

三偏心硬密封蝶阀

Three-Eccentric Metal Hard Seal Butterfly Valve

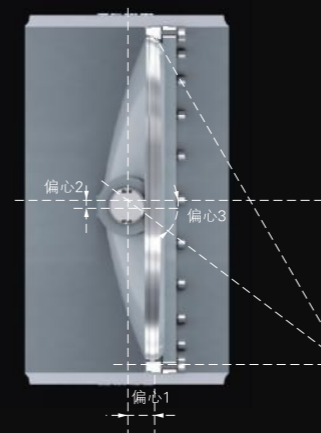
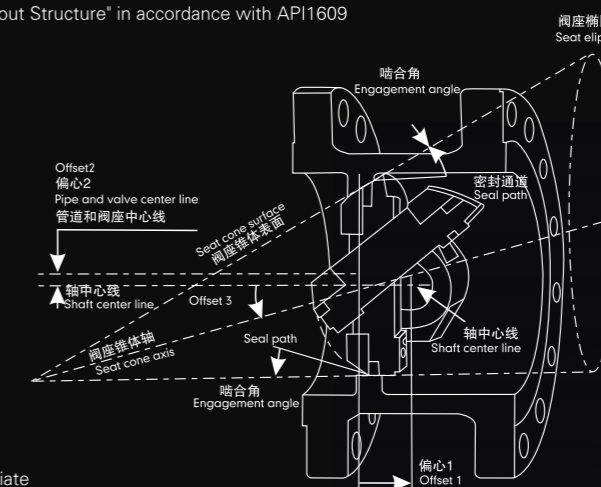
阀门采用三偏心结构，即在普通金属硬密封双偏心蝶阀的基础上增加了个角度偏心。这个角度偏心的主要作用是：使阀门在开启或关闭动作的过程中，密封环与阀座之间的任意一点都会迅速脱离或接触，做到密封副之间真正的“无摩擦”，极大地延长了阀门的使用寿命；金属硬密封蝶阀采用了含有国家专利技术的“径向动平衡密封系统”，通过优化设计，蝶板的进出口两侧受力近似平衡，阀门达到进出口双向可靠的密封性能的同时，有效降低了阀门的开启力矩（约为普通蝶阀的2/3）；蝶板密封环由片状不锈钢的石墨、碳纤维、PTFE等材料复合而成，不锈钢片为主密封，非金属夹层为辅助密封，这种双重密封结构，使阀门密封更可靠，密封泄漏登记可达ANSI B16.104 VI级或ISO5208 A级。蝶板密封环选用石墨/碳纤维/PTFE等夹层材料，与普通蝶阀的橡胶石棉板材质相比，具有更环保、更耐磨、更耐冲刷、更可靠等特点，可达10万次无故障启闭。

The valve uses a three-eccentric structure, that means an angular eccentric is added to a common metal hard-seal double-eccentric butterfly valve and this said eccentric acts at making any point between the seal ring and the seat ring quickly released or contacted during valve opening or closing so as to get true 'non-friction' between the seal pairs, greatly extending the valve life; The Hard seal Metal-seated butterfly valve uses the 'radial dynamically balanced sealing system' containing the national patented know-how and, by means of optimized design, the forces undertaken on both sides of the butterfly plate inlet and outlet become approximately balanced so as to effectively lower the valve opening moment (about to be 2/3 that of the common butterfly valve) at the same time to make the valve inlet and outlet a two-way reliable sealing performance; The seal ring of the butterfly plate is made by way of compounding with sheet stainless steel, graphite, carbon fiber, PTFE etc. materials with the sheet stainless steel as the main seal and the non-metal interlayer as the assistant one. This dual-sealing structure makes the valve more reliably sealed and the seal's leaking level up to ANSI B16.104 VI or ISO5208 A. Compared to the rubber asbestos plate material used with the common butterfly valve, the graphite/carbon fiber/PTFE etc. interlayer materials used with the seal ring of the butterfly plate holds more environmental protection, more wearable, more anti-flush, more reliable etc. characteristics, able to get 100,000 times of fault-free opening-closing;

