

Lined butterfly valve

Size	40mm-700mm(1.5"-28")
Working pressure	0.1mbar-10bar
Temperature range	—20° C - 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API609 DIN EN1092 JIS B2032
Face to Face	ASME B16.10 DIN EN558. 1 JIS B2002
Flange Ends	ASME B16.5 DIN 2532 JIS B2212 (1501b, 10k, PN10)
Visual Inspection	MSS Sp54
Testing	API 598 DIN 3230 JIS B2003
Pressure & Temperature	ASME B16.34
Operator Type	Lever/ Gear/ Pneumatic/ Electric
Spark testing	14kv



Lined butterfly valve

The butterfly valve’s special feature is the valve seat has an independent triangular gasket sealing ring

Stem design (Square, double-D, single key ,double key)

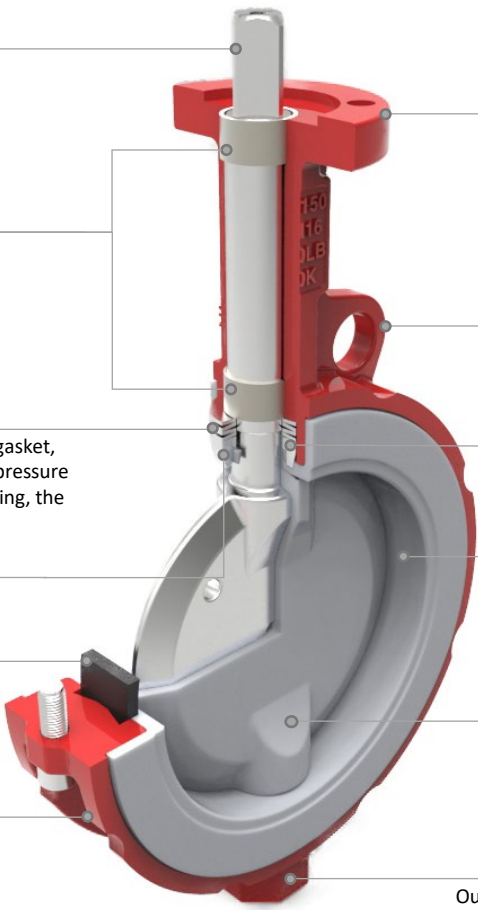
The valve rod is equipped with self-lubricating shaft bearing, which can reduce the torque and maintenance without oil filling (in contrast, smaller actuators can be selected to reduce the cost

The fourth stage is loaded with elastic gasket, which continuously gives the valve seat pressure to produce the first main seal. After testing, the effect is very stable

O-ring (the second seal)

Elastomer back-up immersed in body ensures zero leakage between disc and seat.

Two piece body (wafer and lug type)precision casting moulds with clear mark



IS05211 pad universal mounting permits easy automations even with the valves in the pipe line

Integral body locating holes to ensure perfect centering of the valves between flange. Applied to different international standard

