PA Ventiler AB
EN DEL AV BEIJERTECH

ISO 9001 : 2015
BUREAU VERITAS
Certification

PA 207

STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PTFE SEAT

Stainless steel double offset butterfly valve for steam, heating, geothermics, industrial cold, shipbuilding and petrochemical.
PTFE packing and PTFE seat for a temperature up to 220°C.
Fugitive emission according to EN 15848-1 :2015 BH Class and TA LUFT for an excellent tightness on the stem and to prevent external leakage.
Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22.
With lockable lever in opened or closed position up to DN125 and gearbox over.
Thanks to the ISO 5211 plate, an actuator can be installed directly on the valve.
Valve in accordance with the regulation (EC) N° 1935/2004 on request.

SIL3

CE 1935/2004

FUGITIVE EMISSIONS ISO 15848-1

Certificate 3.1

Lloyd's Register
PED/2014/68/UE



Size :	DN50 to DN300 (NPS 2" to 12")
Connection :	Between flanges PN10/40, Class 150 (according to DN)
Min Temperature :	-50°C
Max Temperature :	+220°C
Max Pressure :	30 Bars (up to DN100)
Specifications :	Full crossing stem Wafer type ISO 5211 direct mounting pad ATEX
Materials :	Stainless steel ASTM 351 CF8M

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SPECIFICATIONS :

- Long neck for isolation
- ISO 5211 direct mounting pad
- Wafer type
- Between flanges PN10/40 and Class 150 (PN20) up to DN100, PN10/16 and Class 150 over
- Full crossing stem
- Bidirectional
- Fugitive Emissions EN 15848-1 : 2015 BH Class and TA LUFT VDI 2440
- With lockable handle in opened or closed position up to DN125, Gear box over
- Stainless steel disc and body
- PTFE seat
- Tightness Class VI (no leakage)
- Stainless steel handle

USE :

- Heating, geothermics, industrial cold, shipbuilding, petrochemical
- Min and max Temperature Ts : - 50°C to + 220°C
- Max Pressure Ps :
  - 30 bars up to DN100
  - 20 bars from DN125 to DN300
- Vacuum : -0.94 bar max

RANGE :

- Wafer double offset butterfly valve with handle from DN50 to DN125 (NPS 2" to 5“)
- Wafer double offset butterfly valve with gearbox from DN150 to DN300 (NPS 6" to 12“)

TORQUE VALUE (in Nm without safety coefficient, add 15% for regulation use) :

NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"
DN (mm)	50	65	80	100	125	150	200	250	300
PN10	12	20	31	45	52	110	150	206	314
PN16	17	25	40	58	65	135	226	304	471
PN25	25	30	55	75	105	190	314	471	726

CONNECTION :

- Between PN10/40 and Class 150 (PN20) flanges up to DN100
- Between PN10/16 and Class 150 (PN20) flanges from DN125 to DN300

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FLOW COEFFICIENT Kv (m3 / h) :

		Opening angle							
NPS (")	DN (mm)	20°	30°	40°	50°	60°	70°	80°	90°
2"	50	16,4	23,4	30,3	37,2	46,7	56,2	65,7	75,3
2"1/2	65	14,7	22,5	29,4	37,2	53,6	70,9	87,4	104,7
3"	80	34,6	48,4	62,3	76,1	102,1	128,9	154,8	181,7
4"	100	34,6	76,1	118,5	160,9	210,2	259,5	307,1	357,2
5"	125	46,7	138,4	230,1	321,8	395,3	468,8	541,5	614,2
6"	150	61,4	196,4	314,0	431,6	548,4	666,1	783,7	901,3
8"	200	154,8	373,7	593,4	812,2	1018,1	1233,5	1431,6	1636,6
10"	250	276,8	583,0	888,4	1193,7	1592,5	1990,4	2389,1	2787,9
12"	300	309,7	790,6	1271,6	1753,4	2368,4	2983,4	3600,1	4215,1
14"	350	421,3	701,5	935,1	1051,8	1168,6	2378,8	2941,0	4952,1
16"	400	548,4	805,3	1074,3	1207,5	1749,0	2806,9	4429,7	6265,2
18"	450	515,5	1070,0	1427,3	1605,4	2486,9	3659,8	5651,9	8531,5
20"	500	994,8	1465,3	2186,7	2703,1	3706,5	6266,9	8584,3	10582,4
24"	600	1687,6	2658,1	4287,8	5845,7	8541,9	11136,9	14051,9	17677,1

