Double Eccentric Rubber Seal Butterfly Valves

HMA FLOW & INDUSTRIAL

The double eccentric soft seal butterfly valve is designed as bi-directional rubber sealing according to the American association of hydraulic AWWA C504, AWWA C 516 standard, BS EN593 standard, ISO 10631 standard and GB/T12238 standard. The main advantage is the good sealing performance, long service life, simple construction, convenient in disassembling and so on. and its widely used in water supply and drainage, water treatment, electric power, shipbuilding, chemical industry, medicine and other industrial area for shutting off, regulating and controlling flow.

FEATURES

The double eccentric resilient-seated sealing construction. Zero Leakage in Bi-directional sealing test.

- Excellent isolation function for liquid and gas and reliable flow control characteristics.
- Easy to replace and adjust the elastic sealing ring to make sure good sealing performance.
- Opening and closing fast, small torque, flexibly operation, energy saving.
- Adjust the compaction of the sealing ring to make the sealing ring in the best condition to prolong the service life.

CONSTRUCTION

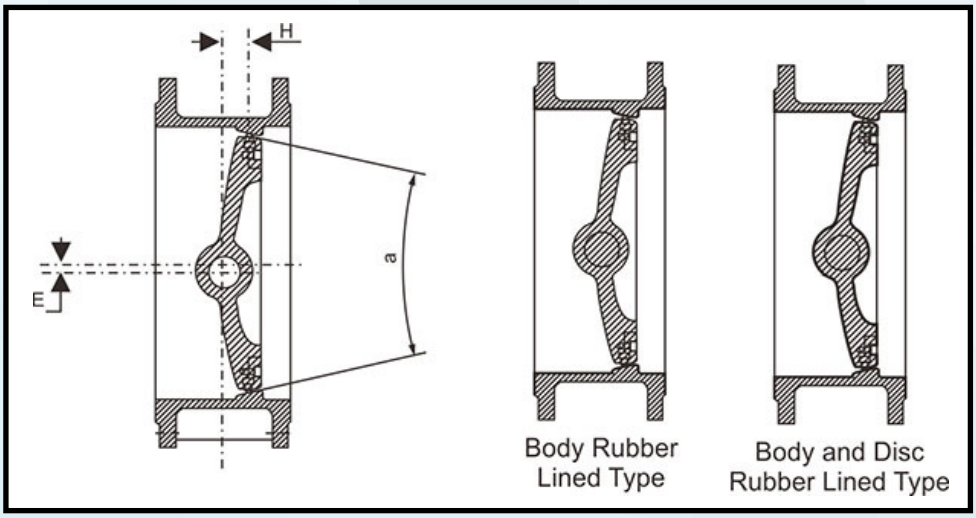
For corrosive medium, double eccentric rubber lined type butterfly valve can be used to reduce the cost. the butterfly valve integrates the advantages of both concentric rubber lined butterfly valves and double eccentric soft seal butterfly valves. (Comparing to the concentric rubber lined butterfly valves, the service life of double eccentric rubber lined type butterfly valve is longer and it can be used for higher pressure.)

Instruction:

Eccentric 1: E- The eccentric between the center line of shaft and the center line of the body.

Eccentric 2: H- The eccentric between the center line of shaft and the center of the seat sealing surface.

Cone Angle: The inclination angle of the seat sealing surface.



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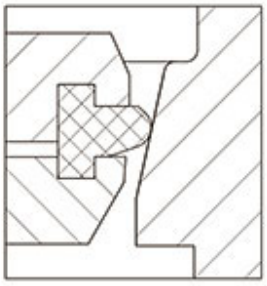
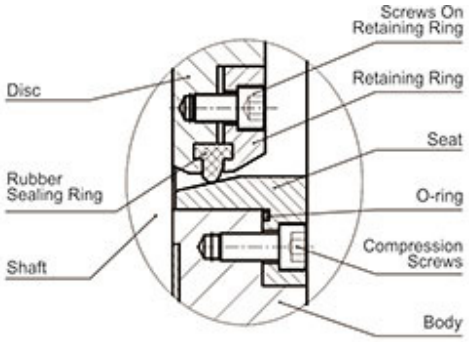
Due to the double eccentric construction, in the process of opening, the disc of the valve get away from the seat gradually, the friction between the sealing surface is reduced, so that the service life is prolonged.

