

UV510

Univals centric butterfly valve is designed for use between all types of flat and raised face flanges. In order to serve many different requirements, Univals design many kinds of rubber to accommodate multiple fluid conditions, and also increase the rubber strength to reduce abrasion.

Features

- Butterfly valves concentric disc and seat configuration, lug, wafer, double flanged.
- Soft seal, simple structure, compact, light weight, easy disassembly and maintenance.
- Operating torque smaller, open and close quickly turn 90 degrees.
- The flow resistance is small, flow characteristics similar to tilt a straight line energy-saving effect is good.
- Bi-direction bubble-tight shut off.
- Operation type: Lever, Worm gear, Pneumatic, Electric.

Technical Data

Normal diameter or bore:

NPS 1.5"~NPS 48", DN40~DN1200.

Normal pressure or rating:

ASME Class 125~Class 150, PN 10~PN 16.

Material: Cast Iron, Ductile Iron, Stainless Steel.

Applicable temperature: -20°C ~ 204°C .

Design Standard

Design & manufacture: API 609, ASME B16.34

Face to face dimension: ISO 5752.

Connection ends: ASME B16.5, ASME B16.47.

Testing & inspection: API 598, ISO5208.

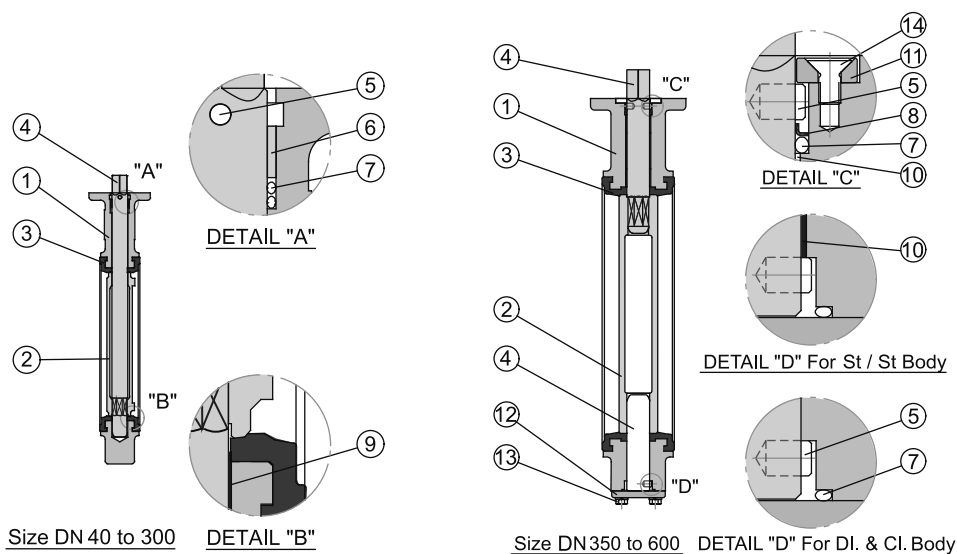
UNIVALS CENTRIC RUBBER LINED BUTTERFLY VALVE



Applications

- Water supply and drainage.
- Power generation.
- Oil, Gas (Natural gas).
- Chemical industry.
- Metallurgy.
- Food.
- Pharmaceutical.
- Paper making.
- Shipbuilding.
- Environmental protection.

