

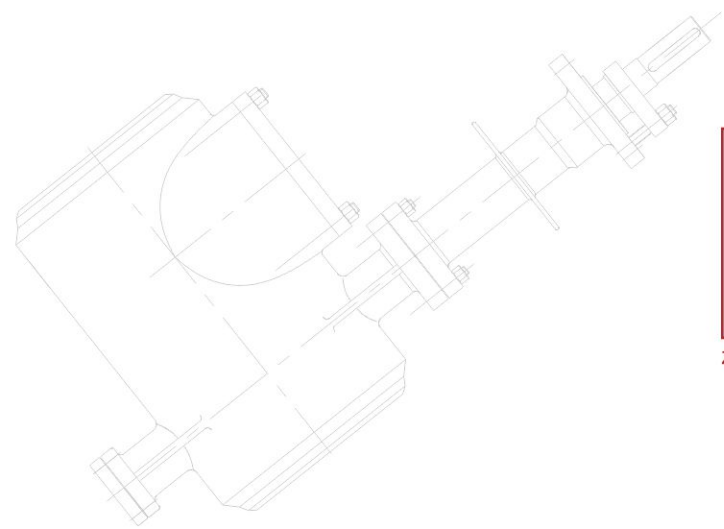
浙江中德自控科技股份有限公司

Zhejiang Zhongde Automatic Control Science And Technology Joint Stock Co., Ltd.

低温蝶阀

Cryogenic Butterfly Valves

通过了ISO9001质量体系认证
通过API6D/609产品认证
通过API6FA/607防火认证
通过国家特种设备制造许可“压力管道元件”TS认证
通过CE安全认证
通过HSE认证
通过SIL 产品功能安全认证
通过ISO 15848逸散性认证
中国著名品牌





企业概述

浙江中德自控科技股份有限公司(原中德机械集团有限公司)是集研发、生产、销售、服务于一体的专业控制阀制造商。自1992年创立以来，中德致力于发展切断阀专业领域技术，使我们始终处在国内切断阀领域的技术领先地位。在我们二十多年的发展历程中，中德人专业、聚焦、坚持不懈来打造切断阀品牌，其中气\电\电液动高性能蝶阀、高性能球阀、高温耐磨球阀、高温蝶阀、快速切断闸阀等产品广泛应用于石油、化工、天然气、煤化工等高端领域，并获得了众多用户朋友的高度信任。

中德集团现已拥有专业阀门研究中心和一流的生产平台，并通过了ISO9001：质量体系认证，美国石油学会API6D/609产品认证、API6FA/607防火认证，特种设备压力管道制造许可“TS认证”。是中国石化、中石油、中海油、中化、神华、煤化工等领域的一级供应商。先后被评为“中国著名品牌”，“省级星火示范企业”，“国家高新技术企业”，“省明星企业”，连续五年被工行评为“AAA信用企业”。

“客户的满意我们视之为生命”为此中德在国内建立了十二个直销和服务网络，在服务市场的广度和深度上都具有独创性。我们能满足您的需求，我们给您提供“安全、可靠、省心”产品的同时，我们的产品价值永远大于产品价格。无论您在那里，我们具有丰富经验和专业知识的团队，都能给您提供“认真、负责、快速”的优质服务。我们坚守“一个电话，一天内到达，一次性成功”的服务承诺。

“以人为本，以德兴业”是中德企业文化的核心，是中德人做人的标准，中德人将以“以诚会友，以德待友”来衬托我们过硬的产品质量和一流的服务。中德人厚积薄发，再立潮头，全力打造国家高端切断阀先进制造企业，致力于加快我国切断阀的国产化应用进程，以更好地实现顾客满意度的最大化，中德愿与您精诚合作，共创美好的明天！





BRIEF INTRODUCTION

Zhejiang Zhongde Automatic Control Technology Co., Ltd. (formerly known as Zhongde Machinery Group Co., Ltd.) is a professional control valve manufacturer integrating research, development, production, sale and service. Since its establishment in 1992, Zhongde has been devoted to developing specialized technologies of shut-off valves, keeping us always at the leading position in Chinese shut-off valve industry. During more than twenty years of development, Zhongde personnel are building the brand of shut-off valves with specialization, concentration and perseverance. The products such as high performance butterfly valves, high performance ball valves, high temperature anti-wear ball valves, high temperature butterfly valves and quick shut-off gate valves with pneumatic, electric and electro-hydraulic driving are widely applied in petroleum, chemical industry, natural gas, coal chemical industry and other high-end fields, receiving deep trust from users.

Now Zhongde Group has set up the professional valve research and development center and first-class production platforms. It has successively obtained the ISO9001: quality system certification, API6D/609 product certification, API6FA/607 fire safety certification and special equipment (pressure pipes) manufacturing license TS certification. It is a first-tier supplier of SINOPEC, CNPC, CNOOC, CHEMCHINA, Shenhua Group, coal chemical industry and other fields. It has been successively awarded such honors as "China Famous Brand", "Spark Model Enterprise in Zhejiang Province", "National High-tech Enterprise", "Star Enterprise in Zhejiang Province", and has been approved as a "Class AAA Creditable Enterprise" by the Industrial and Commercial Bank of China for five years in succession.

