



DC1621 套筒导向型单座调节阀

Sleeve-guided single-seat control valve

专业提供过程控制阀门解决方案
Professionally provide process control valve solutions
Rev.2020





企业简介 Company profile

浙江东辰阀门科技有限公司（原杭州东辰热力辅机有限公司）成立于2006年，专业设计、制造特种阀门，各种高中压调节阀、减温减压器、汽机旁路阀、锅炉给水调节阀、最小流量阀、闸阀、球阀、蝶阀、截止阀、止回阀、排污阀等阀门及相关的汽轮机辅机、锅炉辅机。产品广泛应用于各种参数的燃煤火电机组，燃机热电联产项目以及炼油、化工、冶金、集中供热等领域。

公司拥有一批专业从事阀门设计和开发的技术人员，掌握着国内外领先的阀门专业技术，有着丰富的设计、制造和现场调试经验。产品最高压力等级为PN76MPa，最高温度620℃，应用于最大单机容量为1030MW超超临界机组。

公司目前有40多项发明专利和实用新型专利，经过多年发展建立了一套完整的符合《特种设备生产和充装单位许可规则》的压力管道元件制造管理体系，并取得国家市场监管总局颁发的TS特种设备制造许可A1级证书，许可项目为电动调节阀、气动调节阀、闸阀、截止阀、止回阀、球阀、蝶阀、减温减压装置。取得中国质量认证中心CQC颁发的ISO9001质量管理体系认证，ISO14001&45001环境与职业健康安全体系认证。

公司被评为国家高新技术企业，浙江省科技型企业，浙江省守合同重信用AAA单位，浙江省阀门研发中心，浙江省信用管理示范单位，安全生产标准化单位，同时也是中国阀门协会成员单位，中国石油化工热工协会理事单位；现已成为中石油、中石化、中海油、中国神华、中核集团、华能、华电、国电、大唐、中电投、浙能集团等合格供应商。

结合市场特点，公司在技术创新，产品选型、投标、合同签订、产品设计、工艺制造、检验试验，供货安装、运行调试、售后服务、以及用户回访等各个环节，都严格遵循质量管理体系程序。

Zhejiang Dongchen Valve Technology Co., Ltd. (formerly Hangzhou Dongchen Heating Auxiliary Machinery Co., Ltd.) was established in 2006. It specializes in designing and manufacturing special valves, various high and medium pressure regulating valves, temperature reducing and reducing devices, steam turbine bypass valves, and boiler feed water. Regulating valve, minimum flow valve, gate valve, ball valve, butterfly valve, globe valve, check valve, blowdown valve and other valves and related steam turbine auxiliary equipment, boiler auxiliary equipment. The products are widely used in various parameters of coal-fired thermal power units, gas-fired combined heat and power projects, as well as in the fields of oil refining, chemical industry, metallurgy, and central heating.

The company has a group of technical personnel who are specialized in valve design and development, mastering the leading valve technology at home and abroad, and has rich experience in design, manufacturing and field commissioning. The highest pressure level of the product is PN76MPa, the highest temperature is 620 ° C, and it is used in ultra-supercritical units with a maximum single-unit capacity of 1030MW.

The company currently has more than 40 invention patents and utility model patents. After many years of development, it has established a complete set of pressure pipeline component manufacturing management system that complies with the "Special Equipment Production and Filling Unit Licensing Rules" and has been issued by the State Administration of Market Supervision. TS special equipment manufacturing license A1 certificate, the approved items are electric regulating valve, pneumatic regulating valve, gate valve, globe valve, check valve, ball valve, butterfly valve, temperature reducing and reducing device. Obtained ISO9001 quality management system certification, ISO14001 & 45001 environmental and occupational health and safety system certification issued by China Quality Certification Center CQC.

The company has been rated as a national high-tech enterprise, a science and technology enterprise in Zhejiang Province, an AAA unit in Zhejiang Province that abides by its contract, and is a AAA unit in Zhejiang Province. Member of China Petrochemical Thermal Engineering Association; has now become a qualified supplier of PetroChina, Sinopec, CNOOC, China Shenhua, China Nuclear Group, Huaneng, Huadian, Datang, China Power Investment Corporation, Zhejiang Energy Group.

Combining market characteristics, the company strictly follows the quality management system in all aspects of technological innovation, product selection, bidding, contract signing, product design, process manufacturing, inspection and testing, supply and installation, commissioning, after-sales service, and customer return visits. program.

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◆ 主要特点 Main features

套筒导向型单座调节阀是东辰公司设计的应用最广泛的通用调节阀。

套筒导向型单座调节阀的基本型为直通式阀体、非平衡阀芯、套筒导向的单座调节阀，广泛应用于常规工况。

特殊设计的阀芯能够减小最小可调节流量及阀芯侵蚀，提高阀门的可调比。与传统的仿形轮廓阀芯相比，该系列产品压力恢复系数高，能够在可压缩流体场合下保证高流量及降低液体场合的气蚀的风险和效应。

非平衡型仿形轮廓阀芯结构，特别适用于浆料、聚合物、结晶体、高温流体以及含有杂质的场合，最大阀体尺寸8”，波纹管密封、高温夹套、散热片型或延长型阀盖的设计以适应特殊应用场合。

套筒导向型单座调节阀通常配用DOCN气动薄膜多弹簧执行机构，气缸式单双作用执行机构，电动或液动执行机构也可根据要求选配。

Sleeve oriented single seat control valve is the most widely used universal control valve designed by Dongchen company.

The basic types of sleeve guide single seat regulating valve are straight through valve body, unbalanced spool and sleeve guided single seat regulating valve, which are widely used in conventional working conditions.

The specially designed valve core can reduce the minimum adjustable flow and erosion of valve core, and improve the adjustable ratio of valve. Compared with the traditional profiling profile spool, this series of products have high pressure recovery coefficient, which can ensure high flow rate and reduce the risk and effect of cavitation in the case of compressible fluid.

The non-equilibrium profiling profile spool structure is especially suitable for slurry, polymer, crystal, high temperature fluid and impurity containing occasions. The maximum valve body size is 8", and the design of bellows seal, high temperature jacket, radiator type or extended valve cover is suitable for special applications.

