

## Description

Centric butterfly valve Fluoroplastic lined for shut-off and control service in for aggressive and corrosive fluids and high purity applications. Designed and manufactured in Switzerland since 1995.

## Product features

- Body construction B1 Wafer Sizes 1 ¼" to 24"  
B3 Lug Sizes 1 ¼" to 16"  
B4 U-section Sizes 16" to 36"
- Face to face dimension according to ISO 5752/20, EN 558-1/20
- Top flange according to EN ISO 5211
- Max. working pressure 232 psi (1 ¼"-12")  
150 psi (14"-24")  
87 psi (28"-36")
- Flange connection ANSI cl. 150, PN10, PN16  
AS 2129 table D + E, JIS 10K and others
- Temperature range -4°F to 392°F according to working conditions,  
lower temperatures on request, with  
corresponding impact test certificates
- Factory tests Porosity check of the liner and overmoulded disc  
according to DIN EN 60243-1. Test certificates  
on request. Tightness test according to EN  
12266-1 leakage rate A.  
The torque of each valve is recorded.

CE

BIANCA butterfly valves meet the safety requirements of the Pressure Equipment Directive 2014/68/EU (PED) appendix 1 for fluids of the groups 1 and 2.

SIL

BIANCA Butterfly valves are suitable to be operated in safety related systems according to IEC 61508 / 61511, Safety Integrity Level SIL 3



Special versions of the Bianca valves may be used in potentially explosive atmospheres.

Fugitive emission

EN ISO 15848-1 as an available option.

FDA and (EU) No. 10/2011

The Teflon® used for the Bianca is in compliance with FDA 21 CFR 177.1550 and (EU) No. 10/2011.



CE



**B1**  
Wafer

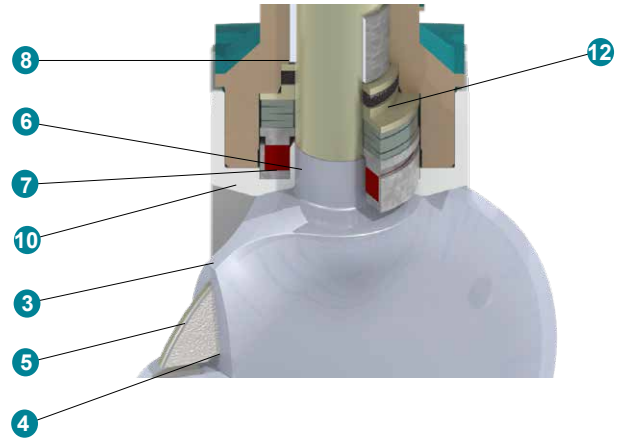
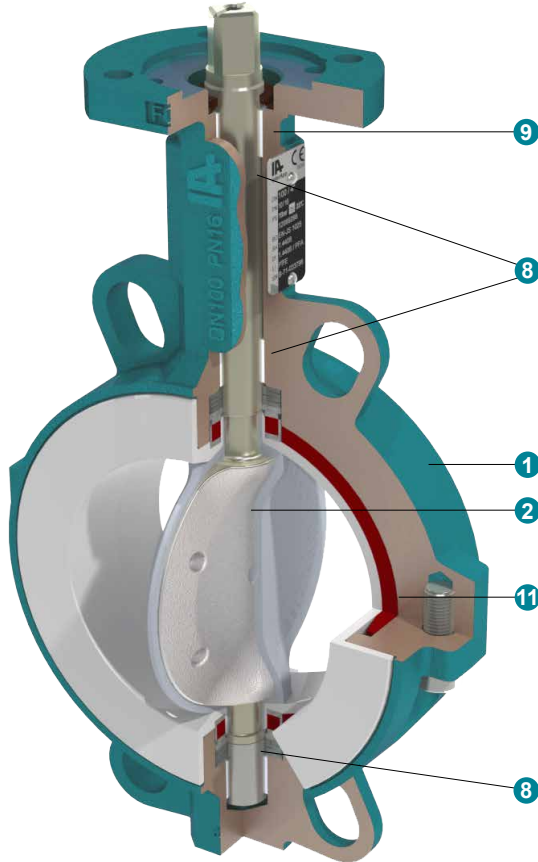


**B3**  
Lug



**B4**  
U-section

**Construction**



1	Two-piece body in ductile iron EN-JS 1025
2	One-piece, blow out proof disc/shaft
3	Overmoulding with a min. thickness of 0.118" (3 mm)
4	Overmoulding is mechanically locked on the disc
5	Thin core, allows high $c_v$ flow rate
6	Shaft overmoulded in the shaft sealing area
7	Life loaded safety shaft sealing
8	Self-lubricating shaft bushing
9	External shaft seal
10	Chambered liner, prevents radial cold-flow
11	Elastomer backliner, immersed in body
12	EN ISO 15848-1 packing optional

