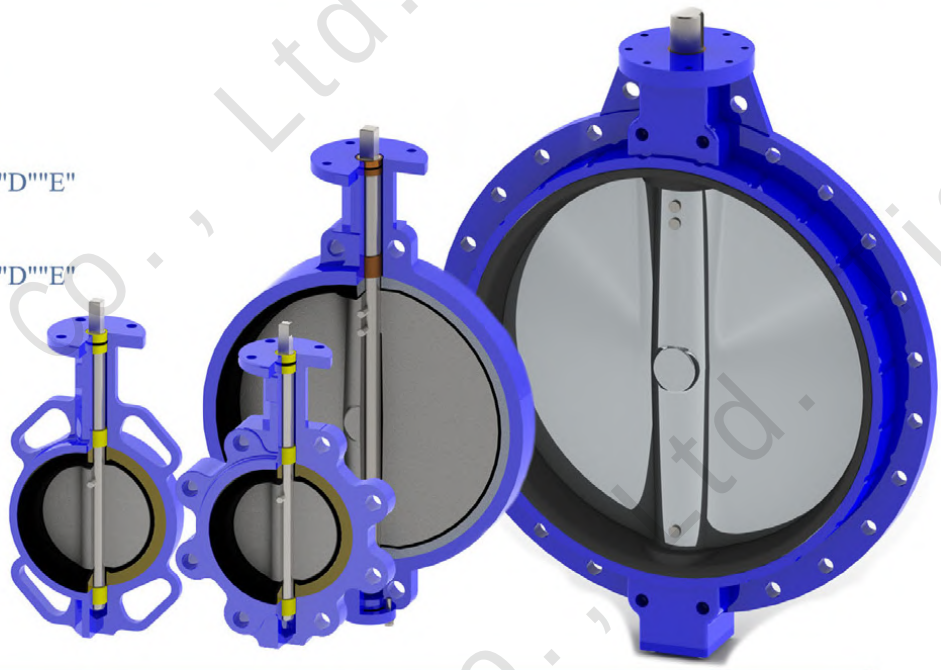
Butterfly Valve CBF01-TA(L)01

Introduction of the valve

The valve body shall be one-piece wafer or lug design with extended neck and a concentric disc and seat configuration to allow for 1.25”~48” of piping insulation, have flange hole drilling per international flange stan dards and be provided with a non-corrosive bushing and self-adjusting stem seal. Flange locating holes shall be provided on wafer and lug bodies to allow for quick and precise alignment during valve installation. The valve disc edge and hub on metal discs shall be spherically machined and hand polished for minimum torque and maximum sealing capability. The valve stem shall be one-piece design and be mechanically retained in the body neck and no part of the stem shall be exposed to the line media. The seat shall totally encapsulate the body isolating the body from the line media and no flange gaskets shall be required. The wafer and lug valve shall be rated for bubble-tight shut-off for bidirectional service to 16 Bar on sizes 1.25”-12” (32mm-300mm) and to 10Bar on sizes 14”-48” (350mm-1200mm). The valve shall be tested for tight shut-off to 110% of the rated pressure. The Valve shall have the following approvals and certifications: CE/PED Certification, ANSI 61- 2008 (Potable Water) Certification, SIL, ABS, Bureau Veritas, DNV, ISO9001,API,

Butterfly Valve CBF01-TA(L)01



Max working pressure

DN32-DN300 16Bar

Flange PN6 PN10 PN16 150LB JIS 5K 10K AS"D""E"

DN350-DN1200 10Bar

Flange PN6 PN10 PN16 150LB JIS 5K 10K AS"D""E"

Design

EN593 API 609 BS5155 EN1092 ISO5211

Face to Face

DIN558-1 API609 DIN3202 ISO5752 BS5155

Testing

EN 12266-1 ISO5208 API598

Body

Material	Referencesstandard	Coating
Cast iron	GG20 GG25 A126	Epoxy Ral 5005
Ductile iron	GGG40 GGG45 GGG50 A536 A395	Epoxy Ral 5005
Carbon steel	WCB WCC LCC LCB	Epoxy Ral 7011
Stainless steel	CF8 CF8M CF3 CF3M SAF2507 SAF2205	
Aluminuim-bronze	C95400 C95500 C95800	

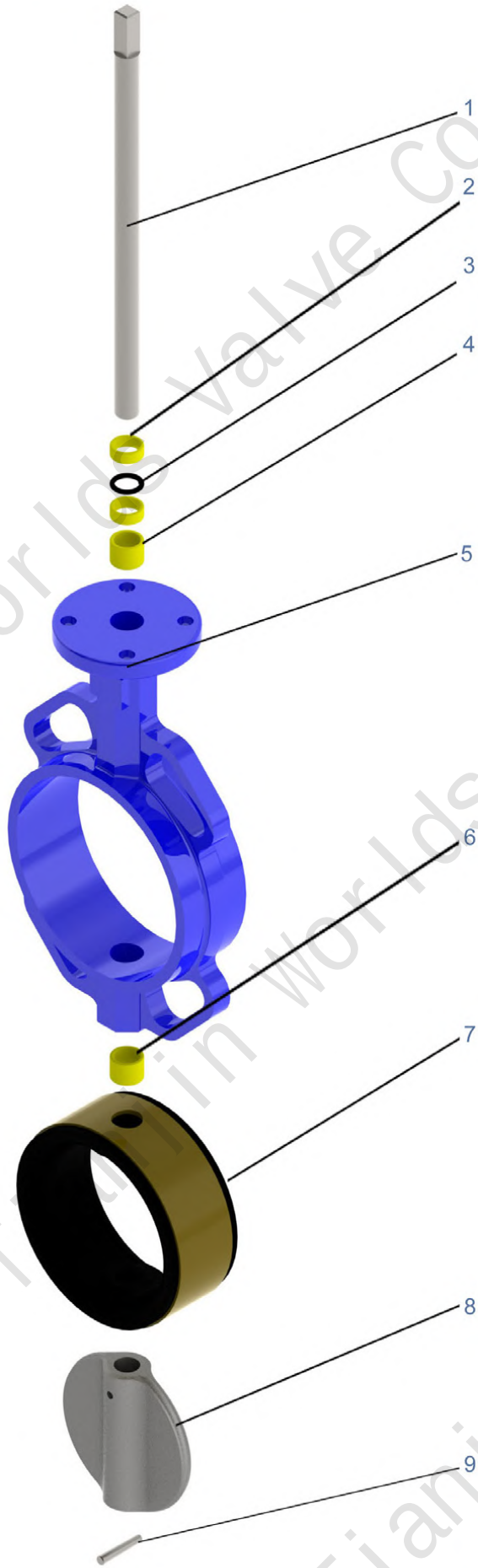
Disc

Material	References	Standard coating
Ductile iron	GGG40 GGG45 GGG50 A536	Nickel Brass-Nikle
Carbon steel	WCB WCC LCC LCB	
Stainless steel	CF8 CF8M CF3 CF3M SAF2507 SAF2205	
Aluminuim-bronze	C95400 C95500 C95800	

