

# XOMOX<sup>®</sup>

## HIGH PERFORMANCE BUTTERFLY VALVES



## DATASHEET

**CRANE**<sup>®</sup>

**v in**

[www.cranecpe.com](http://www.cranecpe.com)

# HPBV 800ISO Product Specifications

## Product Details

### Materials

- Standard: 1.0619, 1.4408; A216 Gr. WCB, A351 Gr. CF8M
- Optional materials upon request

### Size Range

- DN 80 to DN 600 ; 3" to 24"

### Pressure Ratings

- PN 10, 16, 25, 40; ASME Class 150

### Temperature Range

- PTFE seat --> 204°C
- R-PTFE seat --> 232°C
- Fire-Safe seat --> 300°C

### Body Configurations

- Lug design
- Wafer design

### Standard Features and Compliance

- TA Luft 2021, ISO 15848 2017
- Fire-Safe acc. to API 607, 4th edition, and EN ISO 10497:2000
- DGRL 2014/68/EU
- See brochure for more information

### Special Options

- Fire-Safe
- Leak control
- Primary stem seal
- Oil-free/Grease-free (various designs as per customer request)
- Oxygen application
- Chlorine and phosgene applications
- Sealed disc spacers
- Smooth seat retainer ring for double dead end service

## Features and Benefits

1

### Certified for Safety

Tested to TA Luft 2021, ISO 15848: 2017, and API 641 standards to ensure safe operation and prevent costly unplanned shutdowns.

2

### Uninterrupted Sealing

The 800ISO (-R) design offers a continuous sealing surface for higher efficiency and bi-directional double dead-end service under full differential pressure.

3

### Leak-Free Reliability

ISO mounting flange enables direct actuator installation, while the integral stuffing box eliminates extra leak paths compared to bolt-on designs.

4

### Durability by Design

Unique axially pliant seat—no springs, o-rings, or metal hoops—delivers consistent bubble-tight shutoff and long-term reliability per EN 12266-1.

# HPBV 800ISO Product Specifications

## Sizes

| DN<br>(mm) | NPS<br>(in.) | EN 558 |     |       |     |       |     |       |     | API 609 Table 2<br>ASME B16.10 Table 9 Column 7<br>MSS-SP-68 Table 1 |
|------------|--------------|--------|-----|-------|-----|-------|-----|-------|-----|----------------------------------------------------------------------|
|            |              | PN 10  |     | PN 16 |     | PN 25 |     | PN 40 |     | Class 150                                                            |
|            |              | R20    | R25 | R20   | R25 | R20   | R25 | R20   | R25 |                                                                      |
| 80         | 3            | ●      | ●   | ●     | ●   | ●     | ●   | ●     | ●   | -                                                                    |
| 100        | 4            | ●      | ●   | ●     | ●   | ●     | ●   | ●     | ●   | -                                                                    |
| 150        | 6            | ●      | ●   | ●     | ●   | ●     | ●   | ●     | ●   | -                                                                    |
| 200        | 8            | ●      | ●   | ●     | ●   | ●     | ●   | ●     | ●   | -                                                                    |
| 250        | 10           | ●      | ●   | ●     | ●   | ●     | ●   | ●     | ●   | -                                                                    |
| 300        | 12           | ●      | ●   | ●     | ●   | ●     | ●   | ●     | ●   | -                                                                    |
| 350        | 14           | -      | ●   | -     | ●   | -     | -   | -     | -   | ●                                                                    |
| 400        | 16           | ●      | ●   | ●     | ●   | -     | -   | -     | -   | ●                                                                    |
| 450        | 18           | ●      | ●   | ●     | ●   | -     | -   | -     | -   | ●                                                                    |
| 500        | 20           | ●      | ●   | ●     | ●   | -     | -   | -     | -   | ●                                                                    |
| 600        | 24           | ●      | ●   | ●     | ●   | -     | -   | -     | -   | ●                                                                    |

## Typical Applications

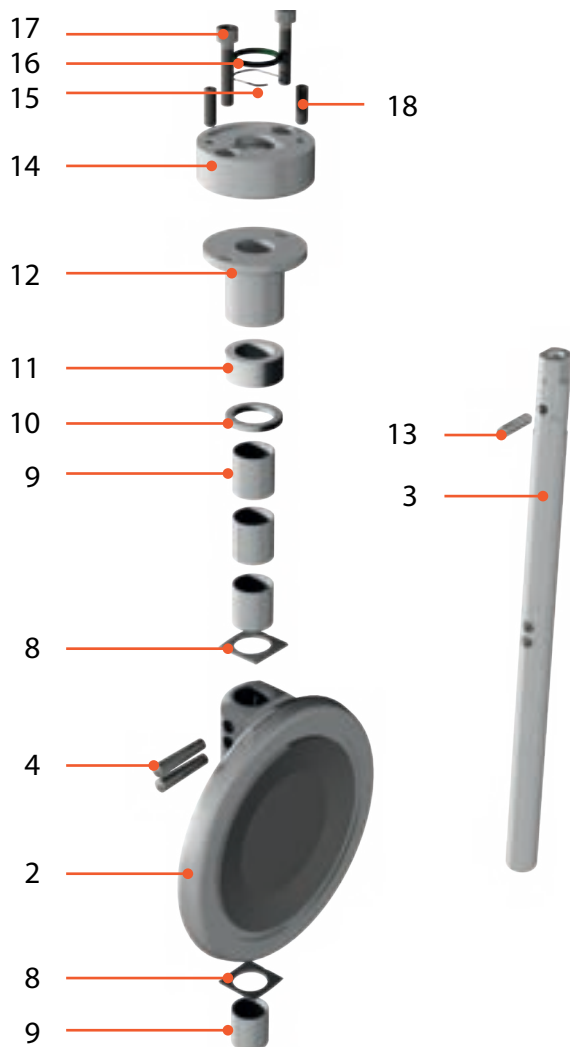
### Industries and applications:

- Chemical and petrochemical
- Oil and gas
- Air separation
- Chlorine liquefaction
- Power generation
- Energy
- Offshore platforms
- Pulp & paper
- Desalination
- Steam
- Corn processing
- HVAC

