

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

Stainless steel double offset butterfly valve wafer for steam, heating, geothermics, industrial cold, shipbuilding and petrochemical.

PTFE filled with 15% graphite packing and seat for a temperature up to +210°C.

Valve with firesafe certificate ISO 10497 to reduce risks in case of fire.

Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22.

Handle up to DN150, gearbox over.

Thanks to the ISO 5211 plate, an actuator can be installed directly on the valve.



Size : DN50 to DN600

Connection : Between flanges PN25

Min Temperature : -29°C

Max Temperature : +210°C

Max Pressure : 25 Bars

Specifications : Full crossing stem

ISO 5211 mounting pad

Wafer type

Materials : Stainless steel ASTM A351 CF8M

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

SPECIFICATIONS :

- 100% tightness
- Wafer type
- Between PN25 flanges
- Double offset
- Bidirectional with preferential flow direction indicated by the arrow
- Fire safe according to ISO 10497 : 2010
- ISO 5211 mounting pad
- Stainless steel CF8M disc
- Full crossing stem
- 10 positions ductile iron handle, with locking device up to DN150
- Gear box from DN 200 to DN600
- Ductile iron EN GJS-400-15 handle with silver painting RAL 9006 color

USE :

- Heating, geothermics, industrial cold, shipbuilding, petrochemical
- Steam : 10 bars maximum
- Min and max Temperature Ts : - 29°C to + 210°C
- Max Pressure Ps : 25 bars (see graph)
- When using at dead end of pipeline, reverse preferential flow direction

RANGE :

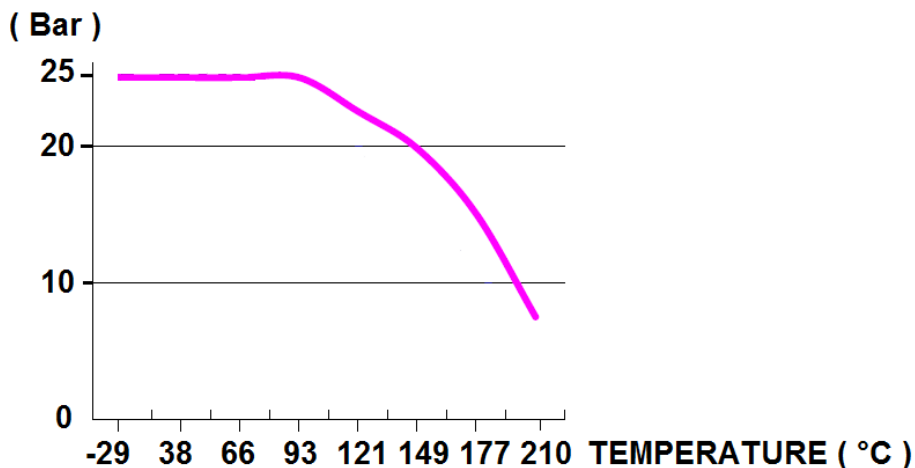
- Wafer type with stainless steel body , and handle **Ref. 1114** DN 50 to DN 150
- Wafer type with stainless steel body , and gear box **Ref. 1114** DN 200 to DN 600
- Gear box **Ref. 1193** from DN 50 to DN 350

ENDS :

- Between PN25 flanges

PRESSURE / TEMPERATURE GRAPH :

PRESSURE



STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

TORQUE VALUE (in Nm with safety coefficient of 30 % included) :

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|-------------------------|----|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| Torque (Nm) at 0 Bar | 29 | 37 | 50 | 76 | 118 | 147 | 176 | 255 | 333 | 461 | 657 | 843 | 1078 | 1274 |
| Torque (Nm) at 5 Bar | 32 | 46 | 61 | 88 | 137 | 196 | 235 | 323 | 470 | 725 | 960 | 1058 | 1382 | 1617 |
| Torque (Nm) at 10 Bar | 39 | 61 | 76 | 103 | 170 | 225 | 294 | 421 | 549 | 833 | 1264 | 1362 | 1803 | 2225 |
| Torque (Nm) at 15 Bar | 43 | 69 | 92 | 118 | 194 | 265 | 353 | 480 | 686 | 990 | 1509 | 1705 | 2166 | 2783 |
| Torque (Nm) at 20 Bar | 49 | 83 | 107 | 140 | 223 | 294 | 421 | 568 | 862 | 1196 | 1686 | 2087 | 2920 | 3783 |
| Torque (Nm) at 25 Bar | 59 | 97 | 127 | 162 | 242 | 333 | 480 | 647 | 1009 | 1421 | 1882 | 2646 | 3410 | 4704 |

MAX TORQUE MAST (in Nm) :

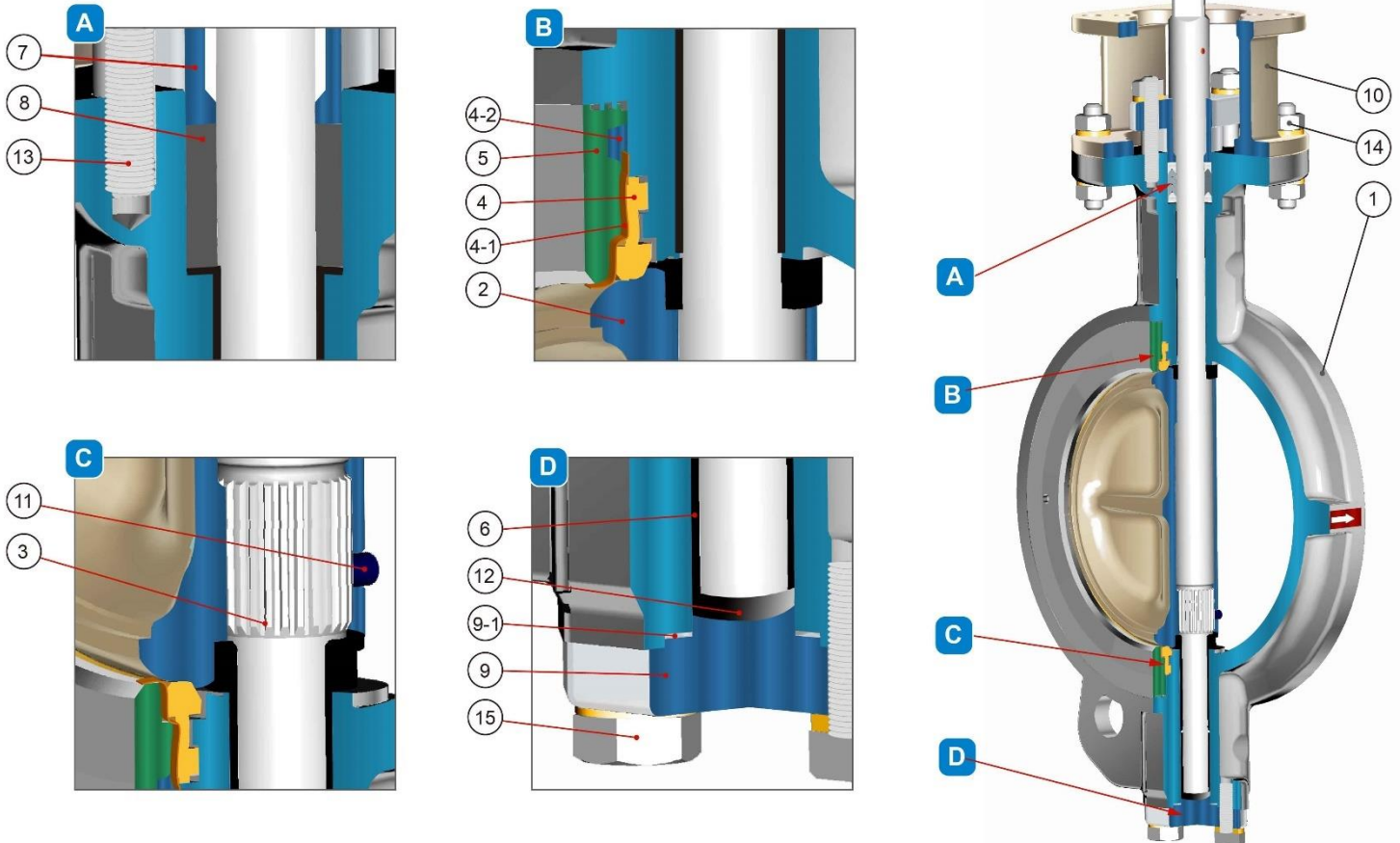
| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|------|-----|----|-----|-----|-----|-----|-----|------|------|-----|------|-----|-------|-----|
| MAST | 163 | | 324 | | 647 | | 906 | 1295 | 2589 | | 5179 | | 10357 | |