Body Rubber Seat

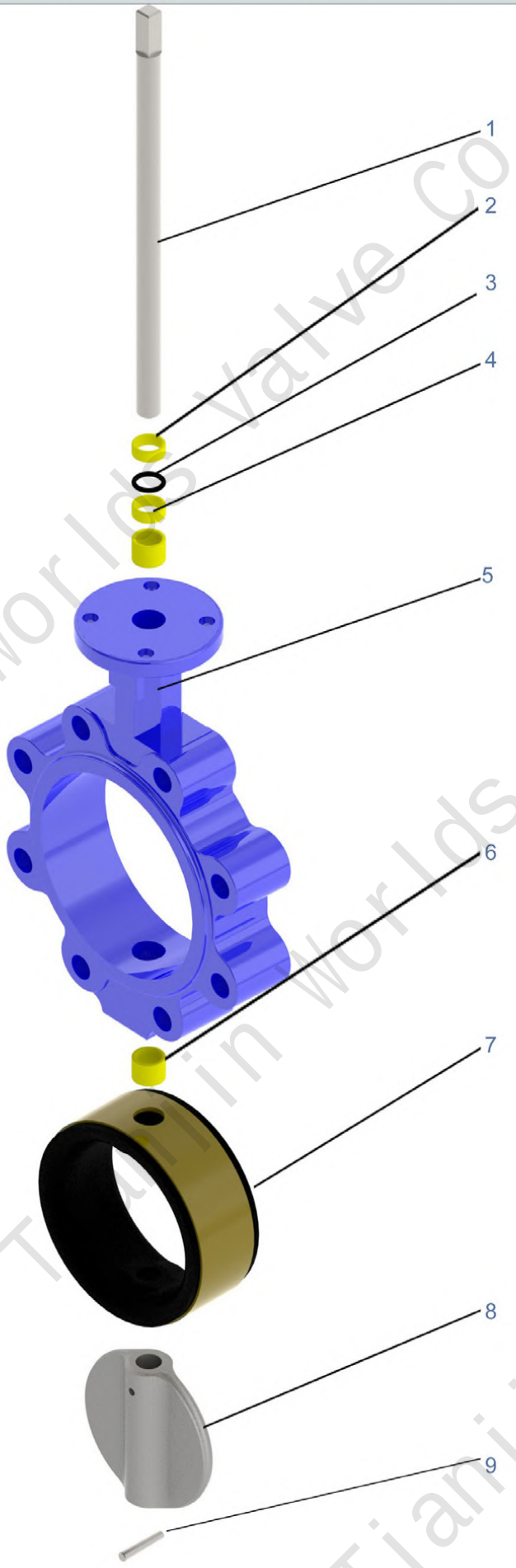
References	Desigation	Trade Name	Working temp	Applications
NBR	Nitrile Rubber	BUNA-N	-25/+100	Oils ,Hydrocarbons ,Gas, Air ,Water
EPDM	Copolymer	EPDM	-35/+130	Water ,Sea Water,Steam,Diluted Acids
FKM	Fluoroelastomer	VITON	-20/+200	Oils, Hydrocarbons, Acids
CR	Polychloroprene	NEOPRENE	-20/+100	Alkail, Bases,Water
NR	Natural Rubber	NR	-40/+80	Glycols,Abrasive media
MVQ	Sillicon Rubber	SR	-60/+190	Water,food,Drinks
CSM	Chlorosulfonate Polychloroprene	HYPALON	-20/+125	Acids,mineral bases,Alcohols,Hydrocarbons
PTFE	PolyTetraFluoroEthyl -ene	TEFLON	-35/+150	Acidity Alkaline

Main Spare Part Material Quality（DN50-DN350）



1	Shaft	Stainless Steel Bronze
2	Short Bushing	FRP
3	"O"Ring	NBR / VITON
4	long Bushing	FRP
5	Body	GG20 GG25 GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
6	Short Bushing	FRP
7	Body seat	NBR(BUNA-N) EPDM HEPDM FKM(VITON) Polychloroprene Natural Rubber Sillicon Rubber
8	Disc	GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
9	Taper Pin	Stainless Steel Monel

Main Spare Part Material Quality（DN50-DN350）

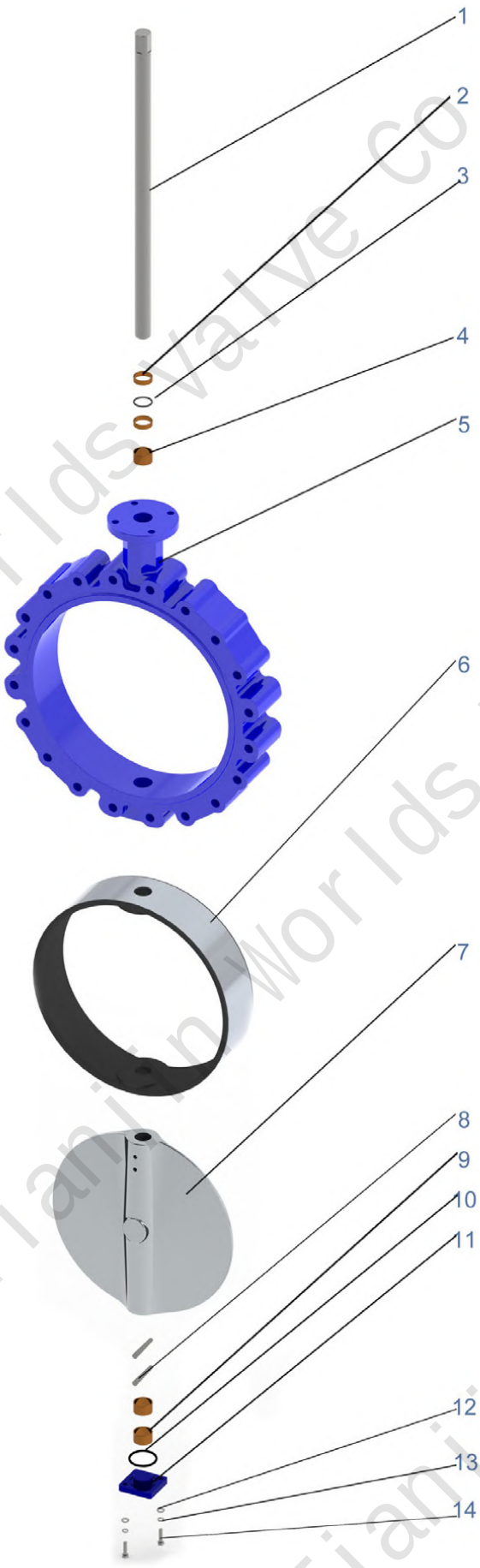


1	Shaft	Stainless Steel Bronze
2	Short Bushing	FRP
3	"O"Ring	NBR / VITON
4	long Bushing	FRP
5	Body	GG20 GG25 GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
6	Short Bushing	FRP
7	Body seat	NBR(BUNA-N) EPDM HEPDM FKM(VITON) Polychloroprene Natural Rubber Sillicon Rubber
8	Disc	GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
9	Taper Pin	Stainless Steel Monel

