

BIDIRECTIONAL TIGHTNESS KNIFE GATE VALVE EPDM PN10 S-GATE

Bidirectional cast iron knife gate valve for water, water treatment, chemical pulp, powders, food industry, chemistry
PTFE packing with ductile iron 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.
Interchangeable seat (NBR, EPDM, FKM).

Certificate

3.1



Size : DN50 to DN500
Connection : Between flanges PN10
Min Temperature : -15°C
Max Temperature : +130°C
Max Pressure : 10 Bars up to DN200
Specifications : Non rising stem and handwheel
Bidirectional tightness
Weak head loss

Materials : Cast iron EN GJL-250

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SPECIFICATIONS :

- Opened or closed valve
- Non rising stem and handwheel
- Bidirectional tightness
- Weak head loss
- Between flanges PN10
- Full crossing threaded lower holes and blind threaded top holes
- With handwheel
- With lever or chain handwheel (option)
- 50% epoxy 50% polyester painting blue colour RAL 5005, 150 µm thickness

USE :

- Water, water treatment, chemical pulp, powders, food industry, chemistry
- Min and max Temperature Ts : - 15°C to + 130°C for valve with **EPDM** seat **Ref.177**
- Min and max Temperature Ts : - 10°C to + 180°C for valve with **FKM** seat (on request)

MAX PRESSURE :

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

MIN AND MAX SEAT TEMPERATURES WITH REFERENCES :

SEAT	TEMPERATURE	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
NBR	-10°C to +90°C	9802240	9802241	9802242	9802243	9802244	9802245	9802246	9802247	9802248
EPDM	-15°C to +130°C	9802260	9802261	9802262	9802263	9802264	9802265	9802266	9802267	9802268
FKM	-10°C to +180°C	9802280	9802281	9802282	9802283	9802284	9802285	9802286	9802287	9802288

SEAT	TEMPERATURE	DN 350	DN 400	DN 450	DN 500
NBR	-10°C to +90°C	9802249	9802250	9802251	9802252
EPDM	-15°C to +130°C	9802269	9802270	9802271	9802272
FKM	-10°C to +180°C	9802289	9802290	9802291	9802292

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NUMBER OF CYCLES TO CLOSE OR OPEN THE VALVE :

DN	50	65	80	100	125	150	200	250	300
Number of cycles	15	19	23	28	34	40	42	52	62

DN	350	400	450	500
Number of cycles	60	69	78	86

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

DN	350	400	450	500
Kvs (m3/h)	21895	28597	36193	44683

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)

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

DN	350	400	450	500
Torque (Nm)	51	61	65	72

STEM THREADING SIZE :

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

DN	350	400	450	500
Threading (mm)	Tr 35x6			

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RANGE :



- Between flanges PN10, Cast iron body, SS 304 gate , EPDM seat, with handwheel **Ref. 177** from DN 50 to DN 500



- Between flanges PN10 Cast iron body, SS 304 gate , EPDM seat, with handwheel, with limit switch for opened position **Ref. 177051 to 177401** from DN 50 to DN 400



- Chain handwheel (on request)
 - **Ref. 9801796** from DN 50 to DN 150
 - **Ref. 9801797** from DN 200 to DN 300
 - **Ref. 9801798** from DN 350 to DN 500



