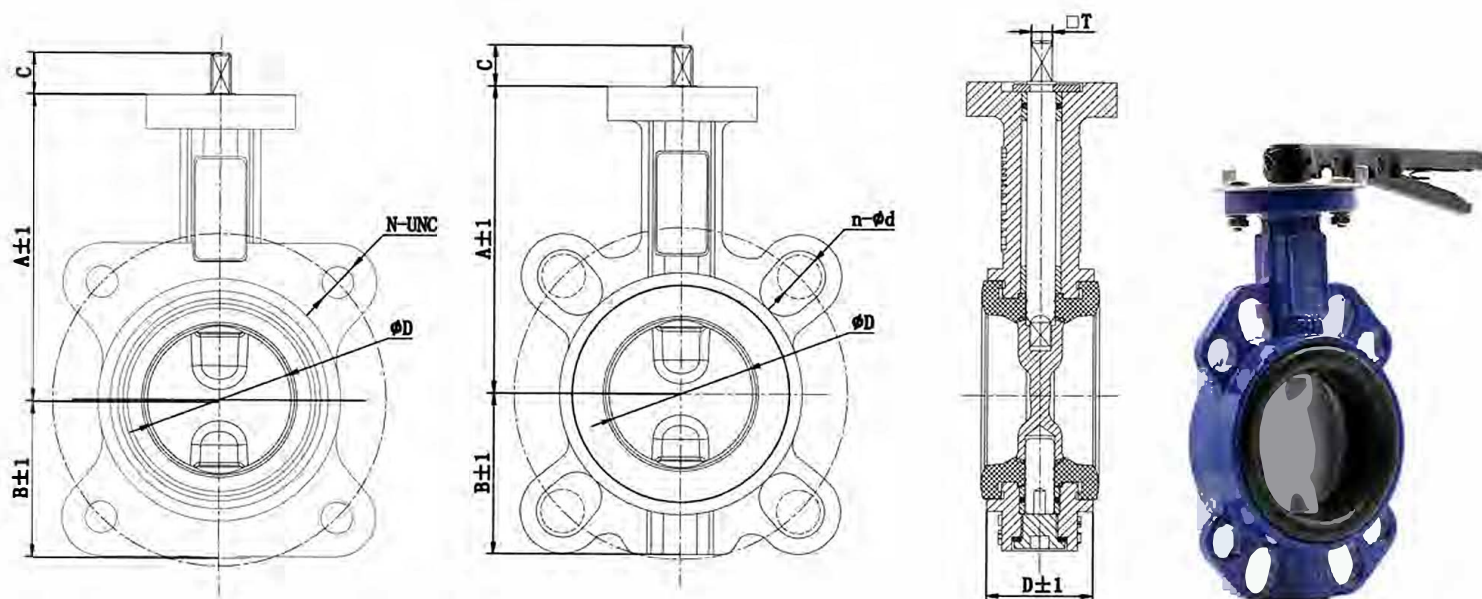


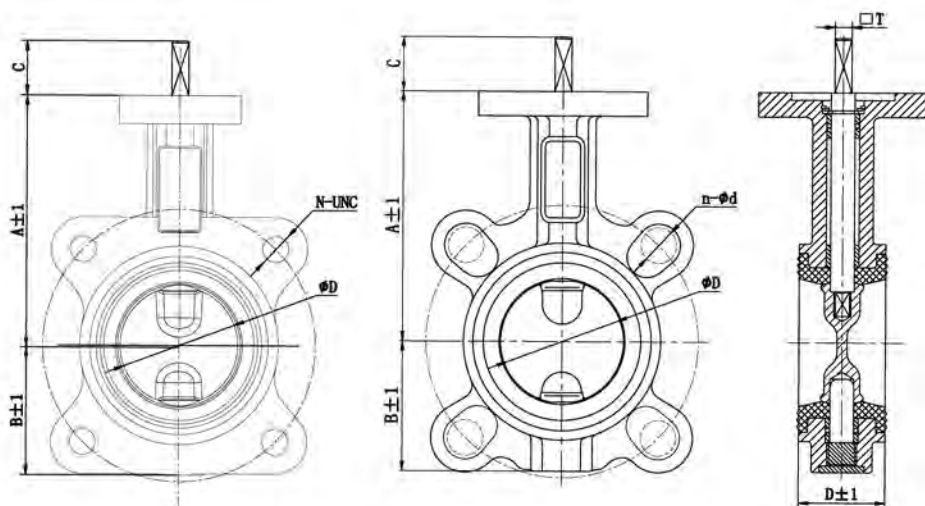


Body	Disc	Stem	Seat	Actuator
Cast iron	Plated ductile iron	Stainless steel	EPDM/NBR	lever
Ductile iron	CF8		WRAS-EPDM	gearbox and handwheel
Stainless steel	CF8M		Viton	Electric
	Aluminum bronze	customised	Silicon	Pneumatic

Design standard	API 609
Testing standard	API 598
Top flange standard	ISO5211
End flange standard	DIN PN10 / PN16, ANSI 125# / 150#, BS4504 PN10 / PN16, JIS B2220 10K
Face to face standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	PN10		PN16		ANSI 150#		N-UNC	N-M		±T	Top Flange
					4-φd	φD	4-φd	φD	4-φd	φD	ANSI 150#	PN16	PN10		
DN50	126	63	30	43	4-19	125	4-19	125	4-19	120.6	4-5/8	4-M16	4-M16	9*9	F05
DN65	134	70	30	46	4-19	145	4-19	145	4-19	139.7	4-5/8	4-M16	4-M16	9*9	F05
DN80	154	85	30	46	4-19	160	4-19	160	4-19	152.4	4-5/8	8-M16	8-M16	9*9	F05
DN100	170	106	30	52	4-19	180	4-19	180	4-19	190.5	8-5/8	8-M16	8-M16	11*11	F07
DN125	182	115	30	56	4-19	210	4-19	210	4-22.4	215.9	8-3/4	8-M16	8-M16	14*14	F07
DN150	196	128	30	56	4-23	240	4-23	240	4-22.4	241.3	8-3/4	8-M20	8-M20	14*14	F07
DN200	239	160	45	60	4-23	295	4-23	295	4-22.4	298.4	8-3/4	12-M20	8-M20	17*17	F10
DN250	258	190	45	68	4-23	350	4-28	355	4-25.4	361.9	12-7/8	12-M24	12-M20	22*22	F10
DN300	300	235	45	78	4-23	400	4-28	410	4-25.4	431.8	12-7/8	12-M24	12-M20	22*22	F10

Wafer & Lug Vulcanized Butterfly Valve

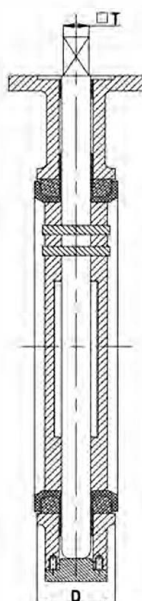
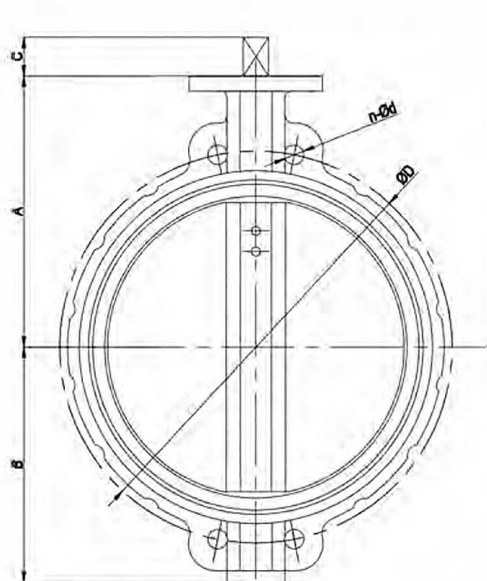


Body	Disc	Stem	Seat	Actuator
Cast iron	Plated ductile iron	Stainless steel	EPDM/NBR	lever
Ductile iron	CF8		WRAS-EPDM	gearbox and handwheel
Carbon steel	CF8M		Viton	Electric
Stainless steel	Aluminum bronze	customised	Silicon	Pneumatic

Design standard	API 609
Testing standard	API 598
Top flange standard	ISO5211
End flange standard	DIN PN10 / PN16, ANSI 125# / 150#, BS4504 PN10 / PN16, JIS B2220 10K
Face to face standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	A(LT)	B(LT)	C	D	Top Flange	□T	DIN PN10		DIN PN16		ANSI 150#		N-M		N-UNC
									4-Φd	ΦD	4-Φd	ΦD	4-Φd	ΦD	PN10	PN16	ANSI 150#
DN50	126	63	126	63	30	43	F05	9*9	4-19	125	4-19	125	4-19	120.6	4-M16	4-M16	4-5/8
DN65	134	70	134	70	30	46	F05	9*9	4-19	145	4-19	145	4-19	139.7	4-M16	4-M16	4-5/8
DN80	154	85	154	85	30	46	F05	9*9	4-19	160	4-19	160	4-19	152.4	8-M16	8-M16	4-5/8
DN100	170	106	170	106	30	52	F07	11*11	4-19	180	4-19	180	4-19	190.5	8-M16	8-M16	8-5/8
DN125	182	115	182	115	30	56	F07	14*14	4-19	210	4-19	210	4-22.4	215.9	8-M16	8-M16	8-3/4
DN150	196	128	196	128	30	56	F07	14*14	4-23	240	4-23	240	4-22.4	241.3	8-M20	8-M20	8-3/4
DN200	239	160	239	160	35	60	F10	17*17	4-23	295	4-23	295	4-22.4	298.4	8-M20	12-M20	8-3/4
DN250	258	190	258	190	35	68	F10	19*19	4-23	350	4-28	355	4-25.4	361.9	12-M20	12-M24	12-7/8
DN300	300	235	300	235	35	78	F10	22*22	4-23	400	4-28	410	4-25.4	431.8	12-M20	12-M24	12-7/8
DN350	315	263	368	267	41	78	F10	22*22	4-23	460	4-28	470	4-28.4	476.2	16-M20	16-M24	12-1
DN400	356	309	400	312	51	102	F14	27*27	4-28	515	4-31	525	4-28.4	539.7	16-M24	16-M27	16-1
DN450	375	345	422	330	51	114	F14	27*27	4-28	565	4-31	585	4-31.8	577.8	20-M24	20-M27	16-1 1/8
DN500	420	371	480	363	57	127	F14	36*36	4-28	620	4-34	650	4-31.8	635	20-M24	20-M30	20-1 1/8
DN600	500	429	562	459	70	154	F16	46*46	4-31	725	4-37	770	4-35.1	749.3	20-M27	20-M33	20-1 1/4