可更换式阀座/密封圈设计，便于阀门现场维护保养；可根据产品的实际使用工况要求，对阀体阀板材料选型选材及密封结构的多种优化配置，以满足客户对产品性能的不同需求。与驱动装置相连接的支架符合ISO5211标准要求，支架执行ISO5211标准，可与各种电动、气动、液动、手动等驱动装置相连接。填料密封的高性能采用组套式填料密封系统，确保阀门最大泄露率≤20ppm。可选用动载密封结构，使填料持久密封，延长填料免维护周期。阀杆可设计成符合API1609之规定的“防吹出”结构。The replaceable seat ring/seal ring design is used for the sake of valve on-site maintenance; Various optimized allocations in the selections of the body and valve plate materials and the sealing structure are available upon the product's real used working conditions so as to meet with the different requirements on the product performances. The yoke Connected to the actuator meet the requirement of the ISO5211 standard. Yoke is designed in accordance with ISO5211 standard and connected with electrical actuator, pneumatic actuator, and hydraulic actuator and manually operated. High performance of packing sealing Adopt packing-combined sealing system to ensure the leakage rate ≤20 PPM at maximum. The dynamic sealing structure is available if necessary, which make the packing sealing under good condition and prolong the free maintenance period of packing. The valve stem shall be designed with the 'Blow-out Structure' in accordance with API1609 standard.

偏心1
阀杆旋转中心线与阀座中心线偏离一定距离，保证密封面的完整性；
偏心2
阀杆旋转中心线与阀体中心线偏离一定距离，降低阀门启闭时密封副之间的摩擦；
偏心3
阀体中心线与阀座圆锥密封面中心线偏离一定角度，使阀门开启或关闭时，蝶板密封环与阀座之间迅速脱离或接触，密封副之间无摩擦、无卡挤。

Eccentric 1:
The centerline of rotation axis/stem and seat deviate from each other for a certain distance to ensure the integrity of the sealing surface;
Eccentric 2:
The centerline of rotation axis/stem and body deviate from each other for a certain distance to reduce the friction between the sealing components when open and close the valve.
Eccentric 3:
The centerline of valve body and conical seat sealing face deviate from each other for a certain angle to ensure the sealing ring of the disc can be separated or touched with seat rapidly so that friction and squeeze will not exist between the sealing components.

