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泉舜流控|阀门专家
QUANSHUN VALVE EXPERT

河南泉舜流体控制科技有限公司
HENAN QUANSHUN FLOW CONTROL SCIENCE & TECHNOLOGY CO.,LTD.

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诚招代理商/Agent needed

VALVE

Ball Valve Series 球阀系列



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Brief Introduction

公司简介



- 企业精神 / 科技强企 / 制度治企
Spirit of enterprise, improvement upon science, system govern enterprise
- 倡导环保 / 用心创造
To initiate environmental protection, manufacture with our hearts

诚信待人，认真做事，团队协作，用心服务
TREAT HONESTLY, WORK CAREFULLY, COOPERATE IN TEAM SPIRIT, SERVE WHOLE-HEARTEDLY

河南泉舜流体控制科技有限公司位于郑州市国家高新技术产业开发区化工路28号，占地面积50亩，是专业研发、生产、销售各种高、中、低压阀门的企业，是河南省科技厅认定的双高企业（高新技术企业和高新技术产品），通过了ISO9001、ISO14001、OHSAS18001、CE、API等国际认证，公司隶属于泉舜集团。

河南泉舜流体控制科技有限公司自1986年涉足阀门行业以来，积有二十多年阀门专业设计、制造的经验，长期以来一直致力于科技创新，不断研制和开发特殊工况专用阀门，以符合新形势下对流体控制的新需求，能按照JB、GB、ANSI、API、DIN、BS、JIS等标准制造高品质的系列阀门，主要产品有各种半球阀、料浆阀、放料阀、控制调节阀、电站阀、水力控制阀、闸阀、截止阀、止回阀、蝶阀、球阀等二十多个系列3000多种规格的高、中、低压阀门及行业专用阀，如：船用阀门、核电阀门等高新技术产品，系列产品被广泛应用于石油、有色冶炼、化工、冶金、造纸、天然气、电力、供热、市政、给排水、环保、建材、医药、深海等系统，适应介质涵盖了水、蒸汽、石油、气、液、固态等常温、高温、低温、高压、腐蚀等特殊工矿环境。

公司引进先进的CAD阀门研发设计中心，专业从事阀门的设计和开发，拥有加工中心、数控机床、大型立车、大型镗床、磨床、多功能阀门性能试验装置等精良的机械加工和工艺保障检测设备，阀门的材质有WCB、WC1、WC6、WC9、304、304L、316、316L、CF8、CF8M、Ti等，适宜工作压力自0.25~42.0MPa(150Lb~2500Lb)，最高可达330MPa，口径自3~3200mm，工作温度自-196℃~650℃，完全能够适应于各种高温、腐蚀、磨损、冲刷等恶劣的工矿环境。

公司以“诚信待人，认真做事，团队协作，用心服务”为宗旨，凝聚了一大批具有丰富经验的中高级专业技术人才和大批经过专业技术培训的优秀熟练工，大中专以上科技型人员占到人员总数的80%以上，公司通过与国内外知名企业和科研院所进行技术合作后，成功研制出具备国际水平的各种阀门，并获得广大新老用户的认可。

河南泉舜流体控制科技有限公司在泉舜集团强大实力依托下，坚持用户至上的原则，以先进的技术、精良的设备、科学的管理、周到的服务打造一流的专业阀门品牌，以为用户创造增值为己任，以优质的产品、卓越的服务回馈社会各界对泉舜流控人的厚爱和支持。

Lying on No.28 Huagong Road, National Hi-tech Industrial Development Zone, Zhengzhou City, with 33300m² floor areas, Henan Quanshun Flow Control Science & Technology Co., Ltd. belonging to Quanshun Group, is a famous enterprise with the title of Double Highs, Hi-tech Company and Hi-tech Products by Henan Technology Department, engaging in the research, production and distribution of various valves with high, medium and low pressures, and obtained the certifications of ISO9001, ISO14001, OHSAS18001, CE and API.

With over twenty-year experience in design and manufacturing of valves, since 1986, Henan Quanshun Flow Control Science & Technology Co., Ltd. has specialized in innovating, developing valves for special working conditions in order to meet the new demand for flow control. The main products include over twenty series and 3000 specifications of high, medium and low pressures valves such as hemisphere valves, slurry valves, dumping valves, regulating valves, power station valves, hydraulic valves, gate valves, butterfly valves and ball valves, and valves with special purposes like marine valves and nuclear power valves, which are widely used in many fields such as petroleum, nonferrous metallurgy, chemical, metallurgy, paper-making, gas, power, heat supply, urban construction, water supply and drainage, environmental protection, building materials, medicine and deep sea, and be applicable to the working conditions of normal temperature, high temperature, low temperature, high pressure and corrosion with the mediums like water, vapor, petroleum, gas and liquid.

The Company has introduced the professional CAD research and development center, meanwhile it owns excellent machining equipments and process inspection equipments like machining center, numerical control machines, large-size vertical lathes, large-size boring machines, grinding machines and multi-function performance test devices for valves. The Materials: WCB, WC1, WC6, WC9, 304, 304L, 316, 316L, CF8, CF8M and Ti etc., Working Temperature: -196℃~650℃, the products are wholly applicable to the working conditions like high temperature, corrosion, wearing and wash-out.

With the tenet of Be Credit & Sincere, Buried in Work, Teamwork, Full Heart Service, the company has gathered a large number of middle and senior technicians and excellent trained workers with rich work experience, where there is over 80% technologic employees with the educations of college and secondary school. Through the technology cooperation with famous foreign and domestic enterprises as well as institutions, various valves with international advanced standards have been developed, which are trusted by our extensive old & new customers.

Henan Quanshun Flow Control Science & Technology Co., Ltd. relying on the strong force of Quanshun Group, holds the concept of Customers First to build the first grade brand on the base of advanced technology, excellent equipments, scientific management and complete service, returns our customers' supports by creating more values, outstanding products and remarkable service.



Quality Guarantee

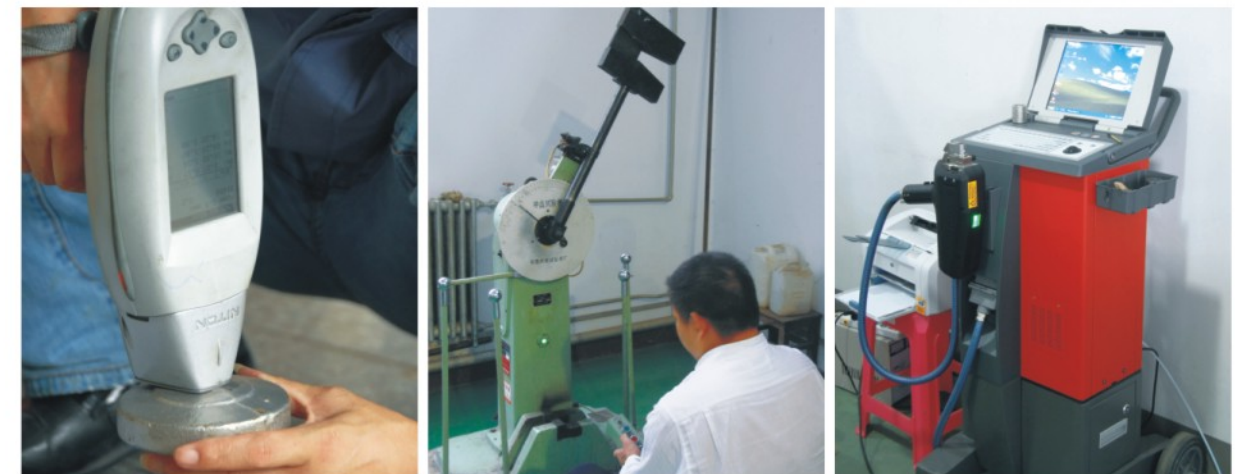
品质保证



一流的检测设备，一丝不苟的检测手段，确保产品的稳定和可靠.....
The first-class inspection device, strict and thorough test methods, guarantee the product stable and reliable.....



我们珍惜用多年汗水铸造的品牌，珍惜每一份来之不易的荣誉。面对掌声我们没有眷恋徘徊，也不曾犹豫不决，我们把它化作前进的动力，一步一脚印、不断锐意进取、超越自我.....
We cherish the brand casted by sweat and every hard-earned honor. Facing applause, We never wandered and hesitated. We turn it into the power pushing us forward step by step.....



Research & Development

研发设计



All our technical work aims at the ultimate goal of providing high quality valve for customers!

为客户提供高品质的阀门是我们一切技术工作的终极目标!

泉舜流控以“不断创新，制造精品”为技术原则，始终把技术开开放在企业一切活动之首。研发部门以不断满足市场需求为出发点，创造性地开发新品；同时还经常性地研究市场现有的产品，不断改进产品性能，使之达到最高的使用效率；泉舜流控不仅在研发新品上出类拔萃，更能够把客户不同的需要和要求作为设计输入，量身定做符合他们具有特殊需求的产品，更好地满足客户的实际需求。

Quanshun "being continuously innovative manufacture fine products" as technical principle, Quanshun Flow Control always gives priority to the technical development. Continuously meeting market demands, the research and development department innovatively develop new products. Furthermore, it makes constant investigation to the existing products in the market so as to improve the products performance to achieve the maximum working efficiency of products. In addition to researching and developing the outstanding new products, Quanshun Flow Control is also capable of customizing products of special demands according to different requirements of customers, so as to further meet the actual demand of customers.

Production Equipment

生产装备



一流的质量控制 一流的产品质量
Top Quality Control, Top Product Quality



The Advanced Equipments Consummate Technology

先进的设备·精湛的技术



先进的生产设备是企业发展的根本，引进国际先进的设备取代传统的加工设备是泉舜快速成长的动力因素之一。先进的设备使泉舜产品更加优良，也使得泉舜流控一直走在同行业的前端。成功的市场不仅依靠良好的营销模式，更需要高品质的合格产品，核心技术极大提高企业的竞争力。所以我们严把质量关，从开始生产到出厂，每一个生产环节都经过严格的检验。以确保产品质量符合标准。Advanced production equipment is a development fundamental for a company. Introducing international equipments instead of traditional process equipments is a dynamic factor for Quanshun Flow Control to grow up so fast. Advanced equipments make Quanshun Flow Control product much more excellent, and also make Quanshun Flow Control in the front ranks of the industry. A successful market is not only depending upon a good sale mode, but also needing quality product and core technology to improve enterprise competition. So we supervise every quality processes from production to leaving factory, and inspect strictly every production process to ensure that products confirm to standard.



储备·实力的见证 RESERVE · WITNESS OF STRENGTH



Outstanding Achievements

公司业绩

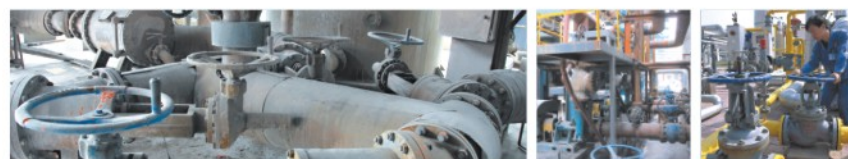


钢铁

武汉钢铁集团
湖南华菱涟钢股份有限公司
唐山钢铁股份有限公司
邯郸钢铁股份有限公司
昆明钢铁控股有限公司
安阳钢铁股份有限公司
广西柳州钢铁(集团)公司
新余钢铁有限责任公司
天津天铁冶金集团有限公司
南京梅山钢铁股份有限公司
大冶特殊钢股份有限公司
中钢集团设备有限公司
中钢集团邢台机械轧辊有限公司
迁安轧一钢铁集团有限公司
山西太兴集团有限公司
山西晋城福盛钢铁有限公司
河北省宽城大成钢铁有限公司
福建三安钢铁有限公司
中冶南方工程技术有限公司
江苏瑞帆环境工程设备有限公司
马来西亚APEX GEM SDN.BHD

铝业

中国铝业股份有限公司广西分公司
中国铝业股份有限公司河南分公司
中国铝业股份有限公司中州分公司
中国铝业股份有限公司贵州分公司
中国铝业股份有限公司山东分公司
中国铝业股份有限公司重庆分公司
广西华银铝业有限公司
遵义铝业股份有限公司
山东龙口东海氧化铝有限公司
山东滨州魏桥铝业科技有限公司
山东魏桥铝电有限公司
山东信发希望铝业有限公司
山东东岳能源交口肥美铝业有限责任公司
陕西长宏化工股份有限公司
三门峡义翔铝业有限公司



化工

天脊煤化工集团有限公司
山西天脊潞安化工有限公司
天脊中化高平化工有限公司
山西兰花科技创业股份有限公司
云维集团沾益化肥有限公司
云南三环中化化肥有限公司
云南云天化国际化工红磷分公司
云南大为制氮有限公司
五环科技股份有限公司
安阳化学工业集团有限责任公司
云锡股份化工材料公司
中原大化集团有限公司
骏马化工股份有限公司
中国建筑第七工程安装工程公司
河南神马氯碱化工股份有限公司



化工

安徽淮化集团有限公司
河南金天化工有限公司
河南金大地化工有限责任公司
云南大为制氮有限公司
河南骏马化工集团西平分厂
河北中煤旭阳焦化有限公司
河北鑫泉焦化有限公司
邢台旭阳煤化工有限公司
陕西化建工程有限责任公司
河南驻马店骏马化工股份有限公司
榆林煤化科技有限责任公司
石家庄白龙化工股份有限公司
河南省煤气集团有限责任公司

电力

山西鲁晋王曲发电有限责任公司
山西晋城金驹发电厂
山西屯留明辰新能电厂
天津市太兴电力有限公司
河北邢台翔泰发电有限责任公司
河北兴泰发电有限责任公司
安徽淮南平圩发电有限责任公司
安徽电力股份有限公司淮南田家庵发电厂
淮沪煤电有限公司田集发电厂
淮浙煤电有限责任公司凤台发电分公司
山东龙口东海热电厂
华能瑞金电厂
陕西靖边长庆油田自备电厂
陕西渭河发电厂

其它

长庆石油勘探局器材供应处
中寮矿业投资有限公司
淮南舜岳水泥有限责任公司
淮北矿业集团水泥有限责任公司
中项建控股(集团)有限公司
山西华晋纺织印染有限公司
河南天方药业股份有限公司
河南省特种防腐有限公司
栾川县牛心垛矿业有限公司
焦作市迈科冶金机械有限公司
郸城财鑫糖业集团
河北千喜鹤肉类产业有限公司
邢台市方正机电有限公司
福建糖业股份有限公司



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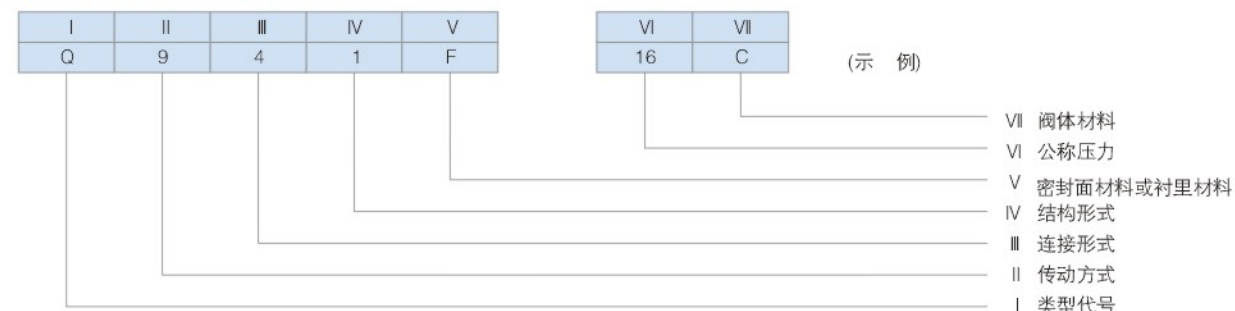
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十 阀门选型指南/How to order



代 号	0	1	2	3	4	5	6	7	8	9	
Ⅱ - 传动方式	电磁动	电磁-液动	电-液动	蜗轮	正齿轮	锥齿轮	气动	液动	气-液动	电动	
Ⅲ - 连接形式		内螺纹	外螺纹		法兰		焊接	对夹	卡箍	卡套	
Ⅰ - 类型代号	Ⅳ - 结构形式										
闸 阀	Z	明 杆				暗 杆					
		楔 式		平行式		楔 式		平行式			
截止阀	J	-	刚 性				平 衡				
			弹性闸阀	单闸板	双闸板	单闸板	双闸板	单闸板	双闸板	单闸板	双闸板
节流阀	L		直通式	Z型式	三通式	角式	直流式	直通式	直角式	-	
柱塞阀	U										
球 阀	Q	半球直通	浮动球				固定式				
			直通式	三通式Y形	-	三通式Y形	T形	四通式	直通式	三通式T形	Y形
蝶 阀	D	非密封型三偏心	密封型				非密封型				
			中线式	单偏心	双偏心	连杆机构	三偏心	中线式	单偏心	双偏心	连杆机构
隔膜阀	G		屋脊式	-	截止式	-	直流式	直通式	-	角式Y形	
旋塞阀	X	-	填料密封				油密封				
			直通式	T形三通式	四通式		直通式	T形三通式			
止回阀	H	-	升降式			旋启式			回转蝶形	截止止回	-
			直通式	立式	角式	单瓣式	双瓣式	多瓣式			
安全阀	A	带散热片全启式	弹簧封闭		弹簧不封闭	弹簧封闭	杠杆式	弹簧不封闭		脉冲式	
			微启式	全启式	带扳手	带控制全启式		带扳手			
减压阀	Y	-	薄膜式	弹簧薄膜式	活塞式	波纹管式	杠杆式	-	-	-	
疏水阀	S		浮球式	-	浮桶式	膨胀式	钟形浮子式	膜盒式	双金属片式	脉冲式	
排污阀	P	-	液面连续排放		-	-	液面间断排放				
			直通式	角式			直流式	直通式	角式	浮动闸板型	

Ⅵ-公称压力 公称通径的数值用10倍的帕 (MPa) 数表示; 用于电站工业的阀门, 当介质最高温度超过425℃时, 标注工作压力。

V-阀座密封面或衬里材料	代号	V-阀座材料	代号
巴氏合金	B	尼龙塑料	N
搪瓷	C	渗硼钢	P
渗氮钢	D	衬铅	Q
氟塑料	F	Mo2Ti系不锈钢	R
陶瓷	G	塑料	S
Cr13系不锈钢	H	铜合金	T
衬胶	J	橡胶	X
蒙乃尔合金	M	硬质合金	Y

Ⅶ-阀体材料	代号	Ⅶ-阀体材料	代号
钛及钛合金	TI	球墨铸铁	Q
碳钢	C	Mo2Ti系不锈钢	R
Cr13系不锈钢	H	塑料	S
铬钼钢	I	铜及铜合金	T
可锻铸铁	K	铬钼钒钢	V
铝合金	L	灰铸铁	Z
18-8系不锈钢	P		

注: 1、由阀门直接加工的阀座密封面材料代号用“W”表示;
2、除隔膜阀外, 当密封材料不同时, 用低硬度材料代号表示。

注: 1、PN≤1.6MPa的灰铸铁阀体和和PN≥2.5MPa的碳钢阀体材料可省略本代号;
2、CF3、CF8、CF3M、CF8M等材料牌号可直接标注在阀体上。

Floating Ball Valve Series

浮动球阀系列

Keeping pace with the times
Reviving upon science & technology
与时俱进 / 科技兴业



浮动球阀 Floating ball valve

浮动球阀的结构设计特点/Floating ball valve structural design characteristic

阀座的可靠密封/Reliable seat seal

浮动球阀采用弹性密封圈结构设计。当介质压力较小时，密封圈与球体接触面积较小，在密封圈与球体接触形成较大的密封比压，确保可靠密封。当介质压力较大时，随着密封圈的弹性变形，密封圈与球体的接触面积增大，故密封圈能承受较大的介质推力而不会损坏。

The structure design of elastic sealing ring has been adopted for floating ball valves. This seat design features a bigger sealing pressure ratio between the ring surface and the ball when medium pressure gets lower, where the contacting area is smaller. Thus, the reliable seal is ensured. When the medium pressure gets higher, the contacting area between seat ring and ball becomes bigger as the sealing ring transforms elastically to undertake the bigger force pushed by the medium without any damage.



用途/Purpose

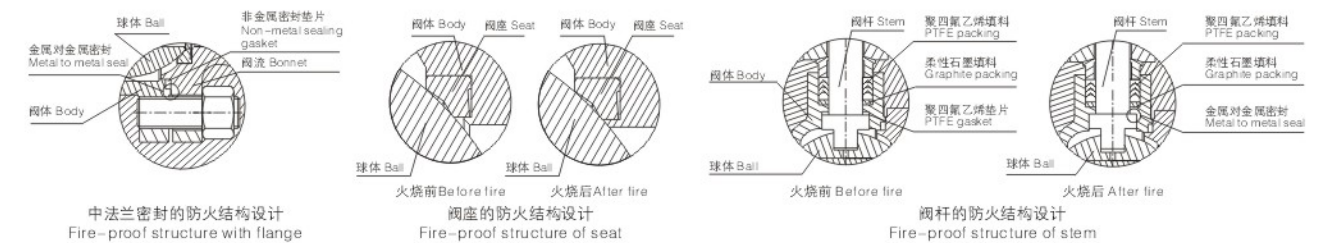
浮动球阀适用于Class 150~Class 1500, PN16~PN100, JIS10K~JIS20K的各种管路上，用于截断或接通管路中的介质，选用不同的材质，可分别适用于水、蒸汽、油品、液化气、天然气、煤气、硝酸、醋酸、氧化性介质、尿素等多种介质。驱动方式为手动、蜗轮蜗杆传动、气动或电动。浮动球阀一般采用法兰连接，也可采用对焊连接。

Floating ball valves are suitable for using in various kinds of pipelines of Class 150 to Class 1500, PN16 to PN100, and JIS 10K to JIS 20K to turn on or off the pipeline medium, of which the operation types include manual, worm gear and pneumatic or electric actuators.

防火结构特点/Fire-proof design characteristics

在阀门的使用现场发生火灾时，当聚四氟乙烯等非金属材料制作的阀座密封圈、阀杆上密封垫、阀杆密封填料以及中法兰密封垫片在高温下分解或破坏后，泉舜球阀能够借助于特别设计的金属对金属辅助密封结构，有效地控制阀门的内漏和外漏。对于用户有防火要求的浮动球阀，泉舜公司的防火设计均符合API 607, API 6FA, BS 6755及 JB/T 6899 等标准规范的要求。

With the valve heated in a fire application, the non-metal material parts such as seat sealing ring of PTFE, stem backseat gasket, gland packing, and the sealing gasket between body and bonnet might disintegrate or be damaged due to high temperature. Quanshun specially designed structure of auxiliary metal to metal seal is provided to effectively prevent both internal and external leakage of the valve. As required by Customers, Quanshun floating ball valves with design can meet the requirement of API 607, API 6FA, BS 6755 and JB/T 6899.



阀杆的可靠密封 Reliable stem seal

阀杆采用防吹出结构设计，即使在阀腔异常升压以及填料压板失效等极端情况下，也能保证阀杆不会被介质吹出。阀杆采用有到密封的下装式结构设计，倒密封的密封力随着介质压力的增高而增大，故能在各种压力下均能确保阀杆的可靠密封。

The blow-out proof design has been adopted for the stem to ensure that even if the pressure in the body cavity is risen accidentally and the packing flange becomes invalid, the stem may not be blown out by medium. The stem features the design with a backseat, being assembled from underneath. The sealing force against the backseat gets higher as the medium pressure becomes higher. So the reliable seal of the stem can be assured under variable medium pressure.

将传统的填料压盖改进为填料压板与填料压套的两体式结构设计，填料压套与填料压板采用球形接触，确保填料压套始终垂直，并在填料压套内部设置了聚四氟乙烯衬套，避免了阀杆与填料压套的擦伤与磨损，并减小了阀门的操作力矩。

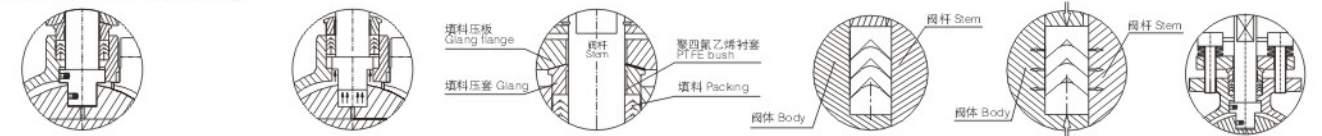
The traditional packing flange design has been improved to be of two piece structure, i.e., being as a gland flange and gland, the latter contacts the gland flange with spherical surface. Thus, the gland remains vertical always, and is lined internally with a PTFE bush to prevent the galling against and friction from the stem, which can also reduce the operation torque of the valve.

阀杆采用V型填料密封结构，V形填料能将填料压盖的压紧力及介质力有效地转化成阀杆的密封力。

V type packing structure has been employed to effectively transform the pushing force of the gland flange and the medium pressure into the sealing force against the stem.

根据用户的需要，可以采用碟形弹簧加载的填料压紧机构，使阀杆填料的密封更加可靠。

Based on customers' requirement, a packing tightening design may be employed to obtain more reliable stem packing seal, which is loaded by beveling spring.

