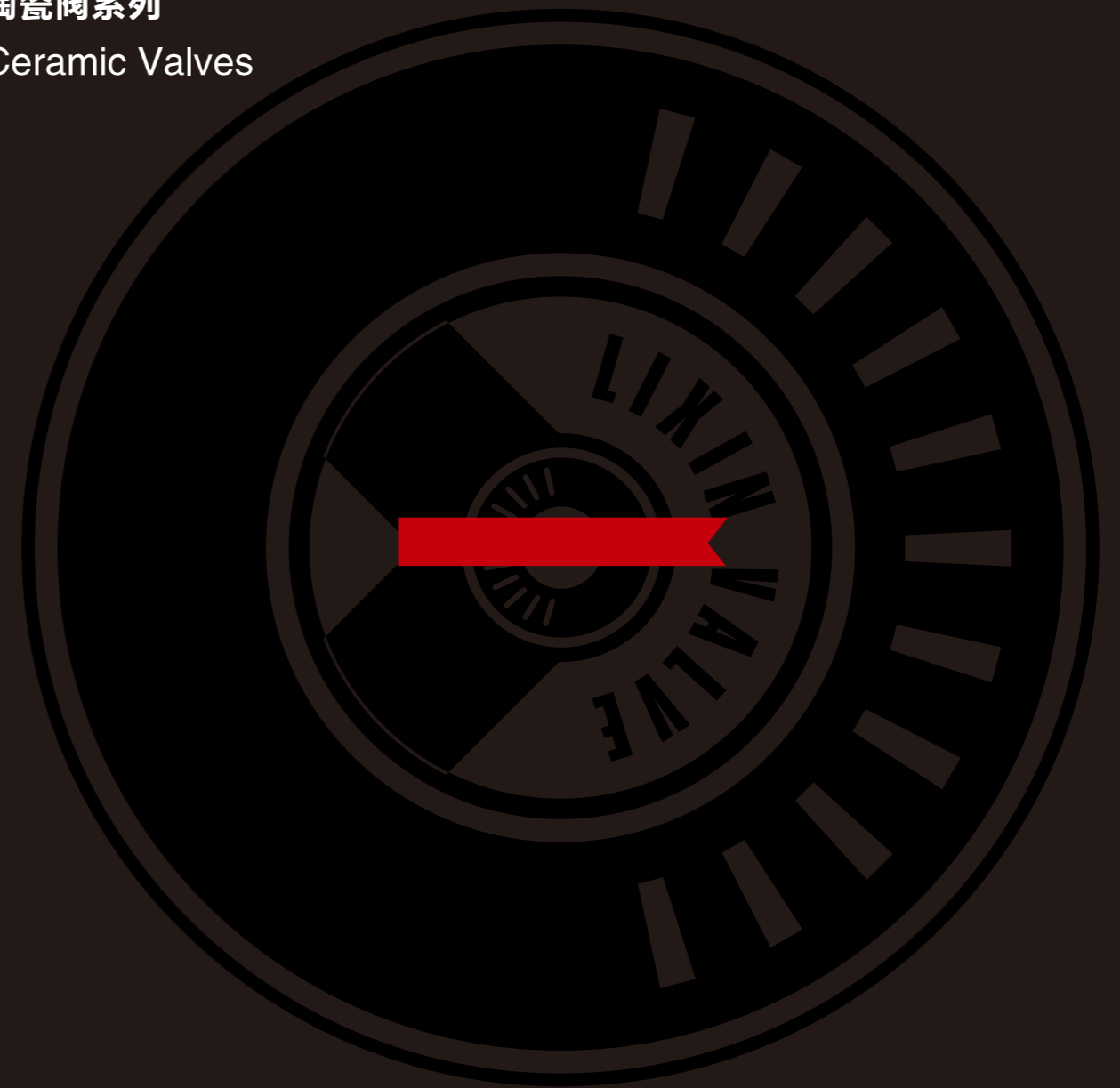


陶瓷阀系列  
Ceramic Valves



立信阀门集团有限公司  
LIXIN VALVE GROUP CO.,LTD.

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# Brief Introduction

## 企业简介

立信阀门集团有限公司，是国家级无区域集团，座落在“中国泵阀之乡”——浙江省永嘉县瓯北东瓯工业区舟山路，是一家集阀门研发、生产、销售及服务于一体化的现代化企业，公司始建于2000年，自创建以来技术不断创新，规模日益壮大。2008年在浙江立信阀门有限公司基础升格为立信阀门集团有限公司，集团注册资金2.88亿元，下辖五个子公司，其中拥有云和铸造生产基地，总建筑面积达50000平方米，现有员工450人，其中中高级工程技术人员50多人，大专以上人员150多人，公司配备数控加工中心、各种大中型设备、光谱仪等专用检测设备共460台套，年生产能力达20000吨。

集团有健全质量管理体系，先后通过了ISO9001、ISO14001、OHSAS18001体系认证：

并通过美国石油学会API6D企业认证，AP1607、6FA、624经TUV产品认证、ISO15848-1试验经TUV认证，欧共体CE认证等：

集团已经取得国家特种设备制造许可(压力管道)TS(A1)证书，获得35项国家专利，高新技术企业，标准起草单位，浙江省著名商标，浙江省技术研发中心，浙江省信用管理示范企业，浙江省区域名牌产品，浙江省科技型中小企业，浙江省名牌产品，温州市名牌产品，温州市红十字会博爱功勋奖，温州市高成长企业，永嘉县巨龙企业，永嘉县领军企业，永嘉县县长质量奖，永嘉县十佳诚信典范企业，银行资信AAA级单位；

集团系中石化供应商网络成员单位，中国海油采办业务系统成员单位、中国华电集团公司集团级供应商会员，中油中泰燃气投资集团市场准入单位，中国化工装备总公司定点生产企业单位，国家工程建设推荐产品单位，中国燃气协会会员单位，国家电力配件供应网络成员单位。

陶瓷阀门应用领域，电力行飞灰，石膏，煤粉灰 浆渣 滤液等；

钢铁行业：镁粉，石灰硅酸盐镁粉等粉料含有工业粉尘及铁粉，造纸，化学，化工酸碱，胶界晶体；

石油行业，矿业，煤化工行业 耐磨行业，欢迎选购。

集团始终坚持“以人为本、真诚服务、以质兴企、科技创新”的企业经营理念，以市场需求为导向，为开拓全球阀门市场，打造立信阀门品牌，振兴民族工业发展，热忱欢迎国内外各界朋友携手合作，共创辉煌！



Lixin Valve Group Co., Ltd. is a national non-regional group, a modern enterprise integrates scientific research, development, production, sales and service, which is located in the "The hometown of pump and valve in China" Zhoushan Road, Dongou Industrial Zone, Yongjia County, Zhejiang Province. Founded in 2000, the group has continuously innovated the technology and the scale has been growing since its establishment. In 2008, Lixin Valve Co., Ltd. was upgraded to Lixin Valve Group Co., Ltd. with a registered capital of 288 million RMB, and the jurisdiction of 5 branches including Yunhe Casting production base. The group covers a total construction area of 50,000 m<sup>2</sup>, with 450 employees, including more than 50 senior and intermediate engineering and technical personnel, and over 150 college degrees or above. The group is also equipped with CNC machining center, 460 sets of all kinds of large and medium-sized equipment, spectrographs and other special testing equipment, who owns a annual production capacity of 20,000 tons.

Lixin Valve Group Co., Ltd. has a sound quality management system which owns the certifications of ISO9001, ISO14001 and OHSAS18001 systems, and passed the American Petroleum Institute API6D enterprise certification, as well as AP1607, 6FA, and 624 have been certified by TUV/ISO 15848-1 test by TUV certification, the European community CE certification, etc.

In the meantime, the group has obtained National Special Equipment Manufacturing License (pressure pipeline) TS (A1) certificate, won 35 national patents, and titles like High-Tech Enterprises, Standard Drafting Unit, Famous Trademark of Zhejiang, Technology Research and Development Center of Zhejiang, Credit Management Demonstration Enterprise of Zhejiang, Regional Famous Brand Products of Zhejiang, Science and Technology of Small and Medium-sized Enterprises of Zhejiang, Famous Brand Products of

Zhejiang, Famous Brand Products of Wenzhou, Wenzhou Red Cross Charity meritorious Service Award, High-Growth Enterprises of Wenzhou, Leading Enterprise of Yongjia, Yongjia county leader, Yongjia County Magistrate Quality Award, Yongjia Top Ten Model of Integrity Enterprise, AAA level of bank credit unit.

The group is a member unit of the Sinopec Supplier Network, CNOOC Acquisition Business System, as well as a Group-level supplier member of China Huadian Group Corporation, a market access unit of CNPC Zhongtai Gas Investment Group, a designated production enterprises unit of China National Chemical Equipment Corporation, and also a member unit of National Engineering Construction Recommended Products, China Gas Association and The National Power Parts Supply Network.

Ceramic valve is widely used in such industries as power line fly ash, gypsum, pulverized coal slurry filtrate, Slurry, filtrate etc.; Steel industry; magnesium powder, lime silicate magnesium powder and other powder contain industrial dust and iron powder, paper making, chemistry, chemical acid and alkali, rubber crystal; Petroleum industry, mining, coal chemical industry wear resistance industry, welcome.

"People-oriented, sincere service, quality based, scientific and technological innovation" has always been the business philosophy of Lixin Valve Group Co., Ltd. To develop the global valve market, the group has taken the market demand as the guidance, and built the brand of Lixin Valve. Lixin will continue to revitalize the development of national industries, and welcome friends from all over the world to work together and create something brilliant!





Integrity Let Us Root In The Valve World.  
立足阀门市场 信守质量承诺

## Production Equipment

### 生产装备

科学技术是第一生产力，科学技术也是企业的核心竞争力。不断加强核心技术的研发和创新，不断追求卓越，精益求精，以先进的生产设备，严格的质量管理，精密的生产检测流程，保证每一款产品的优良性能。生产工具是生产力发展水平的标志。先进的生产设备代表了先进的生产力。立信公司积极引进的技术和生产设备，使产品在品质与外在个性化紧密结合，完全满足引领工业现代化的需求。

Science and technology constitute a primary productive force. It's also the core competitive strength of the enterprise. Continuously intensifying the research, development and innovation of core technology, pursuing prominence and keeping improving, ensuring the excellent quality and performance of every single product by advanced production equipment, strict quality control and precise production and inspection procedures. Production facility is the sign of productivity. Advanced production equipment represents advanced productivity. By introducing superior technology and production facilities continuously, LIXIN Company perfectly integrates the internal quality of products and the external individualized designs, to cater for the requirements of industrial mode mization.

## Better Equipment, Perfect Quality.

### 装备精益求精，品质尽善尽美。

通过先进的检测设备与专业量具制作达到零泄漏，生产设备应先进的现代化数控生产设备自动化设备基本人员配比技术含量高，选用比较高档的磨料模具，通过模具设计选型，优选于同行业，通过工艺工装，采用先进的工艺设计工装，夹具制作等，公司采用先进的毛坯材料材料协议，根据各个领域选择各种不同的材料，满足各种现场使用工况，加下高档的设备，选配有磨床，数控加工中心，数控车床，受控力车倒角机，数控磨床，整圆机等，以先进的研磨技术保证产品质量。

LIXIN apply advanced modern CNC production equipment, equipped with sufficient technical personnel, select relatively high-grade abrasive molds, through mold design, it is preferred in the same industry, through process tooling, and adopt advanced process design tooling, fixture manufacturing, etc., and our adopts advanced raw material agreement, select different materials according to various fields, to meet various on-site use conditions, use high equipment, select grinding machines, CNC machining centers, CNC lathes, controlled power turning chamfering machines, CNC grinders, rounding machines, etc., use advanced grinding technology to ensure product quality.



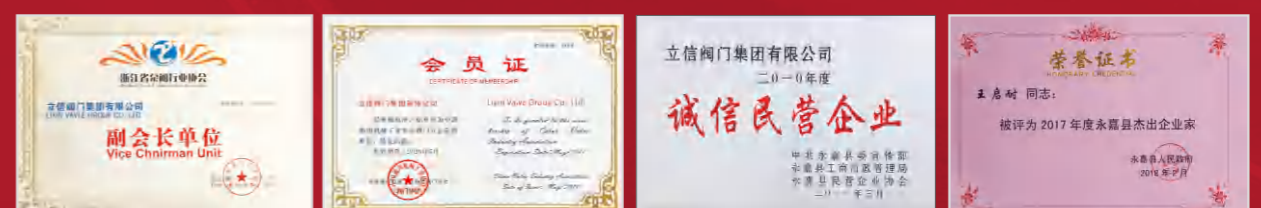
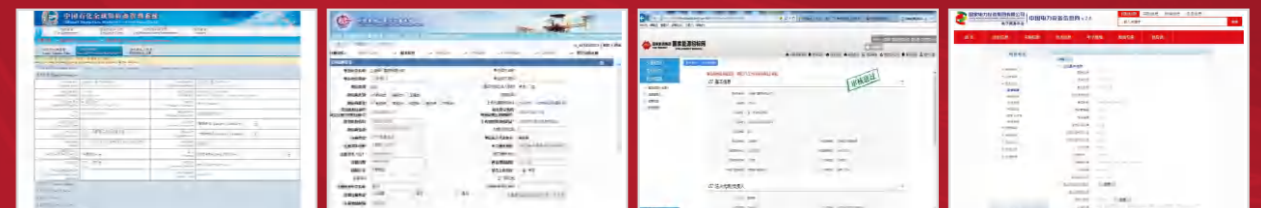
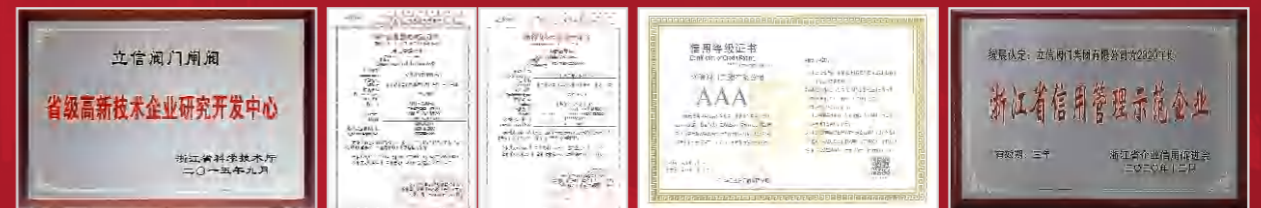
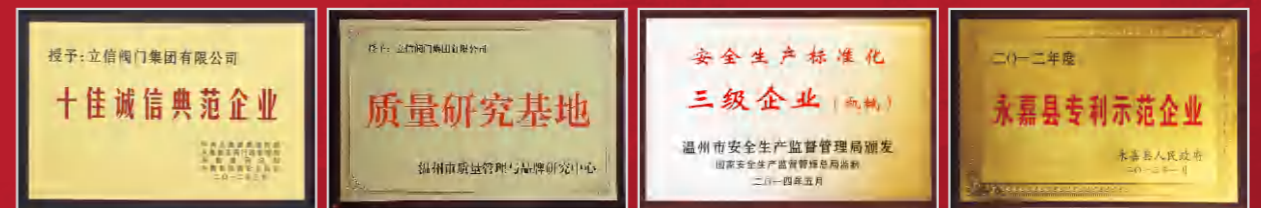


# HONOR AND QUALIFICATION

## 荣誉与资质

金杯、奖杯，回眸立信的一个辉煌过去，也预示立信一个金灿灿的未来。  
但是立信更坚信的是辛勤、汗水、孜孜以求与不懈努力，努力，再努力.....

