

PNEUMATIC BUTTERFLY
VALVE SERIES
气动蝶阀系列



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PNEUMATIC TRI-ECCENTRIC HARD SEAL BUTTERFLY VALVE
气动三偏心硬密封蝶阀

产品概述 Product Overview

气动三偏心硬密封蝶阀是在二偏心硬密封蝶阀基础上生成一个角度(密封面为斜锥面)，从而形成三偏心硬密封蝶阀。该结构在启闭过程中无机械磨损和擦伤，其关闭力矩小、切斷性能好、使用寿命长，同时具有调节和切断两种功能。

本系列产品广泛应用于石油、化工、电力、冶金、环保、轻纺、造纸等工业部门的自动化控制系统中。适用于液体、气体、煤气、天然气、蒸汽等介质进行截止或调节流量控制。

The pneumatic tri-eccentric hard seal butterfly valve is based on the two-eccentric hard seal butterfly valve to generate an angle (the sealing surface is an inclined cone), thus forming the tri-eccentric hard seal butterfly valve. The structure has no mechanical wear and scratch in the process of opening and closing, small closing torque, good cutting performance and long service life, as well as has two functions of adjustment and cutting.

This series of products are widely used in the automatic control system of petroleum, chemical industry, electric power, metallurgy, environmental protection, light textile, papermaking and other industrial sectors. In addition, it's suitable for liquid, gas, coal gas, natural gas and steam to cut off or regulate flow control.

产品特点 Products Features

- 1、采用三维偏心的密封结构，阀座与蝶板之间磨损小，且密封面耐磨损，延长了使用寿命；
- 2、根据连接方式分为气动对夹式三偏心蝶阀和气动法兰三偏心蝶阀，可分别使用于不同的工艺管道中；
- 3、大口径蝶阀蝶板可采用绗架的结构，具有强度高，过流面积大，流阻小的特点；
- 4、采用双向压三偏心多层次硬密封结构，具有双向密封的功能，安装时不受介质流向的限制，也不受空间位置的影响，可在任何方向安装；
- 5、具有金属硬密封和弹性密封的双重优点，无论在低温和高温的情况下，均具有优良的密封性能，具有耐腐蚀，使用寿命长等特点。

1. With the three-dimensional eccentric sealing structure, the wear between the seat and the disc is small; and the sealing surface is wear-resistant, extending the service life;
2. According to the connection mode, it can be divided into pneumatic wafer type tri-eccentric butterfly valve and pneumatic flange tri-eccentric butterfly valve, which can be used in different process pipes respectively;
3. The disc of large caliber butterfly valve can be subject to the truss structure, which has the characteristics of high strength, large flow area and small flow resistance;
4. Double direction pressure tri-eccentric multi-level hard sealing structure is adopted, which has the function of double direction sealing. It can be installed in any direction without the restriction of medium flow direction and the influence of space position;
5. It has the double advantages of metal hard sealing and elastic sealing. It has excellent sealing performance, corrosion resistance and long service life no matter in low temperature or high temperature.

技术参数 Technical Parameters

型 式 Type	三偏心型 Triple eccentric type
公称通径 Nominal diameter	DN100~DN2000
公称压力 Nominal pressure	PN 系列：0.6 MPa、1.0MPa、1.6MPa、2.5MPa、4.0MPa、 Class系列：Class150、Class300 PN Series: 0.6, MPa, 1.0MPa, 1.6MPa, 2.5MPa, 4.0MPa, Class series: Class150, Class300
连接方式 Connection mode	对夹式、法兰式 Clamp type, flange type
阀体、阀内件材质 Material of valve body and valve internals	WCB、WC9、CF8、CF8M
上阀盖形式 Top bonnet type	标准型：-60°C ~ +200°C Standard type: -60°C ~ +200°C 高温型：+200°C ~ +500°C High temperature type: +200°C ~ +500°C 但必须注意各材质的使用温度·压力范围。 But you must pay attention to the temperature and pressure range of each material.
填 料 Packing	聚四氟乙烯：-5~+230°C Teflon asbestos: -5 ~+230°C 聚四氟乙烯石棉：-5~+230°C Teflon: -5~+230°C 柔性石墨：-196°C~+600°C Flexible graphite: -196°C~+600°C

