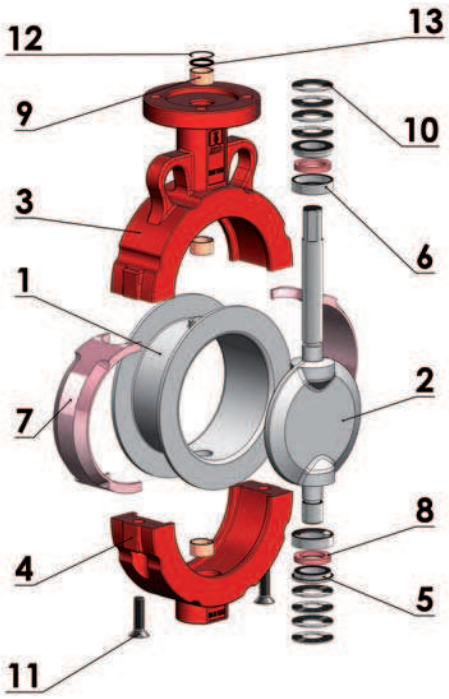
High performance butterfly valves - Series 500

Drawing



Item	Name
1	Liner
2	Disc with shaft
3	Upper part of body
4	Lower part of body
5	Pressure element
6	Seal capsule
7	Energizer
8	Ring
9	Sliding gland ring
10	Disc spring
11	Screw
12	Retaining ring
13	O-ring

Codification

5 9 9 B

Version of body
B = wafer

Material of liner
9 - PTFE

Material of disc
9 - PTFE (PTFE coated stainless steel)

Series name
Series 500

High performance butterfly valves - Series 500 - Technical details

Available connections

INSTALLATION BETWEEN FLANGES (DN 50-200)

Vers.		50	65	80	100	125	150	200
B	PN10							
	PN16							
	Class 150							

standard

Torque chart (Nm)

OPERATING TORQUES UPON WORKING PRESSURE (NM)*

DN	50	65	80	100	125	150	200
N.m^{-1}	34	41	66	85	113	153	282

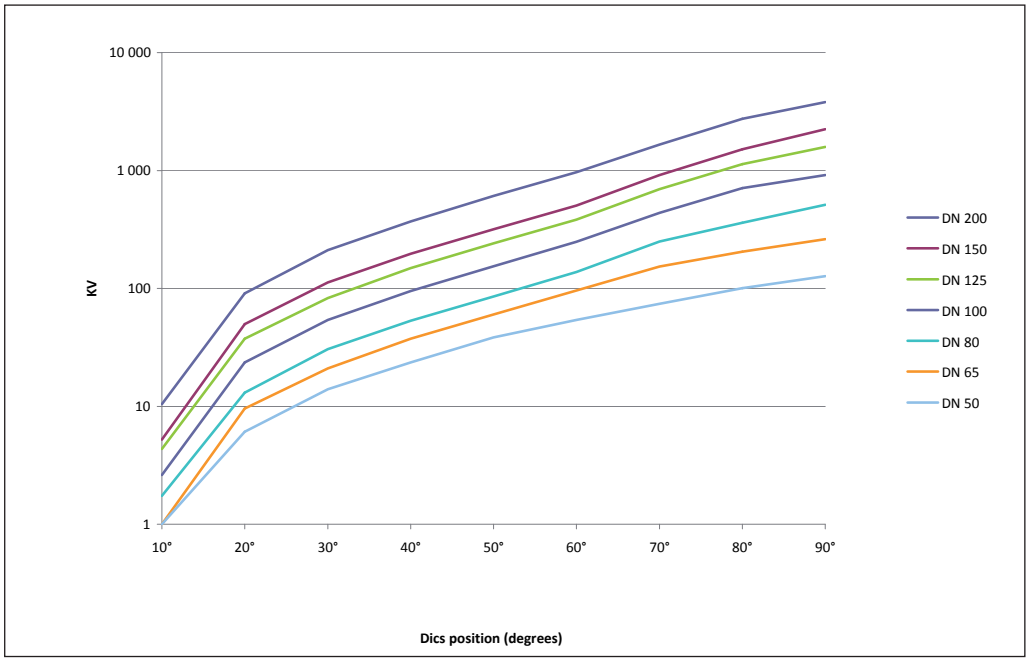
For pressure 10 bar, working medium - water 20 °C (68 °F) only.