Wafer Butterfly Valve

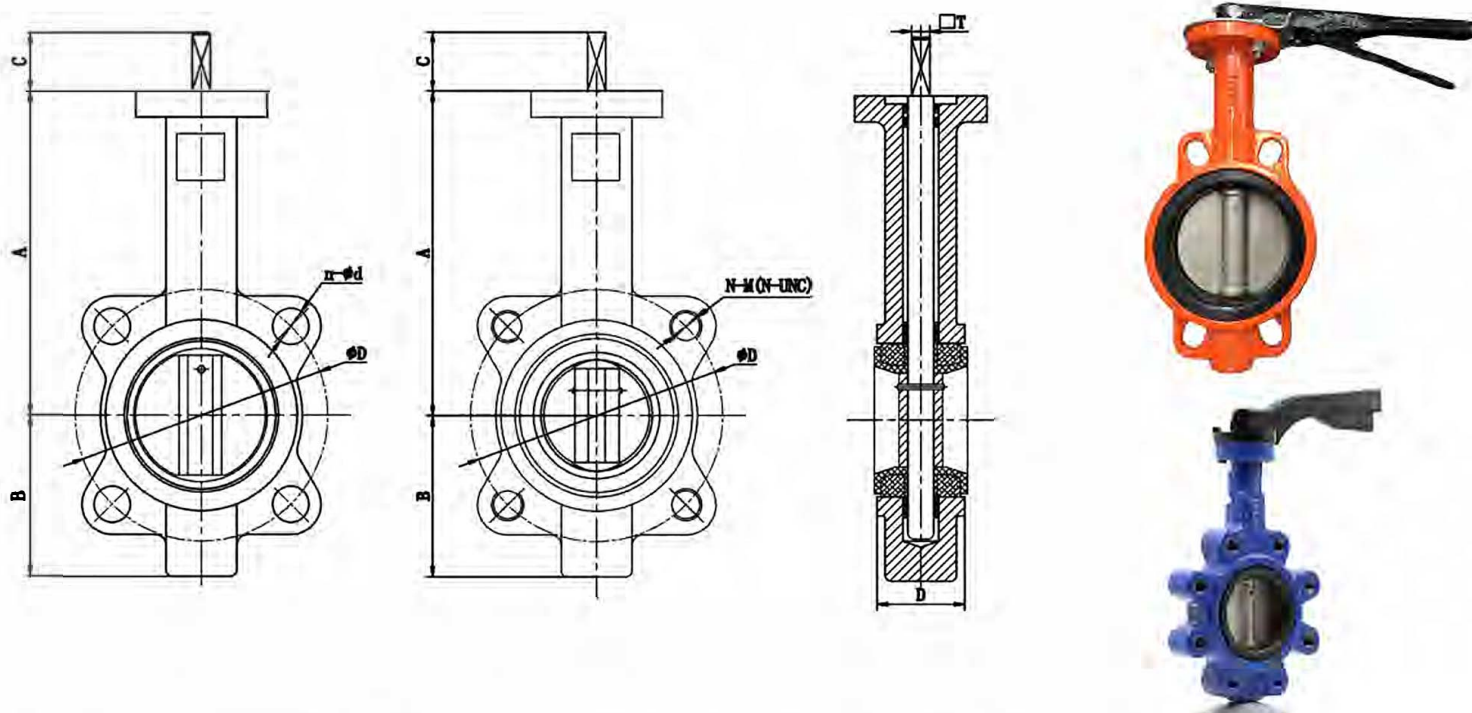


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
	Aluminum Bronze		Viton	Electric
			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB / 150LB, JIS B2220 10K
Face to Face Standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	□T	PN10		PN16		ANSI 150LB		Top Flange
						ØD	n-Ød	ØD	n-Ød	ØD	n-Ød	
DN50	126	63	30	43	9*9	125	4-19	125	4-19	120.6	4-19	F05
DN65	133	69	30	46	9*9	145	4-19	145	4-19	139.7	4-19	F05
DN80	152	86	30	46	9*9	160	4-19	160	4-19	152.4	4-19	F05
DN100	170	106	30	52	11*11	180	4-19	180	4-19	190.5	4-19	F07
DN125	181	115	30	56	14*14	210	4-19	210	4-19	215.9	4-22.4	F07
DN150	196	128	30	56	14*14	240	4-23	240	4-23	241.3	4-22.4	F07
DN200	238	160	35	60	17*17	295	4-23	295	4-23	298.4	4-22.4	F10
DN250	258	190	35	68	19*19	350	4-23	355	4-28	361.9	4-25.4	F10
DN300	300	235	35	78	22*22	400	4-23	410	4-28	431.8	4-25.4	F10
DN350	316	264	41	78	22*22	460	4-23	470	4-28	476.2	4-28.4	F10
DN400	356	309	51	102	27*27	515	4-28	525	4-31	539.7	4-28.4	F14
DN450	380	340	51	114	27*27	565	4-28	585	4-31	577.8	4-31.8	F14
DN500	420	371	57	127	36*36	620	4-28	650	4-34	635	4-31.8	F14

