

Butterfly Valve Type AK08



Description:

Butterfly valves are used to control a liquid or gaseous media in a pipeline system.

Product features:

- suitable for neutral and not neutral **gaseous & liquid media**
- **with metal seat: also for smokes and powders**
- stainless steel disc
- long neck for isolation
- ISO 5211 mounting pad
- CE PED 2014/68/EU certified

Connection

DN40 – DN300
Other sizes on request

Temperature

Metal seated : -30°C to +350°C
EPDM sealing: -20°C to +110°C

Pressure

Up to 16,0 bar
– depending on version

Design:

Body:

Disc:

Stem:

Nominal pressure:

Actuation:

Sealing / temperature:

Flange:

Length:

DIRECTIVE 2014/38/EU

DN40 – DN50:

DN65 – DN200:

DN250 – DN300:

Lever:

Pressure test EN 12266-1:

Butterfly valve Wafer type

Stainless steel 1.4408 / ASTM A351 CF8M

Stainless steel 1.4408 / ASTM A351 CF8M

Stainless steel 1.4401 / AISI 316

PN16

Lever

Gearbox with handwheel

EPDM -20°C to +110°C

Metal -30°C to +350°C

EN 1092-1 PN10/16, ASME B16.5 Class 150

ISO 5752 series 20 / EN558 series 20

For liquids or Gas of Group 1

Risk category I; CE marking

Risk category II; CE 0094 marking

Risk category III; CE 0094 marking

up to DN200: 9 positions, possibility to lock
starting DN250: non lockable

EPDM: rate A

Metal: **Body** with rate A, **BUT incomplete tightness through metal seat (loss factor: 2% of kvs)**

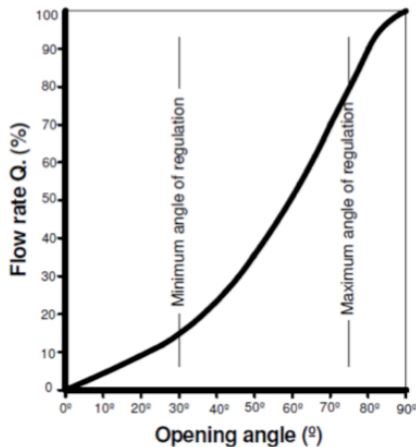
Kv-value (m³/h) EPDM-sealing:

Opening angle / size	40	50	65	80	100	125	150	200	250	300
10°	3	3	6	7	9	21	45	55	64	100
20°	5	7	10	16	22	33	69	131	246	275
30°	10	15	21	37	51	91	149	254	442	472
40°	16	33	40	56	88	153	281	420	710	953
50°	22	44	57	84	134	232	302	631	1056	1450
60°	31	48	86	182	187	331	597	904	1522	2093
70°	36	54	102	246	255	468	822	1388	2128	2972
80°	36	54	102	246	336	560	1015	1758	3096	4193
90°	36	54	102	246	336	560	1072	1758	3096	4480

Kv-value (m³/h) metal seated:

Opening angle / size	40	50	65	80	100	125	150	200	250	300
10°	2	3	5	7	10	14	19	21	23	34
20°	3	10	12	14	16	39	45	61	95	135
30°	5	11	15	22	29	51	69	138	213	310
40°	10	19	27	47	59	110	149	260	407	508
50°	16	39	47	72	96	173	281	427	673	990
60°	26	61	64	118	143	253	302	638	1015	1490
70°	48	75	94	179	195	357	498	910	1473	2135
80°	35	61	109	246	265	500	702	1388	2062	3013
90°	35	61	109	246	345	598	1015	1751	2993	4224
10°	35	61	109	246	345	598	1072	1751	2993	4507