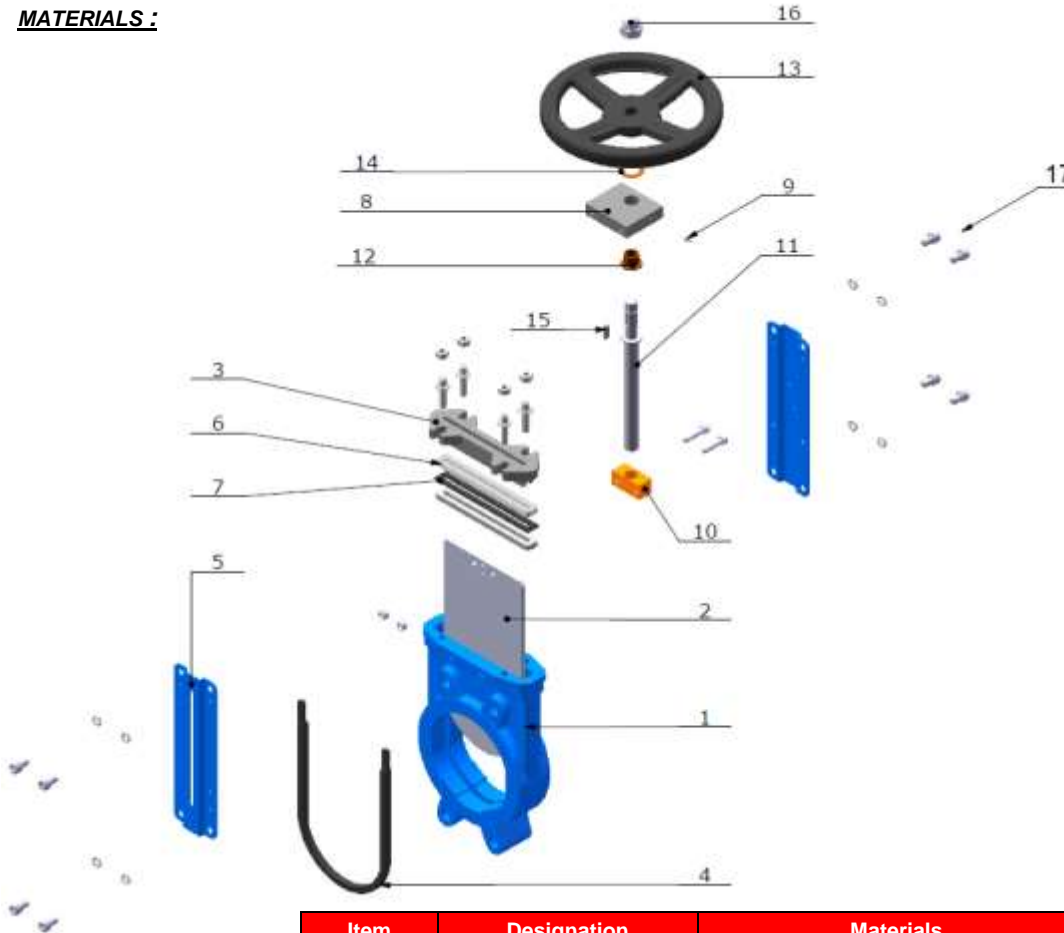
- Chain (per meter) **Ref. 9801795**



- 2 stainless steel AISI 304 supports with 4 bolting **Ref. 9802001 to 9802011** from DN 50 to DN 400

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MATERIALS :



Repairability :



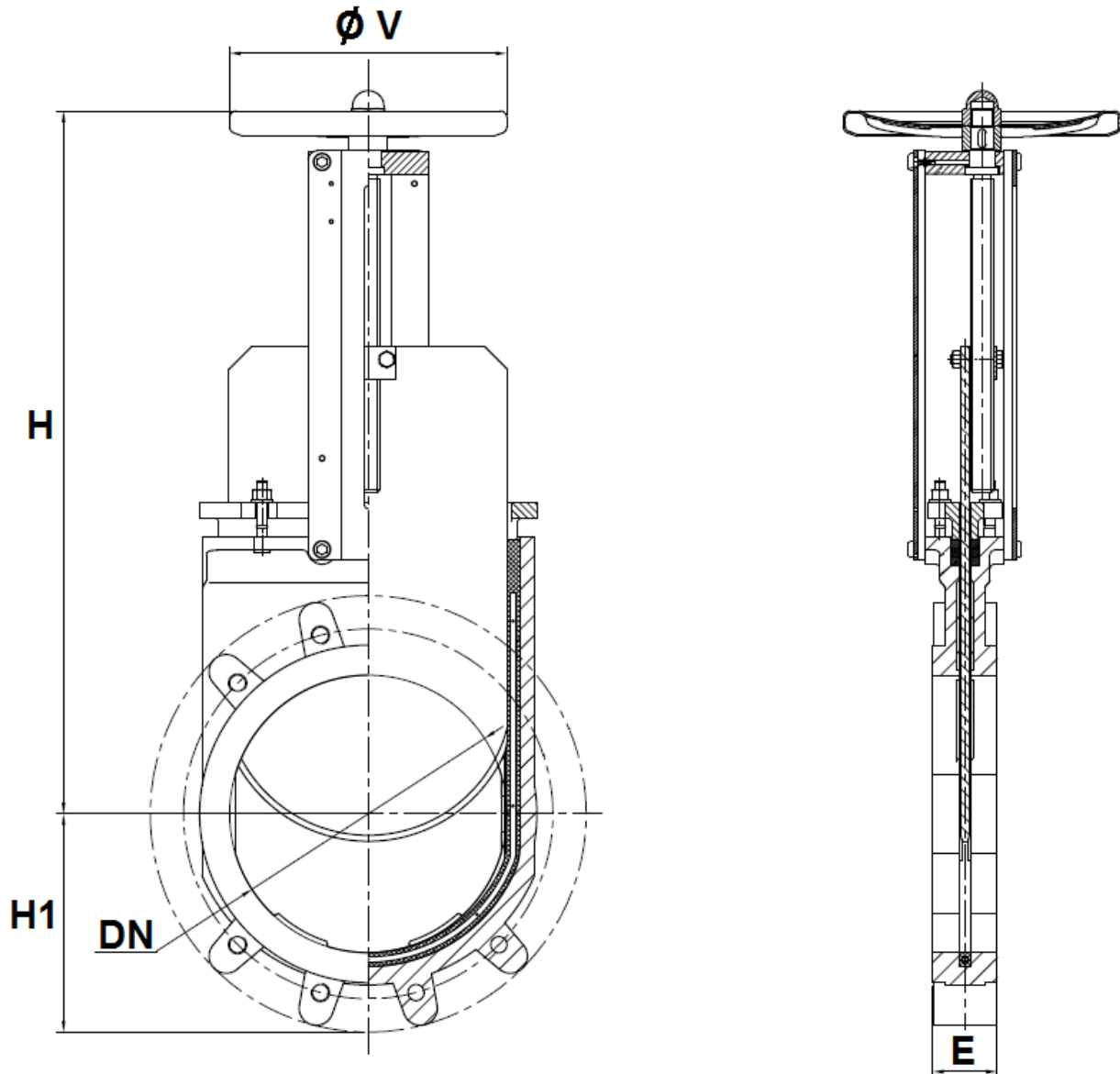
*Gaskets kit (items 4, 6 and 7)	
DN (mm)	Ref.
50	9802260
65	9802261
80	9802262
100	9802263
125	9802264
150	9802265
200	9802266
250	9802267
300	9802268
350	9802269
400	9802270
450	9802271
500	9802272