Review a glorious past of Lixin, golden cup, trophy, also indicates a golden future.  
But Lixin more convinced that the hard work, sweat, assiduous and unremitting efforts,  
hard work, more and more effort.

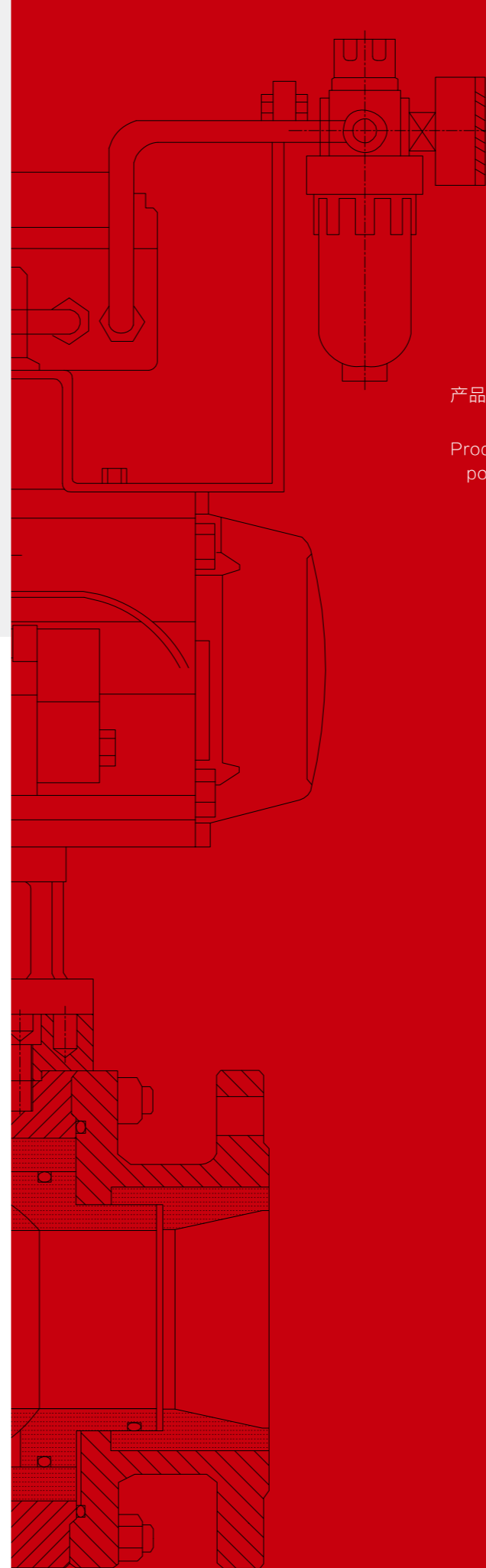




## Smart Manufacturing Factory 智能制造工厂

立信年产10000吨阀门智能制造项目用地面积35.31亩，总建筑面积79500平方米，总投资3.18亿元，拟建成车间、研发、宿舍等建筑。项目采用先进的智能制造，并通过PDM、ERP、APS、MES、Oa等系统建设，实现信息化，购置各种智能专业生产设备以及专业检测设备380台，致力于研发生产超高温、超低温、超耐磨等多功能智能特种阀门，全力打造工业与信息化深度融合的智能化厂区，数字化车间。

Lixin's annual output of 10,000 tons of valves intelligent manufacturing project site area of 35.31 acres, a total construction area of 79,500m<sup>2</sup>, with a total investment of 318 million RMB, to build a workshop, R&D, dormitory and other buildings. The project adopts advanced intelligent manufacturing, and through the construction of PDM, ERP, APS, MES, OA and other systems to achieve information technology, the purchase of various intelligent professional production equipment and professional testing equipment 380 sets, dedicated to the research and development and production of ultra-high temperature, ultra-low temperature, ultra-wear-resistant and other multifunctional intelligent special valves, and make every effort to build an intelligent plant and digital workshop with the deep integration of industry and information technology.



# CERAMIC VALVE SERIES

## 陶瓷阀系列

产品适用于石油，化工，天然气，轻工，电力，医药，染料，冶金，纤维，皮革，纺织，食品，军工，建筑，制冷，供水等行业。  
Products applicable to petroleum, chemical, natural gas, light industry, electric power, pharmaceuticals, dyes, metallurgy, fiber, leather, textile food, military, construction, refrigeration, water supply and other industries.

- 球阀
- 偏心半球阀
- 双闸板阀
- 旋转圆盘阀
- 旋转进料阀
- 刀闸阀
- 排渣阀
- 蝶阀
- 止回阀
- 陶瓷管件
  
- Ball Valve
- Eccentric Semi-Ball Valve
- Double Disc Valve
- Rotary Disc Valve
- Rotation Feeding Valve
- Knife Gate Valve
- Slag Valve
- Butterfly Valve
- Check Valve
- Pipe&Fitting

**陶瓷性能指标**  
**CERAMIC PERFORMANCE SPECIFICATION**
**陶瓷性能指标 CERAMIC PERFORMANCE SPECIFICATION**

项目 Item	单位 Unit	氧化铝 Alumina (AL <sub>2</sub> O <sub>3</sub> )			氧化锆 Zirconia(ZrO <sub>2</sub> )	
		AL <sub>2</sub> O <sub>3</sub> ≥95%	AL <sub>2</sub> O <sub>3</sub> ≥99%	AL <sub>2</sub> O <sub>3</sub> ≥99.5%	3Y-TZP	Ce-TZP
体积密度 Density	g/cm <sup>3</sup>	3.7	3.9-3.95	3.95	6.0-6.05	6.0
硬度 Hardness	HRA≥	86	88	88	87	8
抗弯强度 Flexural Strength	MPa≥	300	350	400	1300	800
最高使用温度 Max. temperature	℃	1200	1200	1200	900	1100
线膨胀系数 Liner Expansion Coefficient	10 <sup>-6</sup> /℃	7.5	8.2	8.2	9.8	9.6
介电常数 Permittivity	Er20℃,1MHz	9.0	9.2	9.2	9.3	9.3
介质损耗 Dielectric Loss	tan δ x10 <sup>4</sup> ,1MHz	3	2	2	2	2
体积电阻率 Volume Resistivities	Ω.cm20℃	10 <sup>13</sup>	10 <sup>14</sup>	10 <sup>14</sup>	10 <sup>16</sup>	10 <sup>16</sup>
击穿强度 Puncture Stength	KV/mm,DC≥	20	20	20	20	20
抗压强度 CompressiveStrength	MPa≥	2500	2500	2500	4500	4500
抗折强度 Rupture Strength	MPa≤	200	350	350	1000	1000
弹性模数 Elastic Modulus	Gpa	300	350	350	-	-
泊松比 Poisson Ratio	—	0.20	0.22	0.22	-	-
导热系数 ThermalConductivity	W/m·K(20℃)	20	25	25	-	-

注: 有热冲击请特别说明。  
 Note: If thermal shock needed, please specify.

**材料耐腐蚀性对照表**  
**CORROSION RESISTANCE REFERENCE TABLE**
**材料耐腐蚀性对照表 CORROSION RESISTANCE REFERENCE TABLE**

介质 Medium	盐酸 HCl		硫酸 H <sub>2</sub> SO <sub>4</sub>		磷酸 H <sub>3</sub> PO <sub>4</sub>	
	质量分数 Mass Fraction	20%	20%	90%	90%	60%
温度 Temperature	60℃	95℃	60℃	95℃	60℃	95℃
99.0%AL <sub>2</sub> O <sub>3</sub>	a	a	a	a	a	a
99.5%AL <sub>2</sub> O <sub>3</sub>	a	a	a	a	a	a
ZrO <sub>2</sub>	a	a	a	a	a	a
SS304	c	x	c	c	c	c
SS316	c	x	c	c	c	c

介质 Medium	氢氟酸 HF		硝酸 HNO <sub>3</sub>		氢氧化钠 NaOH	
	质量分数 Mass Fraction	10%	46%	60%	60%	30%
温度 Temperature	60℃	95℃	60℃	95℃	60℃	95℃
99.0%AL <sub>2</sub> O <sub>3</sub>	b	c	a	b	b	b
99.5%AL <sub>2</sub> O <sub>3</sub>	b	c	a	a	a	a
ZrO <sub>2</sub>	a	c	a	a	a	b
SS304	c	x	a	b	a	a
SS316	c	x	a	a	a	b

a. 无腐蚀或腐蚀可以忽略, 推荐使用  
 a. Recommend to be use for no corrosion or corrosion can be ignored  
 b. 轻微腐蚀或较少腐蚀适合使用  
 b. Suitable to be use for light or less corrosion  
 c. 腐蚀中等或较大不推荐使用  
 c. Not recommend to be use for medium or high corrosion  
 x. 腐蚀严重不能使用  
 x. forbid to be use for serious corrosion

**陶瓷阀门的优势 THE ADVANTAGES OF CERAMIC VALVE**

我国各行业生产中目前普遍使用的阀门为金属阀门, 但金属阀门受金属材料自身条件的限制, 越来越不能适应高磨损、强腐蚀等恶劣工况的需要。主要体现在使用寿命短、泄漏严重极大地影响了系统运行的稳定性。因此陶瓷阀门有以下几点优势: 1. 采用高强度新型结构陶瓷材料制作阀门的密封部件和易损部件, 提高了阀门产品的耐磨性、防腐性及密封性极大延长了阀门的使用寿命, 是铁合金阀与蒙乃尔阀的2~4倍。2. 陶瓷阀门的使用可以极大地降低阀门的维修、更换次数提高配套设备运行系统的安全性、稳定性, 减轻工人的劳动强度节约设备修理费用。3. 陶瓷阀门的使用能提高工业管路系统的密封性最大限度的杜绝泄漏。同时, 陶瓷阀门对环境保护也起到积极地推进作用。另外制造陶瓷的原料广泛、成本低廉用铝、碳、硅等普通元素就能制造出性能优越的陶瓷材料可以节约大量的金属材料和稀有的矿产资源。

The metal valves are widely used in industrial applications. However there are many restrictions of the metal material under the harsh condition of high abrasion and corrosion, which will cause serious leakage, shorten life time and affect the stability of the plant operation. Therefore, ceramic valves have the following advantages: 1. The sealing parts and the wearing parts are made by new high-tech structural ceramic material, which improve the performance of abrasive resistance and corrosive protection prolonging the service life of the valve. 2. It can greatly reduce the replacement, repair cost if the ceramic valve applied, which can further improve the stability of equipment operation, and save labor cost. 3. It can improve the sealing performance of the industrial piping system. At the same time, using ceramic valve has the positive affect on environment protection. Moreover, the raw material of ceramic to be used is low cost, It can save a lot of metal and rare mineral resources.

