



A. 低温球阀系列 Sub-zero Valve



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.



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)(公司简称:中德科技,股票代码:831294)专注于为石油、化工、煤化工、天然气等客户提供自动化控制阀门及控制系统的解决方案和进口控制阀的替代。自创立以来,中德科技致力于发展气\电\液动高性能密封蝶阀、高性能密封球阀、高温耐磨球阀、高温蝶阀、快速切断闸阀、调节阀、气动执行机构及控制系统等专业领域技术,使我们始终处在国内控制阀领域的技术领先地位。产品广泛应用于石油、化工、天然气、煤化工等高端领域,并获得了众多用户的高度信任。

中德科技现已拥有专业阀门研发中心和一流的生产平台,并通过了ISO9001:2008质量管理体系认证,美国石油协会API 6D/609产品认证,API 607/6FA防火认证,国家特种设备压力管道制造许可“TS(A1)”认证,欧共体安全注册CE认证,产品功能安全SIL 3认证,环境管理体系认证(GB/T24001-2004/ISO14001:2004),职业健康安全管理体系认证(GB/T28001-2011/OHSAS18001:2007)。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。是浙江省科技型企业,国家高新技术企业。

公司将“客户的满意我们视之为生命”为经营宗旨,并全国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“111”服务承诺。随时可更快更好的为广大用户提供一流的售前,售中,售后服务。

“以人为本,以德兴业”是中德企业文化的核心,是中德人做人做事的标准,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,全力打造国家高端先进制造企业,致力于加快我国控制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 china-germany autonomous technology co., LTD. (former china-germany machinery group co., LTD.) (referred to as "company: sino-german technology, stock code: 831294) focus on for oil, chemical industry, coal chemical industry, natural gas and other customers to provide automatic control valve and control system solutions and import control valve replacement. Since its inception, sino-german technology committed to the development of gas, electric, hydraulic, high performance sealing butterfly valve, high performance sealing ball valves, high temperature wear-resistant ball valve, high temperature butterfly valve, quick cut-off valve, regulating valve, actuator and control system, and other areas of the professional technology, make we always in the domestic technology leading position in the field of control valve. Products are widely used in petroleum, chemical, natural gas, coal chemical industry and other high-end fields, and won the high trust of many users.

Germany and China now owns professional valve research and development center of science and technology and first-class production platform, and adopted the ISO9001:2008 quality management system certification, American petroleum institute API 6 d / 609 product certification, API 607/6 fa fire certification, the national special equipment license for the manufacture of pressure piping "TS (A1)" certification, the ec safety registration CE certification, product features security SIL 3 certification, environmental management system certification, GB/T24001-2004 / ISO14001:2004), occupational health and safety management system certification, GB/T28001-2011 / OHSAS18001:2011). Is sinopec, petrochina, cnooc, sinochem, shenhua, first-class supplier in the field of coal chemical industry, etc. Is the science and technology enterprises in zhejiang province, the national high-tech enterprises.

Company to "customer satisfaction we see it as a life" for business purposes, and established the twelve national direct sales and service network, both in the breadth and depth of service market has the originality. We can meet your requirements, we offer you the "safe, reliable and worry" products at the same time, greater value than the price of our products. No matter where you, we have rich experience and professional knowledge of the team, can provide you with "serious, responsible, fast" high-quality service. We stick to "reach a phone call, one day, a one-time success", "1 1 1" service commitment. At any time can be faster and better for the majority of users to provide first-class pre-sale, sale, after-sales service.

"People-oriented, good for societe generale" is the core of the sino-german corporate culture, is a sino-german standard of conduct of human beings, Germany and China will "treat our friends with sincere friends, good for" foil to our excellent product quality and first-class service. China-germany whole, again the best, to create national high-end advanced manufacturing enterprise, is committed to accelerate the process of the localization of application of control valve, in order to better realize the maximization of customer satisfaction, Germany and China is willing to work with your sincere cooperation, create a better tomorrow!



↑ 长兴中德厂区
Changxing zhongde factory



↑ 温州中德厂区
Wenzhou zhongde factory





Production Workshop 生产车间

中德将产品质量视为公司的生命，基于此，我们不惜投入大量资金引进现代化的生产设备、建设现代化车间，规范了生产程序，使每个员工都能按科学的生产程序生产，使我们的生产程序能得到最大可能的优化，满足日益发展的企业需要，从而在生产中杜绝了浪费，加快了速度，提高了品质，最终赢得了市场。

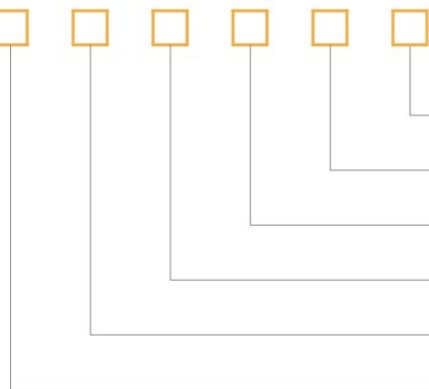
Zhognde regards product quality as life of the enterprise, so we have made a huge investment in introducing modern production equipment, building modern workshops and standardizing production procedures. Every worker can follow scientific production procedures so that our production procedures are optimized further, meeting the increasing demands, avoiding the waste in production, improving the speed and quality, all of which finally enable us to win the market.



