

LUG BUTTERFLY VALVE PN16



ISO 9001

BUREAU VERITAS
Certification



CE

- Size :** DN 40 to DN 300
Ends : Between ISO PN10/16 flanges
Min Temperature : -10°C
Max Temperature : + 110°C (130°C temporarily)
Max Pressure : 16 Bars
Specifications : Long neck for isolation
Cast iron disc
Vulcanised elastic ring
- Materials :** Cast iron body

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SPECIFICATIONS :

- Long neck for isolation
- ISO 5211 mounting pad
- Lug type
- Between ISO PN10/16 flanges
- Full crossing stem
- 10 positions cranted lever, with locking device
- Tightness PTFE on stem
- Cast iron disc
- Epoxy painting RAL003 80 microns thickness
- Vulcanised elastic ring

USE :

- For all common fluids
- Min and max Temperature Ts : - 10°C to + 110°C (130°C temporarily)
- Max Pressure PN : 16 bars
- For temporary using, can be used at the end of the pipe (6 bars maxi)

FLOW COEFFICIENT Kv (M3 / h) :

DN		40	50	65	80	100	125	150	200	250	300
Opening angle	10°	0,04	0,05	0,09	0,17	0,26	0,43	0,68	1,7	2,6	3,4
	20°	2	3	5	8	15	25	38	76	129	200
	30°	5	6	10	15	31	52	81	160	273	422
	40°	10	13	21	33	67	113	175	348	592	914
	50°	18	23	38	60	119	202	312	620	1055	1630
	60°	30	38	64	99	196	334	516	1025	1746	2697
	70°	48	60	102	156	310	529	817	1623	2764	4269
	80°	72	90	152	235	466	793	1226	2434	4145	6403
	90°	78	98	167	258	512	872	1347	2675	4555	7037

TORQUE VALUE (Nm, without safety coefficient) :

DN	40	50	65	80	100	125	150	200	250	300
PN10	11	15	24	31	48	73	106	177	281	410
PN16	12	16	26	33	53	81	119	194	308	441

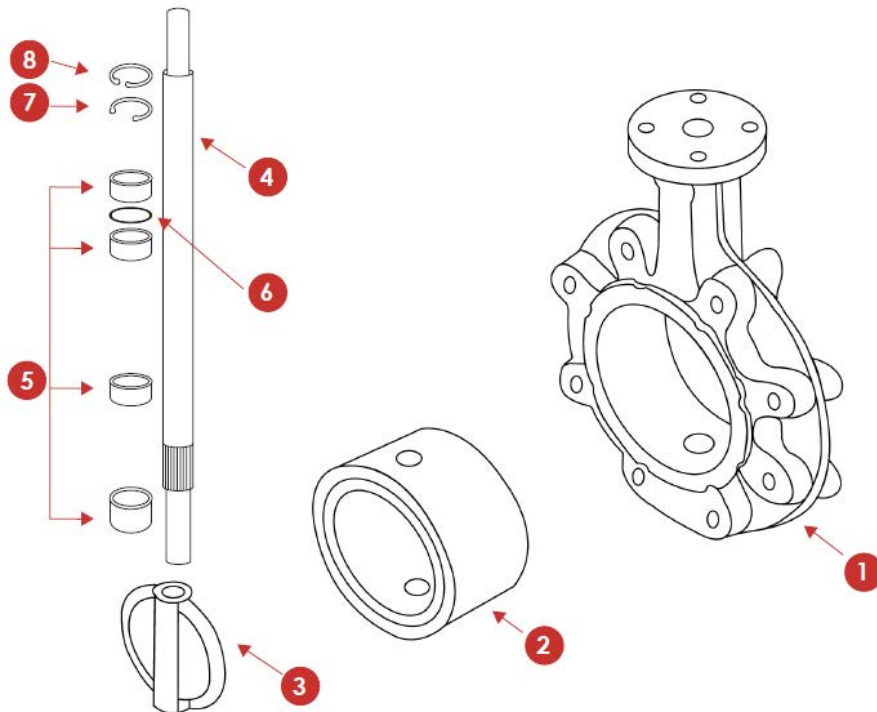
We recommend a safety coefficient of 30% minimum to determinate the actuator.