FLOW COEFFICIENT Kv (m3 / h) :

| DN | Percent of Rated Travel | | | | | | | | | |
|-----|-------------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
| 50 | 3,5 | 11,2 | 22,5 | 33,7 | 62,3 | 109,0 | 132,3 | 176,4 | 201,5 | 138,4 |
| 65 | 6,1 | 19,9 | 38,9 | 57,1 | 105,5 | 185,1 | 223,1 | 298,4 | 339,9 | 224,0 |
| 80 | 8,6 | 29,4 | 58,8 | 87,4 | 160,0 | 280,2 | 338,2 | 452,3 | 515,5 | 344,2 |
| 100 | 9,5 | 35,5 | 62,3 | 95,1 | 185,1 | 324,3 | 359,8 | 467,9 | 497,3 | 530,2 |
| 125 | 14,7 | 45,8 | 91,7 | 135,8 | 250,8 | 437,6 | 528,4 | 705,7 | 805,2 | 847,6 |
| 150 | 20,8 | 66,6 | 131,5 | 195,5 | 360,7 | 629,6 | 761,1 | 1017,1 | 1158,9 | 1189,2 |
| 200 | 36,3 | 118,5 | 234,4 | 347,7 | 472,2 | 661,6 | 851,0 | 1126,9 | 1254,1 | 1513,5 |
| 250 | 108,1 | 263,8 | 425,5 | 504,2 | 798,3 | 1089,7 | 1427,1 | 1781,7 | 2110,3 | 2306,6 |
| 300 | 147,0 | 358,9 | 578,6 | 834,6 | 1124,3 | 1517,9 | 2645,7 | 2987,3 | 3328,9 | 3776,1 |
| 350 | 192,0 | 437,6 | 688,4 | 1007,6 | 1395,9 | 1938,2 | 2700,2 | 3658,4 | 4635,8 | 5158,1 |
| 400 | 272,4 | 464,4 | 780,1 | 1145,1 | 1646,7 | 2149,2 | 3202,7 | 4666,0 | 5956,4 | 6713,2 |
| 450 | 339,0 | 818,2 | 1259,3 | 1764,4 | 2435,5 | 3388,6 | 4684,2 | 6106,9 | 7381,8 | 8090,1 |
| 500 | 443,7 | 1035,3 | 1586,2 | 2212,4 | 3031,4 | 4275,1 | 6216,8 | 7867,8 | 9523,2 | 10226,3 |
| 600 | 730,8 | 1609,5 | 2380,1 | 3382,5 | 4757,7 | 6628,4 | 9375,3 | 12475,0 | 15868,0 | 17178,2 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

MATERIALS VALVES :

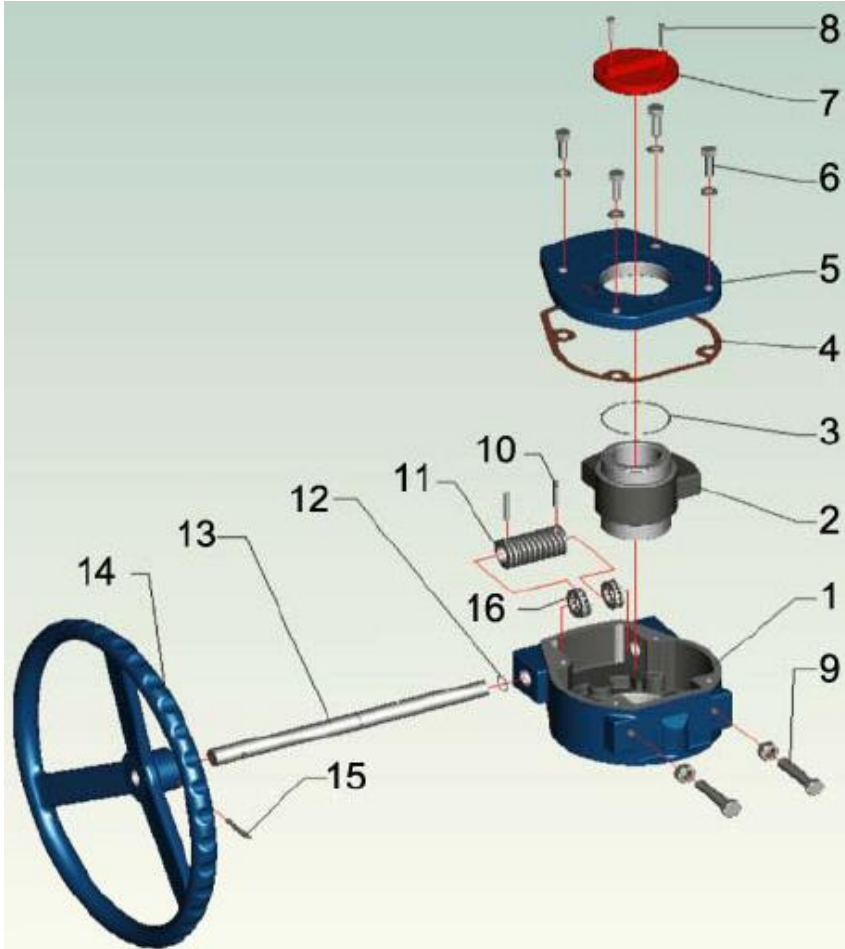


| Item | Designation | Materials |
|------|---------------------|------------------------------------------|
| 1 | Body | ASTM A351 CF8M |
| 2 | Disc | ASTM A351 CF8M |
| 3 | Shaft | ASTM A564 630 |
| 4* | Seat | PTFE filled with 15% graphite |
| 4-1 | Metal seat | Inconel 718 |
| 4-2* | Gasket | Graphite |
| 5 | Retainer | ASTM A351 CF8 |
| 6* | Bushing | PTFE + AISI 316 |
| 7 | Gland | ASTM A351 CF8 |
| 8* | Gland packing | Graphite |
| 9 | Bottom cover | ASTM A351 CF8M |
| 9-1* | Bottom cover gasket | Graphite |
| 10 | Yoke | ASTM A351 CF8 |
| 11* | Stop stud | ASTM A193 Gr. B8M |
| 12* | Lock plate | PTFE filled with 15% graphite + AISI 316 |
| 13 | Stud | ASTM A193 Gr. B8 |
| 14 | Nut | ASTM A194 Gr. 8 |
| 15 | Bolt | ASTM A193 Gr. B8 |

(* : Included in gaskets kit)