Sleeve guide single seat control valve is usually equipped with docn pneumatic diaphragm multi spring actuator, cylinder type single double acting actuator, electric or hydraulic actuator can also be selected according to requirements.

◆ 标准规格 Standard specification 本体部 Body

型式 Type	不平衡阀芯型，球型直通单座 Unbalanced plug
公称通径 Body size	NPS 1/2"-8"(DN 15-DN200)
阀芯形状 Plug form	仿形轮廓Contoured plug (本体部构造结构图见图1) (see Figure 1 for the structure of the main body)
流向 Flow to	标准流向为流开式 Flow to open, 流关(Flow to close)可选
流量系数 Rated CV	请参见表5-阀门CV对照表 See Table 5 – valve CV comparison table
流量特性 Characteristics	线性(也可适用于开关场合)，等百分比EQ% Linear (also suitable for switching applications), equal percentage EQ%
阀内件材质 Trim material 阀内件处理 Trim treatment	请参见表4-标准材质组合 See Table 4 – standard material combinations
公称压力 Body ratings	符合GB/T12224、EN 12516-1及ASME B16.34, 具体详见表1-压力等级尺寸对照表 In accordance with GB/t12224, en 12516-1 and ASME B16.34, see Table 1 – comparison table of pressure class dimensions for details
连接方式 Body connections	GB/T12224、ANSI, EN法兰连接 (RF,RTJ) GB/T12224、ANSI B16.25 BW 对焊连接 (BW) UNI EN 12627 对焊连接 (BW) GB/T12224、承插焊连接, ≤2" (SW)
法兰距 Face to Face dimension	请参见表2 See table 2
阀体上盖材质 Body&Bonnet material	请参见表4-标准材质组合 See Table 4 – standard material combinations
上阀盖型式 Bonnet type(上盖结构图参见图1) (refer to figure 1 for the structural drawing of the upper cover)	标准型 Standard type -29°C - 230°C 散热型 Heat dissipating type -29°C - 566°C 深冷型 Cryogenics -196°C - 55°C
填料Packing (填料使用压力温度范围见表6)(see Table 6 for the pressure and temperature range of packing)	尼龙纤维增强型PTFE填料: ≤250°C-150bar (PN16) 柔性纯石墨填料组合, 无实际温度限制(氧化性介质最高250°C) 纯PTFE填料(用于氧气场合): ≤200°C - 150bar (PN16) Nylon fiber reinforced PTFE filler: ≤ 250 °C - 150bar (PN16), Flexible pure graphite packing combination, no actual temperature limit (max 250 °C for oxidizing medium) Pure PTFE packing (for oxygen): 200 °C - 150bar (PN16)
垫圈 Gasket	请参见表4-标准材质组合 See Table 4 – standard material combinations
泄漏等级 Leakage class	符合 GB/T4213或IEC60534-4, 非平衡型阀芯结构在最高允许温度下均可达最高VI级。 GB/t4213 or iec60534-4, the structure of non-equilibrium valve core can reach the highest level VI under the maximum allowable temperature.
可选特殊结构 Options	经过认证的低排放型填料、防砂型结构, 特殊规格参见表3. Certified low emission packing and sand proof structure, see Table 3 for special specifications
表面涂层色 Painting color	阀本体标准色为灰色, 执行机构为绿色, 具体可根据客户要求 The standard color of the valve body is gray, and the actuator is green, which can be specified according to the customer's requirements

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◆表1 压力等级与尺寸对照表 Table1 pressure ratings

压力等级 Pressure rating													
ANSI	150	300	600	900	1500	2500	ANSI	150	300	600	900	1500	2500
PN	10/16	25/40	63/100	160	250	420	PN	10/16	25/40	63/100	160	250	420
DN							DN						
3/4"	20	■	■	■	■	■	8"	200	■	■	■	■	■
1"	25	■	■	■	■	■	10"	250					
1 1/2"	40	■	■	■	■	■	12"	300					
2"	50	■	■	■	■	■	14"	350					
3"	80	■	■	■	■	■	16"	400					
4"	100	■	■	■	■	■	20"	500					
6"	150	■	■	■	■	■	(1)	24"	600				

(1)可根据客户要求定制

(2)超出套筒导向型单座调节阀尺寸范围, 请选用套筒调节阀

(1) Can be customized according to customer requirements

(2) It is beyond the size range of sleeve guide single seat regulating valve, please select sleeve regulating valve

◆表2 压力等级与尺寸对照表 Table2 pressure Ratings

DN	法兰距 Face to face dimension (尺寸A)															
	ANSI 150		ANSI 300		ANSI 600		ANSI 900		ANSI 1500		ANSI 2500					
	PN10/16	PN40	PN63/100	PN160	PN250	PN420	RF	BW	RF	RJ	BW	RJ				
1/2"	184	203	190	203	203	201	203	273	279	/	318	279	273	318	318	318
3/4"	184	206	194	206	206	206	206	273	273	279	273	273	279	318	318	318
1"	184	210	197	210	210	210	210	273	273	279	273	273	279	318	318	318
1 1/2"	222	251	235	251	251	251	251	333	333	330	333	330	381	384	359	
2"	254	286	267	286	286	289	286	375	378	375	375	378	375	413	416	400
3"	298	337	317	337	337	340	337	441	444	460	460	463	460	660	666	498
4"	352	394	368	394	394	397	394	511	514	530	530	533	530	737	747	575
6"	451	508	473	508	508	511	508	714	717	768	768	774	768			
8"	543	610	568	610	610	613	610	781	784	832	838	848	832			

