - | 1029 | 1250 | - | 640 | 750 | - |
| 16" | 16" x 12" | 373 | 303 | 360 | 287 | - | - | 1130 | 1384 | - | 1140 | 1407 | - | 1130 | 1384 | - | 705 | 825 | - |
| 18" | 18" x 14" | 423 | 334 | - | - | - | - | 1219 | - | - | 1221 | - | - | 1219 | - | - | 785 | - | - |
| 20" | 20" x 16" | 471 | 373 | - | - | - | - | 1321 | - | - | 1334 | - | - | 1321 | - | - | 855 | - | - |

| NPS | | Class 900 | | | | | | | Class 1500 | | | | | | | Class 2500 | | | | | | |
|-----|------------------------|-----------|-----|-----|-----|-----|-----|----------|------------|-----|-----|-----|-----|-----|----------|------------|---|-----|-----|-----|-----|----------|
| FB | RB | G | H | J | K | M | N | ISO 5211 | G | H | J | K | M | N | ISO 5211 | G | H | J | K | M | N | ISO 5211 |
| 2" | 3" x 2" | 203 | 350 | - | - | - | - | F10 | 203 | 350 | - | - | - | - | F10 | - | - | 319 | 500 | 201 | 71 | F12 |
| 3" | 4" x 3" | - | - | 343 | 500 | 201 | 71 | F12 | - | - | 347 | 500 | 189 | 86 | F12 | - | - | 392 | 500 | 189 | 86 | F14 |
| 4" | 6" x 4" | - | - | 371 | 500 | 189 | 86 | F12 | - | - | 372 | 500 | 230 | 105 | F14 | - | - | 366 | 500 | 230 | 105 | F16 |
| 6" | 8" x 6" | - | - | 429 | 500 | 230 | 105 | F14 | - | - | 381 | 500 | 275 | 130 | F16 | - | - | 414 | 500 | 335 | 211 | F25 |
| 8" | 10" x 8" | - | - | 361 | 500 | 346 | 185 | F16 | - | - | 459 | 500 | 335 | 211 | F25 | - | - | 487 | 600 | 388 | 263 | F25 |
| 10" | 12" x 10" 14" x 10" | - | - | 474 | 500 | 275 | 130 | F16 | - | - | 527 | 600 | 388 | 263 | F25 | - | - | 527 | 600 | 388 | 263 | F30 |
| 12" | 16" x 12" | - | - | 556 | 500 | 335 | 211 | F25 | - | - | 559 | 600 | 388 | 263 | F30 | - | - | 567 | 600 | 429 | 278 | F35 |
| 14" | 18" x 14" | - | - | 649 | 600 | 388 | 263 | F30 | - | - | 559 | 600 | 429 | 278 | F30 | - | - | - | - | - | - | - |
| 16" | 20" x 16" | - | - | 699 | 600 | 388 | 263 | F30 | - | - | 651 | 700 | 499 | 431 | F35 | - | - | - | - | - | - | - |
| 18" | - | - | - | 746 | 700 | 499 | 431 | F35 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20" | - | - | - | 771 | 700 | 499 | 431 | F35 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

- Valves up to ISO 5211 F14: Gear box assembled to the valve with mounting bracket.
- Valves with ISO 5211 F16 and higher: Gear box assembled directly without mounting bracket.

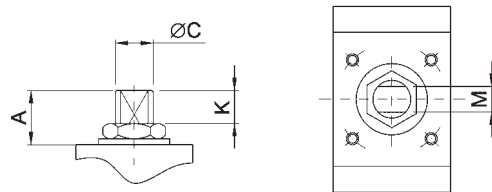
TOP FLANGE ISO 5211



| ISO 5211 | F05s | F05 | F07 | F10 | F12 | F14 | F16 | F25 | F30 | F35 |
|----------|------|------|-----|-----|-----|-----|-----|-----|-----|-------------|
| M (e/c) | 11 | 14 | 17 | 22 | 27 | 36 | 46 | 55 | 75 | Key 32 x 18 |
| C | 14 | 18 | 22 | 28 | 36 | 48 | 60 | 72 | 98 | 120 |
| A | 13,5 | 19,5 | 30 | 40 | 50 | 63 | 73 | 83 | 106 | 200 |
| K | 11 | 17 | 20 | 22 | 35 | 40 | 60 | 70 | 100 | 180 |
| I | M4 | M4 | M6 | M8 | M8 | M10 | M10 | M10 | M12 | M16 |