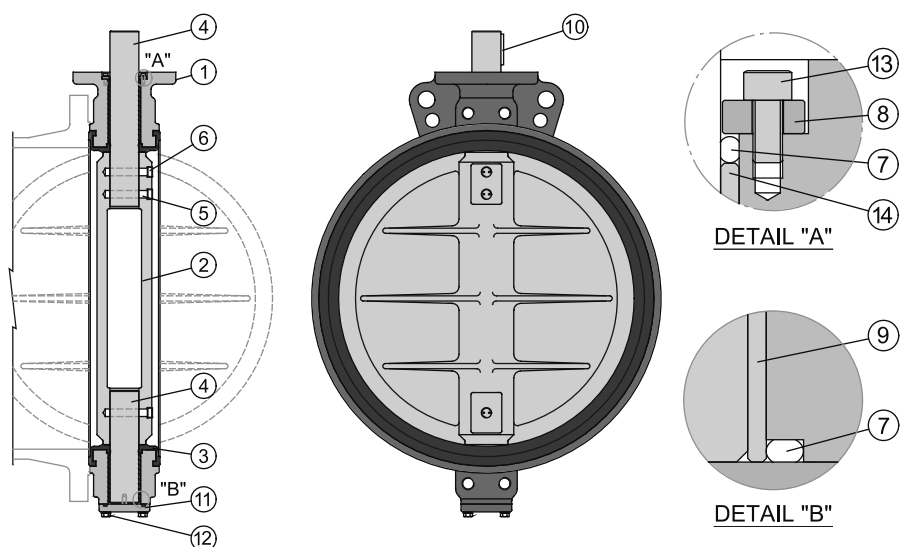
Exploded View, DN40 – DN600



Materials List

Item	Description	Material	Specification
1	Body	Cast Iron	A126 Cl. B
		Ductile Iron	A395
		Stainless Steel	A351 Gr. CF8M/CF8
2	Disc	Ductile Iron	A395
		Stainless Steel	A351 Gr. CF8M/CF8
		ALU-Bronze	B148 C95400
3	Seat	NBR	-10°C – 80°C
		EPDM	-20°C – 120°C
		VITON	-18°C – 204°C
		Silicon	-20°C – 180°C
4	Stem	Stainless Steel	A182 Gr. F304 A182 Gr. F316
5	Pin	Stainless Steel	A182 Gr. F304
6	Bush	DELFIN	
7	O-ring	NBR (NITRILE)	
8	Thrust Ring	Stainless Steel	A240 Gr. 304
9	Bush	Bronze	B62
10	Bush	RPTFE + Stainless Steel	RPTFE + A240 Gr. 316
11	Upper Cover	Cast Iron	A126 Cl. B
		Stainless Steel	A240 Gr. 304
12	Bottom Cover	Cast Iron	A126 - B
		Stainless Steel	A351 Gr. CF8
13	Bolt	Steel	
14	Bolt	Steel	

Exploded View, DN650 – DN1200



Materials List

Item	Description	Material	Specification
1	Body	Ductile Iron	A395
		Stainless Steel	A351 Gr. CF8M/CF8
2	Disc	Ductile Iron	A395
		Stainless Steel	A351 Gr. CF8M/CF8
		ALU-Bronze	B148 C95400
3	Seat	NBR	-10°C – 80°C
		EPDM	-20°C – 120°C
		VITON	-18°C – 204°C
4	Stem	Stainless Steel	A182 Gr. F304
			A182 Gr. F316
5	Pin	Stainless Steel	
6	Plug	Stainless Steel	
7	O-ring	NBR (NITRILE)	
8	Upper Cover	Steel	A36
		Stainless Steel	A240 Gr. 304
9	Bush	Bronze	B62
		RPTFE + Stainless Steel	RPTFE + A240 Gr. 316
10	Key	Steel	
11	Bottom Cover	Cast Iron	A126 Cl. B
		Stainless Steel	A351 Gr. CF8
12	Bolt	Steel	
13	Bolt	Steel	
14	Bushing	PTFE+ 316SS	

Torque Values

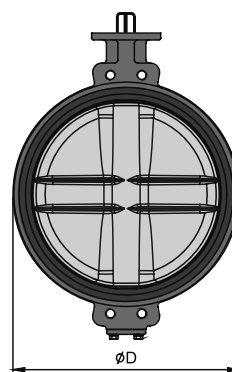
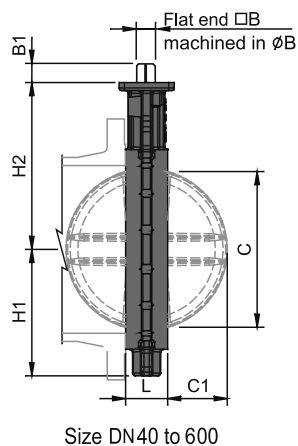
Centric Butterfly valves are designed as low torque valves. The torque table is a guide for actuator selection. Actuators selection is done considering factor of safety depending upon service condition, generally selecting a higher size actuator.