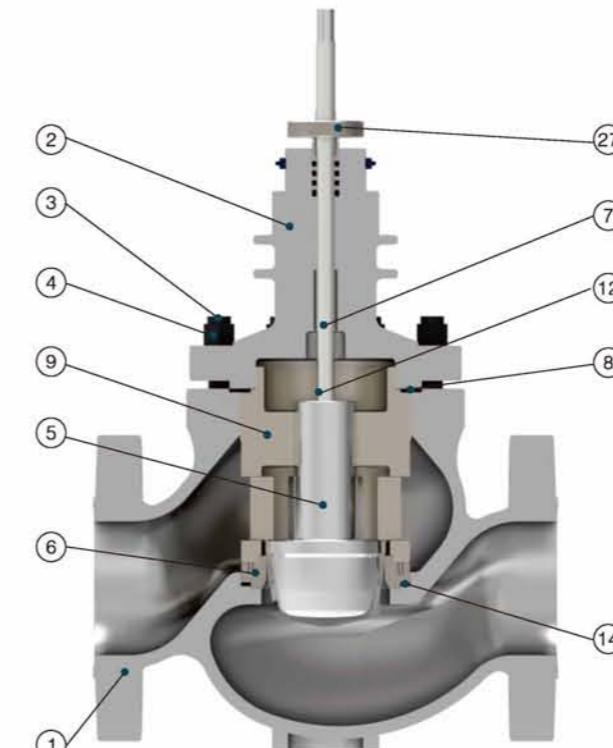
◆表3 特殊规格(有偿) Table 3 optional special specifications (additional cost is required)

本体部特殊检查 Special testing for body	材料化学成分检查、液体渗透探伤检查(PT)、射线检验(PT)、磁粉探伤(PT)、低温试验、蒸汽试验、流量特性检查等等 Material certification, PT, RT, MT, Cryogenic Test etc.
本体部特殊清洗 Special cleaning for body	完全禁油、除水处理 Oxygen clean、water-free
本体部及执行机构特殊规格 Special specification for body&actuator	防砂、防尘型、防盐腐蚀型、寒冷地区用、无铜处理特殊、空气配管及特殊气接头、真空工作条件用、接触大气部门的螺栓螺母采用不锈钢、制定涂色等等 Sand proof, dust-proof, salt corrosion proof, cold area use, special copper free treatment, air piping and special air joints, vacuum working conditions, bolts and nuts in contact with the atmospheric department are made of stainless steel, color painting, etc.

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◆图1 本体部结构图 Structure diagram of main body



标准型本体部结构
Standard body structure



阀芯阀杆部分
Valve element and stem



DC ***	*
↓	↓
阀体类型 Body type	阀芯和套筒类型 Valve element and sleeve type
DC161 轻型阀体 Light valve body	1 仿形轮廓单座阀芯, 套筒导向 Profile profiling single seat valve element, sleeve guide
DC162 标准阀体 Standard valve body	1M 微小流量阀芯 Micro flow valve element
DC182 高压锻件阀体 High pressure forging valve body	1D 顶部导向 Top guide

序号 No.	零件名称 Part name
1	阀体Body
2	阀盖Bonnet
3	双头螺柱Stud
4	螺母Nut
5	阀芯Plug
6	阀座Seat
7	阀杆Stem
8	缠绕垫片Spiral Gasket
9	套筒Cage
11	适配块Adapter
12	销Pin
14	缠绕垫片Spiral Gasket
16	缠绕垫片Spiral Gasket
27	填料函组件Packing Box



导向套筒部分
Guide sleeve part

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◆表4 套筒导向型单座调节阀标准材质组合

Table4 Standard material combination of sleeve guided single seat control valve

		碳钢及CrMo合金钢 Carbon steel and CrMo alloy steel			不锈钢 stainless steel		NACE(根据要求可选 Optional on request)							
温度范围 temperature range		-29 ~ +427°C			-29 ~ +566°C		-29 ~ +566°C							
序号No.	零件名称Part name	A216 WCB	A217 WC6(9)	A217 C12A	A351 CF8(M)	SA351 CF3(M)	A216 WCB HRC22 max	A351 CF8M HRC22 max						
2	阀盖 Bonnet	A216 WCB	A217 WC6(9)	A217 C12A	A351 CF8(M)	A351 CF3(M)	A216 WCB HRC22 max	A351 CF8M HRC22 max						
		A105/20	A182 F11(22) 15CrMo 12Cr1MoV	A182 F91	SA479 304 (316)	A479 304 (316)L	A105 HRC22 max	A479 316 HRC22 max						
3	阀体螺栓	35	35CrMo 25Cr2Mo1V	GH4145	A479 XM-19		A193 B7	A479 XM-19						
					A193 B7									
4	螺母Nut	25	30CrMo	25Cr2Mo1V	A194 gr.8		A194 gr.4	A194 gr.8						
			35CrMo	GH4145	A194 gr.4									
5	阀芯 Plug	A479 316		-	A479 316	A479 316L	A182F6NMHRC22 max Nitrided	-						
		AISI 410 渗氮硬化												
		A479 316 + Stellite	-	-	A479 316+Stellite6	A479 316+Stellite								
6	阀座 Seat	A479 316		-	A479 316	A479 316L	A479 316 HRC22max+Stellite							
		AISI 400 系列不锈钢硬化		-	A479 316	A479 316L	A479 316 HRC22 max							
		A479 316 + Stellite	-	-	A479 316+ Stellite	A479 316+ Stellite	A182F6NM HRC22 max 渗氮	-						
		AISI 410 + Stellite					A479 316HRC22 max+Stellite							
7	阀杆**Stern	A479 316	A479XM-19		A3479 316	A3479 316L	A479 316 HRC22 max							
8-14	垫片*Gasket	AISI 321 + 石墨 graphite												
9	导套 Guide sleeve	AISI 410 渗氮硬化 nitriding and hardening		A479 316L 镀铬 chrome plating		A182 F6NM HRC22 max 渗氮 Max nitriding	A 479 316 HRC22 max 渗氮 Max nitriding							
19	阀芯软密封圈 Valve core soft sealing ring	PTFE												
12	销钉 Twelve	A479 304		A479 316L	A479 304 HRC22 max									
27	填料* Packing	尼龙纤维增强 Nylon fiber reinforced PTFE												
		柔性石墨 Flexible graphite												
		纯 Pure PTFE												
36	波纹管 corrugated pipe	AISI 316L												
37	阀盖延伸段 Bonnet extension	A479 316	A479 XM-19	A479 316	A479 316L	A479 316 HRC22 max								
44	波纹管盖 Bellows chamber	A105	A182 F22	A182 F91	A479 316	A479 316L	A105 HRC22 max	A479316HRC22max						
45	防转螺钉 Anti rotation screw	AISI 316L												
46	垫片 shim	AISI 321 + 石墨 graphite												
251	阀芯 spool	AISI 316L												

