

KNIFE GATE VALVE CAST IRON METAL-METAL SEAT PN10 S-GATE

Unidirectional cast iron knife gate valve for water, water treatment, chemical pulp, powders, food industry, chemistry
PTFE packing with stainless steel packing gland nut for a better mechanical resistance.

Centered index allowing the installation of the sensor with a small footprint.

Ribbed support plate for a better rigidity.

Unidirectional metal/metal seat with incomplete tightness : loss factor 1%

Certificate

3.1



Size : DN50 to DN300

Connection : Between flanges PN10

Min Temperature : -10°C

Max Temperature : +90°C

Max Pressure : 10 Bars up to DN200

Specifications : Rising non rotating stem, non rising handwheel

Unidirectional incomplete tightness

Weak head loss

Materials : Cast iron EN GJL-250

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SPECIFICATIONS :

- Opened or closed valve
- Rising non rotating stem, non rising handwheel
- Unidirectional metal/metal tightness with incomplete tightness and loss factor 1% (Respect the flow direction indicated by the arrow)
- Weak head loss
- Between flanges PN10
- 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 5005

USE :

- Water, water treatment, chemical pulp, powders, food industry, chemistry
- Min and max Temperature Ts : - 10°C to + 90°C

MAX PRESSURE :

DN	50	65	80	100	125	150	200	250	300
Ps (Bars)	10	10	10	10	10	10	10	8	6

NUMBER OF CYCLES TO CLOSE OR OPEN THE VALVE :

DN	50	65	80	100	125	150	200	250	300
Number of cycles	15	18.75	22.5	27.5	33.75	40	42	52	62

FLOW COEFFICIENT Kvs (M3 / h) :

DN	50	65	80	100	125	150	200	250	300
Kvs (m3/h)	447	755	1144	1787	2793	4021	7149	11171	16086

HEAD LOSS CALCULATION :

$$\Delta p = (Q / K_v)^2 \times SG$$

Q : flow in m³/h

Δp : Head loss in bar

SG : Specific gravity (= 1 for water)

Kv : Volume of water in m³/h, that will flow through a given restriction or valve opening with a pressure drop of 1 bar at 20°C)

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TORQUE VALUES (in Nm without safety coefficient) :

DN	50	65	80	100	125	150	200	250	300
Torque (Nm)	8	10	12	14	16	24	24	38	32

STEM THREADING SIZE :

DN	50	65	80	100	125	150	200	250	300
Threading (mm)	Tr 20x4						Tr 25x5		

RANGE AND ACCESSORIES :



- Between flanges PN10 cast iron body, AISI 304 gate, metal seat, with handwheel **Ref. 176** from DN50 to DN300



- Bipolar sensors O + C kit **Ref. 9801351 and 9801352** from DN 50 to DN 300



- Sensor (alone) **Ref. 9801350** from DN 50 to DN 300



- Chain handwheel **Ref. 9801790-9801791** from DN 50 to DN 300

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RANGE AND ACCESSORIES (SUITE) :