生产设备 Production equipment

序号 NO.	设备名称	Equipment name
1	卧式/立式加工中心	Horizontal/vertical machining center
2	高速铣削中心	High speed milling center
3	车铣中心	Car milling center
4	数控球面车磨中心	Numerical control car spherical
5	数控车床	grinding center
6	电火花机床	Numerical control lathe
7	线切割机床	Edm machine wedm
8	阀杆滚压机	The valve stem roller mill
9	摩擦焊机	The friction welding machine
10	球芯研磨专机	Ball core ground plane

Ordering Information



- 1 阀体材料代号
Body material
- 2 公称压力代号
Pressure
- 3 阀体密封面或衬里材料代号
Body sealing face
- 4 结构形式代号
Type of construction
- 5 连接形式代号
Type of connection
- 6 传动方式代号
Type of transmission
- 7 类型代号
Type of valve
- 8 特征代号
Feature code

Structure code

代号 Code	特征 Feature	代号 Code
K	夹套保温型 Jacketed heat preservation type	B
D		
L	氧气专用型 Oxygen specific type	O

阀门的类型代号 Type of valve

类型 Type	代号 Code
闸阀 Gate valve	Z
截止阀 Globe valve	J
球阀 Ball valve	Q
蝶阀 Butterfly valve	D
止回阀 Check valve	H

传动方式代号 Type of transmission

代号 Code	传动方式 Transmission	代号 Code
0	伞齿轮 Conical gear	5
1	气动 Pneumatic	6
2	液动 Hydraulic	7
3	气液动 Pneu-hydr	8
4	电动 Electric	9

连接形式代号 Type of connection

连接形式 Connection	代号 Code	连接形式 Connection	代号 Code
内螺纹 Inside thread	1	对夹 Wafer	7
外螺纹 Outside thread	2	卡箍 Band	8
法兰 Flange	4	卡套 Case	9
焊接 Weld	6		

结构形式代号 Construction of valve

结构形式 Type of construction	代号 Code	类型 Type	结构形式 Type of construction	代号 Code
楔式弹性闸板 Wedge flexible gate disc type	0	止回阀 Check valve	旋启式 Swing type	4
楔式单闸板 Wedge single gate disc type	1	蝶阀 Butterfly valve	双偏心结构 Double-eccentric type	3
直通式 Straight type	1	球阀 Ball valve	直通式浮动球 Vertical type of floating ball type	1
升降式 Lifting type	1		直通式固定球 Vertical type of trunnion ball type	7

Ordering Information

订货需知

性能试验 Properties test

项目 Item	试验标准 Test standard				单位 Unit (MPa)					
	150Lb	300Lb	600Lb	800Lb	1.6MPa	2.5MPa	4.0MPa	6.3MPa		
常规试验 Standard test	强度试验 Shell test (MPa)		3.0	7.5	16.5	21	2.4	3.75	6.4	9.45
	高压密封试验 Hp seal test (MPa)		2.2	5.5	12.1	15.4	1.76	2.75	4.4	6.93
	上密封试验 Vpper seal test (MPa)		2.2	5.5	12.1	15.4	1.76	2.75	4.4	6.93
	低压密封试验 Lp seal test (MPa)		0.5-0.7							
低温试验 Sub-zero temperature test	试验温度 Test temperature (°C)		-196							
	操作性能 Operate performance		5次							
	密封试验 Seal test (MPa)		2.0	5.0	11.0	14.0	1.6	2.5	4.0	6.3
	上密封试验 Vpper seal test (MPa)		2.0	5.0	11.0	14.0	1.6	2.5	4.0	6.3

主要零件材料 Material for main parts

阀体材料 Body material	低温钢 Sub-zero resisting steel		奥氏体不锈钢 Austenitic stainless steel
适用介质 Suitable medium	氨、丙烷等 Ammonia, Propane	乙烷、硫化氢、二氧化碳等 Ethane, Sulfureted hydrogen, CO2	天然气、乙烯、液氧、液氮等 Gas, Ethylene, Oxygen, Nitrogen
适用温度 Suitable temperature	-46°C	-101°C	-196°C

