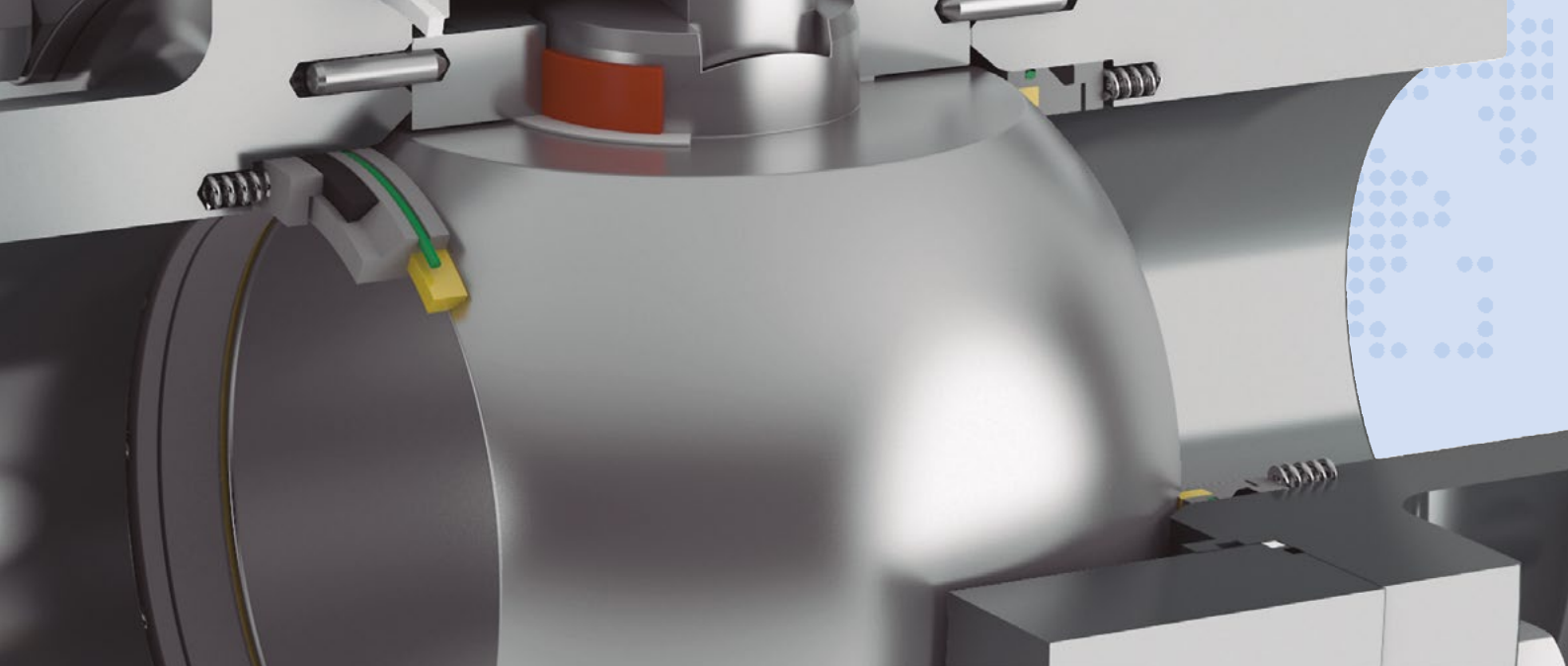




# Ball valves

# DIN



**Pekos**  
V A L V E S

**ARA**<sup>®</sup>  
**PNEUMATIK**

| [arapneumatik.pl](http://arapneumatik.pl)

ARA PNEUMATIK WROCŁAW  
[armatura@arapneumatik.pl](mailto:armatura@arapneumatik.pl)  
TEL. 71 364 72 85

ARA PNEUMATIK KATOWICE  
[katowice@arapneumatik.pl](mailto:katowice@arapneumatik.pl)  
TEL. 32 779 76 40

**Cryogenic Test**

**Fire Safe**

**Dimensional Control. 3D Arm**

## Certifications and tests

### Certificates of the company

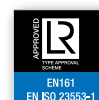
|                      |                                |
|----------------------|--------------------------------|
| ISO 14001 .....      | Enviromental Management System |
| ISO 9001 .....       | Quality Management system      |
| API Monogram .....   | API Q1 & API-6D                |
| ISO 45001:2018 ..... | Health & Safety                |

### Certificates of the product

|                                     |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| DNV .....                           | Type approval                                                       |
| Lloyd's Register .....              | Fire Safe & Type Approval                                           |
| TÜV A352.09 AD Merkblatt A4.....    | Design of the valves                                                |
| TA - Luft ISO15848-1 + VDI2440..... | Stem Tightness for gas emissions                                    |
| Helium -40 °C .....                 | Leeds University test                                               |
| Directive 2014/68/EU.....           | Pressure equipment directive (CE marking)                           |
| Directive 2014/34/EU.....           | ATEX - directive ( II2GD c T-)                                      |
| BS 6364 .....                       | Valves for Cryogenic Service -196°C                                 |
| EN 161 / EN 23553 / EN 16678.....   | Automatic quick shut-off valves for Gas/ Oil buerners and equipment |
| 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 MOP 16 bar                         |
| API 6D Monogram .....               | Certificate N° 6D-0363                                              |
| NSF International.....              | ANSI 372                                                            |
| CRN Canada.....                     | Registration certificate for Canada                                 |

### Some Company Approvals

|                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                |                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>■ Repsol-YPF (Spain)</li> <li>■ Cepsa (Spain)</li> <li>■ Sasol Technology (South Africa)</li> <li>■ EGPC (Egypt)</li> <li>■ China Petroleum (China)</li> <li>■ OMV / Petrom</li> <li>■ Borealis</li> <li>■ Solvay</li> <li>■ Yara</li> </ul> | <ul style="list-style-type: none"> <li>■ Qatar Petroleum (Qatar)</li> <li>■ Petroleum Development Oman (PDO)</li> <li>■ Sonatrach. (Algeria)</li> <li>■ Zadco (UAE)</li> <li>■ PKN Orlen</li> <li>■ ADNOC (UAE)</li> <li>■ INOVYN</li> <li>■ INEOS</li> <li>■ Neste</li> </ul> | <ul style="list-style-type: none"> <li>■ Vopak</li> <li>■ Wärtsila</li> <li>■ Motor Oil Hellas ( MOH)</li> <li>■ ENI</li> <li>■ MOL, INA, Slovnaft ( MOL Group)</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## General features

- Full /reduced bore
- Soft/metal seat
- Bidirectional/Unidirectional
- Firesafe design
- Low emission design
- Anti static device
- Anti Blow out proof stem
- Autoadjustable packing/Maintenance free
- Self-cavity pressure relief
- Double block and bleed (Full trunnion valves)
- Spring loaded seat system
- Heating Jacket
- Degreased
- EC1935/FDA Food Application