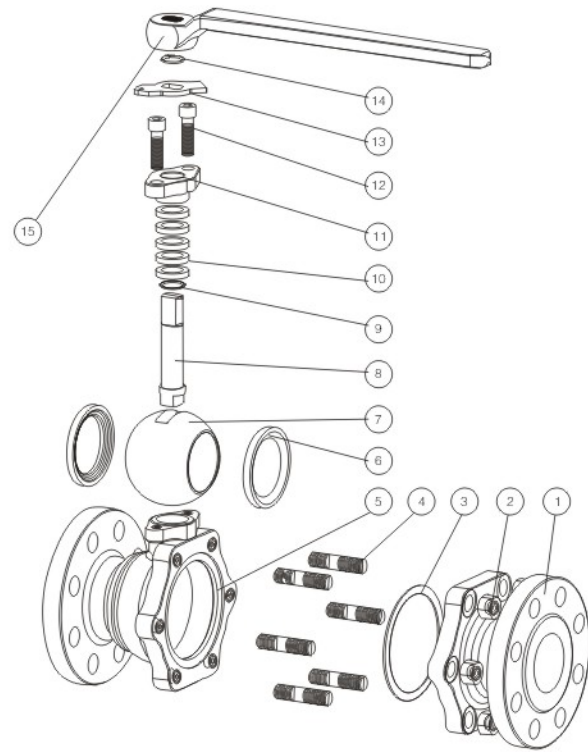


下装式阀杆不会被介质压力吹出 Stem assembled from underneath may not be blown out by medium
上装式阀杆有被介质压力吹出的可能 Stem assembled downward may be blown out
防止阀杆使用中的磨损 Stem galling prevented in application
填料压紧前 Packing before pressed
填料压紧后 Packing after pressed

技术规格/Technical standard

设计标准: API 608
 结构长度: ASME B16.10
 法兰尺寸: ASME B16.5
 试验和检验: API 598
 注: 系列阀门连接法兰及对焊端尺寸可根据用户要求设计制造。

Design standard: API 608
 Face to face dimension: ASME B16.10
 Flange: ASME B16.5
 Test & inspection: API 598
 Notes: The sizes of serial valve flange and butt welded can be designd according to customer's requirement.

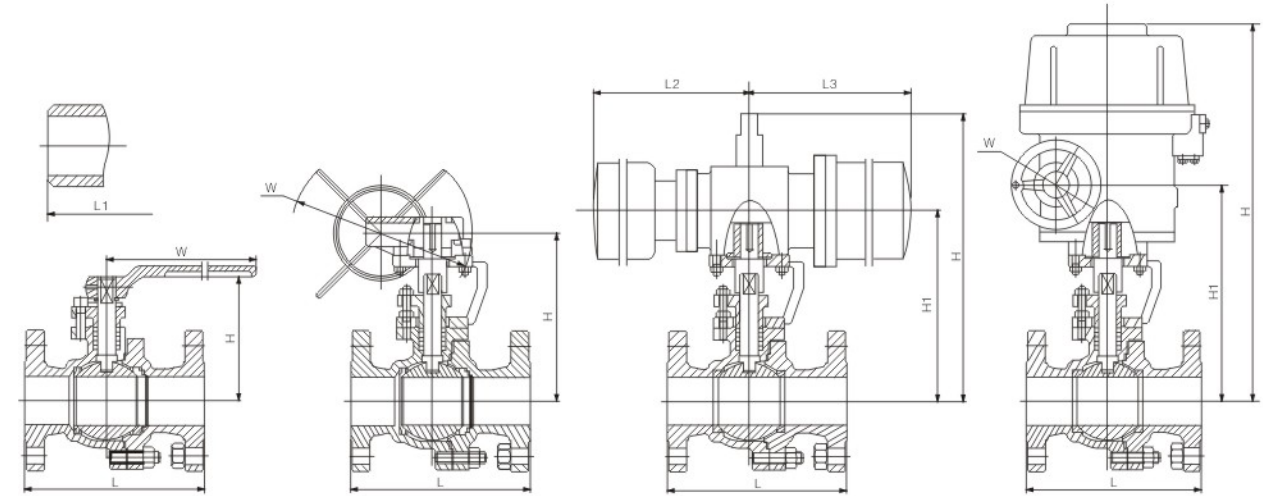


主要零件材质表/Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material		
		碳钢系列 Carbon steel series	不锈钢系列 Stainless steel series	低温系列 Low temperature
1	右体 Bonnet	A216 WCB	A351-CF8, CF8M, CF3, CF3M	A352 LCB, LCC
2	螺母 Nut	A194 2H	A194 8M	A194 4
3	垫片 Gasket	柔性石墨+不锈钢 Flexible graphite+stainless steel		
4	螺柱 Stud	INCONEL 750		
5	阀体 Body	A216 WCB	A351-CF8, CF8M, CF3, CF3M	A352 LCB, LCC
6	阀座 Seat	PTFE, RPTFE, Sintering carbon fibre, Metal+rubber groupware		
7	球体 Ball*	A105+HC/r/ENP	A351-CF8, CF8M, CF3, CF3M	A352 LCB, LCC+ENP
8	阀杆 Stem**	A182 F6a	A182 F304, 316	A182 F6a
9	垫片 Gasket	A182 F6a		A182 F6a
10	填料垫片 Packing gasket	柔性石墨 Flexible graphite, PTFE		
11	填料压盖 Gland	A216 WCB	A351 CF8, CF8M	A351 CF8
12	螺钉 Screw nail	A193 B7	A193 B8, B8M	A320 L7
13	定位片 Locating piece	GB/T 700 Q235A+Zn(Cr)		
14	挡圈 Ring	A216 WCB		
15	手柄 Wrench	GB/T 1222 65Mn		

注: *抗硫型阀门该零件的材质为ASTM(A182-304+Ni.P);
 **抗硫型阀门该零件的材质为ASTM(A276-321);系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。
 Notes: *The material of this part about the anti-sulphur type valve is ASTM(A182-304+Ni.P)
 **The material of this part about the anti-sulphur type avlveis ASTM(A276-321)Major parts of the series valve and materials of sealing surface is according to actual working condition and customer's special requirement

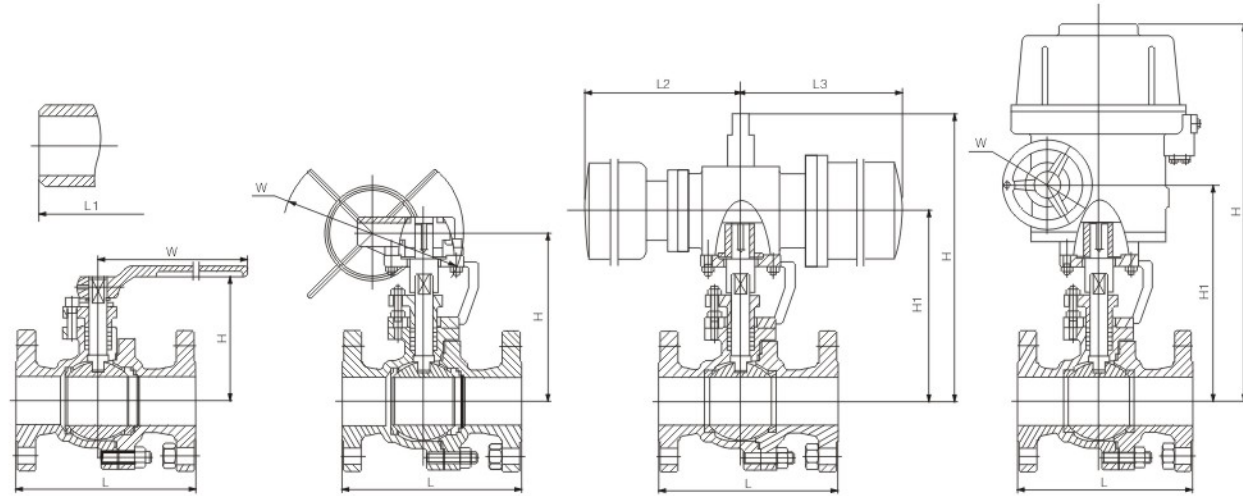
PN1.6MPa Class 150



主要外形尺寸和重量/Main outline dimensions & weight

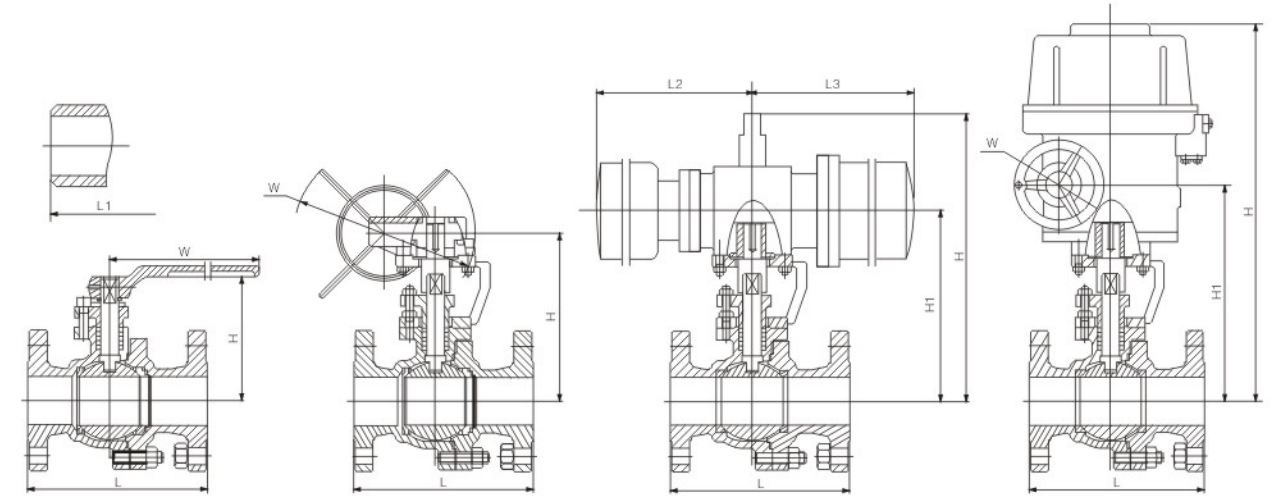
DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	108	117	127	165	178	190	203	229	356	394	457
对焊 Butt welded	L1	140	152	165	190	216	241	282	305	381	403	419
手动 Hand operated	H	59	63	75	95	107	142	152	178	252	272	342
	W	130	130	160	230	230	350	400	500	750	750	900
	Kg	2.3	3.0	4.5	7.0	9.5	15.0	19.0	33.0	58.0	93.0	1600
蜗轮蜗杆传动 Worm gear operated	H	-	-	-	-	-	-	-	-	-	292	398
	W	-	-	-	-	-	-	-	-	-	400	600
	型号 Type	-	-	-	-	-	-	-	-	-	A	B
	Kg	-	-	-	-	-	-	-	-	-	180	240
气动 Pneumatic operated	H	200	204	257	264	340	370	389	594	646	646	781
	H1	122	126	162	169	209	239	258	337	437	437	537
	L2	326	326	347	420	426	426	590	523	610	610	885
	L3	136	136	181	181	257	257	257	287	378	378	530
	型号 Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AG13	AW13	AW17	AW17
	Kg	6.1	6.3	8.1	14.1	16.6	38	42.1	53	95.3	105.2	207.8
电动 Electric driving	H	-	-	-	-	472	486	579	595	650	739	799
	H1	-	-	-	-	377	391	484	500	500	589	649
	W	-	-	-	-	190	190	190	190	400	400	400
	型号 Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1
	Kg	-	-	-	-	23	25	60	75	97	162	226

PN2.5 4.0MPa Class 300


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰Flange	L	140	152	165	190	216	241	282	305	381	403	502
对焊 Butt welded	L1	140	152	165	190	216	241	282	305	381	403	502
手动 Hand operated	H	59	63	75	95	167	142	152	178	252	272	342
	W	130	130	160	230	230	350	400	500	750	750	900
	Kg	2.5	3.5	5.5	10.5	14.5	23.5	30	55	81	118	200
蜗轮 蜗杆传动 Worm gear operated	H	-	-	-	-	-	-	-	-	-	292	398
	W	-	-	-	-	-	-	-	-	-	400	600
	型号 Type	-	-	-	-	-	-	-	-	-	A	B
Kg	-	-	-	-	-	-	-	-	-	220	365	
气动 Pneumatic operated	H	200	204	257	264	340	379	452	594	646	744	920
	H1	122	126	162	169	209	248	295	375	437	500	615
	L2	326	326	347	420	426	426	590	523	610	610	885
	L3	136	136	181	181	257	257	257	287	378	378	530
	型号 Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AW13	AW17	AW17	AW20
Kg	6.2	6.4	8.5	16.9	20.9	42.5	52.7	77.9	107	130	220	
电动 Electric driving	H	-	-	-	-	472	472	579	595	650	739	799
	H1	-	-	-	-	377	391	484	500	500	589	649
	W	-	-	-	-	190	190	190	190	400	400	400
	型号 Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1
	Kg	-	-	-	-	23	25	60	75	100	170	240

PN10.0MPa Class 600

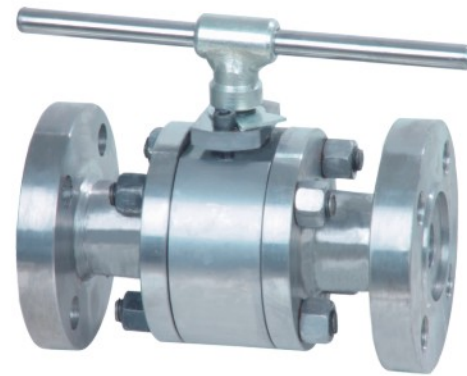
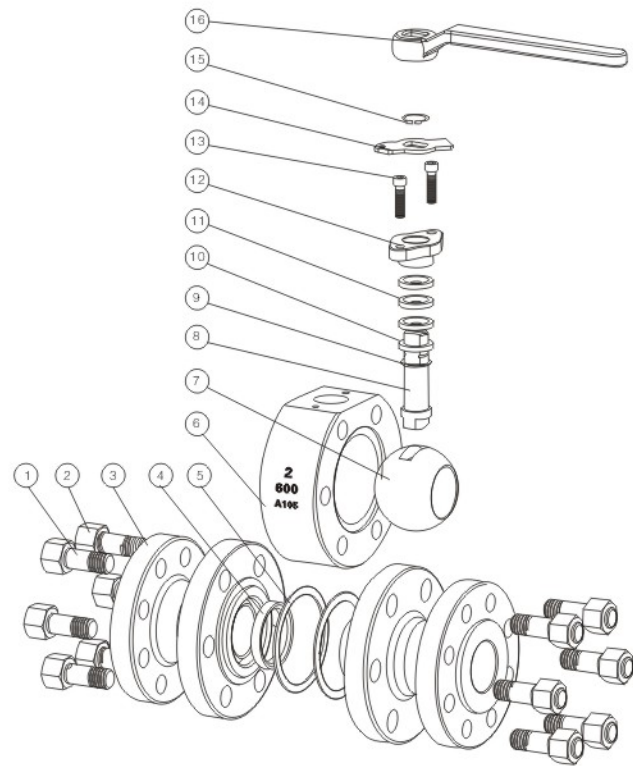

主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰Flange	L	165	190	216	241	292	330	356	406(432)*	-	-	-
对焊 Butt welded	L1	165	190	216	241	292	330	356	406(432)*	-	-	-
手动 Hand operated	H	59	63	75	95	167	180	198	198	-	-	-
	W	160	160	230	400	400	650	650	1050	-	-	-
	Kg	6.5	9	13	16.5	25	30	55	66	-	-	-
蜗轮 蜗杆传动 Worm gear operated	H	-	-	-	-	-	-	292	398	-	-	-
	W	-	-	-	-	-	-	400	600	-	-	-
	型号 Type	-	-	-	-	-	-	A	B	-	-	-
Kg	-	-	-	-	-	-	72	85	-	-	-	
气动 Pneumatic operated	H	200	204	241	264	340	379	452	584	-	-	-
	H1	122	145	146	169	209	248	295	375	-	-	-
	L2	283	283	283	350	590	590	523	610	-	-	-
	L3	136	181	181	181	257	257	287	378	-	-	-
	型号 Type	AG09	AG09	AG09	AG09	AG13	AG13	AG13	AW17	-	-	-
Kg	6.5	6.8	9.3	17.8	33.6	45.1	59.3	81.2	-	-	-	
电动 Electric driving	H	-	-	-	-	472	599	599	632	-	-	-
	H1	-	-	-	-	377	449	449	472	-	-	-
	W	-	-	-	-	190	190	190	190	-	-	-
	型号 Type	-	-	-	-	Q120-1	Q120-1	Q120-1	Q120-1	-	-	-
	Kg	-	-	-	-	25	60	75	90	-	-	-

技术规范/Technical standard

设计依据: API 608
 结构长度: ASME B16.10
 法兰尺寸: ASME B16.5
 试验和检验: API 598
 注: 系列阀门连接法兰及对焊端尺寸可根据用户要求设计制造。

Design standard: API 608
 Face to face dimension: ASME B16.10
 Flange: ASME B16.5
 Test & inspection: API 598
 Notes: The sizes of serial valve flange and butt welded can be designd according to customer's requirement.

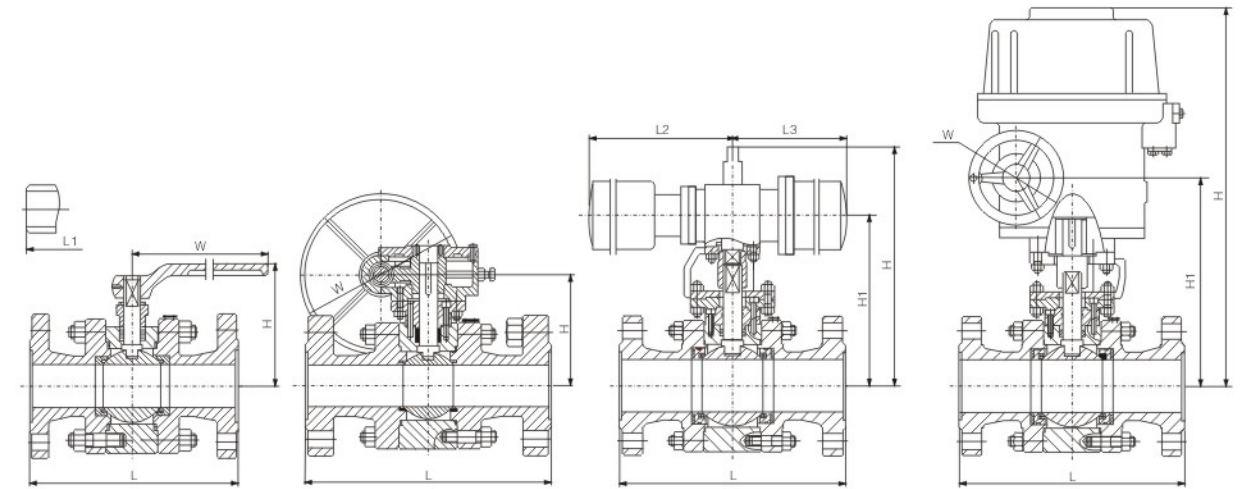


主要零件材质表/Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material	
		ASTM	ASTM
1	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	PTFE
2	阀座 Seat	PTFE	A276-410
3	右体 Bonnet	A105	填料 Packing
4	螺母 Nut	A194-2H	填料压盖 Gland
5	螺柱 Stud	A193-B7	螺栓 Bolt
6	阀体 Body	A105	定位片 Locating piece
7	球体 Ball*	A105+ENP	挡圈 Ring
8	阀杆 Stem**	A182-F6a	手柄 Wrench
9	垫片 Gasket		A47-667 325 10
10	填料垫 Packing seat		
11	填料 Packing	柔性石墨 Graphite	
12	填料压盖 Gland	A216-WCB	
13	螺栓 Bolt	A193-B7	
14	定位片 Locating piece	Carbon steel	
15	挡圈 Ring	AISI 1566	

注: *抗硫型阀门该零件的材质为ASTM(A182-304+Ni.P);
 **抗硫型阀门该零件的材质为ASTM(A276-321);系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。
 Notes: *The material of this part about the anti-sulphur type valve is ASTM(A182-304+Ni.P)
 **The material of this part about the anti-sulphur type valve is ASTM(A276-321)Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement

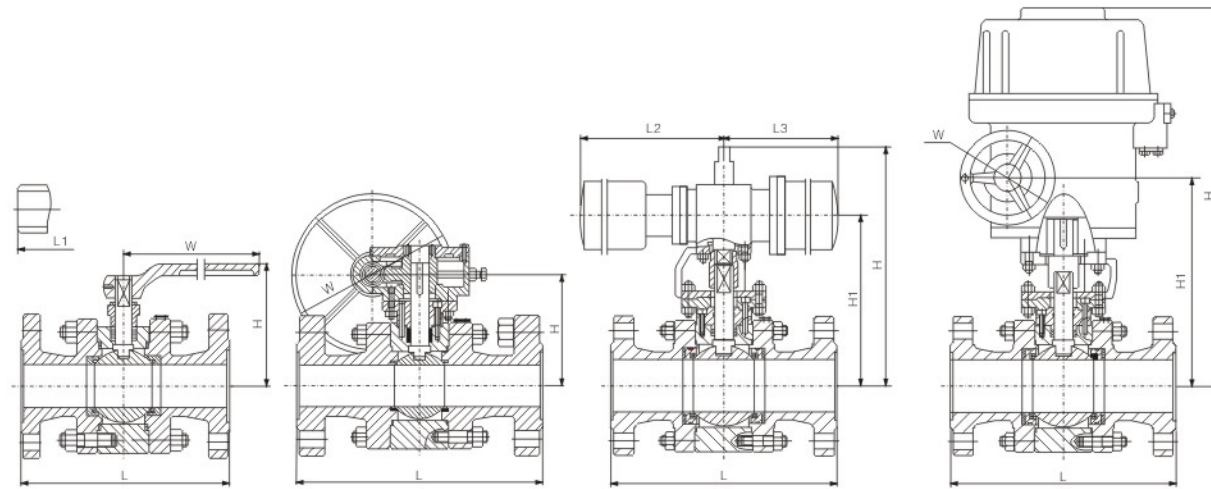
PN1.6MPa Class 150



主要外形尺寸和重量/Main outline dimensions & weight

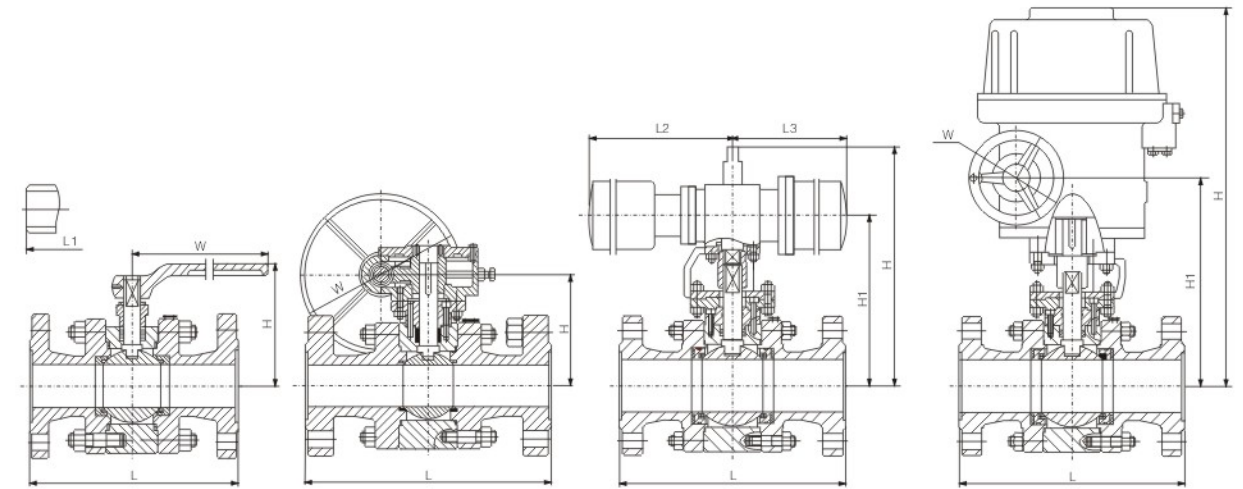
DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	108	117	127	165	178	190	203	229	356	394	457
对焊 Butt welded	L1	140	152	165	190	216	241	282	305	381	403	419
手动 Hand operated	H	73	78	86	102	130	142	191	200	226	242	285
	W	130	130	160	180	230	400	400	460	750	750	900
	Kg	3	4	6	12	15	19	22	46	65	85	127
蜗轮 蜗杆 传动 Worm gear operated	H	-	-	-	-	-	-	-	-	-	260	300
	W	-	-	-	-	-	-	-	-	-	400	600
	型号 Type	-	-	-	-	-	-	-	-	-	A	B
气动 Pneumatic operated	Kg	-	-	-	-	-	-	-	-	-	110	175
	H	203	234	242	326	354	366	415	485	607	623	742
	H1	125	139	147	195	223	235	284	328	398	414	498
	L2	326	326	347	420	426	426	590	523	610	610	885
	L3	136	136	181	181	257	257	257	287	378	378	530
型号 Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AG13	AW13	AW17	AW17	AW20
Kg	6.1	6.3	8.1	14.1	16.6	38.0	42.1	53.0	93.5	105.2	207.8	
电动 Electric driving	H	-	-	-	-	432	443	454	493	574	646	678
	H1	-	-	-	-	337	348	359	398	424	496	528
	W	-	-	-	-	190	190	190	190	400	400	400
	型号 Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1
	Kg	-	-	-	-	23	25	60	75	97	162	226

PN2.5 4.0MPa Class 300


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	140	152	165	190	216	241	282	305	381	403	502
对焊 Butt welded	L1	140	152	165	190	216	241	282	305	381	403	502
手动 Hand operated	H	73	80	86	102	136	164	191	223	240	253	307
	W	140	140	180	230	240	400	400	750	750	900	1000
	Kg	4	6	6.8	11.2	18.3	32	38	78	85	102	125
蜗轮 蜗杆 传动 Worm gear operated	H	-	-	-	-	-	-	-	-	-	325	387
	W	-	-	-	-	-	-	-	-	-	400	600
	型号 Type	-	-	-	-	-	-	-	-	-	A	B
	Kg	-	-	-	-	-	-	-	-	-	148	196
气动 Pneumatic operated	H	204	236	242	326	359	388	415	508	621	675	824
	H1	126	141	147	195	228	257	284	351	412	466	580
	L2	326	326	347	420	426	426	590	523	610	610	885
	L3	136	136	181	181	257	257	257	287	378	378	530
	型号 Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AW13	AW17	AW17	AW20
	Kg	6.2	6.4	8.5	16.9	20.6	42.5	52.7	77.9	107.0	130	220
电动 Electric driving	H	-	-	-	-	432	443	454	493	574	646	678
	H1	-	-	-	-	337	348	359	398	424	496	528
	W	-	-	-	-	190	190	190	190	400	400	400
	型号 Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1
	Kg	-	-	-	-	23	35	60	75	100	170	245

PN 10.0MPa Class 600


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	15	20	25	40	50	65	80	100
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4
法兰 Flange	L	165	190	216	241	292	330	356	406(432)*
对焊 Butt welded	L1	165	190	216	241	292	330	356	406(432)
手动 Hand operated	H	73	80	86	110	142	171	185	220
	W	160	160	230	400	400	650	650	800
	Kg	4.5	6.2	7.5	12.5	26.1	38	44	65
蜗轮 蜗杆 传动 Worm gear operated	H	-	-	-	-	-	-	182	217
	W	-	-	-	-	-	-	280	400
	型号 Type	-	-	-	-	-	-	O	A
	Kg	-	-	-	-	-	-	50	95
气动 Pneumatic operated	H	229	236	242	266	366	395	470	601
	H1	134	141	147	171	235	264	313	392
	L2	283	283	283	350	590	590	523	610
	L3	136	181	181	181	257	257	287	378
	型号 Type	AG09	AG09	AG09	AG09	AG13	AG13	AG13	AW17
	Kg	6.5	6.8	9.3	17.8	33.6	45.1	55.3	81.3
电动 Electric driving	H	-	-	-	-	500	520	545	558
	H1	-	-	-	-	350	370	395	408
	W	-	-	-	-	190	190	190	190
	型号 Type	-	-	-	-	Q120-1	Q120-1	Q120-1	Q120-1
	Kg	-	-	-	-	26	41	72	92

*()The dimension in form is for PN 10.0 MPa. Class 600

Fixed Ball Valve Series

固定球阀系列

Keeping pace with the times
Reviving upon science & technology
与时俱进 / 科技兴业



固定球阀 Fixed ball valve

固定球阀的结构设计特点/Fixed ball valve design characteristics

用途/Purpose

固定球阀适用Class150~Class2500、PN16~PN160、JIS10K~JIS20K各种管路上，用于截断或接通管路中的介质，选用不同的材质，可分别适用于水、蒸汽、油品、液化气、天然气、煤气、硝酸、醋酸、氧化性介质、尿素性介质、尿素等多种介质。固定球阀的驱动方式为蜗轮蜗杆传动、手动、气动或电动。固定球阀一般采用法兰连接，也可采用对焊连接。

Fixed ball valves are suitable for use in various kinds of pipelines of Class150~Class2500, PN16~PN160 JIS 10K~JIS20K to cut off or turn on the pipeline medium, of which the operation types include worm gear, manual, pneumatic or electric actuators, being in general of flange connection, and butt welding ends connection as well.

