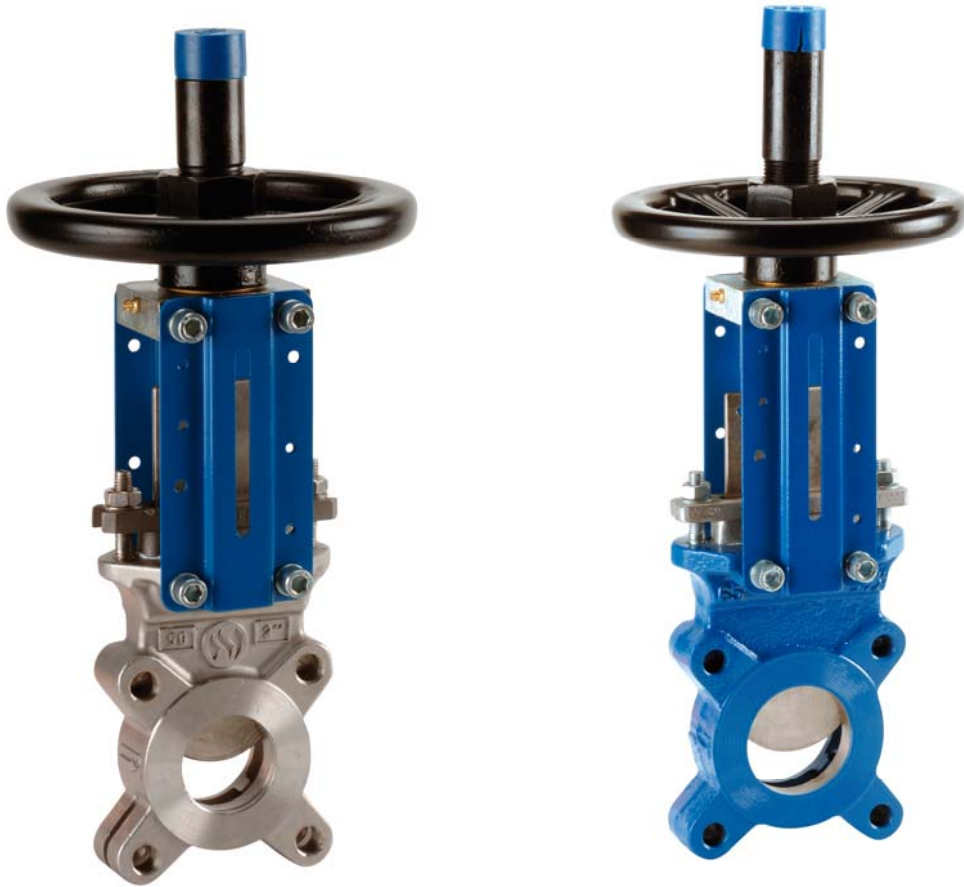


KNIFE GATE VALVE PN10



Size : DN 50 to DN 700

Ends : Between flanges GN10

Min Temperature : -10°C for cast iron type (-15°C for S.S.)

Max Temperature : + 80°C for cast iron type (+ 110°C for S.S.)

Max Pressure : 10 Bars up to DN 200

Specifications : Rising rotating stem , non rising handwheel

Unidirectional tightness

Weak head loss

Materials : Cast iron or Stainless steel

KNIFE GATE VALVE PN10

SPECIFICATIONS :

- Opened or closed valve
- Rising rotating stem, non rising handwheel
- Unidirectional tightness (Respect the flow direction indicated by the arrow)
- Weak head loss
- Between flanges GN10
- Full crossing threaded lower holes and blind threaded top holes
- With handwheel
- With lever or chain handwheel (option)
- Possible with bipolar sensor O + C , voltage AC 15-240V 3A, IP66 type XCK M115C
- Deflector (option)
- 50% epoxy 50% polyester painting blue colour RAL 5017

USE :

- Water, water treatment, chemical pulp, powders, food industry, chemistry
- Min and max Temperature Ts : - 10°C to + 80°C for cast iron body **Ref.170**
- Min and max Temperature Ts : - 15°C to + 110°C for stainless steel body **Ref.172**
- When using powders, inverse flow direction

MAX PRESSURE :

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 |
|--------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ps (Bars) | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 8 | 6 | 4 | 4 | 3 | 3 | 3 | 2 |

