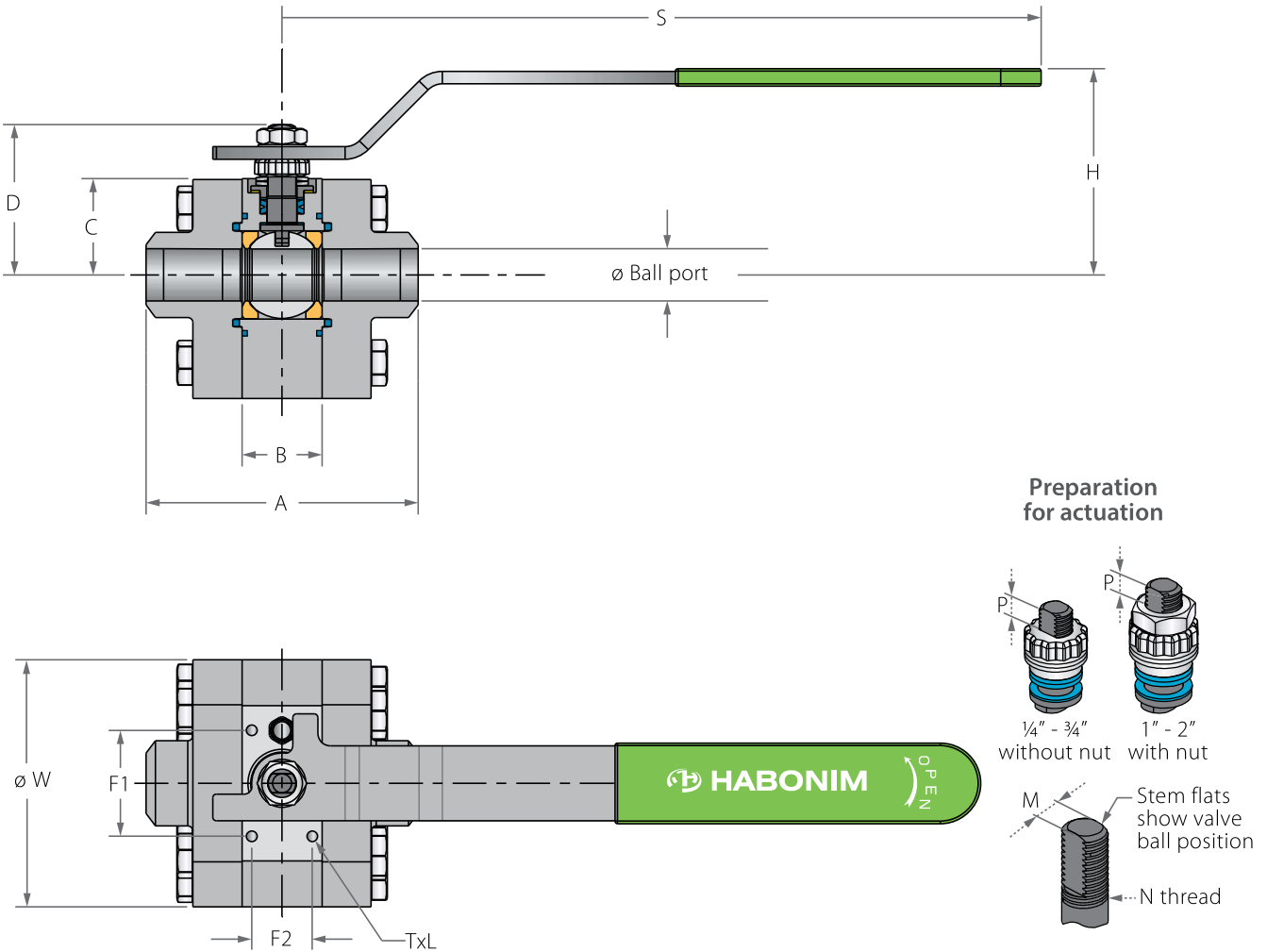


# High Pressure Floating Ball 3 Piece

## Valve dimensions