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阀体、阀内件材质组合及使用温度·阀座允许泄漏量

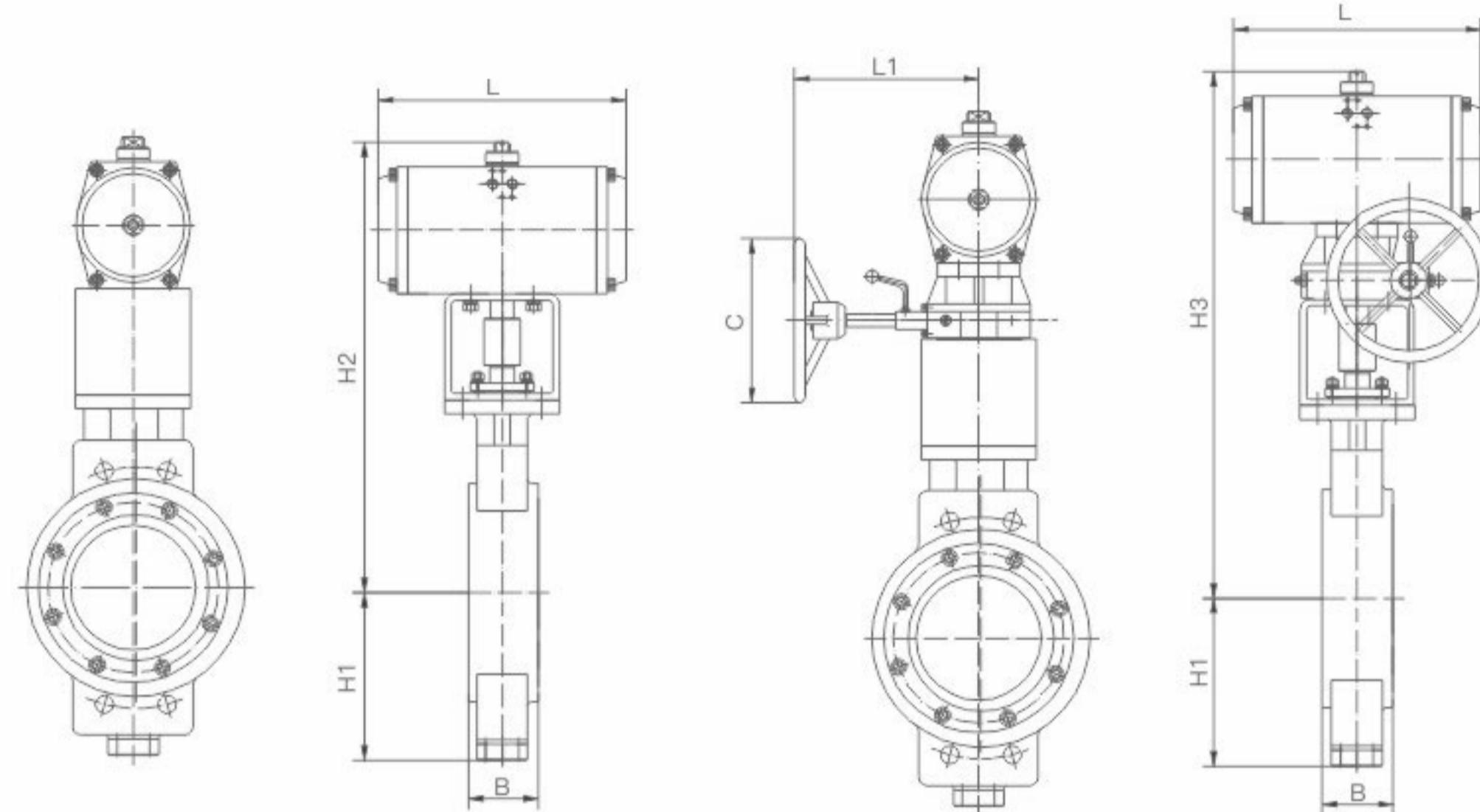
Body, valve parts and material combination of operating temperature and seat leakage.