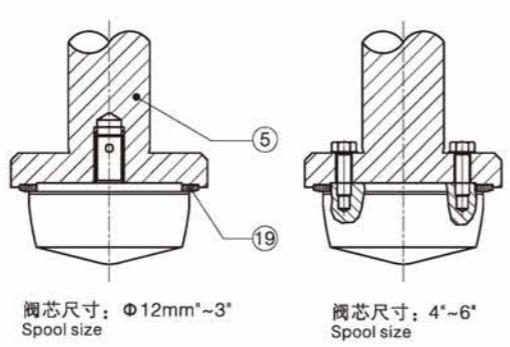
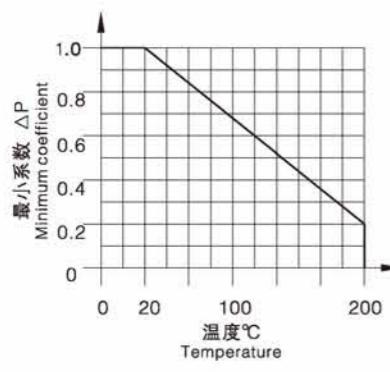
1 可采用软密封阀芯，泄漏等级VI级

1. Soft sealing valve core can be used, with leakage class of VI

* 推荐启动及试运行备件

** Recommended start-up and commissioning spare parts

** 推荐两年内运行备件



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◆表5 套筒导向型单座调节阀CV-行程对照表

Table5 CV stroke comparison table of sleeve guided single seat control valve

单座阀CV (线性LINEAR-仿形阀芯 Flow To Open)2)						
DN (in)	Port (inch)	阀芯型式 Valve core type	阀座直径 Valve seat diameter (mm)	行程 trip (mm)	CV 5%	CV 100%
1/2"	1/2"	C	15.1	17	0.159	5.57
3/4"	3/4"	C	19.1	17	0.221	9.95
1/2"	1/2"	C	15.1	17	0.159	5.59
1"	1"	C	23.1	17	0.265	13.1
3/4"	3/4"	C	19.1	17	0.222	10.2
1/2"	1/2"	C	15.1	17	0.16	5.59
1 1/2"	1 1/2"	C	35.1	25	0.506	29.1
1 1/4"	1 1/4"	C	28.1	25	0.371	22.4
1"	1"	C	23.1	25	0.265	15.1
3/4"	3/4"	C	19.1	25	0.222	10.2
1/2"	1/2"	C	15.1	25	0.16	5.59
1/2"	1/2"	C	15.1	25	0.0887	2.69
2"	2"	C	45.2	25	0.953	47.1
1 1/2"	1 1/2"	C	35.1	25	0.524	34.3
1 1/4"	1 1/4"	C	28.1	25	0.371	24.8
1"	1"	C	23.1	25	0.265	15.1
3/4"	3/4"	C	19.1	25	0.222	10.2
1/2"	1/2"	C	15.1	25	0.16	5.59
1/2"	1/2"	C	15.1	25	0.0887	2.69
3"	3"	C	72.3	34	1.56	111
2 1/2"	2 1/2"	C	60.2	34	1.13	88.5
2"	2"	C	45.2	34	0.953	58
1 1/2"	1 1/2"	C	35.1	34	0.524	34.3
1 1/4"	1 1/4"	C	28.1	34	0.371	24.8
1"	1"	C	23.1	34	0.265	15.1
3"	3"	C	72.3	45	1.64	138
2 1/2"	2 1/2"	C	60.2	45	1.13	107
2"	2"	C	45.2	45	0.953	58
1 1/2"	1 1/2"	C	35.1	45	0.524	34.3
1 1/4"	1 1/4"	C	28.1	45	0.371	24.8
6"	3"	C	72.3	60	3.02	176
6"	2 1/2"	C	60.2	60	2.1	125

微小流量阀芯CV (线性LINEAR - 扁平式阀芯) 1)						
DN (in)	Port (inch)	阀芯型式 Valve core type	阀座直径 (mm) Valve seat diameter	行程 trip (mm)	CV 5%	CV 100%
1/2" 3/4" 1"	Φ3	F	3	17	0.007	0.05
	Φ4	F	5		0.007	0.08
	Φ6	F	6		0.01	

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◆表6 填料使用压力、温度对照表

Table6 Comparison table of packing pressure and temperature

填料类型 Type of packing	温度极限 °C Temperature limit		最大压力 barMaximum pressure bar		真空工况 Vacuum condition	PH值范围 PH range
	连续运行 Continuous operation	泄漏 leak	连续运行 Continuous operation	泄漏 leak		
尼龙纤维增强型PTFE填料 Nylon fiber reinforced PTFE filler	-200 ~ +250	-200 ~ +260	150	225	适用 apply	2 ~ 12
柔性石墨填料组合 Flexible graphite packing combination	-150 ~ +650	-200 ~ +650	400	450	适用 apply	0 ~ 14
纯PTFE填料(用于氧气场合) Pure PTFE packing (for oxygen service)	-200 ~ +200	-220 ~ +250	150	225	适用 apply	0 ~ 14

◆表7 温度适用等级 – 阀座允许泄漏量

Table7 temperature applicable class – allowable leakage of valve seat

公称通径 Nominal diameter	压力等级 Pressure rating	密封形式 Sealing form	填料材质 Filler material	温度范围 temperature range				泄漏等级 Leakage level. IEC 60534-4 ANSI/FCI 70.2			
				标准阀盖 Standard bonnet		延伸性阀盖 Extended bonnet					
				Min.	Max.	Min.	Max.				
1/2"-8"	见表1 See table 1	硬密封 Hard seal	PTFE	-25°C	220°C	-55°C	566°C	IV	V - VHS		
			石墨 graphite	-25°C	450°C	-55°C	566°C				
		软密封 Soft seal	any	-25°C	220°C	-55°C	220°C	VI			

