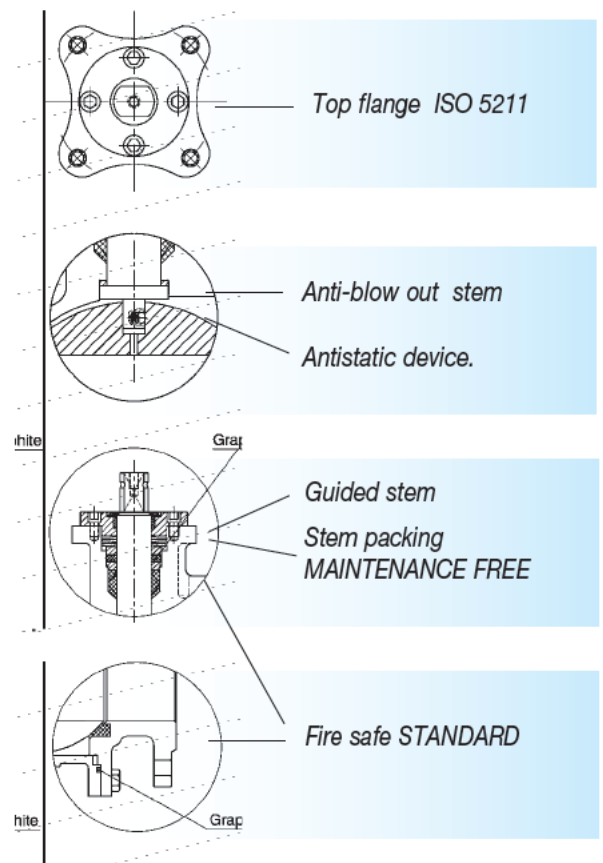
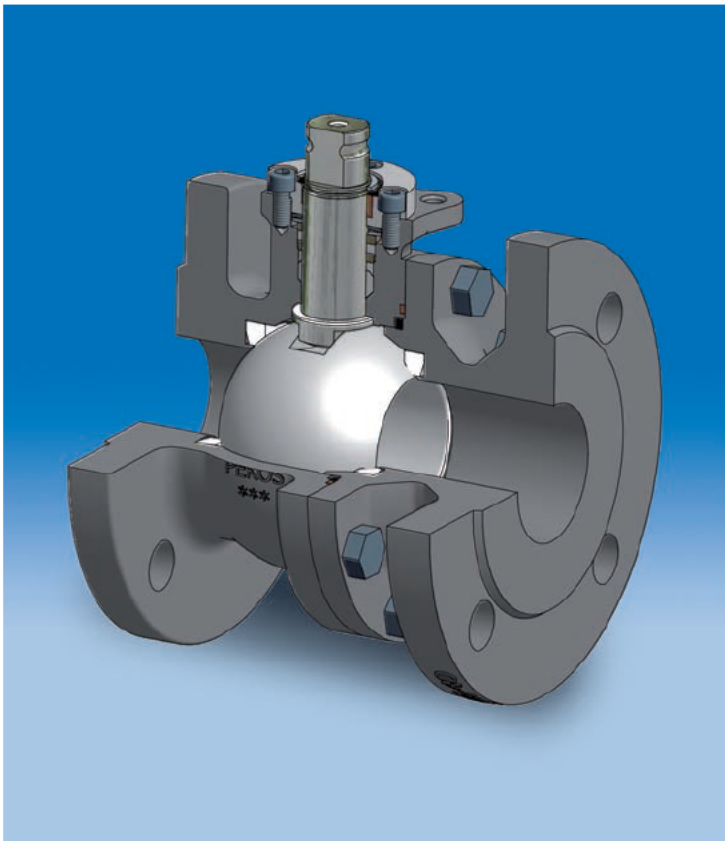