### Processes:

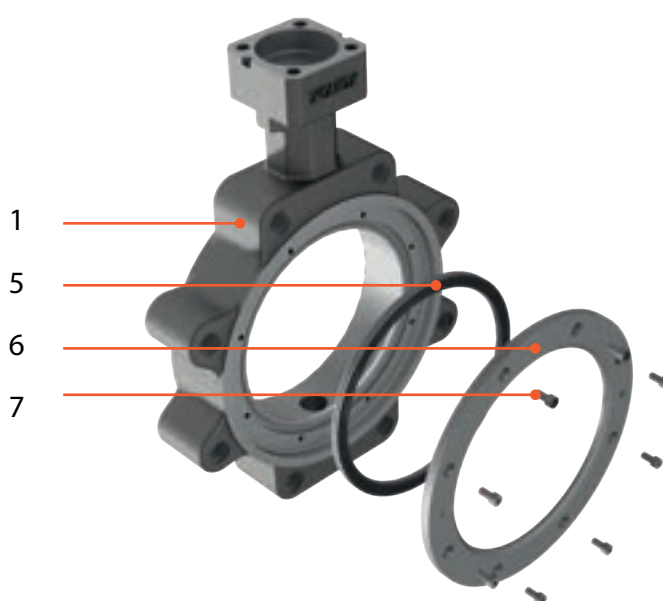
- Various chemicals
- Hot gases
- Chlorine gas
- Methanol
- Propane
- Liquid nitrogen
- Oxygen
- Carbon monoxide & carbon dioxide
- Sewage
- Reausticizing
- White water
- River water
- Cooked starch
- Scrubber effluent
- Fly and bottom ash
- Gasoline
- Tail gases
- Off gases
- Sour gas
- Hydrogen
- Ammonia
- Acrylic Acid

# HPBV 800ISO Materials For DN80-300 Standard Design



| Pos. no. | Part                                       | Material              |                       |
|----------|--------------------------------------------|-----------------------|-----------------------|
|          |                                            | Soft-seated           | Firesafe              |
| 1        | Valve body                                 | 1.4408 / 1.0619       | 1.4408 / 1.0619       |
| 2        | Disc                                       | 1.4408                | 1.4408                |
| 3        | Shaft                                      | A564-630              | A564-630              |
| 4        | Tapered pin                                | A564-630              | A564-630              |
| 5        | Seat assembly                              | PTFE / R-PTFE         | 1.4571 / PTFE         |
| 6        | Seat retainer                              | 1.4408                | 1.4408                |
| 7        | Hex socket cap screw                       | A4-70                 | A4-70                 |
| 8        | Disc spacer                                | A564-630 / 1.4571 S4N | A564-630 / 1.4571 S4N |
| 9        | Shaft bearing, rolled                      | 1.4571 / PTFE         | 1.4571 / Ni-plated    |
| 10       | Packing support ring                       | 1.4571                | 1.4571                |
| 11       | Packing set                                | PTFE                  | Graphite              |
| 12       | Gland Follower                             | 1.4571                | 1.4571                |
| 13       | Locking pin                                | 1.4310                | 1.4310                |
| 14       | Packing gland                              | 1.4408 / 1.4571       | 1.4408 / 1.4571       |
| 15       | Antistatic spring                          | 1.4310                | 1.4310                |
| 16       | O-ring                                     | FKM                   | FKM                   |
| 17       | Packing gland screw (hex socket cap screw) | A4-70                 | A4-70                 |
| 18       | Gland follower adjusting screw adj. screw  | A4-70                 | A4-70                 |

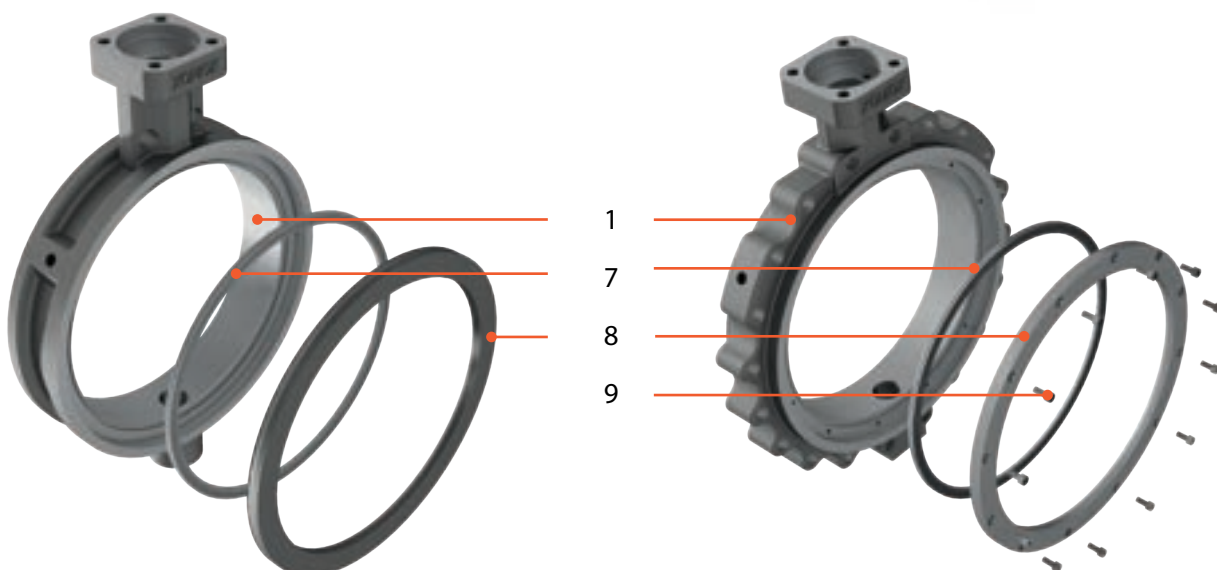
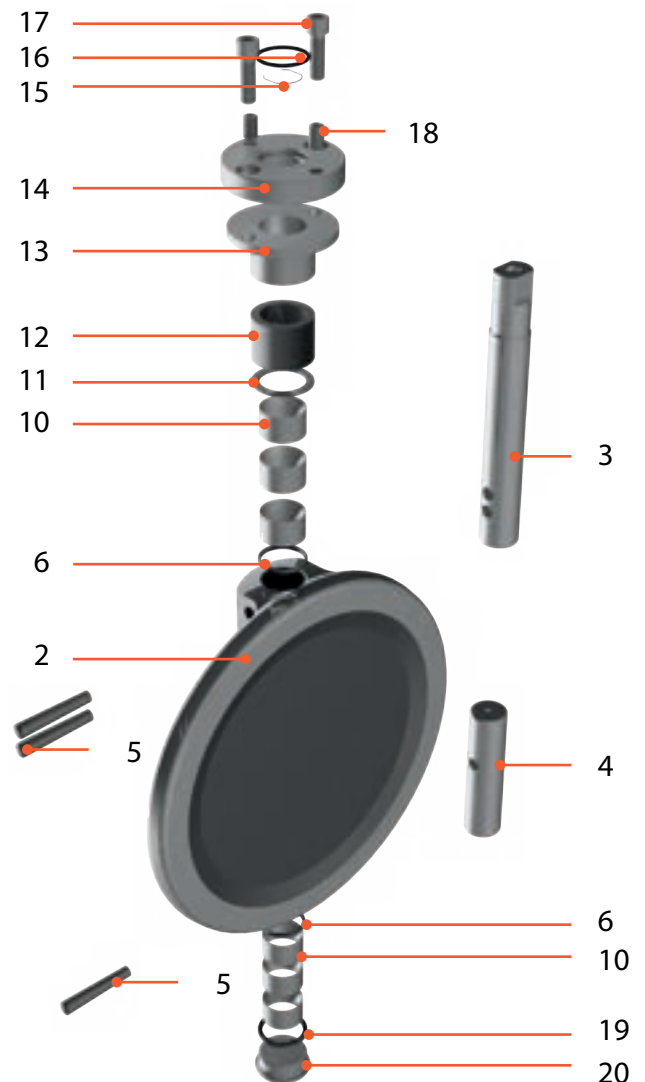
\* Bodies in carbon steel (1.0619/WCB) will be delivered with an anti-corrosive protection paint