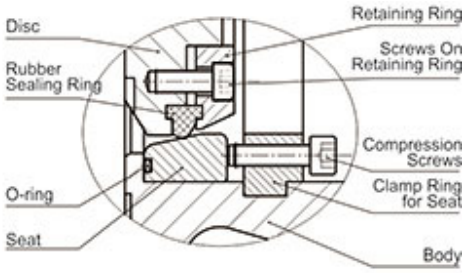
The designed body seat: For cast steel body, the body seat is Integral seat with welded layer of anti-corrosive material; For cast iron body, the body seat is replaceable seat



Integral body seat or welded body seat with anti-corrosive material



DN50~500



DN600~3600

MODEL DEIGNATIONS

D	S	3	4	2	X	—	10	Q00	/	1	6	1	1	1
①	②	③	④	⑤	⑥		⑦	⑧		⑨	⑩	⑪	⑫	⑬

① **Valve Type:** D Butterfly valve
② **Sealing direction:** s Bi-directional Uni-directional (No Marking)
③ **Operation way:** 3 Worm gear 6 Pneumatic actuator 7 Hydraulic actuator 9 Electric actuator
④ **Connection:** 4 Flange 7 Wafer 3 Lug
⑤ **Construction:** 1 Concentric 2 Double Eccentric 3 Triple Eccentric
⑥ **Seat Material:** F Fluoroplastics X Rubber J Rubber Lining
⑦ **Pressure:** PN 6~100bar ANSI 150LB~600LB
⑧ **Body Material:** Q00:450-10, C00:WCB, C10:LCB I01:WC6, 102:WC9, P00:CF8 P01:CF3, R00:CF8M, R01:CF3M
⑨ **Disc Material:** 1:QT450-10, 2:CF8, 3:CF8M, 4:WCB, 5:LCB
⑩ **Shaft Material:** 2:304, 3:316, 5:17-4PH, 6:410
⑪ **Sealing material:** 1:EPDM, 2:NBR, 3:BUNA-N, 4:VITON
⑫ **Body Seat Material:** 1:304, 2:316, 3:304L, 4:316L, 5:STL, 7:13Cr
⑬ **Packing Material:** 1:EPDM, NBR, 4:VITON, 7Flexible Graphite, 8:PTFE

SCOPE OF APPLICATION

Nominal Pressure	PN6	PN10	PN16	PN25	150LB	150/175/275PSi	300PSI
Nominal Diameter	DN50~DN3600	DN50~DN3000	DN50~DN2000	DN50~DN1000	NPS2~NPS60	NPS4~NPS144	NPS4~NPS48
Connection	Wafer type, Lug type, Flange type						
Applicable Medium	fresh water, sea water, oil products, air, and weak corrosive medium, etc.						
Suitable Temperature	-29°C ~200°C						

