Serie F.200

STAINLESS STEEL BUTTERFLY VALVE

F.230

The shut-off butterfly valves F.230 are equipped with a centred disc and wafer type / flanged type body, and are made of stainless steel, manufactured in accordance with severe product norms and in conformity to EN ISO 9001. These valves are suitable for heating and conditioning (HVAC), water treatment and water distribution, industrial applications, agricultural purposes for compressed air, gas, oils and hydrocarbons

YES: for in line and end of line installation with frequent actuation; the integrated support, in accordance with ISO 5211, allows easy mounting of a wide range of actuators and drives. They are suitable for choking and regulating the flow.

NO: for steam.

Application fields

WATER | CONDITIONING | INDUSTRY | DRINKING WATER | GAS | HEATING | MARINE | FIRE FIGHTING

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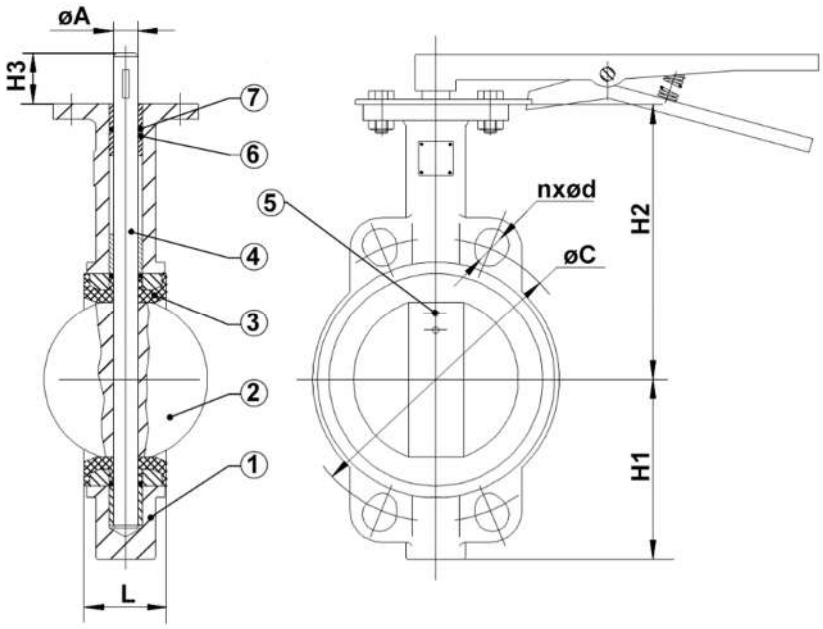
WAFER TYPE: F.230.W



Materials

	Component	Material
1	Body	AISI304 / AISI316 - Stainless steel
2	Clapper	AISI304 / AISI316 - Stainless steel
3	Seat	EPDM
4	Stem	AISI304 / AISI316 - Stainless steel
5	Taper Pin	AISI304 / AISI316 - Stainless steel
6	Bushing	PTFE
7	O-Ring	NBR

*Option for Stainless steel materials: SS316L

Dimensions (mm)

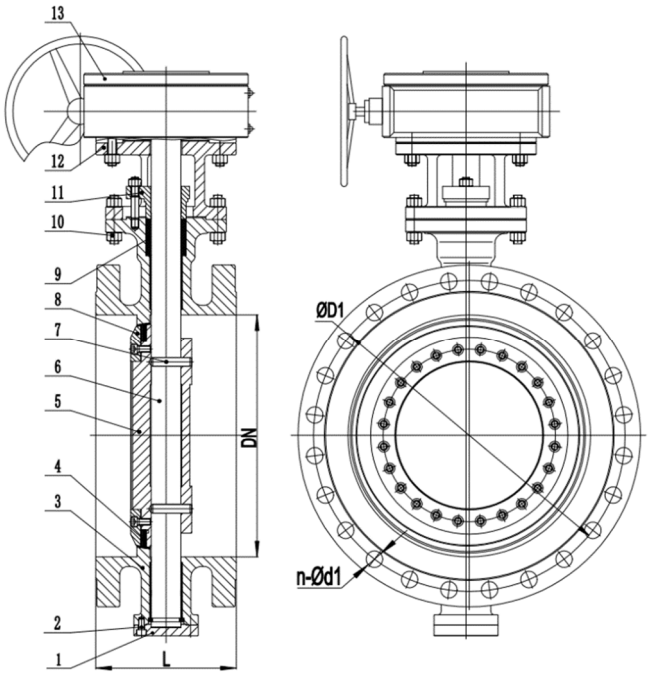
DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L	45	48	49	55	58	59	64	70	80	80	90	109	135	156
H1	66	75	95	107	122	134	168	200	237	262	300	350	375	435
H2	130	140	150	170	185	205	235	270	305	330	360	395	440	500
H3	30	30	30	30	30	30	36	36	36	36	51	51	64	71
ØA	12.7	12.7	12.7	15.8	19.05	19.05	22.2	28.6	31.8	31.8	33.3	38	41.15	50.65
ØC	125	145	160	180	210	240	295	355	410	470	525	585	650	770
nxd	4x18	4x18	8x18	8x18	8x18	8x23	12x23	12x27	12x27	16x27	16x30	20x30	20x33	20x36