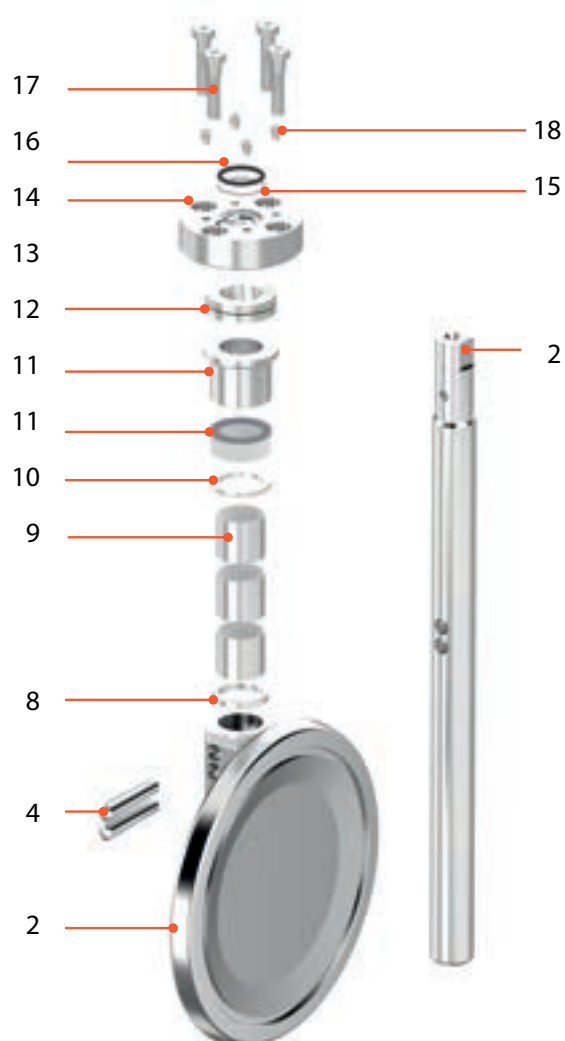
# HPBV 800ISO Materials For DN 350-600 Standard Design

| Pos. no. | Part                                       | Material                   |                            |
|----------|--------------------------------------------|----------------------------|----------------------------|
|          |                                            | Soft-seated                | Firesafe                   |
| 1        | Valve body                                 | 1.4408 / 1.0619 CF8M / WCB | 1.4408 / 1.0619 CF8M / WCB |
| 2        | Disc                                       | 1.4408 / CF8M              | 1.4408 / CF8M              |
| 3        | Top shaft                                  | A564-630                   | A564-630                   |
| 4        | Bottom shaft                               | A564-630                   | A564-630                   |
| 5        | Tapered pin                                | A564-630                   | A564-630                   |
| 6        | Disc spacer                                | A564-630 / 1.4571 S4N      | A564-630 / 1.4571 S4N      |
| 7        | Seat assembly                              | PTFE / R-PTFE              | 1.4571 / PTFE              |
| 8        | Seat retainer                              | 1.4571                     | 1.4571                     |
| 9        | Hex socket cap screw                       | A4-70                      | A4-70                      |
| 10       | Shaft bearing, rolled                      | 1.4571 / PTFE              | 1.4571 / Ni-plated         |
| 11       | Packing support ring                       | 1.4571                     | 1.4571                     |
| 12       | Packing set                                | PTFE                       | Graphite                   |
| 13       | Gland follower                             | 1.4571                     | 1.4571                     |
| 14       | Packing gland                              | 1.4408 / 1.4571            | 1.4408 / 1.4571            |
| 15       | Antistatic spring                          | 1.4310                     | 1.4310                     |
| 16       | O-ring                                     | FKM                        | FKM                        |
| 17       | Packing gland screw (hex socket cap screw) | A4-70                      | A4-70                      |
| 18       | Gland follower adjusting screw             | A4-70                      | A4-70                      |
| 19       | Plug seal                                  | PTFE                       | Graphite                   |
| 20       | Plug screw                                 | A4-50                      | A4-50                      |

\* Bodies in carbon steel (1.0619/WCB) will be delivered with an anti-corrosive protection paint

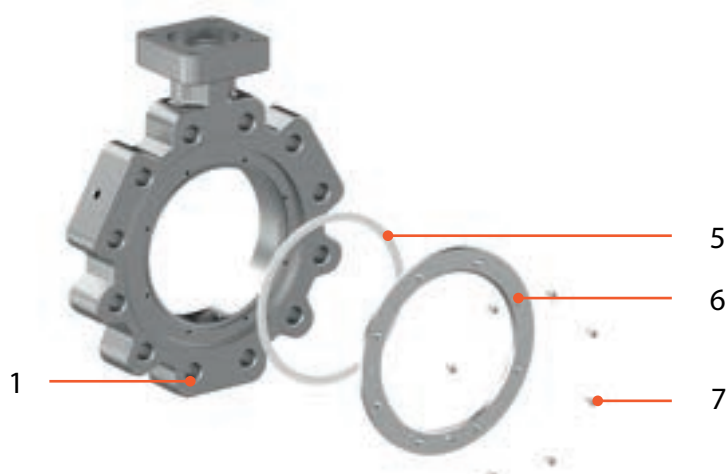


# HPBV 800ISO Materials For DN80-300 TA-Luft Design FE0



| Pos. no. | Part                                       | Material                   |                            |
|----------|--------------------------------------------|----------------------------|----------------------------|
|          |                                            | Soft-seated                | Firesafe                   |
| 1        | Valve Body                                 | 1.4408 / 1.0619 CF8M / WCB | 1.4408 / 1.0619 CF8M / WCB |
| 2        | Disc                                       | 1.4408 / CF8M              | 1.4408 / CF8M              |
| 3        | Shaft                                      | A564-630                   | A564-630                   |
| 4        | Tapered pin                                | A564-630                   | A564-630                   |
| 5        | Seat assembly                              | PTFE / R-PTFE              | 1.4571 / PTFE              |
| 6        | Seat retainer                              | 1.4408                     | 1.4408                     |
| 7        | Hex socket cap screw                       | A4-70                      | A4-70                      |
| 8        | Disc spacer                                | A564-630 / 1.4571 S4N      | A564-630 / 1.4571 S4N      |
| 9        | Shaft bearing                              | 1.4571 / PTFE              | 1.4571 / Ni-plated         |
| 10       | Packing support ring                       | 1.4571                     | 1.4571                     |
| 11       | Packing set                                | PTFE                       | Graphite                   |
| 12       | Gland follower                             | 1.4571                     | 1.4571                     |
| 13       | Beville spring set                         | 1.4568                     | 1.4568                     |
| 14       | Packing gland                              | 1.4408 / 1.4571            | 1.4408 / 1.4571            |
| 15       | Antistatic spring                          | 1.4310                     | 1.4310                     |
| 16       | O-ring                                     | FKM                        | FKM                        |
| 17       | Packing gland screw (hex socket cap screw) | A4-70                      | A4-70                      |
| 18       | Beville spring adjustment screw            | 1.4980                     | 1.4980                     |
| 19       | Plug seal                                  | 1.4571                     | 1.4571                     |
| 20       | Plug screw                                 | A4-50                      | A4-50                      |

