



技术样册 | V.15 | TECHNICAL CATALOGUE

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V.15  
CN-GB

**Meca-inox**  
BALL VALVES



我们的使命是帮助您在工业领域获得成功。

为此，我们采用日益有效和合理的方法努力使我们之间的关系更为紧密。

不辍更新我们的产品资料是我们努力的一部分。本新版本的产品目录旨在使您更方便寻找产品和技术信息：

- 气动球阀知识直接体现在各个章节里，
- 新增深冷低温球阀章节，
- 新增应用球阀章节，

为帮助我们更有效地全面实现目标，美嘉诺的双语产品目录已经进行了以下改进：

- 进行了更为详细的内容重组，
- 结构设计同样适合其他语言版本，
- 技术资料不断更新。

新版产品目录将协助我们在产品技术方面更加专业。根据公司的发展变化每年进行不断更新。希望能够帮助到您！

*Our role is to help you achieve industrial success. To do this, we strive to consolidate our relationship by taking an increasingly dynamic and structured approach to what we do.*

*Constantly improving our documents is part of this approach.*

*This new version of our catalog is designed to facilitate the search for products and easier access to technical information by:*

- the integration of actuated valves directly in the various sections,*
- the creation of a special section for cryogenic valves,*
- the creation of a special section for application.*

*To help us fulfil these objectives as effectively as possible, our bilingual catalogue has embraced the following improvements:*

- restructuring the contents, with a more detailed level of research,*
- structure suited to versions in other languages,*
- updates to the technical data.*

*This new catalogue provides technical backup for our expertise.*

*It changes each year as our company evolves. I hope you find it useful!*

Hugues Beurel

CEO

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## DN 08 到 DN 200

PN 100 / PN 16  
缩径或通径  
活套法兰设计  
ISO 法兰平台



不锈钢系列  
Stainless steel series

## Size 1/4" to 8"

PN 100 / PN 16  
Reduced or full bore  
Rotating ends system  
ISO top flange



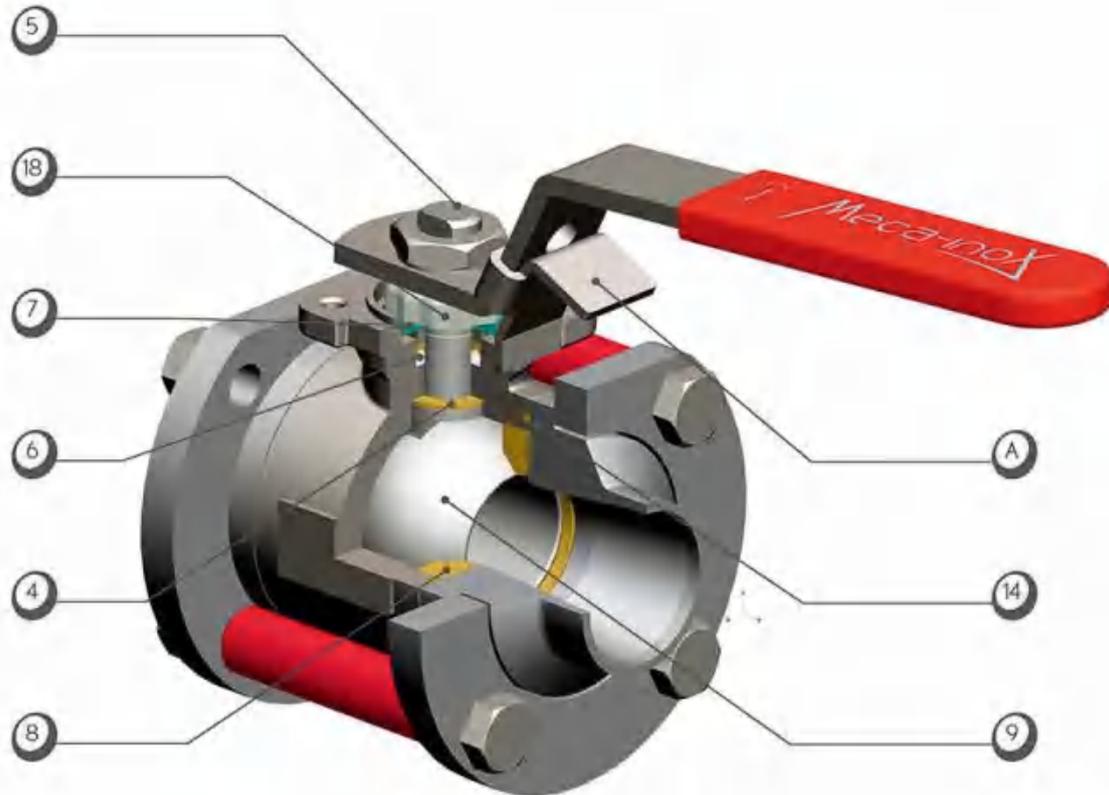
碳钢系列  
Carbon steel series



DN 65 到 DN 200系列  
Size 2"1/2 to 8" series



气动系列  
Actuated series



**A • EN ISO 5211 法兰平台**

更加容易与阀门上端的驱动装置匹配。该法兰具有槽口以配合可锁手柄。

**4 • 阀杆密封**

属于初级密封，由 PTFE+PEEK 的复合材料组成，可实现长时间的工作寿命和工作次数。

**5 • 防喷出阀杆**

阀杆设计可承受高扭矩操作，不会断裂也不会扭曲变形。

**6 • 填料**

填料筒经机械加工且与V型环状填料配合。这样的装配确保防静电填料密封通过，且密封性能通过 TALUFT 认证。

**7 • 弹簧垫片**

弹簧垫片通过弹力对填料的损耗进行补偿。

**8 • 阀座**

可提供的阀座材质范围广泛，PS4球阀系列产品可应用于很多工况，温度范围为：-196 °C 到 280 °C。

**9 • 阀球**

阀杆槽口处加工有泄压孔以避免阀门在‘打开’位置时出现任何超压状况。

**14 • 嵌入式阀体密封**

PTFE材质的密封件嵌入阀体加工的槽腔内，为阀体及端子部件之间提供高可靠性的密封。

**18 • 螺母锁紧设计**

螺母锁紧装置确保在阀门操作时填料压紧螺母和手柄螺母处于锁紧状态。

**A • EN ISO 5211 top flange**

Makes easier the adaptation of an actuator on the valve. This flange has notches to welcome a lockable handle.

**4 • Stem thrust seal**

Acts as a primary sealing. Made of PTFE + PEEK, it ensures a longer lifetime and numerous cycles.

**5 • Antiblow-out stem**

The stem is designed to resist high operating torques without breaking nor twisting.

**6 • Gland-packing**

The gland box is machined and receive a V-ring packing. This assembly ensures an antistatic gland-packing, TALUFT certified.

**7 • Spring washers**

The spring washers act as a spring to compensate the packing wear.

**8 • Seats**

A wide range of seat materials is available. The PS4 valve can be used in many process applications from -196°C to 280 °C.

**9 • Ball**

A cavity relief is drilled in the stem groove in order to avoid any overpressure in "Open" position.

**14 • Encapsulated body seals**

In PTFE, they are giving a reliable sealing between the body and connections.

**18 • Safety nut lock**

These nut locks ensure to keep the packing nut and the handle nut in place during valve operations.

## 活套法兰

- 易于安装: 端子位置不需要校正
- 阀体可进行 360° 旋转
- 避免了端子安装误差导致的应力

## Loose body flanges

- Ease of installation without alignment of the end pieces
- Orientation of the valve body through 360°
- Elimination of the stresses due to faulty alignment

● 阀体可 360° 旋转  
Valve body rotatable through 360°



● 法兰可 360° 旋转  
Flanges rotatable through 360°

## 分体包装

- 节约安装时间
- 不同颜色代表不同的阀体材质
- 运输和安装时能够保护内部组件

## The Kit box

- Save time when fitting
- Identification of the materials by distinct colours
- Protection of the components during installation



304L

A216 WCB

904L

Alloy 22

316L

## 机加工连接端

- 连接方式多种多样
- 尺寸可定制
- 可快速生产

## The machined ends

- Large choice of connections
- Customized dimensions
- Fast production



密封设计  
**SEALING DESIGN**

**检测标准**

**PED 规范**

根据欧洲压力设备规范 (PED) 97 / 23 / EC, 所有球阀都按照 PED 规范进行生产, 在发运或入库之前, 必须完成水压测试, 试验按照 ISO 5208 国际标准进行。

**TS 证书**

中华人民共和国特种设备制造许可证。

**逃逸泄漏**

美嘉诺阀门符合 TA LUFT 02 / 27 / 1986 (Pt 3.1.8.4) 标准的要求。泄漏率远低于标准允许值, 且符合 EN ISO 15848 - 2 的规范, 如 VDI 2440 - 2000。

**内漏测试**

所有阀门都会通气, 加压, 保持关闭状态进行测试, 并确保没有气泡溢出。

所有球阀都会通气加压, 关闭位置进行测试, 在测试时没有气泡产生。

所有阀门都符合“A”级标准 (根据 EN 12266 - 1) 没有气泡 = 零泄漏

**Tests**

**PED directive**

According to Pressure European Directive (PED) 97/23/CE, all our ball valves are controlled during the production process. A final hydrostatic pressure test is achieved before dispatch or warehousing. Our tests are conducted according ISO 5208 international standard.

**TS Certification**

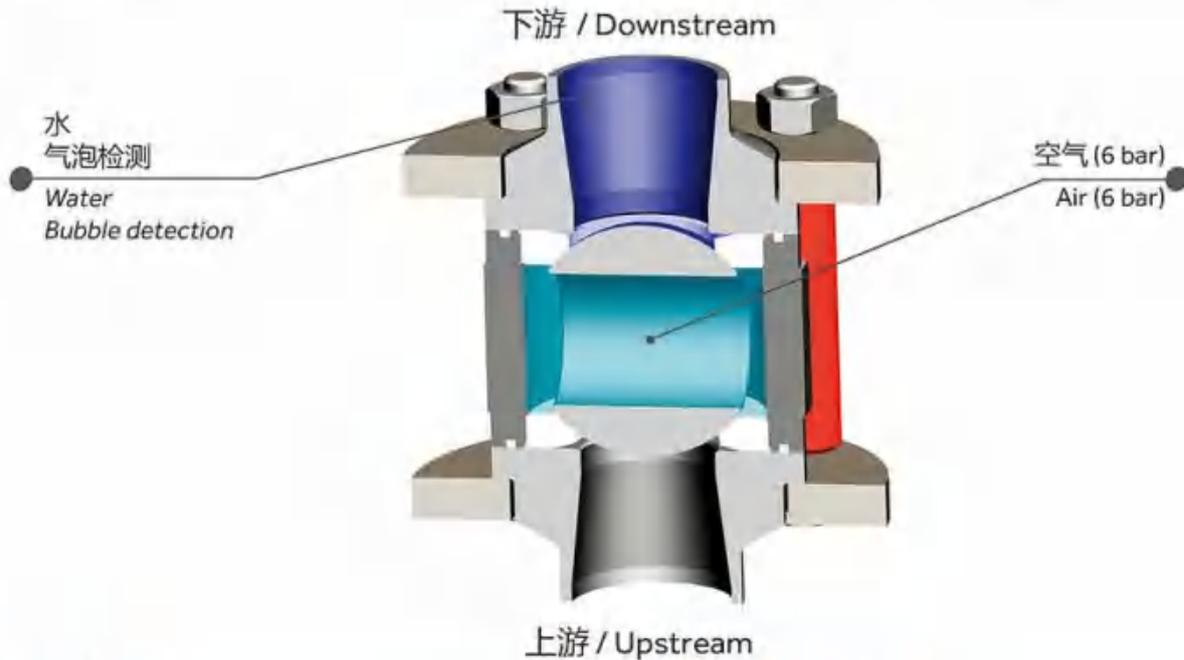
Manufacture licence of special equipment People's Republic of China.

**Fugitives Emissions**

Our valves are tested according TA LUFT 02/27/1986 (Pt 3.1.8.4) requisition. Tests show leakage rate much lower than the level requested EN ISO15848-2 by regulations such as VDI 2440\_2000.

**Test pressure of the ball sealing**

The upstream/downstream leakage rate (in-line leakage) is ensured by the sealing between the ball and the seats. We check that absolutely no bubble escape from pressurized air trapped in the volume inside the closed ball. All our valves are "A" Cat.: EN 12266-1 no bubble = no leak



**适用真空度**

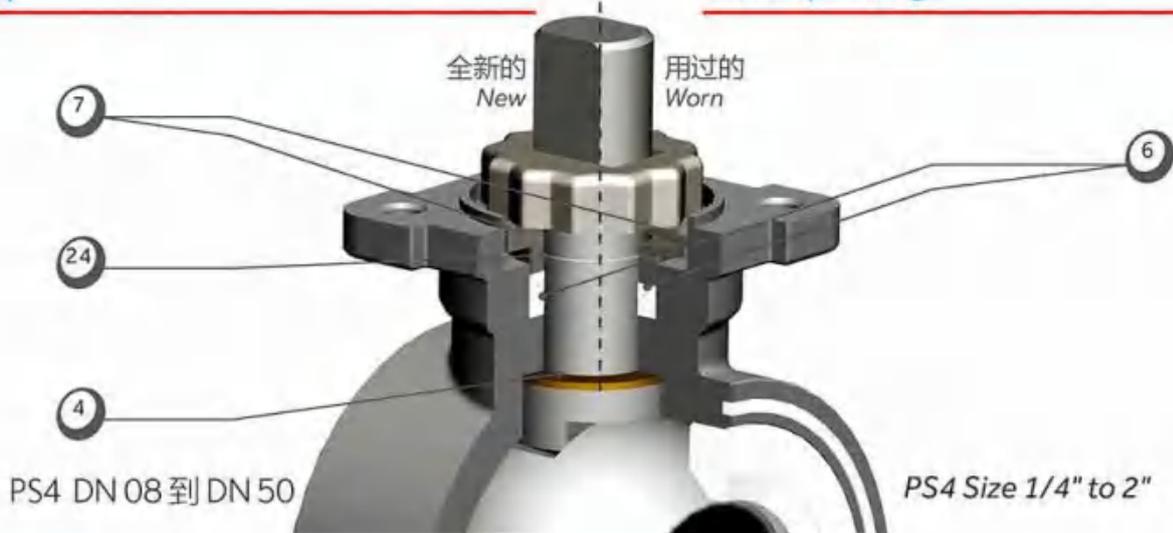
美嘉诺两片式和三片式球阀的设计和制造标准, 允许在低至  $10^{-3}$  mbar 的真空条件下工作 ( $0,75 \times 10^{-3}$  Torr)。

**Vacuum resistance**

Design and manufacturing of our 2-piece and 3-piece ball valve allow a vacuum capability of at least  $10^{-3}$  mbar ( $0,75 \times 10^{-3}$  Torr).

### 填料

### Gland-packing



按照 NF EN 12516-1, DIN 3841 和 ANSI B16.34 标准进行设计

防静电填料按照 ISO 7121, NF EN 1983 的标准

PTFE+碳+石墨 填料 (6) (< DN50)

阀杆和阀体, 阀杆和阀球 (> DN 50) 之间的 球阀/弹簧装置 (B)

PEEK 增强型 PTFE 作为阀杆初级密封 (4)

次级密封为 V 型环状填料 (6), 可实现带压 (来自阀体的压力) 密封

不锈钢填料压盖 (24)

由一对弹簧垫片 (7) 进行损耗补偿

阀座支撑 (> DN 50) (20)

Design according NF EN 12516-1, DIN 3841, ANSI B16.34

Antistatic gland packing according to ISO 7121, NF EN 1983

Gland packing (6) in PTFE+ carbon + graphite (DN < 2")

Ball / spring system (B) between stem & body and stem & ball (DN > 2")

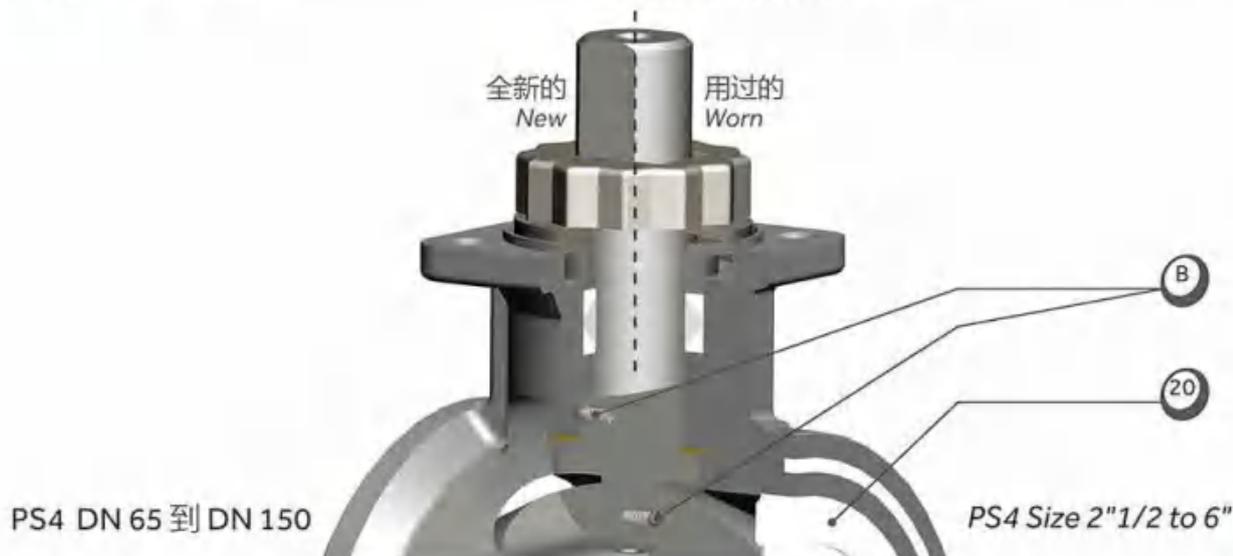
Primary sealing with thrust seal (4) in PEEK reinforced PTFE

Secondary sealing with a "V-ring" packing (6) to allow sealing under pressure coming from the valve body

Gland in stainless steel (24)

Wear compensation by the mean of a pair of spring washers (7)

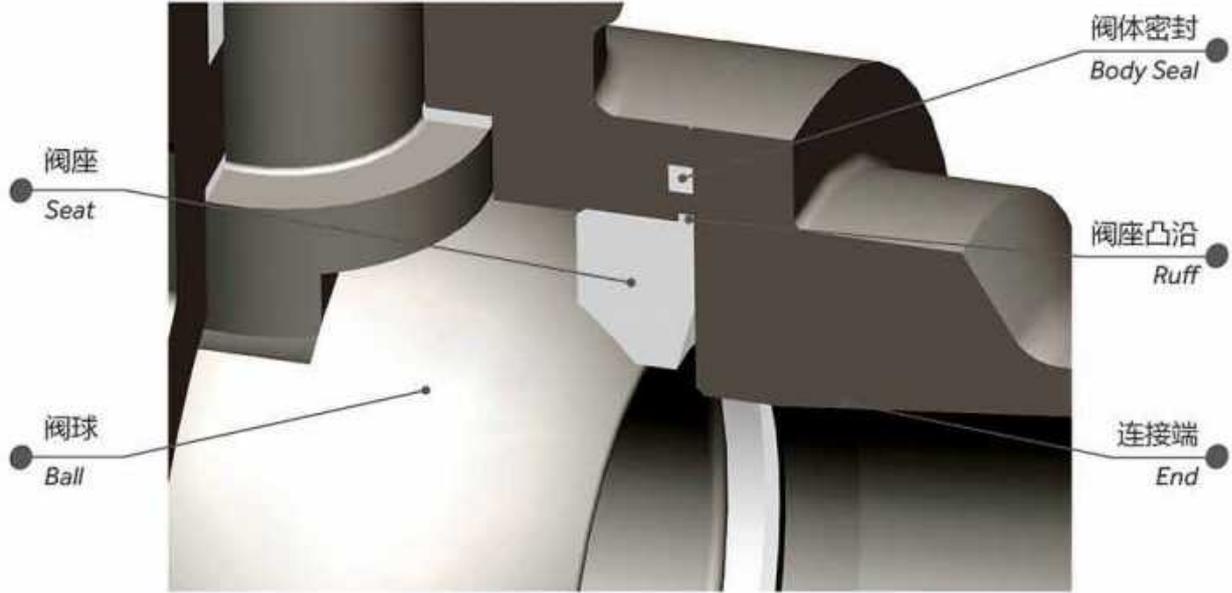
Seat support (20) on DN > 2"



密封设计  
**SEALING DESIGN**

阀座和阀体密封

Seats and body seals

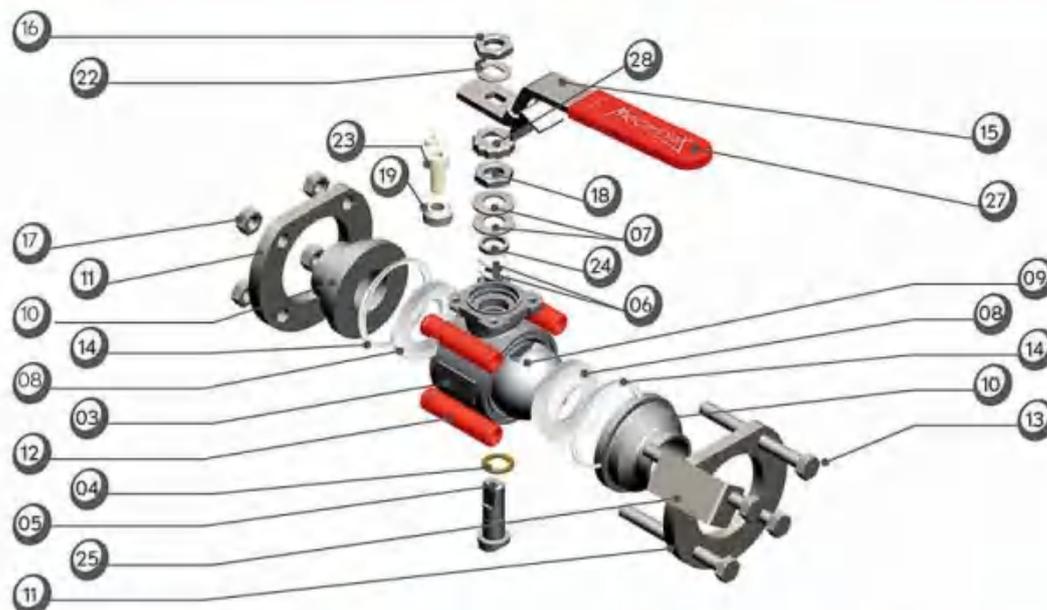


嵌入式阀体密封  
确保阀门内外的密封性。  
独特的阀座轮廓设计  
保证上下游密封效果。  
弹性阀座吸收压缩应力。  
阀座自动调节支撑设计优化操作扭矩。  
阀座凸沿设计  
防止上游压力大于下游时阀座  
产生轴向窜动。

*Built-in body seals to guarantee  
internal/external tightness.  
Seats profiles designed for upstream/downstream  
sealing.  
Seats elasticity to absorb pressure stress.  
Progressive bearing to optimize operating torques.  
Ruff to avoid the seat to be taken away when  
upstream pressure is higher than downstream  
pressure.*

DN 08 到 DN 50

Size 1/4" to 2"



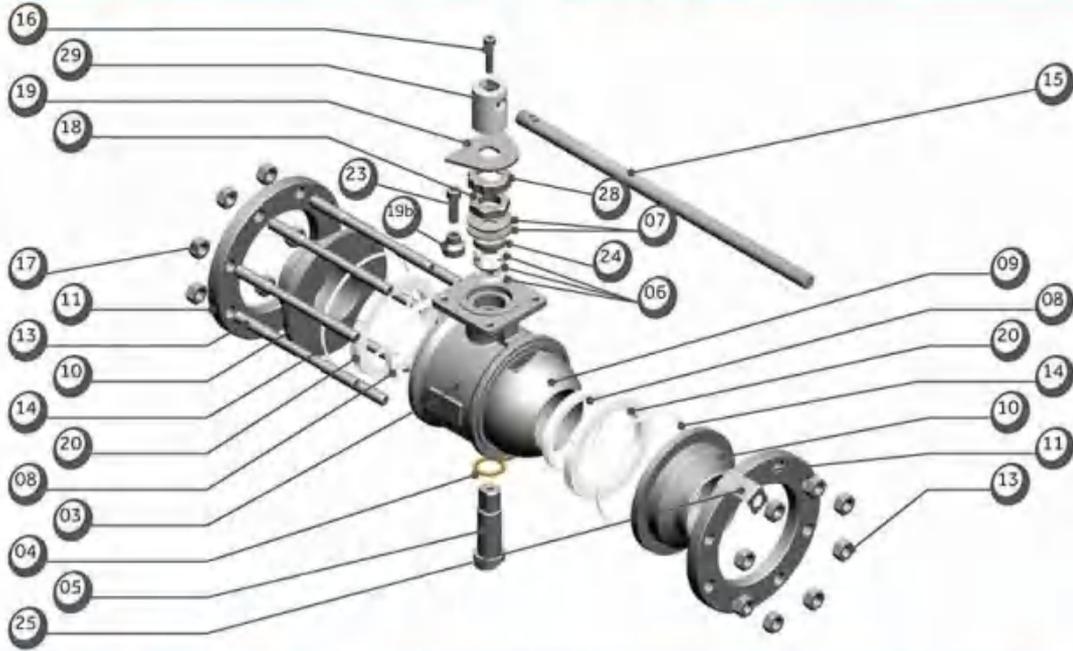
编号	数量	描述	材质 (EN)		Item	Qty	Description	Material (ASTM)	
			不锈钢	碳钢				S.steel	C.steel
03	1	阀体	1.4409	1.0619 电泳处理	03	1	Body	CF3M (316L)	A216 WCB cataphoresis treatment
04	1	阀杆密封	20% PEEK PTFE	PEEK 20% PTFE	04	1	Stem thrust seal	20% PEEK PTFE	20% PEEK PTFE
05	1	阀杆	1.4404	1.4404	05	1	Stem	316L	316L
06	1	填料 填料(防火)	33%碳+2%石墨 PTFE	33%碳+2%石墨 PTFE	06	1	Gland packing Gland packing (Fire Safe)	33%C+2%Gr PTFE	33%C+2%Gr PTFE
07	2	弹簧垫片		1.4310	07	2	Spring washers	301	301
08	2	阀座	TFM1600	TFM1600	08	2	Seats	TFM1600	TFM1600
09*	1	阀球		1.4409	09*	1	Ball	CF3M (316L)	
10	2	自由连接端(DN10到25)		1.1151 电泳处理	10	2	Loose ends (DN10 to 25)		1020 cataphoresis treatment
		自由连接端(DN32到50)	1.4404	1.0460 电泳处理			316L	A105 cataphoresis treatment	
		固定连接端 法兰连接端		1.1151 电泳处理				1020 cataphoresis treatment	
11	2	阀体法兰	1.4307	1.0144 电泳处理	11	2	Body flange	304L	A501 cataphoresis treatment
12	4	套管	红色 PTFE	红色 PTFE	12	4	Distance piece	Red PTFE	Red PTFE
13	4	螺栓 DN 08 到 DN 40	1.4301	等级 8.8	13	4	Screw Size 1/4" to 1 1/2"	304	Class 8.8
14	2	双头螺栓 DN 50	1.4301	1.4301	14	2	Stud Size 2"	304	304
		阀体密封	PTFE	PTFE			Body seal	PTFE	PTFE
15	1	阀体密封 (可选项: 防火)	14404 + 石墨	14404 + 石墨	15	1	Body seal (option: Fire Safe)	316L + Graphite	316L + Graphite
		标准手柄	1.1181	1.1181			Handle standard	1035	1035
16	1	手柄可选项	参见操作可选项		16	1	Handle option	See OPTIONS FOR OPERATION	
16	1	手柄紧固螺母	1.4404	1.4404	16	1	Lever nut	316L	316L
16b	1	调整螺栓 DN 10	1.4301	1.4301	16b	1	Lever screw DN 10	304	304
紧固螺母					Nut screw				
17	4	DN 08 到 DN 40	1.4301	等级 10.8	17	4	Size 1/4" to 1 1/2"	304	Class 10.8
		DN 50	1.4301	1.4301			8	Size 2"	304
18	1	压盖螺母	1.4404	1.4404	18	1	Nut gland	316L	316L
19	1	止动环垫圈	1.4307	1.4307	19	1	Stop ring	304L	304L
22	1	止动片	1.4307	1.4307	22	1	Nut stop	304L	304L
23	1	止动栓	1.4301	1.4301	23	1	Screw stop	304	304
24	1	填料压盖	1.4404	1.4404	24	1	Gland	316L	316L
25	1	商标 (可选项)	1.4307	1.4307	25	1	Identification label (option)	304L	304L
27	1	带颜色的塑料手柄套 (可选项)	PVC	PVC	27	1	Color plastic cover (option)	PVC	PVC
28	1	螺母止动片	1.4307	1.4307	28	1	Stop nut gland	304L	304L

\* 钻通球孔标准  
\* Drilled ball as standard

### 部件 COMPONENTS

DN 65 到 DN 150

Size 2"1/2 to 6"



编号	数量	描述	材质 (EN)		Item	Qty	Description	Material (ASTM)	
			不锈钢	碳钢				S.steel	C.steel
03	1	阀体	1.4409	1.0619电泳处理	03	1	Body	CF3M (316L)	A216 WCB cataphoresis treatment
04	1	阀杆密封	20%PEEK PTFE	20%PEEK PTFE	04	1	Stem thrust seal	20%PEEK PTFE	20%PEEK PTFE
05	1	阀杆	1.4404	1.4404	05	1	Stem	316L	316L
06	1	填料	PTFE	PTFE	06	1	Gland packing	PTFE	PTFE
07	2	弹簧垫片	1.4310	1.4310	07	2	Spring washers	301	301
08	2	阀座	TFM 1600	TFM 1600	08	2	Seat	TFM 1600	TFM 1600
09*	1	阀球	1.4409	1.4409	09*	1	Ball	CF3M (316L)	CF3M (316L)
10	2	自由连接端 (DN 65)	1.4404	1.0460电泳处理	10	2	Loose ends (Size 2"1/2)	316L	A105 cataphoresis treatment
		自由连接端 (DN 125)		1.1151 电泳处理			1020 cataphoresis treatment		
		法兰连接端		1.1151 电泳处理			1020 cataphoresis treatment		
11	2	阀体法兰	1.4307	1.0037 镀锌处理	11	2	Body flange	304L	A283 Gr C chrome plating
13	6	双头螺栓	1.4307	1.4307	13	6	Stud	304L	304L
		DN 65					Size 2"1/2		
		DN 80 到 DN 125					Size 3" to 5"		
14	2	阀体密封	PTFE	PTFE	14	2	Body seal	PTFE	PTFE
		标准手柄					304		
手柄可选项	参见操作可选项	Handle option	See OPTIONS FOR OPERATION						
16	1	手柄螺栓	1.4301	1.4301	16	1	Handle screw	304	304
17	12	紧固螺母	1.4307	1.4307	17	12	Nut screw	304L	304L
		DN 65					Size 2"1/2		
		DN 80 到 DN 125					Size 3" to 5"		
18	1	压盖螺母	1.4404	1.4404	18	1	Nut gland	316L	316L
		止动片					1.4307		
19b	1	锁止塞	1.4307	1.4307	19b	1	Locking plug	304L	304L
20	2	阀座支撑	1.4409	1.4409	20	2	Seat holder	316L	316L
23	1	止动栓	1.4301	1.4301	23	1	Stop screw	304	304
24	1	填料压盖	1.4404	1.4404	24	1	Gland	316L	316L
25	1	商标	1.4307	1.4307	25	1	Identification label	304L	304L
28	1	螺母止动片	1.4307	1.4307	28	1	Stop nut gland	304L	304L
29	1	标准手柄连接器	1.0037 镀锌处理	1.4305	29	1	Handle adaptor	303	A283 Gr C chrome plating
		手柄连接器 (可选项)					1.4305		1.4305

\* 标准钻孔, 阀球  
\* Drilled ball as standard

## 阀座及密封材料 SEATS & SEALINGS MATERIAL

3-PCS

### 技术参数

PS4 / PN4: TFM 1600 阀座

温度范围: -50°C / +190°C

PZ4: 20%PEEK 增强型 PTFE 阀座

温度范围: 0°C / +280°C

PP4: PEEK 阀座

温度范围: 0°C / +280°C

碳钢, 316L, 904L, 304L, 合金材质

标准型

在球阀与阀杆连接处钻孔, 用于阀门腔体泄压。

可选项

上游泄压孔用于阀门关闭位置时阀腔泄压。

批准

PED 97 / 23 / EC

TA-Luft (逃逸泄漏)

AD2000 Merkblatt

FDA 批准的阀座材质

可选项

ATEX 94 / 9 / EC

遵照 2010 / 35 / UE TPED 认证打上 π 标识

ADR §1.8.7.6 认证

### Technical data

PS4 / PN4: TFM 1600 seats.

Temperature range: -50°C / +190°C

PZ4: 20% PEEK filled PTFE seats.

Temperature range: 0°C / +280°C

PP4: PEEK seats.

Temperature range: 0°C / +280°C

Carbon steel, 316L, 904L, 304L, Alloy 22 version.

Standard version:

Ball drilling in the stem groove for cavity relief in the open position.

Option:

Upstream vent hole for cavity relief in closed position.

Approvals:

PED 97/23/CE

TA-Luft (fugitive emissions)

AD2000 Merkblatt

Seat material FDA approved

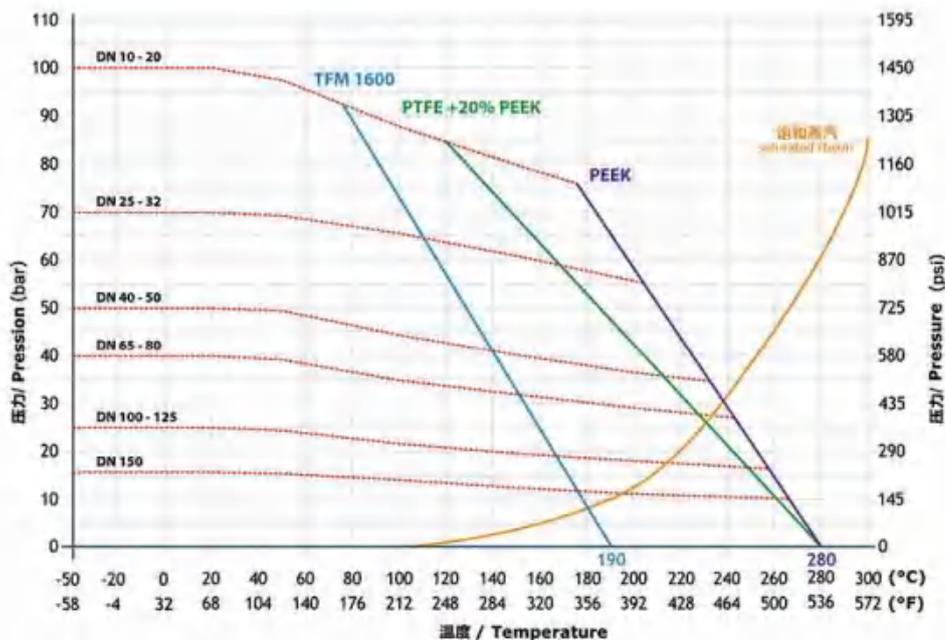
Options:

ATEX 94/9/CE

π marking according to 2010/35/UE TPED:

certification ADR §1.8.7.6

### 压力 / 温度图 Pressure/Temperature diagrams



----- 阀体的机械强度  
————— 阀座的机械强度

-10°C = 标准碳钢球阀的使用温度限值  
(1.0619 / A216 WCB)

-46°C = 低温碳钢球阀的使用温度限值  
(1.0566 / A352-LC2-1)

所有数值均基于通径尺寸

----- mechanical strength of body  
————— mechanical strength of seats

-10°C = limit the use of standard carbon steel valves  
(1.0619 / A216 WCB)

-46°C = limit the use of low temperature carbon steel valves  
(1.0566 / A352-LC2-1)

All values are given for full bore size.