**BIANCA HP cleanroom production**



Cleansing the parts with ultrapure water



Material lock



Assembly, testing, packaging in clean room class 10'000 / ISO Class 7



Thightness test with ultrapure air

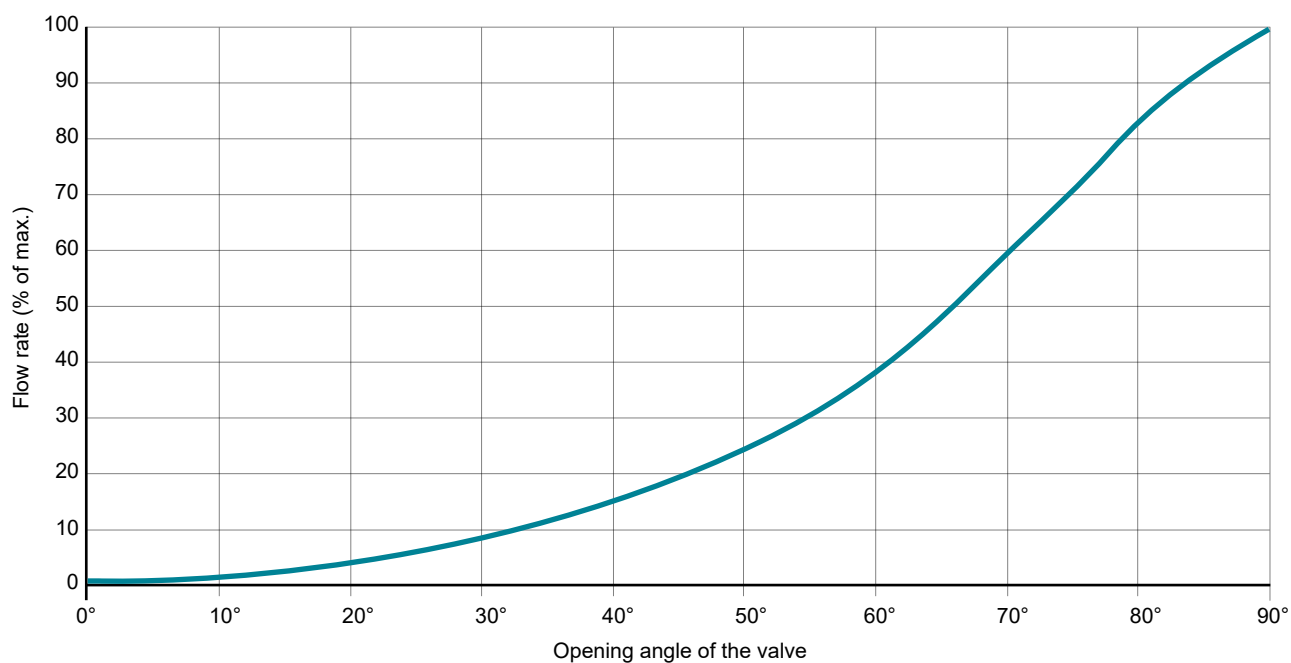
**Torques** with PTFE liner, safety factor included

Inch	1¼ - 1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	30	35	36	
36 psi																		22127		
87 psi											5974	7966	9736	11506	15489	18587	24782	27437	35403	
150 psi								1673	2921	4213	7169	9559	11683	13807	18587					
232 psi	186	221	345	381	646	770	1292	2009	3505	5054										

