

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25



Certificate 3.1



FIRE SAFE
ISO 10497



Size : DN 50 to 600 mm
Ends : Between PN25 flanges
Min Temperature : - 29°C
Max Temperature : + 210°C
Max Pressure : 25 Bars
Specifications : Double offset
Wafer type
Fire safe according to ISO 10497 : 2010
ISO 5211 mounting pad

Materials : Stainless steel ASTM A351 CF8M

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25

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 :

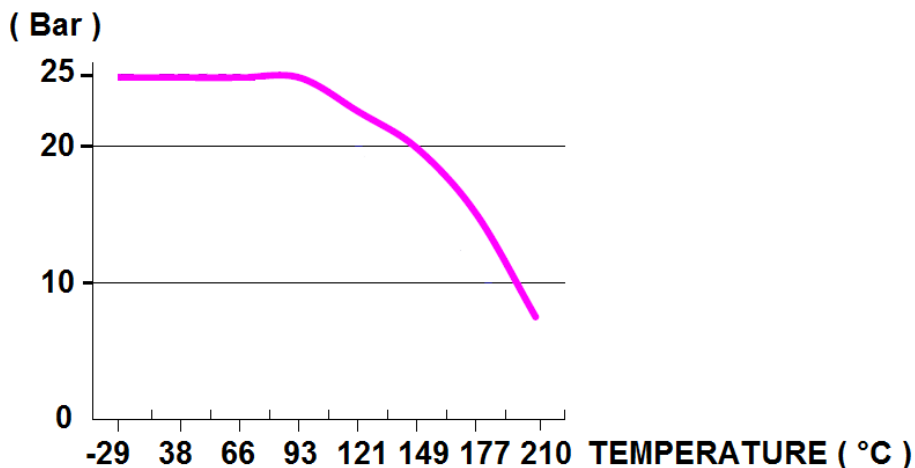
- Wafer type with stainless steel body , and handle **Ref. 1114** DN 50 to DN 150
- Wafer type with stainless steel body , and gear box **Ref. 1114** DN 200 to DN 600
- Gear box **Ref. 1193** from DN 50 to DN 350

ENDS :

- Between PN25 flanges

PRESSURE / TEMPERATURE GRAPH :

PRESSURE



STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25

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

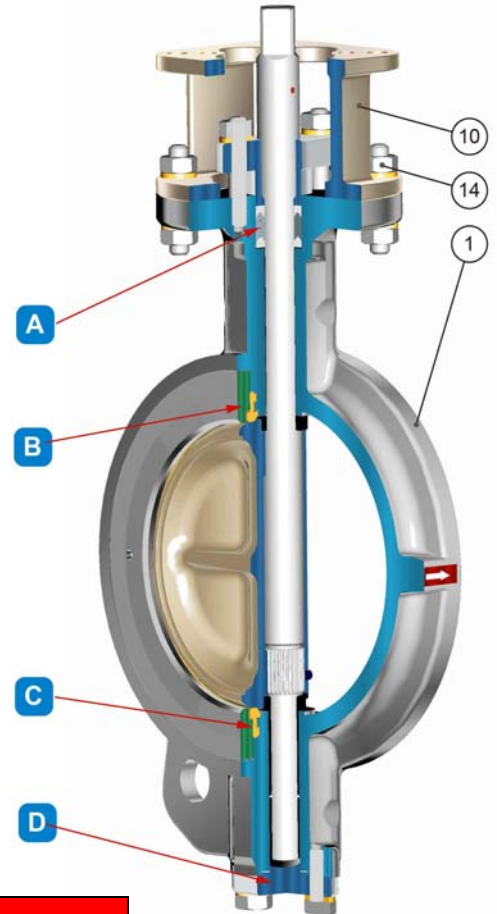
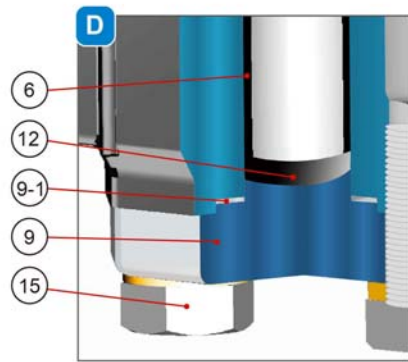
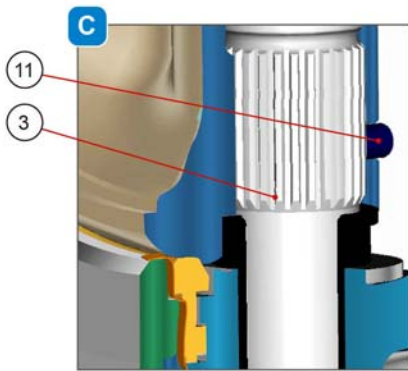
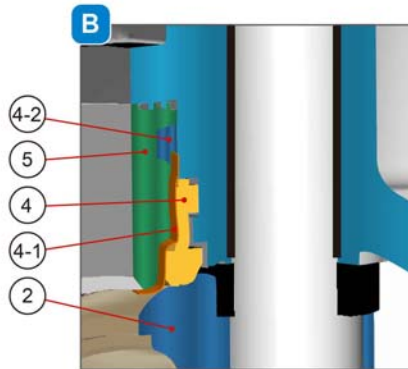
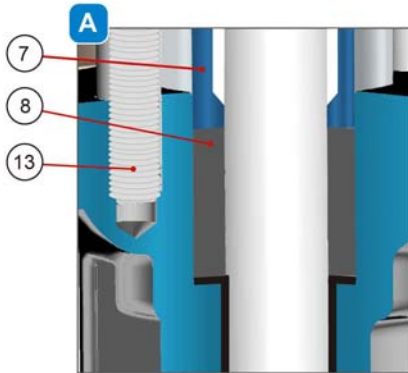
| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|-------------------------|----|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| Torque (Nm) at 0 Bar | 29 | 37 | 50 | 76 | 118 | 147 | 176 | 255 | 333 | 461 | 657 | 843 | 1078 | 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 |