陶瓷球阀  
CERAMIC BALL VALVE

结构特点与用途 PRODUCT DESCRIPTION

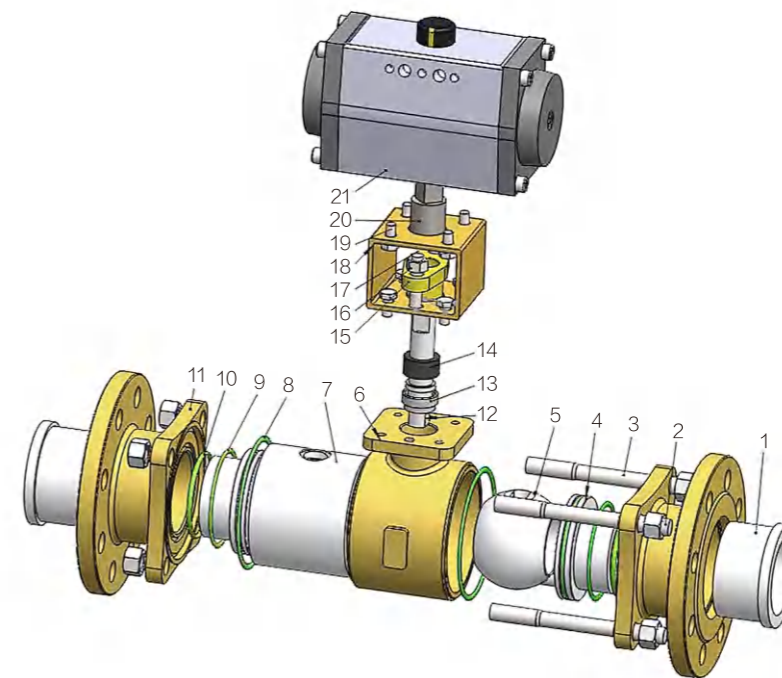
- 陶瓷球阀内部阀芯组件采用的是增韧氧化铝或氧化锆陶瓷，其化学稳定性及硬度极高(洛氏硬度HRC88)，仅次于金刚石,具有极高的耐磨损、耐腐蚀、耐冲蚀性能，而且隔热性好，热膨胀系数小,有高硬度及高电热绝缘性，性能方面优于其它的材质。广泛应用于很难使用金属或其他材质的恶劣工况下，如化学设备，废物焚化设备，烟气脱硫设备等，覆盖电力、石油、化工、冶金、采矿、污水处理等工业领域。
  - 球体采用先进研磨设备及工艺制造，球圆度精度高，表面质量好与阀座对研后，利用ZrO<sub>2</sub>结构陶瓷的自润滑性，具有优异的密封性能。彻底改变了金属硬密封球阀易泄漏、扭矩大、密封面不耐腐蚀的缺点。
  - 陶瓷球阀采用高强度新型结构陶瓷材料制作阀门的密封件和易损部件，提高了阀门产品的耐磨性、防腐性及密封性，大大延长了阀门的使用寿命，是合金阀和蒙乃尔阀的2~4倍。陶瓷阀门的使用可以大大降低阀门的修理更换次数，提高配套设备运行系统的安全性、稳定性，节约设备修理费用。
  - 本阀适用于高硬度的颗粒介质，或有软颗粒但又有腐蚀性的介质管道上作启闭之用。公称压力PN10~PN40，适应温度200℃。可按照GB、JIS、API等标准数据制造。
  - Trim components of ceramic ball valve adopt alumina or zirconia ceramic with high chemical stability and hardness (HRC88), only inferior to diamond. The ceramic lined valve has high performance on abrasion erosion, and corrosion resistance, and excellent heat-shielding, electric insulation. Mainly used in electric power, petroleum, chemical, metallurgy, mining, sewage treatment and other industrial where the metal valve cannot be applicable.
  - The ball is made by advanced grinding equipment and advanced process technology that can ensure high precision ball roundness. The self-lubricating capability of ceramic ensures the good sealing after polishing, which radically changed the defects that metal hard sealing valve has such as big torque, non-corrosion-resistant sealing surface.
- Ceramic valve adopts new high-tech structural ceramic material as sealing and wearing parts, which can improve abrasion, corrosion resistance, and sealing performance, prolonging lifespan, 2-4 times of lifespan than Titanium Alloy and Monel valve. Using ceramic valve can reduce repair or replacement costs and improve safety, stability of operating system.
- This valve fit in granule medium of high hardness, or medium with erosion soft granule. Nominal pressure PN10-PN40, applicable temperature ≤200℃. Manufacture and design according to GB, JIS, API standards.



气动陶瓷球阀  
Pneumatic Ceramic Ball Valve

陶瓷球阀  
CERAMIC BALL VALVE

分解图 CUTWAY VIEW



主要部件材料 MATERIAL SPECIFICATION

序号 No.	名称 Name	序号 No.	材质 Material	名称 Name	材质 Material	序号 No.	名称 Name	材质 Material
01	法兰套 Flange Sleeve	08	结构陶瓷 Structural ceramic	O形圈 O-ring	氟橡胶 Viton	15	填料压盖 Gland flange	WCB/CF8
02	螺栓 Bolt	09	A193 B7/B8	O形圈 O-ring	氟橡胶 Viton	16	螺母 Nut	A194 2H/8
03	螺母 Nut	10	A194 2H/8	O形圈 O-ring	氟橡胶 Viton	17	压盖螺栓 Gland Bolt	A193 B7/B8
04	阀座 Seat	11	结构陶瓷 Structural ceramic	阀盖 Bonnet	WCB/CF8	18	支架 Yoke	Q235
05	球体 Ball	12	结构陶瓷 Structural ceramic	阀杆 Stem	20Cr13/304	19	支架螺栓 Yoke Bolt	Q235
06	中体 Middle body	13	WCB/CF8	阀杆套 Stem Support	304	20	连接轴 Coupling shaft	25
07	中体套 Middle body Sleeve	14	结构陶瓷 Structural ceramic	填料 Packing	柔性石墨 Flexible graphite	21	气动执行机构 Pneumatic actuator	Assembly

注：具体材质选用依工况可能有所不同,以上数据仅供参考。  
Note: Material selection according to specific conditions may vary, the above data is for reference only.

V型陶瓷球阀  
V-PORT CERAMIC  
BALL VALVE

结构特点与用途 PRODUCT DESCRIPTION

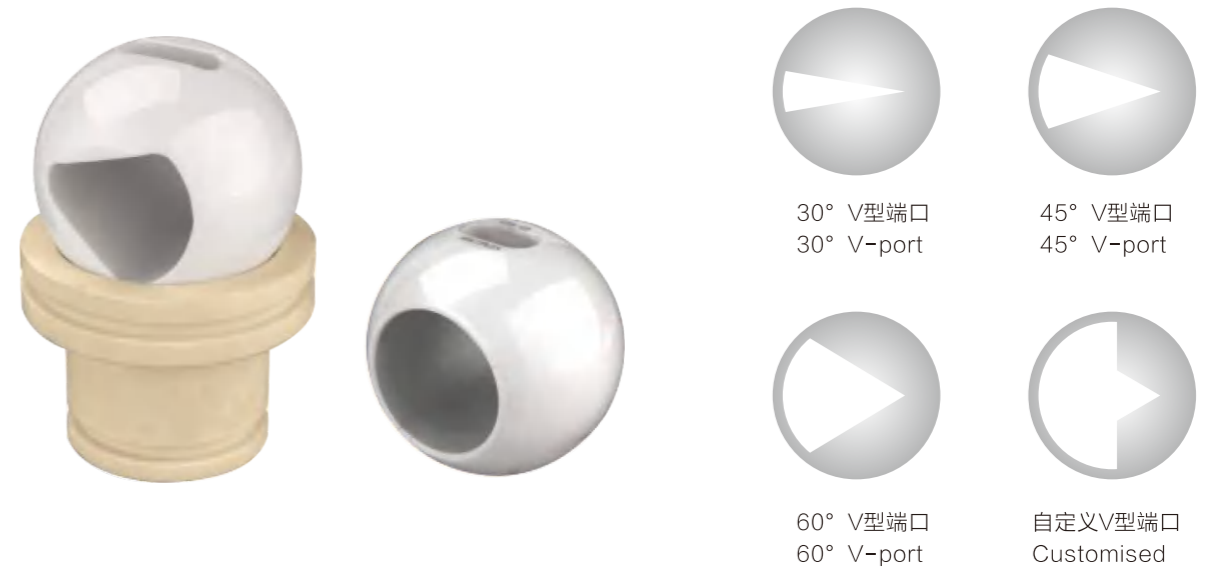
- V型陶瓷调节球阀具有等百分比流量调节(对数)特性在阀门小开度工作时不会产生启跳振荡具有微调功能。可以满足小流量的调节。且工作状态十分稳定。可以更精确、更灵活地对介质进行流量调节,可调范围大,调节速度快,维护简单,成本经济。且结构陶瓷具有很好的自洁性,在开启与关闭的过程中,球体的V型通道与阀座间具有楔形剪切作用,可将介质中的纤维,周体颗粒等切碎并除去防止球芯卡死特别适用于管线结垢冻结场合。适宜于控制纸浆、污水,含有纤维和颗粒固体悬浊介质及粉粒状介质。
- 与介质接触的部分均为结构陶瓷材料,其化学稳定性及硬度极高(洛氏硬度HRC88)仅次于金刚石。因此本阀具有极高的耐磨损耐腐蚀、耐冲蚀性能而且隔热性好,热膨胀系数小。主要应用于电力、石油、化工、冶金、采矿、污水处理等工业领域,尤其是在高磨损、强腐蚀、高温等恶劣工况下,更显示出它卓越的性能。
- 本阀适用于高硬度的颗粒介质,或有软颗粒但又有腐蚀性的介质管道上作启闭之用。公称压力PN10~PN40适应温度 $\leq 200^{\circ}\text{C}$ 。可按照GB、JIS、API等标准数据制造。
- V-port ceramic control ball valve has equal percentage character which can adjust the flow. It can satisfy small flow control and work stable, more accurate and flexible besides, more wide adjustable range, more fast of the speed, easy maintenance and cost-saving. In the process of opening and closing, the v-shaped ball's channel and the seat with shearing action It can cut and remove the fibers and particles in the medium to prevent the ball struck. Especially suitable for freezing pipeline site and control pulp, sewage with fiber and solid particles and powder medium.
- The contact medium part adopts ceramic material (HRC88), which only inferior to diamond. The ceramic lined valve has a very high abrasion resistance, corrosion resistance, erosion resistance, good insulation and small thermal expansion, and mainly applied in electric power, petroleum, chemical, metallurgy, mining, sewage treatment and other harsh conditions.
- This valve fit in granule medium of high hardness, or medium with erosion soft granule. Nominal pressure PN10~PN40. Applicable temperature $\leq 200^{\circ}\text{C}$ . Manufacture and design as per GB, JIS, API standards.



V型陶瓷球阀  
V-port ceramic ball valve

V型陶瓷球阀  
V-PORT CERAMIC  
BALL VALVE

V型球阀V型切口示意图 V-PORT SCHEMATIC DIAGRAM



流量系数表 FLOW COEFFICIENT TABLE

公称口径 DN	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	
	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	
流量系数 Cv	O球	17	22.3	32	55	127	193	244	505	782	1076	1996	3091
	V球	14.2	16.5	26.2	41.6	89	104	165	207	290	428	645	1086

Kv值与Cv值之间的关系:  $1\text{Cv}=1.167\text{Kv}$   
The relationship between Kv value and Cv value:  $1\text{Cv}=1.167\text{Kv}$

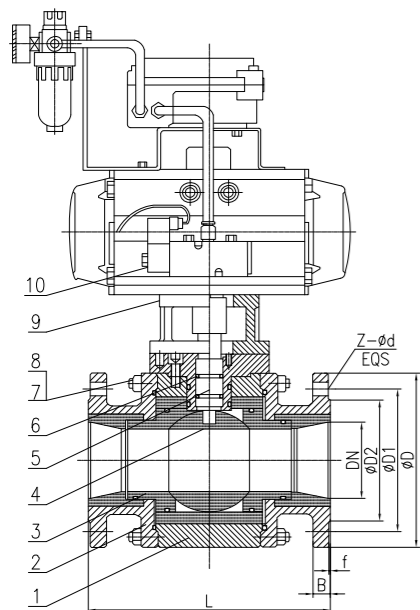
扭矩表 TORQUE TABLE

规格 Size	DN	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
	NPS	1/2"	3/4"	1"	1-1/2"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"
扭矩 Torche (N.M)	气压0.6MPa	15	20	20	30	40	50	70	110	140	240	350
	水压1.6MPa	19	30	30	50	70	90	110	200	240	360	450

以上数据是在实验条件下测得,可能与阀门实际使用工况有所不同,仅供参考,建议与我司联系以选用正确的执行机构。  
The data shown above was under test conditions that may be different from the actual site conditions. This is only for reference, and please contact us for more information.



陶瓷球阀  
CERAMIC  
BALL VALVE



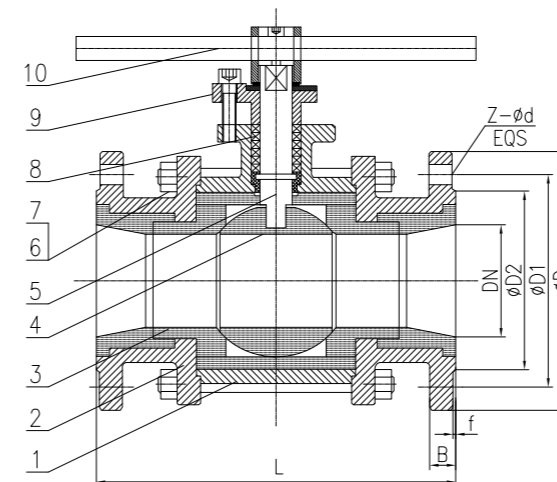
气动陶瓷球阀

Pneumatic Ceramic Ball Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	GB/T12221
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

陶瓷球阀  
CERAMIC  
BALL VALVE



手动陶瓷球阀

Manual Ceramic Ball Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	GB/T12221
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

GB/T 9113

DN	L	PN10(1.0MPa)						PN16(1.6MPa)					
		D	D1	D2	B	f	Z-d	D	D1	D2	B	f	Z-d
15	130	95	65	45	16	2	4-14	95	65	45	16	2	4-14
20	130	105	75	58	18	2	4-14	105	75	58	18	2	4-14
25	140	115	85	68	18	2	4-14	115	85	68	18	2	4-14
32	165	140	100	78	18	2	4-18	140	100	78	18	2	4-18
40	165	150	110	88	18	3	4-18	150	110	88	18	3	4-18
50	203	165	125	102	18	3	4-18	165	125	102	18	3	4-18
65	220	185	145	122	18	3	8-18	185	145	122	18	3	8-18
80	241	200	160	138	20	3	8-18	200	160	138	20	3	8-18
100	305	220	180	158	20	3	8-18	220	180	158	20	3	8-18
125	356	250	210	188	22	3	8-18	250	210	188	22	3	8-18
150	394	285	240	212	22	3	8-22	285	240	212	22	3	8-22
200	457	340	295	268	24	3	8-22	340	295	268	24	4	12-22
250	533	395	350	320	26	3	12-22	405	355	320	26	4	12-26
300	610	445	400	370	26	4	12-22	460	410	378	28	4	12-26