## 阀座及密封材料

## SEATS & SEALINGS MATERIAL

### 技术参数

**PH4:** 超高分子量聚乙烯阀座 (UHMWPE)。

温度范围: -50°C / +100°C

**PJ4:** TFM 1600 阀座 阀体密封和填料使用氟素硅胶。

温度范围: -80°C / +180°C

316L, 904L, 304L, 合金材质。

标准型

PJ4 / PH4: 在阀球上与阀杆连接处钻孔, 用于阀门腔体泄压。

PJ4: 上游泄压孔用于阀门关闭位置时阀腔泄压。

可选项

PH4: 上游泄压孔用于阀门关闭位置时阀腔泄压。

PH4: 阀球上没有泄压孔。

PJ4: 可交付 RHJ 型延伸阀杆用于隔热管道上的操作。

认证

PED 97 / 23 / EC

TA-Luft (逃逸泄漏)

AD 2000 Merkblatt

FDA 批准的阀座材质

可选项

ATEX 94 / 9 / EC 仅适用 PJ4

遵照 2010 / 35 / UE TPED 认证打上 π 标识

ADR § 1.8.7.6 认证

### Technical data

**PH4:** Ultra High Molecular Weight Poly Ethylen seats (UHMWPE). Temperature range -50°C / +100°C

**PJ4:** TFM 1600 seats. Body seal and gland-packing in fluoro-silicon.

Temperature range -80°C / +180°C

316L, 904L, 304L, Alloy version.

Standard version:

PJ4 / PH4: Ball drilling in the stem mark for cavity relief in open position.

PJ4: Upstream vent hole for cavity relief in closed position.

Option:

PH4: Upstream vent hole for cavity relief in closed position.

PH4: Ball without cavity relief

PJ4: Delivered with RHJ stem extension for operation above pipe insulation.

Approvals:

PED 97/23/CE

TA-Luft (fugitive emissions)

AD2000 Merkblatt

Seat material FDA approved

Options: ATEX 94/9/CE only for PJ4

π marking according to 2010/35/UE TPED :

certification ADR §1.8.7.6

压力 / 温度图 Pressure/Temperature diagrams



----- 阀体的机械强度

----- 阀座的机械强度

所有数据基于阀门通径尺寸

----- mechanical strength of body

----- mechanical strength of seats

All values are given for full bore size.

## 阀座及密封材料 SEATS & SEALINGS MATERIAL

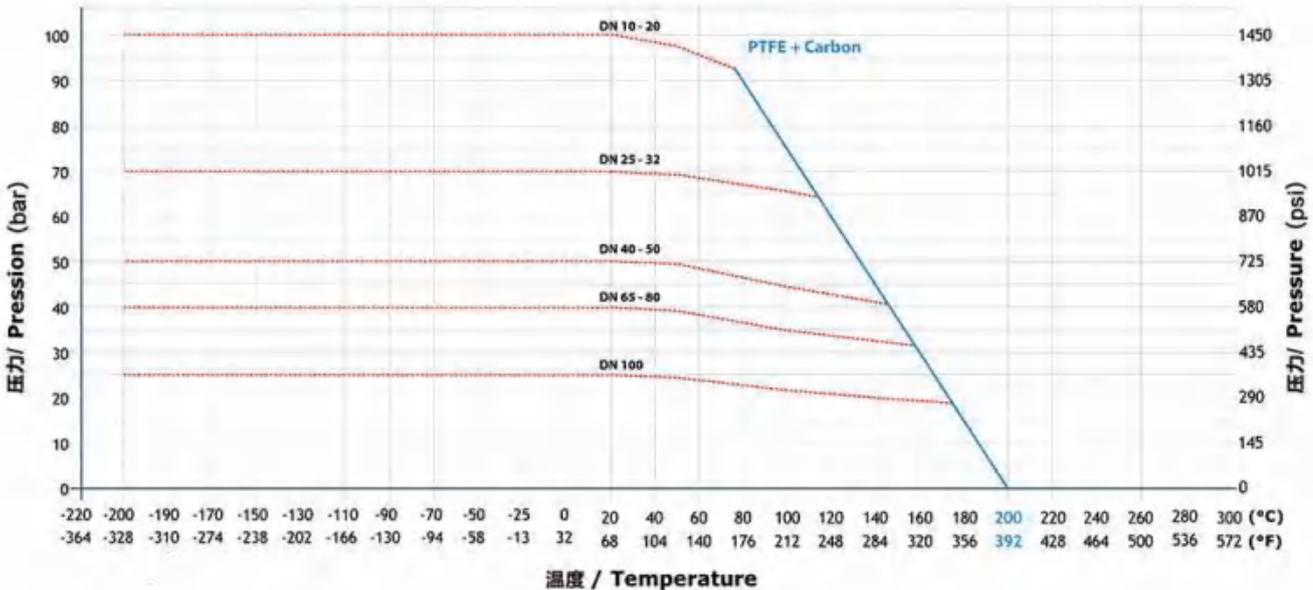
### 技术参数

**PY4 : TF 3215 阀座 (聚四氟乙烯+碳)**  
**温度范围: -200°C / +200°C**  
 没有延伸阀杆, 应用于阀门外部不会凝冰的情况。  
 316L, 904L, 304L, 合金材质  
**标准型**  
 在阀球上与阀杆连接处钻孔, 用于阀门腔体泄压。  
 上游泄压孔用于阀门关闭位置时阀腔泄压。  
**认证**  
 PED 97 / 23 / EC  
 TA-Luft (逃逸泄露)  
 AD 2000 Merkblatt  
**可选项**  
 ATEX 94 / 9 / EC  
 遵照 2010 / 35 / UE TPED 认证打上 p 标识  
 ADR § 1.8.7.6 认证

### Technical data

**PY4 : TF 3215 seats (PTFE + Carbon).**  
**Temperature range: -200°C / +200°C**  
 Version without extension for applications without risk of freezing.  
 316L, 904L, 304L, Alloy version.  
**Standard version:**  
 Ball drilling in the stem mark for cavity relief in the open position. Upstream vent hole for cavity relief in the closed position.  
**Approvals:**  
 PED 97/23/CE  
 TA-Luft (fugitive emissions)  
 AD2000 Merkblatt  
**Options:**  
 ATEX 94/9/CE  
 π marking according to 2010/35/UE TPED:  
 certification ADR §1.8.7.6

压力 / 温度图 Pressure/Temperature diagrams



--- 阀门正常操作的最大压差  
 — 阀门正常操作的最大压差  
 所有数据基于阀门的通径尺寸

--- mechanical strength of body  
 — mechanical strength of seats  
 All values are given for full bore size.

DN 08 到 DN 50 | Size 1/4" to 2"

DN 65 到 DN 200 | Size 2" 1/2 to 8"



- 8 • 2 个阀座
- 14 • 2 个阀体密封
- 6 • 1 组填料: DN 12 - DN 50 = 2个部件  
DN 65 - DN 200 = 3个部件
- 4 • 1 个阀杆密封



- 8 • 2 seats
- 14 • 2 body gaskets
- 6 • 1 gland-packing: size 3/8" to 2" = 2 parts  
size 2" 1/2 to 8" = 3 parts
- 4 • 1 stem thrust seat

编号-阀门型号 Item - Valve type	04	06	08	14
PS4 DN 08 到 DN 50 / PS4 DN 1/4" to DN 2"				
PH4	超高分子量聚乙烯 UHMWPE	超高分子量聚乙烯 UHMWPE	超高分子量聚乙烯 UHMWPE	超高分子量聚乙烯 UHMWPE
PJ4	PTFE 20 % PEEK 20%PEEK PTFE	氟素硅胶 Fluorosilicone	TFM 1600	氟素硅胶 Fluorosilicone
PN4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE 33%碳+2%石墨 33% C+2% Gr PTFE	TFM 1600	PTFE
PP4	PEEK	PTFE 33%碳+2%石墨 33% C+2% Gr PTFE	PEEK	PTFE
PS4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE 33%碳+2%石墨 33% C+2% Gr PTFE	TFM 1600	PTFE
PY4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE 33%碳+2%石墨 33% C+2% Gr PTFE	PTFE+碳 PTFE+Carbon	PTFE
PZ4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE 33%碳+2%石墨 33% C+2% Gr PTFE	PTFE 20 % PEEK 20%PEEK PTFE	PTFE
PS4 DN 65 到 DN 200 / PS4 DN 2" 1/2 to DN 8"				
PH4	超高分子量聚乙烯 UHMWPE	超高分子量聚乙烯 UHMWPE	超高分子量聚乙烯 UHMWPE	超高分子量聚乙烯 UHMWPE
PJ4	PTFE 20 % PEEK 20%PEEK PTFE	氟素硅胶 Fluorosilicone	TFM 1600	氟素硅胶 Fluorosilicone
PN4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	TFM 1600	PTFE
PP4	PEEK	PTFE	PEEK	PTFE
PS4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	TFM 1600	PTFE
PY4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	PTFE+碳 PTFE+Carbon	PTFE
PZ4	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	PTFE 20 % PEEK 20%PEEK PTFE	PTFE

### Kv值 | Kv VALUES

通径 / Full bore

DN	管道尺寸 Size	ΔP=1 bar Kv (m <sup>3</sup> /h)	ΔP=0.001 bar 流量 / flow (m <sup>3</sup> /h)
8	1/4"	6	0.19
12	3/8"	8	0.25
15	1/2"	13	0.40
20	3/4"	26	0.81
25	1"	46	1.47
32	1 1/4"	82	2.59
40	1 1/2"	120	3.81
50	2"	223	7.07
65	2 1/2"	423	13.37
80	3"	617	19.52
100	4"	1154	36.49
125	5"	1883	59.56
150	6"	2844	89.95

缩径 / Reduced bore

DN	管道尺寸 Size	ΔP=1 bar Kv (m <sup>3</sup> /h)	ΔP=0.001 bar 流量 / flow (m <sup>3</sup> /h)
15	1/2"	8	0.25
20	3/4"	13	0.40
25	1"	26	0.81
32	1 1/4"	46	1.47
40	1 1/2"	82	2.59
50	2"	120	3.81
65	2 1/2"	223	7.07
80	3"	397	12.56
100	4"	560	17.71
125	5"	942	29.80
150	6"	1433	45.32
200	8"	2011	63.60

流量系数: Kv

$$Kv = Q \cdot \sqrt{d / \Delta P} \text{ m}^3/\text{h}$$

ΔP = 压差 (bar)

Q = 流量 (m<sup>3</sup>/h)

d = 密度

$$\Delta P = d(Q / Kv)^2$$

$$Q = Kv \cdot \sqrt{\Delta P / d}$$

Flow coefficient: Kv

$$Kv = Q \cdot \sqrt{d / \Delta P} \text{ in m}^3/\text{h}$$

ΔP = pressure drop in bar

Q = flow in volum in m<sup>3</sup>/h

d = density

$$\Delta P = d(Q / Kv)^2$$

$$Q = Kv \cdot \sqrt{\Delta P / d}$$

### 编码 | CODIFICATION

阀座 Seats		阀体法兰 Body flange		连接端 Connection		径 Bore		材质 Material	
PS4	TFM 1600	L	活套端子 Loose ends	BW	对焊 Butt Welding	V	缩径 Reduced bore	A	碳钢 Carbon steel
PZ4	PTFE 20% PEEK 20% PEEK PTFE	T	嵌装式 Flush mounted	CL	卡箍 Clamp ends	N	通径 Full bore	I	不锈钢 316L Stainless steel 316L
PP4	PEEK			DB	卡套接头 Compression fittings	T	全通径 True Bore	F	低铁素体(含量)<1% Low Ferrite < 1 %
PN4	TFM 1600			FB	3/8" NPSM	S	反径 Inverted	U	不锈钢 904L Stainless steel 904L
PY4	Cryo special			FC	罐底焊接 Tank bottom			H	哈氏合金 C22 Hastelloy C22
PJ4	TFM 1600			SW	承插焊 Socket Welding			J	不锈钢 304L Stainless steel 304L
PH4	超高分子量聚乙烯 UHMWPE			TB	NPT螺纹 NPT threaded			D	超级双相不锈钢 Super Duplex 1.4410
				TG	BSP螺纹 BSP threaded			C	双相不锈钢 Duplex 1.4462
				O4	轨道自动焊 Orbital welding				

可定制

- 混合连接方式
- 其他材质
- 特殊连接端

Upon request

- Mix of connections
- other materials
- specific ends

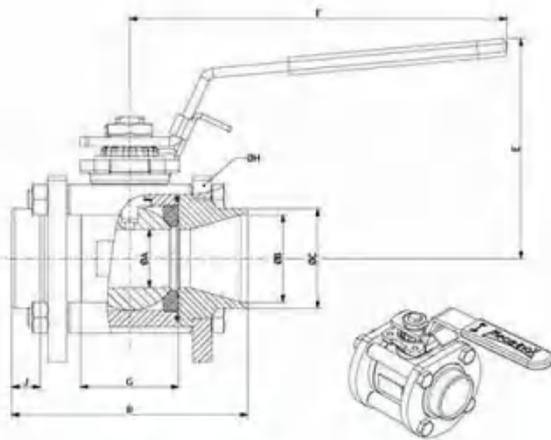
连接端类型  
TYPE OF CONNECTIONS

对焊

DN 15 到 DN 65  
缩径  
ISO 管道标准

Butt Weld

Size 1/2" to 2" 1/2  
Reduced bore  
ISO pipe

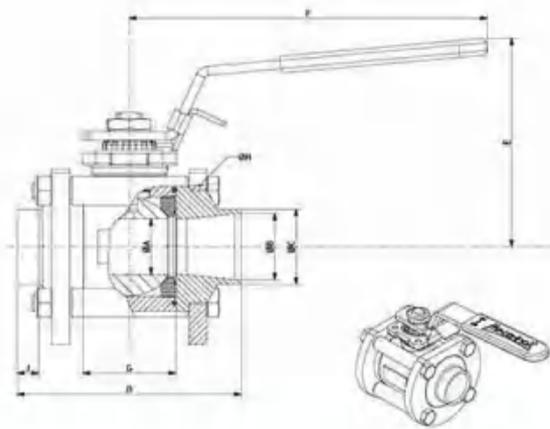


对焊

DN 08 到 DN 50  
通径  
ISO 管道标准

Butt Weld

Size 1/4" to 2"  
Full bore  
ISO pipe



尺寸 Size	PN	Ø A	Ø B		Ø C	D	E	F	G	Ø H	J	ISO 5211	重量(公斤) Weight (Kg)	
			不锈钢 S.Steel	碳钢 C.Steel										
<b>V · 缩径 / Reduced bore</b>														
15	1/2"	100	11.1	17.3	15.5	21.3	65	70	120	20.4	56	8.5	F03	0.650
20	3/4"	100	14	22.9	20.5	26.9	70	73	120	24.4	63	8.8	F03	0.800
25	1"	100	19	29.7	27.3	33.7	85	91	160	31.6	80	9.1	F04	1.610
32	1" 1/4	70	25	37.2	34.4	42.4	100	95	160	41.4	88	11.9	F04	2.100
40	1" 1/2	70	32	43.1	40.3	48.3	110	111	190	48.2	104	10.9	F05	3.120
50	2"	50	38	54.5	52.3	60.3	125	116	190	56.2	117	14.1	F05	4.300
65	2" 1/2	50	50	70.3	66.1	76.1	150	137	230	71	148	13.2	F07	8.590
<b>N · 通径 / Full bore</b>														
08	1/4"	100	11.1	9.5	8.9	13.5	65	70	120	20.4	56	6.4	F03	0.640
12	3/8"	100	11.1	13.2	12.6	17.2	65	70	120	20.4	56	7.3	F03	0.640
15	1/2"	100	14	17.3	15.5	21.3	70	73	120	24.4	63	7.3	F03	0.800
20	3/4"	100	19	22.9	20.5	26.9	85	91	160	31.6	80	7.2	F04	1.610
25	1"	70	25	29.7	27.3	33.7	100	95	160	41.4	88	9.4	F04	2.080
32	1" 1/4	70	32	37.2	34.4	42.4	110	111	190	48.2	104	9.2	F05	3.310
40	1" 1/2	50	38	43.1	40.3	48.3	125	116	190	56.2	117	10.7	F05	4.270
50	2"	50	50	54.5	52.3	60.3	150	137	230	71	148	8.6	F07	8.690

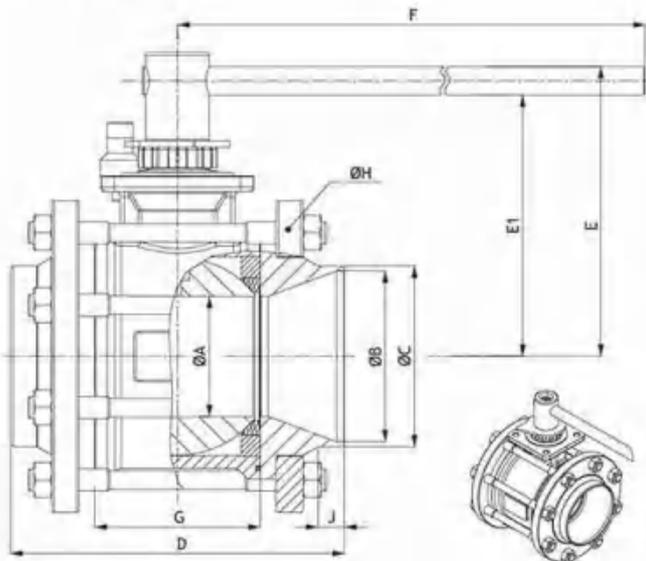
## 连接端类型 TYPE OF CONNECTIONS

### 对焊

DN 80 到 DN 200  
缩径  
ISO 管道标准

### Butt Weld

Size 3" to 8"  
Reduced bore  
ISO pipe

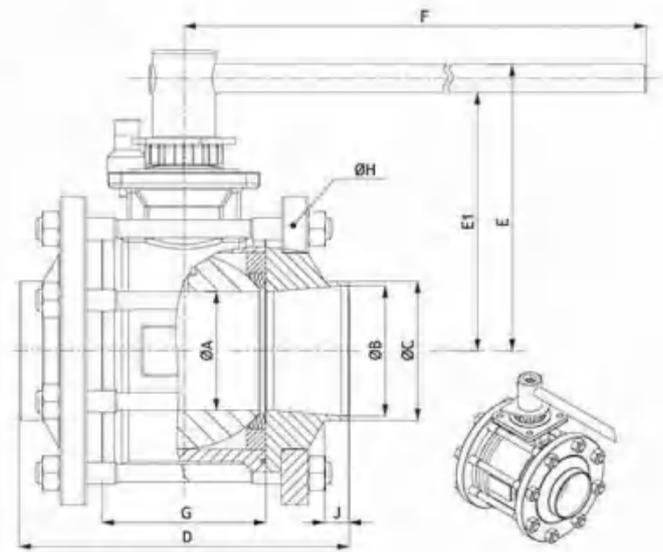


### 对焊

DN 65 到 DN 150  
通径  
ISO 管道标准

### Butt Weld

Size 2"1/2 to 6"  
Full bore  
ISO pipe



尺寸 Size	PN	Ø A	Ø B		Ø C	D	E	E1	F	G	Ø H	J	ISO 5211	重量(公斤) Weight (Kg)	
			不锈钢 S.Steel	碳钢 C.Steel											
<b>V · 缩径 / Reduced bore</b>															
80	3"	40	64	83.1	78.9	88.9	180	171	153	370	84	174	12.8	F07	14.840
100	4"	40	76	107.9	101.7	114.3	210	182	165	440	104	197	16.4	F10	22.310
125	5"	25	100	133.7	131.7	139.7	230	204	184	505	130	236	12.9	F10	33.980
150	6"	25	125	162.3	159.3	168.3	260	248	221	710	157	288	11.6	F12	57.940
200	8"	16	150	211.5	207.9	219	290	270	243	710	185	324	12.1	F12	78.900
<b>N - 通径 / Full bore</b>															
65	2"1/2	40	64	70.3	66.3	76.1	180	171	153	370	84	174	14.4	F07	14.800
80	3"	40	76	83.1	78.9	88.9	210	182	165	440	104	197	14.9	F10	22.510
100	4"	25	100	107.9	101.7	114.3	230	204	184	505	130	236	12.7	F10	34.360
125	5"	25	125	133.7	131.7	139.7	260	248	221	710	157	288	12.6	F12	58.430
150	6"	16	150	162.3	159.3	168.3	290	270	243	710	185	324	10.9	F12	80.860

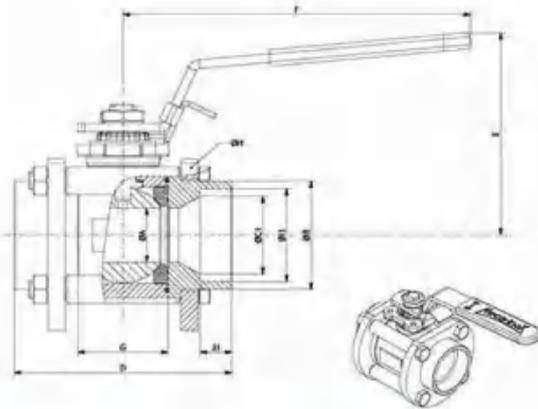
连接端类型  
TYPE OF CONNECTIONS

承插焊

DN 15 到 DN 65  
缩径  
ISO 管道标准

Socket Weld

Size 1/2" to 2 1/2"  
Reduced bore  
ISO pipe

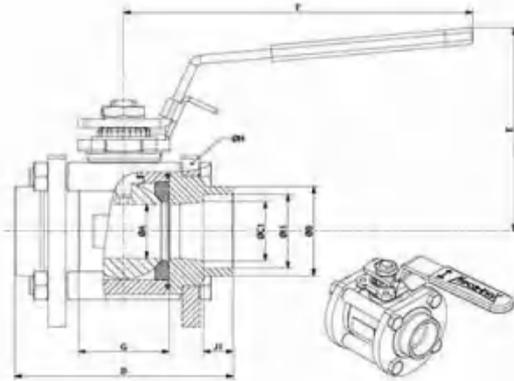


承插焊

DN 08 到 DN 50  
通径  
ISO 管道标准

Socket Weld

Size 1/4" to 2"  
Full bore  
ISO pipe



尺寸 Size	PN	Ø A	Ø B	Ø C1	D	E	F	G	Ø H	Ø I1	J1	ISO 5211	重量(公斤) Weight (Kg)	
<b>V · 缩径 / Reduced bore</b>														
15	1/2"	100	11.1	27.0	16.1	65	70	120	20.4	56	21.9	10.5	F03	0.650
20	3/4"	100	14	33.0	21.7	70	73	120	24.4	63	27.3	13.5	F03	0.810
25	1"	100	19	42.0	27.3	85	91	160	31.6	80	34.0	13.5	F04	1.610
32	1 1/4"	70	25	50.0	36.0	100	95	160	41.4	88	42.8	14.5	F04	2.080
40	1 1/2"	70	32	56.0	41.9	110	111	190	48.2	104	48.9	16.0	F05	3.270
50	2"	50	38	69.0	53.1	125	116	190	56.2	117	61.3	17.5	F05	4.220
65	2 1/2"	50	50	85.0	68.9	150	137	230	71	148	77.1	19.0	F07	8.380
<b>N · 通径 / Full bore</b>														
08	1/4"	100	11.1	19.6	11.1	65	70	120	20.4	56	14.3	10.5	F03	0.650
12	3/8"	100	11.1	24.0	12.6	65	70	120	20.4	56	17.8	10.5	F03	0.650
15	1/2"	100	14	29.0	16.1	70	73	120	24.4	63	21.9	10.5	F03	0.810
20	3/4"	100	19	34.3	21.7	85	91	160	31.6	80	27.3	13.5	F04	1.610
25	1"	70	25	41.0	27.3	100	95	160	41.4	88	34.0	13.5	F04	2.110
32	1 1/4"	70	32	49.8	36.0	110	111	190	48.2	104	42.8	14.5	F05	3.320
40	1 1/2"	50	38	55.9	41.9	125	116	190	56.2	117	48.9	16.0	F05	4.270
50	2"	50	50	69.2	53.1	150	137	230	71	148	61.3	17.5	F07	8.640

## 连接端类型 TYPE OF CONNECTIONS

### 承插焊

DN 80 到 DN 200

缩径

ISO 管道标准

### Socket Weld

Size 3" to 8"

Reduced bore

ISO pipe

### 承插焊

DN 65 到 150

通径

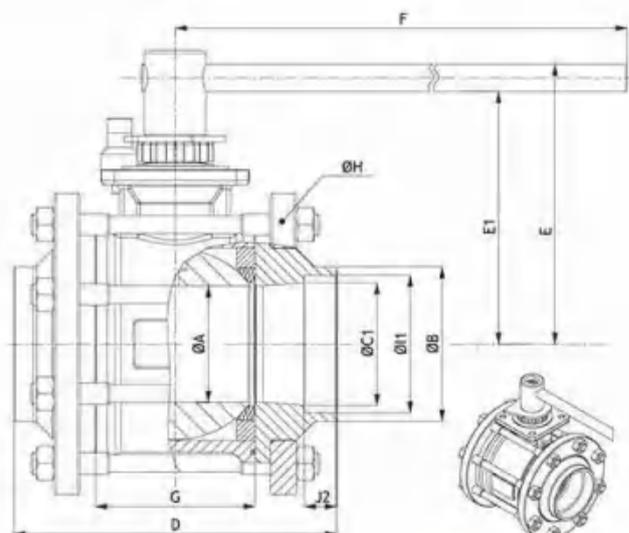
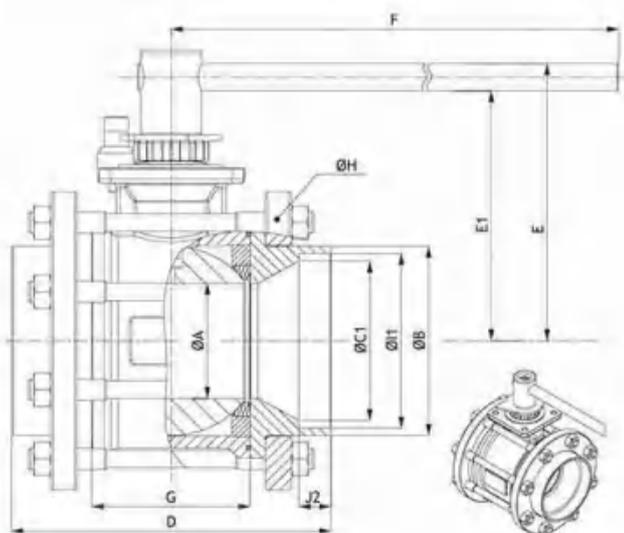
ISO 管道标准

### Socket Weld

Size 2"1/2 to 6"

Full bore

ISO pipe



尺寸 Size	PN	ØA	ØB	ØC1	D	E	E1	F	G	ØH	ØH1	J2	ISO 5211	重量(公斤) Weight (Kg)	
<b>V · 缩径 / Reduced bore</b>															
80	3"	40	64	101	81	180	171	153	370	84	174	89.9	21	F07	14.700
100	4"	40	76	125	105.3	210	182	165	440	104	197	115.5	21	F10	22.010
125	5"	25	100	148.5	135	230	204	184	505	130	236	141.3	24	F10	32.820
150	6"	25	125	177.5	164	260	248	221	710	157	288	171.3	24	F12	56.140
200	8"	16	150	229	214	290	270	243	710	185	324	221.8	30	F12	74.290
<b>N · 通径 / Full bore</b>															
65	2"1/2	40	64	87	69	180	171	153	370	84	174	77.6	19	F07	14.890
80	3"	40	76	101	81	210	182	165	440	104	197	89.9	21	F10	22.750
100	4"	25	100	127.5	105.3	230	204	184	505	130	236	115.5	21	F10	34.35
125	5"	25	125	148.5	135	260	248	221	710	157	288	141.3	24	F12	57.120
150	6"	16	150	177.5	164	290	270	243	710	185	324	171.3	24	F12	80.040

### 连接端类型

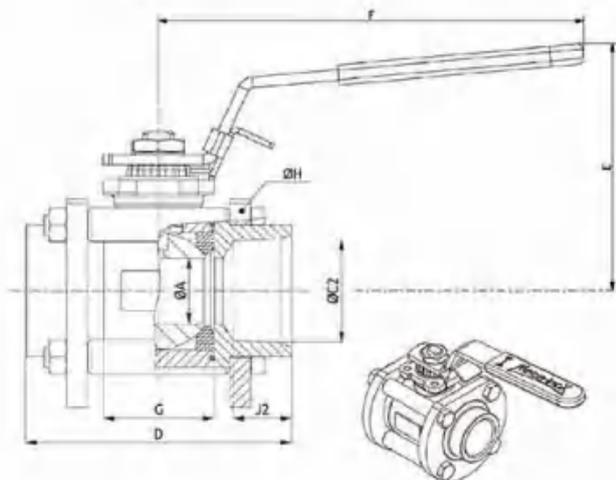
### TYPE OF CONNECTIONS

#### BSP (TG) & NPT (TB) 螺纹连接

DN 15 到 DN 65  
缩径

#### BSP (TG) & NPT (TB) thread

Size 1/2" to 2"1/2  
Reduced bore

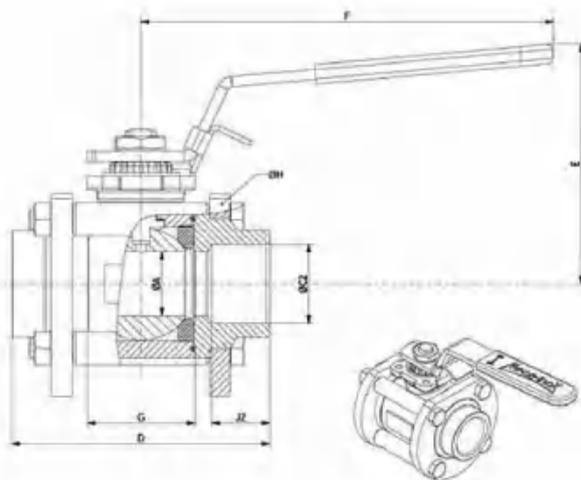


#### BSP (TG) & NPT (TB) 螺纹连接

DN 08 到 DN 50  
通路

#### BSP (TG) & NPT (TB) thread

Size 1/4" to 2"  
Full bore



尺寸 Size	PN	Ø A	Ø C2		D	E	F	G	Ø H	J2	ISO 5211	重量(公斤) Weight (Kg)	
			GAZ BSP "P"	NPT NPT									
<b>V - 缩径 / Reduced bore</b>													
15	1/2"	100	11.1	1/2"	1/2"	65	70	120	20.4	56	16	F03	0.640
20	3/4"	100	14	3/4"	3/4"	70	73	120	24.4	63	16	F03	0.800
25	1"	100	19	1"	1"	85	91	160	31.6	80	20	F04	1.600
32	1"1/4	70	25	1"1/4	1"1/4	100	95	160	41.4	88	22	F04	2.050
40	1"1/2	70	32	1"1/2	1"1/2	110	111	190	48.2	104	22	F05	3.270
50	2"	50	38	2"	2"	125	116	190	56.2	117	25	F05	4.160
65	2"1/2	50	50	2"1/2	2"1/2	150	137	230	71	148	30	F07	7.730
<b>N - 通路 / Full bore</b>													
08	1/4"	100	11.1	1/4"	1/4"	65	70	120	20.4	56	12	F03	0.700
12	3/8"	100	11.1	3/8"	3/8"	65	70	120	20.4	56	12	F03	0.680
15	1/2"	100	14	1/2"	1/2"	70	73	120	24.4	63	16	F03	0.980
20	3/4"	100	19	3/4"	3/4"	85	91	160	31.6	80	16	F04	1.690
25	1"	70	25	1"	1"	100	95	160	41.4	88	20	F04	2.120
32	1"1/4	70	32	1"1/4	1"1/4	110	111	190	48.2	104	22	F05	3.320
40	1"1/2	50	38	1"1/2	1"1/2	125	116	190	56.2	117	22	F05	4.380
50	2"	50	50	2"	2"	150	137	230	71	148	25	F07	8.840

## 连接端类型 TYPE OF CONNECTIONS

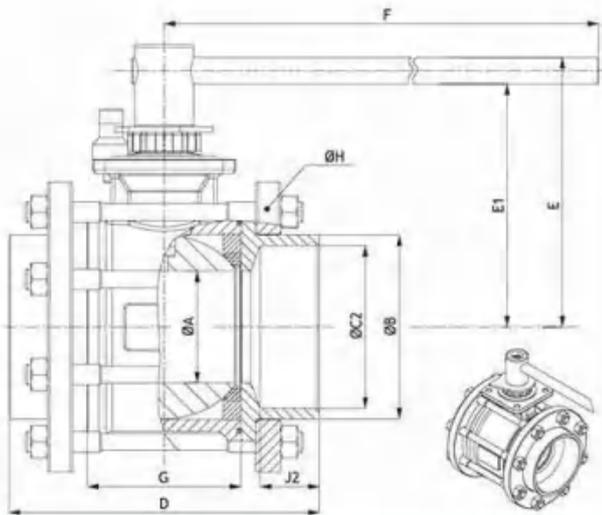
3-PCS

### BSP (TG) & NPT (TB) 螺纹连接

DN 80 到 DN 100  
缩径

#### BSP (TG) & NPT (TB) thread

Size 3" to 4"  
Reduced bore

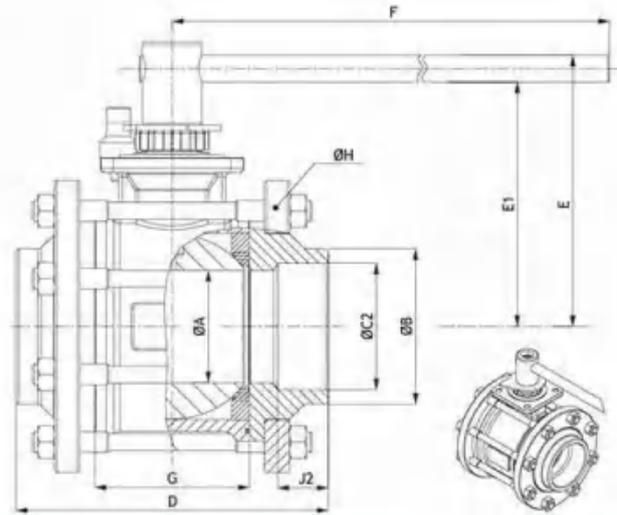


### BSP (TG) & NPT (TB) 螺纹连接

DN 65 到 DN 100  
通径

#### BSP (TG) & NPT (TB) thread

Size 2"1/2 to 4"  
Full bore



尺寸 Size	PN	Ø A	Ø B	Ø C2		D	E	E1	F	G	Ø H	J2	ISO 5211	重量(公斤) Weight (Kg)	
				GAZ BSP "P"	NPT NPT										
<b>V · 缩径 / Reduced bore</b>															
80	3"	40	64	107	3"	3"	180	171	153	370	84	174	34	F07	14.940
100	4"	40	76	125	4"	4"	210	182	165	440	104	197	40	F10	21.590
<b>N · 通径 / Full bore</b>															
65	2"1/2	40	64	85	2"1/2	2"1/2	180	171	153	370	84	174	31	F07	15.000
80	3"	40	76	105	3"	3"	210	182	165	440	104	197	34	F10	22.950
100	4"	25	100	130	4"	4"	230	204	184	505	130	236	40	F10	34.740