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 BUTTERFLY VALVE PN25

MATERIALS VALVES :

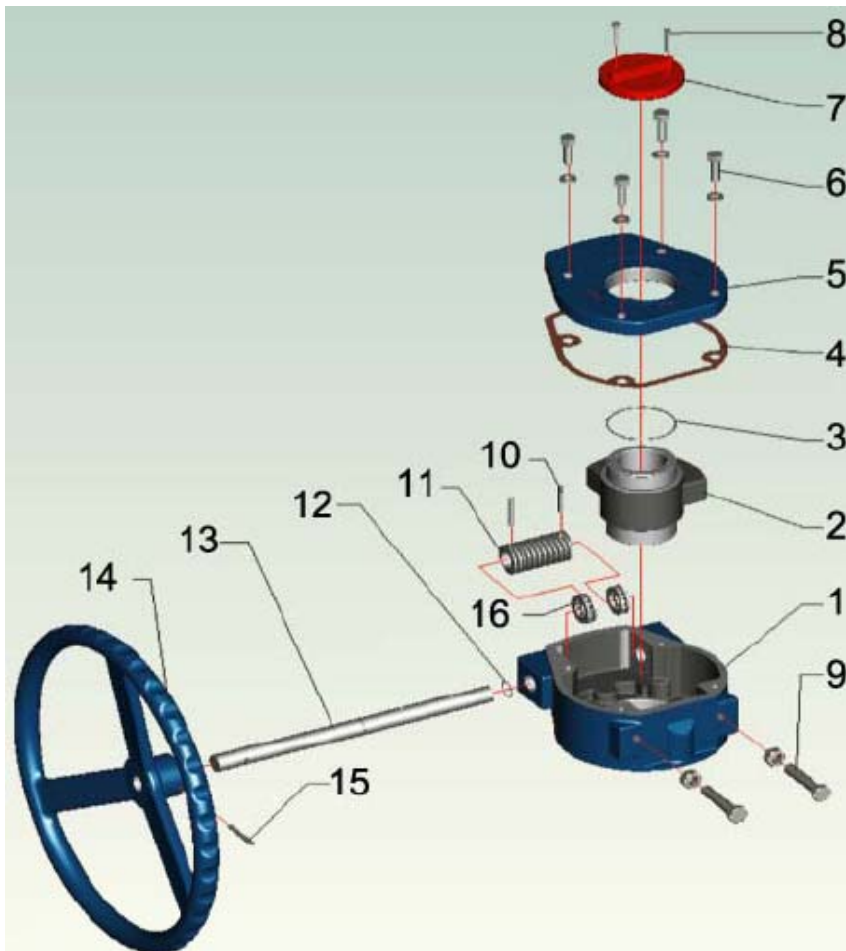


| Item | Designation | Materials |
|------|---------------------|--|
| 1 | Body | ASTM A351 CF8M |
| 2 | Disc | ASTM A351 CF8M |
| 3 | Shaft | ASTM A564 630 |
| 4* | Seat | PTFE filled with 15% graphite |
| 4-1 | Metal seat | Inconel 718 |
| 4-2* | Gasket | Graphite |
| 5 | Retainer | ASTM A351 CF8 |
| 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 BUTTERFLY VALVE PN25

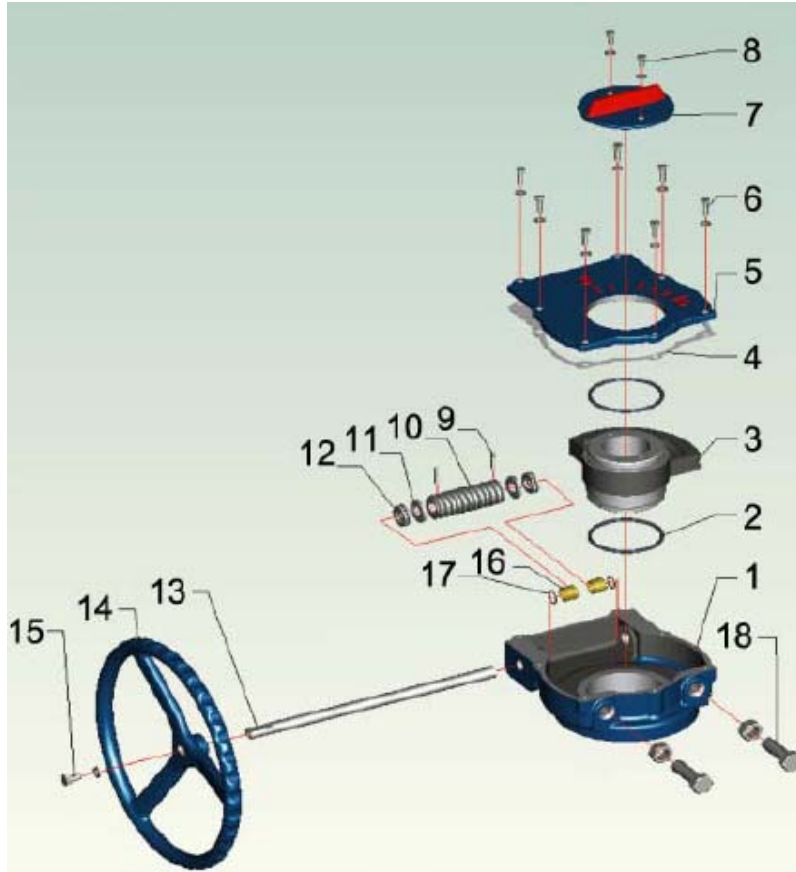
MATERIALS GEARBOX DN50 - 350 :