HEAD LOSS CALCULATIONS :

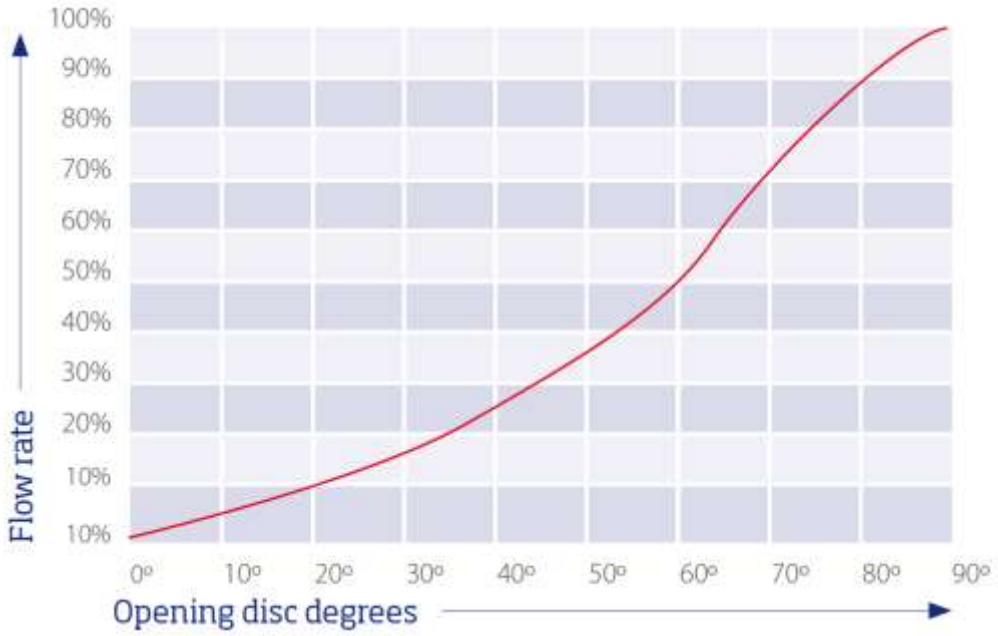
Δp = (Q / Kv)² x SG

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)