连接端类型  
TYPE OF CONNECTIONS

卡套接头

DN 06 到 DN 18

口径

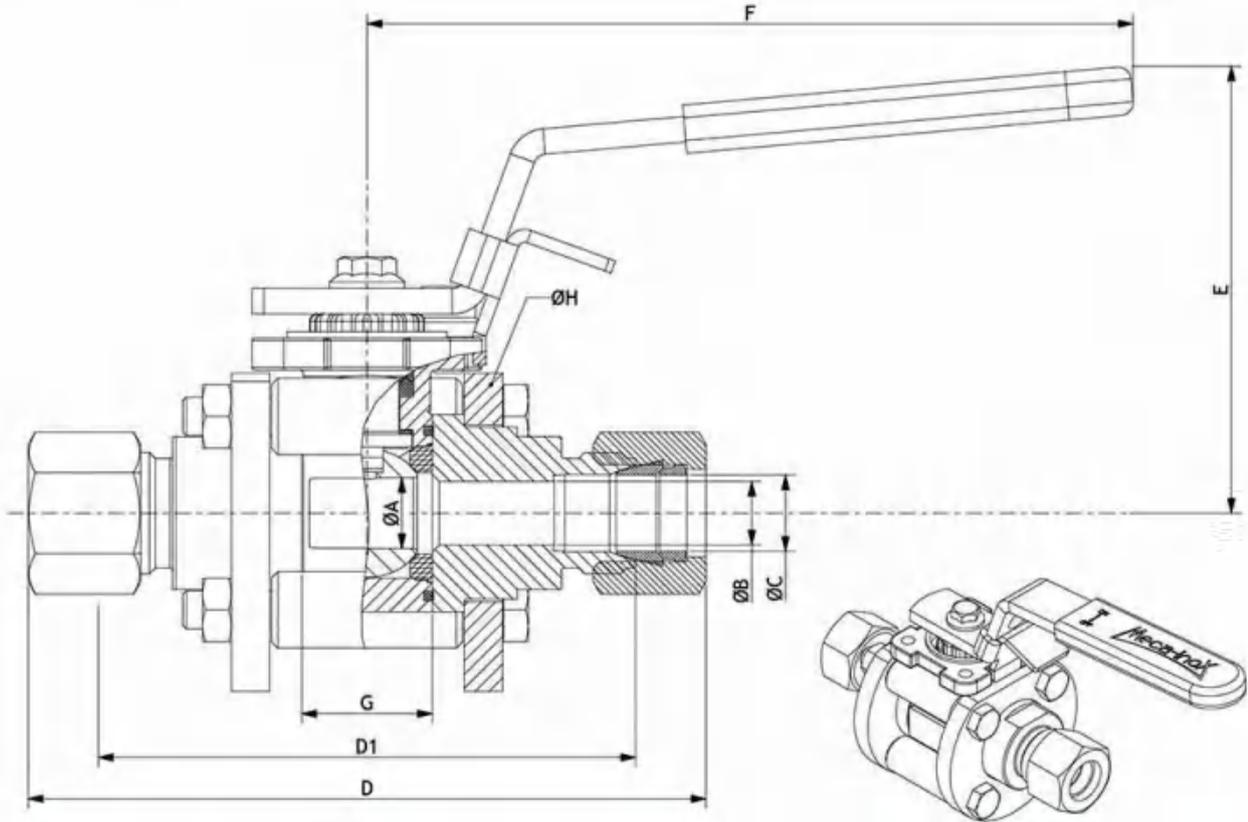
阀门安装更加容易, 快捷  
(螺母锁紧, 无需焊接管路)

Compression fittings

Size 06 to 18

Full bore

Fast and easy valve installation  
(nut screwing without welding)



尺寸 Size	PN	ØA	ØB	ØC	D	D1	E	F	G	ØH	ISO 5211
06	100	11.1	4.8	OD 6	98	83.2	70	120	20.4	56	F03
08	100	11.1	6.4	OD 8	98	83	70	120	20.4	56	F03
10	100	11.1	7.9	OD 10	99.6	84.4	70	120	20.4	56	F03
12	100	11.1	9.8	OD 12	104.7	84.5	70	120	20.4	56	F03
1/2"(OD)	100	11.1	9.8	OD 1/2"	104.7	84.5	70	120	20.4	56	F03
18	100	14	14	OD 18	113.8	93.6	73	120	24.4	63	F03

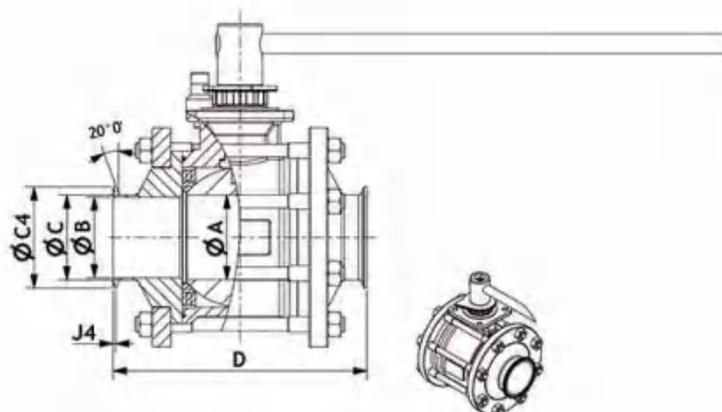
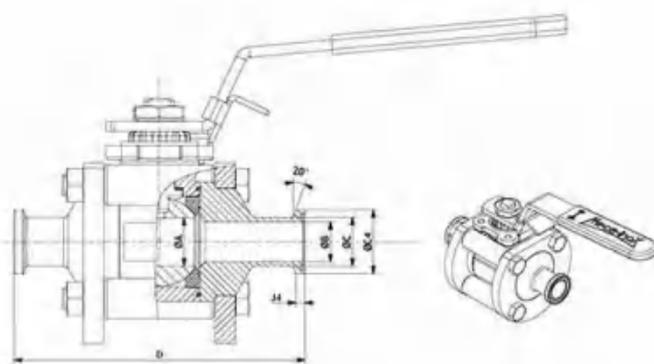
## 连接端类型 TYPE OF CONNECTIONS

### 卡箍式连接端

DN 08 到 DN 150

### Triclamp ends

Size 1/4" to 6"



可定制: 可以根据要求定制  
ISO / DIN / BSOD / SMS / MICRO-CLAMP / KF

On request: following dimensions standards:  
ISO / DIN / BSOD / SMS / MICRO-CLAMP / KF

尺寸 Size	ØA	D	J4	ISO (2004)			DIN (11850 Row2)			BSOD			SMS (3008)		
				ØB	ØC	ØC4	ØB	ØC	ØC4	ØB	ØC	ØC4	ØB	ØC	ØC4
08 1/4"	11.1	89	2.85	10.3	13.5	25	8	10	25	4.62	6.4	25	8	10	25
12 3/8"	11.1	89	2.85	14	17.2	25	10	12	25	-	-	-	10	12	25
15 1/2"	14	101	2.85	18.1	21.3	50.5	16	19	50.5	10.92	12.7	25	16	18	50.5
20 3/4"	19	114	2.85	23.7	26.9	50.5	20	23	50.5	15.75	19.05	25	20	22	50.5
25 1"	25	114	2.85	29.7	33.7	50.5	26	29	50.5	22.1	25.4	50.5	22.6	25	50.5
32 1 1/4"	32	139	2.85	41.4	45.4	64	32	35	50.5	-	-	-	31.3	33.7	64
40 1 1/2"	38	159	2.85	44.3	48.3	64	38	41	50.5	34.8	38.1	50.5	35.6	38	64
50 2"	50	164	2.85	56.3	60.3	77.5	50	53	64	47.5	50.8	64	48.6	51	77.5
65 2 1/2"	65	202	2.85	71.5	76.1	91	66	70	91	60.2	63.5	77.5	60.3	63.5	91
80 3"	76	228	2.85	84.3	88.9	106	81	85	106	72.9	76.2	91	72.9	76.1	106
100 4"	100	256	2.85	-	-	-	100	104	119	97.4	101.6	119	-	-	-
125 5"	125	309	5.6	-	-	-	-	-	-	-	-	-	-	-	-
150 6"	150	337	5.6	-	-	-	-	-	-	-	-	-	-	-	-

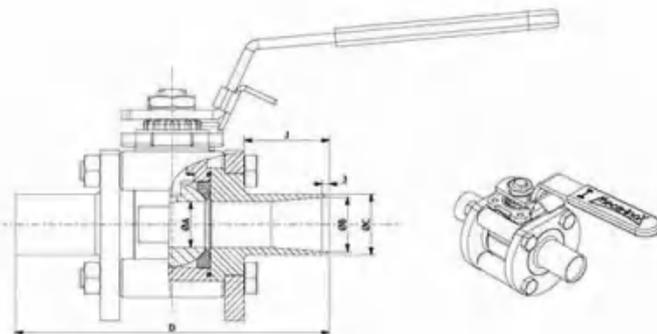
连接端类型  
TYPE OF CONNECTIONS

轨道自动焊

DN 08 到 DN 50  
通径  
ISO 管道标准

Orbital welding

Size 1/4" to 2"  
Full bore  
ISO pipe



可选项：其他尺寸可定制

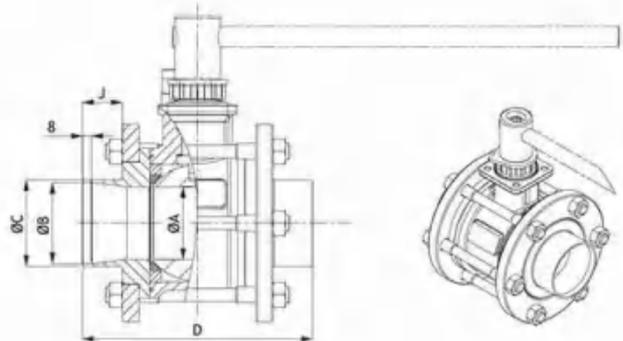
尺寸 Size	PN	ØA	ØB	ØC	D	J
08 1/4"	100	11.1	10.3	13.5	113	35
12 3/8"	100	11.1	14	17.2	113	35
15 1/2"	100	14	18.1	21.3	117	35
20 3/4"	100	19	23.7	26.9	130	35
25 1"	70	25	29.7	33.7	140	35
32 1 1/4"	70	32	38.4	42.4	151	35
40 1 1/2"	50	38	44.3	48.3	159	35
50 2"	50	50	56.3	60.3	185	35

轨道自动焊

DN 65 到 DN 150  
通径  
ISO 管道标准

Orbital welding

Size 2 1/2" to 6"  
Full bore  
ISO pipe



On request : other sizes available

尺寸 Size	PN	ØA	ØB	ØC	D	J
65 2 1/2"	40	64	70.3	76.1	202	35
80 3"	40	76	83.1	88.9	228	35
100 4"	25	100	107.9	114.3	256	35
125 5"	25	125	133.7	139.7	291	35
150 6"	16	150	162.3	168.3	323	35

## 连接端类型 TYPE OF CONNECTIONS

### 其它管道标准

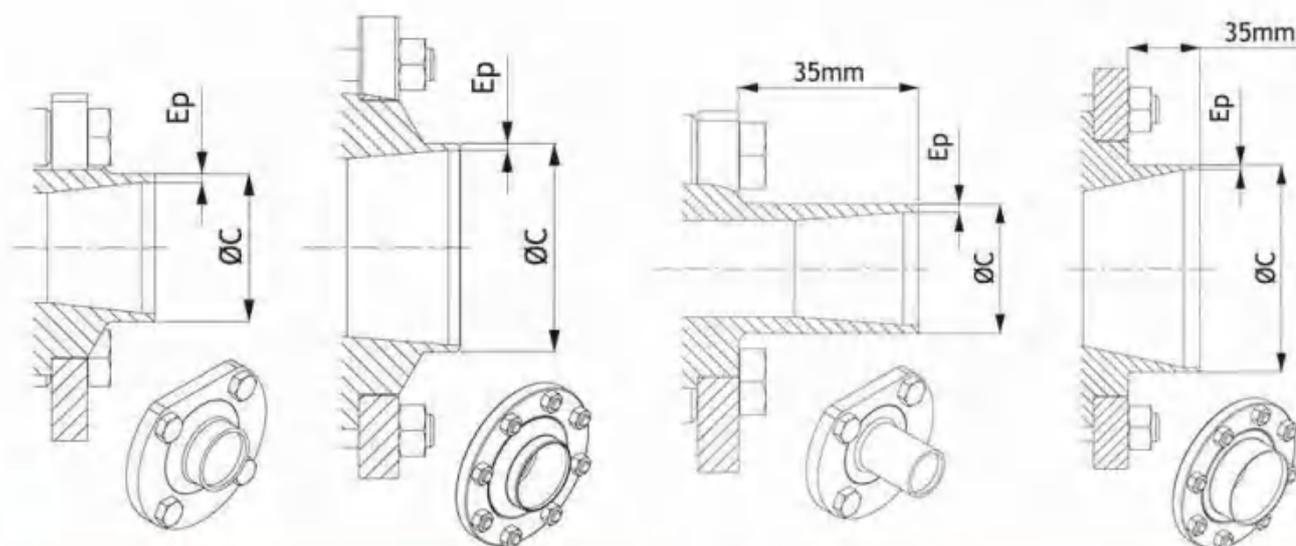
DN 08 到 DN 200

### Other pipe standards

Size 1/4" to 8"

对焊 - BW  
Butt weld - BW

轨道自动焊 - O4  
Orbital welding - O4



尺寸 Size	DN															
	8		12		15		20		25		32		40		50	
	外径 OD	厚度 tk														
ISO	13.5	2	17.2	2	21.3	2	26.9	2	33.7	2	42.4	2.6	48.3	2.6	60.3	2.9
Métrique	10	1	12	1	18	1	23	1	28	1.5	34	2	44	2	54	2
SMS 3008	10	1	12	1	18	1	23	1	25	1.2	33.7	1.2	38	1.2	51	1.2
DIN 11850 R2	-	-	13	1.5	19	1.5	23	1.5	29	1.5	35	1.5	41	1.5	53	1.5
Schedule 10S	13.72	1.65	17.15	1.65	21.34	2.11	26.67	2.11	33.4	2.77	42.16	2.77	48.26	2.77	60.33	2.77
Schedule 40S	13.72	2.24	17.15	2.31	21.34	2.77	26.67	2.87	33.4	3.38	42.16	3.56	48.26	3.68	60.33	3.91
BSOD	6.35	1.65	9.52	1.65	12.7	1.65	19.05	1.65	25.4	1.65	31.75	1.65	38.1	1.65	50.8	1.65

尺寸 Size	DN											
	65		80		100		125		150		200	
	外径 OD	厚度 tk	外径 OD	厚度 tk	外径 OD	厚度 tk						
ISO	76.1	2.9	88.9	2.9	114.3	3.2	139.7	3	168.3	3	219.1	3.8
Métrique	68	1.5	83	1.5	104	2	129	2	154	2	204	2
SMS 3008	63.5	1.6	76.1	1.6	101.6	2	-	-	-	-	-	-
DIN 11850 R2	70	2	85	2	104	2	129	2	154	2	-	-
Schedule 10S	73.03	3.05	88.9	3.05	114.3	3.05	141.3	3.4	168.28	3.4	219.08	3.76
Schedule 40S	73.03	5.15	88.9	5.49	114.3	6.02	141.3	6.55	168.28	7.11	219.08	8.18
BSOD	63.5	1.65	76.2	1.65	101.6	2.1	-	-	-	-	-	-

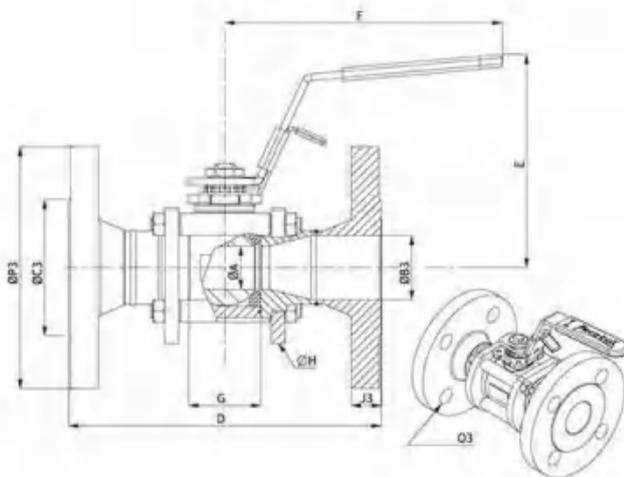
连接端类型  
TYPE OF CONNECTIONS

法兰连接

DN 15 到 DN 65  
缩径 - PN 40

Flanged

Size 1/2" to 2 1/2"  
Reduced bore - PN40

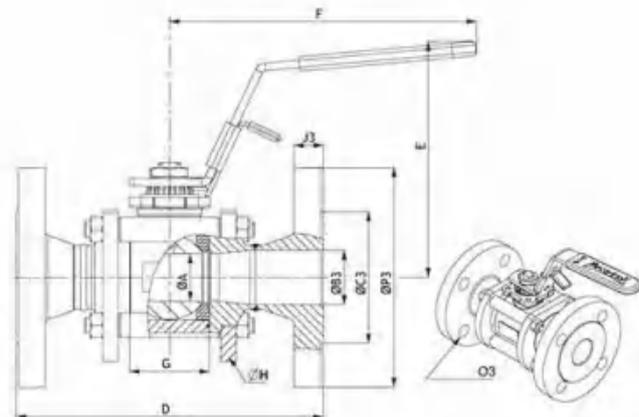


法兰连接

DN 15 到 DN 50  
通径 - PN 40

Flanged

Size 1/2" to 2"  
Full bore - PN40



尺寸 Size	PN	Ø A	Ø B3	Ø C3	D	E	F	G	Ø H	J3	O3	Ø P3	ISO 5211	重量(公斤) Weight (Kg)	
<b>V - 缩径 / Reduced bore</b>															
15	1/2"	40	11.1	17.3	45	130	123	120	20.4	56	16	4xØ14 / Ø65	95	F03	1.930
20	3/4"	40	14	22.3	58	150	126	120	24.4	63	18	4xØ14 / Ø75	105	F03	2.690
25	1"	40	19	28.5	68	160	145	160	31.6	80	18	4xØ14 / Ø85	115	F04	3.910
32	1 1/4"	40	25	37.2	78	180	149	160	41.4	88	18	4xØ18 / Ø100	140	F04	5.490
40	1 1/2"	40	32	43.1	88	200	160	190	48.2	104	18	4xØ18 / Ø110	150	F05	7.120
50	2"	40	38	54.5	102	230	165	190	56.2	117	20	4xØ18 / Ø125	165	F05	9.440
65	2 1/2"	40	50	70.3	122	290	180	230	71	148	22	8xØ18 / Ø145	185	F07	15.370
<b>N - 通径 / Full bore</b>															
15	1/2"	40	14	17.3	45	130	126	120	24.4	63	16	4xØ14 / Ø65	95	F03	2.250
20	3/4"	40	19	22.3	58	150	145	160	31.6	80	18	4xØ14 / Ø75	105	F04	3.470
25	1"	40	25	28.5	68	160	149	160	41.4	88	18	4xØ14 / Ø85	115	F04	4.330
32	1 1/4"	40	32	37.2	78	180	160	190	48.2	104	18	4xØ18 / Ø100	140	F05	6.880
40	1 1/2"	40	38	43.1	88	200	165	190	56.2	117	18	4xØ18 / Ø110	150	F05	8.080
50	2"	40	50	54.5	102	230	180	230	71	148	20	4xØ18 / Ø125	165	F07	13.890

## 连接端类型 TYPE OF CONNECTIONS

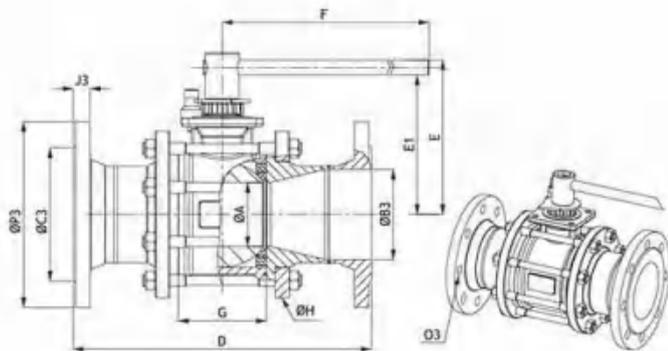
3-PCS

### 法兰连接

DN 80 到 DN 200  
缩径

### Flanged

Size 3" to 8"  
Reduced bore

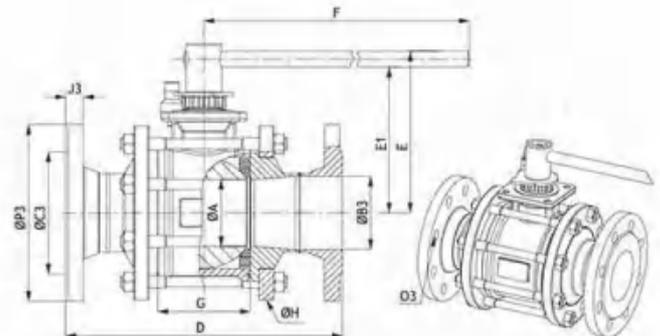


### 法兰连接

DN 65 到 DN 150  
通径

### Flanged

Size 2"1/2 to 6"  
Full bore



尺寸 Size	PN	Ø A	Ø B	Ø C3	D	E	E1	F	G	Ø H	J3	O3	P3	ISO 5211	重量(公斤) Weight (Kg)	
<b>V · 缩径 / Reduced bore</b>																
80	3"	40	64	82.5	138	310	171	153	370	84	174	24	8xØ18 / Ø160	200	F07	22.920
100	4"	16	76	107.1	162	350	182	165	440	104	197	24	8xØ22 / Ø190	235	F10	39.520
125	5"	16	100	131.7	188	400	204	184	505	130	236	22	8xØ18 / Ø210	250	F10	48.720
150	6"	16	125	159.3	212	480	248	221	710	155	288	22	8xØ22 / Ø240	285	F12	79.450
200	8"	16	150	207.3	268	600	270	243	710	183	324	24	12xØ22 / Ø295	340	F12	120.810
<b>N · 通径 / Full bore</b>																
65	2"1/2	40	64	70.3	122	290	171	153	370	84	174	22	8xØ18 / Ø145	185	F07	20.840
80	3"	40	76	82.5	138	310	182	165	440	104	197	24	8xØ18 / Ø160	200	F10	30.150
100	4"	16	100	107.1	162	350	204	184	505	130	236	24	8xØ22 / Ø190	235	F10	43.840
125	5"	16	125	131.7	188	400	248	221	710	155	288	22	8xØ18 / Ø210	250	F12	72.210
150	6"	16	150	159.3	212	480	270	243	710	183	324	22	8xØ22 / Ø240	285	F12	100.850

三通球阀  
3-WAY

三通阀 / 水平工作  
通路和缩径

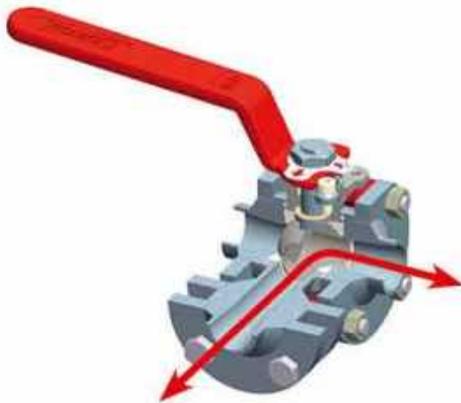
3-way version / Horizontal inlet  
Full bore & reduced bore

3VLH

3VLH

L型流道  
换向

L port  
Diverting flow

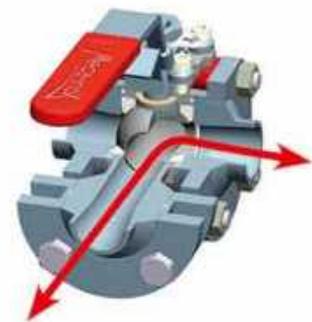
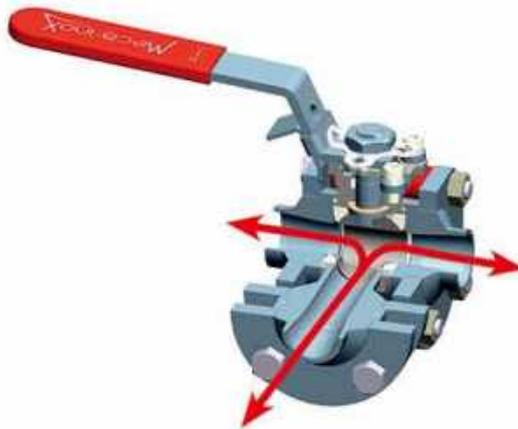
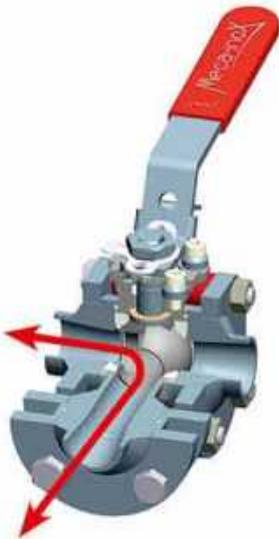


3VTH

3VTH

T型流道  
换向或混流

T port  
Diverting flow or mixing



三通阀 / 垂直工作  
 通路和缩径

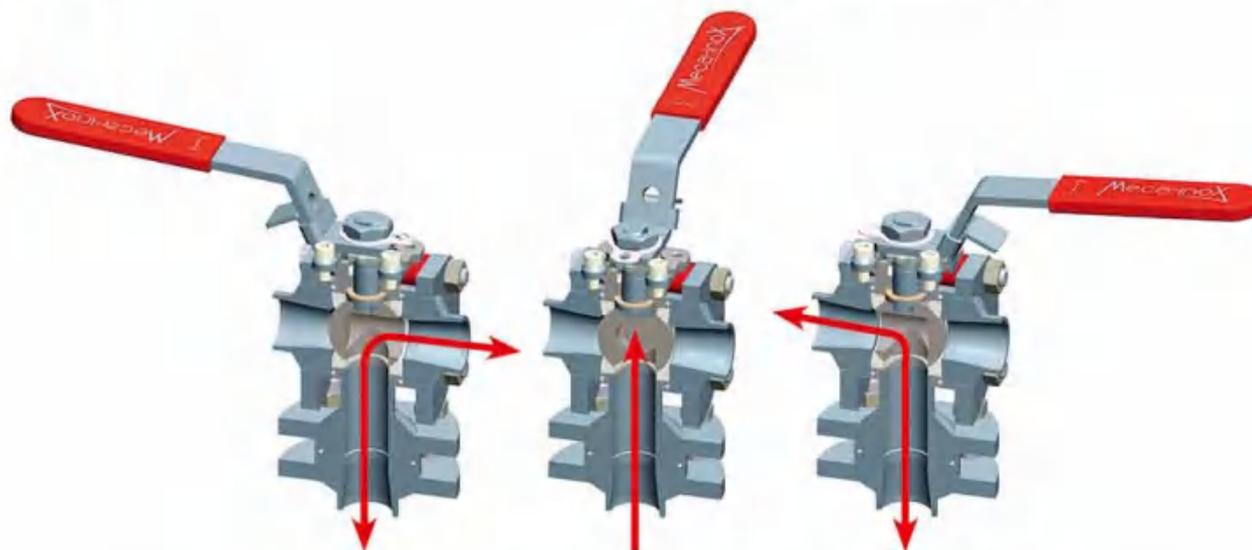
3-way version / Vertical inlet  
 Full bore & reduced bore

3VLH

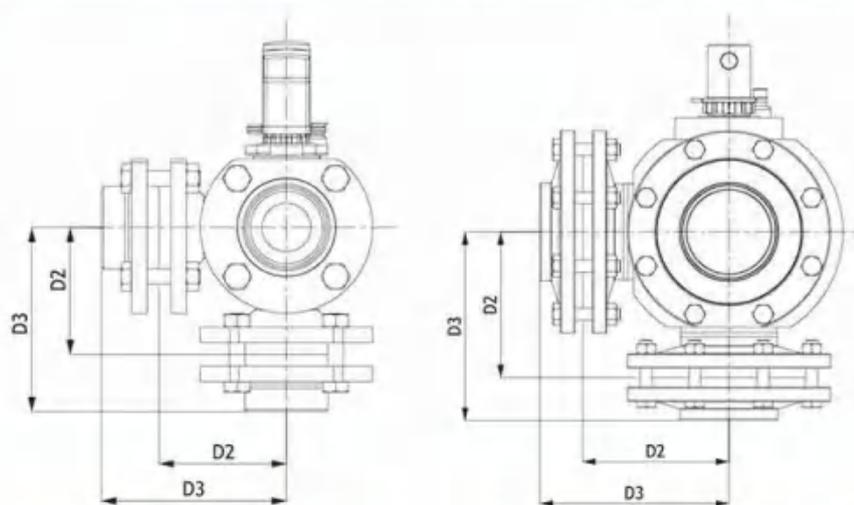
L型流道  
 换向或截止

3VLV

L port  
 Diverting flow or flow stop



进出口尺寸 (水平和垂直工作)      Horizontal & Vertical inlet size

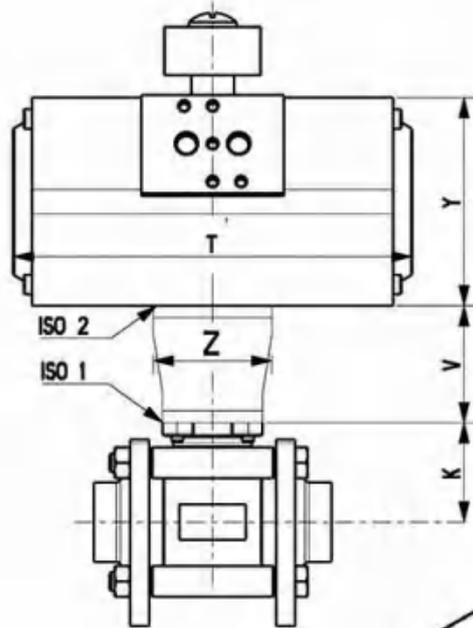


尺寸 Size	08 1/4"	12 3/8"	15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"	65 2 1/2"	80 3"	100 4"
D2	45	45	50	60	65	72	80	103	135	149	170
D3	67.3	67.3	72.8	86.7	94.3	102.9	114.4	142.5	183	202	220

气动执行器  
PNEUMATIC ACTUATION

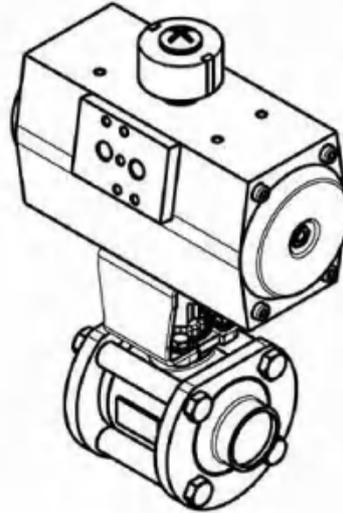
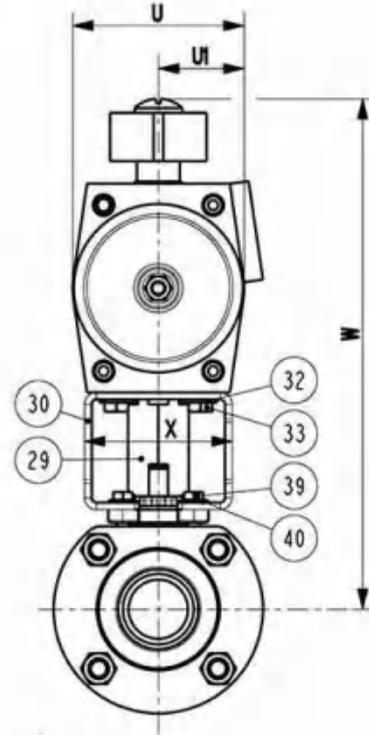
PS4 / PZ4 / PY4 气动连接件

DN 08 到 DN 50



PS4 / PZ4 / PY4 actuated components

Size 1/4" to 2"



DN08 到 DN50

编号	数量	部件名称	材质 (EN)
29	1	连接杆	1.4307
30	1	支架	1.4307
32	4	平垫圈(气缸侧)	1.4301
33	4	螺钉(气缸侧)	1.4301
39	4	螺钉(阀门侧)	1.4301
40	4	平垫圈(阀门侧)	1.4301

Size 2"1/4 to 2"

Item	Qty	Description	Material (ASTM)
29	1	Coupling	304L
30	1	Bracket	304L
32	4	Washer (actuator side)	304
33	4	Screw (actuator side)	304
39	4	Screw (valve side)	304
40	4	Washer (valve side)	304

### PS4 气动参数

DN 08 到 DN 50

### PS4 actuated

Size 1/4" to 2"

#### PS4 单作用气动执行器型号 Spring return type on PS4

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045SR12	F05	146	58	29	47	169.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-052SR12	F05	146	59	29.5	47	182	62	74	50
20	3/4"	25	1"	37.9	F04	2MICA-052SR12	F05	146	59	29.5	49.5	191.4	62	74	50
25	1"	32	1"1/4	42	F04	2MICA-063SR12	F05	168	72	36	49.5	209.5	62	88	50
32	1"1/4	40	1"1/2	54	F05	2MICA-063SR12	F05	168	72	36	49.5	221.5	62	88	50
40	1"1/2	50	2"	59	F05	2MICA-075SR12	F05	184	83	41.5	49.5	238.5	62	100	50
50	2"	65	2"1/2	73	F07	2MICA-083SR12	F05	204	90	45	79.5	291.5	85	109	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PS4 双作用气动执行器型号 Double Acting type on PS4

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045DA	F05	146	58	29	47	169.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-045DA	F05	146	58	29	47	173	62	65	50
20	3/4"	25	1"	37.9	F04	2MICA-045DA	F05	146	58	29	49.5	182.4	62	65	50
25	1"	32	1"1/4	42	F04	2MICA-045DA	F05	146	58	29	49.5	186.5	62	65	50
32	1"1/4	40	1"1/2	54	F05	2MICA-045DA	F05	146	58	29	49.5	198.5	62	65	50
40	1"1/2	50	2"	59	F05	2MICA-045DA	F05	146	58	29	49.5	203.5	62	65	50
50	2"	65	2"1/2	73	F07	2MICA-052DA	F05	146	59	29.5	79.5	256.5	85	87	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PS4 $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用/ Double acting 编号/Code	单作用/ Spring return 编号/Code
10(8-12) F03	6	2MICA-045DA KPNI410 0511	2MICA-045SR12 KPNI410 0511
15 F03	6	2MICA-045DA KPNI410 0511	2MICA-052SR12 KPNI410 0511
20 F04	6	2MICA-045DA KPNI420 0511	2MICA-052SR12 KPNI420 0511
25 F04	6	2MICA-045DA KPNI420 0511	2MICA-063SR12 KPNI420 0514
32 F05	6	2MICA-045DA KPNI432 0511	2MICA-063SR12 KPNI432 0514
40 F05	6	2MICA-045DA KPNI432 0511	2MICA-075SR12 KPNI432 0514
50 F07	6	2MICA-052DA KPNI450 0511	2MICA-083SR12 KPNI450 0717