本体部分材质:碳钢 body material: carbon steel

阀体材质 Body material		WCB, WCC, WC6, WC9, LCB			
阀板 Plate	材质 Material	WCB, WCC, WC6, WC9, LCB			
	处理 Handle	堆焊司钛莱合金 Hardfacing alloy			
阀杆材质 Stem material		3Cr13/304/17-4PH			
密封圈材质 Sealing ring material	不锈钢+石墨 Stainless steel + graphite	不锈钢+增强聚四氟乙烯 Stainless steel + reinforced PTFE	增强聚四氟乙烯 Reinforced PTFE	不锈钢 Stainless steel	
填料材质 Packing material	柔性石墨 Flexible graphite	聚四氟乙烯 Teflon	聚四氟乙烯 Teflon	柔性石墨 Flexible graphite	
垫片材质 Gasket material	XB450/F4/ 石墨缠绕垫片 (graphite winding gasket)	XB450/F4/ 石墨缠绕垫片 XB450/F4/ graphite winding gasket	F4/石墨缠绕垫片 F4/ graphite winding gasket	石墨缠绕垫片 Graphite gasket	
允许泄漏量 Allowable leakage	等级 Grade	VI	VI	VI	V
	采用标准 Use standard	GB/T 4213			
使用温度(℃) Use temperature	WCB, WCC	-20~160	-20~200	-20~200	-20~425
	WC6, WC9	-20~160	-20~200	-20~200	-20~425
	LCB	-20~160	-45~200	-45~200	-45~425

本体部分材质:不锈钢 Body material: stainless steel

阀体材质 Body material		CF3, CF8, CF3M, CF8M			
阀板 Plate	材质 Texture of material	CF3, CF8, CF3M, CF8M			
	处理 Handle	堆焊司钛莱合金 Hardfacing alloy			
阀杆材质 Stem material		3Cr13/304/17-4PH			
密封圈材质 Sealing ring material	不锈钢+石墨 Stainless steel + graphite	不锈钢+增强聚四氟乙烯 Stainless steel + reinforced PTFE	增强聚四氟乙烯 Reinforced PTFE	不锈钢 Stainless steel	
填料材质 Filler material	柔性石墨 Flexible graphite	聚四氟乙烯 Teflon	聚四氟乙烯 Teflon	柔性石墨 Flexible graphite	
垫片材质 Gasket material	XB450/F4/ 石墨缠绕垫片 XB450/F4/ graphite winding gasket	XB450/F4/ 石墨缠绕垫片 XB450/F4/ graphite winding gasket	F4/石墨缠绕垫片 F4/ graphite winding gasket	石墨缠绕垫片 Graphite gasket	
允许泄漏量 Allowable leakage	等级 Grade	VI	VI	VI	V
	采用标准 Use standard	GB/T 4213			
使用温度(℃) Use temperature		-100~500℃	-45~200℃	-20~180℃	-45~500℃



主要外形连接尺寸 Main External Connection Dimensions

单位 Unit: mm

公称通径 DN(mm) Nominal diameter	H1	H2	H3	B*		执行机构 Actuating mechanism		
				对夹 Clip on	法兰 Flange	L	L1	C
100	110	406	488	64	127	204	190	200
125	137	460	542	70	140	260	190	200
150	172	505	598	70	140	298	225	200
200	205	567	675	71	152	390	233	300
250	250	667	775	76	165	458	233	300
300	270	805	943	83	178	722	285	600
350	300	845	983	92	190	722	285	600
400	330	987	1125	102	216	860	285	600
450	370	1027	1165	114	222	860	285	600
500	400	1097	1235	127	229	860	285	600
600	455	1112	1250	154	267	860	285	600
700	495	1230	1725	165	292	2500	350	800
800	597	1303	1900	190	318	3200	350	800
900	647	1398	2045	203	330	3200	350	800
1000	720	1590	2290	216	410	3800	350	800

注: B*开档尺寸可按用户要求定制, 公称通径≥DN1000请电话咨询。

Note: B* Open size can be customized according to user requirements, the nominal diameter greater than or equal to DN1000 please call.