Head loss calculation:



$$\Delta p = (Q/Kv)^2 \times SG$$

Q: flow in m³/h

Δp: head loss in bar

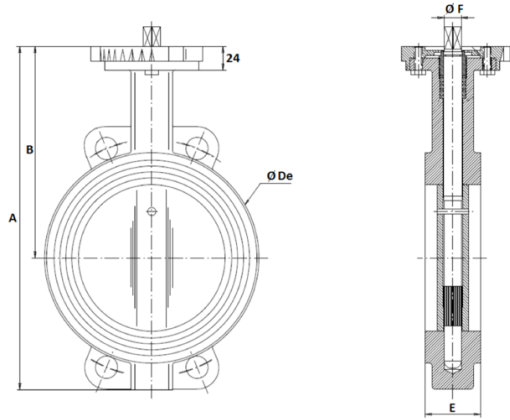
SG: specific gravity (=1 for water)

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)

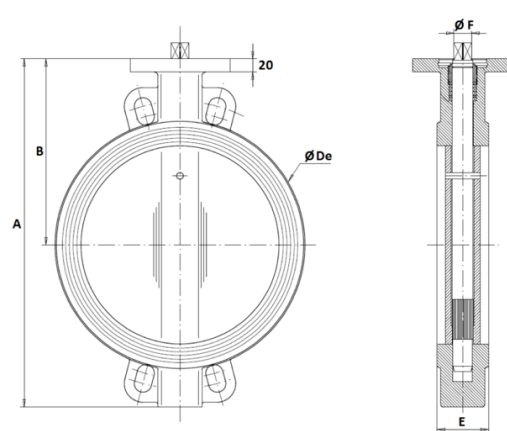
Dimensions:

Butterfly valve (in mm):

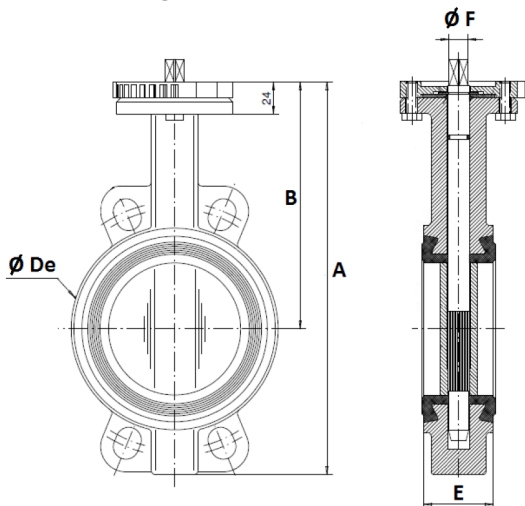
metal seated DN40 – DN200:



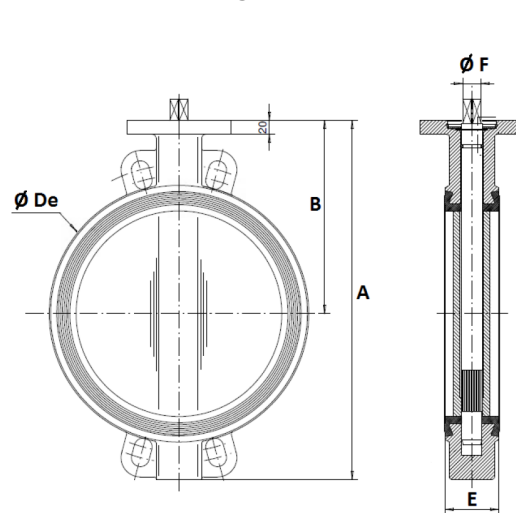
metal seated DN250 – DN300:



EPDM sealing DN40 – DN200:



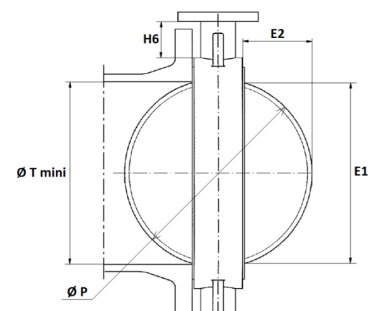
EPDM sealing DN250 – DN300:



DN	40	50	65	80	100	125	150	200	250	300
A	205	228	248	265	298	331	349	430	461	524
B	140	156	161	169	187	206	215	255	248	280
Ø De	82	102	119	135	155	185	208	270	328	381
E	33	43	46	46	52	56	56	60	68	78
F Ø	9,5	9,5	12	14	14	17	17	21	23	26,5
Weight (kg) - metal	3,07	4,57	4,89	5,95	7,58	10,22	12,23	19,0	30,0	40,0
Weight (kg) - EPDM	2,46	3,66	4,4	4,6	6,0	7,6	9,2	14,7	24,7	33,0

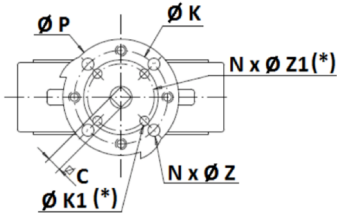
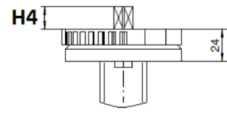
Disc and neck (in mm):

DN	40	50	65	80	100	125	150	200	250	300
E1	23	24,5	46	65	85	109	136	188	238	289
E2	3,5	3,5	9,5	17	24	33,5	45,5	69	90	110,5
H6 +/-2	76	82	80	80	88	93	89	99	71	76
P	40	50	65	80	100	123	147	198	248	299
T mini	26	27,5	49	8	88	112	139	191	241	292

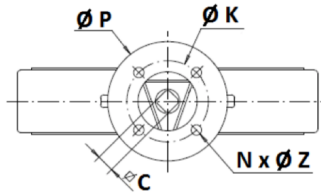
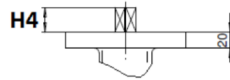


ISO mounting pad (in mm):

DN40 – DN200



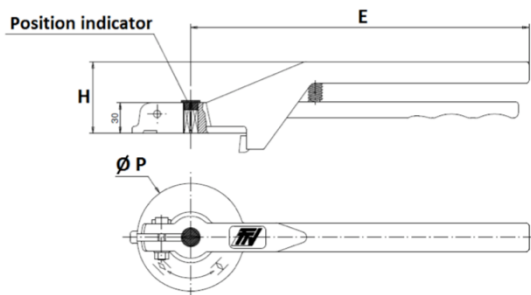
DN250 - DN300



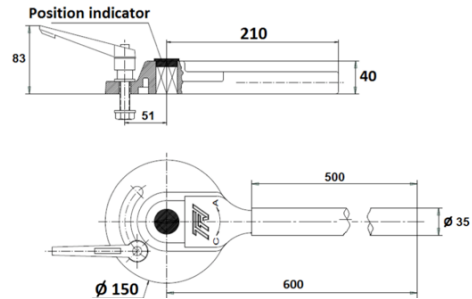
DN	40	50	65	80	100	125	150	200	250	300
C	8	8	9	11	11	14	14	17	19	22
K	70	70	70	70	70	70	70	70	102	102
ISO	F07	F07	F07	F07	F07	F07	F07	F07	F10	F10
Nx Z	4x9	4x9	4x9	4x9	4x9	4x9	4x9	4x9	4x11	4x11
H4	14	14	16	16	20	20	20	24	24	24
P	88	88	88	88	88	105	105	105	150	150

Lever (in mm):