| 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 BUTTERFLY VALVE PN25

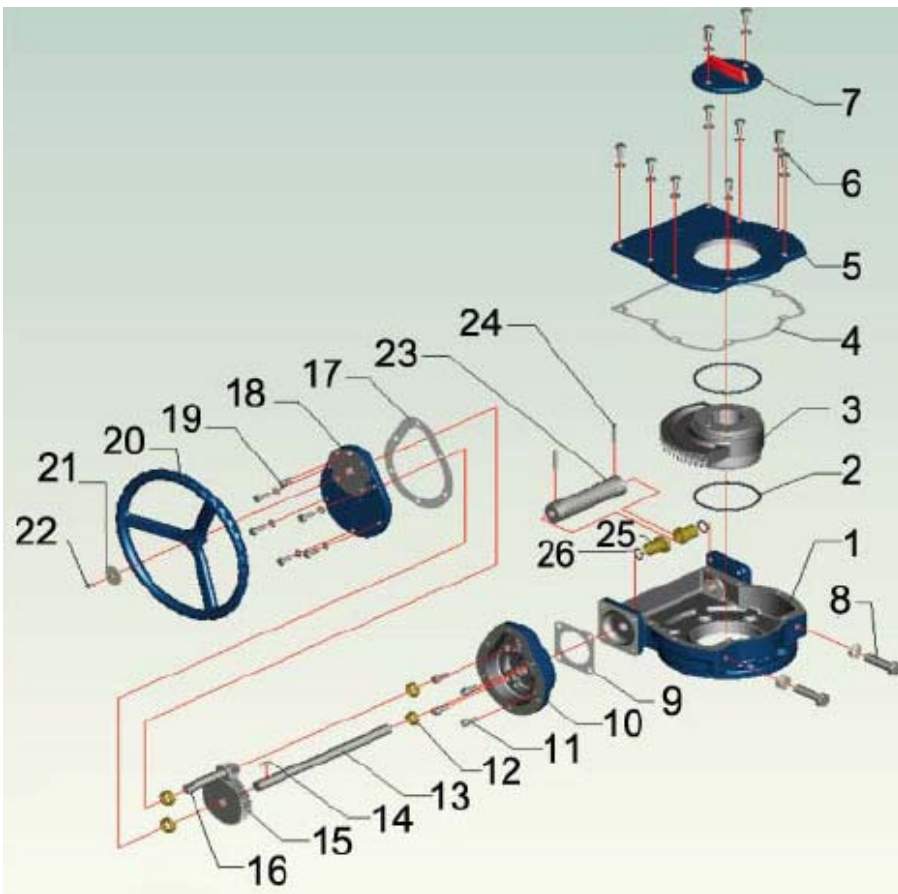
MATERIALS GEARBOX DN400 - 500 :



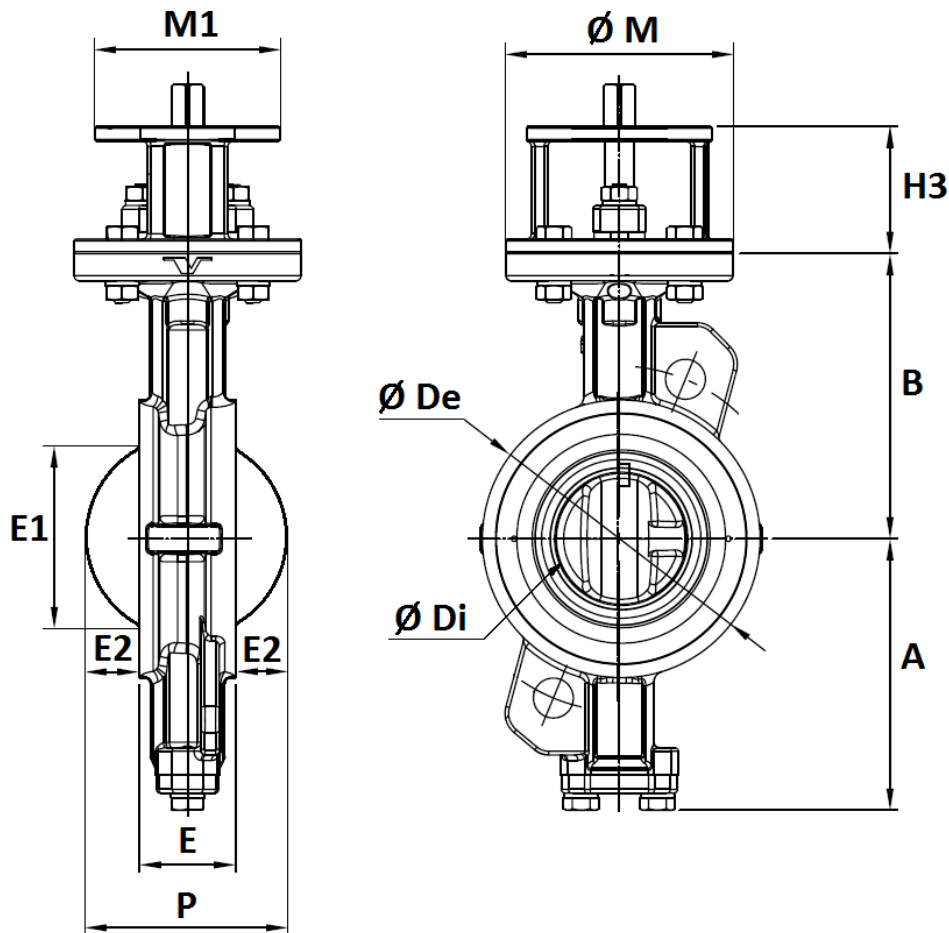
| Item | Designation | Materials |
|------|-------------|--------------|
| 1 | Body | Cast iron |
| 2 | O ring | NBR |
| 3 | Worm gear | Ductile iron |
| 4 | Gasket | Paper |
| 5 | Cover | Cast iron |
| 6 | Screw | Steel |
| 7 | Indicator | Cast iron |
| 8 | Screw | Steel |
| 9 | Pin | Steel |
| 10 | 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 BUTTERFLY VALVE PN25