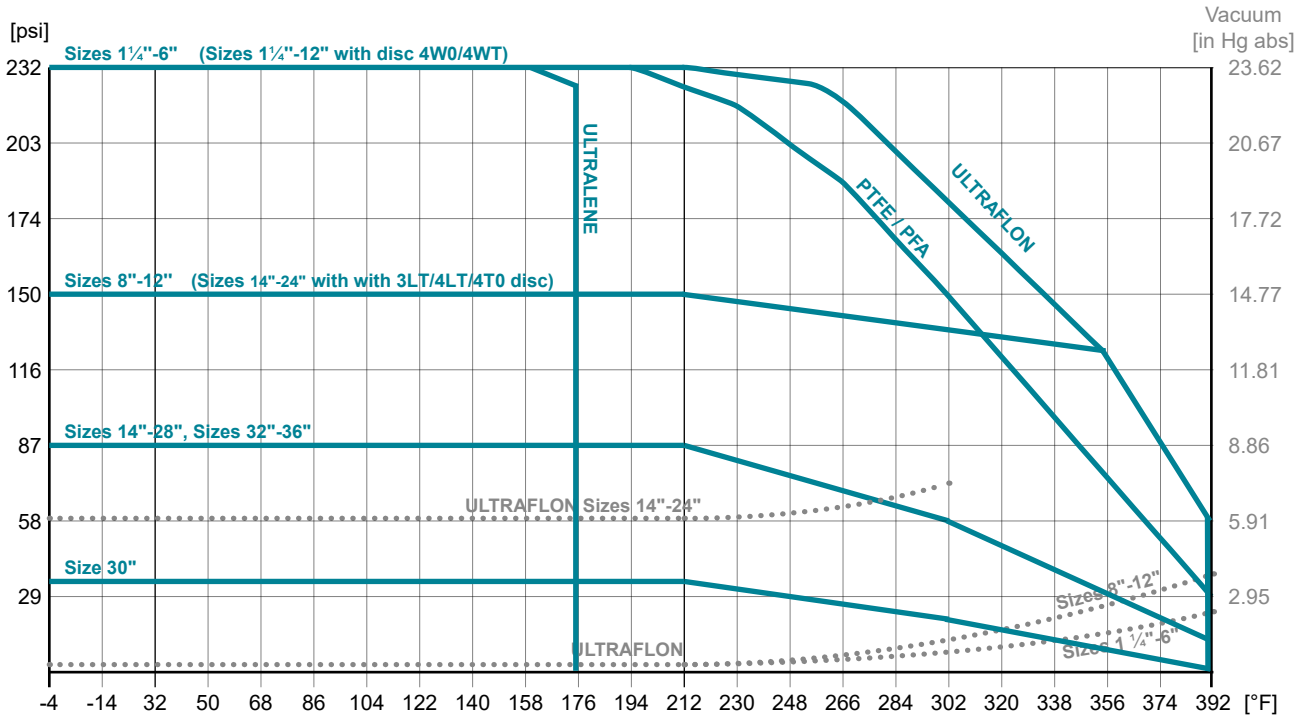
### Cv values

Sizes [INCH]	Opening angle of the valve							
	20°	30°	40°	50°	60°	70°	80°	90°
1 ¼ - 1 ½	4,6	9,2	19,7	34,7	52	75,1	98,3	110
2	5,8	12,7	27,7	48,6	74	106	136	155
2 ½	9,2	22	47,4	80,9	125	179	231	262
3	17,3	38,2	83,2	145	220	312	387	453
4	23,1	55,5	110	187	295	445	561	676
5	43,9	94,8	191	295	526	746	942	1173
6	69,4	150	272	457	746	1104	1410	1728
8	110	266	538	919	1364	2098	2786	3526
10	202	405	821	1341	1861	2798	4220	5214
12	306	603	1150	1988	3081	4584	6890	8335
14	405	763	1364	2081	3330	5260	8301	10127
16	590	1139	1711	2832	4890	7572	10694	13122
18	769	1451	2578	4451	7226	10636	14162	17226
20	1029	1873	3445	6185	9422	13642	17989	20810
24	1121	2486	4832	8578	13122	19018	24509	28324
28	1225	2960	5628	9725	16600	27632	43513	56225
30	1407	3398	6460	11185	19057	31720	49952	64544
32	1621	3848	7342	12912	22050	37081	59909	73881
36	2214	4924	9130	16011	27616	47530	77194	93663

### Flow rate



Pressure / temperature diagram

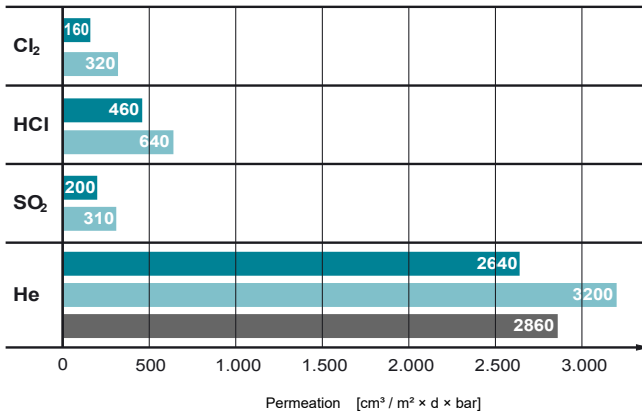


Please consult our technical department for higher temperatures.

