BUTTERFLY VALVE - WAFER
FAF 3500

PRODUCTION STANDARDS

DN40 →DN600
PN 6-10-16 CLASS 150

Design	EN 593
Connection	Wafer Type ISO 7005-1 EN 1092-1
Face to Face	EN 558 Series 20
Marking	EN 19
Tests	EN 12266-1
Corrosion Protection	Electrostatic Powder Epoxy

Product Description

FAF3500 Wafer Type Butterfly Valve is a quarter-turn rotational motion valve, which is used to stop, regulate and start flow. 90° rotation of the handle provides a complete closure or opening of the valve.

Features

- Equipped with various disc materials and can be used in various flow types and different applications with the EPDM, NBR and VITON seat options.
- Compared to other valve types, with its compact dimensions offers the advantages of lightweight, easy installation and cost effectiveness.
- Head loss is at minimum level through the double shaft design of FAF Valve.
- The inner and outer surfaces of valve body are coated with electrostatic fusion bonded epoxy (FBE) / oven baked powder epoxy coating. Smooth operation and longer life is maintained in tough conditions.
- Higher coating thicknesses can be applied upon request
- Up to DN 300 (inclusive) sizes are supplied with hand lever as default DN 350 (inclusive) and above are supplied with gear box as default.
- Electrical or Pneumatic actuators directly fit on valve top flange (ISO 5211)
- No need for any additional intermediary parts.
- Can be installed in any desired position
- Maintenance-free
- Four flange mounting semi-lugs ensure correct valve location when installing
- The valve body and disc are accurately machined which results in low operating torque and long service life and reliability.

Temperature

- +130 °C (EPDM)
- +100 °C (NBR)
- +220 °C (VITON)

Versions

- Standard version with hand wheel
- With gearbox + FAF3700
- With pneumatic actuator + FAF3750
- With electrical quarter turn actuator + FAF3770
- With electrical multi turn actuator + FAF3780
- Custom production for specific orders

Accessories

- T-key + FAF7250
- Extension spindle, ST steel + FAF3790
- Surface box, cast iron + FAF3790K
- Flange adaptors + FAF3960
- Position indicator

Scope of Application

- Chamber installation
- Installation in plants
- Pipelines
- Water treatment plants
- Pumping stations
- Tanks
- Seawater applications
- Power plants (cooling water pipelines)
- Industry

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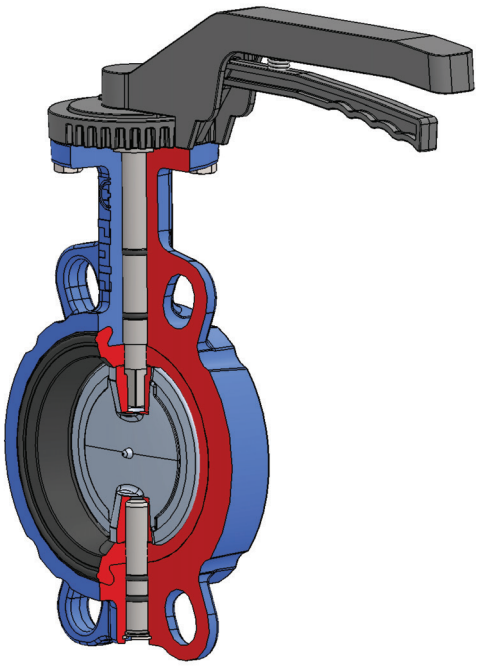
3500



MATERIAL SELECTION	
Body	EN-GJL-250 Cast Iron / GG25 EN-GJS-400 Ductile Iron / GGG40
Disc	1.4301 - AISI 304 Stainless Steel 1.4401 - AISI 316 Stainless Steel EN-GJS - 400 Ductile Iron / GGG40 Nickel Coated Aluminium Bronze PTFE
Stem	1.4021 - AISI 420 Stainless Steel 1.4301 - AISI 304 Stainless Steel (Optional) 1.4401 - AISI 316 Stainless Steel (Optional)
Sealing	EPDM (NBR, VITON, NEOPREN, PTFE - optional)
Gearbox	EN GJL 250 (DN 350 and above)