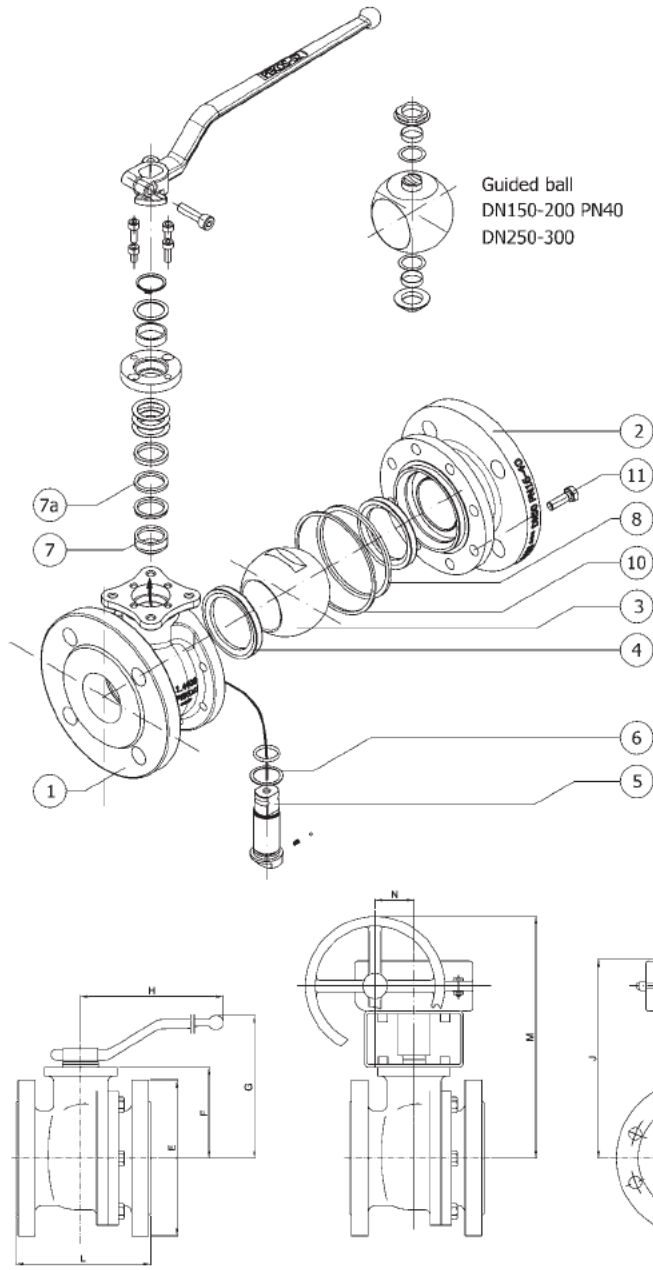
General features

- ▼ Floating and Guided ball.
- ▼ Construction "split body".
- ▼ Design as per EN-12516, ISO 17292
- ▼ Construction DIN 3357 PN 10 up to PN 40.
- ▼ Distance between flanges as per EN 558.
- ▼ Flanges drilled as per EN-1092-1 (PN10-40) and ISO 7005-1 (PN10-40).
- ▼ Flanges surfaces as per EN 1092 type B and DIN 2526 form C.
- ▼ Leak test as per EN 12266, ISO 5208 and DIN 3230 part 3.
- ▼ Top flange ISO 5211.
- ▼ Standard construction materials are: cast iron, carbon steel and stainless steel.
- ▼ Special alloys can be supplied upon request.

Design advantages



FLOATING & GUIDED



Standar materials

| Item | Description | Figure | |
|------|-------------|--|-----------------------------------|
| | | ZG04 TTTG Z04 TTTG Z24 TTTG | ZG06 TTTG Z06 TTTG Z26 TTTG |
| 1-2 | Body | 1.0619 | 1.4408 |
| 3 | Ball | 1.4408 | |
| 4 | Seat | PTFE (T) PTFE + FG (R) PTFE + CG (S) | |
| 5 | Stem | 1.4401 | |
| 6 | Stem seal | PTFE+FG (R) | |
| 7 | Packing 1 | PTFE (T) | |
| 7a | Packing 2 | Graphite | |
| 8 | Body seal 1 | PTFE (T) | |
| 10 | Body seal 2 | Graphite | |
| 11 | Body bolt | A2-70 | A4-70 |

Weight (kg)

| DN | Weight | | | |
|-----|--------|--------|---------|----------|
| | F1 (1) | F4 (2) | F5 (3) | Gear Box |
| 15 | 3,2 | 3 | - | - |
| 20 | 4,3 | 3,8 | - | - |
| 25 | 5,3 | 4,7 | - | - |
| 32 | 7,2 | 6,5 | - | - |
| 40 | 9,3 | 8,2 | - | 3 |
| 50 | 13 | 11,2 | - | 3 |
| 65 | 20 | 16,9 | - | 3 |
| 80 | 26 | 22,2 | - | 3 |
| 100 | 36,4 | 30 | - | 3 |
| 125 | 68,3* | - | 56/62 | 15 |
| 150 | 94* | - | 75/83 | 15 |
| 200 | 163,5* | - | 134/147 | 21 |
| 250 | - | - | 228/254 | 21 |
| 300 | - | - | 321/372 | 31 |

When two values are indicated, the first correspond to PN16 and the second to PN40.