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RANGE :

- Hand lever DN40 to DN300
- Gear box (**Ref.1198**) possible from DN40 to DN300

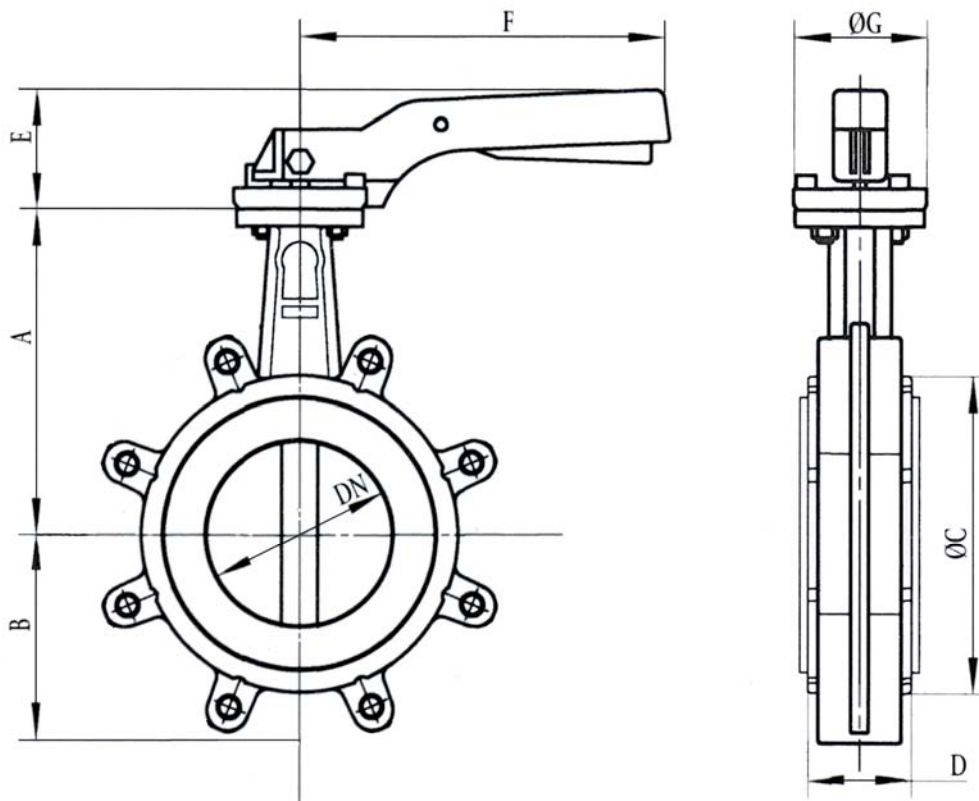
MATERIALS:



Item	Designation	Materials
1	Body	Cast iron EN GJL-250
2	Elastic ring	EPDM
3	Disc	Nickeled cast iron EN GJS-400-15
4	Stem	Inox 416
5	Bearing	PTFE
6	O ring	NBR
7	Circlip	Steel
8	Circlip	Steel
	Lever	Aluminium

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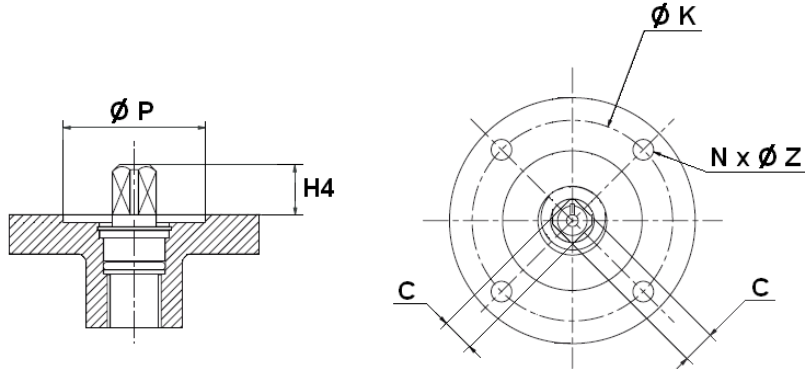
VALVE SIZE (in mm) :