**PNEUMATIC FLUORINE LINING
CONTROL BUTTERFLY VALVE**
气动衬氟调节蝶阀

产品概述 Product Overview

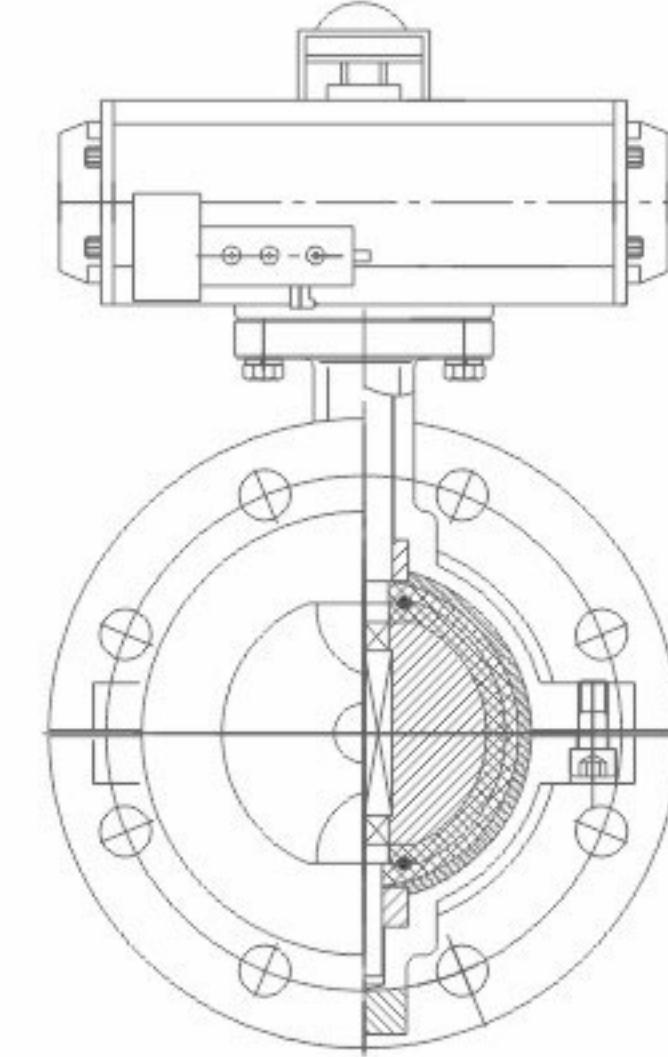
气动衬氟调节蝶阀是由气动活塞式执行器及四氟密封蝶阀组成。适用于温度≤180℃的腐蚀性或洁净度有一定要求的工况，气动衬氟蝶阀是在过流部件、阀体、蝶板、阀杆上采用衬里技术衬里较厚的高分子材料，防腐蚀性能优良，可适用于任何浓度的酸、碱、盐及氧化剂、还原剂、有机溶剂等介质，气动衬氟蝶阀是化工、石油、医药、食品、钢铁冶炼、造纸、水电等系统的气体、液体、半流体的管路和容器上作截流和调节设备使用的理想产品。

The pneumatic fluorine lining control butterfly valve is composed of pneumatic piston actuator and PTFE sealed butterfly valve. It is suitable for the situations which has certain requirement of corrosive and clean and lower than 180 °C. The pneumatic fluorine lining butterfly valve is subject to lining technology to cover thick polymer material on the flow passage components, disc, valve body, and valve rod. It has excellent anti-corrosion performance and can be applied to any concentration of acid, alkali, salt, oxidant, reductant, organic solvent and other media. The pneumatic fluorine lining butterfly valve is an ideal product to be used as closure and regulation equipment on the pipe and container of gas, liquid and semi liquid in chemical, petroleum, medicine, food, iron and steel smelting, papermaking, hydropower and other systems.