"Customer satisfaction is regarded as our life". For this, Zhongde has established 12 sales and service networks, which are creative both in breadth and depth of serving the markets. We can meet your demands. We will provide you with safe, reliable and trustworthy products and the value of our products is much higher than their price. Wherever you are, our team will offer serious, responsible, fast and high quality services to you with their rich experience and professional knowledge. We always keep our service promise of "one telephone, arrival within one day and success in one step".

"Human oriented, booming business by morals" is the core idea of Zhongde Enterprise, and the standard followed by Zhongde personnel in conducting themselves and handling affairs. Zhongde personnel will offer high product quality and top-ranking services with the attitude of "meeting friends with sincerity, treating friends with morals". Accumulating profoundly and working ceaselessly and unremittingly, Zhongde personnel are making all efforts to create an advanced manufacturing enterprise of high-end shut-off valves in China, accelerate the process of localization of shut-off valves and realize maximized customer satisfaction. Zhongde hopes to cooperate with you faithfully and create a brilliant future together!



低温三偏心金属密封蝶阀 Cryogenic three-eccentric metal seal butterfly valve

法兰式低温三偏心蝶阀 Flanged cryogenic three-eccentric butterfly valve

口径范围: DN80~DN1000
压力范围: Class 150~600
设计标准: GB/T 24925、JB/T 12623
结构长度: API 609、ISO 5752 GB/T 12221
阀盖延长: GB/T 24925、ISO 28921 SHELL SPE 77/200
试验标准: BS 6364、GB/T 24925 JB/T 12622、ISO 28921-1

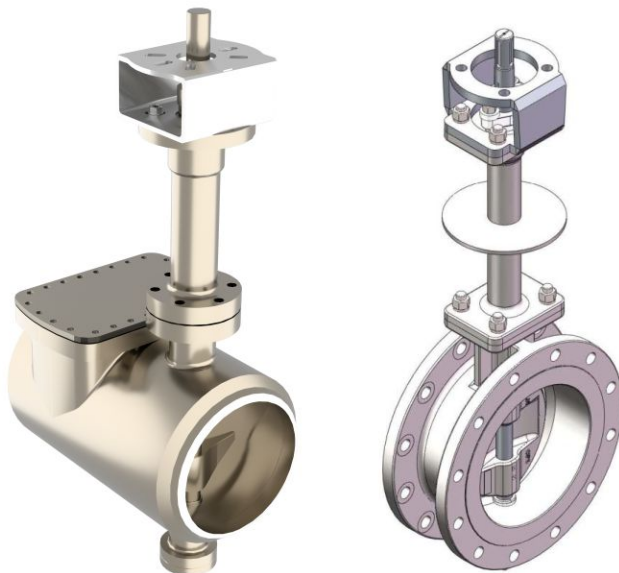
Size range: DN80~DN1000
Pressure range: Class 150~600
Design standard: GB/T 24925、JB/T 12623
Face-to-face dimensions: API 609、ISO 5752 GB/T 12221
Bonnet extension: GB/T 24925、ISO 28921 SHELL S PE 77/200
Testing standard: BS 6364、GB/T 24925 JB/T 12622、ISO 28921-1



焊接式带检修口三偏心蝶阀 Welded three-eccentric butterfly valve with manhole

口径范围: DN200~DN1000
压力范围: Class 150~600
设计标准: GB/T 24925、JB/T 12623
结构长度: GB/T 12221
阀盖延长: GB/T 24925、ISO 28921 SHELL S PE 77/200
试验标准: BS 6364、GB/T 24925 JB/T 12622、ISO 28921-1

Size range: DN200~DN1000
Pressure range: Class 150~600
Design standard: GB/T 24925、JB/T 12623
Face-to-face dimensions: GB/T 12221
Bonnet extension: GB/T 24925、ISO 28921 SHELL S PE 77/200
Testing standard: BS 6364、GB/T 24925 JB/T 12622、ISO 28921-1



技术参数表
Table of technical parameters

阀体类型 Body type	低温三偏心金属密封蝶阀 Cryogenic three-eccentric metal seal butterfly valve
阀体型式 Body type	铸造阀体、阀板，其余锻件 Cast body and disc, and others are forgings
DN	DN80~DN1000(法兰式 Flanged); DN200~1000(焊接式 Welded); 其他口径可选 Other sizes optional
PN	Class 150~600; 其他压力可选 Other pressure optional
密封型式 Seal type	双斜边金属密封三偏心 Double-bevel metal seal three-eccentric
流向 Flow direction	流闭; 双向流可选 Flow to close; bidirectional flow optional
密封副结构 Sealing pair structure	阀座、密封环分体式，可现场更换 Seat and seal ring split type, can be replaced at the site
阀盖类型 Bonnet type	低温加长型 Cryogenic extended type(-196~-50℃); 滴水盘可选 drip tray optional
阀体阀座密封型式 Body and seat sealing type	增强石墨垫 Reinforced graphite gasket(CL150~300)、缠绕垫(CL600及以上) wound gasket (CL600 and above)
阀体材料 Body material	A351-CF8、CF8M、CF3、CF3M; 其他奥氏体不锈钢可选, JB/T 7248 可选 A351-CF8、CF8M、CF3、CF3M; Other austenitic stainless steel optional, JB/T 7248 optional
填料类型 Packing type	柔性石墨，动态密封设计 Flexible graphite, dynamic seal design
温度范围 Temperature range	-196~-50℃
泄漏等级 Leakage class	BS6364、GB/T 24925、JB/T 12622、ISO 28921-1
执行机构 Actuator	齿轮齿条式、拨叉式、蜗轮传动 Rack-and-pinion type, fork type, worm gear driving
气动附件 Pneumatic accessories	过滤减压阀; 定位器; 气控阀; 电磁阀; 限位开关等 Filter regulator; positioner; pneumatic control valve, solenoid valve; limit switch and etc.
可选项 Options	气动带手轮; SS支架材料; 泄漏等级可选VI级、BS 6364的1/3 Pneumatic with handwheel; SS yoke material; leakage class VI optional, 1/3 of BS 6364