- Chain (per meter) **Ref. 9801795**



- Lever **Ref. 980178** from DN 50 to DN 300



- SS ASTM A351 CF8M Deflector **Ref. 9801800 to 9801808** from DN 50 to DN 300



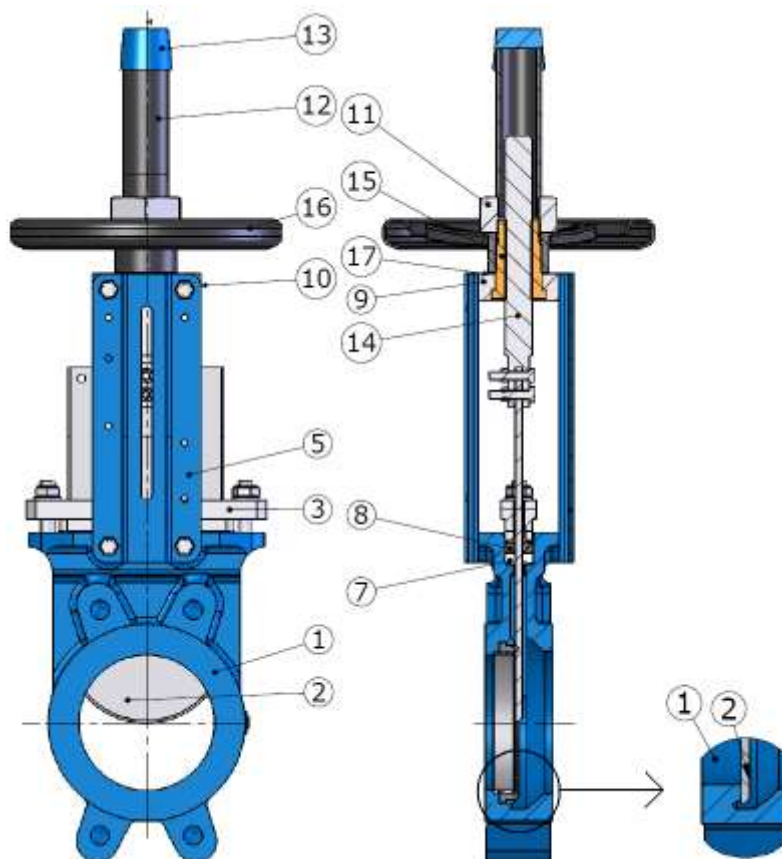
- SS ASTM A351 CF8M Deflector kit (with flange gasket) **Ref. 9801820 to 9801828** from DN 50 to DN 300



- 2 stainless steel supports with 4 bolting **Ref. 9802001 to 9802009** from DN 50 to DN 300

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MATERIALS WITH HANDWHEEL (REF. 176) :

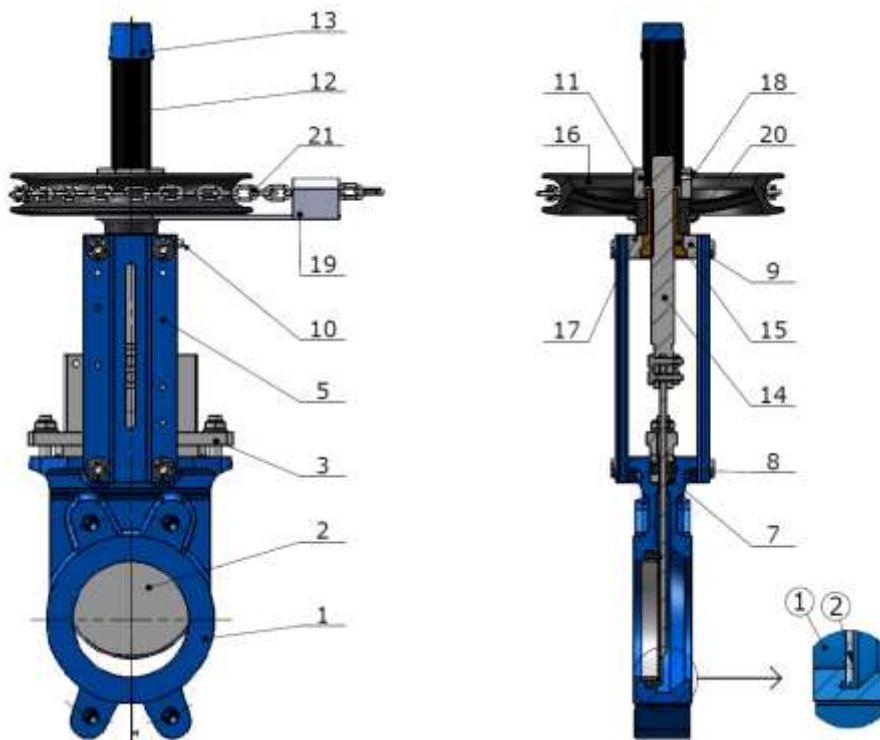


Item	Designation	Materials Ref. 176
1	Body	Cast iron EN GJL-250
2	Gate	AISI 304
3	Packing gland nut	Ductile iron EN GJS-400-15
5	Support	Painted steel
7(+)	Packing (Tress)	PTFE
8(+)	Packing (O ring)	NBR
9	Yoke	Steel
10	Oil hole	Steel
11	Fixing screw	Steel
12	Hood	Steel
13	Hood cover	Plastic
14	Spindle	AISI 304
15	Stem nut	Bronze
16	Handwheel	Steel
17	Washer	Brass