## Body constructions and desing advantages

- |                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| ▪ Floating ball    | Integral seat, loaded seat, spring loaded seat, metal-metal seat option, cryogenic |
| ▪ Guided ball      | Integral seat, metal o-ring seat                                                   |
| ▪ Full trunnion    | Loaded seat, metal loaded seat, cryogenic, metal o-ring seat                       |
| ▪ Wafer            | Integral seat, metal o-ring seat                                                   |
| ▪ 3-4 Way Floating | Integral seat, 4 seats.                                                            |
| ▪ 3-4 Way Trunnion | Loaded seat, metal loaded seat, cryogenic                                          |
| ▪ Tank bottom      | integral seat, loaded seat, metal loaded seat, metal O-Ring seat, cryogenic        |

*Further options and designs upon request*

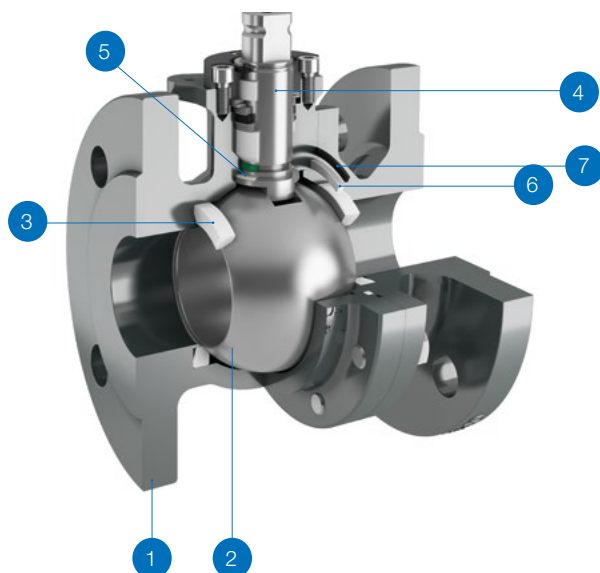
## Standards

- Design EN-12516, ISO 17292
- Face to face EN 558
- End Flanges (EN 1092-1 & EN 1092-2), welded or threaded.
- Top flange ISO 5211
- Testing EN-12266, ISO 5208



## FLOATING & GUIDED

PN16-40



### Standard Materials

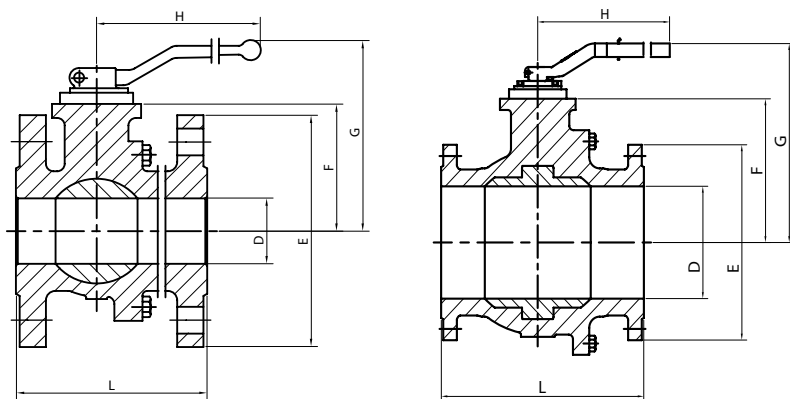
| Item | Description | Figure*           |           |
|------|-------------|-------------------|-----------|
|      |             | Z04 TTTG          | Z06 TTTG  |
|      |             | ZG04 TTTG         | ZG06 TTTG |
|      |             | Z24 TTTG          | Z26 TTTG  |
| 1    | Body        | 1.0619            | 1.4408    |
| 2    | Ball        | 1.4408            |           |
| 3    | Seat        | PTFE (T)          |           |
| 4    | Stem        | 1.4401            |           |
| 5    | Stem Seal   | PTFE (T) + FG (R) |           |
| 6    | Body Seal 1 | PTFE (T)          |           |
| 7    | Body Seal 2 | Graphite          |           |

\* Other seats configuration available upon request

### Range

| Z        |        | ZG        |        |
|----------|--------|-----------|--------|
| SIZE     | RATING | SIZE      | RATING |
| DN200    | PN10   | DN200-300 | PN10   |
| DN15-200 | PN16   | DN150-300 | PN16   |
| DN200    | PN25   | DN200-300 | PN25   |
| DN15-100 | PN40   | DN150-300 | PN40   |

### Dimensions



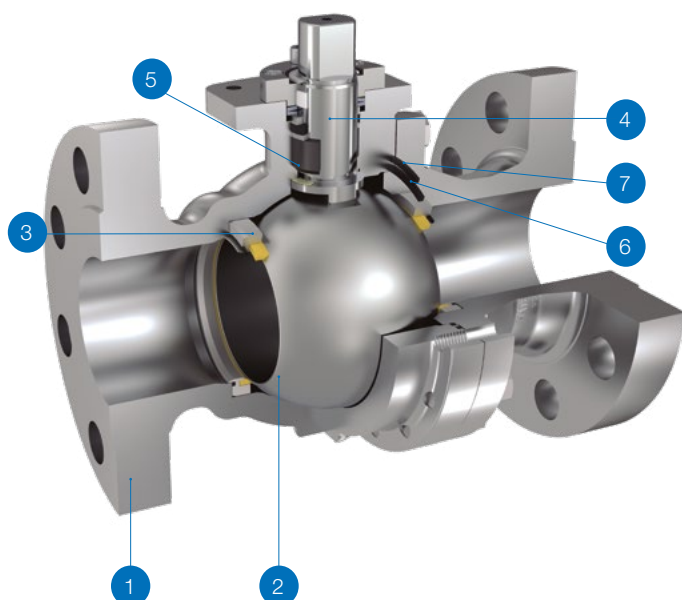
| DN  | D   | L      |       |       | E    |      |      |      | F   | G   | H   | ISO 5211 |
|-----|-----|--------|-------|-------|------|------|------|------|-----|-----|-----|----------|
|     |     | F1 (1) | F4(2) | F5(3) | PN10 | PN16 | PN25 | PN40 |     |     |     |          |
| 15  | 15  | 130    | 115   | -     | -    | 95   | -    | 95   | 51  | 108 | 185 | F05/1    |
| 20  | 20  | 150    | 120   | -     | -    | 105  | -    | 105  | 53  | 110 | 185 | F05/1    |
| 25  | 25  | 160    | 125   | -     | -    | 115  | -    | 115  | 59  | 116 | 185 | F05/2    |
| 32  | 32  | 180    | 130   | -     | -    | 140  | -    | 140  | 64  | 120 | 185 | F05/2    |
| 40  | 40  | 200    | 140   | -     | -    | 150  | -    | 150  | 75  | 145 | 293 | F07      |
| 50  | 50  | 230    | 150   | -     | -    | 165  | -    | 165  | 83  | 153 | 293 | F07      |
| 65  | 65  | 290    | 170   | -     | -    | 185  | -    | 185  | 96  | 166 | 293 | F07      |
| 80  | 80  | 310    | 180   | -     | -    | 200  | -    | 200  | 114 | 207 | 450 | F10      |
| 100 | 100 | 350    | 190   | -     | -    | 220  | -    | 235  | 128 | 222 | 450 | F10      |
| 125 | 125 | 400    | -     | 325   | -    | 250  | -    | 270  | 157 | 266 | 740 | F12      |
| 150 | 150 | 480    | -     | 350   | -    | 285  | -    | 300  | 176 | 285 | 740 | F12      |
| 200 | 201 | 600    | -     | 400   | 340  | 340  | 360  | 375  | 245 | 362 | 750 | F14      |
| 250 | 252 | -      | -     | 450   | 395  | 405  | 425  | 450  | 285 | -   | -   | F14      |
| 300 | 303 | -      | -     | 500   | 445  | 460  | 485  | 515  | 329 | -   | -   | F14      |