泄漏等级表 Leakage class table

泄漏标准 Leakage standard	泄漏量 Leakage	Test media
API 598	常温: 4*NPS 气泡/分 Normal temperature: 4*NPS bubbles/minute	氮气或空气 Nitrogen or air
BS 6364	低温: 6*DN 毫升/分 Low temperature: 6*DN ml/minute	氦气 Helium
GB/T 24925		
JB/T 12622		
ISO 28921-1	低温: 3*DN 毫升/分 Low temperature: 3*DN ml/minute	
可选特殊 Special optional	低温: BS 6364的1/3、GB/T 4213-VI级 Low temperature: 1/3 of BS 6364, GB/T 4213-class VI	

低温蝶阀 Cryogenic Butterfly Valves



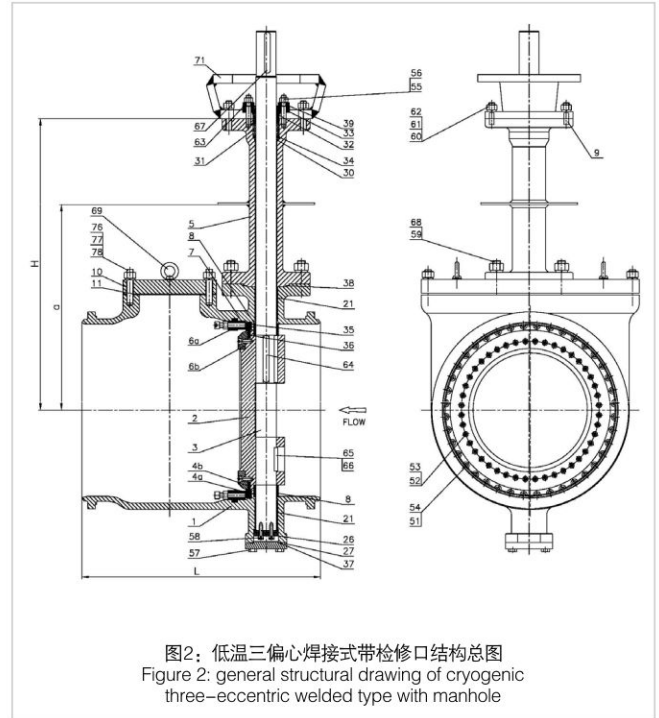
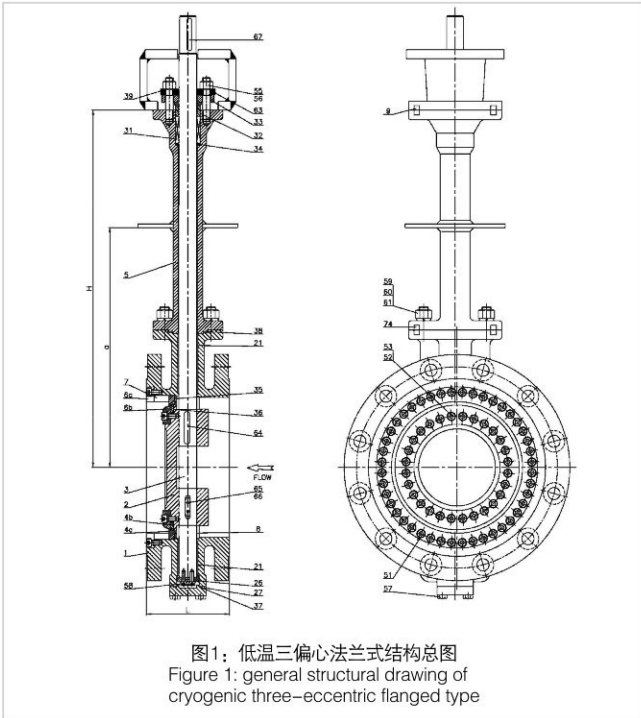
特色结构 Characteristic structure

结构特点:

非传统的直斜边设计，我们设计的是双斜边设计，大大降低了径向偏心距 e ，开启扭矩更小，减少了执行机构尺寸，延长了密封副寿命，更加适合双向密封。

Structural features:

Non-traditional straight bevel design. Our design is double-bevel design, which can greatly reduce radial eccentric distance e , making the opening torque smaller, reducing the actuator size, prolonging service life of the sealing pair and becoming more suitable for two-way sealing.