◆表8 阀门主要性能指标 Table8 main performance index of valve

项目 project		指标值 Index value		项目 project		指标值 Index value	
基本误差% Basic error	不带定位器 Without positioner	± 5.0	始终点偏差% Always point deviation	气关 Qiguan	不带定位器 Without positioner	始点Starting point	± 5.0
	带定位器 With positioner	± 1.0			终点End	± 2.5	
	不带定位器 Without positioner	3.0		气开 Qikai	带定位器 With positioner	始点Starting point	± 1.0
	带定位器 With positioner	1.0			终点End	± 1.0	
回差% Backwardness	不带定位器 Without positioner	3.0	死区% Deadband	气关 Qiguan	不带定位器 Without positioner	始点Starting point	± 2.5
	带定位器 With positioner	1.0			终点End	± 5.0	
	不带定位器 Without positioner	3.0		气开 Qikai	带定位器 With positioner	始点Starting point	± 1.0
	带定位器 With positioner	0.4			终点End	± 1.0	
额定行程偏差% Rated stroke deviation		± 2.5	泄漏标准 Leakage criteria		ANSI IV, V (软密封 soft seal VI)		

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆表9 多弹簧式气动薄膜执行机构最大允许压差表 (bar)

Table 9 maximum allowable differential pressure gauge of multi spring pneumatic diaphragm actuator (bar)

微小流量阀芯 Small flow spool

泄漏等级 Leakage class : IV IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)							
					Spring range		Supply	P shut-off	Spring range						
					psi	psi	bar	psi	psi	bar					
1/2" 3/4" 1"	Φ3mm	F	17	1-X280 D12	11	-	29	40	160	9	-	22	40	260	
				1-X280 D25	17	-	43	60	332	/	/	/	/	-	
				1-X280 D33	11	-	29	40	209	3	-	13	40	430	
				1-X280 D12	20	-	29	40	430	/	/	/	/	-	
	Φ4mm	F	17	1-X280 D25	11	-	29	40	209	3	-	13	40	430	
				1-X280 D33	17	-	29	40	430	-	-	-	-	-	
				1-X280 D12	1-X280 D25	11	-	29	40	160	9	-	22	40	260
				1-X280 D33	17	-	43	60	332	/	/	/	/	-	
	Φ6mm	F	17	1-X280 D25	11	-	29	40	209	3	-	13	40	430	
				1-X280 D33	17	-	29	40	430	-	-	-	-	-	
				1-X280 D12	1-X280 D25	11	-	29	40	160	9	-	22	40	260
				1-X280 D33	17	-	43	60	332	/	/	/	/	-	
Φ9mm	C	C	17	1-X280 D12	11	-	29	40	135	9	-	22	40	245	
				1-X280 D25	17	-	43	60	322	/	/	/	/	-	
				1-X280 D33	11	-	29	40	209	3	-	13	40	430	
				1-X280 D12	20	-	29	40	430	/	/	/	/	-	
	Φ12mm	C	17	1-X280 D25	11	-	29	40	200	3	-	13	40	430	
				1-X280 D33	17	-	29	40	430	/	/	/	/	-	
				1-X280 D12	11	-	29	40	85	9	-	22	40	150	
				1-X280 D25	17	-	43	60	192	7	-	26	60	401	

* 仿形阀芯 Contoured -C-
扁平式阀芯 Flattened -F-

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆常规流量阀芯 Conventional flow valve element

泄漏等级 Leakage class : IV IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)						
					Spring range		Supply	P shut-off	Spring range					
					psi		psi	bar	psi					
1/2" 3/4" 1"	1/2"	C	17	1-X280 D12	11	-	29	40	55	9	-	22	40	95
				1-X280 D25	17	-	43	60	126	7	-	26	60	264
				1-X280 D33	11	-	29	40	78	3	-	13	40	207
				1-X280 D33	20	-	29	40	279	7	-	13	40	381
				1-X280 D12	11	-	29	40	38	9	-	22	40	62
				1-X280 D25	17	-	43	60	75	7	-	26	60	163
				1-X280 D33	11	-	29	40	44	3	-	13	40	126
				1-X280 D33	20	-	29	40	186	7	-	13	40	252
				1-X280 D12	11	-	29	40	26	9	-	22	40	42
				1-X280 D25	17	-	43	60	51	7	-	26	60	113
				1-X280 D33	11	-	29	40	30	3	-	13	40	88
				1-X280 D33	20	-	29	40	125	7	-	13	40	171
3/4" 1"	3/4"	C	17	1-X280 D25	16	-	36	60	95	8	-	18	40	135
				1-X280 D33	23	-	44	60	334	7	-	26	60	430
				1-X280 D39	15	-	29	40	216	4	-	13	40	394
				1-X280 D39	16	-	30	40	320	4	-	14	40	430
				1-X280 D25	16	-	36	60	62	8	-	18	40	88
				1-X280 D33	23	-	44	60	214	7	-	26	60	321
				1-X280 D39	15	-	29	40	139	4	-	13	40	253
				1-X280 D39	16	-	30	40	206	4	-	14	40	336
				1-X280 D25	16	-	36	60	42	8	-	18	40	62
				1-X280 D33	23	-	44	60	149	7	-	26	60	223
				1-X280 D39	15	-	29	40	96	4	-	13	40	176
				1-X280 D39	16	-	30	40	143	4	-	14	40	234
1 1/2" 2"	1 1/4"	C	25	1-X280 D25	16	-	36	60	22	8	-	18	40	35
				1-X280 D33	23	-	44	60	102	7	-	26	60	153
				1-X280 D39	15	-	29	40	65	4	-	13	40	120
				1-X280 D39	25	-	45	60	152	7	-	28	60	200
				1-X280 D25	16	-	30	40	98	4	-	14	40	160
				1-X280 D33	23	-	44	60	15	8	-	18	40	23
				1-X280 D39	15	-	29	40	40	4	-	13	40	76
				1-X280 D39	25	-	45	60	98	7	-	28	60	130
				1-X280 D39	16	-	30	40	63	4	-	14	40	104
				1-X280 D25	16	-	36	60	10	8	-	18	40	16
				1-X280 D33	23	-	44	60	39	7	-	26	60	59
				1-X280 D39	15	-	29	40	24	4	-	13	40	46
2"	2"	C	25	1-X280 D25	25	-	45	60	60	7	-	28	60	79
				1-X280 D33	25	-	45	60	60	7	-	28	60	79
				1-X280 D39	16	-	30	40	38	4	-	14	40	63
				1-X280 D46	32	-	47	60	119	16	-	31	60	106
				1-X280 D46	22	-	31	40	78	8	-	15	40	89