KV chart and curve

1 KV = 0,854701 CV

Valve size - DN		Disc Position (degrees)								
mm	inch	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	2	1	6	14	24	38	54	74	100	127
65	2 1/2	1	10	21	37	60	96	153	205	262
80	3	2	13	31	53	85	138	249	360	511
100	4	3	24	54	95	154	248	439	708	916
125	5	4	37	83	149	241	384	696	1 131	1 581
150	6	5	50	112	197	317	506	914	1 514	2 246
200	8	10	91	211	370	609	969	1 663	2 739	3 796

Other dimensions upon request.



High performance butterfly valves - Series 500 - Technical details

Application

Butterfly valves Series 500 are designed to work with aggressive media in industries such as:

- Chemical industry
- High purity water
- Food industry
- Pharmaceutical industry
- Other sanity industries

Models

Wafer type B

General characteristics

- Excellent shut off protection (bubble tight shut off) and high KV values
- Disc has 3 mm thickness of pure virgin PTFE
- Disc design allows for a higher flow area
- Body is epoxy coated
- Upper stem seal prevents any environmental contaminants from entering the stem bore
- Extended neck design allows for piping insulation and enables easy access for actuators mounting
- PTFE impregnated steel bearings ensure precision alignment of the upper and lower stem

Materials

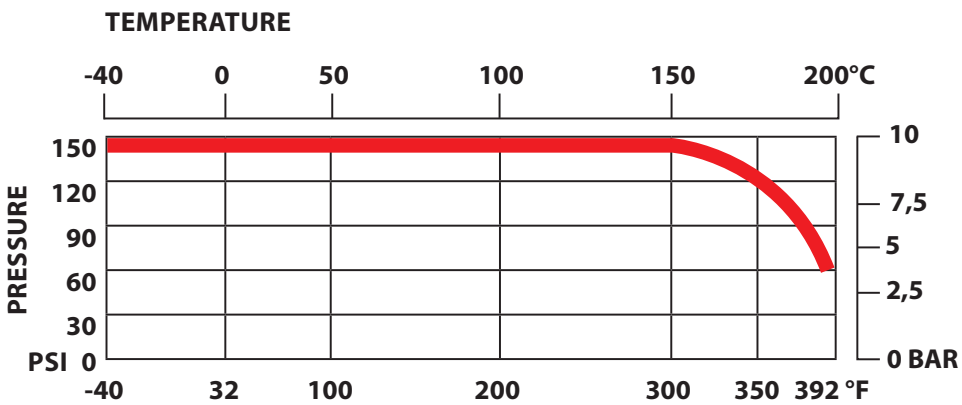
Item	Name	Material
1	Liner	PTFE
2	Disc with shaft	Stainless steel 1.4408 (CF8M) PTFE coated
3	Upper part of body	Ductile iron 0.7043 (GGG40.3)
4	Lower part of body	Ductile iron 0.7043 (GGG40.3)
5	Pressure element	Stainless steel 1.4408 (CF8M)
6	Seal capsule	Stainless steel 1.4408 (CF8M)
7	Energizer	Silicone rubber
8	Ring	Silicone rubber
9	Sliding gland ring	SKF PTFE
10	Disc spring	Carbon steel 1.8159
11	Screw	Stainless steel A4
12	Retaining ring	Stainless steel 1.4401 (AISI 316)
13	O-ring	NBR

Coating

- Orange epoxy painting RAL 2002 - 80 µm
- Based on customer's request, higher degree of coating can be provided

Working conditions

- Maximum working pressure: 10 bar
- Temperature range – max: - 40°C + 200 °C (- 40°F + 392 °F)



Standards

LEAK TEST:
- EN 12266-1, CLASS A
- ISO 5208, CLASS A
- API 598, TAB. 5

FACE TO FACE ACC.:
- EN 558, SERIES 20
- ISO 5752, SERIES 20
- API 609, TABLE 2

TOP FLANGE:
- EN ISO 5211

CONNECTION BETWEEN FLANGES:
- EN 1092-1
- DIN 2631-32
- ASME B16.5

WORKING STANDARD:
- EN 593 + A1

Standard and testing

- Test procedures are established according to: EN 12266-1, ISO 5208, API 598, ANSI/FCI 70-2
- Manufacture according to the requirements of the European Directive 97/23/CE – Equipment under presssure (Category III, modul B)