* Weight only for PN16

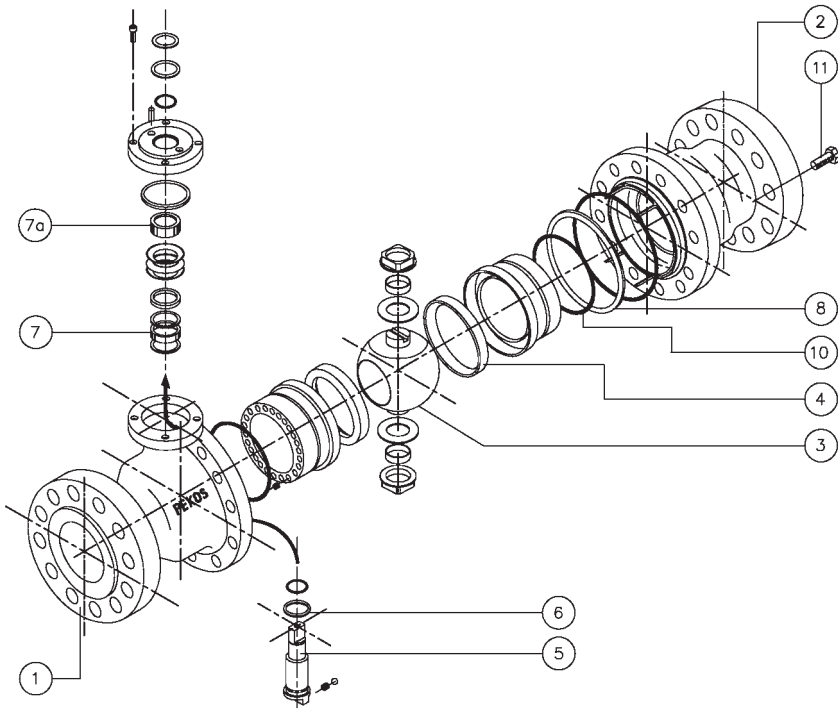
Dimensions (mm)

| DN | D | L | | | E | | F | G | H | I | J | K | M | N |
|-----|-----|--------|--------|--------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | F1 (1) | F4 (2) | F5 (3) | PN16 | PN40 | | | | | | | | |
| 15 | 15 | 130 | 115 | | 95 | 95 | 52 | 100 | 185 | | | | | |
| 20 | 20 | 150 | 120 | | 105 | 105 | 54 | 102 | 185 | | | | | |
| 25 | 25 | 160 | 125 | | 115 | 115 | 60 | 110 | 185 | | | | | |
| 32 | 32 | 180 | 130 | | 140 | 140 | 65 | 115 | 185 | | | | | |
| 40 | 40 | 200 | 140 | | 150 | 150 | 75 | 129 | 293 | 170 | 203 | 300 | 313 | 50 |
| 50 | 50 | 230 | 150 | | 165 | 165 | 83 | 137 | 293 | 170 | 210 | 300 | 321 | 50 |
| 65 | 65 | 290 | 170 | | 185 | 185 | 96 | 150 | 293 | 170 | 223 | 300 | 334 | 50 |
| 80 | 80 | 310 | 180 | | 200 | 200 | 114 | 187 | 350 | 170 | 261 | 300 | 372 | 50 |
| 100 | 100 | 350 | 190 | | 220 | 235 | 128 | 201 | 350 | 170 | 275 | 300 | 386 | 50 |
| 125 | 125 | 425* | | 325 | 250 | 270 | 158 | 247 | 680 | 210 | 326 | 400 | 479 | 71 |
| 150 | 150 | 480* | | 350 | 285 | 300 | 175 | 285 | 740 | 210 | 343 | 400 | 496 | 71 |
| 200 | 200 | 600* | | 400 | 340 | 375 | 245 | 354 | 750 | 272 | 418 | 500 | 566 | 86 |
| 250 | 250 | | | 450 | 405 | 450 | 285 | | | 272 | 458 | 500 | 682 | 86 |
| 300 | 300 | | | 500 | 460 | 515 | 329 | | | 272 | 518 | 600 | 732 | 105 |

(1) EN 558 serie 1 - (2) EN 558 serie 14 or 27 - (3) EN 558 serie 15 or 27.