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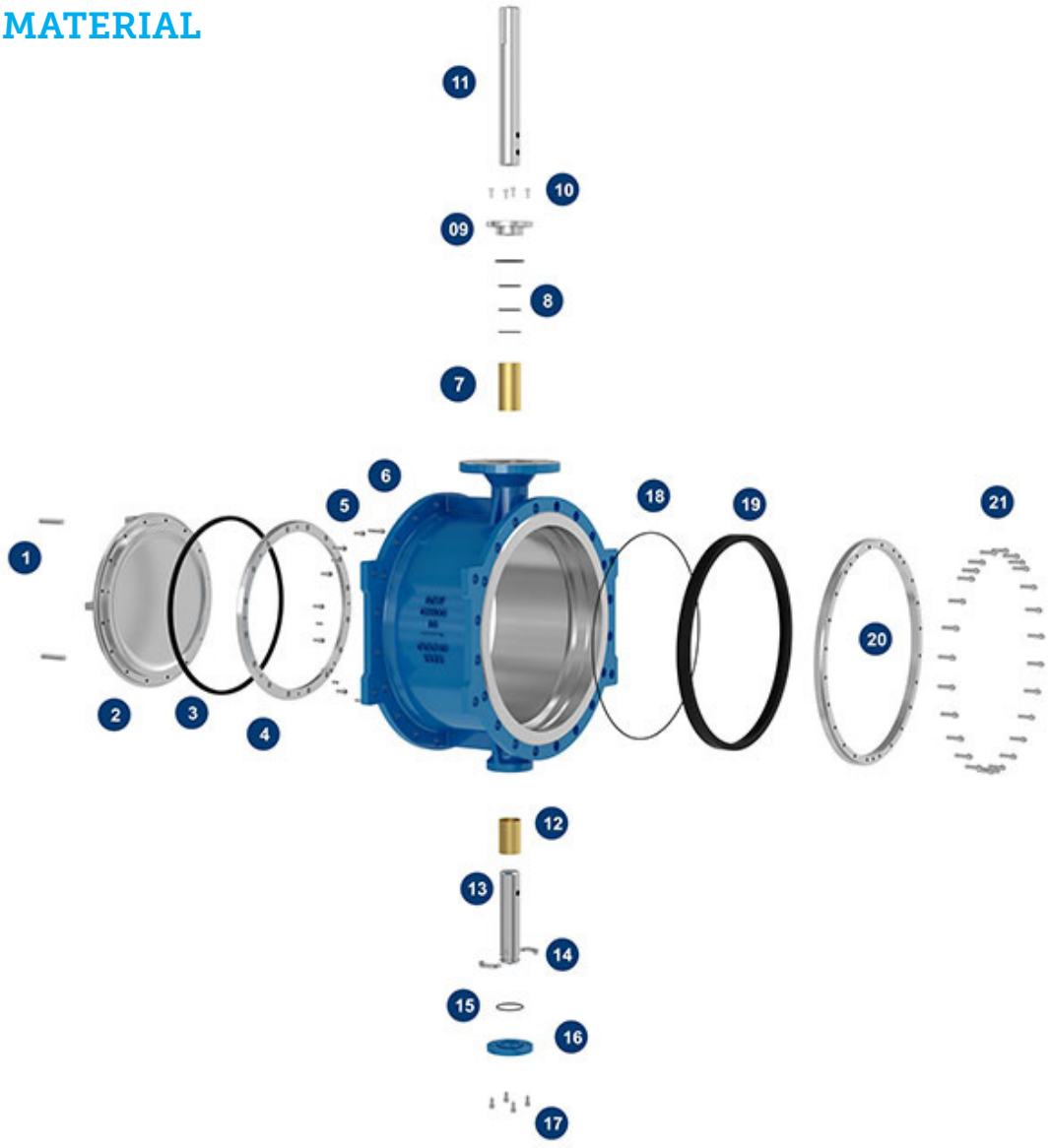
PARTS & MATERIAL



Item No.	Part Name	Material	Item No.	Part Name	Material
1	Pin	410/420/304/XM-19/17-4PH/ F51	12	Lower bushing	SF-1 / SF-1S / C95800
2	Disc	ASTM A536 65-45-12/ ASTM A536 60-40-18 / CF8 / 4A	13	Lower shaft	410/420/304/XM-19/17-4PH/ F51
3	Sealing ring	EPDM/NBR/VITON/FPM	14	Clamping ring	1035 /304 /316 /F51
4	Retaining ring	A105 /304 / 316 / F51	15	O-ring	EPDM/NBR/VITON/FPM
5	Screws on retaining ring	8.8 / B7 / B8 / B8M	16	Screws for bottom cover	8.8 / B7 / B8 / B8M
6	Body	ASTM A536 65-45-12(GGG50)/ ASTM A536 60-40-18(GGG40)	17	Bottom cover	A105 /304 /316 /F51
7	Upper Bushing	SF-1 / SF-1S / C95800	18	O-ring	EPDM/NBR/VITON/FPM
8	O-ring	EPDM/NBR/VITON/FPM	19	Seat	304 / 316 / F51
9	Gland	GGG40/ C95800	20	Clamp ring for seat	A105 / 304 / 316 / F51
10	Stud for Gland	8.8 / B7 / B8 / B8M	21	Compression screws	8.8 / B7 / B8 / B8M
11	Upper shaft	410/420/304/XM-19/17-4PH/ F51			