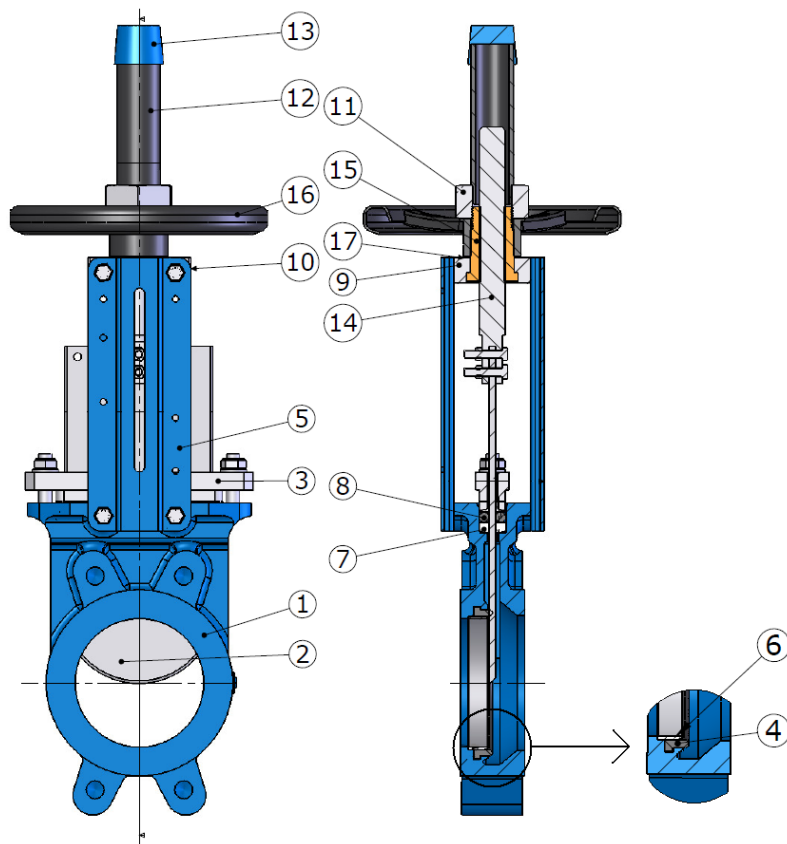
RANGE :

- Between flanges GN10 cast iron body, SS 304 gate, NBR seat, with handwheel **Ref. 170** from DN 50 to DN 700
- Between flanges GN10 SS CF8M body, SS 316 gate , EPDM seat, with handwheel **Ref. 172** from DN 50 to DN 400
- With chain handwheel (**Ref. 980179**) from DN 50 to DN 600
- With lever (**Ref. 980178**) from DN 50 to DN 300
- Option with deflector (**Ref. 98018**)
- Option with bipolar sensors O + C (**Ref. 980135**) from DN 50 to DN 700



KNIFE GATE VALVE PN10

MATERIALS WITH HANDWHEEL (REF. 170 AND 172) :



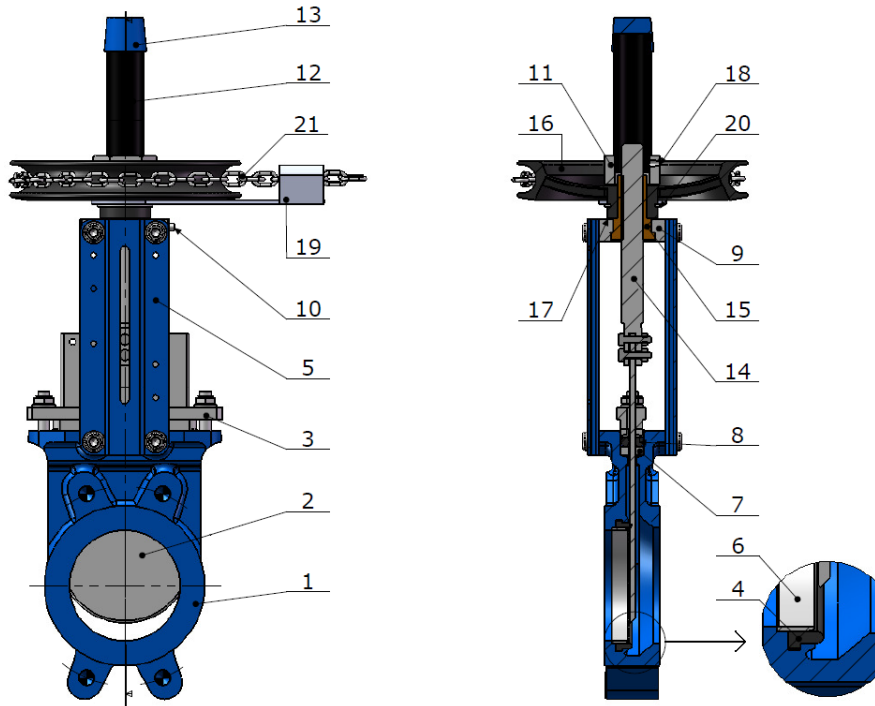
| Item | Designation | Materials Ref. 170 | Materials Ref. 172 |
|------|---------------------------------|----------------------|--------------------|
| 1 | Body | Cast iron EN GJL-250 | ASTM A351 CF8M |
| 2 | Gate | SS 304 | SS 316 |
| 3 | Packing gland nut DN50 – DN 200 | Aluminium | ASTM A351 CF8M |
| 3 | Packing gland nut DN 250 – 700 | Cast iron EN GJL-250 | ASTM A351 CF8M |
| 4(*) | Seat | NBR | EPDM |
| 5 | Support | Painted steel | Painted steel |
| 6(*) | Retainer | SS 304 | SS 316 |
| 7(+) | Packing (Tress) | PTFE | PTFE |
| 8(+) | Packing (O ring) | NBR | EPDM |
| 9 | Yoke | Steel | Steel |
| 10 | Oil hole | Steel | Steel |
| 11 | Fixing screw | Steel | Steel |
| 12 | Hood | Steel | Steel |
| 13 | Hood cover | Plastic | Plastic |
| 14 | Spindle | SS 303 | SS 303 |
| 15 | Stem nut | Bronze | Bronze |
| 16 | Handwheel | Steel | Steel |
| 17 | Washer | Brass | Brass |