密封脂紧急注射装置/Urgent grease injection device

根据用户要求，泉舜固定球阀可以设置密封脂紧急注射装置，对于DN150(NPS6)以上的固定球阀，在阀杆和阀座上均装有密封脂注射装置，而对于DN125以下的固定球阀，在阀体中腔装有密封脂注射装置。当阀座密封圈或阀杆O型密封圈因意外事故损坏时，可通过密封脂注射装置注射密封脂，以防止介质通过阀座密封圈和阀杆的泄漏。

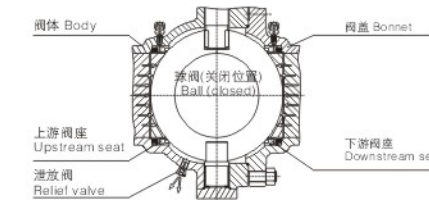
According to customers' requirement, the fixed ball valves made by Quanshun company are provided with devices for urgent grease injection, which are on both the stem and seat for the trunnion ball valves of DN>150mm (NPS6), and in the body cavity for the valve of DN<125mm. When the O ring of stem or the body seat ring is damaged due to accident, the medium leakage between body and stem can be prevented by injecting the sealing grease through the device.



双阻断及泄放功能/Double-block and discharge functions

泉舜固定球阀一般采用球阀前阀座密封结构。固定球阀的两个阀座能独立切断进口端和出口端的介质，实现双阻断功能。当球阀关闭时，即使阀门进出口两端同时受压，阀门中腔和两端通道也可以被相互阻断，中腔内的剩余介质可以通过泄放阀排出。

In general, Quanshun fixed ball valve features the front ball sealing design structure. Each seat of the ball valve can separately cut off the medium at both inlet and outlet of the valve to realize double-block functions. When the ball valve is closed, body cavity and two of the body ends can be blocked with each other even if both the inlet and outlet are under pressure, when the medium left in the body cavity might be bled through the relief valve.



球前球后双重密封结构设计/The double sealing design structure, i.e. seat sealing in front and behind the ball

对于某些特定的工况要求以及用户要求，泉舜固定球阀可以采用球前球后双重密封结构设计，即使其中一个密封副因意外情况密封失效，阀门仍然能够正常工作，从而提高了阀门的密封可靠性。

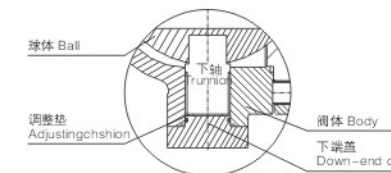
对于球前阀座，由D1、D2的面积差形成的活塞效应，在阀座前后的介质压差作用下，加上弹簧的预紧力使球前阀座与球体紧密接触而密封，并且密封力随着介质压差的增大而增加。

对于球后阀座，由D2、D3的面积差形成的活塞效应，在阀座前后的介质压差作用下，加上弹簧的预紧力使球后阀座与球体紧密接触而密封，并且密封力随着介质压差的增大而增加。

According to some special working conditions and customers' requirement, Quanshun has provided the double sealing design structure, i.e. seat sealing in front and behind the ball, thus the reliable sealing of the valve is ensured because the valve can perform normally even if one of the effective sealing designs becomes lost due to the abnormal condition.

Regarding the seat in front of the ball, the piston effect formed by the area difference between D1 and D2, plus the pre tightened force of a spring would cause the seat in front of the ball to touch the ball closely to form the tightness, of which the sealing force will become bigger as the pressure difference gets higher.

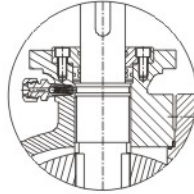
Regarding the seat after the ball, the piston effect formed by the area difference between D2 and D3, plus the pre tightened force of a spring would cause the seat behind the ball to touch the ball closely to form the tightness, of which the sealing force will become bigger as the pressure difference gets higher.



┆ 阀杆的防吹出结构设计/Blow-out proof stem

阀杆采用防吹出结构设计。下端大上端小的阀杆在上端盖和螺钉的定位下，即使在阀腔异常升压的情况下，也能保证阀杆不会被介质吹出。

Blow-out proof structure is provided with for the stem, which is positioned by the up-end cap and screw, being guaranteed not to be blown-out by the medium even if at abnormal risen pressure in the cavity.


┆ 防静电结构/Anti-static structure

固定球阀的球体通过相互间紧密接触的下轴、调整垫、下端盖与阀体形成静电通道。从而可将球体与阀座开关过程中摩擦产生的静电通过阀体引到大地，防止静电火花可能引起的火灾或爆炸等危险。

The body of the fixed ball valve gets close contact with each other through the trunnion, adjusting cushion, and down end cap, the passage of static electricity thus forms together with the valve, which may lead the static electricity caused by sparks generated by friction between the ball and seat during on and off performance to the ground to prevent the possible risk of fire or explosion.

┆ 产品性能规范/Products performance specification

压力等级 Pressure	1.6~25.0MPa	Class 150~1500
实验压力 Test pressure (MPa)	壳体试验 Shell test	1.5×PN
	密封试验 Sealing test	1.1×PN
	密封性试验压力 Sealing test pressure	0.6MPa
适用温度 Applicable temperature(°C)	-196°C~+121°C	
适用介质 Applicable medium	水、油、天然气腐蚀性介质等 Water, oil, natural gas, corrosive medium, etc	

Note:PN is requested pressure for the body material under the 38°C.

┆ 实验压力标准/Pressure test standards

试验强度 Test strength	试验压力 Test pressure (MPa)	试验时间 Test duration(S)	适用温度 (°C) Applicable temperature	适用介质 Applicable medium
壳体试验 Shell test	150Lb、1.6MPa	120(DN≤14')	≤52°C 内温度(Room Temperature)	水 Water
	300Lb、2.5、4.0MPa			
	600Lb、10.0MPa			
	900Lb、15.0MPa			
	1500Lb、25.0MPa			
	2500Lb、42.0MPa			
低压密封试验 Low-pressure sealing test	150Lb、1.6MPa	120	≤52°C 内温度(Room Temperature)	气 Air
	300Lb、2.5、4.0MPa			
	600Lb、10.0MPa			
	900Lb、15.0MPa			
	1500Lb、25.0MPa			
高压密封试验 High-pressure sealing test	150Lb、1.6MPa	120	≤52°C 内温度(Room Temperature)	水 Water
	300Lb、2.5、4.0MPa			
	600Lb、10.0MPa			
	900Lb、15.0MPa			
	1500Lb、25.0MPa			

┆ 固定球阀力矩表/Fixed ball valve torque form(n.m)

尺寸 Size inch(mm)	公称压力 Nominal pressure(Mpa)	2	3	4	6	8	10	12	14	16	18	20	22	24	26	28
	力矩 Torque	50	80	100	150	200	250	300	350	400	450	500	550	600	650	700
压力 Class 150 (1.6MPa)		49	60	151	304	1018	1083	1559	2423	3016	4571	6011	6933	9712	11950	14513
压力 Class 300 (2.5MPa/4.0MPa)		86	109	268	540	1604	1829	2601	4243	5348	7970	10570	12141	17239	20341	25609
压力 Class 600 (10.0MPa)		146	190	459	907	2557	3044	4297	7203	9141	13499	17986	20610	29481	33987	42238
压力 Class 900 (15.0MPa)		207	270	649	1274	3511	4258	5993	10163	12934	19028	25401	29079	41723	47634	59407
压力 Class 1500 (25.0MPa)		327	431	1032	2011	5424	6694	9396	16103	20546	30123	40282	46074	66290	-	-

┆ 球阀流量系数规格/Ball valve flow coefficient specification

口径 Size		压力等级 Pressure				
mm	in	150	300	600	900	1500
15	1/2	25	25	20	16	16
20	3/4	56	56	4	34	34
25	1	95	95	64	55	55
40	1 1/2	308	308	308	165	165
50	2	500	430	370	320	320
80	3	1360	1100	1020	920	820
100	4	2500	2000	1850	1760	1600
150	6	4060	4056	3410	4300	4150
200	8	8090	7720	6730	8475	8010
250	10	13510	13090	11120	14160	13220
300	12	20440	19830	17440	21200	18800
350	14	25050	23770	22010	26700	24180
400	16	34200	32595	29980	36600	33150
450	18	44430	43200	39520	49000	45703
500	20	57665	55380	50450	64600	60750
550	22	70080	70080	68900	-	-
600	24	87680	84720	76630	-	-
700	28	120000	115350	107510	-	-
750	30	141850	136600	125630	-	-
800	32	160390	152200	140900	-	-
900	36	205450	192995	175730	-	-
1000	40	248700	248700	239160	-	-
1050	42	275260	275260	275260	-	-
1200	48	364180	364180	347080	-	-
1400	56	529430	529430	520500	-	-

Noet: 1. All the sizes are in full port 2. Pressure Ratings are according to API 6D

┆ 流量计算/Method of calculation flow

The flow coefficient is the flow rate of water(gallons/minute)through a fully opened valve with a pressure drop of 1 psi across the valve.

To find the flow of liquid through the valve from the Cv, use the following formulas.

┆ 液体流量/Liquid flow

QL=Cv(P/G)^{1/2} QL=Flow rate of liquid(gal./min.)
 ΔP=differential pressure across the valve(psing)
 G=specific gravity of liquid(for water, G=1)

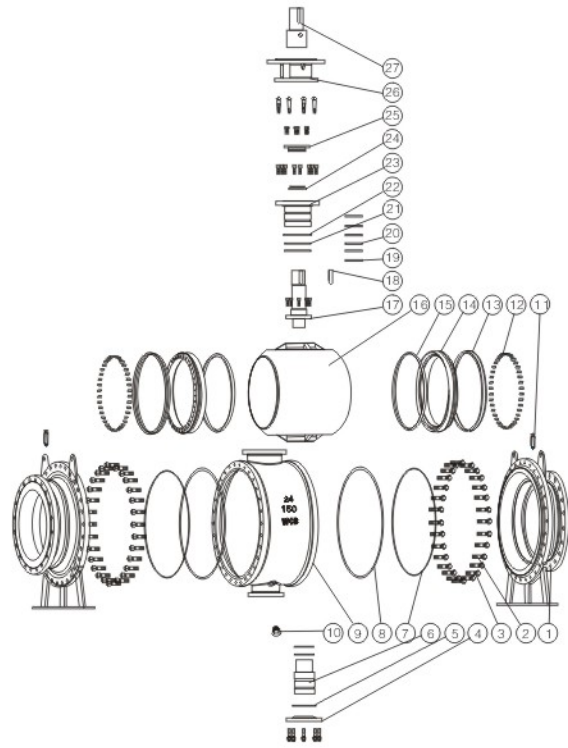
┆ 气体流量/Gas flow

Qg=61Cv(P₂P/g)^{1/2}(For non-critical flow, P₂/P<1.0)
 QL=Flow rate of gas (CFH at STP)
 P₂=outlet pressure(psia)
 G=specific gravity of gas(for air, g=1.0)

技术规范/Technical standard

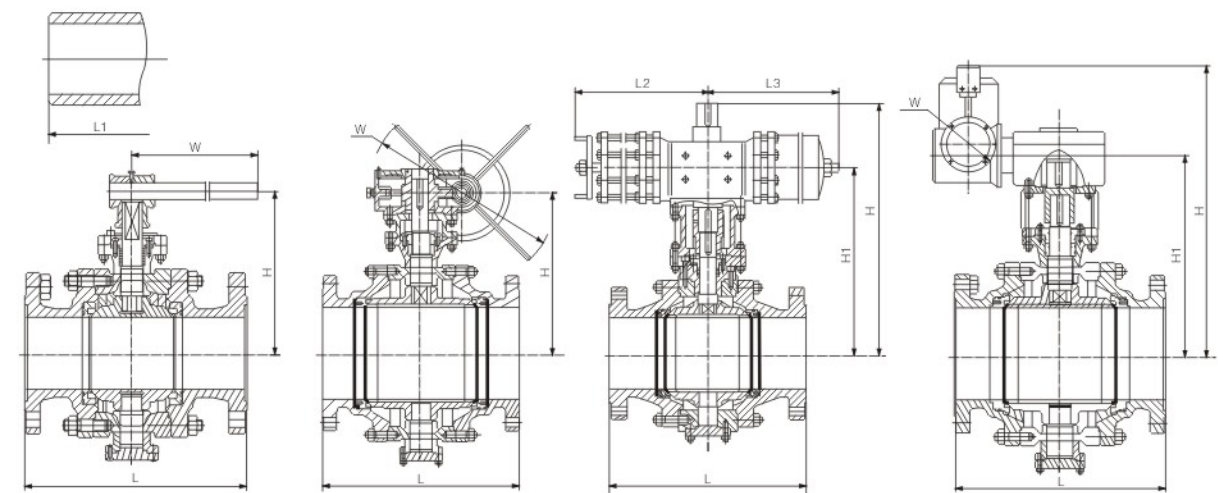
设计标准: API 6D
 结构长度: API 6D ASME B16.10
 连接尺寸: ASME B16.5 ASME B16.47
 试验和检验: API 598 API 6D
 Design standard: API 6D
 Face to face dimension: API 6D ASME B16.10
 Flange: ASME B16.5 ASME B16.47
 Test and inspection: API 598 API 6D

注: 1、系列阀门连接法兰端尺寸可根据用户要求设计制造。
 2、DN > 1000 (40") 阀门设计标准按《长输管线阀门技术条件》
 Notes: 1. The sizes of serial valve flange can be designed according to customer's requirement.
 2. DN > 1000 (40"), the design standard is accordance with 《Specification of the length pipe valve》


主要零件材质表/Form of major parts materials

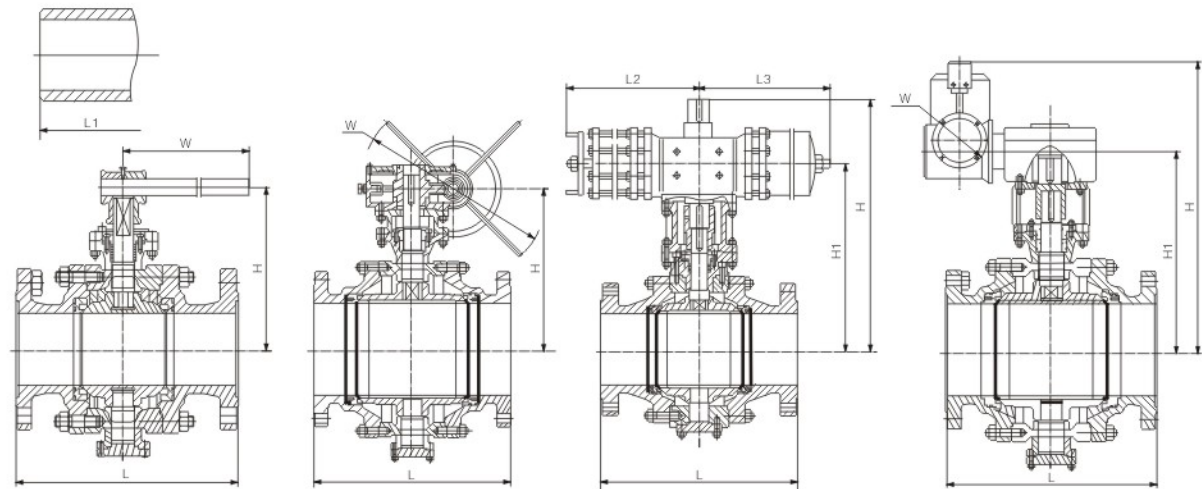
序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		ASTM				ASTM	
1	左右体 Bonnet	A216-WCB		15	密封圈 Sealing ring	PTFE	
2	螺栓 Bolt	A193-B7		16	球体 Ball**	WCB+ENP	
3	螺母 Nut	A194-2H		17	上阀杆 Stem*	A182-F6a	
4	底盖 Bottom cover	A105		18	键 Key	AISI C1045	
5	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel		19	填料垫 Packing seat	A276-420	
6	下阀杆 Stem*	A182-F6a		20	填料 Packing	柔性石墨 Graphite	
7	O型圈 'O'Ring	Viton		21	O型圈 'O'Ring	Viton	
8	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel		22	垫片 Gasket		
9	阀体 Body	A216-WCB		23	阀盖 Cover	A105	
10	排污堵头 Blow down stopple	A105		24	O型圈 'O'Ring	Viton	
11	注脂阀 Grease injection valve	Assembled		25	填料压盖 Gland	A216-WCB	
12	弹簧 Spring	Inconel X-750		26	支架 Yoke	A216-WCB	
13	O型圈 'O'Ring	Viton		27	连接套 Connection set	AISI C1045	
14	阀座 Seat*	A105					

注: *抗硫型阀门该零件的材质为ASTM(A276-321);
 **抗硫型阀门该零件的材质为ASTM(A182-304、CF8+Ni.P);
 系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。
 Notes: *The material of this part about the anti-sulphur type valve is ASTM(A276-321)
 **The material of this part about the anti-sulphur type valve is ASTM(A182-304、CF8+Ni.P)
 Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

PN1.6MPa Class 150

主要外形尺寸和重量/Main outline dimensions & weight

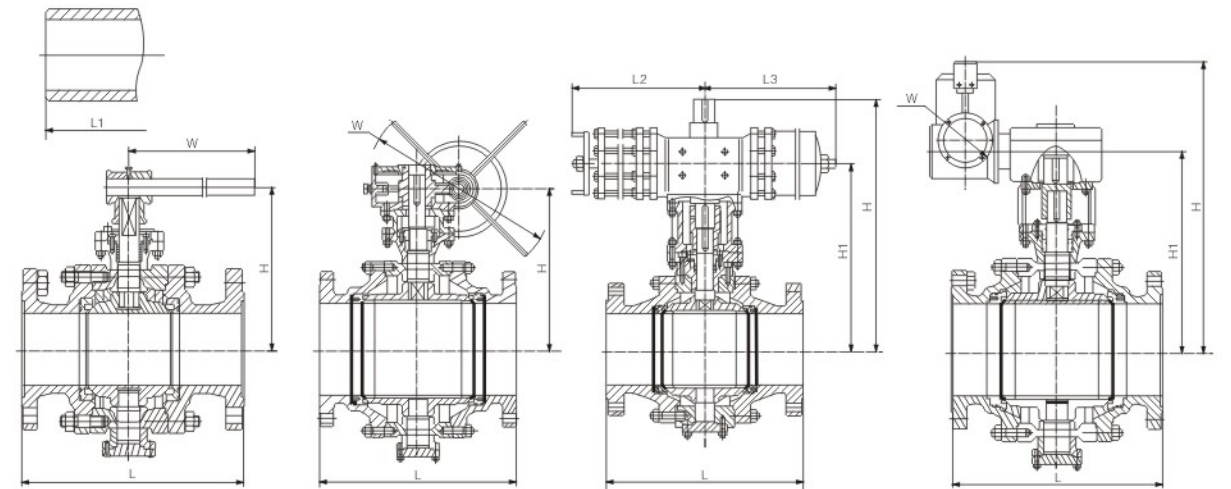
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	178	191	203	229	356	394	457	533	610	686	762	864	914	1067	1245	1372	1524	1721	1829	2180	2300	2400	
对焊 Butt Welded	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	1930	1689	2100	2250	2400	
手动 Hand operated	H	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	230	400	400	450	700	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	9.5	15	19	33	58	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	-	-	398	495	580	625	670	698	840	1050	1100	1150	1230	1320	1480	1610	1780	1865		
	W	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	
	Type	-	-	-	-	-	B	B	C	C	D	D	D	DA	DA	DB	DB	DC	DC	DD	DH	HD		
	Kg	-	-	-	-	-	160	180	240	390	510	750	1190	2600	3000	4490	7800	12560	14280	21900	34100	46200		
气动 Pneumatic operated	H	269	379	389	479	552	666	804	839	972	1127	1459	1529	1559	1145	1160	1460	1540	1630	-	-	-	-	
	H1	174	248	258	322	395	457	595	630	728	883	1154	1224	1294	915	930	1100	1180	1280	-	-	-	-	
	L2	89	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-	
	L3	181	257	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-	
	Type	AG09	AG13	AG13	AW13	AW13	AW17	AW17	AW17	AW20	AW20	AW28	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C3-600	-	-	-	-	-
	Kg	16.6	38	42.1	53	95.3	105.2	207.8	255	409	518	838	1067	1295	2330	3200	4750	8200	13200	-	-	-	-	
电动 Electric driving	H	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470		
	H1	-	-	-	-	337	382	435	480	520	580	670	770	850	945	1055	1130	1240	1420	1560	1710	1785		
	W	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	600	
	Type	-	-	-	-	SMC-04+H0BC	SMC-04+H0BC	SMC-04+H1BC	SMC-04+H1BC	SMC-03+H2BC	SMC-03+H2BC	SMC-00+H3BC	SMC-00+H3BC	SMC-00+H4BC	SMC-00+H4BC	SMC-00+H4BC	SMC-00+H4BC	SMC-1+H5BC	SMC-2+H6BC	SMC-3+H6BC	SMC-3+H7BC	SMC-4+H7BC	SMC-4+H7BC	SMC-4+H7BC
		Kg	-	-	-	-	127	210	270	420	535	862	1100	1350	2420	3410	5120	9100	14100	15200	22300	36000	47000	

PN2.5、4.0MPa Class 300


主要外形尺寸和重量/Main outline dimensions & weight

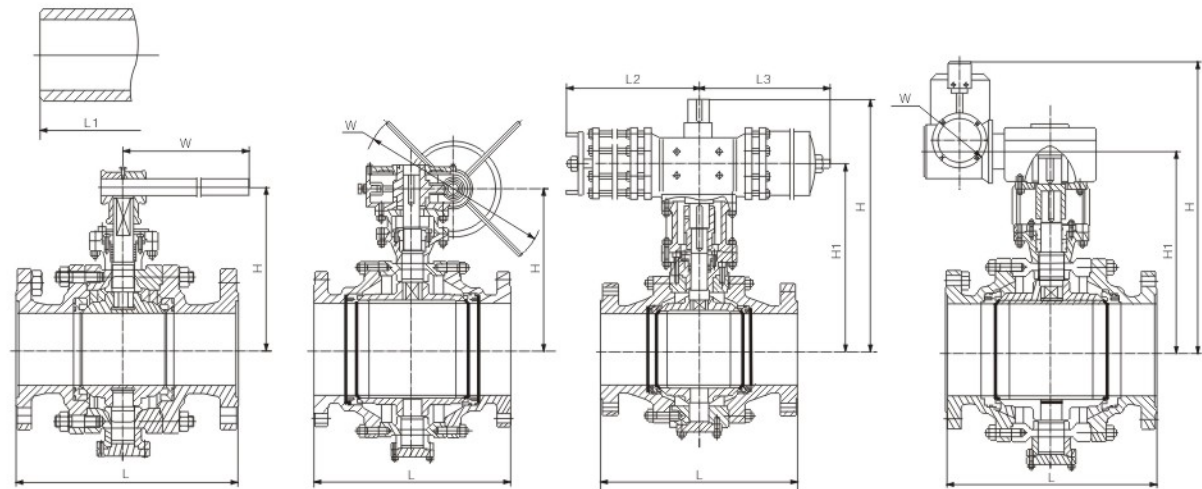
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
法兰 Flange	L	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346	1524	1727	2083	2050	2180	2300	2400
对焊 Butt Welded	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	2083	1960	2020	2250	2400
手动 Hand operated	H	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	230	400	400	600	700	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Kg	20.9	42.5	52.9	92	145	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮传动 Worm gear operated	H	-	-	-	-	-	398	495	580	625	670	698	840	1050	1100	1150	1230	1320	1480	1610	1780	1865	
	W	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	Type	-	-	-	-	-	B	B	C	C	D	D	DA	DB	DC	DC	DD	DD	DD	DH	DH	HD	HD
	Kg	-	-	-	-	-	278	500	733	1029	1418	1592	2195	3460	5770	7932	10093	13775	16105	24060	38155	52350	
气动 Pneumatic operated	H	269	379	452	579	595	595	736	942	994	1188	1280	1480	1554	1380	1430	1749	1540	1630	-	-	-	-
	H1	209	248	295	322	386	386	527	698	750	883	975	1080	1154	930	980	1149	1180	1280	-	-	-	-
	L2	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	L3	181	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	Type	AG13	AG13	AW13	AW13	AW17	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-490	C3-600	C3-600	-	-	-	-	-
	Kg	20.9	42.5	52.7	77.9	107	130	220	280	450	570	920	1140	1360	2450	3360	5800	7900	10200	-	-	-	-
电动 Electric driving	H	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470	
	H1	-	-	-	-	337	382	435	480	520	580	670	770	850	945	1055	1130	1240	1420	1560	1710	1785	
	W	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	600
	Type	-	-	-	-	SMC-04	SMC-04	SMC-04	SMC-03	SMC-03	SMC-03	SMC-00	SMC-00	SMC-0	SMC-0	SMC-1	SMC-2	SMC-2	SMC-3	SMC-3	SMC-4	SMC-4	SMC-4
	Kg	-	-	-	-	142	240	320	475	590	1050	1200	1470	2520	3720	6250	8300	1121	1620	2510	3940	5560	