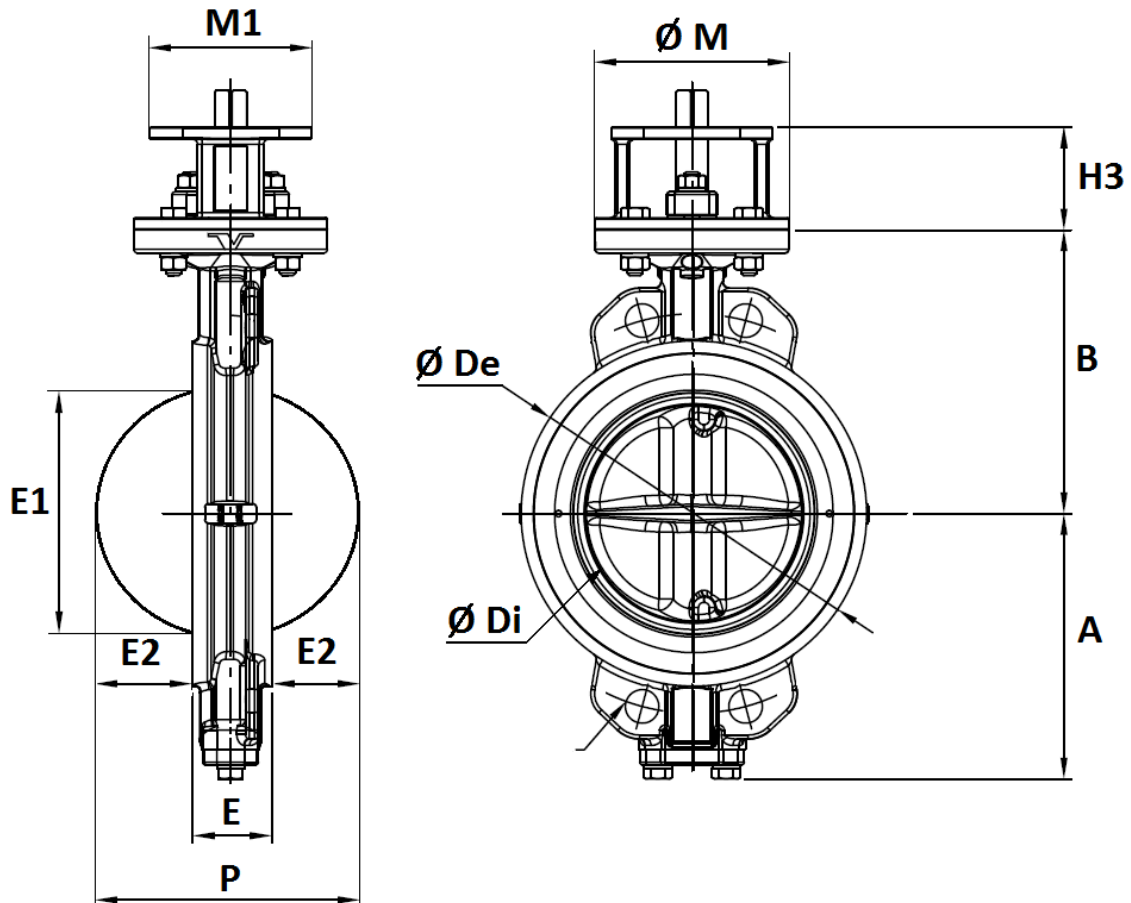
MATERIALS GEARBOX DN600 :



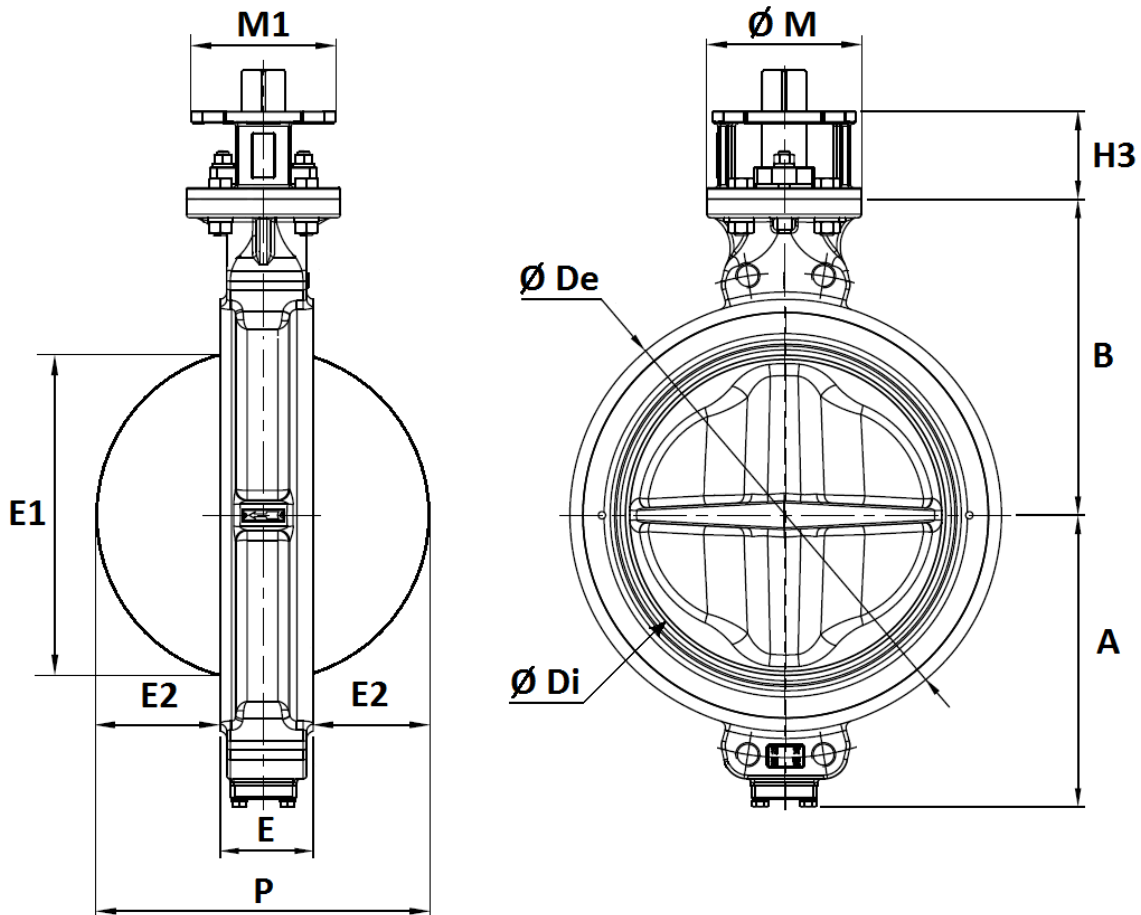
| Item | Designation | Materials |
|------|-----------------|--------------|
| 1 | Body | Cast iron |
| 2 | O ring | NBR |
| 3 | Worm gear | Ductile iron |
| 4 | Gasket | Paper |
| 5 | Cover | Cast iron |
| 6 | Screw | Steel |
| 7 | Indicator | Cast iron |
| 8 | Stop bolt | Steel |
| 9 | Gasket | Paper |
| 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 BUTTERFLY VALVE PN25
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 |