(*) : Included in seat seal kit

(+) : Included in packing gland kit

KNIFE GATE VALVE PN10

MATERIALS WITH CHAIN HANDWHEEL :

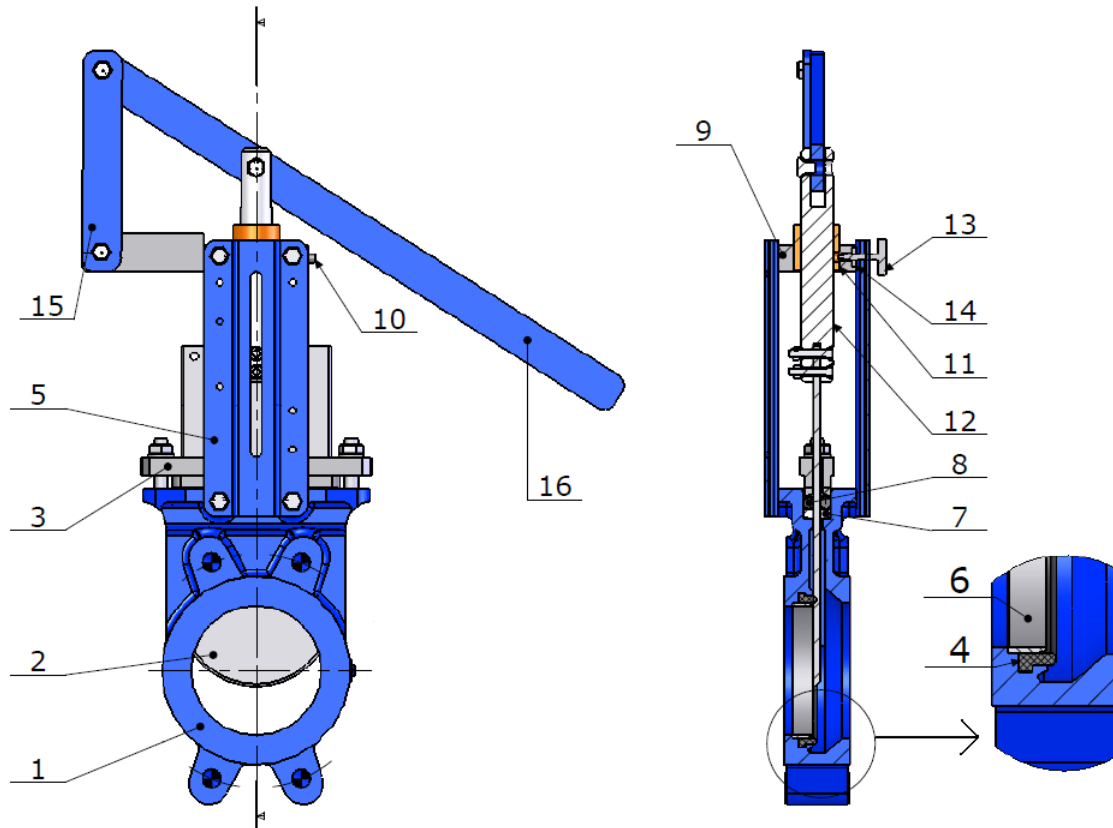


| Item | Designation | Materials Ref. 170 + 980179 | Materials Ref. 172 + 980179 |
|------|---------------------------------|-----------------------------|-----------------------------|
| 1 | Body | Cast iron EN GJL-250 | ASTM A351 CF8M |
| 2 | Gate | SS 304 | SS 316 |
| 3 | Packing gland nut DN50 – DN 200 | Aluminium | ASTM A351 CF8M |
| 3 | Packing gland nut DN 250 – 600 | Cast iron EN GJL-250 | ASTM A351 CF8M |
| 4(*) | Seat | NBR | EPDM |
| 5 | Support | Painted steel | Painted steel |
| 6(*) | Retainer | SS 304 | SS 316 |
| 7(+) | Packing (Tress) | PTFE | PTFE |
| 8(+) | Packing (O ring) | NBR | EPDM |
| 9 | Yoke | Steel | Steel |
| 10 | Oil hole | Steel | Steel |
| 11 | Fixing screw | Steel | Steel |
| 12 | Hood | Steel | Steel |
| 13 | Hood cover | Plastic | Plastic |
| 14 | Spindle | SS 303 | SS 303 |
| 15 | Stem nut | Bronze | Bronze |
| 16 | Handwheel | Steel | Steel |
| 17 | Washer | Brass | Brass |
| 18 | Fixing screw | SS 304 | SS 304 |
| 19 | Chain guide | Cast iron | Cast iron |
| 20 | Washer | Brass | Brass |
| 21 | Chain | Steel or stainless steel | Steel or stainless steel |