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆常规流量阀芯 Conventional flow valve element

泄漏等级 Leakage class : IV IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)						
					Spring range		Supply	P shut-off	Spring range					
					psi		psi	bar	psi					
2 1/2" 3"	1"	C	34	1-X280 D33	16	-	32	40	85	8	-	16	40	135
				1-X280 D39	25	-	45	60	223	12	-	28	60	288
				1-X280 D46	17	-	30	40	144	6	-	14	40	232
				1-X280 D46	16	-	29	40	208	4	-	14	40	351
				1-X280 D33	16	-	32	40	48	8	-	16	40	68
				1-X280 D25	25	-	45	60						

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆常规流量阀芯 Conventional flow valve element

泄漏等级 Leakage class : IV IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)						
					Spring range		Supply	P shut-off	Spring range					
					psi		psi	bar	psi					
4"	2 1/2"	C	45	1-X280 D39	19	-	47	60	25	7	-	28	60	43
					13	-	31	40	16	4	-	14	40	35
				1-X280 D46	24	-	44	60	49	12	-	28	60	66
					16	-	30	40	32	6	-	14	40	53
				1-X280 D63	22	-	41	60	95	7	-	26	60	149
					15	-	27	40	62	3	-	13	40	118
	3"	C	45	1-X280 D39	19	-	47	60	17	7	-	28	60	30
					13	-	31	40	11	4	-	14	40	24
				1-X280 D46	24	-	44	60	34	12	-	28	60	46
					16	-	30	40	22	6	-	14	40	37
				1-X280 D63	22	-	41	60	66	7	-	26	60	104
					15	-	27	40	43	3	-	13	40	82
6"	4"	C	45	1-X280 D39	19	-	47	60	12	7	-	28	60	21
					13	-	31	40	7	4	-	14	40	16
				1-X280 D46	24	-	44	60	23	12	-	28	60	32
					16	-	30	40	15	6	-	14	40	25
				1-X280 D63	22	-	41	60	46	7	-	26	60	72
					15	-	27	40	30	3	-	13	40	57
	2 1/2"	C	60	1-X280 D46	19	-	48	60	38	7	-	28	60	65
					13	-	32	40	24	4	-	14	40	52
				1-X280 D63	21	-	42	60	91	10	-	26	60	148
					14	-	28	40	60	5	-	13	40	116
				1-X280 D46	19	-	48	60	26	7	-	28	60	45
					13	-	32	40	16	4	-	14	40	36
					21	-	42	60	63	10	-	26	60	103
					14	-	28	40	41	5	-	13	40	81
	4"	C	60	1-X280 D46	19	-	48	60	18	7	-	28	60	31
					13	-	32	40	11	4	-	14	40	25
				1-X280 D63	21	-	42	60	44	10	-	26	60	72
					14	-	28	40	28	5	-	13	40	56
				1-X280 D46	19	-	48	60	11	7	-	28	60	19
					13	-	32	40	7	4	-	14	40	15
					21	-	42	60	27	10	-	26	60	44
					14	-	28	40	17	5	-	13	40	34
	5"	C	60	1-X280 D46	19	-	48	60	7	7	-	28	60	13
					13	-	32	40	5	4	-	14	40	11
				1-X280 D63	21	-	42	60	27	10	-	26	60	44
					14	-	28	40	17	5	-	13	40	34
	6"	C	60	1-X280 D46	19	-	48	60	7	7	-	28	60	13
					13	-	32	40	5	4	-	14	40	11
				1-X280 D63	21	-	42	60	19	10	-	26	60	31
					14	-	28	40	12	5	-	13	40	24

* 仿形阀芯 Contoured -C-

扁平式阀芯 Flatted -F-

** DN≥8" 请联系东辰技术部 please contact Dongchen Technology Department

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆微小流量阀芯 Small flow spool

泄漏等级 Leakage class : V & VI IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)						
					Spring range		Supply	P shut-off	Spring range					
					psi		psi	bar	psi					
1/2" 3/4" 1"	Φ3mm	F	17	1-X280 D12	11	-	29	40	160	9	-	22	40	260

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆常规流量阀芯 Conventional flow valve element