PN10.0MPa Class 600


主要外形尺寸和重量/Main outline dimensions & weight

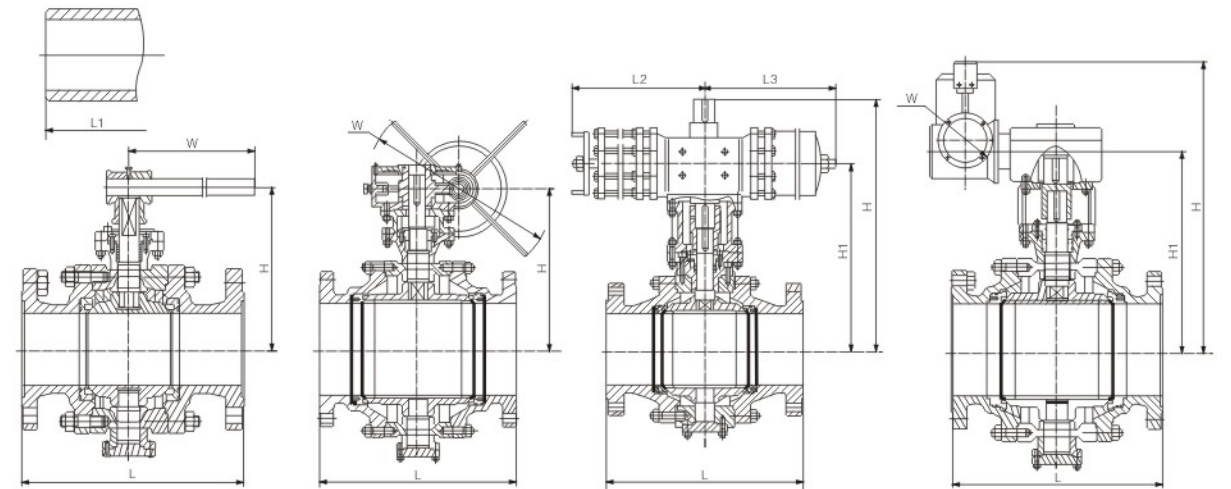
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2100	2400	2400	2700	
对焊 Butt Welded	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2050	2180	2300	2400	
手动 Hand operated	H	108	155	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	400	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	31	54	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	235	300	374	445	512	550	615	750	810	1050	1180	1250	1315	1420	1540	1680	1840	1915	
	W	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	Type	-	-	-	B	C	C	D	D	DA	DA	DB	DC	DD	DH	DH	DH	DH	DJ	DJ	DK	DK	
	Kg	-	-	-	113	253	485	758	1067	1083	1525	2095	2638	4736	6758	9138	13298	18335	21356	31195	47483	65200	
气动 Pneumatic operated	H	269	-	519	636	728	839	1014	1120	1224	1374	-	1490	1615	1760	-	-	-	-	-	-	-	
	H1	209	-	295	479	519	595	770	810	1004	1154	-	1210	1335	1410	-	-	-	-	-	-	-	
	L2	148	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	L3	257	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	Type	AG13	-	AW13	AW13	AW17	AW20	AW20	AW28	C1-355	C1-355	-	C2-490	C2-490	C3-600	-	-	-	-	-	-	-	
	Kg	225	-	325	656	927	1350	1660	1820	2130	2550	-	3500	5300	6800	-	-	-	-	-	-	-	
电动 Electric driving	H	-	-	-	-	600	652	761	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470		
	H1	-	-	-	-	382	480	520	594	632	670	770	850	945	1055	1135	1170	1285	1440	1660	1750	1820	
	W	-	-	-	-	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	600	
	Type	-	-	-	-	SMC-04	SMC-03	SMC-03	SMC-00	SMC-00	SMC-0	SMC-0	SMC-1	SMC-2	SMC-2	SMC-3	SMC-3	SMC-4	SMC-4	SMC-4	SMC-5	SMC-5	SMC-5
	Kg	-	-	-	-	930	1410	1620	1910	2200	2600	2950	3620	5410	6920	10000	13420	18450	22300	32000	48000	66200	

PN15.0MPa Class 900


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	750	800	900	1000	1200
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	32	36	40	48
法兰 Flange	L	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1780	2050	2050	2180	2600
对焊 Butt Welded	L1	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1700	1780	1960	2100	2376
手动 Hand operated	H	217	241	295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	650	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Kg	48	55	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮传动 Worm gear operated	H	-	-	-	297	364	394	502	572	675	762	866	894	965	1210	1290	1360	1480	1630
	W	-	-	-	600	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000
	Type	-	-	-	B	-	C	D	D	DA	DB	DC	DD	DH	DH	DJ	DJ	DK	DK
	Kg	-	-	-	145	360	580	1010	1510	1450	2150	2820	4200	6800	10180	11820	18900	21500	47500
气动 Pneumatic operated	H	519	-	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-	-	-	-	-
	H1	295	-	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-	-	-	-	-
	L2	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-
	L3	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-
	Type	AW17	-	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-490	C3-600	-	-	-	-	-
	Kg	340	-	520	760	1120	1420	1780	2050	2350	3150	3840	4580	6200	-	-	-	-	-
电动 Electric driving	H	-	-	-	600	761	771	831	921	943	1123	1218	1328	1458	1904	1984	2054	2174	2274
	H1	-	-	-	382	520	594	632	670	770	850	945	1055	1135	1180	1260	1330	1450	1560
	W	-	-	-	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600
	Type	-	-	-	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC
	Kg	-	-	-	780	1110	1410	1820	2150	2400	3210	3950	4620	6320	10200	11000	17920	22500	47800

PN25.0MPa Class 1500

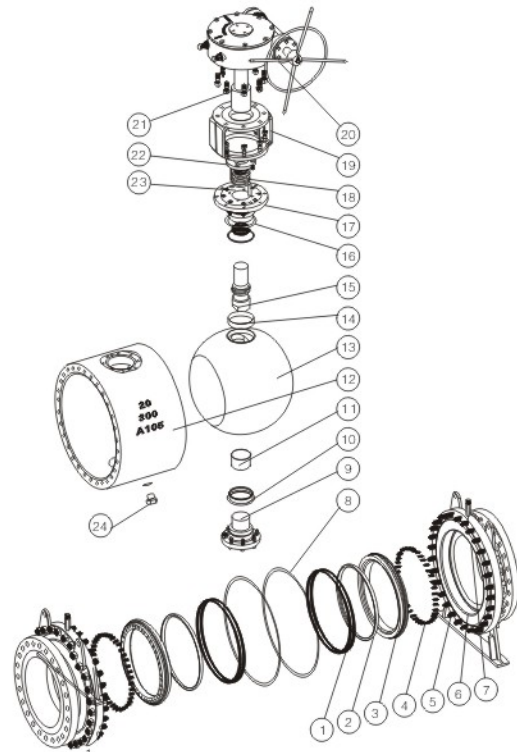

主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
法兰 Flange	L	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
对焊 Butt Welded	L1	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
手动 Hand operated	H	217	241	259	-	-	-	-	-	-	-	-	-	-
	W	650	650	650	-	-	-	-	-	-	-	-	-	-
	Kg	45	56	82	-	-	-	-	-	-	-	-	-	-
蜗轮传动 Worm gear operated	H	217	241	259	297	364	475	578	696	761	831	900	950	1080
	W	600	600	600	600	800	800	800	800	800	800	800	800	800
	Type	A	A	B	B	C	D	D	DA	DB	DC	DD	DH	DH
	Kg	50	72	97	198	480	820	1500	2250	2850	4070	6195	9075	14280
气动 Pneumatic operated	H	519	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-
	H1	295	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-
	L2	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	L3	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	Type	AW17	AW17	AW17	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-429	C3-600	-
	Kg	345	425	560	820	1150	1480	1890	2150	2430	3220	3990	4950	-
电动 Electric driving	H	-	-	652	761	771	831	921	943	1123	1218	1328	1458	-
	H1	-	-	480	520	594	632	670	770	850	945	1055	1135	-
	W	-	-	200	280	280	280	305	305	305	400	400	600	-
	Type	-	-	SMC-04 +H1BC	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC
	Kg	-	-	625	810	1150	1450	1890	2165	2400	3280	4150	5120	-

技术规范/Technical standard

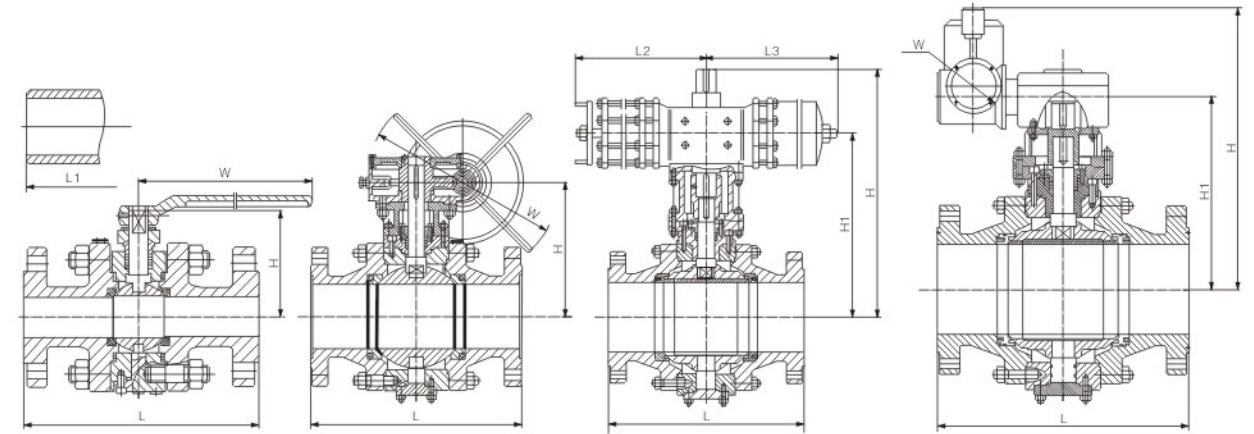
设计标准: API 6D
 结构长度: API 6D ASME B16.10
 连接尺寸: ASME B16.5 ASME B16.47
 试验和检验: API 598 API 6D
 Design standard: API 6D
 Face to face dimension: API 6D ASME B16.10
 Flange: ASME B16.5 ASME B16.47
 Test and inspection: API 598 API 6D

注: 1. 系列阀门连接法兰端尺寸可根据用户要求设计制造。
 2. DN > 1000 (40") 阀门设计标准按《长输管线阀门技术条件》
 Notes 1. The sizes of serial valve flange can be designed according to customer's requirement.
 2. DN > 1000 (40"), The design standard is accordance with 《Specification of the length pipe valve》


主要零件材质表/Form of major parts materials

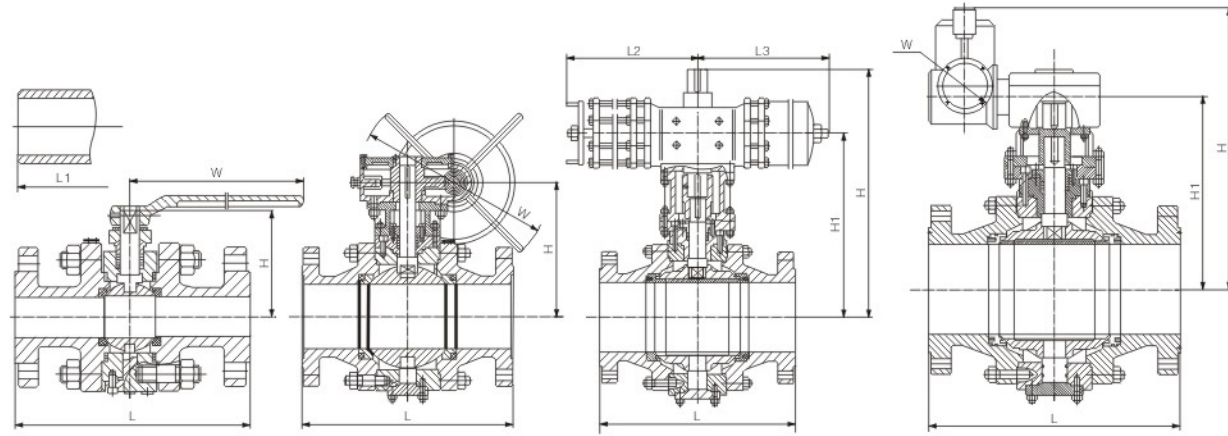
序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		ASTM				ASTM	
1	O型圈 O-Ring	Viton		13	球体 Ball**	A105+ENP	
2	密封圈 Sealing ring	PTFE		14	衬套 Bushing	PTFE&Nikelium	
3	阀座 *Seat	A105		15	上阀杆 Stem*	A182-F6a	
4	弹簧 Spring	Inconel X-750		16	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	
5	螺柱 Bolt	A193-B7		17	阀盖 Cover	A105	
6	左右体 Bonnet	A105		18	填料 Packing	Graphite	
7	注脂阀 Grease injection valve	Assembled		19	支架 Yoke	A216-WCB	
8	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel		20	驱动装置 Driving	Assembled	
9	下阀杆 Stem*	A182-F6a		21	连接套 Connection set	AISI C1045	
10	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel		22	填料压盖 Gland	A216-WCB	
11	衬套 Bushing	PTFE&Nikelium		23	定位销 Fitting pin	A276-410	
12	阀体 Body	A105		24	排污堵头 Blow down stopple	A105	

注: *抗硫型阀门该零件的材质为ASTM(A276-321);
 **抗硫型阀门该零件的材质为ASTM(A182-304、CF8+Ni.P);
 系列阀门主要零件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。
 Notes: *The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9)ASTM(A276-321)
 **The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9、CF8+Ni.P)、ASTM(182-304、CF8+Ni.P)
 Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

PN1.6MPa Class 150

主要外形尺寸和重量/Main outline dimensions & weight

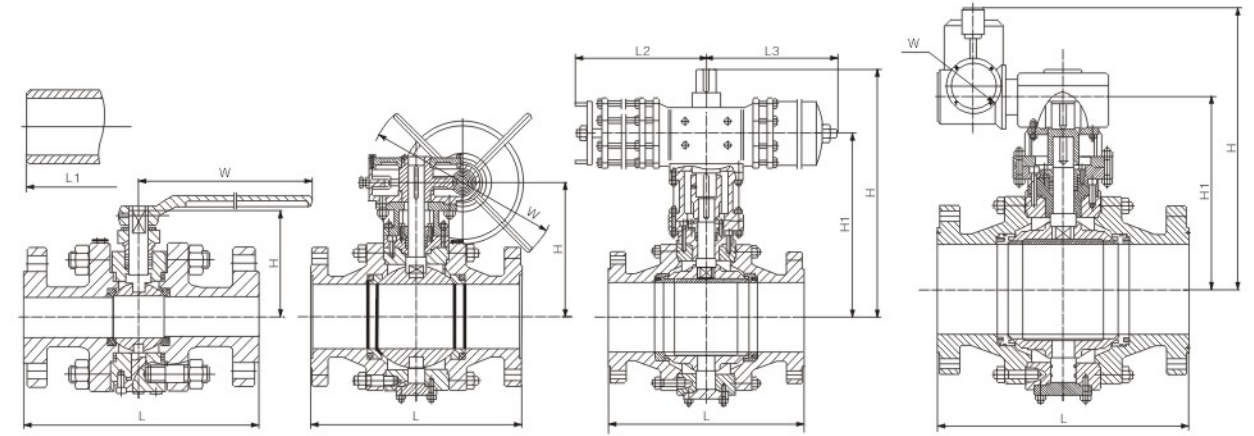
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	178	191	203	229	356	394	457	553	610	686	762	864	914	1067	1245	1372	1524	1721	1829	2180	2300	2400	
对焊 Butt Welded	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	1930	1689	2100	2250	2400	
手动 Hand operated	H	130	142	191	200	226	242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	230	350	400	450	750	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	12	28	33	50	78	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	-	-	337	385	414	447	545	545	585	663	723	923	986	1061	1420	1530	1640	1710		
	W	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	
	Type	-	-	-	-	-	B	B	C	C	D	D	D	DA	DA	DB	DB	DC	DC	DD	DH	HD		
	Kg	-	-	-	-	-	250	390	578	770	1100	1250	1800	2400	4500	6900	9700	1300	15000	23000	37000	39500		
气动 Pneumatic operated	H	269	379	389	479	552	666	769	824	897	937	1121	1161	1203	1145	1160	1460	1510	1610	-	-	-	-	
	H1	174	248	258	322	395	457	560	615	653	691	816	856	898	915	930	1100	1150	1250	-	-	-	-	
	L2	89	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-	
	L3	181	257	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-	
	Type	AG09	AG13	AG13	AW13	AW13	AW17	AW17	AW17	AW20	AW20	AW28	AW28	AW28	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C3-600	-	-	-
Kg	32	42	53	100	125	157	265	410	595	795	1150	1295	1910	2400	4600	7100	10100	14200	-	-	-	-		
电动 Electric driving	H	-	-	-	-	559	710	744	851	859	959	999	965	1141	1233	1341	1666	1895	2114	2194	2374	2404		
	H1	-	-	-	-	342	492	527	570	608	708	748	790	866	960	1068	1100	1210	1390	1470	1650	1680		
	W	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600		
	Type	-	-	-	-	SMC-04+H0BC	SMC-04+H0BC	SMC-04+H1BC	SMC-04+H1BC	SMC-03+H2BC	SMC-03+H2BC	SMC-00+H3BC	SMC-00+H3BC	SMC-00+H4BC	SMC-00+H4BC	SMC-00+H4BC	SMC-00+H4BC	SMC-1+H5BC	SMC-2+H6BC	SMC-3+H6BC	SMC-3+H7BC	SMC-4+H7BC	SMC-4+H7BC	
	Kg	-	-	-	-	152	245	425	610	800	1180	1300	1200	2500	4710	7300	10200	15200	16800	24000	38500	40500		

PN2.5、4.0MPa Class 300


主要外形尺寸和重量/Main outline dimensions & weight

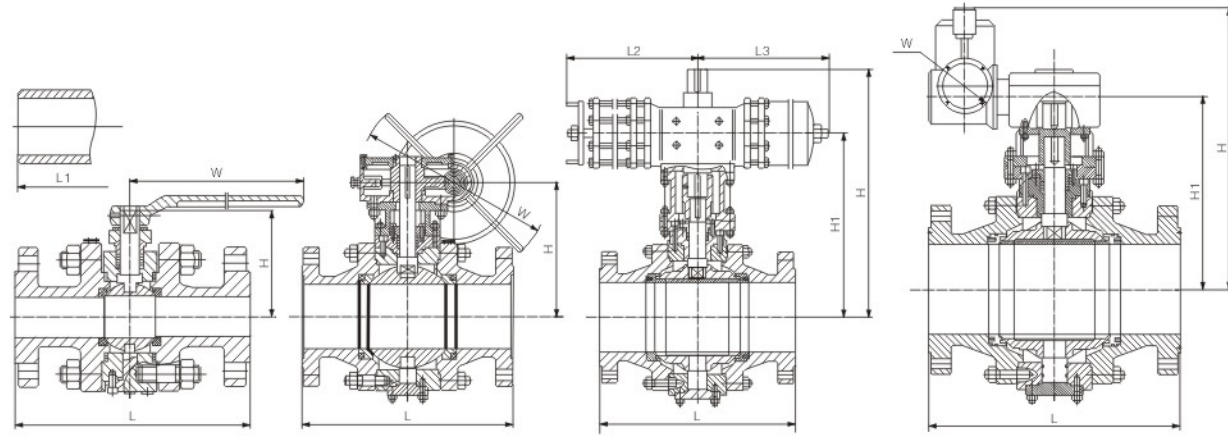
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346	1524	1727	2083	2050	2180	2300	2400	
对焊 Butt Welded	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	2083	1960	2020	2250	2400	
手动 Hand operated	H	136	164	191	223	240	253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	240	400	400	600	750	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	32	37	58	110	157	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	-	-	-	337	385	414	447	545	545	585	663	723	923	986	1061	1420	1530	1640	1710	
	W	-	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	
	Type	-	-	-	-	-	-	B	B	C	C	D	D	DA	DB	DC	DC	DD	DD	DD	DD	DD	DD	DD
Kg	-	-	-	-	-	-	-	280	410	760	1100	1600	1700	2300	3500	6000	8000	11000	14000	17000	25000	39500	45300	
气动 Pneumatic operated	H	360	388	476	418	621	634	701	771	814	913	1013	1148	1190	1316	1410	1518	1740	1850	-	-	-	-	
	H1	229	257	319	361	412	425	492	527	570	608	708	748	790	886	960	1068	1140	1250	-	-	-	-	
	L2	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-	
	L3	181	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-	
	Type	AG13	AG13	AW13	AW13	AW17	AW17	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-490	C3-600	C3-600	-	-	-	-	
Kg	45	70	95	153	260	350	450	750	1140	1580	2550	2300	3100	4400	6000	8120	11200	14500	-	-	-	-		
电动 Electric driving	H	-	-	-	-	-	559	710	744	851	859	959	999	963	1141	1233	1341	1696	1925	2114	2194	2374	2404	
	H1	-	-	-	-	-	342	492	527	570	608	708	748	790	866	960	1068	1100	1210	1390	1470	1650	1680	
	W	-	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	
	Type	-	-	-	-	-	SMC-04	SMC-04	SMC-04	SMC-04	SMC-03	SMC-03	SMC-03	SMC-00	SMC-00	SMC-0	SMC-0	SMC-1	SMC-2	SMC-3	SMC-3	SMC-4	SMC-4	SMC-4
	Kg	-	-	-	-	-	380	460	780	1150	1620	2160	2400	3120	4500	6100	8210	11400	14800	17500	26000	41000	46200	

PN10.0MPa Class 600


主要外形尺寸和重量/Main outline dimensions & weight

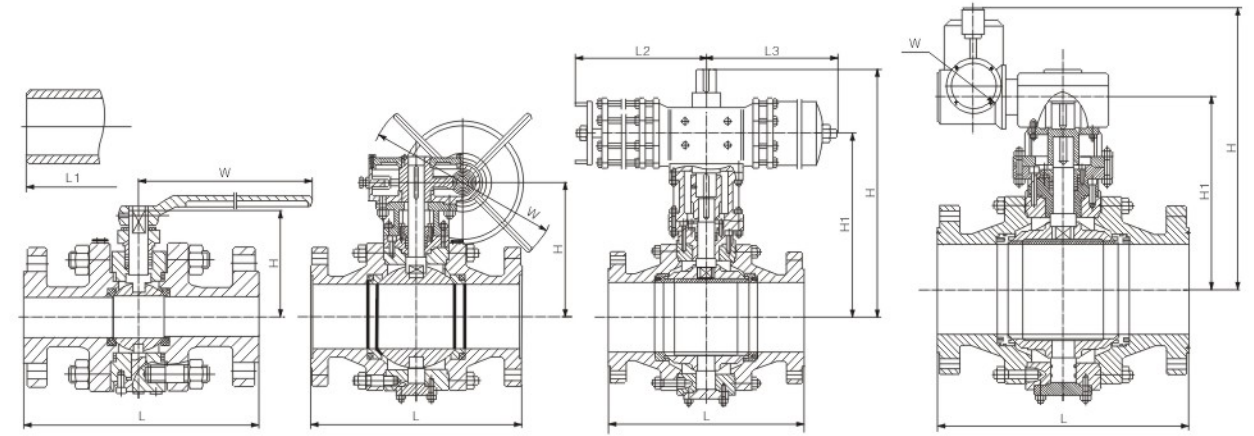
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2100	2400	2400	2700	
对焊 Butt Welded	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2050	2180	2300	2400	
手动 Hand operated	H	136	164	191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	500	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	35	42	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	244	309	361	412	475	502	533	636	675	759	836	915	987	1212	1460	1600	1760	1845	
	W	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	Type	-	-	-	B	C	C	D	D	DA	DA	DB	DC	DD	DH	DH	DH	DH	DJ	DJ	DK	DK	DK
Kg	-	-	-	180	270	500	780	1100	1200	1600	2160	2700	5000	7000	9800	14000	19000	22000	32000	49000	56000		
气动 Pneumatic operated	H	269	-	519	636	728	839	1014	1120	1224	1374	-	1490	1615	1760	-	-	-	-	-	-	-	
	H1	209	-	295	479	519	595	770	810	1004	1154	-	1210	1335	1410	-	-	-	-	-	-	-	
	L2	148	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	L3	257	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	Type	AG13	-	AW13	AW13	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	-	C2-490	C2-490	C3-600	-	-	-	-	-	-	
Kg	60	-	112	196	380	585	760	1190	1650	2550	-	3200	4520	6350	-	-	-	-	-	-	-		
电动 Electric driving	H	-	-	-	-	527	533	653	652	801	784	809	948	1038	1253	1473	1287	1512	2114	2254	2424	2524	
	H1	-	-	-	-	309	361	412	475	502	533	636	675	765	980	1150	987	1212	1390	1530	1700	1800	
	W	-	-	-	-	200	200	280	280	280	305	305	400	400	600	600	600	600	600	600	600	600	
	Type	-	-	-	-	SMC-04	SMC-03	SMC-00	SMC-00	SMC-0	SMC-0	SMC-1	SMC-3	SMC-3	SMC-4	SMC-4	SMC-4	SMC-4	SMC-5	SMC-5	SMC-5	SMC-5	SMC-5
	Kg	-	-	-	-	410	480	860	1320	1750	2280	2620	3350	4720	6540	8800	14500	22000	23500	33500	51000	58500	

