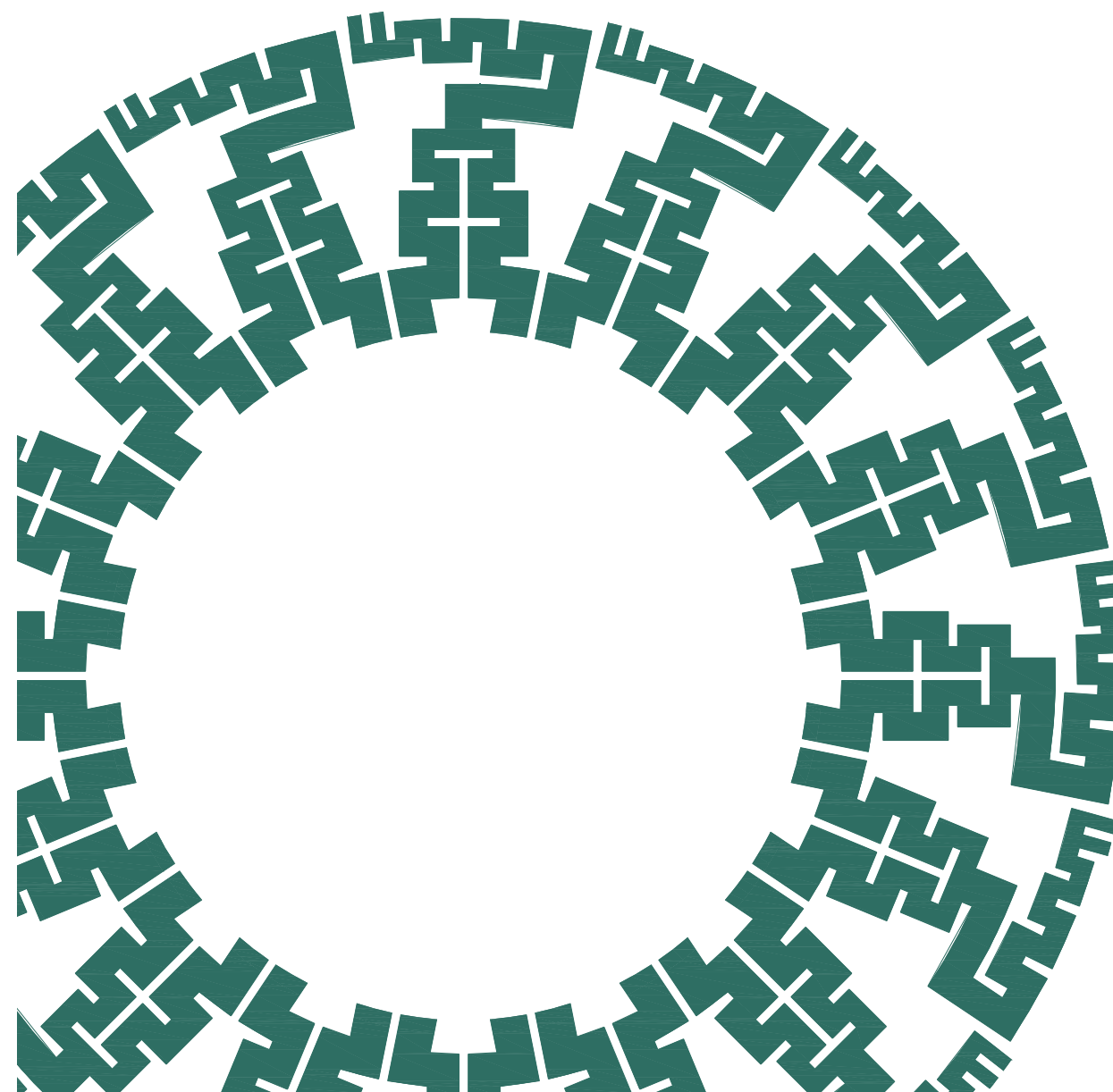




COMPANY PROFILE

SCORE MORE FOR YOUR PROCESS AUTOMATION

公司简介



无锡斯考尔自动控制设备有限公司

wuxi score automatic control equipment co.,ltd

江苏省无锡市金城东路333号中国工业博览园总部园区28#401

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www.scorefluid.com



- 1 公司简况
- 2 组织结构
- 3 重点装备
- 4 产品制造范围
- 5 主导产品
- 6 应用
- 7 公司资质

-
- 1 SCORE Summary
 - 2 SCORE Organization
 - 3 Main Equipment
 - 4 Products Range
 - 5 Main Products
 - 6 Application
 - 7 Certification

CONTENTS

目录

公 司 简 况

中加合资的无锡斯考尔（SCORE）自动控制设备有限公司成立于2011年12月，是一家以研发高端控制阀为主的制造型企业，广泛服务于国内重大石油化工、化工、化肥、油气、煤化工、冶金、电站、建材、空分等行业的各类装置。无锡SCORE的特质，决定了无锡SCORE将为中国过程自动化提供高可靠性的方案。

强大的研发能力

SCORE引进先进技术和设计理念，采用ASME、ANSI、API、TSG、CE、IEC等国际、国内规范和标准，广泛研究了国内外各家控制阀的特点，采用最新的计算机硬件和软件（3D造型、有限元力学分析、CFD流体分析）成果对控制阀产品进行了全面的标准化、优化和可靠性分析，设计出最符合各类流体控制需求的控制阀。主导产品有金属球阀、平行闸阀、三偏芯蝶阀和各种结构的球形控制阀。金属球阀主要用于有颗粒物、粉尘的混合流体，替代进口为很多国内煤化工、多晶硅企业使用。平行闸阀的高可靠性主要用于中石化、中石油等大型企业的重大装置，确保关键场合的可靠切断。三偏芯蝶阀适用于各类低压流体的调节和切断。球形阀面广量大，适用于各类普通场合和苛刻工况根据产品的特点，无锡SCORE的目标市场是石油化工、煤化工、油气、电站、冶金、空分等行业。



SCORE Head Office

SCORE SUMMARY

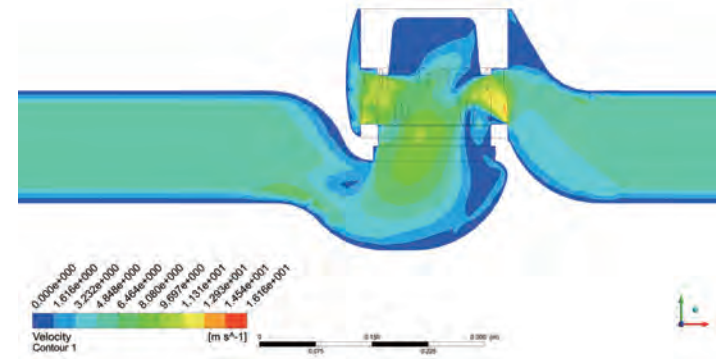
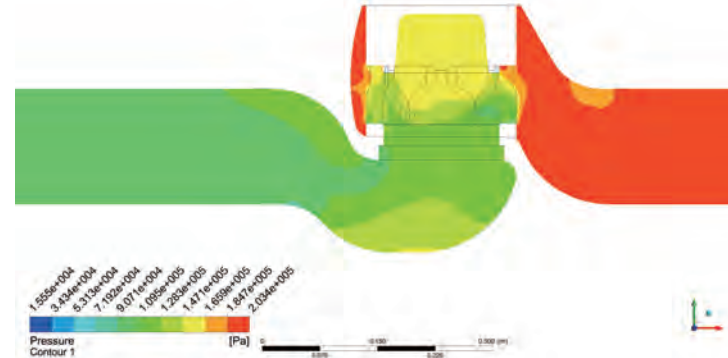
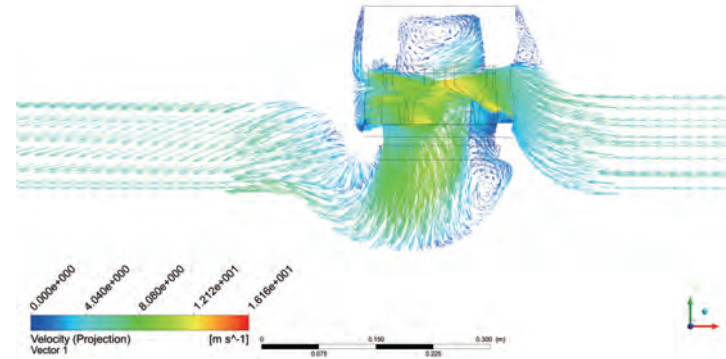
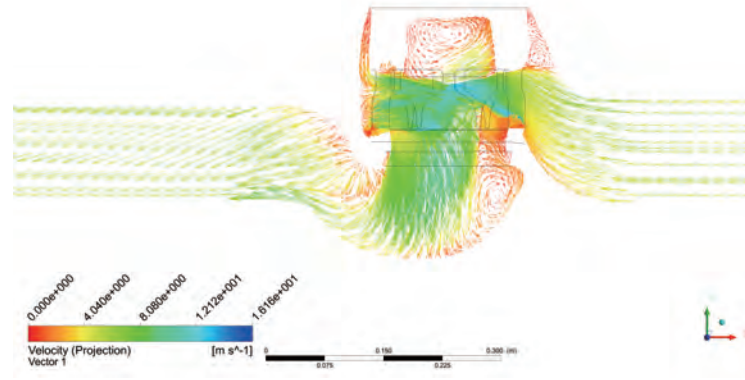
The Sino-Canada joint venture Wuxi SCORE Automatic Control Equipment Co., Ltd. was established in December, 2011 which is mainly specialized in research and development of high-end control valves. The products are widely used by all kinds of devices applied in petrochemical, chemical, fertilizer, oil & gas, coal chemical, metallurgy, power plant, construction materials, air separation and other major industries in China. Special features of Wuxi SCORE enable Wuxi SCORE to provide localization plan with high reliability for process automation of China.

Strong R & D Ability

SCORE introduced advanced technology and design principles, adopted ASME, ANSI, API, TSG, CE, IEC and other international and domestic regulations and standards, made research on features of control valve of various manufacturers both home and abroad, applied latest computer hardware and software technology (3D modeling, finite element analysis of mechanical, CFD fluid analysis) and proceeded fully standardization, optimization and reliability analysis of control valves in order to design the most suitable control valve to meet control requirements of various fluids. The main products include metal seated ball valve, parallel slide gate valve, triple-offset butterfly valve and globe valves of various structures. The metal seated ball valve is mainly applied for mixed fluid which contains particles and dust, used by many domestic enterprises of coal chemical and polycrystalline silicon industry to replace imported products. The parallel slide gate valve is used in large-sized plants by enterprises as Sinopec and PetroChina due to its high reliability to ensure reliable isolation in critical situations. The triple-offset butterfly valve is for throttling and cut-off of liquid with low pressure. The globe valves are of wide application and large production amount which are applicable for various both conventional and severe services. Based on the product features, Wuxi SCORE is targeted at the following markets: petrochemical, coal chemical, oil & gas, power plant, metallurgy and air separation, etc.

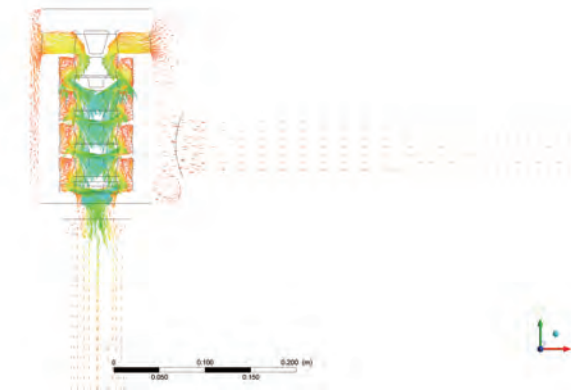
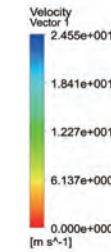


SCORE R & D Department

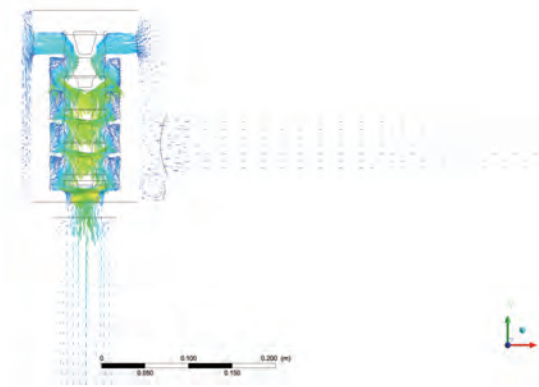
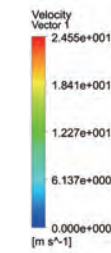


3D Gallery of GC100 3" Cage Valve Body

CFD Analysis for GC100 3" Cage Valve Body

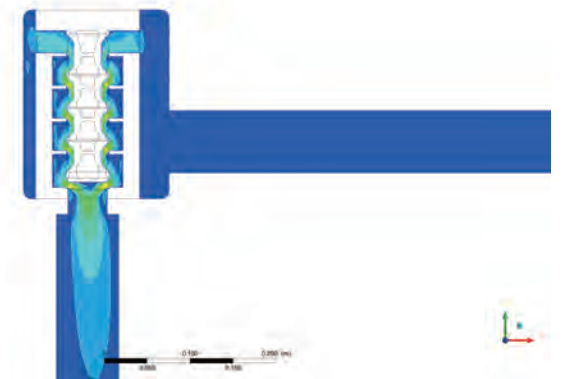
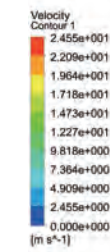


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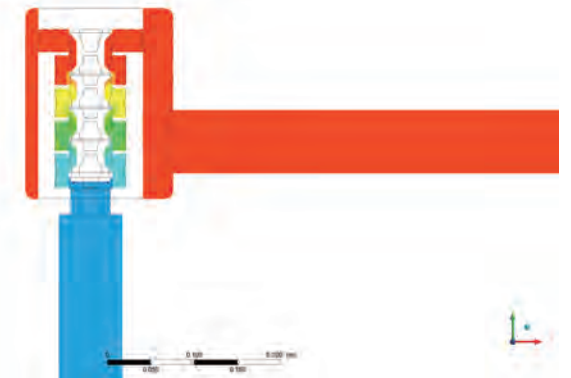
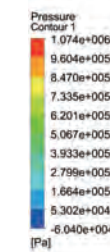


2

3



4



CFD Analysis for AC400 4"x2" ANSI 2500# High Pressure Multi-step Plug Angle Valve

先进的技术转换能力

经过3D造型和CFD分析的Globe（球形阀）阀内腔获得了最大的流通能力和最流畅的流道，SCORE直接将3D内腔图用于铸造金属模具和木模的加工，通过CAD、CAM的方式实现了图纸到模具的零误差技术转换。



UG 3D Modeling of GC100 6"-1500# Body Gallery



UG 3D Modeling of GC100 6"-1500# Body



Wooden Pattern on CNC



Wooden Pattern of BT300 Disc
after CAM (Before Painting)

Advanced Technical Transformation Ability

Globe valve after 3D modeling and CFD analysis gains the highest flow capability and the most fluent path. SCORE directly uses 3D cavity drawing for the machining of metal and wooden pattern for casting. Technical transformation with zero-deviation from drawing to pattern is realized via CAD and CAM.



Finished Wooden Pattern of GC100 4"-1500# Body

可靠的产品实现能力

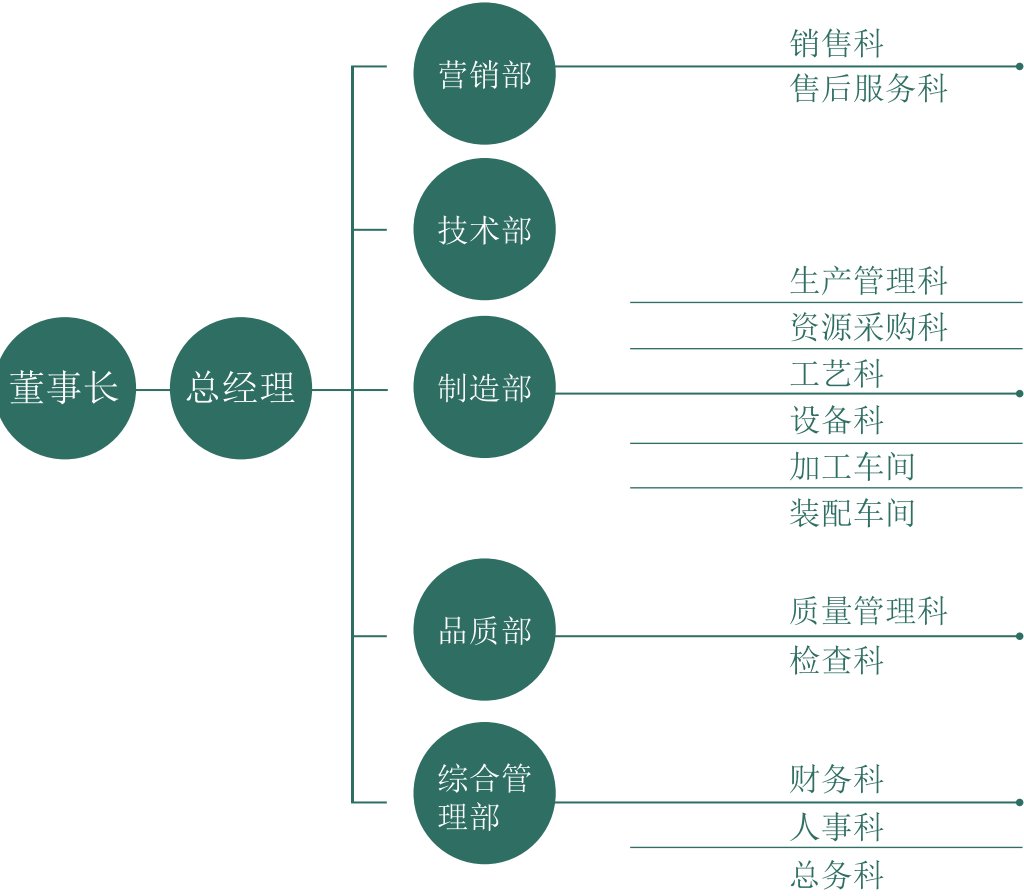
先进的技术在SCORE将通过先进的设备来实现产品，由此SCORE从德国EF采购了金属研磨机用于平行闸阀的研磨，采购了韩国DOOSAN的加工中心和数控车床用于各种关键零件的加工，采购的台湾Honor（荣田）精机的数控立车用于加工大型阀体和零件，采购球面车床、球面磨床、球面研磨机等各种专用设备确保先进技术得到可靠的实施，采购了德国Spectro的移动式光谱分析仪用于PMI检测进货材料。一期（2015年前）设备投资1,200万元RMB，二期（2016年）设备投资计划800万元RMB。

公司贯彻全球采购的理念，填料、密封环、垫圈、膜片等关键零部件均来自美国Garlock、法国Saint-Gobain日本Pillar、英国GEE、Flexitallic、US RPP等国际大公司，确保产品的可靠性！

公司办公及工厂面积3,500m²，50员工销售收入2014年3,000万元，2015年计划5,000万元，为中国重大装置的过程自动化提供高可靠、高性价比的方案。

公司本部位于无锡新区中国工业博览园总部园区，交通便利，园区配套服务优良，工厂位于锡山区张泾。

组 织 结 构



Reliable Product Realization Ability

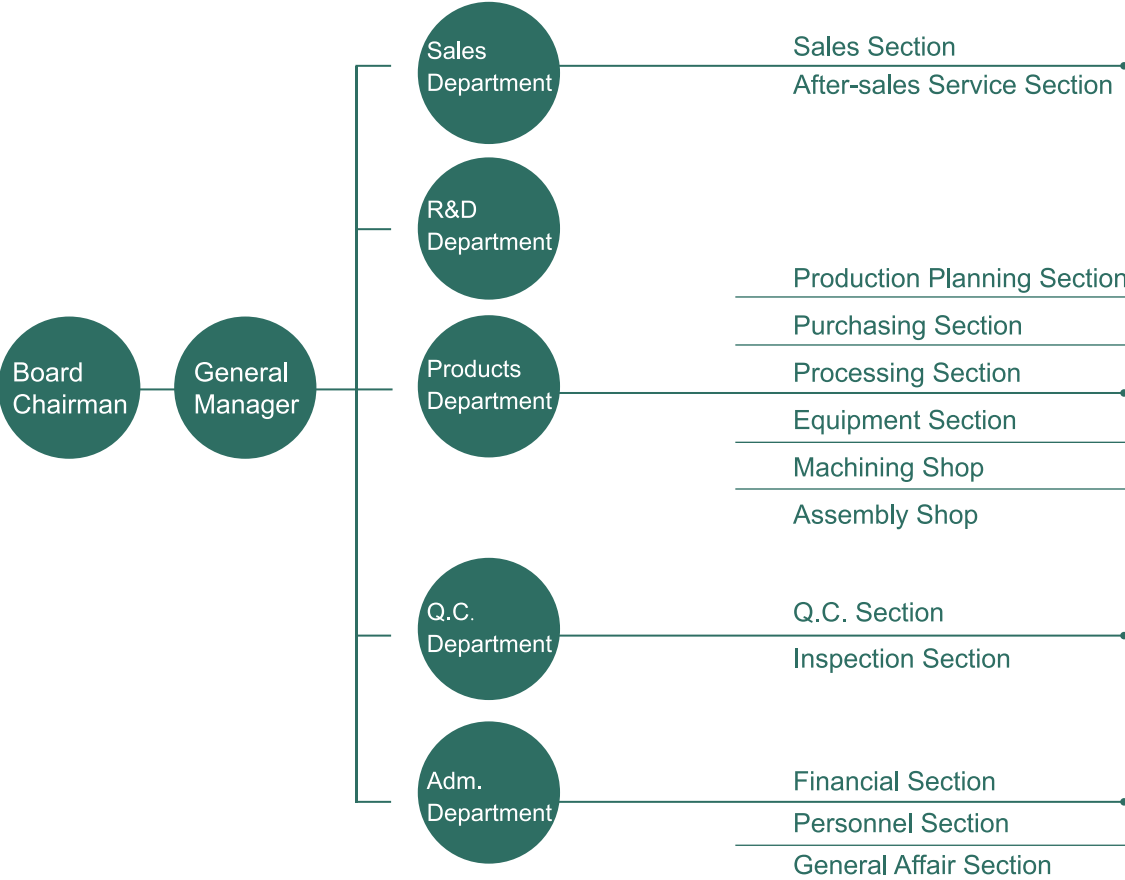
The advanced technology means product realization by advanced equipment in SCORE. Therefore, we purchase metal lapping machine from German EF for lapping of parallel slide gate valve, purchased machining center and NC lathe from Korean DOOSAN for machining of all kinds of key parts, purchased NC vertical lathe from Taiwanese HONOR SEIKI Co., Ltd. for machining of large-sized valve body and parts, purchased spherical lathe, spherical grinding machine, spherical lapping machine and other special equipment to ensure reliable implementation of advanced technology. We also purchased the movable spectrum analyzer from German Spectro for PMI testing of the raw materials. The equipment investment was up to USD 2.0 million for Phase I (before year 2015) and the planned investment for Phase II (year 2016) will be up to USD 1.3 million.