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

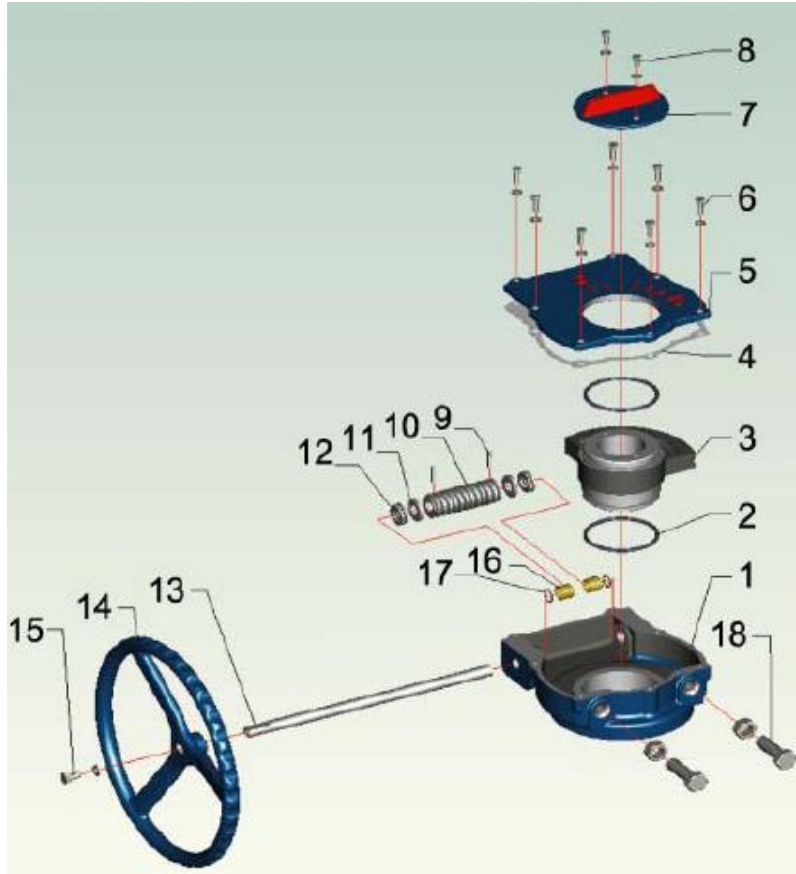
MATERIALS GEARBOX DN50 - 350 :



| Item | Designation | Materials |
|------|-------------|--------------|
| 1 | Body | Cast iron |
| 2 | Worm gear | Ductile iron |
| 3 | O ring | NBR |
| 4 | Gasket | Paper |
| 5 | Cover | Cast iron |
| 6 | Screw | Steel |
| 7 | Indicator | Cast iron |
| 8 | Screw | Steel |
| 9 | Stop bolt | Steel |
| 10 | Pin | Steel |
| 11 | Worm | Steel |
| 12 | O ring | NBR |
| 13 | Worm shaft | Steel |
| 14 | Handwheel | Cast iron |
| 15 | Pin | Steel |
| 16 | Bearing | Steel |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

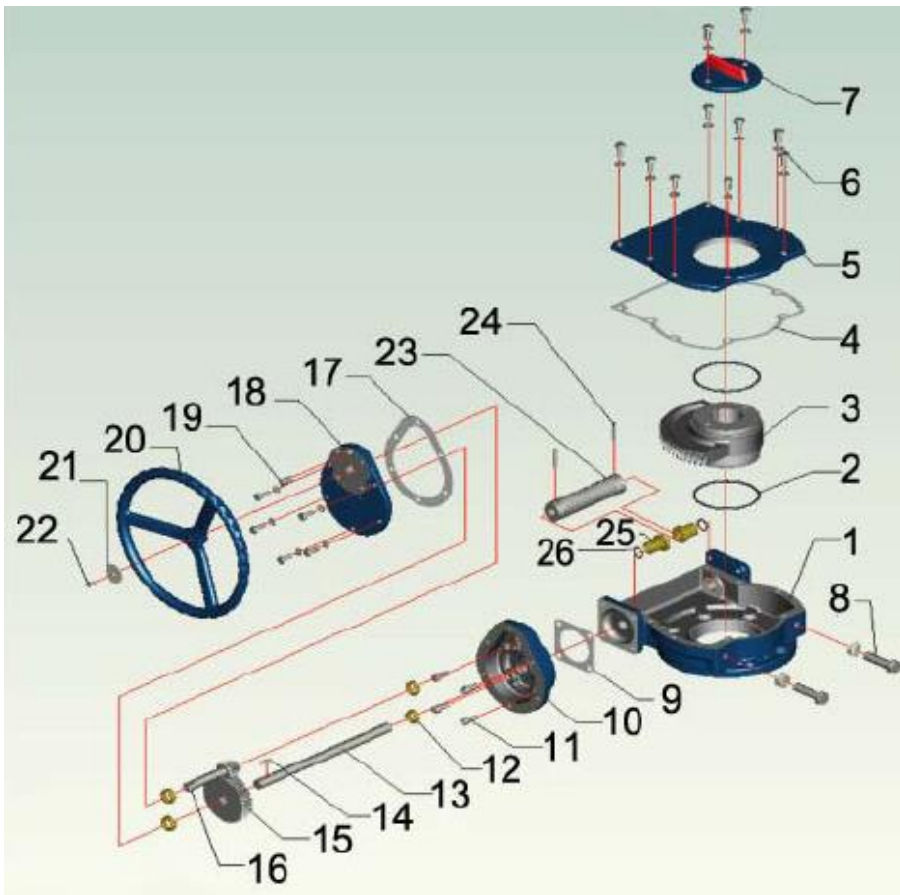
MATERIALS GEARBOX DN400 - 500 :



| Item | Designation | Materials |
|------|-------------|--------------|
| 1 | Body | Cast iron |
| 2 | O ring | NBR |
| 3 | Worm gear | Ductile iron |
| 4 | Gasket | Paper |
| 5 | Cover | Cast iron |
| 6 | Screw | Steel |
| 7 | Indicator | Cast iron |
| 8 | Screw | Steel |
| 9 | Pin | Steel |
| 10 | Worm | Steel |
| 11 | Ring | Steel |
| 12 | Bearing | Steel |
| 13 | Worm shaft | Steel |
| 14 | Handwheel | Cast iron |
| 15 | Screw | Steel |
| 16 | Bushing | Copper |
| 17 | O ring | NBR |
| 18 | Stop bolt | Steel |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