Wafer & Lug Butterfly Valve

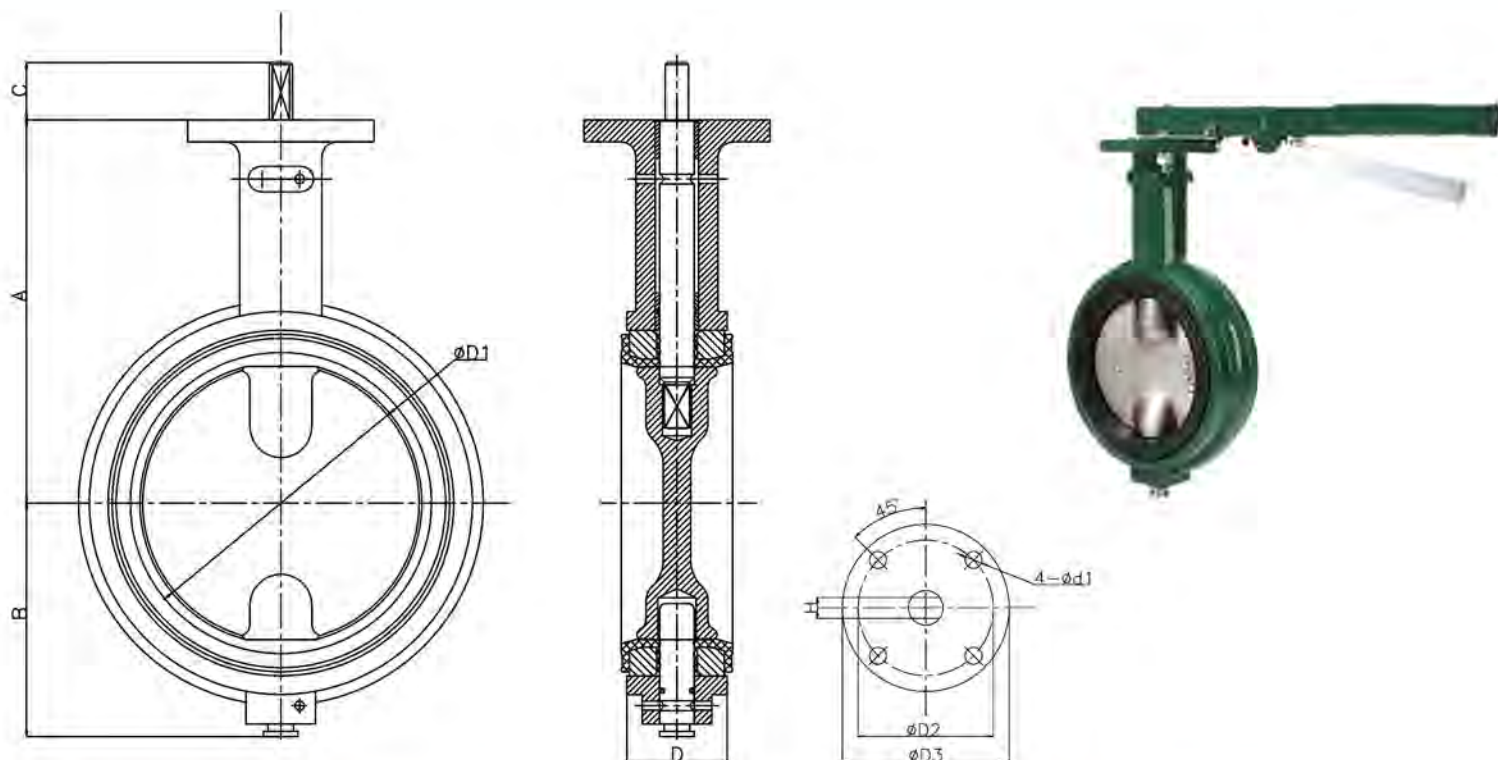


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
Carbon Steel	Aluminum Bronze		Viton	Electric
Stainless Steel			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB / 150LB, JIS B2220 10K
Face to Face Standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	□T	PN10		PN16		ANSI 150LB		N-M		ANSI 150LB	Top Flange
						φD	n-φd	φD	n-φd	φD	n-φd	PN10	PN16		
DN50	161	80	30	43	9*9	125	4-19	125	4-19	120.6	4-19	4-M16	4-M16	4-5/8	F05
DN65	175	89	30	46	9*9	145	4-19	145	4-19	139.7	4-19	4-M16	4-M16	4-5/8	F05
DN80	181	95	30	46	9*9	160	4-19	160	4-19	152.4	4-19	8-M16	8-M16	4-5/8	F05
DN100	200	114	30	52	11*11	180	4-19	180	4-19	190.5	4-19	8-M16	8-M16	8-5/8	F07
DN125	213	127	30	56	14*14	210	4-19	210	4-19	215.9	4-22.4	8-M16	8-M16	8-3/4	F07
DN150	226	139	30	56	14*14	240	4-23	240	4-23	241.3	4-22.4	8-M20	8-M20	8-3/4	F07
DN200	260	175	35	60	17*17	295	4-23	295	4-23	298.4	4-22.4	8-M20	12-M20	8-3/4	F10
DN250	292	203	35	68	19*19	350	4-23	355	4-28	361.9	4-25.4	12-M20	12-M24	12-7/8	F10
DN300	337	242	35	78	22*22	400	4-23	410	4-28	431.8	4-25.4	12-M20	12-M24	12-7/8	F10
DN350	368	267	41	78	22*22	460	4-23	470	4-28	476.2	4-28.4	16-M20	16-M24	12-1	F10
DN400	400	312	51	102	27*27	515	4-28	525	4-31	539.7	4-28.4	16-M24	16-M27	16-1	F14
DN450	422	330	51	114	27*27	565	4-28	585	4-31	577.8	4-31.8	20-M24	20-M27	16-1 1/8	F14
DN500	480	363	57	127	36*36	620	4-28	650	4-34	635	4-31.8	20-M24	20-M30	20-1 1/8	F14

Wafer Butterfly Valve

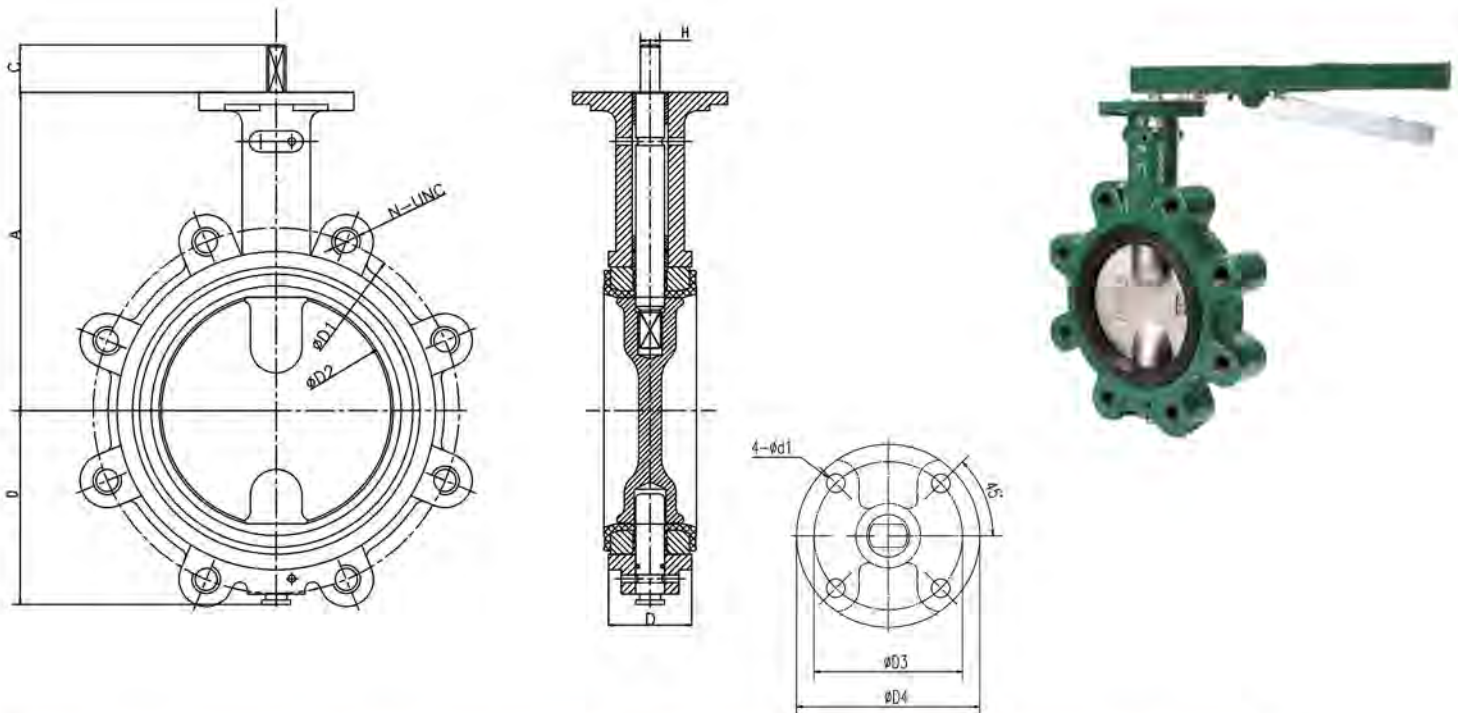


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox & Handwheel
	Aluminum Bronze		Viton	Electric
			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB/ 150LB
Face to Face Standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	ØD1	ØD2	ØD3	4-Ød1	H
DN50	208	143	25.6	43	57.5	82.6	102	10.4	9.5
DN65	227	156	25.4	45.5	72.3	82.6	102	10.4	9.5
DN80	240	162	25.4	45.5	84.5	82.6	102	10.4	9.5
DN100	273	181	25.5	51.7	106.4	82.6	102	10.4	9.5
DN125	303	197	32	55	130.1	82.6	102	10.4	12.7
DN150	331	210	32	55	153.7	82.6	102	10.4	12.7
DN200	390	240	32	62.5	199.4	127	152	14.3	12.7
DN250	456.8	285.8	35.3	67.6	247.5	127	152	14.3	16
DN300	544	310	35	77.5	300.1	127	152	14.3	19

Lug Butterfly Valve

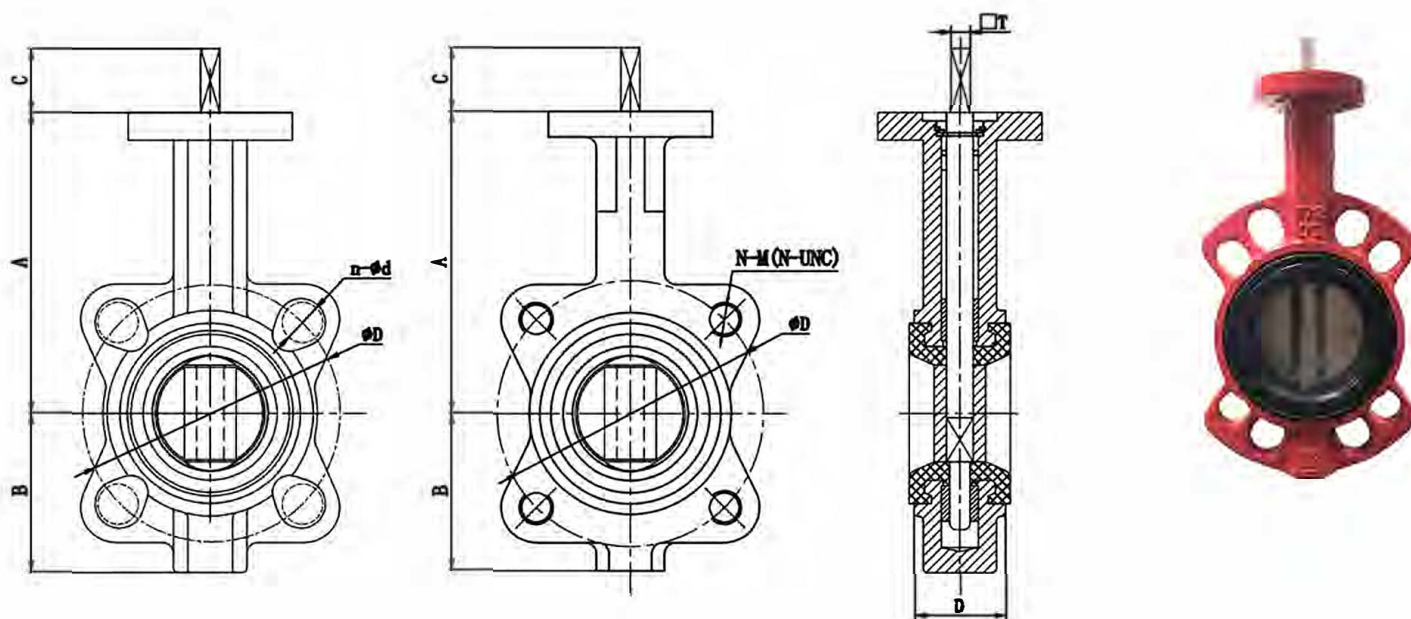


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox & Handwheel
	Aluminum Bronze		Viton	Electric
			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB/ 150LB
Face to Face Standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	ØD1	ØD2	ØD3	4-Ød1	H
DN50	208	143	25.6	43	57.5	82.6	102	10.4	9.5
DN65	227	156	25.4	45.5	72.3	82.6	102	10.4	9.5
DN80	240	162	25.4	45.5	84.5	82.6	102	10.4	9.5
DN100	273	181	25.5	51.7	106.4	82.6	102	10.4	9.5
DN125	303	197	32	55	130.1	82.6	102	10.4	12.7
DN150	331	210	32	55	153.7	82.6	102	10.4	12.7
DN200	390	240	32	62.5	199.4	127	152	14.3	12.7
DN250	456.8	285.8	35.3	67.6	247.5	127	152	14.3	16
DN300	544	310	35	77.5	300.1	127	152	14.3	19