(*) : Included in seat seal kit
 (+) : Included in packing gland kit

KNIFE GATE VALVE PN10

MATERIALS WITH LEVER :



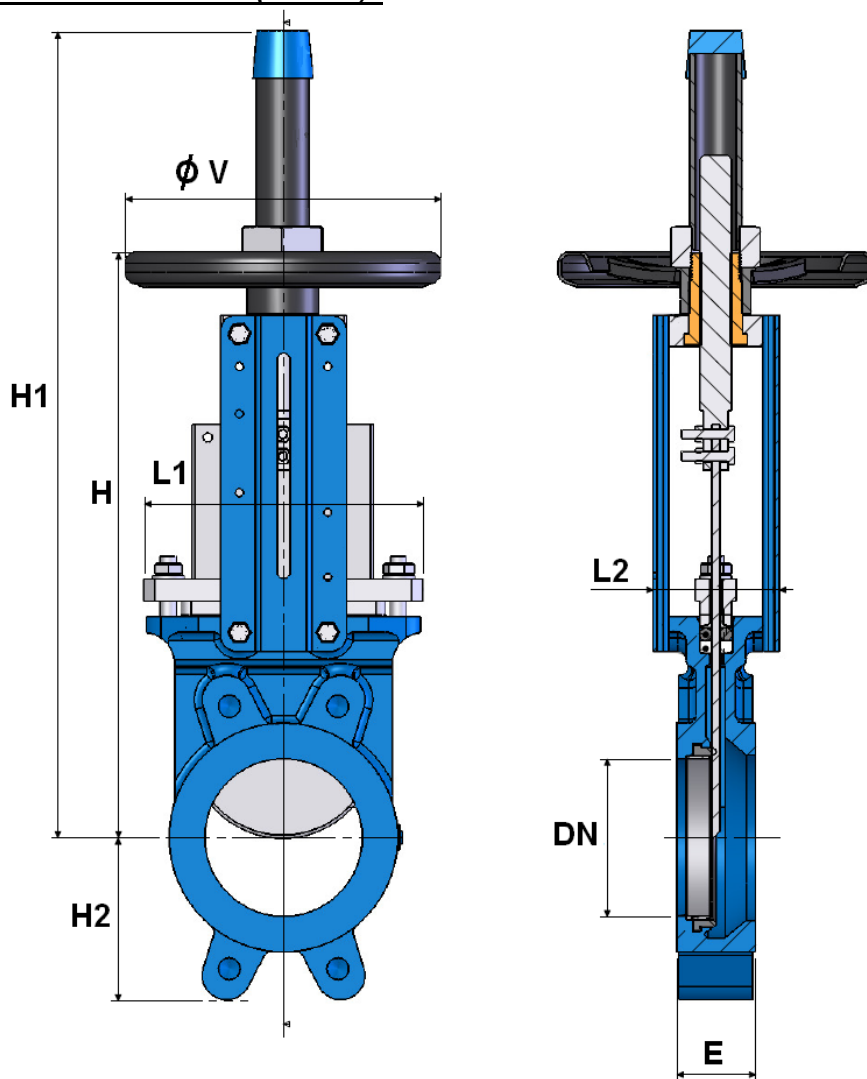
| Item | Designation | Materials Ref. 170 + 980178 | Materials Ref. 172 + 980178 |
|------|---------------------------------|-----------------------------|-----------------------------|
| 1 | Body | Cast iron EN GJL-250 | ASTM A351 CF8M |
| 2 | Gate | SS 304 | SS 316 |
| 3 | Packing gland nut DN50 – DN 200 | Aluminium | ASTM A351 CF8M |
| 3 | Packing gland nut DN 250 – 300 | Cast iron EN GJL-250 | ASTM A351 CF8M |
| 4(*) | Seat | NBR | EPDM |
| 5 | Support | Painted steel | Painted steel |
| 6(*) | Retainer | SS 304 | SS 316 |
| 7(+) | Packing (Tress) | PTFE | PTFE |
| 8(+) | Packing (O ring) | NBR | EPDM |
| 9 | Yoke | Steel | Steel |
| 10 | Oil hole | Steel | Steel |
| 11 | Stem nut | Bronze | Bronze |
| 12 | Spindle | SS 303 | SS 303 |
| 13 | Fixing screw | Steel | Steel |
| 14 | Wedge | Steel | Steel |
| 15 | Link | Steel | Steel |
| 16 | Lever | Steel | Steel |