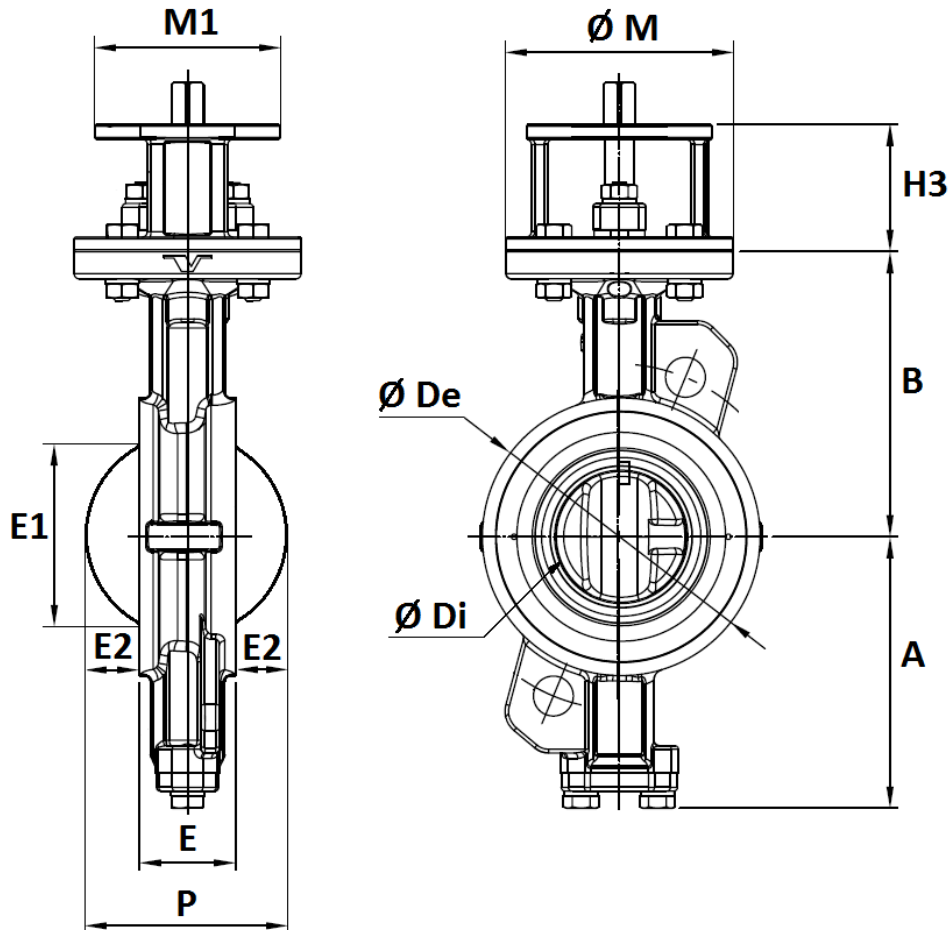
MATERIALS GEARBOX DN600 :



| Item | Designation | Materials |
|------|-----------------|--------------|
| 1 | Body | Cast iron |
| 2 | O ring | NBR |
| 3 | Worm gear | Ductile iron |
| 4 | Gasket | Paper |
| 5 | Cover | Cast iron |
| 6 | Screw | Steel |
| 7 | Indicator | Cast iron |
| 8 | Stop bolt | Steel |
| 9 | Gasket | Paper |
| 10 | Spur gear body | Cast iron |
| 11 | Screw | Steel |
| 12 | Bearing | Steel |
| 13 | Worm shaft | Steel |
| 14 | Key | Steel |
| 15 | Spur gear | Steel |
| 16 | Spur gear shaft | Steel |
| 17 | Gasket | Paper |
| 18 | Cover | Cast iron |
| 19 | Screw | Steel |
| 20 | Handwheel | Cast iron |
| 21 | Washer | Steel |
| 22 | Screw | Steel |
| 23 | Worm | Steel |
| 24 | Pin | Steel |
| 25 | Bushing | Copper |
| 26 | O ring | NBR |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

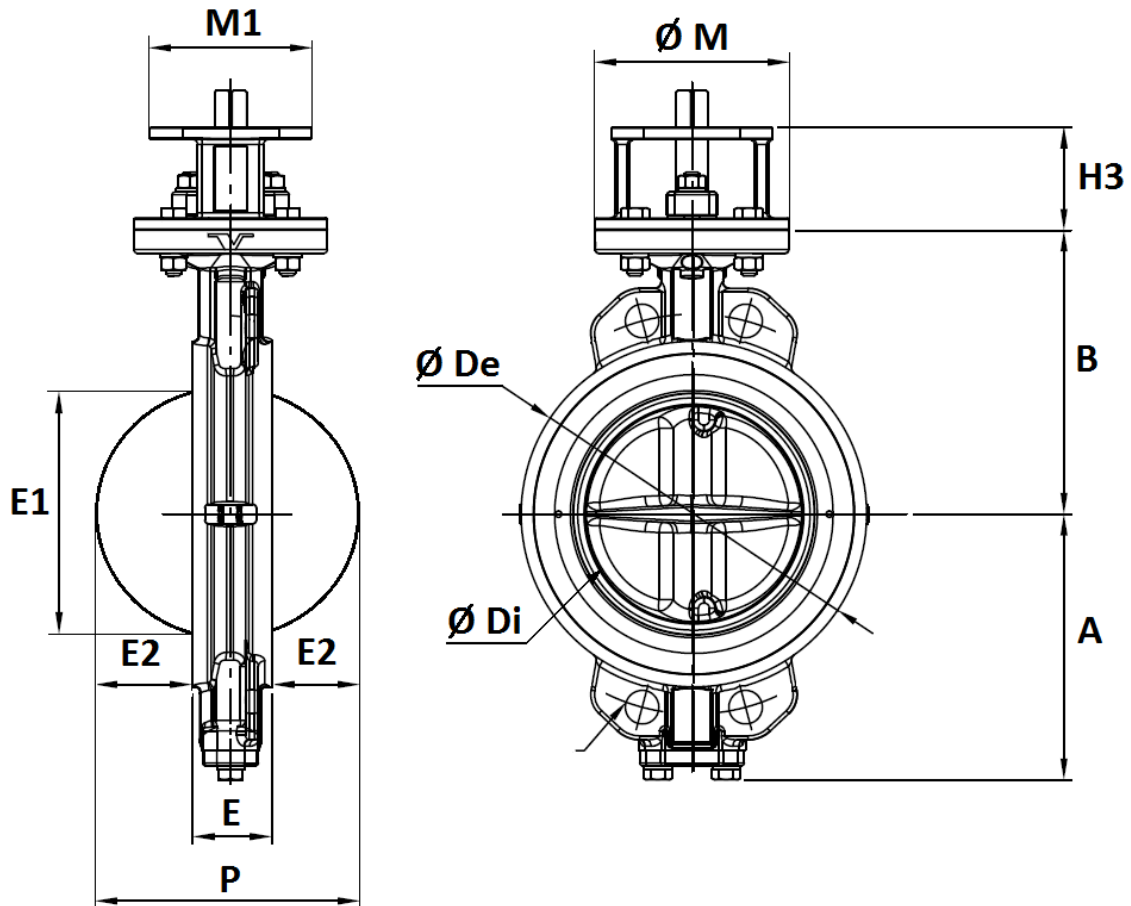
VALVE SIZE DN50 - 150 (in mm) :



| DN | 50 | 65 | 80 | 100 | 125 | 150 |
|-------------------|---------|---------|---------|---------|---------|---------|
| E | 43 | 46 | 47 | 53 | 57 | 56 |
| A | 99 | 110 | 128 | 150 | 163 | 176 |
| B | 118 | 125 | 140 | 157 | 170 | 185 |
| H3 | 60 | 60 | 70 | 70 | 70 | 70 |
| Ø M | 90 | 90 | 125 | 125 | 125 | 125 |
| M1 | 70 | 70 | 102 | 102 | 102 | 102 |
| P | 47 | 76 | 91 | 103 | 129 | 156 |
| E1 | 49.5 | 62.3 | 65.9 | 93 | 120 | 149 |
| E2 | 2 | 15 | 22 | 25 | 36 | 50 |
| Ø De | 92 | 108 | 126 | 153 | 184 | 212 |
| Ø Di | 37 | 63 | 78 | 95 | 118 | 143 |
| Min pipe diameter | 49 | 62 | 78 | 93 | 120 | 149 |
| Weight (in Kg) | 3.9 | 4.5 | 7 | 9 | 12 | 13.5 |
| Ref. | 1114050 | 1114065 | 1114080 | 1114100 | 1114125 | 1114150 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