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25
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 |

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25
VALVE SIZE DN450 - 600 (in mm) :


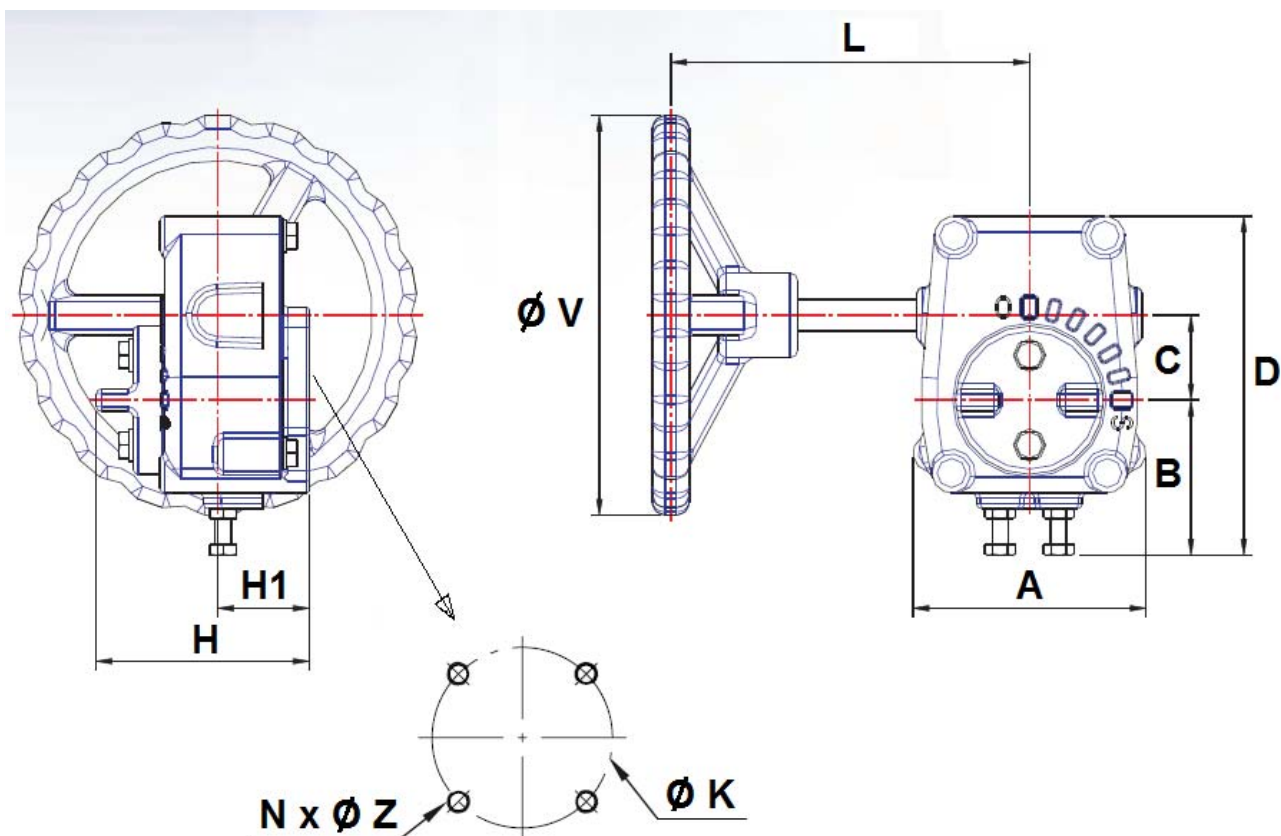
| DN | 450 | 500 | 600 |
|-------------------|-----|-----|-----|
| E | 114 | 127 | 154 |
| A | 370 | 399 | 455 |
| B | 395 | 430 | 490 |
| H3 | 120 | 120 | 150 |
| Ø M | 210 | 210 | 300 |
| M1 | 195 | 195 | 300 |
| P | 428 | 481 | 574 |
| E1 | 423 | 471 | 572 |
| E2 | 157 | 177 | 210 |
| Ø De | 534 |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