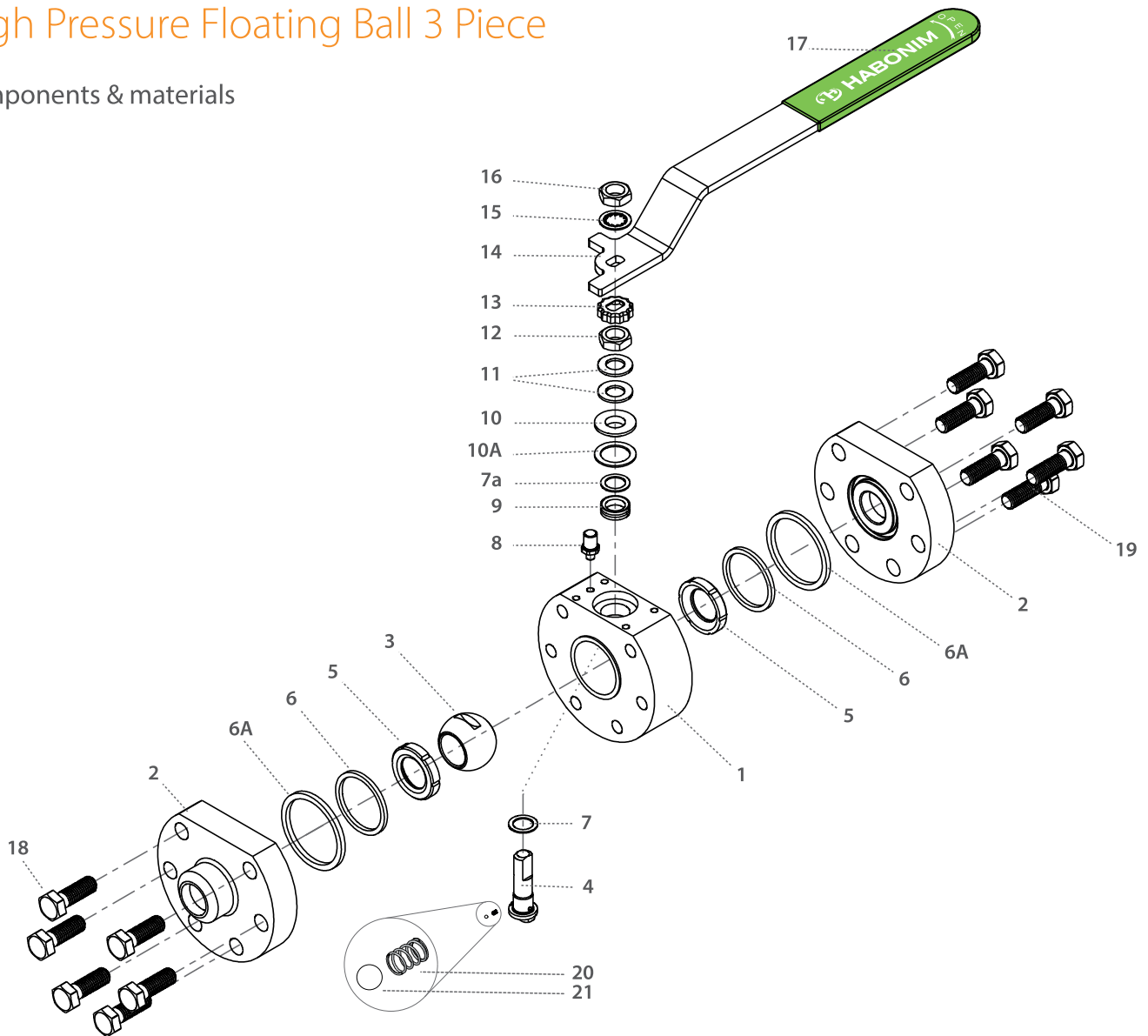
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