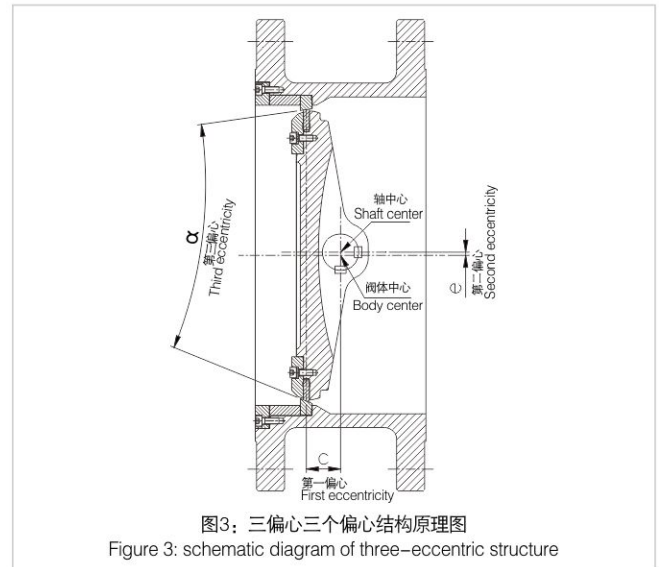


设计特点:

- 第一偏心：轴向偏心，确保密封环的圆周整体密封性；
- 第二偏心：径向偏心，确保密封环与阀座的快速脱离；
- 第三偏心：斜锥偏心，确保三偏心密封为扭矩式密封。

Design features:

- First eccentricity: axial eccentricity, ensuring the overall circular tightness of seal ring.
- Second eccentricity: radial eccentricity, ensuring fast disengagement of the seal ring from the seat.
- Third eccentricity: oblique cone eccentricity, ensuring the three-eccentric sealing is torque type sealing.



优点 Advantage

连接强度高、轴可在阀板内滑动，避免销钉连接带来的低温冷收缩不一致导致的阀板位移。止推环+平弹簧设计有效解决了低温下阀板、阀体冷收缩不一致的适应性。常温、低温状态下，阀板位置不变，确保密封副的低温密封性能。

With high connection strength, the shaft can slide inside the disc, avoiding the displacement of the disc caused by inconsistent low temperature cold shrinkage in the pin connection. The design of thrust ring + flat spring can effectively solve the problem of inconsistent cold shrinkage of disc and body at low temperature. At normal temperature and low temperature, the disc position remains unchanged, so as to ensure the cryogenic sealing performance of the sealing pair.

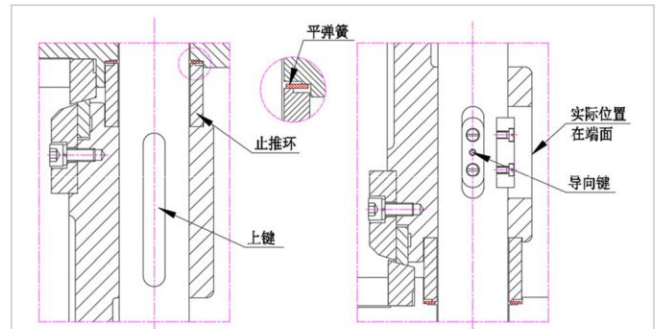


图4：阀板与轴上下双键连接
Figure 4: disc and shaft upper and lower double-key connection

仅为防吹出而设计，不支撑阀板作用，下部大间隙更好适应轴与阀体冷收缩，不一致的问题

It is only designed to prevent blow-out, and does not support disc action. The large interval at the lower part solves the problem of inconsistent cold shrinkage of shaft and body.