注：更多尺寸，请联系我们工程师。

ASME B16.5

NPS	L	Class150						Class300					
		D	D1	D2	B	f	Z-d	D	D1	D2	B	f	Z-d
1/2	110	90	60.5	35	11	2	4-16	95	66.5	35	15	2	4-16
3/4	117	100	70.0	43	12	2	4-16	115	82.5	43	16.5	2	4-19
1	127	110	79.5	51	13	2	4-16	125	89	51	18	2	4-19
1 1/4	140	115	89.0	64	13	2	4-16	135	98.5	64	19.5	2	4-19
1 1/2	165	125	98.5	73	15	2	4-16	155	114.5	73	21.5	2	4-22
2	178	150	120.5	92	16	2	4-19	165	127	92	23	2	8-19
2 1/2	190	180	139.5	105	18	2	4-19	190	149	105	26	2	8-22
3	203	190	152.5	127	19	2	4-19	210	168.5	127	29	2	8-22
4	229	230	190.5	157	24	2	8-19	255	200	157	32.5	2	8-22
5	254	255	216.0	186	24	2	8-22	280	235	186	35.5	2	8-22
6	267	280	241.5	216	26	2	8-22	320	270	216	37	2	12-22
8	292	345	298.5	270	29	2	8-22	380	330	270	42	2	12-26
10	330	405	362.0	324	31	2	12-25	445	387.5	324	48.5	2	16-29

Note: For more size, please contact our engineer

陶瓷偏心半球阀  
CERAMIC ECCENTRIC  
SEMI-BALL VALVE

概述 PRODUCT DESCRIPTION

- 陶瓷偏心半球阀除了具有半球阀的一般优点之外，阀门密封部分采用结构陶瓷材料，硬度高(HRC88左右)阀芯和阀座的加工采用台湾引进的先进球面加工技术和加工设备，能够完全密封。单边强制密封结构，耐磨性好，开放式阀腔，无死角，启闭过程中完全杜绝了卡料，启闭灵活，适用于矿浆煤粉，渣水混合物，颗粒物料等介质的截断或流量调节。

Ceramic semi-ball valve including the general advantage of semi-ball valve, sealing parts adopts structure ceramic material, with high hardness(around HRC88), ball and seat are machined by advanced ball machine technology and equipment from Taiwan for reach fully sealed. Unilateral forced sealing structure with advantage of good abrasion resistance, open cavity, no block, flexible on-off thus ensure no residual during on-off process, suitable for cut and control of slurry, coal, water slurry, granule etc.

主要特点 MAIN FEATURE

- 直通式:单向密封和偏心式结构，开启时球与阀体相脱离，流道直通，不会出现卡、堵现象。
- 开关轻便:启闭时球面与封座脱离，无任何接触、扭矩小、转动灵活。启闭时半球阀与阀座的剪切作用，能除密封面上的结垢及粘连物，能保持密封严密。
- 偏心结构使密封面可自动补偿磨损(注:要想获得磨损补偿，必须调整驱动装置限位)，保持阀门的密封性能，使用寿命长，安全可靠。
- 阀门属于硬密封结构，密封副是耐磨陶瓷，硬度高(HRC88左右)耐擦伤，耐磨损。
- Through way: Uni-directional seal type and eccentric type ball is away from body when valve open with direct through without block.
- Easy on-off: Ball surface is way from seat when open with small torque and, flexible operation. When valve closed, semi-ball cut the seat and scratch residual and adhesive for ensure close seal.
- Eccentric structure can make sealing face self-compensating abrasion (Note: Drive device limitation must be adjusted, it can get abrasion compensation required), keeping valve seal performance with long life time and safe operation.
- Valve is metal seal structure, seal parts are abrasion resistant ceramic with advantage of high hardness(around HRC88), scratch-resistance, abrasion resistance.

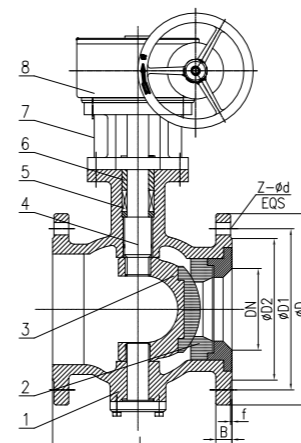


气动陶瓷偏心半球阀  
Pneumatic Ceramic Eccentric Semi-Ball Valve



手动陶瓷偏心半球阀  
Manual Ceramic Eccentric Semi-Ball Valve

陶瓷偏心半球阀  
Ceramic ECCENTRIC  
SEMI-BALL VALVE



陶瓷偏心半球阀  
Ceramic Eccentric Semi-Ball Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准 MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀体Body	WCB	6	填料压盖 Packing Gland	WCB
2	阀座 Disc	工程陶瓷 engineering ceramic	7	支架 Yoke	WCB
3	球体 Ball	WCB+工程陶瓷 engineering ceramic	8	涡轮Gear	
4	阀杆 Stem	2Cr13	9		
5	填料 Packing	石墨盘根Graphite Packing	10		

GB/T 9113

DN	L	PN10(1.0MPa)						PN16(1.6MPa)					
		D	D1	D2	B	f	Z-d	D	D1	D2	B	f	Z-d
50	124/178	165	125	102	18	3	4-φ18	165	125	102	18	3	4-φ18
65	145/190	185	145	122	18	3	8-φ18	185	145	122	18	3	8-φ18
80	165/203	200	160	138	20	3	8-φ18	200	160	138	20	3	8-φ18
100	194/229	220	180	158	20	3	8-φ18	220	180	158	20	3	8-φ18
125	210/254	250	210	188	22	3	8-φ18	250	210	188	22	3	8-φ18
150	229/267	285	240	212	22	3	8-φ22	285	240	212	22	3	8-φ22
200	243/292	340	295	268	24	3	8-φ22	340	295	268	24	3	12-φ22
250	297/330	395	350	320	26	3	12-φ22	405	355	320	26	3	12-φ22
300	338/356	445	400	370	26	4	12-φ22	460	410	378	28	4	12-φ22

注: 更多尺寸, 请联系工程师。 Note: For more size, please contact our engineer.

### 三片式陶瓷球阀 3-PIECES CERAMIC BALL VALVE

#### 应用规范 PRODUCT DESCRIPTION

- 三片式陶瓷球阀和旋塞阀是同类的一个类型的阀门，只有它的关闭件是个陶瓷球体，陶瓷球体绕阀体中心线作水平旋转来达到开启，关闭的一种阀门。在管路中主要用来做快速切断、分配和改变介质的流动方向。
- 三片式球阀只需要阀杆旋转90度的操作和很小的转动转矩就能关闭严密。全通径的阀体内腔为介质提供了阻力小，直通的流道。主要特点是本身结构紧凑，易于操作和维修，适用于给水处理，煤气管道、锅炉蒸汽、石灰浆液、纺织、含颗粒海水等介质，已广泛应用于矿山、石油、化工、发电、造纸等使用条件恶劣的工况。
- 常用通径: DN15-DN100
- 公称压力: PN10-PN25
- 适用温度: -20℃ ~ 280℃，也可根据用户特殊要求定制。
- 3-pc ceramic ball valve is a valve that the ball rotates around the body center line to control on-off, and only trim part adopts ceramic material, It mainly used for quickly cut, distribute and change the direction of the flow medium in pipeline.
- 3-pc ceramic ball valve can close tightly only need rotate 90° with small torque. The full port body cavity provided little resistance, with straight flow channel. It suitable for water treatment, gas pipeline, steam boiler, lime slurry, textile, particles seawater medium etc. with characters like compact structure, easy operation and maintenance. It has been widely used in mining, petroleum, petrochemical industry, electric power, papermaking and other harsh conditions
- Nominal diameter: DN15-DN100
- Nominal pressure: PN10 ~ PN25
- Applicable temperature: -20℃ ~ 290℃  
It also can be designed according to customer's requirement.

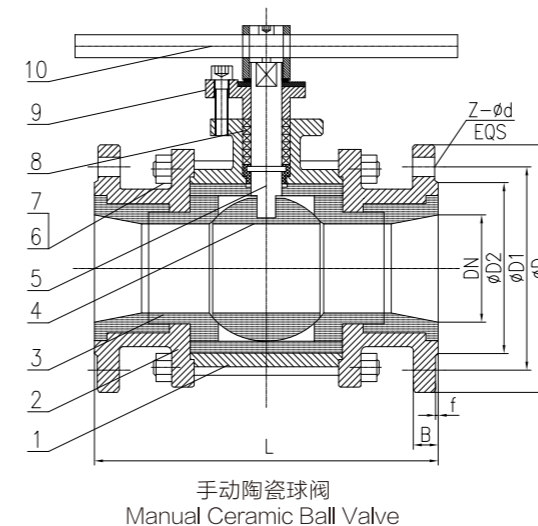


手动三片式陶瓷球阀  
Manual 3-PC Ceramic Ball Valve



气动三片式陶瓷球阀  
Pneumatic 3-PC Ceramic Ball Valve

### 三片式陶瓷球阀 3-PIECES CERAMIC BALL VALVE



手动陶瓷球阀  
Manual Ceramic Ball Valve

#### 技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准 MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

#### 主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀体 Body	WCB	6	螺柱 Stud	35CrMo
2	阀盖 Cover	WCB	7	螺母 Nut	45#
3	阀座 Seat	工程陶瓷 engineering ceramic	8	填料 Packing	石墨盘根 Graphite Packing
4	球体 Ball	工程陶瓷 engineering ceramic	9	填料压盖 Packing Gland	WCB
5	阀杆 Stem	2Cr13	10	手柄 Lever	WCB

#### GB/T 9113 ASME B16.5

DN	NPS	L	L1	D
15	1/2"	72	10	22
20	3/4"	85	13	28
25	1"	90	13	35
32	1 1/4"	112	16	43
40	1 1/2"	120	16	49
50	2"	145	18	62
65	2 1/2"	185	18	77
80	3"	215	20	90
100	4"	270	20	115

注: 更多尺寸, 请联系工程师。 Note: For more size, please contact our engineer.

陶瓷双闸板阀  
CERAMIC DOUBLE  
DISC GATE VALVE

结构特点与用途 PRODUCT DESCRIPTION

- 陶瓷双闸板阀采用结构陶瓷做密封件，耐冲蚀、耐磨性好。对撑式双闸板密封结构，阀门关闭时双向密封，根据不同工况可设置吹扫口、灰渣漏斗，适用于干灰系统、渣浆等介质的输送系统中；具有积灰少，无卡涩，维护简单，使用寿命长等优点。
- 气动执行器采用全封闭推杆式直缸驱动，性能可靠，输出扭矩大可满足在恶劣工况条件下工作，也可适用于矿山、造纸、化工等各类有磨损的干粉尘、水、蒸汽等介质。
- 本阀专为气力除灰系统设计，具有启闭动作快速可靠、启动负荷小；本阀料口全流通无阻挡物，有吹堵装置，不容易积灰。耐磨性能强，卡灰及结灰现象少。安装检修方便、使用寿命长、密封性能好等特点。独特的设计理念在于阀门动作时闸板对阀座密封面产生自研磨，有抛光作用，使它在恶劣工况的使用过程中能不断提高耐磨性和密封性。
- 公称压力:PN10~PN25
- 适用温度:≤250℃
- 气动执行机构公称压力:0.6~0.8MPa  
可根据用户要求定制，也可定做单向密封结构。



气动陶瓷双闸板阀  
Pneumatic Ceramic Double Disc Gate Valve



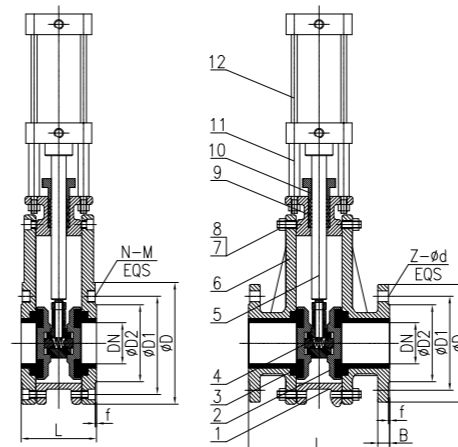
气动陶瓷双闸板阀  
Pneumatic Ceramic Double Disc Gate Valve

- Ceramic Double Disc Gate Valve has is sealed with structural ceramics, which has high wearproof good abrasion resistance and good eroding resistance. Both sides of sealing performance are choiceness and according to different working conditions it can set the blowing mouth, ash hopper, which is suitable for dry ash system by conveying slurry medium. It is excellent that less ash, no jam, easy maintenance and long life durability.
- Pneumatic actuator adopts a totally enclosed push rod type with straight-cylinder driving, which has reliable performance and large output torque, and can work in the harsh conditions, and also can be suitable for mining, papermaking, chemical industry and other kinds of wear dry dust, water, steam media, etc.

This valve is designed for ash removal system, with reliable on-off action, and small starting load. Unique designed concept is that the valve action, when the valve disc to the valve seat sealing surface via mutual grinding and polishing, make it improve abrasion resistance and sealing performance in the harsh conditions.

- Nominal pressure: PN10~PN25
- Applicable temperature: ≤250℃
- Actuator pressure: 0.6~0.8MPa  
It can be designed according to customer's requirement.