TOP FLANGE ISO 5211 FOR 3 PIECES FORGED STEEL VALVES

| NPS F.B. | NPS R.B. | ISO 5211 | M | øC | A | K | MAST |
|----------|----------|----------|-----|----------|----|----|------|
| 1/4" | - | F03 | 5.5 | M10X1 | 9 | 5 | 17 |
| 3/8" | 1/2" | F03 | 5.5 | M10X1 | 9 | 5 | 17 |
| 1/2" | 3/4" | F03 | 5.5 | M10X1 | 10 | 5 | 17 |
| 3/4" | 1" | F04 | 7.5 | M12X1,25 | 15 | 12 | 34 |
| 1" | 1 1/4" | F04 | 7.5 | M12X1,25 | 20 | 12 | 34 |
| 1 1/4" | 1 1/2" | F05 | 9 | M15X1,5 | 20 | 12 | 65 |
| 1 1/2" | 2" | F05 | 9 | M15X1,5 | 28 | 12 | 65 |
| 2" | 2 1/2" | F05 | 9 | M15X1,5 | 28 | 12 | 65 |
| 2 1/2" | 3" | F07 | 16 | M22X1,5 | 29 | 17 | 234 |
| 3" | 4" | F07 | 18 | M24X2 | 36 | 17 | 234 |



MAST (Maximum allowable stem torque in Nm).

MAST (Maximum allowable stem torque Nm)

| Stem material | F05s | F05 | F07 | F10 | F12 | F14 | F16 | F25 | F30 | F35 |
|---------------|------|-----|-----|------|------|------|-------|-------|-------|-------|
| 316 | 42 | 92 | 244 | 510 | 1047 | 2482 | 4926 | 8490 | 21438 | -- |
| F51 | 95 | 207 | 549 | 1146 | 2356 | 5585 | 11084 | 19102 | 48235 | 32400 |
| 17-4 PH | 153 | 334 | 835 | 1847 | 3795 | 8997 | 17856 | 30774 | 77705 | 52200 |

BREAKAWAY TORQUE (Nm)

FLOATING, GUIDED BALL

| NPS FB | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 2 1/2" | 3" | 4" | 6" | 8" | 10" | 12" | SEAT TYPE |
|-----------|------|------|--------|--------|--------|--------|-----|-----|-----|------|------|------|-----------|
| NPS RB | 3/4" | 1" | 1 1/2" | 2" | 2 1/2" | 3" | 4" | 6" | 8" | 10" | 12" | -- | (T) |
| Class 150 | 9 | 11 | 16 | 32 | 48 | 62 | 103 | 145 | 400 | 720 | 1160 | 1650 | (S) |
| Class 300 | 17 | 20 | 23 | 51 | 84 | 108 | 180 | 260 | 710 | 1470 | 1950 | 2180 | (S) |
| Class 600 | 20 | 28 | 50 | 114 | 195 | 240 | -- | -- | -- | -- | -- | -- | (S) |

FLOATING, GUIDED BALL AND 3 PIECES FORGED STEEL VALVES

| NPS FB | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3" |
|---------------|------|------|------|------|--------|--------|--------|--------|--------|-----|
| NPS RB | -- | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3" | 4" |
| SEAT TYPE (S) | 11 | 11 | 16 | 19 | 23 | 25 | 65 | 78 | 91 | 120 |

FULL TRUNNION

| NPS FB | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | SEAT TYPE |
|------------|-----|------|------|------|------|---------|-------|-------|-------|-------|-------|-------|-----------|
| NPS RB | 3" | 4" | 6" | 8" | 10" | 12"-14" | 16" | 18" | 20" | -- | 24" | -- | (S) |
| Class 150 | 68 | 145 | 203 | 640 | 990 | 1340 | 1660 | 2815 | 3790 | 5100 | 6400 | 8200 | (S) |
| Class 300 | 115 | 212 | 490 | 990 | 1550 | 2020 | 2450 | 4165 | 5500 | 8100 | 10800 | 20500 | (S) |
| Class 600 | 160 | 420 | 715 | 1580 | 2500 | 3400 | 4650 | 6800 | 8600 | 13120 | 17800 | 26500 | (S) |
| Class 900 | 215 | 712 | 920 | 1740 | 2712 | 3440 | 4070 | 6900 | 9200 | 14500 | 20100 | -- | (N) |
| Class 1500 | 310 | 880 | 1365 | 3360 | 5230 | 6580 | 7740 | 13180 | 17500 | -- | -- | -- | (N) |
| Class 2500 | 400 | 1200 | 2050 | 5100 | 8200 | 10150 | 12000 | -- | -- | -- | -- | -- | (N) |