Size		Lubricating(non-corrosive) $\Delta P(\text{bar})/\text{Nm}$				Dry(non-Lubricating) $\Delta P(\text{bar})/\text{Nm}$		
Inch	mm	3	6	10	16	3	6	10
1-1/2"	40	15	17	19	23	19	21	23
2"	50	15	17	19	23	19	21	23
2-1/2"	65	18	20	22	26	22	24	27
3"	80	28	31	34	41	34	38	42
4"	100	37	41	45	54	45	50	56
5"	125	61	68	76	91	76	84	93
6"	150	116	127	140	154	126	138	152
8"	200	171	190	211	253	211	234	260
10"	250	275	306	340	408	340	378	420
12"	300	381	423	470	564	470	522	580
14"	350	545	605	672		672	747	830
16"	400	728	809	899		899	999	1110
18"	450	912	1013	1126		1126	1251	1390
20"	500	1135	1261	1401		1401	1557	1730
22"	550	1325	1472	1636		1636	1818	2020
24"	600	1373	1525	1695		1695	1884	2093
26"	650	1555	1727	1920		1920	2133	2370
28"	700	2339	2599	2888		2888	3209	3566
30"	750	2608	2898	3220		3220	3578	3975
32"	800	3008	3342	3713		3713	4125	4583
36"	900	3828	4253	4726		4726	5251	5834
38"	950	4415	4920	6610		5450	6050	7100
40"	1000	5090	5680	7620		6280	7010	9410
42"	1050	5611	6262	8401		6924	7728	10374
44"	1100	6158	6872	9262		7599	8481	13385
48"	1200	7328	8178	11022		9043	10093	13548

Note: Expected seating / unseating torque (Nm) including 30% safety factor.

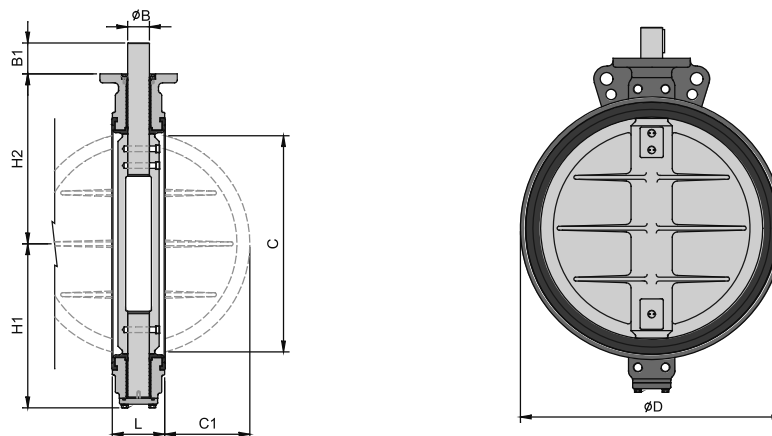
Dimensions

Wafer Type, 1-1/2" – 24" (DN40 – DN600mm)



Dimensions

Wafer Type, 26" – 36" (650 – 900mm)