## 气动执行器 PNEUMATIC ACTUATION

### PZ4 气动参数

DN 08 到 DN 50

### PZ4 actuated

Size 1/4" to 2"

#### PZ4 单作用气动执行器型号 *Spring return type on PZ4*

尺寸 / Size		K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z		
通径 Full Bore	缩径 Reduced Bore														
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-052SR12	F05	146	59	29.5	47	178.5	62	74	50
15	1/2"	20	3/4"	31	F03	2MICA-052SR12	F05	146	59	29.5	47	182	62	74	50
20	3/4"	25	1"	37.9	F04	2MICA-075SR12	F05	184	83	41.5	49.5	217.4	62	100	50
25	1"	32	1 1/4"	42	F04	2MICA-075SR12	F05	184	83	41.5	49.5	221.5	62	100	50
32	1 1/4"	40	1 1/2"	54	F05	2MICA-075SR12	F05	184	83	41.5	49.5	233.5	62	100	50
40	1 1/2"	50	2"	59	F05	2MICA-075SR12	F05	184	83	41.5	49.5	238.5	62	100	50
50	2"	65	2 1/2"	73	F07	2MICA-092SR12	F07	260	104	52	79.5	302.5	85	120	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PZ4 双作用气动执行器型号 *Double Acting type on PZ4*

尺寸 / Size		K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z		
通径 Full Bore	缩径 Reduced Bore														
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045DA	F05	146	58	29	47	169.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-045DA	F05	146	58	29	47	173	62	65	50
20	3/4"	25	1"	37.9	F04	2MICA-045DA	F05	146	58	29	49.5	182.4	62	65	50
25	1"	32	1 1/4"	42	F04	2MICA-045DA	F05	146	58	29	49.5	186.5	62	65	50
32	1 1/4"	40	1 1/2"	54	F05	2MICA-045DA	F05	146	58	29	49.5	198.5	62	65	50
40	1 1/2"	50	2"	59	F05	2MICA-045DA	F05	146	58	29	49.5	203.5	62	65	50
50	2"	65	2 1/2"	73	F07	2MICA-063DA	F05	168	72	63	79.5	270.5	85	88	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PZ4 $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用/ Double acting 编号/Code	单作用/ Spring return 编号/Code
10 (8-12) F03	6	2MICA-045DA KPNI410 0511	2MICA-052SR12 KPNI410 0511
15 F03	6	2MICA-045DA KPNI410 0511	2MICA-052SR12 KPNI410 0511
20 F04	6	2MICA-045DA KPNI420 0511	2MICA-075SR12 KPNI420 0514
25 F04	6	2MICA-045DA KPNI420 0511	2MICA-075SR12 KPNI420 0514
32 F05	6	2MICA-045DA KPNI432 0511	2MICA-075SR12 KPNI432 0514
40 F05	6	2MICA-045DA KPNI432 0511	2MICA-075SR12 KPNI432 0514
50 F07	6	2MICA-063DA KPNI450 0514	2MICA-092SR12 KPNI450 0717

### PY4 气动参数

DN 08 到 DN 50

### PY4 actuated

Size 1/4" to 2"

#### PY4 单作用气动执行器型号 *Spring Return type on PY4*

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045SR12	F05	146	58	38	47	169.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-063SR12	F05	168	72	49	47	196	62	88	50
20	3/4"	25	1"	37.9	F04	2MICA-063SR12	F05	168	72	57	49.5	205.4	62	88	50
25	1"	32	1 1/4"	42	F04	2MICA-083SR12	F07	204	90	67	49.5	230.5	82	109	69
32	1 1/4"	40	1 1/2"	54	F05	2MICA-105SR12	F10	268	115	72	49.5	266.5	120	133	105
40	1 1/2"	50	2"	59	F05	2MICA-125SR12	F10	298	140	72	49.5	293.5	120	155	105
50	2"	65	2 1/2"	73	F07	2MICA-140SR12	F12	390	152	78	79.5	354	132	171.5	120

以上数据基于：阀门上下游压差最大值  $\Delta P=40$  bar，气源压力为 6 bar./ Values given for service pressure at:  $P=40$  bar max and 6 bar air supply

#### PY4 双作用气动执行器型号 *Double Acting type on PY4*

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045DA	F05	146	58	29	47	169.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-045DA	F05	146	58	29	47	173	62	65	50
20	3/4"	25	1"	37.9	F04	2MICA-045DA	F05	146	58	29	49.5	182.4	62	65	50
25	1"	32	1 1/4"	42	F04	2MICA-063DA	F05	168	72	36	49.5	209.5	62	88	50
32	1 1/4"	40	1 1/2"	54	F05	2MICA-075DA	F05	184	83	41.5	49.5	233.5	62	100	50
40	1 1/2"	50	2"	59	F05	2MICA-083DA	F07	204	90	45	49.5	247.5	82	109	69
50	2"	65	2 1/2"	73	F07	2MICA-105DA	F10	268	115	57.5	79.5	315.5	120	133	105

以上数据基于：阀门上下游压差最大值  $\Delta P=40$  bar，气源压力为 6 bar./ Values given for service pressure at:  $P=40$  bar max and 6 bar air supply

#### PY4 $\Delta P=40$ bar

尺寸 Size	气源压力 Air supply pressure	双作用/ Double acting 编号/Code	单作用/ Spring return 编号/Code
10 (8-12) F03	6	2MICA-045DA KPNI410 0511	2MICA-045SR12 KPNI410 0511
15 F03	6	2MICA-045DA KPNI410 0511	2MICA-063SR12 KPNI410 0514
20 F04	6	2MICA-045DA KPNI420 0511	2MICA-063SR12 KPNI420 0514
25 F04	6	2MICA-063DA KPNI420 0514	2MICA-083SR12 KPNI420 0717
32 F05	6	2MICA-075DA KPNI432 0514	2MICA-105SR12 KPNI432 1022
40 F05	6	2MICA-083DA KPNI432 0717	2MICA-125SR12 KPNI432 1022
50 F07	6	2MICA-105DA KPNI450 1022	2MICA-140SR12 KPNI450 1227

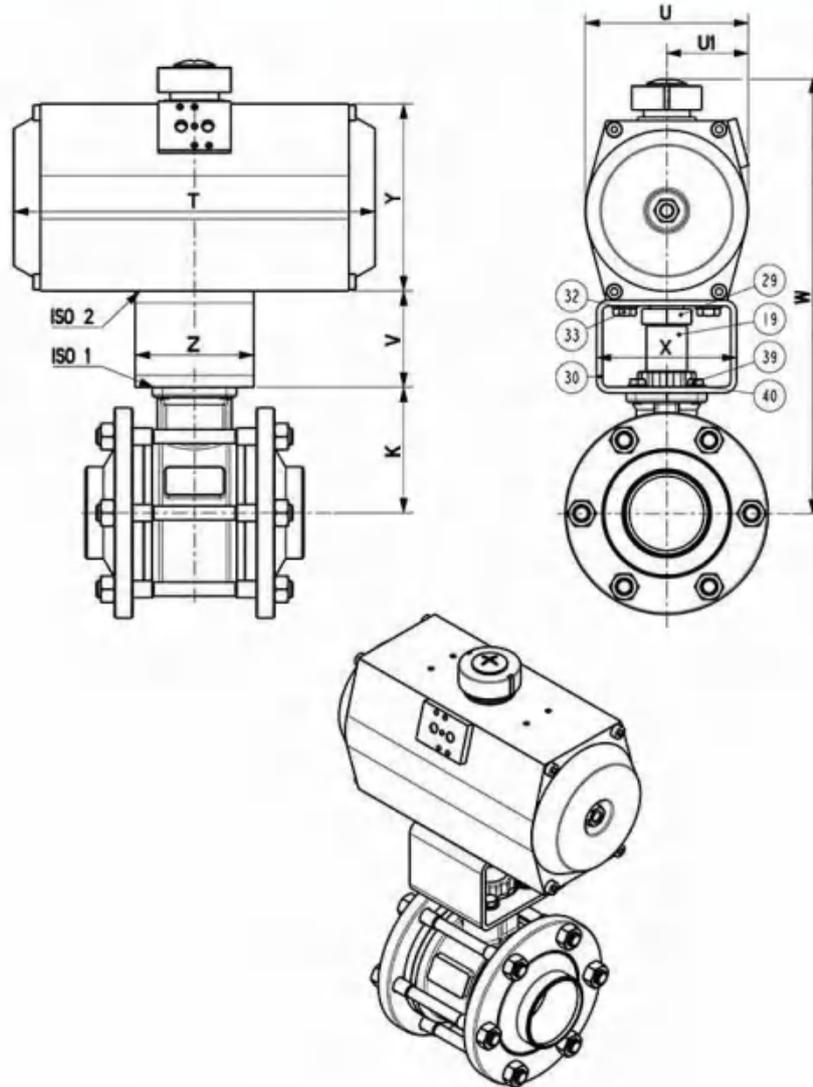
气动执行器  
PNEUMATIC ACTUATION

PS4 / PZ4 / PY4 气动参数

DN 65 到 DN 200

PS4 / PZ4 / PY4 actuated components

Size 2"1/2 to 8"



DN 65 到 DN 200

编号	数量	部件名称	材质 (EN)
19	1	手柄连接套	1.4305
29	1	连接杆	1.4307
30	1	支架	1.4307
32	4	平垫圈(气缸侧)	1.4301
33	4	螺钉(气缸侧)	1.4301
39	4	螺钉(阀门侧)	1.4301
40	4	平垫圈(阀门侧)	1.4301

Size 2"1/2 to 8"

Item	Qty	Description	Material (ASTM)
19	1	Handle adaptator	303
29	1	Coupling	304L
30	1	Bracket	304L
32	4	Washer (actuator side)	304
33	4	Screw (actuator side)	304
39	4	Screw (valve side)	304
40	4	Washer (valve side)	304

### PS4 气动参数

DN 65 到 DN 200

### PS4 actuated

Size 2" 1/2 to 8"

#### PS4 单作用气动执行器型号 *Spring Return type on PS4*

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
65	2"1/2	80	3"	104	F07	2MICA-125SR12	F10	298	140	70	79.5	368.5	120	155	105
80	3"	100	4"	114	F10	2MICA-140SR12	F12	390	152	76	79.5	395	136	171.5	118
100	4"	125	5"	133	F10	2MICA-140SR12	F12	390	152	76	79.5	414	136	171.5	118
125	5"	150	6"	161	F12	2MICA-140SR12	F12	390	152	76	99.5	462	144	171.5	118
150	6"	200	8"	180	F12	2MICA-210SR12	F14	532	226	113	99.5	564.5	158	255	140

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PS4 双作用气动执行器型号 *Double Acting type on PS4*

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
65	2"1/2	80	3"	104	F07	2MICA-083DA	F07	204	90	45	79.5	322.5	85	109	69
80	3"	100	4"	114	F10	2MICA-092DA	F07	260	104	52	79.5	343.5	85	120	69
100	4"	125	5"	133	F10	2MICA-105DA	F10	268	115	57.5	79.5	375.5	120	133	95
125	5"	150	6"	161	F12	2MICA-105DA	F10	268	115	57.5	99.5	423.5	136	133	118
150	6"	200	8"	180	F12	2MICA-140DA	F12	390	152	76	99.5	481	144	171.5	118

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PS4 $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用/ Double acting 编号/Code	单作用/ Spring return 编号/Code
65 F07	6	2MICA-083DA KPNI2P065 0717	2MICA-125SR12 KPNI2P065 1022
80 F10	6	2MICA-092DA KPNI2P080 0717	2MICA-140SR12 KPNI2P080 1227
100 F10	6	2MICA-105DA KPNI2P100 1022	2MICA-140SR12 KPNI2P100 1227
125 F12	6	2MICA-105DA KPNI2P125 1022	2MICA-140SR12 KPNI2P125 1227
150 F12	6	2MICA-140DA KPNI2P125 1227	2MICA-210SR12 KPNI2P125 1436

## 气动执行器 PNEUMATIC ACTUATION

### PZ4 气动参数

DN 65 到 DN 200

### PZ4 actuated

Size 2"1/2 to 8"

#### PZ4 单作用气动执行器型号 Single Acting type on PZ4

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
65	2"1/2	80	3"	104	F07	2MICA-125SR12	F10	298	140	70	79.5	368.5	120	155	105
80	3"	100	4"	114	F10	2MICA-140SR12	F12	390	152	76	79.5	395	136	171.5	118
100	4"	125	5"	133	F10	2MICA-140SR12	F12	390	152	76	79.5	414	136	171.5	118
125	5"	150	6"	161	F12	2MICA-190SR12	F14	525	206	103	99.5	520.5	158	230	140
150	6"	200	8"	180	F12	2MICA-210SR12	F14	532	226	113	99.5	564.5	158	255	140

以上数据基于：阀门上下压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PZ4 双作用气动执行器型号 Double Acting type on PZ4

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore														
65	2"1/2	80	3"	104	F07	2MICA-083DA	F07	204	90	45	79.5	322.5	85	109	69
80	3"	100	4"	114	F10	2MICA-092DA	F07	260	104	52	79.5	343.5	85	120	69
100	4"	125	5"	133	F10	2MICA-105DA	F10	268	115	57.5	79.5	375.5	120	133	95
125	5"	150	6"	161	F12	2MICA-125DA	F10	298	140	70	99.5	445.5	136	155	118
150	6"	200	8"	180	F12	2MICA-140DA	F12	390	152	76	99.5	481	144	171.5	118

以上数据基于：阀门上下压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### PZ4 $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用/ Double acting 编号/Code	单作用/ Spring return 编号/Code
65 F07	6	2MICA-083DA KPNi2P065 0717	2MICA-125SR12 KPNi2P065 1022
80 F10	6	2MICA-092DA KPNi2P080 0717	2MICA-140SR12 KPNi2P080 1227
100 F10	6	2MICA-105DA KPNi2P100 1022	2MICA-140SR12 KPNi2P100 1227
125 F12	6	2MICA-125DA KPNi2P125 1022	2MICA-190SR12 KPNi2P125 1436
150 F12	6	2MICA-140DA KPNi2P125 1227	2MICA-210SR12 KPNi2P125 1436

### PY4 气动参数

DN 65 到 DN 200

### PY4 actuated

Size 2"1/2 to 4"

#### PY4 单作用气动执行器型号 *Spring Return type on PY4*

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	ISO 3	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore															
65	2"1/2	80	3"	104	F07	2MICA-055SR12	F07	F12	312	191	95.5	79.5	411	132	207.5	120
80	3"	100	4"	114	F10	2MICA-055SR12	F10	F12	312	191	95.5	79.5	421	136	207.5	118
100	4"	125	5"	133	F10	2MICA-100SR12	F10	F14	361	227	113.5	79.5	482.5	158	250	140

以上数据基于：阀门上下游压差最大值  $\Delta P=10$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=10$  bar max and 6 bar air supply

#### PY4 双作用气动执行器型号 *Double Acting type on PY4*

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	ISO 3	T	U	U1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore															
65	2"1/2	80	3"	104	F07	2MICA-020DA	F07	F07	218	136.5	72	79.5	344	85	140.5	69
80	3"	100	4"	114	F10	2MICA-020DA	F10	F07	218	136.5	72	79.5	354	85	140.5	69
100	4"	125	5"	133	F10	2MICA-035DA	F10	F10	266	156	78	79.5	399	120	166.5	95

以上数据基于：阀门上下游压差最大值  $\Delta P=10$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=10$  bar max and 6 bar air supply

#### PY4 $\Delta P=10$ bar

尺寸 Size	气源压力 Air supply pressure	双作用/ Double acting 编号/Code	单作用/ Spring return 编号/Code
65 F07	6	2MICA-105DA KPNi2P065 1022	2MICA-140SR12 KPNi2P065 1227
80 F10	6	2MICA-105DA KPNi2P080 1022	2MICA-140SR12 KPNi2P080 1227
100 F10	6	2MICA-125DA KPNi2P100 1022	2MICA-190SR12 KPNi2P100 1463



**DN 08 到 DN 100**

PN100 / PN25  
通径或缩径  
活套法兰连接  
ISO法兰平台  
防火设计 (可选)



DN08-DN50系列  
Size 1/4" to 2" series



三通球阀系列  
3 ways series

**Size 1/4" to 4"**

PN 100 / PN 25  
Full bore or reduced bore  
Rotating ends system  
ISO top flange  
Fire safe (option)



气动系列  
Actuated series



青铜制球阀系列  
Bronze series

阀座及密封材料

SEATS & SEALINGS MATERIAL

技术参数

**PY4CY和PY4CY防火: TF3215阀座**  
(聚四氟乙烯+碳) 温度范围: -200°C/+200°C  
带有延伸阀杆的版本, 应用于阀门外部会有凝冰的情况。

316L, 904L (UB6), 304L, C22合金材质  
标准型:  
在阀球上与阀杆连接处钻孔, 用于在阀门开启时的阀腔泻压。而上游泄压孔的设置是为了阀门在关闭位置时增大阀体及阀球内泄压。  
PY4CY: 延长阀杆所产生的低温气体缓冲区, 可以避免出现冻结状况, 保证阀门能够轻松操作  
认证  
功能性符合EN1626/-196°C  
PY4CY防火设计标准: EN12567, ISO10497, API607以及API6FA  
PED 97/23/EC  
TA-Luft(逃逸泄露)  
AD2000 Merkblatt  
可选项  
ATEX94/9/EC  
遵照2010/35/UE TPED认证打上π标识  
ADR§1.8.7.6认证  
Marquage p suivant la directive 2010/35/UE TPED : certification ADR § 1.8.7.6

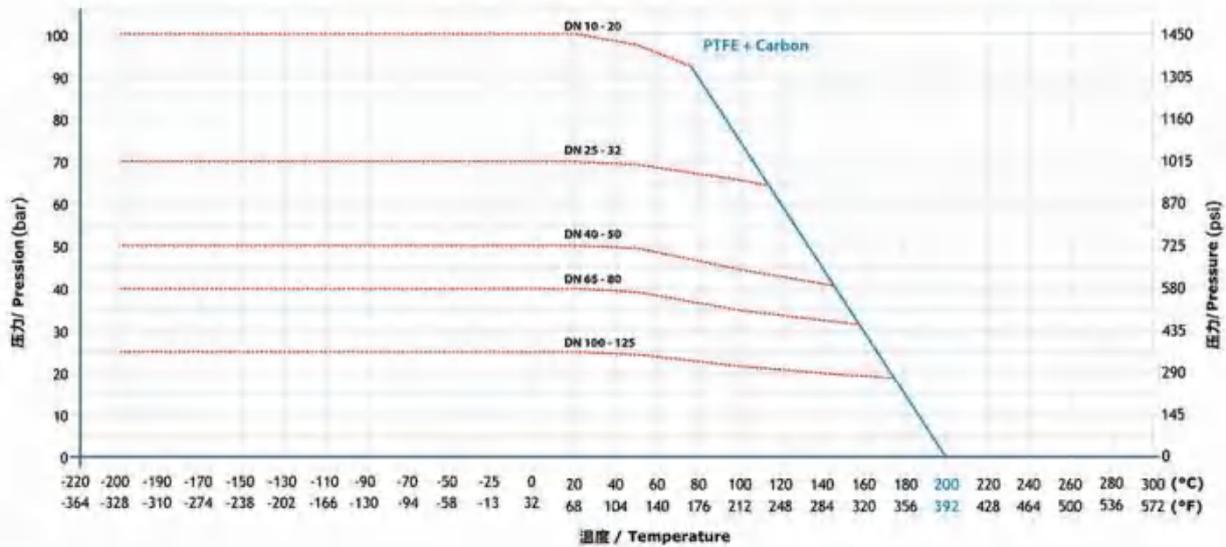
Technical data

**PY4 CY and PY4 CY fire safe: TF 3215 seats**  
(PTFE + Carbon). Temperature range: -200°C / +200°C  
Version with extension for applications with icing risk.

316L, 904L, 304L, Alloy 22 version.  
Standard version:  
Ball drilling in the stem mark for cavity relief in the open position.  
Upstream vent hole for cavity relief in the closed position.  
PY4 CY: Stem extension avoids any stem freezing and allows easy valve operation.

Approvals:  
Functionnal EN1626/-196°C  
PY4 CY Fire Safe design: EN12567, ISO10497, API607 and API6FA  
PED 97/23/CE  
TA-Luft (fugitive emissions)  
AD2000 Merkblatt  
Options:  
ATEX 94/9/CE  
π marking according to 2010/35/UE TPED: certification ADR §1.8.7.6

压力/温度图 Pressure/Temperature diagrams



----- 阀体的机械强度  
—— 阀门正常操作的最大压差  
所有数据基于阀门的通径尺寸

----- mechanical strength of body  
—— mechanical strength of seats  
All values are given for full bore size.

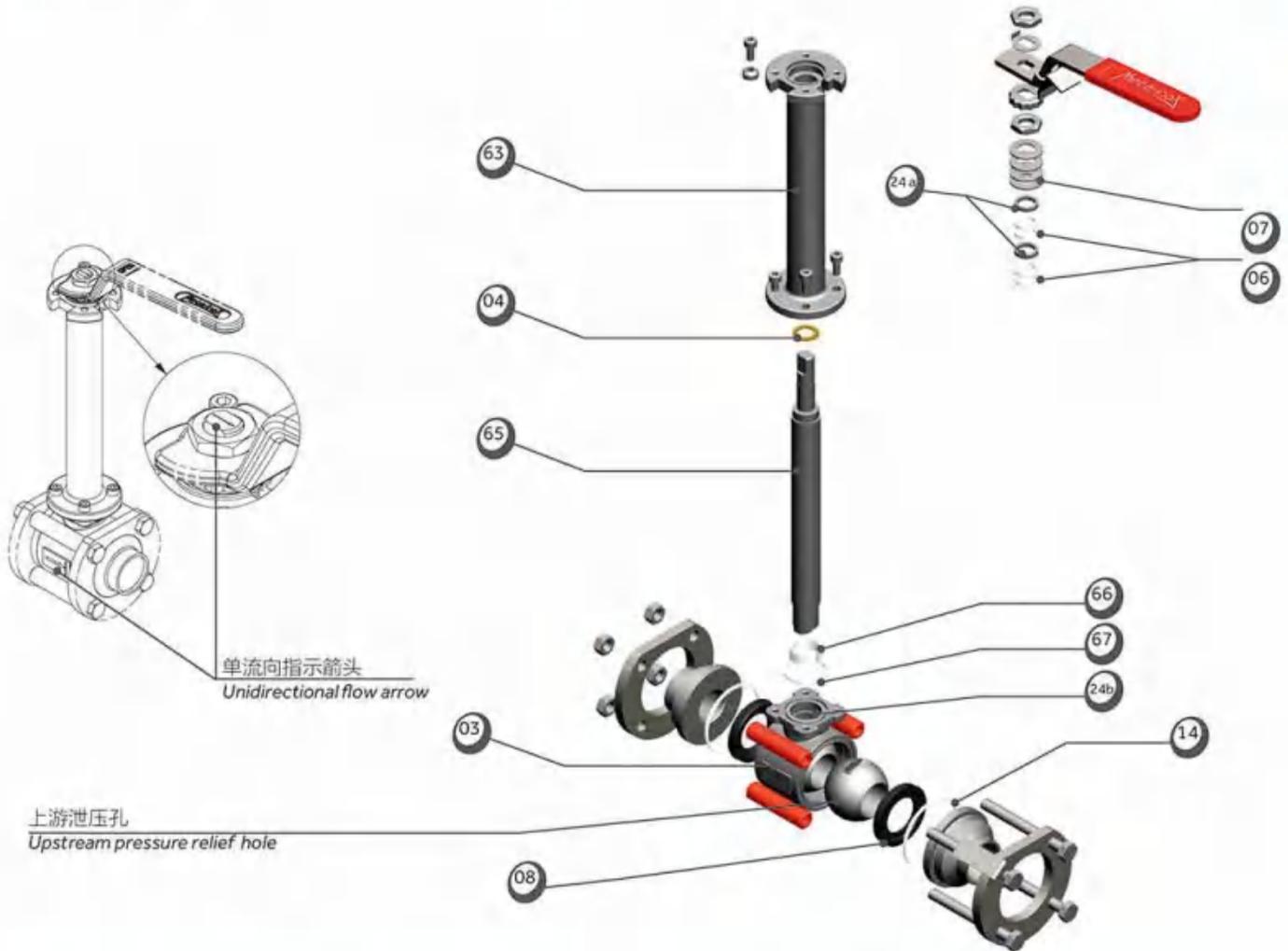
## 部件 COMPONENTS

### PY4 CY

DN 08 到 DN50

### PY4 CY

Size 1/4" to 2"



CRYO

### 功能性符合EN1626/-196°C

编号	数量	描述	材质 (EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20 % PEEK
06	2	填料	PTFE 33 % C + 2 % Gr
07	4	弹簧垫片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	PTFE
24a	2	填料压盖	1.4404
24b	1	导向环	1.4404
63	1	延长套筒	1.4307
65	1	延长阀杆	1.4404
66	1	开口衬套	PTFE
67	1	密封垫片	PTFE

### Functionnal EN1626/-196°C

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	33%C+2%Gr PTFE
07	4	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	PTFE
24a	2	Gland	316L
24b	1	Guide ring	316L
63	1	Extension's body	304L
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal (valve)	PTFE

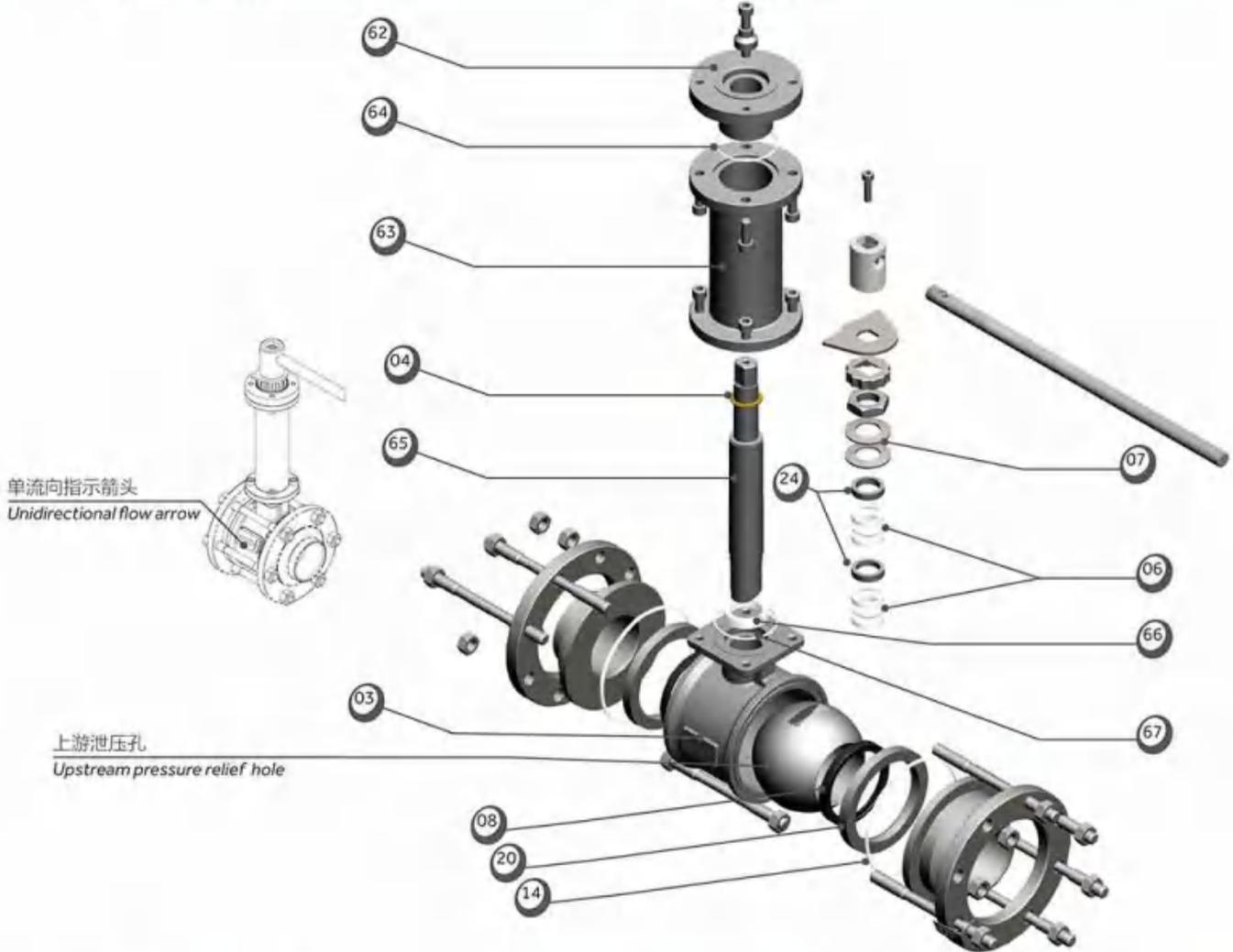
部件  
COMPONENTS

PY4 CY

DN 65 到 DN 100

PY4 CY

Size 2"1/2 to 4"



功能性符合EN1626/-196°C

Functionnal EN1626/-196°C

编号	数量	描述	材质(EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20 % PEEK
06	2	填料	PTFE
07	2	弹簧垫片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	PTFE
20	2	阀座支撑	1.4404
24	2	填料压盖	1.4404
62	1	法兰盖	1.4404
63	1	延长套筒	1.4307
64	1	平垫	PTFE
65	1	延长阀杆	1.4404
66	1	阀套	PTFE
67	1	密封垫片	PTFE

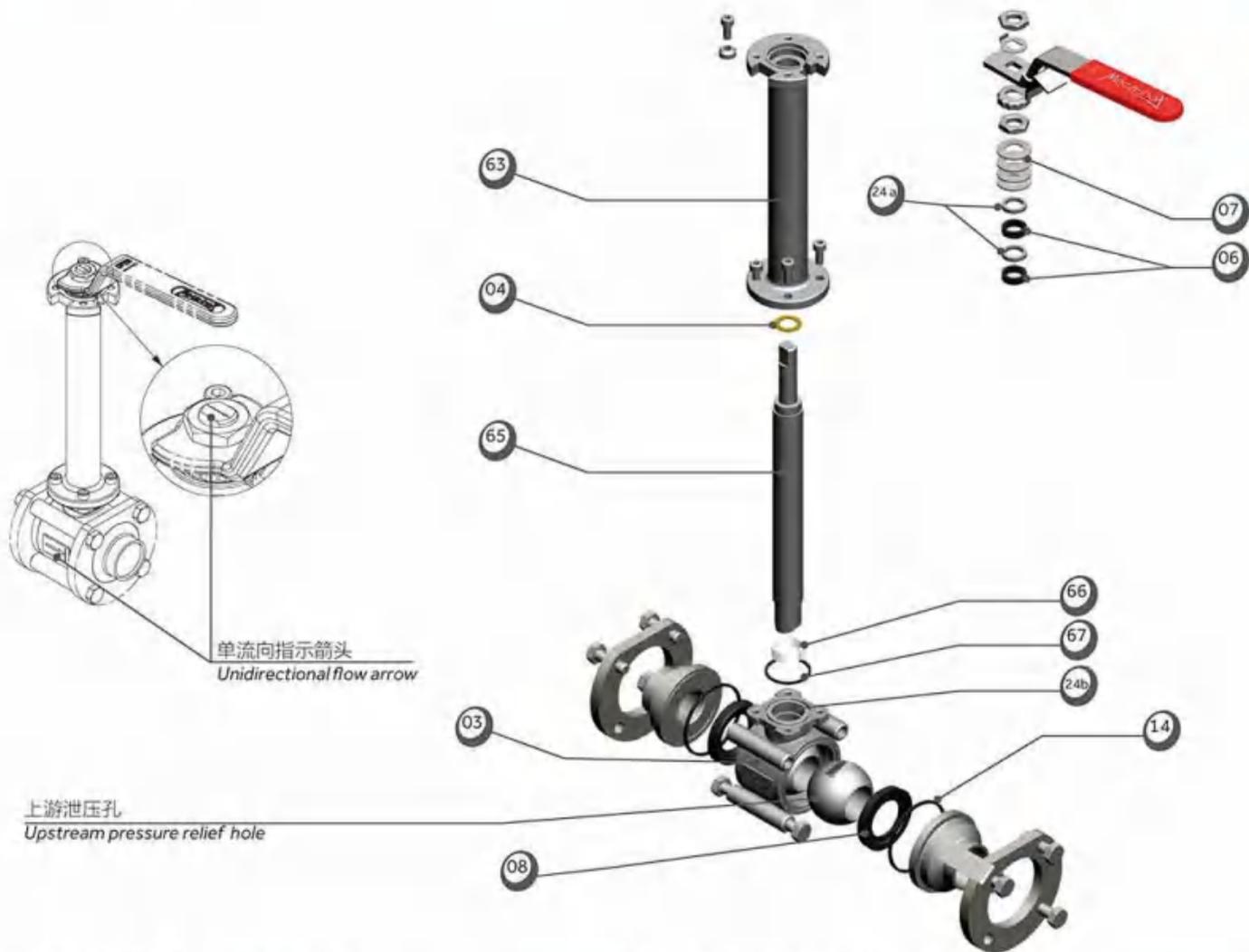
Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	PTFE
07	2	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	PTFE
20	2	Seat support	316L
24	2	Gland	316L
62	1	Manuel flange	316L
63	1	Extension's body	304L
64	1	Flat seal	PTFE
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal	PTFE

### PY4 CY 防火设计

DN 08 到 DN 50

### PY4 CY fire safe

Size 1/4" to 2"



CRYO

LNG行业符合EN12567标准  
耐火性符合ISO10497/API607/API6FA标准

Certified EN12567 for LNG  
Certified ISO10497/API607/API6FA Fire Resistance

编号	数量	描述	材质(EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20% PEEK
06	2	填料	石墨
07	4	弹簧垫片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	石墨
24a	2	填料压盖	1.4404
24b	1	导向环	1.4404
63	1	延长套筒	1.4307
65	1	延长阀杆	1.4404
66	1	开口衬套	PTFE
67	1	密封垫片	石墨

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	Graphite
07	4	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	Graphite
24a	2	Gland	316L
24b	1	Guide ring	316L
63	1	Extension's body	304L
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal (valve)	Graphite