Our company adopts global sourcing concept. Packing, seal ring, gasket, diaphragm and other key components are all from international companies to ensure the product reliability, including Garlock, Flexitallic, RPP of America, Saint-Gobain of France, Pillar of Japan, GEE of UK, etc.

The office and factory area of our company covers an area of 3500m². There are 50 employees in our company with annual sales revenue up to USD 5 million in year 2014. The planned sales revenue for year 2015 is USD 8 million. Our company provides reliable solutions with high cost performance for process automation of major equipment in China.

The head office of our company is located in headquarter of China Industrial Exposition Park in New District, Wuxi with convenient transportation and good supporting service. Factory of our company is located at Zhangjing Town of Xishan District.

Organization



重点装备

重点设备展示



Equipment Name: NC Lathe PUMA280L
Band: Doosan (Korea)
Chuck/ Turning Dia.: 280mm/ 400mm
Equipment Value: 620,000Yuan RMB (100,000USD)
Machining Range: Butterfly Valve Body & Disc ($\leq$ DN250)
 Ball & Segmental Ball Valve Body ($\leq$ DN200)
 Globe Valve Body (DN15~80), Bonnet ($\leq$ DN150), Trim ($\leq$ DN250)

Main Equipment

Main Equipment Show



Equipment Name: CNC Vertical Lathe VL-125C
Band: Honor (Taiwan, China)
Chuck/ Turning Dia.: 1250mm/ 1600mm
Equipment Value: 1,800,000Yuan RMB (290,000USD)
Machining Range: Butterfly Valve Body (DN450~1000) & Disc (DN450~1200)
 Ball & Segmental Ball Valve Body ($\geq$ DN300)
 Globe Valve Body (DN200~400), Bonnet (DN250~600)



Equipment Name: CNC Vertical Lathe VL-66C
Band: Honor (Taiwan, China)
Chuck/ Turning Dia.: 660mm/ 860mm
Equipment Value: 1,230,000Yuan RMB (195,000USD)
Machining Range: Butterfly Valve Body (DN300~500) & Disc (DN300~600)
 Ball & Segmental Ball Valve Body (DN250~400)
 Globe Valve Body (DN100~200), Bonnet (DN150~450),
 Trim (DN250~DN600)

Equipment Name: Movable PMI
Band: Spectro (German)
Equipment Value: 488,000Yuan RMB (79,000USD)
Application Range: Testing of casting, forging, bar, etc.
 (Nickel base alloy included)





Equipment Name: Machining Center HM8000
Band: Doosan (Korea)
Chuck/ Turning Dia.: 800x800mm
Working Plate Size: 2,600,000Yuan RMB (420,000USD)
Machining Range: Body & Disc of Butterfly valves ($\leq$ DN600)
 Ball valves ($\leq$ DN450) & segmental ball valves ($\leq$ DN450)



Hydraulic Test Bench

(Hydrostatic Shell Test, Tightness Test, Leakage Test)
 Up to DN100@ANSI2500#



Equipment Name: Lathe NC PUMA405
Band: Doosan (Korea)
Working Plate Size.: 380/550mm
Equipment Value: 785,000Yuan RMB (124,000USD)
Machining Range: Body & Disc of Butterfly valves ($\leq$ DN350)
 Ball valves & segmental ball valves ($\leq$ DN250)
 Globe Valves Body (DN50~DN100), Bonnet ($\leq$ DN200), Trim ($\leq$ DN350)



Hydraulic Test Bench

(Hydrostatic Shell Test, Tightness Test, Leakage Test)
 Up to DN600@ANSI2500#、DN300@ANSI2500#

产 品 制 造 范 围

控制阀制造范围

型号	名称	压力等级	口径
球形阀			
GS100	顶部导向型单座调节阀	ANSI 150#~600#	1/2"~8"
		ANSI 900#~2500#	1"~2"
GS200	小流量单座调节阀	ANSI 150#~2500#	1/2"~1"
GC100	套筒导向型调节阀	ANSI 150#~600# ANSI 900#~1500# ANSI 2500#	1"~24" 1"~18" 1"~16"
GC200	多孔式套筒导向型调节阀		
GC300	迷宫式套筒导向型调节阀		
GC400	多段式阀芯套筒导向调节阀		
GT100	三通分流调节阀	ANSI 150#~2500#	1"~24"
GT200	三通合流调节阀	ANSI 150#~2500#	1"~24"
AS100	顶部导向型单座角阀	ANSI 150#~ANSI 2500#	1"~16"
AC100	套筒导向型角阀	ANSI 150#~ANSI 2500#	1"~16"
AC200	多孔式套筒导向型角阀	ANSI 150#~ANSI 2500#	1"~16"
AC300	迷宫式套筒导向型角阀	ANSI 150#~ANSI 2500#	1"~16"
AC400	多段式阀芯套筒导向型角阀	ANSI 150#~ANSI 2500#	1"~16"
球阀			
BE100	凸轮挠曲阀（对夹式）	ANSI 150#~600#	1"~12"
		ANSI 150#~300#	1"~18"
BE120	凸轮挠曲阀（法兰式）	ANSI 150#~600#	1"~12"
		ANSI 150#~300#	1"~18"
BS100	软密封球阀（浮动式）	ANSI 150#	1/2"~8"
		ANSI 300#	1/2"~6"
BS100	软密封球阀（浮动式）	ANSI 600#	1/2"~4"
BS200	软密封球阀（固定式）	ANSI 150#~600#	2"~24"
BM100	金属球阀（浮动）	ANSI 150#~600#	1/2"~4"
BM200	金属球阀（固定）	ANSI 150#~600#	2"~24"
平行闸阀			
PG100	平行闸阀	ANSI 150#~600#	1-1/2"~32"
蝶阀			
BT200	双偏芯蝶阀（对夹式）	ANSI 150#	3"~60"
BT300	三偏芯蝶阀（对夹式）	ANSI 150#~300#	3"~60"
		ANSI 600#	3"~36"
BT320	三偏芯蝶阀（法兰式）	ANSI 900#	3"~24"
		ANSI 1500#~2500#	4"~18"
BT600	低负载型蝶阀	ANSI 125#, GB/HG PN0.25~1.0	3"~128"

执行机构制造范围

型号	名称	动作型式	执行机构尺寸
D100LA	多弹簧气动薄膜式	直行程	220、270、350、450、550、650
P100LA	气动活塞式双作用	直行程	300、450、600
D100RA	多弹簧气动薄膜式	角行程	220、270、350、450、550、650
P200RA	气动活塞式（齿轮、齿条式）	角行程	60、80、90...235、300、340

Products Line

Control Valves Ranges

Type	Valve Name	Pressure Rating	Valve Size
Globe Valve			
GS100	Top Guided Single Seat Globe Valves	ANSI 150#~600#	1/2"~8"
		ANSI 900#~2500#	1"~2"
GS200	Small Flow Single Seat Globe Valves	ANSI 150#~2500#	1/2"~1"
GC100	Cage Guided Globe Valves	ANSI 150#~600# ANSI 900#~1500# ANSI 2500#	1"~24" 1"~18" 1"~16"
GC200	Multi-hole Cage Guided Globe Valves		
GC300	Labyrinth Cage Guided Globe Vaves		
GC400	Multi-step Plug Cage Guided Globe Valves		
GT100	3-Way Diverting Globe Valves	ANSI 150#~2500#	1"~24"
GT200	3-Way Mixing Globe Valves		
AS100	Top Guided Single Seat Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
AC100	Cage Guided Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
AC200	Multi-hole Cage Guided Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
AC300	Labyrinth Cage Guided Angle Vaves	ANSI 150#~ANSI 2500#	1"~16"
AC400	Multi-step Plug Cage Guided Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
Ball Valve			
BE100	Eccentric Rotating Plug Valves (Wafer)	ANSI 150#~600#	1"~12"
		ANSI 150#~300#	1"~18"
BE120	Eccentric Rotating Plug Valves (Flanged)	ANSI 150#~600#	1"~12"
		ANSI 150#~300#	1"~18"
BS100	Straight Through Ball Valves (Floating)	ANSI 150#	1/2"~8"
		ANSI 300#	1/2"~6"
BS100	Straight Through Ball Valves (Floating)	ANSI 600#	1/2"~4"
BS200	Straight Through Ball Valves (Trunnion)	ANSI 150#~600#	2"~24"
BM100	Metal Seated Ball Valves (Floating)	ANSI 150#~600#	1/2"~4"
BM200	Metal Seated Ball Valves (Trunnion)	ANSI 150#~600#	2"~24"
Parallel Slide Gate Valve			
PG100	Parallel Slide Gate Valves	ANSI 150#~600#	1-1/2"~32"
Butterfly Valve			
BT200	Double Offset Butterfly Valves (Wafer)	ANSI 150#	3"~60"
BT300	Triple Offset Butterfly Valves (Wafer)	ANSI 150#~300#	3"~60"
		ANSI 600#	3"~36"
BT320	Triple Offset Butterfly Valves (Double Flange)	ANSI 900#	3"~24"
		ANSI 1500#~2500#	4"~18"
BT600	Light Duty Damper Type Butterfly Valves	ANSI 125#, GB/HG PN0.25~1.0	3"~128"

Actuator Ranges

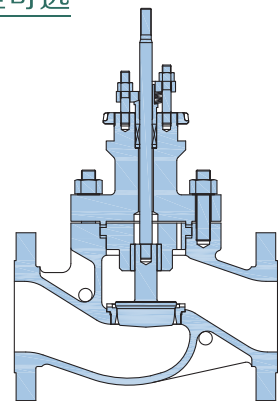
Type	Actuator Name	Motion Type	Actuator Size
D100LA	Multi Spring Pneumatic Diaphragm	Linear	220、270、350、450、550、650
P100LA	Pneumatic Double Action Cylinder	Linear	300、450、600
D100RA	Multi Spring Pneumatic Diaphragm	Rotary	220、270、350、450、550、650
P200RA	Pneumatic Cylinder (Rack & Pinion)	Rotary	60、80、90...235、300、340

主导产品

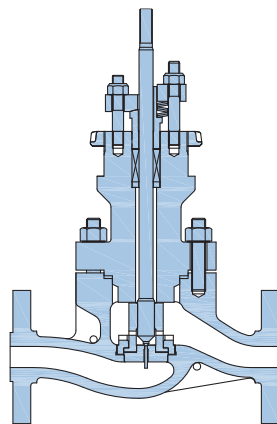
球形阀

球形阀是过程控制中最常用、最可靠的产品，品种、结构多样适用于各类不同的工况，从常温、常压到各类严苛工况，在SCORE总能找到一款满足过程控制的需要。

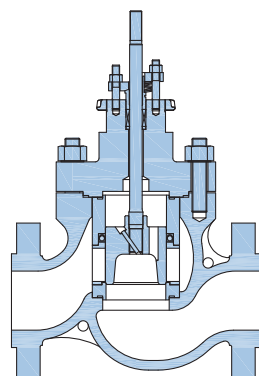
众多的阀型可选



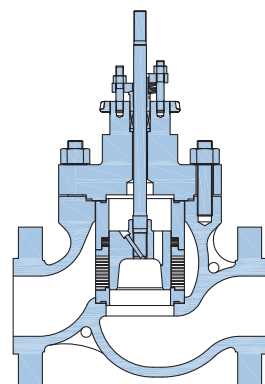
GS100 Top Guided Single Seat Globe Valve



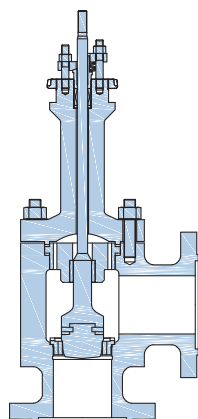
GS200 Small Flow Single Seat Globe Valve



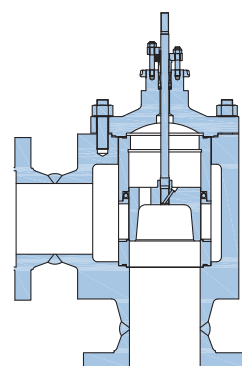
GC100 Cage Guided Globe Valve



GC200 Multi-hole Cage Guided Globe Valve



AS100 Top Guided Single Seat Angle Valve



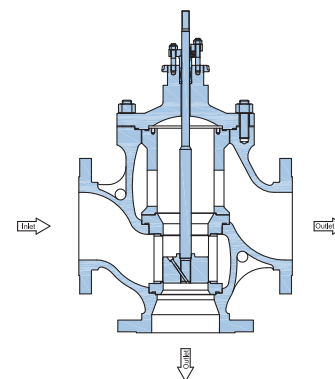
AC100 Cage Guided Angle Valve

Main Products

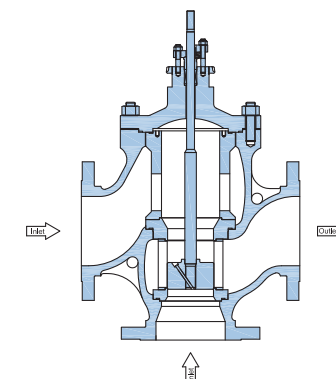
Globe Valves

The globe valve is the most common and reliable product used in process control with many types and structures which is applicable in different working conditions, including normal temperature and pressure to all kinds of severe service. You can always find what you need for process control in SCORE.

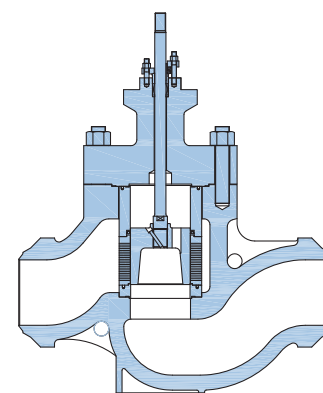
Various Kinds of Valve are Optional



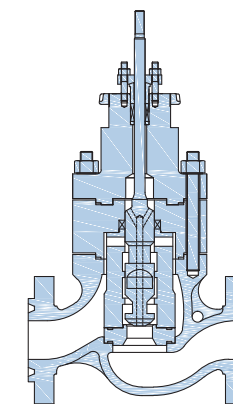
GT100 Cage Guided 3-Way Diverting Globe Valve



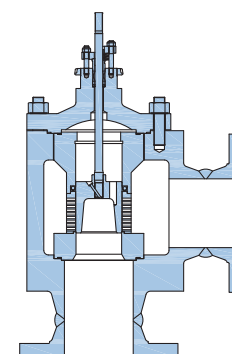
GT200 Cage Guided 3-Way Mixing Globe Valve



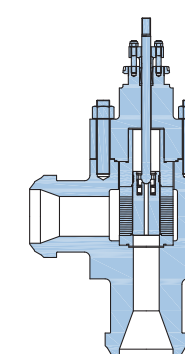
GC300 Labyrinth Cage Guided Globe Valve



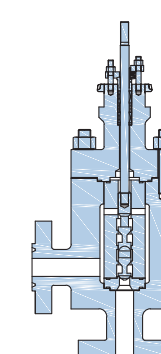
GC400 Multi-step Plug Cage Guided Globe Valve



AC200 Multi-hole Cage Guided Angle Valve

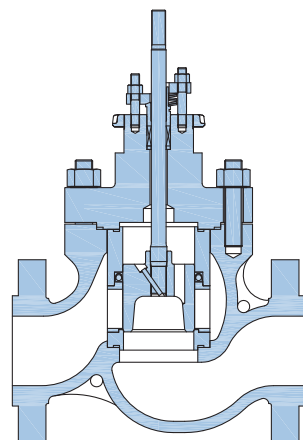


AC300 Labyrinth Cage Guided Angle Valve

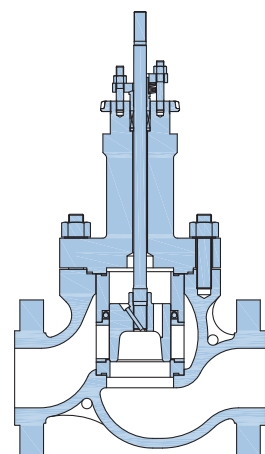


AC400 Multi-step Plug Cage Guided Angle Valve

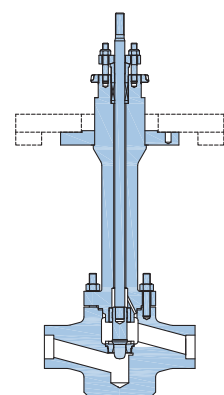
多种阀盖型式可选



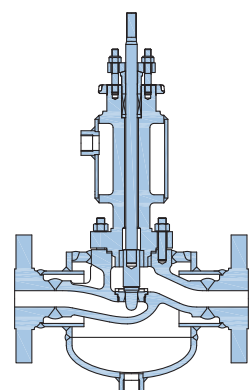
Standard Bonnet
(-17~+230 °C)



Extension Bonnet
(-45~-17 °C, ≥230 °C)

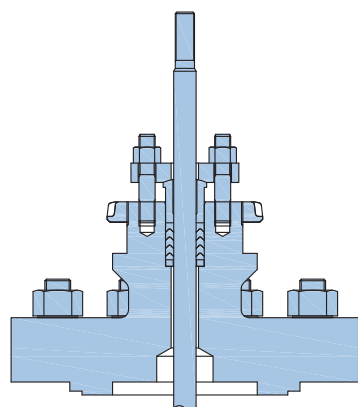


Cryogenic Bonnet
(With Cool Box Plate) (-196~-45 °C)