Main Spare Part Material Quality（DN400-DN600）

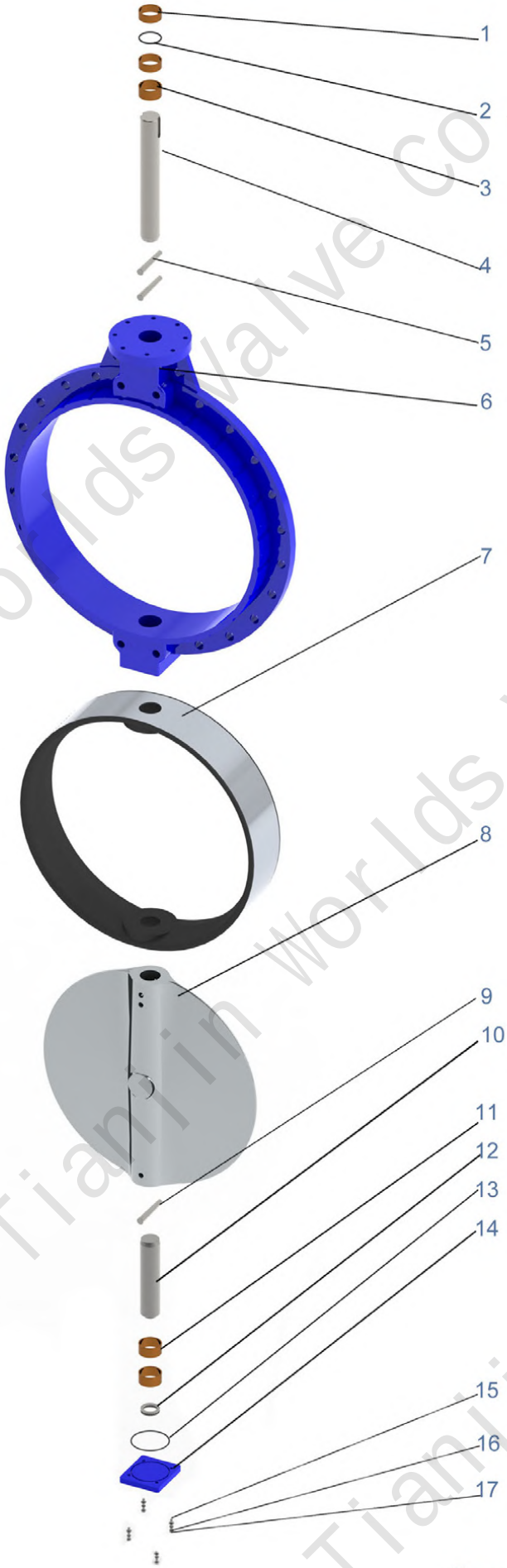
1	Shaft	Stainless Steel
		Bronze
2	Short Bushing	Luberized Bronze
3	"O"Ring	NBR /VITON
4	Long Bushing	Luberized Bronze
5	Body	GGG40 GGG45 GGG50
		WCB WCC LCC LCB
		CF8 CF8M CF3 CF3M
		C95800 C95400 C95500
6	Body Seat	NBR(BUNA-N)
		EPDM
		HEPDM
		FKM(VITON)
		Polychloroprene
		Natural Rubber
		Sillicon Rubber
7	Disc	GGG40 GGG45 GGG50
		CF8 CF8M CF3 CF3M
		C95800 C95400 C95500
		WCB WCC LCC LCB
8	Taper Pin	Stainless Steel Monel
9	Long Bushing	Luberized Bronze
10	"O"Ring	NBR /VITON
11	End Cover	GGG40 GGG45 GGG50
		WCB WCC LCC LCB
		CF8 CF8M CF3 CF3M
		C95800 C95400 C95500
12	Gasket	Stainless Steel
13	Spring Washer	Stainless Steel
14	Screw	Stainless Steel

Main Spare Part Material Quality（DN400-DN600）



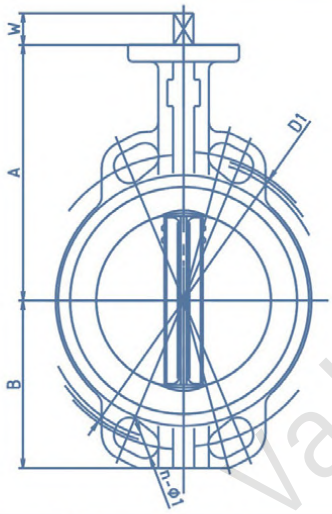
1	Shaft	Stainless Steel Bronze
2	Short Bushing	Luberized Bronze
3	"O"Ring	NBR /VITON
4	Long Bushing	Luberized Bronze
5	Body	GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
6	Body Seat	NBR(BUNA-N) EPDM HEPDM FKM(VITON) Polychloroprene Natural Rubber Sillicon Rubber
7	Disc	GGG40 GGG45 GGG50 CF8 CF8M CF3 CF3M C95800 C95400 C95500 WCB WCC LCC LCB
8	Taper Pin	Stainless Steel Monel
9	Long Bushing	Luberized Bronze
10	"O"Ring	NBR /VITON
11	End Cover	GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
12	Gasket	Stainless Steel
13	Spring Washer	Stainless Steel
14	Screw	Stainless Steel

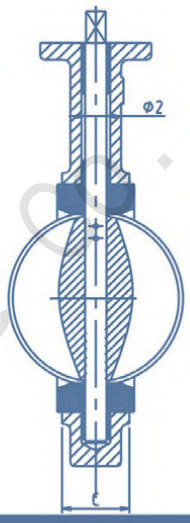
Main Spare Part Material Quality（DN700-DN1200）



1	Short Bushing	Luberized Bronze
2	"O"Ring	NBR /VITON
3	Long Bushing	Luberized Bronze
4	Up Shaft	Stainless Steel Bronze
5	Taper Pin	Stainless Steel Monel
6	Body	GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
7	Body Seat	NBR(BUNA-N) EPDM HEPDM FKM(VITON) Polychloroprene Natural Rubber Sillicon Rubber
8	Disc	GGG40 GGG45 GGG50 CF8 CF8M CF3 CF3M C95800 C95400 C95500 WCB WCC LCC LCB
9	Taper Pin	Stainless Steel Monel
10	Down Shaft	Stainless Steel Bronze
11	Long Bushing	Luberized Bronze
12	Bearing	Assembly
13	"O"Ring	NBR /VITON
14	End Cover	GGG40 GGG45 GGG50 WCB WCC LCC LCB CF8 CF8M CF3 CF3M C95800 C95400 C95500
15	Gasket	Stainless Steel
16	Spring Washer	Stainless Steel
17	Screw	Stainless Steel

Drawing(CBF01-TA01-DN50-DN300)

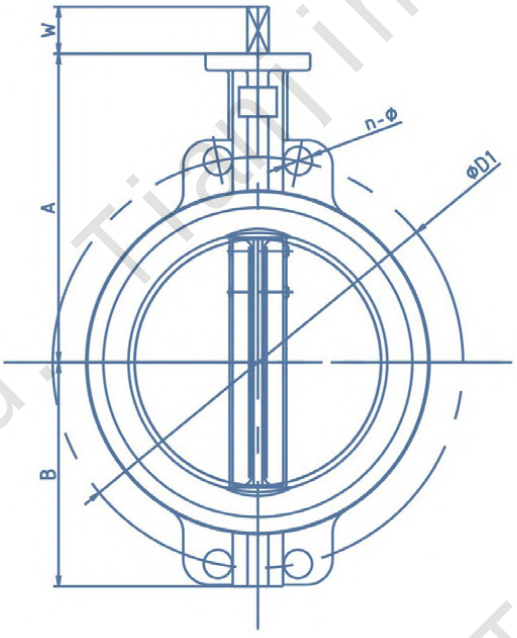


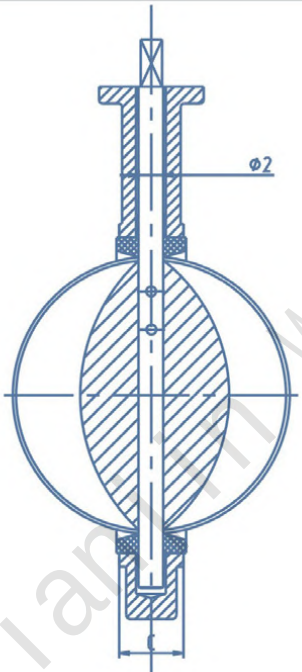


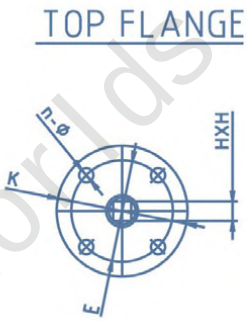
Outline Dimensions

SIZE	A	B	C	Φ2	ISO5211	K	E	n-Φ	HXH	W
DN40	120	65	33	12.6	F05	65	50	4-7	9X9	14
DN50	140	80	43	12.6	F07	90	70	4-10	11X11	14
DN65	150	89	46	12.6	F07	90	70	4-10	11X11	14
DN80	158	95	46	12.6	F07	90	70	4-10	11X11	14
DN100	176	114	52	15.77	F07	90	70	4-10	11X11	14
DN125	190	127	56	18.92	F07	90	70	4-10	14X14	17
DN150	212	139	56	18.92	F07	90	70	4-10	14X14	17
DN200	236	174	60	22.10	F10	125	102	4-12	17X17	22
DN250	265	203	68	28.45	F10	125	102	4-12	22X22	22
DN300	305	242	78	31.60	F10	125	102	4-12	22X22	22