(+) : Included in packing gland kit

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MATERIALS WITH CHAIN HANDWHEEL (REF.176 + 980179) :

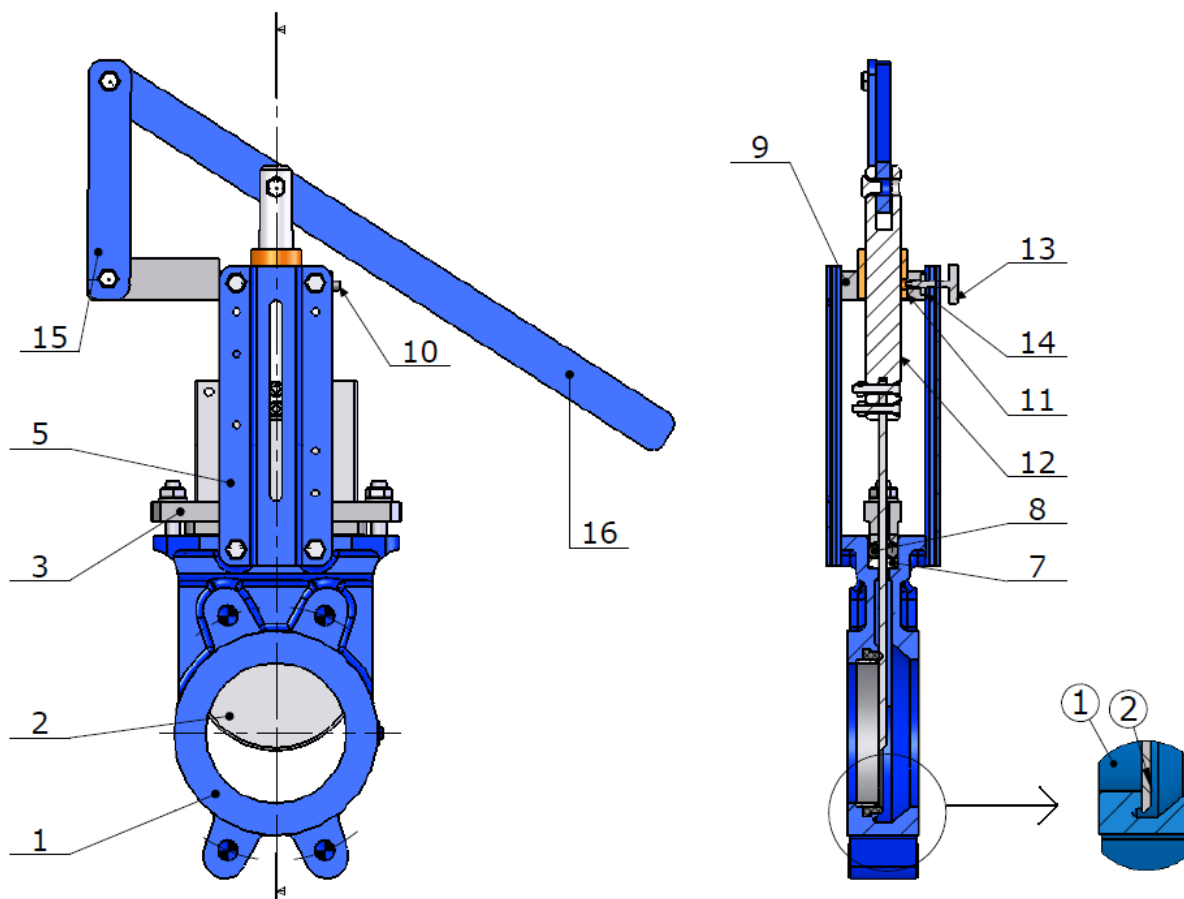


Item	Designation	Materials Ref. 176 + 980179
1	Body	Cast iron EN GJL-250
2	Gate	AISI 304
3	Packing gland nut	Ductile iron EN GJS-400-15
5	Support	Painted steel
7(+)	Packing (Tress)	PTFE
8(+)	Packing (O ring)	NBR
9	Yoke	Steel
10	Oil hole	Steel
11	Fixing screw	Steel
12	Hood	Steel
13	Hood cover	Plastic
14	Spindle	AISI 304
15	Stem nut	Bronze
16	Handwheel	Steel
17	Washer	Brass
18	Fixing screw	AISI 304
19	Chain guide	Cast iron
20	Washer	Brass
21	Chain	Steel or stainless steel