柔性密封环设计,确保低温下密封

Flexible seal ring design, ensuring sealing at low temperature

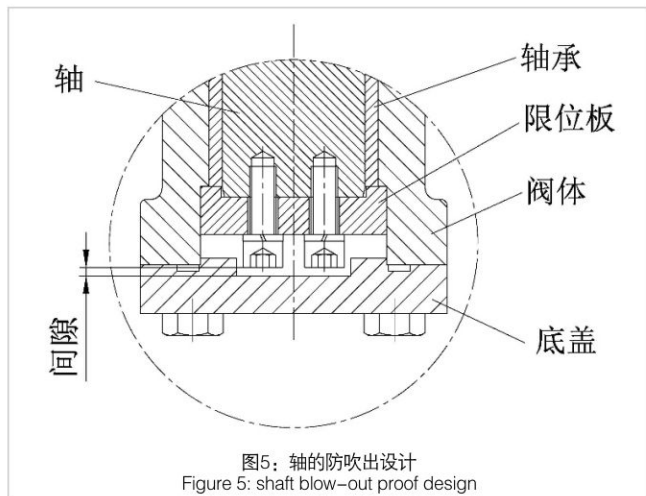


图5：轴的防吹出设计
Figure 5: shaft blow-out proof design

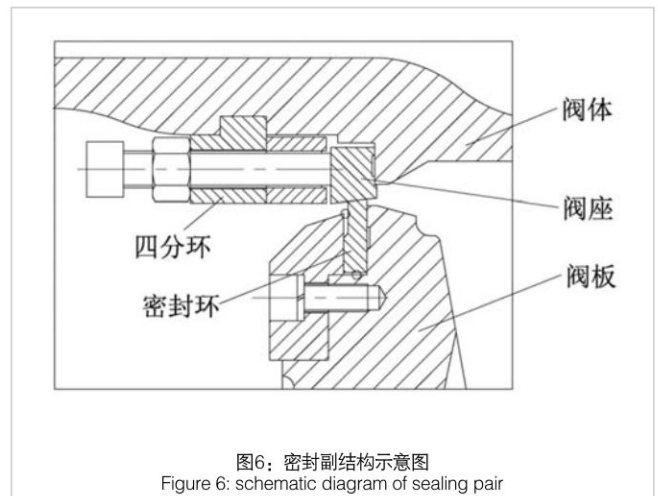
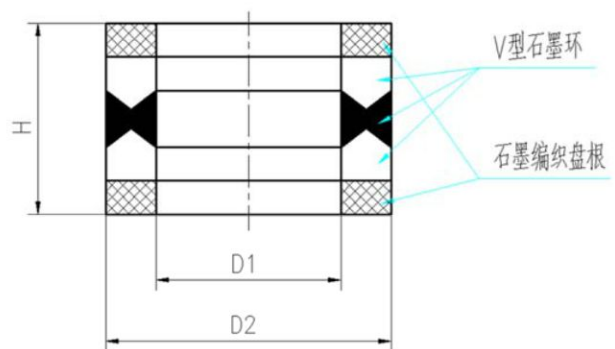


图6：密封副结构示意图
Figure 6: schematic diagram of sealing pair



图7：双V形+翻边Lip-Seal结构组合密封
Figure 7: double-V shape + Lip-Seal structure combined seal structure



低温蝶阀

Cryogenic Butterfly Valves



技术特点 Technical features

技术特点 Technical features	详细描述 Detailed description
低温下低泄漏 Low leakage at low temperature	由于以上有针对性设计特点，确保了低温下密封的可靠性，不仅可以满足BS 6364、GB/T 24925以及 ISO 28921-1(为BS6364的1/2)，也可以满足BS 6364的1/3，GB/T 4123的VI级也可选 Thanks to the above targeted design features, the sealing reliability at low temperature is ensured, so that not only BS 6364, GB/T 24925 and ISO 28921-1 (1/2 of BS6364) is met, but 1/3 of BS 6364, class VI of GB/T 4123 is also met.
长寿命 Long service life	纯金属堆焊硬质合金密封副确保了低温下长期循环寿命柔性密封环设计，确保了密封副所受面压小，确保了长期使用特殊结构的填料密封设计确保了填料函处的密封，满足ISO 15848-1 The pure metal surfacing hard alloy sealing pair ensures the long-term cycle life at low temperature. The flexible seal ring design ensures that the pressure on the sealing pair is low, and the long-term use of packing seal of special structure ensures the sealing at the packing box, meeting ISO 15848-1.
可更换式密封副 Replaceable sealing pair	阀座密封环为分体式设计，都可以进行拆卸更换，可实现在线维护和维修，节约了维护成本和提高了效率 The seat seal ring adopts split design. It can be disassembled for replacement, so as to realize in-line maintenance and servicing, save maintenance costs and enhance efficiency.
低扭矩 Low torque	特殊的双斜边三偏心密封副设计，降低了径向偏心距，大大降低了执行机构扭矩，并且降低了关闭所需扭矩，也大大降低了打开瞬间扭矩。减少密封副的接触比压，降低了成本同时也提高了使用寿命 The special double-bevel three-eccentric sealing pair design reduces radial eccentric distance, greatly lowers actuator torque, reduces the torque required for closing, greatly decreases the torque at the moment of opening, brings down contact pressure of sealing pair, lowers costs and increase service life.
可现场更换密封副的带检修口设计BW蝶阀 BW butterfly valve designed with manhole with the sealing pair replaceable at the site	焊接蝶阀设计，带有检修安装口设计，确保了现场密封副的更换 The welded butterfly valve designed with manhole and installation hole ensures the replacement of sealing pair at the site.
标准法兰距 Standard flange distance	法兰式采用API 609标准法兰距，确保了和其他厂家的替换性 焊接式采用GB/T 12221法兰距，确保了与管道焊接不影响内部 The flanged type adopts the flange distance in API 609 standard, ensuring substitutability between products of other factories. The welded type adopts the flange distance in GB/T 12221, ensuring that the pipe welding does not affect the inside.
多种材料可选 Various materials optional	除阀体选用不同奥氏体不锈钢外，阀杆材料有XM-19、Gr660 Type 2、Inconel 718等多种材料可选，特殊结构确保了材料低温适应性 Except that different austenitic stainless steels are used for the body, various materials such as XM-19, Gr660 Type 2, Inconel 718, etc. are available for the stem, and the special structure ensures material adaptability to low temperature.

额定Cv值 Rated Cv value

采用较大的Cv值设计，减少了阀门流阻。It adopts high Cv value to reduce valve flow resistance.

Class 150 Cv值表 Class 150 Cv value table

阀体尺寸 Body size	R.Cv	流阻系数 Flow resistance coefficient	各开度下Cv值(最大开度90°) Cv value at different openings (maximum opening 90°)								
			10°	20°	30°	40°	50°	60°	70°	80°	90°
80	280	1.12	17	35	80	102	110	145	187	231	280
100	420	1.21	26	52	122	153	165	220	281	350	420
125	700	1.06	37	78	180	228	264	355	457	570	700
150	1100	0.89	55	110	253	292	413	560	732	913	1100
200	2000	0.85	95	189	444	516	745	1021	1326	1655	2000
250	3200	0.81	126	252	582	789	1171	1616	2114	2644	3200
300	4600	0.82	184	380	862	1145	1685	2329	3043	3806	4600
350	6300	0.81	238	486	1113	1548	2290	3184	4164	5211	6300
400	8500	0.76	313	640	1464	2067	3081	4263	5608	6989	8500
450	12000	0.61	414	853	1781	2912	4359	6047	7927	9929	12000
500	15000	0.59	506	1042	2184	3570	5340	7414	9714	12174	15000
600	21500	0.60	677	1401	3070	5100	7662	10645	13975	17506	21500
700	29000	0.61	883	1825	4143	6907	10400	14500	18981	23806	29000
800	38000	0.61	1207	2491	5470	9095	13643	19000	24884	31215	38000
900	49000	0.58	1513	3130	7023	11720	17640	24567	32183	40425	49000
1000	62000	0.56	2005	4164	9736	16380	24800	34445	45930	56643	62000