| Std. port | Unit | Ball port | A      | B     | C     | D     | ØW     | H     | M    | N         | P     | S      | TxL  | F1    | F2    | weight kg/lb | kv cv |
|-----------|------|-----------|--------|-------|-------|-------|--------|-------|------|-----------|-------|--------|------|-------|-------|--------------|-------|
| DN8       | mm   | 11.10     | 77.80  | 20.60 | 27.00 | 38.00 | 69.50  | 46.00 | 5.50 | 3/8" UNF  | 7.00  | 179.00 | M5x8 | 34.00 | 0.00  | 1.60         | 2.6   |
| 1/4"      | inch | 0.44      | 3.06   | 0.81  | 1.06  | 1.50  | 2.74   | 1.81  | 0.22 | 3/8" UNF  | 0.28  | 7.05   | M5x8 | 1.34  | 0.00  | 3.50         | 3.0   |
| DN10      | mm   | 11.10     | 77.80  | 20.60 | 27.00 | 38.00 | 69.50  | 46.00 | 5.50 | 3/8" UNF  | 7.00  | 179.00 | M5x8 | 34.00 | 0.00  | 1.60         | 4.3   |
| 3/8"      | inch | 0.44      | 3.06   | 0.81  | 1.06  | 1.50  | 2.74   | 1.81  | 0.22 | 3/8" UNF  | 0.28  | 7.05   | M5x8 | 1.34  | 0.00  | 3.50         | 5.0   |
| DN15      | mm   | 11.10     | 77.80  | 20.60 | 27.00 | 38.00 | 69.50  | 46.00 | 5.50 | 3/8" UNF  | 7.00  | 179.00 | M5x8 | 34.00 | 0.00  | 1.60         | 6.9   |
| 1/2"      | inch | 0.44      | 3.06   | 0.81  | 1.06  | 1.50  | 2.74   | 1.81  | 0.22 | 3/8" UNF  | 0.28  | 7.05   | M5x8 | 1.34  | 0.00  | 3.50         | 8.0   |
| DN20      | mm   | 14.30     | 85.00  | 24.60 | 29.40 | 40.40 | 79.00  | 48.00 | 5.50 | 3/8" UNF  | 7.00  | 179.00 | M5x8 | 34.00 | 15.00 | 2.40         | 10    |
| 3/4"      | inch | 0.56      | 3.35   | 0.97  | 1.16  | 1.59  | 3.11   | 1.89  | 0.22 | 3/8" UNF  | 0.28  | 7.05   | M5x8 | 1.34  | 0.59  | 5.30         | 12    |
| DN25      | mm   | 20.60     | 107.90 | 31.80 | 38.20 | 55.70 | 98.00  | 64.00 | 7.54 | 7/16" UNF | 7.00  | 300.00 | M5x8 | 42.00 | 24.00 | 4.50         | 28    |
| 1"        | inch | 0.81      | 4.25   | 1.25  | 1.50  | 2.19  | 3.86   | 2.52  | 0.30 | 7/16" UNF | 0.28  | 11.81  | M5x8 | 1.65  | 0.94  | 9.90         | 32    |
| DN32      | mm   | 25.40     | 120.70 | 41.20 | 38.20 | 60.30 | 109.00 | 68.70 | 7.54 | 7/16" UNF | 7.00  | 300.00 | M5x8 | 42.00 | 24.00 | 5.40         | 49    |
| 1 1/4"    | inch | 1.00      | 4.75   | 1.62  | 1.50  | 2.37  | 4.29   | 2.70  | 0.30 | 7/16" UNF | 0.28  | 11.81  | M5x8 | 1.65  | 0.94  | 11.90        | 57    |
| DN40      | mm   | 31.80     | 131.20 | 48.40 | 50.00 | 72.80 | 128.00 | 81.10 | 8.71 | 9/16" UNF | 10.00 | 400.00 | M6x8 | 40.00 | 36.00 | 9.50         | 69    |
| 1 1/2"    | inch | 1.25      | 5.17   | 1.91  | 1.97  | 2.87  | 5.04   | 3.19  | 0.34 | 9/16" UNF | 0.39  | 15.75  | M6x8 | 1.57  | 1.42  | 20.90        | 80    |
| DN50      | mm   | 38.20     | 142.90 | 56.30 | 55.00 | 77.80 | 145.00 | 81.10 | 8.71 | 9/16" UNF | 10.00 | 400.00 | M6x8 | 58.00 | 40.00 | 13.10        | 102   |
| 2"        | inch | 1.50      | 5.63   | 2.22  | 2.17  | 3.06  | 5.71   | 3.19  | 0.34 | 9/16" UNF | 0.39  | 15.75  | M6x8 | 2.28  | 1.57  | 28.90        | 118   |