(+) : Included in packing gland kit

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MATERIALS WITH LEVER (REF.176 + 980178) :

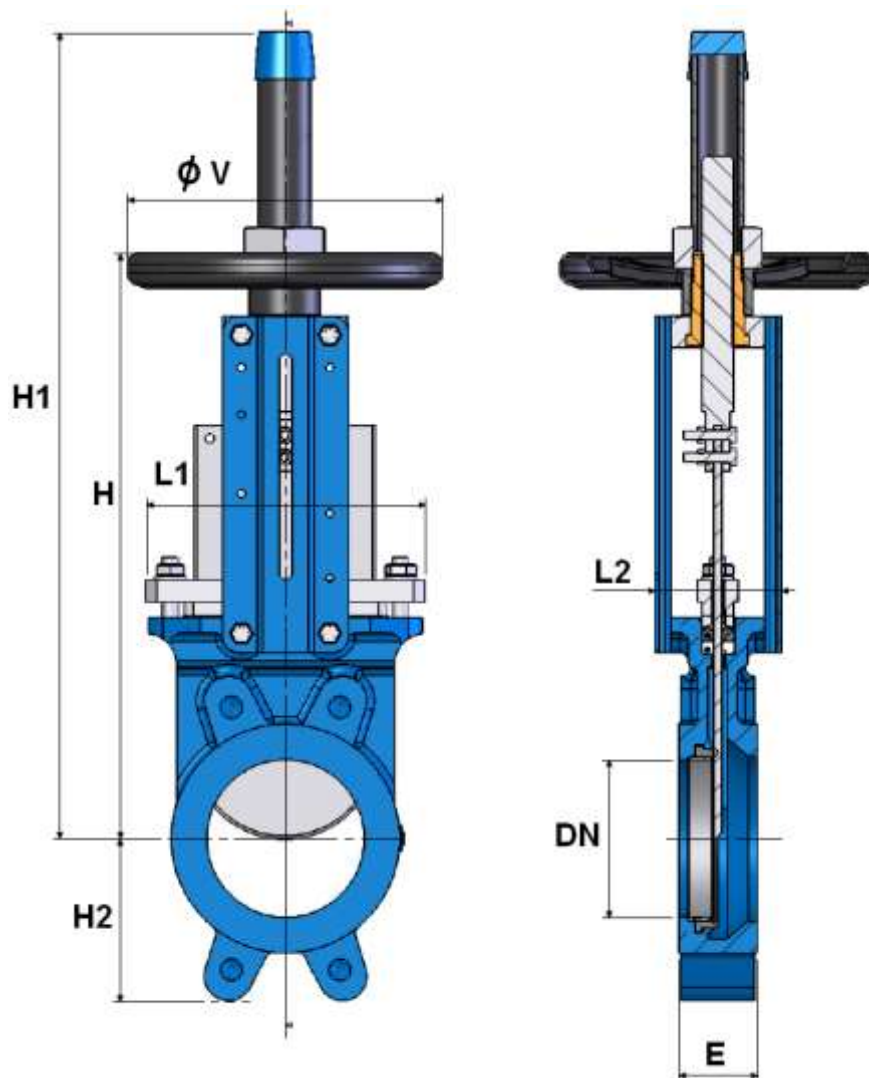


Item	Designation	Materials Ref. 176 + 980178
1	Body	Cast iron EN GJL-250
2	Gate	AISI 304
3	Packing gland nut	Ductile iron EN GJS-400-15
5	Support	Painted steel
7(+)	Packing (Tress)	PTFE
8(+)	Packing (O ring)	NBR
9	Yoke	Steel
10	Oil hole	Steel
11	Stem nut	Bronze
12	Spindle	AISI 304
13	Fixing screw	Steel
14	Wedge	Steel
15	Link	Steel
16	Lever	Steel