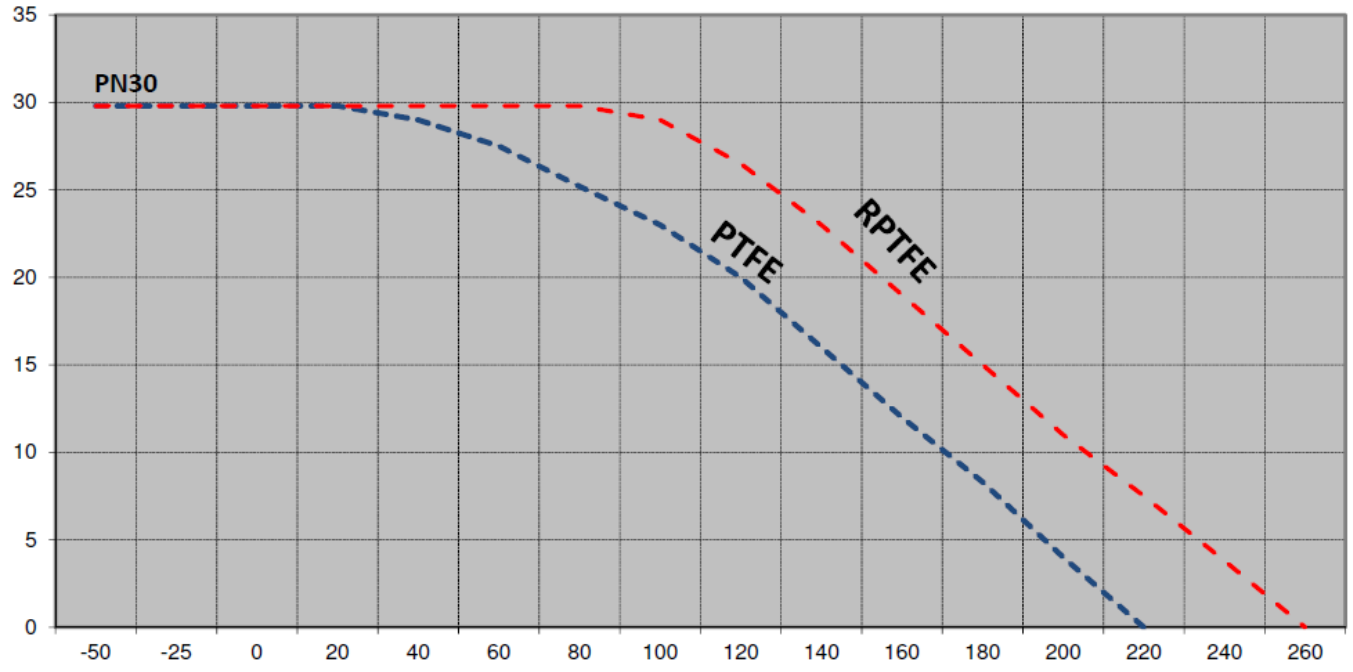


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PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) WITH PTFE AND R-PTFE SEAT :

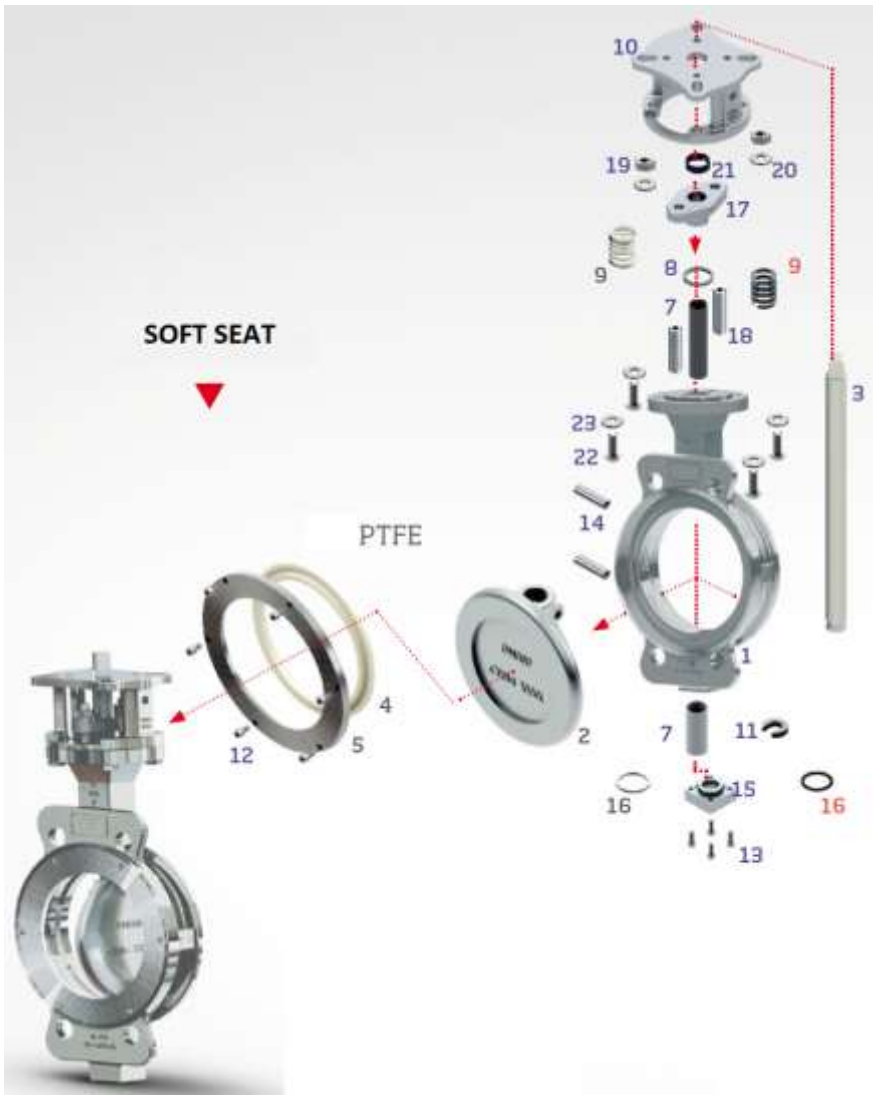
Pressure (Bar)