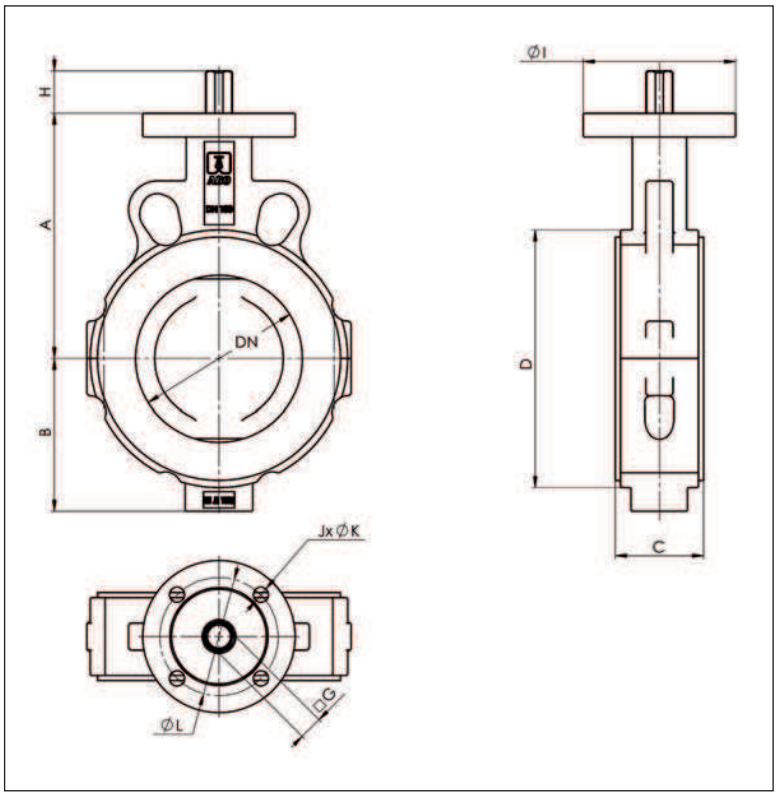
Actuation possibilities

- Handlever
- Manual gearbox with handwheel
- Electric actuator 24V, 230V, 400V, other upon request
- Pneumatic actuator
  - o single acting
  - o double acting

High performance butterfly valve series 500

Face to face dimension:
EN 558, SERIES 20
ISO 5752, SERIES 20
API 609, TABLE 2

Actuation:
Bare shaft



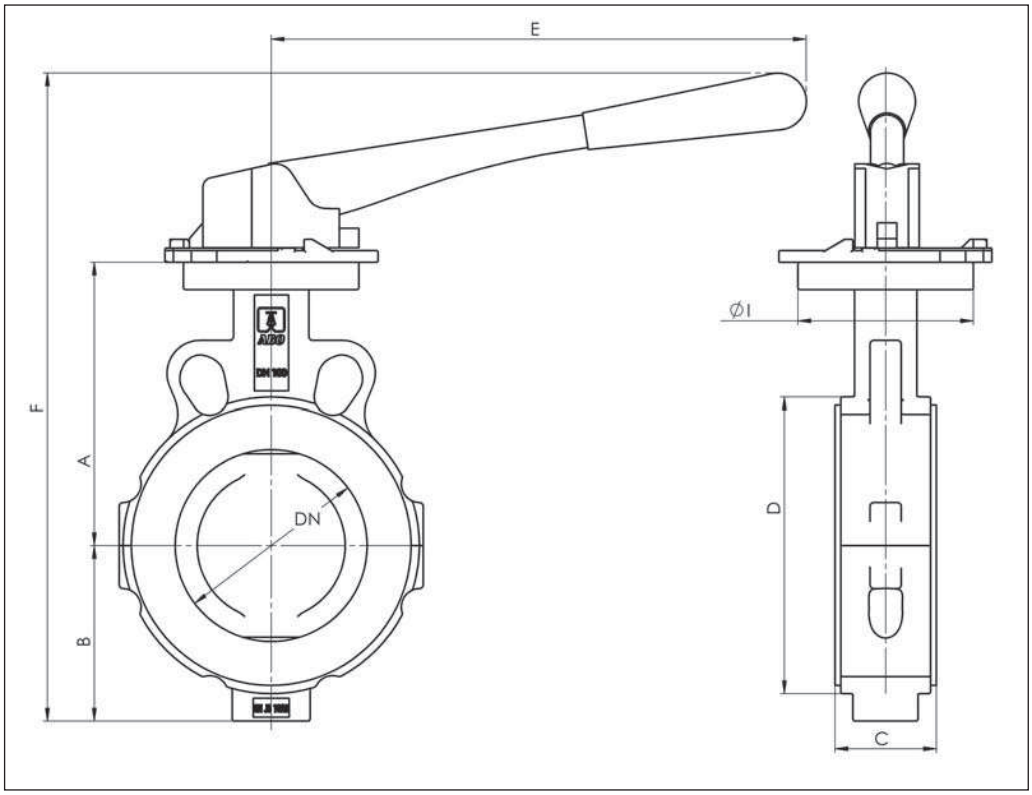
DN												
mm	**inch**	A	B	C	D	G	H	I	J	K	L	Weight (kg)
50	**2“**	120,5	61	43	96	11	25	70	4	7	50	2,3
65	**2“1/2**	128	74	46	115	11	25	70	4	7	50	3,0
80	**3“**	135,5	78	46	131	14	25	70	4	7	50	3,5
100	**4“**	145	90	52	152	14	25	90	4	9	70	5,0
125	**5“**	164	106	56	181	14	25	90	4	9	70	6,5
150	**6“**	176,5	126	56	207	14	25	90	4	9	70	7,8
200	**8“**	234	152	60	257	17	25	90	4	9	70	13,2