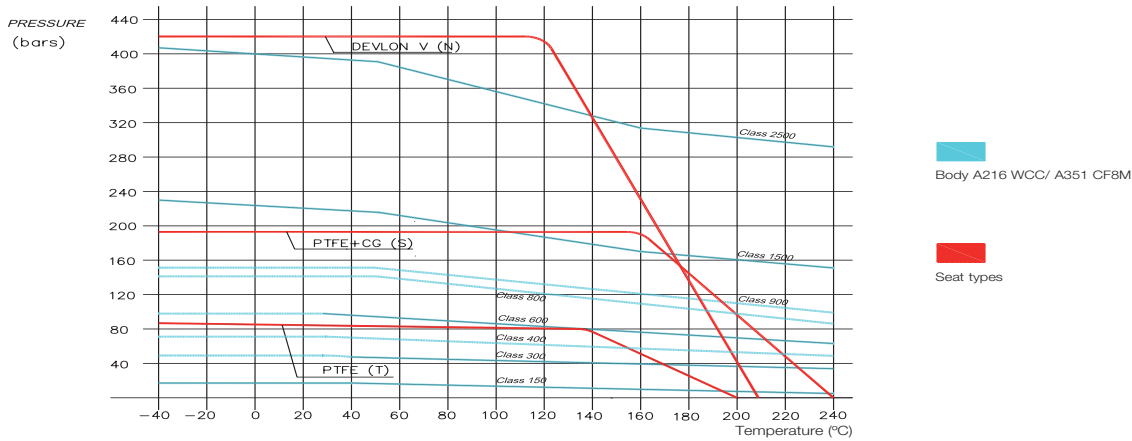
- Torque values obtained during test with water at maximum working pressure for each class on valves fitted with Pekos' standard seats material for each type of valve.
- If different material seats are used then torque values will change.
- The breakaway torques could rise by approximately 50% during first few cycles after long periods of inactivity.

K_v VALUES (m³/h)

| NPS FB | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 2 1/2" | 3" | 4" |
|--------|------|------|------|------|--------|--------|--------|--------|-----|------|
| NPS RB | -- | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 2 1/2" | 3" | 4" | 6" |
| Kv | 9 | 10 | 20 | 44 | 88 | 200 | 310 | 480 | 960 | 1700 |

| NPS FB | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|--------|------|------|-----------|-------|-------|-------|-------|-------|-------|
| NPS RB | 8" | 10" | 12" - 14" | 16" | 18" | 20" | -- | 24" | -- |
| Kv | 4100 | 8200 | 11500 | 18340 | 26300 | 30200 | 35400 | 54100 | 70300 |

