



# VALVES

Product Catalogue



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## Product Catalogue



### FPV

|                                       |       |
|---------------------------------------|-------|
| Air Release Valve                     | 1-2   |
| Lined Slurry Knife Gate Valve         | 3-4   |
| Wafer Slurry Knife Gate Valve         | 5-6   |
| High-Pressure Slurry Knife Gate Valve | 7-8   |
| Flanged Slurry Knife Gate Valve       | 9-10  |
| Wafer Lug Knife Gate Valve            | 11-12 |
| O-Port Slurry Gate Valve              | 13-14 |
| Pinch Valve Enclosed Body             | 15-16 |

### FPV<sup>II</sup>

|                                        |       |
|----------------------------------------|-------|
| Urethane Lined Knife Gate Valve        | 17-18 |
| Lined Slurry Knife Gate Valve          | 19-20 |
| Urethane Lined Slurry Knife Gate Valve | 21-22 |

### KLEP

|                                                    |       |
|----------------------------------------------------|-------|
| High-Pressure Straight Through KBH Diaphragm Valve | 23-24 |
| Straight Through KB Diaphragm Valve                | 25-26 |
| Weir Type A Diaphragm Valve                        | 27-28 |
| Swing Check Valve                                  | 29-30 |
| Wedge Gate Valve                                   | 31-32 |
| Pinch Valve Open Frame                             | 33-34 |
| Straight-Through Pinch Valve                       | 35-36 |
| Weir Type Stainless Steel Diaphragm Valve          | 37-38 |
| Screw Valve                                        | 39-40 |

### WPV

|                                  |       |
|----------------------------------|-------|
| Double Eccentric Butterfly Valve | 41-42 |
| Tilting Disc Check Valve         | 43-44 |
| Slanted Seat Check Valve         | 45-46 |
| Nozzle Check Valve               | 47-48 |
| Metal Seated Swing Check Valve   | 49-50 |
| Resilient Seated Gate Valve      | 51-52 |
| Metal Seated Wedge Gate Valve    | 53-54 |

AFS' Air Release Valve offers a tri-functional air valve that not only breaks vacuum, but also reduces surge on pipeline filling and releases air under operating conditions. AFS' vacuum break valves should be located on the apex of a pipeline to allow air to enter if the pipe ruptures or a scour valve is opened.

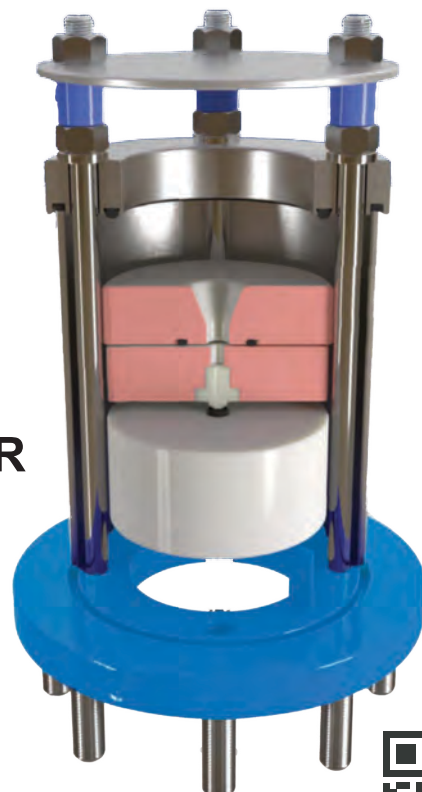
## Product Specifications:

|                                |                                                               |
|--------------------------------|---------------------------------------------------------------|
| <b>Size Range:</b>             | 25 - 200mm.                                                   |
| <b>Valve Type:</b>             | Air Release.                                                  |
| <b>Barrel:</b>                 | 304 Stainless Steel.                                          |
| <b>Flanges:</b>                | Mild Steel, FBE Coated or Threaded (BSP).                     |
| <b>Temperature range:</b>      | 80°C.                                                         |
| <b>Pressure rating:</b>        | Working Pressure Standards are PN 10, PN 16, PN 25 and PN 40. |
| <b>Body Material:</b>          | Stainless Steel (304 or 316).                                 |
| <b>Floats:</b>                 | Guided HDPE.                                                  |
| <b>Screen and cover plate:</b> | 304 Stainless Steel.                                          |
| <b>Drilling Patterns:</b>      | ANSI B16.5, DIN, Screwed, SABS & BS Optional.                 |
| <b>Seals and O rings:</b>      | EPDM.                                                         |

## Features:

- Triple function.
- Light weight.
- Non slam.
- Cost effective.
- No sticking.
- Small orifice to bleed air.
- Controlled velocity.
- Anti shock function.
- No blocking or leakage.
- No sticking of the floats.
- EPDM 'O' Ring for positive seal.
- The solid float will not deform under pressure.
- The cylindrical design also increases the effectiveness of the valve's operation during vacuum conditions.

**WATER**

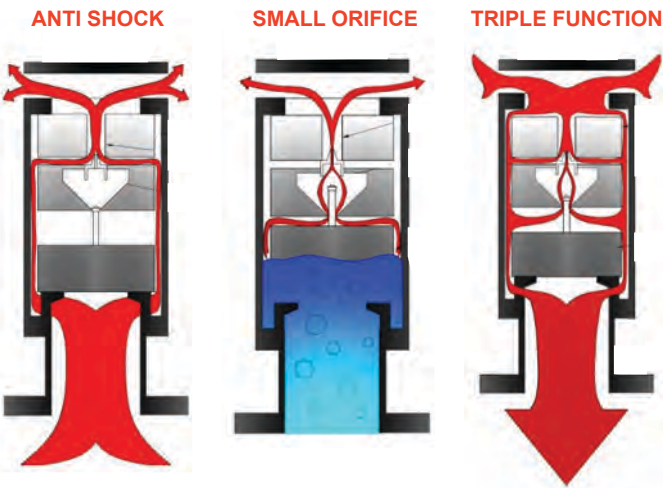
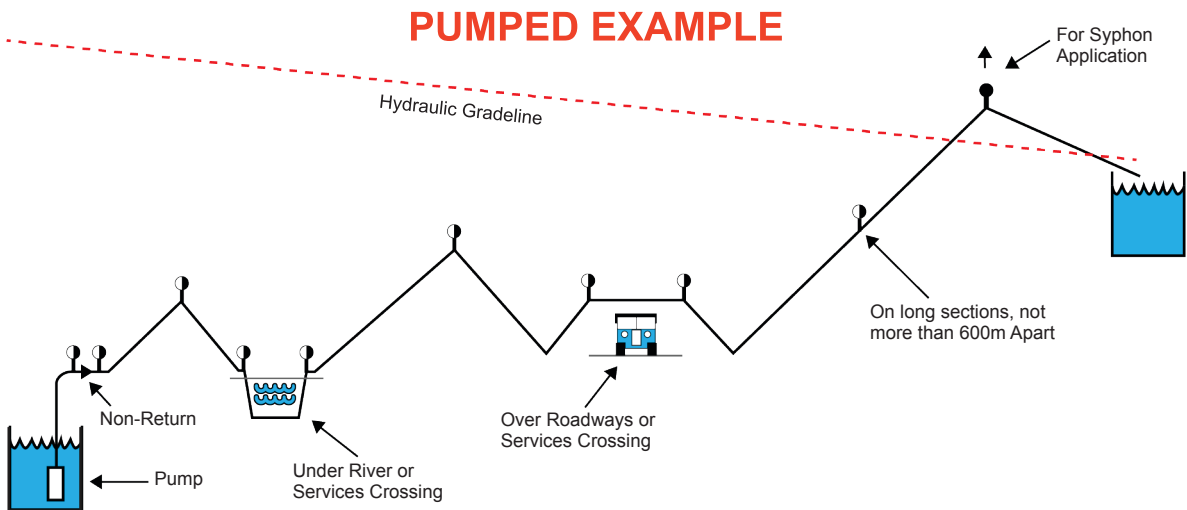


Placement

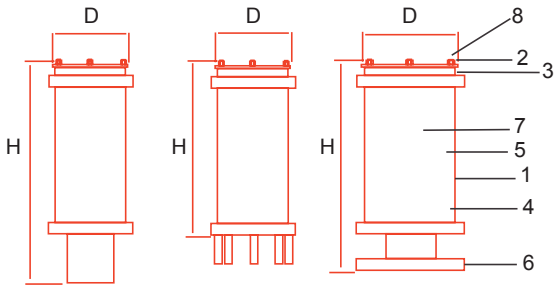
The graphic shows most of the common places where AV (air release valves) are fitted. High points are a natural start, also where the pipeline crosses obstacles like rivers and roads. Check for syphon application above the hydraulic grade line. To control pump start and pump trip, AV should be placed before and after the check valve.

Applications

The valve is suited for deep well pumping, waterlines, sewage, pump suction and pump discharge.



Dimensions & Weights



|   | PART           | DESCRIPTION           |
|---|----------------|-----------------------|
| 1 | Body           | 304 Stainless Steel   |
| 2 | Cover Plate    | 304 Stainless Steel   |
| 3 | Screen         | 304 Stainless Steel   |
| 4 | Barrel         | 304 Stainless Steel   |
| 5 | Floats         | HDPE                  |
| 6 | Bottom Flange  | FBE Coated Mild Steel |
| 7 | Seals & O-Ring | EPDM                  |
| 8 | Tie Rods       | 304 Stainless Steel   |

| VALVE SIZE (MM) | HEIGHT | DIAMETER | BLEED NOZZLE OD | ANTI SHOCK OD | WEIGHT (KG) |
|-----------------|--------|----------|-----------------|---------------|-------------|
| 25              | 325    | 95       | 1.1             | 3.3           | 5           |
| 50              | 335    | 115      | 1.5             | 6.5           | 8           |
| 80              | 330    | 120      | 1.8             | 10.5          | 16          |
| 100             | 330    | 165      | 1.8             | 13.5          | 20          |
| 150             | 440    | 285      | 3               | 20            | 60          |
| 200             | 520    | 300      | 3               | 27            | 90          |

Dimensions and weights are for guidance only - detailed dimension drawings are available on request. All dimensions are in millimeters, unless otherwise stated.



## LINED SLURRY KNIFE GATE VALVE

The FPV Lined Slurry Knife Gate Valve is designed for full on/off abrasive and corrosive applications. The Urethane or Rubber lining is moulded throughout the body and chest area. The lining is flush with the bottom of the valve eliminating any pocket where material can collect.

### Product Specifications:

|                           |                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 50mm - 600mm (2" - 24")                                                                                                |
| <b>Valve Type:</b>        | Slurry Knife Gate                                                                                                      |
| <b>Body Style:</b>        | Narrow Body (Wafer)                                                                                                    |
| <b>Temperature Range:</b> | 80°C                                                                                                                   |
| <b>Pressure Rating:</b>   | Up to 240psi (16 Bar)                                                                                                  |
| <b>Body Material:</b>     | Cast Ductile Iron, 2 Coat Epoxy Painted or Stainless Steel                                                             |
| <b>Gate Material:</b>     | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 HASTELLOY |
| <b>Gate/Blade:</b>        | Coated with fluorocarbon coating                                                                                       |
| <b>Seat Material:</b>     | Polyurethane, Rubber or lip seal                                                                                       |
| <b>Duty:</b>              | Abrasive applications                                                                                                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure                                                                                           |

### Features:

- Perimeter sealing at 16 Bar.
- Smooth bottom (no groove).
- No metal parts in contact with the flowing slurry.
- Bubble tight shutoff.
- No clogging bonnet to impede flow.
- External epoxy or powder coated.
- Easily adapted to fit most actuators.
- Low maintenance requirements.
- MSS-SP-81 face-to-face.
- Lock out & switch mountings.
- Live-load packing gland.
- Full-port design.
- Lightweight material for easy handling.
- Minimised chest area & close tolerances preventing media from packing.
- Robust gate design reduces bending.
- Zero discharge to atmosphere.
- No pressure drop across valve.
- Fluorocarbon coated valve to reduce friction when stroked.
- PTFE blade wiper.
- Two piece body.
- Universal tower frame.



Premium materials are supplied standard on all valves.



## How the Valve Works

The liner seat is flush with the bottom of the port eliminating debris and slurry, allowing for leak free seal when closed. The liner also extends over the flange face essentially creating a gasket type seal when installed in the line, thus eliminating additional gaskets.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

## Accessories

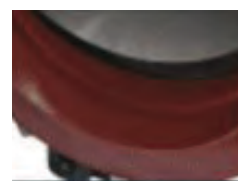
- Limit switches
- PTFE blade coating
- Various blade materials
- Gate safety guards
- Deflector cone



Epoxy Coated with Lip-Seal

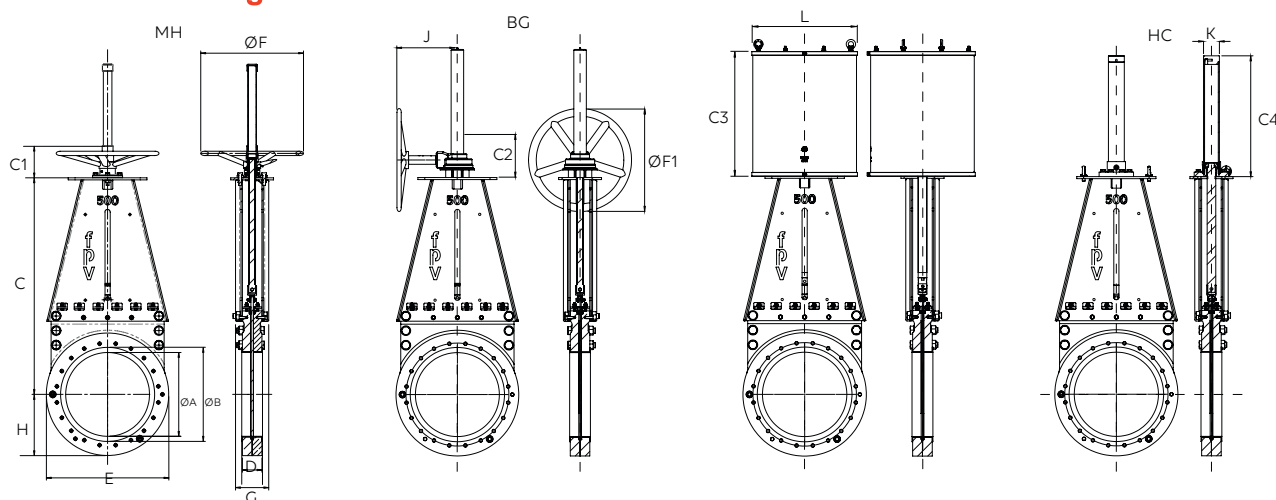


Soft Rubber Lined  
AC



Poly-Urethane Lined

## Dimensions & Weights



| DIMENSIONS (mm) |     |     |      |     |     |      |      |     |      |     |     |     |     |     |     |     | WEIGHT (kg) |      |      |      |
|-----------------|-----|-----|------|-----|-----|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-------------|------|------|------|
| DN              | ØA  | ØB  | C    | C1  | C2  | C3   | C4   | D   | E    | ØF  | ØF1 | G   | H   | J   | K   | L   | MH          | BG   | AC   | HC   |
| 50              | 51  | 92  | 250  | 141 | -   | 186  | 186  | 51  | 215  | 300 | 300 | 168 | 107 | -   | 64  | 114 | 21          | -    | 15   | 18   |
| 80              | 76  | 127 | 304  | 141 | -   | 210  | 224  | 51  | 254  | 300 | 300 | 168 | 127 | -   | 64  | 114 | 26          | -    | 26   | 24   |
| 100             | 102 | 157 | 355  | 141 | -   | 257  | 259  | 51  | 284  | 500 | 500 | 168 | 142 | -   | 64  | 140 | 32          | -    | 38   | 29   |
| 150             | 152 | 216 | 468  | 141 | -   | 325  | 311  | 57  | 341  | 500 | 500 | 183 | 170 | -   | 64  | 191 | 47          | -    | 65   | 42   |
| 200             | 203 | 270 | 582  | 141 | 179 | 380  | 379  | 70  | 406  | 500 | 500 | 220 | 203 | 299 | 76  | 216 | 74          | 80   | 101  | 73   |
| 250             | 254 | 324 | 685  | -   | 179 | 474  | 431  | 70  | 462  | 500 | 500 | 219 | 231 | 299 | 89  | 270 | -           | 105  | 168  | 102  |
| 300             | 305 | 381 | 794  | -   | 179 | 514  | 483  | 76  | 546  | 600 | 600 | 250 | 273 | 299 | 89  | 324 | -           | 144  | 240  | 143  |
| 350             | 337 | 413 | 872  | -   | 189 | 537  | 539  | 76  | 597  | 600 | 600 | 251 | 299 | 366 | 114 | 375 | -           | 189  | 339  | 192  |
| 400             | 387 | 470 | 977  | -   | 189 | 608  | 591  | 89  | 668  | 700 | 700 | 272 | 343 | 366 | 114 | 432 | -           | 254  | 471  | 259  |
| 450             | 438 | 533 | 1108 | -   | 189 | 676  | 656  | 89  | 723  | 700 | 700 | 302 | 362 | 366 | 127 | 483 | -           | 363  | 649  | 382  |
| 500             | 489 | 584 | 1213 | -   | 191 | 788  | 714  | 114 | 800  | 700 | 700 | 306 | 400 | 422 | 127 | 533 | -           | 488  | 850  | 506  |
| 600             | 591 | 692 | 1448 | -   | 221 | 950  | 836  | 114 | 943  | 700 | 700 | 368 | 472 | 460 | 165 | 635 | -           | 757  | 1452 | 781  |
| 650             | 641 | 749 | 1576 | -   | 221 | 1009 | 924  | 171 | 976  | -   | -   | 400 | 488 | 460 | 191 | 699 | -           | 1006 | 1878 | 1065 |
| 700             | 692 | 800 | 1699 | -   | 251 | 1061 | 976  | 181 | 1033 | -   | -   | 431 | 516 | 505 | 191 | 699 | -           | 1205 | 2070 | 1256 |
| 750             | 743 | 857 | 1800 | -   | 251 | 1136 | 1028 | 187 | 1097 | -   | -   | 461 | 548 | 505 | 191 | 756 | -           | 1397 | 2625 | 1467 |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request.  
All dimensions are in millimeters, unless stated otherwise.

## WAFER SLURRY KNIFE GATE VALVE

The FPV Wafer Slurry Knife Gate Valve has been designed as a space saving option for slurry applications. The full port design allows the gate to be fully isolated by the sleeves in the option position. When the valve is closed the gate pushes between the sleeves ensuring 100% bi-directional bubble tight seal and zero downstream leakage.

### Product Specifications:

|                                           |                                                                                                                        |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>                        | 50mm - 600mm (2" - 24")                                                                                                |
| <b>Valve Type:</b>                        | Slurry Knife Gate                                                                                                      |
| <b>Body Style:</b>                        | Narrow Body (Wafer)<br>MSS-SP81 Face-to-Face                                                                           |
| <b>Temperature Range:</b>                 | 80°C (176°F)                                                                                                           |
| <b>Pressure Rating:</b>                   | Up to 240psi (16 Bar)                                                                                                  |
| <b>Body Material:</b>                     | Cast Ductile Iron, 2 Coat Epoxy Painted or Stainless Steel                                                             |
| <b>Gate Material:</b>                     | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 HASTELLOY |
| <b>Gate/Blade:</b>                        | Optional fluorocarbon coating                                                                                          |
| <b>Sleeve Material:<br/>(Replaceable)</b> | Gum Rubber, High- temp EPDM, Neoprene, Nitrile, Chlorobutyl, Polyurethane.                                             |
| <b>Duty:</b>                              | Abrasive applications                                                                                                  |
| <b>Hydro-Static Test:</b>                 | 1.5 Times the rated pressure                                                                                           |

### Features:

- Long-wearing replaceable sleeves.
- Face-To-Face MSS SP81.
- Open body prevents gate damage during actuation.
- High strength stainless steel blade.
- Two coat epoxy paint.
- Manual or Automated actuators available.
- Metric & Imperial drilling available.
- Low maintenance requirements.
- Full-Port, Bi-Directional design at 16 Bar (240 Psi).
- Bellows and Stem cover for protection.
- Zinc coated hardware.
- Stuffing box with gland follower.
- No pressure drop across valve.
- Lightweight design for easy handling.
- No seat cavity where solids can collect and prevent full gate closure.
- Optional Fluorocarbon coated gate to reduce friction and wear life to seats.
- Universal tower frame.
- Two piece body allows for easier rebuilds.

Premium materials are supplied standard on all valves.



## How the Rubber Sleeve Works

Matching rubber ring sleeves with stiffener rings are placed in the valve housing to seal against the gate when the valve is closed and seal against each other when the valve is open. This tight seal contains the high internal line pressure. Double-seated design provides bi-directional flow and shut-off.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel. (Choice of operation is based on valve size & pressure).

## Applications

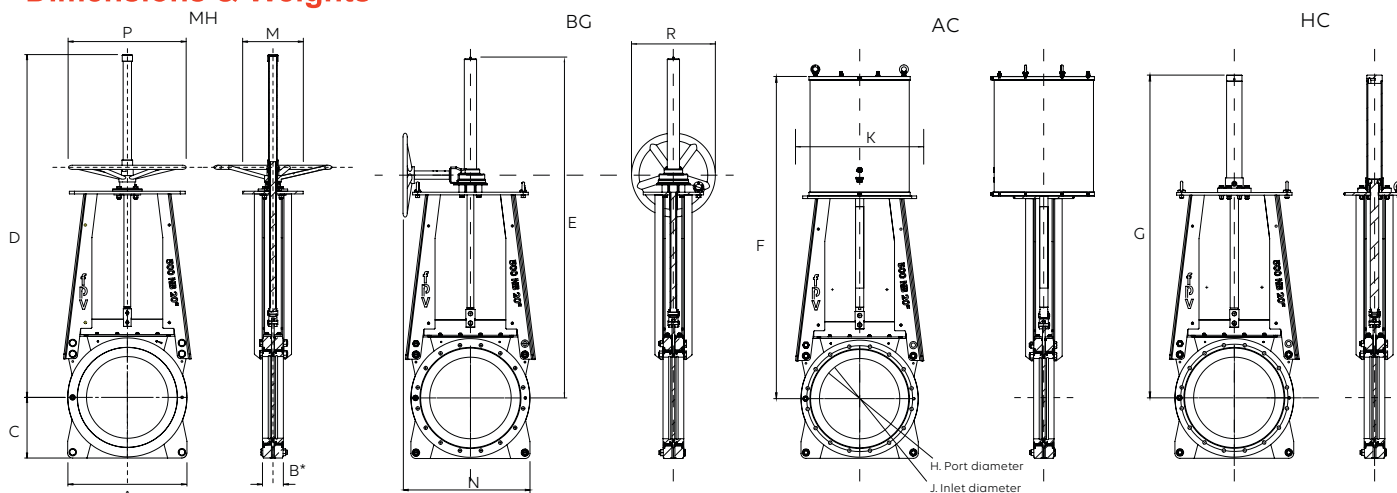
The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds, coal, alumina, phosphate & general industry.

## Accessories

- Limit switches
- PTFE Blade coating
- Various blade materials
- Gate safety guards
- Deflector cone
- Splash guard & drain plate



## Dimensions & Weights



| DIMENSIONS (mm) |     |     |     |      |      |      |      |     |     |     |     |     |     |     | WEIGHT (kg) |     |     |     |
|-----------------|-----|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-------------|-----|-----|-----|
| VALVE SIZE DN   | A   | B*  | C   | D    | E    | F    | G    | H   | J   | K   | M   | N   | P   | R   | MH          | BG  | AC  | HC  |
| 50              | 175 | 57  | 101 | 486  | 563  | 540  | 559  | 47  | 50  | 190 | 133 | 384 | 300 | 300 | 19          | 19  | 27  | 23  |
| 80              | 203 | 62  | 124 | 567  | 611  | 627  | 640  | 71  | 76  | 222 | 162 | 400 | 300 | 300 | 24          | 24  | 37  | 30  |
| 100             | 243 | 62  | 119 | 621  | 639  | 667  | 692  | 96  | 101 | 266 | 175 | 422 | 500 | 500 | 33          | 33  | 41  | 38  |
| 150             | 279 | 68  | 146 | 748  | 838  | 803  | 825  | 147 | 152 | 320 | 231 | 449 | 500 | 500 | 39          | 39  | 64  | 42  |
| 200             | 342 | 81  | 178 | 887  | 924  | 939  | 962  | 196 | 203 | 374 | 261 | 476 | 500 | 500 | 63          | 63  | 84  | 64  |
| 250             | 416 | 82  | 209 | 1043 | 1125 | 1115 | 1137 | 247 | 254 | 444 | 339 | 606 | 500 | 500 | 87          | 87  | 145 | 100 |
| 300             | 482 | 88  | 247 | -    | 1207 | 1273 | 1289 | 297 | 304 | 517 | 341 | 738 | 600 | 600 | 166         | 166 | 220 | 141 |
| 350             | 533 | 88  | 273 | -    | 1340 | 1369 | 1372 | 329 | 336 | 572 | 374 | 765 | 600 | 600 | 195         | 195 | 292 | 168 |
| 400             | 603 | 101 | 301 | -    | 1435 | 1500 | 1503 | 381 | 387 | 621 | 374 | 790 | 600 | 600 | 234         | 234 | 328 | 238 |
| 450             | 647 | 103 | 308 | -    | 1680 | 1728 | 1737 | 431 | 438 | 668 | 431 | 768 | 700 | 700 | 253         | 253 | 374 | 283 |
| 500             | 711 | 130 | 368 | -    | 1823 | 1878 | 1882 | 483 | 489 | 712 | 479 | 790 | 700 | 700 | 325         | 325 | 519 | 335 |
| 600             | 838 | 131 | 419 | -    | 2162 | 2216 | 2235 | 589 | 595 | 889 | 479 | 878 | 700 | 700 | 468         | 468 | 719 | 513 |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.