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25

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



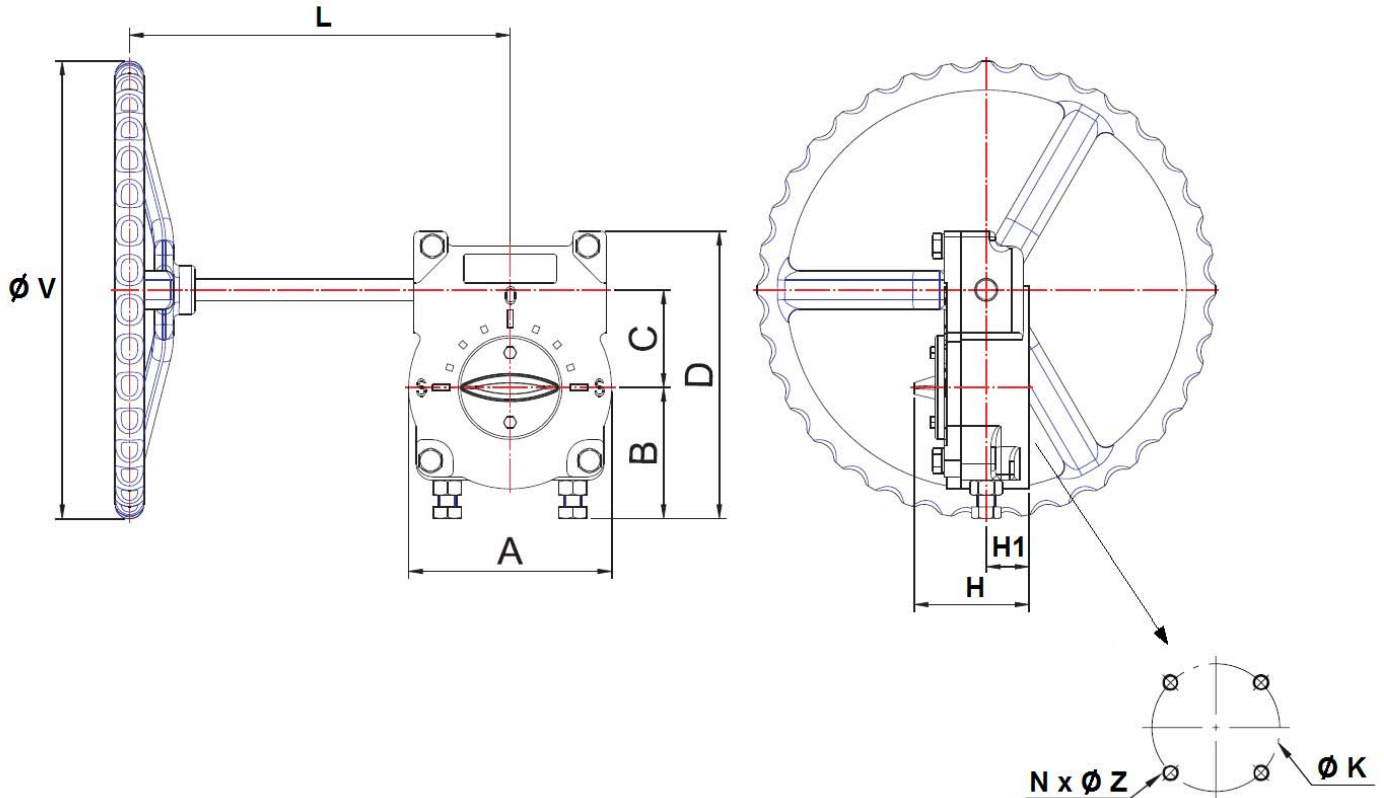
| DN | 50 | 65 | 80 | 100 | 125 | 150 |
|-------------|-----|-----|-----|-----|-----|-----|
| L | 200 | 200 | 250 | 250 | 355 | 355 |
| Weight (Kg) | 0.7 | 0.7 | 0.8 | 0.8 | 1.6 | 1.6 |

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25
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 BUTTERFLY VALVE PN25

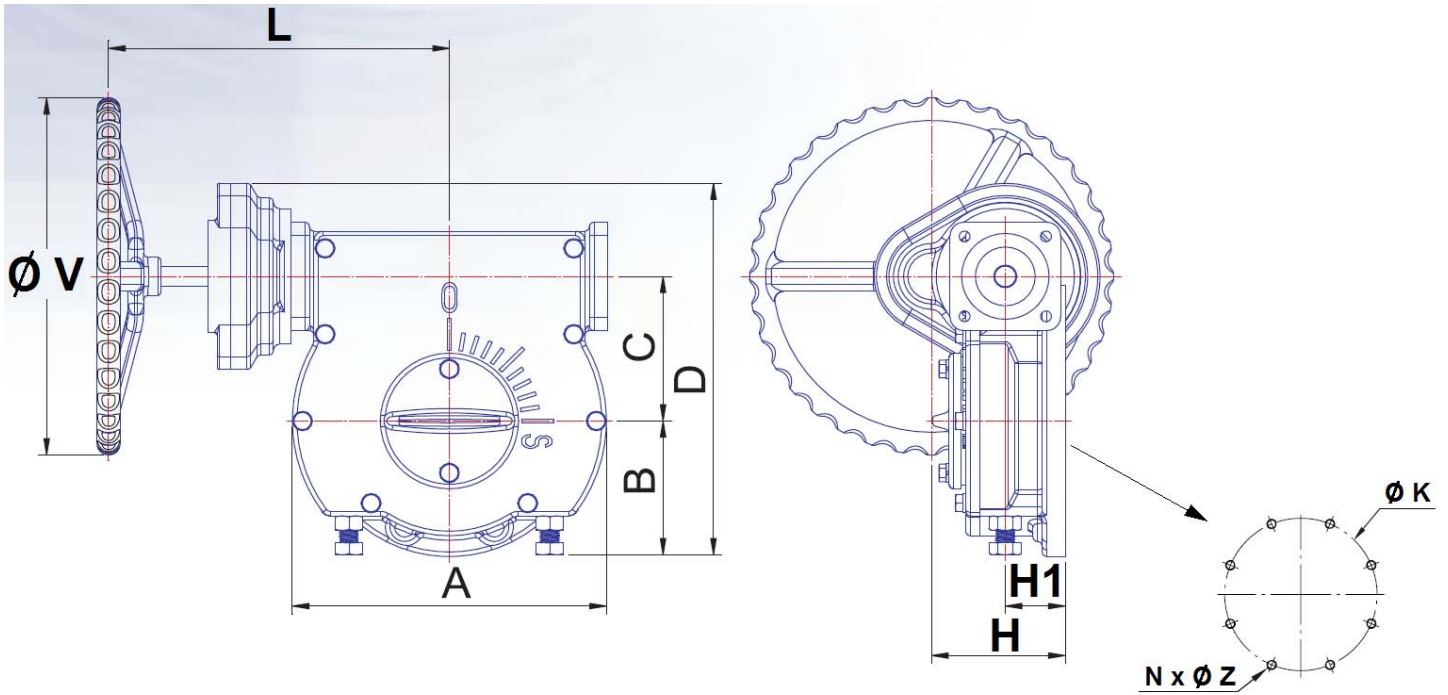
GEARBOX SIZE DN 400-500 :