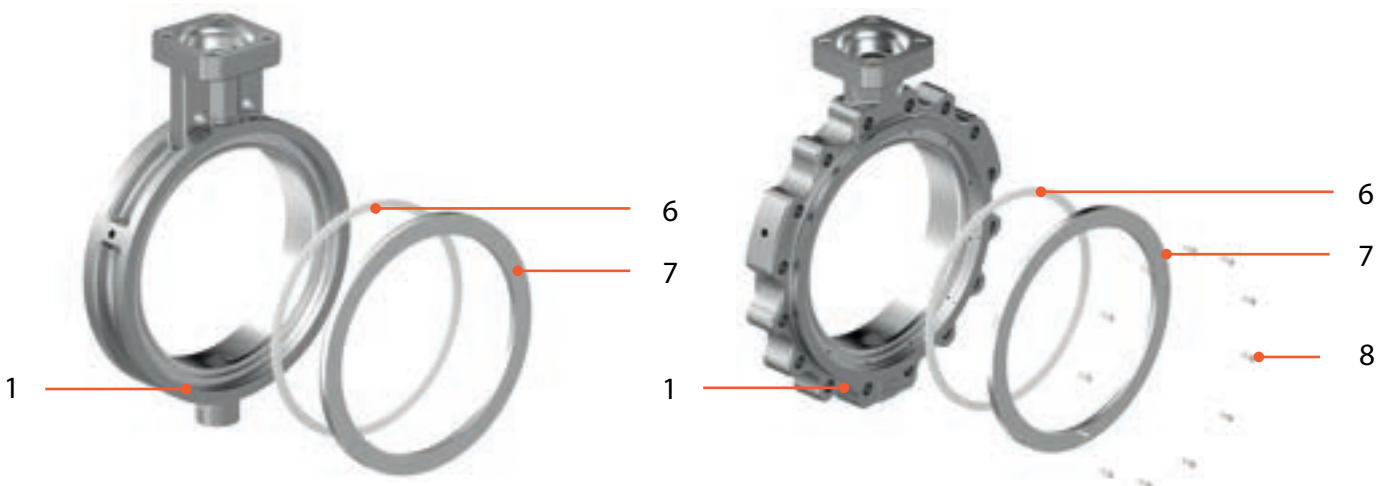
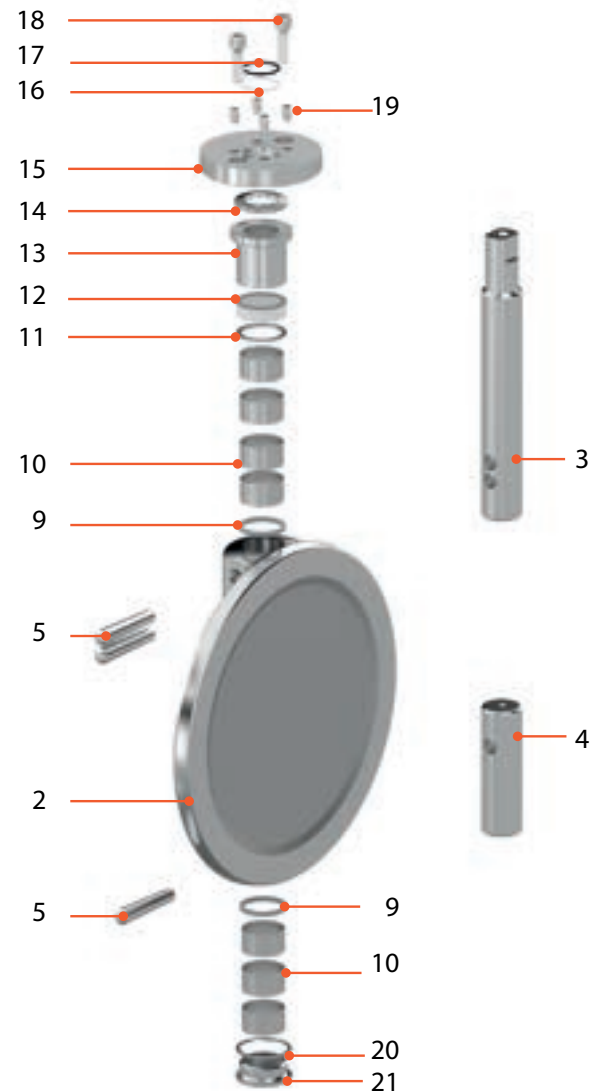
\* Bodies in carbon steel (1.0619/WCB) will be delivered with an anti-corrosive protection paint



# HPBV 800ISO Materials For DN 350-600 TA-Luft Design FE0

| Pos. no. | Part                                       | Material                   |                            |
|----------|--------------------------------------------|----------------------------|----------------------------|
|          |                                            | Soft-seated                | Firesafe                   |
| 1        | Valve Body                                 | 1.4408 / 1.0619 CF8M / WCB | 1.4408 / 1.0619 CF8M / WCB |
| 2        | Disc                                       | 1.4408 / CF8M              | 1.4408 / CF8M              |
| 3        | Top Shaft                                  | A564-630                   | A564-630                   |
| 4        | Bottom Shaft                               | A564-630                   | A564-630                   |
| 5        | Tapered pin                                | A564-630                   | A564-630                   |
| 6        | Seat Assembly                              | PTFE / R-PTFE              | PTFE / R-PTFE              |
| 7        | Seat retainer                              | 1.4408                     | 1.4408                     |
| 8        | Hex socket cap screw                       | A4-70                      | A4-70                      |
| 9        | Disc spacer                                | A564-630 / 1.4571 S4N      | A564-630 / 1.4571 S4N      |
| 10       | Shaft bearing                              | 1.4571 / PTFE              | 1.4571 / PTFE              |
| 11       | Packing support ring                       | 1.4571                     | 1.4571                     |
| 12       | Packing set                                | PTFE                       | Graphite                   |
| 13       | Gland follower                             | 1.4571                     | 1.4571                     |
| 14       | Beville spring set                         | 1.4568                     | 1.4568                     |
| 15       | Packing gland                              | 1.4408 / 1.4571            | 1.4408 / 1.4571            |
| 16       | Antistatic spring                          | 1.4310                     | 1.4310                     |
| 17       | O-ring                                     | FKM                        | FKM                        |
| 18       | Packing gland screw (hex socket cap screw) | A4-70                      | A4-70                      |
| 19       | Beville spring adjustment screw            | 1.4980                     | 1.4980                     |
| 20       | Plug seal                                  | 1.4571                     | 1.4571                     |
| 21       | Plug Screw                                 | A4-50                      | A4-50                      |