## HIGH-PRESSURE SLURRY KNIFE GATE VALVE

The FPV High-Pressure Slurry Knife Gate Valve is a true bi-directional slurry knife gate valve. Its rubber sleeves are designed to seal and withstand the harsh abrasive duty inherent in mining and milling facilities. Isolation is provided by the gate passing through the sleeve in such a manner that any solids that could potentially clog or jam the blade are pushed out into the atmosphere thorough the bottom of valve housing.

### Product Specifications:

|                           |                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 80 - 900mm (3" - 36")                                                                                                  |
| <b>Valve Type:</b>        | Slurry Knife Gate (High-Pressure)                                                                                      |
| <b>Body Style:</b>        | Full Flanged                                                                                                           |
| <b>Temperature Range:</b> | 80°C (176°F)                                                                                                           |
| <b>Pressure Rating:</b>   | Up to 740psi (51 Bar)                                                                                                  |
| <b>Body Material:</b>     | Fabricated Carbon Steel, 2 Coat Epoxy Painted                                                                          |
| <b>Gate Material:</b>     | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 HASTELLOY |
| <b>Gate/Blade:</b>        | Optional fluorocarbon coating                                                                                          |
| <b>Sleeve Material:</b>   | Gum Rubber, High-temp EPDM, Neoprene, Nitrile, Butyl (Replaceable)                                                     |
| <b>Duty:</b>              | Medium to Heavy Abrasive applications                                                                                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure                                                                                           |

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Features:

- Bi-Directional operation at 51 Bar.
- Zinc nickle plated hardware.
- Heavy duty stainless steel gate.
- CNC machined gate guide & body.
- Manual lockout.
- Stuffing box with gland follower.
- Double seat design for heavy duty slurry service.
- Low maintenance requirements.
- 100% bubble tight shut off.
- Imperial & Metric flanged patterns.
- Protective spindle covers & bellows.
- Full port & bi-directional.
- Flush ports in valve body.
- Open body allows for purging.
- Two coat epoxy paint.
- Lubrication ports.
- Optional fluorocarbon coated gate to reduce friction & increase wear life on sleeves.
- Two piece body, allows for easier rebuilds.
- Universal tower frame.



Premium materials are supplied standard on all valves.



## Advantages of Rubber Sleeves

Designed specifically for heavy-duty slurry applications, the sleeves are easily replaced in the field, prolonging valve working life. Sleeves provide 100% bubble tight seal and rely on the sleeves to seal. The sleeves are bi-directional and have an internal stiffening ring.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.  
(Choice of operator is based on the valve size & pressure)

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds coal, Alumina, Phosphate & general industry.

## Accessories

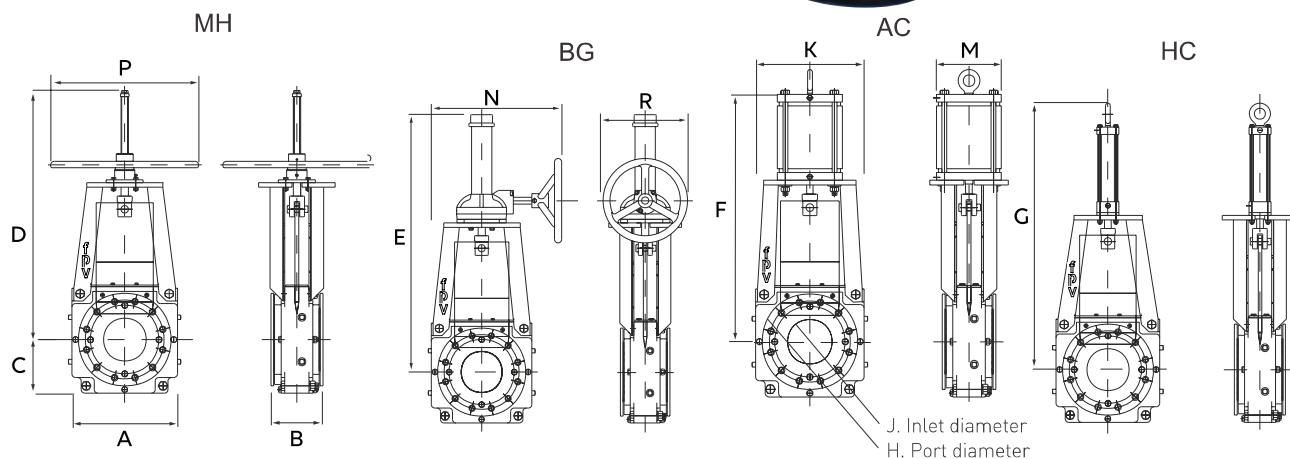
Limit switches  
PTFE blade coating  
Various blade materials

Gate safety guards  
Deflector cone  
Bottom splash guard & drain plate



NATURAL RUBBER SLEEVE

## Dimensions & Weights



| DIMENSIONS (mm) |      |     |     |      |      |      |      |     |     |     |     |     |     |     | VALVE WEIGHT (kg) |     |     |      |
|-----------------|------|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-------------------|-----|-----|------|
| VALVE SIZES DN  | A    | B   | C   | D    | E    | F    | G    | H   | J   | K   | M   | N   | P   | R   | MH                | BG  | AC  | HC   |
| 80              | 266  | 175 | 133 | 520  | 579  | 408  | 595  | 61  | 71  | 268 | 176 | 422 | 300 | 300 | 22                | 57  | 38  | 22   |
| 100             | 298  | 176 | 152 | 692  | 718  | 663  | 768  | 85  | 98  | 320 | 232 | 449 | 300 | 300 | 29                | 64  | 59  | 31   |
| 150             | 362  | 184 | 184 | 853  | 928  | 772  | 928  | 146 | 148 | 374 | 262 | 476 | 500 | 500 | 44                | 79  | 81  | 44   |
| 200             | 425  | 184 | 215 | 1004 | 1033 | 994  | 1099 | 186 | 199 | 444 | 340 | 606 | 500 | 500 | 61                | 96  | 95  | 61   |
| 250             | 510  | 226 | 254 | 1207 | 1207 | 1197 | 1289 | 231 | 248 | 432 | 431 | 650 | 500 | 500 | 89                | 124 | 140 | 79   |
| 300             | 571  | 258 | 279 | 1360 | 1360 | 1300 | 1417 | 273 | 292 | 431 | 431 | 650 | 500 | 500 | 100               | 193 | 303 | 163  |
| 350             | 749  | 259 | 352 | 1544 | 1544 | 1519 | 1468 | 317 | 337 | 431 | 431 | 650 | 600 | 600 | 180               | 203 | 326 | 187  |
| 400             | 825  | 278 | 393 | 1690 | 1690 | 1643 | 1627 | 362 | 374 | 482 | 479 | 675 | 600 | 600 | 200               | 259 | 510 | 249  |
| 450             | 882  | 321 | 419 | 1797 | 1797 | 1733 | 1924 | 381 | 431 | 431 | 431 | 650 | 700 | 700 | 350               | 396 | 603 | 430  |
| 500             | 946  | 366 | 450 | 2036 | 2036 | 1993 | 2111 | 420 | 469 | 584 | 534 | 780 | 700 | 700 | 400               | 478 | 762 | 544  |
| 600             | 1130 | 369 | 546 | 2269 | 2269 | 2269 | 2336 | 538 | 576 | 558 | 481 | 713 | -   | -   | 850               | 990 | 997 | 635  |
| 750             | 1358 | 413 | 660 | -    | -    | -    | 2860 | 679 | 736 | 533 | 509 | -   | -   | -   | -                 | -   | -   | 850  |
| 900             | 1524 | 471 | 762 | -    | -    | -    | 3327 | 809 | 889 | 635 | 479 | -   | -   | -   | -                 | -   | -   | 1000 |

## FLANGED SLURRY KNIFE GATE VALVE

The FPV Flanged Slurry Knife Gate Valve is a true bi-directional gate valve. The rubber sleeves are designed to withstand the harsh abrasive duty within the mining and milling industry. Isolation is provided by the gate passing through the sleeves in such a manner that any solids that could potentially clog or jam the blade are pushed out to the atmosphere thorough the bottom of valve housing.

### Product Specifications:

|                           |                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 50 - 1500mm (2" - 60")                                                                                                 |
| <b>Valve Type:</b>        | Slurry Knife Gate                                                                                                      |
| <b>Body Style:</b>        | Flanged                                                                                                                |
| <b>Temperature Range:</b> | 80°C (176°F)                                                                                                           |
| <b>Pressure Rating:</b>   | Up to 300psi (21 Bar)                                                                                                  |
| <b>Body Material:</b>     | Cast Ductile Iron, 2 Coat Epoxy Painted                                                                                |
| <b>Gate Material:</b>     | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 HASTELLOY |
| <b>Gate/Blade:</b>        | Optional fluorocarbon coating                                                                                          |
| <b>Sleeve Material:</b>   | Gum Rubber, High-temp EPDM, Neoprene, Nitrile, Butyl (Replaceable)                                                     |
| <b>Duty:</b>              | Abrasive applications                                                                                                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure                                                                                           |

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Features:

- Bi-Directional operation at 21 Bar.
- Zinc nickle plated hardware.
- Heavy duty stainless steel gate.
- CNC machined gate guide & body.
- Stuffing box with gland follower.
- Open body allows for purging.
- Low maintenance requirements.
- Manual lockout.
- Long-wearing, field replaceable sleeves, create a sealing surface.
- Two piece body, allows for easier rebuilds.
- Protective spindle covers & bellows.
- No seat cavity where solids can collect & prevent full gate closure.
- Lightweight design.
- Imperial & Metric flanged patterns.
- Two coat epoxy paint.
- Lubricant ports.
- Optional fluorocarbon coated gate to reduce friction & add wear life to sleeves.
- Universal tower frame.



Premium materials are supplied standard on all valves.



## Advantages of Rubber Sleeves

Designed specifically for heavy-duty slurry applications, the sleeves are easily replaced in the field, prolonging valve working life. Sleeves provide 100% bubble tight seal and rely on the sleeves to seal. The sleeves are bi-directional and have an internal stiffening ring.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

## Accessories

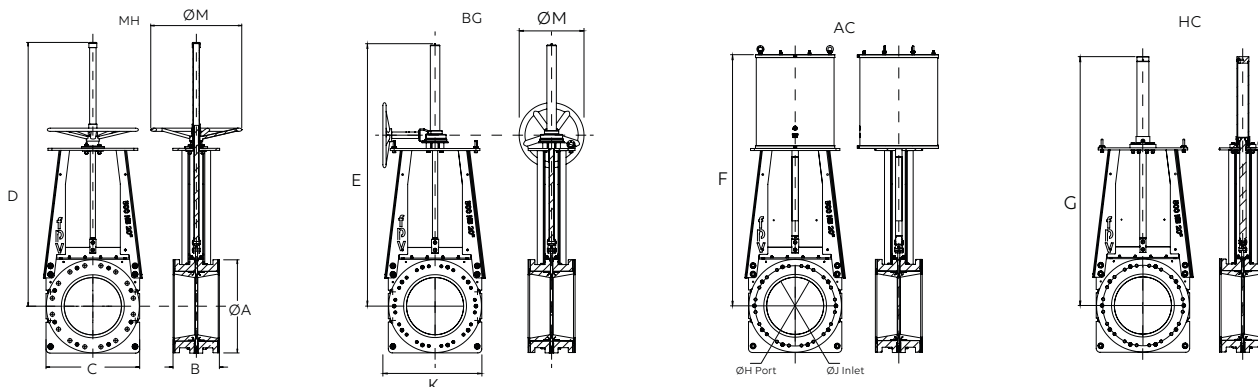
Limit switches  
PTFE blade coating  
Various blade materials

Gate safety guards  
Deflector cone  
Splash Guard  
& drain plate.



NATURAL RUBBER SLEEVE

## Dimensions & Weights



| VALVE SIZE<br>DN | DIMENSIONS (mm) |     |      | CENTERLINE TO TOP |         |         |         |      |      |     | HANDWHEEL |          | WEIGHT (kg) |     |     |      |
|------------------|-----------------|-----|------|-------------------|---------|---------|---------|------|------|-----|-----------|----------|-------------|-----|-----|------|
|                  | ØA*             | B** | C    | MH<br>D           | BG<br>E | AC<br>F | HC<br>G | ØH   | ØJ   | K   | MH<br>ØM  | BG<br>ØM | MH          | BG  | AC  | HC   |
| 80               | 190             | 174 | 225  | 480               | 543     | 543     | 623     | 61   | 71   | 401 | 300       | 300      | 22          | 57  | 38  | 22   |
| 100              | 228             | 174 | 279  | 558               | 592     | 608     | 701     | 84   | 98   | 428 | 300       | 300      | 29          | 64  | 59  | 31   |
| 150              | 279             | 177 | 330  | 711               | 864     | 766     | 863     | 136  | 147  | 454 | 500       | 500      | 44          | 79  | 81  | 44   |
| 200              | 342             | 184 | 387  | 835               | 378     | 889     | 973     | 174  | 196  | 482 | 500       | 500      | 61          | 96  | 95  | 61   |
| 250              | 406             | 225 | 420  | 984               | 1082    | 1028    | 1123    | 230  | 249  | 594 | 500       | 500      | 89          | 124 | 140 | 79   |
| 300              | 482             | 257 | 533  | -                 | 1205    | 1155    | 1349    | 273  | 292  | 647 | 500       | 500      | -           | 193 | 303 | 163  |
| 350              | 533             | 257 | 577  | -                 | 1354    | 1357    | 1468    | 317  | 336  | 670 | 600       | 600      | -           | 203 | 326 | 187  |
| 400              | 596             | 279 | 615  | -                 | 1452    | 1528    | 1627    | 355  | 374  | 701 | 600       | 600      | -           | 259 | 510 | 249  |
| 450              | 635             | 311 | 673  | -                 | 1695    | 1717    | 1746    | 377  | 425  | 770 | 700       | 700      | -           | 396 | 603 | 430  |
| 500              | 698             | 358 | 720  | -                 | 1827    | 1866    | 1890    | 420  | 469  | 794 | 700       | 700      | -           | 478 | 762 | 544  |
| 600              | 812             | 371 | 858  | -                 | 2189    | 2235    | 2276    | 538  | 584  | 882 | 700       | 700      | -           | 990 | 997 | 635  |
| 650              | 869             | 365 | 933  | -                 | -       | -       | 2378    | 596  | 635  | -   | -         | -        | -           | -   | -   | 771  |
| 700              | 927             | 378 | 933  | -                 | -       | -       | 2378    | 596  | 635  | -   | -         | -        | -           | -   | -   | 816  |
| 750              | 984             | 395 | 1054 | -                 | -       | -       | 2697    | 679  | 736  | -   | -         | -        | -           | -   | -   | 975  |
| 800              | 1060            | 411 | 1054 | -                 | -       | -       | 2697    | 679  | 736  | -   | -         | -        | -           | -   | -   | 1089 |
| 900              | 1174            | 469 | 1225 | -                 | -       | -       | 3028    | 809  | 889  | -   | -         | -        | -           | -   | -   | 1724 |
| 1050             | 1346            | 536 | 1435 | -                 | -       | -       | 3700    | 971  | 1041 | -   | -         | -        | -           | -   | -   | 2585 |
| 1200             | 1511            | 536 | 1532 | -                 | -       | -       | 4019    | 1117 | 1187 | -   | -         | -        | -           | -   | -   | 3161 |
| 1350             | 1681            | 536 | 1708 | -                 | -       | -       | 4391    | 1244 | 1314 | -   | -         | -        | -           | -   | -   | 3754 |
| 1500             | 1854            | 536 | 1955 | -                 | -       | -       | 4781    | 1451 | 1511 | -   | -         | -        | -           | -   | -   | 4309 |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request.  
All dimensions are in millimeters, unless stated otherwise.



## WAFER LUG KNIFE GATE VALVE

The FPV Wafer Lug Knife Gate Valve is designed as a space saving option for corrosive applications. The resilient seat is an elastomer sleeve, available in different materials. The sleeve supports and guides the gate and guarantees full tightness when closed. The valve can be used in either bi-directional or dead end service.

### Product Specifications:

|                           |                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 50 - 600mm (2" - 24")                                                                                                   |
| <b>Valve Type:</b>        | Lug                                                                                                                     |
| <b>Body Style:</b>        | Narrow, Wafer                                                                                                           |
| <b>Temperature Range:</b> | -50°C - +80°C                                                                                                           |
| <b>Pressure Rating:</b>   | Up to 240psi (16 Bar)                                                                                                   |
| <b>Gate Material:</b>     | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex, Stainless Steel, C276 HASTELLOY |
| <b>Body Material:</b>     | Stainless Steel                                                                                                         |
| <b>Seat Material:</b>     | Gum Rubber, High-Temp EPDM, Neoprene, Nitrile, Chlorobutyl, Urethane                                                    |
| <b>Gland Packing:</b>     | PTFE impregnated synthetic fibre                                                                                        |
| <b>Duty:</b>              | Corrosive Applications                                                                                                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure                                                                                            |

### Features:

- Replaceable reinforced elastomer seat (Optional).
- Face-to-face- MSS-SP-81.
- Valve body can be lined in rubber or urethane.
- Bubble tight shut off.
- External epoxy or powder coated.
- Easily adapted to fit most actuators.
- Low maintenance requirements.
- Lock out and switch mountings.
- Live load packing gland.
- Full port and bi-directional.
- Lightweight material for easy handling.
- Minimised chest area & close tolerances preventing media from packing.
- Robust gate design reduces bending.
- Zero discharge to atmosphere.
- No pressure drop across valve.
- PTFE blade wiper.
- One piece wafer body.



### How the Valve Operates

Designed specifically for corrosive applications. The body and seat are designed to assure non-clogging shut-off/on suspended solids. The valve can be manufactured with replaceable sleeves.

### Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

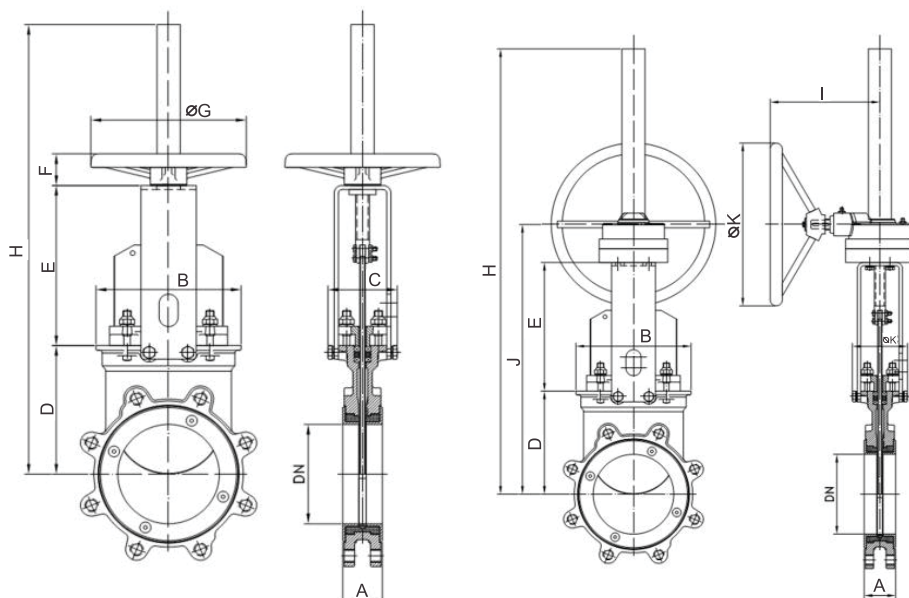
### Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

### Accessories

Limit switches  
PTFE blade coating  
Various blade materials  
Gate safety guards  
Deflector cone

### Dimensions & Weights



| VALVE<br>SIZE<br>DN | A   | MSS-<br>SP81<br>-F/F | Lined<br>F/F | C   | D    | E    | F    | G   | H   | I   | J   | MH<br>kg | BG<br>kg | AC<br>kg |
|---------------------|-----|----------------------|--------------|-----|------|------|------|-----|-----|-----|-----|----------|----------|----------|
| 50                  | 146 | 48                   | 54           | 65  | 428  | 500  | 380  | 303 | 300 | 300 | 100 | 12       | 23       | 17       |
| 65                  | 146 | 48                   | 54           | 65  | 428  | 500  | 380  | 303 | 300 | 300 | 100 | 16       | 26       | 21       |
| 80                  | 126 | 51                   | 57           | 89  | 480  | 500  | 484  | 303 | 300 | 300 | 100 | 15       | 24       | 24       |
| 100                 | 142 | 51                   | 57           | 98  | 548  | 568  | 552  | 303 | 300 | 300 | 100 | 20       | 29       | 27       |
| 125                 | 200 | 57                   | 64           | 118 | 448  | 568  | 552  | 303 | 300 | 300 | 160 | 24       | 33       | 33       |
| 150                 | 200 | 57                   | 64           | 130 | 713  | 733  | 715  | 328 | 500 | 500 | 160 | 29       | 34       | 40       |
| 200                 | 303 | 70                   | 76           | 155 | 884  | 1004 | 874  | 328 | 500 | 500 | 200 | 62       | 65       | 83       |
| 250                 | 322 | 70                   | 76           | 161 | 1019 | 1039 | 1017 | 328 | 500 | 500 | 250 | 83       | 85       | 118      |
| 300                 | 374 | 76                   | 83           | 187 | 1234 | 1254 | 1185 | 328 | 600 | 600 | 300 | 102      | 101      | 145      |
| 350                 | 444 | 76                   | 83           | 222 | 1388 | 1400 | 1354 | 328 | 600 | 600 | 300 | 131      | 134      | 194      |
| 400                 | 504 | 89                   | 95           | 251 | 1508 | 1528 | 1474 | 328 | 600 | 600 | 400 | 182      | 182      | 263      |
| 450                 | 568 | 89                   | 95           | 284 | 1709 | 1739 | 1691 | 351 | 600 | 600 | 450 | 208      | 222      | 336      |
| 500                 | 622 | 114                  | 121          | 311 | 1871 | 1901 | 1853 | 351 | 600 | 600 | 450 | 268      | 282      | 396      |
| 600                 | 712 | 114                  | 121          | 355 | 2104 | 2134 | 2136 | 351 | 600 | 600 | 550 | 380      | 395      | 517      |

## O-PORT SLURRY GATE VALVE

AFS's O-Port Slurry Gate Valve has a Stainless Steel gate machined with a round orifice port, in line with seat ID when the valve is in the open position. When the valve is closed the ported gate will move downwards sealing the port. Due to the seal being constantly engaged against the gate, stroking the valve closed forces the gate progressively between the two matching sleeve ends until it reaches the fully closed position - at which point the sleeves each butt up tightly against either side of the gate, effectively sealing and completely containing the line pressure. Build up of material to prevent full gate travel is eliminated as there are no areas for such material to accumulate. Any material discharged between the sleeves during stroking open or closed is collected within the containment area of the valve body and drained via the multiple flushing ports in the body. The O-Port Slurry Valve can be used as a man-safe line blanking valve.