## High Pressure Floating Ball 3 Piece

### Components & materials



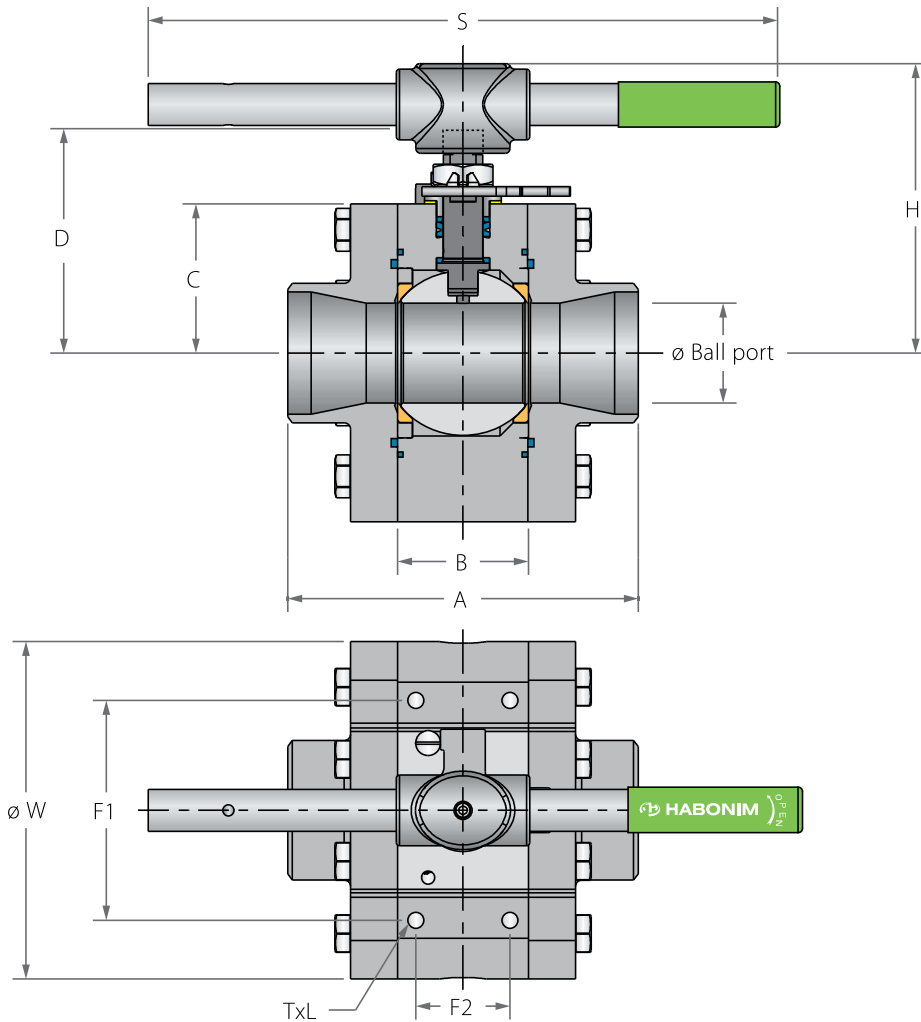
| Item | Description        | Material specification | Qty. |
|------|--------------------|------------------------|------|
| 1    | Body               | Acc. Ordering Code     | 1    |
| 2    | End                | Acc. Ordering Code     | 2    |
| 3    | Ball               | Acc. Ordering Code     | 1    |
| 4    | Stem               | Acc. Ordering Code     | 1    |
| 5*   | Seat               | Acc. Ordering Code     | 2    |
| 6*   | Inner seal         | Acc. Ordering Code     | 2    |
| 6A*  | Outer seal         | Acc. Ordering Code     | 2    |
| 7*   | Stem thrust seal   | PEEK, CF PEEK, PCTFE   | 1    |
| 7a*  | Anti-abrasion ring | PEEK, CF PEEK, PCTFE   | 1    |
| 8    | Stop pin           | S. Steel               | 1    |
| 9*   | Stem seal          | CF PTFE, TFM           | 1    |
| 10   | Follower           | S. Steel               | 1    |
| 10A* | Slide bearing      | S. Steel               | 1    |