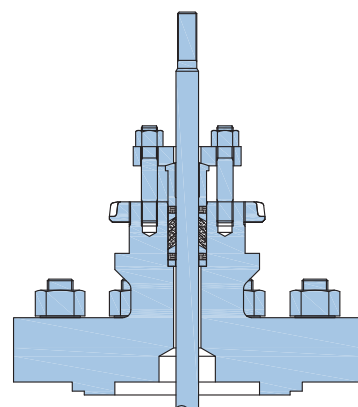


Full-Jacket Bonnet & Body

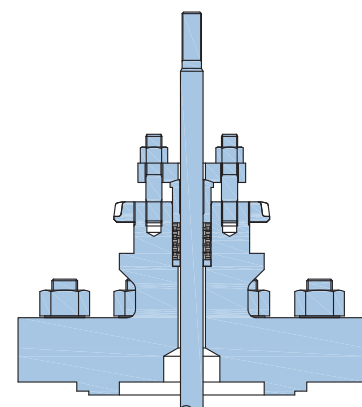
多种型式填料可选



RFFE V Ring Packing

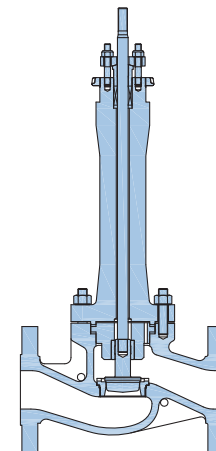


EVSP9000 Graphite
Packing

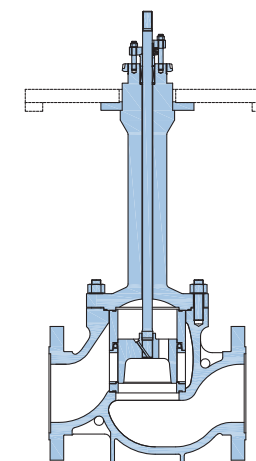


Square Braided
Fiber Packing

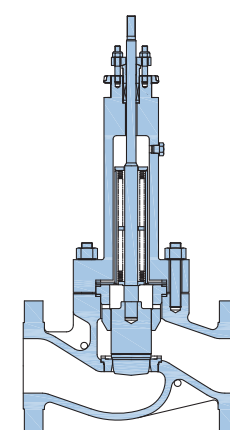
Various Kinds of Bonnet are Optional



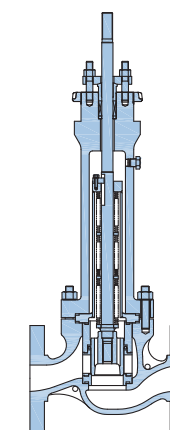
Cryogenic Bonnet
(Without Plate)(-196~-45 °C)



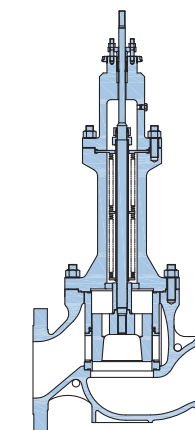
Cryogenic Bonnet
(With Cool Box Plate) (-196~-45 °C)



GS100 Bellows Bonnet

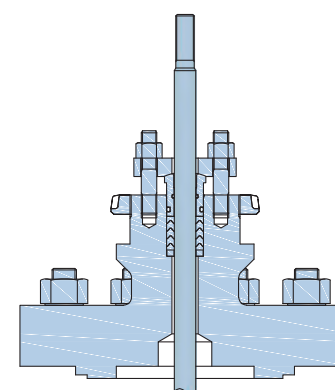


GC100 Bellows Bonnet
(Up to 4")

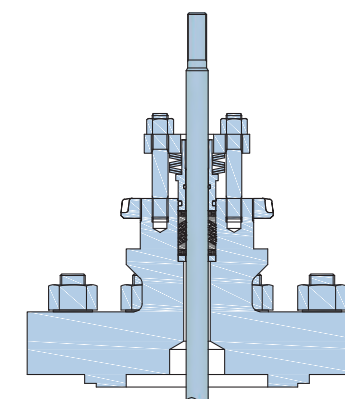


GC100 Bellows Bonnet
(Over 6")

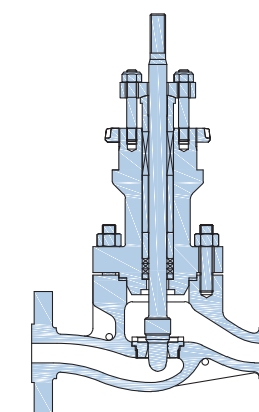
Various Kinds of Packing are Optional



Double Seal Packing
(-45 °C ~+200 °C)



Low Fugitive
Emissions Live-Loading
Packing for API 622



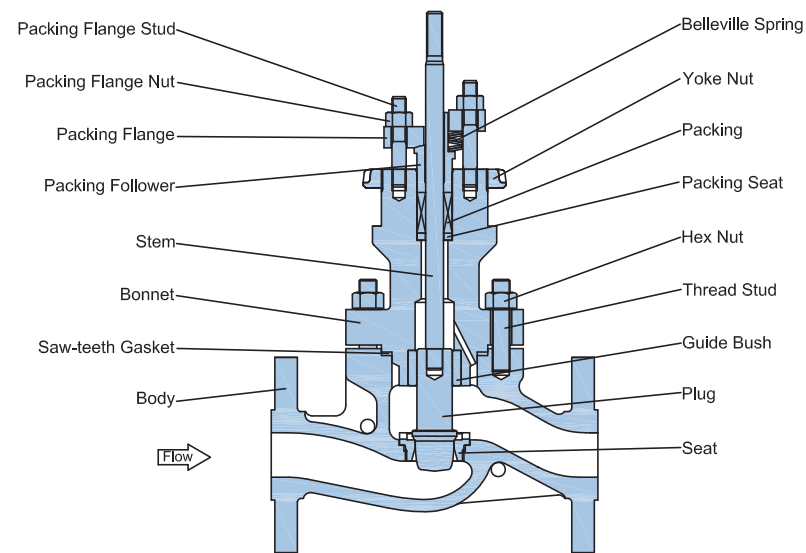
Packing for Slurry
Service

GS系列：顶部导向型单座调节阀

GS100：顶部导向型单座调节阀

GS200：小流量单座调节阀

顶部导向型单座调节阀结构简单，易于操作、维护，大量使用于各类工况，特别是常压、常压差场合，是最经济、可靠的控制阀。流体压力不平衡型阀芯，只用在较低压差和关闭压差的场合。



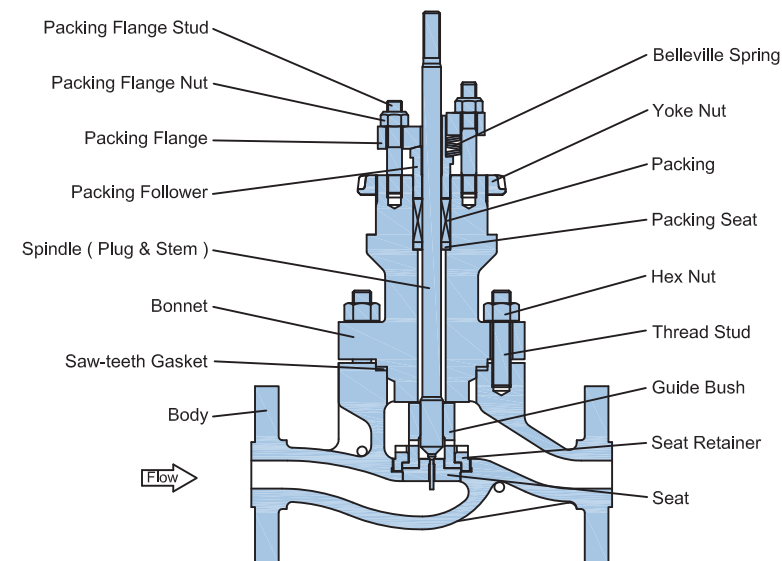
GS100 Parts List (≤ANSI 600# 1/2"~1")

GS SERIES TOP GUIDED SINGLE SEAT GLOBE VALVES

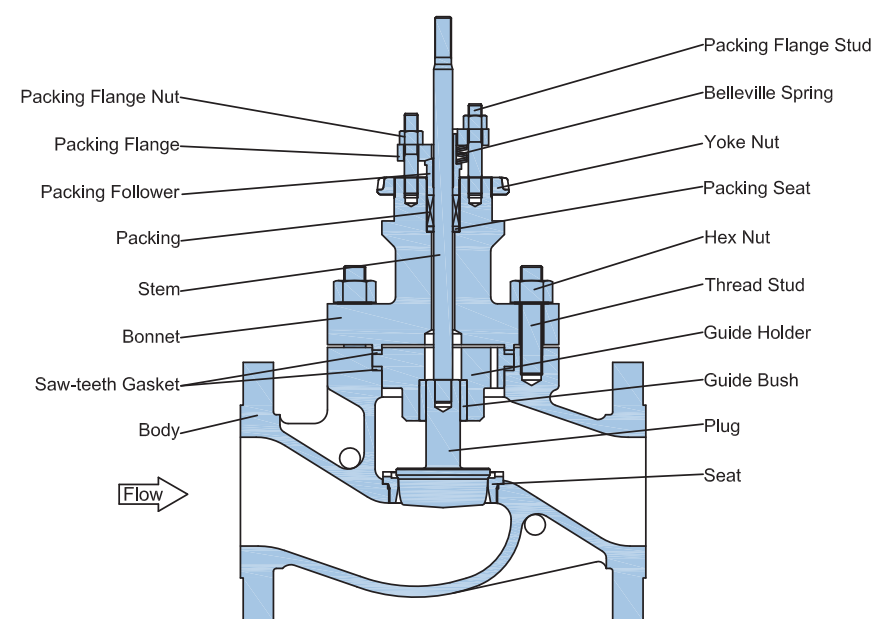
GS100: Top Guided Single Seat Globe Valves

GS200: Small Flow Single Seat Globe Valves

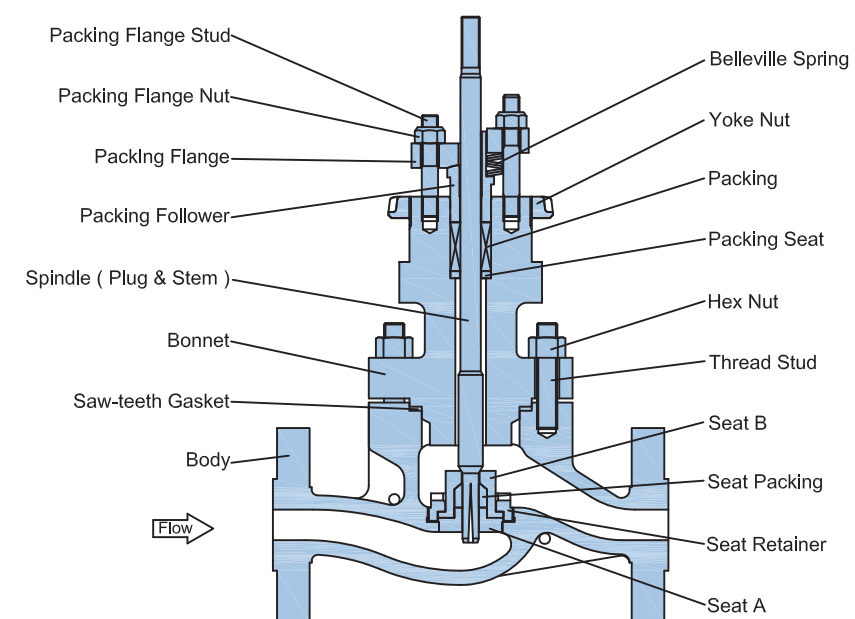
The top guided single seat globe valve is compact and simple, easy operating and maintenance which can be used under various applications, especially under normal pressure and normal pressure drop. Valves of this type are the most economical and reliable. Valve plug of unbalanced only applies to lower pressure drop.



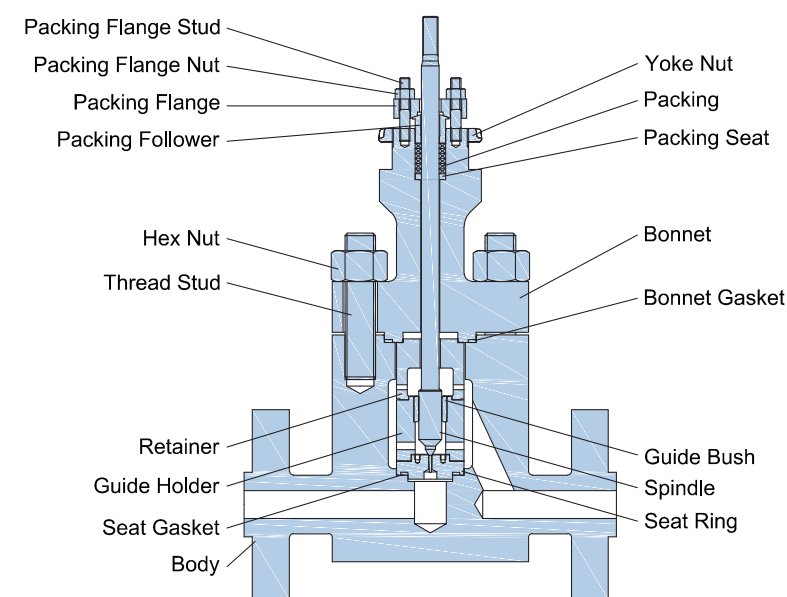
GS200 Parts List (With Needle Plug)



GS100 Parts List (≤ANSI 600# 1-1/2" and Over)



GS200 Parts List (With V-cut Plug)



GS100 or GS200 Parts List (≥ANSI900#)

各种流量特性可选



GS100 IEC EQ% Plug GS100 IEC Linear GS100 Large Cv Modified EQ% GS100 Large Cv Modified Linear

规格

本体型式	GS100		GS200
阀门口径	1/2"~8"	1"~4"	1/2"~1"
压力等级	ANSI 150#~600, PN16~PN100	ANSI 900#~2500#, PN160~PN400	ANSI 150#~2500#, PN16~PN400
连接方式	法兰式、焊接式、内部法兰式		
流体温度	-196~+565℃		
阀体材质	WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...		
阀内件材质	A276-316, A276-316/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...		
流量特性	等百分比、线性、改良等百分比、改良线性、开关		
可调比	50:1		30:1 (针形阀芯) 50:1 (V 型切口阀芯)
阀座泄漏量	ANSI Class IV, V, VI		
标配执行机构	D100LA: 多弹簧薄膜式执行机构 P100LA: 活塞式气缸执行机构		



GS100 On-off Plug GS100 Soft Plug GS100 Soft Plug



GS200 V-cut Plug, Modified Linear GS200 Needle Plug, Linear

Specifications

Body Styles	GS100		GS200
Body Size	1/2"~8"	1"~4"	1/2"~1"
Body Rating	ANSI 150#~600, PN16~PN100	ANSI 900#~2500#, PN160~PN400	ANSI 150#~2500#, PN16~PN400
Connections	Flanges, Butt Weld, Socket Weld, Integral Flanges		
Fluid Temperature	-196~+565℃		
Body Material	WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...		
Trim Material	A276-316, A276-316/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...		
Flow Characteristics	EQ%, Linear, Modified EQ%, Modified Linear, On-off		
Rangeability	50:1		30:1 (Needle plug) 50:1 (V-cut plug)
Seat Leakage	ANSI Class IV, V, VI		
Actuator Combination	D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator		

GC系列：套筒导向型调节阀

GC100: 套筒导向型调节阀

GC200: 多孔式套筒导向型调节阀

GC100系列套筒导向型球形调节阀是一种大容量、动态稳定性高、适合苛刻工况条件的控制阀，广泛用于大流量，高温、高压控制的场合。阀芯为流体压力平衡结构，这样作用在阀芯的流体压力是平衡的，只需要较小的执行机构推力即可达到稳定控制。

GC200系列由多孔式的套筒代替了GC100标准型套筒，可以一定程度地控制流体流速，从而适度降低噪音、防止空化的发生。

GC100、GC200不能满足工况条件的，建议选择GC300/AC300迷宫阀和GC400/AC400多段式阀芯型控制阀。



GC100-D100LA



GC200-P100LA

GC SERIES CAGE GUIDED GLOBE VALVES

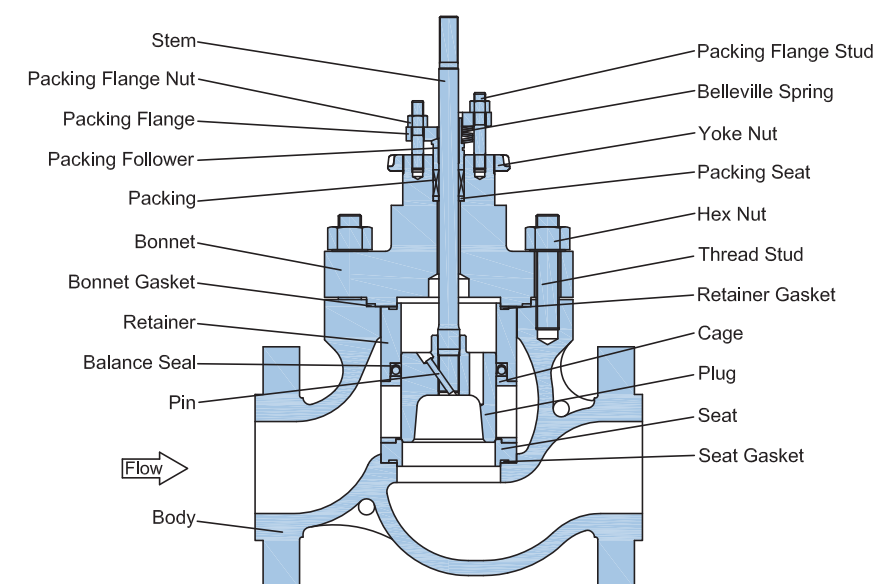
GC100: Cage Guided Globe Valves

GC200: Multi-hole Cage Guided Globe Valve

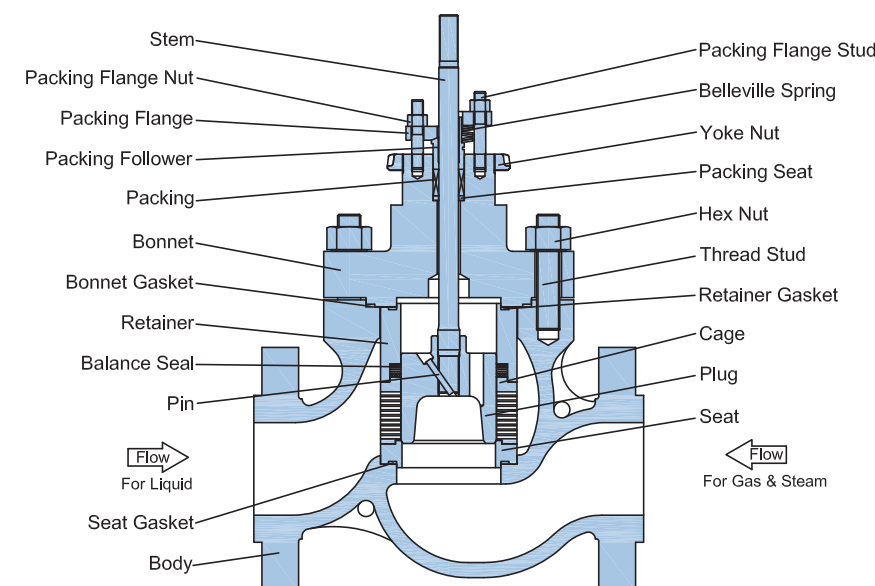
Cage guided Globe valve of GC100 series is a kind of control valve with large capacity, high dynamic stability which is suitable to a variety of heavy duty services. It is widely applied under large flow, high temperature and high pressure applications. Benefit from its balance plug, reliable control is realized with smaller thrust by the actuator.

Instead of standard cage of GC100, GC200 series uses multi-hole cage, which may control fluid velocity in order to reduce noise and prevent cavitation.

It is recommended to use GC300/AC300 labyrinth cage valve and GC400/AC400 control valve with multi-step plug, when GC100, GC200 couldn't fit with the fluid condition.