Wafer & Lug Butterfly Valve

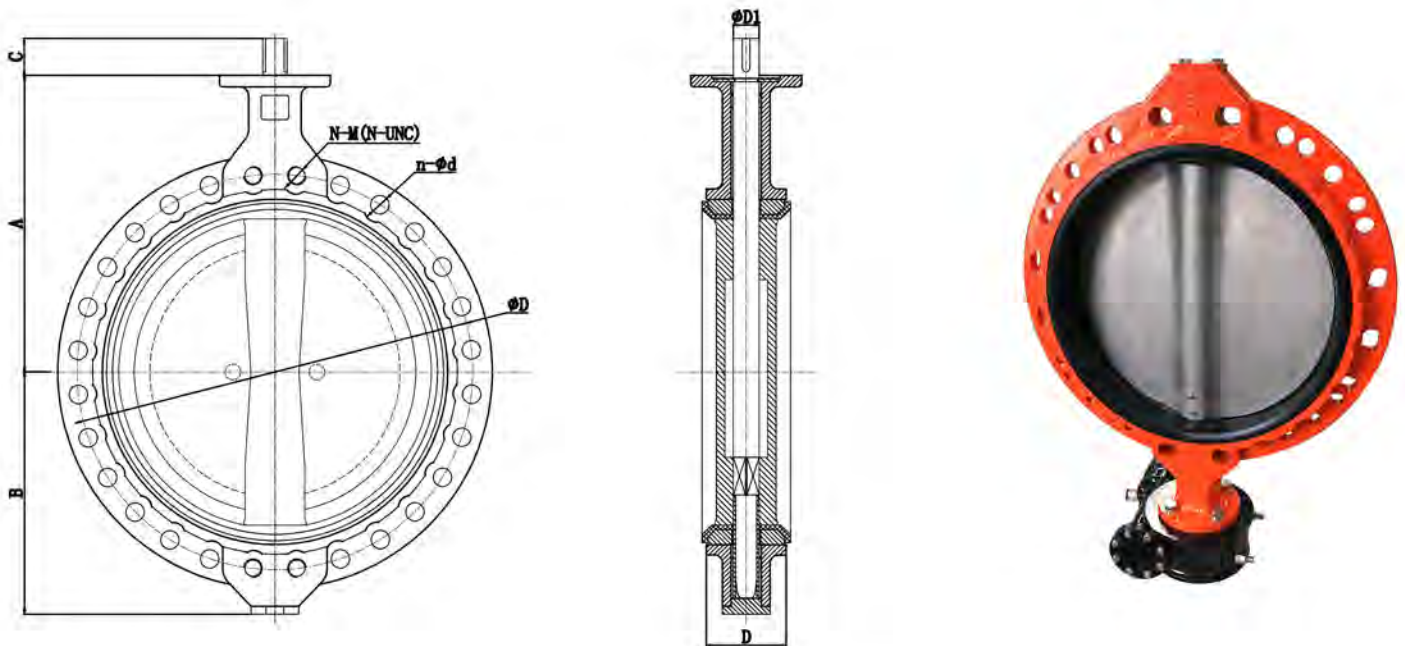


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
	Aluminum Bronze		Viton	Electric
			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB / 150LB, JIS B2220 10K
Face to Face Standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	$\square T$	PN10		PN16		ANSI 150LB		N-M		N-UNC	Top Flange
						ΦD	n- Φd	ΦD	n- Φd	ΦD	n- Φd	PN10	PN16	ANSI 150LB	
DN50	142	74	30	43	9*9	125	4-19	125	4-19	120.6	4-19	4-M16	4-M16	4-5/8	F05
DN65	154	81	30	46	9*9	145	4-19	145	4-19	139.7	4-19	4-M16	4-M16	4-5/8	F05
DN80	171	95	30	46	9*9	160	4-19	160	4-19	152.4	4-19	8-M16	8-M16	4-5/8	F05
DN100	184	112	30	52	11*11	180	4-19	180	4-19	190.5	4-19	8-M16	8-M16	8-5/8	F07
DN125	213	127	30	56	14*14	210	4-19	210	4-19	215.9	4-22.4	8-M16	8-M16	8-3/4	F07
DN150	226	140	30	56	14*14	240	4-23	240	4-23	241.3	4-22.4	8-M20	8-M20	8-3/4	F07
DN200	256	164	35	60	17*17	295	4-23	295	4-23	298.4	4-22.4	8-M20	12-M20	8-3/4	F10
DN250	281	205	35	68	19*19	350	4-23	355	4-28	361.9	4-25.4	12-M20	12-M24	12-7/8	F10
DN300	337	243	35	78	22*22	400	4-23	410	4-28	431.8	4-25.4	12-M20	12-M24	12-7/8	F10

Mono Flanged Butterfly Valve

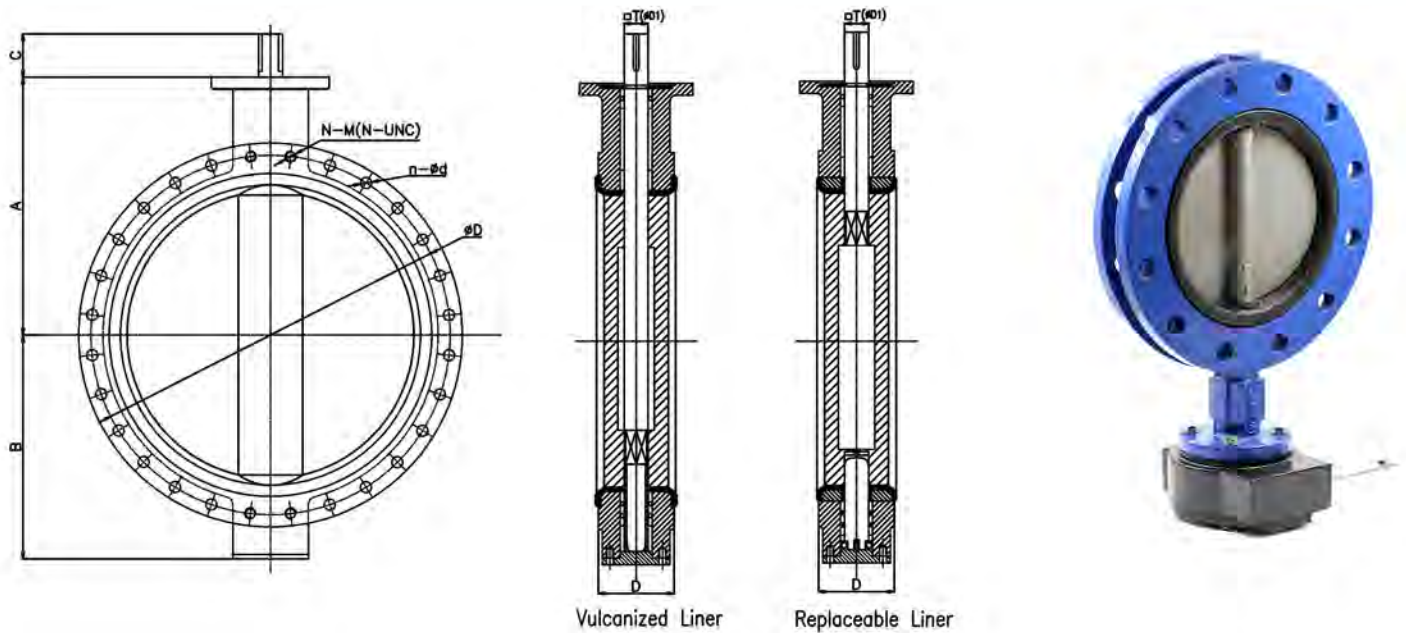


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
	Aluminum Bronze		Viton	Electric
			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB / 150LB
Face to Face Standard	API 609, EN558-1 13 Series, BS5155, DIN3202 K1