| 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 BUTTERFLY VALVE PN25

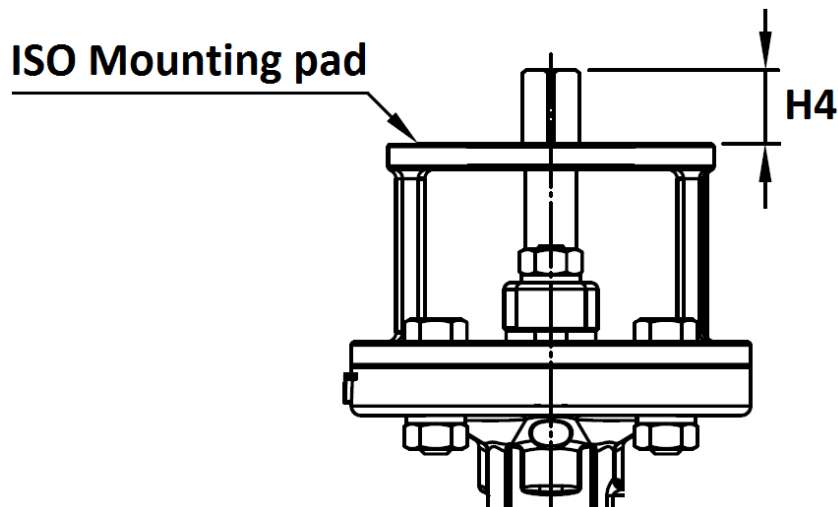
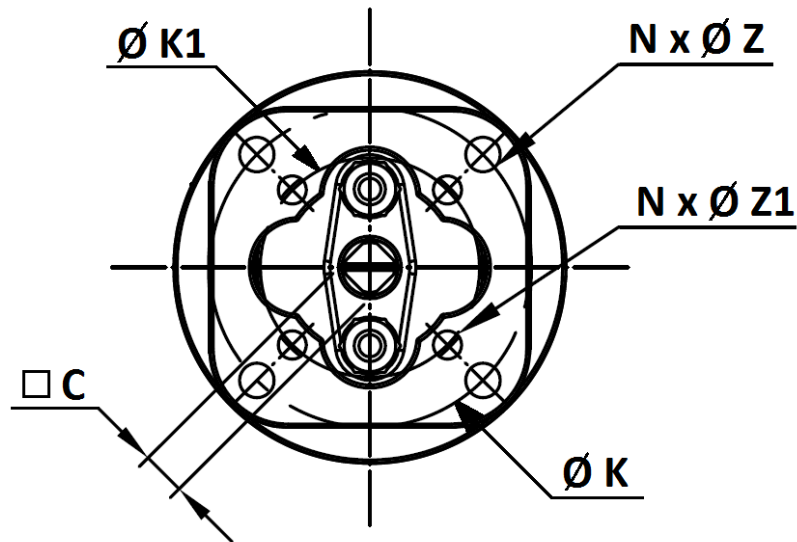
GEARBOX SIZE DN 600 :



| 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 BUTTERFLY VALVE PN25

ISO MOUNTING PAD AND STEM SIZE (in mm) :

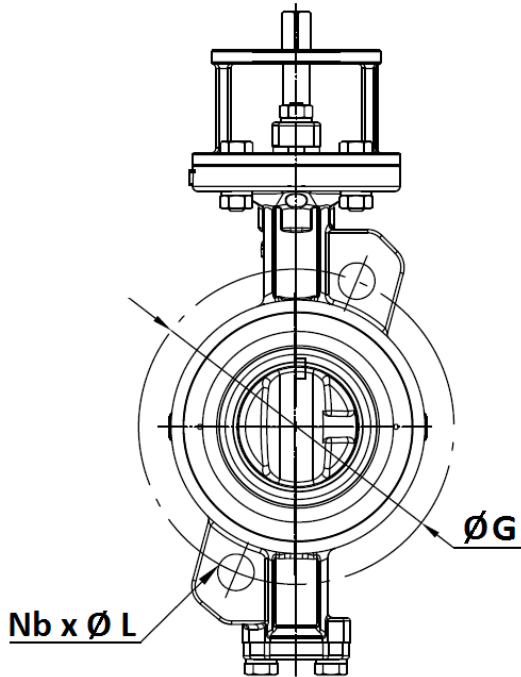


| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|---------------------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C | 11 | 11 | 14 | 14 | 17 | 17 | 19 | 22 | 27 | 27 | 36 | 36 | 46 | 46 |
| H4 | 18 | 18 | 23 | 23 | 23 | 23 | 28 | 28 | 37 | 37 | 47 | 47 | 56 | 56 |
| $\varnothing K$ | 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 |
| $N \times \varnothing Z$ | 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 |
| $\varnothing K1$ | 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 | - |
| $N \times \varnothing Z1$ | 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 | - |