GC100 Parts List



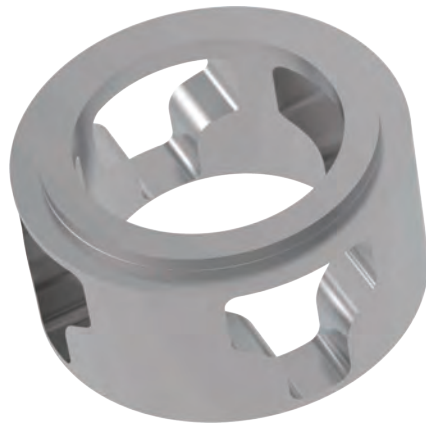
GC200 Parts List

GC系列：套筒导向型调节阀

各种流量特性的套筒可选



GC100 EQ% Cage



GC100 Linear Cage

规格

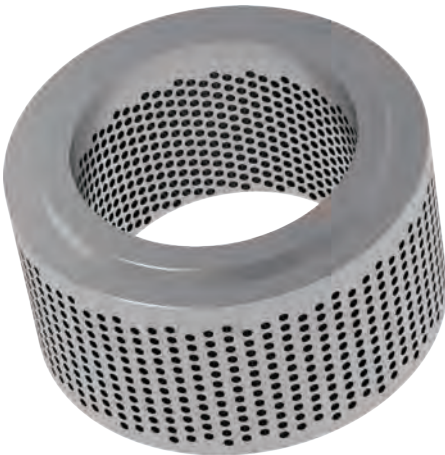
本体型式		GC100: 球形阀		GC200: 球形阀	
		AC100: 角阀		AC200: 角阀	
阀门口径		1"~32"	1"~18"		1"~16"
压力等级		ANSI 150#~600	ANSI 900#~1500#		ANSI 2500#
连接方式		法兰式（RF, RTJ, FM）、焊接式（SW, BW）、整体法兰式、其他			
流体温度		-196~+565℃			
阀体材质		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
阀内件材质		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
流量特性		等百分比、线性、改良等百分比、改良线性			
可调比		50:1			
阀座	金属阀座	ANSI Class IV, V or MSS-SP-61			
泄漏量	软阀座	ANSI Class VI			
标配执行机构		D100LA: 多弹簧薄膜式执行机构			
		P100LA: 活塞式气缸执行机构			

GC SERIES CAGE GUIDED GLOBE VALVES

Various Kinds of Cage are Optional



GC200 EQ% Cage



GC200 Linear Cage

Specifications

Body Styles		GC100: Globe Valve		GC200: Globe Valve	
		AC100: Angle Valve		AC200: Angle Valve	
Body Size		1"~32"		1"~18"	
Body Rating		ANSI 150#~600		ANSI 900#~1500#	
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc...			
Fluid Temperature		-196~+565℃			
Body Material		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
Trim Material		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
Flow Characteristics		EQ%, Linear, Modified EQ%, Modified Linear			
Rangeability		50:1			
Seat	Metal Seat	ANSI Class IV, V or MSS-SP-61			
Leakage	Soft Seat	ANSI Class VI			
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator			

迷宫式套筒导向型调节阀

GC300: 迷宫式套筒导向型直通调节阀

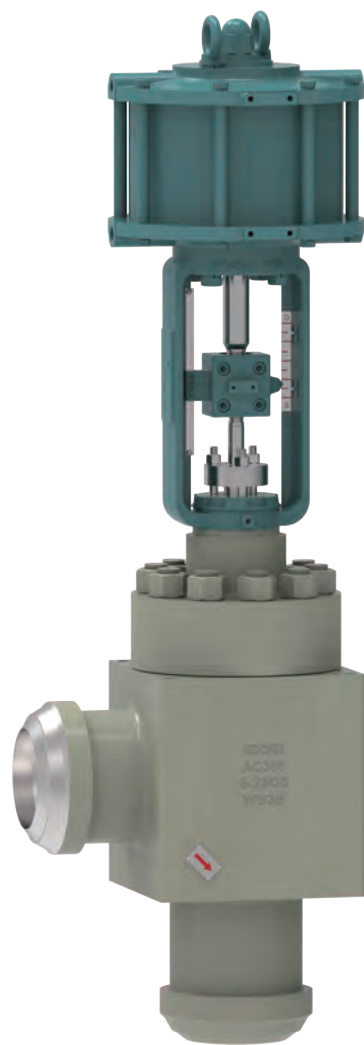
AC300: 迷宫式套筒导向型角阀

SCORE的GC300、AC300系列迷宫式套筒阀是高温、高压差等苛刻工况最有效、最可靠的控制阀。当流体流经独特设计的迷宫式流道，流体不断地变向，不断地冲击直角变向的流道，压力逐步损失，动能逐步损耗，流速得到有效控制。对于非压缩性流体，能够有效地防止空化和气蚀，对于可压缩性流体，能够有效地降低噪音。迷宫阀能够有效防止阀内件被冲刷、防止震荡产生。

独立流道设计的芯片，相比混合流道设计能够获得比较准确的数学模型，SCORE拥有迷宫阀设计计算的完整的数学模型，能够根据客户的具体工况定制最合理的方案，达到最好的控制效果。



GC300-D100LA ANSI 1500# C12A 10"x8"



AC300 ANSI 2500# WB36 6"x2.5"

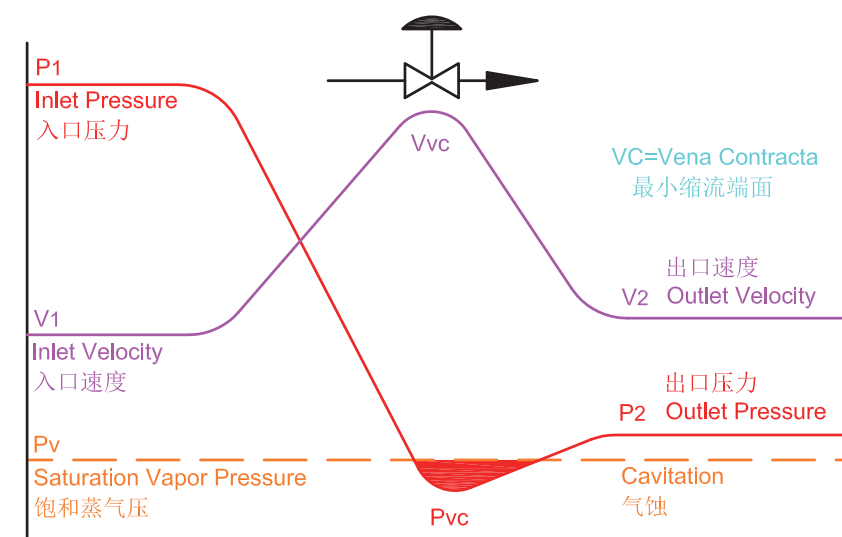
LABYRINTH CAGE GUIDED GLOBE VALVES

GC300: Labyrinth Cage Guided Globe Valve

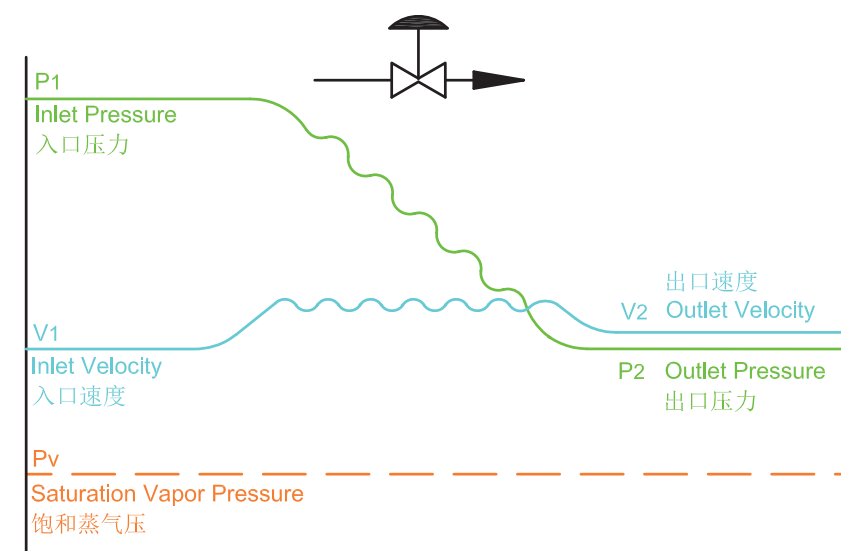
AC300: Labyrinth Cage Guided Angle Valve

Labyrinth cage valve of series GC300 and AC300 of SCORE is the most effective and reliable control valve under high temperature, high pressure drop and other severe service. The specially designed flow path forces fluid through a tortuous path of right-angle turns, constantly changes its directions and impacts on the path, to control the pressure and kinetic energy letdown and limit the fluid velocity effectively. This kind of valve may effectively prevent cavitation for uncompressed fluid and may effectively reduce the noise of compressed fluid. Labyrinth cage valve may effectively prevent flushing and vibration of the valve trim.

Compared with "mixed path" design, "independent path" design may obtain more accurate mathematical model. SCORE holds complete mathematical model of labyrinth valve design and calculation, which enables SCORE to provide the most suitable solutions for customers based on severe service.

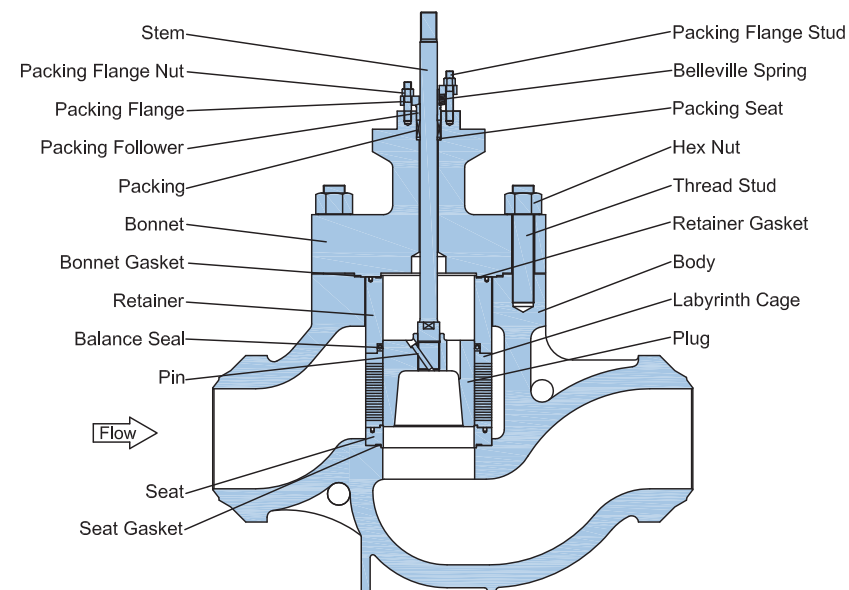


Profile through Valve for conventional control valve (Liquid)

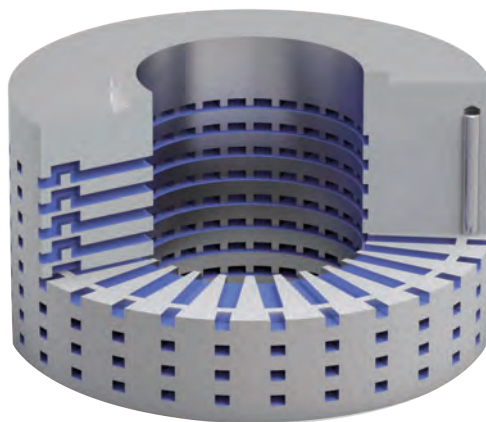


Profile through Valve for Labyrinth Cage Trim

迷宫式套筒导向型调节阀



GC300 Parts List

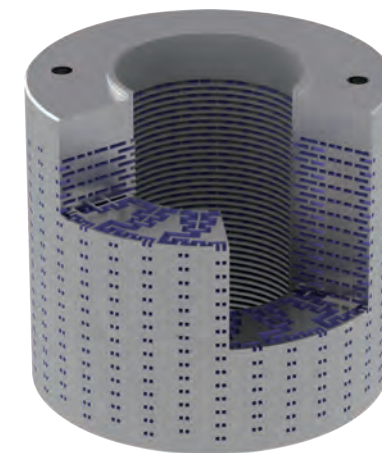


GC300 Labyrinth Cage with Large Path

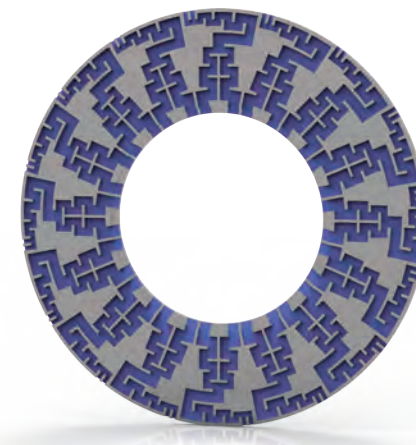
规格

本体型式		GC300: 球形阀		AC300: 角阀	
阀门口径		1"~32"		1"~24"1"~18"	
压力等级		ANSI 150#~600		ANSI 900#~1500#ANSI 2500#	
连接方式		法兰式（RF, RTJ, FM）、焊接式（SW, BW）、整体法兰式、其他			
流体温度		-196~+565℃			
阀体材质		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
阀内件材质		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
流量特性		线性、改良线性、改良等百分比			
可调比		20:1~50:1			
阀座	金属阀座	ANSI Class IV, V or MSS-SP-61			
泄漏量	软阀座	ANSI Class VI			
标配执行机构		D100LA: 多弹簧薄膜式执行机构 P100LA: 活塞式气缸执行机构			

LABYRINTH CAGE GUIDED GLOBE VALVES



Labyrinth Cage



Disc of Labyrinth Cage after EDM

Specifications

Body Styles		GC300: Globe Valve		AC300: Angle Valve			
Body Size		1"~32"		1"~24"		1"~18"	
Body Rating		ANSI 150#~600		ANSI 900#~1500#		ANSI 2500#	
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc...					
Fluid Temperature		-196~+565℃					
Body Material		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...					
Trim Material		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...					
Flow Characteristics		Linear, Modified Linear, Modified EQ%					
Rangeability		20:1~50:1					
Seat	Metal Seat	ANSI Class IV, V or MSS-SP-61					
Leakage	Soft Seat	ANSI Class VI					
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator					

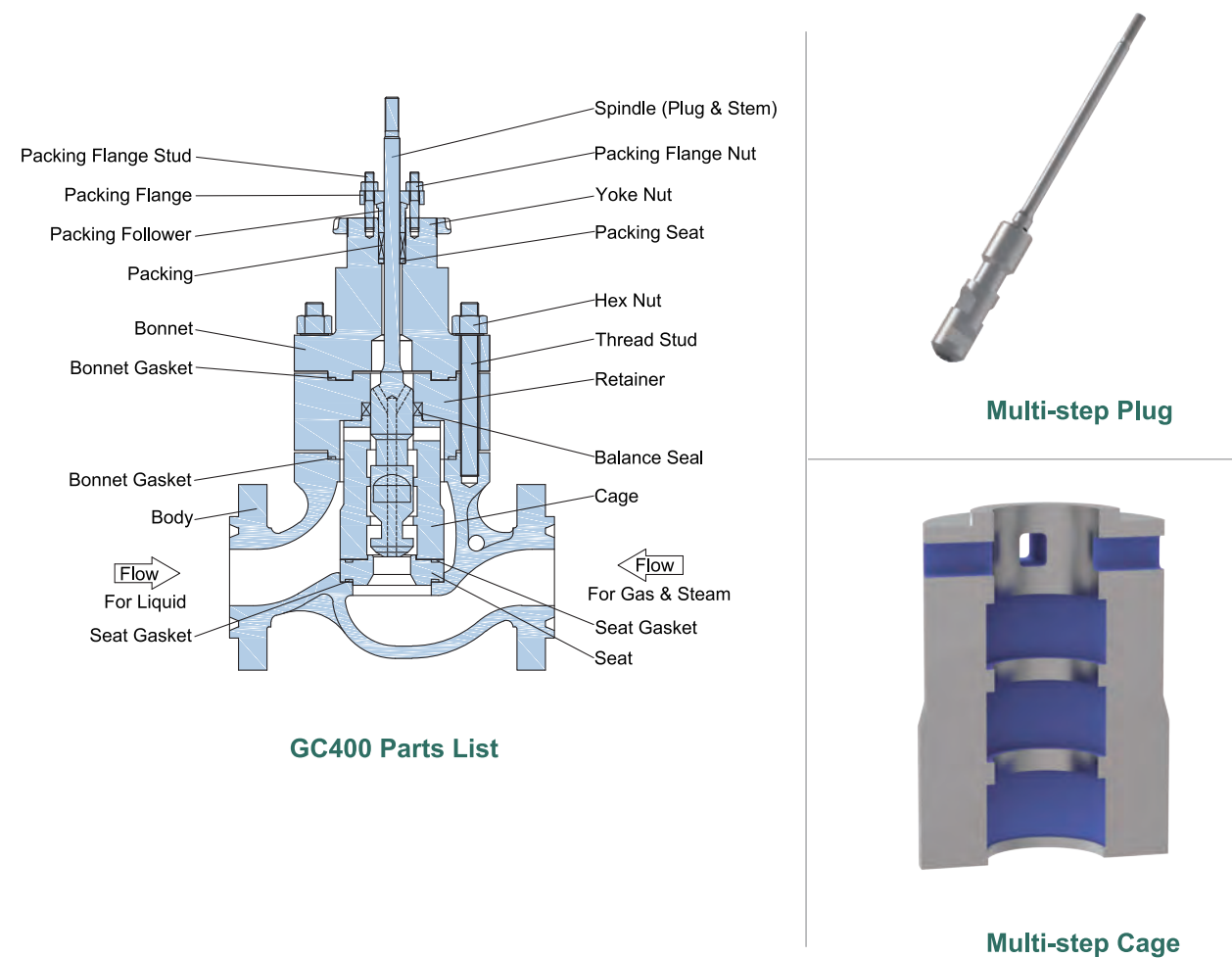
多段式阀芯套筒导向型调节阀

GC400: 多段式阀芯型直通调节阀

AC400: 多段式阀芯型角阀

SCORE的GC400、AC400系列多段式阀芯型调节阀是专门为非洁净的高压差流体设计的，采用和迷宫阀一样的多级降压原理，只是流道为可变大流道，当流体中有颗粒物等杂质时，可以确保能通过曲折的流道。

因流道为非直角变向，降压效果比迷宫阀稍差，仅流体中含有颗粒杂质时推荐使用。



规格

本体型式		GC400: 球形阀		AC400: 角阀	
阀门口径		1"~32"		1"~24"	
压力等级		ANSI 150#~600		ANSI 900#~1500#	
连接方式		法兰式（RF, RTJ, FM）、焊接式（SW, BW）、整体法兰式、其他			
流体温度		-196~+565℃			
阀体材质		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
阀内件材质		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
流量特性		线性、改良线性			
可调比		30:1~50:1			
阀座	金属阀座	ANSI Class IV, V or MSS-SP-61			
泄漏量	软阀座	ANSI Class VI			
标配执行机构		D100LA: 多弹簧薄膜式执行机构 P100LA: 活塞式气缸执行机构			

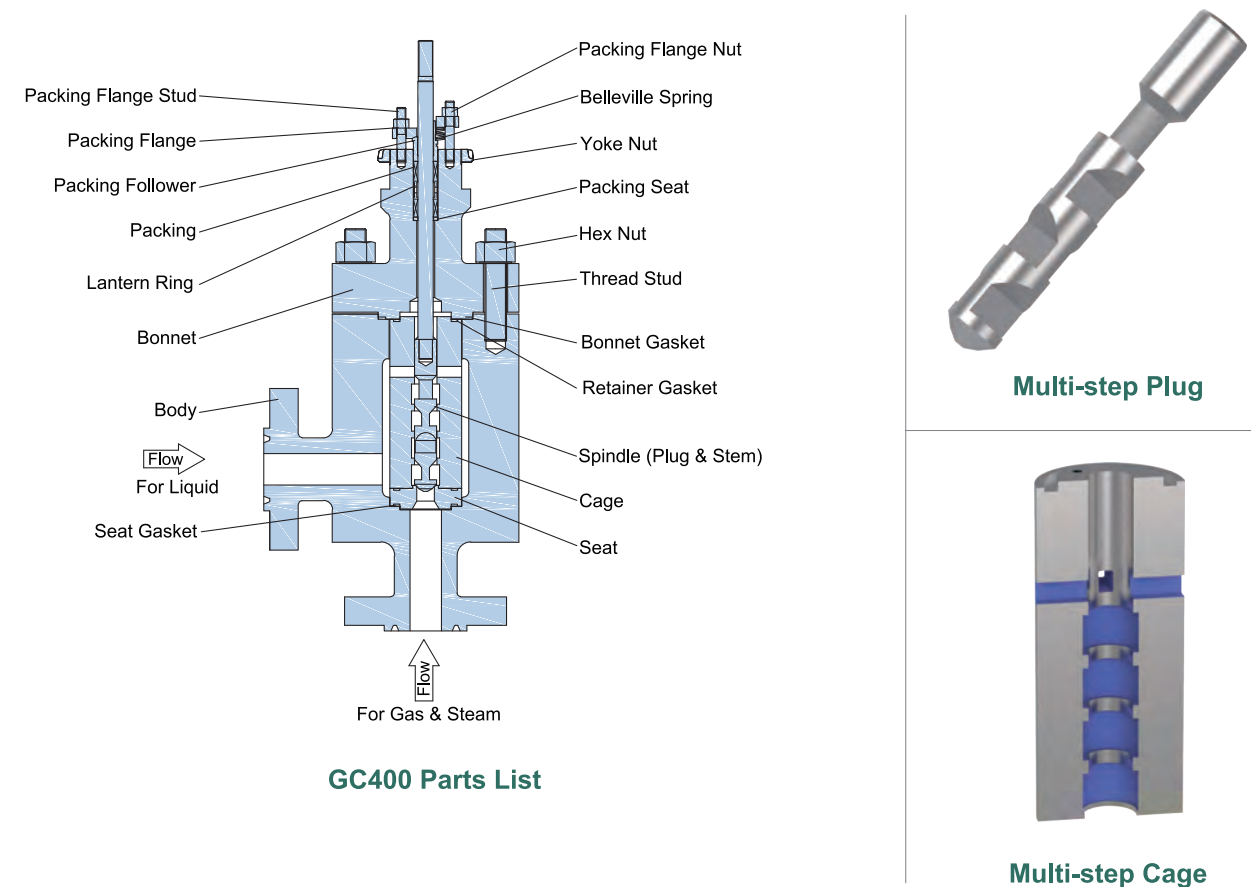
Multi-step Plug Cage Guided GLOBE VALVES

GC400: Multi-step Plug Cage Guided Globe Valve

AC400: Multi-step Plug Cage Guided Angle Valve

Regulating valve with multi-step plug of series GC400 and AC400 of SCORE is specially designed for liquid with high pressure drop. This kind of valve adopts the same multi-stage pressure reducing principles with the labyrinth cage valve. Yet the flow channel is the adjustable large flow path which ensures smooth flow through the bending path if particles and impurities contained in the fluid.