| Item | Description         | Material specification | Qty.  |
|------|---------------------|------------------------|-------|
| 11   | Disc spring         | S. Steel               | 2     |
| 12   | Stem nut            | S. Steel               | 1     |
| 13   | Locking clip        | S. Steel               | 1     |
| 14   | Handle              | S. Steel               | 1     |
| 15   | Serrated washer     | S. Steel               | 1     |
| 16   | Handle nut          | S. Steel               | 1     |
| 17   | Sleeve              | PVC                    | 1     |
| 18   | Body bolt           | S. Steel               | 12-16 |
| 20   | Anti static spring  | S. Steel               | 1     |
| 21   | Anti static plunger | S. Steel               | 1     |
| 23   | Tag (not shown)     | S. Steel               | 1     |

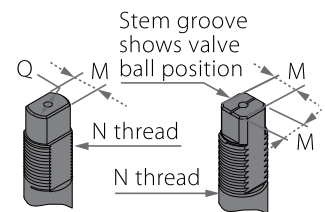
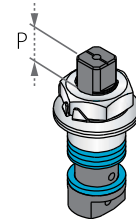
\* Repair kit components

# High Pressure Floating Ball 3 Piece

## Valve dimensions



### Preparation for actuation



Stem groove shows valve ball position

Special shape add WR to description (when ordering the valve)

Standard shape

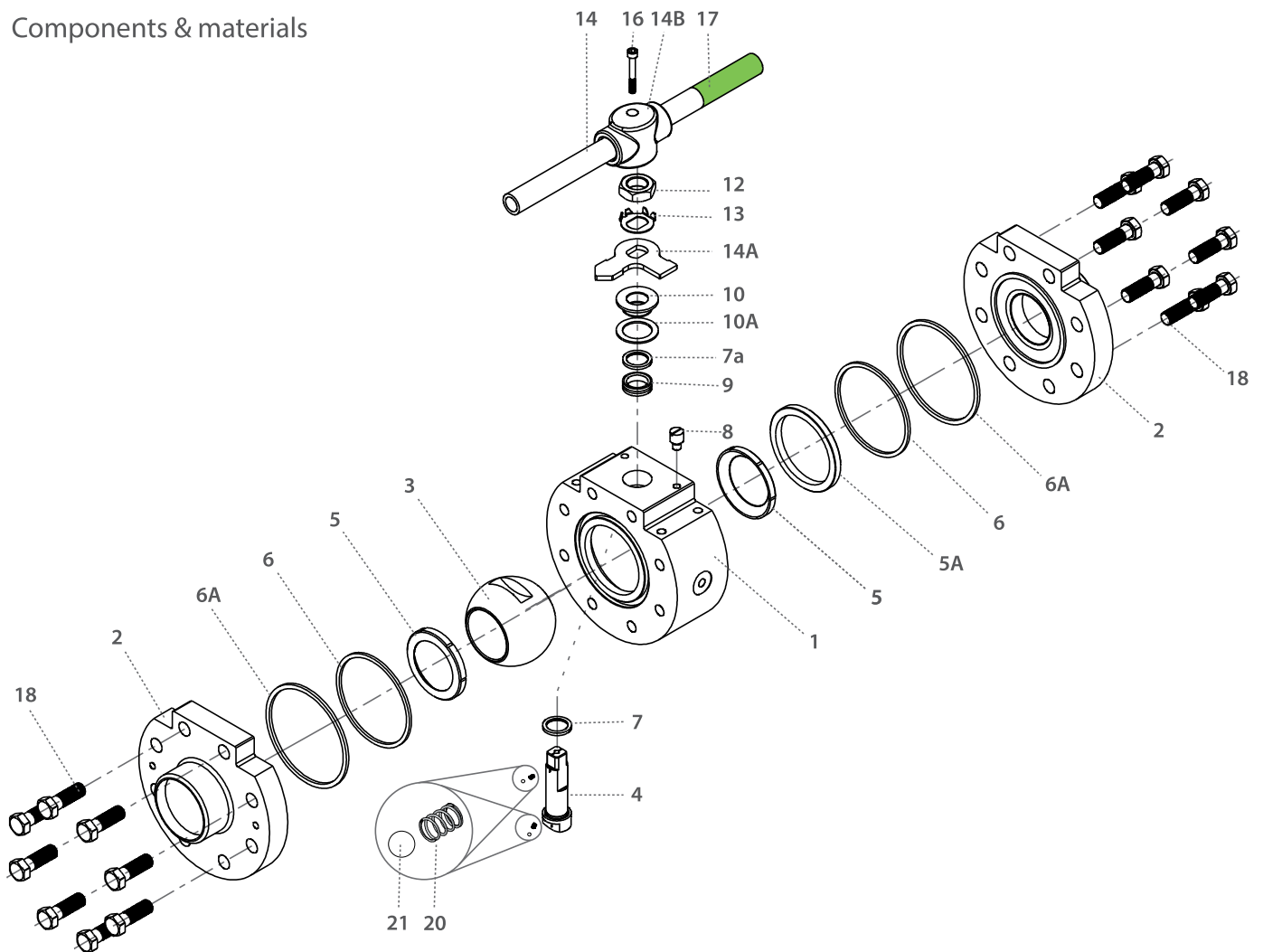
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