低温蝶阀 Cryogenic Butterfly Valves



额定Cv值 Rated Cv value

采用较大的Cv值设计，减少了阀门流阻。It adopts high Cv value to reduce valve flow resistance.

Class 300 Cv值表 Class 300 Cv value table

阀体尺寸 Body size	R.Cv	流阻系数 Flow resistance coefficient	各开度下Cv值(最大开度90°) Cv value at different openings (maximum opening 90°)								
			10°	20°	30°	40°	50°	60°	70°	80°	90°
80	260	1.29	16	32	75	95	102	135	174	215	260
100	400	1.34	25	50	116	146	158	210	268	333	400
125	650	1.23	35	72	168	212	245	330	425	530	650
150	1000	1.08	50	100	230	265	375	510	665	830	1000
200	1800	1.05	85	170	400	465	670	920	1195	1490	1800
250	2800	1.06	110	220	510	690	1025	1415	1850	2315	2800
300	4200	0.98	168	347	788	1045	1538	2126	2777	3476	4200
350	5800	0.95	219	448	1025	1424	2109	2932	3833	4798	5800
400	7700	0.92	283	580	1326	1872	2791	3861	5080	6331	7700
450	10000	0.88	345	711	1484	2426	3632	5040	6605	8274	10000
500	13000	0.79	439	902	1893	3094	4629	6424	8418	10549	13000
600	19000	0.77	599	1238	2712	4508	6771	9408	12344	15471	19000
700	26000	0.76	792	1637	3705	6193	9325	13000	17018	21344	26000
800	34000	0.76	1081	2228	4894	8136	12210	17000	22264	27929	34000
900	43000	0.76	1326	2747	6163	10284	15480	21560	28243	35475	43000
1000	54000	0.73	1572	3264	7632	12840	19440	27000	36000	44400	54000

额定Cv值 Rated Cv value

采用较大的Cv值设计，减少了阀门流阻。It adopts high Cv value to reduce valve flow resistance.

Class 600 Cv值表 Class 600 Cv value table

阀体尺寸 Body size	R.Cv	流阻系数 Flow resistance coefficient	各开度下Cv值 (最大开度90°) Cv value at different openings (maximum opening 90°)								
			10°	20°	30°	40°	50°	60°	70°	80°	90°
80	250	1.40	18	37	87	110	127	135	168	208	250
100	380	1.48	28	56	133	167	193	205	257	316	380
125	650	1.23	38	76	179	226	250	332	428	532	650
150	950	1.20	59	118	279	354	377	495	635	786	950
200	1700	1.18	98	196	462	587	658	878	1132	1405	1700
250	2600	1.23	126	255	595	680	967	1318	1714	2140	2600
300	3900	1.14	167	339	784	979	1431	1968	2570	3213	3900
350	5300	0.87	236	481	1119	1345	1947	2670	3480	4347	5300
400	7200	0.81	306	624	1446	1813	2651	3647	4761	5952	7200
450	8300	0.96	399	804	1886	2160	3065	4177	5427	6768	8300
500	11000	0.82	495	1001	2338	2750	3944	5390	7018	8756	11000
600	16000	0.81	669	1360	3149	3971	5811	8000	10440	13051	16000
700	21000	0.85	847	1730	4004	5220	7685	10599	13850	17326	21000
800	28000	0.82	1184	2417	5620	7046	10303	14174	18496	23123	28000