The flow channel is not of right angle turning, thus the velocity control is not as good as labyrinth cage valve. Therefore this valve is recommended when only particles contained in the flow.



Specifications

Body Styles	GC400: Globe Valve		AC400: Angle Valve
Body Size	1"~32"	1"~24"	1"~18"
Body Rating	ANSI 150#~600	ANSI 900#~1500#	ANSI 2500#
Connections	Flanges, Butt Weld, Socket Weld, Integral Flanges, etc...		
Fluid Temperature	-196~+565℃		
Body Material	WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...		
Trim Material	A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...		
Flow Characteristics	Linear, Modified Linear		
Rangeability	30:1~50:1		
Seat	Metal Seat	ANSI Class IV, V or MSS-SP-61	
Leakage	Soft Seat	ANSI Class VI	
Actuator Combination	D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator		

三通调节阀

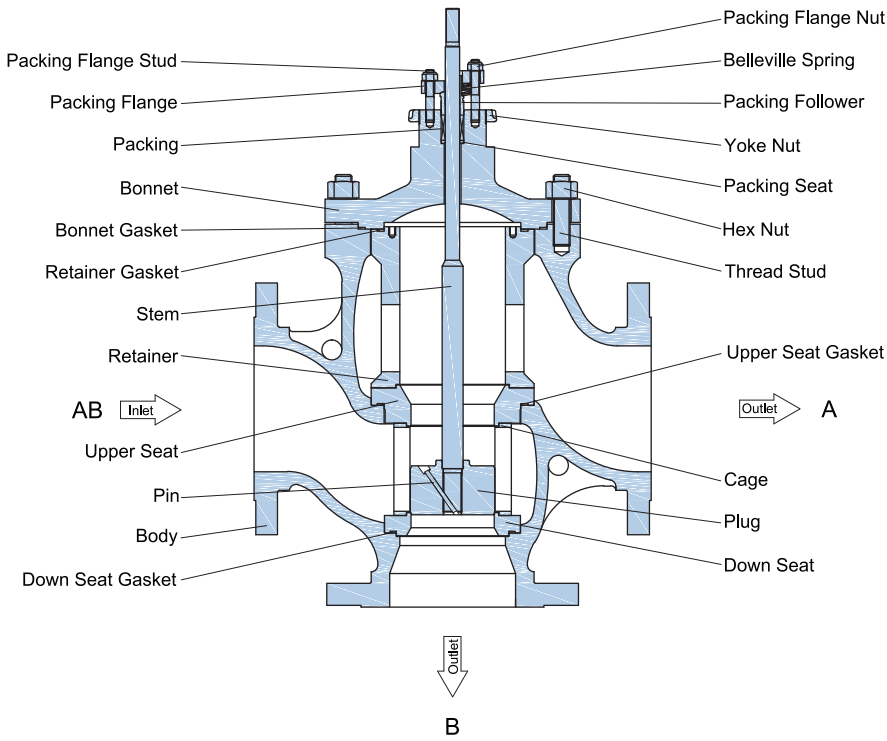
GT100: 三通分流调节阀

GT200: 三通合流调节阀

GT100、GT200是套筒导向结构的三通阀，结构简单，阀芯和套筒不易卡阻，可以用于高温、高压的场合。非平衡型阀芯结构，主要用于三通合流或者分流调节场合，无法承受太高的关闭压差。
GT100、GT200只是流向不同，三通分流阀GT100更换流向即可用于三通合流GT200的场合。



GT100-P100LA



GT100 Parts List

规格

本体型式		GT100: 三通分流型		GT200: 三通合流型	
阀门口径		1"~24"	1"~18"		1"~16"
压力等级		ANSI 150#~600	ANSI 900#~1500#		ANSI 2500#
连接方式		法兰式（RF, RTJ, FM）、焊接式（SW, BW）、整体法兰式、其他			
流体温度		-196~+565℃			
阀体材质		WCB, WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
阀内件材质		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
流量特性		线性、等百分比			
可调比		50:1			
阀座泄漏量	金属阀座	ANSI Class IV, V			
	软阀座	ANSI Class VI			
标配执行机构		D100LA: 多弹簧薄膜式执行机构 P100LA: 活塞式气缸执行机构			

THREE WAY GLOBE VALVES

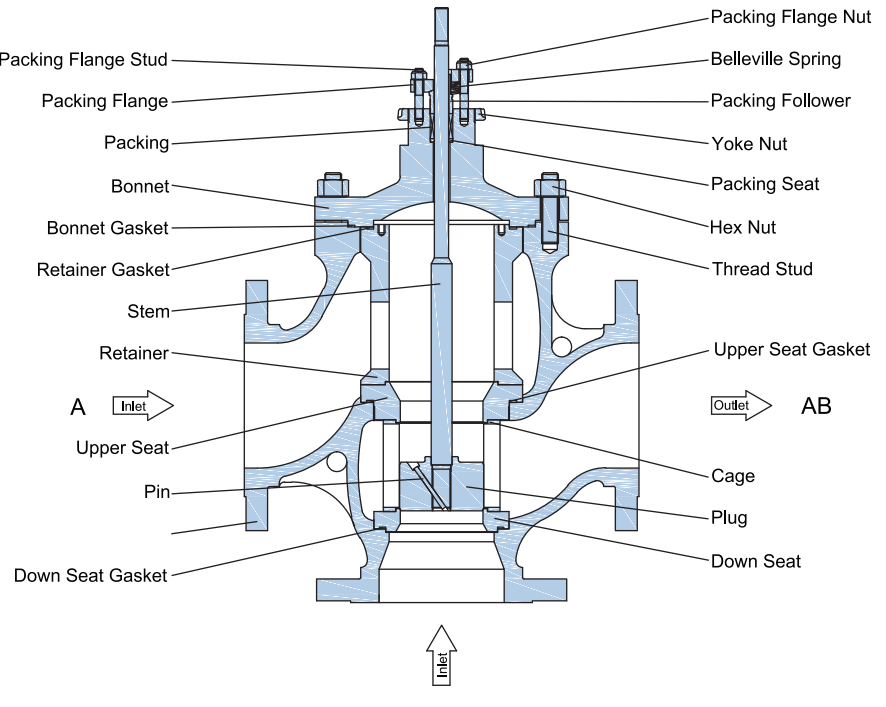
GT100: 3-ways Diverting Globe Valves

GT200: 3-ways Mixing Globe Valves

GT100 and GT200 there-way cage guided globe valve are of simple structure. The valve plug and cage are not tend to be blocked which can be used under high temperature and pressure. The unbalanced valves are mainly used for general flow mixing and diverting service, which cannot bear too high shut-off pressure. GT100 and GT200 are of different flow direction only. Simply changing the flow direction of diverging valve, GT100 can be used for mixing service as GT200.



GT200-D100LA



GT200 Parts List

Specifications

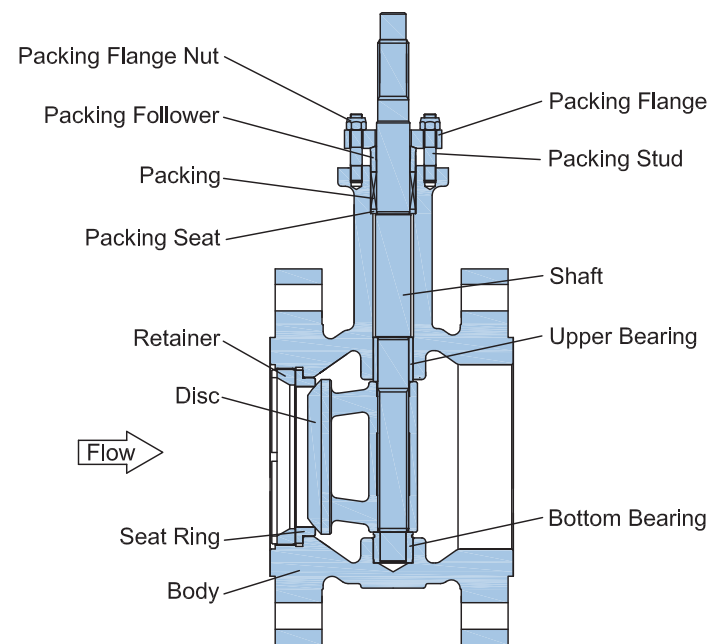
Body Styles		GT100: Diverting Type		GT200: Mixing Type	
Body Size		1"~24"	1"~18"		1"~16"
Body Rating		ANSI 150#~600	ANSI 900#~1500#		ANSI 2500#
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc...			
Fluid Temperature		-196~+565℃			
Body Material		WCB, WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
Trim Material		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...			
Flow Characteristics		Linear, EQ%			
Rangeability		50:1			
Seat	Metal Seat	ANSI Class IV, V			
Leakage	Soft Seat	ANSI Class VI			
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator			

部分球面球阀

BE100/BE120: 凸轮挠曲阀

BE100、BE120系列凸轮挠曲阀为部分球面球阀，因此兼有球阀的一些特质，与球形阀相比，具有体积小、重量轻、容量大、可调比大等特点。是低压差、大流量流体比较经济的调节阀，适合于高粘度流体、含聚合物、纤维质、固体颗粒杂质的流体的控制。

BE100是对夹式（带定位支耳），BE120是法兰式。



BE100 Parts List

规格

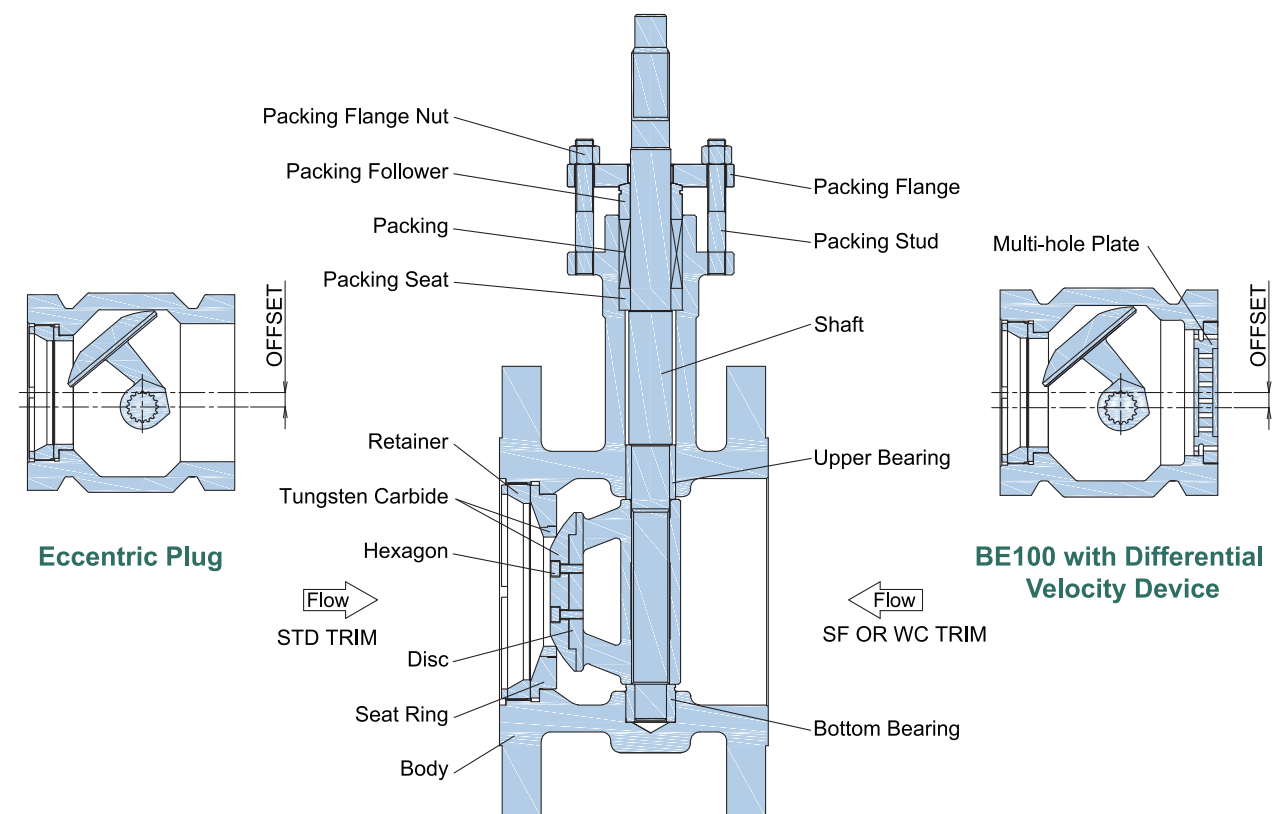
本体型式	BE100	BE120
连接方式	对夹式	法兰式
阀门口径	1"~18"	1"~18"
压力等级	ANSI 150#~600#	
法兰距	ISA S75.04	ANSI B16.10
流体温度	-45~+600 °C	
阀体材质	WCB, WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...	
阀板材质	CF8M, CF3, CF3M, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...	
阀板处理	镀镍磷或者堆焊司太莱合金，喷涂碳化钨，阀内件内衬碳化钨（≥10mm）	
流量特性	近似线性	
可调比	全腔型 100:1; 缩腔型 15:1~50:1	
阀座材质	强化聚四氟乙烯，A564-630/析出硬化热处理，A276-316/堆焊司太莱合金，A564-630/喷涂碳化钨、内衬碳化钨，A276-316/喷涂碳化钨、内衬碳化钨	
阀座泄漏量	金属阀座	ANSI Class IV
	软阀座	ANSI Class VI
标配执行机构	D100RA: 多弹簧薄膜式执行机构 P200RA: 活塞式气缸执行机构	

SEGMENTAL BALL VALVES

BE100/BE120: Eccentric Rotating Plug Valves

BE100 and BE120 series camflex rotary plug valves are segmented ball valve, which also have some features of ball valves. Compared with globe valves, this kind of valve is of compact, large capacity and wide rangeability, etc. It is relatively economical for liquid with low pressure drop and large flow rate, and is applicable to control liquid with high viscosity or slurry, fiber and solid particles.

BE100 is of wafer type (with lugs hole) and BE120 is of flange type.



BE100 Trim with WC Lined

Specifications

Body Styles	BE100	BE120
Connections	Wafer Type	Flanged (RF) Type
Body Size	1"~18"	1"~18"
Body Rating	ANSI 150#~600#	
Face to Face	ISA S75.04	ANSI B16.10
Fluid Temperature	-45~+600°C	
Body Material	WCB, WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...	
Disc Material	CF8M, CF3, CF3M, Duplex, Monel, Hastelloy, Inconel, Titanium, etc...	
Disc Treatment	ENP or Stellite, Tungsten Carbide Coated, Tungsten Carbide Lined (≥10mm)	
Flow Characteristics	Approximate Linear	
Rangeability	Full Bore: 100:1, Reduced Bore: 15:1~50:1	
Seat Material	Reinforced Teflon, A564-630/PH, A276-316/Stellite N0.6, A564-630/Tungsten Carbide Coated, A564-630/Tungsten Carbide Lined, A276-316/Tungsten Carbide Coated, A276-316/Tungsten Carbide Lined	
Seat Leakage	Metal Seat	ANSI Class IV
	Soft Seat	ANSI Class VI
Actuator Combination	D100RA: Multi-spring Pneumatic Diaphragm Actuator P200RA: Pneumatic Cylinder Actuator	

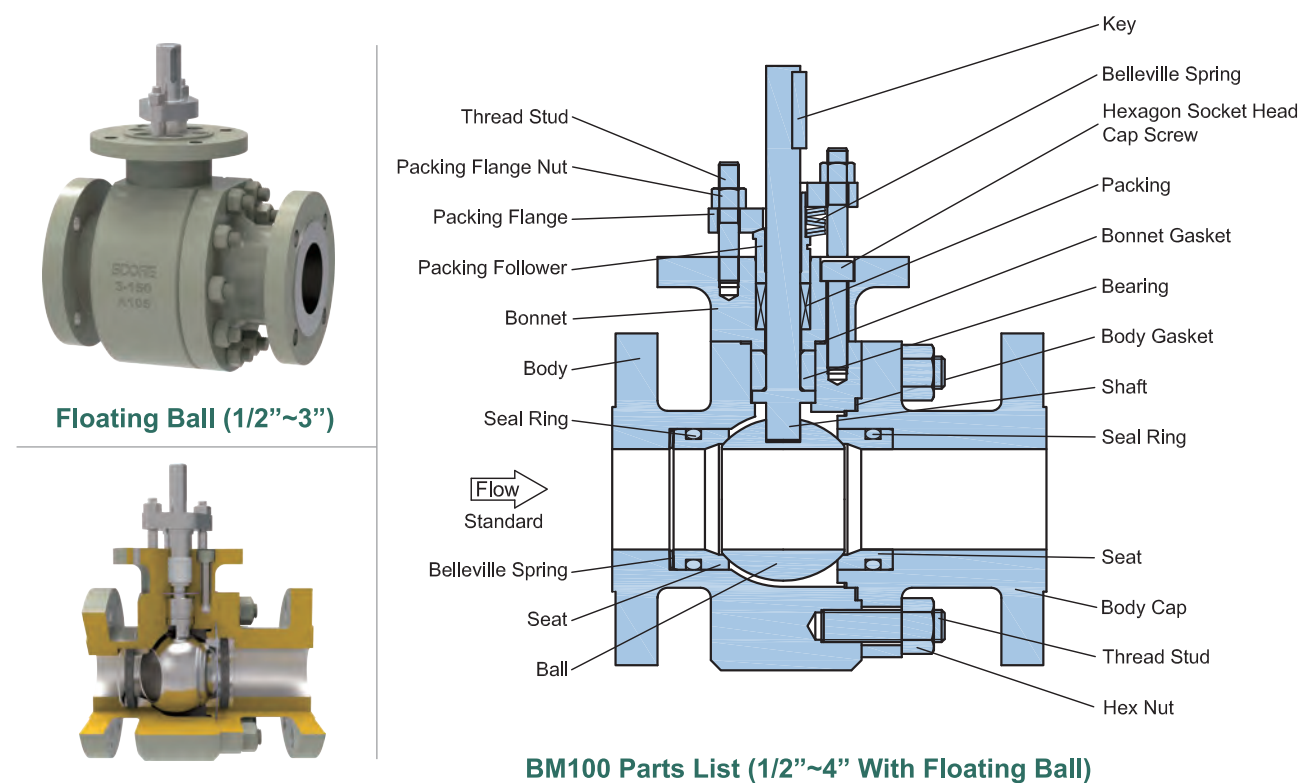
球阀

BM100/BM200：金属密封球阀

BM100、BM120系列金属密封球阀在金属球体表面和阀座密封面采用超音速喷涂碳化钨或者碳化铬，采用热喷涂工艺在球体表面喷涂镍基合金、阀座密封面堆焊司太莱合金，对配合密封面进行硬度强化。采用特制的高速磨床、球面车床，磨削和车削球体及阀座，保证球体的球面度。最后采用SCORE特有的研磨设备和工艺对球体和阀座进行配合研磨，使其密封副完全密封，最高可以达到零泄漏。

经过配合研磨的球和阀座完全贴合形成无缝隙密封面，有效阻止杂质进入密封面之间，球体转动时，阀座密封面还能刮除黏附在球面上的异物，具备自清洁功能。适合于高温高压，含颗粒物、粉体、纤维质及料浆类流体。

BM100是浮动球式，BM200是固定球式。



BM100 Parts List (1/2"~4" With Floating Ball)

规格

本体型式	BM100（浮动球阀）	BM200（固定球阀）
阀门口径	1/2"~4"	2"~24"
连接方式	法兰式 Flanged Type（RF、RTJ、FM）	
压力等级	ANSI 150#~600#, ANSI 900#~2500#	
流体温度	-45~+600℃	
阀体材质	WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, A995-4A/S31308, etc...	
球体/阀座材质	A276-410, A276-316	
球体处理	喷涂碳化钨、碳化铬，喷涂 Ni 基合金（Metco 16C）	
阀座处理	喷涂碳化钨、碳化铬，堆焊司太莱合金（Stellite No.12）	
阀座泄漏量	ANSI Class V, VI, 零泄漏	
标配执行机构	P200RA: 活塞式气缸执行机构	