Item	Designation	Materials
1	Body DN50-300	Cast iron EN GJL-250
	Body DN350-500	Ductile iron EN GJS-400 or 500
2	Gate	AISI 304
3	Packing gland	Ductile Iron EN GJS-400-15
4*	Seat	EPDM
5	Support	Painted steel
6*	Packing (Tress)	PTFE
7*	Packing (O ring)	EPDM
8	Yoke	A3 Steel
9	Greaser	Steel
10	Stem nut	Bronze
11	Stem	AISI 304
12	Stem nut	Bronze
13	Handwheel	A3 Steel
14	Ring	Bronze
15	Pin	Steel
16	Handwheel nut	Zinc-coated Steel
17	Bolting	AISI 304

(*) : included in gasket kit

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SIZE (in mm) :

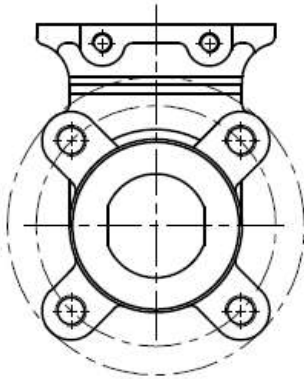


DN	50	65	80	100	125	150	200	250	300	350	400	450	500
E	40	40	50	50	50	60	60	70	70	96	100	106	110
H	286	316	342	382	415	458	575	676	776	906	1012	1098	1210
H1	63	70	92	105	120	130	160	198	234	256	292	308	340
Ø V	200	200	200	200	250	250	300	300	300	500	500	500	500
Weight (Kg)	6.2	6.8	8	9.9	12.7	16.9	27	42.7	59	119	144	166	203

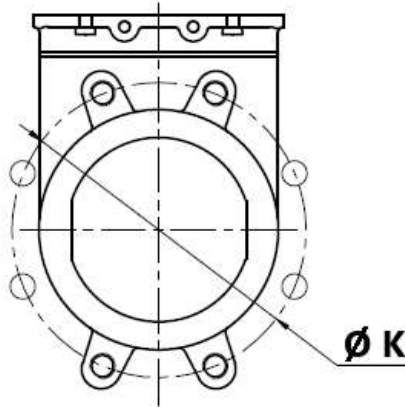
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SIZE FIXING VALVE THREADED HOLES (BETWEEN FLANGES PN10 in mm) :