DN40 – DN200

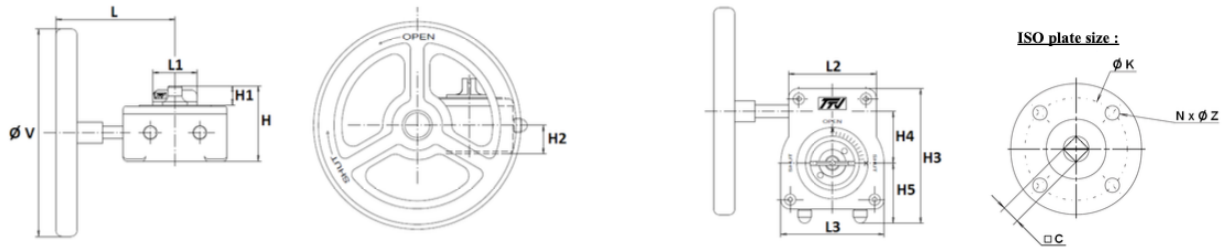


DN250 - DN300



DN	40	50	65	80	100	125	150	200	250	300
E	205	205	205	205	205	330	330	330	500	500
H	57	57	57	57	57	70	70	70	83	83
P Ø	88	88	88	88	88	105	105	105	150	150

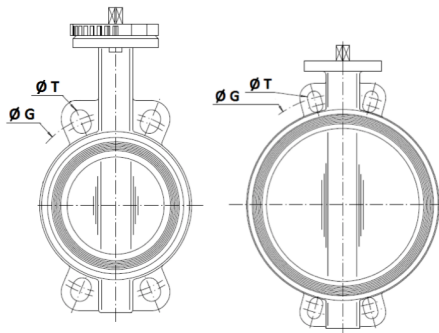
Gearbox (in mm):



DN	40	50	65	80	100	125	150	200	250	300
L	115	115	115	115	115	115	115	115	223,5	223,5
L1	43	43	43	43	43	43	43	43	55	55
L2	85	85	85	85	85	85	85	85	110	110
L3	100	100	100	100	100	100	100	100	142	142
H	73	73	73	73	73	73	73	73	103	103
H1	19	19	19	19	19	19	19	19	33	33
H2	27,5	27,5	27,5	27,5	27,5	27,5	27,5	27,5	42	42
H3	130	130	130	130	130	130	130	130	176	176
H4	50	50	50	50	50	50	50	50	60	60
H5	58	58	58	58	58	58	58	58	82	82
Ø V	140	140	140	140	140	200	200	200	300	300
C	8	8	9	11	11	14	14	17	19	22
Ø K	70	70	70	70	70	70	70	70	102	102
ISO	F07	F07	F07	F07	F07	F07	F07	F07	F10	F10
N x Ø Z	4 x M8	4 x M8	4 x M8	4 x M8	4 x M8	4 x M8	4 x M8	4 x M8	4 x M10	4 x M10
Weight (kg)	1,35	1,35	1,35	1,35	1,35	1,75	1,75	1,75	4,0	4,0

Between flanges size (in mm):

DN40 – DN200 DN250 - DN300



DN	DN	40	50	65	80	100	125	150	200	250	300
PN10	Ø G	110	125	145	160	180	210	240	295	350	400
	Ø T	18	18	18	18	18	18	23	23	23	23
PN16	Ø G	110	125	145	160	180	210	240	295	355	410
	Ø T	18	18	18	18	18	18	23	23	27	27
Class 150	Ø G	98,5	120,6	139,7	152,4	190,5	215,9	241,3	298,5	362	431,8
	Ø T	16	19	19	19	19	23	23	23	26	26

Torque values (without safety coefficient):

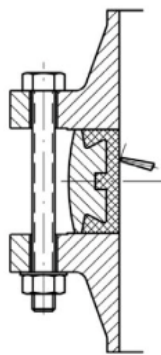
Type AK0810 (EPDM)

torque (Nm)	Pressure (bar)	Size									
		DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
	16 bar	9	11	20	29	47	82	130	210	360	475

Type AK0813 (metal)

torque (Nm)	Pressure (bar)	Size									
		DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
		10 bar (< 180°C)	5	5	5	5	5	10	10	15	25
10 bar (> 180°C)	5	5	10	15	25	45	60	80	110	120	