### Product Specifications:

|                           |                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 50 - 1500mm (2"-60")                                                                                   |
| <b>Valve Type:</b>        | Slurry Knife Gate                                                                                      |
| <b>Body Style:</b>        | Narrow Body (Wafer)                                                                                    |
| <b>Gate Material:</b>     | 316 Stainless Steel standard - 316L, 317L, 17-4PH, Alloy 20, SAF 2205 S/S with optional wear coatings. |
| <b>Temperature Range:</b> | 80°C (176°F)                                                                                           |
| <b>Pressure Rating:</b>   | DN50 to DN600 rated to 360Psi (25 Bar).<br>DN650 to DN1500 rated to 150Psi (10 Bar).                   |
| <b>Body Material:</b>     | Wafer pattern Cast SG Iron, Fabricated Steel, Epoxy Coated.                                            |
| <b>Sleeve Material:</b>   | Gum Rubber, High-Temp EPDM, Neoprene, Nitrile, Chlorobutyl                                             |
| <b>Threaded Body:</b>     | 25-80mm                                                                                                |
| <b>Flanged body:</b>      | Drilled to SABS, ANSI, BS or DIN                                                                       |
| <b>Duty:</b>              | Abrasive applications                                                                                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure                                                                           |

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Features:

- 240 Psi (16 Bar).
- Double seat design for heavy duty slurry service.
- Ease of replacement of seat ring sleeves.
- Quick installation.
- Self cleaning.
- Bubble tight shutoff.
- No clogged bonnet to impede flow.
- External epoxy coated.
- Easily adapted to suit most actuators.
- Low maintenance requirements.
- Suitable for wet or dry service.
- Bi-directional flow.
- Open/closed indicator sleeve.
- Wide range of elastomers available.
- Light weight for easier handling.
- No seat cavity where solids can collect and prevent full gate closure.
- Lock out feature.



## How the Valve Operates

Matching rubber ring sleeves with stiffener rings are placed in the valve housing to seal against the gate when the valve is closed. This tight seal contains the high internal line pressure. Double seated design provides bi-directional flow and shut off.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds, coal, Alumina, Phosphate & General industry.

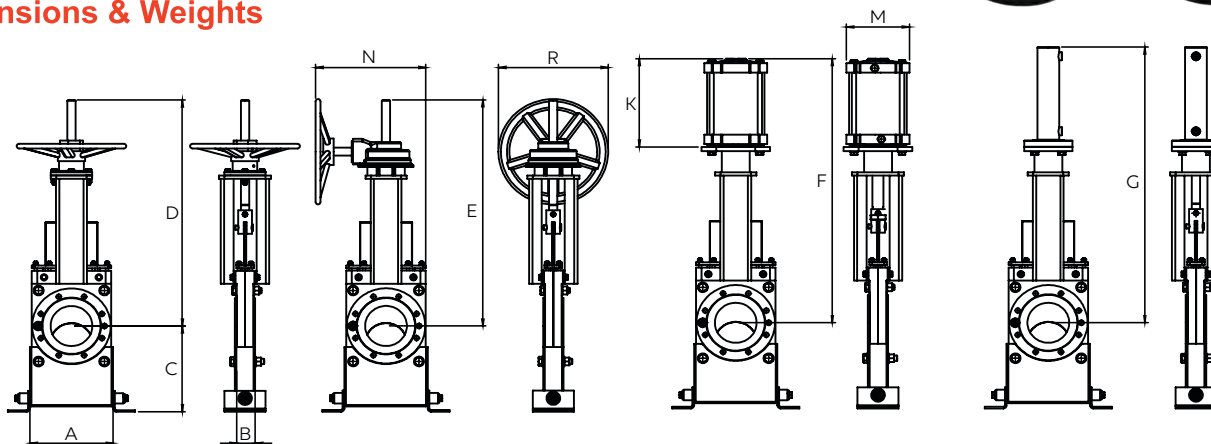
## Accessories

Limit switches  
PTFE blade coating  
Various blade materials

Gate safety guards



## Dimensions & Weights



| VALVE SIZE (mm) |      |     |     |      | HW   | BG   | AC   | HYC  |      |      |       |     | BG  | HW  | BG  | VALVE WEIGHT (kg) |      |      |     |
|-----------------|------|-----|-----|------|------|------|------|------|------|------|-------|-----|-----|-----|-----|-------------------|------|------|-----|
|                 | A    | B   | C   | D    | E    | F    | G    | H    | J    | K    | M     | N   | PØ  | RØ  |     | HW                | BG   | AC   | HYC |
| 50              | 175  | 54  | 102 | 487  | 563  | 540  | 560  | 47   | 51   | 191  | 133.4 | 384 | 300 | 300 | 20  | 30                | 35   | 30   |     |
| 80              | 203  | 58  | 124 | 568  | 611  | 627  | 640  | 71   | 76   | 222  | 162.3 | 400 | 300 | 300 | 25  | 35                | 40   | 40   |     |
| 100             | 244  | 58  | 139 | 621  | 639  | 667  | 693  | 97   | 102  | 267  | 175.5 | 422 | 300 | 300 | 35  | 45                | 50   | 55   |     |
| 150             | 279  | 64  | 146 | 748  | 838  | 803  | 825  | 147  | 152  | 320  | 231.9 | 449 | 500 | 500 | 40  | 50                | 65   | 60   |     |
| 200             | 343  | 76  | 179 | 888  | 924  | 939  | 962  | 196  | 203  | 375  | 261.9 | 478 | 500 | 500 | 65  | 75                | 90   | 75   |     |
| 250             | 416  | 76  | 209 | 1043 | 1125 | 1115 | 1138 | 247  | 254  | 444  | 339.9 | 604 | 500 | 500 | 90  | 100               | 150  | 100  |     |
| 300             | 483  | 83  | 248 | 1207 | 1207 | 1273 | 1290 | 299  | 304  | 518  | 341.6 | 740 | 600 | 600 | 170 | 180               | 230  | 150  |     |
| 350             | 535  | 83  | 274 | 1340 | 1340 | 1369 | 1372 | 329  | 337  | 573  | 374.7 | 765 | 600 | 600 | 200 | 210               | 300  | 170  |     |
| 400             | 603  | 96  | 302 | 1435 | 1435 | 1500 | 1504 | 381  | 387  | 622  | 374.7 | 790 | 700 | 700 | 240 | 250               | 340  | 240  |     |
| 450             | 648  | 96  | 324 | 1680 | 1680 | 1728 | 1740 | 432  | 440  | 669  | 431.8 | 790 | 700 | 700 | 260 | 270               | 390  | 285  |     |
| 500             | 711  | 121 | 368 | 1823 | 1823 | 1878 | 1882 | 483  | 489  | 712  | 479.6 | 790 | 700 | 700 | 330 | 340               | 530  | 340  |     |
| 600             | 838  | 121 | 419 | 2162 | 2162 | 2216 | 2235 | 589  | 600  | 889  | 479.6 | 878 | 700 | 700 | 480 | 490               | 720  | 520  |     |
| 650             | 934  | 125 | 445 | -    | -    | -    | 2494 | 597  | 624  | 934  | 500   | -   | -   | -   | -   | -                 | 993  | 773  |     |
| 750             | 1054 | 125 | 515 | -    | -    | -    | 2748 | 679  | 737  | 1054 | 550   | -   | -   | -   | -   | -                 | 976  | 976  |     |
| 900             | 1226 | 130 | 600 | -    | -    | -    | 3320 | 810  | 890  | 1226 | 550   | -   | -   | -   | -   | -                 | 1588 | 1588 |     |
| 1000            | 1435 | 130 | 690 | -    | -    | -    | 3898 | 972  | 1044 | 1435 | 700   | -   | -   | -   | -   | -                 | 2359 | 2359 |     |
| 1200            | 1600 | 160 | 770 | -    | -    | -    | 4312 | 1117 | 1160 | 1600 | 700   | -   | -   | -   | -   | -                 | 3162 | 3165 |     |
| 1400            | 1710 | 228 | 860 | -    | -    | -    | 4655 | 1244 | 1320 | 1710 | 700   | -   | -   | -   | -   | -                 | 3755 | 3755 |     |
| 1500            | 1955 | 228 | 980 | -    | -    | -    | 4780 | 1455 | 1525 | 1850 | 700   | -   | -   | -   | -   | -                 | 4000 | 4500 |     |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated.

## PINCH VALVE ENCLOSED BODY

The FPV Pinch Valve consists of a tough, but flexible full bore sleeve, which forms part of the pipeline. The valve is closed mechanically via movement of the Pinch Bars located on opposite sides of the sleeve. The core of the Pinch Valve is the sleeve. The sleeve is reinforced with high-strength fabric. The valves are well suited for on/off and throttling control applications where scale build up is a problem. The valve body is fully enclosed, no outside moving parts.

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                           |                                    |
|---------------------------|------------------------------------|
| <b>Size Range:</b>        | 50 - 600mm (2"-24")                |
| <b>Valve Type:</b>        | Pinch Valve Enclosed Body          |
| <b>Body Style:</b>        | Flanged, Fabricated Steel          |
| <b>Temperature Range:</b> | 80°C                               |
| <b>Pressure Rating:</b>   | Up to 240psi (16 Bar)              |
| <b>Sleeve Material:</b>   | Natural Rubber, Butyl or Neoprene. |
| <b>Pinch Bars:</b>        | Carbon Steel                       |
| <b>Pinch Bar Guides:</b>  | 304 Stainless Steel                |
| <b>Duty:</b>              | Abrasive Applications              |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure       |

### Features:

- Low-cost enclosed body valve design.
- Seals in both directions.
- No blocking or leakage.
- Enclosed design is light weight, adaptable and economical.
- Epoxy coated.
- Fabricated Steel body.
- Robust construction.
- Non-rising spindle.
- Enclosed body protects the sleeve.
- Easy maintenance.
- Full bore.
- No packing to maintain.
- Sleeve is only vetted part.
- Face-to-face compatible with Diaphragm Valves.
- Sleeves are easily replaced.
- Sleeves are available in a variety of materials.
- Center pinch operation.
- All types of actuators can be fitted.





## How the Valve Works

In the closed position, the upper and low bars compress the sleeve to form a bubble tight seal, even on entrapped debris. The valve can be used to throttle the flow.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

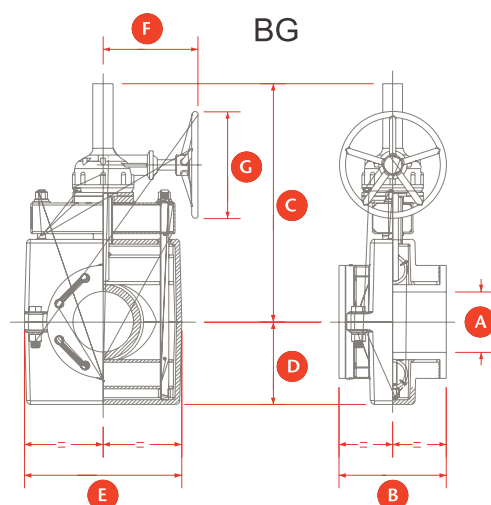
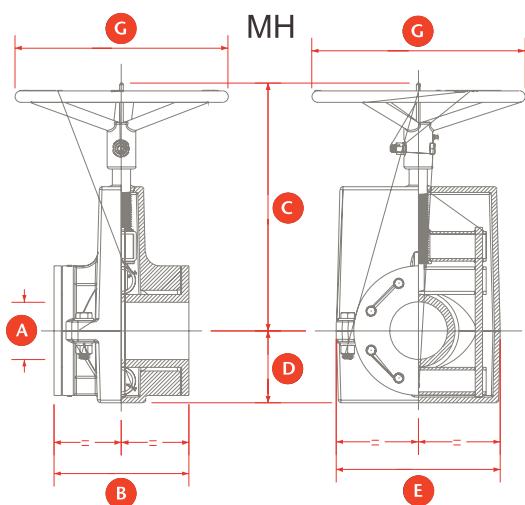
## Sleeve Material

FPV offers the following alternative sleeve materials, providing chemical and abrasive resistance to most media such as:

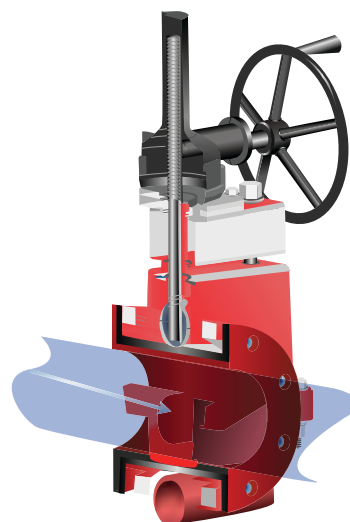
- Red Rubber
- Natural Black Rubber
- Neoprene Rubber
- Nitrile Rubber
- EPDM Rubber



## Dimensions & Weights



| Valve Size | A/B F/F | C    | D   | E    | F   | G   | WEIGHT KG |
|------------|---------|------|-----|------|-----|-----|-----------|
| 50         | 170     | 265  | 85  | 180  | N/A | 165 | 16        |
| 80         | 220     | 369  | 110 | 245  | N/A | 220 | 40        |
| 100        | 250     | 430  | 125 | 285  | -   | 370 | 90        |
| 150        | 255     | 685  | 200 | 390  | 236 | 250 | 100       |
| 200        | 400     | 980  | 255 | 490  | 300 | 300 | 150       |
| 250        | 500     | 1060 | 300 | 590  | 360 | 300 | 200       |
| 300        | 600     | 1160 | 340 | 680  | 400 | 400 | 250       |
| 350        | 685     | 1280 | 440 | 900  | 520 | 400 | 300       |
| 400        | 785     | 1360 | 420 | 945  | 560 | 400 | 500       |
| 450        | 880     | 1480 | 470 | 1035 | 620 | 500 | 700       |
| 500        | 980     | 1620 | 550 | 1120 | 660 | 500 | 800       |
| 600        | 1180    | 1740 | 604 | 1280 | 740 | 600 | 1077      |



Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## URETHANE LINED KNIFE GATE VALVE

Product Code: OM-KGUL

The FPV Urethane Lined Knife Gate Valve is designed for full on/off abrasive and corrosive applications. The Urethane one piece field replaceable liner is designed to provide high flow with low pressure drop. The liner is flush with the bottom of the valve eliminating any pocket where material can collect. It has a full round port design with zero discharge to atmosphere.

### Product Specifications:

|                           |                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 50mm - 750mm (2" - 30")                                                                                                |
| <b>Valve Type:</b>        | High Pressure Slurry Knife Gate                                                                                        |
| <b>Body Style:</b>        | Narrow Body (Wafer)                                                                                                    |
| <b>Gate/Blade:</b>        | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 HASTELLOY |
| <b>Temperature Range:</b> | -50°C - + 80°C                                                                                                         |
| <b>Pressure Rating:</b>   | Up to 240psi (16 Bar)<br>Higher pressures available                                                                    |
| <b>Body Material:</b>     | Cast ductile iron, 2 coat epoxy painted or stainless steel.                                                            |
| <b>Replaceable Liner:</b> | Wear resistant polyurethane.                                                                                           |
| <b>Duty:</b>              | Medium to heavy abrasive applications                                                                                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure                                                                                           |

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Features:

- One piece field replaceable liner.
- Perimeter sealing at 16 Bar.
- Flush bottom (no pockets).
- No metal parts in contact with flowing slurry.
- Bubble tight shut off.
- No clogging bonnet to impede flow.
- External epoxy or powder coated.
- Easily adapted to fit most types of actuation.
- Low maintenance requirements.
- MSS-SP-81 Face-To-Face.
- Lock out & Switch mountings.
- Live - load packing gland.
- Full-port design & bi-directional.
- Lightweight material for easy handling.
- Rubber lined body or lip seal.
- Robust gate design reduces bending.
- Zero discharge to atmosphere.
- No pressure drop across valve.
- Optional fluorocarbon coated valve gate to reduce friction when stroked.
- PTFE blade wiper.
- Two piece body.
- Non-Rising spindle available.



Zero discharge to atmosphere.  
Full round port design.



## How the Liner Works

The Liner Seat is flush with the bottom of the port eliminating debris and slurry, allowing a leak free seal when closed. The liner also extends over the flange face essentially creating a gasket type seal when installed in the line, thus eliminating additional gaskets and is replaceable. Zero discharge to atmosphere.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

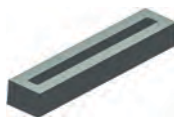
## Applications

The valve is suited for mining and mineral processing, power generation, sand & gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

## Accessories

- Limit switches
- PTFE blade coating
- Various blade materials
- Gate safety guards
- Deflector cone

### Gland

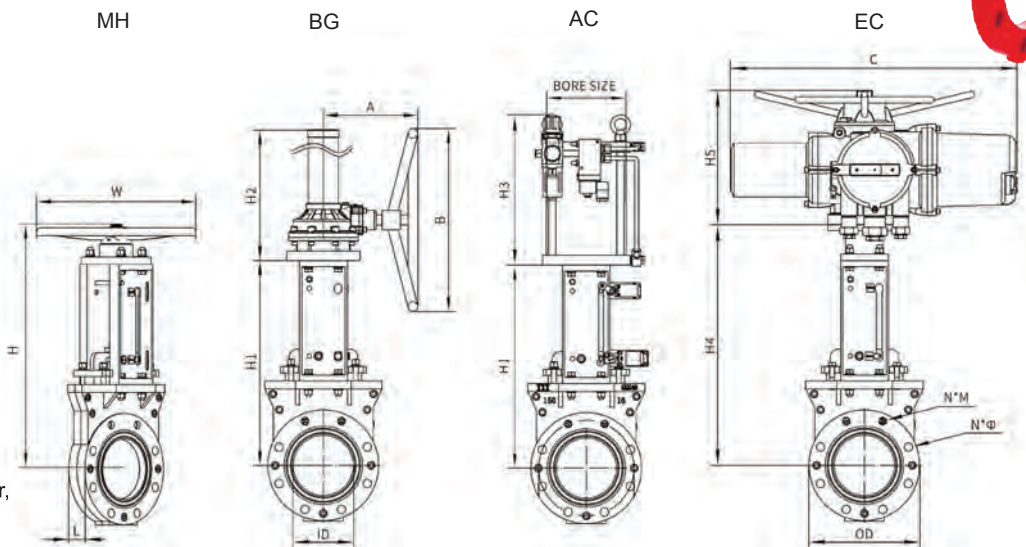


The high-elastic, molded rubber packing offers better sealing performance and compensation compared to traditional gland packing in knife gate valves. With frequent opening and closing, the packing may experience wear and leakage. High-elastic rubber packing has superior compensatory properties, allowing the seal to be restored with only slight tightening of the packing gland.

### Field Replaceable Polyurethane Wear Liner



## Dimensions & Weights



### Notes:

L1- MSS-SP81 face-to-face.

L2 - 400mm up.

Face-to-face with flange retainer, for dead end service.

| DIMENSIONS (mm) |       |     |     |     |     |      |      |     |      |     |     |     |           |      |            |          | WEIGHT (kg) |     |     |     |
|-----------------|-------|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|-----------|------|------------|----------|-------------|-----|-----|-----|
| SIZE            | ID    | OD  | W   | L   | H   | H1   | H2   | H3  | H4   | H5  | A   | B   | BORE SIZE | C    | N*M(UNC)   | N*Ø      | MH          | BG  | AC  | EC  |
| 50              | 50.8  | 160 | 300 | 48  | 405 | 313  | 195  | 217 | 391  | 275 | 210 | 300 | 140       | 557  | 2*5/8-11   | 2*Ø18    | 12          | 23  | 25  | 30  |
| 80              | 76.2  | 190 | 300 | 51  | 462 | 361  | 225  | 242 | 439  | 275 | 210 | 300 | 160       | 557  | 2*5/8-11   | 2*Ø18    | 16          | 26  | 30  | 50  |
| 100             | 101.6 | 230 | 350 | 51  | 505 | 411  | 245  | 267 | 489  | 275 | 210 | 300 | 160       | 557  | 2*5/8-11   | 6*Ø18    | 20          | 30  | 48  | 60  |
| 125             | 125   | 255 | 350 | 57  | 544 | 450  | 260  | 298 | 528  | 275 | 210 | 300 | 200       | 557  | 2*3/4-10   | 6*Ø22    | 30          | 39  | 50  | 100 |
| 150             | 152.4 | 280 | 400 | 57  | 618 | 510  | 270  | 320 | 600  | 275 | 210 | 500 | 200       | 722  | 2*3/4-10   | 6*Ø22    | 35          | 55  | 75  | 111 |
| 200             | 203.2 | 343 | 400 | 70  | 710 | 606  | 345  | 402 | 696  | 275 | 210 | 500 | 250       | 722  | 2*3/4-10   | 6*Ø22    | 60          | 70  | 90  | 120 |
| 250             | 254   | 403 | 550 | 70  | 815 | 732  | 395  | 460 | 822  | 337 | 210 | 500 | 280       | 722  | 4*7/8-9    | 6*Ø26    | 85          | 90  | 120 | 140 |
| 300             | 304.8 | 483 | -   | 76  | -   | 840  | 475  | 520 | 930  | 337 | 233 | 600 | 300       | 722  | 4*7/8-9    | 6*Ø26    | 101         | 120 | 160 | 180 |
| 350             | 336.6 | 535 | -   | 76  | -   | 920  | 525  | 536 | 1035 | 337 | 233 | 600 | 320       | 722  | 4*1-8      | 8*Ø29.5  | 134         | 150 | 180 | 200 |
| 400             | 387.4 | 600 | -   | 129 | -   | 1034 | 586  | 593 | 1149 | 375 | 320 | 600 | 350       | 775  | 6*1-8      | 10*Ø29.5 | 182         | 220 | 250 | 280 |
| 450             | 438.2 | 635 | -   | 129 | -   | 1166 | 636  | 662 | 1281 | 375 | 320 | 600 | 400       | 775  | 6*1-1/8-7  | 10*Ø32.5 | 222         | 250 | 300 | 350 |
| 500             | 489   | 715 | -   | 154 | -   | 1330 | 732  | 736 | 1460 | 460 | 395 | 600 | 450       | 900  | 8*1-1/8-7  | 12*Ø32.5 | 282         | 300 | 350 | 400 |
| 600             | 590.6 | 840 | -   | 154 | -   | 1535 | 832  | 836 | 1665 | 460 | 395 | 600 | 450       | 900  | 8*1-1/4-7  | 12*Ø35.5 | 395         | 420 | 496 | 500 |
| 750             | 743   | 985 | -   | 157 | -   | 1810 | 1040 | 986 | 1940 | 630 | 395 | 600 | 500       | 1027 | 10*1-1/4-7 | 18*Ø35.5 | 500         | 520 | 600 | 700 |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## LINED SLURRY KNIFE GATE VALVE

Product Code: OM-KGUL

The FPV Lined Knife Gate Valve is designed for full on/off abrasive and corrosive applications. The Rubber lining is moulded throughout the body and chest area. The lining is flush with the bottom of the valve eliminating any pocket where material can collect. It has a full round port design with zero discharge to atmosphere.

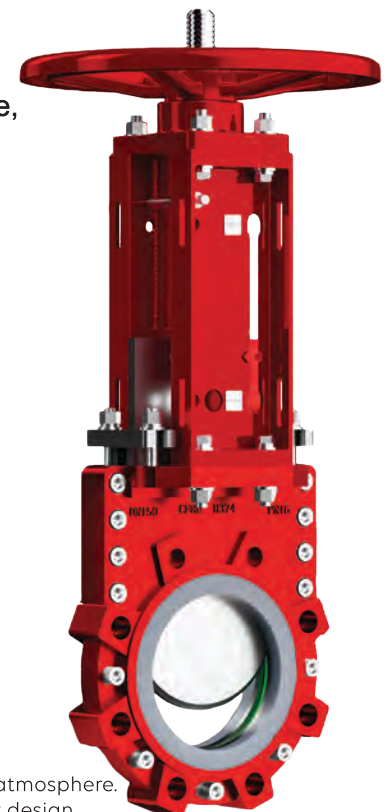
### Product Specifications:

|                               |                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>            | 50mm - 750mm (2" - 30")                                                                                                 |
| <b>Valve Type:</b>            | Slurry Knife Gate                                                                                                       |
| <b>Body Style:</b>            | Narrow Body (Wafer)                                                                                                     |
| <b>Temperature Range:</b>     | 80°C                                                                                                                    |
| <b>Pressure Rating:</b>       | Up to 360 Psi (25 Bar).                                                                                                 |
| <b>Body Material:</b>         | Cast Ductile Iron, two piece coat Epoxy Painted or Stainless Steel.                                                     |
| <b>Gate Material:</b>         | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 Hastelloy. |
| <b>Blade Coating:</b>         | Optional Fluorocarbon Coating.                                                                                          |
| <b>Body Lining:</b>           | Rubber lined with lip seat                                                                                              |
| <b>Replaceable Wear Ring:</b> | Rubber, Urethane, High Chrome, Tungsten Carbide, Silicon Carbide or Ceramic                                             |
| <b>Duty:</b>                  | Abrasive applications                                                                                                   |
| <b>Hydro-Static Test:</b>     | 1.5 Times the rated pressure                                                                                            |

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Features:

- Perimeter sealing at 16 Bar.
- Smooth Bottom (No groove).
- No metal parts in contact with flowing slurry.
- Bubble tight shut off.
- No clogging bonnet to impede flow.
- External epoxy or powder coated.
- Easily adapted to fit most types of actuation.
- Low maintenance requirements.
- MSS-SP-81 Face-To-Face.
- Lock out & Switch mountings.
- Live - load packing gland.
- Full-port design & bi-directional.
- Lightweight material for easy handling.
- Rubber lined body or lip seal.
- Robust gate design reduces bending.
- Zero discharge to atmosphere.
- No pressure drop across valve.
- Optional fluorocarbon coated valve gate to reduce friction when stroked.
- PTFE blade wiper.
- Two piece body.
- Non-Rising spindle available.