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



## FLOATING

PN63-100



### Standard Materials

| Item | Description | Figure*                 |                         |
|------|-------------|-------------------------|-------------------------|
|      |             | Z29 SSSG-<br>ZV29 PSSG- | Z26 SSSG-<br>ZV26 PSSG- |
| 1    | Body        | 1.6620                  | 1.4408                  |
| 2    | Ball        | 1.4408                  |                         |
| 3    | Seat        | PTFE (T)<br>PEEK        |                         |
| 4    | Stem        | XM-19                   |                         |
| 5    | Stem Seal   | PTFE (T) + CG / PEEK    |                         |
| 6    | Body Seal 1 | PTFE + CG               |                         |
| 7    | Body Seal 2 | Graphite                |                         |

\* Other seats and metal-metal configuration available upon request

### Range

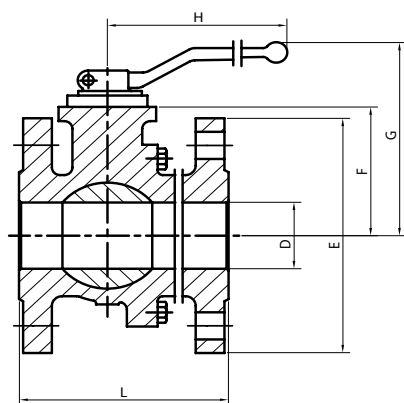
#### Z

| SIZE    | RATING |
|---------|--------|
| DN15-50 | PN63   |
| DN15-50 | PN100  |

#### ZV

| SIZE     | RATING |
|----------|--------|
| DN65-100 | PN63   |
| DN65-100 | PN100  |

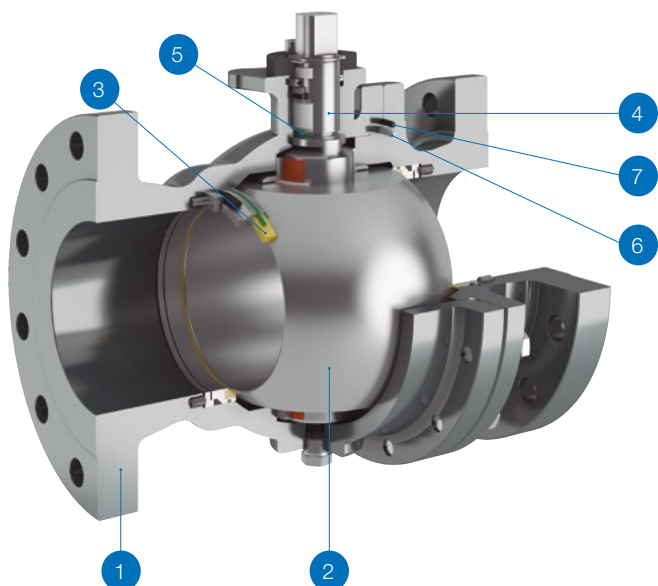
### Dimensions



| DN  | D   | L   | E    |       | F   | G   | H   | ISO 5211 |
|-----|-----|-----|------|-------|-----|-----|-----|----------|
|     |     | F1  | PN63 | PN100 |     |     |     |          |
| 15  | 15  | 130 | 105  |       | 51  | 108 | 185 | F05/1    |
| 20  | 20  | 150 | 130  |       | 53  | 110 | 185 | F05/1    |
| 25  | 25  | 160 | 140  |       | 59  | 116 | 185 | F05/2    |
| 32  | 32  | 180 | 155  |       | 64  | 120 | 185 | F05/2    |
| 40  | 40  | 200 | 170  |       | 75  | 145 | 293 | F07      |
| 50  | 50  | 230 | 180  | 195   | 83  | 153 | 293 | F07      |
| 65  | 65  | 290 | 205  | 220   | 96  | 166 | 293 | F07      |
| 80  | 80  | 310 | 215  | 230   | 113 | 207 | 450 | F10      |
| 100 | 100 | 350 | 250  | 265   | 138 | 247 | 740 | F12      |

## FULL TRUNNION 2PC

PN16-40

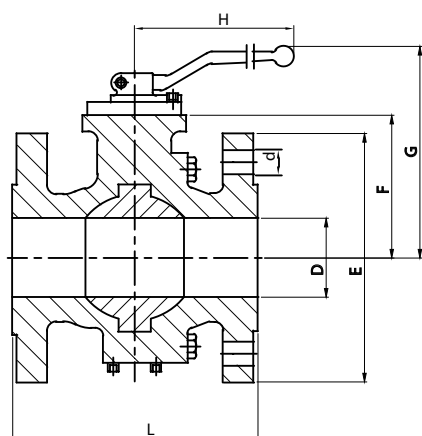


### Standard Materials

| Item | Description | Figure*      |            |
|------|-------------|--------------|------------|
|      |             | ZGS04 SSSG   | ZGS06 SSSG |
|      |             | ZGS24 SSSG   | ZGS26 SSSG |
| 1    | Body        | 1.0619       | 1.4408     |
| 2    | Ball        | 1.4408       |            |
| 3    | Seat        | PTFE +CG (S) |            |
| 4    | Stem        | 1.4462       |            |
| 5    | Stem Seal   | PTFE +CG (S) |            |
| 6    | Body Seal 1 | PTFE +CG (S) |            |
| 7    | Body Seal 2 | GRAPHITE     |            |