陶瓷双闸板阀  
CERAMIC DOUBLE  
DISC GATE VALVE



气动陶瓷双闸板阀  
Pneumatic Ceramic double disc Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准 MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀体 Body	WCB	7	螺柱 Stud	35CrMo
2	阀瓣 Disc	WCB+工程陶瓷 engineering ceramic	8	螺母 Nut	45#
3	阀座 Seat	工程陶瓷 engineering ceramic	9	填料 Packing	PTFE
4	挂钩 Hood	WCB	10	填料压盖 Packing Gland	WCB
5	推杆 Rod	45#	11	支柱 yoke	Q235
6	阀盖 Cover	WCB	12	气缸 Pneumatic	

GB/T 9113

DN	L	L1	PN10(1.0MPa)						
			D	D1	D2	B	f	N-M	Z-d
50	120	200	165	125	102	18	3	4-M16	4-18
65	120	220	185	145	122	18	3	4-M16	4-18
80	120	240	200	160	138	20	3	8-M16	8-18
100	120	280	220	180	158	20	3	8-M16	8-18
125	160	300	250	210	188	22	3	8-M16	8-18
150	160	320	285	240	212	22	3	8-M20	8-22
200	160	350	340	295	268	24	3	8-M20	8-22
250	200	400	395	350	320	26	3	12-M20	12-22
300	200	450	445	400	370	26	4	12-M20	12-22

注: 更多尺寸, 请联系工程师。 Note: For more size, please contact our engineer.

气动陶瓷旋转圆盘阀  
PNEUMATIC CERAMIC  
ROTARY DISC VALVE

产品概述 PRODUCT DESCRIPTION

- 气动陶瓷圆盘阀采用结构陶瓷作密封副(阀盘及阀座均为耐磨结构陶瓷),耐冲刷,耐磨性好。弹簧对撑式双阀盘密封结构,启闭灵活,闸板不卡死,阀盘运动是在切线方向上的摩擦力之差,使阀盘在一个启闭循环过程中产生自转,并可以不断剪切与清扫在使用过程中有可能堆积在阀腔内的介质,这些特点是圆盘阀特有的。圆形大阀腔设计,阀盘运动空间大,无阻碍。根据不同工况可设置吹扫口、自动吹扫装置(PLC控制)、防堵装置。适用于干灰、粉煤、渣浆、等物料介质的输送。常用于气力输送系统中作出料阀,切换阀或排气阀用,无积灰,无卡涩,维护简单,使用寿命长。
- Pneumatic ceramic rotary disc valve adopt structure ceramic sealing(disc and seat are abrasion resistance structure ceramic) with advantage of scouring resistance and abrasion resistance.It has unique feature of open spring double disc sealing structure, flexible on-off and the valve disc is not struck, disc movement is friction different in the tangent direction and generate disc self-rotation during on-off cycle and able to cut and clean residue medium during process. Round-large cavity design has big movement space without block. Flush holes, automatic blow device (PLC control), anti-block device should be set as per different medium condition. Suit-able for dry ash, coal, slurry etc, popularly used for air power transfer as discharge valve, on-off valve of exhaust valve with advantage of no ash, no block, easy maintenance, long lifetime.

工作原理 WORKING PRINCIPLE

- 当气源从气缸尾部进入时,气缸缸杆向外伸出,带动转臂旋转阀杆,从而驱动与阀杆连接的闸板旋转离开阀座,阀门开启。当气源从气缸前部进入时,气缸缸杆向内收缩,带动转臂旋转阀杆,从而驱动与阀杆摇臂连接的闸板旋转靠近阀座,直至闸板与阀座紧密贴合,阀门关闭。
- When air supply into the air inlet from end of cylinder, cylinder axis is expand to drive rocker arm to rotate stem, thus drive disc turn away from seat, and the valve is open. When supply into the front of cylinder, cylinder axis is contract to drive rocker arm to rotate stem then drive disc close to the seat until fully sealed, and the valve is closed.

主要性能规范 MAIN PERFORMANCE SPECIFICATION

- 公称通径:DN50~DN300
- 公称压力:10MPa
- 适用温度:≤280℃
- 适用介质:干粉、粉煤、物料及含颗粒物介质等
- Nominal Diameter: DN50-DN300
- Nominal pressure: 1.0MPa
- Applicable temperature: ≤280℃
- Applicable medium: Dry powder, coal, granule and etc

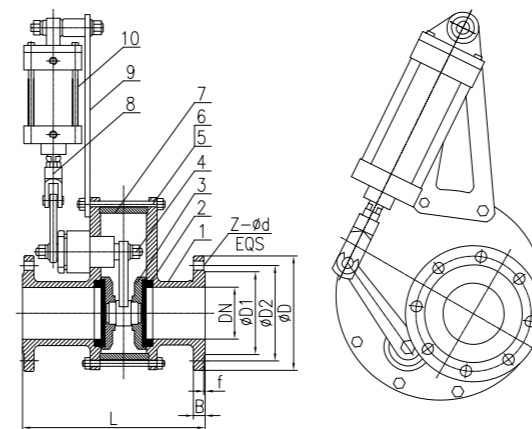
设计标准 DESIGN STANDARD

- 设计与制造标准:GB 12237/API 6082-93
- 结构长度标准:GB 12221/ANSI B16.10
- 法兰标准:GB/T 9113-2000 / JB/T 81-2000 / ANSI B16.5a
- 检验标准:GB/T 13927 / API 598
- Design and manufacture: GB12237/API 6082-93
- Face to face: GB12221/ANSI B16.10
- Flange end: GB/T 9113-2000 / JB/T 81-2000/ANSI B16.5A
- Inspect and Test: GB/T 13927 /API 598



气动陶瓷旋转圆盘阀  
Pneumatic Ceramic Rotary Disc Valve

气动陶瓷旋转圆盘阀  
PNEUMATIC CERAMIC  
ROTARY DISC VALVE



气动陶瓷旋转圆盘阀  
Pneumatic Ceramic Rotary Disc Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准 MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀盖Cover	WCB	6	螺母Nut	45#
2	阀座Seat	工程陶瓷 engineering ceramic	7	阀体 Body	WCB
3	阀瓣 Disc	WCB+工程陶瓷 engineering ceramic	8	推拉杆 Rod	45#
4	阀瓣固定轴Disc fixing shaft	45#	9	支架 Yoke	Q235
5	螺柱Stud	35CrMo	10	气缸Pneumatic	

GB/T 9113

DN	L	PN10(1.0MPa)					
		D	D1	D2	B	f	Z-d
50	340	165	125	102	18	3	4-φ18
65	340	185	145	122	18	3	4-φ18
80	340	200	160	138	20	3	8-φ18
100	350	220	180	158	20	3	8-φ18
125	350	250	210	188	22	3	8-φ18
150	380	285	240	212	22	3	8-φ22
200	380	340	295	268	24	3	8-φ22
250	400	395	350	320	26	3	12-φ22
300	450	445	400	370	26	4	12-φ22

注:更多尺寸,请联系工程师。 Note: For more size, please contact our engineer.

气动陶瓷旋转进料阀  
PNEUMATIC CERAMIC  
ROTATION FEEDING VALVE

产品特点 PRODUCT DESCRIPTION

- 气缸活塞杆不与介质直接接触，大大延长了气缸的使用寿命，并且具有更高的使用温度而不至于损坏气缸。
  - 阀杆旋转运动是新颖设计，解决了阀轴填料密封处物料外漏的情况。
  - 闸板与阀座之间加载弹簧浮动连接。弹簧弹力始终使闸板与阀座吻合，保证阀门的密封性又不卡死。有助于补偿热胀冷缩以及磨损。
  - 阀盘运动时在切线方向上的摩擦力之差，使阀盘在一个启闭循环过程中产生自转并可以不断剪切与清扫在工艺过程中有可能粘连在阀腔内的介质，防止物料堆积，影响阀盘运动。
  - 阀体出口端采用斜面结构，有利于进入阀腔的物料自行下落，防止物料在阀腔堆积导致阀门开不到位。
  - Cylinder piston rod does not direct contact with the media, greatly extend the service life of the cylinder, and it shall not damage the cylinder even under higher temperature;
  - Stem rotation movement is special design, there is no packing leakage problem.
  - Adding the spring between two discs, the spring force always make the discs touch on the seat to ensure the seat tightness.
  - The frictional force during the valve discs movement make them in an opening and closing cycle self-rotation, continuously cut and clean the medium which is likely to stick to the cavity In the process, and prevent media accumulating that affect the valve disc movement;
- The valve outlet adopts slope structure, which is helpful for media to fall into the valve cavity, prevent media accumulating in the valve cavity that affect the disc being opened on the right position.

工作原理 WORKING PRINCIPLE

- 当气源从气缸尾部进口气口通入时，气缸轴向外伸出，带动转臂旋转阀杆，从而驱动与阀杆通过内连杆连接的闸板旋转远离阀座，阀门开启。当气源从气缸前部进口气口通入时，气缸轴向内收缩，带动转臂旋转阀杆，从而驱动与阀杆通过内摇臂连接的闸板旋转靠近阀座，直至闸板与阀座吻合，阀门关闭。
- When air supply starts on bottom cover of the cylinder, the piston rod pushes the ration arm to make the discs leave the valve seat, then valve opened. When air supply starts on head cover of cylinder, the piston rod pulls the ration arm to make the discs get back to valve seat, then valve closed.

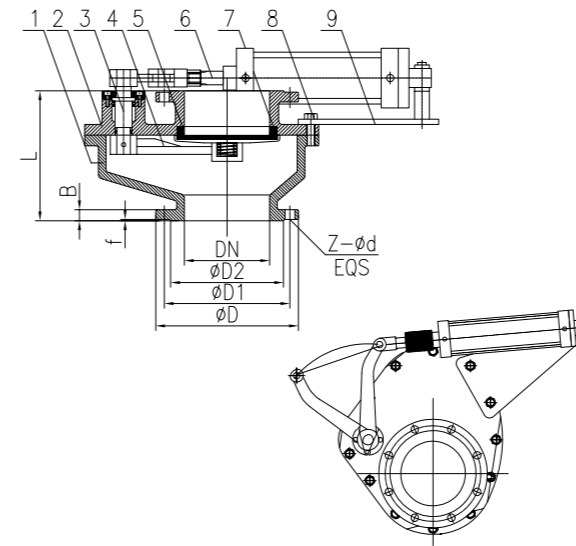


气动陶瓷旋转进料阀  
Pneumatic Ceramic  
Rotation Feeding Valve



气动陶瓷旋转进料阀  
Pneumatic Ceramic  
Rotation Feeding Valve

气动陶瓷旋转进料阀  
PNEUMATIC CERAMIC  
ROTATION FEEDING VALVE



气动陶瓷旋转进料阀  
Pneumatic Ceramic Rotation Feeding Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准 MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀盖Cover	WCB	6	推拉杆 Rod	45#
2	阀体Body	WCB	7	气缸 Pneumatic	
3	阀瓣固定轴 Disc fixing shaft	45#	8	螺柱 Stud	35CrMo
4	阀瓣 Disc	WCB+工程陶瓷 engineering ceramic	9	支架 Yoke	Q235
5	阀座 Seat	工程陶瓷 engineering ceramic	10		

GB/T 9113

DN	L	PN10(1.0MPa)					
		D	D1	D2	B	f	Z-d
200	300	340	295	268	24	3	8-22
250	340	395	350	320	26	3	12-22
300	340	445	400	370	26	4	12-22
200 × 350	215	340 × 505	295 × 460	268 × 430	24	3	8-22
250 × 450	245	395 × 615	350 × 565	320 × 532	26	3	12-22
300 × 500	285	445 × 670	440 × 620	375 × 585	26	4	12-22

注：更多尺寸，请联系工程师。 Note: For more size, please contact our engineer.

陶瓷刀闸阀  
CERAMIC KNIFE  
GATE VALVE

结构特点与用途 PRODUCT DESCRIPTION

- 耐磨陶瓷刀闸阀适用于高硬度的颗粒(例如灰渣水等)或有软颗粒、纤维的介质管道上作启闭之用。产品广泛适用于灰渣、泥渣、煤浆矿浆、污水等固体、液固、气固二相介质输送系统, 尤其适用于火力发电厂石子煤系统。
- 闸板、闸座密封面材料采用结构陶瓷制造, 耐磨损、耐腐蚀、抗高温。密封面采用硬密封与介质接触的部分均为结构陶瓷材料, 其化学稳定性及硬度极高。因此, 本阀具有极高的耐磨损、耐冲蚀性能, 且隔热性好, 热膨胀系数小。
- 本阀闸口全流通无阻挡物, 耐磨性能强, 密封性能好, 启动负荷小, 卡灰及结灰现象少。
- 本阀采用高档曾轫结构陶瓷密封, 机械强度高, 耐磨性能好, 使用寿命长。结构紧凑可任意角度安装。
- 公称压力: PN10-PN25
- 适用温度:  $\leq 250^{\circ}\text{C}$
- 驱动方式: 电动、气动、手动等
- 气动执行机构公称压力: 0.6~0.8MPa也可根据用户要求定。
- Ceramic knife gate Valve is suitable for corrosive medium with high hardness particles (such as slag water), or soft particles in pipeline. The products are widely used in ash, sludge, coal slurry, pulp, sewage and other solid, especially for stone coal system for thermal power plant.
- Disc and seat sealing surface adopt a kind of ceramic material with advanced technologies for abrasion resistance, corrosion resistance, high temperature resistance. Therefore, this valve has a very high abrasion resistance, corrosion resistance, and good insulation, low thermal expansion performance.
- This valve outlet is full circulation without blocking, high abrasion resistance and sealing performance. Opening force is low, and there's less ash jam phenomenon.
- This valve has high toughening structural ceramic sealing, with high mechanical strength, good abrasion resistance and long life durability. The structure is compact and can be installed at any angle.
- Nominal pressure: PN10~PN25
- Applicable temperature:  $\leq 250^{\circ}\text{C}$
- Actuator Pressure: 0.8~0.8MPa
- it can be designed according to customer's requirement.