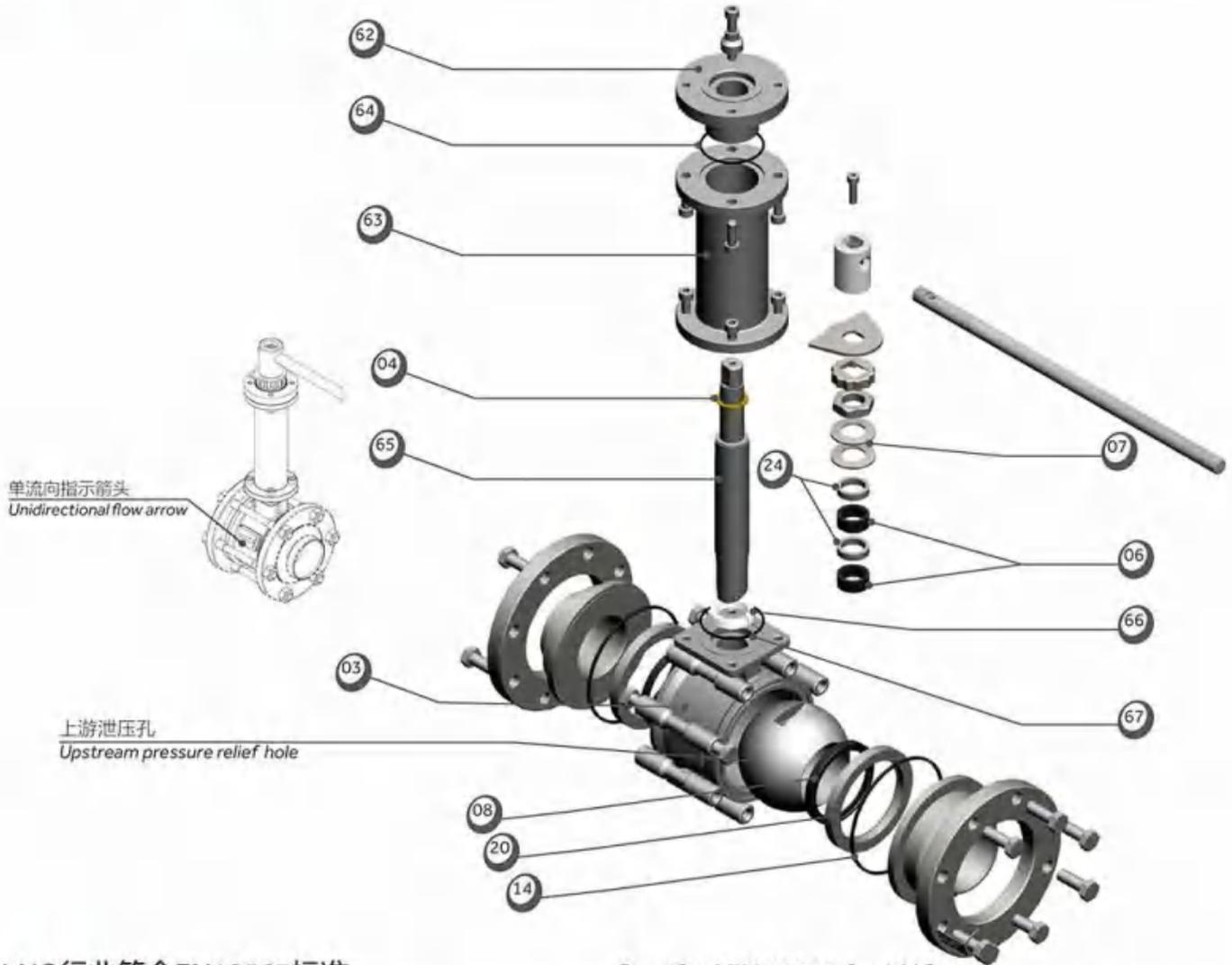
部件  
COMPONENTS

PY4 CY 防火设计

DN 65 到 DN 100

PY4 CY fire safe

Size 2"1/2 to 4"



LNG行业符合EN12567标准  
耐火性符合ISO10497/API607/API6FA标准

Certified EN12567 for LNG  
Certified ISO10497/API607/API6FA Fire Resistance

编号	数量	描述	材质 (EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20% PEEK
06	2	填料	石墨
07	2	弹簧压片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	石墨
20	2	阀座支撑	1.4404
24	2	填料压盖	1.4404
62	1	法兰盖	1.4404
63	1	延长套筒	1.4307
64	1	平垫	PTFE
65	1	延长阀杆	1.4404
66	1	阀套	PTFE
67	1	密封垫片	石墨

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	Graphite
07	2	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	Graphite
20	2	Seat support	316L
24	2	Gland	316L
62	1	Manuel flange	316L
63	1	Extension's body	304L
64	1	Flat seal	PTFE
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal	Graphite

尺寸 & 操作扭矩  
SIZE & OPERATING TORQUES

**PY4 CY**

DN 08 到 DN 50

**PY4 CY**

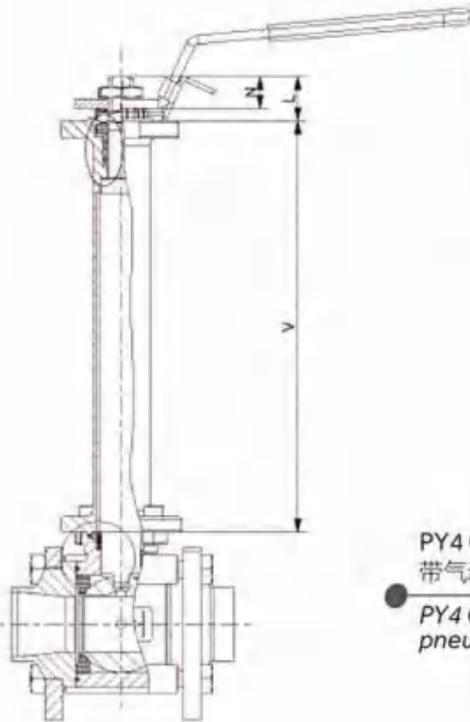
Size 1/4" to 2"

**PY4 CY**

DN 65 到 DN 100

**PY4 CY**

Size 2" 1/2 to 4"



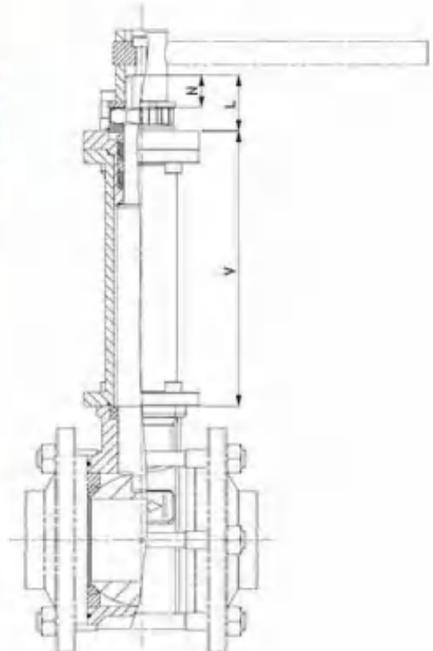
标准:

所有阀门清洁及脱脂处理符合EN12300标准  
所有阀门将会包装在单独密封的塑料袋中

All valves cleaned & degreased according to EN12300 for Oxygen

All Valves packed in closed individual plastic bag

PY4 CY  
带气动执行机构  
PY4 CY with  
pneumatic actuator



尺寸 & 操作扭矩 Size & operating torques

尺寸 Size	$\Delta P$ Max. -196°C / -320°F (bar)	PN (bar)	L	N	V	气缸容积 Volume gas buffer	操作扭矩 Operating torques
08-12 1/4"-3/8"	40	100	13.4	8.7	157	18 cm <sup>3</sup>	6 N.m
15 1/2"	40	100	13.4	8.7	157	15 cm <sup>3</sup>	12 N.m
20 3/4"	40	100	18.4	12.6	188	15 cm <sup>3</sup>	16 N.m
25 1"	40	70	18.4	12.6	188	15 cm <sup>3</sup>	26 N.m
32 1"1/4	40	70	24.2	16.2	211.5	26 cm <sup>3</sup>	52 N.m
40 1"1/2	40	50	24.2	16.2	211.5	26 cm <sup>3</sup>	86 N.m
50 2"	40	50	29.6	19	208.8	106 cm <sup>3</sup>	158 N.m
65 2"1/2	10	40	43.2	25	214	43 cm <sup>3</sup>	172 N.m
80 3"	10	40	43.2	25	216	264 cm <sup>3</sup>	172 N.m
100 4"	10	25	49	30	216	191 cm <sup>3</sup>	301 N.m

三通深冷低温球阀

3-WAY CRYOGENIC VALVE

深冷三通阀 / 水平工作  
 通径和缩径

3-way version / Horizontal inlet  
 Full bore & reduced bore

3VLH

L型流道  
 换向

3VLH

L port  
 Diverting flow



3VTH

T型流道  
 换向或混流

3VTH

T port  
 Diverting flow or mixing



三通深冷低温球阀  
3-WAY CRYOGENIC VALVE

深冷三通阀 / 垂直工作  
通路和缩径

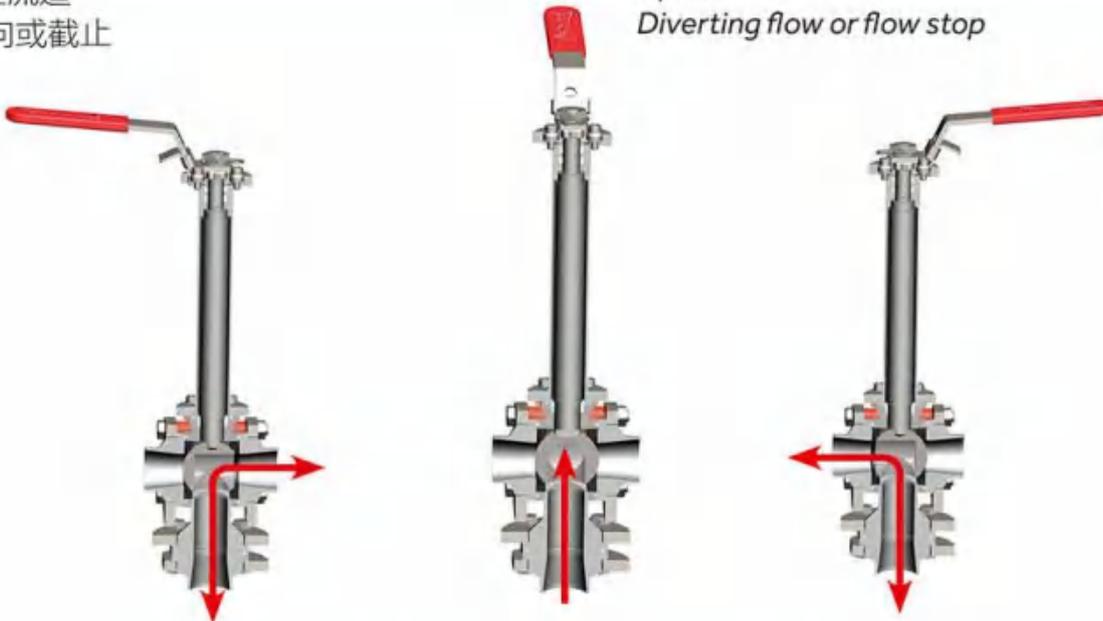
3-way version / Vertical inlet  
Full bore & reduced bore

3VLV

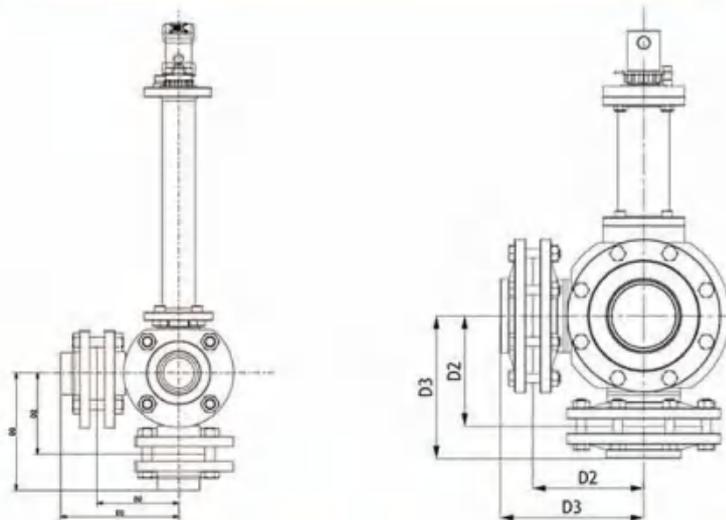
L 型流道  
换向或截止

3VLV

L port  
Diverting flow or flow stop



进出口尺寸 (水平和垂直工作) Horizontal & Vertical inlet size



尺寸 Size	08 1/4"	12 3/8"	15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"	65 2 1/2"	80 3"	100 4"
D2	45	45	50	60	65	72	80	103	135	149	170
D3	67.3	67.3	72.8	86.7	94.3	102.9	114.4	142.5	183	202	220

CRYO

混合材质球阀：青铜/不锈钢

COMBINED VALVE : BRONZE/STAINLESS STEEL

用于液氧 / PY4 CY

对焊连接端 BW

阀座材质:

PTFE (聚四氟乙烯) + 碳

带上游泄压孔

用于在阀门关闭位置时的  
阀腔泄压

氧清洁 (脱脂处理)

采用单独的塑料袋封装



Liquid oxygen application / PY4 CY

Butt Welding ends BW

Seats material:

PTFE + Carbon

Upstream vent hole

for cavity relief in  
the closed position

Cleaned, O<sub>2</sub> degreased  
and packed in individual  
plastic bag



用于氧气 PS4

对焊连接端 BW

阀座材质:

TFM 1600

氧清洁 (脱脂处理)

采用单独的塑料袋包装



Gas oxygen application / PS4

Butt Welding ends BW

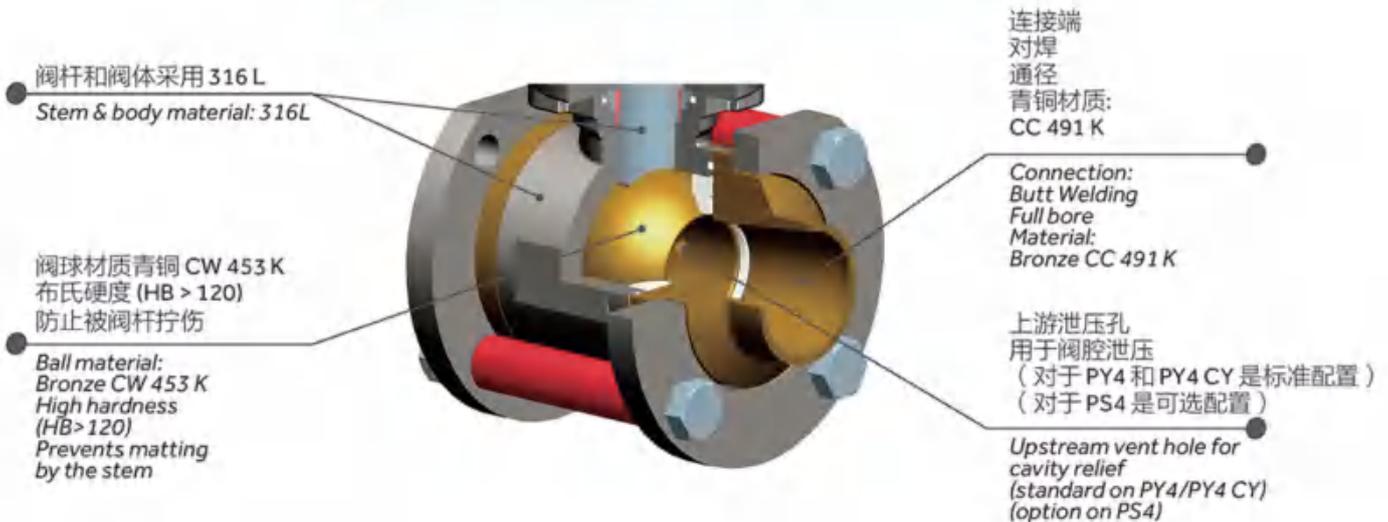
Seats material:

TFM1600

Cleaned, O<sub>2</sub> degreased  
and packed in  
individual plastic bag



技术参数 PY4 CY / PS4 Technical data PY4 CY / PS4



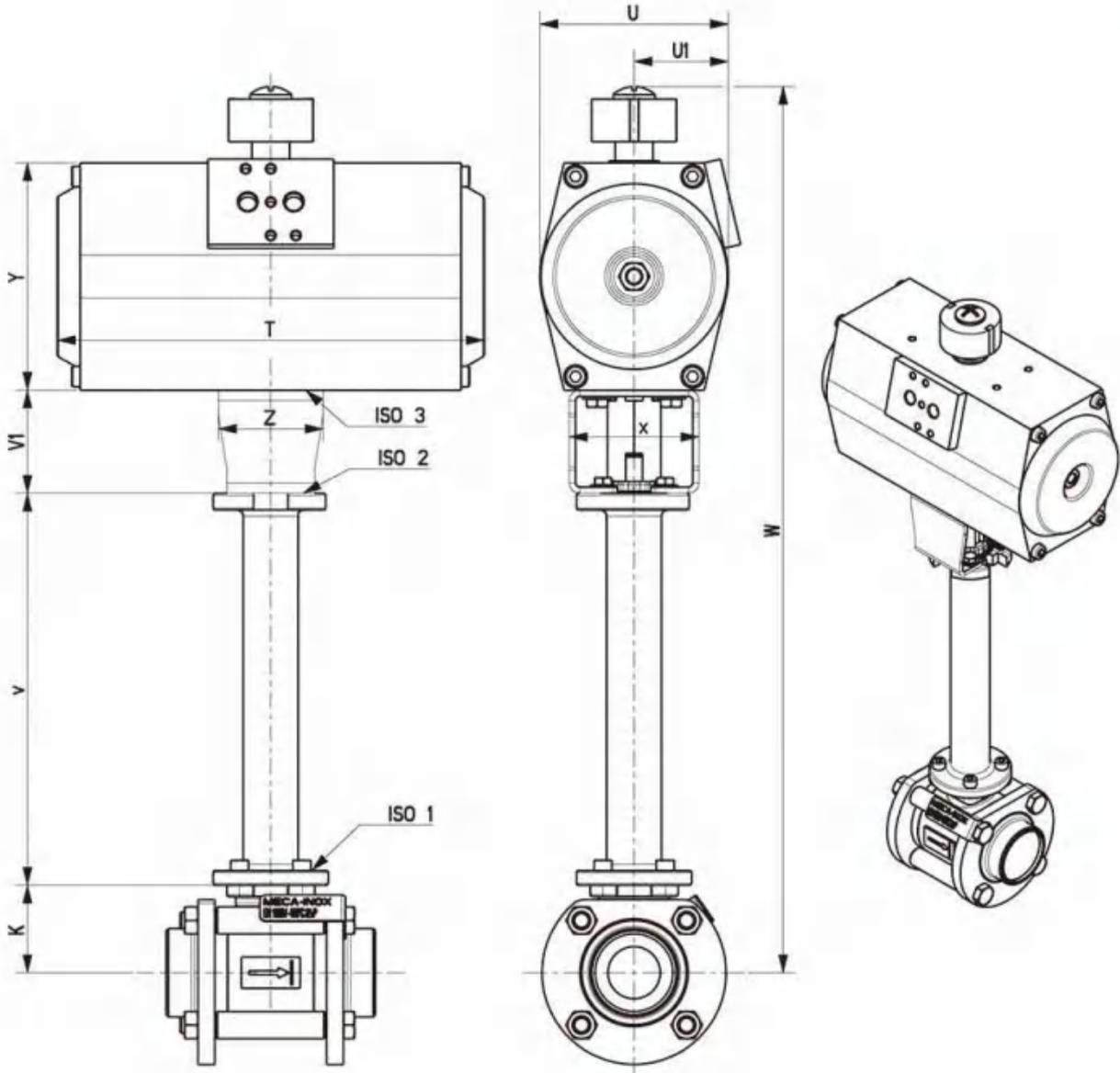
气动执行器  
**PNEUMATIC ACTUATION**

**PY4 CY 气动连接件**

DN 08 到 DN 50

*PY4 CY actuated components*

Size 1/4" to 2"



**CRYO**

## 气动执行器 PNEUMATIC ACTUATION

### PY4 CY 气动参数

DN 08 到 DN 50

### PY4 CY actuated

Size 1/4" to 2"

#### PY4 CY 单作用气动执行器型号 Spring Return type on PY4 CY

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	ISO 3	T	U	U1	V1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore																
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045SR12	F03	F05	146	58	29	47	157	326.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-063SR12	F03	F05	168	72	36	47	157	353	62	88	50
20	3/4"	25	1"	37.9	F04	2MICA-063SR12	F04	F05	168	72	36	49.5	188	393.4	62	88	50
25	1"	32	1 1/4"	42	F04	2MICA-083SR12	F04	F07	204	90	45	49.5	188	418.5	82	109	69
32	1 1/4"	40	1 1/2"	54	F05	2MICA-105SR12	F05	F10	268	115	57.5	49.5	211.5	478	120	133	105
40	1 1/2"	50	2"	59	F05	2MICA-125SR12	F05	F10	298	140	70	49.5	211.5	505	120	155	105
50	2"	65	2 1/2"	73	F07	2MICA-140SR12	F07	F12	390	152	76	79.5	208	562	132	171.5	120

以上数据基于：阀门上下游压差最大值  $\Delta P=40$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $\Delta P=40$  bar max and 6 bar air supply

#### PY4 CY 双作用气动执行器型号 Double Acting type on PY4 CY

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	ISO 3	T	U	U1	V1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore																
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045DA	F03	F05	146	58	29	47	157	326.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-045DA	F03	F05	146	58	29	47	157	330	62	65	50
20	3/4"	25	1"	37.9	F04	2MICA-045DA	F04	F05	146	58	29	49.5	188	370.4	62	65	50
25	1"	32	1 1/4"	42	F04	2MICA-063DA	F04	F05	168	72	36	49.5	188	397.5	62	88	50
32	1 1/4"	40	1 1/2"	54	F05	2MICA-075DA	F05	F05	184	83	41.5	49.5	211.5	445	62	100	50
40	1 1/2"	50	2"	59	F05	2MICA-083DA	F05	F05	204	90	45	49.5	211.5	459	82	109	69
50	2"	65	2 1/2"	73	F07	2MICA-105DA	F07	F07	268	115	57.5	79.5	208	523.5	120	133	105

以上数据基于：阀门上下游压差最大值  $\Delta P=40$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $\Delta P=40$  bar max and 6 bar air supply

#### PY4 CY $\Delta P=40$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
10 (8-12) F03	6	2MICA-045DA KPN1410 0511	2MICA-045SR12 KPN1410 0511
15 F03	6	2MICA-045DA KPN1410 0511	2MICA-063SR12 KPN1410 0514
20 F04	6	2MICA-045DA KPN1420 0511	2MICA-063SR12 KPN1420 0514
25 F04	6	2MICA-063DA KPN1420 0514	2MICA-083SR12 KPN1420 0717
32 F05	6	2MICA-075DA KPN1432 0514	2MICA-105SR12 KPN1432 1022
40 F05	6	2MICA-083DA KPN1432 0717	2MICA-125SR12 KPN1432 1022
50 F07	6	2MICA-105DA KPN1450 1022	2MICA-140SR12 KPN1450 1227

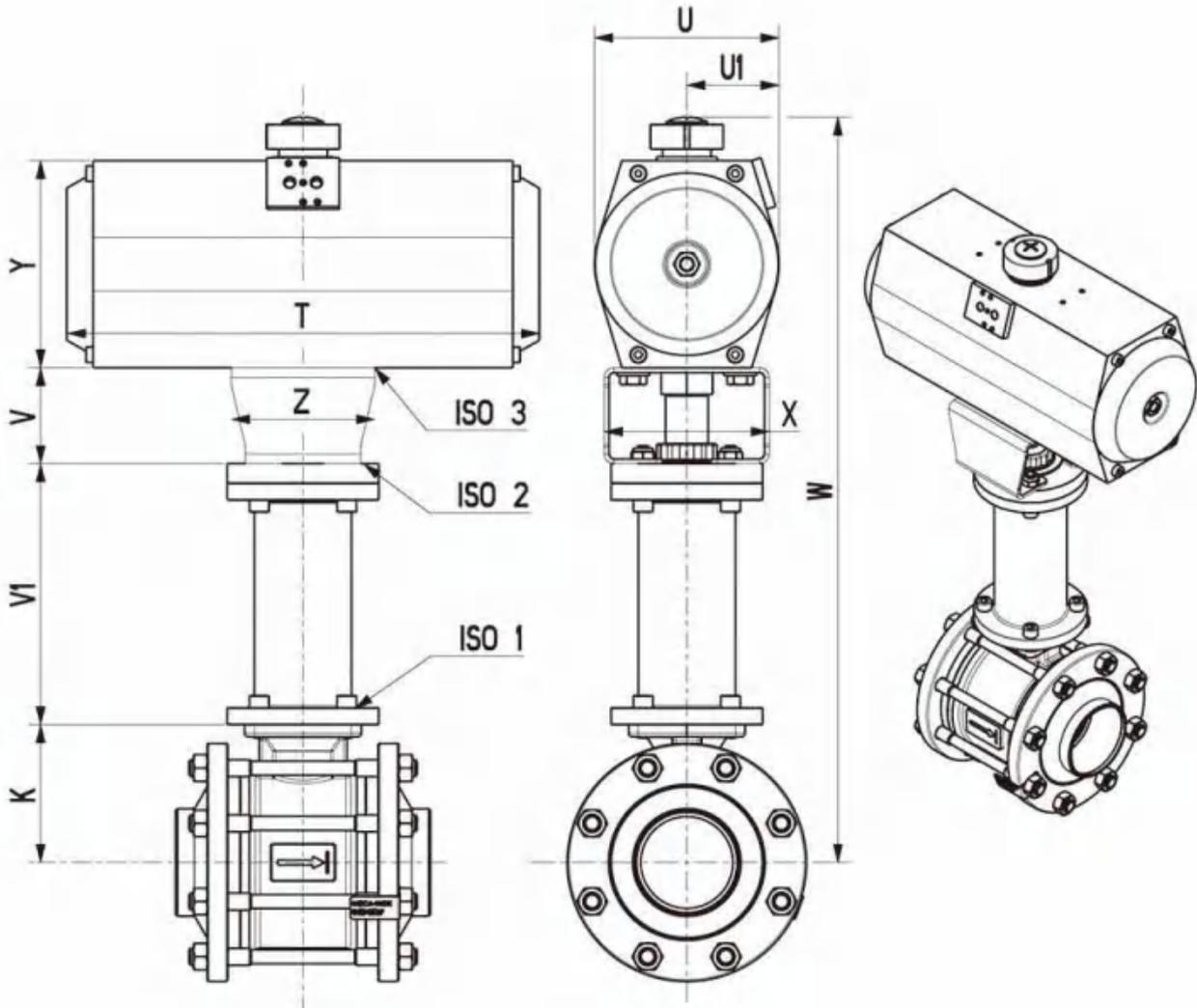
气动执行器  
**PNEUMATIC ACTUATION**

**PY4 CY 气动连接件**

DN 65 到 DN 100

**PY4 CY actuated**

Size 2" 1/2 to 4"



CRYO

气动执行器  
PNEUMATIC ACTUATION

PY4 CY 气动参数

DN 65 到 DN 100

PY4 CY actuated

Size 2"1/2 to 4"

PY4 CY 单作用气动执行器型号 Spring Return type on PY4 CY

尺寸 / Size				K	ISO 1	缩径			T	U	U1	V	V1	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore		ISO 2			ISO 3											
65	2"1/2	80	3"	104	F07	2MICA-140SR12	F07	F12	390	152	76	214	79.5	599	132	171.5	120
80	3"	100	4"	114	F10	2MICA-140SR12	F10	F12	390	152	76	216	79.5	611	136	171.5	118
100	4"	125	5"	133	F10	2MICA-190SR12	F10	F14	525	206	103	216	79.5	688.5	158	230	140

以上数据基于：阀门上下游压差最大值  $\Delta P=40$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $\Delta P=10$  bar max and 6 bar air supply

PY4 CY 双作用气动执行器型号 Double Acting type on PY4 CY

尺寸 / Size				K	ISO 1	缩径			T	U	U1	V	V1	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore		ISO 2			ISO 3											
65	2"1/2	80	3"	104	F07	2MICA-105DA	F07	F10	268	115	57.5	214	79.5	560.5	120	133	105
80	3"	100	4"	114	F10	2MICA-105DA	F10	F10	268	115	57.5	216	79.5	572.5	120	133	95
100	4"	125	5"	133	F10	2MICA-125DA	F10	F10	298	140	70	216	79.5	613.5	120	155	95

以上数据基于：阀门上下游压差最大值  $\Delta P=40$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $\Delta P=10$  bar max and 6 bar air supply

PY4 CY  $\Delta P=10$  bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
65 F07	6	2MICA-105DA KPN12P065 1022	2MICA-140SR12 KPN12P065 1227
80 F10	6	2MICA-105DA KPN12P080 1022	2MICA-140SR12 KPN12P080 1227
100 F10	6	2MICA-125DA KPN12P100 1022	2MICA-190SR12 KPN12P100 1436





**DN 15 到 DN 200**

PN 16 / PN 40  
 口径  
 ISO 法兰平台  
 不锈钢, 碳钢  
 化学型及防火型设计



不锈钢R2系列 - DN 15 到 DN 50  
 Stainless steel R2 series - Size 1/2" - 2"

**Size 1/2" to 8"**

PN 16 / PN 40  
 Full bore  
 ISO top flange  
 Stainless steel and carbon steel  
 Chemical version & Fire safe design



不锈钢R2系列 - DN 65 到 DN 200  
 Stainless steel R2 series - Size 2 1/2" - 8"

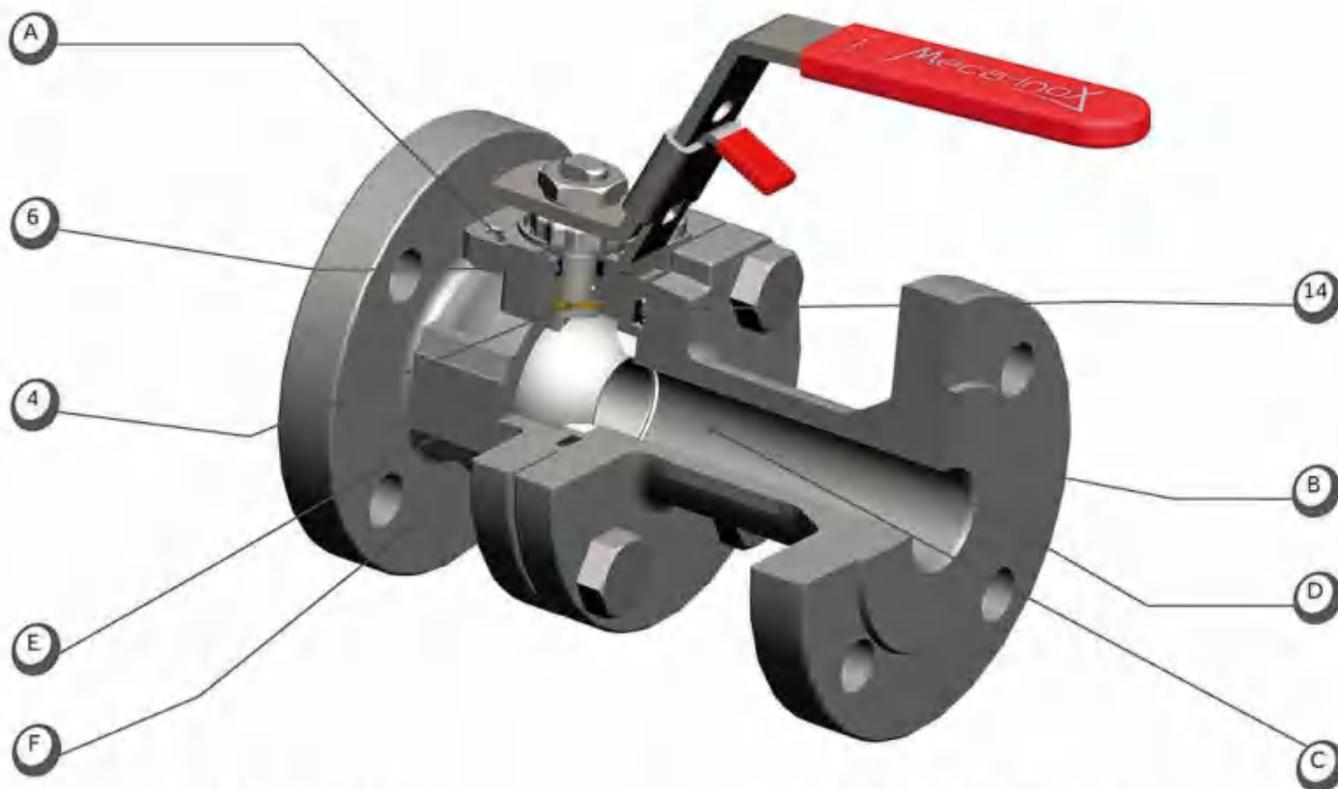


碳钢R2系列 - DN 15 到 DN 50  
 Carbon steel R2 series - Size 1/2" - 2"



碳钢R2系列 - DN 65 到 DN 200  
 Carbon steel R2 series - Size 2 1/2" - 8"

2-PCS



**A • NF EN ISO 5211 法兰平台**

可以确保任何执行机构的正确安装，而槽口使得手柄能在开位与关位被锁止。

**B • 法兰面**

标准的突面法兰。

**C • 机加工**

为了确保介质不残留，保证铸件的质量，所有内部零件都采用机加工形式。

**D • 口径**

采用通径标准。

**E • 按照 EN 19 进行标注**

将 PN / DN，材质及制造商信息标注于阀体及连接端上。

**F • 阀体法兰**

阀体阀杆连接，法兰采用与管道连接法兰同样设计（PN40 / PN16）同样的设计可避免应力集中。

**4 • 阀杆密封**

属于初级密封，采用 20%PEEK 增强型 PTFE，可延长填料工作寿命。

**6 • 填料**

填料函采用机械加工以便安装V型环状填料。本设计具有抗静电效果并符合 TA-Luft 标准，可以按需要提供防火安全型填料。

**14 • 阀体密封**

3 种型式可选。

PTFE 属于化学型。

石墨属于防火型，按照 EN ISO 10497 标准，利用 PTFE 的化学特性来避免石墨与介质直接接触。

氟素硅胶 属于防热冲击型。

**A • NF EN ISO 5211 top flange**

Ensures any motorization and notches allow the handle's locking in opened or closed position.

**B • Flanges faces**

Raised face machined as standard.

**C • Machining**

In order to ensure the absence of trapping medium and the good quality of the foundries, all the inner parts are machined.

**D • Bore**

Full bore as standard.

**E • Marking according to EN19**

Located on the body and on the connector, PN/DN, material tag manufacturer.

**F • Body flange**

A homogeneous construction which avoids stress concentration on the body flange as body flange dimensions are coherently designed with PN40 or PN16 connecting flanges on the pipe.

**4 • Stem thrust seal**

Made from 20% PEEK filled PTFE, it ensures a better lifespan for the gland-packing.

**6 • Gland-packing**

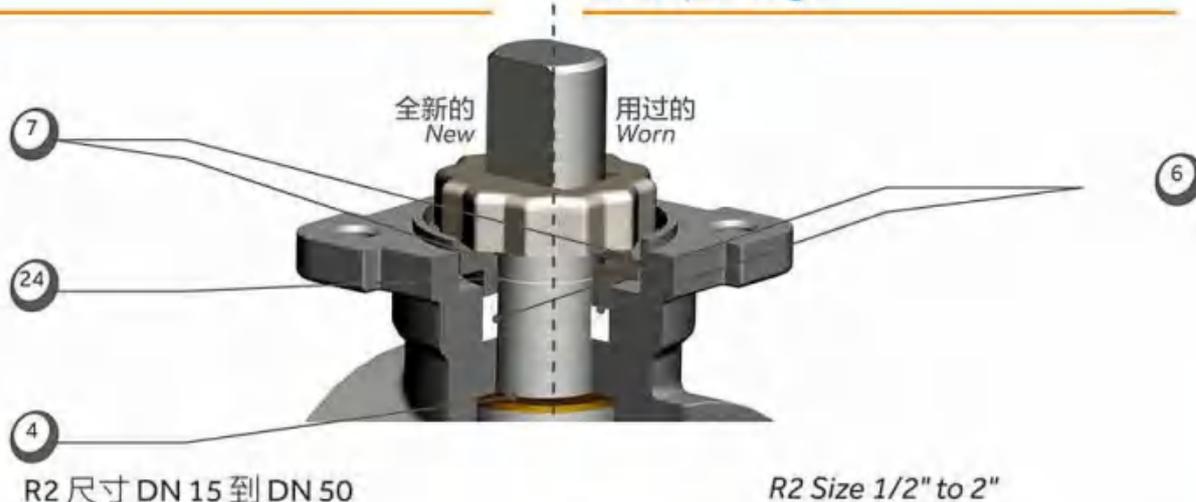
Box packing is manufactured and equipped with "V-ring" packing. This design is antistatic and tested according to TA-Luft. "Fire Safe" version is available.