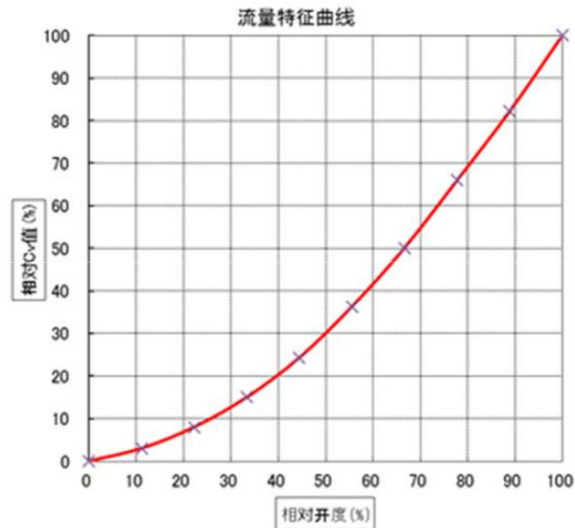


图8：流量曲线图 近似等百分比

Figure 8: flow diagram approximately equal percentage

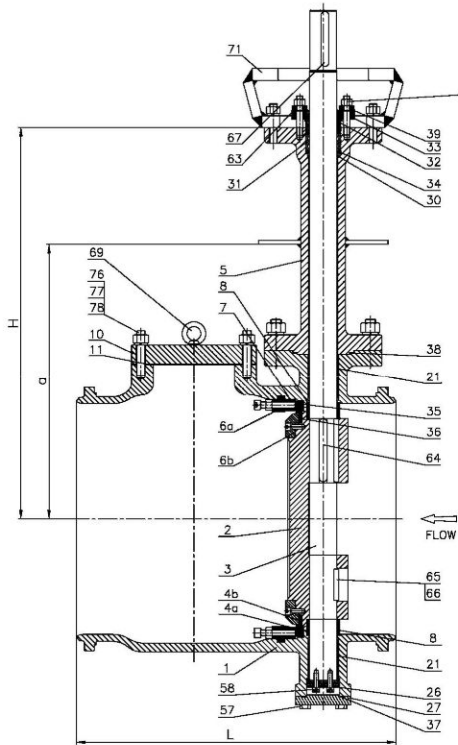
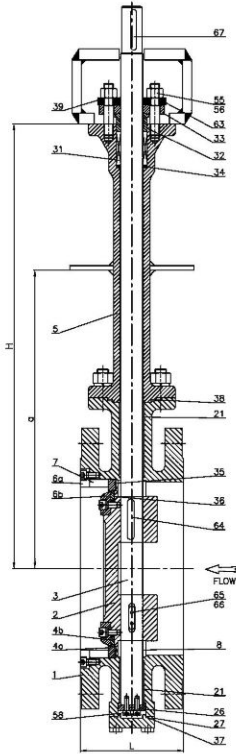
低温蝶阀 Cryogenic Butterfly Valves



低温阀材质匹配表 Cryogenic valve material matching table

焊接式三偏心材质匹配表 Welded three-eccentric valve material matching table

法兰式三偏心材质匹配表 Flanged three-eccentric valve material matching table

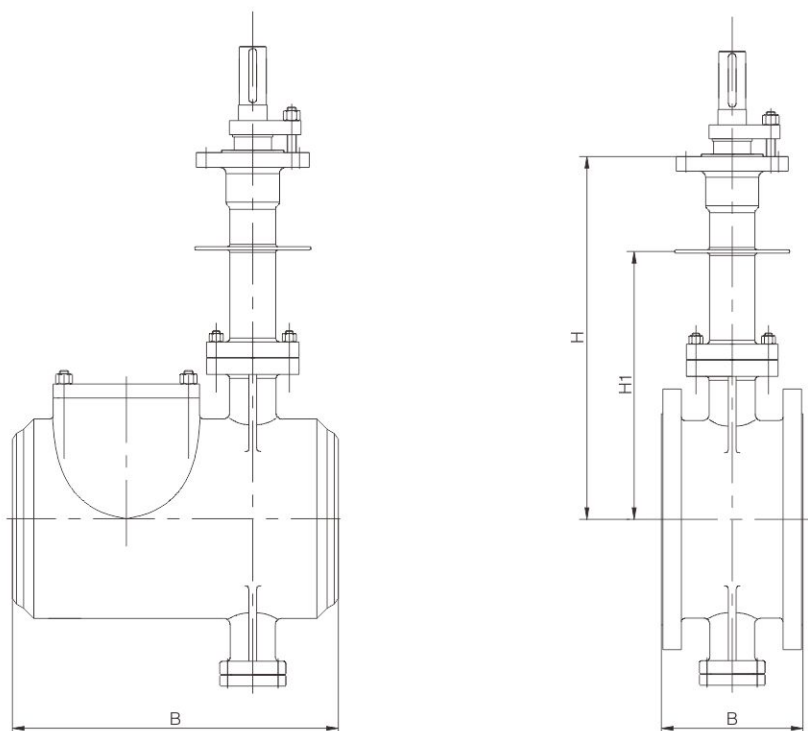


序号No.	名称 Name	材料 Material
1	阀体 Body	CF8、CF8M等etc.
2	阀板 Disc	CF8、CF8M等etc.
3	轴 Shaft	XM-19、Gr660
4a	阀座 Seat	316L/DF.Stellite
4b	密封环 Seal ring	316L/DF.Stellite
5	阀盖 Bonnet	F304、F316等etc.
6a	密封环压圈 Seal ring retainer	F304、F316等etc.
6b	阀座压圈 Seat retainer	F304、F316等etc.
7	阀座垫环 Seat backing ring	F304、F316等etc.
8	止推环 Thrust ring	XM-19
21	轴承 Bearing	Nitronic 60
26	限位板 Limit plate	F316L
27	底盖 Bottom cover	F316L
31	填料 Packing	Garphite+FLU/ELG
35	增强石墨垫 Reinforced graphite gasket	Graphite+316L
36	增强石墨垫 Reinforced graphite gasket	Graphite+316L
37	底盖垫片 Bottom cover gasket	SWG缠绕垫 wound gasket
38	阀盖垫片 Bonnet gasket	SWG缠绕垫 wound gasket
64	上键 Upper key	XM-19
65	导向键 Guiding key	XM-19