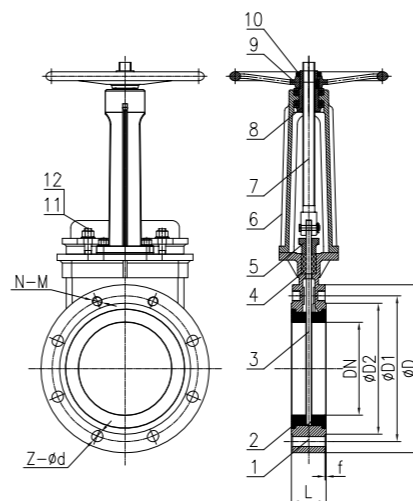


气动陶瓷刀闸阀  
Pneumatic Ceramic Knife Gate Valve



手动陶瓷刀闸阀  
Manual Ceramic Knife Gate Valve

陶瓷刀闸阀  
CERAMIC KNIFE  
GATE VALVE



手动陶瓷刀闸阀  
Manual Ceramic Knife Gate Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		JB/T8691
连接端尺寸 Connection End	结构长度 Face to face	GB/T12221
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		厂商制造标准 MFR Standard
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀体 Body	WCB	7	阀杆 Stem	2Cr13
2	阀座 Seat	工程陶瓷 engineering ceramic	8	阀杆螺母 Stem Nut	铜合金copper alloy
3	闸板 Disc	不锈钢+碳化钨 Stainless steel+tungsten carbide	9	手轮 Handwheel	KTH330
4	填料 Packing	盘根填料 Graphite Packing	10	锁紧螺母 Lock Nut	45#
5	填料压盖 Packing Gland	WCB	11	螺柱 Stud	35CrMo
6	支架 Yoke	WCB	12	螺母 Bolt	45#

GB/T 9113

DN	L	PN10(1.0MPa)					PN16(1.6MPa)				
		D	D1	D2	N-M	Z-d	D	D1	D2	N-M	Z-d
50	50	165	125	102	2-M16	2-18	165	125	102	2-M16	2-18
65	50	185	145	122	2-M16	2-18	185	145	122	2-M16	2-18
80	50	200	160	138	2-M16	6-18	200	160	138	2-M16	6-18
100	52	220	180	158	2-M16	6-18	220	180	158	2-M16	6-18
125	56	250	210	188	2-M16	6-18	250	210	188	2-M16	6-18
150	56	285	240	212	2-M20	6-22	285	240	212	2-M20	6-22
200	60	340	295	268	2-M20	6-22	340	295	268	4-M20	8-22
250	78	395	350	320	4-M20	8-22	405	355	320	4-M24	8-26
300	78	445	400	370	4-M20	8-22	460	410	378	4-M24	8-26
350	78	505	460	430	6-M20	10-22	520	470	438	6-M24	10-26
400	102	565	515	482	6-M24	10-26	580	525	490	6-M27	10-30
450	114	615	565	532	8-M24	12-26	640	585	550	8-M27	12-30
500	127	670	620	585	8-M24	12-26	715	650	610	8-M30	12-33
600	154	780	725	685	8-M27	12-30	840	770	725	8-M33	12-36

注: 更多尺寸, 请联系工程师。 Note: For more size, please contact our engineer.

陶瓷排渣阀  
CERAMIC SLAG  
VALVE

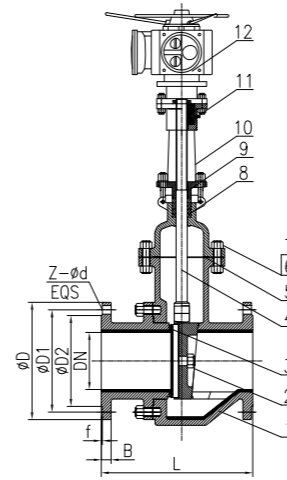
结构特点与用途 PRODUCT DESCRIPTION

- 陶瓷排渣阀适用于液、固混合介质，特殊的结构设计，排渣效果非常好，阀体内不积渣，关闭严密。闸板、阀座密封面材料均采用陶瓷制造，提高了耐磨性和耐腐蚀性，大大延长了阀门的使用寿命。该阀门适用于电力、石化、冶金、矿山、输煤厂、水泥厂、水处理厂等行业，尤其适用于磨损严重的灰浆、灰渣管路输送系统。
- 本阀主要由阀体、闸板、支架、阀杆、结构陶瓷等组成。手轮采用推力轴承设计，减小了启闭阻力；也可根据阀体易磨损部分使用抗磨材料复合而成，出口流线型设计，使用过程不结渣，可采用电动、气动、手动等驱动方式。
- 耐磨排渣阀是用于燃煤电厂除灰渣系统的专业阀门，亦可用于矿山洗矿管道、选煤系统、化工系统中的磨损管道，尤其是面对高磨损、强腐蚀、高温、高压等恶劣工况，陶瓷阀更显示出它卓越的性能。
- 本阀采用高档曾轲结构陶瓷密封，机械强度高，耐磨性能好，使用寿命长。结构紧凑可任意角度安装。使用公称压力PN10~PN40适应温度 $\leq 200^{\circ}\text{C}$ 。
- Ceramic slag discharge valve is suitable for liquid, solid mixed media, special structural design, slag removal effect is very good, no slag accumulation in body, tight closing. Disc and seat sealing materials are composed of ceramic, improve abrasion resistance and corrosion resistance, extended using durability. The valve is widely used in electric power, petrochemical, metallurgy, mining, coal plant, cement plant, water treatment plants and other industries, especially suitable for serious wear of the mortar, ash pipeline transportation high abrasion system.
- The valve mainly consists of a body, disc, yoke, wire rod, engineering ceramics. The handwheel adopts thrust bearing design, reducing open and close force. Using the anti-abrasion compound material for quick-wear parts of the body. Exit streamlined design outlet, after using, no slag left. Operator are available in electric, manual, etc.
- Abrasion resistance slag valve is professional valve suitable for ash removal system of coal-fired power plant, It can also be used in mine ore, washing pipeline, coal choosing system and abrasive pipeline in chemical systems. Ceramic valve has superior performance for the medium with high abrasion, strong corrosion, high temperature, high pressure and other harsh conditions.
- This valve has high toughening structural ceramic sealing, with high mechanical strength, good abrasion resistance, long durability. The structure is compact and can be installed at any angle. Nominal Pressure: 1.0, 1.6, 2.5, 4.0MPa, Applicable temperature  $\leq 200^{\circ}\text{C}$ .



电动陶瓷排渣阀  
Electric Ceramic Slag Valve

陶瓷排渣阀  
CERAMIC SLAG  
VALVE



电动陶瓷排渣阀  
Electric Ceramic Slag Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀体 Body	WCB+工程陶瓷engineering ceramic	7	螺母 Nut	45#
2	闸板 Disc	WCB+工程陶瓷engineering ceramic	8	填料 Packing	石墨盘根 Graphite Packing
3	阀座 Seat	工程陶瓷engineering ceramic	9	填料压盖 Packing Gland	WCB
4	阀杆 Stem	2Cr13	10	支架 Yoke	WCB
5	中道垫片 Middle Gasket	石墨复合垫Graphite composite gasket	11	阀杆螺母 Stem Nut	铜合金
6	螺柱 Stud	35CrMo	12	电装 Electric Actuator	copper alloy

GB/T 9113

DN	L	PN10(1.0MPa)						PN16(1.6MPa)					
		D	D1	D2	B	f	Z-d	D	D1	D2	B	f	Z-d
50	250	165	125	102	18	3	4-18	165	125	102	20	3	4-18
80	280	200	160	138	20	3	8-18	200	160	138	20	3	8-18
100	300	220	180	158	20	3	8-18	220	180	158	22	3	8-18
125	325	250	210	188	22	3	8-18	250	210	188	22	3	8-18
150	350	285	240	212	22	3	8-22	285	240	212	22	3	8-22
200	400	340	295	268	24	3	8-22	340	295	268	24	3	12-22
250	450	395	350	320	26	3	12-22	405	355	320	26	3	12-26
300	500	445	400	370	26	4	12-22	460	410	378	28	4	12-26
350	550	505	460	430	26	4	16-22	520	470	438	30	4	16-26
400	600	565	515	482	26	4	16-26	580	525	490	32	4	16-30

注：更多尺寸，请联系工程师。 Note: For more size, please contact our engineer.



双闸板陶瓷矿浆阀  
CERAMIC DOUBLE DISC  
GATE VALVE

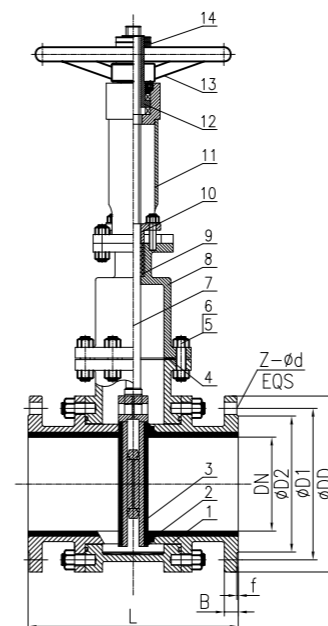
结构特点与用途 PRODUCT DESCRIPTION

- 密封采用双重密封，内一圈采用碳化钨具有耐磨性强，外一圈采用聚氨酯使闸板完全密封，起到密封零泄漏。
- 闸板采用平行式双闸板，平行式闸板材质为不锈钢喷碳化钨，碳化钨耐磨性特强，平行双闸板特点开关不卡浆，使闸板完全密封。
- 矿用闸底部采用衬陶瓷起到耐磨作用。
- 矿用阀，密封面为零泄漏、采用硬度和厚度来达到耐磨效果。
- Adopting double sealing design, the inner sealing is made of tungsten carbide which is strong wearing resistance, and the outer sealing is made of polyurethane to make the discs tightness, then reach to zero leakage.
- Adopting parallel double discs design. The parallel discs are made of stainless steel with tungsten carbide coating which is strong wearing resistance. The design main feature is that no slurry jam when open and close, discs reach to completely sealed.
- The bottom of the valve adopts ceramic liner with strong wearing resistance.
- Zero leakage, adopting high hardness and thickness to achieve wearing resistance effect.



手动双闸板陶瓷矿浆阀  
Manual Ceramic Double Disc Gate Valve

双闸板陶瓷矿浆阀  
CERAMIC DOUBLE DISC  
GATE VALVE



手动双闸板陶瓷矿浆阀  
Manual Ceramic Double Disc Gate Valve

技术规范 TECHNICAL SPECIFICATION

设计与制造 Design and Manufacture		GB/T12224
连接端尺寸 Connection End	结构长度 Face to face	厂商制造标准MFR Standard
	法兰尺寸 Flange End	GB/T9113
检验与试验 Inspection & Test		JB/T9092
标志 Mark		GB/T12220
供货 Delivery		GB/T12252

主要部件材料 MATERIAL SPECIFICATION

序号No.	名称Name	材料Material	序号No.	名称Name	材料Material
1	阀体 Body	Q235+工程陶瓷engineering ceramic	8	阀盖Cover	Q235
2	阀座 Seat	工程陶瓷engineering ceramic+PU	9	填料 Packing	石墨盘根 Graphite packing
3	闸板 Disc	不锈钢+工程陶瓷engineering ceramic	10	填料压盖 Packing Cover	WCB
4	中道密封垫 Middle Seal Gasket	304+石墨 Graphite	11	支架 Yoke	Q235
5	螺柱 Stud	35CrMo	12	阀杆螺母 Stem Nut	铜合金 copper alloy
6	螺母 Nut	45#	13	手轮 Handwheel	KTH330
7	阀杆 Stem	2Cr13	14	锁紧螺母 Lock Nut	45#

注：更多尺寸，请联系工程师。 Note: For more size, please contact our engineer.

**其他陶瓷阀系列**  
**OTHER CERAMIC VALVES SERIES**

**陶瓷蝶阀 CERAMIC BUTTERFLY VALVE**

- 公称通径: DN40 ~ DN500
- 公称压力: PN1.0 ~ 2.5MPa
- 适用温度: -29℃ ~ 280℃
- 材质: 碳钢、不锈钢等
- 介质: 污水、除灰、排渣、送粉、回粉系统等
- 广泛应用: 电厂, 污水处理, 矿浆等高磨损高冲蚀工况
- Nominal diameter: DN40 ~ DN500
- Nominal pressure: PN1.0 ~ 2.5MPa
- Applicable temperature: -29℃ ~ 280℃
- Material: carbon steel, stainless steel, etc.
- Medium: Sewage, ash, slag, powder feeding and feeding back system, etc
- Wide Application: Power plant, sewage treatment, mine slurry etc high abrasion high corrosion special conditions



**陶瓷对夹蝶阀 CERAMIC WAFER BUTTERFLY VALVE**

- 公称通径: DN40 ~ DN500
- 公称压力: PN1.0 ~ 2.5MPa
- 适用温度: -29℃ ~ 280℃
- 材质: 碳钢、不锈钢等
- 介质: 污水、除灰、排渣、送粉、回粉系统等
- 广泛应用: 电厂, 污水处理, 矿浆等高磨损高冲蚀工况
- Nominal diameter: DN40 ~ DN500
- Nominal pressure: PN1.0 ~ 2.5MPa
- Applicable temperature: -29℃ ~ 280℃
- Material: carbon steel, stainless steel, etc.
- Medium: Sewage, ash, slag, powder feeding and feeding back system, etc
- Wide Application: Power plant, sewage treatment, mine slurry etc high abrasion high corrosion special conditions



**陶瓷干灰阀 DRY ASH CERAMIC VALVE**

- 公称通径: DN50 ~ DN300
- 公称压力: PN0.6 ~ 1.6MPa
- 适用温度: ≤200℃
- 材质: 碳钢
- 介质: 煤粉、煤粉灰、水泥、Al<sub>2</sub>O<sub>3</sub>粉、面粉
- 广泛应用: 电厂、石化、冶金、建材等工业控制系统的干灰、粉煤灰、颗粒输送
- Nominal diameter: DN50 ~ DN300
- Nominal pressure: PN0.6 ~ 1.6MPa
- Applicable temperature: ≤200℃
- Material: carbon steel
- Medium: coal, Ash, cement, Al<sub>2</sub>O<sub>3</sub> powder, flour
- Wide Application: Power plants, petrochemical, metallurgy, building materials and other industrial control systems of dry ash, Fly ash, particles.