PN15.0MPa Class 900


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	750	800	900	1000	1200	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	32	36	40	48	
法兰 Flange	L	368	419	381	457	610	737	838	965	1092	1130	1219	1321	1549	1780	2050	2050	2180	2600	
对焊 Butt Welded	L1	368	419	381	457	610	737	838	965	1092	1130	1219	1321	1549	1700	1780	1960	2100	2376	
手动 Hand operated	H	148	191	216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	650	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	50	55	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	270	384	435	518	657	693	762	866	894	965	1160	1240	1310	1420	1530	
	W	-	-	-	600	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	Type	-	-	-	B	-	C	D	D	DA	DB	DC	DD	DH	DH	DJ	DJ	DK	DK	
Kg	-	-	-	150	360	620	1100	1600	1850	2200	2800	4250	7000	12500	14500	18000	22000	32000		
气动 Pneumatic operated	H	519	-	728	842	1014	1120	1124	13747	1490	1615	1760	1760	1760	-	-	-	-	-	
	H1	295	-	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-	-	-	-	-	
	L2	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-	
	L3	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-	
	Type	AW17	-	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-490	C3-600	-	-	-	-	-	
	Kg	80	-	145	225	380	700	1200	1750	1900	2300	2900	4350	8100	-	-	-	-	-	
电动 Electric driving	H	-	-	-	418	625	612	817	908	866	1035	1139	1167	1279	1854	1934	2004	2114	2224	
	H1	-	-	-	270	384	435	518	657	693	762	866	894	956	1130	1210	1280	1390	1500	
	W	-	-	-	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600	
	Type	-	-	-	SMC-04+H1BC	SMC-00+H3BC	SMC-00+H3BC	SMC-0+H4BC	SMC-0+H4BC	SMC-1+H5BC	SMC-3+H6BC	SMC-3+H6BC	SMC-3+H7BC	SMC-4+H7BC	SMC-4+H7BC	SMC-5+H7BC	SMC-5+H7BC	SMC-5+H7BC	SMC-5+H7BC	SMC-5+H7BC
	Kg	-	-	-	240	390	710	1300	1780	2000	2410	3110	4420	8250	13200	16000	19500	23500	33100	

PN25.0MPa Class 1500

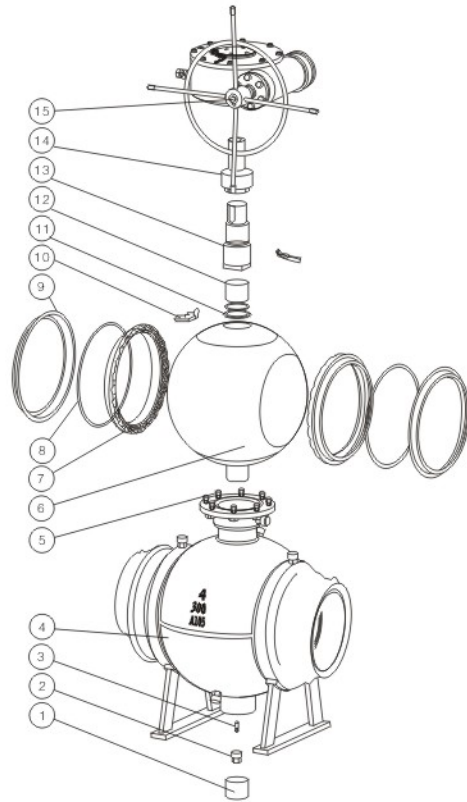

主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
法兰 Flange	L	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
对焊 Butt Welded	L1	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
手动 Hand operated	H	175	191	216	-	-	-	-	-	-	-	-	-	-
	W	650	650	750	-	-	-	-	-	-	-	-	-	-
	Kg	60	70	85	-	-	-	-	-	-	-	-	-	-
蜗轮传动 Worm gear operated	H	175	91	216	247	329	492	428	640	670	700	755	830	952
	W	400	400	600	600	800	800	800	800	800	800	800	800	800
	Type	A	A	B	B	C	D	D	DA	DB	DC	DD	DH	DH
Kg	65	82	100	210	500	850	1600	2300	2950	4200	5000	5600	6200	
气动 Pneumatic operated	H	519	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-
	H1	295	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-
	L2	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	L3	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	Type	AW17	AW17	AW17	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-429	C3-600	-
	Kg	90	135	155	280	510	900	1710	2350	3100	4410	5100	6100	-
电动 Electric driving	H	-	-	388	488	506	591	679	813	943	973	1048	1153	-
	H1	-	-	216	247	329	392	428	640	670	700	755	830	-
	W	-	-	200	280	280	280	305	305	305	400	400	600	-
	Type	-	-	SMC-04+H1BC	SMC-04+H1BC	SMC-00+H3BC	SMC-00+H3BC	SMC-0+H4BC	SMC-0+H4BC	SMC-1+H5BC	SMC-3+H6BC	SMC-3+H6BC	SMC-3+H6BC	SMC-4+H7BC
	Kg	-	-	160	280	520	950	1800	2400	3300	4510	6200	7200	-

技术规格/Technical standard

设计标准: API 6D
 结构长度: API 6D ASME B16.10
 连接尺寸: ASME B16.5 ASME B16.47
 试验和检验: API 598 API 6D
 Design standard: API 6D
 Face to face dimension: API 6D ASME B16.10
 Flange: ASME B16.5 ASME B16.47
 Test and inspection: API 598 API 6D

注: 1. 系列阀门连接法兰端尺寸可根据用户要求设计制造。
 2. DN > 1000 (40") 阀门设计标准按《长输管线阀门技术条件》
 Notes: 1. The sizes of serial valve flange can be designed according to customer's requirement.
 2. DN > 1000 (40"), the design standard is accordance with 《Specification of the length pipe valve》


主要零件材质表/Form of major parts materials

序号 No.	零件名称 Ccessory name	材质 Material		序号 No.	零件名称 Ccessory name	材质 Material	
		ASTM				ASTM	
1	衬套 Bushing	Nikealium+PTFE		9	碟形弹簧 Dish spring	AISI 9260	
2	垫片 Machine screw	A105		10	传动装置 Device for seat rotating		
3	弹簧 Spring	Inconel x-750		11	密封阀杆 Sealing ring for stem	PTFE	
4	阀体 Body	A105		12	衬套 Bushing	Nikealium+PTFE	
5	螺柱 Stud	A193-B7		13	阀杆 Stem*	A182-F6a	
6	球体 Ball**	WCB+ENP		14	连接套 Connection set	AISI C 1045	
7	阀座 Seat	A105		15	驱动装置 Driving		
8	密封圈 Sealing ring	PTFE					

注: *抗硫型阀门该零件的材质为GB(1Cr18Ni9)ASTM(A276-321)

**抗硫型阀门该零件的材质为GB(1Cr18Ni9、CF8+Ni.P)ASTM(A182-304、CF8+Ni.P)

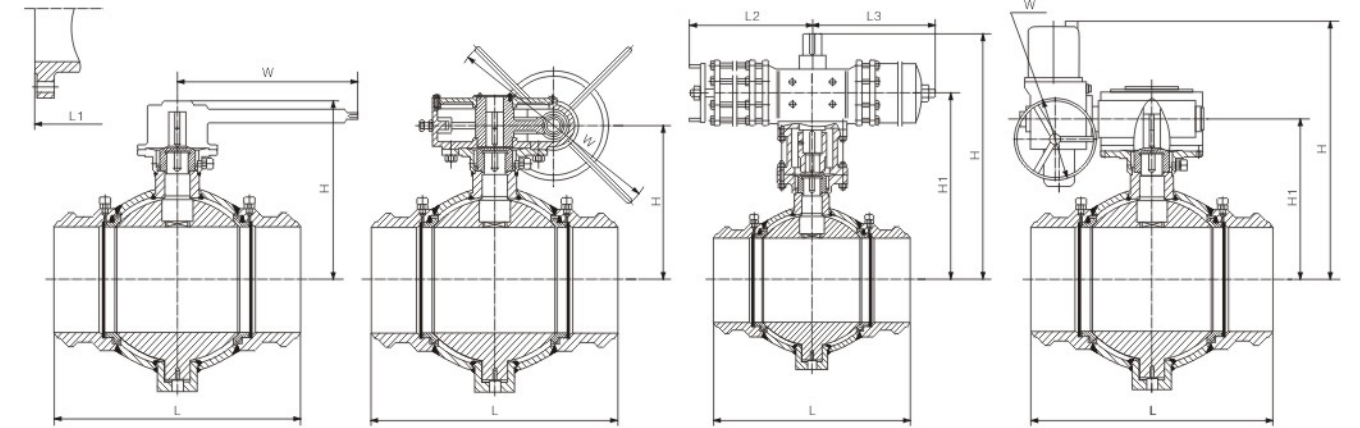
系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。

Notes: *The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9)ASTM(A276-321)

**The material of this part about the anti-sulphur type avlve is GB(1Cr18Nig、CF8+Ni.P)、ASTM(182-304、CF8+Ni.P)

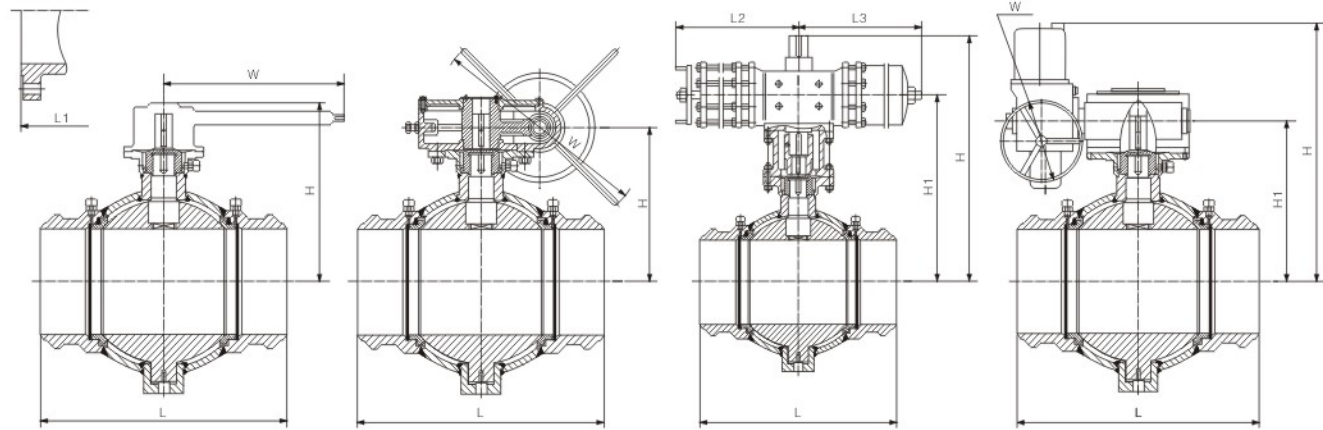
Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

PN1.6MPa Class 150


主要外形尺寸和重量/Main outline dimensions & weight

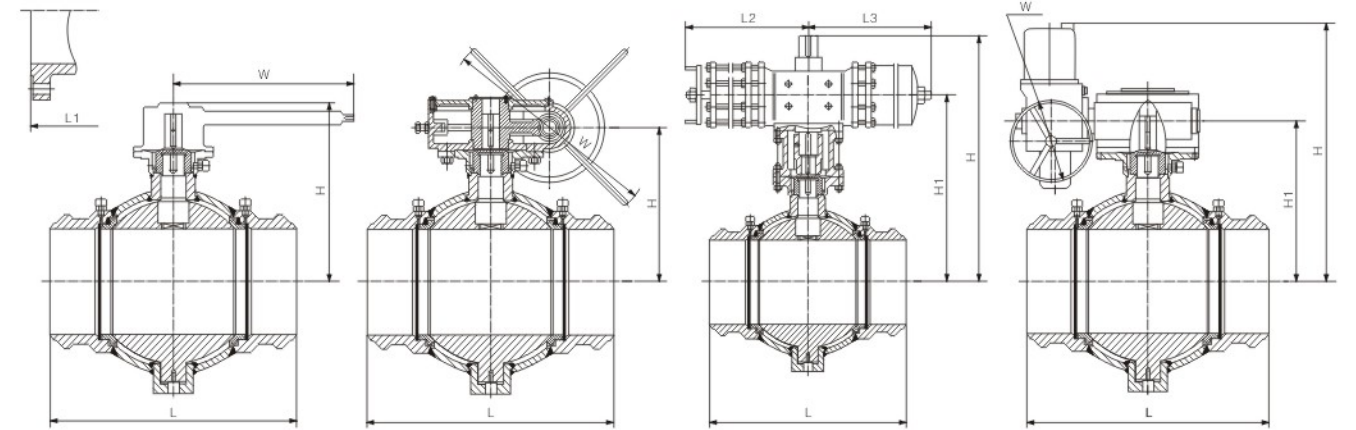
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	1930	1829	2180	2300	2400	
对焊 Butt Welded	L1	178	191	203	229	356	394	457	533	610	686	762	864	914	1067	1245	1372	1524	1721	1689	2100	2250	2400	
手动 Hand operated	H	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	230	350	400	450	700	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	23	42	50	65	70	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	-	-	-	337	385	414	447	510	538	585	665	730	930	990	1070	1260	1370	1480	1550	
	W	-	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	
	Type	-	-	-	-	-	-	B	B	C	C	D	D	D	DA	DA	DB	DB	DC	DC	DD	DH	HD	
Kg	-	-	-	-	-	-	133	208	312	413	577	780	1028	1706	2534	3644	4986	6800	8500	11173	12300	15800		
气动 Pneumatic operated	H	269	379	389	479	552	666	804	839	972	1127	1495	1529	1599	1645	1160	1460	1510	1610	-	-	-	-	
	H1	174	248	258	322	395	457	595	630	728	883	1154	1224	1294	915	930	1100	1150	1250	-	-	-	-	
	L2	89	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-	
	L3	181	257	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-	
	Type	AG09	AG13	AG13	AW13	AW13	AW17	AW17	AW17	AW20	AW20	AW28	AW28	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C3-600	-	-	-	-
Kg	40	50	72	80	110	130	180	300	350	450	610	820	1100	1900	2600	4000	5100	7200	-	-	-	-		
电动 Electric driving	H	-	-	-	-	-	435	480	532	600	610	670	760	763	903	982	1108	1445	1655	1954	2064	2174	2244	
	H1	-	-	-	-	-	215	262	315	320	360	420	510	590	630	725	835	880	970	1230	1340	1450	1520	
	W	-	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	
	Type	-	-	-	-	-	SMC-04+H0BC	SMC-04+H0BC	SMC-04+H1BC	SMC-04+H1BC	SMC-03+H2BC	SMC-03+H2BC	SMC-00+H3BC	SMC-00+H3BC	SMC-00+H3BC	SMC-00+H3BC	SMC-00+H4BC	SMC-00+H4BC	SMC-1+H5BC	SMC-2+H6BC	SMC-3+H6BC	SMC-3+H7BC	SMC-4+H7BC	SMC-4+H7BC
	Kg	-	-	-	-	-	145	196	310	360	475	625	880	1200	2100	2750	4230	6000	7800	9000	12500	14000	17000	

PN2.5、4.0MPa Class 300


主要外形尺寸和重量/Main outline dimensions & weight

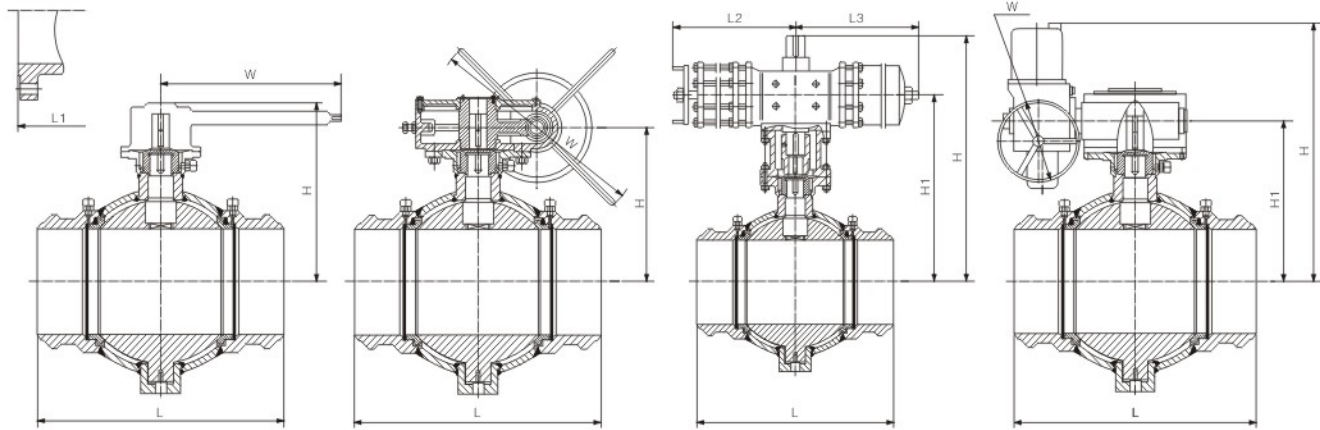
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
法兰 Flange	L	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	2083	2050	2180	2300	2400
对焊 Butt Welded	L1	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346	1524	1727	2083	1960	2020	2250	2400
手动 Hand operated	H	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	230	400	400	600	750	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Kg	32	48	65	75	82	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮传动 Worm gear operated	H	-	-	-	-	-	278	375	460	465	510	538	660	830	880	930	990	1070	1260	1370	1480	1550	
	W	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	Type	-	-	-	-	-	B	B	C	C	D	D	DA	DB	DC	DC	DD	DD	DD	DD	DD	DH	HD
	Kg	-	-	-	-	-	152	242	376	489	708	950	1247	2066	3101	4374	6050	8185	9500	13413	14200	17500	
气动 Pneumatic operated	H	269	379	452	579	595	595	736	942	994	1188	1280	1480	1554	1380	1430	1599	1790	1850	-	-	-	-
	H1	209	248	295	322	386	386	527	698	570	883	975	1080	1154	930	980	1149	1190	1250	-	-	-	-
	L2	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	L3	181	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	Type	AG13	AG13	AW13	AW13	AW17	AW17	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C3-600	C3-600	-	-	-	-	-
	Kg	49	64	70	82	112	145	220	310	395	510	752	1000	1320	2200	3200	4520	6500	9100	-	-	-	-
电动 Electric driving	H	-	-	-	-	434	480	432	641	611	670	761	763	903	998	1108	1565	1655	2105	2245	2395	2470	
	H1	-	-	-	-	217	263	315	360	360	420	510	590	670	725	835	880	970	1420	1560	1710	1785	
	W	-	-	-	-	200	200	200	280	280	280	305	305	305	400	4600	460	460	600	600	600	600	
	Type	-	-	-	-	SMC-04+H0BC	SMC-04+H1BC	SMC-04+H1BC	SMC-03+H2BC	SMC-03+H2BC	SMC-00+H3BC	SMC-00+H3BC	SMC-0+H4BC	SMC-0+H4BC	SMC-1+H5BC	SMC-2+H6BC	SMC-2+H6BC	SMC-3+H7BC	SMC-3+H7BC	SMC-4+H7BC	SMC-4+H7BC	SMC-4+H7BC	SMC-4+H7BC
	Kg	-	-	-	-	170	290	330	415	525	780	1200	1380	2400	3500	4630	6850	10500	11000	14000	15200	18100	

PN10.0MPa Class 600


主要外形尺寸和重量/Main outline dimensions & weight

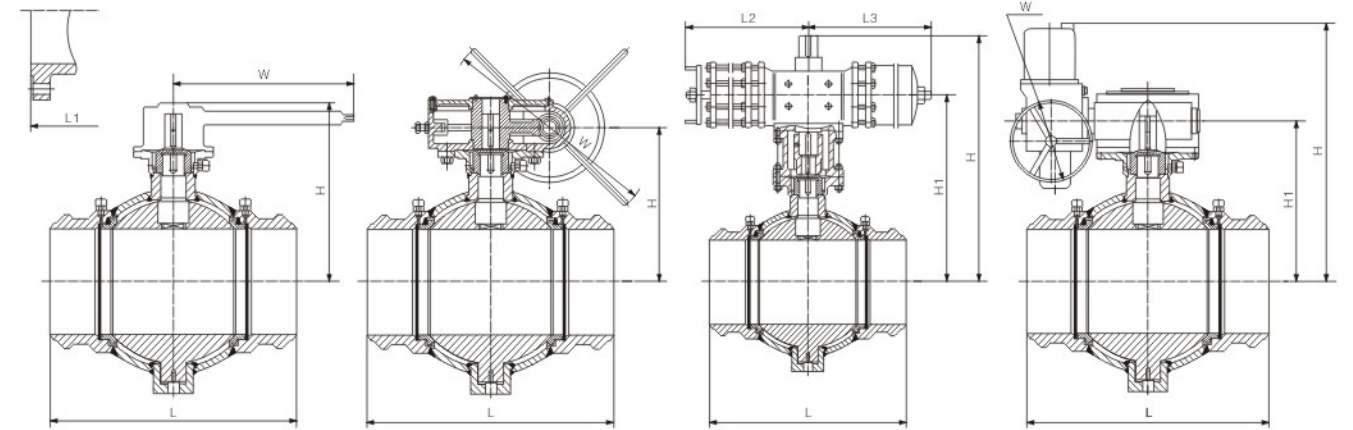
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2100	2400	2400	2700	
对焊 Butt Welded	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2050	2180	2300	2400	
手动 Hand operated	H	108	155	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	500	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	45	60	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	115	180	254	325	392	390	455	590	630	830	960	1030	1171	1250	1260	1370	1480	1550	
	W	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	Type	-	-	-	B	C	C	D	D	DA	DA	DB	DC	DD	DH	DH	DH	DH	DH	DJ	DJ	DK	DK
	Kg	-	-	-	95	116	189	296	446	597	860	1154	1568	2613	3841	5508	7597	10370	12500	17136	21000	23400	
气动 Pneumatic operated	H	269	-	519	636	728	839	1014	1120	1224	1374	-	1490	1615	1760	-	-	-	-	-	-	-	
	H1	209	-	295	479	519	595	770	815	1004	1154	-	1210	1335	1410	-	-	-	-	-	-	-	
	L2	148	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	L3	257	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	Type	AG13	-	AW13	AW13	AW17	AW20	AW20	AW28	C1-355	C1-355	-	C2-490	C2-490	C3-600	-	-	-	-	-	-	-	
	Kg	60	-	105	112	160	220	320	470	610	890	-	1600	2700	4000	-	-	-	-	-	-	-	
电动 Electric driving	H	-	-	-	-	480	532	641	651	670	761	783	943	998	1108	1238	1350	1400	1954	2064	2174	2244	
	H1	-	-	-	-	262	360	400	474	472	510	610	670	725	835	915	1050	1100	1230	1340	1450	1520	
	W	-	-	-	-	200	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600	600	
	Type	-	-	-	-	SMC-04+H1BC	SMC-03+H2BC	SMC-00+H3BC	SMC-00+H3BC	SMC-0+H4BC	SMC-0+H4BC	SMC-1+H5BC	SMC-3+H6BC	SMC-3+H6BC	SMC-4+H7BC	SMC-4+H7BC	SMC-4+H7BC	SMC-4+H7BC	SMC-5+H7BC	SMC-5+H7BC	SMC-5+H7BC	SMC-5+H7BC	
	Kg	-	-	-	-	175	240	350	495	625	920	1200	1280	2900	4350	5800	8200	11200	14100	19000	23000	24000	

PN15.0MPa Class 900


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	750	800	900	1000	1200	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	32	36	40	48	
法兰 Flange	L	368	419	381	457	610	737	838	965	1092	1130	1219	1321	1549	1780	2050	2050	2180	2600	
对焊 Butt Welded	L1	368	419	381	457	610	737	838	965	1092	1130	1219	1321	1549	1700	1780	1960	2100	2376	
手动 Hand operated	H	217	241	259	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	W	650	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Kg	58	76	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮传动 Worm gear operated	H	-	-	-	177	244	274	382	452	515	602	706	714	736	1050	1090	1150	1230	1530	
	W	-	-	-	600	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	Type	-	-	-	B	-	C	D	D	DA	DB	DC	DD	DH	DH	DJ	DJ	DK	DK	
	Kg	-	-	-	115	125	225	377	559	776	1124	1503	2049	3351	6008	7147	9908	11500	19000	
气动 Pneumatic operated	H	519	-	728	842	1014	1120	1224	1374	1490	1615	1760	1760	1760	-	-	-	-	-	
	H1	295	-	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-	-	-	-	-	
	L2	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-	
	L3	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-	
	Type	AW17	-	AW17	AW20	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-490	C3-600	-	-	-	-	-	
	Kg	70	-	115	125	165	240	390	620	790	1240	1700	2250	3420	-	-	-	-	-	
电动 Electric driving	H	-	-	-	480	641	651	711	811	783	963	1058	1148	1238	1744	1784	1844	1294	2044	
	H1	-	-	-	262	400	474	512	550	610	690	785	875	915	1020	1060	1120	1200	1320	
	W	-	-	-	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600	
	Type	-	-	-	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC
	Kg	-	-	-	128	175	265	395	635	812	1320	1750	2350	3560	4200	8100	11800	12500	20000	

PN25.0MPa Class 1500


主要外形尺寸和重量/Main outline dimensions & weight

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
法兰 Flange	L	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
对焊 Butt Welded	L1	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
手动 Hand operated	H	217	241	259	-	-	-	-	-	-	-	-	-	-
	W	650	650	650	-	-	-	-	-	-	-	-	-	-
	Kg	75	82	105	-	-	-	-	-	-	-	-	-	-
蜗轮传动 Worm gear operated	H	137	161	169	177	244	355	458	576	601	671	740	770	860
	W	600	600	600	600	800	800	800	800	800	800	800	800	800
	Type	A	A	B	B	C	D	D	DA	DB	DC	DD	DH	DH
	Kg	85	98	115	125	145	240	395	610	820	1250	1680	2400	3580
气动 Pneumatic operated	H	519	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-
	H1	295	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-
	L2	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	L3	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	Type	AW17	AW17	AW17	AW20	AW28	AW28	C1-355	C1-355	C2-490	C2-490	C2-429	C3-600	-
	Kg	95	115	120	145	180	290	420	700	890	1300	1820	2610	-
电动 Electric driving	H	-	-	542	641	651	711	801	823	965	1085	1168	1238	-
	H1	-	-	370	400	474	512	550	650	690	785	895	915	-
	W	-	-	200	280	280	280	305	305	305	400	400	600	-
	Type	-	-	SMC-04 +H1BC	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	-
	Kg	-	-	142	160	196	320	452	850	910	1420	1960	2820	-

Other Ball Valve Series

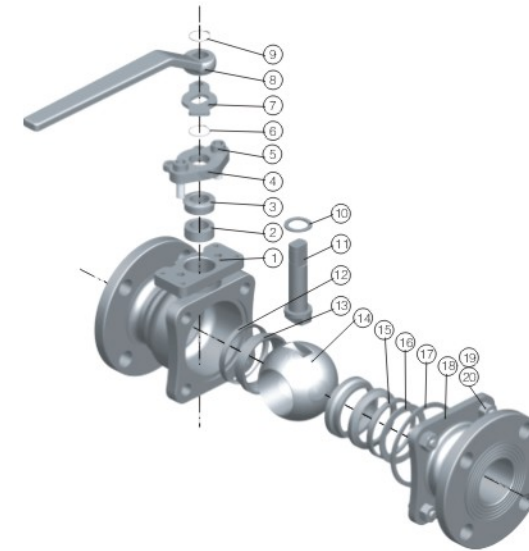
其它球阀系列

Keeping pace with the times
Reviving upon science & technology
与时俱进 / 科技兴业……



金属硬密封球阀 Metal to metal sealing floating ball valve

金属硬密封浮动球阀典型结构及零部件组成 Structure and parts



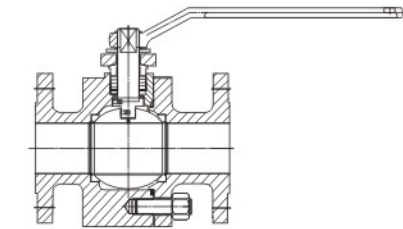
锻钢金属硬密封浮动球阀 Forged steel metal to metal sealed floating ball valve

泉舜公司的金属硬密封浮动球阀一般采用铸钢阀体，根据用户要求，也可采用锻钢阀体，锻钢球阀的法兰连尺寸、结构长度等主要尺寸与铸钢球阀相同。
Quanshun's metal to metal sealed floating ball valve is in general employing casted steel valve body. If required by customers, forged steel valve body is also available, of which the flange dimensions and face to face dimensions are the same as that of cast steel ball valve.