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STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PTFE SEAT

MATERIALS :



REPAIRABILITY :



*Gaskets kit (Items 4, 7, 8, 9, 16 and 21)	
DN	**Ref.**
DN50	9865310
DN65	9865311
DN80	9865312
DN100	9865313
DN125	9865314
DN150	9865315
DN200	9865316
DN250	9865317
DN300	9865318

*included in gaskets kit

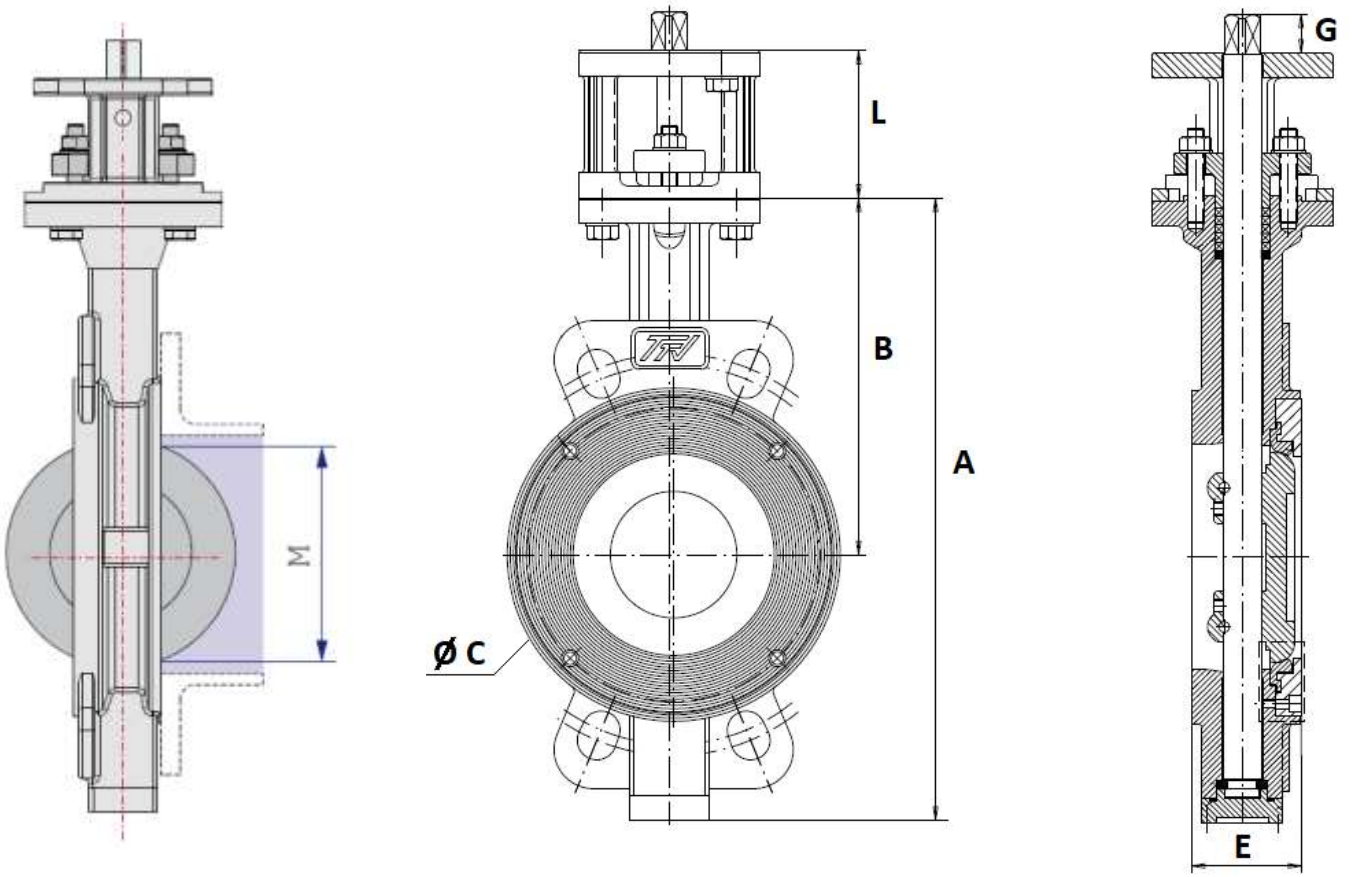
Item	Designation	Materials
1	Body	ASTM A351 CF8M
2	Disc	CF8M polished
3	Stem	Inox F-316
4*	Seat	PTFE
5	Flange	Inox F-316L
7*	Bushing	CF8M+PTFE
8*	Packing	
9*		PTFE
10	Yoke	ASTM A351 CF8M
11	Circlip	F-316
12	Flange screw	A4