Certificates

Standards

Design : TS EN 593
Connection Dimensions : TS EN1092-2 (PN 16)
Tests : TS EN 12266-1
Nominal Pressure: PN16
Temperature: -10 ~ 110°C

FLANGE TYPE: F.230.F



Materials

	Component	Material
1	End Cover	CF8M – Stainless steel
2	Bolt	A4 – Stainless steel
3	Body	CF8M – Stainless steel
4	Seal Ring	SS316 – Stainless steel + Graphite
5	Disc	CF8M – Stainless steel
6	Stem	Stainless steel
7	Pin	Stainless steel
8	Seal Ring Retainer	SS316 – Stainless steel
9	Packing	Flexible Graphite
10	Stud	A2 – Steel
11	Flange	CF8M – Stainless steel
12	Bracket	WCB - Carbon Steel
13	Worm gear actuator	Component

Dimensions (mm)

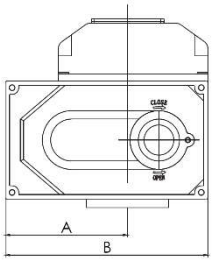
DN	350	400	450	500	600	700	800	900	1000	1200
L	190	216	222	229	267	292	318	330	410	470
D1	470	525	585	650	770	840	950	1050	1170	1390
n-d1	16-27	16-30	20-30	20-33	20-36	24-37	24-41	28-41	28-44	32-50

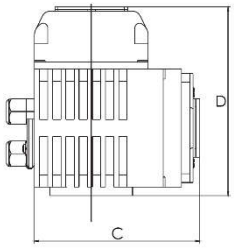
Accessories

- Actuator

Actuator for butterfly valve

DN40~DN700





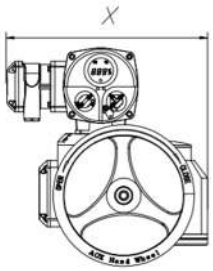
Specification

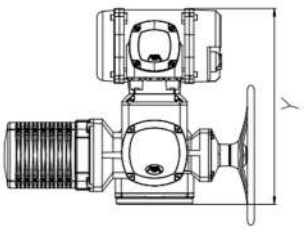
Shell	Aluminium alloy shell, Enclosure: IP67, NEMA4 and 6 (Option: IP68)
Power	Single phase 220V AC (Option: 24V DC)
Motor	Squirrel-cage Asynchronous Motor
Limit switch	2xOpen / Close, SPDT, 250V AC 10A
Auxiliary switch	2xOpen / Close, SPDT, 250V AC 10A
Stall protection	Internal placed thermal protection
Indicator	Continuous situation indication
Manual operation	Mechanical lever (Handwheel is optional)
External coating	Dry powder, Epoxy polyester