Above mentioned dimensions are indicative only.

High performance butterfly valve series 500

Face to face dimension:
EN 558, SERIES 20
ISO 5752, SERIES 20
API 609, TABLE 2

Actuation:
Handlever



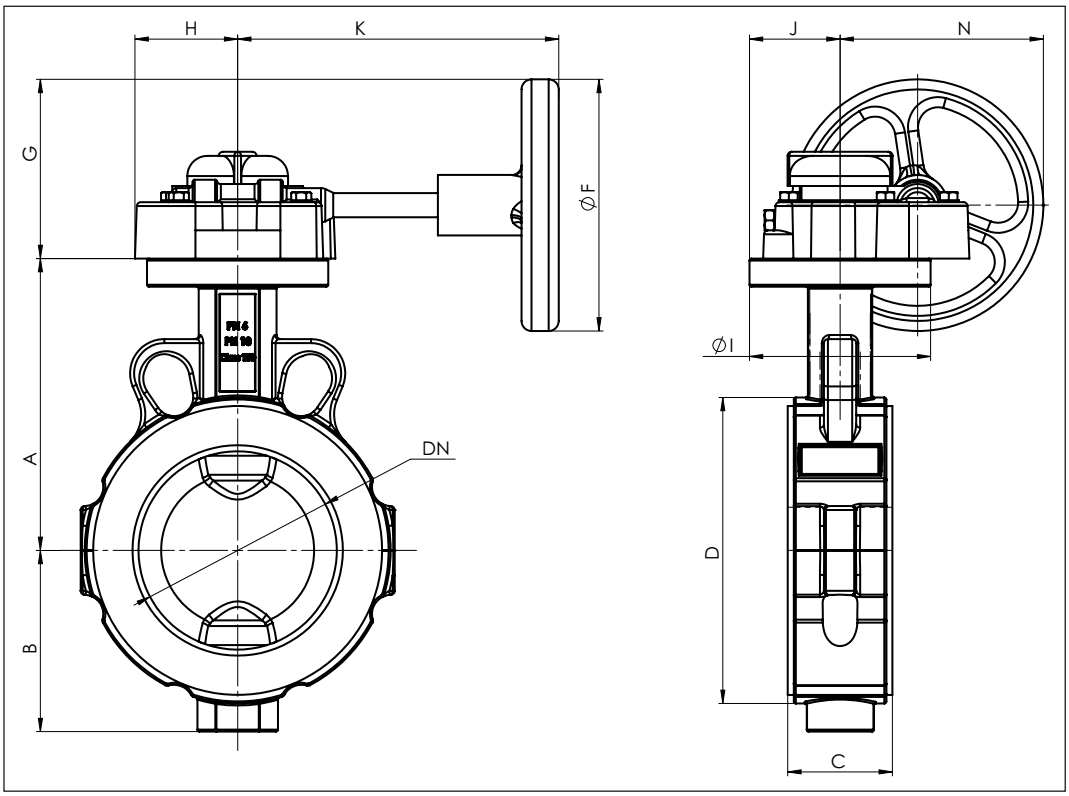
DN									
mm	**inch**	A	B	C	D	E	F	I	Weight (kg)
50	**2“**	120,5	61	43	96	270	246,5	70	3,54
65	**2“1/2**	128	74	46	115	270	265	70	4,24
80	**3“**	135,5	78	46	131	270	276,5	70	4,74
100	**4“**	145	90	52	152	270	319	90	6,24
125	**5“**	164	106	56	181	270	354	90	7,76
150	**6“**	176,5	126	56	207	362	399,5	90	9,2

Above mentioned dimensions are indicative only.