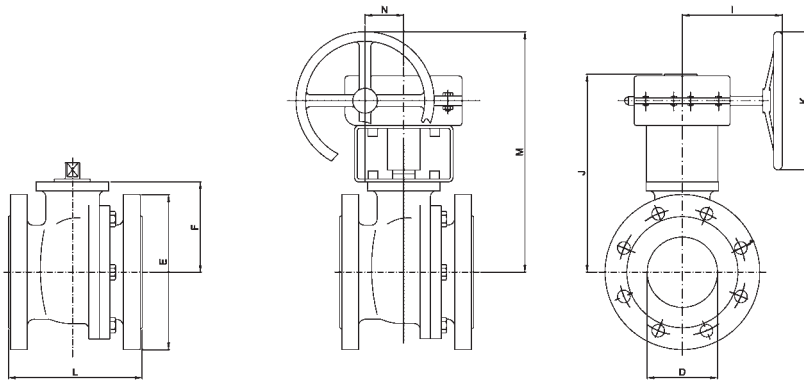
Dimensions with gear box correspond only to PN16, gear box for PN40 under request.

FULL TRUNNION 2 PIECES



Standar materials

| Item | Description | Figure | |
|------|-------------|--|--------------------------|
| | | ZGS04 TTTG ZGS24 TTTG | ZGS06 TTTG ZGS26 TTTG |
| 1-2 | Body | 1.0619 | 1.4408 |
| 3 | Ball | 1.4408 | |
| 4 | Seat | PTFE (T) PTFE + FG (R) PTFE + CG (S) | |
| 5 | Stem | 1.4462 | |
| 6 | Stem seal | PTFE + FG (R) | |
| 7 | Packing 1 | PTFE (T) | |
| 7a | Packing 2 | Graphite | |
| 8 | Body seal 1 | PTFE (T) | |
| 10 | Body seal 2 | Graphite | |
| 11 | Body bolt | A2-70 | A4-70 |



Weight (kg)

| DN | Weight | | |
|-----|--------|---------|----------|
| | F1 (1) | F5 (3) | Gear Box |
| 125 | 70 | 56 | 15 |
| 150 | 110 | 75/83 | 15 |
| 200 | 194 | 134/147 | 21 |
| 250 | 335 | 228/254 | 21 |
| 300 | 491 | 321/372 | 31 |

When two values are indicated, the first correspond to PN16 and the second to PN40.

Dimensions (mm)

| DN | D | L | | E | | F | I | J | K | M | N |
|-----|-----|--------|--------|------|------|-----|-----|-----|-----|-----|-----|
| | | F1 (1) | F5 (3) | PN16 | PN40 | | | | | | |
| 125 | 125 | 425 | 325 | 250 | - | 158 | 210 | 326 | 400 | 479 | 71 |
| 150 | 150 | 480 | 350 | 285 | 300 | 175 | 210 | 343 | 400 | 496 | 71 |
| 200 | 200 | 600 | 400 | 340 | 375 | 245 | 272 | 418 | 500 | 566 | 86 |
| 250 | 250 | 730 | 450 | 405 | 450 | 285 | 272 | 458 | 500 | 682 | 86 |
| 300 | 300 | 850 | 500 | 460 | 515 | 336 | 272 | 518 | 600 | 732 | 105 |

(1) EN 558 serie 1 - (3) EN 558 serie 15 or 27.

Dimensions with gear box correspond only to PN16, gear box for PN40 under request.

Technical features

Breakaway torques (Nm)

| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|------|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|------|------|
| PN16 | 8 | 10 | 14 | 23 | 31 | 46 | 55 | 85 | 110 | 240 | 380 | 540 | 950 | 1200 |
| PN40 | 12 | 14 | 17 | 30 | 40 | 65 | 85 | 130 | 190 | 350 | 470 | 975 | 1290 | 1450 |

Test are made with water and standar seats maximum ΔP according to body at seat rating.
 With S or R seats type and with clean fluids, the above torque values should be increased 30%.
 Breakaway torque can be increased approximately 50% after long periods of inactivity during the first cycles.