Size	A	B	C	D	ΦD1	PN10			PN16			ANSI 150LB			Top Flange
						ΦD	n-Φd	N-M	ΦD	n-Φd	N-M	ΦD	n-Φd	N-UNC	
DN600	562	459	70	154	50.62	725	16-31	4-27	770	16-37	4-33	749.3	16-35.1	4-1 1/4	F16
DN700	624	535	66	165	63.35	840	20-31	4-27	840	20-37	4-33	863.3	24-35.1	4-1 1/4	F25
DN800	672	606	66	190	63.35	950	20-34	4-30	950	20-41	4-36	977.9	24-41.1	4-1 1/2	F25
DN900	720	671	118	203	75	1050	24-34	4-30	1050	24-41	4-36	1086	28-41.1	4-1 1/2	F25
DN1000	800	741	142	216	85	1160	24-37	4-33	1170	24-44	4-39	1200	32-41.1	4-1 1/2	F25
DN1200	973	888	150	254	105	1380	28-41	4-36	1390	28-50	4-45	1422	40-41.1	4-1 1/2	F30

U Flanged Butterfly Valve



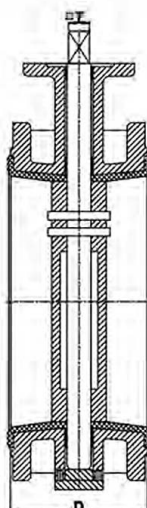
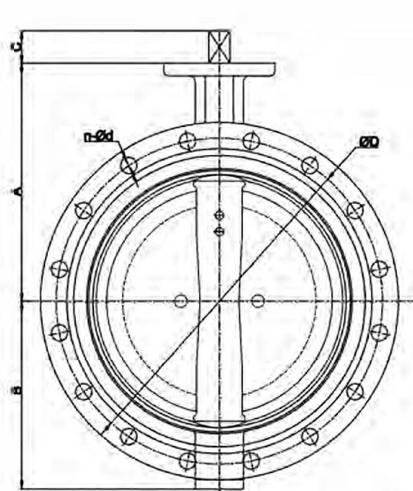
Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
Carbon Steel	Aluminum Bronze		Viton	Electric
Stainless Steel			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125LB / 150LB
Face to Face Standard	EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	□T	PN10		PN16		ANSI 150LB		Top Flange
						ΦD	n-Φd	ΦD	n-Φd	ΦD	n-Φd	
DN200	263	179	35	60	17*17	295	8-23	295	12-23	298.4	8-22.4	F10
DN250	294	205	35	68	19*19	350	12-23	355	12-28	361.9	12-25.4	F10
DN300	338	243	35	78	22*22	400	12-23	410	12-28	431.8	12-25.4	F10
DN350	370	270	41	78	22*22	460	16-23	470	16-28	476.2	12-28.4	F10
DN400	404	314	51	102	27*27	515	16-28	525	16-31	539.7	16-28.4	F14
DN450	424	341	51	114	27*27	565	20-28	585	20-31	577.8	16-31.8	F14
DN500	485	380	57	127	36*36	620	20-28	650	20-34	635	20-31.8	F14
DN600	562	460	70	154	46*46	725	20-31	770	20-37	749.3	20-35.1	F16

Size	A	B	C	D	ΦD1	PN10			PN16			ANSI 150LB			Top Flange
						ΦD	n-Φd	N-M	ΦD	n-Φd	N-M	ΦD	n-Φd	N-UNC	
DN700	638	553	66	165	63.35	840	20-31	4-27	840	20-37	4-33	863.3	24-35.1	4-1 1/4	F25
DN800	676	596	66	190	63.35	950	20-34	4-30	950	20-41	4-36	977.9	24-41.1	4-1 1/2	F25
DN900	722	650	118	203	75	1050	24-34	4-30	1050	24-41	4-36	1085.8	28-41.1	4-1 1/2	F25
DN1000	795	724	142	216	85	1160	24-37	4-33	1170	24-44	4-39	1200	32-41.1	4-1 1/2	F25
DN1200	943	870	150	276	105	1380	28-41	4-36	1390	28-50	4-45	1422.4	40-41.1	4-1 1/2	F30

Double Flanged Butterfly Valve

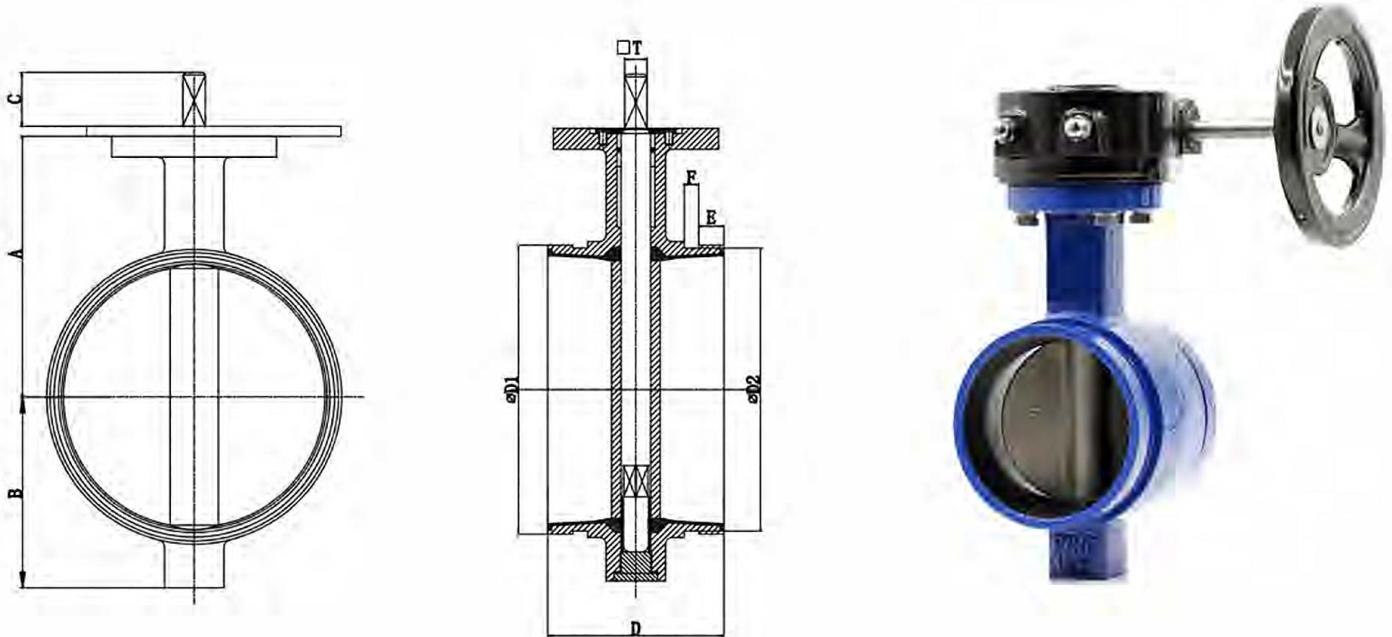


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
Carbon Steel	Aluminum Bronze		Viton	Electric
Stainless Steel			Silicon	Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125# / 150#
Face to Face Standard	API 609, EN558-1 13 Series, BS5155, DIN3202 K1

Size	A	B	C	D	□T	PN10		PN16		ANSI 150#		Top Flange
						ØD	n-Ød	ØD	n-Ød	ØD	n-Ød	
DN50	138	80	30	108	9*9	125	4-19	125	4-19	120.6	4-19	F07
DN65	145	89	30	112	9*9	145	4-19	145	4-19	139.7	4-19	F07
DN80	149	95	30	114	9*9	160	8-19	160	8-19	152.4	4-19	F07
DN100	175	114	20	127	11*11	180	8-19	180	8-19	190.5	8-19	F07
DN125	177	125	30	140	14*14	210	8-19	210	8-19	215.9	8-22.4	F07
DN150	199	139	30	140	14*14	240	8-23	240	8-23	241.3	8-22.4	F07
DN200	228	170	35	152	17*17	295	8-23	295	12-23	298.4	8-22.4	F10
DN250	265	198	35	165	19*19	350	12-23	355	12-28	361.9	12-25.4	F10
DN300	297	223	35	178	22*22	400	12-23	410	12-28	431.8	12-25.4	F10
DN350	308	254	41	190	22*22	460	16-23	470	16-28	476.2	12-28.4	F10
DN400	338	292	51	216	27*27	515	16-28	525	16-31	539.7	16-28.4	F14
DN450	373	328	51	222	27*27	565	20-28	585	20-31	577.8	16-31.8	F14
DN500	428	361	57	229	36*36	620	20-28	650	20-34	635	20-31.8	F14
DN600	497	423	70	267	46*46	725	20-31	770	20-37	749.3	20-35.1	F16
DN700	557	492	66	292		840	24-31	840	24-37	863.3	28-35.1	F25
DN800	617	543	66	318		950	24-34	950	24-41	977.9	28-41.1	F25
DN900	683	618	118	330		1050	28-34	1050	28-41	1085.8	32-41.1	F25
DN1000	730	688	142	410		1160	28-37	1170	28-44	1200	36-41.1	F25
DN1200	912	798	150	470		1380	32-41	1390	32-50	1422.4	44-41.1	F30

