

Series AW – PN 10 Catalogue-no. AW-B21
PN 16 Catalogue-no. AW-C31

butterfly valve, wafer type

size DN	Pressure rating PN	Hydrost. Test pressure in bars for		working pressure in bars at working temperatures of up to 70°C and 120°C resp.
		Body	seat	
40-1000	10	15	10	10
40-1000	16	24	16	16



Design:

Body one part, connecting flange to DIN 2501 PN10 or PN16¹⁾.

When slip-on flanges will be used, consult factory.

Disc centric type, streamlined design leaking closure in both directions

Seat . replaceable, fusion bonded on backing ring

Stem: 1.4005 – DN 40 – 350 working pressure max. 16 bars

1.4005 – DN 350 – 1000 working pressure max. 10 bars

1.4542 – DN 350 – 1000 working pressure max. 16 bars

Materials ²

DN	Body	Figure no. of valve components	Disc	Seat	Stem	max. temp.
40-1000	JS 1030 GGG-40	C001	Ductile iron copper and nickel plated	NBR	1.4005	+ 80°C
40-1000	"	C002	Ductile iron copper and nickel plated	EPDM	1.4005	+120°C
40-1000	"	C003	Stainless steel 1.4408	NBR	1.4005	+ 80°C
40-1000	"	C004	Stainless steel 1.4408	EPDM	1.4005	+120°C
40-1000	"	C005	Aluminium bronze 2.0975.01	NBR	1.4005	+ 80°C
40-1000	"	C006	Aluminium bronze 2.0975.01	EPDM	1.4005	+120°C
40-1000	"	C069	Ductile iron Rilsan coated	NBR	1.4005	+ 70°C
40-1000	"	C070	Ductile iron Rilsan coated	EPDM	1.4005	+ 70°C
40-300	"	C131	Ductile iron ECTFE ³⁾ coated	NBR	1.4542	+ 80°C
40-300	"	C121	Ductile iron ECTFE ³⁾ coated	EPDM	1.4542	+120°C

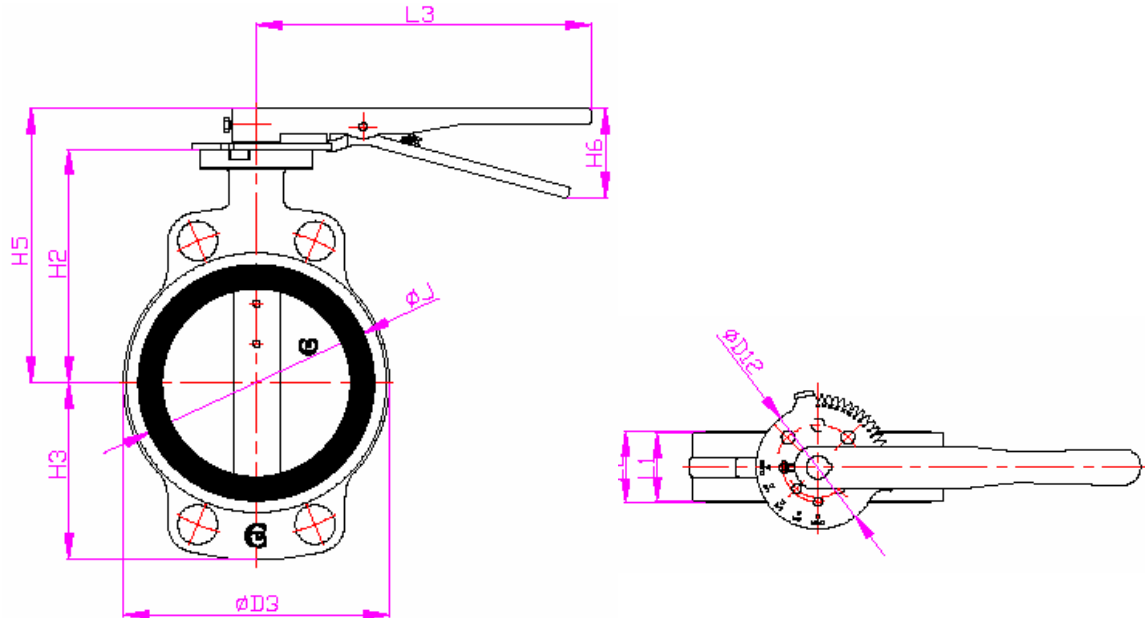
1) On request other connecting flanges e.g. ANSI, BS, JIS

2) On request available in other materials

3) reduced working pressure – please consult factory

Series AW – PN 10/PN16

butterfly valve, wafer type
with handlever



Dimensions:

Size DN	face-to-face dimension DIN 3202 K1		L ₃ mm	D ₁₂ mm	D ₃ mm	H ₂ mm	H ₃ mm	H ₅ mm	H ₆ mm	Ø J mm	weight kg ca.
	L ₁ ³⁾ mm	L ₂ mm									
40	33	36	267	102	110	130	61	162	63	69	4
50	43	46	267	102	118	124	77,5	156	63	73	5
65	46	49	267	102	137	134	89,5	166	63	99	6
80	46	49	267	102	148	141	97,5	173	63	101	8
100	52	56	267	102	159	156	115	190	63	132	8
125	56	59	267	102	189	170	121,5	204	63	156	10
150	56	59	267	102	211	186	148	220	63	185	12
200	60	65	355	153	269	218	179,5	265	67	235	17
250	68	73	355	153	324	249	210	296	67	289	25

³⁾ dimensions of metallic body

Series LT – PN 10 Catalogue-no. LT-B21
PN 16 Catalogue-no. LT-C31

butterfly valve, lug type

size DN	Pressure rating PN	Hydrost. Test pressure in bars for		working pressure in bars at working temperatures of up to 70°C and 120°C resp.
		Body	seat	
40-1000	10	15	10	10
40-1000	16	24	16	16



Design:

Body one part, connecting flange to DIN 2501 PN10 or PN16¹⁾.
 When slip-on flanges will be used, consult factory.
 Disc centric type, streamlined design leaking closure in both
 directions
 Seat . replaceable, fusion bonded on backing ring
 Stem:
 1.4005 – DN 40 – 350 working pressure max. 16 bars
 1.4005 – DN 350 – 1000 working pressure max. 10 bars
 1.4542 – DN 350 – 1000 working pressure max. 16 bars

Materials²

DN	Body	Figure no. of valve components	Disc	Seat	Stem	max. temp.
40-1000	JS 1030 GGG-40	C001	Ductile iron copper and nickel plated	NBR	1.4005	+ 80°C
40-1000	"	C002	Ductile iron copper and nickel plated	EPDM	1.4005	+120°C
40-1000	"	C003	Stainless steel 1.4408	NBR	1.4005	+ 80°C
40-1000	"	C004	Stainless steel 1.4408	EPDM	1.4005	+120°C
40-1000	"	C005	Aluminium bronze 2.0975.01	NBR	1.4005	+ 80°C
40-1000	"	C006	Aluminium bronze 2.0975.01	EPDM	1.4005	+120°C
40-1000	"	C069	Ductile iron Rilsan coated	NBR	1.4005	+ 70°C
40-1000	"	C070	Ductile iron Rilsan coated	EPDM	1.4005	+ 70°C
40-300	"	C131	Ductile iron ECTFE ³⁾ coated	NBR	1.4542	+ 80°C
40-300	"	C121	Ductile iron ECTFE ³⁾ coated	EPDM	1.4542	+120°C

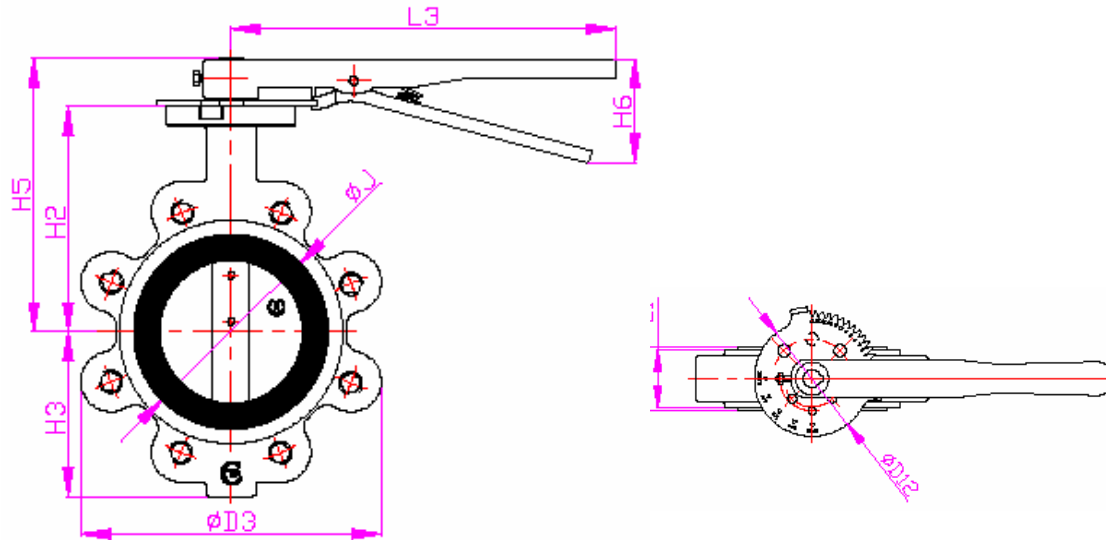
1) On request other connecting flanges e.g. ANSI, BS, JIS