\* Other seats configuration available upon request

### Dimensions



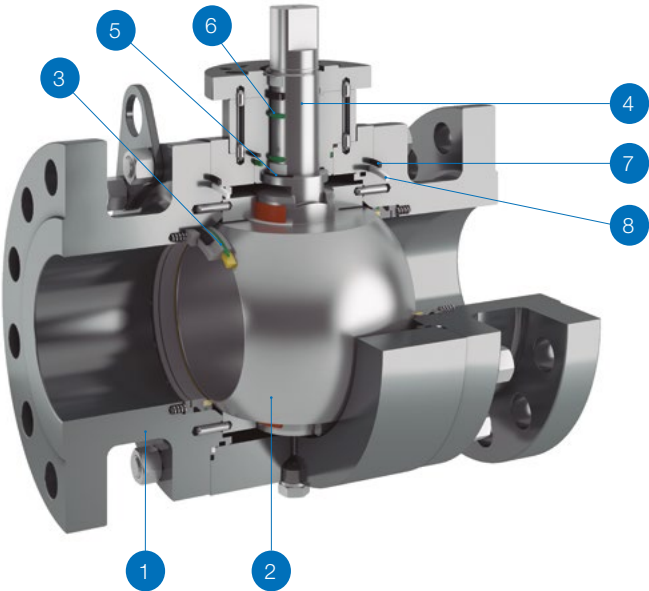
### Range

| ZGS       |        |
|-----------|--------|
| SIZE      | RATING |
| DN200-300 | PN10   |
| DN40-300  | PN16   |
| DN200-300 | PN25   |
| DN50-300  | PN40   |

| DN  | D   | L   |     | E    |      |      |      | F   | G   | H   | ISO 5211 |
|-----|-----|-----|-----|------|------|------|------|-----|-----|-----|----------|
|     |     | F1  | F5  | PN10 | PN16 | PN25 | PN40 |     |     |     |          |
| 40  | 40  | 200 | -   | -    | 150  | -    | 150  | 75  | 144 | 293 | F07      |
| 50  | 50  | 230 | -   | -    | 165  | -    | 165  | 83  | 153 | 293 | F07      |
| 80  | 80  | 310 | -   | -    | 200  | -    | 200  | 114 | 207 | 450 | F10      |
| 100 | 100 | 350 | -   | -    | 220  | -    | 235  | 128 | 222 | 450 | F10      |
| 150 | 150 | 480 | 350 | -    | 285  | -    | 300  | 176 | 285 | 740 | F12      |
| 200 | 201 | 600 | 400 | 340  | 340  | 360  | 375  | 245 | 362 | 750 | F14      |
| 250 | 252 | 730 | 450 | 395  | 405  | 425  | 450  | 285 | -   | -   | F14      |
| 300 | 303 | 850 | 500 | 445  | 460  | 485  | 515  | 329 | -   | -   | F14      |

FULL TRUNNION 3PC

PN10-16-25-40-63-100  
PN160-250-400

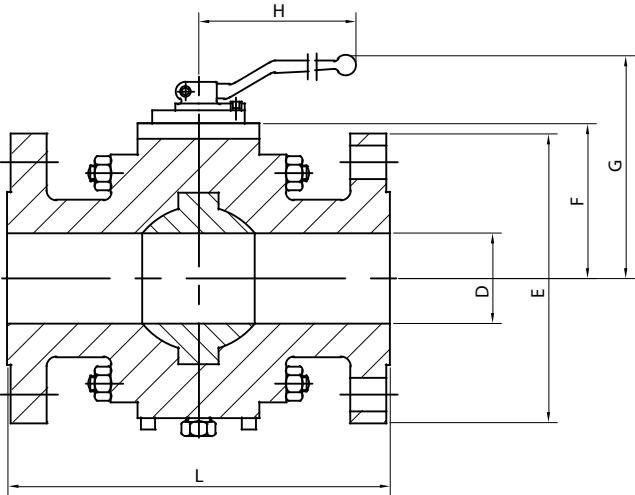


Standard Materials

| Item | Description  | Figure*                    |                            |
|------|--------------|----------------------------|----------------------------|
|      |              | GKS04 SGSGV<br>GKS24 SGSGV | GKS06 SGSGV<br>GKS26 SGSGV |
| 1    | Body         | 1.0352                     | 1.4401                     |
| 2    | Ball         | 1.4401                     |                            |
| 3    | Seat         | PTFE +CG (S)               |                            |
| 4    | Stem         | 1.4462                     |                            |
| 5    | Stem Seal    | Peek                       |                            |
| 6    | Stem Packing | Graphite + FKM             |                            |
| 7    | Body Seal 1  | PTFE + CG<br>FKM           |                            |
| 8    | Body Seal 2  | Graphite                   |                            |

\* Other seats configuration available upon request

Dimensions



Range

| GKS       |        |
|-----------|--------|
| SIZE      | RATING |
| DN200-600 | PN10   |
| DN15-600  | PN16   |
| DN200-600 | PN25   |
| DN15-600  | PN40   |
| DN15-600  | PN63   |
| DN15-600  | PN100  |
| DN15-500  | PN160  |
| DN15-500  | PN250  |
| DN15-300  | PN400  |

< DN600 available upon request up to DN1050

## FULL TRUNNION 3PC

PN10-16-25-40-63

| DN  | D    |      |      |      |      | L    |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|------|
|     | PN10 | PN16 | PN25 | PN40 | PN63 | PN10 | PN16 | PN25 | PN40 | PN63 |
| 15  | -    | 13   | -    | 13   | 13   | -    | 130  | -    | 130  | 210  |
| 20  | -    | 19   | -    | 19   | 19   | -    | 150  | -    | 150  | 230  |
| 25  | -    | 25   | -    | 25   | 25   | -    | 160  | -    | 160  | 230  |
| 40  | -    | 38   | -    | 38   | 38   | -    | 200  | -    | 200  | 260  |
| 50  | -    | 49   | -    | 49   | 49   | -    | 230  | -    | 230  | 300  |
| 65  | -    | 62   | -    | 62   | 62   | -    | 290  | -    | 290  | 290  |
| 80  | -    | 74   | -    | 74   | 74   | -    | 310  | -    | 310  | 310  |
| 100 | -    | 100  | -    | 100  | 100  | -    | 350  | -    | 350  | 350  |
| 125 | -    | 125  | -    | 125  | 125  | -    | 325  | -    | -    | 400  |
| 150 | -    | 150  | -    | 150  | 150  | -    | 350  | -    | 350  | 480  |
| 200 | 201  | 201  | 201  | 201  | 201  | 400  | 400  | 400  | 400  | 600  |
| 250 | 252  | 252  | 252  | 252  | 252  | 450  | 450  | 730  | 730  | 730  |
| 300 | 303  | 303  | 303  | 303  | 303  | 500  | 500  | 850  | 850  | 850  |
| 350 | 334  | 334  | 334  | 334  | 334  | 550  | 550  | 980  | 980  | 980  |
| 400 | 385  | 385  | 385  | 385  | 385  | 600  | 600  | 1100 | 1100 | 1100 |
| 450 | 436  | 436  | 436  | 436  | 436  | 650  | 650  | 1200 | 1200 | 1200 |
| 500 | 487  | 487  | 487  | 487  | 487  | 700  | 700  | 1250 | 1250 | 1250 |
| 600 | 589  | 589  | 589  | 589  | 589  | 1450 | 1450 | 1450 | 1450 | 1450 |