PRODUCTS MODEL CODES	
FAF 3500	**SS 304 DISC - EPDM SEALING**
FAF 3501	SS 304 DISC - NBR SEALING
FAF 3502	SS 304 DISC - VITON SEALING
FAF 3503	SS 304 DISC - NEOPREN SEALING
FAF 3550	NICKEL DISC - EPDM SEALING
FAF 3551	NICKEL DISC - NBR SEALING
FAF 3552	NICKEL DISC - VITON SEALING
FAF 3553	NICKEL DISC - NEOPREN SEALING
FAF 3560	SS 316 DISC - EPDM SEALING
FAF 3561	SS 316 DISC - NBR SEALING
FAF 3562	SS 316 DISC - VITON SEALING
FAF 3563	SS 316 DISC - NEOPREN SEALING
FAF 3570	ALU. BRONZR DISC - EPDM SEALING
FAF 3571	ALU. BRONZR DISC - NBR SEALING
FAF 3572	ALU. BRONZR DISC - VITON SEALING
FAF 3573	ALU. BRONZR DISC - NEOPREN SEALING

VALVE TEST PRESSURE (Bar)		
MAX. OPERATING PRESSURE	BODY / SHELL TEST	SEAT TEST
16	24	17,6
100% of the valves are subjected to hydrostatic tests at FAF facilities.		

Note

- For proper use and safety precautions please follow the installation and operating instructions.

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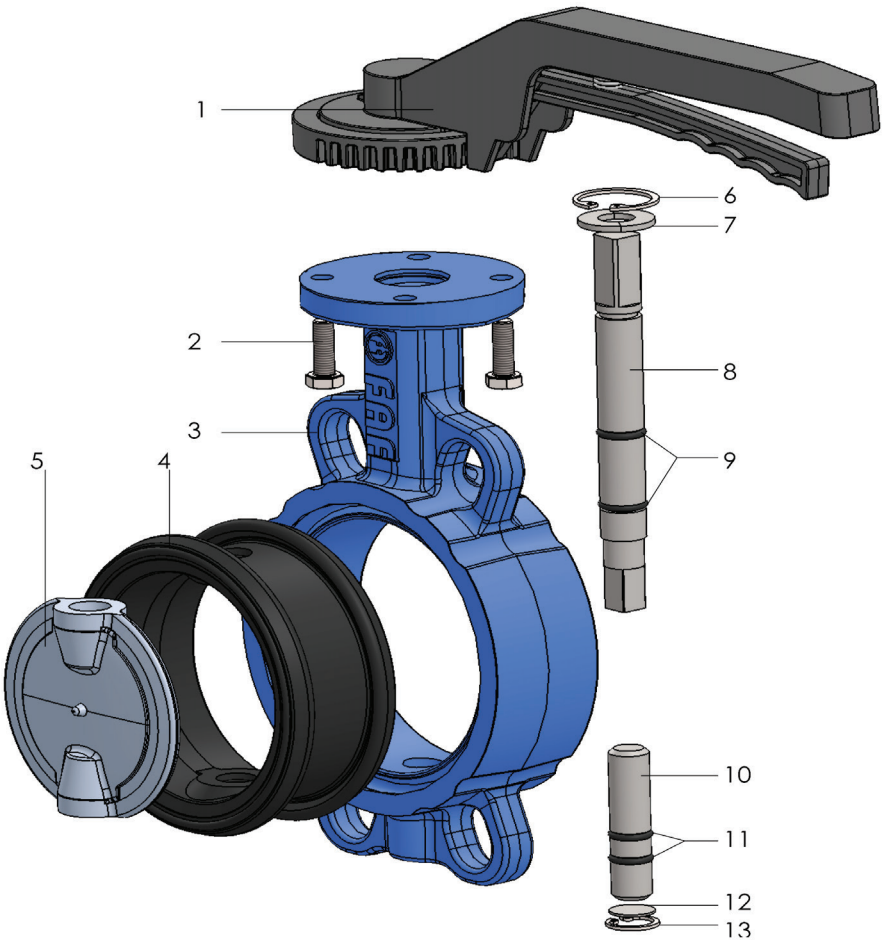
Material List