Item	Designation	Materials
13	Cap screw	A4
14	Pin	A4
15	Cap	ASTM A351 CF8M
16*	Stem gasket	PTFE
17	Packing gland	CF8M
18	Yoke stud	A4
19	Nut	
20	Elastic ring	
21*	Gasket	CF8M+PTFE+Gr
22-23	Screw + elastic washer.	A4
	Handle	ASTM A351 CF8M

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SIZE (in mm) :

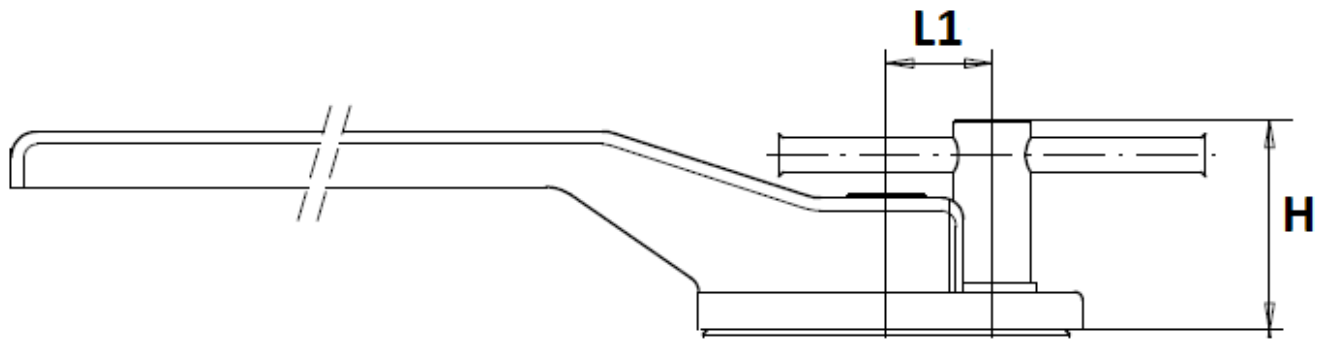


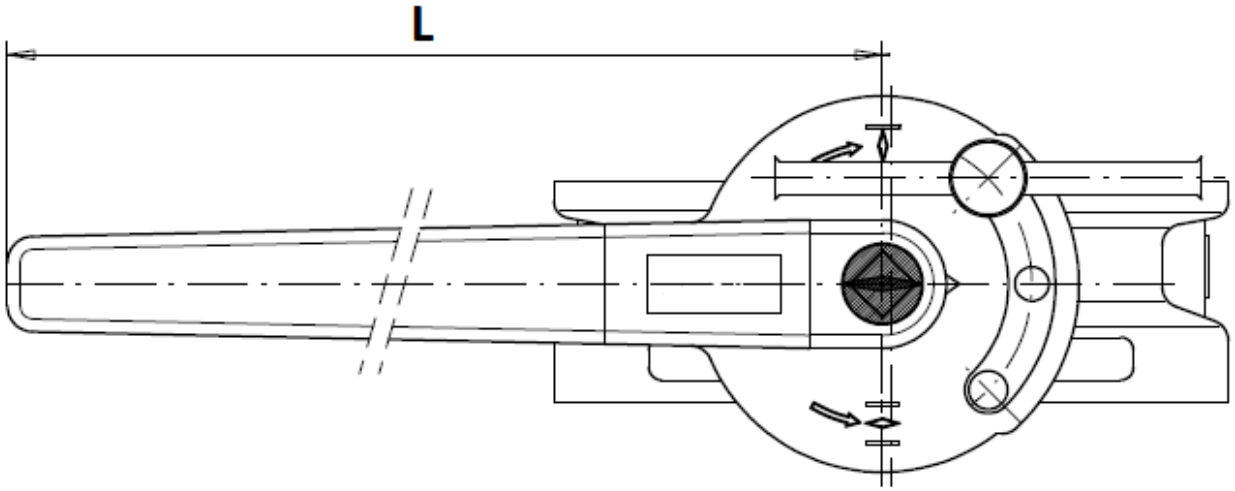
DN (mm)	50	65	80	100	125	150	200	250	300
NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"
A	218	228	259	295	350	388	450	529	606
B	128	140	148	169	200	220	250	286	328
Ø C	102	120	138	158	190	215	265	325	370
E	43	46.5	47	52	56	56	63	71	78
G	14	14	15	18	22	24	32	39	50
L	70	70	70	70	80	80	90	106	106
M	32	48	70	90	116	141	187	226	274
Weight (Kg)	4.6	5.3	6.4	8	14	16	26	42	58
Ref.	1119050	1119065	1119080	1119100	1119125	1119150	1119200	1119250	1119300