| DN  | E    |      |      |      |      |       |       |       |       |
|-----|------|------|------|------|------|-------|-------|-------|-------|
|     | PN10 | PN16 | PN25 | PN40 | PN63 | PN100 | PN160 | PN250 | PN400 |
| 15  | -    | 95   | -    | 95   | 105  | 105   | 105   | 130   | 145   |
| 20  | -    | 105  | -    | 105  | 130  | 130   | -     | -     | -     |
| 25  | -    | 115  | -    | 115  | 140  | 140   | 140   | 150   | 180   |
| 40  | -    | 150  | -    | 150  | 170  | 170   | 170   | 185   | 220   |
| 50  | -    | 165  | -    | 165  | 180  | 195   | 195   | 200   | 235   |
| 65  | -    | 185  | -    | 185  | 205  | 220   | 220   | 230   | 290   |
| 80  | -    | 200  | -    | 200  | 215  | 230   | 230   | 255   | 305   |
| 100 | -    | 220  | -    | 235  | 250  | 265   | 265   | 300   | 370   |
| 125 | -    | 250  | -    | 270  | 295  | 315   | 315   | 340   | 415   |
| 150 | -    | 285  | -    | 300  | 345  | 355   | 355   | 390   | 475   |
| 200 | 340  | 340  | 360  | 375  | 415  | 430   | 430   | 485   | 585   |
| 250 | 395  | 405  | 425  | 450  | 470  | 505   | 515   | 585   | 640   |
| 300 | 445  | 460  | 485  | 515  | 530  | 585   | 585   | 675   | -     |
| 350 | 505  | 520  | 555  | 580  | 600  | 655   | 750   | 750   | -     |
| 400 | 565  | 580  | 620  | 660  | 670  | 685   | 825   | 825   | -     |
| 450 | 615  | 640  | 670  | 685  | 745  | 745   | 915   | 915   | -     |
| 500 | 670  | 715  | 730  | 755  | 815  | 815   | 985   | 985   | -     |
| 600 | 815  | 815  | 915  | 915  | 940  | 940   | -     | -     | -     |

| DN  | PN10 |   |   |          | PN16 |     |     |          | PN25 |   |   |          | PN40 |     |     |          | PN63 |     |     |          |
|-----|------|---|---|----------|------|-----|-----|----------|------|---|---|----------|------|-----|-----|----------|------|-----|-----|----------|
|     | F    | G | H | ISO 5211 | F    | G   | H   | ISO 5211 | F    | G | H | ISO 5211 | F    | G   | H   | ISO 5211 | F    | G   | H   | ISO 5211 |
| 15  | -    | - | - | -        | 68   | 125 | 185 | F05      | -    | - | - | -        | 68   | 125 | 185 | F05      | 68   | 125 | 185 | F05      |
| 20  | -    | - | - | -        | 68   | 125 | 185 | F05      | -    | - | - | -        | 68   | 125 | 185 | F05      | 68   | 125 | 185 | F05      |
| 25  | -    | - | - | -        | 68   | 125 | 185 | F05      | -    | - | - | -        | 68   | 125 | 185 | F05      | 68   | 125 | 185 | F05      |
| 40  | -    | - | - | -        | 82   | 152 | 293 | F07      | -    | - | - | -        | 82   | 152 | 293 | F07      | 82   | 152 | 293 | F07      |
| 50  | -    | - | - | -        | 98   | 168 | 293 | F07      | -    | - | - | -        | 98   | 168 | 293 | F07      | 98   | 168 | 293 | F07      |
| 65  | -    | - | - | -        | 104  | 175 | 293 | F07      | -    | - | - | -        | 104  | 175 | 293 | F07      | 135  | 229 | 450 | F10      |
| 80  | -    | - | - | -        | 131  | 225 | 450 | F10      | -    | - | - | -        | 131  | 225 | 450 | F10      | 131  | 225 | 450 | F10      |
| 100 | -    | - | - | -        | 147  | 241 | 450 | F10      | -    | - | - | -        | 147  | 241 | 450 | F10      | 175  | 284 | 740 | F12      |
| 125 | -    | - | - | -        | -    | -   | -   | F12      | -    | - | - | -        | -    | -   | -   | -        | -    | -   | -   | F12      |
| 150 | -    | - | - | -        | 210  | -   | -   | F12      | -    | - | - | -        | 210  | -   | -   | F12      | 229  | -   | -   | F14      |
| 200 | 265  | - | - | F14      | 265  | -   | -   | F14      | 265  | - | - | F14      | 265  | -   | -   | F14      | 295  | -   | -   | F16-1    |
| 250 | 301  | - | - | F14      | 301  | -   | -   | F14      | 301  | - | - | F14      | 301  | -   | -   | F14      | 330  | -   | -   | F16-1    |
| 300 | 363  | - | - | F16      | 363  | -   | -   | F16      | 363  | - | - | F16      | 363  | -   | -   | F16      | 400  | -   | -   | F25      |
| 350 | 393  | - | - | F16      | 393  | -   | -   | F16      | 393  | - | - | F16      | 393  | -   | -   | F16      | 426  | -   | -   | F25      |
| 400 | 433  | - | - | F16      | 433  | -   | -   | F16      | 433  | - | - | F16      | 433  | -   | -   | F16      | 465  | -   | -   | F25      |
| 450 | 500  | - | - | F25      | 500  | -   | -   | F25      | 500  | - | - | F25      | 500  | -   | -   | F25      | 511  | -   | -   | F30      |
| 500 | 534  | - | - | F25      | 534  | -   | -   | F25      | 534  | - | - | F25      | 534  | -   | -   | F25      | 545  | -   | -   | F30      |
| 600 | 619  | - | - | F30      | 667  | -   | -   | F30      | 667  | - | - | F35      | 667  | -   | -   | F35      | 667  | -   | -   | F35      |