Drawing(CBF01-TA01-DN350)



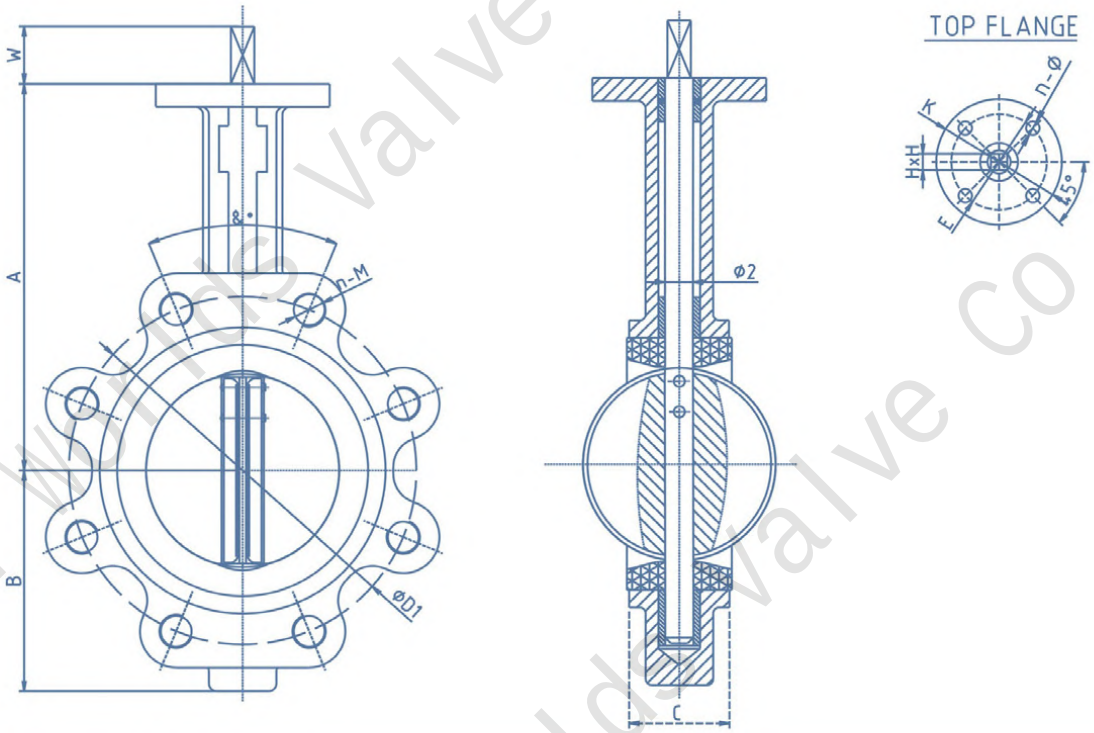




Outline Dimensions

SIZE	A	B	C	ϕ2	ISO5211	K	E	n-ϕ	HXH	W
DN350	368	267	78	31.60	F10	125	102	4-12	22X22	22

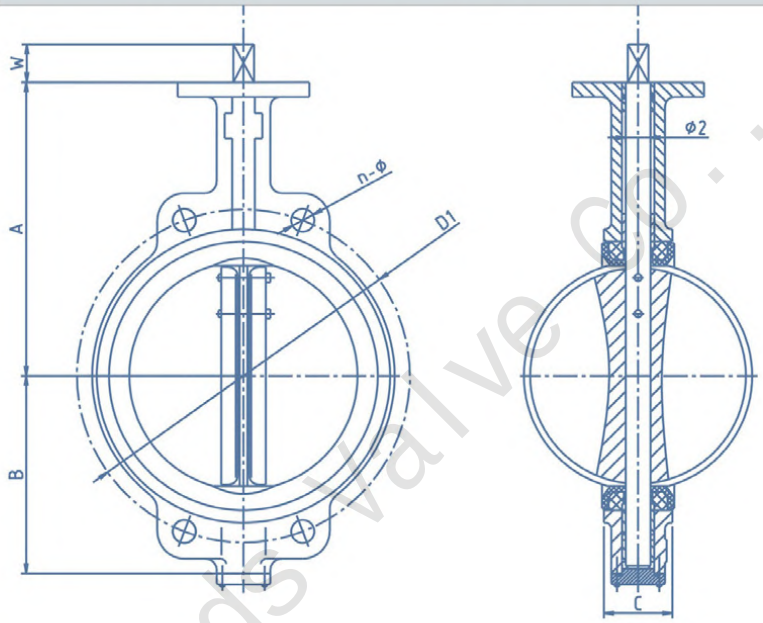
Drawing(CBF01-TL01-DN50-DN350)

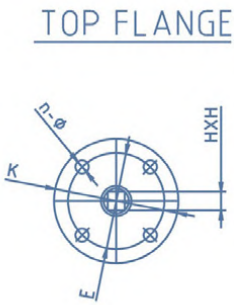


Outline Dimensions

SIZE	A	B	C	ϕ2	ISO5211	K	E	n-ϕ	HXH	W
DN40	120	65	33	12.6	F05	65	50	4-7	9X9	14
DN50	140	80	43	12.6	F07	90	70	4-10	11X11	14
DN65	150	89	46	12.6	F07	90	70	4-10	11X11	14
DN80	158	95	46	12.6	F07	90	70	4-10	11X11	14
DN100	176	114	52	15.77	F07	90	70	4-10	11X11	14
DN125	190	127	56	18.92	F07	90	70	4-10	14X14	17
DN150	212	139	56	18.92	F07	90	70	4-10	14X14	17
DN200	236	174	60	22.10	F10	125	102	4-12	17X17	22
DN250	265	203	68	28.45	F10	125	102	4-12	22X22	22
DN300	305	242	78	31.60	F10	125	102	4-12	22X22	22
DN350	368	267	78	31.60	F10	125	102	4-12	22X22	22

Drawing(CBF01-TA01-DN400-DN600)





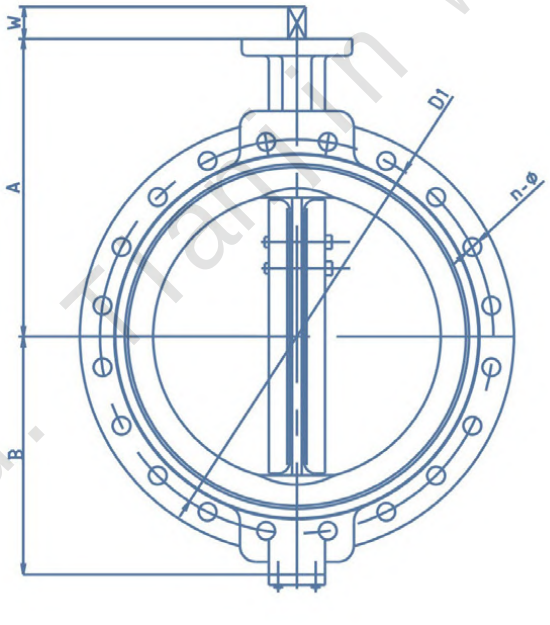
NOTICE:

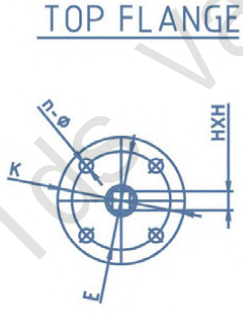
The construction of DN600 is only suitable for PN10.