主要尺寸与重量/Main dimensions and weight

金属硬密封浮动球阀的主要尺寸及重量参见浮动球阀，金属硬密封浮动球阀的连接法兰尺寸及结构长度尺寸与浮动球阀相同。
Refer to that of floating ball valve for main dimensions and weights of metal to metal sealed floating ball valve. The flange dimensions and face to face dimensions are the same as that of floating ball valve.

注：对于手动球阀，☆表示建议采用扳手，△表示建议采用蜗轮蜗杆传动。
Note: For the manual ball valve, ☆ indicates that Lever is suggested, △ indicates that worm gear is suggested.



零部件材料/Parts material list

序号 Parts No.	零件名称 Parts name	材料 Materials				
		WCB/13Cr	WCB/304	WCB/316	CF8	CF8M
1	阀体 Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	填料 Packing	Graphite	Graphite	Graphite	Graphite	Graphite
3	填料压套 Gland	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
4	填料压板 Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
5	填料螺栓 Gland bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
6	挡圈 Circlip	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel
7	定位片 Stop collar	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel
8	杠杆 Lever	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
9	挡圈 Circlip	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel
10	上密封垫 Thrust washer	304 Sheet+Graphite	304 Sheet+Graphite	316 Sheet+Graphite	304 Sheet+Graphite	316 Sheet+Graphite
11	阀杆 Stem	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
12	阀座密封垫 Seat seal	Graphite	Graphite	Graphite	Graphite	Graphite
13	阀座 Seat	ASTM A182 F6a + WC-Co	ASTM A182 F304 + WC-Co	ASTM A182 F316 + WC-Co	ASTM A182 F304 + WC-Co	ASTM A182 F316 + WC-Co
14	球体 Ball	ASTM A182 F6a + WC-Co	ASTM A182 F304 + WC-Co	ASTM A182 F316 + WC-Co	ASTM A182 F304 + WC-Co	ASTM A182 F316 + WC-Co
15	压圈 Seat seal gland	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
16	碟簧 Spring	Inconel 750	Inconel 750	Inconel 750	Inconel 750	Inconel 750
17	垫片 Gasket	304 Sheet+Graphite	304 Sheet+Graphite	316 Sheet+Graphite	304 Sheet+Graphite	316 Sheet+Graphite
18	阀盖 Closure	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
19	阀体螺栓 Body bolting	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
20	阀体螺母 Body nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M

注：本表为常规法兰连接蜗轮蜗杆传动固定球阀的型号编制、主要零件材料及适用工况，其他要求及基型号编制见球阀型号编制方法。
Note: The chart above only lists out some common composition of steel ball valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

金属硬密封浮动球阀的产品范围见下表/Products of metal to metal sealed floating ball valve as follows

口径 Size	NPS	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6
	DN	15	20	25	32	40	50	65	80	100	125	150
压力级或公称压力 Class or nominal pressure	Class150/PN20	☆	☆	☆	☆	☆	☆	☆	☆	△	△	△
	Class300/PN50	☆	☆	☆	☆	☆	☆	△	△	△	-	-
	Class600/PN110	☆	☆	☆	☆	☆	△	△	△	-	-	-
	Class900/PN150	☆	☆	☆	☆	△	△	△	-	-	-	-
	Class1500/PN250	☆	☆	☆	☆	△	△	-	-	-	-	-
	PN16	☆	☆	☆	☆	☆	☆	☆	☆	△	△	△
	PN25	☆	☆	☆	☆	☆	☆	☆	☆	△	△	△
	PN40	☆	☆	☆	☆	☆	☆	☆	☆	△	△	-
	PN63	☆	☆	☆	☆	☆	☆	△	△	△	-	-
	PN100	☆	☆	☆	☆	☆	☆	△	△	△	-	-

产品性能规范/Products performance specification

压力等级 Pressure	1.6~10.0MPa	Class 150~600
实验压力 Test pressure (MPa)	壳体试验 Shell test	1.5×PN
	密封试验 Sealing test	1.1×PN
	密封性试验压力 Sealing test pressure	0.6MPa
适用温度 Applicable temperature(°C)	-196°C~+121°C	
适用介质 Applicable medium	水、油、天然气腐蚀性介质等 Water,oil,natural gas,corrosive medium,etc	

Note:PN is requested pressure for the body material under the 38°C.

实验压力标准/Pressure test standards

试验强度 Test strength	试验压力 Test pressure (MPa)	试验时间 Test duration(S)	适用温度(°C) Applicable temperature	适用介质 Applicable medium
壳体试验 Shell test	150Lb、1.6MPa	120(DN≤14')	≤52°C 内温度 (Room temperature)	水 Water
	300Lb、2.5、4.0MPa			
	600Lb、10.0MPa			
	900Lb、15.0MPa			
	1500Lb、25.0MPa			
	2500Lb、42.0MPa			
低压密封试验 Low-pressure sealing test	150Lb、1.6MPa	120	≤52°C 内温度 (Room temperature)	气 Air
	300Lb、2.5、4.0MPa			
	600Lb、10.0MPa			
高压密封试验 High-pressure sealing test	150Lb、1.6MPa	120	≤52°C 内温度 (Room temperature)	水 Water
	300Lb、2.5、4.0MPa			
	600Lb、10.0MPa			

固定式球阀力矩表/Fixed ball valve torque form(n.m)

力矩 Torque	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8
压力 Class(MPa)	15	20	25	40	50	65	80	100	150	200
压力 Class 150 (1.6MPa)	6	7	15	40	50	80	90	130	560	980
压力 Class 300 (2.5MPa)	9	12	20	60	70	90	120	230	930	2197
压力 Class 600 (10.0MPa)	16	20	42	90	130	150	200	370	-	-

产品特点/Characteristics

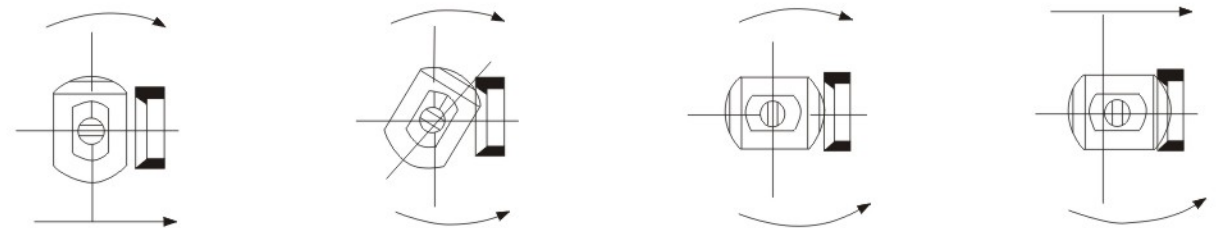
- 启闭无摩擦。这一功能完全解决了传统阀门因密封面之间相互摩擦而影响密封的问题。
- 上装式结构。对装在管道上的阀门可直接在线检查与维修。能有效减少装置停车，降低生产成本。
- 单阀座设计。消除了阀门中腔介质因异常升压而影响使用安全的问题。
- 低扭矩设计。特殊结构设计的阀杆，只需配一个小手轮阀门就能轻松启闭。
- 楔形密封结构。阀门是靠阀杆提供的机械力，将球楔压到阀座上而密封。使阀门的密封性能不受管线压差的影响，在各种工况下密封性能都有可靠保证。
- 密封面的自清洁结构。当球体倾离阀座时，管线中的流体会沿球体密封面成360°均匀通过。不仅消除了高速流体对阀座局部的冲刷，也冲走了密封面上的聚积物，达到自清洁的目的。

- Non-abrasion for on-off, which fully resolves the problem of mutual abrasion affecting sealing performances of sealing surfaces of traditional valves.
- Up-entry construction, with which the valves on pipelines could be online checked and repaired directly. Thus the engine-stopping could be effectively minimized to reduce the production cost.
- Single-seat design, which eliminates those problems affecting safety caused by abnormal temperature-rise from the medium in the uen of the valve.
- Low torsional moment design, with the Stem with specially designed structure could be opened or shut down with down with merely a small hand wheel valve.
- Wedge-type sealing construction. Traditionally the valve would be sealed through the mechanical force provided by the Stem to wedge-press the ball onto the valve seat. With this design, the sealing performance of the valve would never be influenced by the fluctuation of the prissure differences in pipelines and the performance would be reliably maintained under all the operating modes.
- Self-purging construction of sealing surfaces. The fluid inside the pipeline would pass through evenly by 360° along the sealing face on the globe body when the Body sidingly leaves the seat. This design not only eliminates the scouring on parts on the valve seat by high-speed fluid, but also washes away the piled-up matters on the surface to realize self-purging.

工作原理/Operating principle

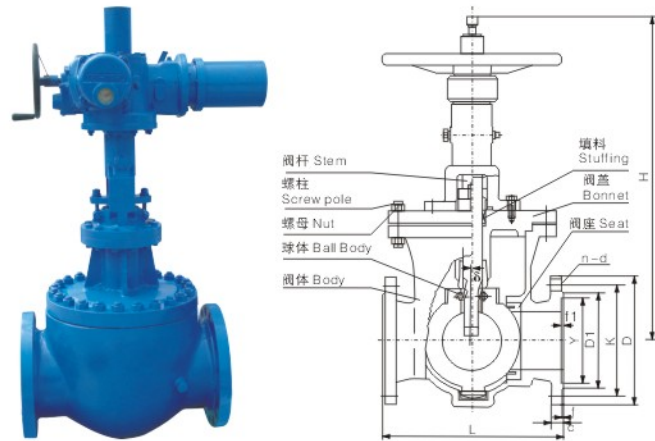
- 当阀门处于全开位置时，顺时针转动手轮，在阀杆螺母与止推轴承配合下，阀杆开始下降并带动球体开始转动。
- 连续转动手轮，阀杆上的精密螺旋曲线槽轨道与嵌于其内的导向销相互作用，带动球体随阀杆不停的按顺时针方向转动。
- 当阀门将要关闭时，阀杆带动球阀在与阀座密封面完全无摩擦的情况下旋转了90°。
- 继续转动手轮，再次下降的阀杆会机械地压球体，使球体与阀座紧密接触。从而达到密封效果。

- Rotate the hand-wheel clock wisely whole the valve stays at full-open state. Afterwards the Stem begins to move downwards and brings along the globe body to rotate under the concerted running of valvestem nuts and block bearing.
- Continuously rotate the handwheel, and then the cam-slot track with fine helical-curve would mutually interact with the guide finger embedded inside the track to ceaselessly drive the globe body rotate clock wisely with the Stem.
- When the valve is about to shutdown, the Stem would bring along the globe to Rotate for 90°; under the condition that the two parts completely bears no abrasion against the sealing surface of the seat.
- Continue to rotate the hand-wheel, and then the gain-descended Stem would mechanically press the globe body to make it closely contact with the seat. Thus the sealing effect would be realize.



- 继续转动手轮，当阀杆升到极限位置时，此时球也已随阀杆倒转了90°，阀门已处于全开位置。
- 当阀门将要开启时，阀杆上的精密螺旋曲线槽轨道与嵌于其内的导向销相互作用带动球体在与阀座密封面完全无摩擦的情况下不停的按逆时针方向转动。
- 连续转动手轮，阀杆会在向上上升的同时带动球体倾离阀座。
- 当阀门处于全关位置时逆时针转动手轮。在阀杆螺母与止推轴承配合下，阀杆开始上升，并带动球体离开阀座。

- Continuously rotate the handwheel, as long as the Stem rises to the limiting position, at this time, the ball gas also reversed along with the handle for 90°; and the valve gas already stayed at the full-open position.
- When the valve is about to open, the cam-slot track with fine helicalcurve would mutually interact with the guide finger embedded inside the track to ceaselessly drive the globe body rotate counter-clockwisely under the condition that the mentioned parts completely bears no abrasion against the ksealing surface of the seat.
- Continuously rotate the handwheel, herea-fter the globe body sidingly rotate while going-up.
- Rotate the hand-wheel counter clock wisely while the valve stays at the full-closed position. Therefore the handle would go up and drive the globe body to leave the seat.



技术规范/Technical Standard

设计依据 Design standard	GB	API
结构长度 Face to face dimension	JB/T 7745 GB/T 12221	ANSI B16.10
连接法兰 Connection flange	GB/T 9113 JB/79 HG20592	ANSI B16.5
对焊端 Butt welded	GB/T 12224	MSS SP 44 ANSI B16.25
试验和检验 Test & Inspection	JB/T 9092	SPI 598

注：系列阀门连接法兰及对焊端尺寸可根据客户要求设计制造。
Notes: The sizes of serial valve flange and butt welded can be designed according to customer's requirement.

主要零件名称及材质/Main part and materials

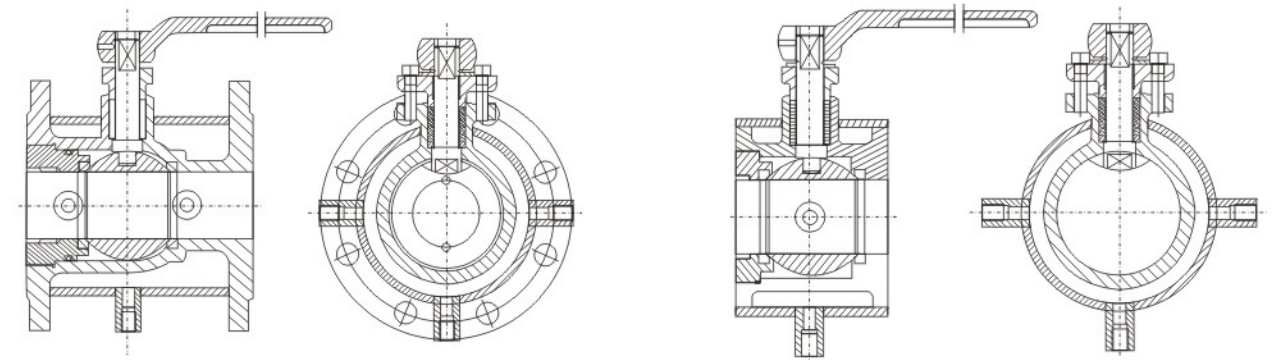
主要型号 Main type	零件名称 Accessory name	材质 Material			
		WCB	ZG1Cr5Mo	ZG1Cr18Ni9Ti	ZG1Cr18Ni12Mo2Ti
F GQ40Y H	球体 Ball	2Cr13	1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti
	阀杆 Stem				
	密封面 Sealing surface	硬质合金、合金钢 Cemented Carbide Alloy steel			
	导向销 Guide finger	2Cr13 40CrMn			
F GQ41Y H	阀杆螺母 Stem nut	铸锰黄铜 Cast manganese brass			
	螺栓 Bolt	35		1Cr18Ni9Ti	
	螺母 Nut	35	45		
	填料 Stuffing	柔性石墨环 PTFE Graphite ring			
垫片 Gasket	柔性石墨复合垫 柔性石墨缠绕垫 Graphite cvombined gasket Graphite wrap-gasket				
	手轮 Handle	可锻铸铁 Able to forge iron			

产品性能规范/Performance specification

压力等级 Pressure grade	试验压力(MPa) Test pressure(MPa)		适用环境 Suitalbe environment
	壳体试验 Shell test	密封试验 Sealing test	
1.6	2.4	1.76	易燃、易爆、易挥发、易聚合及剧毒场合。 The occasions such as it is inflammable, wasy to exploit, easy to volatilize, easy to get together, and hyper toxic occasion, ect
2.5	3.75	2.75	
4.0	6.0	4.4	
6.4	9.6	7.04	
Class 150	2.94	2.2	
Class 300	7.5	5.5	
Class 600	16.0	11.0	
适用温度 Applicable temperature	-190~≤550℃		
适用介质 Applicable mediums	水、油、天然气及各种软性介质与悬浮液等 Water, oil, natural gas, all kinds of soft mediums and suspension, etc		
驱动方式 Driving manner	气动、手动、电动 Pneumatic, manual and electric		

主要连接尺寸表/Main form of connection dimension

压力 Pressure	公称通径 Nominal diameter (mm)	主要尺寸 Main dimension															
		25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500
PN1.6MPa	L	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	1200	1250
	H	240	260	307	360	410	483	512	543	581	617	672	723	758	791	828	870
	Kg	9.5	16	19	28	30	41	55	78	115	215	270	385	502	876	980	1240
PN2.5MPa	L	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	1200	1250
	H	260	280	320	360	430	490	525	567	604	642	695	742	781	815	864	905
	Kg	9.5	16	19	28	30	45	59	82	121	230	289	402	540	913	1120	1280
PN4.0MPa	L	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	1200	1250
	H	260	280	320	360	436	492	527	607	649	701	750	750	790	832	875	910
	Kg	10	17	20	25	32	45	59	82	115	2130	295	402	540	913	1124	348
PN6.4MPa	L	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	-	-
	H	280	300	329	365	450	509	541	663	725	781	790	806	821	858	-	-
	Kg	10	17	20	25	32	52	68	106	168	281	355	498	689	1134	-	-
150Lb	L	127	140	165	178	190	203	229	356	394	457	533	610	686	762	864	914
300Lb	L	165	178	190	216	241	283	305	381	403	502	568	648	762	838	914	991
600Lb	L	216	229	241	292	330	356	432	508	559	660	787	838	889	991	1092	1194



法兰连接
Flange connection

对夹连接
Wafer type connection

用途/Purpose

系列夹套球阀主要适用于石油、化工、冶金、电力等各类系统中，以输送常温下会凝固的高粘度介质。其球阀的夹套焊接在阀门的两端密封面之间，阀门的侧面和底部设有夹套的标准连接口。由于增加了夹套，此种阀门的端部连接尺寸比同一规格的连接尺寸大一至两个规格，阀门的结构长度与同一规格的阀门相同。阀门的端部连接型式有法兰和对夹两种。夹套中可自由的通过蒸汽或其他热保温介质，确保粘稠的介质顺畅的通过阀门。

Jacketed ball valves are mainly used in the industries of petroleum, chemicals, pharmaceuticals, metallurgy, electric power and etc. to handle high viscosity medium that can be solidified at ordinary temperature. The acket of ball valve is welded between the seal faces at both ends of the valve. On the side and at the bottom of the valve there are standard connection ports for jacket. Provided with a jacket, the types of endconnection may be flanged and wafer. Steam or other heat insulating mediums may freely pass through the jacket, to ensure pasty mediums smoothly through the valve.

结构特点/Structural characteristic

- 既能防止管路中粘稠的介质凝固，又能降低管路中低温介质的热量损失。
 - 采用碳钢管焊接夹套比铸造的更加耐压、牢固和可靠。
 - 由于阀门的通径与管道内径一致，介质呈直线流动，流阻小，最适用于易凝固，高粘性液体介质。
 - 球阀阀体采用整体（一片式）结构，体积小，其重量比同类球阀的体积小、重量轻。
- To prevent the pasty medium in pipeline from being solidified and to lower the heat loss of the low-temperature medium in pipeline.
 - The carbon steel pipe welded jackets are more over pressure resistance and reliable than cast ones.
 - Thanks to the conformity of valve diameter and pipe inside diameter, medium makes linear linear flow of low resistance, most suitable for easily solidified and highly viscous liquid mediums.
 - One-piece structure of ball valve body, small volume and lightweigh compared with their counterparts.

夹套球阀制造规范/Jacketed ball valve manufacture standards

标准 Standards	API系列 API series	GB系列 GB series
基本设计规范 Design standard	ANSI B16.34	
压力温度等级 Pressure temperature rating	ANSI B16.34	GB/T12224
结构长度 Face to face dimensions	ASME B16.10	
连接法兰 Flange	ASME B16.5	GB/T9113./HG20596
检验与实验 Inspection and test	API598	JB/T9092

主要零部件材料/Main parts materials

序号No.	零件名称 Part name	材料 Materials	
		GB	ASTM
1	阀体 Body	GB/T12229 WCB	A216 WCB
2	连接口 Ends sock	GB/T699 25	A105
3	夹套 Jacketed	GB/T699 25	A105
4	锁紧螺母 Insert	GB/T699 25	A105
5	O型圈 O-ring	氟橡胶 Viton	
6	密封圈 Seat ring	对位聚苯、尼龙 PTFE/RPTFE/NYLON/PEEK	
7	球体 Ball	GB/T1220 2Cr13	A105+ENP/F304
8	阀杆 Stem	GB/T1220 2Cr13	A182 F6a
9	垫片 Gasket	PTFE+SS	
10	填料垫 Packing seat	GB/T1220 2Cr13	A182 F6a
11	填料 Packing	柔性石墨 Graphite/PTFE	
12	填料压盖 Packing gland	GB/T12229 WCB	A216 WCB
13	螺钉 Screw	GB/T699 35	A193 B7
14	定位片 Stop pland	GB/T700 Q235+Zn	
15	挡圈 Snap ring	GB/T1222 65Mn	
16	螺钉 Screw	GB/T699 35	A 193 B7
17	手柄 Lever	GB/T700 Q235	

供货范围/Products scope

公称通径 Nominal diameter		压力等级 Pressure grade	
DN	in	150Lb、300Lb PN1.0~4.0MPa	
15	1/2	△/●	
20	3/4	△/●	
25	1	△/●	
40	1 1/2	△/●	
50	2	△/★/●	
80	3	△/★/●	
100	4	△/★/●	
150	6	△/★/●	
200	8	△/★/●	

注: ●表示手柄操作阀门; ★表示齿轮箱操作阀门;
 —表示没有此选项,表中未涉及的可按用户的要求制造。
 Note: ●Stands for handle operated valves;
 ☆Stands for gearbox operated valves;
 —Stands for no option.
 Those not covered in the table can be made according to users' requirements.