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HANDLE SIZE (in mm) :





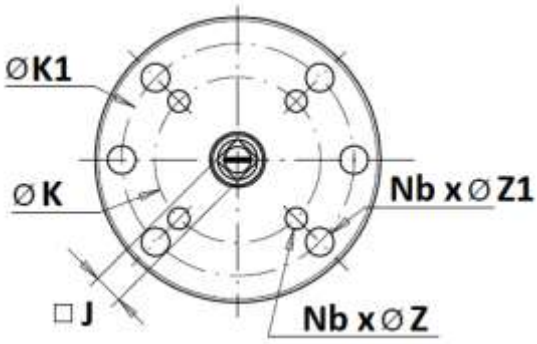
DN (mm)	50	65	80	100	125
NPS (")	2"	2"1/2	3"	4"	5"
L	205				330
L1	35				35
H	49				49
Weight (Kg)	1				1.2

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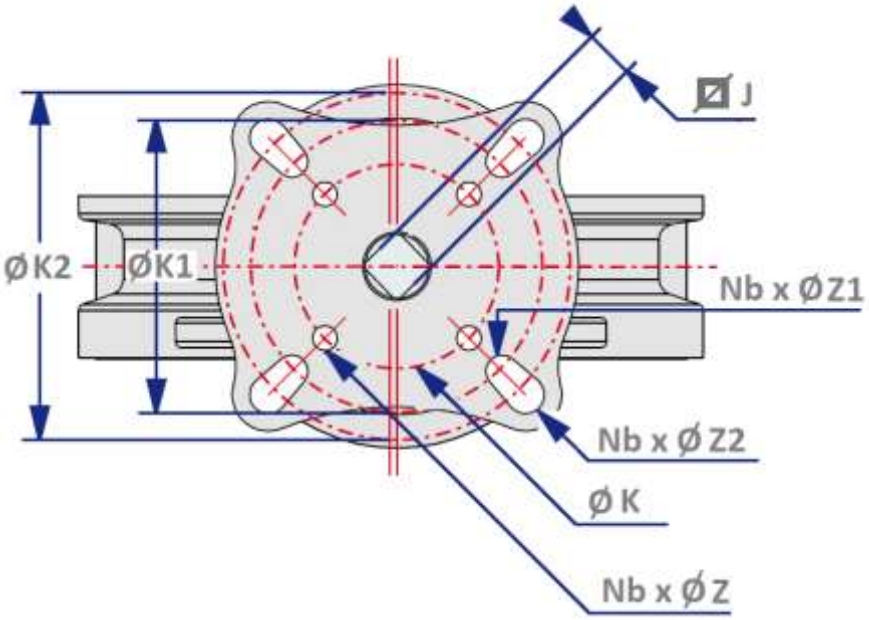
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ISO PLATE SIZE (in mm) :