(+) : Included in packing gland kit

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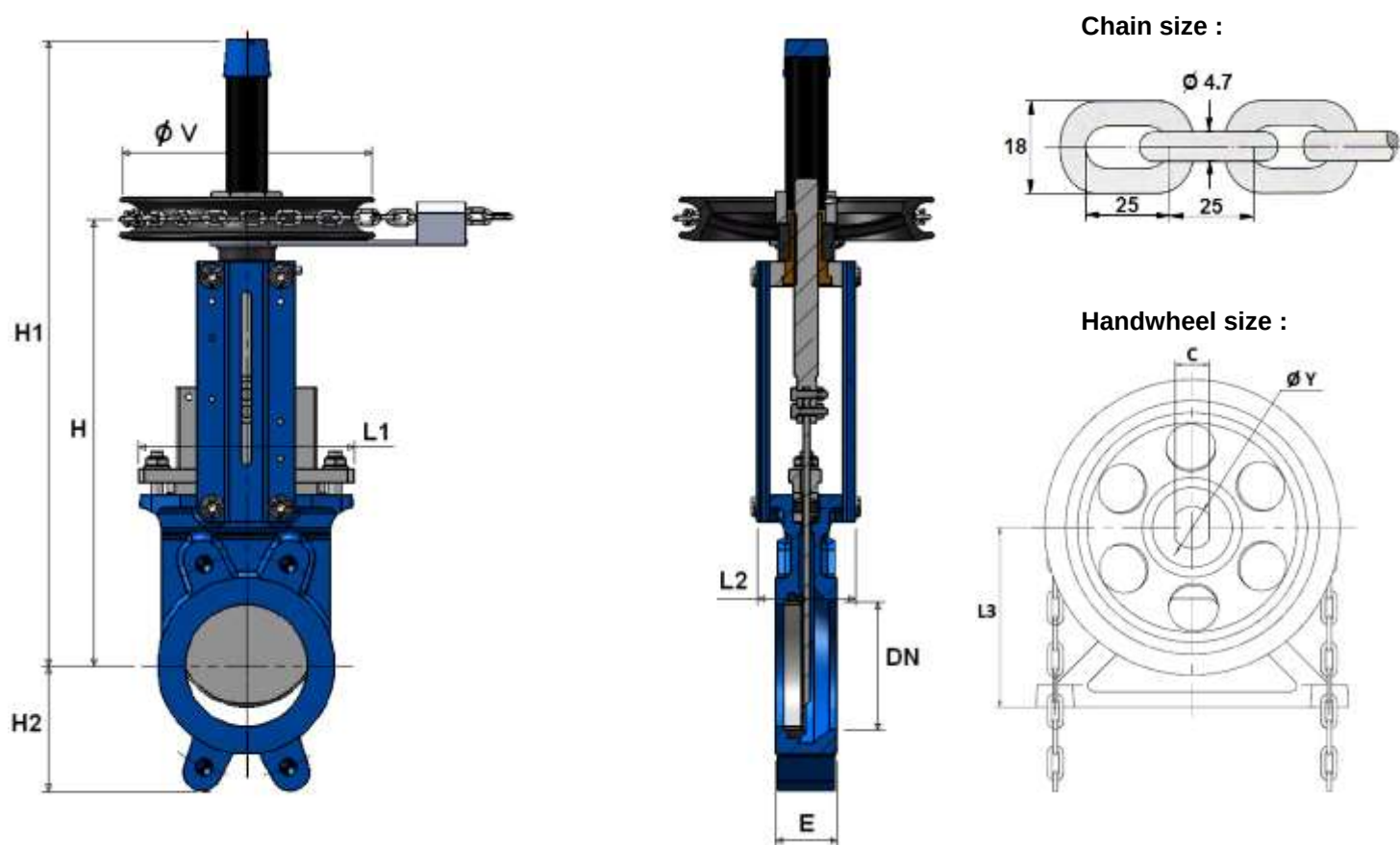
SIZE WITH HANDWHEEL REF.176 (in mm) :



DN	50	65	80	100	125	150	200	250	300
E	40	40	50	50	50	60	60	70	70
H	289	316	342	382	415	458	575	676	776
H1	409	436	462	502	585	637	815	1016	1116
H2	63	70	92	105	120	130	160	198	234
L1	124	139	154	174	192	217	270	326	380
L2	92	92	92	92	102	102	119	119	119
ϕV	185	185	185	185	225	225	325	325	380
Weight (Kg)	6.53	7.1	8.53	9.8	12.7	16.16	26.8	43.5	50