Zero discharge to atmosphere.  
Full round port design.





## How the Valve Works

The FPVII knife gate valve features a two-piece valve body structure, where two heavy-duty valve bodies secure elastic a wear-resistant rubber around the disc edge, forming a U-shaped bidirectional seal. This U-shaped seal is hidden inside the valve body and wear ring, preventing direct impact with the medium, which greatly extends the seal's lifespan. The sealing rubber has a double-layer structure: The inner seal is designed to cut off the medium flow, while the outer seal ensures that the medium remains inside the valve body, preventing leakage into the environment even after long service periods. This is especially crucial for handling corrosive media.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

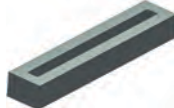
## Applications

The valve is suited for mining and mineral processing, power generation, sand & gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

## Accessories

- Limit switches
- PTFE blade coating
- Various blade materials
- Gate safety guards

## Gland



The high-elastic, molded rubber packing offers better sealing performance and compensation compared to traditional gland packing in knife gate valves. With frequent opening and closing, the packing may experience wear and leakage. High-elastic rubber packing has superior compensatory properties, allowing the seal to be restored with only slight tightening of the packing gland.

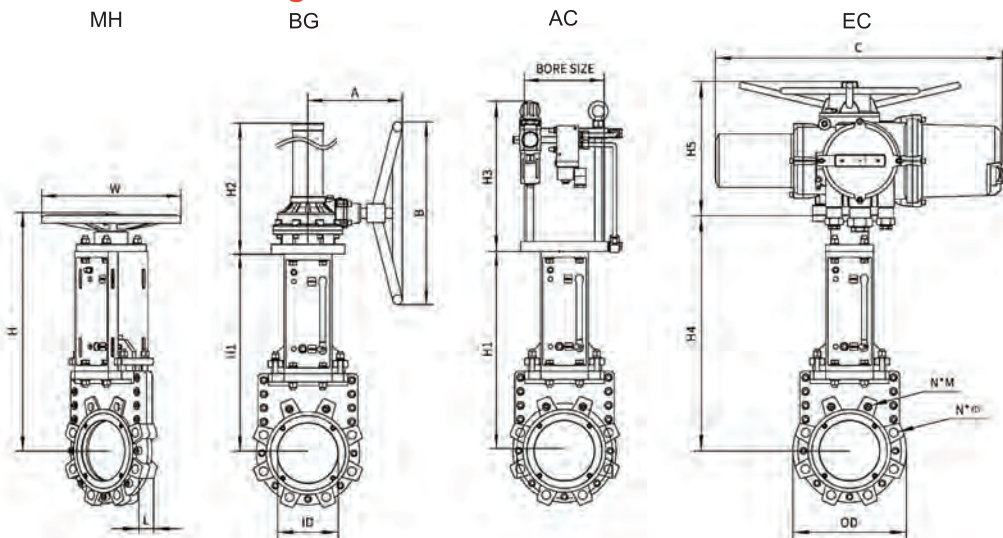
## Replaceable Wear Rings



## Lip Seal Design

Replaceable wear rings are added at the valve's inlet and outlet. These rings can be made from different materials depending on operating conditions, such as wear-resistant rubber rings, ultra-high molecular polyethylene, high-alloy steel, tungsten carbide, and more. The wear rings offer superior wear life and can be replaced independently, significantly reducing the maintenance costs for the entire valve.

## Dimensions & Weights



| DIMENSIONS (mm) |       |     |     |     |     |      |      |     |      |     |     |     |           |      |            |          | WEIGHT (kg) |     |     |     |
|-----------------|-------|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|-----------|------|------------|----------|-------------|-----|-----|-----|
| SIZE            | ID    | OD  | W   | L   | H   | H1   | H2   | H3  | H4   | H5  | A   | B   | BORE SIZE | C    | N*M(UNC)   | N*Ø      | MH          | BG  | AC  | EC  |
| 50              | 50.8  | 160 | 300 | 48  | 405 | 313  | 195  | 217 | 391  | 275 | 210 | 300 | 140       | 557  | 2*5/8-11   | 2*Ø18    | 12          | 23  | 25  | 30  |
| 80              | 76.2  | 190 | 300 | 51  | 462 | 361  | 225  | 242 | 439  | 275 | 210 | 300 | 160       | 557  | 2*5/8-11   | 2*Ø18    | 16          | 26  | 30  | 50  |
| 100             | 101.6 | 230 | 350 | 51  | 505 | 411  | 245  | 267 | 489  | 275 | 210 | 300 | 160       | 557  | 2*5/8-11   | 6*Ø18    | 20          | 30  | 48  | 60  |
| 125             | 125   | 255 | 350 | 57  | 544 | 450  | 260  | 298 | 528  | 275 | 210 | 300 | 200       | 557  | 2*3/4-10   | 6*Ø22    | 30          | 39  | 50  | 100 |
| 150             | 152.4 | 280 | 400 | 57  | 618 | 510  | 270  | 320 | 600  | 275 | 210 | 500 | 200       | 722  | 2*3/4-10   | 6*Ø22    | 35          | 55  | 75  | 111 |
| 200             | 203.2 | 343 | 400 | 70  | 710 | 606  | 345  | 402 | 696  | 275 | 210 | 500 | 250       | 722  | 2*3/4-10   | 6*Ø22    | 60          | 70  | 90  | 120 |
| 250             | 254   | 403 | 550 | 70  | 815 | 732  | 395  | 460 | 822  | 337 | 210 | 500 | 280       | 722  | 4*7/8-9    | 6*Ø26    | 85          | 90  | 120 | 140 |
| 300             | 304.8 | 483 | -   | 76  | -   | 840  | 475  | 520 | 930  | 337 | 233 | 600 | 300       | 722  | 4*7/8-9    | 6*Ø26    | 101         | 120 | 160 | 180 |
| 350             | 336.6 | 535 | -   | 76  | -   | 920  | 525  | 536 | 1035 | 337 | 233 | 600 | 320       | 722  | 4*1-8      | 8*Ø29.5  | 134         | 150 | 180 | 200 |
| 400             | 387.4 | 600 | -   | 89  | -   | 1034 | 586  | 593 | 1149 | 375 | 320 | 600 | 350       | 775  | 6*1-8      | 10*Ø29.5 | 182         | 220 | 250 | 280 |
| 450             | 438.2 | 635 | -   | 89  | -   | 1166 | 636  | 662 | 1281 | 375 | 320 | 600 | 400       | 775  | 6*1-1/8-7  | 10*Ø32.5 | 222         | 300 | 300 | 350 |
| 500             | 489   | 715 | -   | 114 | -   | 1330 | 732  | 736 | 1460 | 460 | 395 | 600 | 450       | 900  | 8*1-1/8-7  | 12*Ø32.5 | 282         | 420 | 350 | 400 |
| 600             | 590.6 | 840 | -   | 114 | -   | 1535 | 832  | 836 | 1665 | 460 | 395 | 600 | 450       | 900  | 8*1-1/4-7  | 12*Ø35.5 | 395         | 500 | 496 | 500 |
| 750             | 743   | 985 | -   | 117 | -   | 1810 | 1040 | 986 | 1940 | 630 | 395 | 600 | 500       | 1027 | 10*1-1/4-7 | 18*Ø35.5 | 500         | 540 | 600 | 700 |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request.  
All dimensions are in millimeters, unless stated otherwise.



## URETHANE LINED SLURRY KNIFE GATE VALVE

Product Code: OM-KGUL

The FPV PU lined Slurry Knife Gate Valve is designed for full on/off abrasive and corrosive applications. The Rubber or Urethane lining is moulded throughout the body and chest area. The lining is flush with the bottom of the valve eliminating any pocket where material can collect. It has a full round port design with zero discharge to atmosphere.

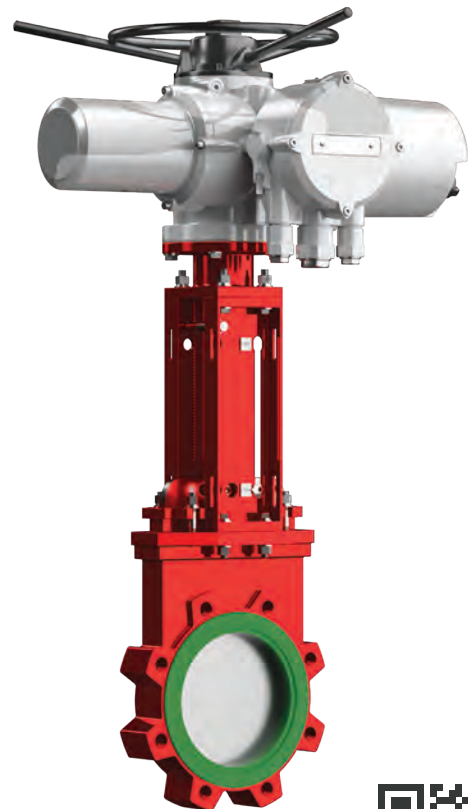
### Product Specifications:

|                                    |                                                                                                                        |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>                 | 2" - 30" (50mm - 750mm)                                                                                                |
| <b>Valve Type:</b>                 | Slurry Knife Gate<br>(MSS-SP-81 Face -to-Face)                                                                         |
| <b>Body Style:</b>                 | Narrow Body (Wafer)                                                                                                    |
| <b>Gate/Blade:</b>                 | 17-4PH Stainless Steel, 316L Stainless Steel, 2205 Duplex Stainless Steel, 2507 Duplex Stainless Steel, C276 HASTELLOY |
| <b>Temperature Range:</b>          | 80°C                                                                                                                   |
| <b>Pressure Rating:</b>            | Up to 240 Psi (16 Bar)                                                                                                 |
| <b>Body Material:</b>              | Cast Ductile Iron, two piece coat Epoxy Painted or Stainless Steel.                                                    |
| <b>Replaceable Deflector Cone:</b> | Rubber, Urethane, High Chrome, Tungsten Carbide, Silicon Carbide or Ceramic                                            |
| <b>Duty:</b>                       | Abrasive applications                                                                                                  |
| <b>Hydro-Static Test:</b>          | 1.5 Times the rated pressure                                                                                           |

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Features:

- Perimeter sealing at 16 Bar.
- Smooth Bottom (No groove).
- No metal parts in contact with flowing slurry.
- Bubble tight shut off.
- No clogging bonnet to impede flow.
- External epoxy or powder coated.
- Easily adapted to fit most types of actuation.
- Low maintenance requirements.
- MSS-SP-81 Face-To-Face.
- Lock out & Switch mountings.
- High-Elastic Rubber Packing Gland.
- Full-port design & bi-directional.
- Lightweight material for easy handling.
- Rubber lined body or Urethane.
- Robust gate design reduces bending.
- Zero discharge to atmosphere.
- No pressure drop across valve.
- Optional fluorocarbon coated valve gate to reduce friction when stroked.
- PTFE blade wiper.
- One piece body.
- Non-Rising spindle available.



Zero discharge to atmosphere.  
Full round port design.



## How the Liner Works

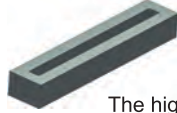
The Liner Seat is flush with the bottom of the port eliminating debris and slurry, allowing a leak free seal when closed. The liner also extends over the flange face essentially creating a gasket type seal when installed in the line, thus eliminating additional gaskets and is replaceable. Zero discharge to atmosphere.

## Applications

The valve is suited for mining and mineral processing, power generation, sand & gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

## Accessories

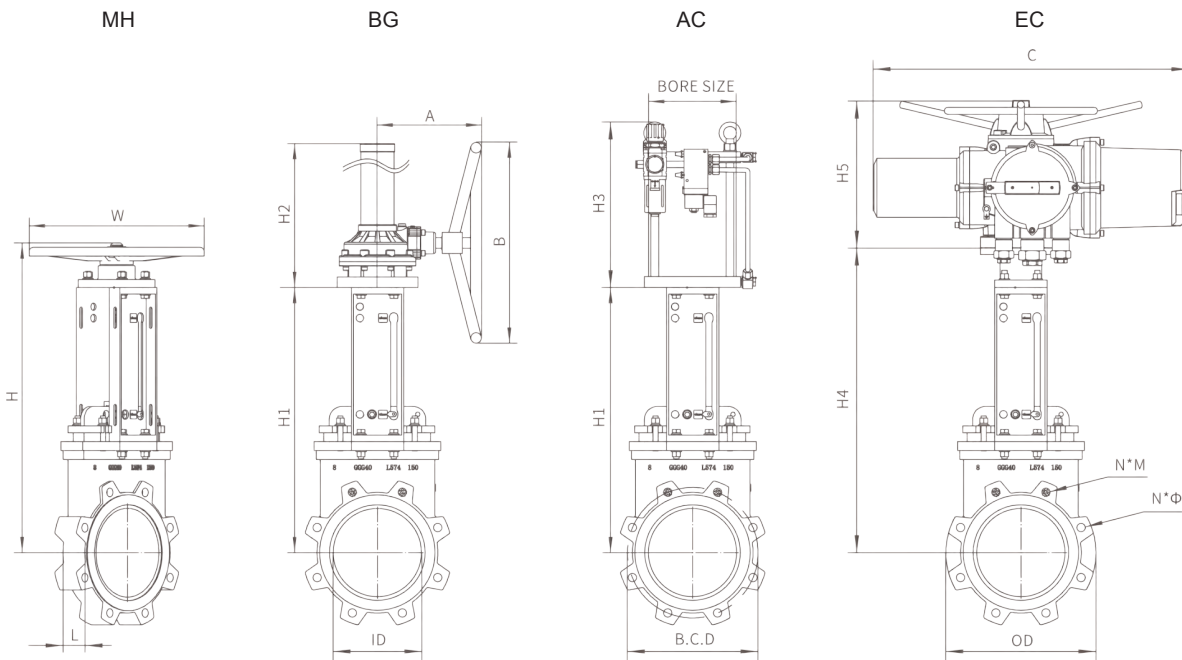
- Limit switches
- PTFE blade coating
- Various blade materials
- Gate safety guards



## Gland

The high-elastic, molded rubber packing offers better sealing performance and compensation compared to traditional gland packing in knife gate valves. With frequent opening and closing, the packing may experience wear and leakage. High-elastic rubber packing has superior compensatory properties, allowing the seal to be restored with only slight tightening of the packing gland.

## Dimensions & Weights

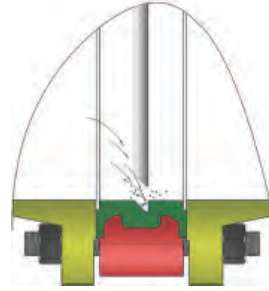


## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Self-Flushing Design

When the valve is shutting off, the beveled edge of the disc generates high velocity turbulence that sweeps out the deposition from the seat, ensuring 100% zero leakage of every cycle.



## Urethane Lined For Easy Installation

One-piece cast in place PU lined slurry Knife Gate Valve ensures bi-directional, bubble-tight shutoff for abrasion.

| DIMENSIONS (mm) |       |     |     |     |     |      |      |     |      |     |     |     |           |      |            |          | WEIGHT (kg) |     |     |     |
|-----------------|-------|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|-----------|------|------------|----------|-------------|-----|-----|-----|
| SIZE            | ID    | OD  | W   | L   | H   | H1   | H2   | H3  | H4   | H5  | A   | B   | BORE SIZE | C    | N*M(UNC)   | N*Ø      | MH          | BG  | AC  | EC  |
| 50              | 50.8  | 160 | 300 | 48  | 405 | 313  | 195  | 217 | 391  | 275 | 210 | 300 | 140       | 557  | 2*5/8-11   | 2*Ø18    | 12          | 23  | 25  | 30  |
| 80              | 76.2  | 190 | 300 | 51  | 462 | 361  | 225  | 242 | 439  | 275 | 210 | 300 | 160       | 557  | 2*5/8-11   | 2*Ø18    | 16          | 26  | 30  | 50  |
| 100             | 101.6 | 230 | 350 | 51  | 505 | 411  | 245  | 267 | 489  | 275 | 210 | 300 | 160       | 557  | 2*5/8-11   | 6*Ø18    | 20          | 30  | 48  | 60  |
| 125             | 125   | 255 | 350 | 57  | 544 | 450  | 260  | 298 | 528  | 275 | 210 | 300 | 200       | 557  | 2*3/4-10   | 6*Ø22    | 30          | 39  | 50  | 100 |
| 150             | 152.4 | 280 | 400 | 57  | 618 | 510  | 270  | 320 | 600  | 275 | 210 | 500 | 200       | 722  | 2*3/4-10   | 6*Ø22    | 35          | 55  | 75  | 111 |
| 200             | 203.2 | 343 | 400 | 70  | 710 | 606  | 345  | 402 | 696  | 275 | 210 | 500 | 250       | 722  | 2*3/4-10   | 6*Ø22    | 60          | 70  | 90  | 120 |
| 250             | 254   | 403 | 550 | 70  | 815 | 732  | 395  | 460 | 822  | 337 | 210 | 500 | 280       | 722  | 4*7/8-9    | 6*Ø26    | 85          | 90  | 120 | 140 |
| 300             | 304.8 | 483 | -   | 76  | -   | 840  | 475  | 520 | 930  | 337 | 233 | 600 | 300       | 722  | 4*7/8-9    | 6*Ø26    | 101         | 120 | 160 | 180 |
| 350             | 336.6 | 535 | -   | 76  | -   | 920  | 525  | 536 | 1035 | 337 | 233 | 600 | 320       | 722  | 4*1-8      | 8*Ø29.5  | 134         | 150 | 180 | 200 |
| 400             | 387.4 | 600 | -   | 89  | -   | 1034 | 586  | 593 | 1149 | 375 | 320 | 600 | 350       | 775  | 6*1-8      | 10*Ø29.5 | 182         | 220 | 250 | 280 |
| 450             | 438.2 | 635 | -   | 89  | -   | 1166 | 636  | 662 | 1281 | 375 | 320 | 600 | 400       | 775  | 6*1-1/8-7  | 10*Ø32.5 | 222         | 300 | 300 | 350 |
| 500             | 489   | 715 | -   | 114 | -   | 1330 | 732  | 736 | 1460 | 460 | 395 | 600 | 450       | 900  | 8*1-1/8-7  | 12*Ø32.5 | 282         | 420 | 350 | 400 |
| 600             | 590.6 | 840 | -   | 114 | -   | 1535 | 832  | 836 | 1665 | 460 | 395 | 600 | 450       | 900  | 8*1-1/4-7  | 12*Ø35.5 | 395         | 500 | 496 | 500 |
| 750             | 743   | 985 | -   | 117 | -   | 1810 | 1040 | 986 | 1940 | 630 | 395 | 600 | 500       | 1027 | 10*1-1/4-7 | 18*Ø35.5 | 500         | 540 | 600 | 700 |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## HIGH PRESSURE WO-WEIR TYPE KBH DIAPHRAGM VALVE

The KLEP WO-Weir Type High Pressure Diaphragm valve consists of the valve body and a diaphragm. The valve closes mechanically via a compressor, which is located above the diaphragm. These valves are well suited for on/off control applications, involving slurries, powders, liquids, granulated materials and applications where scale build up is a problem.

### Product Specifications:

|                             |                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------|
| <b>Size Range:</b>          | 50 - 400mm.                                                                               |
| <b>Valve Type:</b>          | WO-Weir Type KBH (High-pressure)                                                          |
| <b>Elastomer Diaphragm:</b> | Gum Rubber, Red Rubber, EPDM Butyl, Chlorobutyl, Neoprene, Polyurethane, Viton & Hypalon. |
| <b>Valve Internals:</b>     | 304 Stainless Steel spindles, rubber diaphragm (rising spindle only)                      |
| <b>Temperature range:</b>   | -50°C to +140°C                                                                           |
| <b>Pressure rating:</b>     | Up to 360psi (25 Bar)                                                                     |
| <b>Body Material:</b>       | Cast Aluminium, Cast SG Iron                                                              |
| <b>Body Lining:</b>         | As per elastomer diaphragm                                                                |
| <b>Yoke:</b>                | Brass rev-nut with two thrust bearings                                                    |
| <b>Flanged body:</b>        | Drilled to SABS, ANSI, BS or DIN                                                          |
| <b>Hydro-Static Test:</b>   | 1.5 Times the rated pressure                                                              |

### Features:

- 360psi (25 Bar)
- Thrust bearing for ease of opening / closing (handwheel type).
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Lightweight.
- Seals in both directions.
- All types of actuators can be fitted.
- Visible spindle indicator.
- Fast easy diaphragm change.
- Single wearing part.
- Replaceable rubber diaphragm and body lining.
- No glands which require adjustment.
- Flexible re-inforced diaphragm.
- Open/closed indicator cover.
- Lifting Lugs.



WO-Weir Type

25 Bar Rate Diaphragm Valve  
Rising Spindle Only



## How the Valve Operates

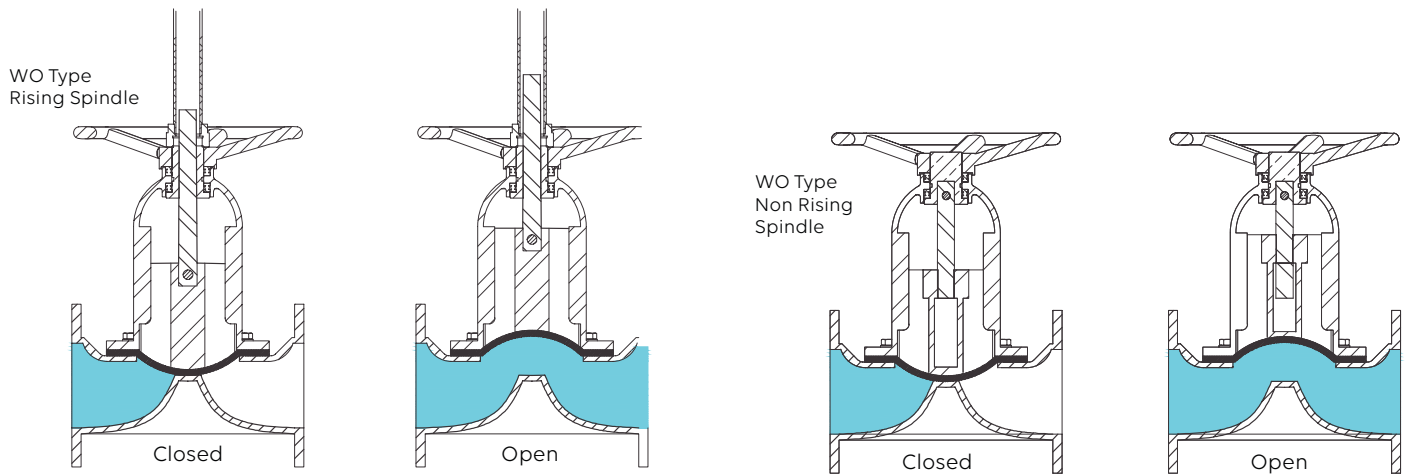
As the valve cycles downwards, the compressor will start to compress the soft rubber diaphragm, from the top of the valve only, therefore achieving 100% drip tight closure, even with solids in the medium.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.