| Std. port | Unit | Ball port | A      | B      | C      | D      | ØW     | H      | M     | M-DD  | N       | P     | Q     | S      | TxL    | F1     | F2    | Weight kg/lb | kv cv |
|-----------|------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|---------|-------|-------|--------|--------|--------|-------|--------------|-------|
| DN65      | mm   | 50.80     | 172.60 | 72.60  | 77.20  | 115.80 | 190.00 | 147.00 | 13.90 | -     | M20x2.5 | 16.50 | -     | 256.00 | M12x16 | 92.00  | 50.00 | 25.00        | 208   |
| 2½"       | inch | 2.00      | 6.80   | 2.86   | 3.04   | 4.56   | 7.48   | 5.79   | 0.55  | -     |         | 0.65  | -     | 10.08  |        | 3.62   | 1.97  | 55.10        | 241   |
| DN80      | mm   | 63.75     | 224.00 | 83.30  | 70.00  | 144.90 | 215.00 | 185.00 | 18.90 | 15.90 | 1"-14"  | 16.60 | 22.70 | 402.00 | M10x12 | 140.00 | 60.00 | 39.00        | 300   |
| 3"        | inch | 2.51      | 8.82   | 3.28   | 2.76   | 5.70   | 8.46   | 7.28   | 0.74  | 0.62  | UNS     | 0.65  | 0.89  | 15.83  |        | 5.51   | 2.36  | 85.98        | 348   |
| DN100     | mm   | 82.70     | 268.00 | 108.80 | 90.00  | 160.70 | 250.00 | 201.00 | 18.90 | 15.90 | 1"-14"  | 16.60 | 22.70 | 610.00 | M10x12 | 150.00 | 70.00 | 64.00        | 615   |
| 4"        | inch | 3.26      | 10.55  | 4.28   | 3.54   | 6.33   | 9.84   | 7.91   | 0.74  | 0.62  | UNS     | 0.65  | 0.89  | 24.02  |        | 5.91   | 2.76  | 141.10       | 713   |
| DN150     | mm   | 114.00    | 336.00 | 146.10 | 120.00 | 226.30 | 295.00 | 280.00 | 28.50 | 23.80 | 1½"-12" | 26.20 | 35.20 | 916.00 | M16x18 | 140.00 | 66.00 | 120.00       | 872   |
| 6"        | inch | 4.49      | 13.23  | 5.57   | 4.72   | 8.91   | 11.61  | 11.02  | 1.12  | 0.94  | UNF     | 1.03  | 1.39  | 36.06  |        | 5.51   | 2.60  | 264.55       | 1012  |
| DN200     | mm   | 144.40    | 558.60 | 178.60 | 136.00 | 300.70 | 348.00 | -      | 35.90 | -     | 2"-8"   | 58.00 | -     | -      | M20x25 | 170.00 | 96.00 | 225.00       | 1552  |
| 8"        | inch | 5.69      | 21.99  | 7.03   | 5.35   | 11.84  | 13.70  | -      | 1.41  | -     | UN-2A   | 2.28  | -     | -      |        | 6.69   | 3.78  | 496.04       | 1800  |