DN50-100



DN125-600

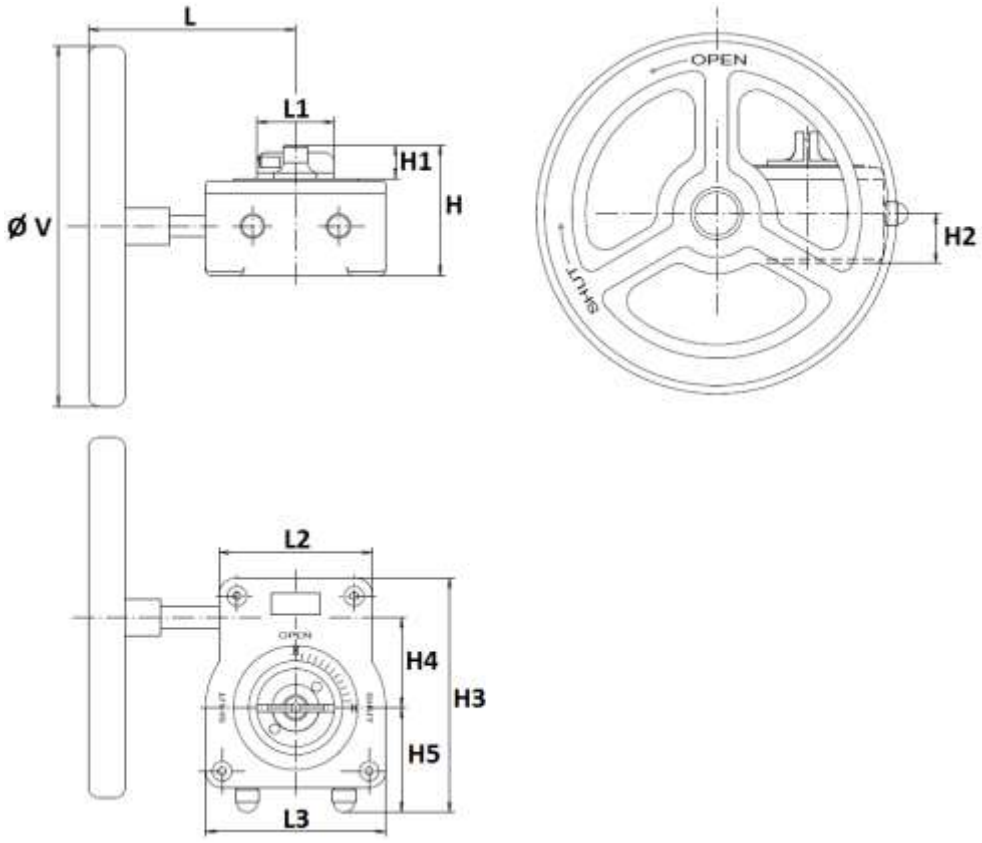


NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
DN (mm)	50	65	80	100	125	150	200	250	300	350	400	450	500	600
J	9	11	14	14	17	17	22	22	27	27	36	36	46	46
Ø K	50				70		102	125			140			
ISO	F05				F07		F10	F12			F14			
Nb x Ø Z	4 x 6.5				4 x 8.5		4 x 10	4 x 13			4 x 18			
Ø K1	70				102		125	140			165			
ISO 1	F07				F10		F12	F14			F16			
Nb x Ø Z1	4 x 8.5				4 x 10		4 x 13	4 x 18			4 x 22			
Ø K2	-	-	-	-	125		140	165			-	-	254	
ISO 2	-	-	-	-	F12		F14	F16			-	-	F25	
Nb x Ø Z2	-	-	-	-	4 x 13		4 x 18	4 x 22			-	-	8 x 18	

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GEARBOX SIZE DN150-300 (in mm) :