(*) : : Included in seat seal kit

(+) : : Included in packing gland kit

KNIFE GATE VALVE PN10

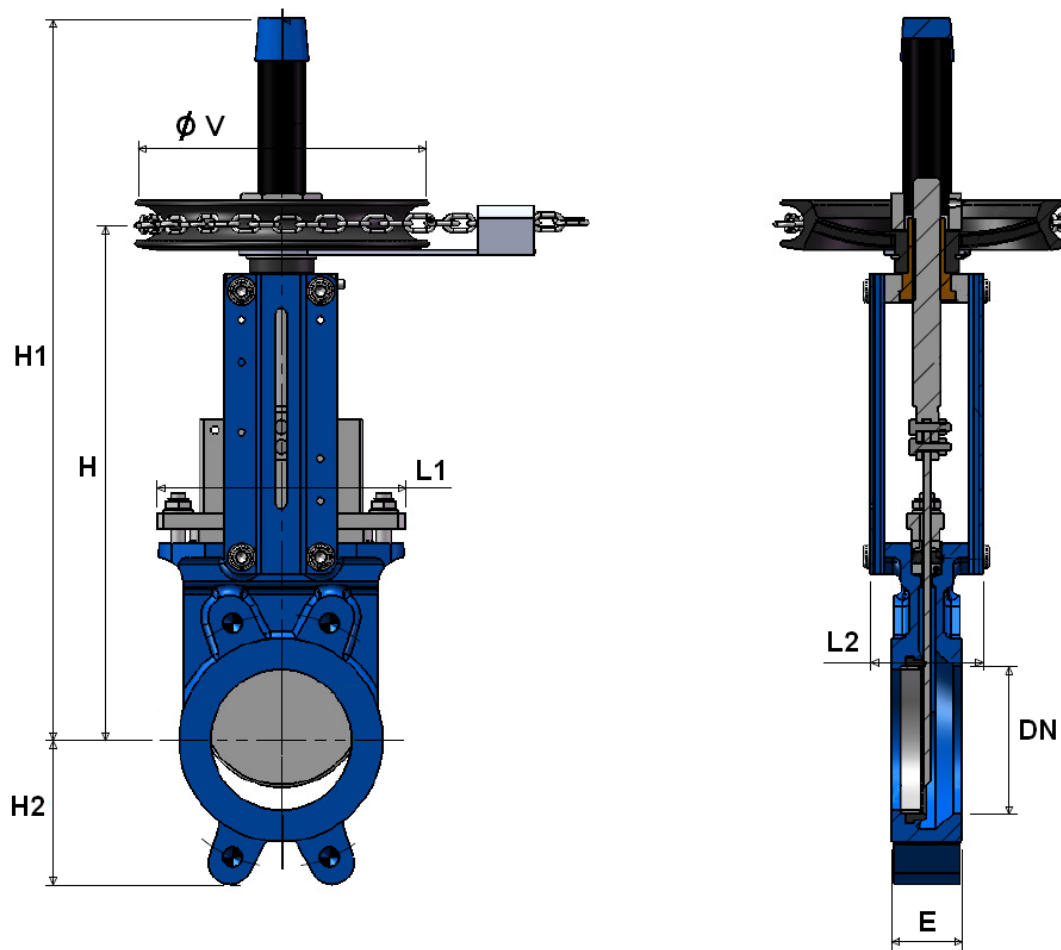
SIZE WITH HANDWHEEL REF.170-172 (in mm) :



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 |
|-------------------|------|------|------|-------|------|-------|------|------|------|------|------|------|------|------|------|
| E | 40 | 40 | 50 | 50 | 50 | 60 | 60 | 70 | 70 | 96 | 100 | 106 | 110 | 110 | 110 |
| H | 289 | 316 | 342 | 382 | 415 | 458 | 575 | 676 | 776 | 906 | 1012 | 1098 | 1210 | 1416 | 1611 |
| H1 | 409 | 436 | 462 | 502 | 585 | 637 | 815 | 1016 | 1116 | 1336 | 1442 | 1628 | 1740 | 2046 | 2461 |
| H2 | 63 | 70 | 92 | 105 | 120 | 130 | 160 | 198 | 234 | 256 | 292 | 308 | 340 | 400 | 452 |
| L1 | 124 | 139 | 154 | 174 | 192 | 217 | 270 | 326 | 380 | 438 | 493 | 546 | 620 | 714 | 830 |
| L2 | 92 | 92 | 92 | 92 | 102 | 102 | 119 | 119 | 119 | 290 | 290 | 290 | 290 | 290 | 320 |
| ϕV | 185 | 185 | 185 | 185 | 225 | 225 | 325 | 325 | 380 | 450 | 450 | 450 | 450 | 450 | 620 |
| Weig. Ref.170(Kg) | 6.53 | 7.1 | 8.53 | 9.8 | 12.7 | 16.16 | 26.8 | 43.5 | 57.5 | 108 | 132 | 170 | 210 | 298 | 446 |
| Weig. Ref.172(Kg) | 6.52 | 7.81 | 8.48 | 10.06 | 12.7 | 15.8 | 27.8 | 44.6 | 58.6 | 110 | 150 | - | - | - | - |