Size DN650 to DN900

Wafer Type Approximate Dimensions in mm

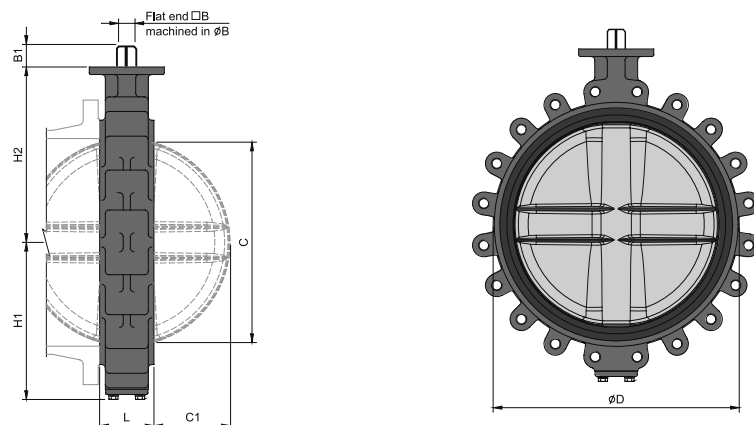
Size		L	ØD	C	C1	H1	H2	B1	ØB	□B	Key	ISO 5211	Weight kg
Inch	mm												
1-1/2"	40	33	81	34	7	60	120	19	14	11		F07	2
2"	50	43	96	39	8	65	143	19	14	11		F07	3
2-1/2"	65	46	110	55	13	71	155	19	14	11		F07	3.8
3"	80	46	124	69	19	77	162	19	14	11		F07	4
4"	100	52	148	91	27	107	181	19	14	11		F07	5.3
5"	125	56	180	115	36	122	197	19	18	14		F07	7.3
6"	150	56	206	140	47	150	210	19	18	14		F07	8.2
8"	200	60	259	186	68	165	240	24	22	17		F10	13.5
10"	250	68	320	239	90	201	286	24	25	19		F10	21.2
12"	300	78	370	288	111	234	309	24	28	22		F10	32.5
14"	350	78	412	325	128	301	329	29	35	27		F12	48
16"	400	102	475	375	143	333	361	29	35	27		F12	60
18"	450	114	530	423	162	358	393	38	48	36		F14	80
20"	500	127	585	473	182	392	427	38	48	36		F14	125
22"	550	154	635	507	186	397	475	38	50	36		F14	130
24"	600	154	687	560	214	454	492	48	60	46		F16	194
26"	650	165	718	606	230	460	515	90	65		18 X 12	F16	200
28"	700	165	796	655	255	508	563	110	70		20 X 12	F16	249
30"	750	190	856	692	264	543	585	110	75		18 X 12	F25	316
32"	800	190	870	736	285	592	630	110	80		24 X 16	F25	365
36"	900	203	1003	841	331	632	660	110	85		24 X 16	F25	424

DN40- 600 16BAR

DN650 -900 10BAR

Dimensions

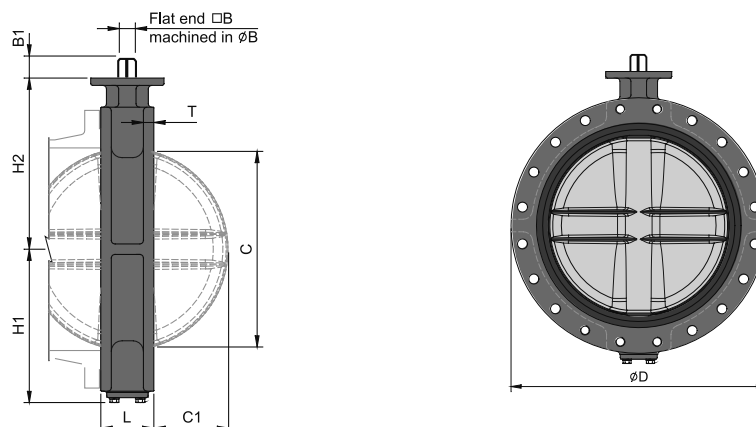
Lug Type, 1-1/2" – 24" (DN40 – DN600mm)



Lug Type Approximate Dimensions in mm - 16 Bar

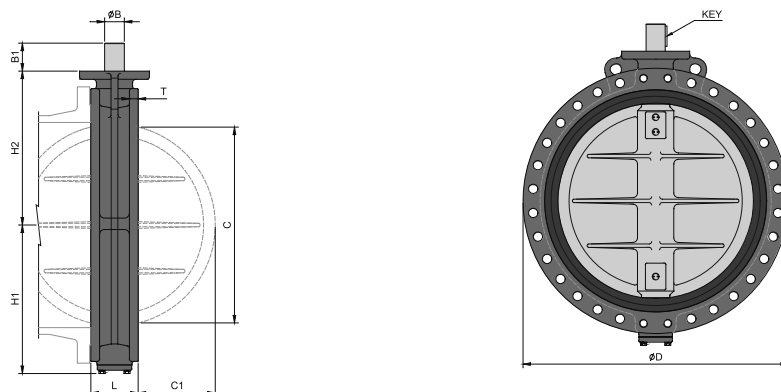
Size		L	ΦD	C	C1	H1	H2	B1	ΦB	□B	ISO 5211	Weight kg
Inch	mm											
1-1/2"	40	33	81	34	7	60	120	19	14	11	F07	2.2
2"	50	43	96	39	8	65	143	19	14	11	F07	3.4
2-1/2"	65	46	110	55	13	71	155	19	14	11	F07	4
3"	80	46	124	69	19	77	162	19	14	11	F07	4.5
4"	100	52	148	91	27	89	181	19	14	11	F07	7.6
5"	125	56	180	115	36	112	197	19	18	14	F07	9.5
6"	150	56	206	140	47	123	210	19	18	14	F07	10.4
8"	200	60	259	186	68	150	240	24	22	17	F10	17.5
10"	250	68	320	239	90	179	286	24	25	19	F10	26.5
12"	300	78	370	288	111	216	309	24	28	22	F10	43.5
14"	350	78	412	325	128	301	329	29	35	27	F12	58
16"	400	102	475	375	143	333	361	29	35	27	F12	81
18"	450	114	530	423	162	358	393	38	48	36	F14	110
20"	500	127	585	473	182	392	427	38	48	36	F14	155
24"	600	154	687	560	214	454	492	48	60	46	F16	318