阀门驱动装置选配表/The valve driving device

SIZE		PN10		PN16		PN25		PN40		150Lb		300Lb	
DN	NPS	气动 Pneumatic operated	电动 Electric Operated	气动 Pneumatic operated	电动 Electric Operated	气动 Pneumatic operated	电动 Electric Operated	气动 Pneumatic operated	电动 Electric Operated	气动 Pneumatic operated	电动 Electric Operated	气动 Pneumatic operated	电动 Electric Operated
15	1/2	AG06	/	AG06	/	AG06	/	AG06	/	AG06	/	AG06	/
20	3/4	AG06	/	AG06	/	AG06	/	AG06	/	AG06	/	AG06	/
25	1	AG06	/	AG09	/	AG09	/	AG09	/	AG09	/	AG09	/
40	1 1/2	AG09	/	AG09	/	AG09	/	AG09	/	AG09	/	AG09	/
50	2	AG09	QB12.5	AG09	QB12.5	AG13	QB12.5	AG13	QB12.5	AG09	QT12.5	AG13	QB12.5
80	3	AG09	QB12.5	AG13	QB12.5	AG13	QB25	AW13	QB25	AG13	QT12.5	AW13	QB25
100	4	AG13	QB25	AW13	QB25	AW13	QB50	AW13	QB50	AW13	QT25	AW13	QB50
150	6	AG13	QB50	AW17	QB50	AW13	QB100	AW17	QB100	AW17	QT50	AW17	QB100
200	8	AW13	QB50	AW17	QB50	AW17	QB100	AW17	QB200	AW17	QT50	AW17	QB200

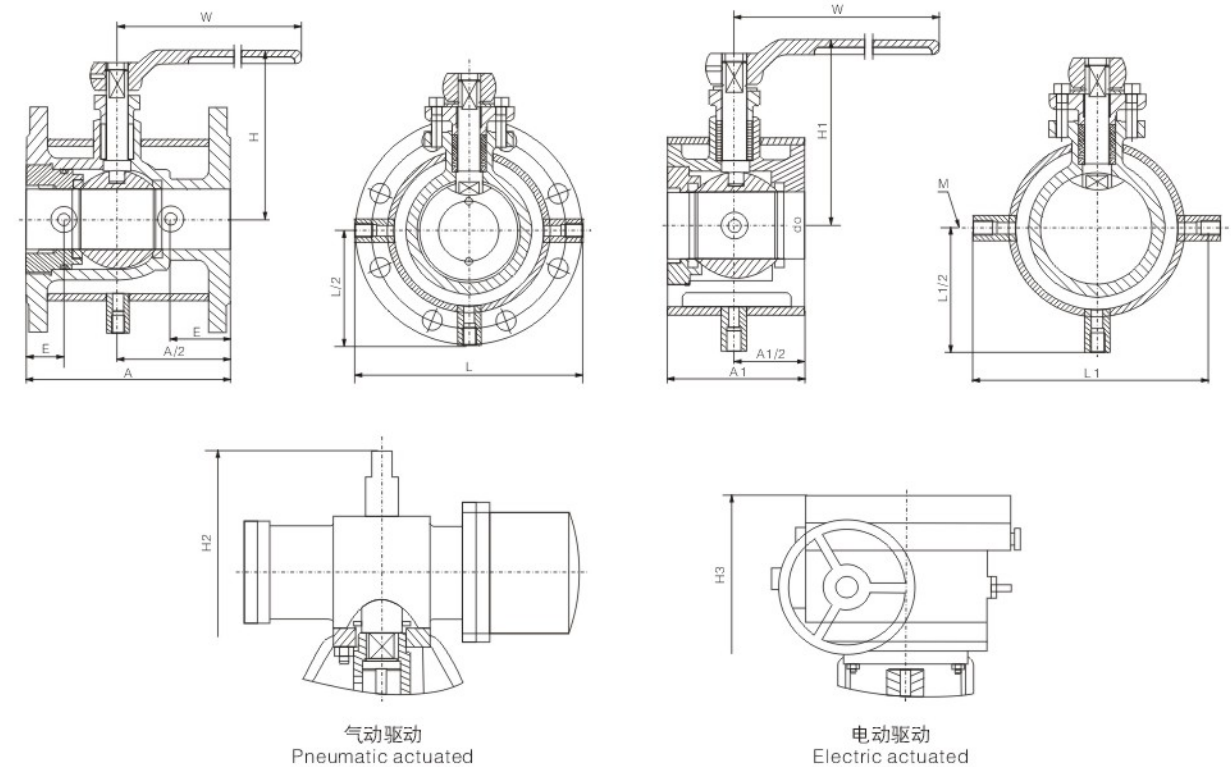
注:表中气动装置型号为泉舜公司生产型号;电动装置型号为常州电站辅机厂生产的型号。
 Note:Pneumatic device is made by Quanshun; Electric device is made by Changzhou.

气动装置输出扭矩表
 Output torque form of pneumatic device

型号 Model	气源压力 Pressure			
	0.4MPa	0.5MPa	0.6MPa	0.7MPa
AG06	28	35	42	49
AG09	85	106	127	148
AG13	280	350	420	490
AW13	480	350	720	840
AW17	1000	1250	1500	1750

电动装置输出扭矩表
 Output torque form of electric device

型号 Model	输出转矩 Output torque	阀杆直径 Stem	输出转速 Rotate	电机功率 Power
QB12.5	125	22	1r/min	0.05KW
QB25	250	28	1r/min	0.09KW
QB50	500	50	1r/min	0.18KW
QB100	1000	50	1r/min	0.25KW
QB200	2000	60	1r/min	0.55KW

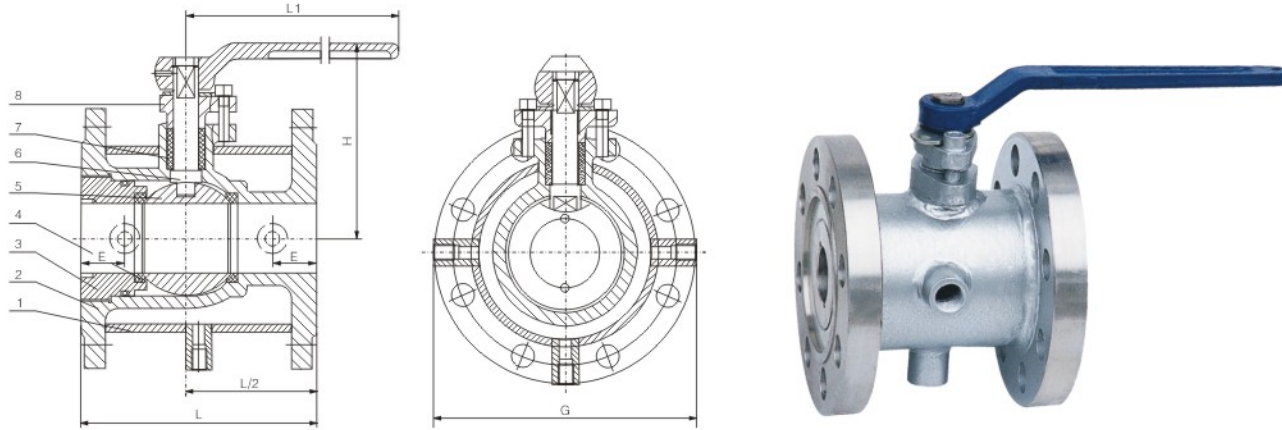

主要外形尺寸/Main outline dimensions

PN1.0、1.6MPa Class150

DN	NPS	A	A1	do	H	H1	H2	H3	W	M	L	L1	E	法兰规格 Flange	重量 Weight(kg)
															手动 Hand(PN16)
15	1/2	110	50	15	63	101	126	/	130	ZG3/4	147	110	58.5	DN40(11/2)	7.04
20	3/4	117	55	20	82	101	126	/	160	ZG3/4	147	117	58.5	DN40(11/2)	7.74
25	1	127	60	25	85	106	137	/	160	ZG3/4	156	127	63.5	DN50(2)	10.7
40	1 1/2	165	80	40	100	125	169	/	230	ZG3/4	181	165	62.5	DN65(2 1/2)	14.5
50	2	178	90	51	153	135	179	576	230	ZG3/4	218	178	68	DN80(3)	17.9
80	3	229	120	76	195	217	258	643	400	ZG3/4	275	229	82	DN150(6)	37.3
100	4	254	140	102	213	265	322	715	700	ZG3/4	300	254	83	DN200(8)	56
150	6	292	160	152	235	355	415	848	1100	ZG1	403	292	95	DN250(10)	93
200	8	330	180	203	342	410	527	903	1500	ZG1	492	330	100	DN300(12)	160

PN2.5MPa、PN4.0 Class300

DN	NPS	A	A1	do	H	H1	H2	H3	W	M	L	L1	E	法兰规格 Flange	重量 Weight(kg)
															手动 Hand(PN40)
15	1/2	110	50	15	63	101	126	/	130	ZG3/4	147	110	58.5	DN40(11/2)	7.24
20	3/4	117	55	20	82	101	126	/	160	ZG3/4	147	117	58.5	DN40(11/2)	8.24
25	1	127	60	25	85	106	137	/	160	ZG3/4	156	127	63.5	DN50(2)	11.5
40	1 1/2	165	80	40	100	125	169	/	230	ZG3/4	181	165	62.5	DN65(2 1/2)	18.4
50	2	178	90	51	153	135	179	576	230	ZG3/4	218	178	68	DN80(3)	25.1
80	3	229	120	76	195	217	258	643	400	ZG3/4	275	229	82	DN150(6)	55.4
100	4	254	140	102	213	265	322	715	700	ZG3/4	300	254	83	DN200(8)	76.4
150	6	292	160	152	235	355	415	848	1100	ZG1	403	292	95	DN250(10)	118
200	8	330	180	203	342	410	527	903	1500	ZG1	492	330	100	DN300(12)	200



技术规格/Technical standard

设计标准 Design standard	ANSI B16.34 GB/T12224
结构长度 Face to face dimension	ANSI B16.10 GB/T12227
连接法兰 Flange dimension	ANSI B16.5、JB/T79
驱动方式 Driving manner	手动、电动、气动 Wrench、Electric driving、Air operated
试验和检验 Test and inspection	API 598

注：系列阀门连接法兰尺寸可根据用户要求设计制造。
 Notes: The sizes of serial valve connecting flange can be designed according to customer's requirement.

主要零件材质表/Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	夹套 Jacket	25	A105	5	球体 Ball	25+HCr	A105+HCr
2	阀体 Body	WCB	A216-WCB	6	阀杆 Stem	1Cr13	A247-410
3	阀座 Seat	25	A105	7	填料 Packing	柔性石墨 Graphite	
4	密封圈 Sealing ring	尼龙、对位聚苯 Nylon PTFE、RTFE		8	填料压盖 Gland	WCB	A216-WCB

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。
 Notes: Major parts of the series valve and materials of sealing surface can be chosen according to actual working condition and customer's special requirement.

主要外形尺寸/Main outline dimension

PN1.6~4.0MPa Class150~300

DN(mm)	15	20	25	40	50	80	100	150	200
NPS(in)	1/2	3/4	1	1 1/2	2	3	4	6	8
法兰规格 Flange	15/40	20/40	25/50	40/65	50/80	80/150	100/200	150/250	200/350
L	110	117	127	165	178	229	254	292	330
E	58.5	58.5	63.5	62.5	65	82	83	95	100
G	147	147	156	181	218	275	300	403	492
手动 Hand operated	H	101	101	106	125	135	193	265	355
	L1	130	160	160	230	230	400	700	1100
电动 Electric driving	H1	-	-	-	-	-	643	715	848
	电动装置 Electric driving device	-	-	-	-	-	Q60-1	Q60-1	Q120-1
气动 Pneumatic operated	H2	285	285	305	330	345	440	470	710
	气动装置 Pneumatic operating device	AG06	AG06	AG09	AG09	AG13	AG13	AW13	AW17

用途/Purpose

系列低温球阀主要适用于乙烯、液化天然气等化工装置上，输出的液态低温介质如乙烯、液氧、液氢等。这类介质不但易燃易爆，而且在升温时要气化，气化时，体积膨胀数百倍。而且这些介质渗透力强，易泄漏，加工制造比较困难。

Low temperature ball valves are mainly used in the chemical equipment of ethylene and LNG etc. to handle low temperature liquid medium like ethylene, liquid oxygen, liquid hydrogen and so on. These types of inflammable and explosive medium can be volumetrically expanded by several hundred times when being gasified under temperature rise, and are difficult to manufacture due to their highly penetrative and leaky properties.

结构特性 Structure characteristic

- 承压件的材料能承受介质温度的变化而引起的膨胀、收缩、密封部位的结构在温度变化时不会产生永久的变形。用于-100℃以工况时，阀门零件在精加工前应进行深冷处理，即将零件浸放在液氮箱中进行冷却，当零件温度达到-196℃时，开始保温1~2h，然后取出箱外自然处理到常温，重复循环2次。
- 阀盖采用长颈结构，其目的保护填料函的功能，是填料函处于离低温较远的位置，保证填料的密封效果。同时还可以缠绕保温冷材料，防止冷能损失。长颈的颈长（H，见左图）可根据使用温度和保温冷材料的厚度来选择不同的长度。当填料密封效果降低时，可以从填料函中间（见组合填料结构）加入润滑脂形成油封层、降低填料函的压差，提高密封性能。
- 使用温度低于-100℃时，阀杆材料经过镀铬或氮化处理，提高阀杆表面硬度，提高填料的可靠性。
- 低温球阀具有防止异常升压结构，由于低温阀门介质气化后，其体积急剧膨胀，压力会异常升高，当阀门中腔压力升高时，阀门中腔和进口侧连通，或在阀门进口端安置泄压阀，保证阀门安全使用。
- 低温球阀用的垫片具有在常温下、低温状态及温度变化下能可靠密封性和复原性。

- The materials of compression parts can endure the expansion and shrinkage resulted from the temperature variation of medium ,and seal structure is away from permanent deformation under temperature changes. To work under the conditions below -100℃, the parts of valve shall be subject to deep cooling treatment before precision machining. Namely, have the parts cooled in liquid nitrogen box, when the temperature of parts reaches-196℃, kepp the temperature for 1~2h, then take them out to have them to the normal temperature naturally, and do in this way twice.
- Bonnet is shaped long-necked for the purpose to protect the function of packing box, making packing box somewhat away from low temperature to ensure good seal of packing. Besides, it can be wound with cold insulating materials to prevent loss of cold energy. The length of neck (H, see the drawing on the left) depends on service temperature and the thickness of cold insulating material. When the effect of packing seal turns lower, fill in grease to form up oil seal layer from the middle of packing box (see combined packing structure) to lower the differential pressure of packing box and enhance the dependability of seal.
- To serve a temperature below-100, the material of valve stem shall be treated with chromeplating or nitriding to enhance the surface hardness of valve stem and the sealing dependability of packing.
- Low temperature ball valve takes a structure to avoid abnormal pressure rise. As the medium in low temperature valve is gasified and rapidly expanded in volume, the pressure will goes extremely high. When the pressure in the middle cavity of valve rises, the middle cavity and the inlet side can be communicated, or a relief can be mounted at the inlet side of valve,thus to ensure the safe use of valves.
- The gaskets used on low temperature ball valves may function dependable seal and restoration under normal and low temperature or under the conditions of temperature changes.

技术规格/Technical standard

标准 Standard	API系列	GB系列
基本设计规范 Design codes	ANSI B16.34、JB/T7749	
压力温度等级 Pressure-temperature rating	ANSI B16.34	GB/T12224
结构长度 Face to face dimension	ASME B16.10	
连接法兰 Flange	ASME B16.5	GB/T9113/HG20596
检验与实验 Inspection & test	API598*	JB/T9092*

*低温球阀在常温压力试验合格后，还需进行低温压力试验，其原理见低温阀门型式图。
 Low temperature ball valves shall be subject to pressure test under low temperature after under normal temperature, with its principle is shown at the diaphragm of low temperature ball valves.

低温球阀阀盖加长颈部长度(参考)

 The low temperature ball valve cover extended neck dimension(reference)

公称通径 Nominal pressure		颈部长度 Neck dimension(mm)		
DN	in	≥ -60°C	≥ -100°C	< -100°C
15	1/2	90	110	130
20	3/4	100	110	140
25	1	100	120	150
32	1 1/4	110	120	150
40	1 1/2	110	130	160
50	2	110	130	170
65	2 1/2	120	140	180
80	3	120	150	190
100	4	130	160	200
125	5	130	160	200
150	6	140	170	220
200	8	140	170	220
250	10	150	180	240
300	12	150	180	240
350	14	160	190	250
400	16	160	190	250

公称通径 Nominal pressure		压力等级 Pressure
DN	in	150Lb、300Lb、PN1.6~10.0MPa
15	1/2	△/●
20	3/4	△/●
25	1	△/●
32	1 1/4	△/●
40	1 1/2	△/●
50	2	△/★/●
65	2 1/2	△/★/●
80	3	△/★/●
100	4	△/★/●
125	5	△/★/●
150	6	△/★/●
200	8	△/★/●
250	10	△/★/●
300	12	△/★/●
350	14	△/★/●
400	16	△/★/●

注: ★表示电动操作阀门; △表示气动操作阀门;
 ●表示手柄操作阀门;
 表中未涉及的可按用户的要求制造。

Note: ★Stands for electrically operated valves; △Stands for pneumatic operated valves;
 ●Stands for handle operated valves;
 Those not covered in the table can be made according to users' requirements

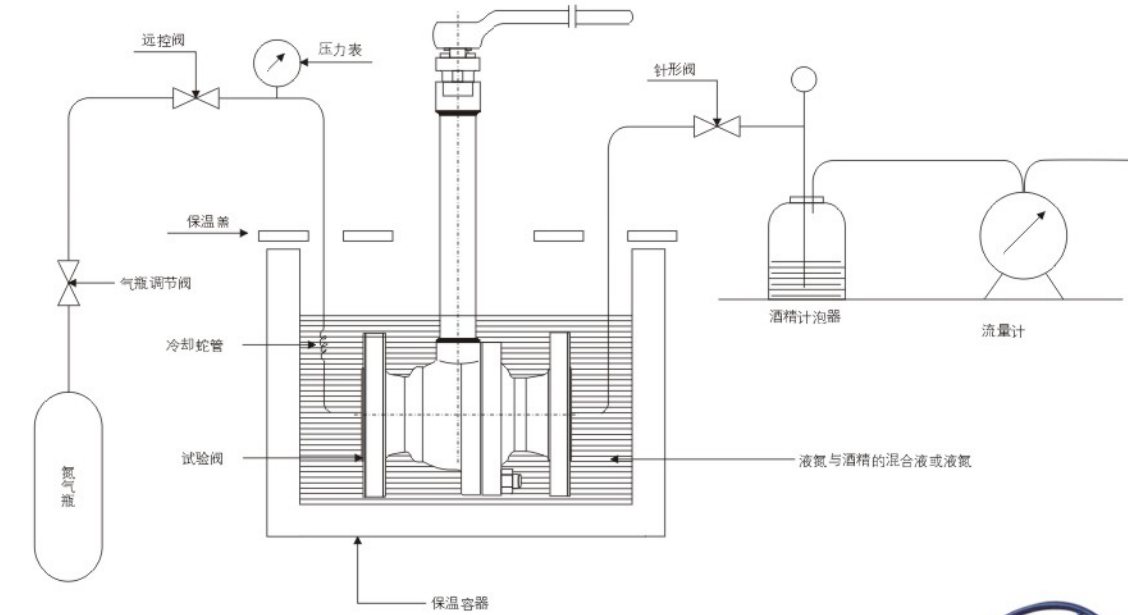
球阀阀体低温材料最低使用温度

 The lowest temperature of the ball valve body material

锻件 Forged		铸件 Steel	
材料 Material	最低温度 Lowest temperature	材料 Material	最低温度 Lowest temperature
ASTMA350LF2	-45.6°C	ASTM A352 LCB、LCC	-46°C
ASTMA350LF2	-59.4°C	ASTM A352 LC1	-59°C
ASTMA350LF9	-73.3°C	ASTM A352LC2	-73°C
ASTMA350LF3	-101.1°C	ASTM A352 LC3	-101°C
ASTMA182F304	-254°C	ASTM A351 CF8	-254°C
ASTMA182F316	-254°C	ASTM A351 CF8M	-254°C
ASTMA182F304L	-254°C	ASTM A351 CF3	-254°C
ASTM A182F316L	-254°C	ASTM A351 CF3M	-254°C

低温球阀型式试验/Test of low temperature ball valves:

按照有关标准要求,低温球阀型式试验在常温压力试验合格后,还需进行低温压力试验。其原理图如下:
 In accordance with the requirements of relative standards, the test of low temperature ball valves shall be carried out under both normal and low temperatures. With its principle as following:



低温型式试验装置

低温球阀主要外形连接尺寸

 Main outline dimensions of low temperature ball valves

低温球阀的主要外形连接尺寸参照侧装式浮动球阀和固定球阀,阀门高度尺寸在其基础上加长颈的高度,故不再列尺寸表。

The main outline dimensions of low temperature ball valve may be referred to side-mounted floating ball valve and fixed ball valve, with the height of valve being the height of the long neck added to that basis, so dimensions list is omitted here.



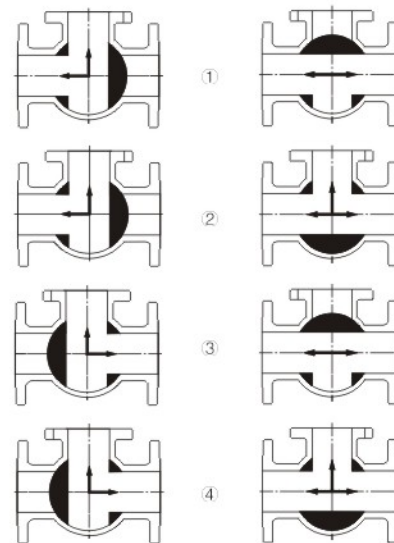
三通球阀制造规范
Three way ball valve manufacture standard

标准Standards	API系列API Series	GB系列GB Series
基本设计规范 Design standards	ANSI B 16.34	
压力温度等级 Pressure temperature rating	ANSI B 16.34	GB/T12224
结构长度 Face to face dimension	ASME B 16.10	
连接法兰 Flange	ASME B 16.5 GB/T9113	
检验与试验 Inspection and test	API598	JB/T9092

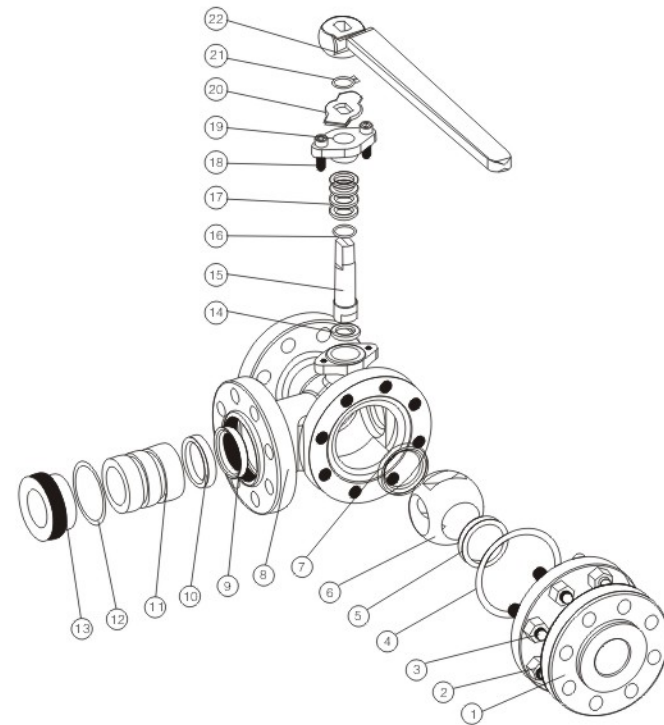
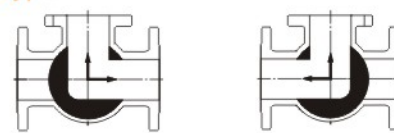
阀门结构示意图 (侧装浮动式爆炸图)
Structural diaphragm (Side entry floating type explosion diaphragm)

序号No.	零件名称 Name of part	序号No.	零件名称 Name of part
1	阀盖 Bonnet	12	O型圈 O-ring
2	螺母 Nut	13	螺塞 Insert plug
3	螺栓 Bolt	14	阀杆 Stem
4	垫片 Gasket	15	垫片 Stem washer
5	密封圈1 Seat ring1	16	填料 Stem packing
6	球体 Ball	17	螺钉 Gland screw
7	密封圈2 Seat ring2	18	填料压盖 Gland
8	阀体 Body	19	限位片 Stop plate
9	密封圈3 Seat ring3	20	挡圈 Snap ring
10	密封圈4 Seat ring4	21	手柄 Lever
11	阀座 Seat		

T型通口/T type



L型通口/L type



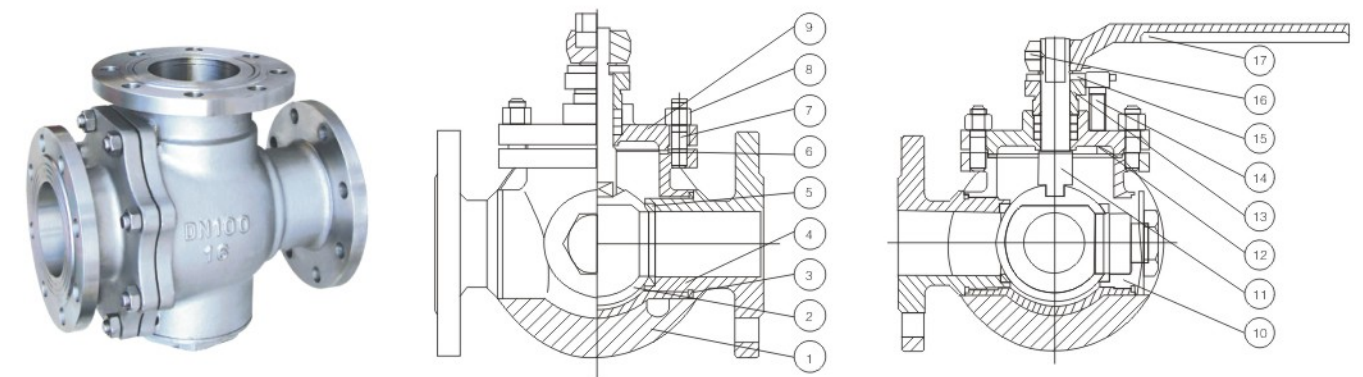
球阀功能/Ball valve purpose

三通球阀适用于在-46°C~+200°C温度下对腐蚀或非腐蚀性液体、气体、粉末介质实现切换、混合和分流；开闭过程中，流路通畅减小了压力损失，操作省力、维修方便；五种流向（见右图：L型一种、T型四种）类型满足不同工艺要求，可进行手、气动、电动控制。

Three way ball valves are used to switch, mix and divide the flow of corrosive or non corrosive liquid, gas or power mediums. Upon opening and closing, the smooth flow channel effects less pressure loss, making operation quite labor-saving and maintenance fairly easy. The five types of flow direction (figure on the right, 1 for L-shaped and 4 for T-shaped) to meet different technological requirements. It can be hand, pneumatic and electrically operated.

结构特点/Structural characteristic

- 1、阀座可设计成四面座浮动球和固定球，流态稳定，密封可靠；
 - 2、结构可设计成侧装式和顶装式，双向密封设计；流向切换绝无串流；
 - 3、防飞出阀杆设计；
 - 4、防静电设计；
 - 5、两位（开合关位置）锁定设计。
- 1、Valve seat can be designed into four-side floating ball and fixed ball, with smooth fluid state and reliable seal;
- 2、The structure may be designed into side installed type and top installed type, with two way seal, no series flow upon switch of flow direction;
- 3、Anti-flyout design of valve stem;
- 4、Antistatic design;
- 5、Two position (ON and OFF) lockup design.