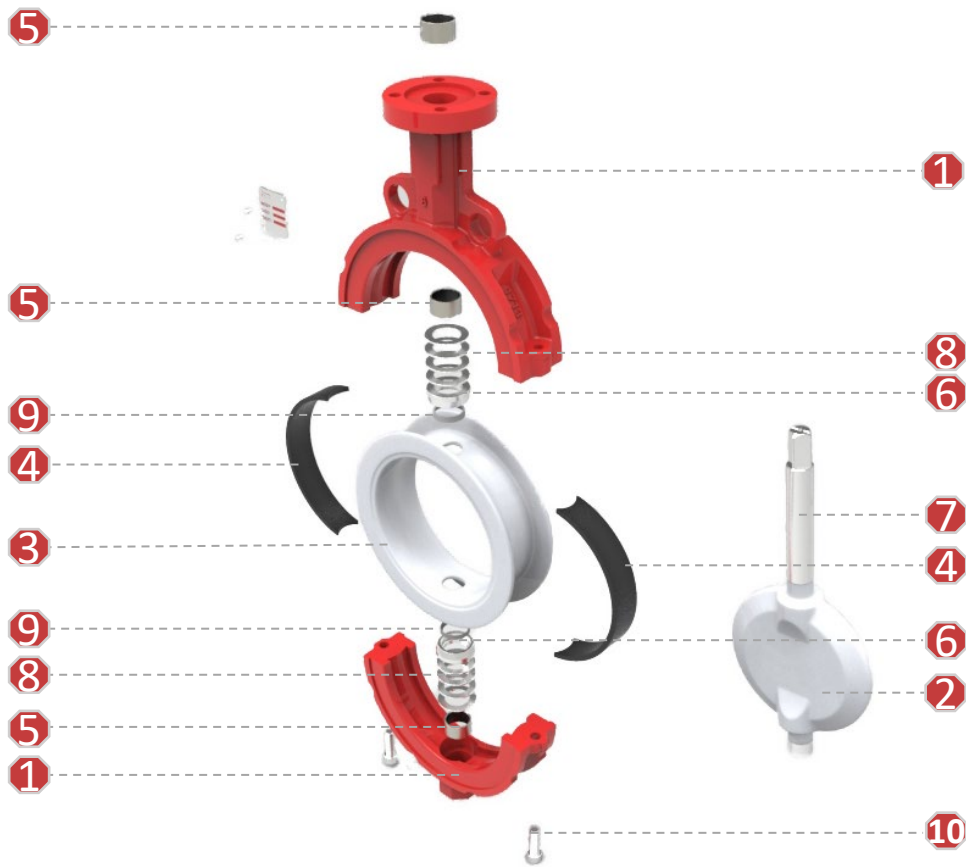
Up and down Taper metal seal,cross each other and maintain continuously

Increase the thickness of the inner wall of the valve seat (more than 4mm) to resist the pipeline flushing

Integrated disc, blow out proof design. There are through holes on the valve disc, which can effectively strengthen the adhesion of lining materials, and is suitable for vacuum and thermal cycle