2) On request available in other materials

3) reduced working pressure – please consult factory

Series LT – PN 10/PN16

butterfly valve, lug type
with handlever



Dimensions:

Size DN	face-to-face dimension DIN 3202 K1		L ₃ mm	D ₁₂ mm	D ₃ mm	H ₂ mm	H ₃ mm	H ₅ mm	H ₆ mm	Ø J mm	weight kg ca.
	L ₁ ³⁾ mm	L ₂ mm									
40	33	36	267	102	115	130	61	162	63	69	5
50	43	46	267	102	118	124	77,5	156	63	73	5
65	46	49	267	102	164	134	87,5	166	63	99	7
80	46	49	267	102	206	141	97,5	173	63	101	9
100	52	56	267	102	240	156	110	190	63	132	10
125	56	59	267	102	268	170	128	204	63	156	14
150	56	59	267	102	335	186	143	220	63	185	17
200	60	65	355	153	398	218	179,5	265	67	235	26
250	68	73	355	153	465	249	205	296	67	289	32

³⁾ dimensions of metallic body

PRODUCT SPECIFICATION LIST

BUTTERFLY VALVES

INSIDE DIAMETERS:

DN 40 to DN 1200

Butterfly Valves

Series AW (wafer type) for flange alignments acc. to. PN 10, PN16, PN25, PN40 for mounting between flanges according DIN 2501

or

Butterfly Valves

Series LT (lugged type) for flange alignments acc. to. PN 10, PN16, PN25, PN40, flange-to flange acc. to DIN 2501, suitable for end-of-line-service from both sides

Valves with slip-on-flanges for extended gaskets acc. to DIN 2642 are also part of our production line.

Further flange alignments:

ANSI B16.5 Class150/300, BS4504NP6/10/16/25/40, BS 10 Tab. D and E, MSS SP44 Class 150, AWWA C207, JIS 5K/10K/16K are also part of our production line.

Body materials:

- Grey Cast Iron GG-25 (JL1040), one-piece
- Ductile Iron GGG-40 (JS1030), one-piece
- Ductile Iron GGG-40.3 (JS1049), one-piece
- Alu-Bronze (CuAl 10 Ni)
- Cast Iron acc. ASTM A216 Gr. WCB (similar to GS C25)
- Stainless Steel 1.4408
- Aluminium

Disc materials:

- Stainless Steel 316 SS (1.4408)
- Alu-Bronze (CuAl 10 Ni)
- Ductile Iron, coppered and nickel-plated
- Ductile Iron, hard and soft rubber lined
- Ductile Iron, Rilsan coated
- Ductile Iron, ECTFE coated
- Duplex Steel, 1.4460, 1.4462., 1.4539
- Nickel based alloys Monel
- Hastelloy
- Titanium

Stem materials:

- Stainless Steel 1.4005
- Stainless Steel 1.4401
- Stainless Steel 1.4542
- Stainless Steel 1.4462
- Monel

Seat materials:

(all materials are vulcanized to the backing ring and exchangeable)

- NBR (Buna N)
- EPDM
- Viton
- Hypalone
- Neoprene
- Teflon
- Silicone

Bushings:

- Sintered bronze
- Teflon-PTFE

Construction length:

- acc. DIN EN 558-1 line 20 (K1)

Corrosion protection:

- Zinced and galvanized
- Zinced and galvanized with 2K-Epoxy-coating, 50my, RAL 5015
- further coating thicknesses 50 microns to 500 microns and variety of colours are available on request

Working pressure:

- max. 10 bar (dense close, leakage advice A) – all DN
- max. 16 bar (dense close, leakage advice A) to DN 1200
- max. 20 bar (dense close, leakage advice A) to DN 600
- max. 25 bar (dense close, leakage advice A) to DN 350

Operations:

- hand operation by means of hand lever or gearbox with handwheel
- Pneumatic actuator (manufacturer according to customer's demand)
- Electric actuator (manufacturer according to customer's demand)
- Hydraulic actuator (manufacturer according to customer's demand)

Accessories:

- Stem extensions
- Set for underground-installation
- Headstock (supp. pillar)
- Chain wheels
- Components for process field bus
- Limit switches of various kind
- Electronic position transmitter
- (RWG 2-wire system, 3-/4-wire system)

Butterfly valves

Maximum Temperature ranges for Elastomers

Material	Continuous operating range	Intermittent operation
NBR (Buna N [®])	-20°C to 80°C	-20°C to 100°C
EPDM	-30°C to 120°C	-30°C to 135°C
CSM (Hypalon [®])	-20°C to 135°C	-20°C to 150°C
CR (Neoprene [®])	-10°C to 100°C	-10°C to 120°C
FPM (Viton [®])	-20°C to 135°C	-20°C to 150°C
FPM (Viton [®]) High-temperature	-20°C to 180°C	-20°C to 200°C
VSI (Silicon - Rubber)	-30°C to 160°C	-30°C to 180°C
VSI (Silicon - Rubber) High-temp.	-30°C to 180°C	-30°C to 220°C
PTFE (Teflon [®])	0°C to 100°C	0°C to 120°C

Intermittent operation means 1 to 2 minutes maximum in 1 hour and not exceed 10 minutes in 24 hours.