产品特点 Products Features

- 1、体积小、重量轻、操作轻巧、便于安装、维修；
- 2、密封性能优良可靠、零泄漏，使用寿命长；
- 3、流量特性趋于直线，调节性能最优；
- 4、结构简单，开关迅速，90度旋转启闭；
- 5、可代替闸阀、截止阀、旋塞阀、胶管阀及隔膜阀等各种阀门的使用；
- 6、可根据用户要求配置气动、电动装置，满足遥控和程控的需要；
- 7、衬氟蝶阀通过合理选材和采用特殊工艺结构。更换零件衬里材质可适用于各种介质。

1. Small size, light weight, light operation, easy to install and maintain;
2. Excellent and reliable sealing performance, zero leakage, long service life;
3. The flow characteristics tend to be linear and the regulation performance is optimal;
4. Simple structure, quick switch, 90 degree rotation opening and closing;
5. It can replace gate valve, globe valve, plug valve, rubber pipe valve, diaphragm valve and other valves;
6. Pneumatic and electric devices can be configured according to the user's requirements to meet the needs of remote control and program control;
7. The fluorine lining butterfly valve is subject to reasonable material selection and special process structure. It also can be applied to all kinds of media by change the lining material of parts.


技术参数 Technical Parameters

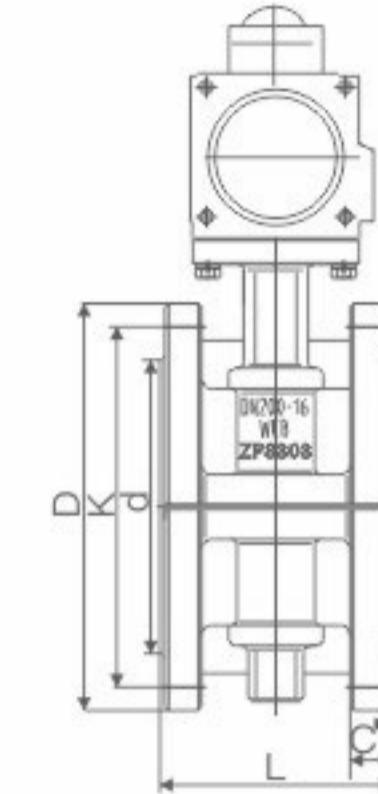
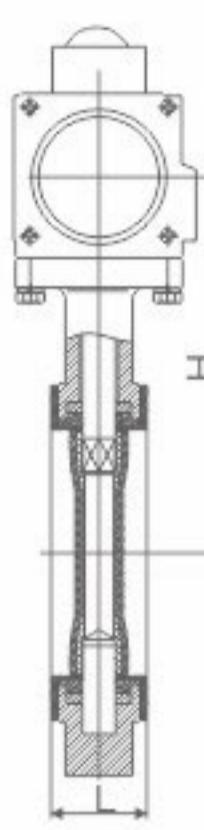
阀体形式 Body form	直通铸造蝶阀 Straight through casting butterfly valve	流量特性 Flow characteristic	等百分比、快开、线性 Equal percent, fast start, linear
公称通径 Nominal diameter	DN50-1000mm	执行器型号 Actuator type	GT系列、SR系列、AT系列、AW系列、TH(QGSY)系列单双作用气动执行器 GT series, SR series, AT series, AW series, TH(QGSY) series single and double action pneumatic actuators
公称压力 Nominal pressure	PN1.0、1.6MPa、Class150Lb	供气压力 Air supply pressure	400~700KPa
法兰标准 Flange standard	HG/T20592-2009、ANSI B16.5、JIS B220	气源接口 Air interface	G1/4"、G1/8"、G3/8"、G1/2"
连接形式 connection form	法兰式、对夹式 Flange type, clamp type	环境温度 Environment temperature	-30~+70C°
阀盖形式 Bonnet form	一体式 A pose	作用形式 Role form	单作用执行机构：气关式（B）--失气时阀位开（FO）;气开式（K）--失气时阀位关（FC） Single-acting actuator: gas-off type (B) -- valve position opens (FO) when gas is lost; Gas open (K), loss of air pressure valve position off (FC)
压盖型式 Gland type	压盖压紧式 Gland pressure type		双作用执行机构：气关式（B）--失气时阀位保持（FL）;气开式（K）--失气时阀位保持（FL） Double-acting actuators: gas-off type (B) -- valve position remains (FL) when air is lost; Open air (K) -- valve position remains (FL) when the air is lost
密封填料 Sealing packing	V型聚四氟乙烯填料、柔性石墨填料 V-type polytetrafluoroethylene packing, flexible graphite packing	可配附件 Accessories available	定位器、电磁阀、空气过滤减压器、保位阀、行程开关、阀位传送器、手轮机构等 Positioner, solenoid valve, air filter unloader, position holding valve, trip switch, valve position transmitter, handwheel mechanism, etc
阀板形式 Plate form	垂直板式（蝶形） Vertical plate (butterfly)		