**14 • Body seal**

3 versions available: PTFE for the "chemistry Version" - Graphite for the "fire safety" version according to EN ISO 10497 with PTFE chemical barrier avoiding fluid contact with graphite - Fluorosilicone for thermal stress.

填料

Gland-packing



R2 尺寸 DN 15 到 DN 50

R2 Size 1/2" to 2"

按照 NF EN 12516-1, DIN 3841, ANSI B16.34 的标准进行设计

满足 ISO 7121, NF EN 1983 标准进行抗静电填料设计

填料含 PTFE + 碳 + 石墨 (6)

阀杆和阀体以及阀杆和阀球 (> DN 50) 之间的锁球 / 弹簧装置 (B)

采用 PEEK 增强型 PTTE 作为阀杆初级密封 (4)

带有一个 V 形填料的次级密封 (6), 在压力情况下有良好的密封性

不锈钢填料压盖

由一对弹簧垫片 (7) 进行损耗补偿

Design according NF EN 12516-1, DIN 3841, ANSI B16.34

Antistatic gland packing according to ISO 7121, NF EN 1983

Gland packing (6) in PTFE+carbon+graphite

Ball / spring system (B) between stem & body and stem & ball (DN >50)

Thrust seal (4) in PEEK reinforced PTFE

Sealing with a "V-ring" packing (6) to allow sealing under pressure coming from the valve body

Gland in stainless steel (24)

Wear compensation thanks to the pair of spring washers (7)

2-PCS



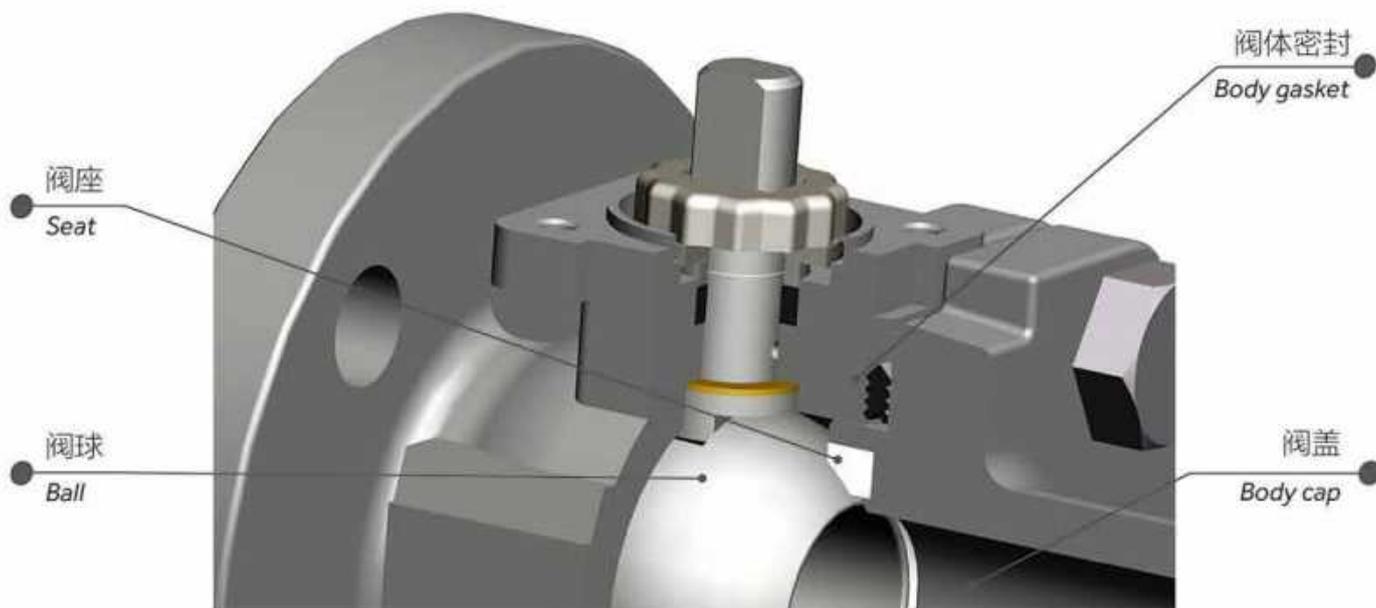
R2 尺寸 DN 65 到 DN 200

R2 Size 2"1/2 to 8"

密封设计  
**SEALING DESIGN**

## 阀座和阀体密封

## Seats and body gasket



嵌入式阀体密封有效保证阀门内外部的密封性。

阀座的外形设计旨在保证上下游密封。

阀座弹性可吸收压应力，实现更好的密封效果。

渐进式的阀座支撑优化阀门操作扭矩。

*Encapsulated body gasket to guarantee internal/external tightness.*

*Seats profiles designed for upstream/downstream sealing.*

*Seats elasticity to absorb pressure stress.*

*Progressive bearing to optimize operating torques.*

编码  
**CODIFICATION**

举例

Example

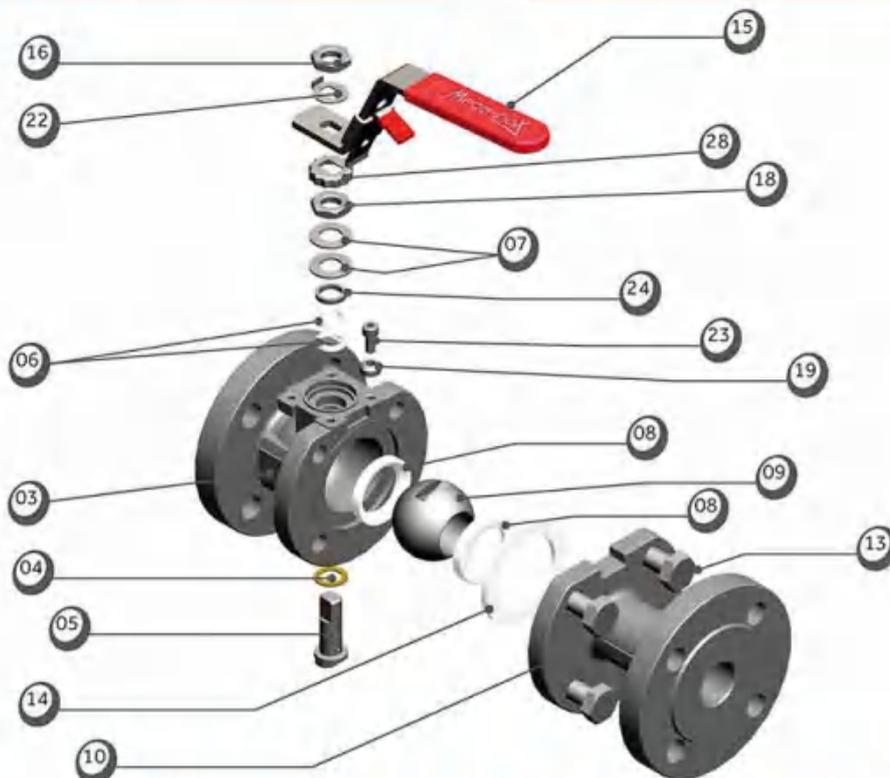
R2	S		4		L		1		N	025 (尺寸/Size)			
阀体 Body	阀座材料 Seats material		压力等级 Pressure rating		结构长度 Face to Face		填料材质 Gland packing material		口径 Port	阀体材质 Body material			
R2 熔模 铸造 Investment casting	S	TFM1600	4	PN 40 DN 15 到 DN 100	L	DIN 3202 - 长结构 Long pattern	1	防静电 PTFE DN 15到DN 50 Antistatic PTFE 1/2" to 2"	N	通径 Full bore	i	不锈钢316 Stainless steel	
	Z	PTFE 20% PEEK 20% PEEK PTFE	1	PN 16 DN 100 到 DN 200	C	DIN 3202 - 短结构 Short pattern	0	PTFE DN 65 到 DN 200 PTFE 2"1/2 to 4"			A	碳钢 Carbon steel	
	H	防火 Fire safe						9	石墨 (防火) Graphite (Fire Safe)				
	J	TFM 1600						6	氟素硅胶 (用于温度急速变 化的热冲击介质) Fluorosilicone Special thermal fluids DN 15 - 50 / 1/2" - 2"				
	P	PEEK						7	氟素硅胶 (用于温度急速变 化的热冲击介质) Fluorosilicone Special thermal fluids DN 65 - 100 / 2"½ - 4"				

2-PCS

### 部件 COMPONENTS

DN 15 到 DN 50

Size 1/2" to 2"



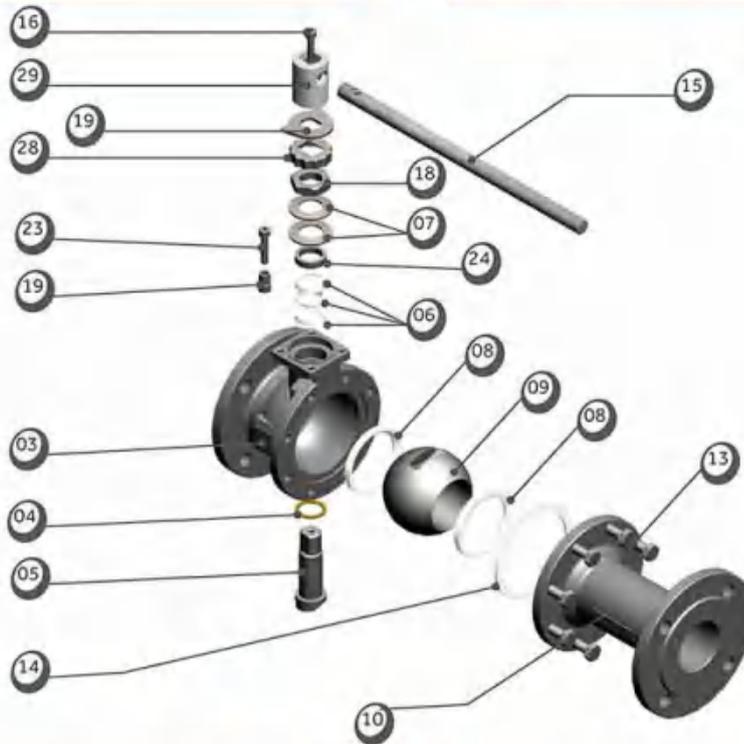
代码	数量	描述	材料 (EN)		Item Qty	Description	Material (ASTM)	
			不锈钢	碳钢			S.steel	C.steel
03	1	阀体	1.4408	1.0619 电泳处理	03	1 Body	A351 CF 8 M	A216 WCBCataphoresis treatment
04	1	阀杆密封	PTFE 20% PEEK	PTFE 20% PEEK	04	1 Stem thrust seal	20%PEEK PTFE	20%PEEK PTFE
05	1	阀杆	1.4404	1.4404	05	1 Stem	316L	316L
06	1	填料 化学型	PTFE 33% 碳 + 2% 石墨	PTFE 33% 碳 + 2% 石墨	06	Gland packing Chemical version	33%C+2%Gr PTFE	33%C+2%Gr PTFE
		防火型	石墨	石墨		Fire-Safe version	Graphite	Graphite
07	4	弹簧垫片	1.4310	1.4310	07	4 Spring washers	301	301
08	2	阀座	PTFE	PTFE	08	2 Seats	PTFE	PTFE
09*	1	阀球	1.4409	1.4409	09*	1 Ball	CF3M (316L)	CF3M (316L)
10	1	阀盖	1.4408	1.0619 电泳处理	10	1 Body connector	A351 CF 8 M	A216 WCBCataphoresis treatment
13	4	螺栓 (DIN F1) DN 15 到 DN 25	1.4301	1.4301	13	Screw (DIN F1) Size 1/2" & 1"	304	304
	6	DN 20 + DN 32 到 DN 50				Size 3/4" + 1" 1/2 to 2"		
13b	4	双头螺栓 (DIN F4) DN 15 到 DN 25	1.4301	1.4301	13b	Stud (DIN F4) Size 1/2" & 1"	304	304
	6	DN 20 + DN 32 到 DN 50	1.4301	1.4301		Size 3/4" + 1" 1/2 to 2"	316L + Graphite	316L + Graphite
14	1	阀体密封 化学型	PTFE	PTFE	14	Body seal Chemical version	PTFE	PTFE
		防火型	1.4404 + 石墨	1.4404 + 石墨		Fire-Safe version	316L + Graphite	316L + Graphite
15	1	标准手柄 手动操作可选项 参见操作可选项	1.4301	1.4301	15	Handle standard Handle option See OPTIONS FOR OPERATION	304	304
17	4	螺母 (DIN F4) DN 15 到 DN 25	1.4301	1.4301	17	Nut screw (DIN F4) Size 1/2" & 1"	304	304
	6	DN 20 + DN 32 到 DN 50				Size 3/4" + 1" 1/2 to 2"		
18	1	压盖螺母	1.4404	1.4404	18	1 Nut gland	316L	316L
19	1	锁止塞	1.4307	1.4307	19	1 Locking plug	304L	304L
22	1	止动垫片	1.4307	1.4307	22	1 Nut stop	304L	304L
23	1	止动栓	1.4301	1.4301	23	1 Screw stop	304	304
24	1	填料压盖	1.4404	1.4404	24	1 Gland	316L	316L
28	1	螺母止动片	1.4307	1.4307	28	1 Stop nut gland	304L	304L

\* 所有阀球带泄压孔  
\* Drilled ball as standard

## 部件 COMPONENTS

DN 65 到 DN 150

Size 2" 1/2 to 6"



2-PCS

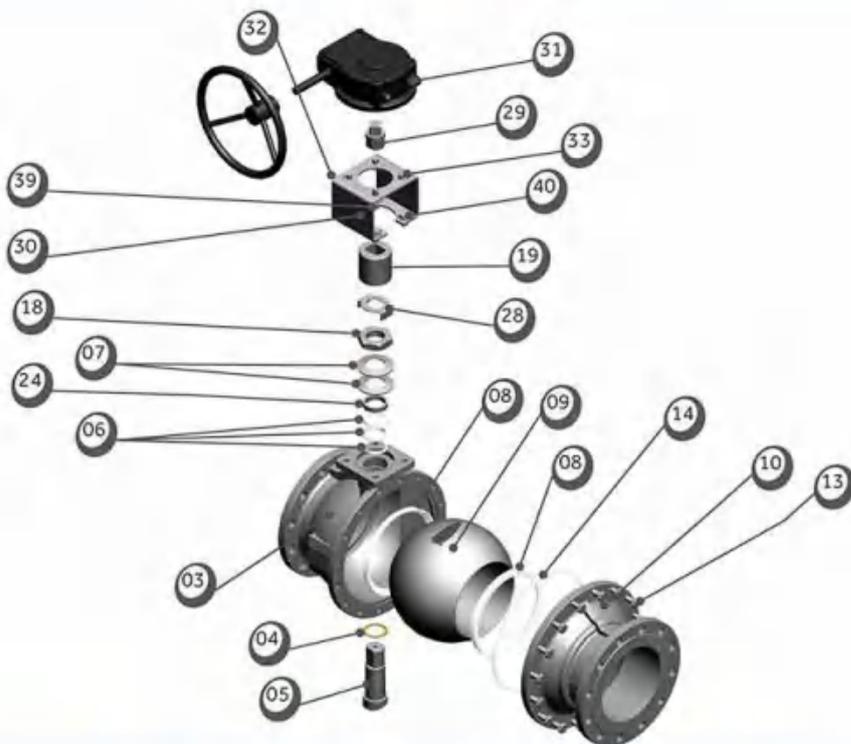
代码	数量	描述	材料 (EN)		Item Qty	Description	Material (ASTM)	
			不锈钢	碳钢			S. steel	C. steel
03	1	阀体	1.4408	1.0619 电泳处理	03	1	Body	A351 CF 8 M / A216 WCBCataphoresis treatment
04	1	阀杆密封	20% PEEK PTFE	20% PEEK PTFE	04	1	Stem thrust seal	20%PEEK PTFE / 20%PEEK PTFE
05	1	阀杆	1.4404	1.4404	05	1	Stem	316L / 316L
06	1	填料 化学型	PTFE	PTFE	06	1	Gland packing Chemical version	PTFE / PTFE
		防火型	石墨	石墨			Fire-Safe version	Graphite / Graphite
07	2	弹簧垫片	1.4310	1.4310	07	2	Spring washers	301 / 301
08	2	阀座	PTFE	PTFE	08	2	Seats	PTFE / PTFE
09*	1	阀球	1.4409	1.4409	09*	1	Ball	CF3M (316L) / CF3M (316L)
10	1	阀盖	1.4408	1.0619 电泳处理	10	1	Body connector	A351 CF 8 M / A216 WCBCataphoresis treatment
13	8	螺栓 (DIN F1) DN 65	1.4301	1.4301	13	8	Screw (DIN F1) Size 2" 1/2	304 / 304
		DN 80 到 DN 150					Size 3" to 6"	
13b	8	双头螺栓 (DIN F4) DN 65	1.4301	1.4301	13b	8	Stud (DIN F4) Size 2" 1/2	304 / 304
		DN 80 到 DN 150					Size 3" to 6"	
14	1	阀体密封 化学型	PTFE	PTFE	14	1	Body seal Chemical version	PTFE / PTFE
		防火型	1.4404+石墨	1.4404+石墨			Fire-Safe version	316L + Graphite / 316L + Graphite
15	1	标准手柄 手动操作可选项	304 参见操作可选项		15	1	Handle standard Handle option	304 See OPTIONS FOR OPERATION
16	1	手柄螺母	1.4301	1.4301	16	1	Handle screw	304 / 304
17	1	螺母 (DIN F4)	1.4301	1.4301	17	1	Nut screw (DIN F4)	304 / 304
18	1	压盖螺母	1.4404	1.4404	18	1	Nut gland	316L / 316L
19	1	止动片	1.4307	1.4307	19	1	Stop plate	304L / 304L
19b	1	锁止塞	1.4307	1.4307	19b	1	Locking plug	304L / 304L
23	1	止动栓	1.4301	1.4301	23	1	Screw stop	304 / 304
24	1	填料压盖	1.4404	1.4404	24	1	Gland	316L / 316L
28	1	螺母制动片	1.4307	1.4307	28	1	Stop nut gland	304L / 304L
29	1	标准手柄连接套	1.0037 镀铬处理		29	1	Handle adaptor standard	A283 Gr C C chrome plating
		手柄连接套 (可选项)	1.4305	1.4305			Handle adaptor (option)	303 / 303

\* 所有阀球带泄压孔  
\* Drilled ball as standard

### 部件 COMPONENTS

DN 200

Size 8"



代码	数量	描述	材料(EN)		Item	Qty	Description	Material (ASTM)	
			不锈钢	碳钢				S.steel	C.steel
03	1	阀体	1.4408	1.0619 电泳处理	03	1	Body	A351 CF 8 M	A216 WCB Cataphoresis treatment
04	1	阀杆密封	20% PEEK PTFE	20% PEEK PTFE	04	1	Stem thrust seal	20% PEEK PTFE	20% PEEK PTFE
05	1	阀杆	1.4404	1.4404	05	1	Stem	316L	316L
06	1	填料 化学型	PTFE 33%碳 + 2% 石墨	PTFE 33%碳 + 2% 石墨	06	1	Gland packing Chemical version	33%C+2%Gr PTFE	33%C+2%Gr PTFE
		防火型	石墨	石墨			Fire-Safe version	Graphite	Graphite
07	2	弹簧垫片	1.4310	1.4310	07	2	Spring washers	301	301
08	2	阀座	PTFE	PTFE	08	2	Seats	PTFE	PTFE
09*	1	阀球	1.4409	1.4409	09*	1	Ball	CF3M (316L)	CF3M (316L)
10	1	阀盖	1.4408	1.0619 电泳处理	10	1	Body connector	A351 CF 8 M	A216 WCB Cataphoresis treatment
13	16	螺栓 (DIN F1)	1.4301	1.4301	13	16	Screw (DIN F1)	304	304
14	1	阀球密封 化学型	PTFE	PTFE	14	1	Body seal Chemical version	PTFE	PTFE
		防火型	316L+石墨	316L+石墨			Fire-Safe version	316L + Graphite	316L + Graphite
		压盖螺母	1.4404	1.4404			Nut gland	316L	316L
18	1	压盖螺母	1.4404	1.4404	18	1	Nut gland	316L	316L
19	1	联轴节卡套	1.4305	1.4305	19	1	Coupling adaptator	303	303
24	1	填料压盖	1.4404	1.4404	24	1	Gland	316L	316L
28	1	螺母止动片	1.4307	1.4307	28	1	Stop nut gland	304L	304L
29	1	联轴节	1.4307	1.4307	29	1	Coupling	304L	304L
30	1	支架	1.4307	1.4307	30	1	Bracket	304L	304L
31	1	齿轮箱	Gg25	Gg25	31	1	Gear box	Gg25	Gg25
32	4	平垫圈 (齿轮箱侧)	1.4301	1.4301	32	4	Washer (gear box side)	304	304
33	4	螺栓 (齿轮箱侧)	1.4301	1.4301	33	4	Screw (gear box side)	304	304
39	4	平垫圈 (阀门侧)	1.4301	1.4301	39	4	Washer (valve side)	304	304
40	4	螺栓 (阀门侧)	1.4301	1.4301	40	4	Screw (valve side)	304	304

\* 标准钻孔球阀  
\* Drilled ball as standard

## 阀座及密封材料 SEATS & SEALS MATERIAL

### 技术参数

化学型:

R2S: TFM 1600 阀座

温度范围: -50°C / +210°C

R2Z: 20% PEEK 增强型 PTFE 阀座

温度范围: 0°C / +280°C

R2P: PEEK 阀座

温度范围: 0°C / +280°C

防火型:

R2H: TFM 1600 阀座 (PTFE 第二代)

温度范围: -50°C / +210°C

不锈钢缠绕垫片

碳钢和不锈钢 CF8M

标准型:

球阀与阀杆连接处钻孔, 用于阀腔泄压。

ATEX 94 / 9 / EC。

可选项:

上游泄压孔用于阀门关闭位置时阀腔泄压。

认证:

PED 97 / 23 / EC

TA-Luft 认证(逃逸泄漏)

AD Merkblatt 2000

阀座材料符合 FDA

可选项:

按照 2010 / 35 / UE TPED 认证打上  $\pi$  标识:

ADR § 1.8.7.6 认证

### Technical data

"Chemical" versions:

R2S: TFM 1600 seats

Temperature range: -50°C / +210°C

R2Z: 20% PEEK filled PTFE seats

Temperature range: 0°C / +280°C

R2P: PEEK seats

Temperature range: 0°C / +280°C

"Fire Safe" version:

R2H: TFM 1600 seats (2<sup>nd</sup> generation PTFE)

Temperature range: -50°C / +210°C

Spiral wound gasket

Carbon steel and stainless steel CF8M

Standard version:

Ball drilling in the stem mark for cavity relief.

ATEX 94/9/CE.

Option:

Upstream vent hole for cavity relief.

Approvals:

PED 97/23/CE

TA-Luft (fugitive emissions)

AD Merkblatt 2000

Seat material FDA approved

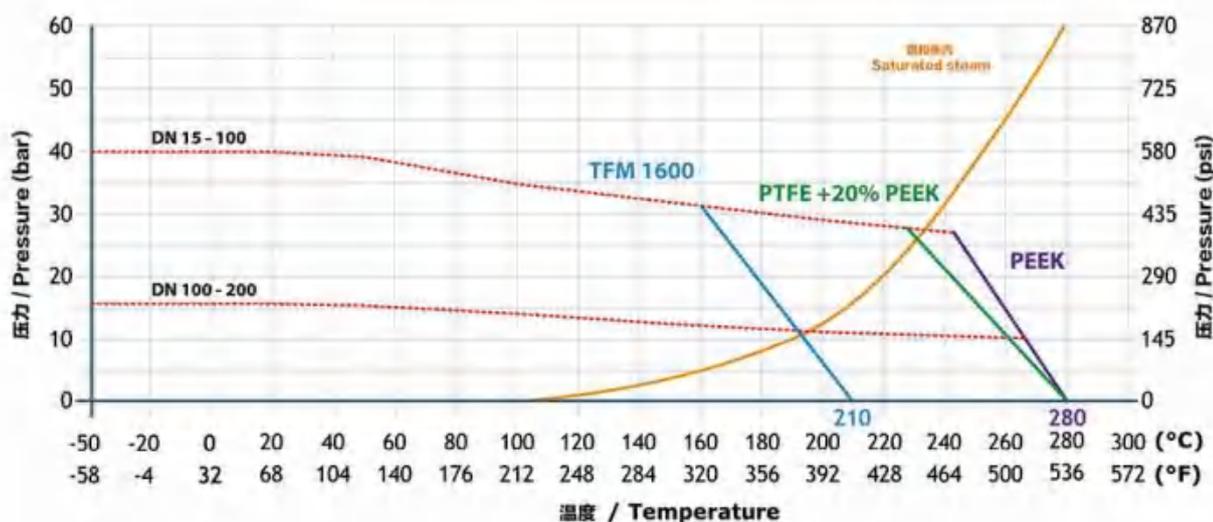
Options:

$\pi$  marking according to 2010/35/UE TPED:

certification ADR § 1.8.7.6

### 压力 / 温度图

### Pressure/Temperature diagram



碳钢球阀的最低温度:

-10°C / 14°F

我们可为您定制适于更低温度工况的产品。

请联系我们。

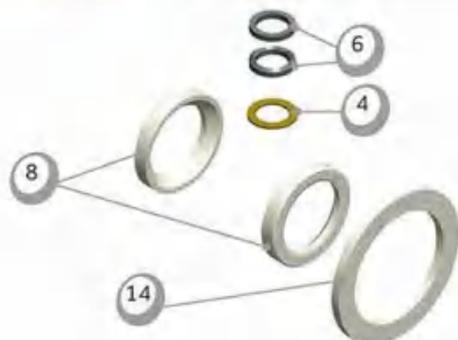
Minimum temperature for carbon steel ball valves: -10°C / 14°F

For lower temperature, customer-specific solutions are available on request. Please contact us for more information.

## 阀座及密封材料

### SEATS & SEALINGS MATERIAL

#### DN 15 到 DN 200



#### 化学型

##### Chemical version

2个阀座 (8)  
1个阀体密封 (14 或 26)  
1个阀杆密封 (4)  
1组填料 (6)

化学型  
填料: DN 15 - DN 50 = 2个部件  
DN 65 - DN 200 = 3个部件

防火型  
填料用1个零件

#### Size 1/2" to 8"



#### 防火型

##### Fire safe version

2 seats 8  
1 body seat 14 or 26  
1 stem thrust seat 4  
1 gland-packing 6

**Chemical version:**  
gland-packing in  
size 1/2" to 2" = 2 parts  
size 2 1/2 to 6" = 3 parts

**Fire safe version:**  
gland-packing in 1 part

#### DN 15 到 DN 50

##### DN 1/2" to DN 2"

编号 / Item 阀门类型 / Valve type	04	06	08	14	26
R2H	PTFE 20 % PEEK 20%PEEK PTFE	石墨 Graphite	TFM 1600	-	316L + 石墨
R2J	PTFE 20 % PEEK 20%PEEK PTFE	氟素硅胶 Fluorosilicone	TFM 1600	氟素硅胶 Fluorosilicone	-
R2P	PEEK	PTFE 33 % 碳 + 2 % 石墨 33%碳+2%石墨 PTFE	PEEK	PTFE	-
R2S	PTFE 20 % PEEK 20%PEEK PTFE	PTFE 33 % 碳 + 2 % 石墨 33%碳+2%石墨 PTFE	TFM 1600	PTFE	-
R2Z	PTFE 20 % PEEK 20%PEEK PTFE	PTFE 33 % 碳 + 2 % 石墨 33%碳+2%石墨 PTFE	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	-

#### DN 65 到 DN 200

##### DN 2 1/2 to DN 8"

编号 / Item 阀门类型 / Valve type	04	06	08	14	26
R2H	PTFE 20 % PEEK 20%PEEK PTFE	石墨 Graphite	TFM 1600	-	316L + 石墨
R2J	PTFE 20 % PEEK 20%PEEK PTFE	氟素硅胶 Fluorosilicone	TFM 1600	氟素硅胶 Fluorosilicone	-
R2S	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	TFM 1600	PTFE	-
R2P	PEEK	PTFE	PEEK	PTFE	-
R2Z	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	PTFE 20 % PEEK 20%PEEK PTFE	PTFE	-

### R2 DIN 短结构

DN 15 到 DN50 : PN 40  
 口径

### R2 DIN short pattern

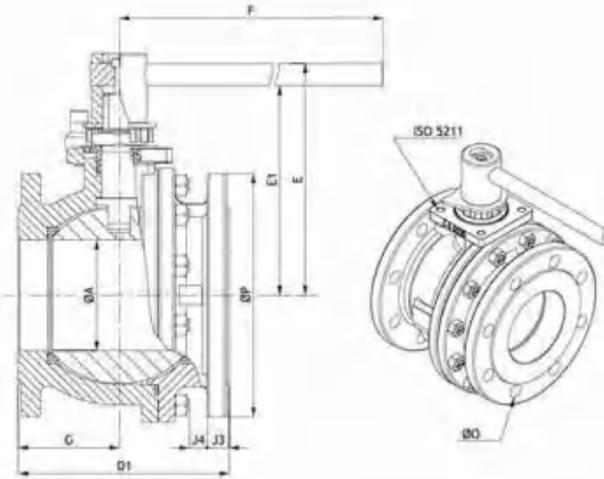
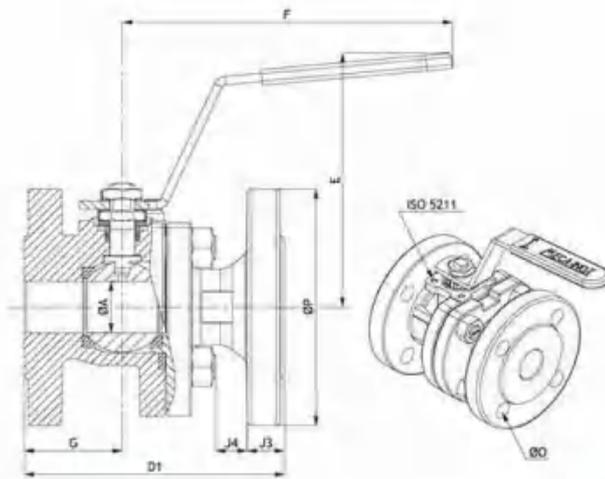
Size 1/2" to 2" : PN 40  
 Full Bore

### R2 DIN 短结构

DN 65 到 DN100 : PN 40  
 DN 100 到 DN150 : PN 16  
 口径

### R2 DIN short pattern

Size 2"1/2 to 4" : PN 40  
 Size 4" to 6" : PN 16  
 Full bore



### 短结构 PN 40

### Short pattern PN 40

尺寸 Size	PN	ØA	D1	E	F	G	J3	J4	Ø0	ØP	ISO 5211	重量(公斤) Weight (Kg)
15 1/2"	40	14	115	109	118	46	16	15.7	4xØ14 / Ø65	95	F03	2.710
20 3/4"	40	19	120	118	158	49.5	18	14	4xØ14 / Ø75	105	F04	3.880
25 1"	40	25	125	122	158	47.5	18	13.5	4xØ14 / Ø85	115	F04	5.190
32 1"1/4	40	32	130	136	188	47	18	15.1	4xØ18 / Ø100	140	F05	7.200
40 1"1/2	40	38	140	141	188	56	18	15.1	4xØ18 / Ø110	150	F05	8.400
50 2"	40	50	150	146	225	56.5	20	17.1	4xØ18 / Ø125	165	F07	12.455

尺寸 Size	PN	ØA	D1	E	E1	F	G	J3	J4	Ø0	ØP	ISO 5211	重量(公斤) Weight (Kg)
65 2"1/2	40	64	170	173	155	370	67	24	21	8xØ18 / Ø145	185	F07	18.366
80 3"	40	76	180	183	165	370	76	24	21	8xØ18 / Ø160	200	F10	25.796
100 4"	40	100	190	210	190	505	81	24	19	8xØ22 / Ø190	235	F10	34.923

### 短结构 PN 16

### Short pattern PN 16

尺寸 Size	PN	ØA	D1	E	E1	F	G	J3	J4	Ø0	ØP	ISO 5211	重量(公斤) Weight (Kg)
100 4"	16	100	190	210	190	505	91	20	18	8xØ18 / Ø180	220	F10	31.450
150 6"	16	150	350	270	242	700	129	22	-	8xØ22 / Ø240	285	F12	75.000

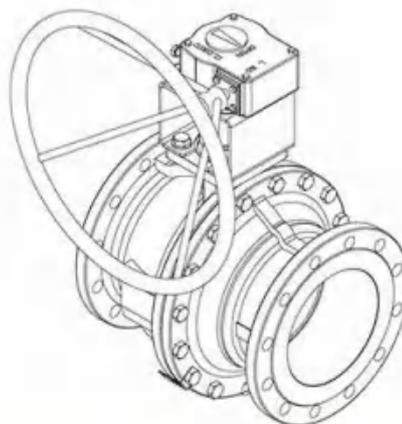
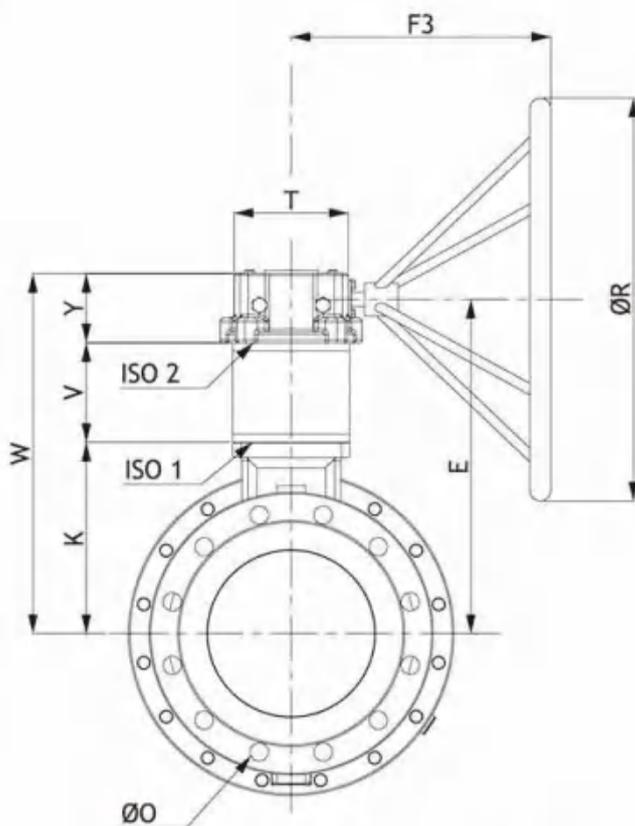
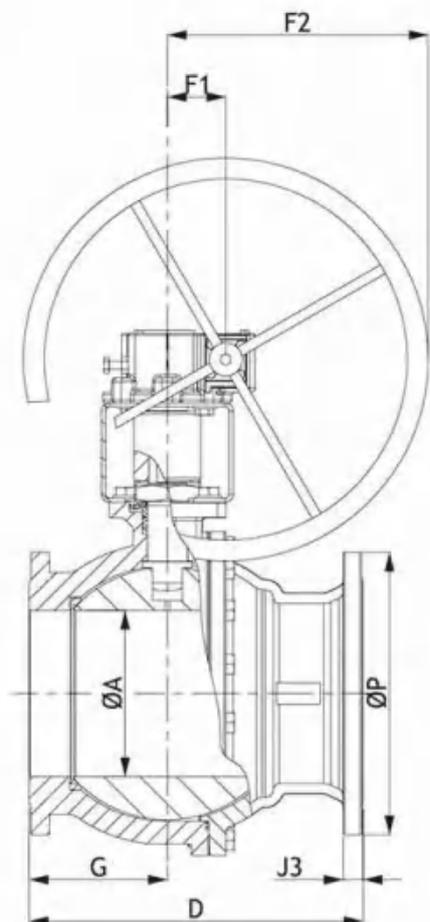
连接标准  
TYPE OF CONNECTION