Outdoor epoxy baking paint, excellent corrosion resistance

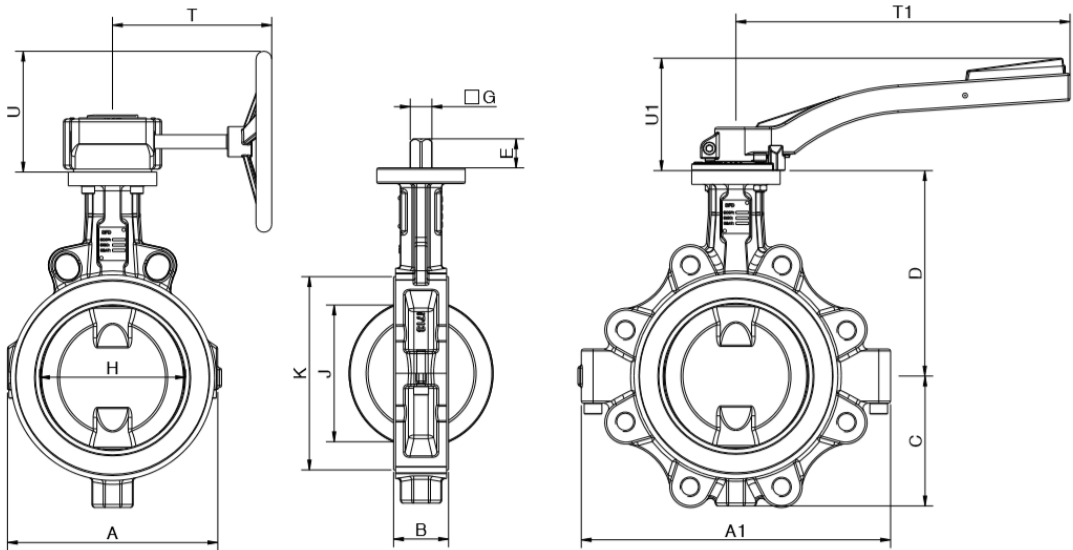
Explosion map



Materials Selection

NO	Description	Qt y.	Materials	Materials According to Norms		
				ASTM	JIS	DIN
1	BODY	2	Carbon Steel Stainless Steel Ductile Iron	A216-WCB A351-CF8 ASTM A395	G5151 SCPH2 G5121 SCS13A FCD400	GS-45(1.0446) G-X6CrNiMo1810 GGG-40 (0.7040)
2	DISC	1	Carbon Steel Stainless Steel	PTFE EFP PFA	A216-WCB A351-CF8	G5151 SCPH2 G5121 SCS13A GS--45(1.0446) G-X6CrNiMo1810
3	SEAT	1	PTFE/FEP/PFA	--	--	--
4	ELASTIC SPACER	2	Silicone Rubber	--	--	--
5	AXLE SLEEVE	3	Stainless Steel +PTFE	--	--	--
6	Gland	2	Stainless Steel	304	SUS304	1.4301
7	STEM	1	Stainless Steel	410 304	SUS410 SUS304	1.4006 1.4301
8	BELLEVILLE SPRING	8	Stainless Steel	304	SUS304	1.4301
9	V-RING	2	PTFE	--	--	--
10	HEX BOLT	2	Stainless Steel	304	SUS304	1.4301