Available upto DN1050 upon request



## FULL TRUNNION 3PC

PN100 - 160 - 250 - 400

| DN  | D     |       |       |       | L     |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
|     | PN100 | PN160 | PN250 | PN400 | PN100 | PN160 | PN250 | PN400 |
| 15  | 13    | 13    | 13    | 13    | 210   | 210   | 210   | 264   |
| 20  | 19    | 19    | 19    | 19    | 230   | -     | -     | -     |
| 25  | 25    | 25    | 25    | 25    | 230   | 230   | 230   | 308   |
| 40  | 38    | 38    | 38    | 38    | 260   | 260   | 260   | 384   |
| 50  | 49    | 49    | 49    | 42    | 300   | 300   | 300   | 451   |
| 65  | 62    | 62    | 62    | 52    | 290   | 340   | 340   | 508   |
| 80  | 74    | 74    | 74    | 62    | 380   | 380   | 470   | 578   |
| 100 | 100   | 100   | 100   | 87    | 430   | 430   | 546   | 673   |
| 125 | 125   | 125   | 125   | 125   | -     | -     | -     | 794   |
| 150 | 150   | 150   | 144   | 131   | 480   | 550   | 705   | 914   |
| 200 | 201   | 201   | 192   | 179   | 600   | 650   | 650   | 1022  |
| 250 | 252   | 252   | 239   | 223   | 730   | 775   | 991   | 1270  |
| 300 | 303   | 303   | 287   | 265   | 850   | 900   | 1130  | 1422  |
| 350 | 334   | 322   | 315   | -     | 980   | 1025  | 1257  | -     |
| 400 | 385   | 373   | 360   | -     | 1100  | 1150  | 1384  | -     |
| 450 | 436   | 423   | 406   | -     | 1200  | 1275  | 1537  | -     |
| 500 | 487   | 471   | 454   | -     | 1250  | 1400  | 1664  | -     |
| 600 | 589   | -     | -     | -     | 1450  | -     | -     | -     |

| DN  | PN63 |     |     |          | PN100 |     |     |          | PN160 |     |     |          | PN250 |     |     |          | PN400 |     |     |          |
|-----|------|-----|-----|----------|-------|-----|-----|----------|-------|-----|-----|----------|-------|-----|-----|----------|-------|-----|-----|----------|
|     | F    | G   | H   | ISO 5211 | F     | G   | H   | ISO 5211 | F     | G   | H   | ISO 5211 | F     | G   | H   | ISO 5211 | F     | G   | H   | ISO 5211 |
| 15  | 68   | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 81    | 151 | 293 | F07      |
| 20  | 68   | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 81    | 151 | 293 | F07      |
| 25  | 68   | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 68    | 125 | 185 | F05      | 81    | 151 | 293 | F07      |
| 40  | 82   | 152 | 293 | F07      | 82    | 152 | 293 | F07      | 82    | 152 | 293 | F07      | 82    | 152 | 293 | F07      | 102   | 196 | 450 | F10      |
| 50  | 98   | 168 | 293 | F07      | 98    | 168 | 293 | F07      | 127   | 221 | 450 | F10      | 127   | 221 | 450 | F10      | 149   | 258 | 740 | F12      |
| 65  | 135  | 229 | 450 | F10      | 135   | 229 | 450 | F10      | 135   | 229 | 450 | F10      | 135   | 229 | 450 | F10      | 179   | 288 | 740 | F12      |
| 80  | 131  | 225 | 450 | F10      | 131   | 225 | 450 | F10      | 175   | 285 | 740 | F12      | 175   | 285 | 740 | F12      | 184   | -   | -   | F14-1    |
| 100 | 175  | 284 | 740 | F12      | 175   | 284 | 740 | F12      | 200   | -   | -   | F12      | 200   | -   | -   | F14-1    | 225   | -   | -   | F16-1    |
| 125 | -    | -   | -   | F12      | -     | -   | -   | F12      | -     | -   | -   | -        | -     | -   | -   | -        | -     | -   | -   | -        |
| 150 | 229  | -   | -   | F14      | 229   | -   | -   | F14      | 257   | -   | -   | F14      | 257   | -   | -   | F16-1    | 308   | -   | -   | F25      |
| 200 | 295  | -   | -   | F16-1    | 295   | -   | -   | F16-1    | 347   | -   | -   | F16-1    | 347   | -   | -   | F25      | 368   | -   | -   | F25      |
| 250 | 330  | -   | -   | F16-1    | 330   | -   | -   | F16-1    | 379   | -   | -   | F16-1    | 379   | -   | -   | F25      | 430   | -   | -   | F30      |
| 300 | 400  | -   | -   | F25      | 400   | -   | -   | F25      | 420   | -   | -   | F25      | 420   | -   | -   | F25      | 471   | -   | -   | F35      |
| 350 | 426  | -   | -   | F25      | 426   | -   | -   | F25      | 460   | -   | -   | F25      | 460   | -   | -   | F30-1    | 426   | -   | -   | F25      |
| 400 | 465  | -   | -   | F25      | 465   | -   | -   | F25      | 542   | -   | -   | F30-1    | 542   | -   | -   | F35      | 465   | -   | -   | F25      |
| 450 | 511  | -   | -   | F30      | 511   | -   | -   | F30      | 622   | -   | -   | F30      | 622   | -   | -   | F40      | 511   | -   | -   | F30      |
| 500 | 545  | -   | -   | F30      | 545   | -   | -   | F30      | 657   | -   | -   | F35      | 657   | -   | -   | F40      | 545   | -   | -   | F30      |
| 600 | 667  | -   | -   | F35      | 667   | -   | -   | F35      | 667   | -   | -   | F35      | 667   | -   | -   | F35      | 667   | -   | -   | F35      |

## Torques

### Floating & Guided (Nm)

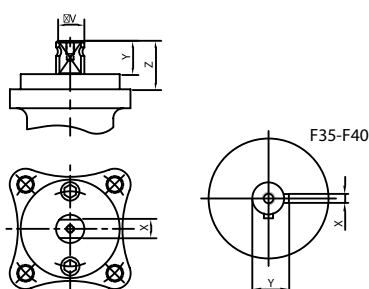
| DN    | 15 | 20 | 25 | 32 | 40 | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250  | 300  |
|-------|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|------|------|
| PN10  | 7  | 9  | 13 | 20 | 29 | 40  | 50  | 80  | 100 | 220 | 350 | 500 | 890  | 1100 |
| PN16  | 8  | 10 | 14 | 21 | 31 | 46  | 55  | 85  | 110 | 240 | 380 | 540 | 950  | 1200 |
| PN25  | 10 | 12 | 17 | 25 | 33 | 54  | 71  | 108 | 158 | 290 | 470 | 905 | 1290 | 1450 |
| PN40  | 12 | 14 | 18 | 30 | 40 | 65  | 85  | 130 | 190 | 350 | 605 | 950 | 1235 | 1595 |
| PN63  | 15 | 17 | 28 | 43 | 65 | 92  | 116 | 185 | 259 |     |     |     |      |      |
| PN100 | 16 | 18 | 40 | 61 | 90 | 156 | 170 | 260 | 349 |     |     |     |      |      |