泄漏等级 Leakage class : V & VI IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)								
					Spring range		Supply	P shut-off	Spring range							
					psi	psi	bar	bar	psi	psi						
1/2" 3/4" 1"	1/2"	C	17	1-X280 D12	11	-	29	40	35	9	-	22	40	85		
				1-X280 D25	17	-	43	60	103	7	-	26	60	241		
				1-X280 D33	11	-	29	40	54	3	-	13	40	184		
	3/4" 1"			1-X280 D12	20	-	29	40	256	7	-	13	40	358		
				1-X280 D25	11	-	29	40	19	9	-	22	40	51		
				1-X280 D33	17	-	43	60	56	7	-	26	60	144		
				1-X280 D39	11	-	29	40	25	3	-	13	40	108		
				1-X280 D46	20	-	29	40	167	7	-	13	40	234		
				1-X280 D12	17	-	43	60	27	9	-	22	40	28		
1"	1"			1-X280 D25	17	-	43	60	36	7	-	26	60	98		
				1-X280 D33	11	-	29	40	14	3	-	13	40	72		
				1-X280 D39	20	-	29	40	109	7	-	13	40	155		
	1/2"			1-X280 D25	16	-	36	60	72	8	-	18	40	115		
				1-X280 D33	23	-	44	60	311	7	-	26	60	430		
				1-X280 D39	15	-	29	40	193	4	-	13	40	370		
				1-X280 D46	16	-	30	40	297	4	-	14	40	430		
				1-X280 D12	16	-	36	60	42	8	-	18	40	70		
				1-X280 D33	23	-	44	60	196	7	-	26	60	302		
1 1/2" 2"	3/4"			1-X280 D39	15	-	29	40	120	4	-	13	40	234		
				1-X280 D46	16	-	30	40	187	4	-	14	40	317		
				1-X280 D12	16	-	36	60	26	8	-	18	40	46		
				1-X280 D33	23	-	44	60	133	7	-	26	60	208		
				1-X280 D39	15	-	29	40	80	4	-	13	40	160		
				1-X280 D46	16	-	30	40	128	4	-	14	40	219		
	1 1/4"			1-X280 D25	16	-	36	60	15	8	-	18	40	24		
				1-X280 D33	23	-	44	60	89	7	-	26	60	140		
				1-X280 D39	15	-	29	40	52	4	-	13	40	107		
				1-X280 D46	25	-	45	60	139	7	-	28	60	187		
				1-X280 D12	16	-	30	40	85	4	-	14	40	147		
				1-X280 D33	16	-	36	60	10	8	-	18	40	17		
2"	1 1/2"			1-X280 D39	23	-	44	60	53	7	-	26	60	87		
				1-X280 D46	15	-	29	40	30	4	-	13	40	65		
				1-X280 D12	25	-	45	60	88	7	-	28	60	119		
				1-X280 D33	16	-	30	40	53	4	-	14	40	93		
	2"			1-X280 D25	16	-	36	60	6	8	-	18	40	10		
				1-X280 D33	23	-	44	60	30	7	-	26	60	51		
				1-X280 D39	15	-	29	40	16	4	-	13	40	38		
				1-X280 D46	25	-	45	60	52	7	-	28	60	71		
2"	2"			1-X280 D12	16	-	30	40	30	4	-	14	40	55		
				1-X280 D33	32	-	47	60	111	16	-	31	60	98		
				1-X280 D39	22	-	31	40	70	8	-	15	40	81		
				1-X280 D46	32	-	47	60	111	16	-	31	60	98		
				1-X280 D12	22	-	31	40	70	8	-	15	40	81		

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆常规流量阀芯 Conventional flow valve element

泄漏等级 Leakage class : V & VI IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)								
					Spring range		Supply	P shut-off	Spring range							
					psi	psi	bar	bar	psi	psi						
1"	1"	C	34	1-X280 D33	16	-	32	40	73	8	-	16	40	123		
				1-X280 D39	25	-	45	60	208	12	-	28	60	272		
				1-X280 D46	17	-	30	40	129	6	-	14	40	216		
	1 1/4"			1-X280 D33	16	-	29	40	193	4	-	14	40	335		
				1-X280 D39	25	-	32	40	3							

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆ 常规流量阀芯 Conventional flow valve element

泄漏等级 Leakage class : V & VI IEC 60534-04或GB/T4213

DN in	Port In	阀芯 Plug Type (1)	行程 Travel mm	执行机构 Actuator type	反作用 Air To Open (reverse)			正作用 Air To Close (direct)						
					Spring range		Supply	P shut-off	Spring range					
					psi	psi	bar	bar	psi	psi				
4"	2 1/2"	C	45	1-X280 D39	19	-	47	60	19	7	-	28	60	37
				1-X280 D46	13	-	31	40	10	4	-	14	40	29
				1-X280 D63	24	-	44	60	43	12	-	28	60	60
				1-X280 D39	16	-	30	40	26	6	-	14	40	47
				1-X280 D63	22	-	41	60	88	7	-	26	60	143
				1-X280 D39	15	-	27	40	56	3	-	13	40	111
	3"	C	45	1-X280 D46	19	-	47	60	12	7	-	28	60	25
				1-X280 D63	13	-	31	40	6	4	-	14	40	19
				1-X280 D39	24	-	44	60	29	12	-	28	60	41
				1-X280 D63	16	-	30	40	17	6	-	14	40	32
				1-X280 D39	22	-	41	60	61	7	-	26	60	99
				1-X280 D63	15	-	27	40	38	3	-	13	40	77
6"	4"	C	45	1-X280 D46	19	-	47	60	7	7	-	28	60	16
				1-X280 D63	13	-	31	40	3	4	-	14	40	12
				1-X280 D46	24	-	44	60	19	12	-	28	60	27
				1-X280 D63	16	-	30	40	11	6	-	14	40	21
				1-X280 D39	22	-	41	60	41	7	-	26	60	68
				1-X280 D63	15	-	27	40	25	3	-	13	40	52
	5"	C	60	1-X280 D46	19	-	48	60	31	7	-	28	60	59
				1-X280 D63	13	-	32	40	18	4	-	14	40	46
				1-X280 D39	21	-	42	60	85	10	-	26	60	142
				1-X280 D63	14	-	28	40	53	5	-	13	40	110
				1-X280 D46	19	-	48	60	21	7	-	28	60	40
				1-X280 D63	13	-	32	40	11	4	-	14	40	31
6"	4"	C	60	1-X280 D46	21	-	42	60	58	10	-	26	60	98
				1-X280 D63	14	-	28	40	36	5	-	13	40	76
				1-X280 D46	19	-	48	60	14	7	-	28	60	27
				1-X280 D63	13	-	32	40	7	4	-	14	40	21
				1-X280 D39	21	-	42	60	39	10	-	26	60	67
				1-X280 D63	14	-	28	40	24	5	-	13	40	52
	5"	C	60	1-X280 D46	19	-	48	60	7	7	-	28	60	15
				1-X280 D63	13	-	32	40	3	4	-	14	40	12
				1-X280 D39	21	-	42	60	23	10	-	26	60	40
				1-X280 D63	14	-	28	40	14	5	-	13	40	31
				1-X280 D46	19	-	48	60	5	7	-	28	60	10
				1-X280 D63	13	-	32	40	2	4	-	14	40	8