**其他陶瓷阀系列**  
**OTHER CERAMIC VALVES SERIES**

**陶瓷矿浆换向止回阀 CERAMIC SLURRY REVERSING CHECK VALVE**

- 公称通径: DN150 ~ DN500
- 公称压力: PN0.6 ~ 1.0MPa
- 适用温度: -29℃ ~ 280℃
- 材质: 碳钢
- 介质: 水、矿浆、尾矿
- 广泛应用: 各类选矿厂、水处理、大型润滑系统
- Nominal diameter: DN150 ~ 500
- Nominal pressure: PN0.6 ~ 1.0MPa
- Applicable temperature: -29℃ ~ 280℃
- Material: carbon steel
- Medium: Water, slurry, Mining
- Wide Application: Mineral processing plant, chemical plants, water treatment, large-scale lubrication system



**耐磨陶瓷止回阀 CERAMIC CHECK VALVE**

- 公称通径: DN50 ~ DN400
- 公称压力: PN1.0 ~ 2.5MPa
- 适用温度: -29℃ ~ 280℃
- 材质: 碳钢、不锈钢等
- 介质: 灰渣、泥渣、煤渣、矿浆、污水等
- 广泛应用: 电厂、石化、冶金、建材等工艺控制系统
- Nominal diameter: DN50 ~ DN400
- Nominal pressure: PN1.0 ~ 2.5MPa
- Applicable temperature: -29℃ ~ 280℃
- Material: carbon steel, stainless steel, etc.
- Medium: ash and slag, cinders, mud, pulp, sewage, etc
- Wide Application: Power, petrochemical, metallurgy, building materials and other process control systems



**陶瓷对夹止回阀 CERAMIC WAFER CHECK VALVE**

- 公称通径: DN50 ~ DN600
- 公称压力: PN1.0 ~ 4.0MPa
- 适用温度: -29℃ ~ 280℃
- 材质: 碳钢、不锈钢等
- 介质: 灰渣、渣水混合物等
- 广泛应用: 电厂、石化、冶金、建材等工艺控制系统
- Nominal diameter: DN50 ~ DN600
- Nominal pressure: PN1.0 ~ 4.0MPa
- Applicable temperature: -29℃ ~ 280℃
- Material: carbon steel, stainless steel, etc
- Medium: Ash and slag water mixture, etc
- Wide Application: Power, petrochemical, metallurgy, building materials and other process control systems



**耐磨陶瓷管**  
**CERAMIC**  
**PIPE & FITTINGS**

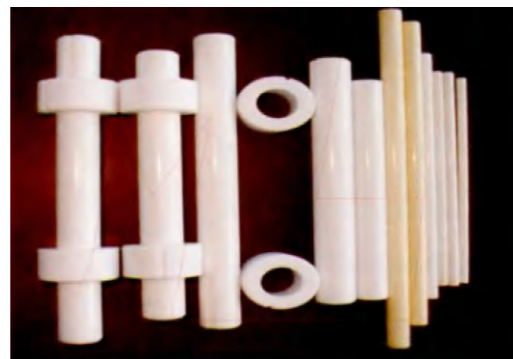
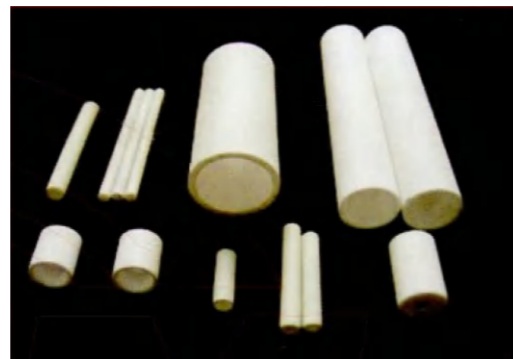
**耐磨陶瓷管性能及用途**

**FEATURES AND APPLICATIONS OF CERAMIC LINED COMPOSITE STEEL PIPE**

- 陶瓷内衬钢管耐磨损性能高,抗流体冲刷能力强。在实践中,内衬陶瓷耐磨钢管使用1-2年后打开观察并测量,均无明显磨损或脱落。
- 陶瓷管耐腐蚀性能好,能耐酸碱和耐海水腐蚀,并同时具有防垢特性。
- 陶瓷管耐高温性强,内衬陶瓷经过1700℃以上高温烧结。
- 耐磨陶瓷管可广泛应用于电厂除灰、排渣、送粉、回粉系统;钢厂炼钢的高炉喷煤、输渣等管道、炼钢输送铁合金、炉外精炼等;水泥厂生产线的生料浆输送、煤粉输送、提升机的下料、混凝土输送管道。
- The ceramic-lined steel pipe is with high wear resistance and strong fluid washout resistance. in practice, there is no obvious wear or fall off even after using 1-2 years later;
- The corrosion resistant performance of the ceramic tube is strong, it is suitable for acid and alkali as well as seawater and it has antiscale characteristics at the same time;
- The high temperature resistance performance is strong, the ceramic lining is sintered under high temperature more than 1700℃;
- With high wear resistance and favorable erosion resistance, the ceramic composite steel pipe is widely used in the high corrosive and high-temperature environment like thermal power plants, mining, metallurgy, cement plants, etc.

**产品种类 PRODUCTS**

- 除尘管道 Dedusting pipe
- 煤粉管道 Coal pipe
- 风管弯头 Air duct elbow
- 排渣管道 Slag discharge pipe
- 内磨煤机出口管 Outlet pipe of the coal pulverizer
- 粗细粉分离进口管 Inlet pipe of powder separator



**陶瓷管件系列**  
**CERAMIC**  
**PIPE & FITTINGS**



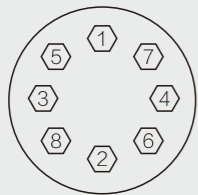
陶瓷阀门操作指南  
OPERATION MANUAL  
OF CERAMIC VALVES

储存 STORAGE

- 阀门应存放于干燥通风的室内，流道两端须用封盖堵塞，并远离震动和机械冲击。
- 在搬运阀门时，轻拿轻放，避免任何突然的撞击或摔落。
- 陶瓷阀门若长期存放，使用前应先清洗干净，并确保阀门开关灵活。
- Ceramic valves should be stored indoors away from vibration and mechanical shock and both of the ends must be sealed tightly.
- When transit, please handle the ceramic valves with care and avoid any sudden shock and dropping.
- After a long period of storage, it is recommended to clean the ceramic valves before installing, and make sure that they are flexible enough open and close.

安装与使用 INSTALLATION AND OPERATION

- 在安装阀门之前，请首先确保所有相关设备的有效性，详情请参照合格证使用范围。
- 轻拿轻放，任何突然的撞击或摔落均有可能造成陶瓷阀门损坏，安装阀门时，应先检查法兰是否正确地对直以确保垫片的均匀接触，并按图示顺序安装螺柱并锁紧螺母。这样会防止在垫片上出现不均匀的负载并防止法兰断裂的危险。
- 在安装过程中，请勿用铁锤或其它硬物敲击阀门，以防止损坏陶瓷零部件。
- 在阀门不能操作或被卡死时，切记不能强行打开或关闭。首先尝试冲洗管道，或者将阀门从管道上卸下，除去阀门内部杂物，重新将阀门装入管道。
- 在安装陶瓷球阀前请先确认管道杂物或长条铁屑排净，否则陶瓷球损坏，不予保修。
- Before installation, please ensure the effectiveness of all relevant equipment.
- Do not handle the valve roughly when transit sudden shock or dropping of the ceramic valves may result in damage. It is recommended to check that the flanges are properly aligned to ensure even gasket contact. Fit the bolts and tighten the nuts in the order shown in the following figure. This will prevent uneven loading on the gasket and risk of flange breakage.
- During installation, do not use a hammer or other hard objects that might damage the ceramic parts.
- Once the ceramic valve does not operate, or has become stuck. Please do not force the valve to turn on or turn off. Attempting to washing the pipeline first, taking the valve out of the line and remove sundries from the valve and re-install the valve.
- Please confirm pipeline is be clean, iron filings has been removed before install the ceramic ball valve, or the ceramic ball is damaged can not be warranty.



执行机构安装 ACTUATOR INSTALLATION

- 如无特殊要求,我司陶瓷阀门与执行机构连接尺寸均依照 ISO 5211标准执行
- 非我司提供的执行机构，应严格控制其扭矩，建议与我司联系以选用合适的执行机构
- 执行机构初始位置应处于全开或全关状态，以保证阀门与执行机构开关标识一致。
- 保证执行机构与阀杆的同心度控制在  $\pm 0.05\text{mm}$  之内，严重的偏心可能导致阀杆处填料泄漏，甚至造成陶瓷球体的破裂。
- Generally, the actuator mounting bracket dimensions is designed according to ISO 5211.
- If the actuator is not supplied by our company, the torque value should be paid more attention and it is recommended to contact us to obtain a actuator selection advice.
- The initial actuator position should be full-open or full-closed, so that the valve can be driven in right direction.
- Ensure the actuator is concentric to the actuator with an error of  $\pm 0.05\text{mm}$ , excess eccentric may cause stem leakage, even the ceramic ball may be broken.

陶瓷阀门操作指南  
OPERATION MANUAL  
OF CERAMIC VALVES

我司对阀门在允许的工况条件中，投入使用一年内负责免费保修,但不超过发货期18个月，违规使用及人为损坏不在保修范围之内。如果阀门出现故障，在将阀门退回返修之前，请首先依照如下措施进行排除，以尽量减少停工时间。

In general, we provide a one(1) year warranty after the valves are put into use in proper conditions, but no longer than 18 months after delivery.

Damages caused by illegal using and human negligence will not be covered by the warranty. If the valves are disabled, please perform the following steps.

可能发生的故障 Possible Failures	故障原因 Failure causes	排除办法 Trouble Shootings
法兰连接部位泄漏 Flange Leakage	连接法兰的螺孔或螺母未拧紧或拧紧不均匀 The flange bolts and(or) nuts have not been tightened up evenly	将螺栓或螺母松开后再重新均匀地拧紧 Loose the bolts and(or) nuts, and re-tighten up them evenly
	法兰密封面间有杂物 Scraps are sandwiched between the raised faces of flanges	卸下清洗 Clean the flanges
	法兰密封垫片失效 Gasket failures	更换新垫片 Replace the failed gasket with a new one
阀杆部位泄漏 Stem Leakage	填料压盖偏斜或未压紧 Gland is deflective or uncompressed	重新均匀锁紧填料压盖 retighten up the gland bolt evenly
	填料不足 Lack packing	增加填料 Add new packing
	填料失效 Packing failures	更换新填料 Replace the packing
阀杆不能转动 或转动异常 Valve does not operate or abnormal	执行机构气源压力不足 Pressure of the supply air is insufficient	调整气源压力 Adjust the pressure of the supply air
	执行机构没有足够的扭矩驱动阀门 The installed actuator has not ample torque	更换执行机构 Replace the actuator
	执行机构损坏 The actuator is damaged	更换执行机构 Replace the actuator
	控制信号失效或异常 The control signal does not work or become abnormal	检查控制信号以确保控制信号工作正常 Inspect the control signal and make sure it works well
	阀门前后压差超过限制 The differential pressure across the valve exceeds the limits	检查阀门前后压差并确保其在正常范围之内 Inspect the differential pressure across the valve and make sure it is within limits
	阀门不能完全 打开或完全关闭 Valve does not open or close fully	气源压力不足 The pressure of the supply air is not ample
定位装置故障 Actuator limit stops are damaged		修理或更换定位装置 Repair or replace the actuator limit stops
密封面间夹有杂物 Scraps are sandwiched between thesealing face		卸下阀门，清理内部杂物 Remove the valve from the line, and clear the foreign objects