## Dimensions & Weights

| NOMINAL BORE (mm) | A   | B   | C   | WEIGHT (kg) |
|-------------------|-----|-----|-----|-------------|
| 25                | 127 | 121 | 100 | 5           |
| 32                | 146 | 121 | 100 | 10          |
| 40                | 159 | 121 | 100 | 12          |
| 50                | 191 | 181 | 100 | 15          |
| 65                | 216 | 200 | 100 | 20          |
| 80                | 254 | 245 | 300 | 30          |
| 100               | 305 | 267 | 300 | 40          |
| 125               | 356 | 305 | 300 | 50          |
| 150               | 400 | 375 | 500 | 70          |
| 200               | 521 | 410 | 500 | 120         |
| 250               | 635 | 559 | 500 | 170         |
| 300               | 749 | 635 | 600 | 420         |
| 350               | 980 | 664 | 600 | 500         |

Dimensions and weights are for guidance only - detailed dimension drawings are available on request. All dimensions are in millimeters, unless otherwise stated.

| PART | DESCRIPTION       |
|------|-------------------|
| 1    | Body/Bonnet       |
| 2    | Diaphragm         |
| 3    | Air Connection    |
| 4    | Valve Body Lining |
| 5    | Bolts and Nuts    |
| 6    | Paint             |
| 7    | Handwheel         |
| 8    | Rev Nut           |

## Valve Diaphragm

| Grade | Material       | Colour | Shore Hardness | Temp °C        |
|-------|----------------|--------|----------------|----------------|
| NA    | Natural Rubber | White  | 65 - 75        | -30°C to 80°C  |
| Ni    | Nitrile        | Yellow | 65 - 75        | -30°C to 80°C  |
| BY    | Butyl          | Blue   | 60 - 70        | -25°C to 95°C  |
| NE    | Neoprene       | Red    | 60 - 70        | -25°C to 120°C |
| HY    | Hypalon        | Green  | 60 - 70        | -15°C to 100°C |
| V     | Viton          | Pink   | 70 - 80        | -5°C to 150°C  |
| PU    | Polyurethane   | Black  | 80 - 90        | -5°C to 80°C   |





## STRAIGHT THROUGH KB DIAPHRAGM VALVE

The KLEP Straight Through Diaphragm valve consists of the valve body and a diaphragm. The valve closes mechanically via a compressor, which is located above the diaphragm. These valves are well suited for on/off control applications, involving slurries, powders, liquids, granulated materials and applications where scale build up is a problem.

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                             |                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------|
| <b>Size Range:</b>          | 25 - 400mm.                                                                               |
| <b>Valve Type:</b>          | Straight Through                                                                          |
| <b>Elastomer Diaphragm:</b> | Gum Rubber, Red Rubber, EPDM Butyl, Chlorobutyl, Neoprene, Polyurethane, Viton & Hypalon. |
| <b>Valve Internals:</b>     | 304 Stainless Steel spindles, rubber diaphragm                                            |
| <b>Temperature range:</b>   | -50°C to +140°C                                                                           |
| <b>Pressure rating:</b>     | Up to 240psi (16 Bar)                                                                     |
| <b>Body Material:</b>       | Cast Aluminium, Cast SG Iron                                                              |
| <b>Body Lining:</b>         | Variety of linings available                                                              |
| <b>Flanged body:</b>        | Drilled to SABS, ANSI, BS or DIN                                                          |
| <b>Hydro-Static Test:</b>   | 1.5 Times the rated pressure                                                              |

### Features:

- 240psi (16 Bar)
- Rising or non-rising spindle.
- Long operating life.
- Reduced bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Lightweight.
- Seals in both directions.
- All types of actuators can be fitted.
- Fast easy diaphragm change.
- Single wearing part.
- Replaceable rubber diaphragm and body lining.
- No glands which require adjustment.
- Flexible re-inforced diaphragm.
- Lifting Lugs.



## How the Valve Operates

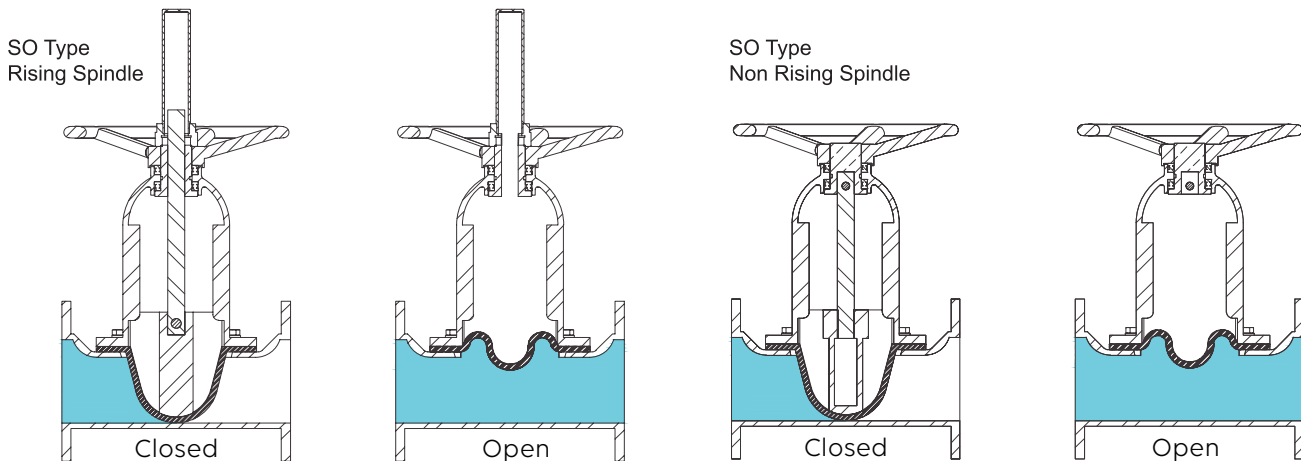
As the valve cycles downwards, the compressor will start to compress the soft rubber diaphragm, from the top of the valve only, therefore achieving 100% drip tight closure, even with solids in the medium.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.



## Dimensions & Weights

|     | NOMINAL BORE (mm) |     |     |  |  | WEIGHT (kg) |
|-----|-------------------|-----|-----|--|--|-------------|
|     | A                 | B   | C   |  |  |             |
| 25  | 127               | 121 | 100 |  |  | 5           |
| 32  | 146               | 121 | 100 |  |  | 10          |
| 40  | 159               | 121 | 100 |  |  | 12          |
| 50  | 191               | 181 | 100 |  |  | 15          |
| 65  | 216               | 200 | 100 |  |  | 20          |
| 80  | 254               | 245 | 300 |  |  | 30          |
| 100 | 305               | 267 | 300 |  |  | 40          |
| 125 | 356               | 305 | 300 |  |  | 50          |
| 150 | 400               | 375 | 500 |  |  | 70          |
| 200 | 521               | 410 | 500 |  |  | 120         |
| 250 | 635               | 559 | 500 |  |  | 170         |
| 300 | 749               | 635 | 600 |  |  | 420         |
| 350 | 980               | 664 | 600 |  |  | 500         |

Dimensions and weights are for guidance only - detailed dimension drawings are available on request. All dimensions are in millimeters, unless otherwise stated.

## Valve Diaphragm

| Grade | Material       | Colour | Shore Hardness | Temp °C        |
|-------|----------------|--------|----------------|----------------|
| NA    | Natural Rubber | White  | 65 - 75        | -30°C to 80°C  |
| Ni    | Nitrile        | Yellow | 65 - 75        | -30°C to 80°C  |
| BY    | Butyl          | Blue   | 60 - 70        | -25°C to 95°C  |
| NE    | Neoprene       | Red    | 60 - 70        | -25°C to 120°C |
| HY    | Hypalon        | Green  | 60 - 70        | -15°C to 100°C |
| V     | Viton          | Pink   | 70 - 80        | -5°C to 150°C  |
| PU    | Polyurethane   | Black  | 80 - 90        | -5°C to 80°C   |



## WEIR TYPE A DIAPHRAGM VALVE

The KLEP Weir Type Valve can safely handle a line pressure of up to 1600kPa (16 Bar) and they are tested to 2500kPa (25 Bar). All bodies and bonnets are made from high grade SG42 Cast Iron and are suitable for lining and various rubber, urethane, ceramic, Halar and Fluoropolymers like PTFE and EXTPE.

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                             |                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------|
| <b>Size Range:</b>          | 50 - 350mm.                                                                               |
| <b>Valve Type:</b>          | Rising Spindle and non-rising spindle                                                     |
| <b>Elastomer Diaphragm:</b> | Gum Rubber, Red Rubber, EPDM Butyl, Chlorobutyl, Neoprene, Polyurethane, Viton & Hypalon. |
| <b>Valve Internals:</b>     | 304 Stainless Steel spindles, rubber diaphragm                                            |
| <b>Temperature range:</b>   | -50°C to +140°C                                                                           |
| <b>Pressure rating:</b>     | Up to 240psi (16 Bar)                                                                     |
| <b>Body Material:</b>       | Cast Aluminium, Cast SG Iron                                                              |
| <b>Body Lining:</b>         | Variety of linings available                                                              |
| <b>Threaded Body:</b>       | 25mm to 80mm                                                                              |
| <b>Flanged body:</b>        | Drilled to SABS, ANSI, BS or DIN                                                          |
| <b>Hydro-Static Test:</b>   | 1.5 Times the rated pressure                                                              |

### Features:

- Valve can be installed in any position.
- Housing acts as a built in indicator.
- Long operating life.
- Reduced bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Lightweight.
- Seals in both directions.
- High flexible diaphragm designed to reduce closing forces & improved full open recovery.
- Enclosed body protects diaphragm from the environment and contaminants in the event of diaphragm failure.
- Fast easy diaphragm change.
- Single wearing part.
- No gland which requires adjustment.
- Pneumatic & hydraulic options.
- Ideal for remote locations.



## How the Valve Operates

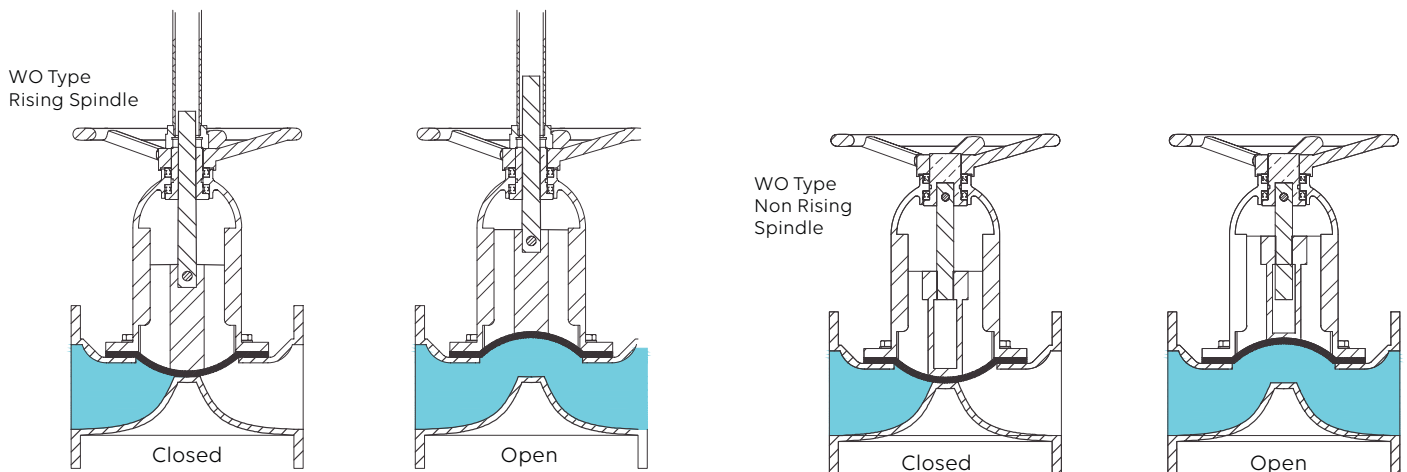
As the valve cycles downwards, the compressor will start to compress the soft rubber diaphragm, from the top of the valve only, therefore achieving 100% drip tight closure, even with solids in the medium.

## Actuators

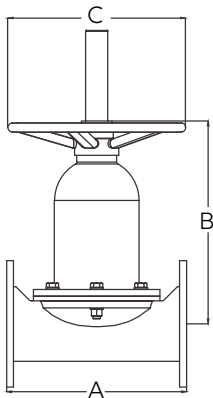
All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

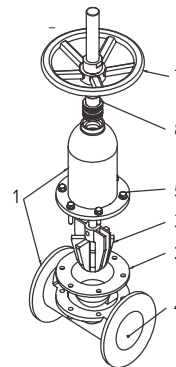
The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.



## Dimensions & Weights



| Valve Size (mm) | F/F |     |     | WEIGHT (kg) |           |
|-----------------|-----|-----|-----|-------------|-----------|
|                 | A   | B   | C   | Steel       | Aluminium |
| 25              | 127 | 121 | 80  | 5           | 2         |
| 35              | 146 | 121 | 80  | 6           | 2         |
| 40              | 159 | 121 | 80  | 10          | 3         |
| 50              | 191 | 181 | 300 | 12          | 4         |
| 65              | 216 | 200 | 300 | 20          | 8         |
| 80              | 254 | 245 | 300 | 30          | 10        |
| 100             | 305 | 267 | 400 | 35          | 12        |
| 125             | 356 | 305 | 400 | 50          | 15        |
| 150             | 406 | 375 | 400 | 70          | 20        |
| 200             | 521 | 410 | 500 | 100         | 30        |
| 250             | 635 | 559 | 500 | 185         | 40        |
| 300             | 749 | 635 | 600 | 200         | 60        |
| 350             | 980 | 663 | 600 | 450         | 100       |



|   | PART              | DESCRIPTION                                                  |
|---|-------------------|--------------------------------------------------------------|
| 1 | Body/Bonnet       | Cast Aluminium or SG Iron                                    |
| 2 | Diaphragm         | Rubber or Urethane                                           |
| 3 | Compressor        | SG Iron                                                      |
| 4 | Valve Body Lining | Rubber, Urethane, Halar or Ceramic                           |
| 5 | Bolts and Nuts    | Cadmium Plated Steel                                         |
| 6 | Paint             | Epoxy Powder coated, Rilsan Lined or Painted to Custom Spec. |
| 7 | Handwheel         | Cast SG Iron                                                 |
| 8 | Rev Nut           | Brass                                                        |

Dimensions and weights are for guidance only - detailed dimension drawings are available on request. All dimensions are in millimeters, unless otherwise stated.

## Valve Diaphragm

| Grade | Material       | Colour | Shore Hardness | Temp °C        |
|-------|----------------|--------|----------------|----------------|
| NA    | Natural Rubber | White  | 65 - 75        | -30°C to 80°C  |
| Ni    | Nitrile        | Yellow | 65 - 75        | -30°C to 80°C  |
| BY    | Butyl          | Blue   | 60 - 70        | -25°C to 95°C  |
| NE    | Neoprene       | Red    | 60 - 70        | -25°C to 120°C |
| HY    | Hypalon        | Green  | 60 - 70        | -15°C to 100°C |
| V     | Viton          | Pink   | 70 - 80        | -5°C to 150°C  |
| PU    | Polyurethane   | Black  | 80 - 90        | -5°C to 80°C   |





## SWING CHECK VALVE

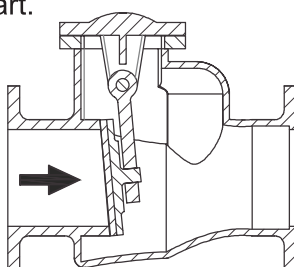
The KLEP Swing Check Valves are designed to swing out of the line of fluid flow at maximum capacity. The seat is off-set from horizontal and is hinge positioned so that the gravitational action causes the valve to close in proportion to the reduction in fluid flow. The valves can be installed either vertically or horizontally. As an optional extra, an extended hinge pin permits the fitting of an outside lever and weight to effect closure immediately, thereby eliminating slamming. A door position indicator can also be fitted.

### Product Specifications:

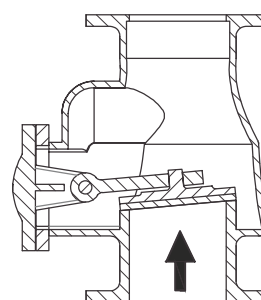
|                               |                                         |
|-------------------------------|-----------------------------------------|
| <b>Size Range:</b>            | 50 - 600mm (2-24")                      |
| <b>Valve Type:</b>            | Swing Check                             |
| <b>Body Style:</b>            | Flanged                                 |
| <b>Temperature Range:</b>     | -10°C to +80°C                          |
| <b>Pressure Rating:</b>       | Up to 360psi (25 Bar)                   |
| <b>Body Material:</b>         | Cast Ductile Iron, 2 coat epoxy painted |
| <b>Swing Disc:</b>            | Carbon or Stainless Steel               |
| <b>Body Lining:</b>           | Rubber                                  |
| <b>Manufactured Standard:</b> | SABS 1551                               |
| <b>Hydro-Static Test:</b>     | 1.5 Times the rated pressure            |

### Features:

- Perfect sealing.
- Low head losses.
- Minimum back pressure for tightness 0.3 to 0.5 Bar.
- Removable bonnet for cleaning or replacing of check disc.
- Maintenance free.
- Full bore.
- Silent, non-slam, reduces pipe hammer.
- Simple construction - one moving part.
- Valve body can be lined.
- Lifting Lugs.



Horizontal Installation



Vertical Installation



## Valve Design

KLEP Swing Check Valves are manufactured in sizes from 50mm to 600mm with options of bronze trim or all iron versions and working pressure up to 25 Bar.

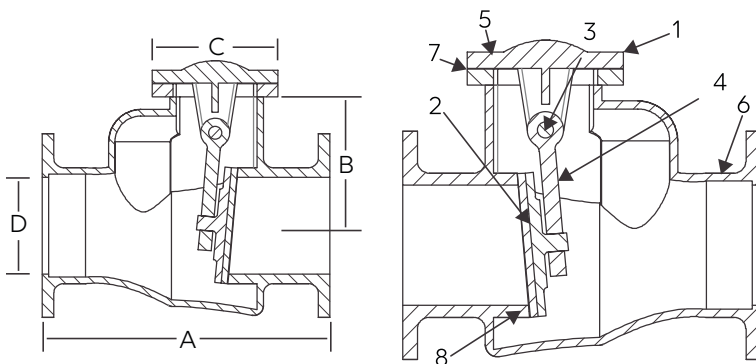
## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent.

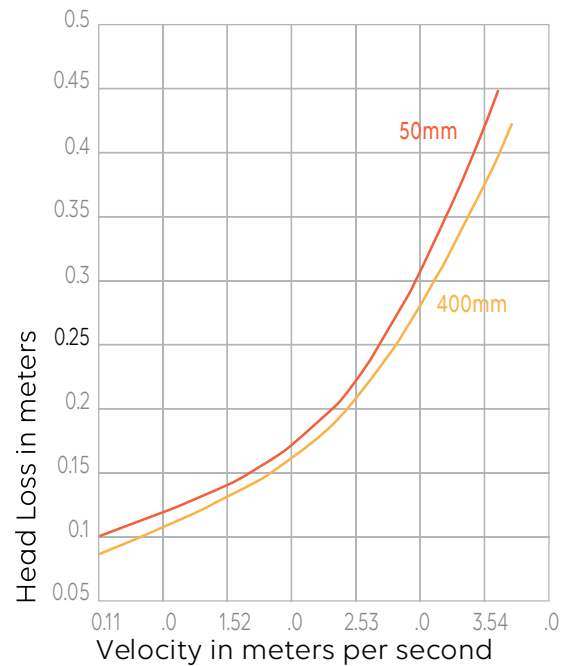
## Pressure ratings and Valve Fig. Numbers

| Press. Class | Valve Size mm | Seat Press. Rating | Body Press. Rating | Flange PN | Fig. No. Bronze Trim | Fig. No. All Iron |
|--------------|---------------|--------------------|--------------------|-----------|----------------------|-------------------|
| 10           | 50 - 400      | 10 Bar             | 20 Bar             | 16        | 6154                 | 6254              |
| 16           | 50 - 400      | 16 Bar             | 32 Bar             | 16        | 6154                 | 6254              |
| 25           | 50 - 400      | 25 Bar             | 50 Bar             | 25        | 6154                 | 6254              |

## Dimensions & Weights



## VALVE HEAD LOSS VALUES



| SIZE (mm) | F/F A                              | B   | C   | D   | WEIGHT (kg) |
|-----------|------------------------------------|-----|-----|-----|-------------|
| 50        | 230                                | 135 | 181 | 50  | 20          |
| 80        | 305                                | 176 | 229 | 80  | 40          |
| 100       | 355                                | 196 | 267 | 100 | 50          |
| 150       | 445                                | 246 | 333 | 150 | 100         |
| 200       | 535                                | 310 | 413 | 200 | 150         |
| 250       | 635                                | 366 | 502 | 250 | 250         |
| 300       | 760                                | 402 | 584 | 300 | 350         |
| 350       | 865                                | 485 | 610 | 350 | 590         |
| 400       | 865                                | 560 | 673 | 400 | 750         |
| 450       | Larger sizes available on request. |     |     |     |             |
| 500       |                                    |     |     |     |             |
| 600       |                                    |     |     |     |             |

| PART | DESCRIPTION                                                           |
|------|-----------------------------------------------------------------------|
| 1    | Body/Cover<br>Cast SG Iron                                            |
| 2    | Check disc<br>Cast SG Iron                                            |
| 3    | Hinge<br>Cast SG Iron                                                 |
| 4    | Hinge pin<br>304 Stainless Steel                                      |
| 5    | Bolts and nuts<br>Cadmium plated steel                                |
| 6    | Paint<br>Epoxy powder coated, Rilsan lined or painted to custom spec. |
| 7    | Body gasket<br>'O' Ring                                               |
| 8    | Seating<br>Stainless Steel, Chrome or Bronze                          |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated.

## WEDGE GATE VALVE

The KLEP Wedge Gate Valve is a medium duty general purpose Wedge Gate Valve that is suitable for various applications in mining, general industry, agriculture, fishing industry and for general marine applications. The KLEP Wedge Gate Valve is ideal for use in controlling a wide variety of liquids and sand fluids. Trouble-free performance in continuous use applications ensures minimum maintenance and downtime.

### Product Specifications:

|                               |                                   |
|-------------------------------|-----------------------------------|
| <b>Size Range:</b>            | 50 - 450mm (2"-18")               |
| <b>Valve Type:</b>            | Wedge Gate Valve                  |
| <b>Body Style:</b>            | Flanged                           |
| <b>Temperature Range:</b>     | 80°C                              |
| <b>Pressure Rating:</b>       | PN16 and PN25                     |
| <b>Body Material:</b>         | Cast SG Iron                      |
| <b>Gate Material:</b>         | SG Iron                           |
| <b>Body Lining:</b>           | Unlined. (Rubber lined optional). |
| <b>Paint:</b>                 | 2 Coat Epoxy Paint                |
| <b>Spindle:</b>               | 304 Stainless Steel               |
| <b>Manufactured Standard:</b> | SABS 664                          |
| <b>Duty:</b>                  | Abrasive Applications             |
| <b>Hydro-Static Test:</b>     | 1.5 Times the rated pressure      |

### Features:

- Valve body can be lined.
- Seals in both directions.
- No blocking or leakage.
- Metal seated gate valve.
- Epoxy coated.
- Seats hydraulic pressed in the wedge.
- Seat ring out of flow when in open position.
- Rising and non-rising spindle.
- Back seat to re-pack gland packing under pressure.
- Closing direction: clockwise or anti-clockwise.
- Full bore with low head-loss characteristics.
- Lifting Lugs.



## Valve Design

The KLEP Valve is a metal sealed wedge gate valve manufactured to SABS 664 standards. Suitable for isolation and scouring purposes.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

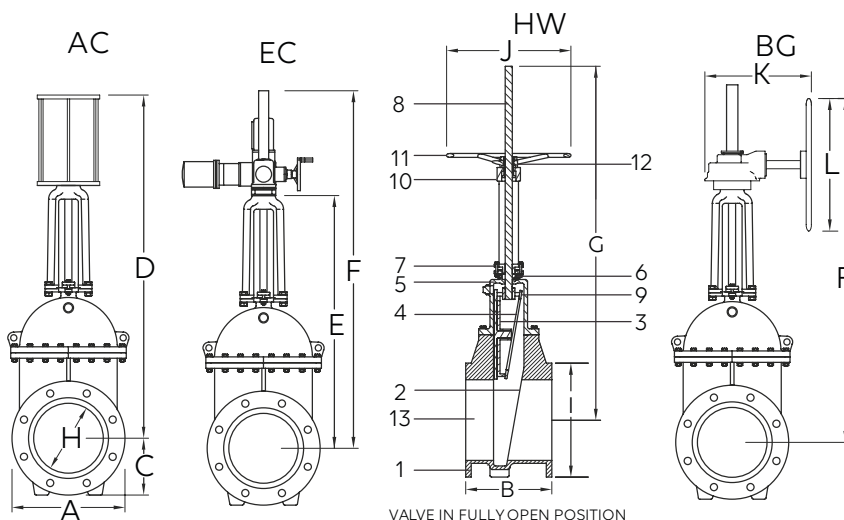
## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, water purification.

## Accessories

- Bellow and stem protective cover.
- Flushing Ports.
- Limit switches.
- Manual lock out option.