KNIFE GATE VALVE CAST IRON METAL-METAL SEAT PN10 S-GATE

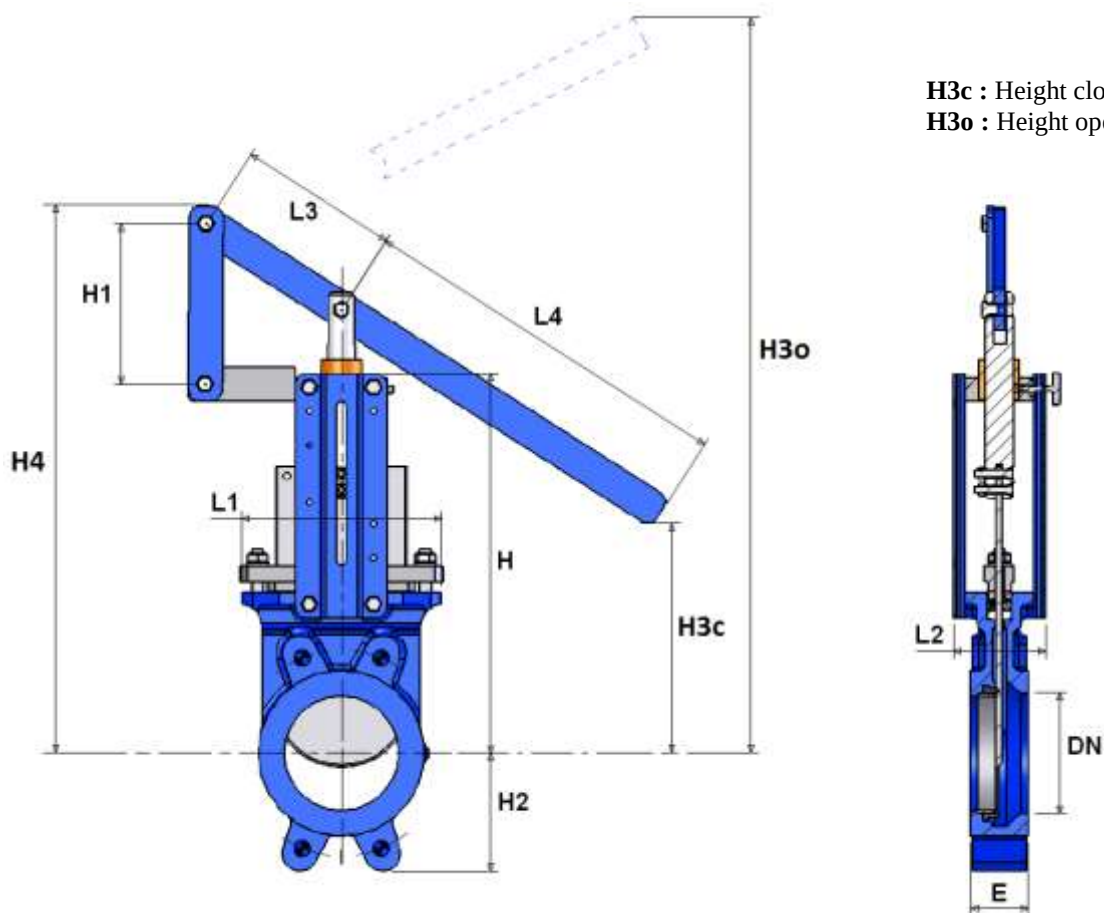
SIZE WITH CHAIN HANDWHEEL REF.176 + 980179 (in mm) :



DN	50	65	80	100	125	150	200	250	300
E	40	40	50	50	50	60	60	70	70
H	289	316	342	382	415	458	575	676	776
H1	409	436	462	502	585	637	815	1016	1116
H2	63	70	92	105	120	130	160	198	234
L1	124	139	154	174	192	217	270	326	380
L2	92	92	92	92	102	102	119	119	119
Ø V	212	212	212	212	212	212	296	296	296
Ø Y	34	34	34	34	34	34	42	42	42
C	26	26	26	26	26	26	34	34	34
L3	135	135	135	135	135	135	180	180	180
Weight Ref.176 + 980179 (Kg)	11.4	12	13.4	14.7	17.6	21	34.3	51	57.5