**陶瓷阀门应用介绍**  
**CERAMIC VALVE APPLICATION**

**应用介绍 APPLICATIONS AND MEDIUMS**

乙酸 Acetic Acid	绿液 Green Liquor	砂浆 Sand/ Tailings Slurry	氧化铝土 Alumina Hydrate	石膏浆液 Gypsum Slurry	苯酸钠 Sodium Benzoate	氧化铝粉 Alumina Poeder	盐酸 Hydrochloric Acid
碳酸钠 Sodium Carbonate	氯化铝 Alumina Chloride	回收纸 Recycled Paper	氯酸钠 Sodium Chlorate	氨水 Ammonia	过氧化氢 Hydrogen Peroxide	氯化钠 Sodium Chloride	碳酸铵 Ammonium Carbonate
高岭土 Kaolin Slurry	氰化钠 Sodium Cyanide	氧化胺 Ammonium Chloride	煤油 Kerisene	氟化钠 Sodium Fluoride	氟化铵 Ammonium Fluoride	石/石灰石浆液 Lime/ Limestone Slurry	氢氧化钠 Sodium Hydroxide
硅酸铵 Ammonium Silicate	氢氧化镁 Magnesium Hydroxide	次氯酸钠 Sodium Hypochlorite	锐钛浆 Anatase Slurry	氧化镁浆液 Magnesium Oxide Slurry	硝酸钠 Sodium Nitrate	苯胺 Aniline	硫酸镁 Magnesium Sulfate
硫酸钠 Sodium Sulfate	灰浆 Ash Slurry	镁粉 Mandesium Slurry/Ore	煤灰浆 Soot Slurry	铝土浆 Bauxite Slurry	氯化汞 Mercuric Chloride	蒸汽 Steam	氯苯 Benzyl Chloride
甲醇 Methanol	二氧化硫 Sulfur Dioxide	黑液 Black Liquor	甲基丙酮 Methyl Acetone	硫酸 Sulfuric Acid	硼酸 Boric Acid	氯甲烷 Methyl Chloride	滑石水 Talcum Water
卤水 Brine	丁酮 Methyl Ethyl Krtone	钛酸 Tamic Acid	碳酸钙 Calcium Carbonate	二氯甲烷 Methylene Chloride	二氧化钛 Titanium Dioxide	氯酸钙 Calcium Chlorate	石灰乳 Milk of Lime
四氯化钛 Titanium Tetrachloride	氯化钙 Calcium Chloride	母液 Mioher Liguor	甲苯 Toluene	次氯酸钙 Calcium Hypochlorite	萘 Naphthalene	三氯乙烷 Trichloroethane	碳酸钙 Calcium Sulfate
天然气 Natural Gas	松节油 Turpentine	碳粉 Carbon Slury	硝酸 Nitric Acid	废酸 Waste Acids	湿氯气 Chlorine (Wet)	发烟硫酸 Oleum	毛屑 Wool Fines
氯硅烷蒸汽 Chlorosilane Vapor	纸浆 Papered Slurry	二甲苯 Xylene	铬酸 Chromic Acid	原油 Petroleum	硫酸锌 Zinc Sulfate	柠檬酸 Citric Acid	苯酚 Phenol
三氯氢硅 Trichlorosilane	粘土浆液 Clay Slurry	磷酸 phosphoric Acid	四氯化硅 Silicon Tetrachloride	氯化铜 Copper Chloride	溴酸钾 Potassium Bromate	氰化铜 Copper Gyanide	碳酸钾 Potassium Carbonate
硫酸铜 Copper Sulfate	氯酸钾 Potassium Chlorate	氯化亚铜 Guprous Chlcnide	氯化钾 Potassium Chloride	乙醇 Ethano	铬酸钾 Potassium Dichromate	乙胺 Ethyl Amine	高氯酸钾 potassium Perchlorate
乙醚 Ehtyl Ether	高锰酸钾 potassium Pemanganate	氯化铁 Ferric Chlnride	硫酸钾 Potassium Sulfate	硫酸亚铁 Ferrous Sulfale	沉淀碳酸钙 Precipitated Calcium	烟气 Flue Gas	碳酸盐 Carbonate (PCC)
粉煤灰(干湿) Fiyash (Wet and Dry)	泥浆 Radioactive Slurry	蚁酸 Fommic Acid	硅粉 Silica Fume	单晶硅 Monocrystalline Silicon	多晶硅 Polycrystalline Silicon	海水 Sea Water	盐矿 Sat Mire
矿浆 pulp	氧化镁 Oxidation Of Beauty	煤灰 Coal As	焦粉 Coke Powder	喷煤 PCI	干灰 Dry Ash	氯硅烷 Chlorosilane	浆渣 Chlorsilane

立信陶瓷阀在大部分苛刻工况中都有十分出色的表现，上图列出陶瓷阀门适用的行业和工况介质，以供参考。

LIXIN ceramic valves are superior in most severe applications. Here we list some typical industries and applications above forvour reference. in which LIXIN ceramic valves have proven superior performances and lona servina time.

**陶瓷阀门的应用领域**  
**CERAMIC VALVE APPLICATION**

**1.制浆和造纸行业的应用 PULP AND PAPER APPLICATION**

- 纸浆准备:  
纸浆+硫酸H<sub>2</sub>SO<sub>4</sub>或者和亚硫酸钠+石灰+硫化钠(Na<sub>2</sub>S)  
造纸
- 生产优质纸产品: 填充及吸收材料:高岭土, 二氧化镁等  
纸张定型:增光剂, 二氧化钛, 硅, 滑石...  
控制高密度流体意味着 = 腐蚀 & 冲蚀

- Pulp preparation  
Pulp+sulphuric acid H<sub>2</sub>SO<sub>4</sub> or sodium sulfite(Na<sub>2</sub>s)+lime
- Paper making:  
Offer the high-quality product: Fill and absord material, i.e kaoline, magnesium peroxide, orthohydrous coal  
Paper hold: brighteners, titanium dioxide, silicon, talc etc.  
High density of flow control=corrosion resistance &erosion resistance

**2.化肥应用 FERTILIZER APPLICATION**

- 磷酸(43% H<sub>3</sub>PO<sub>4</sub>) 混有磷酸钙固体,80℃,3~6帕, 密度达到1500公斤/立方米。
- 硝酸铵(NH<sub>4</sub>NO<sub>3</sub>)+泥浆, 140℃, 固体硝酸铵4~8帕, 密度为1300公斤/立方米。
- 含白云石的泥浆(CaCO<sub>3</sub>来源于矿石), 60℃, 5帕, 密度大于1300公斤/立方米。
- 取代现有需频繁更换的不耐磨损和冲蚀的金属或衬氟衬胶阀门。  
经济可行性(一年即可收回成本):(现有阀门的价格\*每年更换次数)+更换期间的生产损失+更换的人工成本 ≥ 陶瓷阀门的价格

- Phosphoric acid(43%H<sub>3</sub>PO<sub>4</sub>) mix with solid calcium phosphate 80℃, 3~6Pa, Density achieved at 1,500 kg/m<sup>3</sup>
- Ammonium Carbonate(NH<sub>4</sub>NO<sub>3</sub>) + slurry, 140℃, with solid ammonium carbonate 4~8Pa, Density achieved at 1,300kg/m<sup>3</sup>
- Slurry with dolomite (CaCO<sub>3</sub> origin mineral), 60℃, 5Pa, Density bigger than 1,300kg/m<sup>3</sup>
- To replace metal and teflon/rubber lined valve which exchange frequently for prevent abrasion and erosion.  
Economic feasibility (Regular valve price\*exchange time each year)+Production loss during exchange period+labor cost of exchange ≥ Ceramic valve cost

**3.电厂应用 POWER PLANT APPLICATION**

- 燃煤电厂
- 废气脱硫FGD:  
石灰浆制备(研磨).  
对石灰浆液到达清洗器和脱硫塔前的流量精确控制脱硫后硫酸钙再循环进入脱硫塔。加工水再循环(其中只有少量固体)。
- 飞灰:  
在经过静电除尘过滤后, 使用气力输送粉煤灰和剩余未完全燃烧的煤粉。

- Coal factory
- Desulphurization of exhaust gas FGD  
Lime slurry and preparation (grind)  
To control the lime before reach the cleaner and absorber  
Recycle the sulphuric acid after desulfuration  
Recycle the processed water(only little solid include)
- Ash  
Transfer ash and not burn by gas dynamics after filter from electric-static force

**4.炼钢炼铁厂应用 LRONMAKING AND STEELMAKING PLANT APPLICATION**

- PCI, 煤粉喷射入熔铁炉,气动喷射和控制的应用。
- EAF电弧炉(煤粉喷射)
- 气动喷射控制(O<sub>2</sub> or N<sub>2</sub>-carbon)
- 铁矿脱硫(熔化)加入添加材料改变钢的性能:CaC<sub>2</sub>, MgO<sub>2</sub>, SiO<sub>2</sub>.
- 气动喷射控制, 铁矿石在700℃高温下提炼

- PCI, Pulverized coal is injected into the melting furnace, and the application of pneumatic injection & control
- EAF electric arc furnace (coal powder injection)
- Pneumatic injection and control(O<sub>2</sub> or N<sub>2</sub>-carbon)
- The original iron desulfurization (injection into): material added to change the steel qualityCaC<sub>2</sub>, MgO<sub>2</sub>, SiO<sub>2</sub>.
- Pneumatic injection & control DRI, iron ore is"refined"at high temp. 700℃

**5.废物焚烧炉应用 WASTE INCINERATOR APPLICATION**

- 城市垃圾焚烧炉=气态硫化物直接排放入大气环境空气净化后排放, 在某些国家是严格要求的

- MSW incinerator = Disperse sulphur into air  
flue gas cleaning is strictly required in some countries.

**6.二氧化TiO<sub>2</sub>应用 TITANIUM DIOXIDE TIO<sub>2</sub>APPLICATION**

- 脱硫和漂白
- 硫酸二氧化钛提取液, 如:30%TiO<sub>2</sub>浆料-20%硫酸
- 四氯化钛和流体反应过程, 如:TiCl<sub>4</sub>泥浆, 焦炭颗粒, 悬浮液中的金属颗粒
- 再生:硫酸精制: 从20%的稀H<sub>2</sub>SO<sub>4</sub>浓缩为98%的浓H<sub>2</sub>SO<sub>4</sub>

- Desulfidation & bleach
- Sulfuric TiO<sub>2</sub> extraction process fluids such as: TiO<sub>2</sub> slurry 30% sand-solids with 20% H<sub>2</sub>SO<sub>4</sub> app.
- Chlorine TiO<sub>2</sub> reaction process with fluids such as:TiCl<sub>4</sub> slurry, coke particles (metal particles in suspension).
- Bi-process: sulfuric acid treatment. from diluted 20%H<sub>2</sub>SO<sub>4</sub> back to 98%H<sub>2</sub>SO<sub>4</sub>

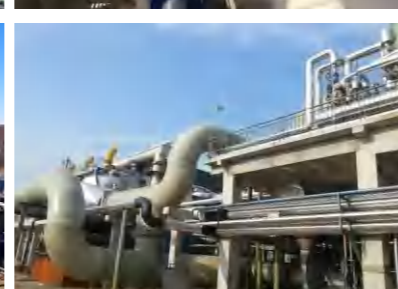
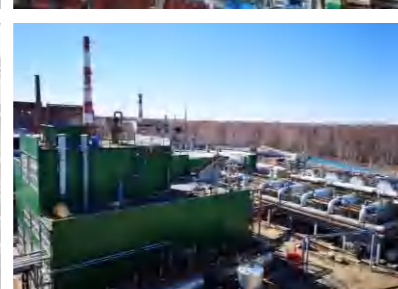
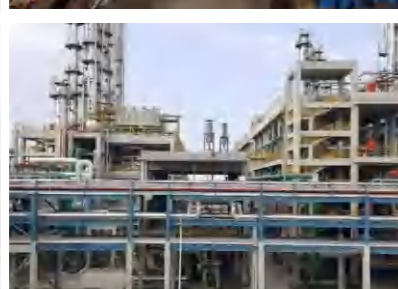


## Applications 工程实例

立信产品应用于造纸、糖业、氧化铝、矿业、石油、天然气、化工、电力、污水等行业。凭借其优秀的品质和质量保障，得到客户的好评和赞誉。

LIXIN Products are applied to paper, sugar, alumina, mining, petroleum, gas, chemical, power, sewage industries.

With its excellent quality and quality assurance, We win much praise.



## LETTER OF GUARANTEE OF AFTER-SALES SERVICE 售后服务承诺书

为了提供更优质的产品给用户，我公司在技术支持和售后服务方面，建立企业诚信价值体系，使公司的产品无论在技术、质量和服务方面都是最优的，公司通过了一系列的认证如ISO 9001、API 6D、CE、特种设备制造许可证等等，为此企业向用户承诺会做到下列几点（如果用户提出合理的要求我公司也会按要求执行）：

- ① 我公司负责所提供设备的现场安装指导、调试及操作人员培训。
- ② 我公司负责现场调试安装需要的特殊工具和消耗品。
- ③ 当业主通知投产运行时要求我公司派人员进行现场监督运行，我公司派有经验的工程师检查安装，并监督试运和运行工作。
- ④ 长期免费提供24小时的技术支持热线。
- ⑤ 阀门的质量免费保证期为货到到货后15个月，在质量保质期内，若发现我公司提供的阀门有任何质量或功能问题，我公司免费进行更换和维修。当设备出现故障或不能满足业主要求时，我公司按照业主要求排除故障，直到业主满意为止。
- ⑥ 质量保证期结束后，我方保证长期提供技术服务，费用由我方按成本收取。若出现任何质量问题，我方在接到用户通知后72小时内，派有经验的工程师到达现场进行服务。
- ⑦ 质量保证期内的技术服务费用由我公司自己承担，质量保证期结束后的技术服务费用我公司收取一定的差旅费。

To provide products of higher quality for customers, our company has established enterprise sincerity value system in the aspects of technical support and after-sales service, so as to make our products the most excellent in technology, quality and service. The company has passed series of certifications such as ISO 9001, API 6D, CE and manufacturing license for special equipment etc. For this reason, our company promises to abide by the following items (our company will also follow any reasonable requirements brought forward by users):

- ① Our company will be responsible for providing site installation guide, debugging and trainings to operators for the equipment offered.
- ② Our company will provide special tools and wearing parts necessary for site installation.
- ③ Upon user's notification of putting into operation, our company will dispatch personnel to supervise the operation on site. The experienced engineer dispatched by our company will check the installation and supervise the trial operation and running.
- ④ We will always provide 24-hour hotline for technical support.
- ⑤ The warranty period of our valves is 15 months after the arrival of goods. During the warranty period, if any quality or function problem is found in the valve offered by us, our company will make replacement and maintenance free of charge. If the any malfunction occurs in the equipment or user's requirements can't be satisfied, our company will eliminate the malfunction according to user's requirements until full satisfaction is gained from the user.
- ⑥ After the warranty period expires, our company promises to always provide technical service and we will receive charge according to the real cost. If there is any quality problem, within 72 hours upon receiving user's notification of it, our company will dispatch the experienced engineer to arrive at the site for service.
- ⑦ The technical service costs incurred during the warranty period will be covered by our company, and a certain expenses for business travel will be charged by our company for those incurred after the warranty period expires.