## Dimensions & Weights



|    | PART          | DESCRIPTION                      |
|----|---------------|----------------------------------|
| 1  | Body          | Cast SG Iron                     |
| 2  | Body Seat     | Hydraulically pressed into wedge |
| 3  | Wedge Seat    | Brass                            |
| 4  | Wedges        | Cast SG Iron                     |
| 5  | Bonnet        | Cast SG Iron                     |
| 6  | Packing       | Graphite in Rope                 |
| 7  | Gland         | Cast SG Iron                     |
| 8  | Spindle       | Stainless Steel                  |
| 9  | Yoke Assembly | Mild Steel                       |
| 10 | Spindle Nut   | Bronze                           |
| 11 | Handwheel     | Cast SG Iron                     |
| 12 | Handwheel Nut | Carbon Steel                     |
| 13 | Body Lining   | Rubber, Urethane or Ceramic      |

| VALVE SIZE (mm) | A   | B   | C   | AC   | EC   | BG   | HW   | H   | I   | J   | K   | L   | WEIGHT (kg) |
|-----------------|-----|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-------------|
| 50              | 170 | 216 | 85  | 559  | 300  | 370  | 5500 | 50  | 170 | 300 | 350 | 300 | 50          |
| 80              | 200 | 229 | 100 | 659  | 370  | 440  | 542  | 80  | 200 | 300 | 350 | 300 | 80          |
| 100             | 220 | 254 | 110 | 710  | 380  | 470  | 695  | 100 | 220 | 400 | 350 | 400 | 90          |
| 150             | 285 | 280 | 142 | 1003 | 610  | 661  | 900  | 150 | 285 | 500 | 350 | 400 | 90          |
| 200             | 340 | 317 | 170 | 1224 | 770  | 845  | 1104 | 200 | 340 | 500 | 350 | 400 | 100         |
| 250             | 405 | 356 | 202 | 1411 | 905  | 1014 | 1360 | 250 | 405 | 500 | 350 | 400 | 250         |
| 300             | 460 | 380 | 230 | 1615 | 1012 | 1120 | 1560 | 300 | 460 | 500 | 350 | 400 | 300         |
| 350             | 520 | 470 | 260 | 1745 | 1140 | 1230 | 1840 | 350 | 520 | 600 | 350 | 500 | 450         |
| 400             | 580 | 470 | 290 | 2016 | 1280 | 1355 | 1940 | 400 | 580 | 600 | 350 | 500 | 500         |
| 450             | 640 | 485 | 320 | 2300 | 1487 | 1600 | 2180 | 450 | 640 | 700 | 500 | 500 | 600         |

Contact AFS for larger sizes. Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.





The KLEP Pinch Valve consists of a tough, but flexible full bore sleeve, which forms part of the pipeline. The valve is closed mechanically via movement of the Pinch Bars located on opposite sides of the sleeve. The core of the FPV Pinch Valve is the sleeve. The sleeve is reinforced with high-strength fabric. The valves are well suited for on/off and throttling control applications where scale build up is a problem.

## Product Specifications:

|                           |                                        |
|---------------------------|----------------------------------------|
| <b>Size Range:</b>        | 50 - 600mm (2"-24")                    |
| <b>Valve Type:</b>        | Pinch Valve Open Frame                 |
| <b>Body Style:</b>        | Flanged, Fabricated Steel              |
| <b>Temperature Range:</b> | 80°C                                   |
| <b>Pressure Rating:</b>   | Up to 240psi (16 Bar)                  |
| <b>Sleeve Material:</b>   | Natural Rubber, Butyl or Neoprene      |
| <b>Pinch Bars:</b>        | Carbon Steel Bar Stock                 |
| <b>Pinch Bar Guides:</b>  | Stainless Steel with protective covers |
| <b>Duty:</b>              | Abrasive Applications                  |
| <b>Hydro-Static Test:</b> | 1.5 Times the rated pressure           |

## Features:

- Low-cost pinch valve design.
- Seals in both directions.
- No blocking or leakage.
- Open frame design is light weight, adaptable and economical.
- Epoxy coated.
- Fabricated Steel frame.
- Robust construction.
- Rising spindle with dust cover.
- Bellows.
- Easy maintenance.
- Full bore.
- No packing to maintain.
- Sleeve is only vetted part.
- Face-to-face compatible with Diaphragm Valves.
- Sleeves are easily replaced.
- Sleeves are available in a variety of materials.
- Center pinch operation.
- All types of actuators can be fitted.



## How the Valve Works

In the closed position, the upper and low bars compress the sleeve to form a bubble tight seal, even on entrapped debris. Because of the FPV Open Frame design, the open/closed position of the valve can be viewed by sight. The valve can be used to throttle the flow.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

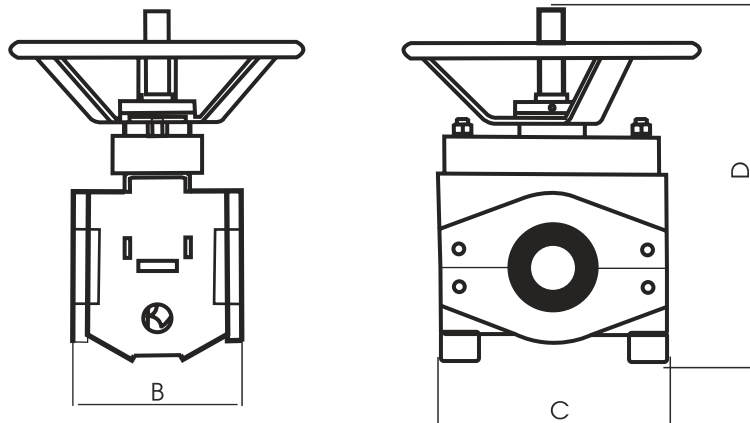
The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper..

## Sleeve Material

- Natural Red Rubber
- Natural Black Rubber
- Neoprene Rubber
- Nitrile Rubber
- EPDM Rubber
- Reduced port sleeve for throttling applications.
- Urethane



## Dimensions & Weights



| Valve Size | A/B F/F | C    | D    | E   | SABS F/F |
|------------|---------|------|------|-----|----------|
| 50         | 170     | 240  | 375  | 300 | 191      |
| 80         | 220     | 290  | 480  | 300 | 254      |
| 100        | 250     | 320  | 520  | 400 | 305      |
| 150        | 255     | 400  | 630  | 400 | 406      |
| 200        | 400     | 420  | 630  | 450 | 521      |
| 250        | 500     | 500  | 770  | 450 | 635      |
| 300        | 600     | 600  | 900  | 600 | 749      |
| 350        | 685     | 700  | 1070 | 600 | 980      |
| 400        | 785     | 800  | 1230 | 600 | -        |
| 450        | 880     | 900  | 1430 | 700 | -        |
| 500        | 980     | 1000 | 1560 | 700 | -        |
| 600        | 1180    | 1100 | 1690 | 700 | -        |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.



## STRAIGHT-THROUGH PINCH VALVE

The KLEP Straight-Through Pinch Valve consists of a tough, but flexible full bore sleeve, which forms part of the pipeline. The valve is closed mechanically via movement of a pinch valve gate located above the sleeve. The core of the KLEP Straight-Through Pinch Valve is the sleeve. The valves are well suited for on/off and throttling control applications involving slurries, powders, liquids, granulated materials and applications where scale build is a problem.

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | 50 - 350mm (2"-14")                                                                 |
| <b>Valve Type:</b>        | Pinch Valve Enclosed Body                                                           |
| <b>Body Style:</b>        | Cast Aluminium or Cast SG Iron                                                      |
| <b>Temperature Range:</b> | -50°C to 80°C                                                                       |
| <b>Pressure Rating:</b>   | Up to 240psi (16 Bar)                                                               |
| <b>Sleeve Material:</b>   | Natural Rubber, Butyl or Neoprene                                                   |
| <b>Thrust Bearings:</b>   | To reduce operating torque (handwheel type).                                        |
| <b>Flanged:</b>           | Drilled to SABS, ANSI B16.5, BS or DIN                                              |
| <b>Valve Intervals:</b>   | 304 Stainless Steel Spindles, Rubber Sleeve and Cast Aluminium Pinch Gate (Plunger) |

**FACE TO FACE COMPATIBLE WITH DIAPHRAGM VALVES**

### Features:

The KLEP Pinch Valve consists of an enclosed body with easily replaceable, flexible rubber sleeves.

- Seals in both directions.
- Rising and non rising spindle types.
- Full bore, low friction loss.
- Thrust bearing for ease of opening and closing (handwheel type).
- Long operating life.
- 100% drip tight closure even with solids in the medium.
- Light weight.
- High flexibility sleeve design reduces closing forces, improves recovery to full open position.
- Enclosed body protects the sleeve from the environment.
- Fast and easy sleeve change.
- Single wearing part.
- Positive opening tags.
- Open/closed sight glass indicator.



Pneumatically actuated valve



## How the Valve Operates

As the valve cycles downwards, the Pinch Mechanism will start to compress the soft rubber sleeve, from the top of the valve only, Therefore achieving a 100% drip tight closure, even with solids in the medium.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent.

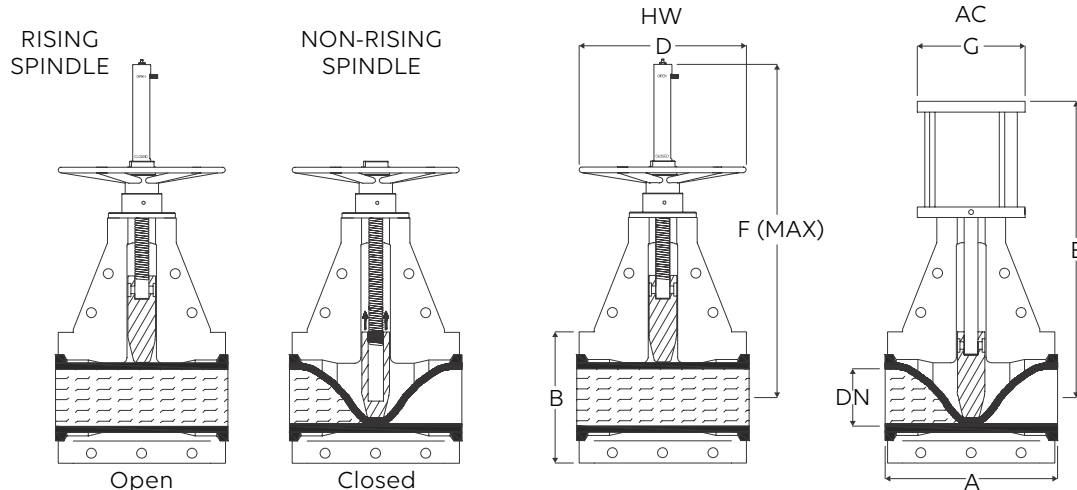
## Sleeve Material

KLEP offers the following alternative sleeve materials, providing chemical and abrasive resistance to most media such as:

- Natural Red Rubber
- Natural Black Rubber
- Neoprene Rubber
- Nitrile Rubber
- EPDM Rubber
- Reduced port sleeve for throttling applications.



## Dimensions & Weights



| Valve Size | A - BS5156<br>Face To Face (mm) | B<br>(mm) | C<br>(mm) | D<br>(mm) | E<br>(mm) | F<br>(mm) | G<br>(mm) | Weight (kg) |     |
|------------|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----|
|            |                                 |           |           |           |           |           |           | HW          | AC  |
| 50         | 190                             | 165       | 85        | 300       | 435       | 230       | 100       | 20          | 25  |
| 80         | 254                             | 200       | 105       | 300       | 545       | 290       | 100       | 30          | 35  |
| 100        | 305                             | 220       | 120       | 400       | 650       | 320       | 160       | 40          | 45  |
| 125        | 356                             | 250       | 130       | 400       | 780       | 400       | 160       | 50          | 60  |
| 150        | 406                             | 285       | 140       | 400       | 850       | 450       | 250       | 60          | 70  |
| 200        | 521                             | 340       | 175       | 500       | 900       | 600       | 300       | 110         | 120 |
| 250        | 635                             | 405       | 205       | 500       | 1000      | 950       | 300       | 200         | 210 |
| 300        | 747                             | 460       | 250       | 600       | 1200      | 1150      | 350       | 300         | 350 |
| 350        | 749                             | 520       | 300       | 600       | 1400      | 1300      | 400       | 450         | 500 |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.



## WEIR TYPE STAINLESS STEEL DIAPHRAGM VALVE

The Weir Type Stainless Steel Diaphragm valve is special for controlling the non corrosive or the strong corrosive media. The body's inner surface is unlined or lined with different fluorine plastics which can be selected to suit with different working temperatures and fluid pipelines.

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                             |                                                |
|-----------------------------|------------------------------------------------|
| <b>Size Range:</b>          | 50 - 350mm.                                    |
| <b>Valve Type:</b>          | Rising Spindle and non-rising spindle          |
| <b>Elastomer Diaphragm:</b> | Fluorine plastic                               |
| <b>Valve Internals:</b>     | 304 Stainless Steel spindles, rubber diaphragm |
| <b>Temperature range:</b>   | 85°C to +150°C                                 |
| <b>Pressure rating:</b>     | PN0.6; PN1.0; PN1.6                            |
| <b>Body Material:</b>       | Stainless Steel                                |
| <b>Body Lining:</b>         | Unlined, Fluorine Plastic                      |
| <b>Flanged body:</b>        | Drilled to SABS, ANSI, BS or DIN               |
| <b>Hydro-Static Test:</b>   | 1.5 Times the rated pressure                   |

### Features:

- Valve can be installed in any position.
- Housing acts as a built in indicator.
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Lightweight.
- Seals in both directions.
- High flexible diaphragm designed to reduce closing forces & improved full open recovery.
- Enclosed body protects diaphragm from the environment and contaminants in the event of diaphragm failure.
- Fast easy diaphragm change.
- Single wearing part.
- No gland which requires adjustment.
- Pneumatic & hydraulic options.
- Ideal for remote locations.



WO Type



# WEIR TYPE STAINLESS STEEL DIAPHRAGM VALVE

## How the Valve Operates

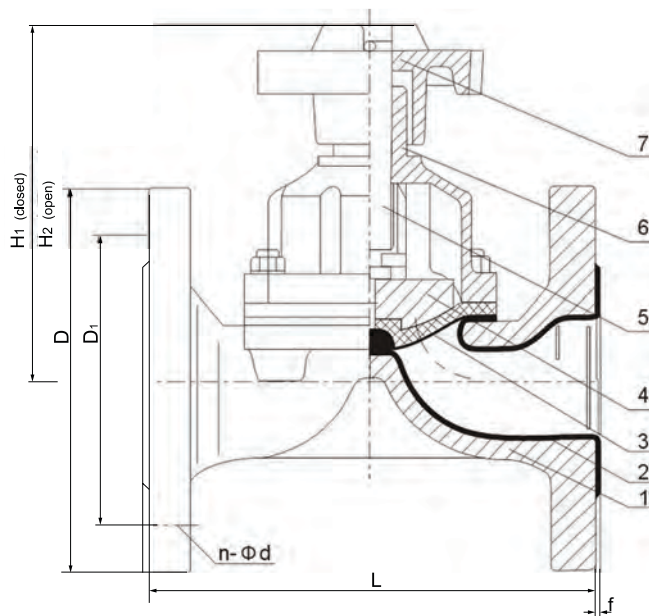
As the valve cycles downwards, the compressor will start to compress the soft rubber diaphragm, from the top of the valve only, therefore achieving 100% drip tight closure, even with solids in the medium.

## Actuators

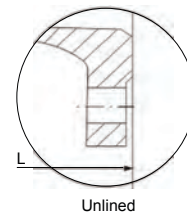
All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.



|   | PART        | DESCRIPTION               |
|---|-------------|---------------------------|
| 1 | Body        | Stainless Steel           |
| 2 | Body Lining | Unlined, Fluorine Plastic |
| 3 | Diaphragm   | Fluorine Plastic          |
| 4 | Disc        | Cast Iron                 |
| 5 | Stem        | Stainless Steel           |
| 6 | Bonnet      | Stainless Steel           |
| 7 | Handwheel   | Cast SG Iron              |



## Dimensions & Weights

| Valve Size<br>(DN) | Nominal Pressure | Working Pressure | L   | D   | D <sub>1</sub> | n-Ød  | f | H <sub>1</sub> | H <sub>2</sub> | D <sub>0</sub> | Weight   |
|--------------------|------------------|------------------|-----|-----|----------------|-------|---|----------------|----------------|----------------|----------|
|                    | MPa              | MPa              |     |     |                |       |   |                |                |                | kg/kilos |
| 15                 | 1.6              | 1.6              | 108 | 95  | 65             | 4-14  | 2 | 90             | 99             | 66             | 2        |
| 20                 |                  |                  | 117 | 105 | 75             | 4-14  | 2 | 93             | 103            | 66             | 3        |
| 25                 |                  |                  | 127 | 115 | 85             | 4-14  | 2 | 100            | 112            | 66             | 4        |
| 32                 |                  |                  | 146 | 140 | 100            | 4-18  | 2 | 127            | 144            | 96             | 6.5      |
| 40                 |                  |                  | 159 | 150 | 110            | 4-18  | 2 | 136            | 156            | 96             | 7.5      |
| 50                 |                  |                  | 190 | 165 | 125            | 4-18  | 2 | 151            | 177            | 118            | 10       |
| 65                 | 1.0              | 1.0              | 216 | 185 | 145            | 4-18  | 2 | 183            | 213            | 165            | 16       |
| 80                 |                  |                  | 254 | 200 | 160            | 8-18  | 2 | 198            | 273            | 230            | 23.5     |
| 100                |                  |                  | 305 | 220 | 180            | 8-18  | 2 | 266            | 320            | 280            | 34       |
| 125                |                  |                  | 356 | 250 | 210            | 8-18  | 3 | 319            | 386            | 280            | 44       |
| 150                |                  |                  | 406 | 285 | 240            | 8-22  | 3 | 380            | 453            | 368            | 67.5     |
| 200                |                  | 0.6              | 521 | 340 | 295            | 8-22  | 3 | 506            | 626            | 400            | 141.5    |
| 250                |                  |                  | 635 | 395 | 350            | 12-22 | 5 | 598            | 734            | 500            | 229      |
| 300                |                  | 0.4              | 749 | 445 | 400            | 12-22 | 5 | 698            | 778            | 560            | 321      |
| 350                |                  |                  | 787 | 505 | 460            | 16-22 | 5 | 723            | 883            | 560            | 360      |
| 400                |                  | 0.25             | 914 | 565 | 515            | 16-26 | 5 | 868            | 1078           | 640            | 584      |

Dimensions and weights are for guidance only - detailed dimension drawings are available on request. All dimensions are in millimeters, unless otherwise stated.



The Klep screw valve design features a straight through bore, with minimal turbulence to handle abrasive slurries with 100% leak tight closure.

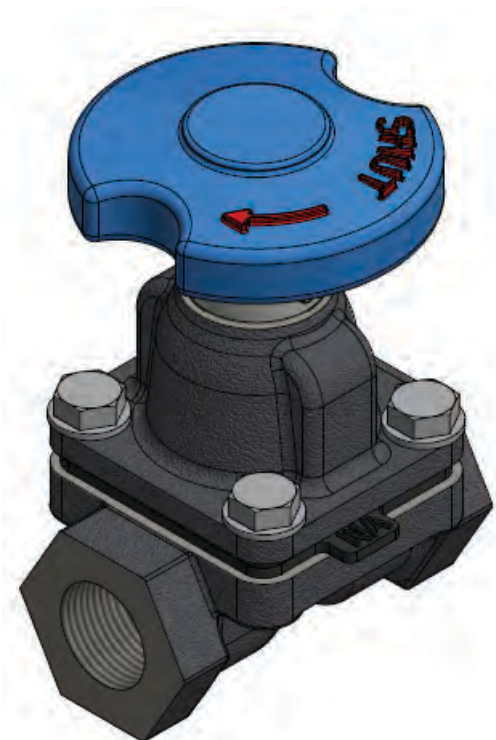
**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

## Product Specifications:

|                             |                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------|
| <b>Size Range:</b>          | WO: 15mm - 80mm<br>SO: 25mm - 80mm                                                        |
| <b>Valve Type:</b>          | Rising Spindle and non-rising spindle                                                     |
| <b>Elastomer Diaphragm:</b> | Gum Rubber, Red Rubber, EPDM Butyl, Chlorobutyl, Neoprene, Polyurethane, Viton & Hypalon. |
| <b>Valve Internals:</b>     | 304 Stainless Steel spindles, rubber diaphragm                                            |
| <b>Pressure rating:</b>     | PN0.6; PN1.0; PN1.6                                                                       |
| <b>Body Material:</b>       | Cast Iron SG, Stainless Steel                                                             |
| <b>Threaded body:</b>       | Drilled to SABS, ANSI, BS or DIN                                                          |
| <b>Hydro-Static Test:</b>   | 1.5 Times the rated pressure                                                              |

## Features:

- Valve can be installed in any position.
- Housing acts as a built in indicator.
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Lightweight.
- Seals in both directions.
- High flexible diaphragm designed to reduce closing forces & improved full open recovery.
- Enclosed body protects diaphragm from the environment and contaminants in the event of diaphragm failure.
- Fast easy diaphragm change.
- Single wearing part.
- No gland which requires adjustment.
- Pneumatic & hydraulic options.
- Ideal for remote locations.



WO Type



## How the Valve Operates

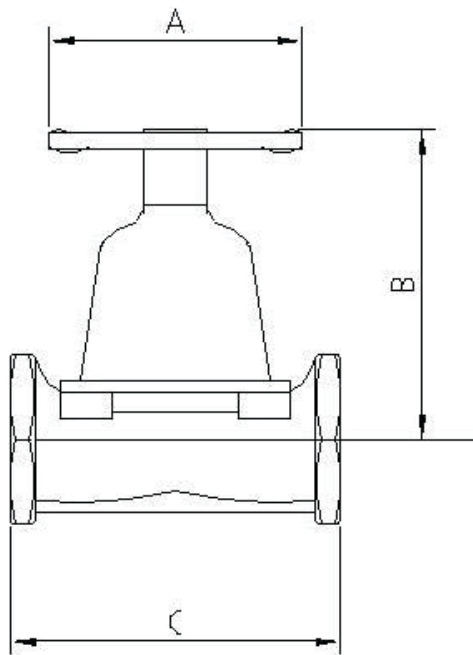
As the valve cycles downwards, the compressor will start to compress the soft rubber diaphragm, from the top of the valve only, therefore achieving 100% drip tight closure, even with solids in the medium.

## Actuators

All types of actuators can be fitted; electric, gearbox, hydraulic, pneumatic and handwheel.

## Applications

The valve is suited for mining and mineral processing, power generation, sand/gravel, chemical & soda ash, pulp & paper, environmental & effluent, dry feeds & powders.

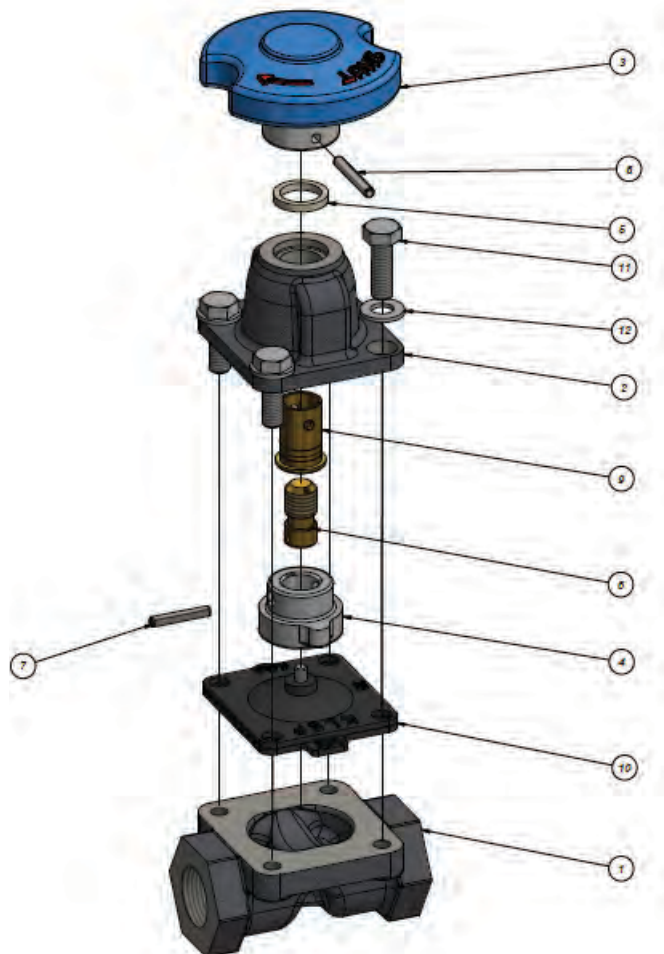


## Dimensions

| WO DIAPHRAGM VALVES |     |     |     |
|---------------------|-----|-----|-----|
| SIZE                | A   | B   | C   |
| 15mm                | 57  | 76  | 66  |
| 20mm                | 70  | 89  | 90  |
| 25mm                | 83  | 95  | 112 |
| 32mm                | 95  | 95  | 125 |
| 40mm                | 114 | 143 | 148 |
| 50mm                | 140 | 168 | 165 |
| 65mm                | 165 | 200 | 206 |
| 80mm                | 197 | 219 | 260 |

| SO DIAPHRAGM VALVES |     |     |     |
|---------------------|-----|-----|-----|
| SIZE                | A   | B   | C   |
| 25mm                | 83  | 121 | 112 |
| 32mm                | 83  | 121 | 121 |
| 40mm                | 83  | 121 | 148 |
| 50mm                | 140 | 181 | 165 |
| 65mm                | 165 | 200 | 203 |
| 80mm                | 197 | 245 | 258 |

Dimensions and weights are for guidance only - detailed dimension drawings are available on request. All dimensions are in millimeters, unless otherwise stated.



|    | PART                 |
|----|----------------------|
| 1  | Body                 |
| 2  | Bonnet               |
| 3  | Handle               |
| 4  | Compressor           |
| 5  | Felt Washer          |
| 6  | Handwheel Pin        |
| 7  | Spindle Pin          |
| 8  | Inner Spindle Shaft  |
| 9  | Spindle Outer Sleeve |
| 10 | Diaphragm Seal       |
| 11 | Hex Head Bolt        |
| 12 | Flat Washer          |



## DOUBLE ECCENTRIC BUTTERFLY VALVE

Our Butterfly Valve was designed for the water industry, taking into account the best available double offset technology, exceeding the requirements of EN 593 and AWWA C504. The disc is streamlined by computer-optimisation for low headloss. Quality, self-locking worm gear actuators are included, with a wide choice of operational options.