Kv values

| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|------------------------------|----|----|----|-----|-----|-----|-----|-----|------|------|------|------|-------|-------|
| Kv (m³ /h) | 20 | 44 | 88 | 105 | 200 | 310 | 480 | 960 | 1700 | 2450 | 4100 | 8200 | 11500 | 18300 |

Leak tests

Test specifications according DIN 3230 part 3, EN 12266-1

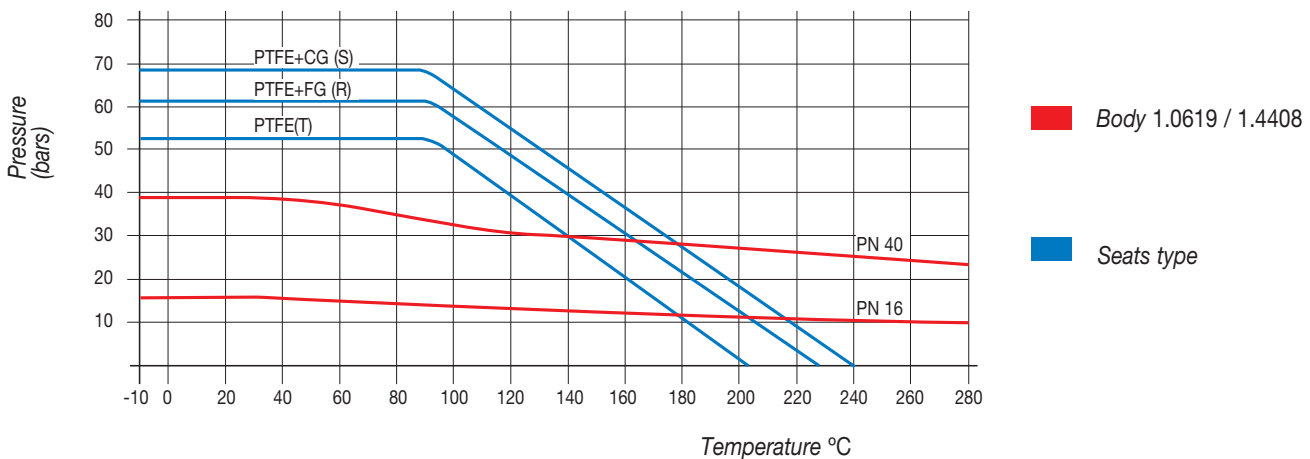
Class A and ISO 5208.

| | Hydraulic shell test | Hydraulic seat test | Pneumatic seat test |
|-------|----------------------|---------------------|---------------------|
| PN 10 | 15 bar | 11 bar | 6 bar |
| PN 16 | 24 bar | 18 bar | 6 bar |
| PN 40 | 60 bar | 44 bar | 6 bar |

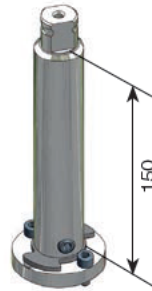
| Tests duration | |
|----------------|----------|
| Size / DN | Time |
| 15-40 | 0.25 min |
| 50-150 | 1 min |
| 200 | 2 min |
| 250-300 | 3 min |

Pressure-Temperature limitations

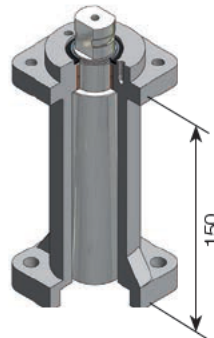
Pressure - Temperature graph



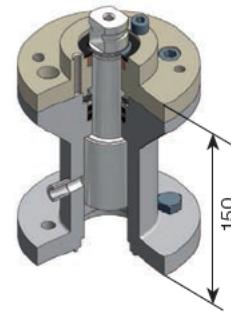
Stem extensions



Simple stem extension

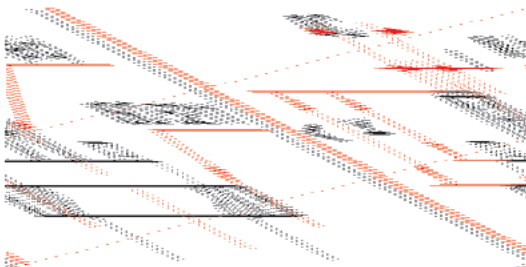


Standard extension



Security and fugitive emission detector

Top flange ISO 5211



| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|----------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ISO 5211 | F05 | F05 | F05 | F05 | F07 | F07 | F07 | F10 | F10 | F12 | F12 | F14 | F14 | F14 |
| M | 11 | 11 | 14 | 14 | 17 | 17 | 17 | 22 | 22 | 27 | 27 | 36 | 36 | 36 |
| C | 14 | 14 | 18 | 18 | 22 | 22 | 22 | 28 | 28 | 36 | 36 | 48 | 48 | 48 |
| A | 13.5 | 13.5 | 19.5 | 19.5 | 30 | 30 | 30 | 40 | 40 | 50 | 50 | 63 | 63 | 73 |
| K | 11 | 11 | 17 | 17 | 20 | 20 | 20 | 22 | 22 | 35 | 35 | 40 | 40 | 60 |
| I | M4 | M4 | M4 | M4 | M6 | M6 | M6 | M8 | M8 | M8 | M8 | M8 | M8 | M8 |