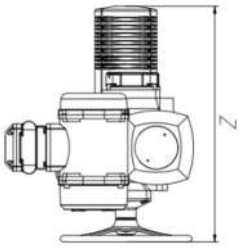
Performance Parameter

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700
A (mm)	74	74	89	89	89	107	107	152	152	152	152	391	391	391	391	391
B (mm)	123	123	160	160	160	189	189	268	268	268	268	508	508	508	508	508
C (mm)	100	100	121	121	121	145	145	205	205	205	205	285	285	285	285	285
D (mm)	113	113	121	121	121	129	129	164	164	164	164	368	368	368	368	368
Operating time (s)	20	20	30	30	30	30	40	30	40	40	40	60	60	120	200	200
Motor (W)	8	8	10	10	10	15	15	60	60	90	90	90	90	90	90	90
Ampere (220V-50Hz)	0.25	0.25	0.24	0.24	0.26	0.4	0.42	0.34	0.35	0.56	0.59	0.85	0.85	0.85	0.85	0.85

DN800~DN1200







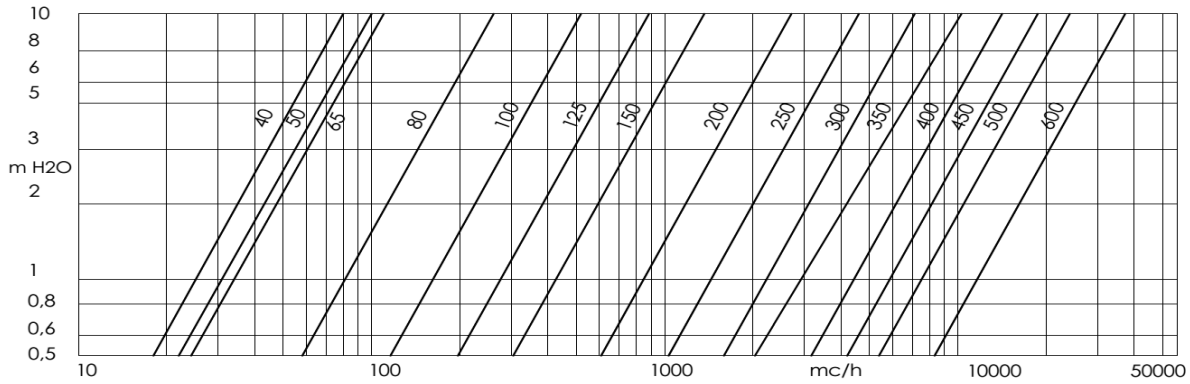
Specification

Shell	Enclosure: IP67, NEMA4 and 6 (Option: IP68)
Material	Ductile iron, high-strength aluminum alloys, steel, aluminum bronze, polycarbonate
Power	Three phase 380V AC (Option: 110/220V AC - 1ph, 440V AC - 3ph)
Motor	Asynchronous Motor
Limit switch	1xOpen / Close, SPDT, 250V AC 10A (on/off model)
Auxiliary switch	1xOpen / Close, SPDT, 250V AC 10A (on/off model)
Torque switch	1xOpen / Close, SPDT, 250V AC 10A
Overload protection	Torque peak overload protection
Indicator	Continuous situation indication
Manual operation	Declutching mechanism, with handwheel operation
External coating	Dry powder, Epoxy polyester, high anti-corrosion
Display screen	LED display (smart regulation type)
Setting mode	Non-intrusive setting (without opening the cover set type)
Electrically	Integrated control unit with a non-invasive rotary switch

Performance Parameter

DN	800	900	1000	1200
X (mm)	509	509	509	509
Y (mm)	451	451	451	451
Z (mm)	578	578	578	578
Speed (RPM)	67	67	67	67
Motor (W)	1100	1100	1500	1500
Ampere (220V-50Hz)	6.85	6.85	14.8	14.8

Head loss **Fluild: water** (1m H2O = 0.098bar) - *Head loss with shutter fully open*



Instruction and Recommendations

STORING AND TRANSPORT

- Keep in dry and closed place.
- While stored, the disc must be partially open.
- Avoid knocks, take special care to protect lever, hand wheel, gear boxes/actuators.
- Do not use lever or hand wheel to lift the valve.

RECOMMENDATIONS

Before carrying out maintenance or dismantling the valve: be sure that the pipes, valves and fluids have cooled down, that the pressure has decreased, and that the lines and pipes have been drained in case of toxic, corrosive, inflammable or caustic liquids.
Temperatures above 50°C and below 0°C might cause damage to people.