Advantage of ULTRAFYLON® liner

Permeation

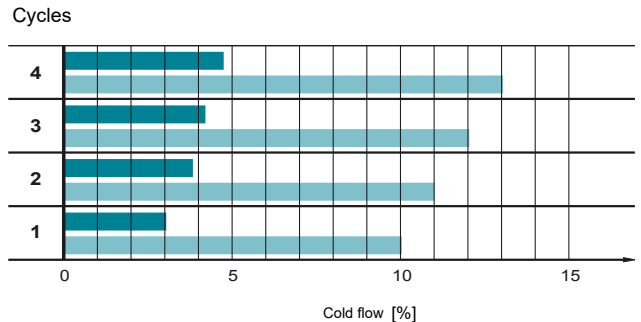
Comparison of ULTRAFYLON® - PTFE - PFA (film thickness 0.0394")



Deformation

Under repeated load „Cold flow behavior“

Loading : 15 N/mm<sup>2</sup>, 4 cycles  
 Duration : 100 hours each cycle  
 Temperature : 23°C (73°F)  
 Perm. deformation after 24 hours recovery



- ULTRAFYLON®
- PTFE
- PFA

# BIANCA - Butterfly valves Sizes 1 ¼" to 36"




## Type code

B1	0100	.	3	3	.	2BE	.	4GT	.	T*	E	-	xx
1	2	3	4	5	6	7	8	9					

1 Body type	B1	Wafer	Sizes 1 ¼"-24"
	B3	LUG body	Sizes 1 ¼"-16"
	B4	U-section body	Sizes 16"-36"
2 Nominal diameter	0032-0900	mm	
3 Working pressure	1	87 psi	Sizes 14"-36"
	2	150 psi	Sizes 8"-12" with all, Sizes 14"-24" with 3LT/4LT/4T0 disc
	3	232 psi	Sizes 1 ¼"-6", Sizes 8"-12" with disc 4W0/4WT
4 Flange connection	**	PN10/16/ANSI B16.5 cl150 see table below, others on request	
5 Body	2BE	Ductile iron EN-JS 1025 / ≈ ASTM A395 60-40-18, Epoxy coated 80 µm	
	4B0	Stainless steel 1.4409 / ≈ ASTM CF3M	Sizes 1 ¼"-16"
6 Disc-shaft, one piece	4G0	Stainless steel 1.4408 / ≈ ASTM CF8M	Sizes 1 ¼"-12"
		Stainless steel 1.4404 / ≈ AISI 316L	Sizes 14"-36"
	4GP	Stainless steel 1.4408 / ≈ ASTM CF8M polished Ra < 0,8	Sizes 1 ¼"-12"
		Stainless steel 1.4404 / ≈ AISI 316L polished Ra < 0,8	Sizes 14"-24"
	4GJ	Stainless steel 1.4435 / ≈ AISI 316L, Ferrite < 0.1%, e-polished Ra < 0,4	Sizes 1 ¼"-12"
	4GT	Stainless steel 1.4408 PFA overmoulded	Sizes 1 ¼"-12"
		Disc carbon steel 1.4301 PFA overmoulded, shaft stainless steel 1.4404	Sizes 14"-36", on request
	4W0	Duplex 1.4469 / ≈ ASTM A 890 grade 5A	Sizes 1 ¼" - 10"
	4WT	Duplex 1.4469 / ≈ ASTM A 890 grade 5A PFA overmoulded	Sizes 1 ¼" - 10", Size 14", 150 psi
	4T0	Duplex 1.4462	Sizes 14"-24", 150 psi
	4LT	Stainless steel PFA 1.4542 overmoulded	Size 30", 87 psi, Sizes 14"-24", 150 psi
	3BT	Disc carbon steel 1.0577 PFA overmoulded, shaft stainless steel 1.4404	Sizes 14"-36"
	3LT	Disc carbon steel 1.0577 PFA overmoulded, shaft stainless steel 1.4542	Size 30", 87 psi, Sizes 14"-24", 150 psi
	3TT	Disc carbon steel PFA overmoulded, shaft stainless steel 1.4462	Sizes 14"- 16", 150 psi
	**A	PFA antistatic (black, no FDA and (EU) No. 10/2011 compliance)	
	7H0	Hastelloy 2.4819 / ≈ Hastelloy C276	Sizes 2" - 12" (others on request)
	7T0	Titanium 3.7035, Grade 2	(on request)
7 Liner	T*	PTFE (* for elastomer backliner)	
	T*V	ULTRAFLO <sup>®</sup> (UF) for vacuum, chlorine or high temperature applications	
	T*A	PTFE antistatic (black, with FDA and (EU) No. 10/2011 compliance)	
	T*VA	ULTRAFLO <sup>®</sup> antistatic (black, with FDA and (EU) No. 10/2011 compliance)	
	U*	Ultralene (UHMWPE) for abrasive applications, max. 80 °C (EN 12266-1 leakage rate B)	Sizes 3", 4", 6", 8"
8 * Elastomer backliner	S	MVQ, max. 200 °C	
	E	EPDM, max. 130 °C	
	V	FPM, max. 160 °C	Sizes 8" - 12" max. 150 psi, Sizes 14" - 36" max. 87 psi
9 Special execution	LF	without painting adhesion interfering substance	
	HP	High purity: The valve is cleaned, assembled, tested and packaged under cleanroom conditions. (US federal standard 209E, class 10000, ISO Class 7 (ISO 14644-1))	
	112/246	ATEX / IECEx: see corresponding document: InterApp Butterfly Valves for use in potentially explosive atmospheres	
	180	Fugitive emission acc. EN ISO 15848-1	

### \*\*Flange connetion (Code)

Other options upon request !