KNIFE GATE VALVE CAST IRON METAL-METAL SEAT PN10 S-GATE

SIZE WITH LEVER REF.176 + 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	330	360	412	520	618	718
H1	95	95	95	95	140	140	160	255	255
H2	63	70	92	105	120	130	160	198	234
H3c (closed)	248	263	277	329	301	262	420	315	248
H3o (opened)	452	526	592	704	858	911	1210	1318	1762
H4	343	370	389	436	511	563	690	868	986
L1	124	139	154	174	192	217	270	326	380
L2	92	92	92	92	102	102	120	120	120
L3	140	140	140	140	140	140	230	230	230
L4	330	330	330	330	430	430	630	630	882
Weight Ref.176+980178 (Kg)	8.9	9.8	11	13.3	16	18.9	32.9	53.6	60

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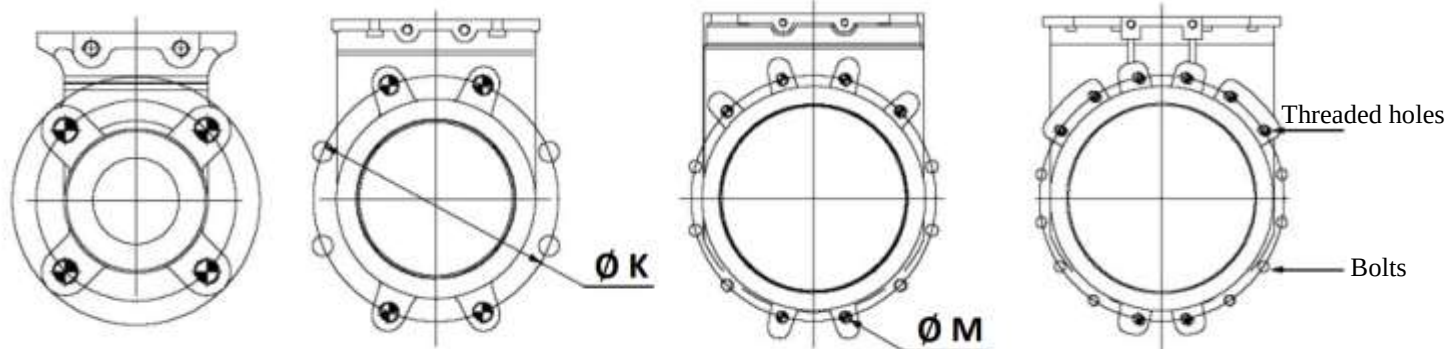
SIZE FIXING VALVE THREADED HOLES (BETWEEN FLANGES PN10 in mm) :