R2 DIN 短结构

DN 200 : PN 16  
通径

R2 DIN short pattern

Size 8" : PN 16  
Full Bore



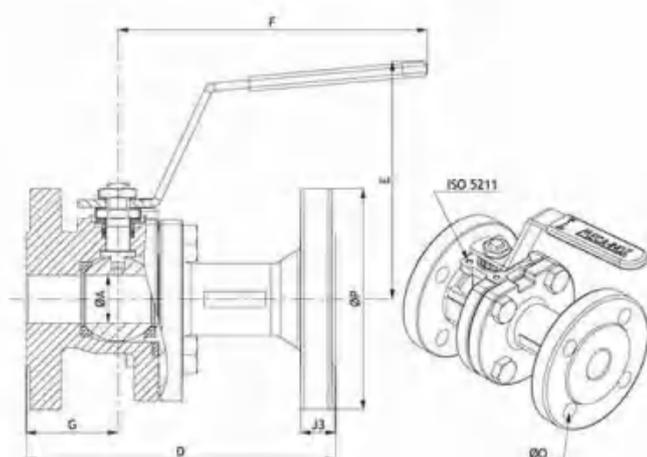
尺寸 Size	PN	ØA	D	K	E	F1	F2	F3	G	J3	Ø0	ØP	T	ISO 1 5211	ISO 2 5211	V	ØR	W	Y	重量(公斤) Weight (Kg)	
200	8"	16	200	400	230	400	70	312.5	310	165.5	24	12 x Ø22 / Ø259	340	140	F14	F12	120	485	433	83	135.000

### R2 DIN 长结构

DN 15 到 DN 50 : PN 40  
 口径

### R2 DIN long pattern

Size 1/2" to 2" : PN 40  
 Full bore

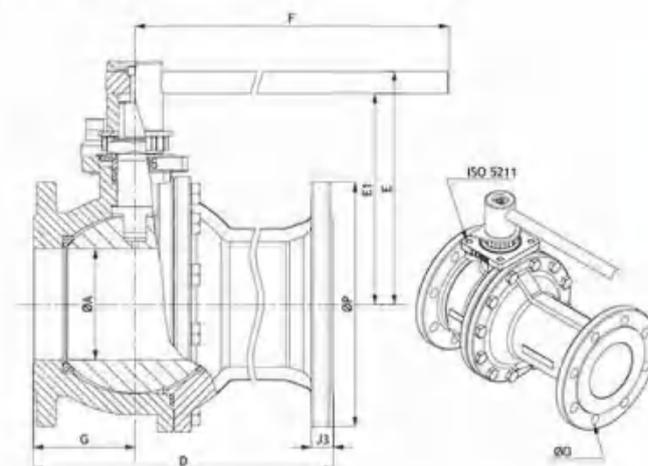


### R2 DIN 长结构

DN 65 到 DN 100 : PN 40  
 DN 100 : PN 16  
 口径

### R2 DIN long pattern

Size 2 1/2" to 4" : PN 40  
 Size 4" : PN 16  
 Full bore



2-PCS

### 长结构 PN 40

### Long pattern PN 40

尺寸 Size	PN	ØA	D	E	F	G	J3	Ø0	ØP	ISO 5211	重量(公斤) Weight (Kg)	
15	1/2"	40	14	130	109	118	46	16	4xØ14 / Ø65	95	F03	2.770
20	3/4"	40	19	150	118	158	49.5	18	4xØ14 / Ø75	105	F04	4.200
25	1"	40	25	160	122	158	47.5	18	4xØ14 / Ø85	115	F04	5.230
32	1 1/4"	40	32	180	136	188	47	18	4xØ18 / Ø100	140	F05	7.650
40	1 1/2"	40	38	200	141	188	56	18	4xØ18 / Ø110	150	F05	8.935
50	2"	40	50	230	146	225	56.5	20	4xØ18 / Ø125	165	F07	13.355

尺寸 Size	PN	ØA	D	E	E1	F	G	J3	Ø0	ØP	ISO 5211	重量(公斤) Weight (Kg)
65	2 1/2"	40	64	290	173	155	370	67	8xØ18 / Ø145	185	F07	19.453
80	3"	40	76	310	183	165	370	76	8xØ18 / Ø160	200	F10	27.361
100	4"	40	100	350	210	190	505	81	8xØ22 / Ø190	235	F10	37.360

### 长结构 PN 16

### Long pattern PN 16

尺寸 Size	PN	ØA	D	E	E1	F	G	J3	Ø0	ØP	ISO 5211	重量(公斤) Weight (Kg)	
100	4"	16	100	350	210	190	505	81	20	8xØ18 / Ø180	220	F10	35.790

## 两片式美标球阀

### 2-PIECE BALL VALVE ANSI DIRECT MOUNTING TYPE

DN 15 到 DN 200

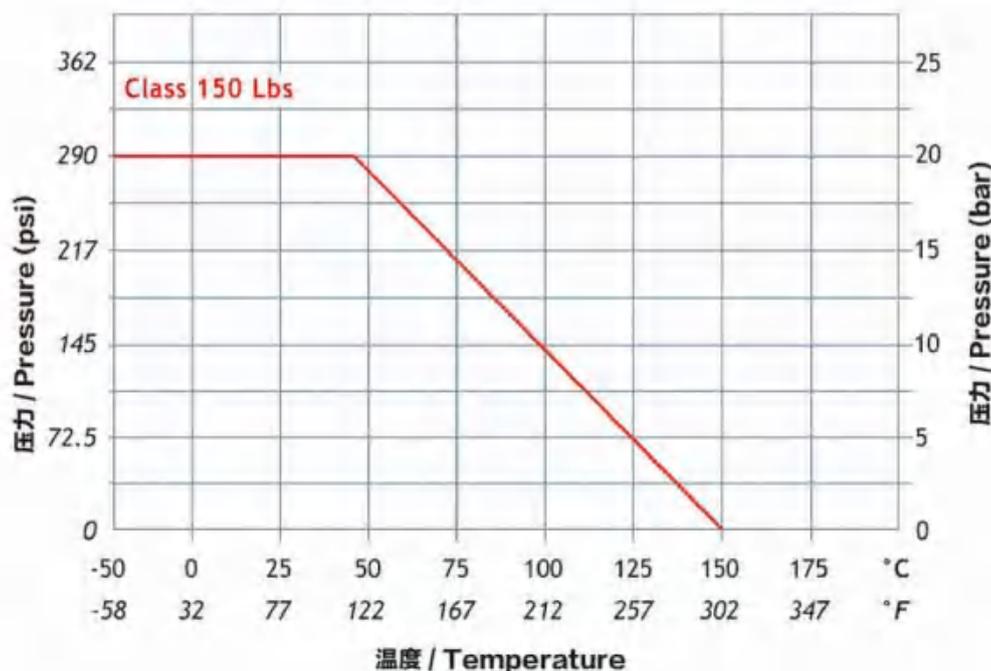
Size 1/2" to 8"

ANSI 150 磅 / PN 20  
口径

ANSI 150 lbs / PN 20  
Full bore

编号	数量	零部件名称	材质 (EN)		Item	Qty	Description	Material (ASTM)	
			不锈钢	碳钢				Stainless steel	Carbon steel
03	1	阀体	1.4408	WCB	03	1	Body	CF8M	WCB
04	1	阀杆密封	PTFE + PEEK	PTFE + PEEK	04	1	Stem thrust seal	PTFE + PEEK	PTFE + PEEK
05	1	阀杆	1.4401	1.4301	05	1	Stem	316	304
06	1	填料	PTFE	PTFE	06	1	Gland packing	PTFE	PTFE
07	4	弹簧垫片	1.4301	1.4301	07	4	Spring washer	304	304
08	2	阀座	PTFE	PTFE	08	2	Seat	PTFE	PTFE
09	1	阀球	1.4408	CF8M	09	1	Ball	CF8M	CF8M
10	1	阀盖	1.4408	WCB	10	1	Cap	CF8M	WCB
13	4	螺栓 (DN15 到 DN80 阀门)	1.4301	碳钢	13	4	Bolt (1/2" to 3" valves)	304	Carbon steel
	8	螺栓 (DN100 到 DN200 阀门)	1.4301	碳钢				304	Carbon steel
14	1	阀体密封	PTFE	PTFE	14	1	Gasket	PTFE	PTFE
15	1	手柄	1.4301	1.4301	15	1	Handle	304	304
16	1	手柄螺母	1.4301	1.4301	16	1	Handle nut	304	304
18	1	压盖螺母	1.4301	1.4301	18	1	Nut gland	304	304
19	1	螺母止动片	1.4301	1.4301	19	1	Stop screw	304	304
22	1	螺栓 (DN65 到 DN200 阀门)	1.4301	1.4301	22	1	Lever screw (2" 1/2 to 8" valves)	304	304
24	1	填料压盖	1.4301	1.4301	24	1	Gland	304	304
27	1	手柄套	塑料	塑料	27	1	Handle cover	Plastic	Plastic
29	1	联接器 (DN65 到 DN200 阀门)	1.4301	1.4301	29	1	Coupling (2" 1/2 to 8" valves)	304	304
32	1	阀杆 O 型圈	氟橡胶	氟橡胶	32	1	Stem O'ring	Viton	Viton

压力-温度图 Pressure / Temperature diagram

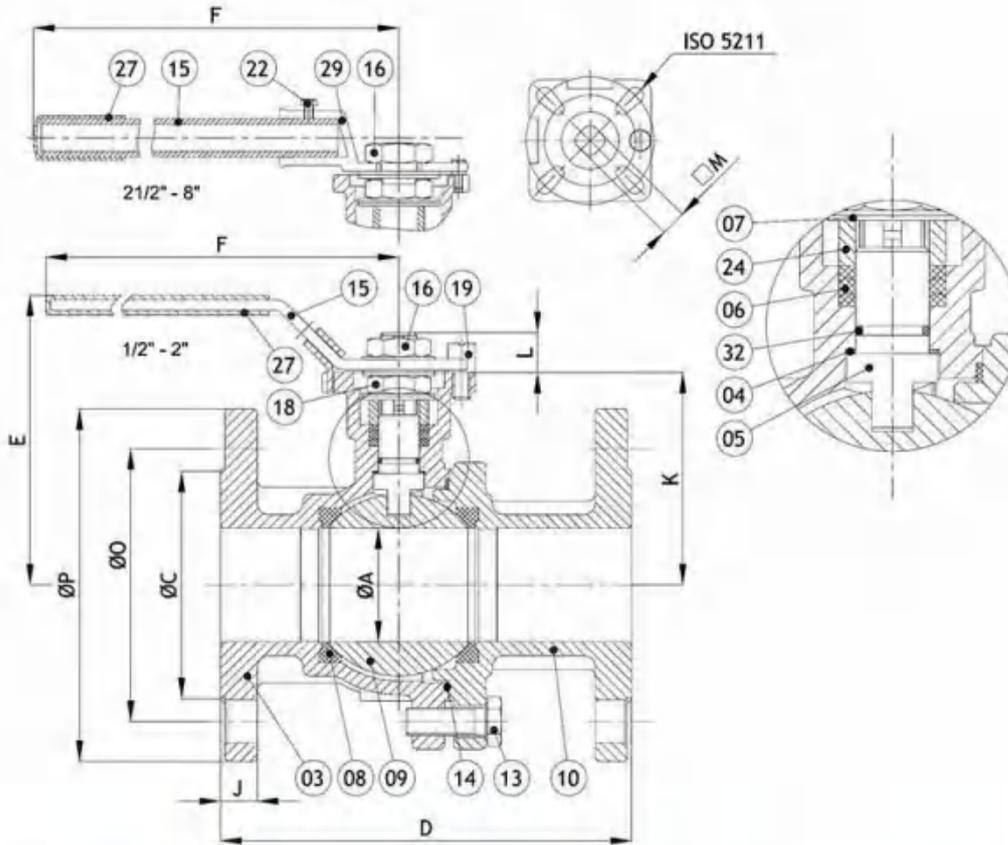


#### DN 15 到 DN 200

ANSI 150磅 / PN 20  
 口径

#### Size 1/2" to 8"

ANSI 150 lbs / PN 20  
 Full bore



2-PCS

尺寸 / Size:	ØA	ØC	D	E	F	J	K	L	ØM	Holes ØO	ØP	ISO5211
15 1/2"	15	35	108	84	123	11.1	55	9	9	4xØ16 / Ø60.5	89	F03 / F04
20 3/4"	20	43	117	94	123	11.1	66.5	9	9	4xØ16 / Ø70	98	F03 / F04
25 1"	25	51	127	101	153	11.1	66.5	11	11	4xØ16 / Ø79.5	108	F04 / F05
32 1 1/4"	32	64	140	108	153	12.7	74	11	11	4xØ16 / Ø89.5	117	F04 / F05
40 1 1/2"	40	73	165	121	183	14.3	85.5	14	14	4xØ16 / Ø98.5	127	F05 / F07
50 2"	50	92	178	127	183	15.9	92.5	14	14	4xØ19 / Ø120.5	152	F05 / F07
65 2 1/2"	65	105	190	154	352	17.5	113	17	17	4xØ19 / Ø139.5	178	F07 / F10
80 3"	80	127	203	165	352	19.1	124.5	17	17	4xØ19 / Ø152.5	190	F07 / F10
100 4"	100	157	229	183	397	23.9	142.5	22	22	8xØ19 / Ø190.5	229	F10 / F12
150 6"	150	216	394	248	708	25.4	201	27	27	8xØ22 / Ø241.5	279	F10 / F12
200 8"	200	270	457	304	920	28.6	259	36	36	8xØ22 / Ø298.5	343	F14

## 两片式美标球阀

### 2-PIECE BALL VALVE ANSI DIRECT MOUNTING TYPE

DN 15 到 DN 100

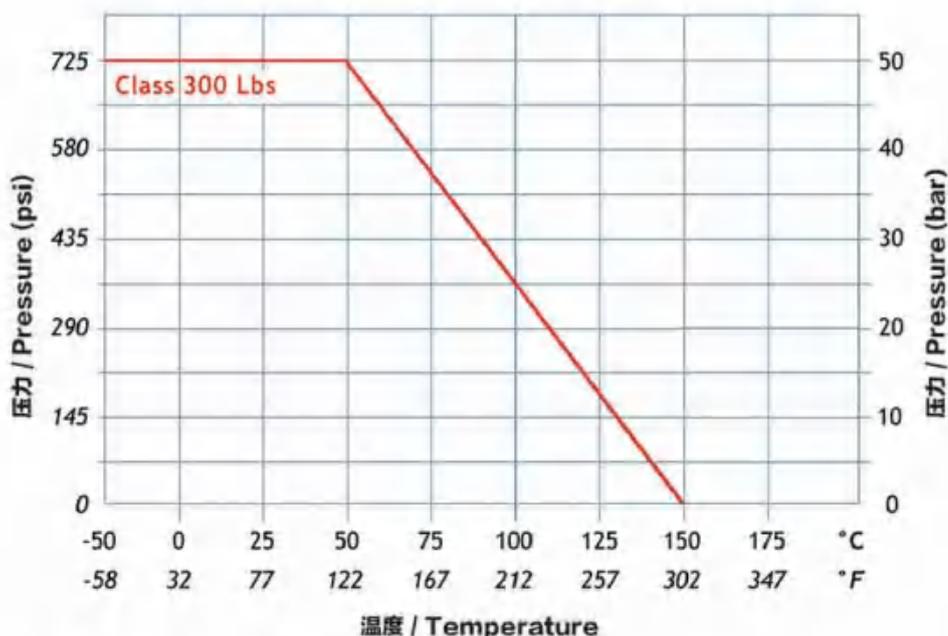
ANSI 300 磅 / PN 50  
通径

Size 1/2" to 4"

ANSI 300 lbs / PN 50  
Full bore

编号	数量	零部件名称	材质 (EN)		Item	Qty	Description	Material (ASTM)	
			不锈钢	碳钢				Stainless steel	Carbon steel
03	1	阀体	1.4408	WCB	03	1	Body	CF8M	WCB
04	1	阀体密封	RPTFE	RPTFE	04	1	Stem thrust seal	RPTFE	RPTFE
05	1	阀杆	1.4401	1.4301	05	1	Stem	316	304
06	1	填料	PTFE	PTFE	06	1	Gland packing	PTFE	PTFE
07	4	弹簧垫片	1.4301	1.4301	07	4	Spring washer	304	304
08	2	阀座	PTFE	PTFE	08	2	Seat	PTFE	PTFE
09	1	阀球	1.4408	1.4308	09	1	Ball	CF8M	CF8M
10	1	阀盖	1.4408	WCB	10	1	Cap	CF8M	WCB
	4	螺栓 (DN 15 到 DN 50 阀门)	1.4301	1.4301		4	Bolt (1/2" to 2" valves)	304	304
	6	螺栓 (DN 65 到 DN 80 阀门)	1.4301	1.4301		6	Bolt (2" 1/2 to 3" valves)	304	304
	8	螺栓 (DN 100 阀门)	1.4301	1.4301		8	Bolt (4" valves)	304	304
14	1	阀体密封	PTFE	PTFE	14	1	Gasket	PTFE	PTFE
15	1	手柄	1.4301	1.4301	15	1	Handle	304	304
	4	螺母 (DN 15 到 DN 50 阀门)	1.4301	1.4301		4	Nut (1/2" to 2" valves)	304	304
	6	螺母 (DN 65 到 DN 80 阀门)	1.4301	1.4301		6	Nut (2" 1/2 to 3" valves)	304	304
	8	螺母 (DN 100 阀门)	1.4301	1.4301		8	Nut (4" valves)	304	304
18	1	压盖螺母	1.4301	1.4301	18	1	Gland nut	304	304
19	1	限位销	1.4301	1.4301	19	1	Stop screw	304	304
22	1	手柄螺栓	1.4301	1.4301	22	1	Lever screw (2" 1/2 to 8" valves)	304	304
24	1	填料压盖	1.4301	1.4301	24	1	Gland	304	304
27	1	手柄套	塑料	塑料	27	1	Handle cover	Plastic	Plastic
30	1	止动垫圈	1.4301	1.4301	30	1	Nut Stop	304	304
32	1	阀杆 O 型圈	氟橡胶	氟橡胶	32	1	Stem O'ring	Viton	Viton

压力-温度图 Pressure / Temperature diagram



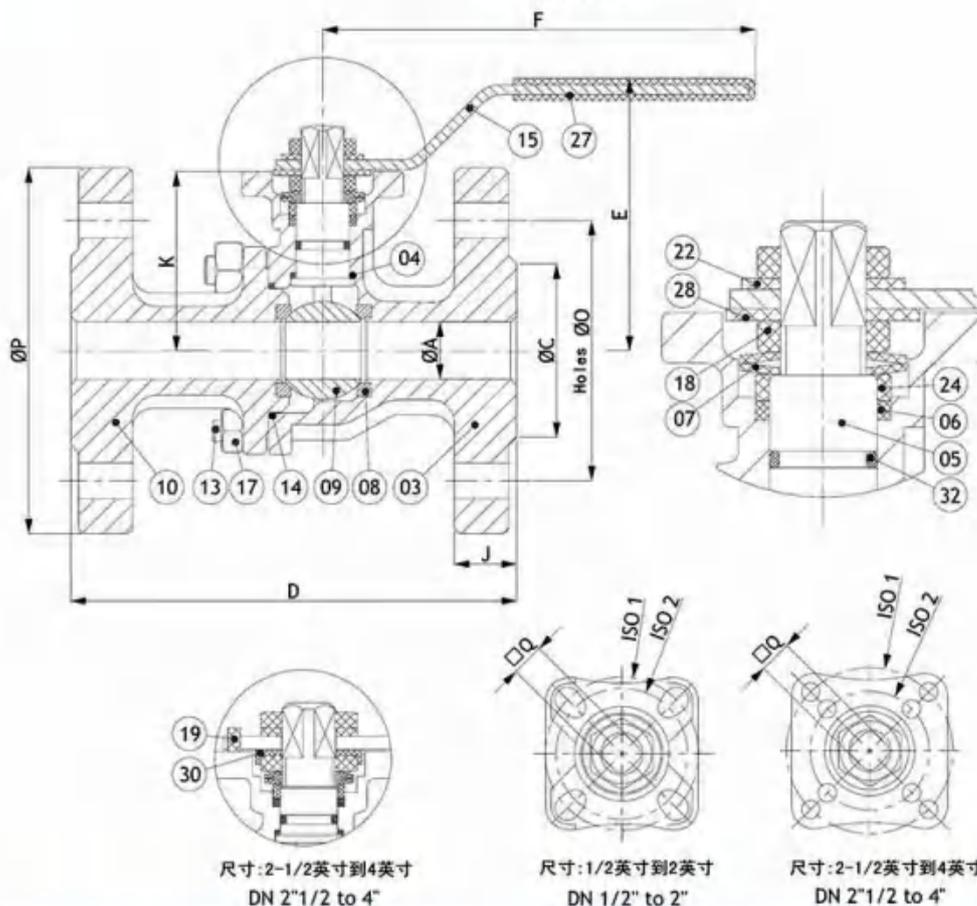
## 两片式美标球阀 2-PIECE BALL VALVE ANSI DIRECT MOUNTING TYPE

DN 15 到 DN 100

ANSI 300 磅 / PN 50  
口径

Size 1/2" to 4"

ANSI 300 lbs / PN 50  
Full bore



尺寸: 2-1/2英寸到4英寸  
DN 2"1/2 to 4"

尺寸: 1/2英寸到2英寸  
DN 1/2" to 2"

尺寸: 2-1/2英寸到4英寸  
DN 2"1/2 to 4"

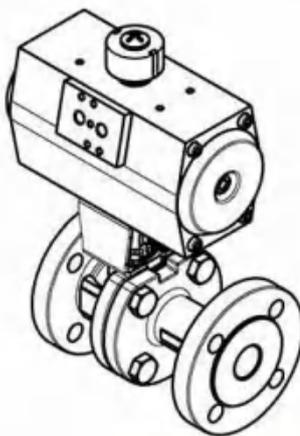
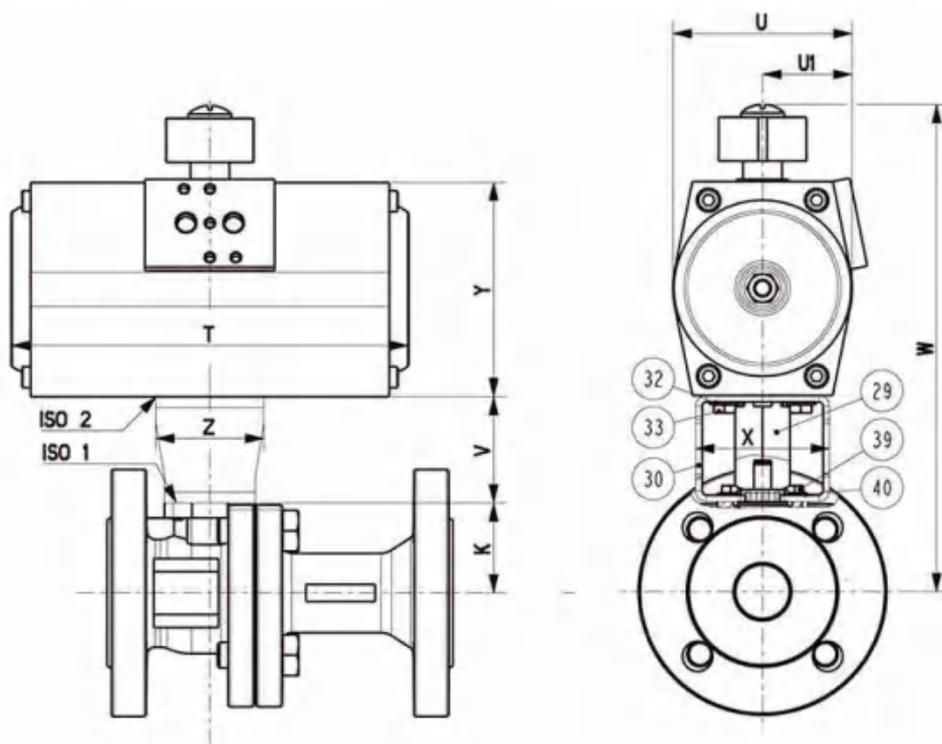
尺寸 / Size	ØA	ØC	D	E	F	J	K	ØO	ØP	ØQ	ISO 1 5211	ISO 2 5211
15 1/2"	15	35	140	59	110	14.3	46.5	4 x Ø16 / Ø60.5	89	9	F04	-
20 3/4"	20	43	152	94	110	15.9	51.5	4 x Ø16 / Ø70	98	9	F04	F05
25 1"	25	51	165	95	136	17.5	57.5	4 x Ø16 / Ø79.5	108	11	F04	F05
40 1"1/2	40	73	190	110.7	203	20.7	76.5	4 x Ø16 / Ø98.5	127	14	F05	F07
50 2"	50	92	216	117.7	203	22.3	83.5	4 x Ø19 / Ø120.5	152	14	F05	F07
65 2"1/2	65	105	241	155.5	277.5	25.4	118.5	4 x Ø19 / Ø139.5	178	17	F07	F10
80 3"	80	127	283	166.5	277.5	28.6	129.5	4 x Ø19 / Ø152.5	190	17	F07	F10
100 4"	100	157	305	182	377.5	31.8	145	8 x Ø19 / Ø190.5	229	22	F07	F10

R2 气动连接件

DN 15 到 DN 50

R2 actuated components

Size 1/2" to 2"



DN 15 到 DN 50

Size 1/2" to 2"

编号	数量	部件名称	材质 (EN)
29	1	连接杆	1.4307
30	1	支架	1.4307
32	4	平垫圈(气缸侧)	1.4301
33	4	螺钉(气缸侧)	1.4301
39	4	螺钉(阀门侧)	1.4301
40	4	平垫圈(阀门侧)	1.4301

Item	Qty	Description	Material (ASTM)
29	1	Coupling	304L
30	1	Bracket	304L
32	4	Ring (actuator side)	304
33	4	Screw (actuator side)	304
39	4	Screw (valve side)	304
40	4	Ring (valve side)	304

### R2S/R2H 气动参数

DN 15 到 DN 50

### R2S/R2H actuated

Size 1/2" to 2"

#### R2S / R2H 单作用气动执行器型号 *Spring Return type on R2S/R2H*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
15 1/2"	31	F03	2MICA-052SR12	F05	146	59	29.5	47	182	62	74	50
20 3/4"	37.9	F04	2MICA-063SR12	F05	168	72	36	49.5	205.4	62	88	50
25 1"	42	F04	2MICA-075SR12	F05	184	83	41.5	49.5	221.5	62	100	50
32 1 1/4"	54	F05	2MICA-083SR12	F07	204	90	45	49.5	242.5	82	109	69
40 1 1/2"	59	F05	2MICA-092SR12	F07	260	104	52	49.5	258.5	82	120	69
50 2"	83	F07	2MICA-092SR12	F07	260	104	52	79.5	312.5	85	120	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar / Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2S / R2H 双作用气动执行器型号 *Double Acting type on R2S/R2H*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
15 1/2"	31	F03	2MICA-045DA	F04	146	58	29	47	173	62	65	50
20 3/4"	37.9	F04	2MICA-045DA	F04	146	58	29	49.5	182.4	62	65	50
25 1"	42	F04	2MICA-052DA	F04	146	59	29.5	49.5	195.5	62	74	50
32 1 1/4"	54	F05	2MICA-063DA	F05	168	72	36	49.5	221.5	62	88	50
40 1 1/2"	59	F05	2MICA-063DA	F05	168	72	36	49.5	226.5	62	88	50
50 2"	83	F07	2MICA-063DA	F05	168	72	36	79.5	280.5	85	88	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar. / Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2S/R2H $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
15 F03	6	2MICA-045DA KPNi410 0511	2MICA-052SR12 KPNi410 0511
20 F04	6	2MICA-045DA KPNi420 0511	2MICA-063SR12 KPNi420 0514
25 F04	6	2MICA-052DA KPNi420 0511	2MICA-075SR12 KPNi420 0514
32 F05	6	2MICA-063DA KPNi432 0514	2MICA-083SR12 KPNi432 0717
40 F05	6	2MICA-063DA KPNi432 0514	2MICA-092SR12 KPNi432 0717
50 F07	6	2MICA-063DA KPNi450 0514	2MICA-092SR12 KPNi450 0717

## 气动执行器 PNEUMATIC ACTUATION

### R2Z 气动参数

DN 15 到 DN 50

### R2Z actuated

Size 1/2" to 2"

#### R2Z 单作用气动执行器型号 *Spring Return type on R2Z*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
15 1/2"	31	F03	2MICA-063SR12	F05	168	72	36	47	196	62	88	50
20 3/4"	37.9	F04	2MICA-075SR12	F05	184	83	41.5	49.5	217.4	62	100	50
25 1"	42	F04	2MICA-083SR12	F07	204	90	45	49.5	230.5	82	109	69
32 1 1/4"	54	F05	2MICA-083SR12	F07	204	90	45	49.5	242.5	82	109	69
40 1 1/2"	59	F05	2MICA-092SR12	F07	260	104	52	49.5	258.5	82	120	69
50 2"	83	F07	2MICA-105SR12	F10	268	115	57.5	79.5	325.5	120	133	105

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2Z 双作用气动执行器型号 *Double Acting type on R2Z*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
15 1/2"	31	F03	2MICA-045DA	F05	146	58	29	47	173	62	65	50
20 3/4"	37.9	F04	2MICA-052DA	F05	146	59	29.5	49.5	191.4	62	74	50
25 1"	42	F04	2MICA-063DA	F05	168	72	36	49.5	209.5	62	88	50
32 1 1/4"	54	F05	2MICA-063DA	F05	168	72	36	49.5	221.5	62	88	50
40 1 1/2"	59	F05	2MICA-063DA	F05	168	72	36	49.5	226.5	62	88	50
50 2"	83	F07	2MICA-075DA	F05	184	83	41.5	79.5	292.5	85	100	69

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

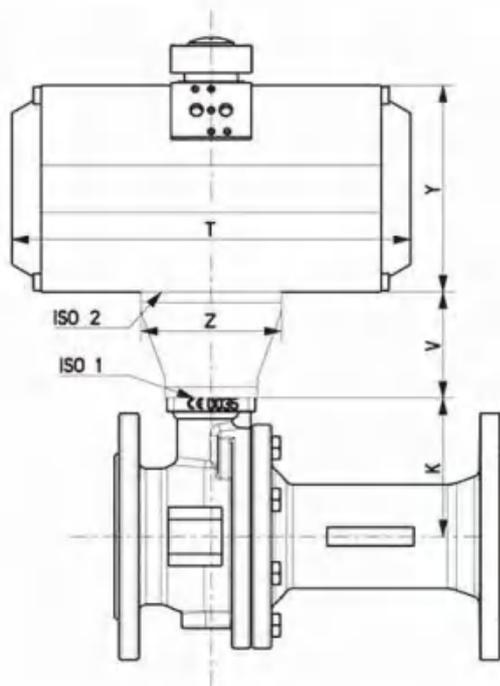
#### R2Z $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
15 F03	6	2MICA-45DA KPNI410 0511	2MICA-063SR12 KPNI410 0514
20 F04	6	2MICA-052DA KPNI420 0511	2MICA-075SR12 KPNI420 0514
25 F04	6	2MICA-063DA KPNI420 0514	2MICA-083SR12 KPNI420 0717
32 F05	6	2MICA-063DA KPNI432 0514	2MICA-083SR12 KPNI432 0717
40 F05	6	2MICA-063DA KPNI432 0514	2MICA-092SR12 KPNI432 0717
50 F07	6	2MICA-075DA KPNI450 0514	2MICA-105SR12 KPNI450 1022

气动执行器  
PNEUMATIC ACTUATION

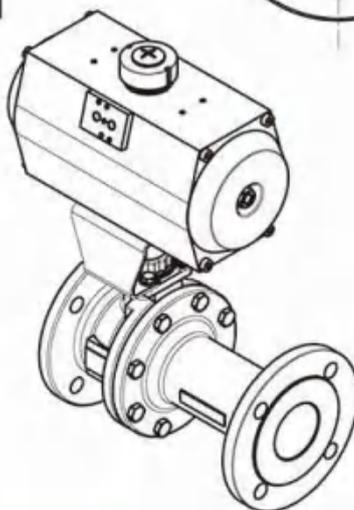
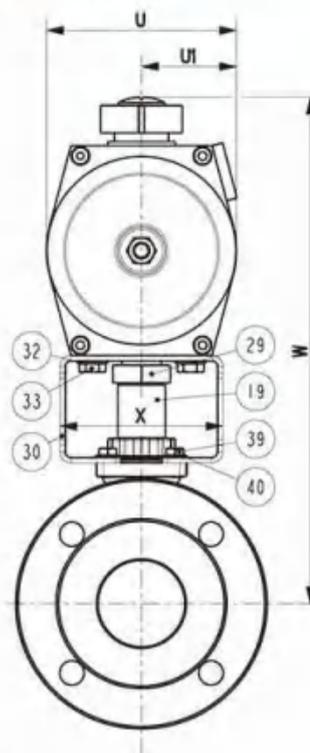
R2 气动连接件

DN 65 到 DN 200



R2 ACTUATION components

Size 2"1/2 to 8"



DN 65 到 DN 200

编号	数量	部件名称	材质 (EN)
19	1	手柄连接套	1.4305
29	1	连接杆	1.4307
30	1	支架	1.4307
32	4	平垫圈(气缸侧)	1.4301
33	4	螺钉(气缸侧)	1.4301
39	4	螺钉(阀门侧)	1.4301
40	4	平垫圈(阀门侧)	1.4301

Size 2"1/2 to 8"

Item	Qty	Description	Material (ASTM)
19	1	Handle adaptor	303
29	1	Coupling	304L
30	1	Bracket	304L
32	4	Ring (actuator side)	304
33	4	Screw (actuator side)	304
39	4	Screw (valve side)	304
40	4	Ring (valve side)	304

2-PCS

## 气动执行器 PNEUMATIC ACTUATION

### R2S/R2H 气动参数

DN 65 到 DN 200

### R2S/R2H actuated

Size 2" 1/2 to 8"