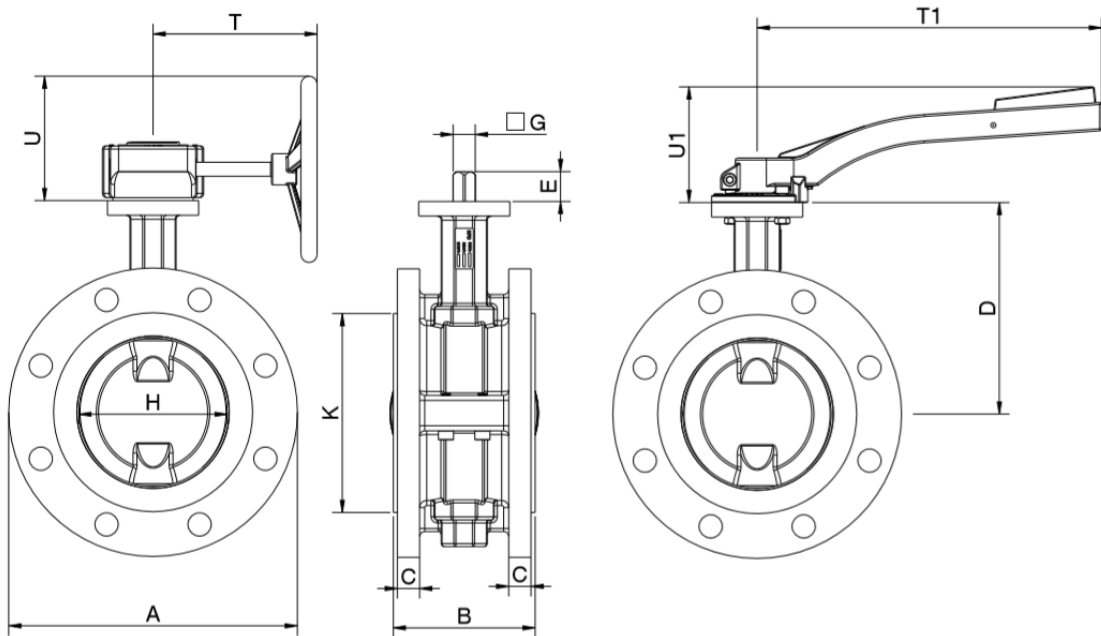
Wafer and lug type dimension



DN		NPS														Dimensions in mm														ISO 5211	Weight				Torque	
																Wafer	Lug	Handle	Gearbox	Cv																
																[Kg]	[Kg]	[Kg]	[Kg]			[N-m]														
mm	in	A	A1	B	C	D	E	□G	H	J	K	T	T1	U	U1		[Kg]	[Kg]	[Kg]	[Kg]																
40	1½	91	146	33	55	109	13	11	40.5	23.5	78	160	200	95	76	F05	2.5	3.2	0.45	1.6	190	35														
50	2	102	159	43	65	134.5	13	11	50.5	26.5	89.5	160	200	95	76	F05	3	4.7	0.45	1.6	210	40														
65	2½	118	204	46	74	149	13	11	65.5	46.5	104.5	160	200	95	76	F05	3.4	5.8	0.45	1.6	300	48														
80	3	135	226	46	84	156	13	11	79.5	65	121.5	160	200	95	76	F05	4	6.5	0.45	1.6	410	56														
100	4	158	260	52	100	179	16	14	98.5	84	144	160	260	127	85	F07	5.8	8.5	0.65	1.8	710	82														
125	5	184	289	56	116	194	19	17	120.5	107	168.5	160	350	127	102	F07	7.6	10.6	0.8	1.8	1150	120														
150	6	214	315	56	132	209	19	17	146.5	136	196.5	160	350	127	102	F07	10	13.9	0.8	1.8	1750	170														
200	8	270	383	60	164	237.5	24	22	195.5	186	251.5	215	-	153	-	F10	16.7	17.9	-	3	3550	298														
250	10	330	456	68	195	275	24	22	245.5	236	305.5	225	-	185	-	F10	24	27.2	-	5	5100	390														
300	12	384	528	78	222	300	29	27	292.5	282	354.5	325	-	248	-	F12	32	35.8	-	10	8870	590														
350	14	448	570	78	258	325	29	27	343.5	334	408.5	325	-	248	-	F12	57	87	-	10	9200	810														
400	16	510	652	102	294	365	38	36	392	378.5	459	230	-	217	-	F14	69	101	-	18.5	14500	1260														
450	18	602	672	114	314	400	38	36	446	431	516	230	-	217	-	F14	82	137	-	18.5	20100	1470														
500	20	657	721	127	351	444	38	36	489	472	569	335	-	285	-	F16	96	158	-	41	22000	1800														
600	24	766	852	154	410	510	48	46	588	567	669	335	-	285	-	F16	141	242	-	41	31000	2995														
700	28	906	992	165	454	553	57	55	699.5	679	780	385	-	310	-	F25	182	290	-	52	39500	3400														

The weight of the wafer and lug type is bare shaft

Double Flanged type dimension



DN NPS		Dimensions in mm														ISO 5211	Weight			Cv	Torque
		PN10		PN16		B	D	E	□G	H	K	T	T1	U	U1		Double Flanged	Handle	Gearbox		[N·m]
mm	in	A	C	A	C																
40	1½	150	16	150	16	106	109	13	11	40.5	78	160	200	95	76	F05	10.7	0.45	1.6	190	35
50	2	165	16	165	16	108	134.5	13	11	50.5	89.5	160	200	95	76	F05	16	0.45	1.6	210	40
65	2½	185	16	185	16	112	149	13	11	65.5	104.5	160	200	95	76	F05	19.1	0.45	1.6	300	48
80	3	200	18	200	18	114	156	13	11	79.5	121.5	160	200	95	76	F05	24	0.45	1.6	410	56
100	4	220	18	220	18	127	179	16	14	98.5	144	160	260	127	85	F07	30	0.65	1.8	710	82
125	5	250	20	250	20	140	194	19	17	120.5	168.5	160	350	127	102	F07	35.3	0.8	1.8	1150	120
150	6	285	20	285	20	140	209	19	17	146.5	196.5	160	350	127	102	F07	51.8	0.8	1.8	1750	170
200	8	340	22	340	22	152	237.5	24	22	195.5	251.5	215	-	153	-	F10	65.5	-	3	3550	298
250	10	395	24	405	24	165	275	24	22	245.5	305.5	225	-	185	-	F10	88.7	-	5	5100	390
300	12	445	23	460	25	178	300	29	27	292.5	354.5	325	-	248	-	F12	107.9	-	10	8870	590
350	14	505	23	520	27	190	325	29	27	343.5	408.5	325	-	248	-	F12	166.4	-	10	9200	810
400	16	565	23	580	29	216	365	38	36	392	459	230	-	217	-	F14	200.5	-	18.5	14500	1260
450	18	615	25	640	37	222	400	38	36	446	516	230	-	217	-	F14	289.7	-	18.5	20100	1470
500	20	670	24	715	40	229	444	38	36	489	569	335	-	285	-	F16	366	-	41	22000	1800
600	24	780	30	840	50	267	510	48	46	588	669	335	-	285	-	F16	466	-	41	31000	2995

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