INSTALLATION

- Handle with care
- Do not weld the flanges to the piping after installing the valve
- Water hammers might cause damage and ruptures. Inclination, twisting and misalignments of the piping may subject the valve to stress, once it has been installed. It is recommended that elastic joints be used, in order to reduce these effects as much as possible. The disc must be partially open
- The stem has a machined notch N (Fig. 2), which indicates the position of the disc; consider this indication, in order to mount the levers and actuators correctly.

FIG. 1

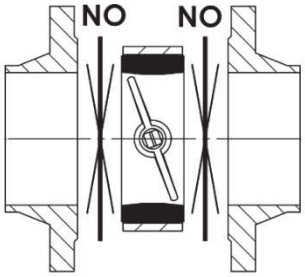


FIG. 2

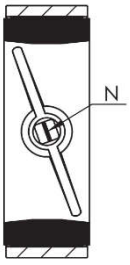
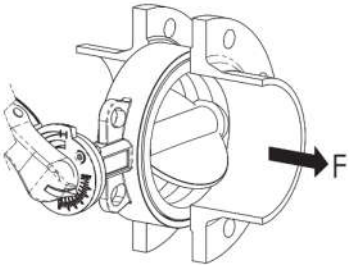


FIG. 3



- The mounting can be made with the stem axis in a horizontal or vertical position. In case the fluid contains suspended solid particles (for example, sand, impurities, etc.) o solid particles that may leave deposits, it is recommend that the valve be installed with its axis horizontal, and in such a way that the bottom end of the disc opens in the direction of flow, F. (Fig.3)
- Place the valve between two flanges. While placing the valve, ensure there is sufficient space in order not to damage the rubber. Do not mount seals between valve and flanges (Fig. 1). Carefully clean the contact surface. Do not install the butterfly valve in direct contact with a rubber surface (for example, expansion joints); the best installation is when the rubber is in contact with metal (Fig. 4)

FIG. 4

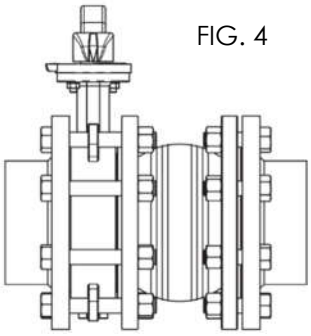


FIG. 5

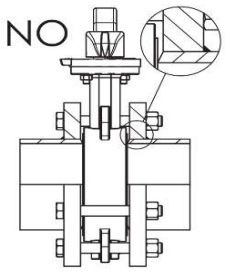
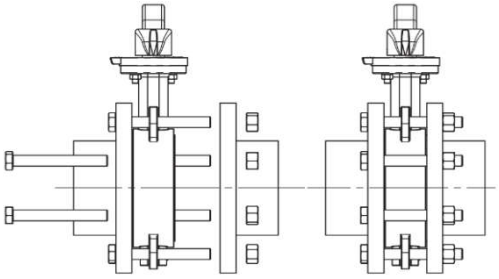


FIG. 6



- As far as possible, avoid flat flanges for welding (EN 1092 01 type); if these flanges are used, ensure perfect centring between the flange and valve, and be sure to weld exactly edgewise to the flange. Do not let protrusions or sharp edges on the piping cause damage to the rubber surface of the valve (Fig. 5)
- Centre the valve on holes while using wafer type valves. Tighten the bolts crosswise and progressively, in order to distribute the pressure equally before the body and flanges come into contact with each other (Fig. 6)
- With regard to the Lug version, check that the screws are the correct length, in order to allow complete compression of the lining rubber
- Turbulences of the fluid might increase erosion and reduce the life-cycle of the valve. Install the valve at a distance of at least 1 x DN upstream, and at a distance of 2-3 x DN downstream, away from fittings or bends.
- In the open position, the valve is larger than the nominal Face to Face value. Check that no other components of the piping interfere or create damage or malfunction (Fig. 7A). If they do, a spacer should be inserted for the valve to operate correctly (Fig. 7B).

FIG. 7A NON OK

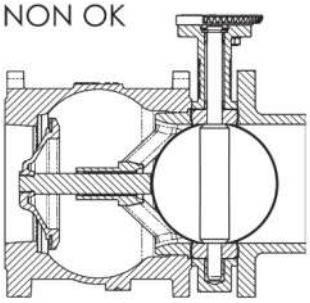


FIG. 7B OK