\* Bodies in carbon steel (1.0619/WCB) will be delivered with an anti-corrosive protection paint





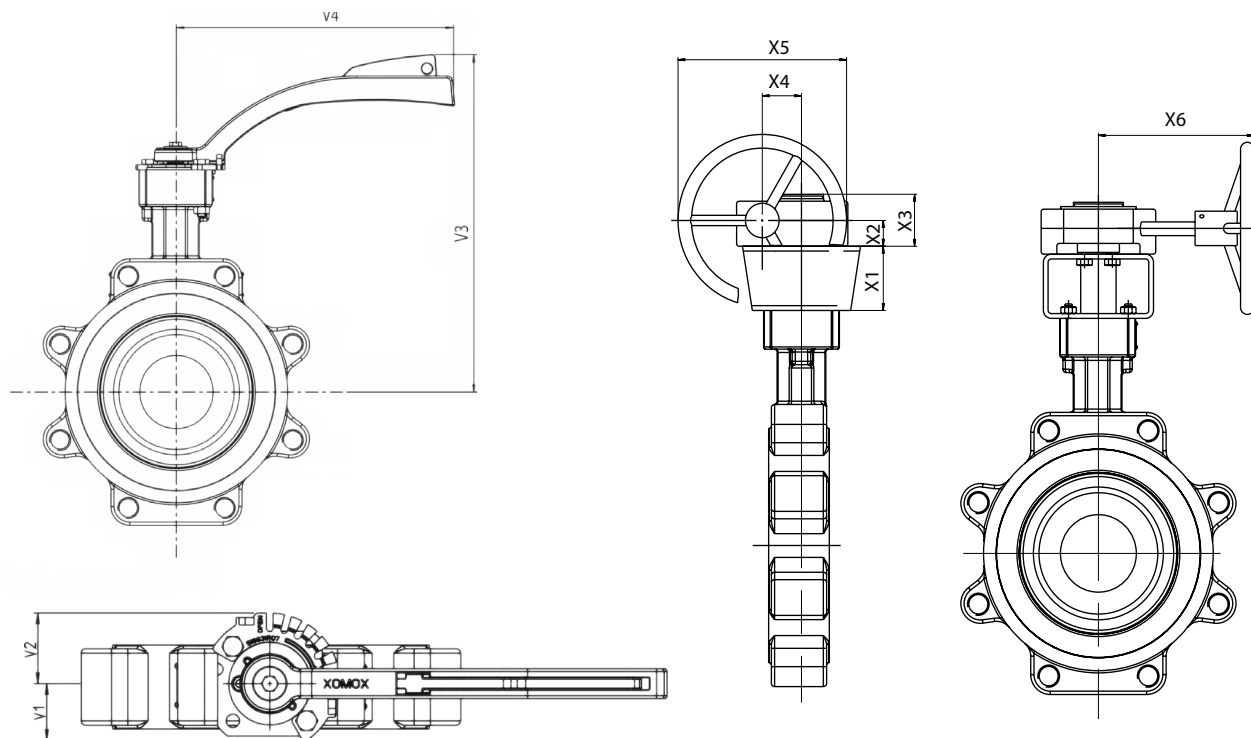
### Dimensions PN 10/16/Class 150 [mm]

Crane ChemPharma & Energy

# HPBV 800ISO Bare Stem Dimensions PN10/16 Class 150

| DN  | NPS | ISO flange | PN              | P   | RL    | RW    | øS  | SW | øT  | øU                  | W   | øX               | Y                                       | Z    |      |      | Weight Wafer / Lug [kg] |
|-----|-----|------------|-----------------|-----|-------|-------|-----|----|-----|---------------------|-----|------------------|-----------------------------------------|------|------|------|-------------------------|
|     |     |            |                 |     |       |       |     |    |     |                     |     |                  |                                         | R20  | R25  | ASME |                         |
| 80  | 3"  | F05        | 10 - 16         | 170 | 90.0  | 78    | 192 | 11 | 79  | 160                 | M6  | 18               | 8 x M16                                 | 5.0  | 5.0  | -    | 4.6 / 7.3               |
| 100 | 4"  | F07        | 10 - 16         | 180 | 100.0 | 90    | 212 | 11 | 102 | 180                 | M6  | 18               | 8 x M16                                 | 4.0  | 4.0  | -    | 7.0 / 10.0              |
| 150 | 6"  | F07        | 10 - 16         | 213 | 130.0 | 120   | 278 | 14 | 146 | 240                 | M6  | 22               | 8 x M20                                 | 2.5  | 7.3  | -    | 12.2 / 18.8             |
| 200 | 8"  | F10        | 10 / 16         | 240 | 167.5 | 145   | 339 | 17 | 190 | 295                 | M6  | 22               | 8 x M20<br>12 x M20                     | 4.5  | 8.5  | -    | 19.0 / 33.4             |
| 250 | 10" | F12        | 10 / 16         | 273 | 196.5 | 179   | 405 | 22 | 235 | 350<br>355          | M8  | 22<br>26         | 12 x M20<br>12 x M24                    | 11.0 | 11.0 | -    | 31.0 / 45.2             |
| 300 | 12" | F14        | 10 / 16         | 300 | 220.0 | 205   | 454 | 27 | 281 | 400<br>410          | M8  | 22<br>26         | 12 x M20<br>12 x M24                    | 14.0 | 14.0 | -    | 45.8 / 61.8             |
| 350 | 14" | F14        | 10/16/<br>CL150 | 360 | 271   | 271   | 515 | 27 | 331 | 460<br>470<br>476,2 | M10 | 22<br>26<br>28,6 | 16 x M20<br>16 x M24<br>12 x 1"-UNC     | 5,5  |      |      | 72 / 110                |
| 400 | 16" | F16        | 10/16/<br>CL150 | 385 | 292.5 | 292.5 | 584 | 27 | 372 | 515<br>525<br>539,7 | M12 | 26<br>30<br>28,6 | 16 x M24<br>16 x M27<br>16 x 1"-UNC     | 18   |      |      | 102 / 131               |
| 450 | 18" | F16        | 10/16/<br>CL150 | 415 | 316   | 316   | 630 | 27 | 420 | 565<br>585<br>577,8 | M12 | 26<br>30<br>31,7 | 20 x M24<br>20 x M27<br>16 x 1 1/8"-UN  | 18   |      |      | 127 / 181               |
| 500 | 20" | F16        | 10/16/<br>CL150 | 464 | 367   | 367   | 695 | 36 | 469 | 620<br>650<br>635   | M16 | 26<br>33<br>31,7 | 20 x M24<br>20 x M30<br>20 x 1 1/8"-8UN | 27,5 |      |      | 173 / 219               |
| 600 | 24" | F25        | 10/16/<br>CL150 | 521 | 426,5 | 426,5 | 820 | 46 | 561 | 725<br>770<br>749,3 | M16 | 30<br>36<br>34,9 | 20 x M27<br>20 x M33<br>20 x 1 1/4"-8UN | 33   |      |      | 276 / 358               |