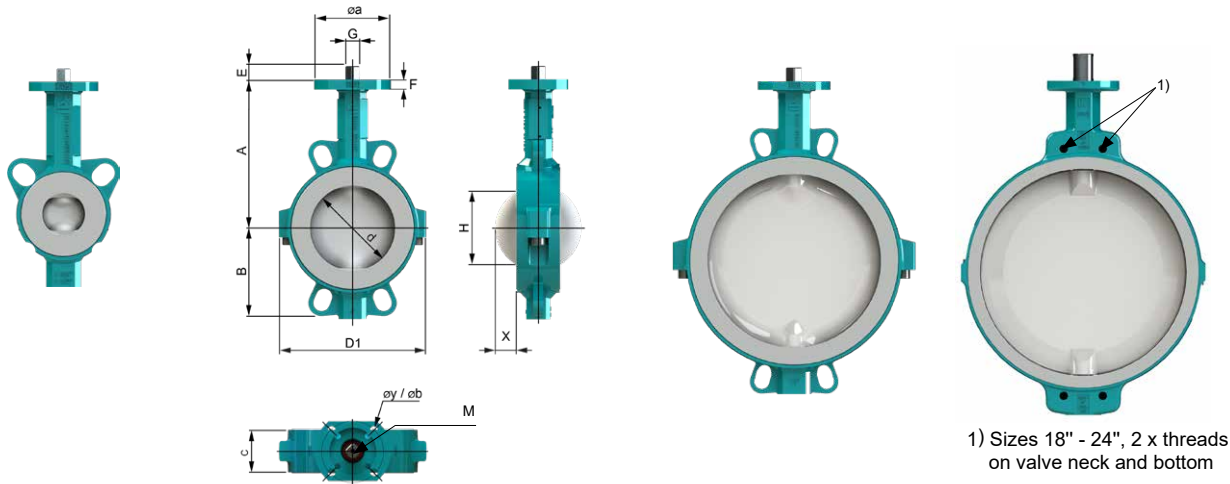
BIANCA	INCH →	1 ¼	1 ½	2	2 ½	3	4	5	6	8	10	12	14	16	18	20	24	28	30	32	36	
 B1	PN10								3							2						
	PN16								3													
	ANSI cl.150								3								A					
 B3	PN10					3						2										
	PN16							3														
	ANSI cl.150								A													
 B4	PN10															2					2	
	PN16															3					3	
	ANSI cl.150																	A				

When mounting the valve at the end of a line please contact technical department

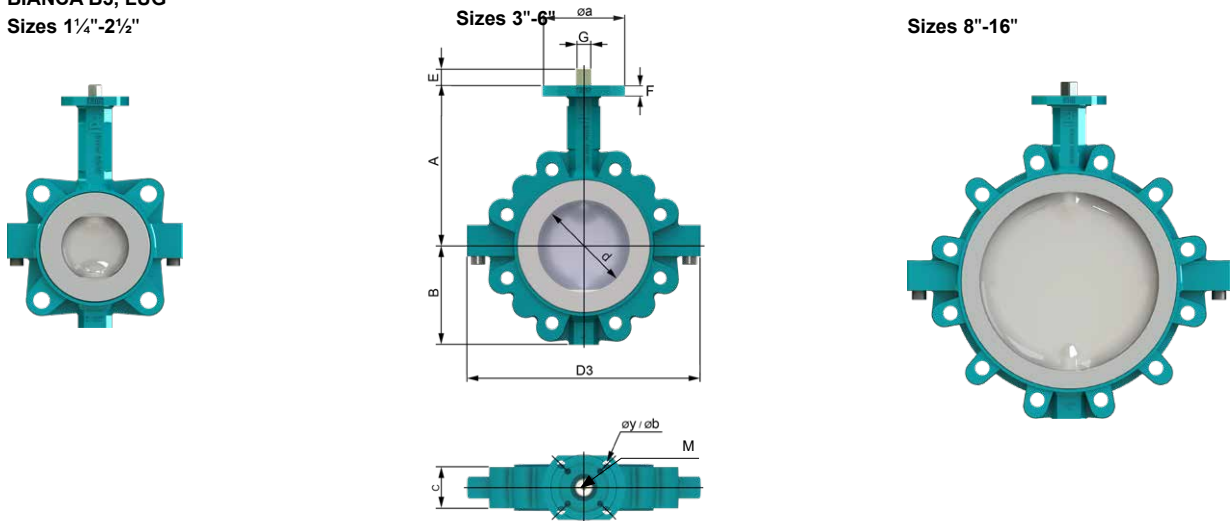
# BIANCA - Butterfly valves Sizes 1 ¼" to 36"