主要零件材料 Part Material

名称 Name	材质 Material
阀体、阀座 Body, seat	WCB、LCB、CF8、CF8M、CF3、CF3M
蝶板 Butterfly plate	WCB、304、316、316L
密封圈 Sealing ring	氟橡胶、聚四氟 Fluorine rubber, PTFE
衬里材料 Lining material	PO、PE、PP、F46、F4、PFA
阀杆 Stem	17-4PH、2Cr13、不锈钢 Stainless steel
填料 Packing	V型聚四氟乙烯填料 V-type ptfe packing

主要性能参数 Main Performance Parameters

公称通径 (mm) Nominal diameter	50-500			
公称压力 Nominal pressure	PN(MPa)	0.6	1.0	1.6
试验压力 Test pressure	强度试验 Strength test	0.9	1.5	2.4
	密封试验 Sealing test	0.66	1.1	1.76
	低低压气密试验 Low pressure air test	0.6	0.6	0.6
适用介质 Applicable medium	浓硫酸、盐酸、硝酸、氢氟酸、王水及多种有机溶剂和其它强腐蚀性介质。 Concentrated sulfuric acid, hydrochloric acid, nitric acid, hydrofluoric acid, aqua regia and a variety of organic solvents and other corrosive media.			
项目 Project	技术指标 Technical indicators			
回差 Return error< (%)	带定位器: 小于全行程的2% With locator: less than 2% of the full travel			
基本误差 Fundamental error (%)	带定位器: 小于全行程的±2% With positioner: less than ±2% of full travel			
泄漏量 Leakage	符合ANSI B16.104IV级标准 Symbol ANSI B16.104 class IV standard			
可调范围 Adjustable range R	50:1			



主要外形连接尺寸 Main External Connection Dimensions

PN 10

DN	NPS	L	D	K	d	C	f	n-Φz	H
50	2	108	165	125	100	18	3	4-Φ18	63
65	2 ¹ / ₂	112	185	145	120	18	3	8-Φ18	70
80	3	114	200	160	135	20	3	8-Φ18	83
100	4	127	220	180	155	22	3	8-Φ18	105
125	5	140	250	210	185	22	3	8-Φ18	115
150	6	140	285	240	210	22	3	8-Φ22	137
200	8	152	340	295	265	24	3	12-Φ22	164
250	10	165	395	350	320	26	3	12-Φ26	206
300	12	178	445	400	370	26	4	12-Φ22	230
350	14	190	505	460	430	26	4	16-Φ22	248
400	16	216	565	515	480	26	4	16-Φ26	289
450	18	222	615	565	530	28	4	20-Φ26	320
500	20	229	670	620	580	28	4	20-Φ26	343
600	24	267	725	680	640	34	5	20-Φ30	413

主要外形连接尺寸 Main External Connection Dimensions

PN 25

DN	NPS	L	D	K	d	C	f	n-Φz	H
50	2	108	165	125	100	20	3	4-Φ18	63
65	2 ¹ / ₂	112	185	145	120	22	3	8-Φ18	70
80	3	114	200	160	135	24	3	8-Φ18	83
100	4	127	235	190	160	24	3	8-Φ22	105
125	5	140	270	220	190	26	3	8-Φ26	115
150	6	140	300	250	215	28	3	8-Φ26	137
200	8	152	360	310	275	30	3	12-Φ26	164
250	10	165	425	370	335	32	3	12-Φ30	206
300	12	178	485	430	395	34	4	16-Φ30	230
350	14	190	555	490	450	38	4	16-Φ33	248
400	16	216	620	550	505	40	4	16-Φ36	289
450	18	222	670	600	550	46	4	20-Φ36	320
500	20	229	730	660	610	48	5	20-Φ36	343
600	24	267	845	770	720	58	5	20-Φ39	413