零件名称 Accessory name	材料 Material		
阀体 Body	LCB LF2	LC3	F304, CF8, F316, CF8M
阀盖 Bonnet	LCB LF2	LC3	F304, CF8, F316, CF8M
闸板 Wedge disc	LCB LF2	LC3	F304, CF8, F316, CF8M
阀杆 Stem	1Cr17Ni2	1Cr17Ni2	F304, F316
阀座 Seat ring	F304	F304	F304, F316
阀杆螺母 Stem nut	铜合金 Copper alloys		
手轮 Hand wheel	可锻铸铁 Ductile cast Iron		



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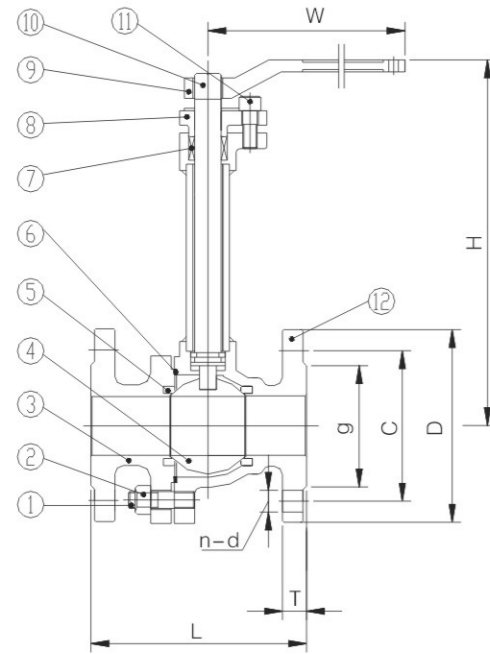
Sub-zero Floating Ball Valve

低温浮动球阀

DQ₃₆₉41F

ANSI 150Lb

结构型式Construction features



主要零件材料Main parts and materials

序号 No.	零件名称 Accessory name	材料 Material
1	双头螺柱/Bolt	A320-B8Mcl2
2	螺母/Nut	A194-8M
3	阀盖/Cover	CF8M
4	球体/Ball	F316
5	阀座/Seat	PTFE
6	垫片/Gasket	不锈钢+柔性石墨 Stainless steel + flexible graphite
7	填料/Packing	柔性石墨 Flexible graphite
8	填料压套/Gland flange	CF8M
9	手柄/Handle	CF8M
10	阀杆/Stem	F316
11	螺钉/Bolt	A320-B8Mcl2
12	阀体/Body	CF8M

应用规范

- 1、设计和制造标准按 JB/T 7749, API 6D
- 2、结构长度按 ANSI B16.10
- 3、法兰端尺寸按 ANSI B16.5
- 4、阀门的检查和试验按 JB/T 7749, API 598, API 6D
- 5、主体材料: LCB、CF8、CF8M、CF3、CF3M等

Technical specification

- 1、Design and manufacturing per JB/T 7749, API 6D
- 2、Face to face dimensions per ANSI B16.10
- 3、Flanged connection per ANSI B16.5
- 4、Test and inspection per JB/T 7749, API 598, API 6D
- 5、Body material: LCB、CF8、CF8M、CF3、CF3M...

主要外形尺寸和质量Main dimensions and weights

压力等级	公称通径		L	D	C	g	T	n-d	H	W	质量(Kg)
	inch	mm									
150Lb	2"	50	178	150	120.5	92	19.5	4-19	307	230	14
	3"	80	203	190	152.5	127	24	4-19	352	400	25
	4"	100	229	230	190.5	157	24	8-19	378	650	42
	6"	150	394	280	241.5	216	26	8-22	472	1050	96

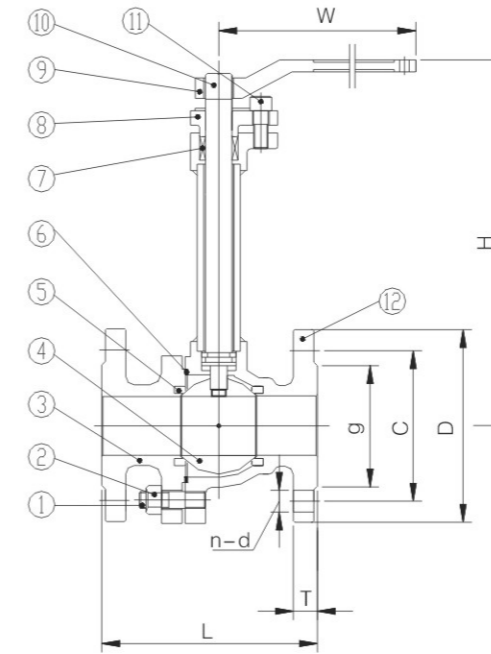
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2	螺母/Nut	A194-8M
3	阀盖/Cover	CF8M
4	球体/Ball	F316
5	阀座/Seat	PTFE
6	垫片/Gasket	不锈钢+柔性石墨 Stainless steel + flexible graphite
7	填料/Packing	柔性石墨 Flexible graphite
8	填料压套/Gland flange	CF8M
9	手柄/Handle	CF8M
10	阀杆/Stem	F316
11	螺钉/Bolt	A320-B8Mcl2
12	阀体/Body	CF8M