Dimensions Flanged Type Size 14" – 24" (DN350 – DN600mm)



Dimensions Flange Type

Size 26" – 48" (DN650 – DN1200)



Flanged Type Approximate Dimensions in mm

Size		L	ΦD	C	C1	H1	H2	B1	ΦB	□B	Key	ISO 5211	Weight kg
Inch	mm												
14"	350	78	535	325	128	303	329	29	35	27		F12	69
16"	400	102	600	375	143	335	361	29	35	27		F12	95
18"	450	114	648	423	162	363	393	38	48	36		F14	129
20"	500	127	715	473	182	397	427	38	50	36		F14	161
22"	550	154	762	506	188	426	475	38	50	36		F14	191
24"	600	154	840	560	214	454	492	48	60	46		F16	248
26"	650	165	870	606	230	460	515	90	65		18 X 12	F16	294
28"	700	165	927	655	255	508	563	110	70		18 X 12	F16	329
30"	750	190	997	692	264	543	585	110	75		20 X 12	F25	431
32"	800	190	1060	736	285	592	630	110	80		24 x 16	F25	507
36"	850	203	1170	841	331	632	660	110	85		24 x 16	F25	621
38"	900	216	1238	889	350	682	729	110	95		28 x 16	F25	750
40"	1000	216	1289	941	373	698	749	155	100		28 x 16	F30	810
42"	1050	216	1340	977	391	761	813	180	100		28 x 16	F30	859
44"	1100	216	1403	1024	414	768	814	180	110		32 x 18	F30	931
48"	1200	254	1511	1131	451	814	870	180	110		32 x 18	F30	1161

How to order

To specify butterfly valves. Simply determine the proper size, body type, and material, use figure numbers of to ensure prompt and accurate of your order. A detailed description must accompany any special orders.

Example of butterfly type: 510-L0815CN

	1.	2.	3.	4.	5.
510-	L	08	15	C	N

	Model		
510	Standard Rubber Seat		
1.	Type of Connection		
W	Wafer Type		
L	Lug Type		
F	Flange Type		
2.	Valve Size		
015	1-1/2"(40mm)	20	20"(500mm)
02	2"(50mm)	22	22"(550mm)
025	2-1/2"(65mm)	24	24"(600mm)
03	3"(80mm)	26	26"(650mm)
04	4"(100mm)	28	28"(700mm)
05	5"(125mm)	30	30"(750mm)
06	6"(150mm)	32	32"(800mm)
08	8"(200mm)	36	36"(900mm)
10	10"(250mm)	38	38"(950mm)
12	12"(300mm)	40	40"(1000mm)
14	14"(350mm)	42	42"(1050mm)
16	16"(400mm)	44	44"(1100mm)
18	18"(450mm)	48	48"(1200mm)

3.	Body Rating
15	ASME 125 / PN10
30	ASME 150 / PN16
4.	Body/Gland Material
C	Cast Iron A126
D	Ductile A395
S	A351 Gr. CF8M
5.	Seat Material
N	NBR(NITRILE) (-10°C – 80°C)
E	EPDM (-20°C – 120°C)
V	VITON (-18°C – 204°C)

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