序号No.	名称 Name	材料 Material
1	阀体 Body	CF8、CF8M等etc.
2	阀板 Disc	CF8、CF8M等etc.
3	轴 Shaft	XM-19、Gr660
4a	阀座 Seat	316L/DF.Stellite
4b	密封环 Seal ring	316L/DF.Stellite
5	阀盖 Bonnet	F304、F316等etc.
6a	密封环压圈 Seal ring retainer	F304、F316等etc.
6b	阀座压圈 Seat retainer	F304、F316等etc.
7	阀座垫环 Seat backing ring	F304、F316等etc.
8	止推环 Thrust ring	XM-19
10	检修盖 Access cover	CF8、CF8M等etc.
11	检修口垫片 Manhole gasket	Graphite+316L
21	轴承 Bearing	Nitronic 60
26	限位板 Limit plate	F316L
27	底盖 Bottom cover	F316L
31	填料 Packing	Garphite+FLU/ELG
35	增强石墨垫 Reinforced graphite gasket	Graphite+316L
36	增强石墨垫 Reinforced graphite gasket	Graphite+316L
37	底盖垫片 Bottom cover gasket	SWG缠绕垫 wound gasket
38	阀盖垫片 Bonnet gasket	SWG缠绕垫 wound gasket

外形尺寸表
Table of outline dimensions

不含执行机构, 单位:mm Not including actuator, Unit: mm



DN	B-法兰距 Flange distance				H1-滴水盘高度 Drip tray height		H-阀体高度 Body height	
	法兰式 Flanged type		焊接式 Welded type		CL150	CL300	CL150	CL300
	CL150	CL300	CL150	CL300				
80	114	—	—	260	—	475	—	
100	127	—	—	300	300	520	520	
125	140	—	—	290	330	510	545	
150	140	—	—	330	375	570	635	
200	152	—	419	390	420	650	675	
250	165	—	457	450	475	735	755	
300	178	—	502	490	520	775	795	
350	190	—	572	525	570	850	890	
400	216	—	610	565	615	885	950	
450	222	—	660	635	710	965	1055	
500	229	—	711	680	755	1010	1100	
600	267	—	813	755	820	1100	1155	
700	292	—	914	805	900	1250	1330	
800	318	—	965	865	995	1300	1450	
900	330	—	1016	990	1085	1520	1605	
1000	410	—	1118	1055	1205	1580	1725	

备注: 对夹式三偏心法兰距见 API 609标准

Remark: See API 609 standard for the wafer type three-eccentric flange distance.

低温蝶阀 Cryogenic Butterfly Valves



制造过程简介 Brief introduction to manufacturing process



数控加工中心
CNC machining center



组装生产线
Assembly line



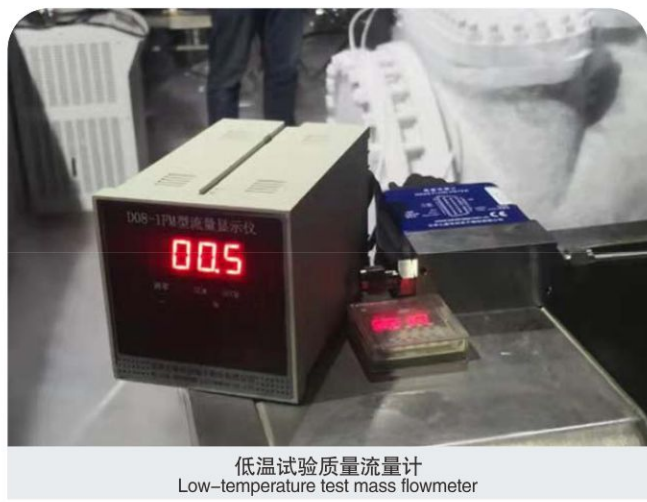
PTA自动等离子堆焊机
PTA automatic plasma surface welding machine



低温试验台控制柜
Low temperature test stand control cabinet



低温试验过程
Low temperature test process



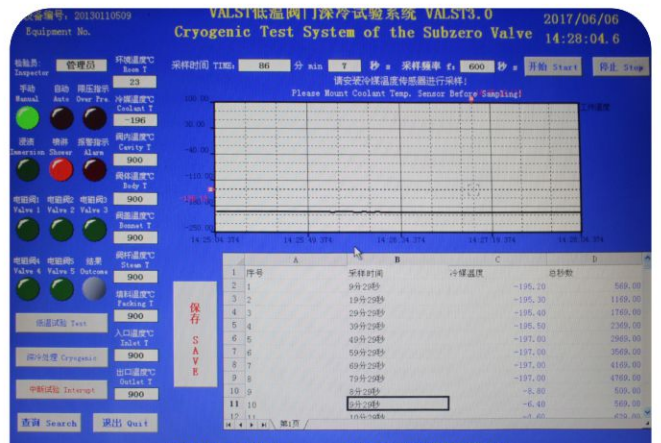
低温试验质量流量计
Low-temperature test mass flowmeter



低温试验液氮罐
Low temperature test liquid nitrogen tank



低温氦气检漏仪
Cryogenic helium leak detector



低温深冷试验控制系统
Low temperature and deep cooling test control system



浙江中德自控科技股份有限公司

Zhejiang Zhongde Automatic Control Science And Technology Joint Stock Co., Ltd.

地址：浙江省长兴县太湖街道长兴大道659号

电话：0572-6660053

传真：0572-6556888

售后服务热线：0572-6660121 / 13325722979

E-mail: vip@zhongdegroup.com

Http://www.zhongdegroup.com