Outline Dimensions

SIZE	A	B	C	Φ2	ISO5211	K	E	n-Φ	HXH	W
DN400	400	309	102	37.95	F14	175	140	4-18	27X27	36
DN450	422	340	114	37.95	F14	175	140	4-18	27X27	36
DN500	440	362	127	45.72	F14	175	140	4-18	36X36	36
DN600	565	452	154	50.62	F16	210	165	4-22	36X36	46

Drawing(CBF01-TA01-DN600)





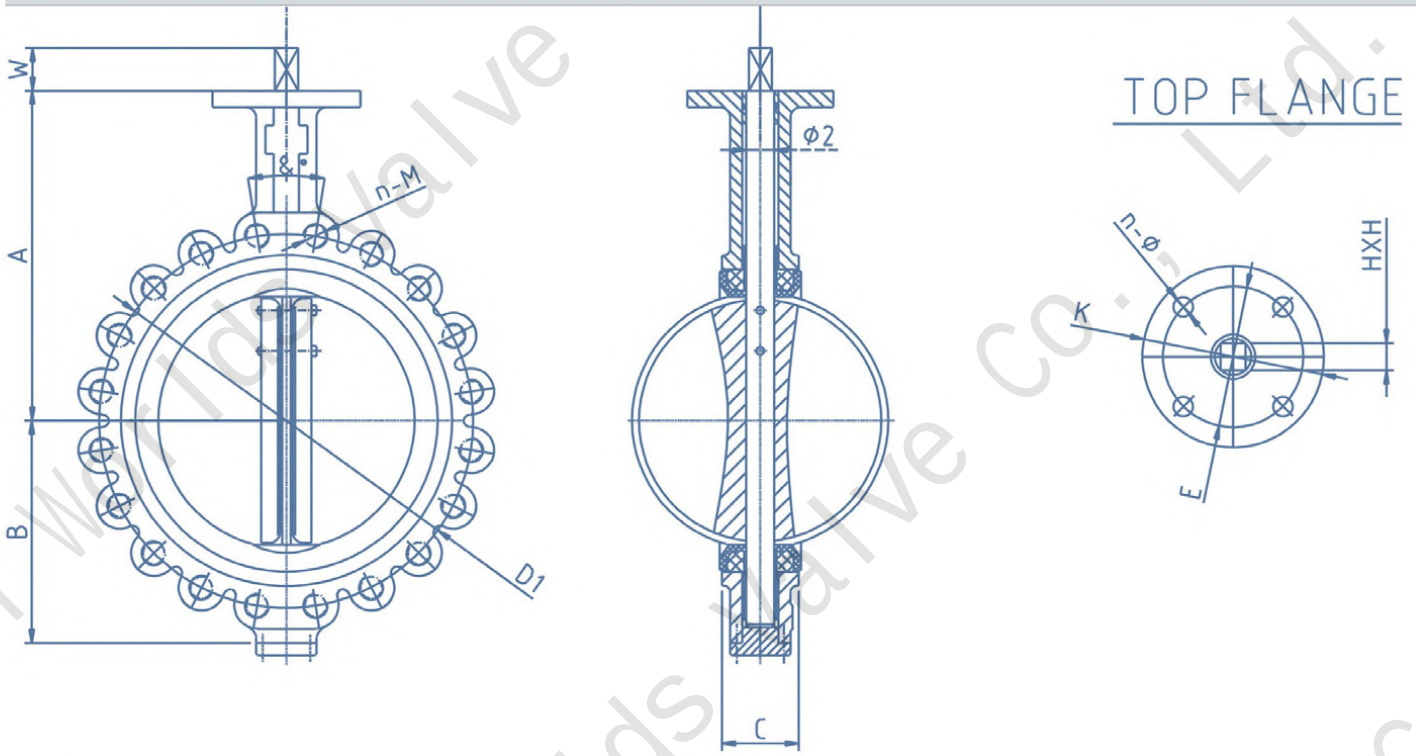
NOTICE:

The construction of DN600 is suitable for PN16. 10K.150LB.AS TableD/E.

Outline Dimensions

SIZE	A	B	C	Φ2	ISO5211	K	E	n-Φ	HXH	W
DN600	565	452	154	50.62	F16	210	165	4-22	36X36	46

Drawing(CBF01-TL01-DN400-DN600）



Outline Dimensions

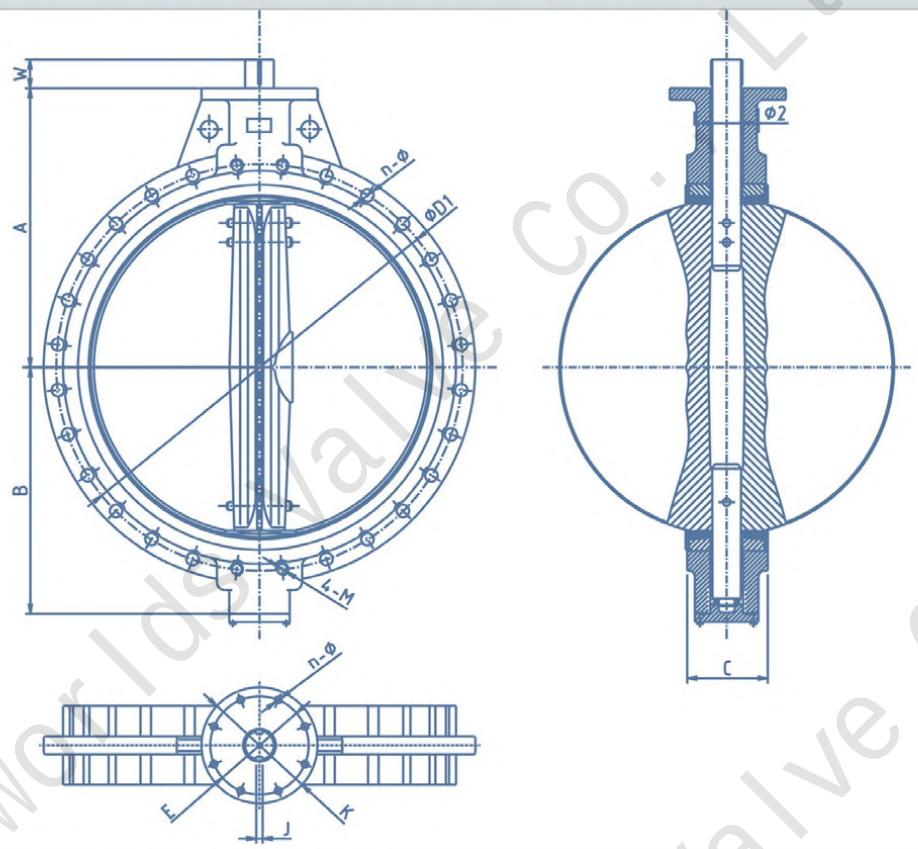
SIZE	A	B	C	Φ2	ISO5211	K	E	n-Φ	HXH	W
DN400	400	300	102	37.95	F14	175	140	4-18	27X27	36
DN450	422	340	114	37.95	F14	175	140	4-18	27X27	36
DN500	455	365	127	45.72	F14	175	140	4-18	36X36	36
DN600	565	445	154	50.62	F16	210	165	4-22	36X36	46

NOTICE：

The upper and lower height of the valve body for DN400-DN600 may follow the changes of the flange standards .