Grooved End Butterfly Valve

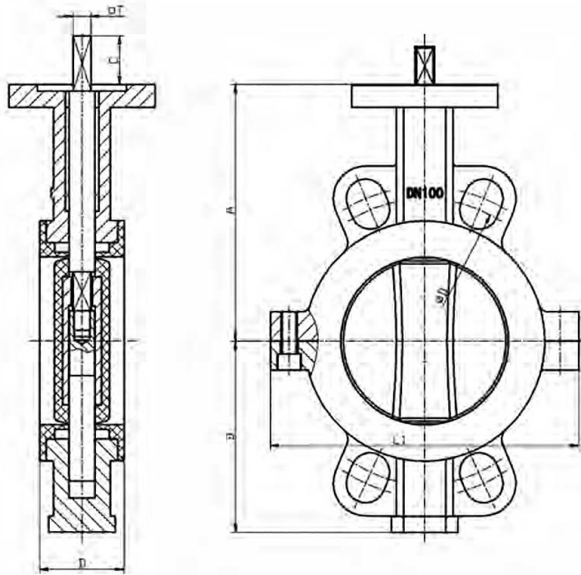


Body	Disc	Stem	Seat	Actuator
Cast Iron	Ductile Iron	Stainless Steel	EPDM/NBR	Lever
Ductile Iron	Stainless Steel	Customised	WRAS-EPDM	Gearbox&Handwheel
Carbon Steel	Aluminum Bronze		Viton	Electric
Stainless Steel			Silicon	Pneumatic

Design Standard	MSS SP-67
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	AWWA C606
Face to Face Standard	MSS SP-67

Size	A	B	C	D	□T	E	F	D1	D2	Top Flange
DN50	106	53	30	82.4	9*9	15.8	8	60.3	57	F05
DN65	111	63	30	96.8	9*9	15.8	8	76.1	69	F05
DN80	126	73	30	96.8	9*9	15.8	8	88.9	85	F05
DN100	135	89	30	115.8	11*11	15.8	9.8	114.3	110.1	F07
DN125	150	106	30	147.6	14*14	15.8	9.8	139.7	137	F07
DN150	165	121	30	147.6	14*14	15.8	9.8	168.3	164	F07
DN200	198	145	35	133.4	17*17	19	11.5	219	214.4	F10
DN250	240	190	35	158.8	19*19		13	273	268.3	F10
DN300	266	219	35	165.1	22*22		13	323.9	318.3	F10

High Performance Wafer Butterfly Valve

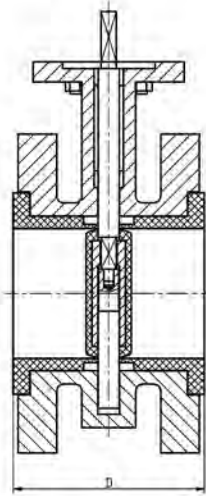
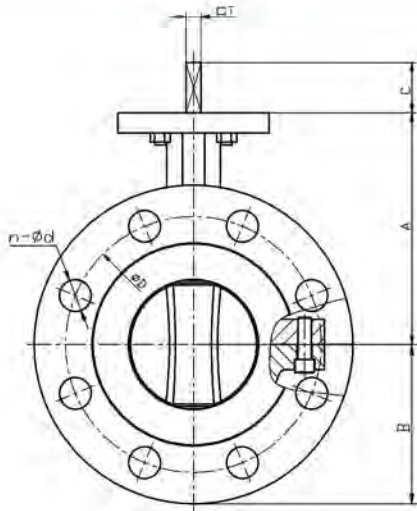


Body	Disc	Stem	Seat	Actuator
Ductile Iron	WCB+PTFE	Stainless Steel	PTFE	Lever
Carbon Steel	Stainless Steel+PTFE			Gearbox&Handwheel
Stainless Steel	Stainless Steel			Electric
		Customised		Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	ASTM B16.5(150#)/ASTM B16.42(150#)/ASTM B16.1(125#)/DIN 2501(1.0/1.6MPa)/JIS B2220(10K)/BS4504(1.0/1.6MPa)
Face to Face Standard	API 609

Size	A	B	C	D	□T	L1	PN10		PN16		ANSI 150#		JIS 10K		Top Flange
							ΦD	n-Φd	ΦD	n-Φd	ΦD	n-Φd	ΦD	n-Φd	
DN50	135	74	30	43	9*9	125	125	4-19	125	4-19	120.6	4-19	120	4-19	F05
DN65	135	80	30	46	9*9	136	145	4-19	145	4-19	139.7	4-19	140	4-19	F05
DN80	138	90	30	46	9*9	156	160	8-19	160	8-19	152.4	4-19	150	8-19	F05
DN100	158	118	30	52	11*11	190	180	8-19	180	8-19	190.5	8-19	175	8-19	F07
DN125	175	132	30	56	14*14	210	210	8-19	210	8-19	215.9	8-22.4	210	8-23	F07
DN150	190	146	30	56	14*14	240	240	8-23	240	8-23	241.3	8-22.4	240	8-23	F07
DN200	228	176	40	60	17*17	296	295	8-23	295	12-23	298.4	8-22.4	290	12-23	F10
DN250	268	215	40	68	22*22	360	350	12-23	355	12-28	361.9	12-25.4	355	12-25	F10
DN300	300	254	45	78	24*24	420	400	12-23	410	12-28	431.8	12-25.4	400	16-25	F10
DN350	335	280	45	78	24*24	470	460	16-23	470	16-28	476.2	12-28.4	445	16-25	F10
DN400	385	320	51	102	27*27	545	515	16-28	525	16-31	539.7	16-28.4	510	16-27	F14
DN450	430	365	51	114	27*27	600	565	20-28	585	20-31	577.8	16-31.8	565	20-27	F14
DN500	460	375	64	127	30*30	655	620	20-28	650	20-34	635	20-31.8	620	20-27	F14
DN600	520	446	70	154	36*36	700	725	20-31	770	20-37	749.3	20-35.1	730	24-33	F16
DN700	600	500	70	165	46*46	730	840	24-31	840	24-37	863.3	28-35.1	840	24-33	F25
DN800	650	550	70	190	46*46		950	24-34	950	24-41	977.9	28-41.1	950	28-33	F25

High Performance Double Flanged Butterfly Valve

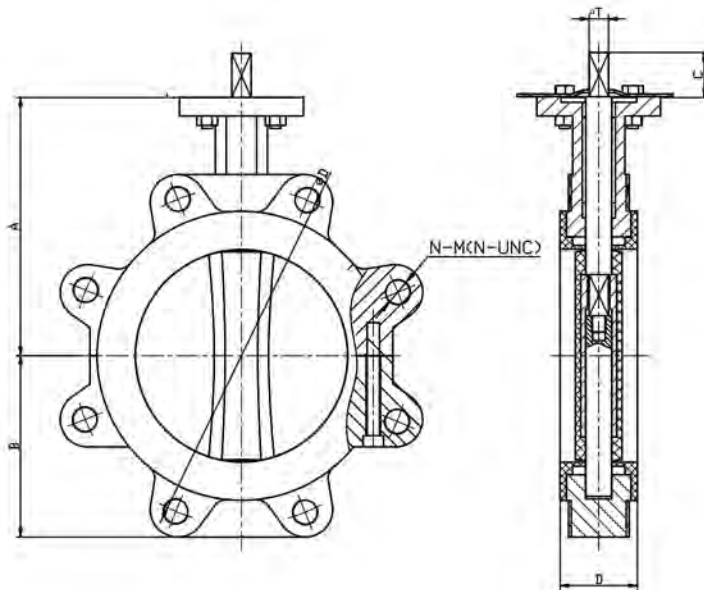


Body	Disc	Stem	Seat	Actuator
Ductile Iron	WCB+PTFE	Stainless Steel	PTFE	Lever
Carbon Steel	Stainless Steel+PTFE			Gearbox&Handwheel
Stainless Steel	Stainless Steel			Electric
Aluminum Bronze	Aluminum Bronze	Customised		Pneumatic

Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	ASTM B16.5(150#)/ASTM B16.42(150#)/ASTM B16.1(125#)/DIN 2501(1.0/1.6MPa)/JIS B2220(10K)/BS4504(1.0/1.6MPa)
Face to Face Standard	API 609

Size	A	B	C	D	□T	PN10		PN16		ANSI 150#		JIS 10K		Top Flange
						ΦD	n-Φd	ΦD	n-Φd	ΦD	n-Φd	ΦD	n-Φd	
DN50	135	65	30	108	9*9	125	4-19	125	4-19	120.6	4-19	120	4-19	F05
DN65	135	75	30	112	9*9	145	4-19	145	4-19	139.7	4-19	140	4-19	F05
DN80	138	90	30	114	9*9	160	8-19	160	8-19	152.4	4-19	150	8-19	F05
DN100	158	110	30	127	11*11	180	8-19	180	8-19	190.5	8-19	175	8-19	F07
DN125	175	126	30	140	14*14	210	8-19	210	8-19	215.9	8-22.4	210	8-23	F07
DN150	190	140	30	140	14*14	240	8-23	240	8-23	241.3	8-22.4	240	8-23	F07
DN200	228	166	40	152	17*17	295	8-23	295	12-23	298.4	8-22.4	290	12-23	F10
DN250	268	208	40	165	22*22	350	12-23	355	12-28	361.9	12-25.4	355	12-25	F10
DN300	300	243	45	178	24*24	400	12-23	410	12-28	431.8	12-25.4	400	16-25	F10
DN350	335	258	45	190	24*24	460	16-23	470	16-28	476.2	12-28.4	445	16-25	F10
DN400	385	295	51	216	27*27	515	16-28	525	16-31	539.7	16-28.4	510	16-27	F14
DN450	430	314	51	222	27*27	565	20-28	585	20-31	577.8	16-31.8	565	20-27	F14
DN500	460	344	64	229	30*30	620	20-28	650	20-34	635	20-31.8	620	20-27	F14
DN600	520	400	70	267	36*36	725	20-31	770	20-37	749.3	20-35.1	730	24-33	F16