BALL VALVES

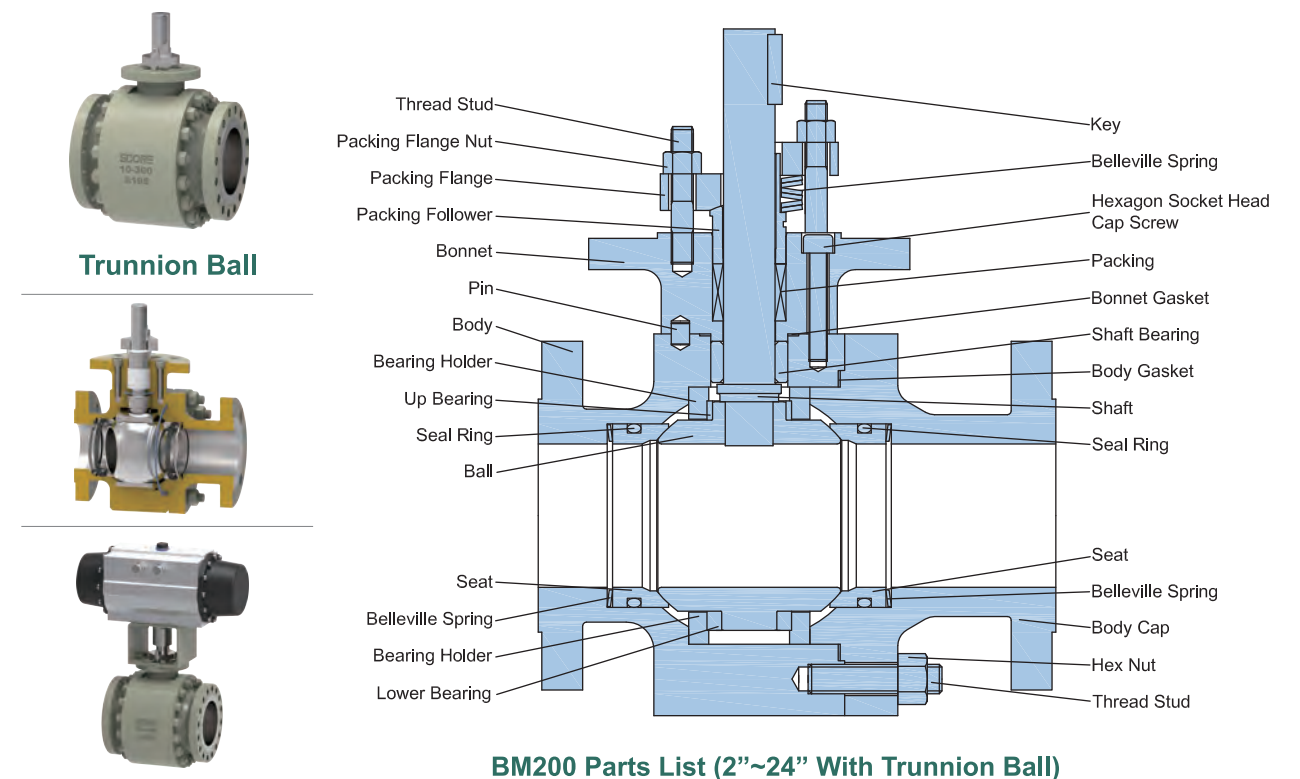
BM100/BM200：Metal Seated Ball Valves

BM100 and BM120 series are metal seated ball valves, which adopt High Velocity Oxygen Fuel (HVOF) to coat tungsten carbide or chromium carbide on metal ball surface and valve seat sealing surface. Thermal spraying process is adopted for nickel base alloy spraying on ball surface and stellite-alloy surfacing on valve seat sealing surface. Hardness strengthening is done on the supporting sealing surface. Special high-speed grinding machine, spherical turning lathe, grinding and turning ball and valve seat is applied to ensure spherical degree of the ball. Finally special rubbing machine and process of SCORE is adopted to perform supporting rubbing of ball and valve seat in order to ensure complete sealing of the sealing pair. Zero-leakage can be achieved under best situation.

Ball and valve after supporting rubbing will completely attached to form seamless sealing surface which may prevent impurities from entering in an effective way. When the ball is rotating, the valve seat sealing surface may scrap impurities attached on the ball surface to realize self-cleaning function.

It is applicable for liquid with high temperature and pressure and containing particle, dust, fiber and slurry.

BM100 is of floating ball type and BM200 is of trunnion ball type.



BM200 Parts List (2"~24" With Trunnion Ball)

Specifications

Body Styles	BM100 (Floating)	BM200 (Trunnion)
Body Size	1/2"~4"	2"~24"
Connections	Flanged Type (RF、RTJ、FM)	
Body Rating	ANSI 150#~600#, ANSI 900#~2500#	
Fluid Temperature	-45~+600℃	
Body Material	WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, A995-4A/S31308, etc...	
Ball/Seat Material	A276-410, A276-316	
Ball Treatment	Tungsten Carbide/Chrome Carbide Coated, Self-Fluxing Nickel-Based Alloy (Metco 16C)	
Seat Treatment	Tungsten Carbide/Chrome Carbide Coated, Stellite Hard Face (Stellite No.12)	
Seat Leakage	ANSI Class V, VI, 0 Leakage	
Actuator Combination	P200RA: Pneumatic Piston Cylinder Actuator	

高性能蝶阀

BT300/BT320 三偏芯蝶阀

BT300、BT320系列三偏芯蝶阀具有阀板面偏离轴平面（Offset1）、阀体和阀板的几何中心偏离阀板回转中心（Offset2）、阀板密封线偏离阀板平面（Offset3），是真正意义上的三偏芯。有金属阀座、多层式阀座结构可选，适用于各种不同的工况，既可以用于低压差的调节场合，也适于开关和严密切断的控制。阀座泄漏量从Class IV到Class VI可以根据阀座结构选择。阀座安装于阀体上，更便于检修更换。

BT300是经济、轻便的对夹式蝶阀，BT320是双法兰式蝶阀。



BT320-P100RA

BT320-P100RA

Triple-offset Construction

规格

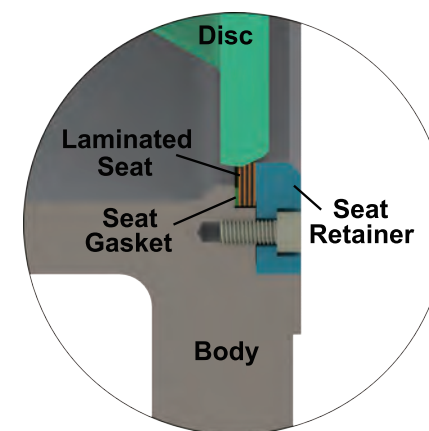
本体型式	BT300		BT320
连接方式	对夹式		双法兰式
阀门口径	3"~60"	3"~40"	4"~36"
压力等级	ANSI 150#~300	ANSI 600#	ANSI 900#~2500#
流体温度	-196~+650℃		
阀体材质	WCB, WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, A995-4A, etc...		
阀板材质	WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, A995-4A, etc...		
阀板处理	镀镍磷或者堆焊司泰莱合金		
流量特性	近似等百分比（固有特性）		
可调比	70° 开度 50:1, 90° 开度 100:1		
阀座材质	金属阀座		多层式阀座
	A564-630/PH UNS S31803 Nitronic 50 Inconel 718		UNS S31803+Graphite Inconel 718+Graphite
阀座泄漏量	ANSI Class IV, V, VI		ANSI Class V, VI
标配执行机构	D100RA: 多弹簧薄膜式执行机构 P200RA: 活塞式气缸执行机构		

HIGH PERFORMANCE BUTTERFLY VALVES

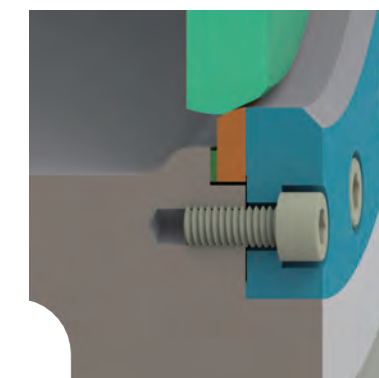
BT300/BT320 Triple-offset Butterfly Valves

BT300, BT320 triple-offset butterfly valves, shaft offset is created by designing the valve with the shaft located behind the centerline of the sealing surface (offset1) and slightly to one side of the pipe centerline (offset2). The third offset is point of intersection of tangents of seat and disc sealing deviating from the disc face. These offsets are to completely eliminate all disc to seat friction throughout the valve's entire 90 degrees of rotation. Metal seal, laminated seat are optional. The triple-offset provides ANSI Class IV, V, VI leakage performance. The seat seal ring can be changed easily from the body.

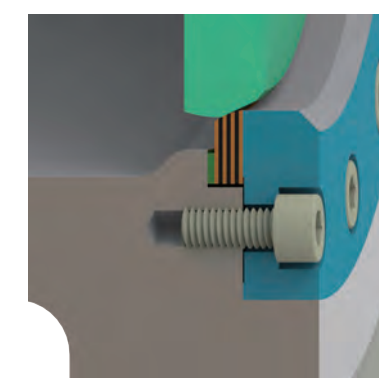
BT300 is wafer type, BT320 is double flanged type.



Seal Parts List



Solid Metal Seat

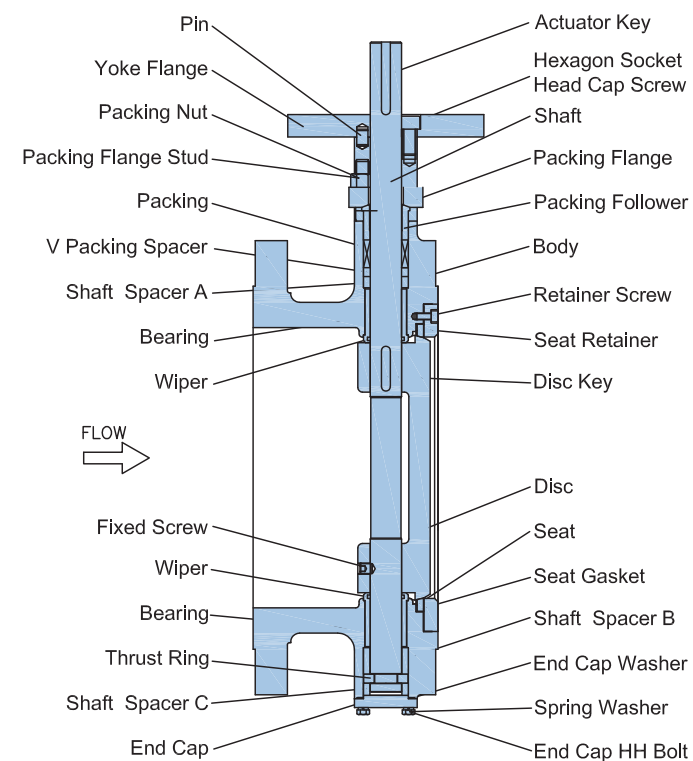


Laminated Seat

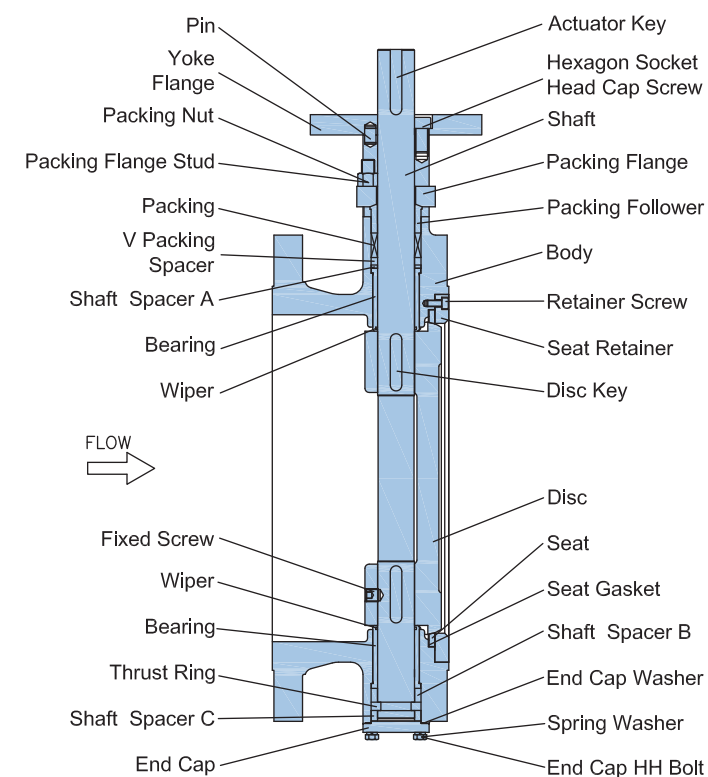
Specifications

Body Styles	BT300		BT320
Connections	Wafer Type		Double Flanged Type
Body Size	3"~60"	3"~40"	4"~36"
Body Rating	ANSI 150#~300	ANSI 600#	ANSI 900#~2500#
Fluid Temperature	-196~+650℃		
Body Material	WCB, WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, A995-4A, etc...		
Disc Material	WC6, WC9, LCB, CF8, CF8M, CF3, CF3M, A995-4A, etc...		
Disc Treatment	ENP or Stellite No.6		
Flow Characteristics	Approximate EQ% (Inherent Characteristic)		
Rangeability	70° Opening/50:1, 90° Opening/100:1		
Seat Material	Solid Metal Seat		Laminated Seat
	A564-630/PH UNS S31803 Nitronic 50 Inconel 718		UNS S31803+Graphite Inconel 718+Graphite
Seat Leakage	ANSI Class IV, V, VI		ANSI Class V, VI
Actuator Combination	D100RA: Multi-spring Pneumatic Diaphragm Actuator P200RA: Pneumatic Cylinder-Piston Actuator		

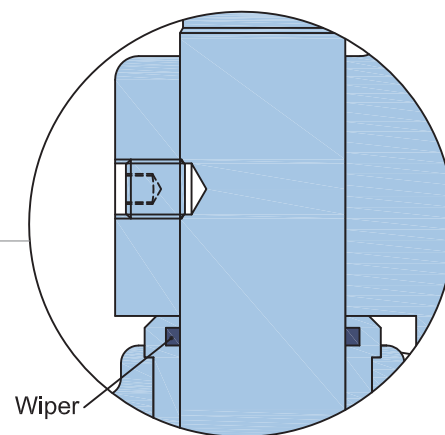
BT300/BT320本体部结构图



**Body Size/L Class Body: 10" and under,
M Class Body: 4" and under**

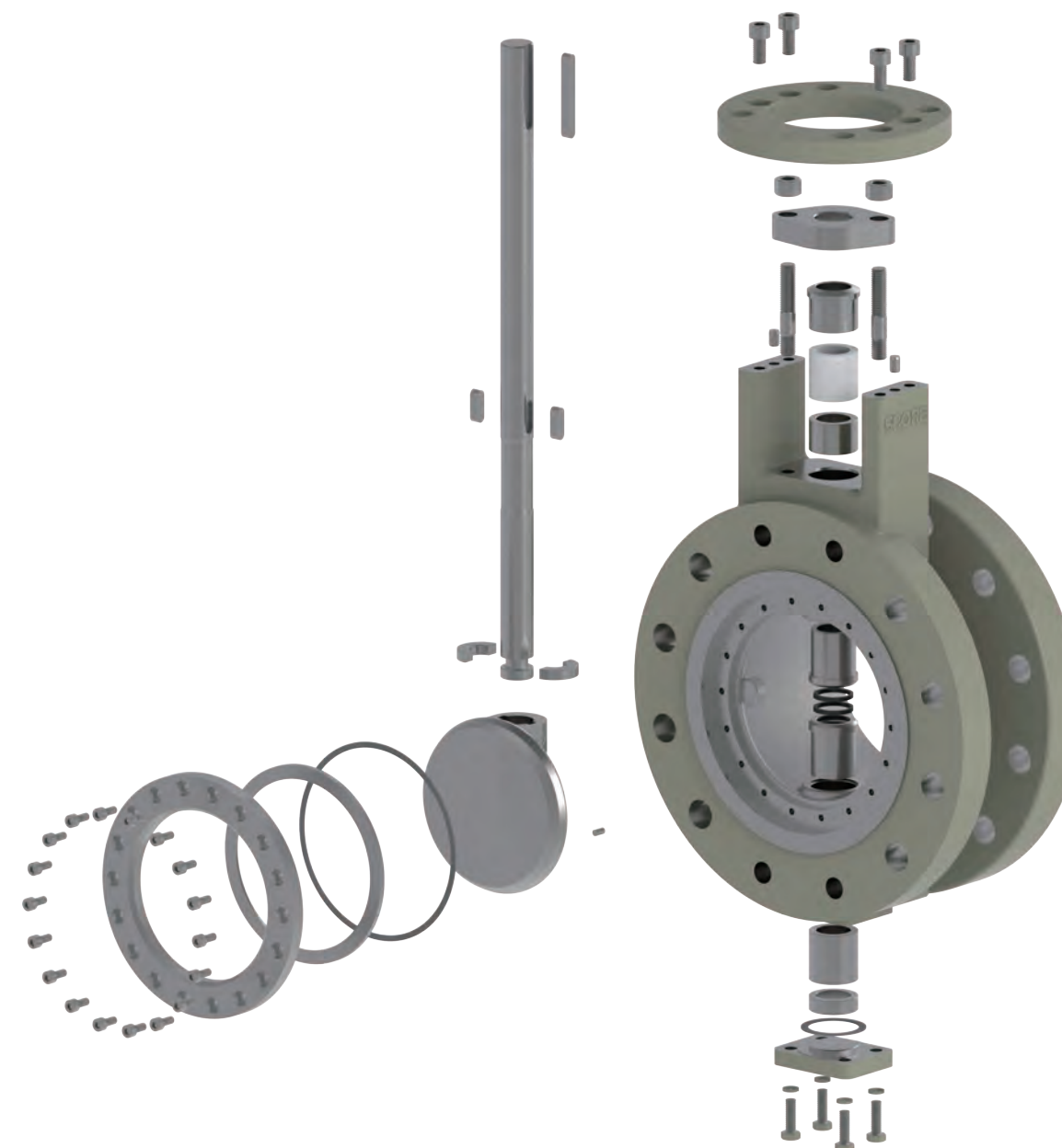


**Body Size/L Class Body: 12" and over,
M Class Body: 6" and over**



Wiper Detail

BT300/BT320 Body Assembly Construction



Solid Metal Seat



Laminated Seat

高性能蝶阀

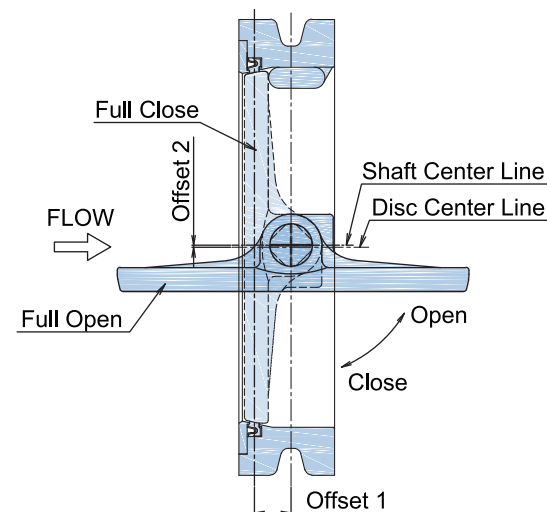
BT200 双偏芯蝶阀

BT200系列双偏芯蝶阀具有阀板面偏离轴平面（offset1）、阀体和阀板的几何中心偏离阀板回转中心（offset2）的双重偏芯。独特的阀板和阀座的软密封设计结构，具有优良的切断性能和耐久性。阀座安装于阀体上，更便于检修更换。

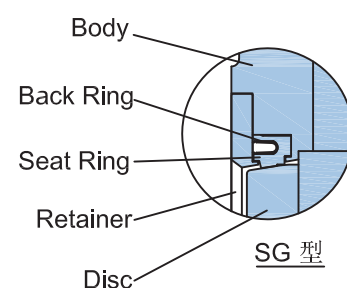
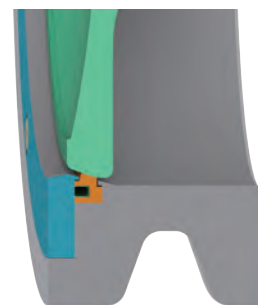
BT200是经济、轻便的对夹式蝶阀。