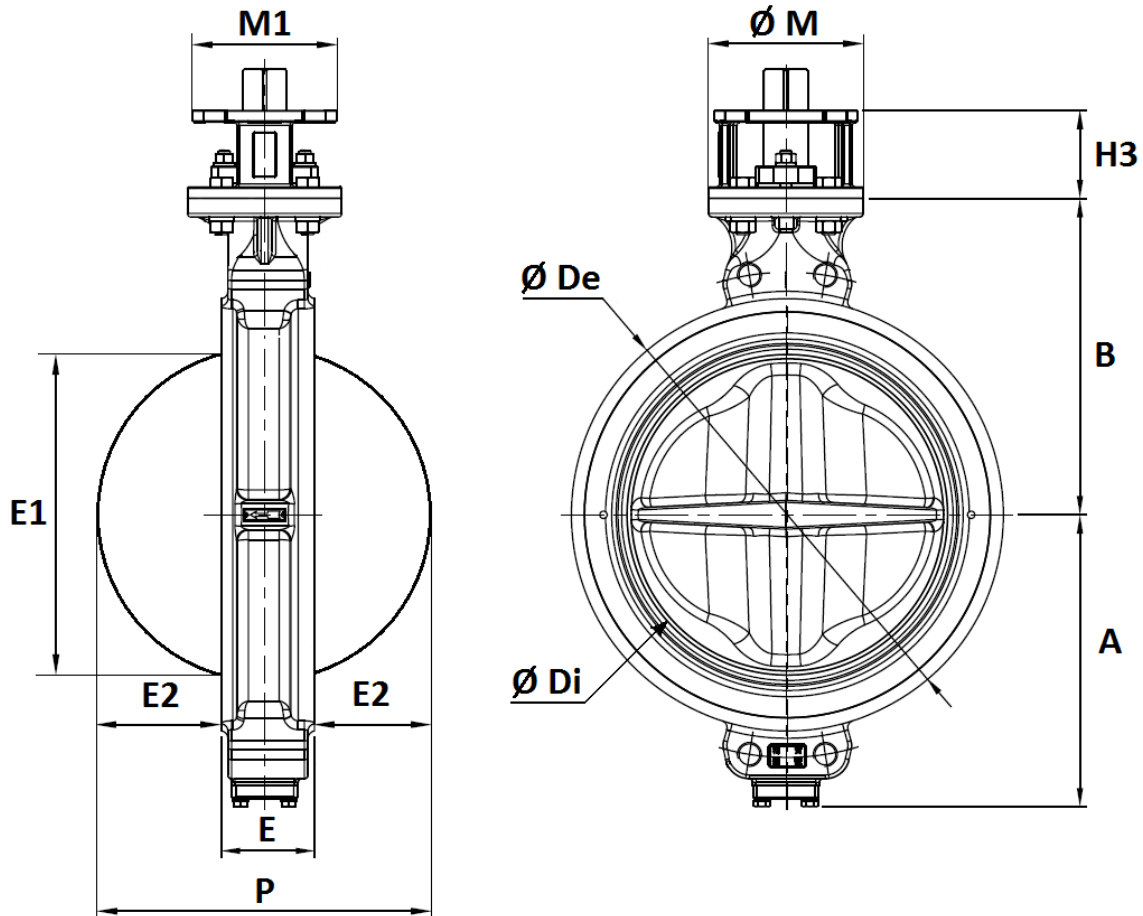
VALVE SIZE DN200 - 400 (in mm) :



| DN | 200 | 250 | 300 | 350 | 400 |
|-------------------|---------|---------|---------|---------|---------|
| E | 62 | 68 | 78 | 78 | 102 |
| A | 206 | 238 | 269 | 306 | 342 |
| B | 220 | 260 | 290 | 326 | 370 |
| H3 | 80 | 80 | 100 | 100 | 120 |
| Ø M | 150 | 150 | 175 | 175 | 210 |
| M1 | 125 | 125 | 160 | 160 | 195 |
| P | 202 | 248 | 290 | 328 | 382 |
| E1 | 196 | 243 | 289 | 329 | 377 |
| E2 | 70 | 90 | 106 | 125 | 140 |
| Ø De | 268 | 326 | 375 | 416 | 476 |
| Ø Di | 187.6 | 235.5 | 282 | 322 | 371 |
| Min pipe diameter | 196 | 243 | 289 | 329 | 377 |
| Weight (in Kg) | 22 | 32 | 48 | 66 | 107 |
| Ref. | 1114200 | 1114250 | 1114300 | 1114350 | 1114400 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

VALVE SIZE DN450 - 600 (in mm) :



| DN | 450 | 500 | 600 |
|-------------------|---------|---------|---------|
| E | 114 | 127 | 154 |
| A | 370 | 399 | 455 |
| B | 395 | 430 | 490 |
| H3 | 120 | 120 | 150 |
| Ø M | 210 | 210 | 300 |
| M1 | 195 | 195 | 300 |
| P | 428 | 481 | 574 |
| E1 | 423 | 471 | 572 |
| E2 | 157 | 177 | 210 |
| Ø De | 534 | 588 | 692 |
| Ø Di | 418 | 466 | 570 |
| Min pipe diameter | 423 | 471 | 572 |
| Weight (in Kg) | 130 | 163 | 278 |
| Ref. | 1114450 | 1114500 | 1114600 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

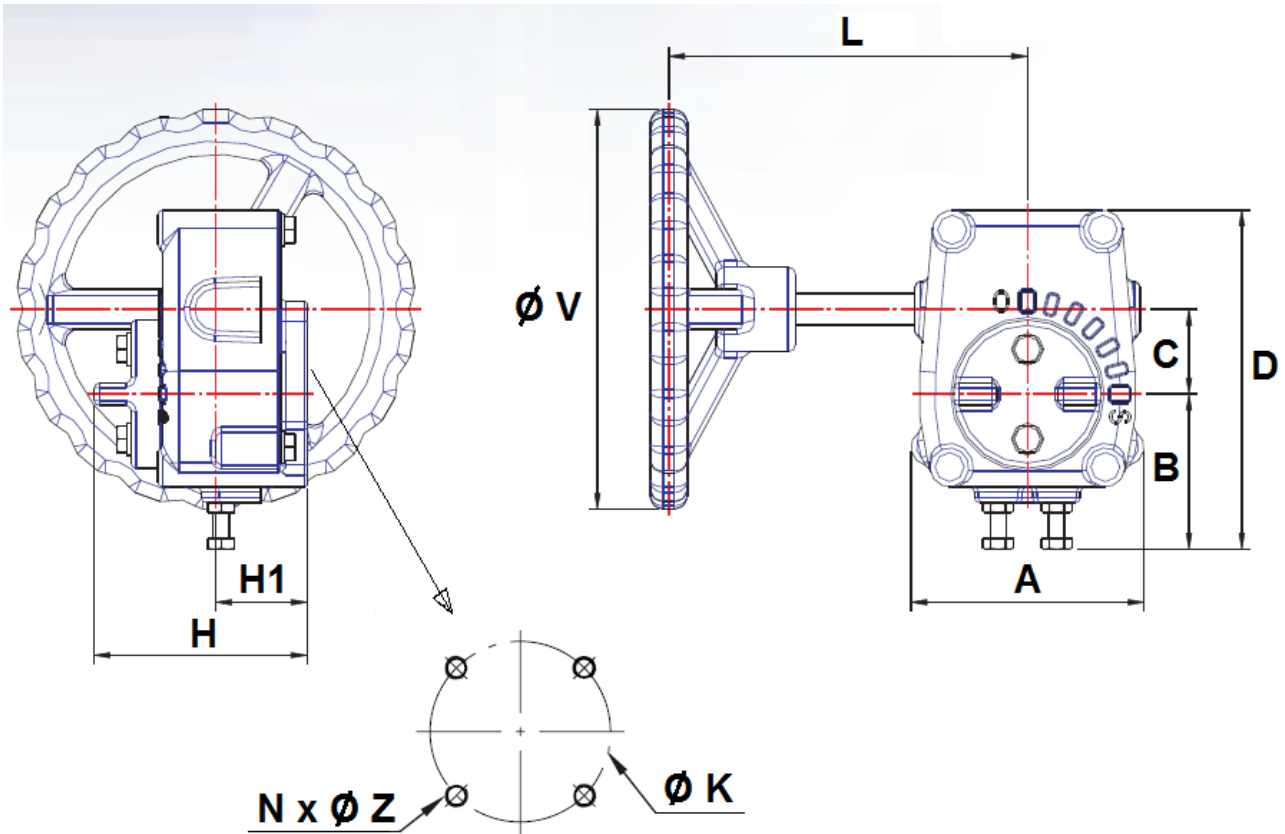
HANDLE SIZE (in ductile iron EN GJS-400-15 with silver painting RAL 9006 color) :