This data is for reference only and please refer to the CAD drawing for the exact data .

Drawing(CBF01-TA01-DN700-DN1200)

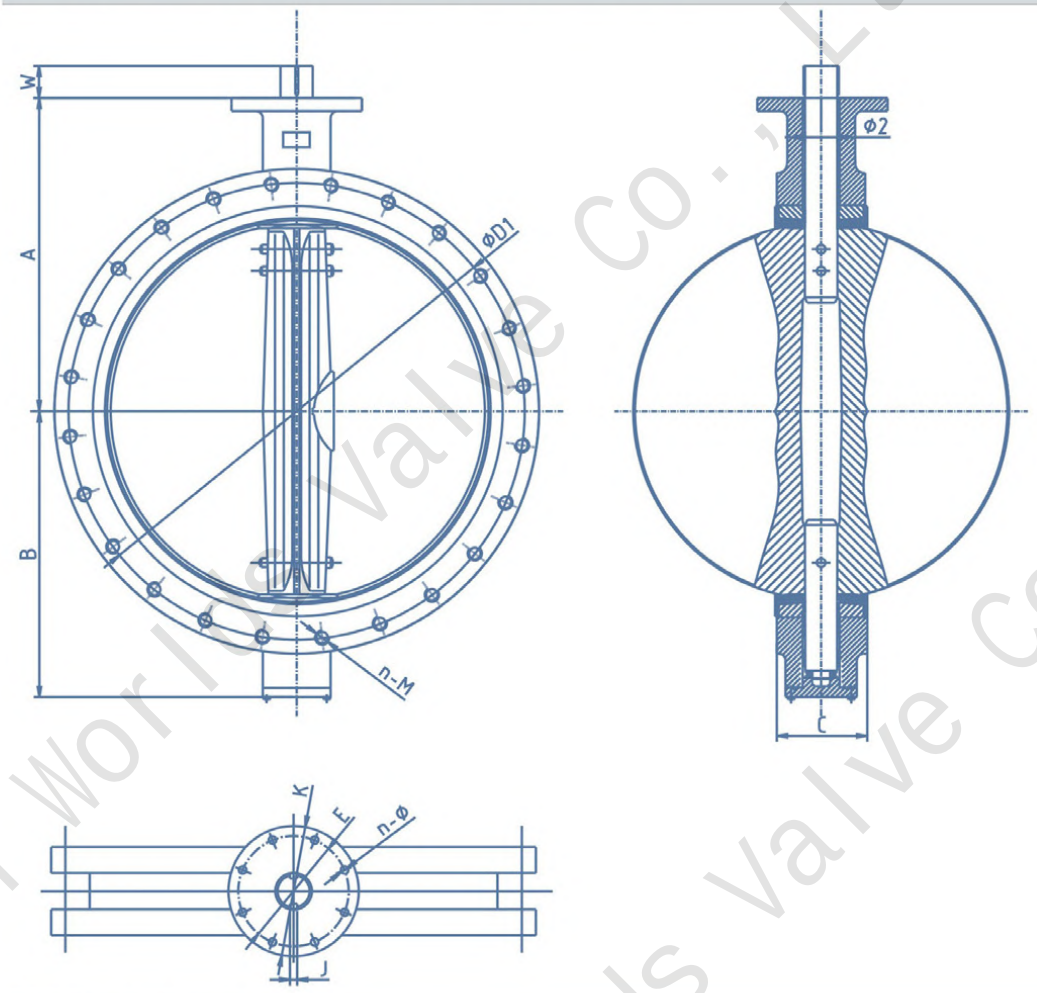


TOP FLANGE

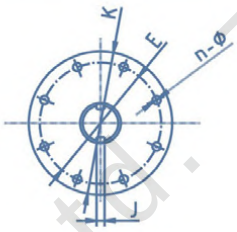
Outline Dimensions

SIZE (mm)	A	B	C	Φ2	ISO5211	K	E	n-Φ	J	W
700	631	511	165	63.35	F25	300	254	8-18	18	110
800	671	580	190	63.35	F25	300	254	8-18	18	110
900	720	636	203	75	F25	300	254	8-18	20	110
1000	805	709	216	85	F25	300	254	8-18	22	110
1200	942	846	254	105	F30	350	298	8-22	28	130

Drawing(CBF01-TL01-DN700-DN1200)



TOP FLANGE



Outline Dimensions

SIZE (mm)	A	B	C	Φ2	ISO5211	K	E	n-Φ	J	W
700	628	511	165	63.35	F25	300	254	8-18	18	110
800	665	575	190	63.35	F25	300	254	8-18	18	110
900	721	632	203	75	F25	300	254	8-18	20	110
1000	801	695	216	85	F25	300	254	8-18	22	110
1200	948	846	276/254	105	F30	350	298	8-22	28	130

Connection Dimensisns (CBF01-TA01-DN40-DN1200)

	Outer Diameter Of Flange				Diameter Of Center Circle				Number And Diameter Of Bolt Holes			
DN	150LB	PN10	PN16	JIS10K	150LB	PN10	PN16	JIS10K	150LB	PN10	PN16	JIS10K
40	125	150	150	140	98.4	110	110	105	4-16	4-19	4-19	4-19
50	150	165	165	155	120.7	125	125	120	4-19	4-19	4-19	4-19
65	180	185	185	175	139.7	145	145	140	4-19	4-19	4-19	4-19
80	190	200	200	185	152.4	160	160	150	4-19	8-19	8-19	8-19
100	230	220	220	210	190.5	180	180	175	8-19	8-19	8-19	8-19
125	255	250	250	250	215.9	210	210	210	8-22	8-19	8-19	8-23
150	280	285	285	280	241.3	240	240	240	8-22	8-23	8-23	8-23
200	345	340	340	330	298.5	295	295	290	8-22	8-23	12-23	12-23
250	405	395	405	400	362	350	355	355	12-26	12-23	12-28	12-25
300	485	445	460	445	431.8	400	410	400	12-26	12-23	12-28	16-25
350	535	505	520	490	476.3	460	470	445	12-29	16-23	16-28	16-25
400	595	565	580	560	539.8	515	525	510	16-29	16-28	16-31	16-27
450	635	615	640	620	577.9	565	585	565	16-32	20-28	20-31	20-27
500	700	670	715	675	635	620	650	620	20-32	20-28	20-34	20-27
600	815	780	840	795	749.3	725	770	730	20-35	20-31	20-37	24-33
700	927	895	910	905	863.6	840	840	840	28-35	24-31	24-37	24-33
800	1060	1015	1025	1020	977.9	950	950	950	28-42	24-34	24-41	28-33
900	1168	1115	1125	1120	1085.85	1050	1050	1050	32-42	28-34	28-41	28-33
1000	1289	1230	1255	1235	1200.15	1160	1170	1160	36-42	28-37	28-44	28-39
1200	1511	1455	1485	1465	1422.4	1380	1390	1380	44-42	32-41	32-50	32-39

Connection Dimensisns (CBF01-TL01-DN40-DN1200)