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主要外形尺寸和质量Main dimensions and weights

压力等级	公称通径		L	D	C	g	T	n-d	H	W	质量(Kg)
	inch	mm									
300Lb	2"	50	216	165	127	92	23	8-19	310	230	17
	3"	80	283	210	168.5	127	29	8-22	355	400	34
	4"	100	305	255	200	157	32	8-22	382	650	60
	6"	150	403	320	270	216	37	12-22	480	1410	120

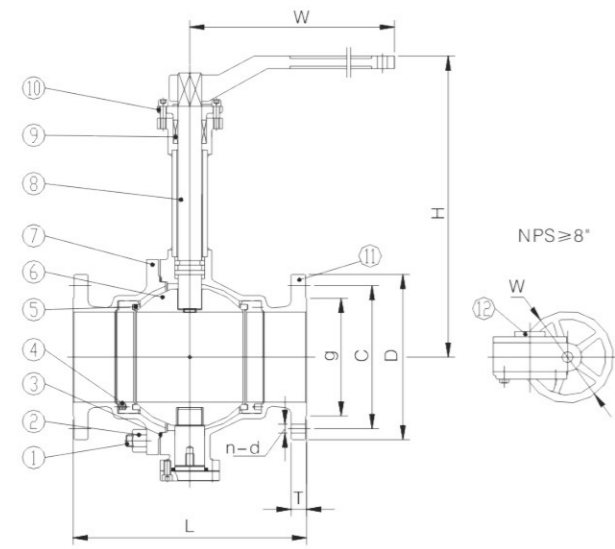
Sub-zero Trunnion Ball Valve

低温固定球阀

DQ_{3/6/9}47F

ANSI 150Lb

结构型式Construction features



主要零件材料Main parts and materials

序号 No.	零件名称 Accessory name	材料 Material
1	双头螺柱/Bolt	A320-B8Mc12
2	螺母/Nut	A194-8M
3	垫片/Gasket	不锈钢+柔性石墨 Stainless steel + flexible graphite
4	阀座/Seat	F316
5	密封圈/Sealed ring	PTFE
6	球体/Ball	F316
7	阀盖/Cover	CF8M
8	阀杆/Stem	F316
9	填料/Packing	PTFE
10	填料压套/Gland flange	CF8M
11	阀体/Body	CF8M
12	蜗轮装置/Gear operator	组合件 Combined parts

应用规范

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	inch	mm									
150Lb	4"	100	229	230	190.5	157	24	8-19	378	650	33
	6"	150	394	280	241.5	216	26	8-22	530	1050	93
	8"	200	457	345	298.5	270	29	8-22	598	610	160
	10"	250	533	405	362	324	31	12-25	695	610	240
	12"	300	610	485	432	381	32	12-25	780	610	390
	14"	350	686	535	476	413	35	12-29	830	610	520
	16"	400	762	600	540	470	37	16-29	900	610	670

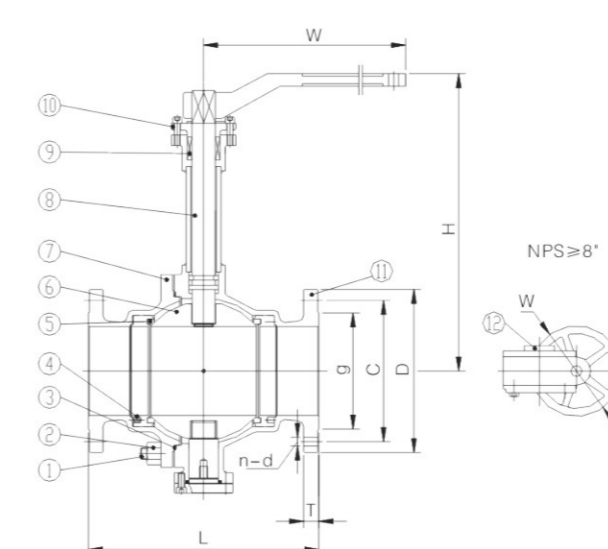
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	inch	mm									
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	8"	200	419	380	330	270	42	12-25	398	610	200
	10"	250	457	445	387.5	324	48	16-29	695	610	365
	12"	300	502	520	451	381	51	16-32	780	610	530
	14"	350	572	585	514.5	413	54	20-32	950	610	770
	16"	400	610	650	571.5	470	57	20-35	1080	610	1030