| DN | 50 | 65 | 80 | 100 | 125 | 150 |
|-------------|-----|-----|-----|-----|-----|-----|
| L | 200 | 200 | 250 | 250 | 355 | 355 |
| Weight (Kg) | 0.7 | 0.7 | 0.8 | 0.8 | 1.6 | 1.6 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

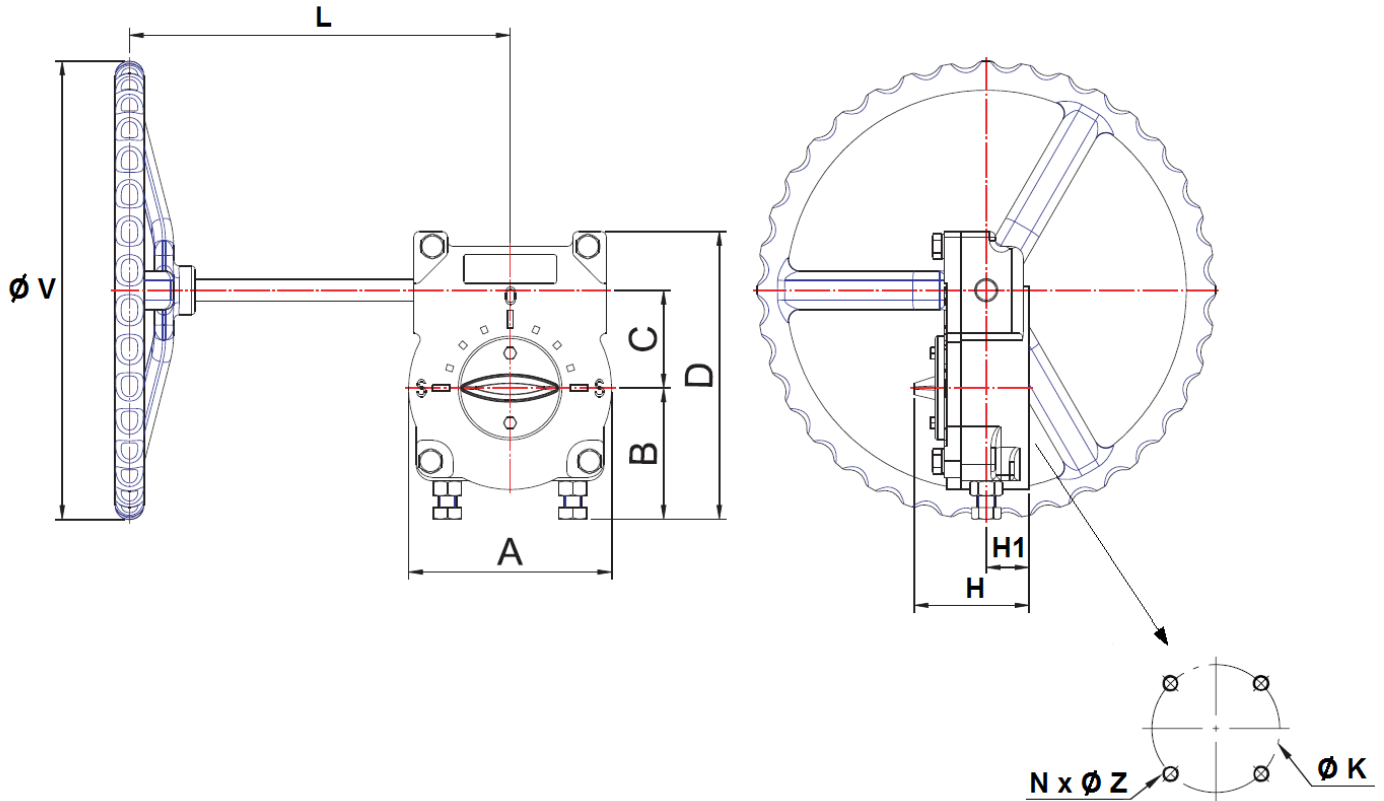
GEARBOX SIZE DN 50-350 :



| DN | 50-65 | 80 | 100 | 125-150 | 200 | 250 | 300-350 |
|-------------|---------|---------|---------|---------|---------|---------|---------|
| L | 155 | 155 | 195 | 195 | 258 | 258 | 346 |
| A | 87 | 87 | 117 | 117 | 153 | 153 | 181 |
| B | 49 | 49 | 81 | 81 | 97 | 97 | 102 |
| C | 41 | 41 | 63 | 63 | 61 | 61 | 81 |
| D | 130 | 130 | 176 | 176 | 186 | 186 | 223 |
| H | 81 | 81 | 91 | 91 | 88 | 88 | 117 |
| H1 | 37 | 37 | 41.5 | 41.5 | 41 | 41 | 52 |
| Ø V | 150 | 150 | 200 | 200 | 310 | 310 | 400 |
| Ø K | 70 | 70 | 102 | 102 | 125 | 125 | 140 |
| ISO | F07 | F07 | F10 | F10 | F12 | F12 | F14 |
| N x Ø Z | 4 x M8 | 4 x M8 | 4 x M10 | 4 x M10 | 4 x M12 | 4 x M12 | 4 x M16 |
| Weight (Kg) | 3.3 | 3.3 | 7.5 | 7.5 | 9 | 9 | 22 |
| Ref. | 1193001 | 1193002 | 1193003 | 1193004 | 1193005 | 1193006 | 1193007 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