	Outer Diameter Of Flange				Diameter Of Center Circle				Number And Diameter Of Bolt			
DN	150LB	PN10	PN16	JIS10K	150LB	PN10	PN16	JIS10K	150LB	PN10	PN16	JIS10K
40	125	150	150	140	98.4	110	110	105	4-$\frac{1}{2}$"-13UNC	4-M16	4-M16	4-M16
50	150	165	165	155	120.7	125	125	120	4-$\frac{5}{8}$"-11UNC	4-M16	4-M16	4-M16
65	180	185	185	175	139.7	145	145	140	4-$\frac{5}{8}$"-11UNC	4-M16	4-M16	4-M16
80	190	200	200	185	152.4	160	160	150	4-$\frac{5}{8}$"-11UNC	8-M16	8-M16	8-M16
100	230	220	220	210	190.5	180	180	175	8-$\frac{5}{8}$"-11UNC	8-M16	8-M16	8-M16
125	255	250	250	250	215.9	210	210	210	8-$\frac{3}{4}$"-10UNC	8-M16	8-M16	8-M20
150	280	285	285	280	241.3	240	240	240	8-$\frac{3}{4}$"-10UNC	8-M20	8-M20	8-M20
200	345	340	340	330	298.5	295	295	290	8-$\frac{3}{4}$"-10UNC	8-M20	12-M20	12-M20
250	405	395	405	400	362	350	355	355	12-$\frac{7}{8}$"-9UNC	12-M20	12-M24	12-M22
300	485	445	460	445	431.8	400	410	400	12-$\frac{7}{8}$"-9UNC	12-M20	12-M24	16-M22
350	535	505	520	490	476.3	460	470	445	12-1"-8UNC	16-M20	16-M24	16-M22
400	595	565	580	560	539.8	515	525	510	16-1"-8UNC	16-M24	16-M27	16-M24
450	635	615	640	620	577.9	565	585	565	16-1$\frac{1}{8}$"-8UN	20-M24	20-M27	20-M24
500	700	670	715	675	635	620	650	620	20-1$\frac{1}{8}$"-8UN	20-M24	20-M30	20-M24
600	815	780	840	795	749.3	725	770	730	20-1$\frac{1}{4}$"-8UN	20-M27	20-M33	24-M30
700	927	895	910	905	863.6	840	840	840	28-1$\frac{1}{4}$"-8UN	24-M27	24-M33	24-M30
800	1060	1015	1025	1020	977.9	950	950	950	28-1$\frac{1}{2}$"-8UN	24-M30	24-M36	28-M30
900	1168	1115	1125	1120	1085.85	1050	1050	1050	32-1$\frac{1}{2}$"-8UN	28-M30	28-M36	28-M30
1000	1289	1230	1255	1235	1200.15	1160	1170	1160	36-1$\frac{1}{2}$"-8UN	28-M33	28-M39	28-M36
1200	1511	1455	1485	1465	1422.4	1380	1390	1380	44-1$\frac{1}{2}$"-8UN	32-M36	32-M45	32-M36

Torque values-Nm

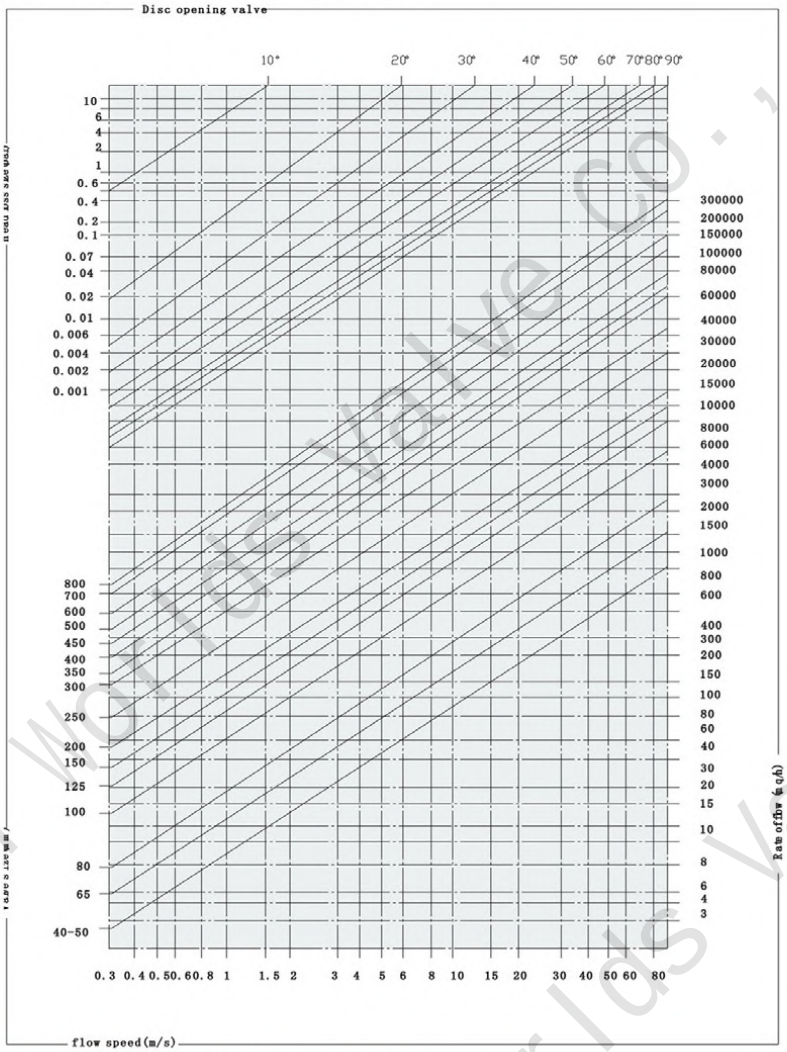
APPLICATION IN WATER								
EPDM					VITON / NBR / PTFE			
SIZE		6 Bar	10 Bar	16 Bar	SIZE		6 Bar	10 Bar	16 Bar
mm	inch	wet (N .m)	wet (N .m)	wet (N .m)	mm	inch	wet (N .m)	wet (N .m)	wet (N .m)
DN40	1.5"	8	10	11	DN40	1.5"	10	13	14
DN50	2"	9	11	12	DN50	2"	12	14	16
DN65	2.5"	15	18	20	DN65	2.5"	20	23	26
DN80	3"	22	25	30	DN80	3"	29	33	39
DN100	4"	39	43	50	DN100	4"	51	56	65
DN125	5"	60	67	77	DN125	5"	78	87	100
DN150	6"	94	110	121	DN150	6"	122	143	157
DN200	8"	165	201	242	DN200	8"	215	261	315
DN250	10"	253	310	352	DN250	10"	329	403	458
DN300	12"	352	473	490	DN300	12"	458	615	637
DN350	14"		610	920	DN350	14"		793	1196
DN400	16"		890	1440	DN400	16"		1157	1872
DN450	18"		1240	1780	DN450	18"		1612	2314
DN500	20"		1670	2210	DN500	20"		2171	2873
DN600	24"		2560	3980	DN600	24"		3328	5174
DN700	28"		3720	4920	DN700	28"		4836	6396
DN800	32"		5640	7840	DN800	32"		7332	10192
DN900	36"		7650	9760	DN900	36"		9945	12688
DN1000	40"		9800	13560	DN1000	40"		12740	17628
DN1200	48"		16800	21200	DN1200	48"		21840	27560

NOTICE：

The above torque data based on 25 °C purified water , not include safety factor .