KNIFE GATE VALVE PN10

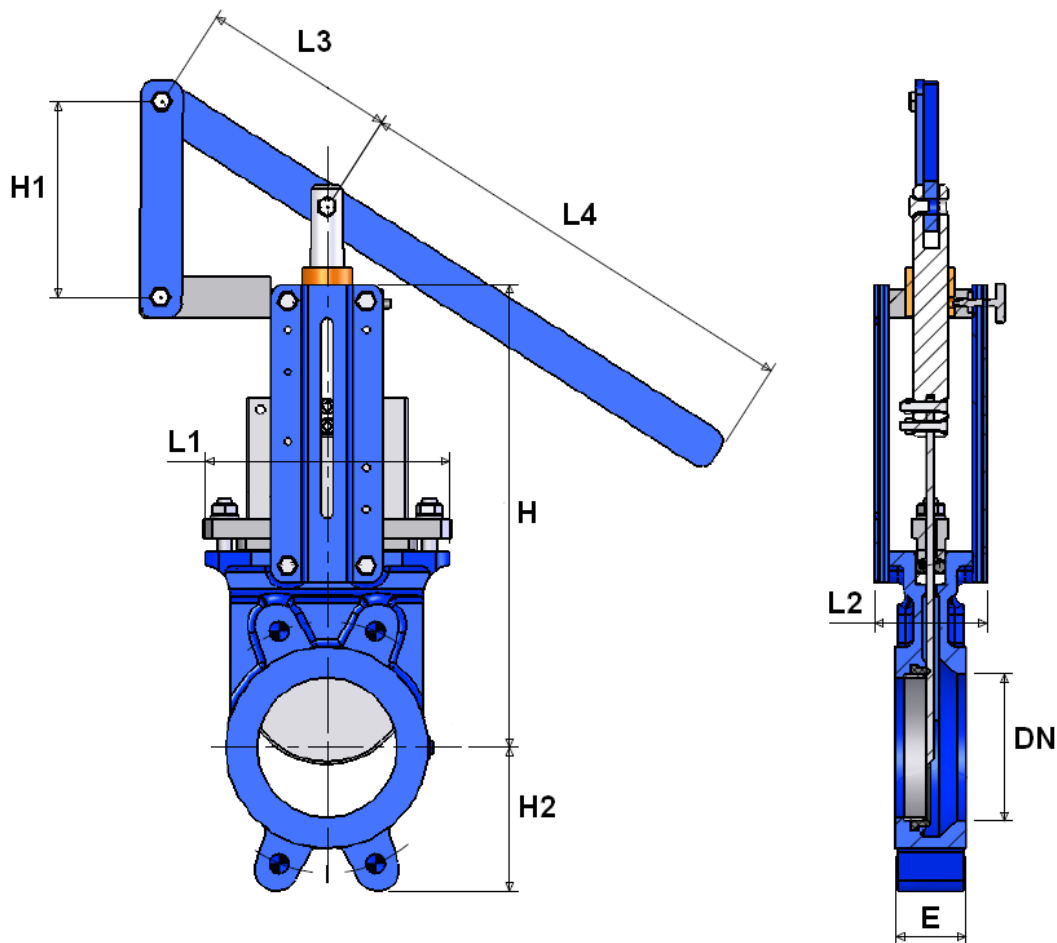
SIZE WITH CHAIN HANDWHEEL REF.170-172 + 980179 (in mm) :



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|-------------------------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| E | 40 | 40 | 50 | 50 | 50 | 60 | 60 | 70 | 70 | 96 | 100 | 106 | 110 | 110 |
| H | 289 | 316 | 342 | 382 | 415 | 458 | 575 | 676 | 776 | 906 | 1012 | 1098 | 1210 | 1416 |
| H1 | 409 | 436 | 462 | 502 | 585 | 637 | 815 | 1016 | 1116 | 1336 | 1442 | 1628 | 1740 | 2046 |
| H2 | 63 | 70 | 92 | 105 | 120 | 130 | 160 | 198 | 234 | 256 | 292 | 308 | 340 | 400 |
| L1 | 124 | 139 | 154 | 174 | 192 | 217 | 270 | 326 | 380 | 438 | 493 | 546 | 620 | 714 |
| L2 | 92 | 92 | 92 | 92 | 102 | 102 | 119 | 119 | 119 | 290 | 290 | 290 | 290 | 290 |
| Ø V | 212 | 212 | 212 | 212 | 212 | 212 | 296 | 296 | 296 | 482 | 482 | 482 | 482 | 482 |
| Weig. Ref.170 + 980179 (Kg) | 11.4 | 12 | 13.4 | 14.7 | 17.6 | 21 | 34.3 | 51 | 65 | 122.5 | 146.5 | 184.5 | 224.5 | 312.5 |
| Weig. Ref.172 + 980179 (Kg) | 11.4 | 12.7 | 13.4 | 14.9 | 17.6 | 20.7 | 35.3 | 52.1 | 66.1 | 124.5 | 164.5 | - | - | - |

KNIFE GATE VALVE PN10

SIZE WITH LEVER REF.170-172 + 980178 (in mm) :