阀门结构示意图 Structural diaphragm

序号No.	零件名称 Name of part	序号No.	零件名称 Name of part
1	阀体 Body	10	阀座圈 Seat retainer
2	球体 Ball	11	阀杆 Stem
3	O型圈 O-ring	12	填料 Stem packing
4	法兰盘 Adapter	13	填料压盖 Packing gland
5	密封圈 Seat ring	14	限位螺钉 Stop screw
6	垫片 Gasket	15	限位片 Stop plate
7	螺栓 Bolt	16	紧定螺钉 Set screw
8	螺母 Nut	17	手柄 Lever
9	阀盖 Bonnet		

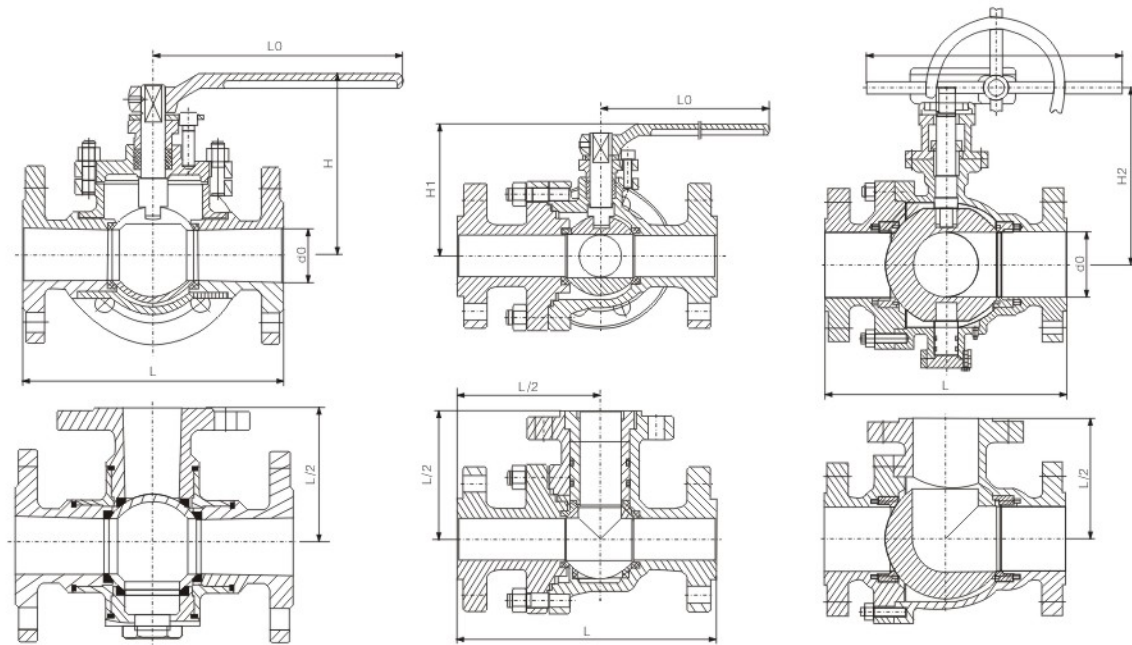
供货范围/Products scope

公称通径 Nominal size		压力等级 Class	
DN	in	150	300
15	1/2	●	●
20	3/4	●	●
25	1	●	●
32	1 1/4	●	●
40	1 1/2	●	●
50	2	●	●
65	2 1/2	●	●
80	3	●	●
100	4	●	●
125	5	●	●
150	6	☆	☆
200	8	☆	☆
250	10	☆	☆

注: Note: ●表示手柄操作阀门 Stands for handle operated valves;
☆表示齿轮箱操作阀门 Stands for worm gear operated valves;
—表示没有此选项,表中未涉及的可按用户的要求制造。Stands for no option of this. Those not covered in the table can be made according to users' requirements.

主要零部件材料(侧装式结构)/Main parts materials(Side entry type)

序号 No.	零件名称 Name of part	材料 Material			序号 No.	零件名称 Name of part	材料 Material		
		碳钢 Carbon steel	不锈钢 Stainless steel	低温钢 Low temperature steel			碳钢 Carbon steel	不锈钢 Stainless steel	低温钢 Low temperature steel
1	阀盖 Bonnet	A216 WCB	A351 CF8M	A352 LCB	12	O型圈 O-ring	氟橡胶 Viton		
2	螺母 Nut	A194 2H	A194 8	A194 4	13	螺塞 Insert plug	A105+ENP	A182 F316	A350 LF3
3	螺柱 Bolt	A193 B7	A193 B8	A320 L7	14	阀杆 Stem	A182 F6a	A182 F316	A182 F316
4	垫片 Gasket	柔性石墨+SS Flexible graphite+SS			15	垫片 Gasket	PTFE/RPTFE		
5	密封圈 Seat ring	PTFE/RPTFE			16	填料 Stem packing	PTFE/柔性石墨 PTFE/Flexible graphite		
6	球体 Ball	A105+ENP	A182 F316/A351 CF8M	A350 LF3/A352 LCB	17	螺钉 Screw	A193 B7	A193 B8	A320 L7
7	密封圈 Seat ring	PTFE/RPTFE			18	填料压盖 Packing gland	A216 WCB	A351 CF8M	A352 LCB
8	阀体 Body	A216 ENP	A351 CF8M	A352 LCB	19	限位片 Stop plate	A105+ENP		
9	密封圈 Seat ring	PTFE/RPTFE			20	挡圈 Snap ring	65Mn		
10	密封圈 Seat ring	PTFE/RPTFE			21	手柄 Lever	Q235A		
11	阀座 Seat retainer	A105+ENP	A182 F316	A350 LF3					



主要外形尺寸和重量/Main outline dimensions & weight

PN1.6MPa Class 150

DN	NPS	L	d0	H	H1	H2	L0	W	重量 Weight(kg)	
									PN1.6	Class 150
15	1/2	140	13	90	70	/	160	/	/	3
20	3/4	150	15	106	86	/	230	/	/	4
25	1	160	25	109	88	/	230	/	/	6
32	1 1/4	/	32	125	106	/	400	/	/	10
40	1 1/2	210	38	149	132	/	400	/	/	14
50	2	220	51	154	137	/	400	/	/	20
65	2 1/2	250	64	189	162	/	700	/	/	25
80	3	260	76	198	170	/	700	/	/	32
100	4	330	102	254	229	/	1050	/	/	45
125	5	430	127	273	247	/	1050	/	/	/
150	6	510	152	/	/	314	/	450	/	/
200	8	580	203	/	/	430	/	600	/	/
250	10	670	250	/	/	475	/	600	/	/

PN2.5、4.0MPa Class 300

DN	NPS	L	d0	H	H1	H2	L0	W	重量 Weight(kg)	
									PN2.5	PN4.0
15	1/2	140	13	90	70	/	160	/	3	3
20	3/4	150	15	106	86	/	230	/	4	4
25	1	160	25	109	88	/	230	/	6.5	6.5
32	1 1/4	/	32	125	106	/	400	/	11	11
40	1 1/2	210	38	149	132	/	400	/	15	15
50	2	220	51	154	137	/	400	/	21.5	21.5
65	2 1/2	250	64	189	162	/	700	/	/	/
80	3	260	76	198	170	/	700	/	35	35
100	4	330	102	254	229	/	1050	/	49	49
125	5	430	127	273	247	/	1050	/	/	/
150	6	510	152	/	/	314	/	450	/	/
200	8	580	203	/	/	430	/	600	/	/
250	10	670	250	/	/	475	/	600	/	/

球阀功能/Function

四通球阀在电站系统中称为双向供水转阀(在石化系统中也称空气换向切换阀),适用于液体、气体、粉尘、浆料及含固体颗粒介质的循环系统。如:电站机组冷却器正反向循环供水系统。传统工艺配管方式实现冷却正反循环供水,该装置所占空间大、成本高、操作烦琐(每次切换需操作四个阀门)、正向供水时阀1、3开启,阀2、4关闭;反向供水时阀2、4开启,阀1、3关闭。(见图1)采用四通球阀替代该工艺管汇和阀组的工作原理,简化程序、方便操作、降低成本、便于控制、同步性好。(见图2)

FUNCTION Four-way ball valve is also called multi-way water servicerotary valve in power stations, and air reversing change over valve in petrochemical system. They are applicable for circulating system of liquid, gas, dust, slurry and medium containing solid particles. For example, the forward and reverse circulating water supply system of unit cooler in power station. The conventional piping for forward and reverse circulating water supply has the defects of large occupation, high cost, complicated operation(to operate four valves for each changeover), for forward water supply, valve 1 and 3 to be opened and valve 2 and 4 to be closed, for reverse water supply, valve 2 and 4 to be opened and valve 1 and 3 to be closed. (See figure 1). Use of four-way ball valve in stead of the conventional piping and valve group can simplify operational procedures, lower the cost, facilitate the control and improve its asynchronism. (See figure 2)

结构特点/Structural Features

- 1、针对电力系统冷却器正反向供水特定工艺过程设计,功能适用、可靠;
- 2、顶装式固定球四面座阀芯结构密封性能好、耐砂粒磨损、使用寿命长;
- 3、电动、气动操作(必要时可切换到手动操作);
- 4、便于控制控制箱与阀门间以及与上位机之间有良好的信息通道和操作介面;并可按工艺要求实现在一定时间间隔正反供水的自动切换。

- 1、Designed to meet the process of forward and reverse water supply of coolers in electric power system, with suitable and dependable functions;
- 2、Top mounted fixed ball four-side seated valve core, with sound sealing performance, resistance to sand abrasion, and long service life;
- 3、Electric and pneumatic operation (switched to hand operation if necessary);
- 4、Facilitated control. Good information channel and operating interface between control cabinet and valve, and upper-level machine. If requested, automatic sitchover of forward and reverse water supply may be actualized by a certain interval.

控制系统/Control System

四通球阀即可就地现场控制,也可以通过控制箱中央控制系统实施远程集中控制。控制介面功能如下:

Four-way ball valve may be field controlled, or through control cabinet or central control system for remote centralized control. The functions of control interface as follows:

一、开关 Switch

- 1、电源开关 Power Switch
- 2、现场控制/远程控制转换开关 Field Control/Remote Control Changeover Switch
- 3、手动循环/自动循环转换开关 Manual Circulation/Automatic Circulation Changeover Switch

二、按钮 Button

- 1、正向供水 Forward Water Supply
- 2、反向供水 Reverse Water Supply
- 3、暂停 Pause

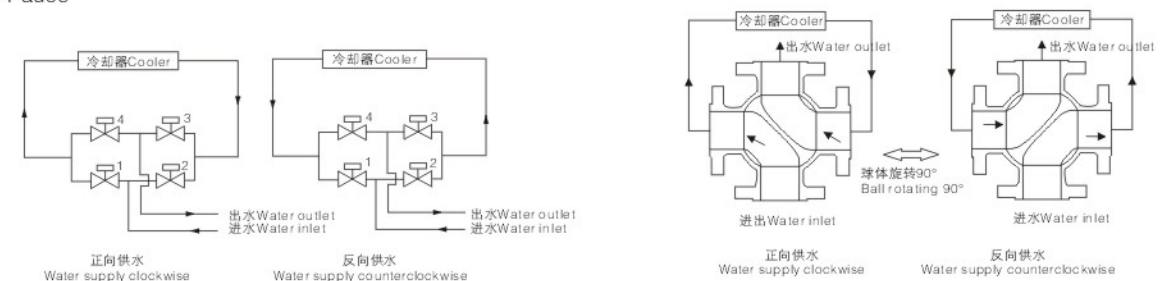
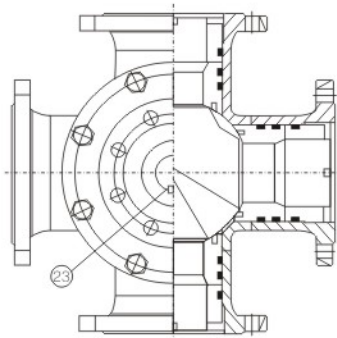
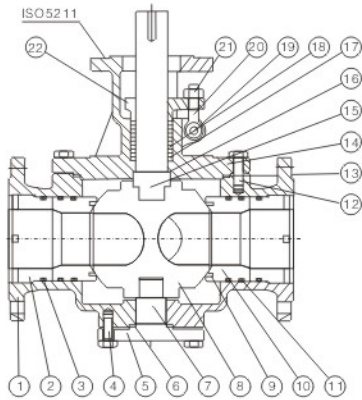


图1 Figure 1

图2 Figure 2

四通球阀制造规范/4-way ball valve manufacture norms

标准 Standards	API系列 API series	GB系列 GB series
基本设计规范 Design codes	ANSI B16.34	
压力温度等级 Pressure/Temperature rating	ANSI B16.34	GB/T12224
结构长度 Face to face dimensions	ASME B16.10	
连接法兰 Flange ends	ASME B16.5	GB/T9113/HG20596
检验与实验 Inspection test	API 598	JB/T9092



电气参数
 Electrical Parameters:
 电源AC 280V/50HZ,环境温度-20~+40°C
 Power supply AC 380V/50HZ, ambient temperature -20~+40°C.,
 相对湿度≤90% (25°C时), 防护等级IP67,
 relative humidity =90% (at 25%), level of protection Ip67,
 电气原理图 以使用说明书为准。
 schematic electrical diagram subject to instruction manual.

三、指示灯 Indicator Light

1. 电源指示
Power Indicator
2. 正向供水指示
Forward Water Supply Indicator
3. 反向供水指示
Reverse Water Supply Indicator
4. 中位停顿指示
Middle Position Pause Indicator(Flash and Alarm upon Overtime Pause)

5. 阀门或电装卡阻过力矩指示 (闪烁并报警)
 Valve or Electric Fitting Jammed Over-moment Indicator (Flash and Alarm)

- 四、开度指示表 Opening Indicator
- 五、与上位机通讯 Communication with Upper Machine

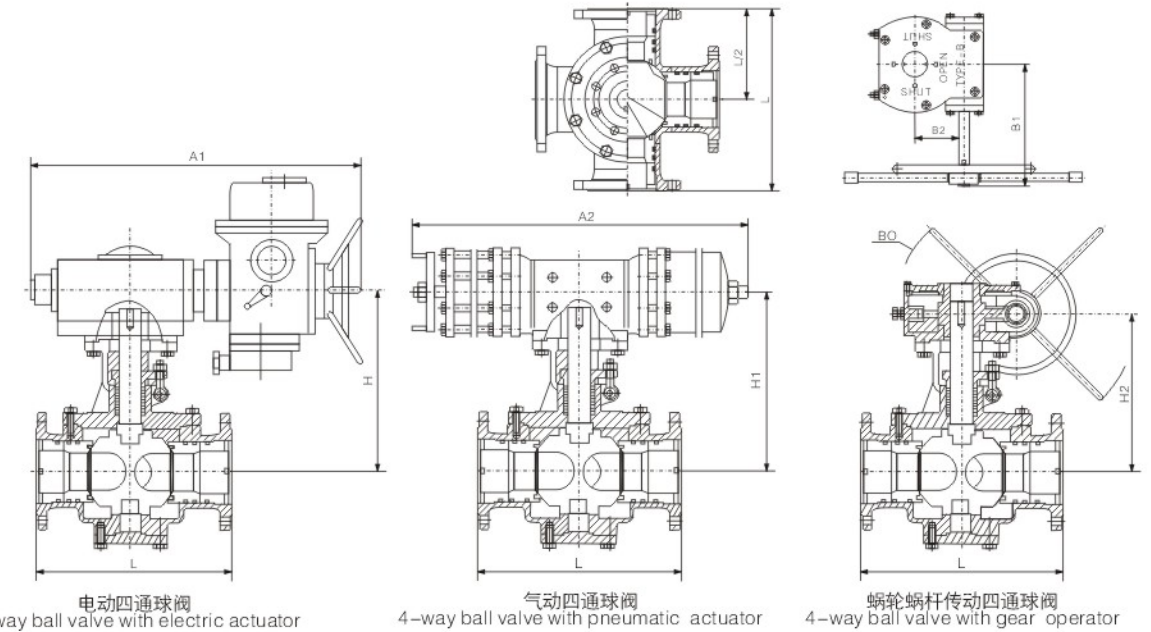
主要零部件材料/Main parts materials

序号No.	零件名称 Name of part	材料 Material		
		碳钢 Carbon steel	不锈钢 Stainless steel	低温钢 Low temperature steel
1	阀体 Body	A216 WCB	A351 CF8M	A352 LCB
2	锁紧螺母 Insert	A105+ENP	A182 F316	A350 LF3
3	O型圈 O-ring	氟橡胶 Viton		
4	螺栓 Screw	A193 B7	A193 B8	A320 L7
5	底盖 End plate	A105+ENP	A182 F316	A350 LF3
6	垫片 Gasket	柔性石墨 Flexible graphite+SS		
7	下阀杆 Lower stem	A182 F6a	A182 F316	
8	球体 Ball	A105+ENP	A182 F316/A351 CF8M	A350 LF3/A352 LCB
9	密封圈 Seat ring	PTFE/RPTFE		
10	阀座 Seat retainer	A105+ENP	A182 F316	A350 LF3
11	O型圈 O-ring	氟橡胶 Viton		
12	螺栓 Bolt	A193 B7	A193 B8	A320 L7
13	垫片 Body gasket	柔性石墨+SS Flexible graphite+SS		
14	阀盖 Bonnet	A216 WCB	A351 CF8M	A352 LCB
15	阀杆 Stem	A182 F6a	A182 F316	A182 F316
16	垫片 Thrust washer	PTFE+SS		
17	填料垫 Packing gasket	A182 F6a	/	A182 F6a
18	填料 Stem packing	柔性石墨+SS Flexible graphite/PTFE		
19	销轴 Pin	A182 F6a		
20	活接螺栓 Eyebolt	A193 B7	A193 B8	A320 L7
21	螺母 Eyebolt	A194 2H	A194 8	A 194 4
22	填料压盖 packing gland	A216 WCB	A351 CF8M	A352 LCB
23	键 Key	ANSI 1215		

供货范围/Supply scope

公称口径Nominal size		压力等级 Class	
DN	in	150Lb	PN1.0\1.6\2.5MPa
50	2	Δ/★/☆	Δ/★/☆
65	2 1/2	Δ/★/☆	Δ/★/☆
80	3	Δ/★/☆	Δ/★/☆
100	4	Δ/★/☆	Δ/★/☆
125	5	Δ/★/☆	Δ/★/☆
150	6	Δ/★/☆	Δ/★/☆
200	8	Δ/★/☆	Δ/★/☆
250	10	Δ/★/☆	Δ/★/☆
300	12	Δ/★/☆	Δ/★/☆
350	14	Δ/★/☆	Δ/★/☆
400	16	Δ/★/☆	Δ/★/☆
450	18	Δ/★/☆	Δ/★/☆
500	20	Δ/★/☆	Δ/★/☆

注: ●表示手柄操作阀门
 stands for handle operated valves;
 ☆表示齿轮箱操作阀门
 Stars for gearbox operated valves;
 表示未涉及的可按用户的要求制造。
 Those not covered in the table can be custom made
 to users' requirements.

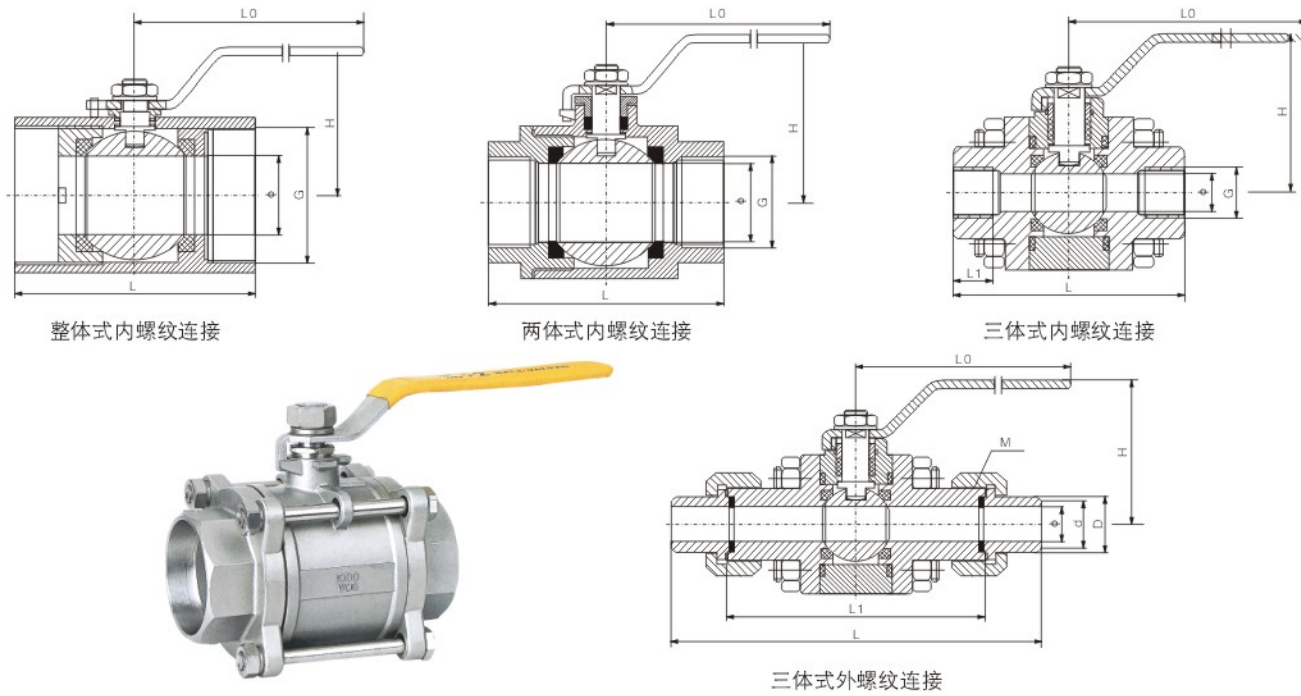


主要外形尺寸/Main outline dimensions

DN	NPS	L	do	H	A1	H1	A2	H2	Bo	B1	B2	PN1.0 1.6MPa
												重量Weight(kg)
												G.O
50	2	265	51	220	433	217	405	200	250	106	52	28
65	2 1/2	280	64	295	433	248	405	260	250	106	52	48
80	3	310	76	367	433	335	574	320	250	106	52	87
100	4	370	102	440	520	412	574	400	300	143	80	137
125	5	440	127	535	520	495	756	500	300	143	80	240
150	6	510	152	660	520	613	756	600	400	200	108	270
200	8	580	203	870	520	824	756	800	400	200	108	585
250	10	665	250	1080	896	1025	1060	1000	600	200	108	765
300	12	760	305	1200	896	1176	1060	1160	600	200	108	1121
350	14	850	337	1250	896	1239	1360	1225	800	330	140	1450
400	16	940	387	1420	910	1388	1360	1350	800	330	140	1780
450	18	1050	438	1610	910	1596	1360	1575	800	330	140	2435
500	20	1180	489	1830	910	1725	2910	1750	1000	370	220	3108

DN	NPS	L	do	H	A1	H1	A2	H2	Bo	B1	B2	CLASS150
												重量Weight(kg)
												G.O
50	2	265	51	390	433	217	405	200	250	106	52	28.5
65	2 1/2	280	64	420	433	248	405	260	250	106	52	49
80	3	350	76	490	520	335	574	320	250	106	52	87
100	4	420	102	570	520	412	574	400	300	143	80	139
125	5	490	127	680	520	495	756	500	300	143	80	240
150	6	580	152	830	896	613	756	600	400	200	108	270
200	8	640	203	1020	896	824	756	800	400	200	108	585
250	10	740	250	1140	896	1025	1060	1000	600	200	108	765
300	12	820	305	1220	896	1176	1060	1200	600	200	108	1125
350	14	910	337	1390	910	1239	1360	1225	800	330	140	1455
400	16	1000	387	1580	910	1388	1360	1350	800	330	140	1785
450	18	1150	438	1790	910	1596	1360	1575	800	330	140	2467
500	20	1300	489	1960	936	1725	2910	1750	1000	370	220	3150

法兰尺寸见附表 Flange dimensions refer to Annexes.



主要外形尺寸/Main outline dimensions PN1.6~4.0MPa

内螺纹连接 Internal thread screw connecting

DN (mm)	整体式 One-sided type					两体式 Two-sided type					三体式 Three-sided type					
	φ	G	L	L0	H	φ	G	L	L0	H	φ	G	L	L1	L0	H
6	4.2	1/4	40	80	22	10	1/4	55	95	42						
10	6	3/8	45	80	26	10	3/8	55	95	42	12	3/8	65	12	95	46
15	8	1/2	57	88	31	15	1/2	64	108	51	15	1/2	75	14	110	46
20	12	3/4	60	88	34	20	3/4	75	115	58	20	3/4	85	16	110	54
24	15	1	72	105	38	25	1	85	135	77	25	1	90	18	140	65
32	19	1 1/4	79	105	43	32	1 1/4	102	150	83	32	1 1/4	112	20	140	69
40	24	1 1/2	85	124	50	38	1 1/2	108	175	97	38	1 1/2	120	22	155	76
50	32	2	101	124	57	50	2	124	190	106	50	2	145	24	180	86
65	-	-	-	-	-	65	2 1/2	163	220	122	65	2 1/2	170	28	220	120
80	-	-	-	-	-	80	3	185	250	133	80	3	200	32	260	150

主要外形尺寸/Main outline dimensions PN1.6~4.0MPa

外螺纹连接 Outer thread screw connecting

DN (mm)	外螺纹连接 Outer thread screw connecting							
	φ	d	D	L	L1	L0	M	H
6	8	10	14	150	85	96	20×1.5	57
10	10	12	18	150	85	96	24×1.5	57
15	15	17	22	175	108	110	30×2	68
20	20	22	28	190	120	120	36×2	70
25	25	27	33	200	132	135	42×2	80
32	32	34	40	230	158	160	52×2	84

用心 服務
團隊 協作
認真 做事
誠信 待人