High performance butterfly valve series 500

Face to face dimension:
EN 558, SERIES 20
ISO 5752, SERIES 20
API 609, TABLE 2

Actuation:
Manual gearbox with handwheel



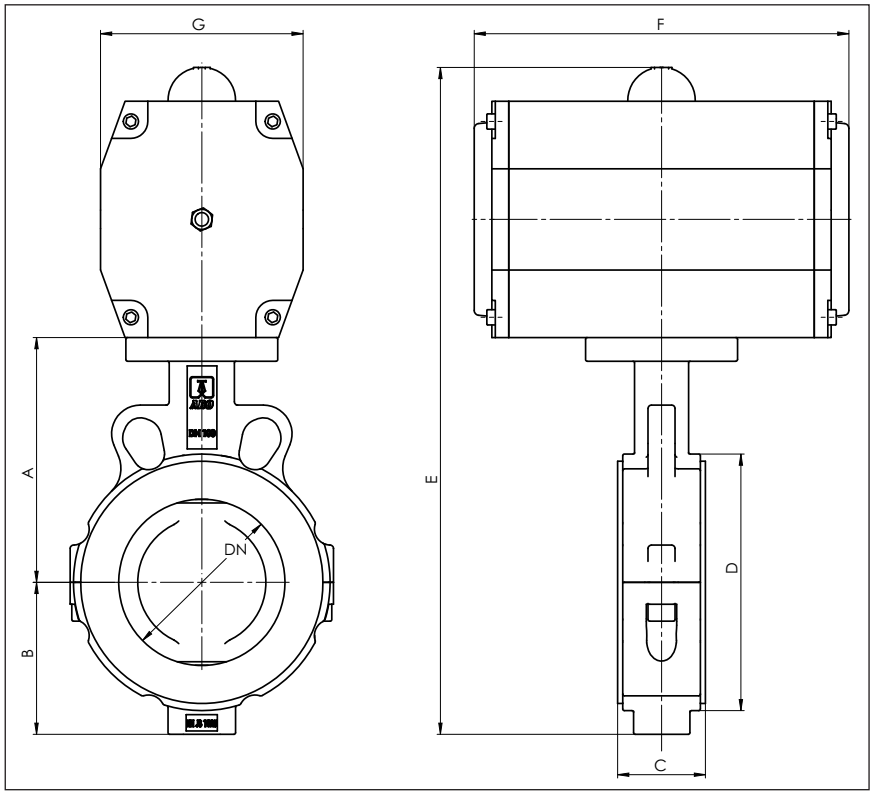
DN													
mm	**inch**	A	B	C	D	E	F	G	H	I	J	K	Weight (kg)
50	**2“**	120,5	61	43	96	101	125	89	44	70	45	152	3,9
65	**2“1/2**	128	74	46	115	101	125	89	44	70	45	152	4,6
80	**3“**	135,5	78	46	131	101	125	89	44	70	45	152	5,1
100	**4“**	145	90	52	152	101	125	89	44	90	45	152	6,6
125	**5“**	164	106	56	181	101	125	89	44	90	45	152	8,1
150	**6“**	176,5	126	56	207	235	250	155	66	90	58	252	11,5
200	**8“**	234	152	60	257	235	250	155	66	90	58	252	16,9

Above mentioned dimensions are indicative only.

High performance butterfly valve series 500

Face to face dimension:
EN 558, SERIES 20
ISO 5752, SERIES 20
API 609, TABLE 2

Actuation:
Pneumatic actuator



DN									
mm	**inch**	A	B	C	D	E	F	G	Weight (kg)
50	**2"**	120,5	61	43	96	311,5	161	92,5	4,8
65	**2"1/2**	128	74	46	115	332	161	92,5	5,5
80	**3"**	135,5	78	46	131	343,5	180	92,5	6,3
100	**4"**	145	90	52	152	382	209	110,5	9,0
125	**5"**	164	106	56	181	440	221	120	12,0
150	**6"**	176,5	126	56	207	472,5	291	120	16,2
200	**8"**	234	152	60	257	576	298	137	24,0

Above mentioned dimensions are indicative only.
Dimensions for double acting pneumatic actuator, ppneu = 5,6 bar, medium: water, p = 10 bar, T = 20°C. (68 °F).