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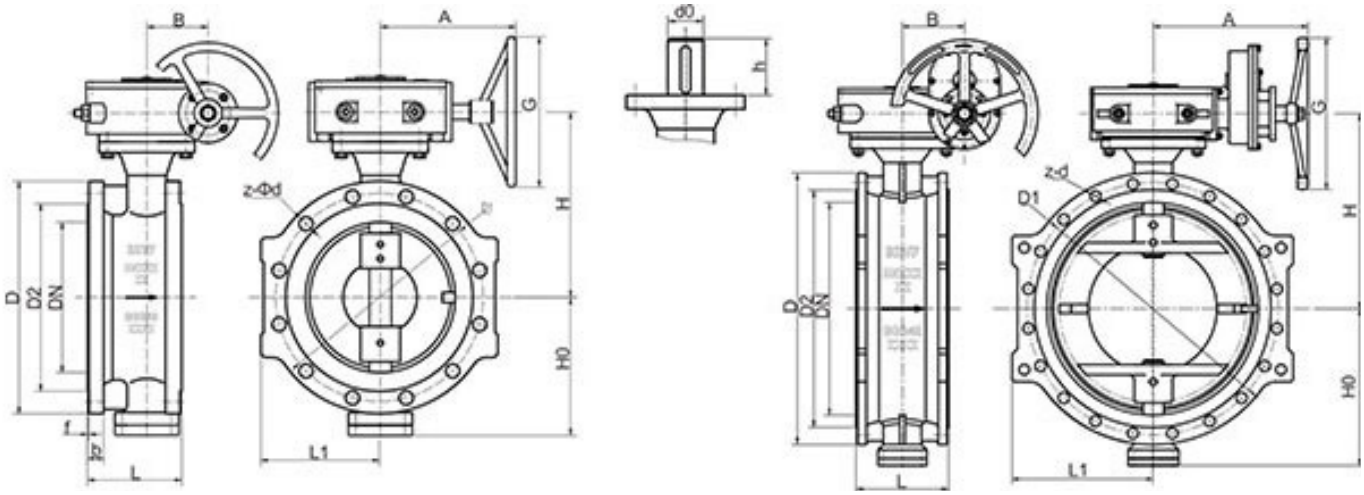
STANDARDS

Design & Manufacture	Flange Connection	Face to Face Dimension	Test & Inspection
GB/T 122238	GB/T 9113	GB/T 12221	GB/T 13927
AWWA C504,C516	AWWA C207	AWWA C504,C516	AWWA C504,C516
API 609	ASME B16.5 ASME B16.47	API 609 ASME B16.10	API 598
EN 593	EN 1092	EN 558	EN 12266-1
ISO 10631	ISO 7005	ISO 5752	ISO 5208

CONNECTION DIMENSIONS D342X-16Q DN80~1400



DN	L	Flange Dimensions						Overall Dimensions						The Dimensions of Top Flange			Weight (Kg)
		D	D1	D2	f	b	Z-⌀ d	H0	H	L1	A	B	G	ISO 5211	d0	h	
80	114	200	160	132	3	19	8-ø19	100	180	105	144	50	180	F07	18	40	18
100	127	220	180	156	3	19	8-ø19	110	210	113	144	50	180	F07	18	40	30
125	140	250	210	184	3	19	8-ø19	125	225	130	144	50	180	F07	18	40	36
150	140	285	240	211	3	19	8-ø23	160	255	151	200	63	300	F10	22	45	45
200	152	340	295	266	3	20	8-ø23	182	275	175	200	63	300	F10	25	50	80
250	165	405	355	319	3	22	12-ø23	222	300	215	230	80	350	F12	30	60	94
300	178	460	410	370	4	25	12-ø23	265	340	241	230	80	350	F12	35	70	105
350	190	520	470	429	4	27	16-ø23	300	375	270	260	125	400	F14	40	80	150
400	216	580	525	480	4	28	16-ø28	335	400	300	260	125	400	F16	45	90	196
450	222	640	585	548	4	30	20-ø28	365	460	330	260	125	400	F16	50	100	238
500	229	715	650	609	4	32	20-ø28	400	510	368	260	125	400	F16	50	100	335
600	267	840	770	720	5	36	20-ø31	450	555	405	290	160	500	F25	60	120	371
700	292	910	840	794	5	40	24-ø31	510	635	470	418	200	600	F25	70	130	645
800	318	1025	950	901	5	43	24-ø34	580	705	520	418	200	600	F25	80	130	900
900	330	1125	1050	1001	5	47	28-ø34	655	800	568	510	263	700	F30	90	160	1063
1000	410	1255	1170	1112	5	50	28-ø37	710	865	625	510	263	700	F30	100	170	1386
1200	470	1485	1390	1328	5	57	32-ø41	845	995	738	550	333	800	F35	120	190	1850
1400	530	1685	1590	1530	5	60	36-ø44	965	1100	848	550	333	800	F35	140	200	2980
1600	600	1930	1820	1750	5	65	40-ø57	1140	1300	1000	550	333	800	F35	160	220	4260

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