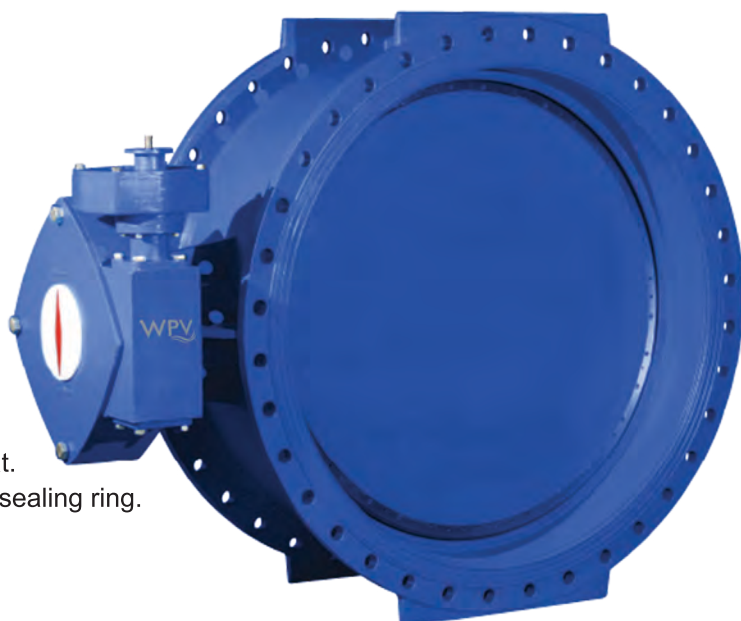
**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                           |                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | DN80 - DN3000                                                                                         |
| <b>Valve Type:</b>        | Butterfly Valve                                                                                       |
| <b>Materials:</b>         | A wide selection of materials is available; also internal hard rubber lining for saline applications. |
| <b>Temperature Range:</b> | -20°C to +70°C                                                                                        |
| <b>Pressure Rating:</b>   | 87 - 580psi (6 - 40 Bar)                                                                              |
| <b>Coating:</b>           | Fusion Bonded Epoxy (FBE)                                                                             |
| <b>Colour:</b>            | Blue, ca. RAL 5005                                                                                    |

### Features:

- Functional light design.
- Smaller installation space requirement.
- High grade protection against corrosion.
- Field approved safe design.
- Low head loss.
- Variety of material application.
- Low torque requirements.
- Low number of turns per stroke.
- Sealing in both directions available (optional).
- Easy replaceable o-ring shaft seals.
- Optimum closing of sealing ring into the body seat.
- Important reduction of the shearing stains on the sealing ring.
- Long life due to low wear of the sealing ring.
- Complete relief of sealing ring in open position.
- Sealing ring is not interrupted by shaft bearings.
- Sealing is easily replaceable in open position.
- Almost no thrust-bearing load when valve is used with shafts horizontal.
- No risk of disc flutter (vibrations) by means unbalanced disc load.



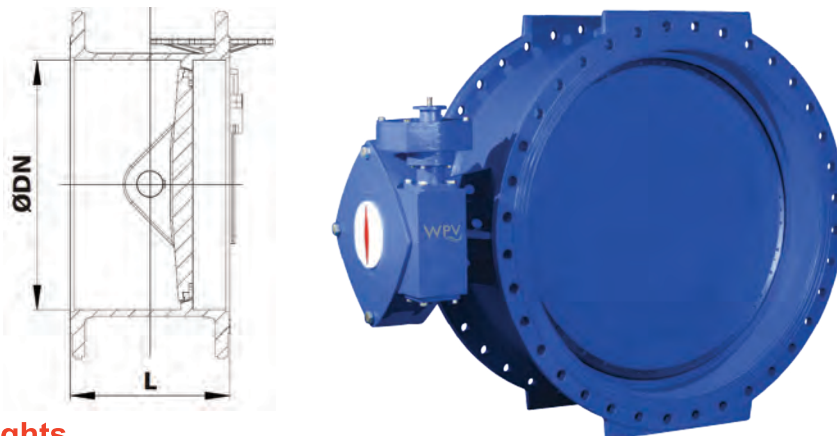


## Actuators

All types of actuators can be fitted; electric, hydraulic, pneumatic, handwheel and worm gear.

## Applications

The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.



## Dimensions & Weights

| DN   | PN 10 - DIN 3202<br>F4<br>EN 593 (long)<br>(EN 558-1 Series 14) |                        | PN 16 - DIN 3202<br>F4<br>EN 593 (long)<br>(EN 558-1 Series 14) |                        | PN 16 - BS 5155<br>EN 593 (short)<br>(EN 558-1 Series 13) |                        | PN 25 - DIN 3202<br>F4<br>EN 593 (long)<br>(EN 558-1 Series 14) |                        | PN 40 - DIN 3202<br>F4<br>EN 593 (long)<br>(EN 558-1 Series 14) |                        |
|------|-----------------------------------------------------------------|------------------------|-----------------------------------------------------------------|------------------------|-----------------------------------------------------------|------------------------|-----------------------------------------------------------------|------------------------|-----------------------------------------------------------------|------------------------|
|      | L                                                               | Bare Shaft Weight (kg) | L                                                               | Bare Shaft Weight (kg) | L                                                         | Bare Shaft Weight (kg) | L                                                               | Bare Shaft Weight (kg) | L                                                               | Bare Shaft Weight (kg) |
| 80   | 180                                                             | 18                     | 180                                                             | 18                     | 114                                                       | 18                     | 180                                                             | 20                     | 180                                                             | 29                     |
| 100  | 190                                                             | 22                     | 190                                                             | 22                     | 127                                                       | 22                     | 190                                                             | 30                     | 190                                                             | 45                     |
| 125  | 200                                                             | 26                     | 200                                                             | 26                     | 140                                                       | 26                     | 200                                                             | 35                     | 200                                                             | 55                     |
| 150  | 210                                                             | 30                     | 210                                                             | 30                     | 140                                                       | 30                     | 210                                                             | 39                     | 210                                                             | 65                     |
| 200  | 230                                                             | 41                     | 230                                                             | 44                     | 152                                                       | 44                     | 230                                                             | 64                     | 230                                                             | 95                     |
| 250  | 250                                                             | 56                     | 250                                                             | 66                     | 165                                                       | 66                     | 250                                                             | 92                     | 250                                                             | 130                    |
| 300  | 270                                                             | 80                     | 270                                                             | 90                     | 178                                                       | 90                     | 270                                                             | 137                    | 270                                                             | 170                    |
| 350  | 290                                                             | 106                    | 290                                                             | 123                    | 190                                                       | 123                    | 290                                                             | 162                    | 290                                                             | 270                    |
| 400  | 310                                                             | 139                    | 310                                                             | 163                    | 216                                                       | 163                    | 310                                                             | 240                    | 310                                                             | 325                    |
| 450  | 330                                                             | 170                    | 330                                                             | 211                    | 222                                                       | 211                    | 330                                                             | 308                    | 330                                                             | 391                    |
| 500  | 350                                                             | 222                    | 350                                                             | 275                    | 229                                                       | 275                    | 350                                                             | 376                    | 350                                                             | 477                    |
| 600  | 390                                                             | 308                    | 390                                                             | 438                    | 267                                                       | 438                    | 390                                                             | 525                    | 390                                                             | 1140                   |
| 700  | 430                                                             | 470                    | 430                                                             | 600                    | 292                                                       | 600                    | 430                                                             | 775                    | 430                                                             | 1488                   |
| 800  | 470                                                             | 622                    | 470                                                             | 785                    | 318                                                       | 785                    | 470                                                             | 1030                   | 470                                                             | 2225                   |
| 900  | 510                                                             | 870                    | 510                                                             | 984                    | 330                                                       | 984                    | 510                                                             | 1455                   | 510                                                             | 2930                   |
| 1000 | 550                                                             | 1424                   | 550                                                             | 1400                   | 410                                                       | 1400                   | 550                                                             | 1910                   | 550                                                             | 3770                   |
| 1100 | 590                                                             | 1320                   | 590                                                             | 1700                   | 410                                                       | 1700                   | 590                                                             |                        | 590                                                             |                        |
| 1200 | 630                                                             | 1625                   | 630                                                             | 2240                   | 470                                                       | 2240                   | 630                                                             | 2822                   | 630                                                             | 4811                   |
| 1400 | 710                                                             | 2494                   | 710                                                             | 3100                   | 530                                                       | 3100                   | 710                                                             | 4250                   | 710                                                             | 7150                   |
| 1500 | 750                                                             |                        | 750                                                             |                        | 575                                                       | 3600                   | 750                                                             |                        | 750                                                             |                        |
| 1600 | 790                                                             | 3221                   | 790                                                             | 4237                   | 600                                                       | 4237                   | 790                                                             | 6125                   | 790                                                             | 8370                   |
| 1800 | 870                                                             | 4356                   | 870                                                             | 6200                   | 670                                                       | 6200                   | 870                                                             |                        | 870                                                             |                        |
| 2000 | 950                                                             | 6382                   | 950                                                             | 8200                   | 760                                                       | 8200                   | 950                                                             |                        | 950                                                             |                        |
| 2200 | 1000                                                            | 8600                   | 1000                                                            |                        |                                                           |                        | 1000                                                            |                        | 1000                                                            |                        |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## TILTING DISC CHECK VALVE

Our Tilting Disc Check Valve was designed for the water industry, taking into account the best available double offset technology, exceeding the requirements of EN 593 (BS 5155 & DIN 3354) and AWWA C504. The disc is streamlined by computer-optimisation for low headloss.

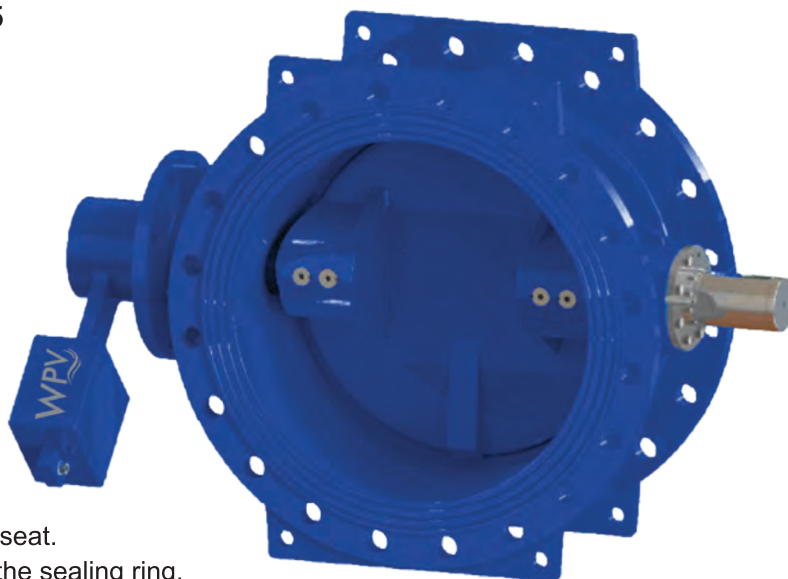
**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                           |                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | DN80 - DN3000                                                                                         |
| <b>Valve Type:</b>        | Check Valve                                                                                           |
| <b>Materials:</b>         | A wide selection of materials is available; also internal hard rubber lining for saline applications. |
| <b>Temperature Range:</b> | -20°C to +70°C                                                                                        |
| <b>Pressure Rating:</b>   | 87 - 580psi (6 - 40 Bar)                                                                              |
| <b>Coating:</b>           | Fusion Bonded Epoxy (FBE)                                                                             |
| <b>Colour:</b>            | Blue, ca. RAL 5005                                                                                    |

### Features:

- Functional light design.
- Smaller installation space requirement.
- High grade protection against corrosion.
- Field approved safe design.
- Low head loss.
- Variety of material application.
- Damper as an optional feature.
- Optimum closing of sealing ring into the body seat.
- Important reduction of the shearing stains on the sealing ring.
- Long life due to low wear of the sealing ring.
- Complete relief of sealing ring in open position.
- Sealing is easily replaceable in open position.
- Almost no thrust-bearing load when valve is used with shafts horizontal.
- No risk of disc flutter (vibrations) by means unbalanced disc load.



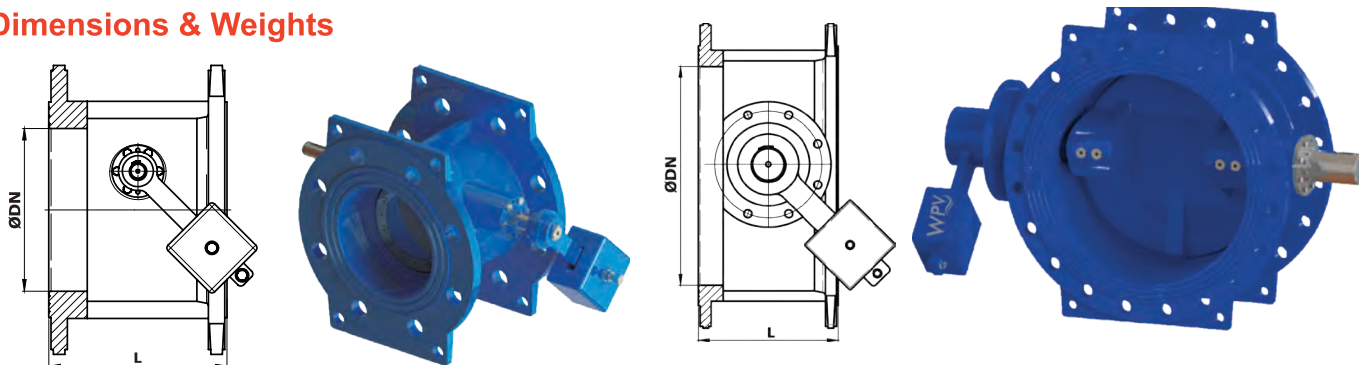
## Actuators

All types of actuators can be fitted; electric, hydraulic, pneumatic, handwheel and worm gear.

## Applications

The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.

## Dimensions & Weights



| DN  | PN 10/16<br>EN 593 (long)<br>(EN 558-1 Series 14) |             | PN 25<br>EN 593 (long)<br>(EN 558-1 Series 14) |             | PN 40<br>EN 593 (long)<br>(EN 558-1 Series 14) |             |
|-----|---------------------------------------------------|-------------|------------------------------------------------|-------------|------------------------------------------------|-------------|
|     | L                                                 | Weight (kg) | L                                              | Weight (kg) | L                                              | Weight (kg) |
| 80  | 180                                               | 15          | 180                                            | 19          | 180                                            | 23          |
| 100 | 190                                               | 18          | 190                                            | 31          | 190                                            | 35          |
| 125 | 200                                               | 23          | 200                                            | 38          | 200                                            | 45          |
| 150 | 210                                               | 28          | 210                                            | 45          | 210                                            | 50          |
| 200 | 230                                               | 41          | 230                                            | 63          | 230                                            | 75          |
| 250 | 250                                               | 65          | 250                                            | 85          | 250                                            | 120         |
| 300 | 270                                               | 85          | 270                                            | 115         | 270                                            | 160         |

| DN   | PN 10/16<br>EN 593 (long)<br>(EN 558-1 Series 14) |             | PN 25<br>EN 593 (long)<br>(EN 558-1 Series 14) |             | PN 40<br>EN 593 (long)<br>(EN 558-1 Series 14) |             |
|------|---------------------------------------------------|-------------|------------------------------------------------|-------------|------------------------------------------------|-------------|
|      | L                                                 | Weight (kg) | L                                              | Weight (kg) | L                                              | Weight (kg) |
| 350  | 290                                               | 130         | 290                                            | 220         | 290                                            | 300         |
| 400  | 310                                               | 175         | 310                                            | 285         | 310                                            | 420         |
| 450  | 330                                               | 245         | 330                                            | 350         | 330                                            | 470         |
| 500  | 350                                               | 320         | 350                                            | 450         | 350                                            | 520         |
| 600  | 390                                               | 460         | 390                                            | 620         | 390                                            | 840         |
| 700  | 430                                               | 670         | 430                                            | 900         | 430                                            | 1160        |
| 800  | 470                                               | 880         | 470                                            | 1180        | 470                                            | 1700        |
| 900  | 510                                               | 1250        | 510                                            | 1600        | 510                                            | 2250        |
| 1000 | 550                                               | 1650        | 550                                            | 1960        | 550                                            | 3000        |
| 1100 | 590                                               | 1950        | 590                                            | 2550        | 590                                            | 3600        |
| 1200 | 630                                               | 2400        | 630                                            | 3200        | 630                                            | 4500        |
| 1400 | 710                                               | 3400        | 710                                            | 4800        | 710                                            | 6650        |
| 1500 | 750                                               | 4200        | 750                                            | 5500        | 750                                            | 8300        |
| 1600 | 790                                               | 5100        | 790                                            | 7400        | 790                                            | 9800        |
| 1800 | 870                                               | 7100        | 870                                            | 9300        | 870                                            | 12500       |
| 2000 | 950                                               | 9100        | 950                                            | 12600       | 950                                            | 17300       |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

WPV's Slanted Seat Check Valve was designed for the water industry, taking into account the best available design with 20° slanted seat, exceeding the requirements of EN 593. The disc is streamlined by computer-optimisation for low headloss.

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

## Product Specifications:

|                           |                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | DN80 - DN2000                                                                                         |
| <b>Valve Type:</b>        | Check Valve                                                                                           |
| <b>Materials:</b>         | A wide selection of materials is available; also internal hard rubber lining for saline applications. |
| <b>Temperature Range:</b> | -20°C to +70°C                                                                                        |
| <b>Pressure Rating:</b>   | 145 - 580psi (10 - 40 Bar)                                                                            |
| <b>Coating:</b>           | Fusion Bonded Epoxy (FBE)                                                                             |
| <b>Colour:</b>            | Blue, ca. RAL 5005                                                                                    |

## Features:

- Functional light design.
- Smaller installation space requirement.
- High grade protection against corrosion.
- Field approved safe design.
- Low head loss.
- Variety of material application.
- Low torque requirements.
- Low number of turns per stroke.
- Sealing in both directions available (optional).
- Easy replaceable o-ring shaft seals.
- Best combination for a check valve is high eccentricity with less stroke due to slanted seat.
- Optimum closing of sealing ring into the body seat.
- Important reduction of the shearing strains of the sealing ring, due to the high eccentricity.
- Complete relief of sealing ring in open position.
- Sealing ring is not interrupted by shaft bearings.
- Sealing is easily replaceable in open position.
- Replacement of sealing is very economical and can be replaced without dismantling the valve.
- Possible to make valves for higher working-pressures (PN 25, PN 40).
- No risk of disc flutter (vibrations) by means unbalanced disc load.
- Dashpot damper is applicable.

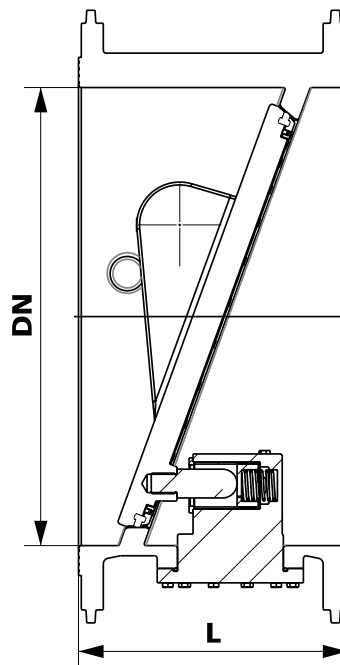




## Applications

The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.

## Dimensions & Weights



| DN   | PN 10/16 - EN 593 (long)<br>(EN 558-1 Series 14) |             | PN 25 - EN 593 (long)<br>(EN 558-1 Series 14) |             | PN 40 - EN 593 (long)<br>(EN 558-1 Series 14) |             |
|------|--------------------------------------------------|-------------|-----------------------------------------------|-------------|-----------------------------------------------|-------------|
|      | L                                                | Weight (kg) | L                                             | Weight (kg) | L                                             | Weight (kg) |
| 80   | 180                                              | 17          | 180                                           | 21          | 180                                           | 26          |
| 100  | 190                                              | 20          | 190                                           | 25          | 190                                           | 30          |
| 125  | 200                                              | 25          | 200                                           | 30          | 200                                           | 40          |
| 150  | 210                                              | 32          | 210                                           | 40          | 210                                           | 50          |
| 200  | 230                                              | 50          | 230                                           | 60          | 230                                           | 75          |
| 250  | 250                                              | 70          | 250                                           | 85          | 250                                           | 105         |
| 300  | 270                                              | 90          | 270                                           | 110         | 270                                           | 140         |
| 350  | 290                                              | 135         | 290                                           | 165         | 290                                           | 215         |
| 400  | 310                                              | 180         | 310                                           | 220         | 310                                           | 285         |
| 450  | 330                                              | 225         | 330                                           | 270         | 330                                           | 350         |
| 500  | 350                                              | 260         | 350                                           | 320         | 350                                           | 420         |
| 600  | 390                                              | 410         | 390                                           | 480         | 390                                           | 640         |
| 700  | 430                                              | 560         | 430                                           | 680         | 430                                           | 925         |
| 800  | 470                                              | 785         | 470                                           | 920         | 470                                           | 1240        |
| 900  | 510                                              | 960         | 510                                           | 1300        | 510                                           | 1700        |
| 1000 | 550                                              | 1340        | 550                                           | 1600        | 550                                           | 2080        |
| 1100 | 590                                              | 1650        | 590                                           | 2000        | 590                                           | 2580        |
| 1200 | 630                                              | 1900        | 630                                           | 2300        | 630                                           | 3050        |
| 1400 | 710                                              | 2660        | 710                                           | 3200        | 710                                           | 4250        |
| 1500 | 750                                              | 3200        | 750                                           | 3900        | 750                                           | 5100        |
| 1600 | 790                                              | 3720        | 790                                           | 4500        | 790                                           | 5950        |
| 1800 | 870                                              | 5200        | 870                                           | 6300        | 870                                           | 8350        |
| 2000 | 950                                              | 7280        | 950                                           | 8800        | 950                                           | 11650       |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## NOZZLE CHECK VALVE

The function of check valves is to allow the media to only flow in one direction but closes when the media flows in the opposite direction. This means they do not need to be manually operated and will instead be fully and automatically operated by the forces caused by the flow of the media. Between the various models there will be differences in closure characteristics. The closure characteristics depend on the flow conditions, valve design and position of the discs in a unique way, and therefore selection of check valve should be done by valve engineers.