NO	ITEM	MATERIALS
1	HANDLEVER	ALUMINUM
2	BOLTS	DIN 933
3	BODY	EN GJL 250 GG 25 EN GJS 400 GGG 40 (Optional)
4	GASKET	EPDM / NBR / VITON / NEOPREN
5	DISC	AISI 304, AISI 316 EN GJS 400 NICKEL COATED
6	RETAINING RING	DIN 472
7	WASHER	STEEL 1.0254
8	DRIVE SHAFT	STAINLESS STEEL 1.4021
9	O RING	NBR, EPDM
10	CENTERING SHAFT	STAINLESS STEEL 1.4021
11	O RING	NBR, EPDM
12	WASHER	STAINLESS STEEL 1.4016
13	RETAINING RING	DIN 472

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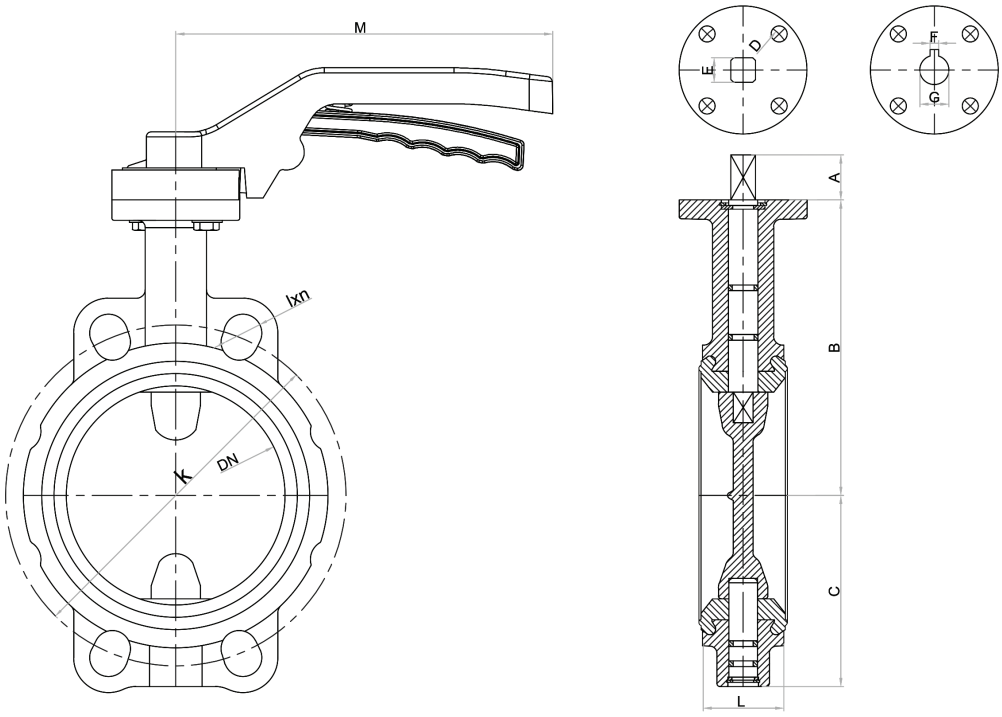
Technical Details & Drawing, Dimensions