DN 50 – 65

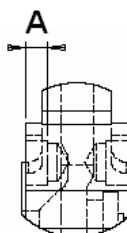
DN 80 – 200

DN 250 – 300

DN350



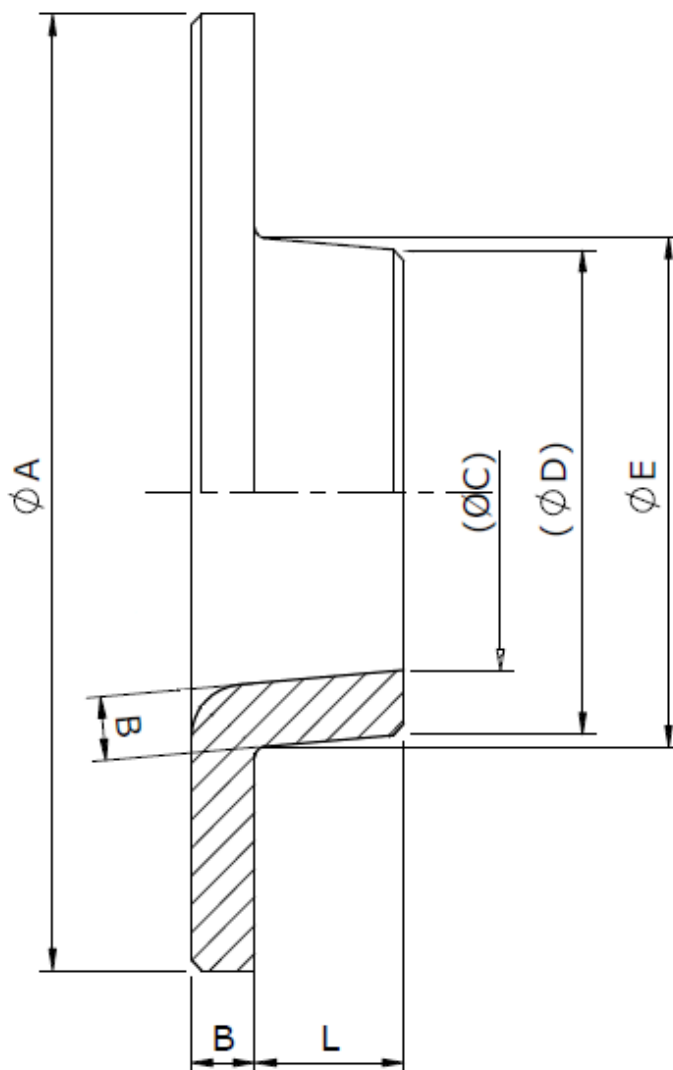
THREADED LENGHT FOR TOP BLIND HOLES :



DN	50	65	80	100	125	150	200	250	300
Ø K	125	145	160	180	210	240	295	350	400
Ø M	M16	M16	M16	M16	M16	M20	M20	M20	M20
Nb threaded holes	4	4	4	4	4	4	4	6	6
A	8	8	10	10	10	12	12	15	15
Nb of bolts	0	0	4	4	4	4	4	6	6

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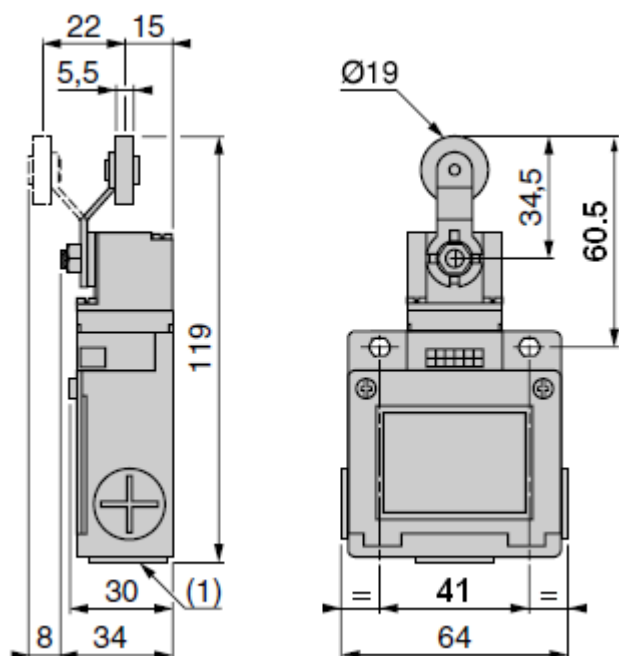
DEFLECTOR SIZE (in mm) :



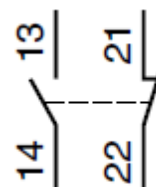
DN	50	65	80	100	125	150	200	250	300
Ø A	90	105	120	145	170	195	250	310	365
Ø C	32	47.5	59.5	78.5	104.5	127.5	178.5	226.5	278.5
Ø D	44	59.5	73.5	92.5	118.5	141.5	192.5	240.5	292.5
Ø E	48	63	78	98	123	148	198	247	297
B	6	6	7	7	7	7	7	7	7
L	14	14	19	19	18.5	23.5	22.5	27	26

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SENSOR SIZE (in mm) AND SCHEMA :



Bipolar sensor O + C
(XE2S P2151)



STANDARDS :

- Manufacturer certified ISO 9001 : 2015
- DIRECTIVE 2014/68/EU : For liquids of group 1 and gas of Group 2
 - DN50-100 : Article 4, §3 (SEP), no CE marking
 - DN125-300 : Risk Category I, CE marking
- Certificate 3.1 on request
- Between flanges PN10 according to EN 1092-1 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.