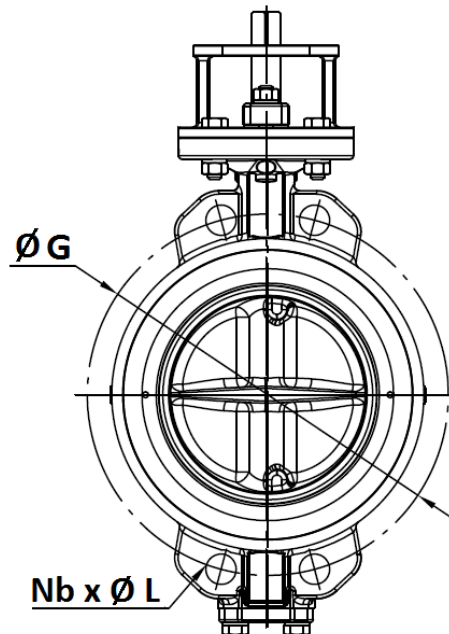
STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25

BETWEEN FLANGES PN25 SIZE (in mm) :

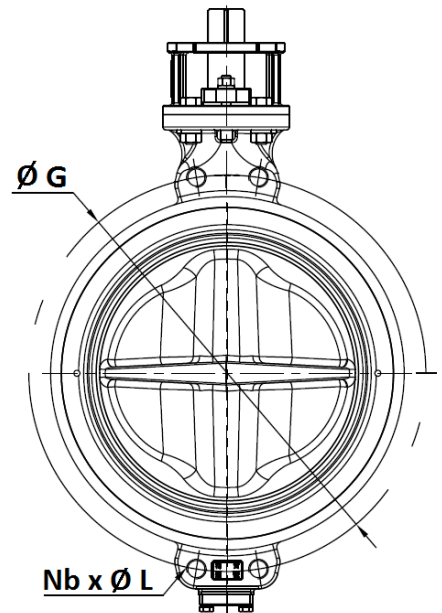
DN 50 – 150



DN 200 - 400



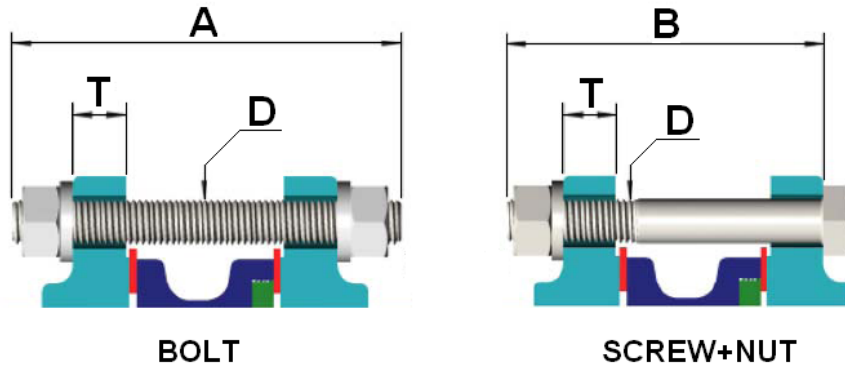
DN 450 - 600



| 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 BUTTERFLY VALVE PN25

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 |

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 BUTTERFLY VALVE PN25**STANDARDS :**

- Fabrication according to 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 or PN16
- 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.

STAINLESS STEEL DOUBLE OFFSET BUTTERFLY VALVE PN25

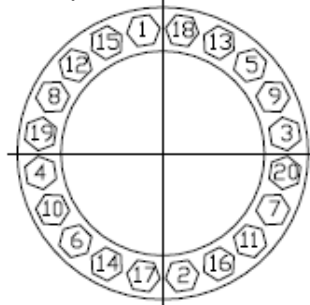
INSTALLATION INSTRUCTIONS

GENERAL GUIDELINES :

- Ensure that the valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the valves to be installed are of correct strength to be able to support the capacity of their usage.
- **Installation of all circuits should ensure that their function can be automatically tested on a regular basis (at least two times a year).**

INSTALLATION INSTRUCTIONS :

- **Before installing the valves, clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the valves.
- **Ensure that both connecting pipes either side of the valve (upstream and downstream) are aligned** (if they're not, the valves may not work correctly).
- **Make sure that the two sections of the pipe (upstream and downstream) match, the valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the valve and can even cause a rupture.** To be sure, place the kit in position to ensure the assembling will work.
- **If sections of piping do not have their final support in place, they should be temporarily fixed. This is to avoid unnecessary strain on the valve.**
- Tighten the bolts in cross as the example below :



| 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 BUTTERFLY VALVE PN25

INSTALLATION INSTRUCTIONS (SUITE) :

- The disc must move easily inside the pipe.
- Valves must be opened during cleaning operation.
- Vales must be installed in horizontal position or in vertical position with handle at the top :

OK



OK



NO



- Tests must be done with a cleaned pipe.
- Tests must be done with opened valve. Test pressure must not be higher than the valve specification according to ISO 5208.
- Then open slowly the valve.
- **Do not mount butterfly valves with stainless steel pressed collars and turning flanges without strias.**
- **And not on flat face flanges without strias (example : painted cast iron fittings)**

MAINTENANCE :

- We recommend to operate fully the valve 1 to 2 times per year.
- During maintenance operation, ensure that the pipe isn't under pressure, that there's no fluid in the pipe and that the valve is isolated. If there's a fluid in the pipe , evacuate it. Ensure that there are no risks due to the temperature or the fluid (like acids). If the fluid is corrosive , inert the installation before maintenance operation.