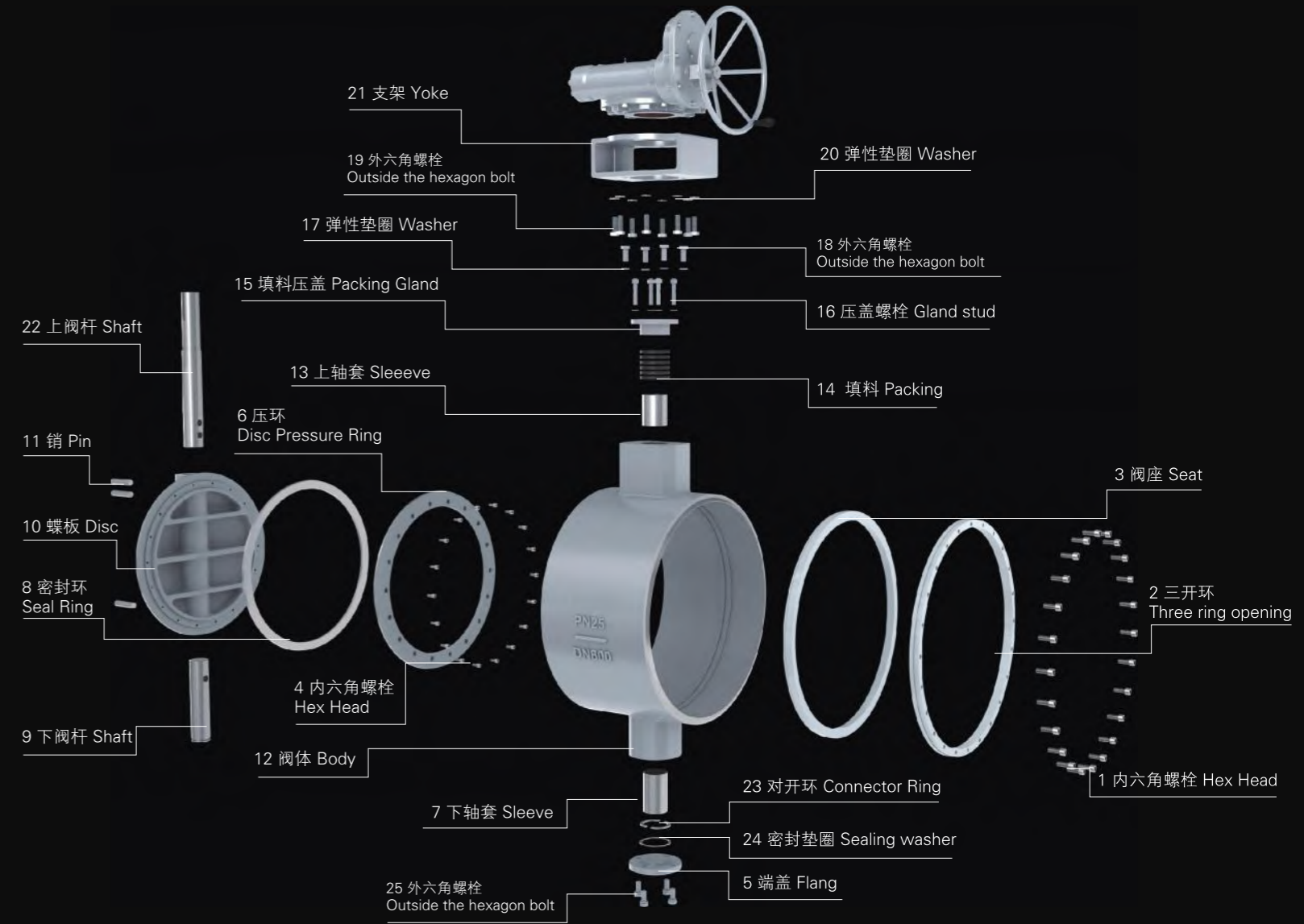


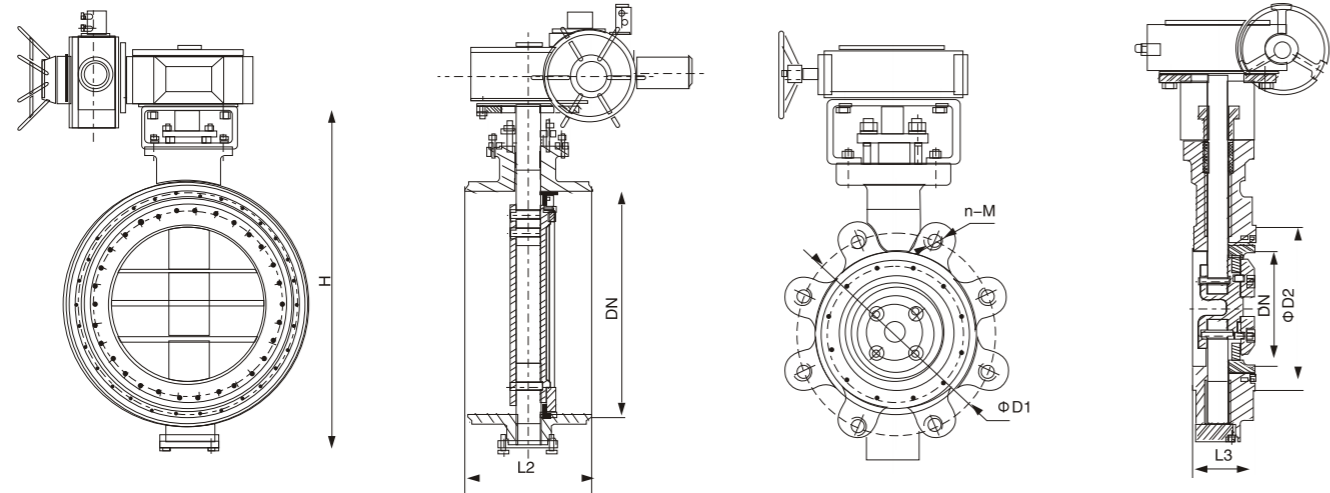
主要零件材质表 Main parts material table

序号 ITEM	零件名称 Component	碳素钢阀门零件材料 Carbon Steel		不锈钢阀门零件材料 Stainless Steel	
		国标GB	美标API	国标GB	美标API
1	内六角螺栓 Hex Head	8.8级	ASTM A193 B7	06Cr19Ni10	ASTM A320 B8
2	三开环 Three ring opening	25	ASTM A105	06Cr19Ni10	ASTM A182 F304
3	阀座 Seat	2Cr13	ASTM A276 420	06Cr19Ni10+STL	ASTM A182 F304+STL
4	内六角螺栓Hex Head	8.8级	ASTM A193 B7	06Cr19Ni10	ASTM A193 B8
5	端盖 Flang	25	ASTM A105	06Cr19Ni10	ASTM A182 F304
6	压环 Disc Pressure Ring	25	ASTM A105	06Cr19Ni10	ASTM A182 F304
7	下轴套 Sleeve	06Cr19Ni10	ASTM A276 304	06Cr19Ni10	ASTM A276 304
8	密封环 Seal Ring	06Cr19Ni10+ Graphite/PTFE/Carbon fibre	ASTM A182 F304+ Graphite/PTFE/Carbon fibre	06Cr17Ni12Mo2+ Graphite/PTFE/Carbon fibre	ASTM A276 304 Graphite/PTFE/Carbon fibre
9	下阀杆 Shaft	20Cr13	ASTM A276 420	05Cr17Ni4Cu4Nb	ASTM A564 630
10	碟板 Disc	WCB	ASTM A216 WCB	Cf8	ASTM A351 CF8
11	销 Pin	20Cr13	ASTM A276 304	06Cr19Ni10	ASTM A564 630
12	阀体 Body	WCB	ASTM A216 WCB	Cf8	ASTM A351CF8