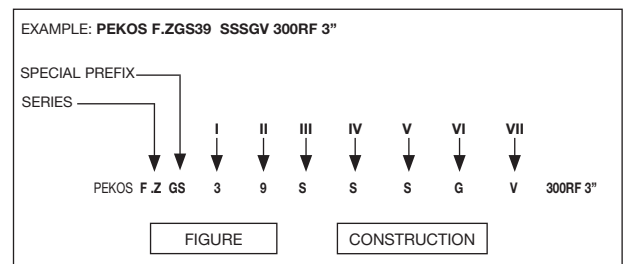
Pressure – Temperature limitations



How to order PEKOS ball valves

| SERIES | SPECIAL PREFIX | FIGURE | | | | COMPONENT OTHER THAN BALL & BODY |
|--------------------------|---------------------------------|-----------------|-------------|--------------|-------------------------|----------------------------------|
| | | I CLASS | BODY | BALL | B | |
| Z-Updated packing system | B-Sampling valve | 0 - F4/F5 | 0 Special | Special | + NON STANDARD MATERIAL | |
| | C-Cavity filler | 1 - CL-150 | 1 Cast Iron | CF8M | | |
| | D-Seat and stem Sealant fitting | 2 - F1/F2 | 2 Cast Iron | 1.4408 | | |
| | D4-Seat Sealant fitting | 3 - CL-300 | | CF8M | | |
| | D5-Stem Sealant fitting | 4 - CL-400 | | 1.4408 | | |
| | DBB-3 pieces, 2 balls | 5 - Tank bottom | | CF8 | | |
| | F-Security stem extension | 6 - CL-600 | | 1.4027 | | |
| | G-Guided ball | 7 - 4 ways | | CA15 | | |
| | H-Heating jacket (semi) | 8 - 3 ways | | AISI 410 | | |
| | I-Inclined stem | 9 - Wafer | | A105/LF2+ENP | | |
| | J-Heating jacket (full) | 15 - CL-1500 | | 1.0619 | | A105/LF2+ENP |
| | K-3 pieces | 25 - CL-2500 | | 1.0352 | | 1.4027 |
| | M-Metallic seat | 80 - CL-800 | 3 WCC A105 | A105/LF2+ENP | | |
| | N-PMSS | 90 - CL-900 | | CA15 | | |
| | O-Degreased | | | | | |
| | P-Protected seat | | | 1.0619 | | 1.4408 |
| | R-Scraper Seat | | | 1.0352 | | 1.4462 |
| | RB-Reduced Bore | | | WCC | | CF8M |
| | S-Spring seat | | | A105 | | F51 |
| | TH-Threaded Body | | | LCC | | |
| | U-Unidirectional | | | LF2 | | |
| | V-O-ring seat | | | 1.0619QT | | LF2 + ENP |
| | W-Welded body | | 1.622 | | | |
| | X-Double Piston effect | | 1.0352 | | | |
| | | | CF8M | CF8M | | |
| | | | F316 | F51 | | |
| | | 1.4408 | 1.4408 | | | |
| | | 1.4401 | 1.4462 | | | |
| | | 1.4539 | 1.4539 | | | |
| | | 904L | 904L | | | |
| | | CF3M | CF3M | | | |
| | | F316L | F51 | | | |
| | | 1.4409 | 1.4409 | | | |
| | | 1.4404 | 1.4462 | | | |
| | | LCC | CF8M | | | |
| | | LF2 | F51 | | | |
| | | 1.0619QT | 1.4408 | | | |
| | | 1.6220 | 1.4462 | | | |

| CONSTRUCTION | | | | |
|--------------------|-----------------|------------------------|---|------------------------|
| SEAT | BALL | BODY SEAL | | STEM O-RING |
| | | 1 | 2 | |
| B-PFA | B-PFA | B-PFA | | A-FEPM |
| C-Cr Carbide (CrC) | G-GRAPHITE | A-FEPM | | E-EPDM |
| D-DELFIN® | R-PTFE + 25% FG | B-PFA | | F-FLUROSILICONE (FVMQ) |
| E-PTFE+EKONOL | S-PTFE + 25% CG | C-METAL SEAL | | H-HNBR |
| G-GRAPHITE | T-PTFE | E-EPDM | | I-SILICONE (VMQ) |
| H-COLMONOY | U-UHMWPE | F-FLUROSILICONE (FVMQ) | | K-FFKM |
| K-PCTFE | | G-GRAPHITE | | L-CHLOROPRENE |
| L-Stellite | | H-HNBR | | N-NBR |
| N-DEVLON® V | | I-SILICONE (VMQ) | | O-NEOPRENE |
| O-PEEK+PTFE+FG | | K-FFKM | | V-FKM |
| P-PEEK | | L-CHLOROPRENE | | |
| Q-PEEK + 12% PTFE | | N-NBR | | |
| R -PTFE + 25% FG | | R-PTFE + 25% FG | | |
| S-PTFE+ 25% CG | | S-PTFE+ 25% CG | | |
| T-PTFE | | T-PTFE | | |
| U-UHMWPE | | U-UHMWPE | | |
| V-FKM | | V-FKM | | |
| X-PTFE + 50% SS. | | | | |
| W-Tu Carbide (WC) | | | | |
| Z-PEEK+PTFE+CG | | | | |



ANSI
From 1/4" up to 24"
ANSI 150-300-600-900-1500-2500
From - 196 °C up to +700 °C



Split body floating



Full trunnion



Cryogenic



End entry floating



3 & 4 way floating and trunnion



Wafer



Heating jacket



Tank bottom



Metal to metal



Three piece forged



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