# HPBV 800ISO Lever & Gear Dimensions PN10-40

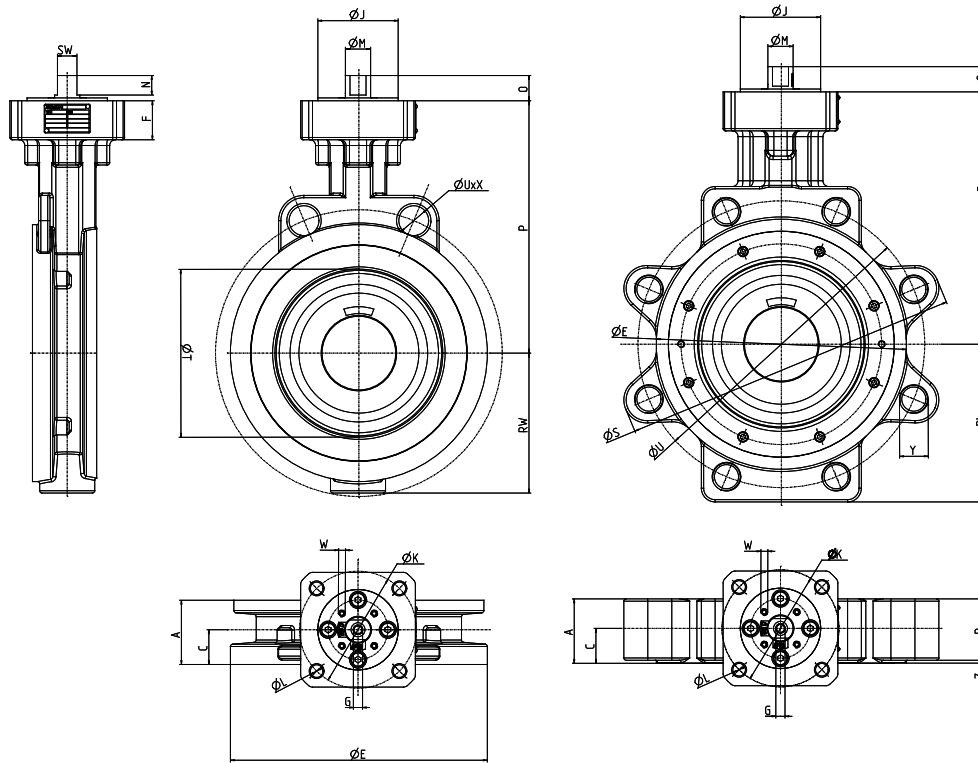


Valves with Latching Lever or Worm Gear DN 80 up to 600 / NPS 3" up to 24"

## Dimensions PN 10-40 [mm]

| DN  | PN    | Latching Lever |     |     |     |            | Manual Gear |    |     |     |     |     |
|-----|-------|----------------|-----|-----|-----|------------|-------------|----|-----|-----|-----|-----|
|     |       | V1             | V2  | V3  | V4  | Steps      | X1          | X2 | X3  | X4  | X5  | X6  |
| 80  | 10-16 | 33             | 33  | 266 | 170 | 5 x 18° *  | 60          | 27 | 58  | 39  | 150 | 133 |
|     | 25-40 | 38             | 47  | 280 | 264 | 6 x 15°*** | 60          | 27 | 58  | 39  | 150 | 133 |
| 100 | 10-16 | 38             | 47  | 290 | 264 | 6 x 15°*** | 60          | 27 | 58  | 39  | 150 | 133 |
|     | 25-40 | 38             | 47  | 298 | 264 | 6 x 15°*** | 60          | 27 | 58  | 39  | 150 | 133 |
| 150 | 10-16 | 38             | 47  | 322 | 264 | 6 x 15°*** | 80          | 35 | 67  | 52  | 203 | 163 |
|     | 25-40 | n/a            | n/a | n/a | n/a | n/a        | 80          | 35 | 67  | 52  | 203 | 163 |
| 200 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 80          | 35 | 67  | 52  | 203 | 163 |
|     | 25-40 | n/a            | n/a | n/a | n/a | n/a        | 80          | 42 | 81  | 67  | 305 | 200 |
| 250 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 80          | 42 | 81  | 67  | 305 | 200 |
|     | 25-40 | n/a            | n/a | n/a | n/a | n/a        | 80          | 42 | 81  | 67  | 305 | 200 |
| 300 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 80          | 42 | 81  | 67  | 305 | 200 |
|     | 25-40 | n/a            | n/a | n/a | n/a | n/a        | 100         | 50 | 94  | 90  | 457 | 267 |
| 350 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 80          | 42 | 81  | 67  | 305 | 200 |
| 400 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 100         | 50 | 94  | 90  | 457 | 267 |
| 450 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 100         | 50 | 94  | 90  | 457 | 267 |
| 500 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 100         | 50 | 94  | 90  | 457 | 267 |
|     | 25-40 | n/a            | n/a | n/a | n/a | n/a        | 100         | 50 | 105 | 123 | 620 | 352 |
| 600 | 10-16 | n/a            | n/a | n/a | n/a | n/a        | 200         | 50 | 105 | 123 | 620 | 352 |
|     | 25-40 | n/a            | n/a | n/a | n/a | n/a        | 200         | 50 | 126 | 154 | 750 | 377 |