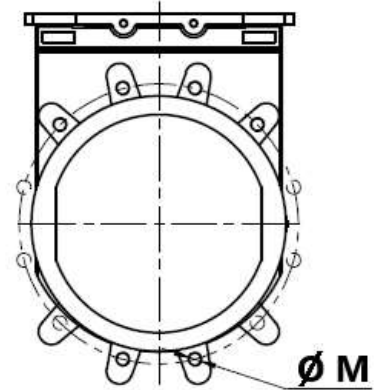
DN 50 – 65



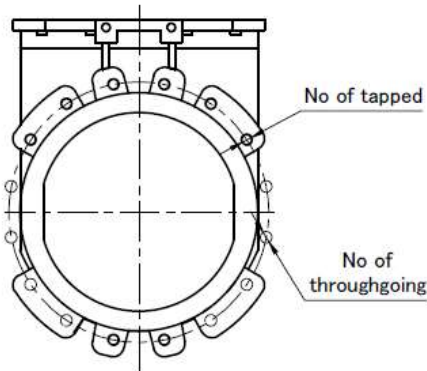
DN 80 – 200



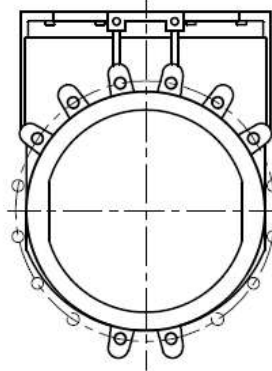
DN 250 - 300



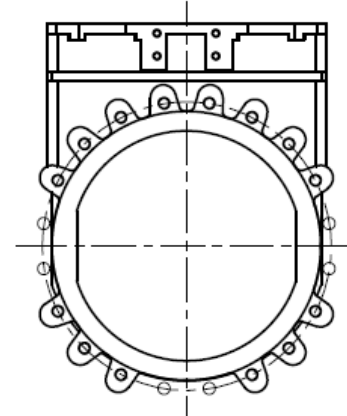
DN 350



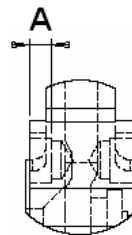
DN 400



DN 450-500



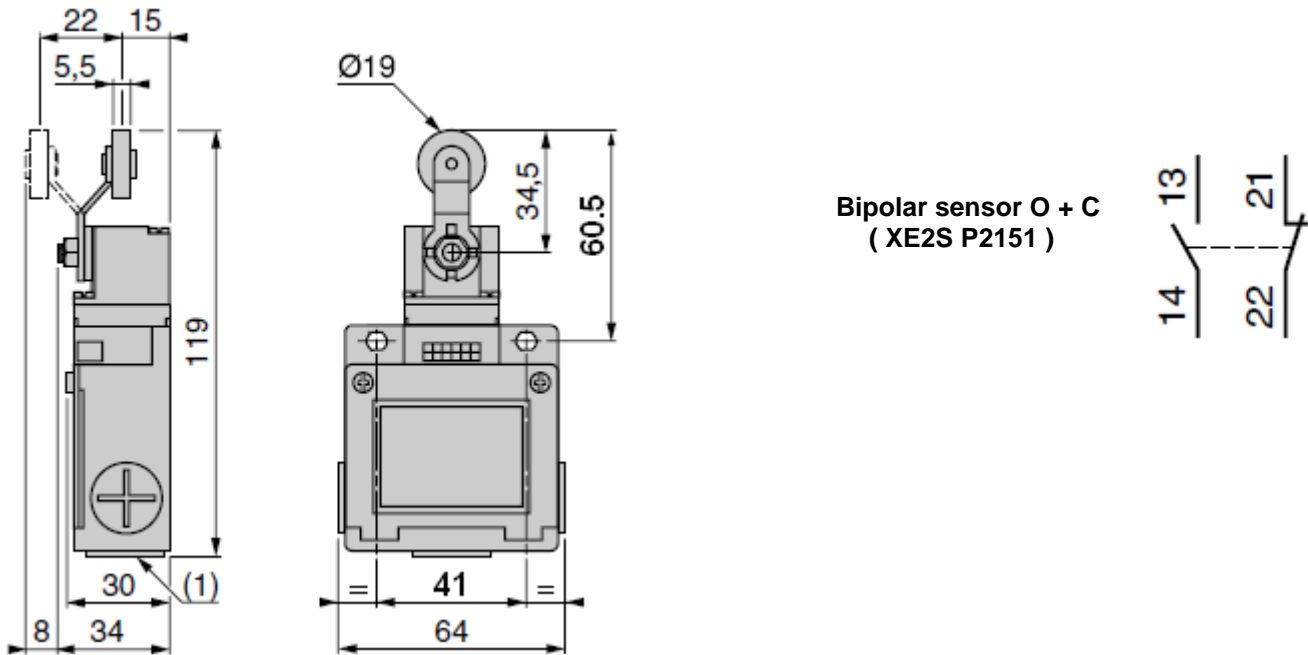
THREADED LENGHT FOR TOP BLIND HOLES :



DN	50	65	80	100	125	150	200	250	300	350	400	450	500
Ø K	125	145	160	180	210	240	295	350	400	460	515	565	620
Ø M	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24
Nb of threaded holes	4 x 2						8 x 2			12 x 2	8 x 2	14 x 2	
A	8	8	9	9	9	10	10	12	12	20	20	24	24
Nb of studs	0	0	4	4	4	4	4	4	4	4	8	6	6

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SENSOR SIZE (in mm) AND SCHEMA :



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
 - DN125-500 : Risk Category I, CE marking
- Certificate 3.1 on request
- Pressure test according to ISO 5208, Rate A
- Between flanges PN10 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.