## High Pressure Floating Ball 3 Piece

### Components & materials



| Item | Description        | Material specification | Qty. |
|------|--------------------|------------------------|------|
| 1    | Body               | Acc. Ordering Code     | 1    |
| 2    | End                | Acc. Ordering Code     | 2    |
| 3    | Ball               | Acc. Ordering Code     | 1    |
| 4    | Stem               | Acc. Ordering Code     | 1    |
| 5*   | Seat               | Acc. Ordering Code     | 2    |
| 5A   | Support ring       | S. Steel               | 1    |
| 6*   | Inner seal         | Acc. Ordering Code     | 2    |
| 6A*  | Outer Seal         | Acc. Ordering Code     | 2    |
| 7*   | Stem thrust seal   | PEEK, CF PEEK, PCTFE   | 1    |
| 7a** | Anti-abrasion ring | PEEK, CF PEEK, PCTFE   | 1    |
| 8    | Stop pin           | S. Steel               | 1    |
| 9*   | Stem seal          | CF PTFE, TFM           | 1    |
| 10   | Follower           | S. Steel               | 1    |

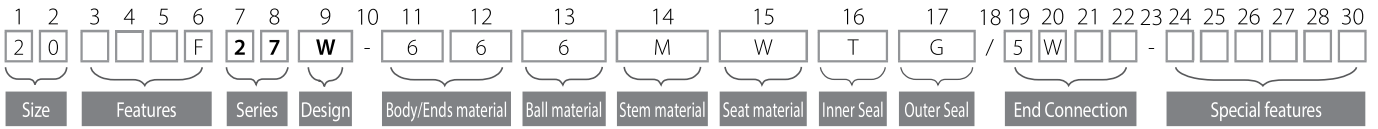
| Item | Description         | Material specification | Qty.  |
|------|---------------------|------------------------|-------|
| 10A* | Slide bearing       | S. Steel               | 1     |
| 12   | Stem nut            | S. Steel               | 1     |
| 13   | Tab lock washer     | S. Steel               | 1     |
| 14   | Handle              | S. Steel               | 1     |
| 14A  | Stop plate          | S. Steel               | 1     |
| 14B  | Wrench head         | S. Steel               | 1     |
| 16   | Wrench bolt         | S. Steel               | 1     |
| 17   | Sleeve              | PVC                    | 1     |
| 18   | Body bolt           | S. Steel               | 16-28 |
| 20   | Anti static spring  | S. Steel               | 2     |
| 21   | Anti static plunger | S. Steel               | 2     |
| 23   | Tag (not shown)     | S. Steel               | 1     |

\* Repair kit components



# High Pressure Floating Ball 3 Piece - Ordering Code System

"Mandatory option" options are marked with **green background** | "Standard offer" options are marked with **light green background**



| Size (1-2) |      |     |
|------------|------|-----|
| Code       | inch | mm  |
| 02         | ¼"   | 8   |
| 03         | ⅜"   | 10  |
| 05         | ½"   | 15  |
| 07         | ¾"   | 20  |
| 10         | 1"   | 25  |
| 12         | 1¼"  | 32  |
| 15         | 1½"  | 40  |
| 20         | 2"   | 50  |
| 25         | 2½"  | 65  |
| 30         | 3"   | 80  |
| 40         | 4"   | 100 |
| 60         | 6"   | 150 |

| Features (3-6) |                               |
|----------------|-------------------------------|
| F              | Fire safe                     |
| B              | Full port                     |
| O              | Clean assembly for O2 service |
| H              | Hydrogen Service              |

| Series (7-8) |                  |
|--------------|------------------|
| 27           | HP Float 3 piece |

| Design (9) |                                  |
|------------|----------------------------------|
| W          | Total HermetiX Integrity package |

| Body/Ends material (11-12) |                    |
|----------------------------|--------------------|
| 6                          | S. Steel 316L      |
| 4                          | C. steel A105      |
| Z                          | Inconel 718 B637   |
| 7                          | Monel              |
| A                          | Alloy-20 A351 CN7M |
| W                          | Alloy-C22 B574     |
| D                          | Duplex             |
| K                          | Super Duplex       |
| S                          | 254SMO             |
| F                          | C. steel LF2       |