### Full Trunnion (Nm)

| DN    | 15 | 20 | 25  | 32  | 40  | 50  | 65  | 80  | 100  | 125  | 150  | 200  | 250  | 300  | 350  | 400   | 450   | 500   | 550   | 600   |
|-------|----|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| PN10  | 8  | 12 | 20  | 30  | 40  | 55  | 93  | 130 | 223  | 294  | 364  | 568  | 777  | 975  | 1655 | 2237  | 2896  | 3490  | 4939  | 5607  |
| PN16  | 9  | 13 | 22  | 33  | 44  | 59  | 101 | 142 | 241  | 328  | 414  | 645  | 873  | 1086 | 1844 | 2487  | 3315  | 4101  | 5718  | 6532  |
| PN25  | 11 | 15 | 24  | 37  | 50  | 65  | 113 | 161 | 269  | 379  | 489  | 762  | 1016 | 1253 | 2128 | 2863  | 3945  | 5016  | 6888  | 7919  |
| PN40  | 13 | 18 | 28  | 43  | 59  | 75  | 119 | 189 | 314  | 433  | 613  | 955  | 1256 | 1531 | 2597 | 3489  | 4992  | 6543  | 8837  | 10230 |
| PN63  | 15 | 23 | 34  | 54  | 73  | 91  | 166 | 242 | 385  | 595  | 805  | 1253 | 1624 | 1957 | 3325 | 4449  | 6600  | 8884  | 11825 | 13751 |
| PN100 | 20 | 31 | 44  | 70  | 95  | 112 | 203 | 294 | 501  | 805  | 1106 | 1750 | 2213 | 2639 | 4494 | 6020  | 9184  | 12460 | 16632 | 19440 |
| PN160 | 27 | 41 | 58  | 92  | 126 | 151 | 282 | 420 | 644  | 1084 | 1523 | 2380 | 3010 | 3570 | 6073 | 8078  | 12670 | 17738 | 23128 | -     |
| PN250 | 41 | 61 | 85  | 136 | 189 | 217 | 420 | 616 | 956  | 1653 | 2352 | 3661 | 4606 | 5418 | 9226 | 12250 | 19670 | 27930 | 36121 | -     |
| PN400 | 64 | 96 | 131 | 211 | 291 | 333 | 649 | 965 | 1475 | 2617 | 3758 | 5853 | 7314 | 8569 | -    | -     | -     | -     | -     | -     |

### Top Flange ISO5211

| ISO 5211 | F05/1 | F05/2 | F07 | F10 | F10-1 | F12-1 | F12 | F14 | F14-1 | F16 | F16-1 | F25 | F25-1 | F30 | F30-1 | F35 | F40 |
|----------|-------|-------|-----|-----|-------|-------|-----|-----|-------|-----|-------|-----|-------|-----|-------|-----|-----|
| Ø V      | 14    | 18    | 22  | 28  | 22    | 28    | 36  | 48  | 36    | 60  | 48    | 72  | 60    | 98  | 72    | 120 | 180 |
| X        | 11    | 14    | 17  | 22  | 17    | 22    | 27  | 36  | 27    | 46  | 36    | 55  | 46    | 75  | 55    | 32  | 45  |
| Y        | 11    | 17    | 20  | 22  | 20    | 22    | 35  | 40  | 35    | 60  | 40    | 70  | 60    | 100 | 70    | 127 | 190 |
| Z        | 13,5  | 19,5  | 30  | 40  | 25    | 36    | 50  | 63  | 44    | 73  | 63    | 83  | 68    | 106 | 83    | 200 | 200 |
| I        | M4    | M4    | M6  | M8  | M6    | M8    | M8  | M10 | M8    | M10 | M10   | M10 | M10   | M12 | M10   | M16 | M16 |



### Mast (Nm)

| STEM MATERIAL | F05/1 | F05/2 | F7/F10-1 | F10/F12-1 | F12/F14-1 | F14/F16-1 | F16   | F25/F30-1 | F30   | F35   | F40   |
|---------------|-------|-------|----------|-----------|-----------|-----------|-------|-----------|-------|-------|-------|
| 1.4401        | 44    | 95    | 250      | 522       | 1073      | 2544      | 5049  | 8702      | 21974 | 13043 | 29212 |
| 1.4462        | 95    | 207   | 550      | 1147      | 2356      | 5585      | 11084 | 19103     | 48235 | 29160 | 64125 |
| XM-19         | 81    | 175   | 464      | 968       | 1990      | 4716      | 9360  | 16131     | 40731 | 24624 | 54150 |

### Kv Values (m³/h)

| DN        | 15 | 20 | 25 | 32  | 40  | 50  | 65  | 80  | 100  | 125  | 150  | 200  | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600  |
|-----------|----|----|----|-----|-----|-----|-----|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|
| Kv (m³/h) | 20 | 44 | 88 | 200 | 250 | 310 | 480 | 960 | 1700 | 2650 | 4100 | 8200 | 11500 | 18340 | 26300 | 30200 | 35400 | 54100 | 70300 | 5607 |

## Weights

Floating & Guided PN16-40 (Kg)

| DN  | F1(1) | F4(2) | F5(3)   | G-BOX |
|-----|-------|-------|---------|-------|
| 15  | 3     | 3     | -       | -     |
| 20  | 4     | 4     | -       | -     |
| 25  | 5     | 5     | -       | -     |
| 32  | 7     | 6     | -       | -     |
| 40  | 9     | 8     | -       | 3     |
| 50  | 13    | 11    | -       | 3     |
| 65  | 20    | 17    | -       | 3     |
| 80  | 26    | 22    | -       | 3     |
| 100 | 34    | 30    | -       | 3     |
| 125 | 68    | -     | 56/62   | 15    |
| 150 | 94*   | -     | 75/83   | 15    |
| 200 | 164   | -     | 134/147 | 21    |
| 250 | -     | -     | 228/254 | 21    |
| 300 | -     | -     | 321/372 | 31    |

Floating & Guided PN63-100 (Kg)

| DN | F1(1) | F4(2) | F5(3) | G-BOX |
|----|-------|-------|-------|-------|
| 15 | 7     | -     | -     | -     |
| 20 | 9     | -     | -     | -     |
| 25 | 11    | -     | -     | -     |
| 32 | 15    | -     | -     | -     |
| 40 | 19    | -     | -     | -     |
| 50 | 25    | -     | -     | -     |
| 65 | 39    | -     | -     | -     |