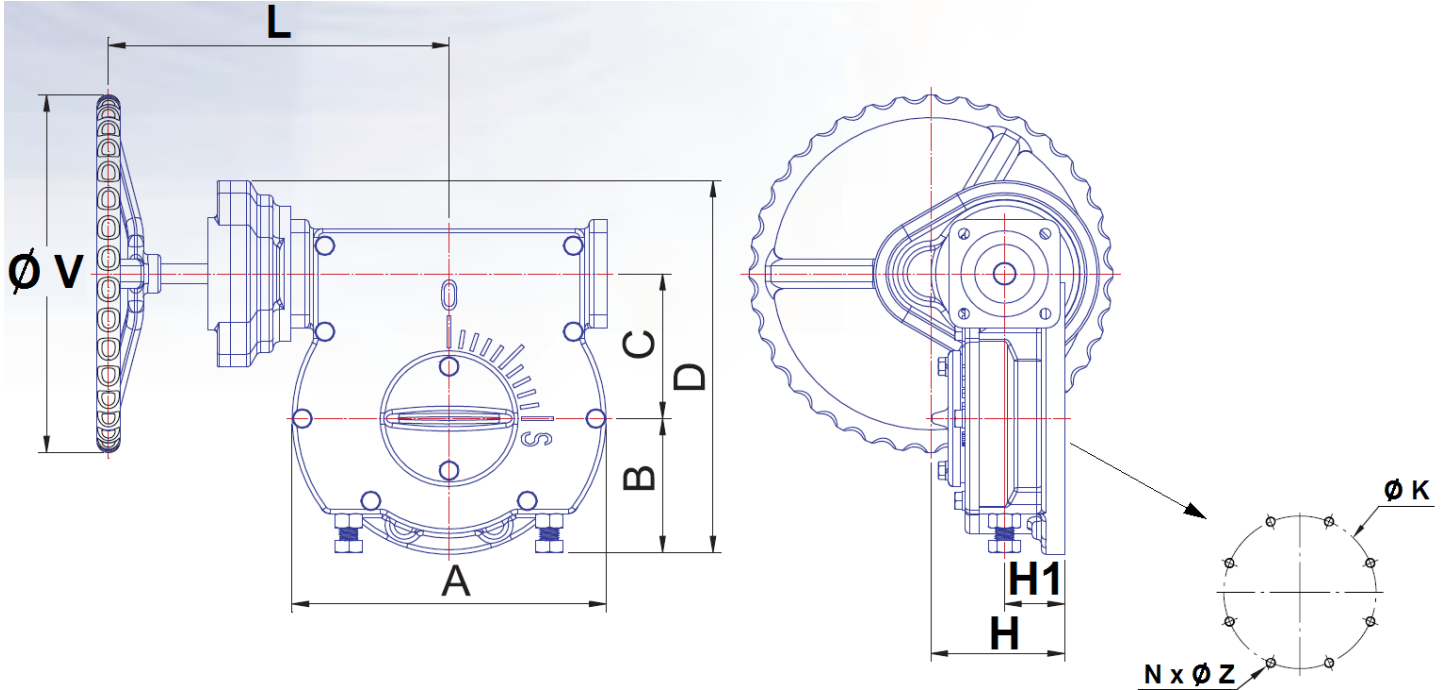
GEARBOX SIZE DN 400-500 :



| DN | 400-500 |
|-------------|---------|
| L | 307 |
| A | 251 |
| B | 113 |
| C | 123 |
| D | 293 |
| H | 127 |
| H1 | 56 |
| Ø V | 400 |
| Ø K | 165 |
| ISO | F16 |
| N x Ø Z | 4 x M20 |
| Weight (Kg) | 35 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

GEARBOX SIZE DN 600 :



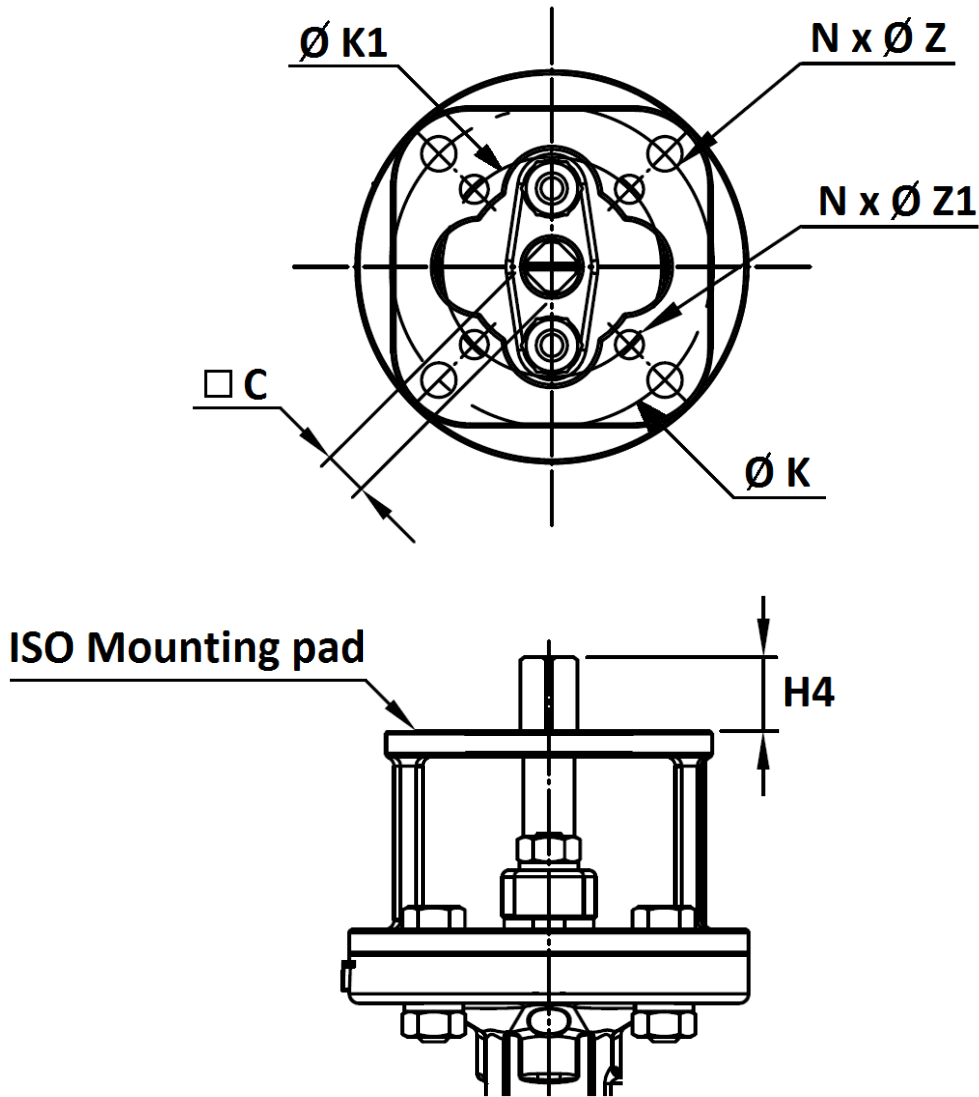
| DN | 600 |
|-------------|---------|
| L | 370 |
| A | 341 |
| B | 148 |
| C | 160 |
| D | 411 |
| H | 145 |
| H1 | 65 |
| Ø V | 400 |
| Ø K | 254 |
| ISO | F25 |
| N x Ø Z | 8 x M16 |
| Weight (Kg) | 109 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE
GEARBOX SPECIFICATIONS :

| DN | 50-65 | 80 | 100 | 125-150 | 200-250 | 300-350 | 400-500 | 600 |
|-----------------------------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Ref. | 1193001 | 1193002 | 1193003 | 1193004 | - | - | - | - |
| Ratio factor | 40 :1 | 40 :1 | 36 :1 | 36 :1 | 36 :1 | 52 :1 | 70 :1 | 207 :1 |
| Number of cycles for opening or closing | 10 | 10 | 9 | 9 | 9 | 13 | 17.5 | 52 |
| Input torque (Nm) | 24.5 | 24.5 | 54 | 54 | 109 | 150 | 225 | 451 |
| Output torque (Nm) | 245 | 245 | 490 | 490 | 980 | 1960 | 3922 | 7845 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

ISO MOUNTING PAD AND STEM SIZE (in mm) :