## Dimensions

**BIANCA B1, Wafer**  
Sizes 1 ¼"-2 ½"



**BIANCA B3, LUG**  
Sizes 1 ¼"-2 ½"



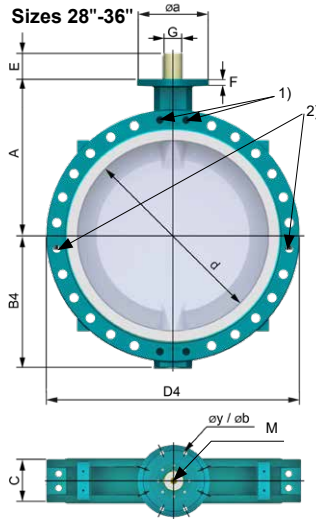
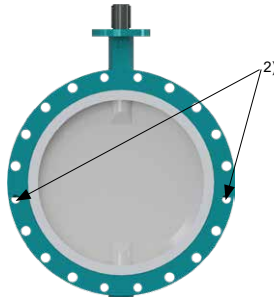
Inch	X	d	A	B	C	H	D1	D3	F	ISO	a	y	b	G	E	M	B1[lb]	B3[lb]
1 ¼-1 ½	0.16	1,57	4,92	2,72	1,30	0,91	4,17	5,35	0,35	F05	2,56	4x .28	1,97	0,43	0,47	M6 x 12	3,7	5,3
2	0.35	1,96	5,28	2,68	1,69	1,02	4,66	6,38	0,35	F05	2,56	4x .28	1,97	0,43	0,47	M6 x 12	5,1	7,1
2 ½	0.28	2,56	5,71	3,07	1,81	1,54	5,22	6,85	0,35	F05	2,56	4x .28	1,97	0,43	0,47	M6 x 12	6,4	9
3	0.67	3,15	6,23	3,62	1,81	2,60	5,67	8,50	0,35	F05	2,56	4x .28	1,97	0,43	0,47	M6 x 12	7,5	13,7
4	0.94	3,94	6,89	4,17	2,05	3,39	6,81	10,00	0,47	F05/07	3,54	4x .28/35	1,97/2,76	0,55	0,63	M6 x 12	11,2	20,5
5	1.38	4,92	7,64	4,72	2,20	4,41	8,62	11,54	0,47	F05/07	3,54	4x .28/35	1,97/2,76	0,55	0,63	M6 x 12	15,2	23,6
6	1.85	5,91	8,27	5,28	2,20	5,51	9,72	12,40	0,47	F07	3,54	4x .35	2,76	0,67	0,75	M6 x 12	22	28,4
8	2.76	7,87	9,41	6,38	2,36	7,52	11,61	15,31	0,59	F07/ F10	4,92	4x .35/43	2,76/4,02	0,67	0,75	M6 x 12	31	49,2
10	3.58	9,84	10,83	7,83	2,68	9,49	14,45	19,02	0,59	F10	4,92	4x .43	4,02	0,87	0,94	M6 x 12	50,5	71,4
12	4.37	11,81	12,20	9,06	3,07	11,42	16,50	21,38	0,59	F10	4,92	4x .43	4,02	0,87	0,94	M6 x 12	72,5	103,4
14	5.16	13,35	13,78	10,12	3,07	12,99	16,85	22,20	0,63	F12	6,10	4x .53	4,92	1,06	1,57	M10 x 20	110,20	191,80
16	5.87	15,75	14,96	11,34	4,02	15,24	18,82	24,61	0,63	F12	6,10	4x .53	4,92	1,06	1,57	M10 x 20	149,90	216,10
18	6.61	17,72	16,77	12,60	4,49	17,17	21,14	-	0,83	F14	6,89	4x .71	5,51	Ø 1.77	2,56	M12 x 20	220,50	-
20	7.36	19,69	17,76	14,17	5,00	19,06	23,43	-	0,83	F14	6,89	4x .71	5,51	Ø 1.77	2,56	M12 x 20	269,00	-
24	8.78	23,62	21,85	16,30	6,06	22,83	27,28	-	1,02	F16	8,27	4x .87	6,50	Ø 2.66	3,54	M12 x 20	396,80	-

**Dimensions X and H are without safety factors!**  
The customer must define safety distances to allow proper installation of the valve.