# HPBV 800ISO Bare Stem Dimensions PN25-40



Wafer Design

LUG Design

## Dimensions PN 25/40 [mm]

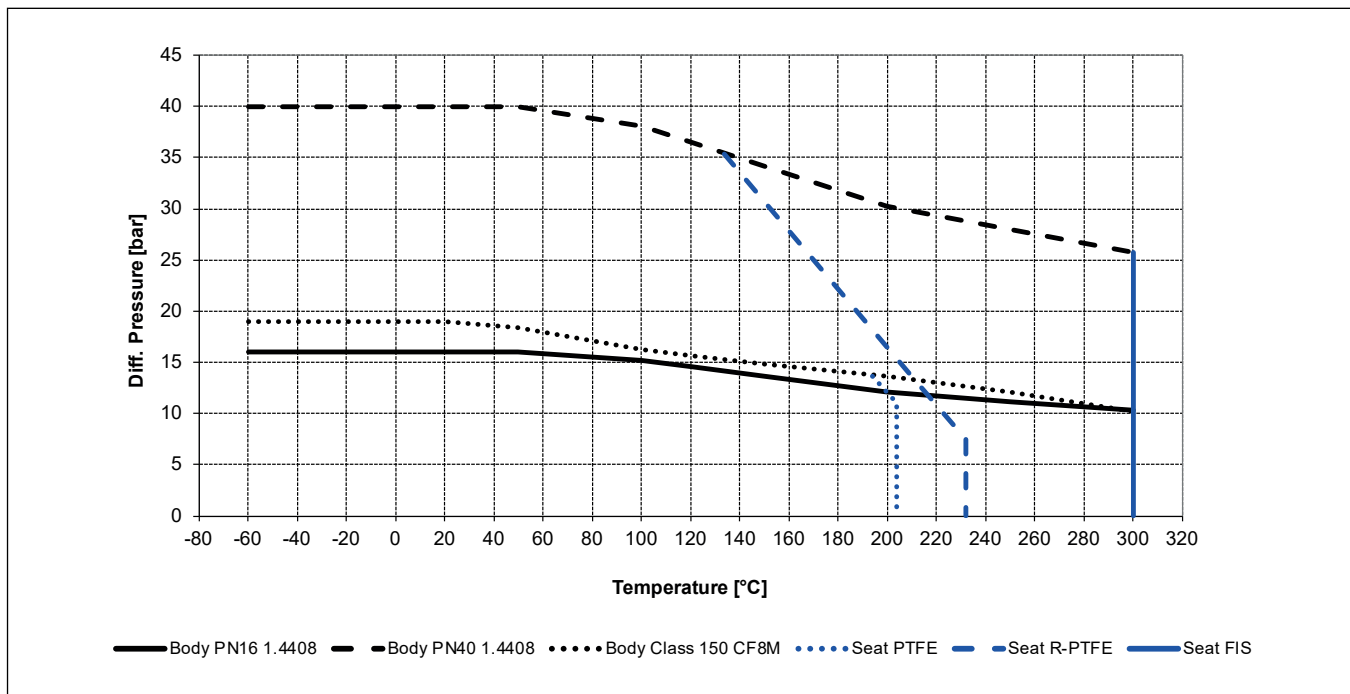
|     |            |         | Face-to-Face A |     |    |      |     |    |     |     |     |      |    |    |    |
|-----|------------|---------|----------------|-----|----|------|-----|----|-----|-----|-----|------|----|----|----|
| DN  | ISO flange | PN      | R20            | R25 | C  | D    | øE  | F  | G   | øJ  | øK  | øL   | øM | N  | O  |
| 80  | F07        | 25 - 40 | 46             | 49  | 23 | 41.0 | 142 | 33 | M6  | 55  | 70  | 9.0  | 14 | 11 | 16 |
| 100 | F07        | 25 - 40 | 52             | 56  | 26 | 47.0 | 168 | 33 | M6  | 55  | 70  | 9.0  | 18 | 14 | 19 |
| 150 | F10        | 25 - 40 | 56             | 70  | 30 | 53.5 | 224 | 34 | M8  | 70  | 102 | 11.0 | 22 | 17 | 22 |
| 200 | F12        | 25 - 40 | 60             | 71  | 33 | 59.0 | 284 | 37 | M8  | 85  | 125 | 13.5 | 28 | 22 | 27 |
| 250 | F14        | 25 - 40 | 68             | 76  | 39 | 64.5 | 340 | 40 | M10 | 100 | 140 | 17.5 | 36 | 27 | 32 |
| 300 | F16        | 25 - 40 | 78             | 83  | 45 | 69.0 | 395 | 43 | M10 | 130 | 165 | 22.0 | 36 | 27 | 32 |

## Dimensions (continued)

|     |            |         |       |     |     |     |    |     |            |    |          |                      | Z   |     | Weight<br>Wafer / Lug<br>[kg] |
|-----|------------|---------|-------|-----|-----|-----|----|-----|------------|----|----------|----------------------|-----|-----|-------------------------------|
| DN  | ISO flange | PN      | P     | RL  | RW  | øS  | SW | øT  | øU         | W  | øX       | Y                    | R20 | R25 |                               |
| 80  | F07        | 25 - 40 | 170.0 | 90  | 78  | 192 | 11 | 79  | 160        | M6 | 18       | 8 x M16              | 3.0 | 3.0 | 5.5 / 7.9                     |
| 100 | F07        | 25 - 40 | 187.5 | 107 | 94  | 227 | 14 | 102 | 190        | M6 | 22       | 8 x M20              | 3.0 | 3.0 | 7.5 / 11.4                    |
| 150 | F10        | 25 - 40 | 220.0 | 138 | 122 | 294 | 17 | 146 | 250        | M6 | 22       | 8 x M24              | 2.5 | 2.5 | 14.7 / 22.8                   |
| 200 | F12        | 25 - 40 | 257.5 | 182 | 180 | 365 | 22 | 190 | 310<br>320 | M8 | 26<br>30 | 12 x M24<br>12 x M27 | 1.0 | 1.0 | 26.4 / 43.4                   |
| 250 | F14        | 25 - 40 | 295.0 | 215 | 200 | 444 | 27 | 235 | 370<br>385 | M8 | 30<br>33 | 12 x M27<br>12 x M30 | 4.0 | 4.0 | 41.3 / 65.2                   |
| 300 | F16        | 25 - 40 | 327.5 | 250 | 230 | 510 | 27 | 281 | 430<br>450 | M8 | 30<br>33 | 16 x M27<br>16 x M30 | 9.5 | 9.5 | 60.8 / 95.0                   |

# HPBV 800ISO Design Parameters

## Pressure-Temperature Rating



## Torque Data

| Diff. Pressure | Torque, PTFE Seat [Nm] |        |        | Torque, R-PTFE/FIS Seat [Nm] |        |        |        |        |
|----------------|------------------------|--------|--------|------------------------------|--------|--------|--------|--------|
|                | 7 bar                  | 14 bar | 20 bar | 7 bar                        | 14 bar | 20 bar | 28 bar | 40 bar |
| 80             | 24                     | 31     | 37     | 29                           | 36     | 43     | 52     | 68     |
| 100            | 39                     | 50     | 61     | 46                           | 60     | 72     | 90     | 115    |
| 150            | 96                     | 120    | 146    | 115                          | 140    | 175    | 225    | 299    |
| 200            | 181                    | 226    | 277    | 217                          | 270    | 330    | 425    | 579    |
| 250            | 289                    | 352    | 443    | 346                          | 435    | 530    | 690    | 940    |
| 300            | 430                    | 543    | 661    | 516                          | 650    | 790    | 1032   | 1416   |
| 350            | 588                    | 735    | 900    | 625                          | 850    | 1045   | -      | -      |
| 400            | 803                    | 1006   | 1246   | 950                          | 1155   | 1710   | -      | -      |
| 450            | 1006                   | 1272   | 1590   | 1090                         | 1590   | 2040   | -      | -      |
| 500            | 1289                   | 1640   | 2037   | 1500                         | 2200   | 2840   | -      | -      |
| 600            | 2046                   | 2600   | 3210   | 2390                         | 3385   | 4340   | -      | -      |