All above figures are for general information only. Exact temperature limits and material recommendations can be made on request and require detailed information about media and working pressure.

DN 40 to DN 350 backing ring of phenolic resin

DN 40 to DN 350 High-temperature seats – backing ring of fibre glass filled epoxy resin

DN 400 to DN 600 backing ring of aluminium

Maximum Pressure range for Elastomers

PTFE (Teflon[®]) Seats have an intermediate resilient layer of NBR, the maximum working pressure is 8 bar g.

All other above listed synthetic rubbers can be used up to 25 bar g acc. to PN 25, if other pressure containing valve parts will be suitable for the relevant pressure class.

Pressure / Temperature limits of pipeline specifications must be considered.

Klappen Butterfly valves

KV-Werte - KV-values

DN	Öffnungswinkel - Opening angle									ZETA*
	10°	20°	30°	40°	50°	60°	70°	80°	90°	90°
40			4	8	14	24	39	53	55	1,33
50	0,05	2,6	6	13	23	38	60	90	100	0,98
65	0,08	5	10	21	38	64	102	152	170	0,97
80	0,17	8	15	33	60	99	157	235	260	0,95
100	0,26	14	31	67	119	197	312	467	515	0,59
125	0,43	25	52	114	203	336	530	796	875	0,5
150	0,68	38	81	175	313	518	820	1230	1355	0,43
200	1,7	76	161	349	622	1020	1629	2443	2865	0,31
250	2,6	129	274	594	1059	1752	2773	4159	4570	0,29
300	3,4	200	424	918	1636	2707	4284	6426	7060	0,25
350	5,1	289	612	1326	2363	3910	6189	9282	10200	0,23
400	6,8	397	841	1823	3250	5377	8510	12760	14030	0,2
450	9,4	526	1115	2416	4304	7122	11272	16908	18580	0,19
500	12	677	1433	3105	5534	9157	14493	21739	23890	0,17
600	19	1046	2214	4798	8550	14148	22390	33586	36900	0,15

Klappen

Butterfly valves

Drehmomente für Nass- und Trockenbetrieb in Nm
Torque values for wet and dry service in Nm

DN	* PS = 3 bar		* PS = 7 bar		PS = 10 bar		PS = 20 bar	
	nass wet	trocken dry	nass wet	trocken dry	nass wet	trocken dry	nass wet	trocken dry
40	8	14	8	14	8	14	8	14
50	11	18	11	18	18	28	23	33
65	14	24	14	24	28	43	33	48
80	18	28	18	28	28	45	36	53
100	22	33	22	33	33	50	42	58
125	26	41	32	48	48	72	58	78
150	48	68	55	83	88	133	105	159
200	110	165	140	205	155	232	195	290
250	180	270	210	320	235	350	295	445
300	275	405	350	485	400	560	450	630
350	370	550	460	685	545	810	620	920
400	450	700	580	860	700	990	820	1200
450	620	900	780	1120	920	1330	1100	1600
500	780	1130	960	1400	1140	1670	1410	2050
600	980	1300	1220	1650	1450	1960	1820	2450

Klappen PN 10 gilt die Reihe PS = 10 bar.

Valves PN 10 and BSTE, please use column PS = 10 bar

Klappen PN 16, ISO PN 20 und ANSI 150 gilt die Reihe PS = 20 bar

Valves PN 16, ISO PN 20 and ANSI 150 use column PS = 20 bar

* PS = 3 bar und PS = 7 bar erfordern speziell bearbeitete Klappenscheiben

Reduzierte Betriebsdrücke müssen bei Anfragen und Bestellungen angegeben werden

* PS = 3 bar and PS = 7 bar require special undercut discs

Information about reduced working pressure must be given inquiries and orders

Wie ist die Tabelle zu benutzen?

Klappe DN 250, PN 10, PS (max. Betriebsdruck) = 3 bar, Medium = Luft

Drehmoment = 270 Nm bei Trockenbetrieb

How to use the table ?

Valve DN 250, PN 10, PS (max. working pressure) = 3 bar, Medium = Air

Torque value = 270 Nm for dry service