Dimensions

BIANCA B4, U-section

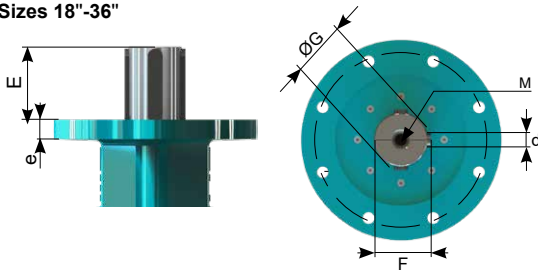
Sizes 16"-24"



- 1) Sizes 18" - 36", 2 x threads on valve neck and bottom
- 2) Sizes 24" - 36", 2 threads on both sides

Inch	d	A	B4	C	X	H	D4	F	ISO	a	y	b	G	E	M	B4[lb]
16	15,75	14,96	11,42	4,02	5,87	15,24	24,25	0,65	F12	6,10	4x .53	4,92	Ø 1,06	1,57	M10 x 20	209,44
18	17,72	16,77	12,60	4,49	6,61	17,17	24,80	0,83	F14	6,89	4x .71	5,51	Ø 1,77	2,56	M12 x 20	308,60
20	19,69	17,76	14,17	5,00	7,36	19,06	27,56	0,83	F14	6,89	4x .71	5,51	Ø 1,77	2,56	M12 x 20	385,80
24	23,62	21,85	16,30	6,06	8,78	22,83	32,28	1,02	F16	8,27	4x .87	6,50	Ø 2,66	3,54	M12 x 20	606,30
28	27,56	23,82	18,98	6,50	10,59	26,93	36,61	1,02	F16	8,27	4x .87	6,50	Ø 2,83	3,15	M20 x 40	932,60
30	29,53	24,80	19,25	7,48	11,02	28,58	38,19	1,02	F16	8,27	4x .87	6,50	Ø 2,36	3,54	M12 x 20	844,40
32	31,50	25,91	21,97	7,48	12,09	30,75	41,73	1,14	F25	11,81	8x .71	10,00	Ø 3,15	4,33	M20 x 40	1477,10
36	35,43	27,95	24,09	7,99	13,74	34,53	45,67	1,42	F30	13,78	8x .87	11,73	Ø 3,86	5,04	M24 x 48	1940,10

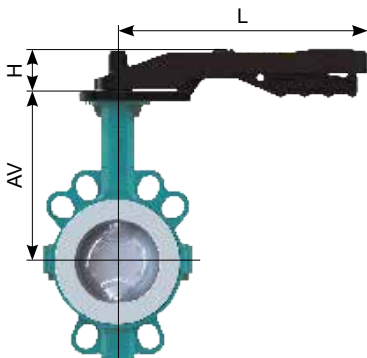
Sizes 18"-36"



Wafer, Lug and U-section

Size	E	ØG	d	e	F	M
18	2,56	1,77	0,55	0,83	1,92	M12 x 20
20	2,56	1,77	0,55	0,83	1,92	M12 x 20
24	3,54	2,36	0,71	1,02	2,54	M12 x 20
28	3	2,83	0,79	1,02	3,02	M20 x 40
30	3,58	2,36	0,71	1,02	2,54	M12 x 20
32	4,25	3,15	0,87	1,14	3,36	M20 x 40
36	5	3,86	1,1	1,42	4,11	M24 x 48