| Ball material (13) ¼"-¾" |                        |
|--------------------------|------------------------|
| M                        | High Strength S. Steel |

| Ball material (13) 1" and up |                        |
|------------------------------|------------------------|
| 6                            | S. Steel 316L          |
| M                            | High Strength S. Steel |
| Z                            | Inconel 718 B637       |
| 7                            | Monel                  |
| A                            | Alloy-20 A351 CN7M     |
| W                            | Alloy-C22 B574         |
| D                            | Duplex A479            |
| K                            | Super Duplex A479      |
| S                            | 254SMO A479            |

| Stem material (14) |                        |
|--------------------|------------------------|
| M                  | High Strength S. Steel |
| Z                  | Inconel 718 B637       |
| 7                  | Monel                  |
| W                  | Alloy-C22 B574         |
| D                  | Duplex A479            |
| K                  | Super Duplex A479      |

| Seat material (15) |             |
|--------------------|-------------|
| W                  | PVDF        |
| K                  | CF PEEK     |
| Y                  | Delrin      |
| L                  | Virgin PEEK |
| C                  | PCTFE       |
| F                  | Hybrid seat |

| Inner Seal Material (16) |                   |
|--------------------------|-------------------|
| B                        | NBR               |
| T                        | PTFE              |
| V                        | Viton             |
| G                        | Expanded graphite |

| Outer Seal Material (17) |                   |
|--------------------------|-------------------|
| G                        | Expanded graphite |
| T                        | PTFE              |
| V                        | Viton             |
| B                        | NBR               |

| End connections (19-22) |                                   |
|-------------------------|-----------------------------------|
| Welded Ends             |                                   |
| SW                      | Socket weld ends                  |
| BW80                    | butt weld ends (sch80)            |
| BW160*                  | butt weld ends (sch160)           |
| XBW80                   | Extended butt weld ends (sch80)   |
| XBW160*                 | Extended butt weld ends (sch160)  |
| XBWXS*                  | Extended butt weld ends (sch XXS) |
| XSW                     | Extended socket weld ends         |

| Threaded Ends |  |
|---------------|--|
| NPT           | ASME B1.20.1 - National Pipe Taper thread          |
| BSPT          | EN 10226 - Pipe Taper thread                       |
| BSPP          | ISO228-1, DIN3852 - Pipe Parallel thread           |
| DIN3852       | DIN3852 - Pipe Parallel thread                     |
| AS5202        | AS 5202 on-face gasket sealing threaded connection |

| Flanged RF |                      |
|------------|----------------------|
| 1500       | ANSI B16.5 #1500 RF  |
| 2500       | ANSI B16.5 #2500 RF  |
| PN160-F3   | EN1092 PN160, FTF F3 |
| PN250-F3   | EN1092 PN250, FTF F3 |
| PN320-F3   | EN1092 PN320, FTF F3 |
| PN400-F3   | EN1092 PN400, FTF F3 |

| Flanged RTJ |                      |
|-------------|----------------------|
| 1500RTJ     | ANSI B16.5 #1500 RTJ |
| 2500RTJ     | ANSI B16.5 #2500 RTJ |

| Flanged SAE J518 / ISO 6162 Threaded |                              |
|--------------------------------------|------------------------------|
| SAE3000                              | Code 61/ISO 6162-1 Flat face |
| SAE6000                              | Code 62/ISO 6162-2 Flat face |

\* St. Port only

| Special Features (24-30) |   |
|--------------------------|---|
| P250                     | Ball with upstream pressure relief hole |

| Valve Special Stem Seals |                    |
|--------------------------|--------------------|
| HC                       | High Cycle service |

## Hybrid Seats (24-27)

| 24              | 25   | 26           | 27                 |
|-----------------|--|--------------|--------------------|
| Insert material | Upstream / Downstream                                  | Insert Shape | Seal Type          |
| K CF PEEK       | Hybrid seats on upstream and downstream, spring loaded | 0 Scraper    | 8 U+NBR+graphite   |
| W PVDF          |  |              | 7 U+Viton+graphite |
| C PCTFE         |  |              | 1 U+NBR            |
| L Virgin PEEK   | Hybrid seats on upstream and downstream                | 1 Round      | 0 U+Viton          |
| Y Delrin        |  |              |                    |