Head losses

Notes:Values indicated in this page is only for information



Formulae for calculation of rate flow

Liquids: $Q = \frac{KV}{\sqrt{\frac{PS}{\Delta P}}}$

Q rate of flow (m3/h)

PS specific gravity (water=1)

ΔP pressure drop (bar)

Gas: $Q = 28.5 \frac{KV}{\sqrt{\frac{PS}{P_2 \cdot \Delta P}}}$

Q rate of flow (m3/h)

PS specific gravity (air=1)

ΔP pressure drop (bar)
(less than 1/2 inlet pressure)

P2 outlet pressure

Steam: $Q = 22.5 \cdot KV \cdot \sqrt{P_2 \cdot \Delta P}$

Q rate of flow (Kg/h)

ΔP pressure drop (bar)
(less than 1/2 inlet pressure)

P2 outlet pressure

Calculation of the rate of flow equivalent to H2O:

For different liquid, gas or steam head losses are determined by equivalent water of flow, as follosw:

Qe equivalent water flow
(mc/l o l/s)

Q fluid flow
(mc/l o l/s)

d fluid specific gravity
(Kg/mc)

Values CV（CV=1.16KV）

Size	Flow in Gpm@1 PSI P@ Various Disc Angles								
(mm)	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	0.1	5	12	24	45	64	90	125	135
65	0.2	8	20	37	65	98	144	204	220
80	0.3	12	22	39	70	116	183	275	302
100	0.5	17	36	78	139	230	364	546	600
125	0.8	29	61	133	237	392	620	930	1022
150	2	45	95	205	366	605	958	1437	1579
200	3	89	188	408	727	1202	1903	2854	3136
250	4	151	320	694	1237	2047	3240	4859	5340
300	5	234	495	1072	1911	3162	5005	7507	8250
350	6	338	715	1549	2761	4568	7230	10844	11917
400	8	464	983	2130	3797	6282	9942	14913	16388
450	11	615	1302	2822	5028	8320	13168	19752	21705
500	14	971	1674	3628	6465	10698	16931	25396	27908
600	22	1222	2587	5605	9989	16528	26157	39236	43116
700	30	1633	3522	7630	12599	20036	30482	46899	58696
800	45	2387	4791	8736	13786	20613	31395	48117	68250
900	60	3021	6063	11055	17449	26086	39731	60895	86375
1000	84	4183	8395	15307	24159	36166	55084	84425	119750
1200	102	4651	10365	17010	27242	43853	70431	108968	132888

Installation Instructions

The butterfly valve can be installed on the pipeline, which is at any angle.

1.The valve should be installed in the location being sure to provide convenient operation, maintenance and replacement.

2.As mounting the butterfly valve, fail to consider flow direction of mediums in pipeline, that is to say, the valve can be used in double way.

3.Before installation, the butterfly valve should be stored in ware house and prevent it from moisture and in so doing, the disc should be kept to open at an angle of 15 degree.

4.Before installation, the following processes should be completed:

(1)Check carefully and confirm the operation condition of the valve is in line with the technical specification and requirements.

(2)Clean the disc sealing area and body sealing completely. It is not permitted to open the disc before cleaning.

(3)Check and confirm the handle is strongly collected to the flange and stem.

5.As mounting the butterfly valve in pipeline, the load for tightening connection bolts should be uniformed.

6.After installation, the disc must be opened in the case of the strength pressure test on pipeline being carried out.

7.After being installed, the valve should be examined regularly. The main item to be checked are as follows:

(1)Whether the valve seat and 'O' sealing ring have been damaged.

(2)Check the sealing effects of the disc sealing area.

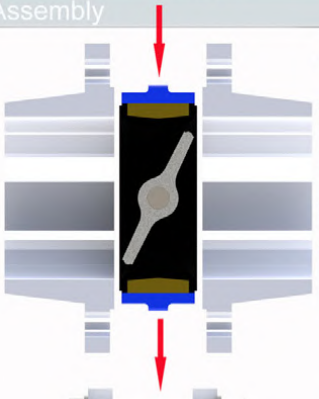
(3)After the valve was examined and assembled, no scuffing happens at the time of on-off rotation.

(4)After the valve was examined and assembled, the sealing test should be carried out as the introduction.

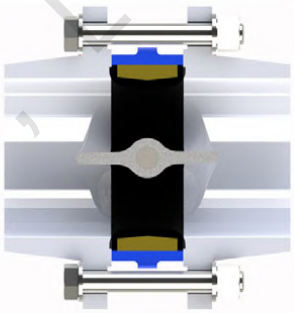
(5)After each examination, detailed records should be filed for reference.

INSTALLATION

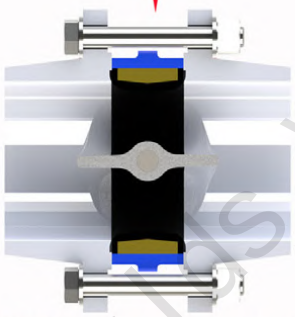
Assembly



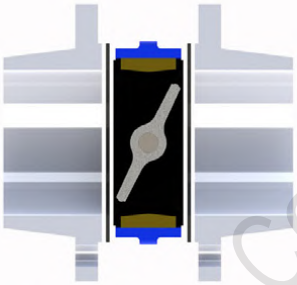
1 Leave a space between flanges so that valve can be easily inserted and re-moved .and move the valve in accordance with the arrow



2 Open completely the valve before tightening flanges



3 Tighten bolts till flanges are in contact with valve body

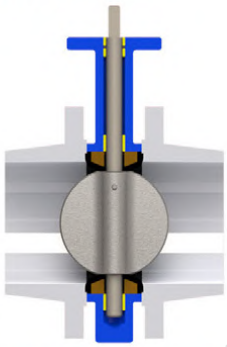


4 NOTE: do not insert other packing between flange and valve

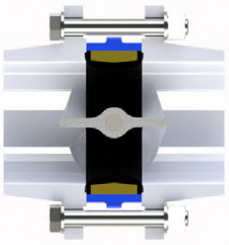
NOTE:Weld the pipe only in spots with the valve between flanges. Remove the valve before finishing welding to aviod that heat damage the seat， Clean carefully the welding to avoid that slags damage the seat

Installation for powders and muddy fluids

In case of use with powders or muddy fluids,install the valve with horizontal rotation axis,to allow sediments to flow easily on opening



Wrong
Vertical rotation axis

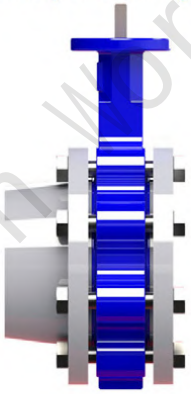


Right
Horizontal rotation axis

End piping installation

When valves are installed end of piping,a counterflange as per dwg type B is needed to secure tightness at max peressure， Please notice in order when the valves are installed as per drawing type A.

Type A installation without end piping



Type B installation with end piping

Pressure（max）： Type A installation is 6 Bar
Type B installation is 16 Bar

Work principle

This product mainly consists of body, stem, disc, seat AL-Bronze bushings etc. The rotation of actuating device makes stem and disc revolved, which ensures on-off operations and flow control.

The rotation of the actuating device ensures dependability and position disc control and position disc control and water flow control. Rotate handle wheel clockwise, the valve is close.

Features

1.Small in size and light in weight. Easy installation and maintenance. It can be mounted wherever needed.
2.Simple and compact construction, quick 90degrees on-off operation.
3.Minimized operating torque, energy saving.
4.Bubbles-tight sealing with no leakage under the pressure testing
5.Wide selection of materials, applicable for various medium.
6.Long service life. Standing the test of tens of thousands opening/closing operations.
7.Flow curve tending to straight line. Excellent regulation performance.

Trouble & remedy

Trouble	cause	remedy
Leakage in sealing area	Disc sealing area or body sealing seat scratched, disc is not closed completely. Hexagonal socket head bolts on clamping ring are not tightened completely.	Repair the disc sealing replace repair the body sealing seat, adjust actuator to close the disc completely, tighten loosed hexagonal socket head bolts.
Leakage in shaft end	The seat or The 'O' ring is not pressed completely.	Replace the body sealing seat
Leakage in joint area between valve face and relevant flange on pipeline	Connection bolts are not screwed up uniformly.	Tighten the connection bolts evenly.