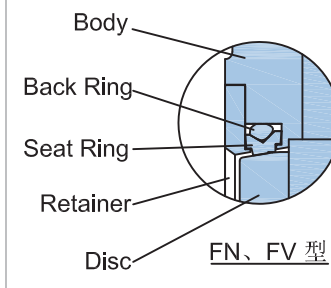
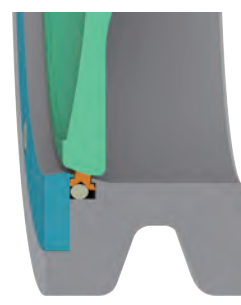
BT200-P100RA



Double-offset Construction



SG Type Seat



FN/FV Type Seat

规格

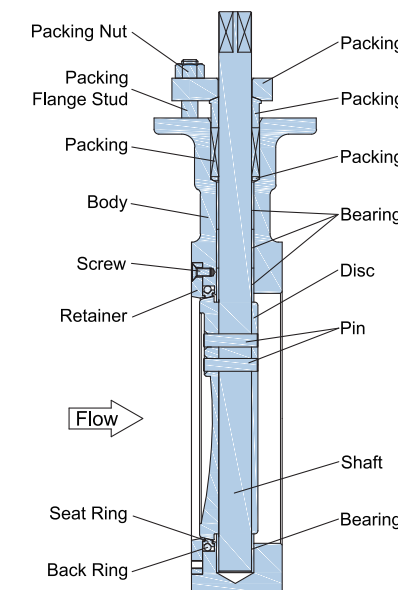
本体型式	BT200		BT220
连接方式	对夹式		双法兰式
阀门口径	3"~60"		
压力等级	ANSI 150#		
阀体材质	WCB, CF8, CF8M, CF3, CF3M, etc...		
阀板材质	WCB, CF8, CF8M, CF3, CF3M, etc...		
阀板处理	镀硬铬或者抛光		
流量特性	近似等百分比（固有特性）		
可调比	70° 开度 50:1, 90° 开度 100:1		
流体温度	-45~+250℃	-45~+60℃	-10~+180℃
阀座型式	SG 型	FN	FV
密封环材质	强化聚四氟乙烯	强化聚四氟乙烯	强化聚四氟乙烯
垫环材质	A276-316	NBR	VITON
阀座泄漏量	ANSI Class VI		
标配执行机构	D100RA: 多弹簧薄膜式执行机构 P200RA: 活塞式气缸执行机构		

HIGH PERFORMANCE BUTTERFLY VALVES

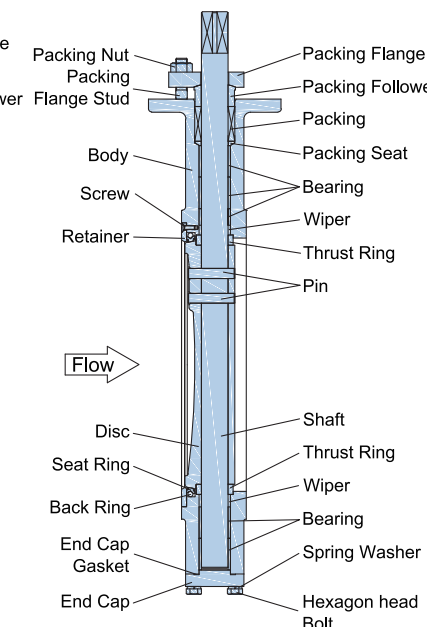
BT200 Double-offset Butterfly Valves

BT200 double-offset butterfly valves, shaft offsets are created by designing the valve with the shaft located behind the centerline of the sealing surface (offset1) and slightly to one side of the pipe centerline (offset2). These double offset offer unique soft seal construction between disc and seat to get high seal performance and high durability. The seat in the body can be changed easily from the body.

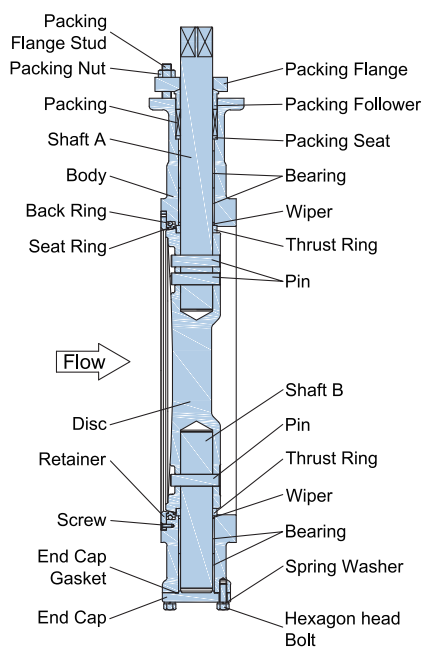
BT200 is wafer type, economical and compact.



BT200 Parts List (3"~8")



BT200 Parts List (10"~16")



BT200 Parts List (18"~60")

Specifications

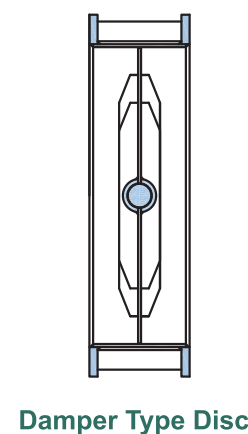
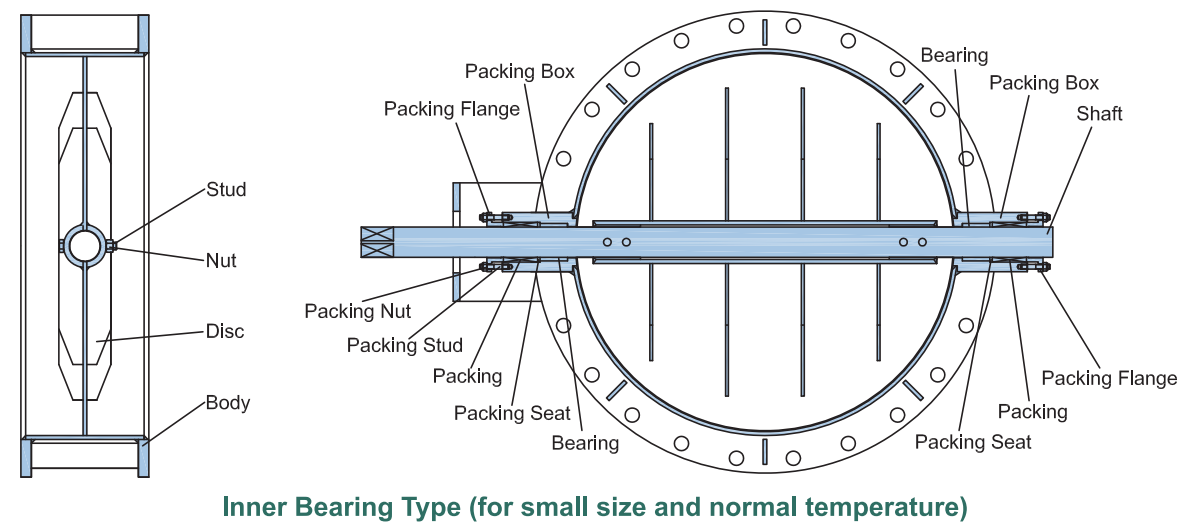
Body Styles	BT200		BT220
Connections	Wafer Type		Double Flanged Type
Body Size	3"~60"		
Body Rating	ANSI 150#		
Body Material	WCB, CF8, CF8M, CF3, CF3M, etc...		
Disc Material	WCB, CF8, CF8M, CF3, CF3M, etc...		
Disc Treatment	Hard Chrome Plated or Buffing		
Flow Characteristics	Approximate EQ% (Inherent Characteristic)		
Rangeability	70° Opening/50:1, 90° Opening/100:1		
Fluid Temperature	-45~+250℃	-45~+60℃	-10~+180℃
Seat Type	SG	FN	FV
Seal Ring Material	Reinforced Teflon	Reinforced Teflon	Reinforced Teflon
Back Ring Material	A276-316	NBR	VITON
Seat Leakage	ANSI Class VI		
Actuator Combination	D100RA: Multi-spring Pneumatic Diaphragm Actuator P200RA: Pneumatic Cylinder-Piston Actuator		

普通蝶阀

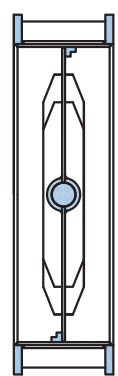
BT600 低负载型蝶阀

BT600系列低负载型蝶阀是钣金结构的低压蝶阀，专用于低压气体的控制，可用于高温气体的开关和调节控制，是一种低成本的大口径、低压气体控制阀。

有两种阀座型式可选，适合于不同的流体温度和泄漏要求。



Damper Type Disc



Back Seat Type Disc

规格

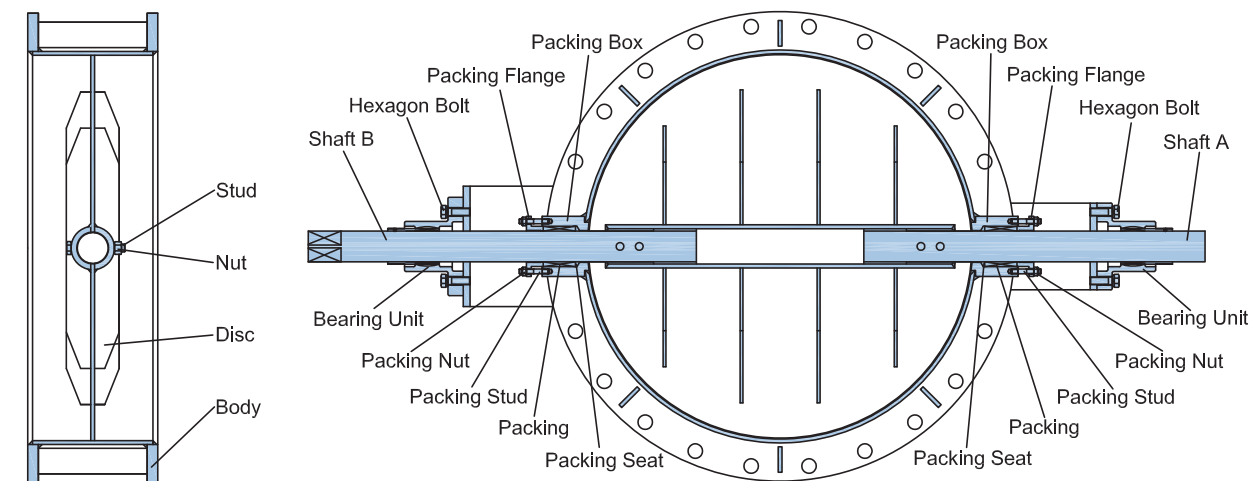
本体型式	BT600	
连接方式	法兰式（FF, RF）、焊接式（BW）	
阀门口径	3"~128" (DN80~DN3200)	
压力等级	ANSI 125#, GB/HG PN0.25~1.0MPa	
流体温度	-45~+650℃	
阀体材质	Q235B, A240-304, A240-304L, A240-316, A240-316L, etc...	
阀板材质	Q235B, A240-304, A240-304L, A240-316, A240-316L, etc...	
流量特性	近似等百分比	
可调比	70 度开度 30:1, 90 度开度 50:1	
阀座泄漏量	开放型	90° Cv x 2.0~1.0%
	后座型	90° Cv x 0.3~0.1%
标配执行机构	D100RA: 多弹簧薄膜式执行机构 P200RA: 活塞式气缸执行机构	

CONVENTIONAL BUTTERFLY VALVES

BT600 Light Duty Damper Type Butterfly Valves

Light-duty butterfly valve of series BT600 is low-pressure butterfly valve with steel plate structure which is specially designed for low pressure gas control. It also can be used for on-off and modulating control of high-temperature gas which is a kind of big capacity and low pressure gas control valve with low cost.

There are two kinds of valve seat for you to choose to meet different temperature and leakage requirements of the fluid.



Out Bearing Type (for large size and high temperature)

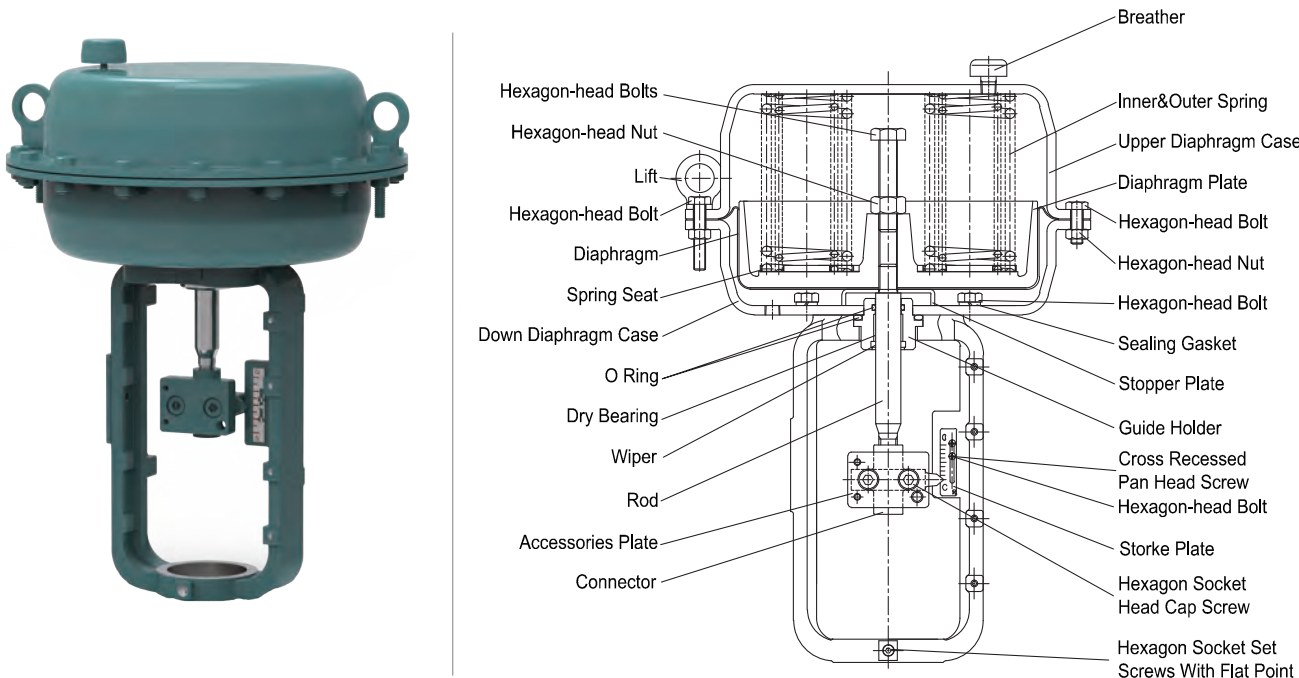
Specifications

Body Styles	BT600	
Connections	Flanged (FF, RF) Type, Butt Weld (BW)	
Body Size	3"~128" (DN80~DN3200)	
Body Rating	ANSI 125#, GB/HG PN0.25~1.0MPa	
Fluid Temperature	-45~+650℃	
Body Material	Q235B, A240-304, A240-304L, A240-316, A240-316L, etc...	
Disc Material	Q235B, A240-304, A240-304L, A240-316, A240-316L, etc...	
Flow Characteristics	Approximate EQ% (Inherent Characteristic)	
Rangeability	70° Opening/30:1, 90° Opening/50:1	
Seat Leakage	Damper	90° Cv x 2.0~1.0%
	Back Ring	90° Cv x 0.3~0.1%
Actuator Combination	D100RA: Multi-spring Pneumatic Diaphragm Actuator P200RA: Pneumatic Piston Cylinder Actuator	

执行机构

D100LA系列气动薄膜式执行机构

该系列采用多弹簧结构，是体积小、重量轻、性能高、输出力大的气动薄膜式执行机构。其工作原理为：由调节器来的电或气信号经定位器转换成的气压输入到膜室里，作用于膜片上产生推力，使推杆移动，同时压缩弹簧直到和弹簧的反作用力平衡，使推杆到达预定的位置。



D100LA without Manual Handwheel

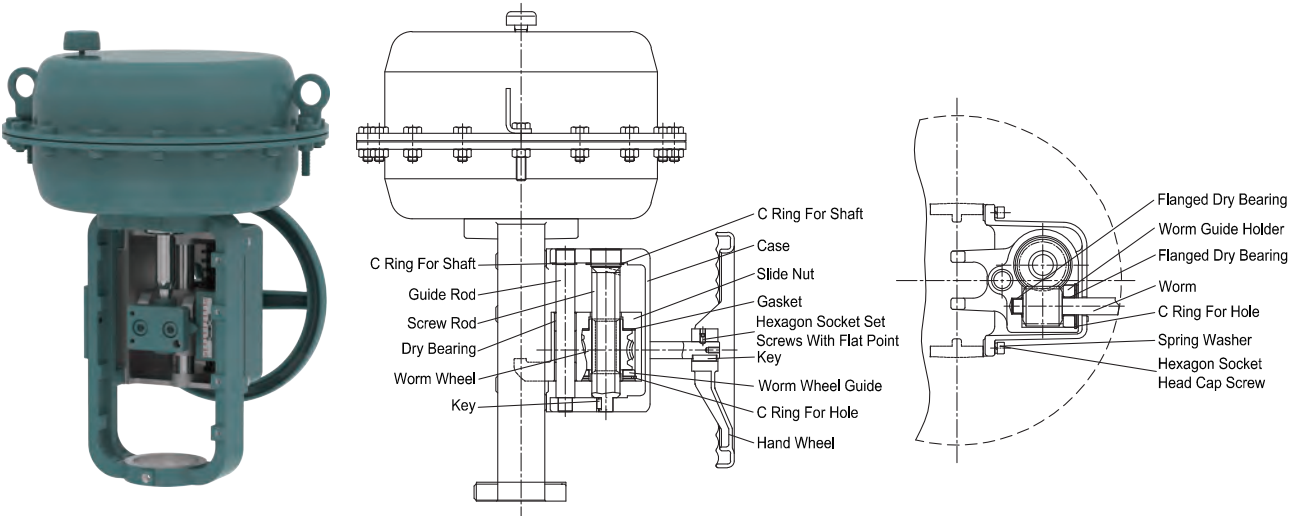
D100LA规格

型式	直行程					
	D122LA	D127LA	D135LA	D14SLA D14LLA	D15SLA D15LLA	D16SLA D16LLA
执行机构尺寸	220	270	350	450	550	650
执行机构有效面积 (cm ²)	188.82	314.33	555.88	956.83	1,548.82	2,236.31
气源压力及弹簧范围 (KPa)	300/80~200, 340/120~300, 400/120~280					
最大输出力 (N)	2,266	3,772	6,671	11,482	18,586	26,836
最大行程 (mm)	20	30	40	90	110	110
动作方式	正作用 (DA)、反作用 (RA)					
允许环境温度	标准型: -20~+70℃, 低温型-50+40℃, 高温型: 0~+100℃					
选购设备	手轮机构、限位开关、定位器、过滤减压阀、电磁阀等					

ACTUATORS

D100LA Pneumatic Diaphragm Actuators

Pneumatic diaphragm actuator of this series adopts multi-spring structure with compact, high performance and big thrust. The working principles are as follows: electricity or pneumatic signal from controller will enter the diaphragm room after converted into air pressure by positioner to form push force to act on the diagram and make the push rod move. Meanwhile the spring is compressed until the acting force is balanced with counter-acting force to make the push rod reach preset position.