How to order PEKOS ball valves

| | I | II | III | IV | V | VI | VII | |
|-----------------------------------|-----------------|-------------|------------------------------|-------------------------|--------------------------|-------------------|------------------|--------------------|
| SPECIAL PREFIX | I Class | II Body | Ball | Seats | Stem Packing | Body seal 1 | Body seal 2 | O ring stem |
| B - Sampling valve | 0 - F4/F5 | 0-Special | Special | T - PTFE | T - PTFE | T - PTFE | | V - Viton® (FKM) |
| C - Cavity filler | 1 - CL-150 | 1-Cast iron | CF8M 1,4408 | R - PTFE + 25% FV | R - PTFE + 25% FV | R - PTFE + 25% FV | | N - NBR/HNBR |
| D - Seat and stem Sealant fitting | 2 - F1 | 2-Cast iron | CF8M 1,4408 | S - PTFE+ 25% CG | S - PTFE+ 25% CG | S - PTFE+ 25% CG | | E - EPDM |
| D4 - Seat Sealant fitting | 3 - CL-300 | | CF8 1,4027 | X - PTFE + 50% SS. | B - PFA | B - PFA | | K - KALREZ® (FFKM) |
| D5 - Stem Sealant fitting | 4 - CL-400 | | CA15 AISI410 | B - PFA | G - GRAPHITE | G - GRAPHITE | | L-CHLOROPRENE |
| E - Standard stem extension | 5 - Tank bottom | | A105/LF2+ENP | K - KEL'FÒ® (PCTFE) | U - UHMWPE® | U - UHMWPE® | | I - SILICONE |
| F - Security stem extension | 6 - CL-600 | | 1,0619 1,0352 | A105/LF2+ENP 1,4027 | P - PEEK | Y - TF17500® | Y - TF17500® | |
| G - Guided ball | 7 - 4 ways | 3 | A105 WCC | A105/LF2+ENP AISI410 | Q - PEEK + 12% PTFE | G - TFM | M - TFM | |
| H - Heating jacket (semi) | 8 - 3 ways | 4 | 1,0619 1,0352 | 1,4408 1,4462 | O - PEEK+PTFE+PV | | V - VITON® (FKM) | |
| I - Inclined stem | 9 - Wafer | | A105 WCC | CF8M F51 | Z - PEEK+PTFE+CG | | N - NITRILE | |
| J - Heating jacket (full) | 15 - CL-1500 | 5 | LCC LF2 | LF2+ENP | N - DEVLON® V | | E - EPDM | K - KALREZ® (FFKM) |
| K - 3 pieces | 25 - CL-2500 | | 1,06190T 1,6220 1,0352 | | D - DELRIN® | | U - UHMWPE® | L-CHLOROPRENE |
| L - Locking device | 80- CL-800 | | CF8M F51 | | G - GRAPHITE | | | I - SILICONE |
| M - Metallic seat | 90 - CL-900 | 6 | 1,4408 | 1,4408 1,4462 | C - S. steel+ Cr Carbide | A - ALFAS® (FEPM) | | |
| O - Degreased | | | 1,4539 904L | 1,4539 904L | W- TUNGSTEN | | | |
| P - Protected seat | | 7 | LCC LF2 | CF8M F51 | H-COLMONOY | | | |
| S - Spring seat | | | 1,06190T 1,6220 1,0352 | 1,4408 1,4462 | V - VITON® (FKM) | | | |
| T - Simple stem extension | | 9 | CF8M F51 | | Y - TF17500® | | | |
| U - Unidirectional | | | 1,06190T 1,6220 1,0352 | 1,4408 1,4462 | M- TFM | | | |
| V - O-ring seat | | | | | | | | |
| W - Welded body | | | | | | | | |
| RB - Reduced bore | | | | | | | | |

Example: Fig. ZLU - 16 TGGVN - DN80

Special prefix
Z New stem design

VII
VI
V
IV
III
II
I