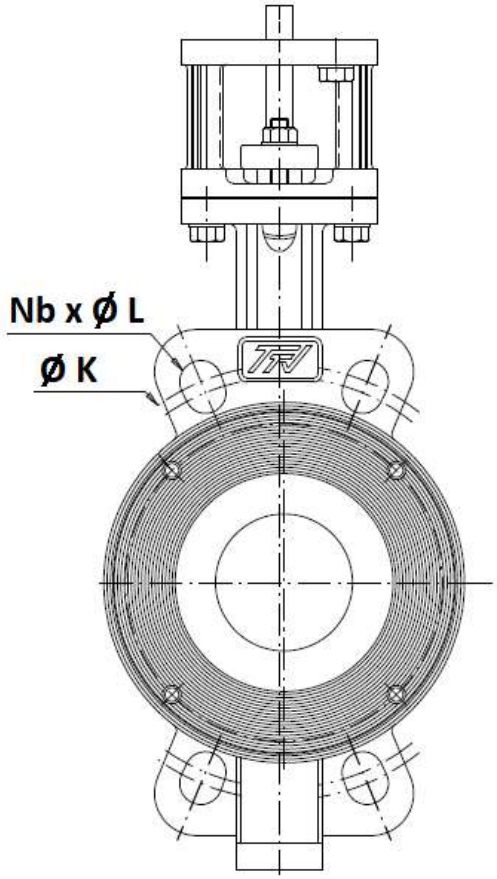


NPS (")	6"	8"	10"	12"
DN (mm)	150	200	250	300
L	223.5	223.5	325	325
L1	55	55	75	75
L2	110	110	150	150
L3	142	142	185	185
H	103	103	126	126
H1	33	33	32	32
H2	42	42	51	51
H3	176	176	224	224
H4	60	60	80	80
H5	82	82	98	98
Ø V	300	300	400	400
ISO	F10	F10	F14	F14
Weight (Kg)	4	4	9.5	9.5

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STAINLESS STEEL DOUBLE OFFSET WAFER BUTTERFLY VALVE PTFE SEAT

BETWEEN FLANGES WAFER SIZE (in mm) :



	DN (mm)	50	65	80	100	125	150	200	250	300
	NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"
PN10	Ø K	125	145	160	180	210	240	295	350	400
	Nb x Ø L	2 x 19	2 x 19	4 x 19	4 x 19	4 x 19	4 x 23	4 x 23	4 x 23	4 x 23
PN16	Ø K	125	145	160	180	210	240	295	355	410
	Nb x Ø L	2 x 19	2 x 19	4 x 19	4 x 19	4 x 19	4 x 23	4 x 23	4 x 27	4 x 27
PN25	Ø K	125	145	160	190	220	250	310	370	430
	Nb x Ø L	2 x 19	2 x 19	4 x 19	4 x 23	4 x 27	4 x 27	4 x 23	4 x 27	4 x 27
PN40	Ø K	125	145	160	190	220	250	320	385	450
	Nb x Ø L	2 x 19	2 x 19	4 x 19	4 x 23	4 x 27	4 x 27	4 x 27	4 x 30	4 x 30
Class 150	Ø K	120.6	139.7	152.4	190.5	215.9	241.3	298.5	362	431.8
	Nb x Ø L	2 x 19	2 x 19	4 x 19	4 x 19	4 x 23	4 x 23	4 x 23	4 x 26	4 x 26
Class 300	Ø K	127	149.2	168.3	200	234.9	269.9	330.2	387.3	450.8
	Nb x Ø L	2 x 19	2 x 22	4 x 22	4 x 22	4 x 23	4 x 23	4 x 25	4 x 25	4 x 31

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STANDARDS :

- Manufacturer certified ISO 9001:2015
- Designing according to API 609, ASME B16.34 and EN 593
- DIRECTIVE 2014/68/EU : For liquids and gas of Group 1
    - DN50-150 : Risk category II, CE0094 marking
    - DN200-300 : Risk Category III, CE 0094 marking
- Certificate 3.1 on request
- Tightness tests according to ISO 5208 or API 598
- Between flanges according to EN 1092-1 PN10/16/25/40
- Between flanges according to ASME B16.05 Class 150
- ISO 5211 mounting pad
- Length according to :
    - ISO 5752 short series 20
    - EN 558 series 20 (NF 29305)
    - BS 5155 series 4
    - API 609 Table 1
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 &22 according to directive 2014/34/EU (Optional marking)
- Fugitive Emissions according to EN 15848-1: 2015 BH Class and TA LUFT VDI 2440
- SIL2 according to IEC/EN 61508, SIL 3 possible according to installation
- Materials according to NACE MR 01-75 **on request**
- Valve in accordance with the regulation **(EC) N° 1935-2004 on request**

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