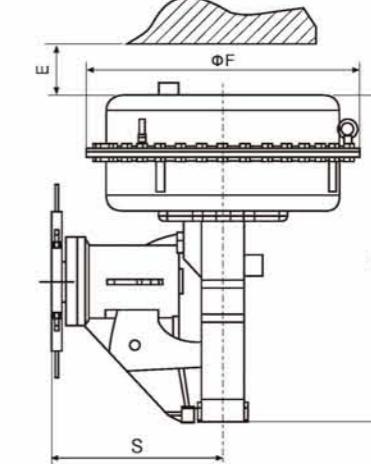
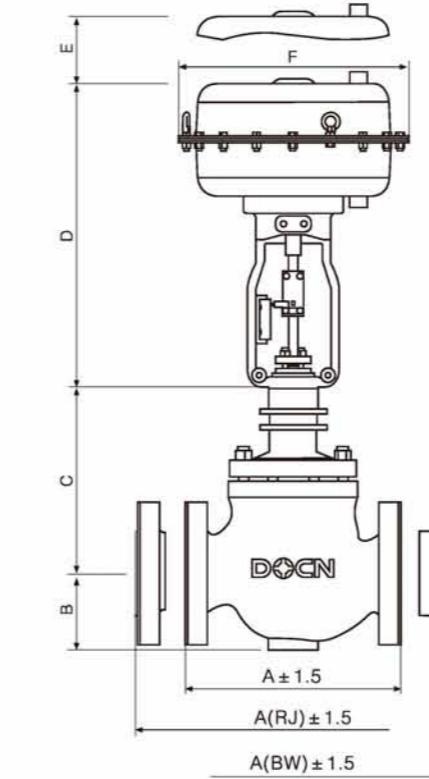
* 仿形阀芯 Contoured -C-

扁平式阀芯 Flatted -F-

** DN≥8" 请联系东辰技术部 please contact Dongchen Technology Department

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve



◆ 调节阀带气动薄膜执行机构 Regulating valve with pneumatic diaphragm actuator

尺寸 size	D 正作用或反作用 Positive or negative effects	1-X280 系列多弹簧气动薄膜执行机构 multi spring pneumatic film actuator		
		E	F	S
D12	342	100	220	-
D25	400	150	262	300
D33	510	150	333	300
D39	574	200	395	360
D46	644	200	465	365
D63	796	250	640	455

执行机构 Actuator	尺寸 size	正作用 Positive action	反作用 Reaction	手轮 handwheel	
				侧装 Side mounting	顶装 Top mounting
1-X280	D12	12	12	-	+6
	D25	18	18	+9	+8
	D33	26	26	+10	+9
	D39	41	41	+19	+16
	D46	67	67	+19	+16
	D63	153	153	+35	+30

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆ 阀门体外形尺寸及重量 Overall dimension and weight of valve body

DN	尺寸 size B					
	ANSI					
	150	300	600	900	1500	2500
1/2"	54	54	54	75	75	75
3/4"	70	70	70	85	85	90
1"	70	70	70	85	85	90
1 1/2"	86	86	86	110	110	120
2"	98	98	98	135	135	150
3"	120	120	120	170	170	180
4"	160	160	160	200	200	220
6"	200	200	205	210	222	1)
8"	200	200	220	220	230	

尺寸 size C ³⁾					
标准型上盖 Standard upper cover		散热型上盖 Heat dissipating upper cover			
150-600	900-1500	2500	150-600	900-1500	2500
134	170	190	176	212	232
137	176	196	179	218	238
137	176	196	179	218	238
177	221	261	236	280	320
184	227	257	264	310	340
234	245	275	330	340	370
279	317	347	362	400	430
340	460	1)	430	460	1)
380	520		480	520	

1)按照需求订做

2)尺寸单位为mm, 尺寸图见上页。

3)近似值, 对于精确值, 请咨询东辰技术部。

1) Make to order

2) The unit of dimension is mm. See the previous page for dimension drawing.

3) Approximate value. For exact value, please consult Dongchen technology department.

DC1621 套筒导向型单座调节阀

DC1621 Sleeve-guided single-seat control valve

◆ 阀门重量(*) Valve weight (*)

法兰连接 Flange connection						
DN	ANSI 150	ANSI 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500
1/2"	13	20	20	30	30	38
3/4"	15	20	20	30	30	38
1"	15	20	20	30	30	38
1 1/2"	35	38	40	60	60	54
2"	40	55	60	102	102	143
3"	70	87	90	180	180	340
4"	110	120	135	260	260	500
6"	190	245	295	420	560	/
8"	300	335	422	680	980	

对焊连接 Butt welding connection					
DN	ANSI 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500
1/2"	18	12	28	28	31
3/4"	21	15	28	28	31
1"	21	15	28	28	31
1 1/2"	41	43	55	55	44
2"	57	60	93	93	129
3"	88	94	170	164	311
4"	111	121	243	236	457
6"	256	273	384	507	/
8"	322	392	620	897	

以上重量为标准型上盖重量, 高温型请联系东辰技术部。

以上重量为近似值。

The above weight is the standard upper cover weight, please contact Dongchen technology department for high temperature type.

The above weights are approximate.

◆ 特殊规格 Special specifications

- 氧气介质场合的清理
- 异径管
- 电动或液动执行机构
- 特殊材质
- 阀体疏水接口
- 专业工具
- Cleaning of oxygen medium
- reducing pipe
- Electric or hydraulic actuator
- Special material
- Drain connection of valve body
- Professional tools

◆ 推荐性备品备件 Recommended spare parts

- 推荐性安装及试运行用备品备件
- 阀体垫片
- 阀杆填料
- 平衡式阀芯的软密封环(PTFE/石墨)
- Recommended spare parts for installation and commissioning
- Body gasket
- Stem packing
- Soft sealing ring (PTFE / graphite) for balanced valve element