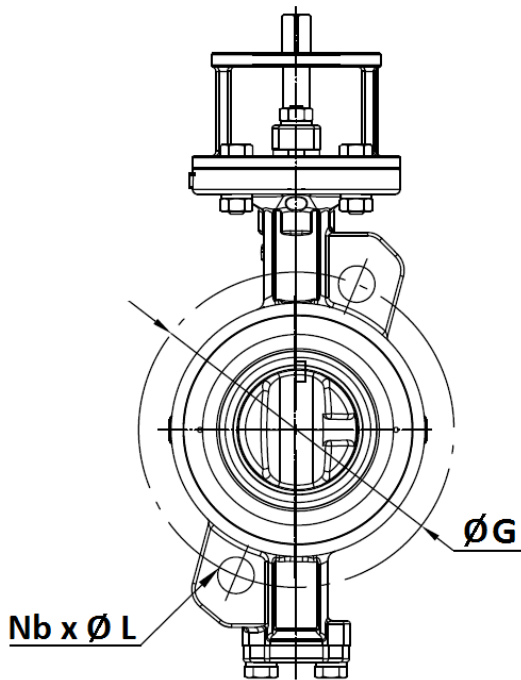


| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|---------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C | 11 | 11 | 14 | 14 | 17 | 17 | 19 | 22 | 27 | 27 | 36 | 36 | 46 | 46 |
| H4 | 18 | 18 | 23 | 23 | 23 | 23 | 28 | 28 | 37 | 37 | 47 | 47 | 56 | 56 |
| Ø K | 70 | 70 | 102 | 102 | 102 | 102 | 125 | 125 | 140 | 140 | 165 | 165 | 165 | 254 |
| ISO | F07 | F07 | F10 | F10 | F10 | F10 | F12 | F12 | F14 | F14 | F16 | F16 | F16 | F25 |
| N x Ø Z | 4 x 8 | 4 x 8 | 4 x 10 | 4 x 10 | 4 x 10 | 4 x 10 | 4 x 12 | 4 x 12 | 4 x 16 | 4 x 16 | 4 x 22 | 4 x 22 | 4 x 22 | 8 x 17 |
| Ø K1 | 50 | 50 | 70 | 70 | 70 | 70 | 102 | 102 | 125 | 125 | 140 | 140 | 140 | - |
| ISO1 | F05 | F05 | F07 | F07 | F07 | F07 | F10 | F10 | F12 | F12 | F14 | F14 | F14 | - |
| NxØZ1 | 4 x 6 | 4 x 6 | 4 x 8 | 4 x 8 | 4 x 8 | 4 x 8 | 4 x 10 | 4 x 10 | 4 x 12 | 4 x 12 | 4 x 16 | 4 x 16 | 4 x 16 | - |

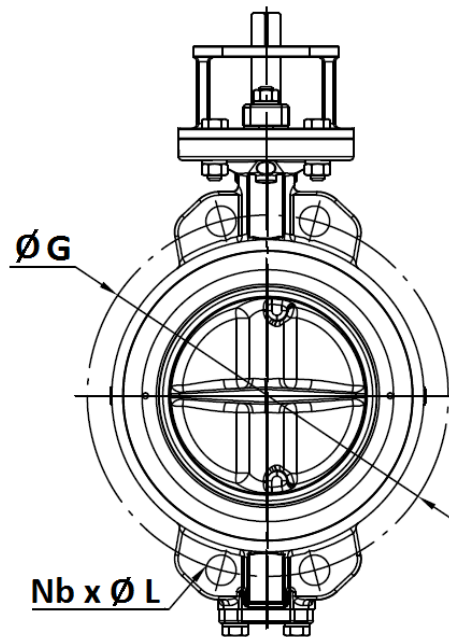
STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

BETWEEN FLANGES PN25 SIZE (in mm) :

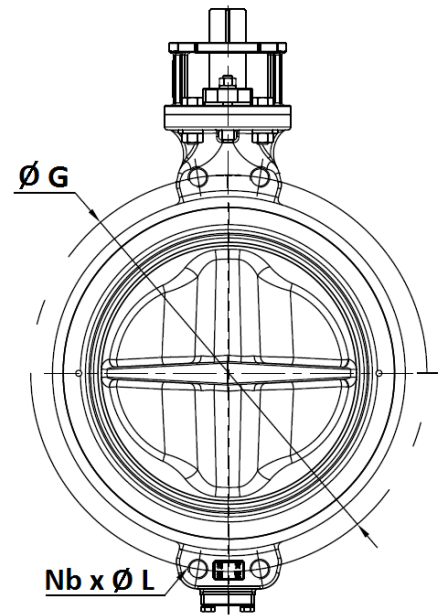
DN 50 – 150



DN 200 - 400



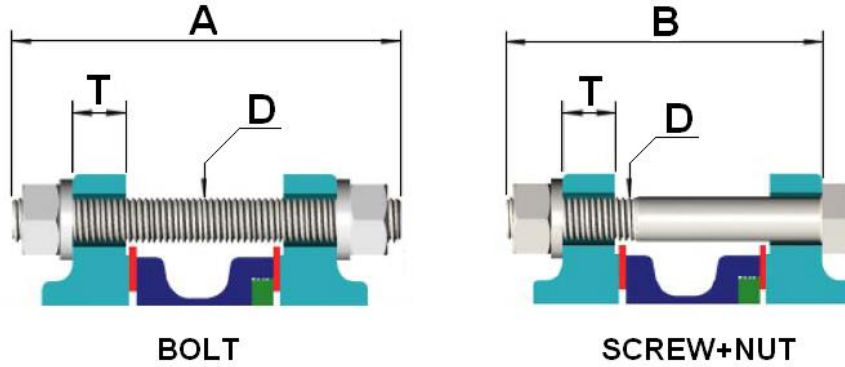
DN 450 - 600



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ø G | 125 | 145 | 160 | 190 | 220 | 250 | 310 | 370 | 430 | 490 | 550 | 600 | 660 | 770 |
| Nb x Ø L | 2 x 18 | 2 x 18 | 2 x 18 | 2 x 22 | 2 x 26 | 2 x 26 | 4 x 26 | 4 x 30 | 4 x 30 | 4 x 33 | 4 x 36 | 4x M33 | 4x M33 | 4x M36 |
| Ref. | 1114050 | 1114065 | 1114080 | 1114100 | 1114125 | 1114150 | 1114200 | 1114250 | 1114300 | 1114350 | 1114400 | 1114450 | 1114500 | 1114600 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE

BOLTING SIZE PN25 (in mm, not included with valves) :



| PN25 | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
| A | 130 | 140 | 145 | 160 | 180 | 180 | 190 | 210 | 220 | 235 | 270 | 300 | 310 | 370 |
| B | 125 | 125 | 130 | 140 | 155 | 155 | 165 | 180 | 195 | 205 | 240 | 265 | 280 | 330 |
| D | M16 | M16 | M16 | M20 | M24 | M24 | M24 | M27 | M27 | M30 | M33 | M33 | M33 | M36 |
| T | 22 | 22 | 24 | 24 | 26 | 28 | 30 | 32 | 34 | 38 | 40 | 48 | 48 | 58 |

BOLTING TIGHTENING TORQUE :

| Bolting size | Max torque (Nm) |
|--------------|-----------------|
| M16 | 150 |
| M20 | 270 |
| M22 | 434 |
| M24 | 450 |
| M26 | 650 |
| M27 | 700 |
| M28 | 815 |
| M30 | 950 |
| M32 | 1140 |
| M33 | 1300 |
| M36 | 1700 |

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PN25 FIRE SAFE**STANDARDS :**

- Manufacturer certified ISO 9001:2015
- DIRECTIVE 2014/68/EU : CE N° 0035
Risk Category III module H
- Designing according to API 609
- Marking according to MSS SP-25
- Tightness tests according to ISO 5208, Rate A
- Between flanges according to EN 1092-1 PN25
- ISO 5211 mounting pad
- Length according to EN 558 series 20 (ISO 5752 series 20)
- Fire safe according to ISO 10497 : 2010
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 according to directive 2014/34/EU(Optional marking)
- SIL2 according to IEC/EN 61508, SIL 3 possible according to installation

ADVICE : Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.