## HPBV 800ISO Flow Characteristics

### K<sub>V</sub> Values PN 10/16 and Class 150

| K <sub>V</sub> Values at Various Disc Opening Angles [m3/h] |      |      |      |      |       |       |
|-------------------------------------------------------------|------|------|------|------|-------|-------|
| DN                                                          | 10 ° | 18 ° | 36 ° | 54 ° | 72 °  | 90 °  |
| 80                                                          | 6    | 15   | 43   | 91   | 165   | 253   |
| 100                                                         | 10   | 26   | 73   | 158  | 293   | 442   |
| 150                                                         | 27   | 70   | 196  | 413  | 736   | 1154  |
| 200                                                         | 47   | 120  | 335  | 709  | 1310  | 1980  |
| 250                                                         | 74   | 191  | 532  | 1124 | 2080  | 3147  |
| 300                                                         | 107  | 276  | 771  | 1628 | 2994  | 4627  |
| 350                                                         | 153  | 380  | 1063 | 2245 | 4111  | 6325  |
| 400                                                         | 193  | 482  | 1350 | 2852 | 5222  | 8034  |
| 450                                                         | 265  | 662  | 1852 | 3914 | 7167  | 11026 |
| 500                                                         | 330  | 826  | 2312 | 4865 | 8944  | 13760 |
| 600                                                         | 446  | 1164 | 3260 | 6888 | 12611 | 19402 |

### K<sub>V</sub> values PN 25/40

| K <sub>V</sub> Values at Various Disc Opening Angles [m3/h] |      |      |      |      |      |      |
|-------------------------------------------------------------|------|------|------|------|------|------|
| DN                                                          | 10 ° | 18 ° | 36 ° | 54 ° | 72 ° | 90 ° |
| 80                                                          | 5,1  | 13   | 37   | 79   | 144  | 222  |
| 100                                                         | 9,4  | 24   | 66   | 144  | 264  | 406  |
| 150                                                         | 26   | 64   | 178  | 376  | 689  | 1060 |
| 200                                                         | 46   | 115  | 322  | 681  | 1247 | 1919 |
| 250                                                         | 72   | 181  | 505  | 1068 | 1955 | 3066 |
| 300                                                         | 104  | 262  | 732  | 1547 | 2833 | 4359 |

Cv [gal/min]= Kv \* 1.156

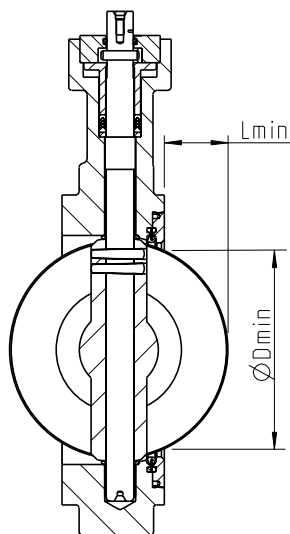
# HPBV 800ISO Design Parameters

## Seat Tightness

For PTFE, R-PTFE and Firesafe seats:  
Leak rate A according to EN 12266-1.

## Vacuum Service

Standard:  $3.33 \times 10^{-2}$  mbar  
Special:  $1.33 \times 10^{-6}$  mbar



## Minimum Pipe Diameter For Connecting Flanges

| Minimum pipe diameter for connecting flanges |                |                |           |
|----------------------------------------------|----------------|----------------|-----------|
| DN                                           | øDmin R25 [mm] | øDmin R20 [mm] | Lmin [mm] |
| 80                                           | 73             | 74             | 20        |
| 100                                          | 96             | 97             | 30        |
| 150                                          | 141            | 146,5          | 50        |
| 200                                          | 186            | 194            | 70        |
| 250                                          | 233            | 243            | 90        |
| 300                                          | 280            | 289            | 111       |
| 350                                          | 330            | 330            | 125       |
| 400                                          | 370            | 370            | 140       |
| 450                                          | 420            | 420            | 160       |
| 500                                          | 470            | 470            | 180       |
| 600                                          | 560            | 560            | 220       |

# HPBV 800ISO Product Coding

## Coding - How to Order

| Size | Pressure Class | Type   | Body | Disc | Seat | Shaft Seal Material | Optional Equipment |
|------|----------------|--------|------|------|------|---------------------|--------------------|
| 080  | 10             | 870ISO | 025  | 025  | 0    | 0                   | x                  |

| DN  | Code | NPS | Code |
|-----|------|-----|------|
| 80  | 080  |     |      |
| 100 | 100  |     |      |
| 150 | 150  |     |      |
| 200 | 200  |     |      |
| 250 | 250  |     |      |
| 300 | 300  |     |      |
| 350 | 350  | 14" | 14"  |
| 400 | 400  | 16" | 16"  |
| 450 | 450  | 18" | 18"  |
| 500 | 500  | 20" | 20"  |
| 600 | 600  | 24" | 24"  |

| Press. Class | Code |
|--------------|------|
| PN 10        | 10   |
| PN 16        | 16   |
| PN 25        | 25   |
| PN 40        | 40   |
| Class 150    | 150  |

| Design | Max. Press. | FTF  | Code   |
|--------|-------------|------|--------|
| Wafer  | PN 16       | R20  | 870ISO |
| Wafer  | PN 16       | R25  | 810ISO |
| Wafer  | PN 40       | R20  | 877ISO |
| Wafer  | PN 40       | R25  | 830ISO |
| Lug    | PN 16       | R20  | 872ISO |
| Lug    | PN 16       | R25  | 812ISO |
| Lug    | PN 40       | R20  | 876ISO |
| Lug    | PN 40       | R25  | 832ISO |
| Wafer  | Class 150   | ASME | 801ISO |
| Lug    | Class 150   | ASME | 821ISO |

| Disc Material | Code |
|---------------|------|
| 1.4408        | 025  |
| CF8M          | 035  |

| Body Material | Code |
|---------------|------|
| 1.4408        | 025  |
| 1.0619        | 010  |
| WCB           | 018  |
| CF8M          | 035  |

| Optional Equipment                                    | Code |
|-------------------------------------------------------|------|
| Leak control                                          | 1    |
| Snap-in retainer                                      | 5    |
| Grooved flange                                        | 6    |
| Primary stem seal                                     | 9    |
| Uninterrupted bi-directional retainer (Lug body only) | R    |
| TA Luft 2021 / ISO 15848:2017                         | FE0  |

| Shaft Seal Material | Code |
|---------------------|------|
| PTFE                | 0    |
| Graphite            | 1    |

| Seat            | Code |
|-----------------|------|
| PTFE            | 0    |
| R-PTFE          | 1    |
| Firesafe        | 8    |
| PTFE modified   | A    |
| R-PTFE modified | B    |

Optionally, the lug-design valves are available with a bolted seat retainer for double dead-end service. Larger sizes, higher pressure and temperature ranges, and ASME dimensions are still offered under our valve type "800". Special materials as per customer request are also provided under type "800".



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