High Performance Lug Butterfly Valve

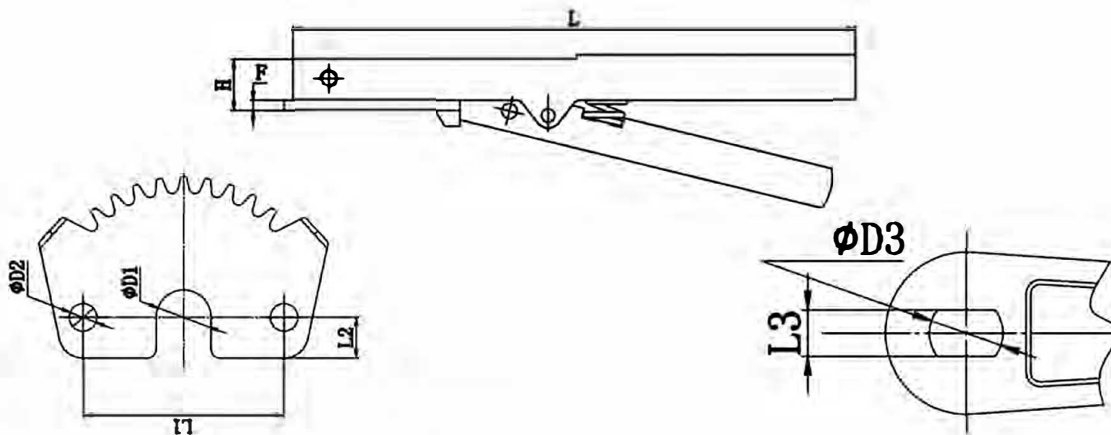


Body	Disc	Stem	Seat	Actuator
Ductile Iron	Stainless Steel	Stainless Steel	PTFE	Lever
Carbon Steel	PTFE		RPTFE	Gearbox&Handwheel
Stainless Steel	PTA	Customised	PFA	Electric
				Pneumatic

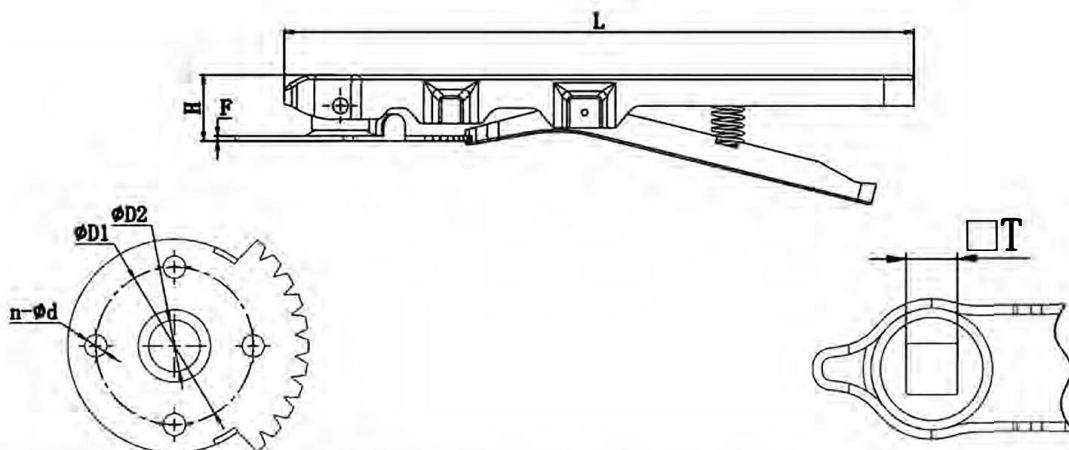
Design Standard	API 609
Testing Standard	API 598
Top Flange Standard	ISO5211
End Flange Standard	PN10 / PN16, ANSI 125# / 150#, JIS B2220 10K
Face to Face Standard	API 609, EN558-1 20 Series, BS5155, DIN3202 K1

Size	A	B	C	D	□T	PN10		PN16		ANSI 150#		JIS 10K		Top Flange
						ΦD	N-M	ΦD	N-M	ΦD	N-UNC	ΦD	N-M	
DN50	135	65	30	43	9*9	125	4-M16	125	4-M16	120.6	4-5/8	120	4-M16	F05
DN65	135	75	30	46	9*9	145	4-M16	145	4-M16	139.7	4-5/8	140	4-M16	F05
DN80	138	90	30	46	9*9	160	8-M16	160	8-M16	152.4	4-5/8	150	8-M16	F05
DN100	158	110	30	52	11*11	180	8-M16	180	8-M16	190.5	8-5/8	175	8-M16	F07
DN125	175	126	30	56	14*14	210	8-M16	210	8-M16	215.9	8-3/4	210	8-M20	F07
DN150	190	140	30	56	14*14	240	8-M20	240	8-M20	241.3	8-3/4	240	8-M20	F07
DN200	228	166	40	60	17*17	295	8-M20	295	12-M20	298.4	8-3/4	290	12-M20	F10
DN250	268	208	40	68	19*19	350	12-M20	355	12-M24	361.9	12-7/8	355	12-M22	F10
DN300	300	243	45	78	22*22	400	12-M20	410	12-M24	431.8	12-7/8	400	16-M22	F10
DN350	335	258	45	78	22*22	460	16-M20	470	16-M24	476.25	12-1	445	16-M22	F10
DN400	385	295	51	102	27*27	515	16-M24	525	16-M27	539.7	16-1	510	16-M24	F14
DN450	400	314	51	114	27*27	565	20-M24	585	20-M27	577.8	16-1 1/8	565	20-M24	F14
DN500	460	344	64	127	36*36	620	20-M24	650	20-M30	635	20-1 1/8	620	20-M24	F14
DN600	520	400	70	154		725	20-M27	770	20-M33	749.3	20-1 1/4	730	24-M30	F16

Lever

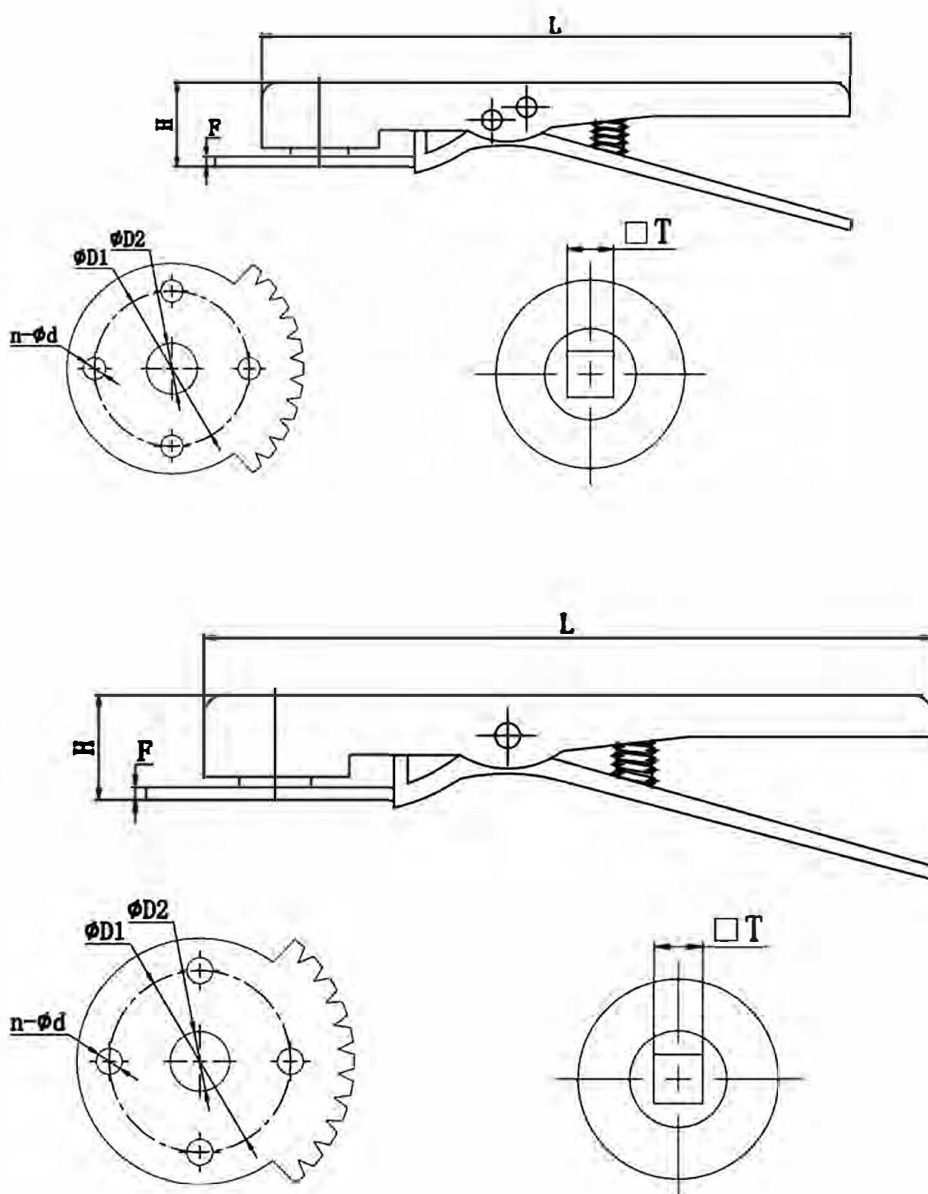


size	L	L1	L2	L3+0.3	H	F	D1	D2	D3+0.3
50	258	82.6	25.1	9.5	20.5	2	44.5	10.4	15.81
65	258	82.6	25.1	9.5	20.5	2	44.5	10.4	15.77
80	258	82.6	25.1	9.5	20.5	2	44.5	10.4	15.77
100	258	82.6	25.1	9.5	20.5	2	44.5	10.4	15.77
125	299	82.6	25.1	12.7	26	2	44.5	10.4	21.22
150	299	82.6	25.1	12.7	26	2	44.5	10.4	21.22
200	408	127	25.7	12.7	29.5	2	63	13.5	21.22
250	408	127	25.7	16	29.5	2	63	13.5	24.35
300	408	127	25.7	19	29.5	2	63	13.5	33.92