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                           |                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | DN80 - DN1200                                                                                         |
| <b>Valve Type:</b>        | Check Valve                                                                                           |
| <b>Materials:</b>         | A wide selection of materials is available; also internal hard rubber lining for saline applications. |
| <b>Temperature Range:</b> | -20°C to +70°C                                                                                        |
| <b>Pressure Rating:</b>   | 363psi (25 Bar - higher)                                                                              |
| <b>Coating:</b>           | Fusion Bonded Epoxy (FBE)                                                                             |
| <b>Colour:</b>            | Blue, ca. RAL 5005                                                                                    |

### Features:

- Both designs have a double bearing system for reliable guiding and operation.
- The possibility of tuning the spring load for adapting to site conditions at order stage.
- A variety of material applications.
- High grade corrosion protection.
- Silent Check Valve lightweight and short build length means it is more economical solution.
- Easy installation and handling.
- Higher head loss.
- The shaft protrudes into the pipeline when the disc is open.
- Lower head loss due to a longer body with specialised streamline flow path.
- Spring is protected in an enclosed chamber.
- No shaft protrudes into the pipeline.
- Higher weight and cost.
- More space needed for installation in pipeline.



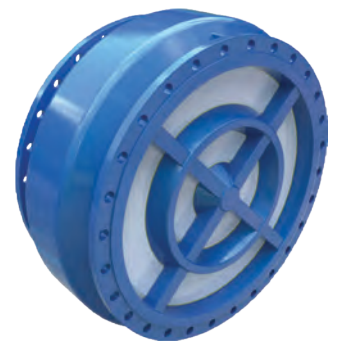
SILENT CHECK VALVE



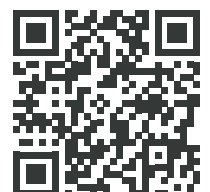
VENTURI TYPE NOZZLE CHECK VALVE



RING TYPE NOZZLE CHECK VALVE



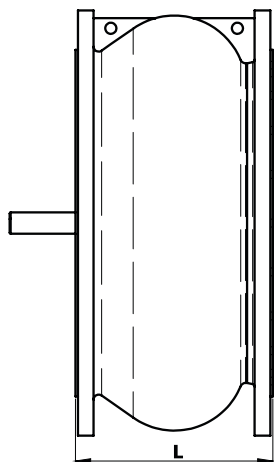
LIGHT DISC NOZZLE CHECK VALVE



## Applications

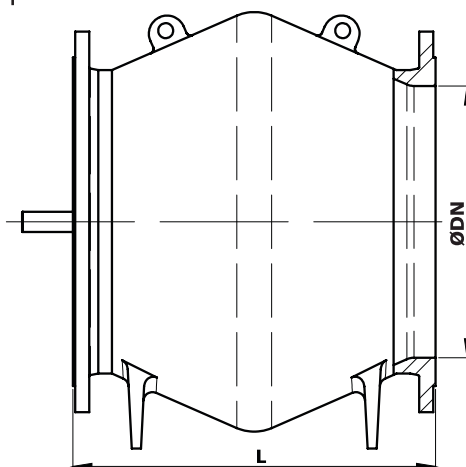
The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.

## Dimensions & Weights



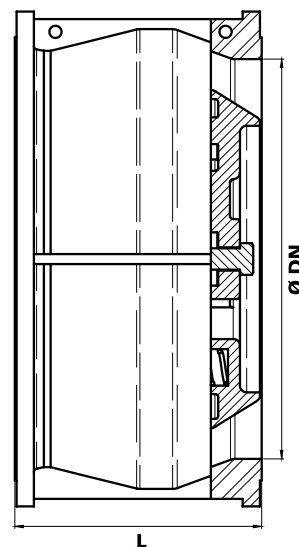
SILENT CHECK VALVE

| DN   | L   | Weight<br>PN10-16 |
|------|-----|-------------------|
| 50   | 150 | 8                 |
| 80   | 180 | 12                |
| 100  | 190 | 16                |
| 125  | 200 | 20                |
| 150  | 210 | 25                |
| 200  | 230 | 40                |
| 250  | 250 | 55                |
| 300  | 270 | 80                |
| 350  | 290 | 115               |
| 400  | 310 | 150               |
| 450  | 330 | 195               |
| 500  | 350 | 240               |
| 600  | 390 | 370               |
| 700  | 430 | 455               |
| 800  | 470 | 590               |
| 900  | 510 | 770               |
| 1000 | 550 | 1000              |
| 1200 | 630 | 1570              |



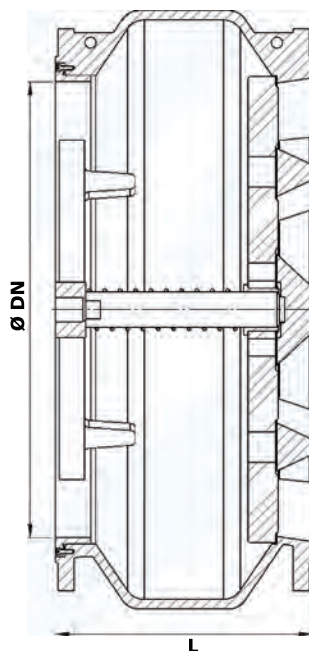
VENTURI TYPE NOZZLE CHECK VALVE

| DN   | L    | Weight<br>PN10-16 |
|------|------|-------------------|
| 250  | 450  | 150               |
| 300  | 500  | 225               |
| 350  | 550  | 300               |
| 400  | 600  | 380               |
| 450  | 650  | 500               |
| 500  | 700  | 620               |
| 600  | 800  | 800               |
| 700  | 900  | 1150              |
| 800  | 1000 | 1700              |
| 900  | 1100 | 2500              |
| 1000 | 1200 | 3350              |
| 1200 | 1400 | 4700              |



RING TYPE NOZZLE CHECK VALVE

| DN   | L   | Weight<br>PN10-16 |
|------|-----|-------------------|
| 300  | 181 | 140               |
| 350  | 215 | 175               |
| 400  | 245 | 230               |
| 450  | 264 | 340               |
| 500  | 305 | 460               |
| 600  | 370 | 730               |
| 700  | 430 | 930               |
| 800  | 500 | 1300              |
| 900  | 560 | 1850              |
| 1000 | 650 | 2500              |
| 1200 | 740 | 3200              |



LIGHT DISC NOZZLE CHECK VALVE

| DN   | L   | Weight<br>PN10-16 |
|------|-----|-------------------|
| 250  | 250 | 50                |
| 300  | 370 | 75                |
| 350  | 290 | 105               |
| 400  | 310 | 135               |
| 450  | 330 | 180               |
| 500  | 350 | 220               |
| 600  | 390 | 340               |
| 700  | 430 | 410               |
| 800  | 470 | 530               |
| 900  | 510 | 700               |
| 1000 | 550 | 900               |
| 1200 | 630 | 1420              |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## METAL SEATED SWING CHECK VALVE

Our Metal Seated Swing Check Valve is designed for the water industry, taking into account the latest developments and know-how, exceeding the requirements of BS 5163 (EN 12334) and DIN 3202 F6. Swing Check Valve allows full, unobstructed flow and automatically starts to close as velocity decreases. The valve is fully closed when the flow reaches to zero and it prevents back flow. Pressure drop across the valve is very low.

### Product Specifications:

**Size Range:** DN50 - DN2000

**Valve Type:** Swing Check Valve

**Materials:** A wide selection of materials is available; also internal hard rubber lining for saline applications.

**Temperature Range:** -20°C to +70°C

**Pressure Rating:** 145 - 580psi (10 - 40 Bar)

**Coating:** Fusion Bonded Epoxy (FBE)

**Colour:** Blue, ca. RAL 5005

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Features:

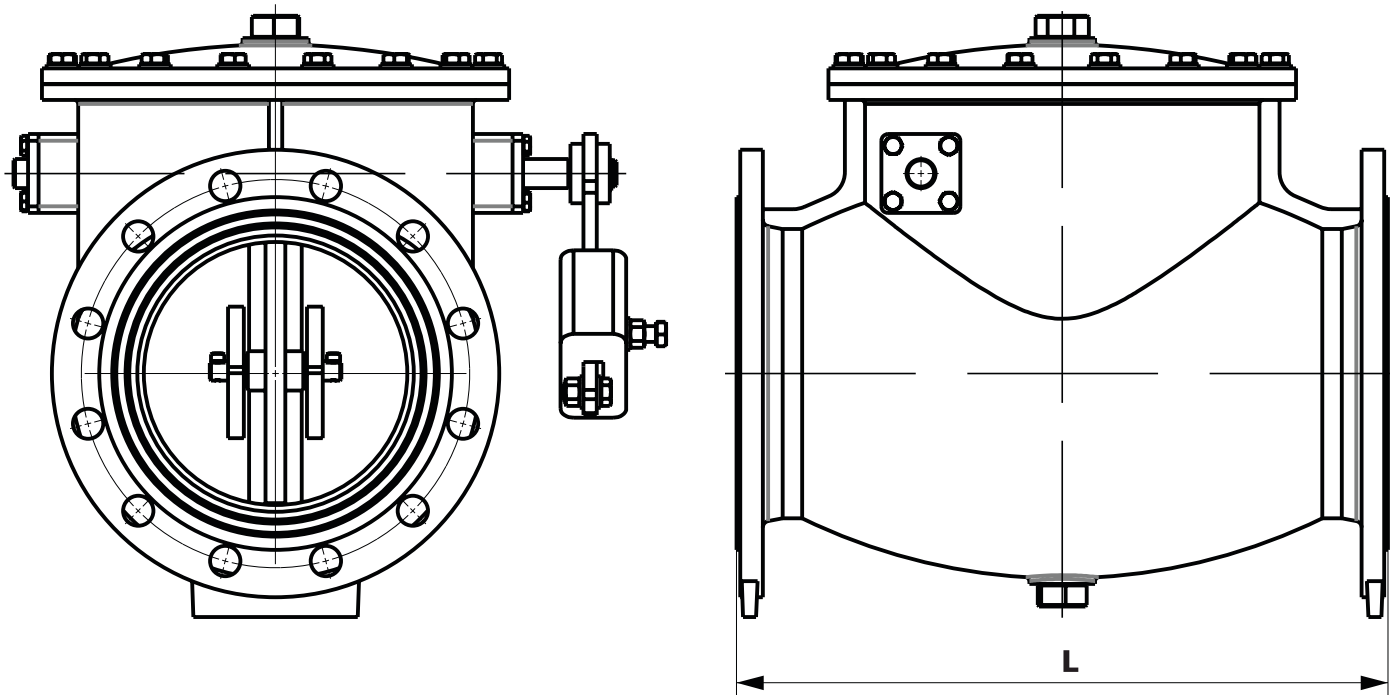
- Low head-loss.
- Drop-tight sealing due to Bronze/Gunmetal seats (standard).
- O-ring shaft seals as standard.
- Aeration and drain tap.
- Integrated lifting lug and holes.
- Easy replaceable o-ring shaft seals.



## Applications

The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.

## Dimensions & Weights



| DN   | BS 5153 (L) | DIN 3202 F6 (L) |
|------|-------------|-----------------|
| 80   | 241         | 260             |
| 100  | 292         | 300             |
| 125  | 356         | 400             |
| 150  | 495         | 500             |
| 200  | 622         | 600             |
| 250  | 698         | 700             |
| 300  | 788         | 800             |
| 350  | 915         | 900             |
| 400  | 965         | 1000            |
| 450  | 1067        | 1100            |
| 500  | 1219        | 1300            |
| 600  | 1420        | 1500            |
| 700  | 1560        | 1700            |
| 800  | 1730        | 1900            |
| 900  | 1880        | 2100            |
| 1000 | 2032        | 2300            |
| 1200 | 2185        | 2500            |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.



## RESILIENT SEATED GATE VALVE

The valve has been designed for the water and sewage industry, according to the requirements of BS 5163 (EN 1074), SABS 664/665 and DIN 3352. Resilient Seated Gate Valves are suitable for high differential pressures and give perfect sealing, and have therefore become very popular. They are widely used in water and sewage applications. The resilient Seated Gate Valve is also very suitable as an isolation valve for air valves.

### Product Specifications:

|                           |                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | DN50 - DN1000                                                                                         |
| <b>Valve Type:</b>        | Seated Gate Valve                                                                                     |
| <b>Materials:</b>         | A wide selection of materials is available; also internal hard rubber lining for saline applications. |
| <b>Temperature Range:</b> | 0°C to +70°C                                                                                          |
| <b>Pressure Rating:</b>   | 145 - 363psi (10 - 25 Bar)                                                                            |
| <b>Coating:</b>           | Fusion Bonded Epoxy (FBE)                                                                             |
| <b>Colour:</b>            | Blue, ca. RAL 5005                                                                                    |

**ALL VALVES ARE HYDROSTATICALLY  
TESTED BEFORE SHIPMENT.**

### Features:

- Full-bore design with low head-loss.
- Drop-tight sealing.
- Back-seating facility: enables change of stem seals while valve is under pressure (BS 5163).
- O-ring stem seals as standard.
- Low torque rates for smooth operation.
- ISO 5210 top-flange available.
- Spur Gearboxes and Bevel Gearboxes are available.
- Easy replaceable o-ring shaft seals.



## Actuators

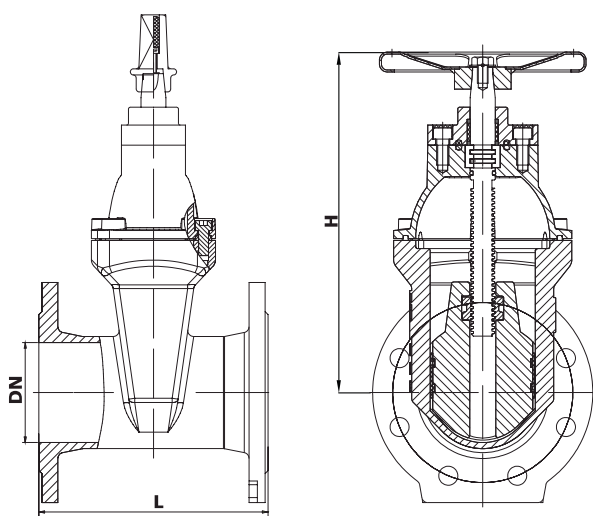
All types of actuators can be fitted; electric, hydraulic, pneumatic, handwheel and spur/bevel gear.

## Applications

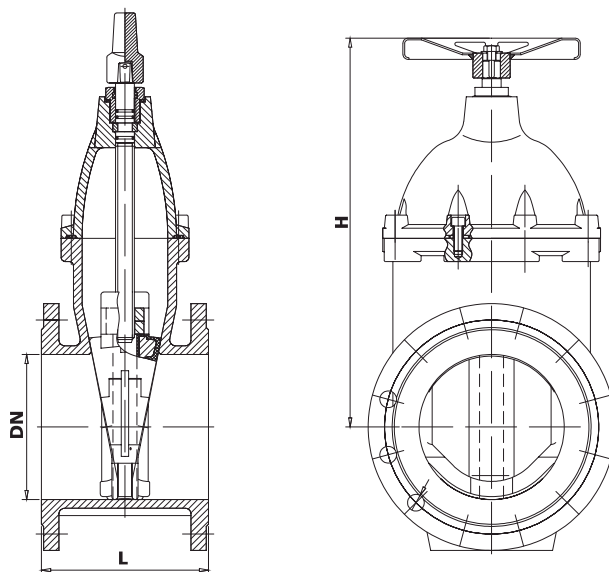
The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.

## Dimensions & Weights

### BS DESIGN



### DIN DESIGN



| DN   | BS 5163 (PN10-16)<br>L | BS 5163 (PN 25)<br>L | H    |
|------|------------------------|----------------------|------|
| 50   | 178                    | 216                  | 240  |
| 65   | 190                    | 241                  | 250  |
| 80   | 203                    | 283                  | 290  |
| 100  | 229                    | 305                  | 330  |
| 125  | 254                    | 381                  | 380  |
| 150  | 267                    | 403                  | 450  |
| 200  | 292                    | 419                  | 520  |
| 250  | 330                    | 457                  | 640  |
| 300  | 356                    | 502                  | 700  |
| 350  | 381                    | -                    | 875  |
| 400  | 406                    | -                    | 960  |
| 450  | 432                    | -                    | 1220 |
| 500  | 457                    | -                    | 1350 |
| 600  | 508                    | -                    | 1240 |
| 700  | 610                    | -                    | 1470 |
| 800  | 660                    | -                    | 2040 |
| 900  | 711                    | -                    | 2240 |
| 1000 | 811                    | -                    | 2440 |

| DN  | L   | L   | H    |
|-----|-----|-----|------|
| 50  | 150 | 250 | 210  |
| 65  | 170 | 265 | 245  |
| 80  | 180 | 280 | 290  |
| 100 | 190 | 300 | 330  |
| 125 | 200 | 325 | 385  |
| 150 | 210 | 350 | 450  |
| 200 | 230 | 400 | 520  |
| 250 | 250 | 450 | 640  |
| 300 | 270 | 500 | 700  |
| 350 | 290 | 550 | 850  |
| 400 | 310 | 600 | 960  |
| 450 | 330 | 650 | 1220 |
| 500 | 350 | 700 | 1350 |
| 600 | 390 | 800 | 1500 |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.

## METAL SEATED WEDGE GATE VALVE

Our Metal Seated Wedge Gate Valve is designed for the water industry, taking into account the latest developments and know-how, exceeding the requirements of BS 5163 (EN 1074), SABS 664.665 and DIN 3352.

**ALL VALVES ARE HYDROSTATICALLY TESTED BEFORE SHIPMENT.**

### Product Specifications:

|                           |                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Size Range:</b>        | DN50 - DN2000                                                                                         |
| <b>Valve Type:</b>        | Wedge Gate Valve                                                                                      |
| <b>Materials:</b>         | A wide selection of materials is available; also internal hard rubber lining for saline applications. |
| <b>Temperature Range:</b> | -20°C to +70°C                                                                                        |
| <b>Pressure Rating:</b>   | 145 - 580psi (10 - 40 Bar)                                                                            |
| <b>Coating:</b>           | Fusion Bonded Epoxy (FBE)                                                                             |
| <b>Colour:</b>            | Blue, ca. RAL 5005                                                                                    |

### Features:

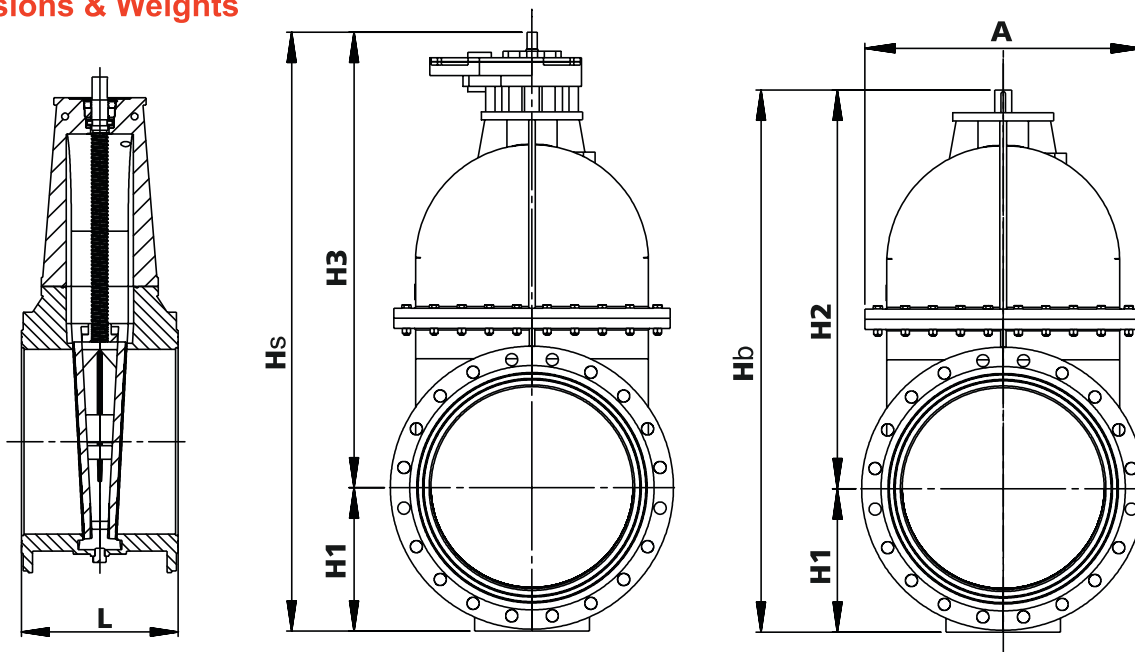
- Full-bore design with low head-loss.
- Drop-tight sealing due to Bronze/Gunmetal seats (standard).
- Back-seating facility: enables change of stem seals while valve is under pressure.
- O-ring stem seals (DN 50-150), and improved Chevron packing (DN 200 and up) as standard.
- Accurate side guides ensure smooth and safe operation. (Bronze slides are optional).
- Aeration and drain tap.
- Integrated lifting lug and holes.
- ISO 5210 top-flange is standard from DN 350 and up.
- Spur Gearbox is standard from DN 700 and up (for PN 16).
- Bevel gear is optional.
- Easy replaceable o-ring shaft seals or Chevron packing.



## Applications

The valve is suited for pumping stations, treatment plants, reservoirs, pipelines, power stations, desalination plants & industrial applications.

## Dimensions & Weights



| DN   | BS 5163 & SABS 665 PN 10-16 | SABS 664 PN 10-16 | BS 5163 & SABS 665 PN 25-40 | DIN 3202 F4 558-1/Ser 14 PN 10-16 | DIN 3202 F5 558-1/Ser 15 PN 10-40 | H1   | H2   | H3   | Hb   | Hs   | AH   |
|------|-----------------------------|-------------------|-----------------------------|-----------------------------------|-----------------------------------|------|------|------|------|------|------|
| 50   | 178                         | 216               | 216                         | 150                               | 250                               | 90   | 250  | -    | 340  | -    | 140  |
| 65   | 190                         | -                 | 241                         | 170                               | 270                               | 95   | 250  | -    | 345  | -    | 170  |
| 80   | 203                         | 229               | 283                         | 180                               | 280                               | 105  | 255  | -    | 360  | -    | 205  |
| 100  | 229                         | 254               | 305                         | 190                               | 300                               | 120  | 265  | -    | 385  | -    | 225  |
| 125  | 254                         | -                 | 381                         | 200                               | 325                               | 135  | 270  | -    | 405  | -    | 255  |
| 150  | 267                         | 280               | 403                         | 210                               | 350                               | 150  | 275  | -    | 425  | -    | 295  |
| 200  | 292                         | 317               | 419                         | 230                               | 400                               | 180  | 505  | -    | 685  | -    | 345  |
| 250  | 330                         | 356               | 457                         | 250                               | 450                               | 215  | 600  | -    | 815  | -    | 410  |
| 300  | 356                         | 380               | 502                         | 270                               | 500                               | 240  | 690  | -    | 930  | -    | 480  |
| 350  | 381                         | 470               | 572                         | 290                               | 550                               | 260  | 840  | 1080 | 1100 | 1340 | 540  |
| 400  | 406                         | 470               | 610                         | 310                               | 600                               | 290  | 910  | 1150 | 1200 | 1440 | 605  |
| 450  | 432                         | 485               | 660                         | 330                               | 650                               | 320  | 1010 | 1250 | 1330 | 1570 | 655  |
| 500  | 457                         | 510               | 711                         | 350                               | 700                               | 360  | 1090 | 1330 | 1450 | 1690 | 710  |
| 600  | 508                         | 600               | 787                         | 390                               | 800                               | 420  | 1250 | 1505 | 1670 | 1925 | 825  |
| 700  | 610                         | 610               | 810                         | 430                               | 900                               | 455  | 1440 | 1695 | 1895 | 2150 | 1000 |
| 800  | 660                         | 660               | 810                         | 470                               | 1000                              | 515  | 1600 | 1885 | 2115 | 2400 | 1100 |
| 900  | 711                         | 711               | 810                         | 510                               | 1100                              | 565  | 1800 | 2085 | 2365 | 2650 | 1250 |
| 1000 | 811                         | 811               | 1120                        | 550                               | 1200                              | 630  | 1940 | 2225 | 2570 | 2855 | 1285 |
| 1200 | 838                         | 838               | 1120                        | -                                 | 1400                              | 745  | 1890 | 2280 | 2635 | 3025 | 1570 |
| 1400 | 1120                        | 1120              | 1120                        | -                                 | 1600                              | 845  | 2140 | 2530 | 2985 | 3375 | 1810 |
| 1600 | 1200                        | 1200              | 1200                        | -                                 | 1800                              | 965  | 2285 | 2675 | 3250 | 3640 | 2070 |
| 1800 | 1200                        | 1200              | 1200                        | -                                 | 2000                              | 1065 | 2440 | 2830 | 3505 | 3895 | 2285 |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated otherwise.



NOTES

[illegible]







ABRASIVE FLOW SOLUTIONS

fpv

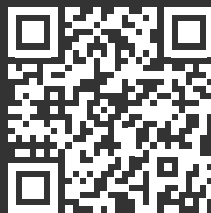
fpv<sup>II</sup>

KLEP

WPV

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