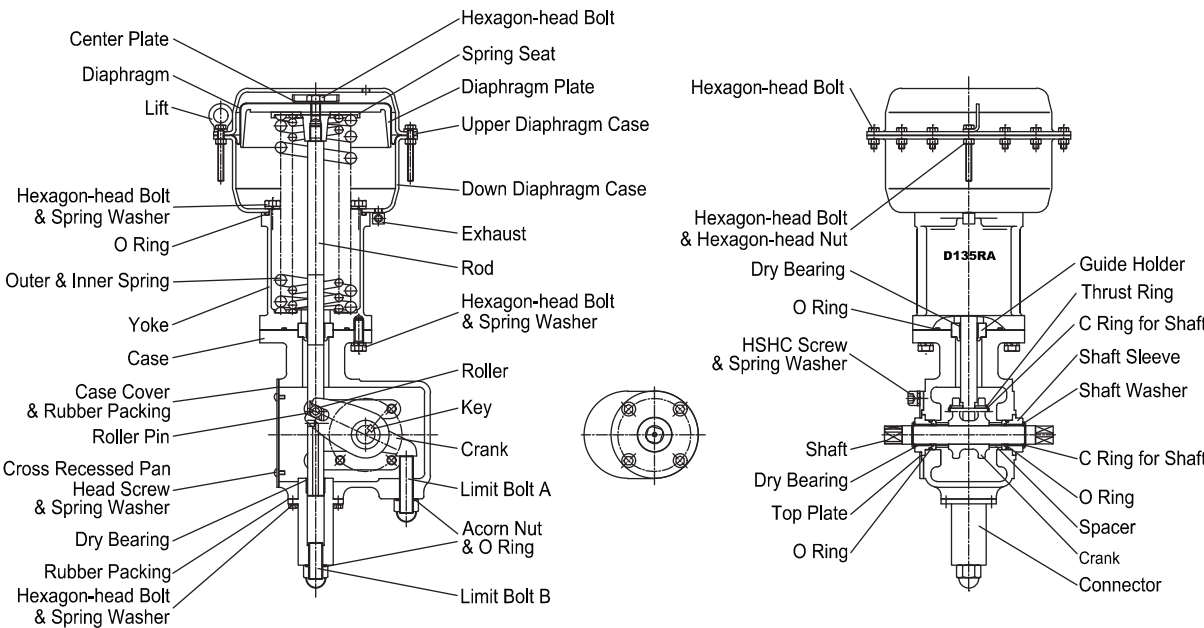
D100LA with Manual Handwheel

D100LA Specifications

Type	Linear Stem Motion Type					
	D122LA	D127LA	D135LA	D14SLA D14LLA	D15SLA D15LLA	D16SLA D16LLA
Actuator Size	220	270	350	450	550	650
Nominal Diaphragm Area (cm ²)	188.82	314.33	555.88	956.83	1,548.82	2,236.31
Air Supply /Spring Range (KPa)	300/80~200, 340/120~300, 400/120~280					
Max. Output (N)	2,266	3,772	6,671	11,482	18,586	26,836
Max. Stroke (mm)	20	30	40	90	110	110
Action	Direct Action (DA) or Reverse Action (RA)					
Environment Temp.	Standard Type: -20~+70℃, Low Temp. Service: -50+40℃, High Temp. Service: 0~+100℃					
Options	Manual Handwheel, Limit Switch, Positioner, Airset, Solenoid Valve, etc.					

执行机构

D100RA系列气动薄膜式执行机构



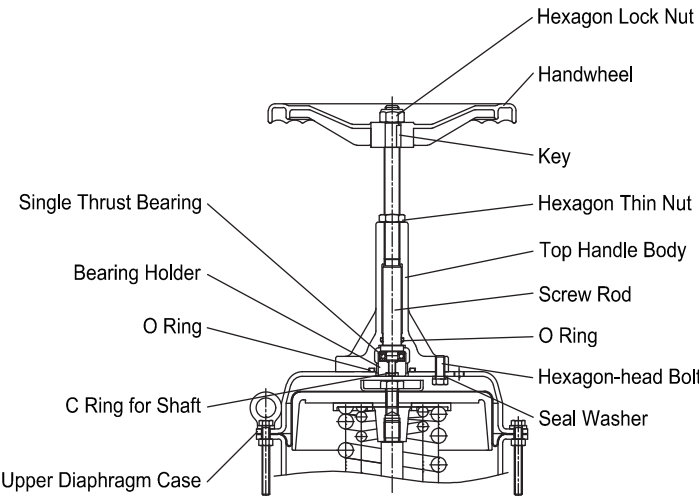
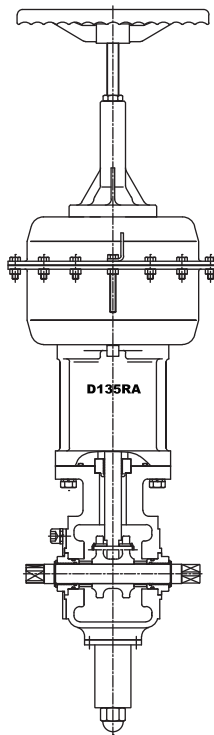
D100LA without Manual Handwheel

D100RA规格

型式	角行程				
	D122RA	D127RA	D135RA	D14LRA	D15LRA
执行机构尺寸	220	270	350	450	550
执行机构有效面积 (cm ²)	188.82	314.33	555.88	956.83	1,548.82
气源压力及弹簧范围 (KPa)	400/120~280				
最大输出扭矩 @ 70° (Nm)	61.5	153.5	362.0	934.7	1,891.2
额定行程	50°、60°、70°、90°				
动作方式	正作用 (DA)、反作用 (RA)				
允许环境温度	标准型: -20~+70℃, 低温型-50+40℃, 高温型: 0~+100℃				
选购设备	手轮机构、限位开关、定位器、过滤减压阀、电磁阀等				

ACTUATORS

D100RA Pneumatic Diaphragm Actuators



D100RA with Manual Handwheel

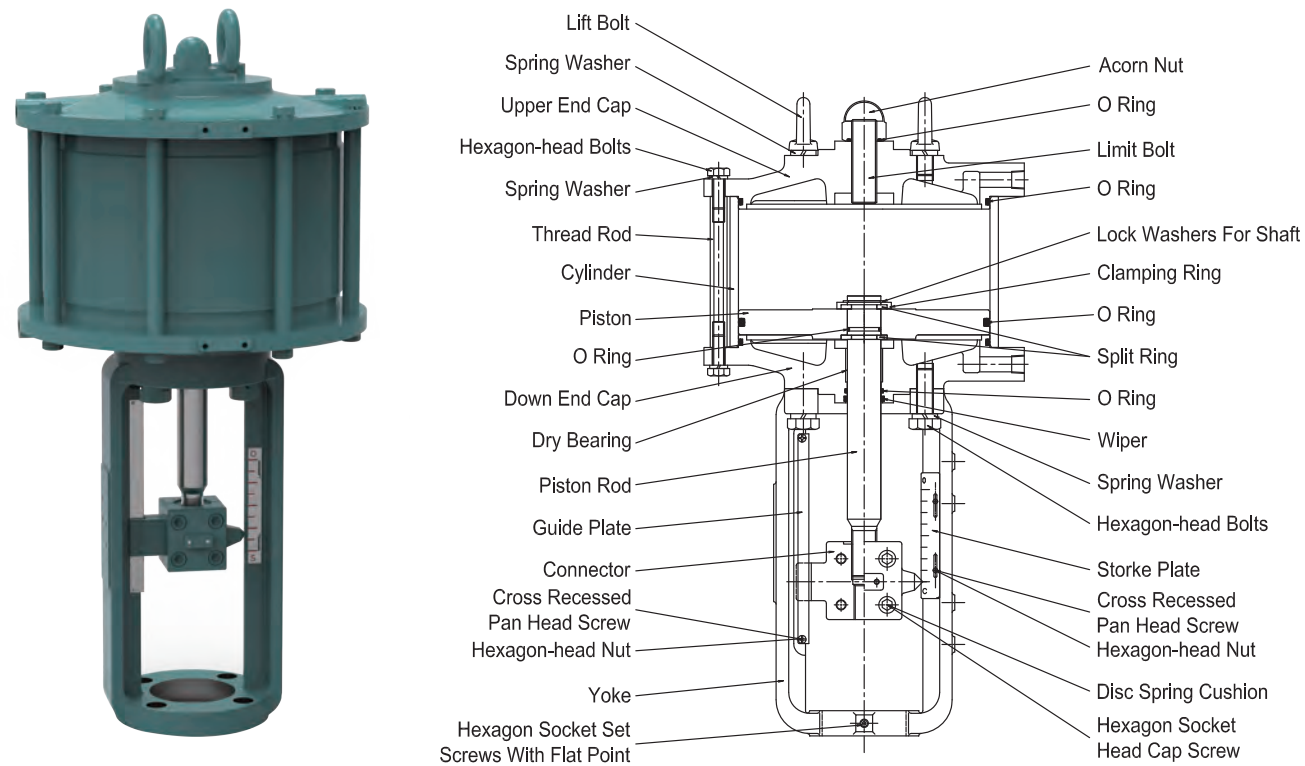
D100RA Specifications

Type	Rotary Shaft Motion Type				
	D122RA	D127RA	D135RA	D14LRA	D15LRA
Actuator Size	220	270	350	450	550
Nominal Diaphragm Area (cm ²)	188.82	314.33	555.88	956.83	1,548.82
Air Supply /Spring Range (KPa)	400/120~280				
Max. Output @ 70° (Nm)	61.5	153.5	362.0	934.7	1,891.2
Rated Stroke	50°、60°、70°、90°				
Action	Direct Action (DA) or Reverse Action (RA)				
Environment Temp.	Standard Type: -20~+70℃, Low Temp. Service: -50+40℃, High Temp. Service: 0~+100℃				
Options	Manual Handwheel, Limit Switch, Positioner, Airset, Solenoid Valve, etc.				

执行机构

P100LA 系列气动活塞式执行机构

该系列是大输出力、高性能的气动活塞式双动作执行机构，可与直行程控制阀搭配，包括各类球形阀和闸阀。P100LA适合于比例调节和开关控制，也可以用于其他线性动作的装置。



P100LA without Manual Handwheel

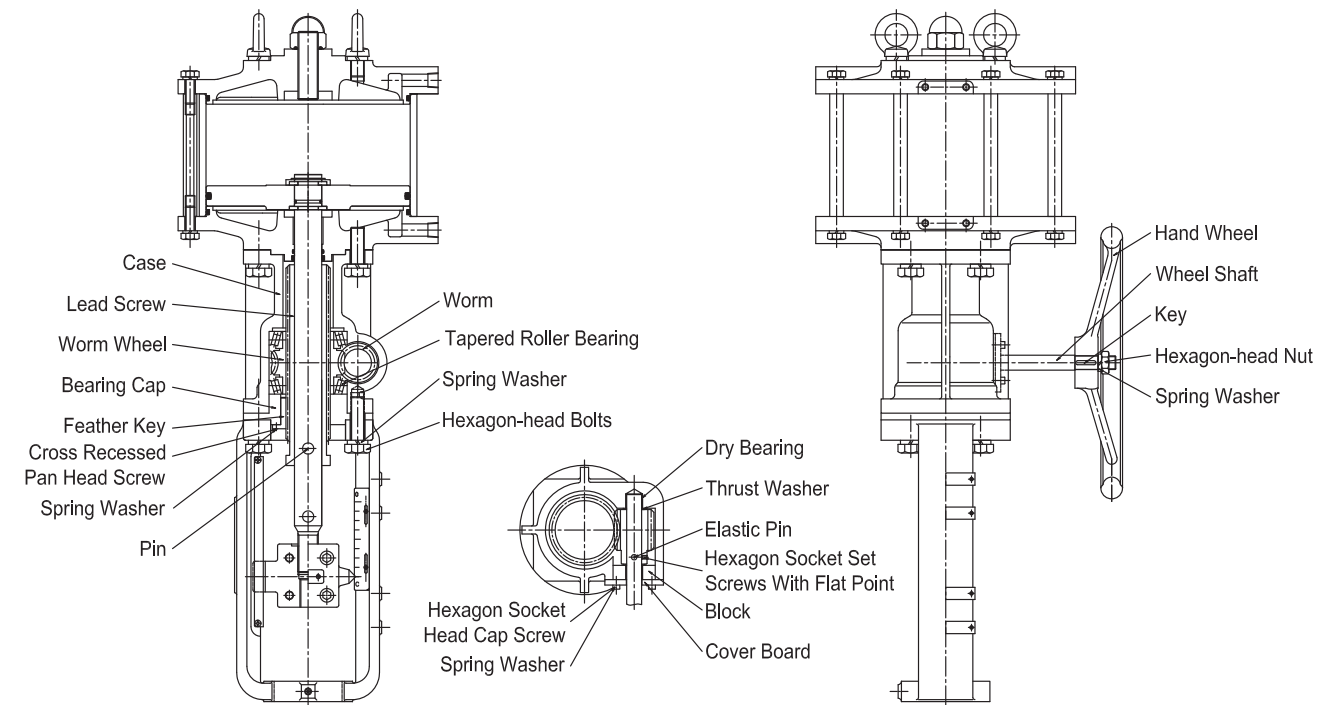
P100LA规格

型式	P130LA	P145LA	P160LA
执行机构尺寸	300	450	600
最大输出力 @ 500 KPa (N)	32,242	73,010	129,850
最大行程 (mm)	110	210、410	210、410
气源压力 (KPa)	300~500		
动作方式	双动作		
允许环境温度	标准型: -20~+60℃, 低温型: -50~+60℃, 高温型: 0~+100℃		
选购设备	手轮机构、限位开关、定位器、增速器、过滤减压阀、电磁阀等		

ACTUATORS

P100LA Pneumatic Piston Actuators

Pneumatic double-action actuator of piston type of this series enjoys large thrust and high performance which can be used with straight stroke control valve, including all kinds of globe valves and gate valves. P100LA is applicable for modulating and on-off control which can also be applied for other devices with linear action.



P100LA with Manual Handwheel

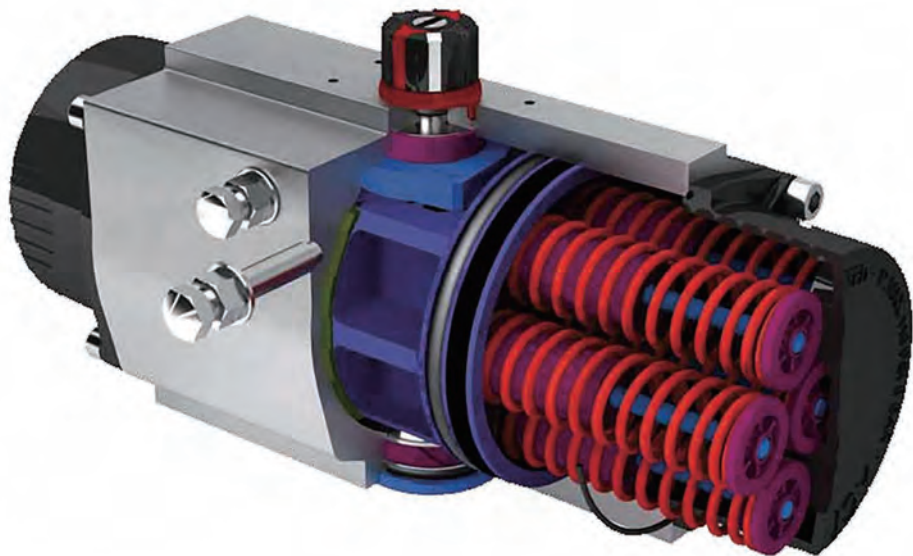
P100LA Specifications

Type	P130LA	P145LA	P160LA
Actuator Size	300	450	600
Max. Output @ 500KPa (N)	32,242	73,010	129,850
Max. Stroke (mm)	110	210、410	210、410
Air Supply (KPa)	300~500		
Action	Double Acting		
Environment Temp.	Standard Type: -20~+70℃, Low Temp. Service: -50~+40℃, High Temp. Service: 0~+100℃		
Options	Manual Handwheel, Limit Switch, Positioner, Booster Relay, Airset, Solenoid Valve, etc.		

执行机构

P200RA 系列气动活塞式执行机构

该系列是双气缸齿轮、齿条式气动执行机构，是一种体积小、输出扭矩稳定、动作可靠的执行机构，适用于比例调节和开关控制。输出轴回转角度有50°、60°、70°、90°可选，可与回转类控制阀搭配，包括各类球阀、蝶阀和凸轮挠曲阀。P200RA适合于比例调节和开关控制，也可以用于其他回转动作的装置。



P200RA单作用执行机构

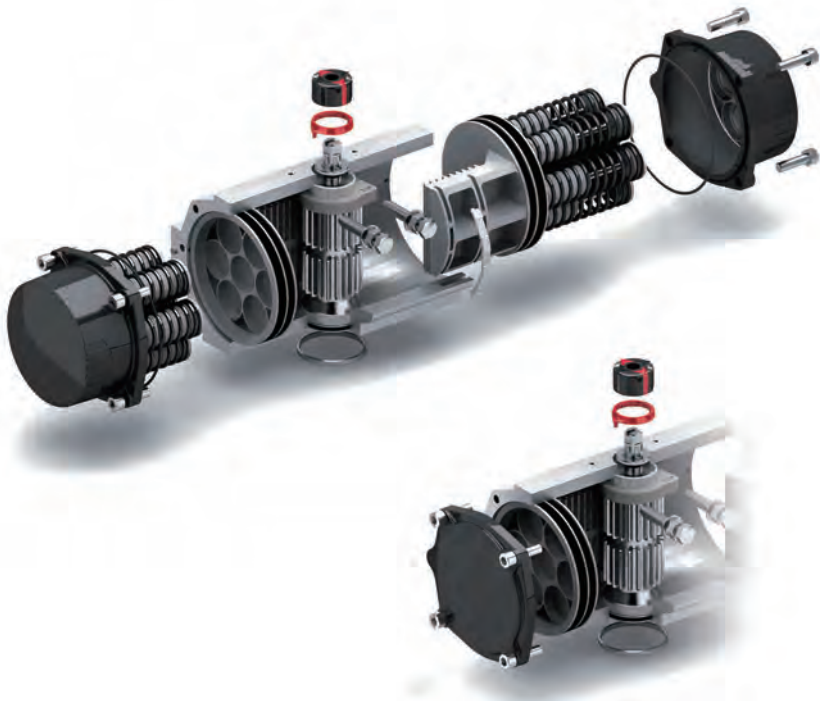
P200RA规格

P200RA	双动作型												
型式	P204RA	P206RA	P208RA	P209RA	P210RA	P212RA	P214RA	P216RA	P218RA	P221RA	P223RA	P230RA	P234RA
气缸内径尺寸 (mm)	Φ45	Φ60	Φ80	Φ90	Φ104	Φ125	Φ140	Φ160	Φ180	Φ210	Φ235	Φ300	Φ340
输出扭矩 @ 500 KPa (Nm)	16.2	33.9	64.1	98.4	146	242	361	598	865	1,178	1,810	2,884	4,013
供气压力	300~600 KPa												
P200RA	单动作型												
型式	P204RA	P206RA	P208RA	P209RA	P210RA	P212RA	P214RA	P216RA	P218RA	P221RA	P223RA	P230RA	P234RA
气缸内径尺寸 (mm)	Φ45	Φ60	Φ80	Φ90	Φ104	Φ125	Φ140	Φ160	Φ180	Φ210	Φ235	Φ300	Φ340
输出扭矩 @ 500 KPa (Nm)	7	13	26	39	63	101	152	232	343	461	655	1,184	1,516
供气压力	300、350、400、450、500、550、600 KPa												
作用方式	正作用（DA）、反作用（RA）												
允许环境温度	标准型：-30~+100℃，低温型：-40(-50)~+80℃，高温型：-15~+150℃												
选购设备	手轮机构、限位开关、定位器、增速器、过滤减压阀、电磁阀、锁止阀、调速器等												

ACTUATORS

P200RA Pneumatic Piston Actuators

This series is 2 piston Rack & Pinion pneumatic actuator, provides double-acting and spring return pneumatic torque cylinder actuators characterized by small size and high-performance. Combined with rotary shaft motion type control valves, including ball valves, butterfly valves and segmental ball valves, the actuators of this series are suited for modulating and on-off services. Uses with other rotary motion devices are also good. Output shaft rotating angle of 50°, 60°, 70° and 90° are optional.



P200RA Spring Return Actuator

P200RA Specifications

P200RA	Double Acting Type												
Type Code	P204RA	P206RA	P208RA	P209RA	P210RA	P212RA	P214RA	P216RA	P218RA	P221RA	P223RA	P230RA	P234RA
Chamber Size (mm)	Φ45	Φ60	Φ80	Φ90	Φ104	Φ125	Φ140	Φ160	Φ180	Φ210	Φ235	Φ300	Φ340
Output Torque @ 500KPa (Nm)	16.2	33.9	64.1	98.4	146	242	361	598	865	1,178	1,810	2,884	4,013
Air Supply	300~600 KPa												
P200RA	Spring Return Type												
Type Code	P204RA	P206RA	P208RA	P209RA	P210RA	P212RA	P214RA	P216RA	P218RA	P221RA	P223RA	P230RA	P234RA
Chamber Size (mm)	Φ45	Φ60	Φ80	Φ90	Φ104	Φ125	Φ140	Φ160	Φ180	Φ210	Φ235	Φ300	Φ340
Output Torque @ 500KPa (Nm)	7	13	26	39	63	101	152	232	343	461	655	1,184	1,516
Air Supply	300、350、400、450、500、550、600 KPa												
Action	Direct Action or Reverse Action												
Environment Temperature	Standard Type: 30~+100℃, Low Temperature Service: -40(-50)~+80℃, High Temperature Service: -15~+150℃												
Options	Manual handwheel, Limit switch, Positioner, Air-set, Speed controller, Booster Relay, Lock-up valve, Solenoid valve etc.												

公司资质

CERTIFICATION



营业执照副本



特种设备制造许可证



ISO 9001 证书



ISO 14001 证书



中石化入网证



OHSAS 18001 证书