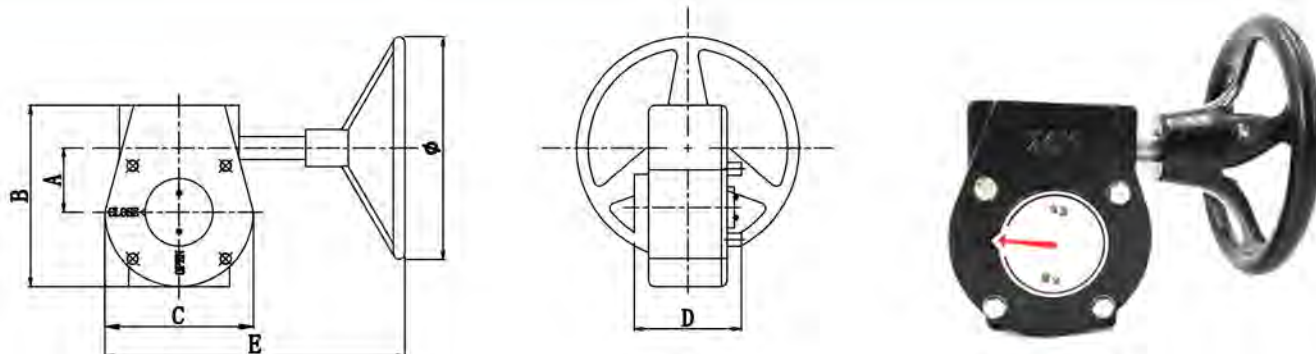
size	L	H	□T	F	D1	D2	n-d
50	205	30	9*9	2.5	50	23	4-7
65	205	30	9*9	2.5	50	23	4-7
80	205	30	9*9	2.5	50	23	4-7
100	285	30	11*11	3	70	23	4-9
125	285	30	14*14	3	70	23	4-9
150	285	30	14*14	3	70	23	4-9
200	377	45	17*17	3	102	40	4-11
250	377	45	22*22	3	102	40	4-11
300	377	45	22*22	3	102	40	4-11

Lever

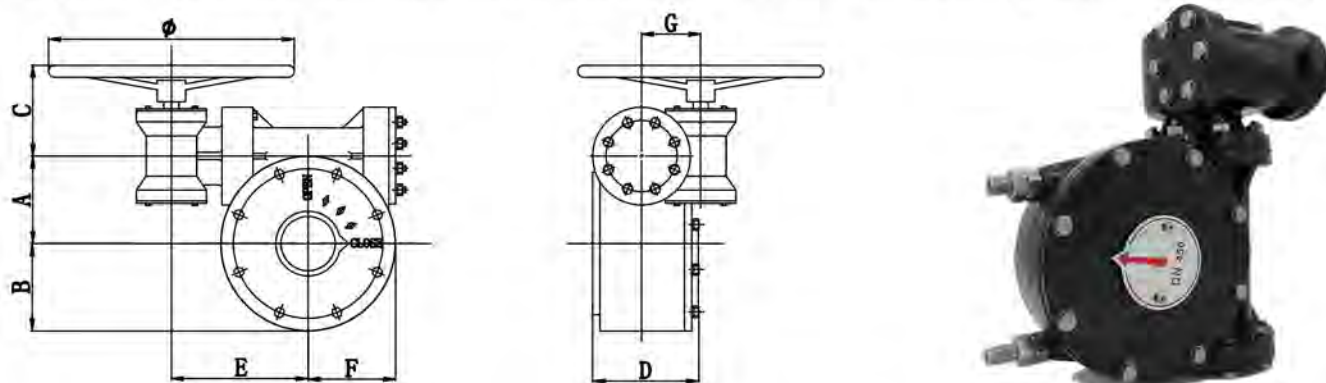


size	L	H	□T	F	D1	D2	n-d
50	283	30	9*9	2	50	35	4-7
65	283	30	9*9	2	50	35	4-7
80	283	30	9*9	2	50	35	4-7
100	283	30	11*11	2	70	35	4-9
125	283	30	14*14	2	70	35	4-9
150	283	30	14*14	2	70	35	4-9
200	383	35	17*17	2.5	102	40	4-11
250	383	35	22*22	2.5	102	40	4-11
300	544	35	22*22	2.5	102	40	4-11

Gearbox & Handwheel



Model	Size	A	B	C	D	E	φ
3D-15	DN50-DN150	45	128	105	64	226	150
3D-50	DN200-DN250	63	179	152	80	313	300
3D-120	DN300-DN350	78	200	164	82	307	300



Model	Size	A	B	C	D	E	F	G	φ
3D-30/250	DN400-DN500	94	103.5	160	104	181	103.5	57	150
3D-30/400	DN600	125	131	176	124	199.5	131	66	300
3D-60/800	DN700-DN800	140	148	215	139	228	146	88	300
3D-120/1500	DN900-DN1000	162.5	170	215	167	243	170	88	300
3D-120/2500	DN1200	236	180	240	178	302	250	126	300
3D-200/4000	DN1400	345	248	255	268	414	362	150	300

The Basic Performance Parameters

Model	Torque Output (Nm)	Gear Ratio	Handwheel Revolutions	Output Shaft Hole (Max)
3D-15	150	24:1	6	φ 20
3D-50	500	32:1	8	φ 28
3D-120	1200	50:1	12.5	φ 35
3D-30/250	2.5×10^3	532:1	133	φ 45
3D-30/400	4×10^3	640:1	160	φ 60
3D-60/800	8×10^3	704:1	176	φ 70
3D-120/1500	15×10^3	832:1	208	φ 90
3D-120/2500	25×10^3	800:1	200	φ 105
3D-200/4000	40×10^3	1200:1	300	φ 140

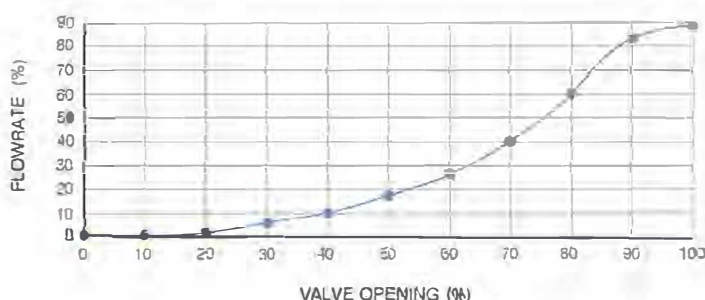
TORQUE VALUE AT PRESSURE CONDITION

Size	Close-off Torque	
	10BAR	16BAR
DN50	10	12
DN65	12	15
DN80	23	30
DN100	50	60
DN125	80	100
DN150	110	150
DN200	180	230
DN250	230	300
DN300	350	400
DN350	450	700
DN400	800	1100
DN450	1200	1500
DN500	2500	3000
DN600	3500	4500
DN700	5500	7700
DN750	6500	8600
DN800	7500	10500
DN900	8500	12000
DN1000	13000	17000
DN1200	21000	26000

Note : All torque value in left chart were derived from using water at 20 °C.
For torque used in other media, please contact KEFA directly.
Torques shown do not include safety factor.

For actuator selection, KEFA recommends:
For EPDM, NBR, VITON, PTFE seat, these valves be multiplied by 1.35 to 1.5 for valve applications.

FLOWRATE



Note: Sizes DN1400 and above available on request.

CV VALUE FOR BUTTERFLY VALVE

Size	CV Value								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
DN50	0.1	5	12	24	45	64	90	125	135
DN65	0.2	8	20	37	65	98	144	204	220
DN80	0.3	12	22	39	70	116	183	275	302
DN100	0.5	17	36	78	139	230	364	546	600
DN125	0.8	29	61	133	237	392	620	930	1022
DN150	2	45	95	205	366	605	958	1437	1579
DN200	3	89	188	408	727	1202	1903	2854	3136
DN250	4	151	320	694	1237	2047	3240	4859	5340
DN300	5	234	495	1072	1911	3162	5005	7507	8250
DN350	6	338	715	1549	2761	4568	7230	10844	11917
DN400	8	464	983	2130	3797	6282	9942	14913	16388
DN450	11	615	1302	2822	5028	8320	13168	19752	21705
DN500	14	791	1674	3628	6465	10698	16931	25396	27908
DN600	22	1222	2587	5605	9989	16528	26157	39236	43116
DN700	36	1813	3639	6636	10000	14949	22769	42899	49500
DN750	47	2357	4731	8627	13000	19434	29600	45367	64350
DN800	51	2387	4791	8736	13788	20613	31395	48117	68250
DN900	60	3021	6063	11055	17499	26086	39731	60895	86375
DN1000	84	4183	8395	15307	24159	36166	55084	84425	119750
DN1050	118	5860	11711	21430	33823	50632	77118	118200	167650
DN1200	177	8784	17567	23145	50735	75948	115677	117300	251475

Note: Sizes DN1400 and above available on request.