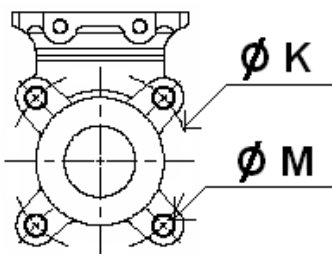


| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|--------------------------------------|-----|-----|-----|------|-----|------|------|------|------|
| E | 40 | 40 | 50 | 50 | 50 | 60 | 60 | 70 | 70 |
| H | 240 | 265 | 290 | 335 | 373 | 424 | 533 | 625 | 732 |
| H1 | 125 | 125 | 125 | 125 | 170 | 170 | 190 | 285 | 285 |
| H2 | 63 | 70 | 92 | 105 | 120 | 130 | 160 | 198 | 234 |
| L1 | 124 | 139 | 154 | 174 | 189 | 220 | 275 | 326 | 380 |
| L2 | 83 | 83 | 83 | 83 | 93 | 93 | 108 | 108 | 108 |
| L3 | 140 | 140 | 140 | 140 | 140 | 140 | 230 | 230 | 230 |
| L4 | 340 | 340 | 340 | 340 | 440 | 440 | 640 | 680 | 680 |
| Weig. Ref.170 or 172 + 980178 (Kg) | 8.9 | 9.8 | 11 | 13.3 | 16 | 18.9 | 32.9 | 53.6 | 67.3 |

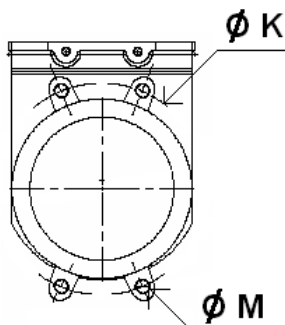
KNIFE GATE VALVE PN10

SIZE FIXING VALVE THREADED HOLES (BETWEEN FLANGES GN10 in mm) :

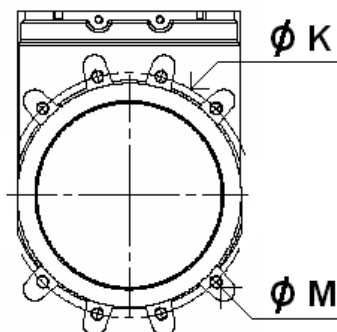
DN 50 – 65



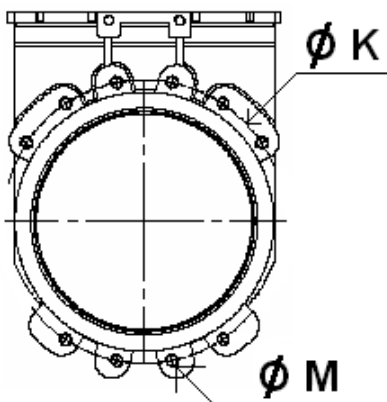
DN 80 – 200



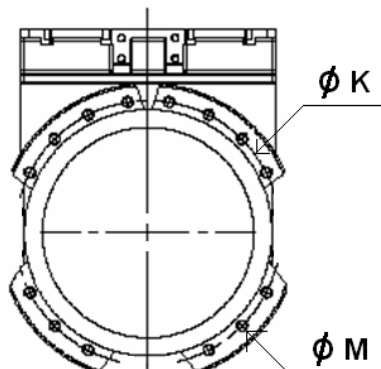
DN 250 - 300



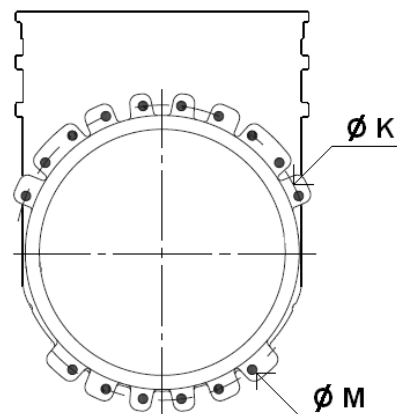
DN 350 – 400



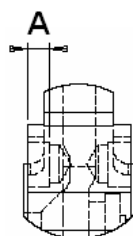
DN 450 – 600



DN 700



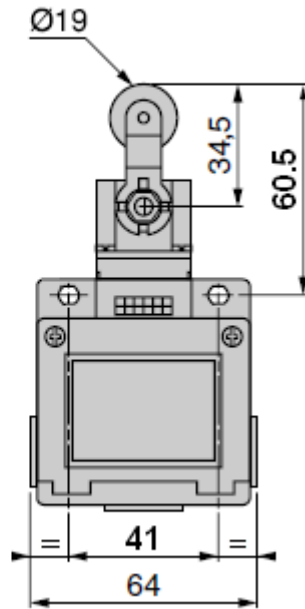
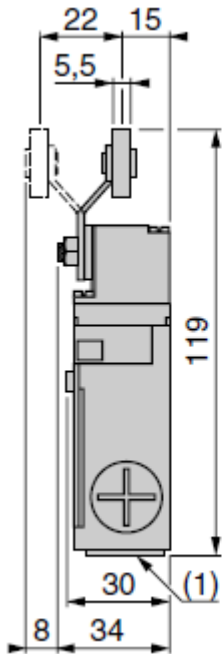
THREADED LENGHT FOR TOP BLIND HOLES :