Full Trunnion 2PC (Kg)

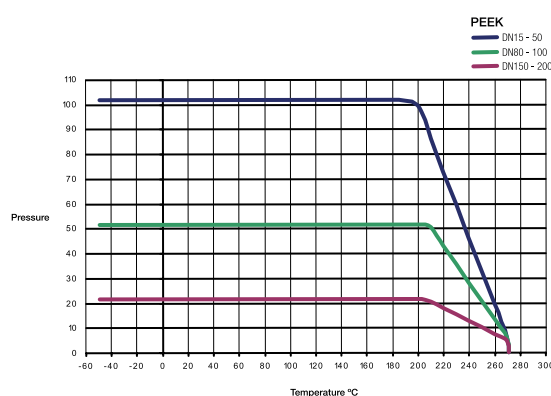
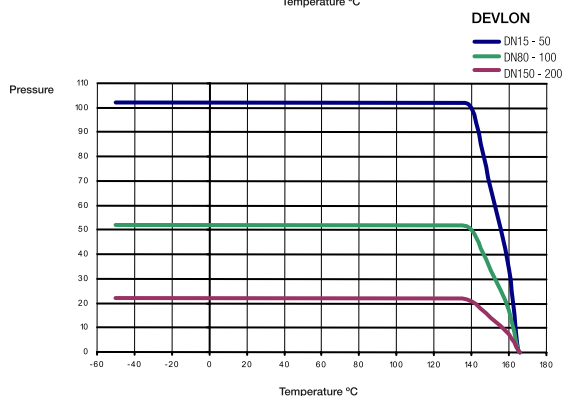
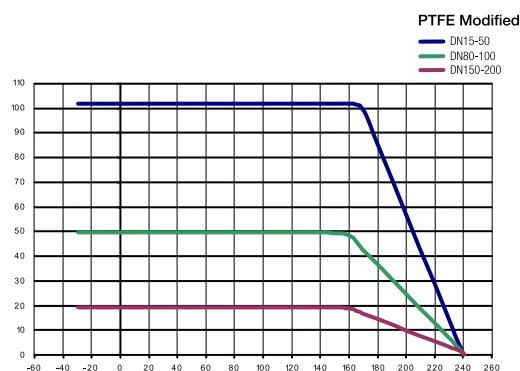
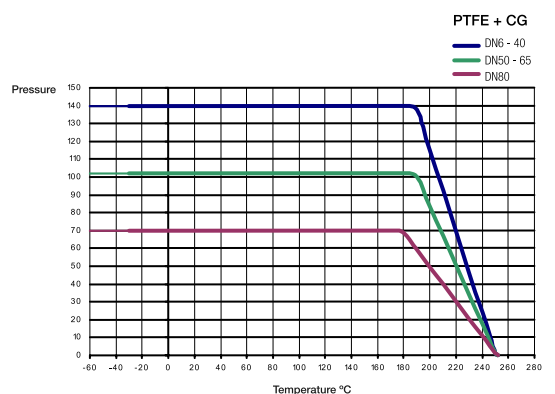
| DN  | F1(1) | F5(3)   | G-BOX |
|-----|-------|---------|-------|
| 50  | 17    | -       | -     |
| 65  | 38    | -       | -     |
| 80  | 60    | -       | -     |
| 100 | 70    | 56      | 15    |
| 125 | 110   | 77/83   | 15    |
| 150 | 194   | 134/147 | 21    |
| 200 | 335   | 228/254 | 21    |
| 250 | 491   | 321/372 | 21    |
| 300 | -     | 321/372 | 31    |

Full Trunnion 3PC (Kg)

| DN  | PN 10 | PN16 | PN25 | PN40 | PN63 | PN100 | PN160 | PN250 | PN400 |
|-----|-------|------|------|------|------|-------|-------|-------|-------|
| 50  |       | 26   | 26   | 26   | 30   | 30    | 28    | 46    | 115   |
| 65  |       | 29   | 30   | 30   | 35   | 45    | 39    | 76    |       |
| 80  |       | 33   | 34   | 34   | 38   | 63    | 98    | 102   | 208   |
| 100 |       | 69   | 72   | 72   | 87   | 103   | 153   | 169   | 340   |
| 125 |       | 97   | 97   | -    | 128  | 158   | -     | -     | -     |
| 150 | 124   | 128  | 128  | 139  | 169  | 212   | 353   | 360   | 712   |
| 200 | 213   | 220  | 220  | 240  | 298  | 378   | 595   | 605   | 1859  |
| 250 | 412   | 425  | 425  | 463  | 511  | 632   | 885   | 895   | 2817  |
| 300 | 548   | 565  | 565  | 616  | 729  | 880   | 1220  | 1230  | 3892  |
| 350 | 737   | 760  | 760  | 828  | 1085 | 1134  | -     | -     | -     |
| 400 | 951   | 980  | 980  | 1068 | 1200 | 1696  | -     | -     | -     |
| 450 | 1870  | 1870 | 1870 | 2038 | -    | -     | -     | -     | -     |
| 500 | 2241  | 2310 | 2310 | 2516 | -    | 2815  | -     | -     | -     |
| 600 | 3870  | 3870 | 3580 | 3522 | -    | -     | -     | -     | -     |

When one value is indicated, corresponds to PN40. When two values are indicated, the first correspond to PN16 and the second to PN40. \* Weight only for PN16

## Pressure - Temperature Graphs





# DIN

From DN8 up to DN1050  
PN16 up to PN400

T° Range from -196°C up to 700°C



**FLOATING  
& GUIDED**



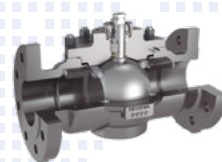
**TRUNNION 2PC**



**TRUNNION 3PC**



**FLOATING  
TOP ENTRY**



**TRUNNION  
TOP ENTRY**



**3&4 WAY**



**WAFER**



**TANK BOTTOM**



**CRYOGENIC**



**METAL SEATED**



[www.pekos.es](http://www.pekos.es)

Rec del Molinar, 9 - P.I. El Circuit  
08160 Montmeló ( Barcelona ) - Spain  
Tel.:(+34) 93 568 92 56

[pekos@pekos.es](mailto:pekos@pekos.es)



[arapneumatik.pl](http://arapneumatik.pl)

ARA PNEUMATIK WROCŁAW  
[armatura@arapneumatik.pl](mailto:armatura@arapneumatik.pl)  
TEL. 71 364 72 85

ARA PNEUMATIK KATOWICE  
[katowice@arapneumatik.pl](mailto:katowice@arapneumatik.pl)  
TEL . 32 779 76 40

Member of



[www.pekosgroup.eu](http://www.pekosgroup.eu)