Handlever



HLA : Aluminum Epoxy coated

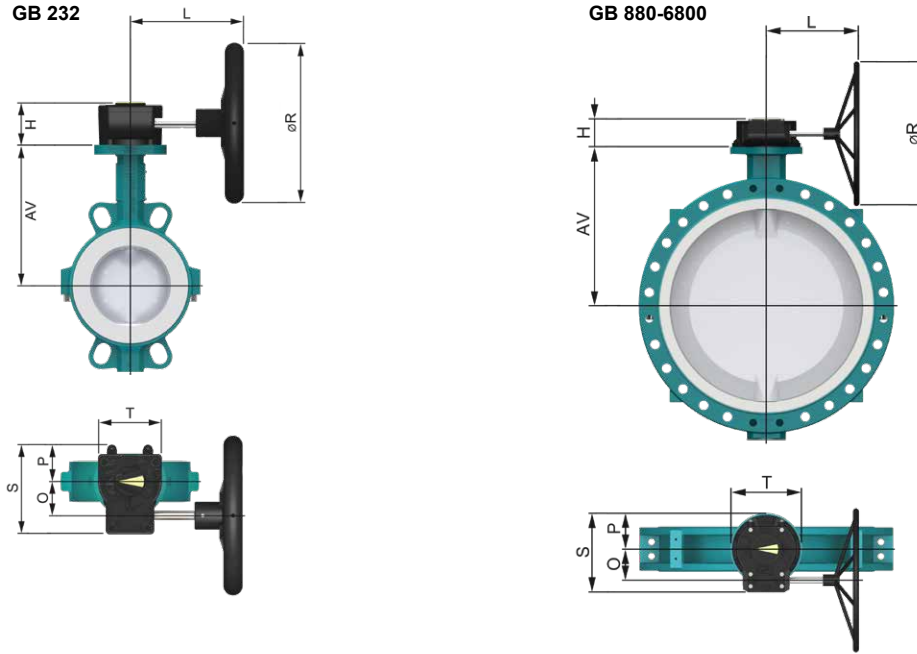
Inch	Handlever type	AV	H	L	[lb]*
1¼-1½	HLA.F0511.180-V2	4,92	1,61	7,09	0,9
2	HLA.F0511.240-V2	5,28	1,69	9,57	1,1
2 ½	HLA.F0511.240-V2	5,71	1,69	9,57	1,1
3	HLA.F0511.240-V2	6,23	1,69	9,57	1,1
4	HLA.F0714.340-V2	6,89	1,69	13,39	1,3
5	HLA.F0714.340-V2	7,64	1,69	13,39	1,3
6	HLA.F0717.340-V2	8,27	2,01	13,39	1,3

\* [lb] weight without butterfly valve



## Dimensions

### Gearbox



Inch		AV	H	L	O	P	R	S	T	n**	[lb]*
1 ¼ - 1 ½	GB232-05.F05-F0711.100	4,92	2,09	4,96	1,67	1,89	3,94	4,49	3,15	10	1,76
2	GB232-05.F05-F0711.100	5,28	2,09	4,96	1,67	1,89	3,94	4,49	3,15	10	1,76
2 ½	GB232-05.F05-F0711.100	5,71	2,09	4,96	1,67	1,89	3,94	4,49	3,15	10	1,76
3	GB232-05.F05-F0711.100	6,30	2,09	4,96	1,67	1,89	3,94	4,49	3,15	10	1,76
4	GB232-05.F05-F0714.100	6,89	2,09	4,96	1,67	1,89	3,94	4,49	3,15	10	1,76
5	GB232-05.F05-F0714.100	7,64	2,09	4,96	1,67	1,89	3,94	4,49	3,15	10	1,76
6	GB232-06.F05-F0717.160	8,27	2,32	7,44	1,67	1,89	6,30	4,49	3,15	10	1,98
8	GB232-06.F05-F0717.160	9,41	2,32	7,44	1,67	1,89	6,30	4,49	3,15	10	1,98
10	GB232-08.F07-F1022.250	10,83	2,64	8,62	1,97	2,20	9,84	5,16	3,94	9,25	3,42
12	GB232-08.F07-F1022.250	12,20	2,64	8,62	1,97	2,20	9,84	5,16	3,94	9,25	3,42
14	GB232-13.F10-F1227.300	13,74	3,35	14,61	3,15	3,27	11,81	8,23	6,89	10	11,90
16	GB232-13.F10-F1227.400	14,92	3,35	14,61	3,15	3,27	11,81	8,23	6,89	10	11,90
18	GB880N.F1445.500	16,77	3,62	12,01	3,39	3,98	19,69	8,94	7,87	9,5	30,86
20	GB880N.F1445.500	17,76	3,62	12,01	3,39	3,98	19,69	8,94	7,87	9,5	30,86
24	GB1250N.F1660.500	21,85	4,02	13,62	4,11	4,33	19,69	10,16	8,66	13,75	48,50
28	GB1950N.F1672.600	23,82	4,96	15,24	5,12	5,61	23,62	12,70	11,22	13	70,55
30	GB1950N.F1660.700	24,76	4,96	15,24	5,12	5,61	27,56	12,70	11,22	13	70,55
32	GB2000NLB.F2580.500	25,91	4,72	13,70	2,09	5,59	19,69	11,81	11,22	27	59,52
36	GB6800N/PR4.F3098.400	27,95	6,26	18,50	7,17	6,69	15,75	16,04	14,57	81,5	138,89

Material: GB 232 Aluminum, Polyurethane coated  
 GB1250-GB6800 GG25 / A48-40 B Polyurethane coated

\* [lb] weight without butterfly valve and handwheel

\*\* n = Handwheel turns ON/OFF

## Further documentation

**Pneumatic actuators, Electric actuators, Accessories** please see respective data sheets.

**Installation guide, Maintenance guide, Flanges:** Please consult these guides for installation and maintenance of our butterfly valves.

The technical data are noncommittal and do not assure you of any properties. Please refer to our general sales conditions. Modifications without notice.

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