DN (mm)	A	B	C	D	PN 6		PN 10		PN 16		E	F	G	M	L	WEIGHT (kg)
					k	Ølxn	k	Ølxn	k	Ølxn						
40	30	122	56	50	100	14x4	110	19x4	110	19x4	11x11	-	-	190	33	*2,3*
50	30	127,5	61	50	110	14x4	125	19x4	125	19x4	11x11	-	-	190	43	*2,8*
65	30	134	70	50	130	14x4	145	19x4	145	19x4	11x11	-	-	190	46	*3,5*
80	30	157	92	50	150	19x4	160	19x8	160	19x8	11x11	-	-	190	46	*3,9*
100	30	167	101	70	170	19x4	180	19x8	180	19x8	14x14	-	-	255	52	*6*
125	30	180	116	70	200	19x8	210	19x8	210	19x8	14x14	-	-	255	56	*7,4*
150	30	203	131	70	225	19x8	240	23x8	240	23x8	17x17	-	-	255	56	9
200	30	228	164	102	280	19x8	295	23x12	295	23x12	17x17	-	-	355	60	*15,1*
250	30	266	197	102	335	19x12	355	28x12	355	28x12	22x22	-	-	355	68	21,9
300	30	291	223	102	395	23x12	410	28x12	410	28x12	22x22	-	-	355	78	33,3
350	45	370	282	125	-	-	-	-	470	28x16	22x22	-	-	-	78	56,7
400	45	400	310	140	-	-	-	-	525	31x16	27x27	-	-	-	102	79,3
450	50	420	329	140	-	-	-	-	585	31x20	27x27	-	-	-	114	98,6
500	50	480	390	165	-	-	-	-	650	34x20	-	14	48	-	127	150
600	50	565	455	165	-	-	-	-	770	37x20	-	14	48	-	154	193

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Butterfly Valve Maintenance Instructions

Dismounting

Position the valve flat with the disc in the closed position.
Loosen the taper pin from the valve disc using a hammer and punch.
Note: Punch should be of same size or larger diameter as small end of taper pin to avoid mushrooming of taper pin.
Remove taper pin from disc. Extract the valve shaft from the body using a twisting motion.
Remove the valve disc from body making sure not to damage the seat or disc sealing edge.
Cartridge seat removal can be accomplished from either direction by applying pressure evenly on one face to push the seat through the body.
If the valve is of dead end service design, remove setscrews around periphery of body extending into seat prior to seat removal.
Remove shaft bushings from body as required

Inspection and cleaning

The following periodic preventative maintenance practices are recommended:
Operate the valve from full open to full closed to assure operability.
Check flange bolting for evidence of loosening and correct as needed.
Inspect the valve and surrounding area for previous or existing leakage at flange faces or shaft connections.
Check piping and/or wiring to actuators and related equipment for looseness and correct as needed.

Mounting

Remove any protective flange covers from the valve.

Inspect the valve to be certain the waterway is free from dirt and foreign matter.

Be certain the adjoining pipeline is free from any foreign material such as rust and pipe scale or welding slag that could damage the seat and disc sealing surfaces.

Any actuator should be mounted on the valve prior to installation to facilitate proper alignment of the disc in the valve seat.

Check the valve identification tag for materials, and operating pressure to be sure they are correct for the application.

Check the flange bolts or studs for proper size, threading and length.

Thoroughly clean all parts. Inspect components for any defects.

Apply a small amount of silicone grease to the inside surfaces of the body, including the upper and lower shaft holes.

Insert the shaft bushings into the body being careful not to allow intrusion into the body seat bore.

Install the seat into the center of the body, making sure the shaft holes in the seat line up with the holes in the body.

Completely coat the inside surfaces of the seat with silicone grease.

Carefully push the disc into the seat in the open position (90 degrees to the body.) Line up the shaft holes of the disc as close as possible with the shaft holes in the seat body.

Insert the shaft through the body and disc, use a twisting motion to align the keyway parallel with the disc.

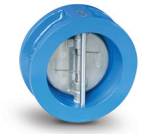
Insert taper pin(s) into the disc and set with two or three sharp blows.

Wipe dust shield o-ring with silicone grease and place over the shaft into the top of the body.

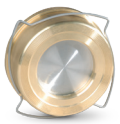
If the valve is of dead end service design, insert setscrews through the body into the seat.

Associated Products for the Butterfly Valve Range

2300
CHECK VALVE
WAFER SWING



2350
CHECK VALVE
DUAL



2370
CHECK VALVE DISC

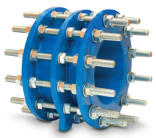
2500
Y-TYPE STRAINER

3700
GEARBOX

3770
ELECTRIC ACTUATOR

3960
FLANGE ADAPTOR

3970
COUPLING



3900
DISMANTLING JOINT

5000
RUBBER
EXPANSION JOINT