13	上轴套 Sleeve	06Cr19ni10	ASTM A276 304	06Cr19Ni10	ASTM A276 304
14	填料 Packing	Graphite/PTFE	Graphite/PTFE	Graphite/PTFE	Graphite/PTFE
15	填料压盖 Packing Gland	WCB	ASTM A216 WCB	Cf8	ASTM A351 Cf8
16	压盖螺栓 Gland stud	8.8级	ASTM A193 B7	06Cr19Ni19	ASTM A193B8
17	弹性垫圈 Washer	65Mn	ASTM A29 1566	06Cr19Ni10	ASTM A29 1566
18	外六角螺栓 Outside the hexagon bolt	8级	ASTM A194 2H	06Cr19Ni10	ASTM A194 8
19	外六角螺栓 Outside the hexagon bolt	8级	ASTM A194 2H	06Cr19Ni10	ASTM A194 8
20	弹性垫圈 Washer	65Mn	ASTM A29 1566	06Cr19Ni10	ASTM A29 1566
21	支架 Yoke	WCB	ASTM A216 WCB	WCB	ASTM A216 WCB
22	上阀杆 Shaft	20Cr13	ASTM A276 420	05Cr17Ni4Cu4Nb	ASTM A564 630
23	对开环 Connector Ring	06Cr19ni10	ASTM A276 304	06Cr19Ni10	ASTM A276 304
24	密封垫圈 Sealing washer	06Cr19Ni10+Graphite/	ASTM A182 F304+Graphite	06Cr17Ni12Mo2+Graphite	ASTM A276 304+Graphite
25	外六角螺栓 Outside the hexagon bolt	8.8级	ASTM A193 B7	06Cr19Ni10	ASTM A193 B8

不同材质阀门各零件材质不同, 详情请电询
Different material valve parts material is different,the details please call ask