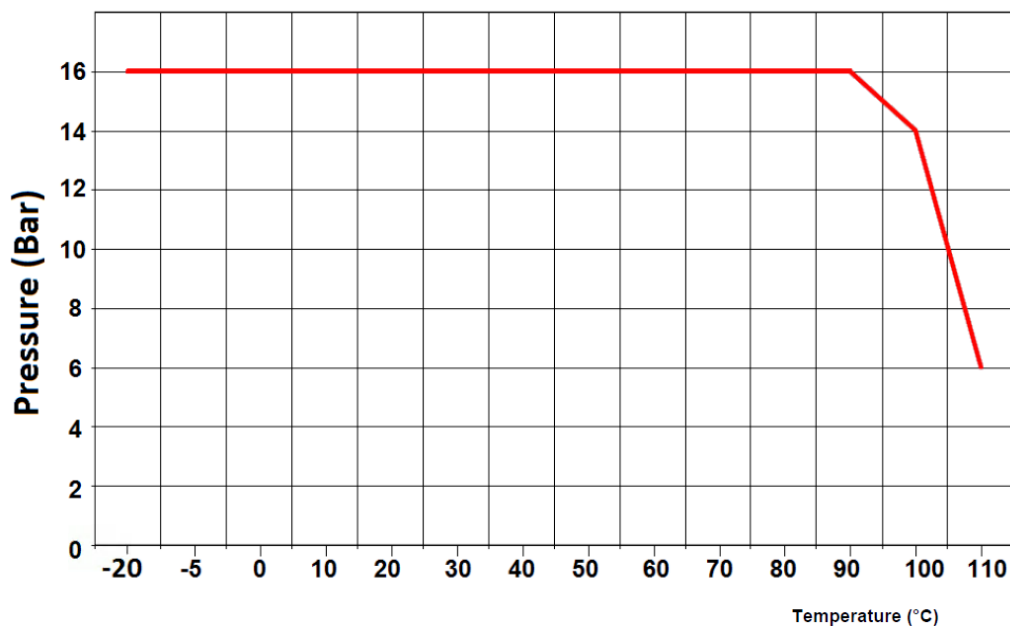
Max. tightening torques for bolting flanges:



Bolting
DN

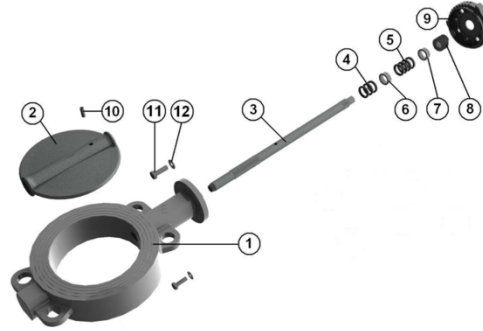
Bolting types	Max. torques (Nm)			
	5,6 / A307 Gr.B	8,8 / A193 B7	10,9	12,9
M12 (1/2")	41,16	84,28	117,6	142,1
M14 (9/16")	66,64	132,3	186,2	225,4
M16 (5/8")	102,9	205,8	289,1	347,9
M18 (3/4")	142,1	284,2	396,9	475,3
M20 (3/4")	196	401,8	568,4	676,2
M22 (7/8")	259,7	539	764,4	911,4
M24 (1")	338,1	695,8	980	1176
M27 (1 1/8")	499,8	1029	1470	1764
M30 (1 1/4")	666,4	1421	1960	2352

Pressure-temperature-rating (EPDM seal):



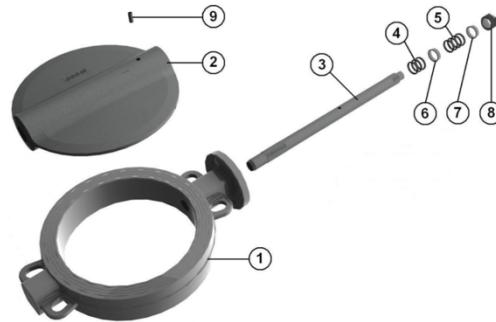
Materials metal seated:

DN40 - DN200



Position	Part	Material
1	Body	
2	Disc	Stainless steel 1.4408 / ASTM A351 CF8M
3	Stem	Stainless steel 1.4401 / AISI 316
4	Gasket	Graphite
5	Gasket	
6	Ring	Stainless steel 1.4401 / AISI 316
7	Ring	
8	Socket	
9	Plate	Stainless steel 1.4408 / ASTM A351 CF8M
10	Pin	Stainless steel 1.4401 / AISI 316
11	Screw	Stainless steel 1.4404 / A4
12	Washer	Stainless steel 1.4401 / AISI 316
	Lever	Aluminium ADC 10 epoxy coated
	Gearbox	Aluminium

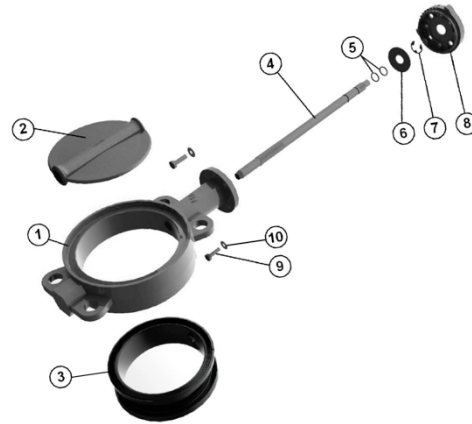
DN250 - DN300



Position	Part	Material
1	Body	
2	Disc	Stainless steel 1.4408 / ASTM A351 CF8M
3	Stem	Stainless steel 1.4401 / AISI 316
4	Gasket	Graphite
5	Gasket	
6	Ring	Stainless steel 1.4401 / AISI 316
7	Ring	
8	Socket	
9	Plate	
	Lever	Ductile iron EN GJS-500-7 epoxy coated
	Gearbox	Aluminium

Materials EPDM sealing:

DN40 - DN200



Position	Part	Material
1	Body	Stainless steel 1.4408 / ASTM A351 CF8M
2	Disc	
3	Seat	EPDM
4	Stem	Stainless steel 1.4401 / AISI 316
5	O-Ring	NBR
6	Ring	Stainless steel 1.4401 / AISI 316
7	Circlips	
8	Plate	Stainless steel 1.4408 / ASTM A351 CF8M
9	Plate screw	Stainless steel 1.4404 / A4
10	Washer	Stainless steel 1.4401 / AISI 316
	Lever	Aluminium ADC 10 epoxy coated
	Gearbox	Aluminium

DN250 - DN300



Position	Part	Material
1	Body	Stainless steel 1.4408 / ASTM A351 CF8M
2	Disc	
3	Seat	EPDM
4	Stem	Stainless steel 1.4401 / AISI 316
5	O-Ring	NBR
6	Circlips	Stainless steel 1.4401 / AISI 316
7	Ring	
8	Spring	
	Lever	Ductile iron EN GJS-500-7 epoxy coated
	Gearbox	Aluminium

Options (on request):

- ATEX Group 2 Category 2G / 2D Zone 1 & 21 and 2 & 22
- Stem extension (Standard: 75mm or special length)
- Lever made of stainless steel
- Gearbox with chain
- Bureau Veritas Approval for EPDM version
- Sizes bigger than DN300

Article number:

Type	Flange	Seat	Actuation	Size
AK08 – butterfly valve	1 – PN10/PN16/ANSI150	0 - EPDM 3 – Metal	00 – Lever 01 – Gearbox	07 – DN40 08 – DN50 09 – DN65 10 – DN80 11 – DN100 12 – DN125 13 – DN150 14 – DN200 15 – DN250 16 – DN300

Example AK08130015:

AK08	1	3	00	15
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Article No. AK08130015
 Butterfly valve Wafer type
 Flange: PN10/PN16 ANSI150
 Seat: Metal
 Actuation: Lever
 Size: DN250

Image similar, subject change without notice.