	DN	40	50	65	80	100	125	150	200	250	300
Ref. 1135	A	130	136,5	142	158	180	192	215	242	280	310
	B	61	77	87,5	95	107	121,5	144	171	205	235
	Ø C	82	95	109	127	152	180	207	260	315	370
	D	33	43	46	46	52	56	56	60	68	78
	E	74	74	74	74	74	79	79	37	37	37
	F	200	200	200	200	200	278	278	355	507	507
	Ø G	65	65	65	65	65	90	90	125	150	150
	Stem	9	9	9	9	11	14	14	17	22	27
	ISO	F05	F05	F05	F05	F05	F07	F07	F10	F12	F12
	Weig.(Kg)	2.43	3.13	3.73	4.98	5.64	9.06	10.96	16.67	32,3	45

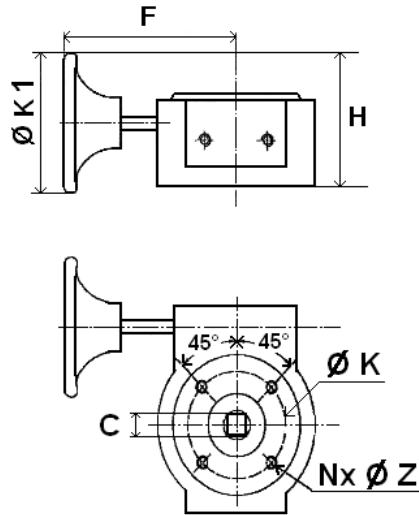
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ISO MOUNTING PAD SIZE (in mm) :



	DN	40	50	65	80	100	125	150	200	250	300
Ref.	C	9	9	9	9	11	14	14	17	22	27
	Ø K	50	50	50	50	50	70	70	102	125	125
1135	ISO	F05	F05	F05	F05	F05	F07	F07	F10	F12	F12
	Nx ØZ	4 x 6	4 x 6	4 x 6	4 x 6	4 x 6	4 x 8	4 x 8	4 x 10	4 x 12	4 x 12
	H4	32	32	32	32	32	42	42	30	32	32
	Ø P	35	35	35	35	35	55	55	70	85	85

GEAR BOX SIZE (in mm) :



	DN	40/80	100	125/150	200	250	300
Ref.	C	9	11	14	17	22	27
	Ø K	50	50	70	102	125	125
1198	Nx ØZ	4 x 6	4 x 6	4 x 8	4 x 10	4 x 12	4 x 12
	F	156	156	156	241	223	223
	H	116	116	168	193	190	190
	Ø K1	150	150	250	300	300	300
	Weight (kg)	4.25	4.25	4.25	9.1	10.4	10.4

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STANDARDS :

- Fabrication according to ISO 9001 :2000
- DIRECTIVE 97/23/CE : CE N° 0035
Risk Category I-III module H
- Tests according to API 598
- Length according to ISO 5752 NF 29305
- ISO 5211 mounting pad
- Between flanges according to EN 1092-1

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.

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).**

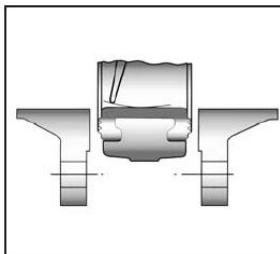
INSTALLATION INSTRUCTIONS :

- **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).**

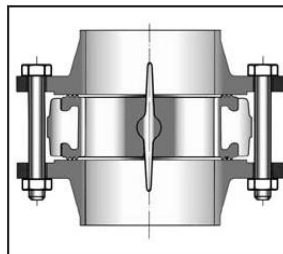
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INSTALLATION INSTRUCTIONS (SUITE) :

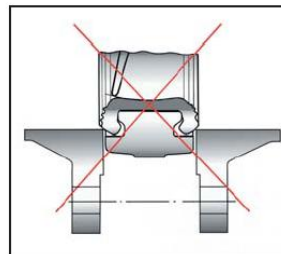
- **Make sure that the two sections of the pipe (upstream and downstream) match, the valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the valve and can even cause a rupture. To be sure, place the kit in position to ensure the 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.**
- The valve must be inserted between flanges with disc half opened but the disc must not overpass the valve thickness. Position the bolts to keep centered the valve. Then open fully the valve and tighten the bolts. **See graph under.**



Half open valve introduction



Complete opened disc valves when screw tightening



- Tighten the bolts in cross.
- The disc must move easily inside the pipe.
- Valves must be opened during cleaning operation.
- 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 API 598.
- Then open slowly the valve.
- **Do not mount butterfly valves with stainless steel pressed collars and turning flanges.**
- **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.