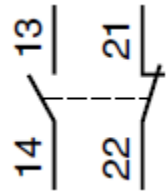
| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ø K | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350 | 400 | 460 | 515 | 565 | 620 | 725 | 840 |
| Ø M | M16 | M16 | M16 | M16 | M16 | M20 | M20 | M20 | M20 | M20 | M24 | M24 | M24 | M27 | M27 |
| Nb threaded hole | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 10 | 10 | 14 | 14 | 14 | 16 |
| A | 8 | 8 | 9 | 9 | 9 | 10 | 10 | 12 | 12 | 20 | 20 | 22 | 22 | 22 | 22 |

KNIFE GATE VALVE PN10

SENSOR SIZE (in mm) AND SCHEMA :



Bipolar sensor O + C
(XE2S P2151)



STANDARDS :

- Between flanges GN10 according to EN 1092-2 PN10

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.

KNIFE GATE VALVE PN10

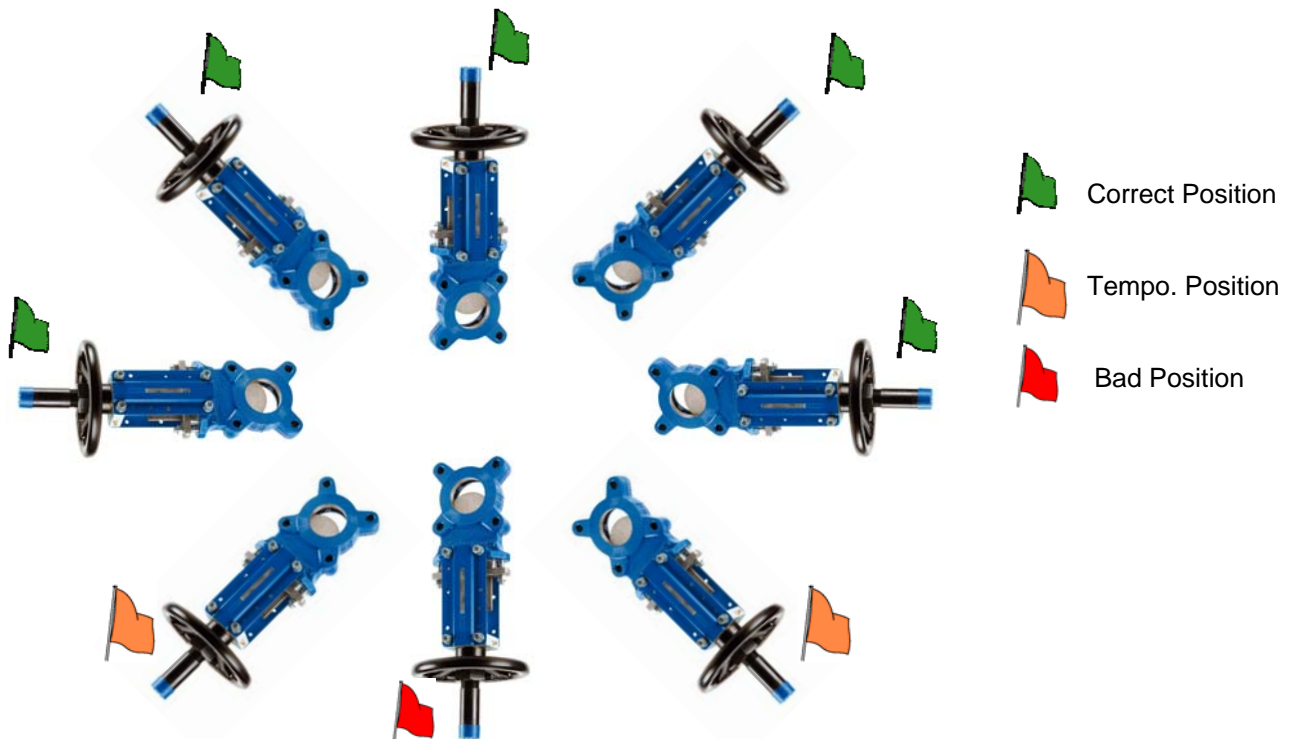
INSTALLATION INSTRUCTIONS :

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.**
- During installation operation, do not carry the valves by the handwheel.
- Valves can be installed in all positions but we recommend the above positions :



KNIFE GATE VALVE PN10

INSTALLATION INSTRUCTIONS (SUITE) :

- If the valve is installed at the end of the pipe, it must be between 2 flanges.
- The knife gate valves are unidirectional, respect the flow direction indicated on the body by the arrow. When using powders, inverse flow direction
- Tighten the bolts in cross. For blind holes, use studs to have a good tightening and tighten them carefully so that they don't touch the gate.
- During cleaning operation, the valves must be opened.
- Tests must be done with cleaned installation and pipe.
- Test must be done with partially opened valve. Test pressure must not exceed valve specification according to EN 12266-1.
- Open carefully the valve.
- Tighten the gland packing at the first start of the installation (with a moderate torque) so that there's no leakage and the handwheel is easy to operate. Make sure there's no contact between the gate and the gland.
- Keep greased the stem.
- It's recommended to operate the valve (open and close) 1 time per month