主要零件分解图
Main Parts Diagram





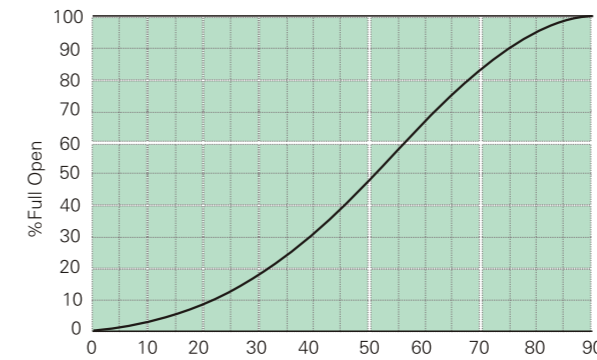
主要连接尺寸 Main connecting dimensions

公称通径DN		150Lb									
In	Mm	L	L1	L2	L3	D	D1	D2	C	H	N-d
3	80	114	48	180	48	190	152.4	127	24.3	310	4-19
4	100	127	54	190	54	230	190.5	157	24.3	325	8-19
5	125	140	56	200	56	255	215.9	186	24.3	360	8-22
6	150	140	57	210	57	280	241.3	216	26.9	395	8-22
8	200	152	64	230	64	345	298.5	270	29	480	8-22
10	250	165	71	250	71	405	362.0	324	30.6	550	12-26
12	300	178	81	270	81	485	431.8	381	32.2	610	12-26
14	350	190	92	290	92	535	476.3	413	35.4	710	12-29
16	400	216	102	310	102	595	539.8	470	37	755	16-29
18	450	222	114	330	114	635	577.9	533	40.1	835	16-32
20	500	229	127	350	127	700	635.0	584	43.3	900	20-32
24	600	267	154	390	154	815	749.3	692	48.1	1060	20-35
28	700	292	165	430	165	925	863.6	800	71.9	1170	28-35
32	800	318	190	470	190	1060	977.9	914	81.4	1320	28-41
36	900	330	203	510	203	1170	1085.8	1022	90.9	1440	32-41
40	1000	410	216	550	216	1290	1200.2	1124	90.9	1640	36-41
48	1200	470	254	630	254	1510	1422.4	1359	108.4	1850	44-41
56	1400	530	390	710	390	1745	1651.0	1575	124.3	2040	48-48

Cv值

150Lb

Size		5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
Mm	In																		
80	3	1	6	14	23	31	39	47	54	62	71	82	96	112	128	143	156	163	163
100	4	2	12	26	42	57	72	85	98	113	130	150	176	205	234	262	285	299	302
150	6	16	31	45	59	76	101	134	178	233	297	369	448	531	616	698	758	796	796
200	8	30	57	82	108	140	185	246	327	427	544	676	821	974	1130	1280	1390	1460	1460
250	10	52	99	142	187	242	320	426	566	739	942	1170	1420	1690	1960	2220	2410	2530	2530
300	12	78	147	212	279	362	478	636	846	1100	1410	1750	2120	2520	2920	3310	3600	3780	3780
350	14	106	201	289	380	493	651	866	1150	1500	1920	2380	2890	3430	3980	4510	4890	5140	5140
400	16	165	313	451	594	769	1020	1350	1800	2350	2990	3720	4510	5350	6210	7040	7640	8020	8020
450	18	217	413	594	782	1010	1340	1780	2370	3090	3940	4890	5940	7050	8180	9270	10100	10600	10600
500	20	268	509	733	965	1250	1650	2200	2920	3820	4860	6040	7340	8710	10100	11400	12400	13000	13000
600	24	386	734	1060	1390	1800	2380	3170	4210	5500	7000	8700	10600	12500	14500	16500	17900	18800	18800
700	28	559	1060	1530	2010	2610	3450	4590	6100	7960	10100	12600	15300	18200	21000	23900	25900	27200	27200
750	30	630	1200	1720	2270	2940	3880	5160	6870	8960	11400	14200	17200	20400	23700	28900	29200	30700	30700
800	32	719	1370	1970	2590	3360	4440	5900	7840	10200	13000	16200	19700	23300	27100	30700	33300	35000	35000
900	36	884	1680	2420	3180	4210	5450	7250	9630	12600	16000	19900	24200	28700	33300	39800	40900	43000	43000
1000	40	1170	2220	3190	4210	5450	7210	9580	12700	16600	21200	26300	31900	37900	44000	52600	54100	56900	56900
1050	42	1230	2340	3370	4440	5760	7610	10100	13400	17600	22400	27800	33700	40000	46500	57100	57100	60000	60000
1200	48	1640	3120	4490	5920	7670	10100	13500	17900	23400	29800	37000	45000	53400	61900	70100	76100	80000	80000



Typical Flow Characteristics

For control applications wide variety of actuators and accessories can be provided.

At moderate pressure drop conditions,turndown approaching 100 to 1 can be achieved because of the camming action of the disc opening.

The disc lifts off the seat very quickly and an equal precentage control curve if produced between 15° to 75°