#### R2S / R2H 单作用气动执行器型号 *Spring Return type on R2S/R2H*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
65 2"1/2	104	F07	2MICA-125SR12	F10	298	140	70	79.5	368.5	120	155	105
80 3"	114	F10	2MICA-125SR12	F10	298	140	70	79.5	378.5	120	155	95
100 4"	133	F10	2MICA-125SR12	F10	298	140	70	79.5	397.5	120	155	95
150 6"	180	F12	2MICA-190SR12	F14	525	206	103	99.5	539.5	158	230	140
200 8"	230	F14	2MICA-210SR12	F14	532	226	113	120	635	158	255	140

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2S / R2H 双作用气动执行器型号 *Double Acting type on R2S/R2H*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
65 2"1/2	104	F07	2MICA-083DA	F07	204	90	45	79.5	322.5	85	109	69
80 3"	114	F10	2MICA-083DA	F07	204	90	45	79.5	332.5	85	109	69
100 4"	133	F10	2MICA-092DA	F07	260	104	52	79.5	362.5	120	120	105
150 6"	180	F12	2MICA-140DA	F12	390	152	76	99.5	481	144	171.5	118
200 8"	230	F14	2MICA-160DA	F12	458	175.8	87.9	120	577	158	197	140

以上数据基于：阀门上下游压差最大值  $\Delta P=7$  bar，气源压力为 6 bar。/ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2S/R2H $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
65 F07	6	2MICA-083DA KPNi2P065 0717	2MICA-125SR12 KPNi2P065 1022
80 F10	6	2MICA-083DA KPNi2P080 0717	2MICA-125SR12 KPNi2P080 1022
100 F10	6	2MICA-092DA KPNi2P100 0717	2MICA-125SR12 KPNi2P100 1022
150 F12	6	2MICA-140DA KPNi2P125 1227	2MICA-190SR12 KPNi2P125 1436
200 F14	6	2MICA-160DA KPNi2P200 1227	2MICA-210SR12 KPNi2P200 1436

### R2Z 气动参数

DN 65 到 DN 200

### R2Z actuated

Size 2"1/2 to 8"

#### R2Z 单作用气动执行器型号 *Spring Return type on R2Z*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
65 2"1/2	104	F07	2MICA-125SR12	F10	298	140	70	79.5	368.5	120	155	105
80 3"	114	F10	2MICA-125SR12	F10	298	140	70	79.5	378.5	120	155	95
100 4"	133	F10	2MICA-140SR12	F10	390	152	76	79.5	414	136	171.5	118
150 6"	180	F12	-	-	-	-	-	-	-	-	-	-
200 8"	220	F14	-	-	-	-	-	-	-	-	-	-

以上数据基于：阀门上下游压差最大值 $\Delta P=7$  bar，气源压力为 6 bar./ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2Z 双作用气动执行器型号 *Double Acting type on R2Z*

尺寸 / Size	K	ISO 1	气动执行器 Actuator	ISO 2	T	U	U1	V	W	X	Y	Z
65 2"1/2	104	F07	2MICA-083DA	F07	204	90	45	79.5	322.5	85	109	69
80 3"	114	F10	2MICA-092DA	F07	260	104	52	79.5	343.5	85	120	69
100 4"	133	F10	2MICA-092DA	F07	260	104	52	79.5	362.5	120	118.5	105
150 6"	180	F12	-	-	-	-	-	-	-	-	-	-
200 8"	-	-	-	-	-	-	-	-	-	-	-	-

以上数据基于：阀门上下游压差最大值 $\Delta P=7$  bar，气源压力为 6 bar./ Values given for service pressure at:  $P=7$  bar max and 6 bar air supply

#### R2Z $\Delta P=7$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
65 F07	6	2MICA-083DA KPN12P065 0717	2MICA-125SR12 KPN12P065 1022
80 F10	6	2MICA-092DA KPN12P080 0717	2MICA-125SR12 KPN12P080 1022
100 F10	6	2MICA-092DA KPN12P100 0717	2MICA-140SR12 KPN12P100 1227
150 F12	6	-	-
200 F14	6	-	-



**DN 08 到 DN 200**

卫生级球阀  
全机加工球阀  
V型球调节阀  
罐底阀  
取样阀  
双锁泄放阀  
夹套阀  
止回阀, 窥视镜, 过滤器  
经济型球阀

**Size 1/4" to 8"**

Clean fluid valve  
Machined valve  
V-ball valve  
Tank bottom valve  
Sampling ball valve  
Double block and bleed  
Steam jacketed valve  
Check valve, sight glass, filter  
Economic valve



卫生级球阀  
Sanitary valve



双锁泄放阀  
Double block and bleed



取样阀  
Sampling ball valve



罐底阀  
Tank bottom valve

卫生级球阀  
**CLEAN FLUID VALVE**

MS4/MY4轨道自动焊

DN 08 到 DN 50

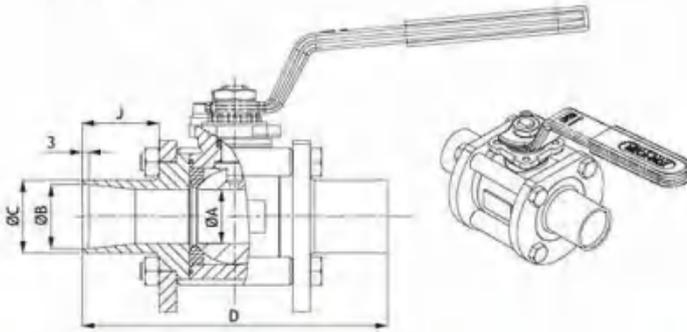
PN4 | Orbital welding

Size 1/4" to 2"



标准:  
 口径  
 ISO 管道  
 不锈钢可锁止手柄  
 阀球和连接端内抛光至 Ra0.4  
 清洗后用单独的塑料袋包装  
 套管采用不锈钢

可选项:  
 其他尺寸根据要求定制  
 连接端采用 1.4435 材质(铁素体含量低)  
 全口径



尺寸 Size	PN	Ø A	Ø B (ISO)	Ø C (Std)	D	J
08 1/4"	100	11.1	10.3	13.5	113	35
12 3/8"	100	11.1	14	17.2	113	35
15 1/2"	100	14	18.1	21.3	117	35
20 3/4"	100	19	23.7	26.9	130	35
25 1"	70	25	29.7	33.7	140	35
32 1 1/4"	70	32	38.4	42.4	151	35
40 1 1/2"	50	38	43.1	48.3	159	35
50 2"	50	50	54.5	60.3	185	35

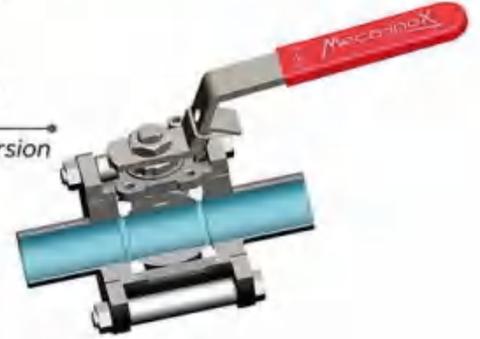
MS4/MY4轨道自动焊

DN 65 到 DN 150

PN4 | Orbital welding

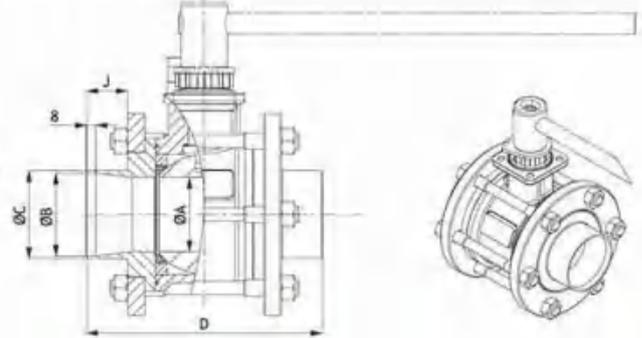
Size 2 1/2 to 6"

全口径可定制  
 "True bore" version  
 on request



Standard:  
 Full bore  
 ISO pipe  
 Stainless steel lockable handle  
 Ball & ends polished inside to surface finishing 0,4µm  
 Cleaned and packed in individual plastic bag  
 Distance piece in stainless steel

On request:  
 Other sizes available  
 Ends in 1.4435 (BN2 low ferrite)  
 "True bore" version



尺寸 Size	PN	Ø A	Ø B (ISO)	Ø C (Std)	D	J
65 2 1/2"	40	64	70.3	76.1	202	35
80 3"	40	76	83.1	88.9	228	35
100 4"	25	100	107.9	114.3	256	35
125 5"	25	125	133.7	139.7	291	35
150 6"	16	150	162.3	168.3	323	35

## 全机加工球阀 MACHINED BALL VALVE

### MS4 | MY4 | 对焊连接端

DN 08 到 DN 50

### MS4 | MY4 | Butt Weld ends BW

Size 1/4" to 2"



MS4 带活套法兰  
采用轨道自动焊连接端

MS4 with loose end  
orbital welding

#### 可定制

经 DNV (挪威船级社) 认证深冷低温阀门, 型号 (MY4 CY)  
根据“钢制船舶规范”(2011 年 1 月份颁布) 之第五部分-5 章-6 节  
固定法兰结构  
其他材质  
其他连接端类型

#### On request

Cryogenic version with DNV certification (MY4 CY)  
Rules for steel Ships January 2011 Part 5, Chap.5.sect.6-C800.  
Fixed end  
Other materials  
Other type of connections

MY4 CY 为 DNV 认证阀门  
采用固定法兰结构

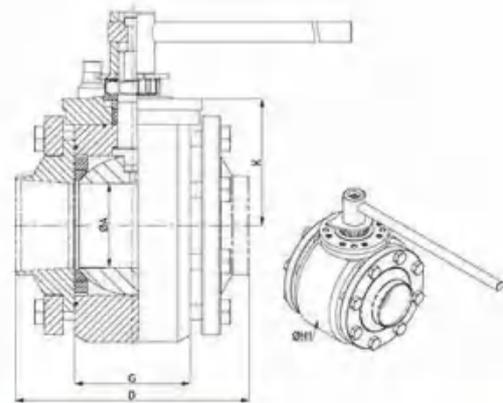
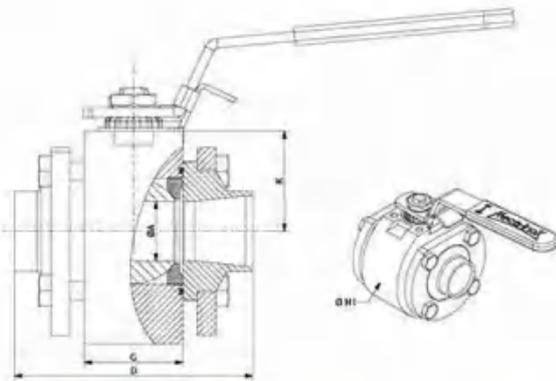
MY4 CY DNV certified  
with fixed end

### MS4 | MY4 | 对焊连接端

DN 65 到 DN 100

### MS4 | MY4 | Butt Weld ends BW

Size 2"1/2 to 4"



尺寸 Size	ØA	D	G	ØH1	K
08/10 1/4 - 3/8"	11.1	70	24.4	65	31
15 1/2"	14	70	24.4	65	31
20 3/4"	19	85	31.6	85	37.9
25 1"	25	100	41.4	95	42
32 1"1/4	32	110	48.2	120	54
40 1"1/2	38	125	56.2	130	59
50 2"	50	150	71	160	73

尺寸 Size	PN	ØA	D	G	ØH1	K
65 2"1/2	40	64	180	84	190	104
80 3"	40	76	210	104	210	114
100 4"	25	100	230	130	265	133

V型球阀  
V-BALL VALVE

DN 15 到 DN 50

20 % PEEK PTFE 阀座

Size 1/2" to 2"

20% PEEK PTFE seats



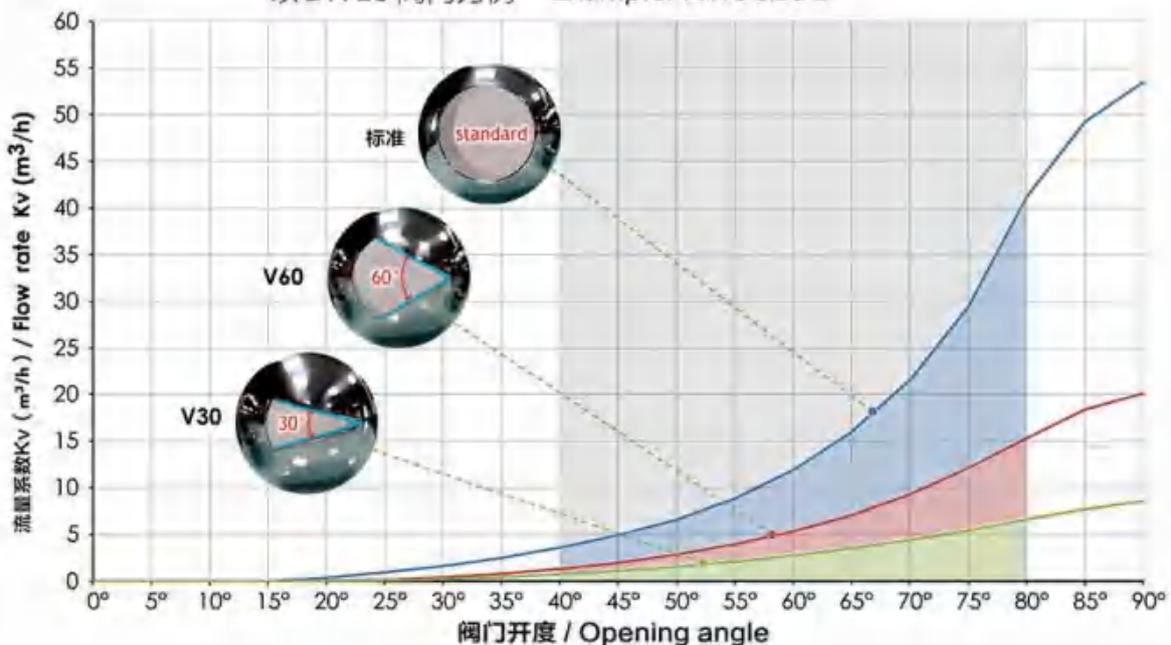
流量系数 / 阀门开度图表 **FLOW RATE / OPENING ANGLE DIAGRAM**

以 DN25 的球阀为例 *Reading example: valve 1"*  
V60 球阀, 在 50°开度下,  $K_v = 2,87 \text{ m}^3/\text{h}$  *V60 ball port, opening angle 50°,  $K_v = 2,87 \text{ m}^3/\text{h}$*

尺寸 Size	球阀类型 Ball type	流量系数 $K_v(\text{m}^3/\text{h})$ / 旋转度 / Flow rate ( $K_v \text{ m}^3/\text{h}$ ) per degree of rotation																	
		5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
15	standard	0.00	0.00	0.00	0.12	0.31	0.54	0.81	1.16	1.60	2.14	2.82	3.80	5.09	7.00	10.05	12.18	14.19	15.67
	V60	0.00	0.00	0.00	0.00	0.05	0.11	0.22	0.37	0.57	0.83	1.15	1.57	2.12	2.84	3.70	4.65	5.64	6.19
	V30	0.00	0.00	0.00	0.00	0.02	0.06	0.13	0.22	0.33	0.47	0.64	0.84	1.09	1.38	1.71	2.05	2.42	2.55
20	standard	0.00	0.00	0.00	0.10	0.39	0.76	1.23	1.84	2.62	3.54	4.86	6.52	8.78	12.64	16.57	23.22	27.71	31.55
	V60	0.00	0.00	0.00	0.01	0.04	0.17	0.35	0.62	0.99	1.46	2.07	2.85	3.86	5.15	6.79	8.60	10.46	11.23
	V30	0.00	0.00	0.00	0.00	0.02	0.09	0.20	0.35	0.56	0.81	1.12	1.50	1.94	2.46	3.06	3.71	4.39	4.71
25	standard	0.00	0.00	0.00	0.39	0.95	1.62	2.49	3.60	4.94	6.59	8.86	11.90	15.96	21.51	29.40	41.17	49.22	53.48
	V60	0.00	0.00	0.00	0.05	0.16	0.42	0.80	1.32	1.99	2.87	3.97	5.34	7.07	9.31	12.11	15.29	18.37	20.10
	V30	0.00	0.00	0.00	0.01	0.08	0.23	0.45	0.74	1.11	1.56	2.11	2.77	3.54	4.44	5.43	6.60	7.69	8.60
40	standard	0.00	0.00	0.80	1.60	2.95	4.58	6.61	8.95	12.20	16.30	22.13	28.71	37.62	50.81	69.54	99.93	119.26	132.37
	V60	0.00	0.00	0.05	0.25	0.71	1.41	2.39	3.74	5.46	7.54	10.12	13.33	17.23	22.10	28.11	35.38	42.13	44.70
	V30	0.00	0.00	0.00	0.12	0.38	0.77	1.31	2.02	2.89	3.96	5.53	6.76	8.52	10.50	12.75	15.17	17.56	19.01
50	standard	0.00	0.00	1.20	3.08	5.50	8.45	12.17	16.63	22.04	28.98	38.83	50.96	67.51	89.82	124.96	172.06	209.85	231.05
	V60	0.00	0.00	0.10	0.55	1.40	2.63	4.33	6.55	9.33	12.76	17.00	22.20	28.84	36.73	47.18	58.42	68.75	76.51
	V30	0.00	0.00	0.10	0.31	0.80	1.51	2.45	3.65	5.11	6.96	9.05	11.53	14.49	17.87	21.76	25.93	29.92	31.90

流量系数 / 阀门开度图表 **FLOW RATE / OPENING ANGLE DIAGRAM**

以 DN 25 阀门为例 *Example: valve size 1"*

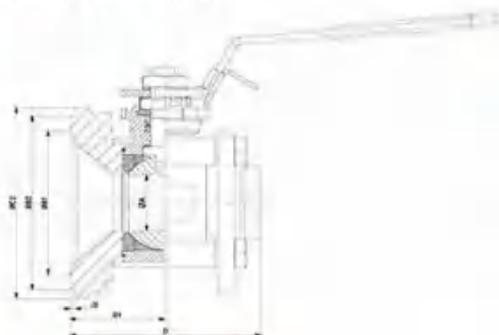


罐底阀

TANK BOTTOM VALVE

罐底阀

DN 10 到 DN 25



Tank bottom valve

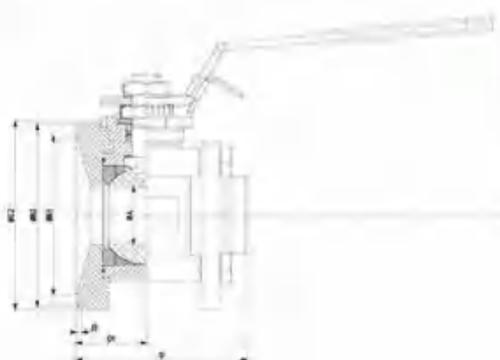
Size 3/8" to 1"

尺寸 / Size	ØA	ØB1	ØB2	ØC2	D	D1	J2
08/10 1/4"-3/8"	11.1	43	54.8	64.5	65	32.5	3
15 1/2"	14	50	64.8	74.5	69.5	34.5	3
20 3/4"	19	63	74.8	84.5	82.5	40	3
25 1"	25	71	84.8	94.5	95	45	3

罐底阀，无残留区域

DN 32 到 DN 50

带包覆阀座



Tank bottom valve without retention area

Size 1"1/4 to 2"

Valve mounted with cavity fillers

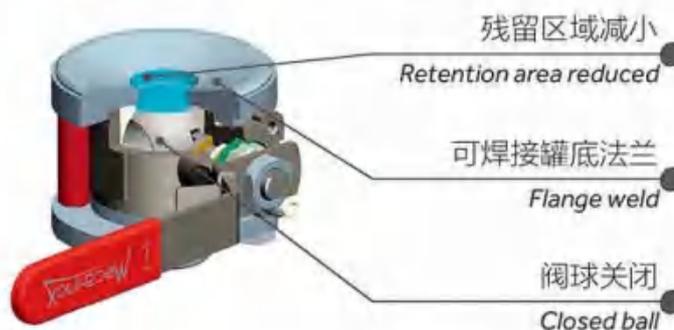
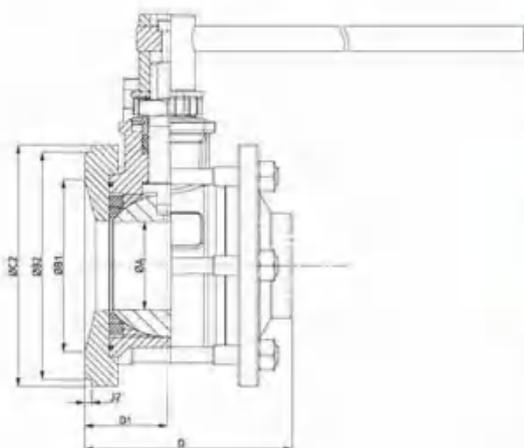
尺寸 / Size	ØA	ØB1	ØB2	ØC2	D	D1	J2
32 1"1/4	32	87.5	100	103.7	93.4	42.1	3
40 1"1/2	38	98	110	117	99.5	44.1	4
50 2"	50	126	138	148	124.5	55.5	6

DN 65 到 DN 100

带包覆阀座

Size 2"1/2 to 4"

Valve mounted with cavity fillers



PS4 FCSZ 型罐底阀的残留量是罐底连接管段再安装普通阀门其残留量的 1/10。

例如: DN 32 的罐底阀残留量仅仅是 4ml。

The volume retention of a PS4 FCSZ valve is 10 times smaller than a standard valve with tank bottom T piping. Example: the DN 32 volume retention is only 4 ml.

尺寸 / Size	ØA	ØB1	ØB2	ØC2	D	D1	J2
65 2"1/2	64	125	164.5	174.5	149.5	59.5	5
80 3"	76	167	190	198	170	65	4
100 4"	100	180	227	237	194	79	5

冲洗阀  
**FLUSH BALL VALVE**

管道尺寸 DN 80 到 DN 200

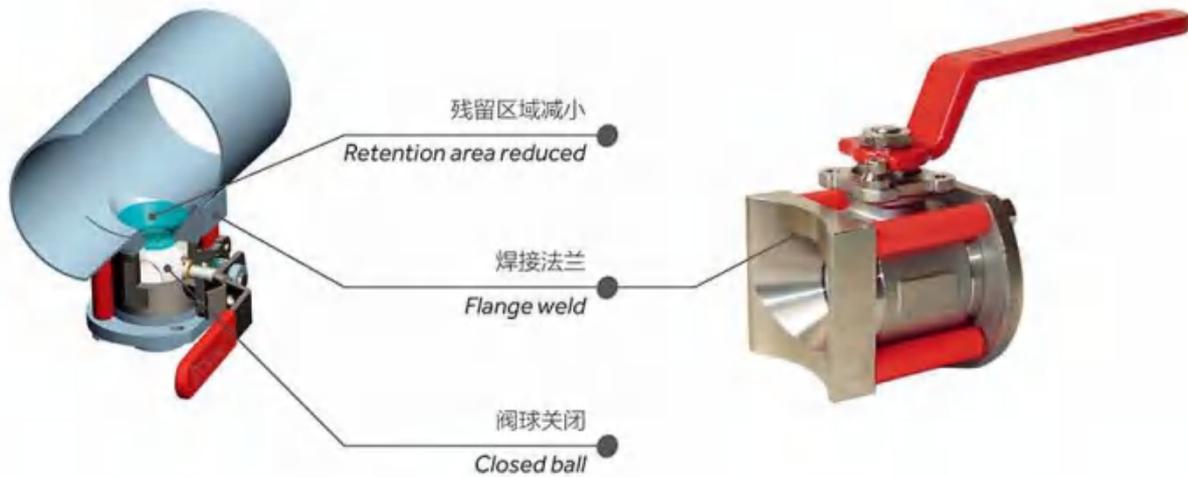
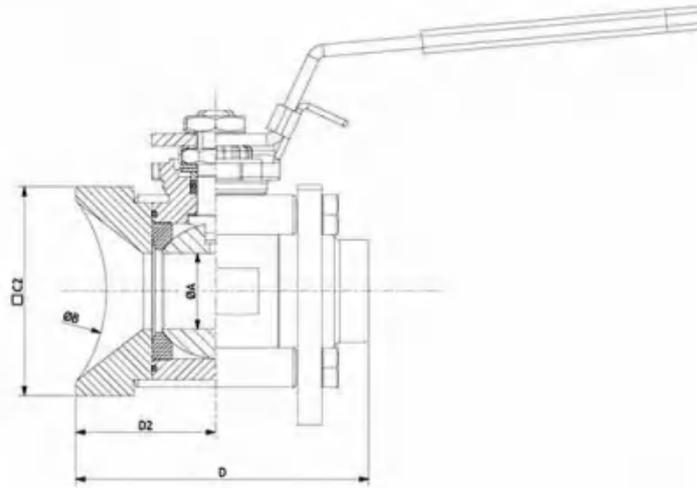
水平或垂直工作

PS4 DR 的产品设计包含了直接焊接到管道上的法兰。  
允许连接到管径为 DN 80 到 DN 200。  
相对于卡箍连接和三通连接的冲洗阀。  
PS4 DR 的残留量减小了 12 倍。  
例: DN25 的阀门残留量只有 6ml。

For pipe size 3" to 8"

Horizontal or vertical position

The PS4 DR design includes flange for direct pipe welding.  
It allows fitting to production lines from 80 to 200mm.  
The volume retention of a PS4 DR valve 12 times smaller  
than a standard valve with clamp fitting and T piping.  
Example: the DN 25 volume retention is only 6ml.



尺寸 Size	ØA	ØB	Ø 管道				□C2	D	D2
25	1"	25	80	100	125	150	68.5	93.7	43.7
25	1"	25	200				68.5	93.7	43.7

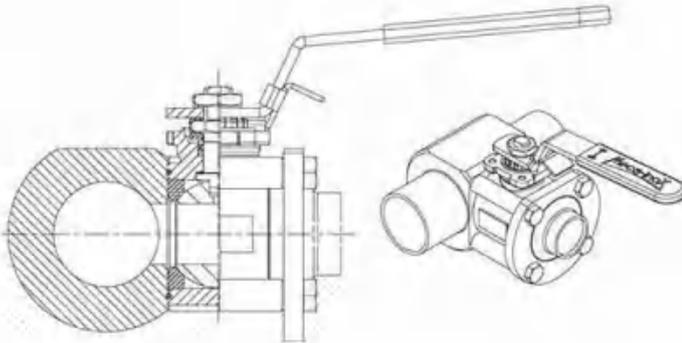
## 冲洗阀 FLUSH BALL VALVE

### 两通式

可适用不同标准管道尺寸

#### 2-way version

Pipe dimension on request

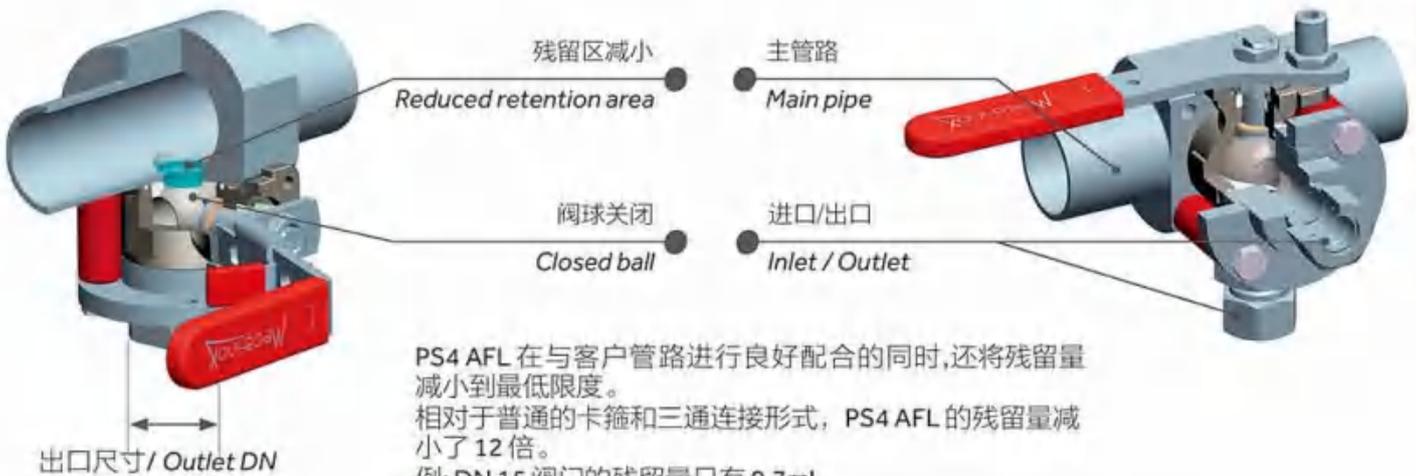
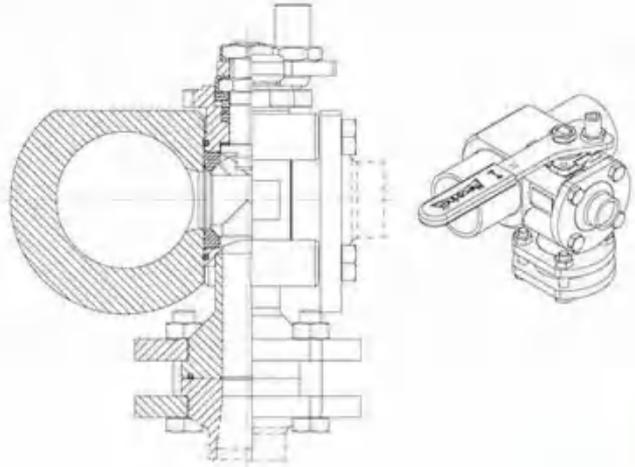


### 三通式

可适用不同标准管道尺寸

#### 3-way version

Pipe dimension on request



PS4 AFL 在与客户管路进行良好配合的同时,还将残留量减小到最低限度。  
相对于普通的卡箍和三通连接形式, PS4 AFL 的残留量减小了12倍。  
例: DN 15 阀门的残留量只有 0.7ml。

*PS4 AFL minimizes the volume retention while enabling adaptation to existing lines.  
The volume retention of a PS4 AFL is 12 times smaller than a standard valve with clamp fitting and T piping.  
Example: The DN 15 volume retention is only 0,7ml.*

**执行标准:**  
冲洗球阀采用  
"全通径"可适用于 "清管系统"

**可选项:**  
- 尺寸和连接型式根据客户要求  
- 可提供包覆阀座

**On standard:**  
Flush ball  
"True bore" piggable version

**On request:**  
Dimensions & type of connections according to customer needs  
Cavity fillers

**取样阀**  
**SAMPLING BALL VALVE**

**尺寸及连接端类型**

根据客户需求

标准配置:

可锁止手柄

防滴漏

多种取样量可选择

取样瓶样式可选择

取样操作时与主管路保持密封状态

可选项:

取样夹持器

隔离止回阀

其他材质

包覆阀座

防爆设计

**Dimensions & type of connection**

according to customer needs

On standard:

Lockable handle

Anti-drip

Choice of the sampled volume

Choice of bottle

Main line sealed during operation

On request:

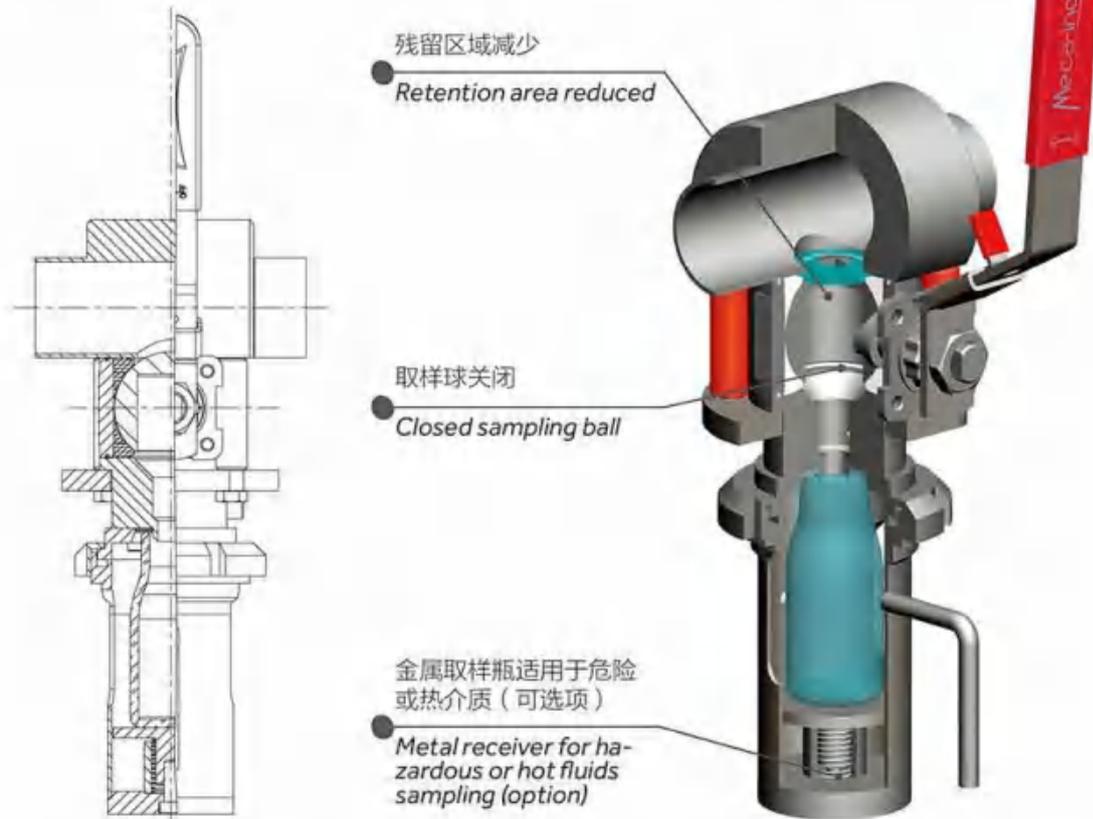
Sample holder

Isolating check valve

Other materials

Cavity fillers

ATEX version



相对于普通卡箍和三通连接型式。  
PS4 PE 取样阀的残留量减少了 10 倍。

例: DN 25 的阀门残留量只有 2ml。

取样阀和主管路保持密闭, 确保取样时安全操作。

取样球容量: 15, 30, 50 和 100 cc。

The volume retention of a PS4 PE valve is 10 times smaller than a standard valve with clamp fitting and T piping.

Example: the DN 25 volume retention is only 2ml.

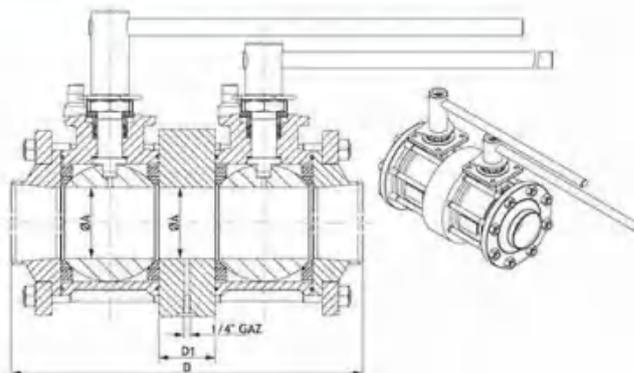
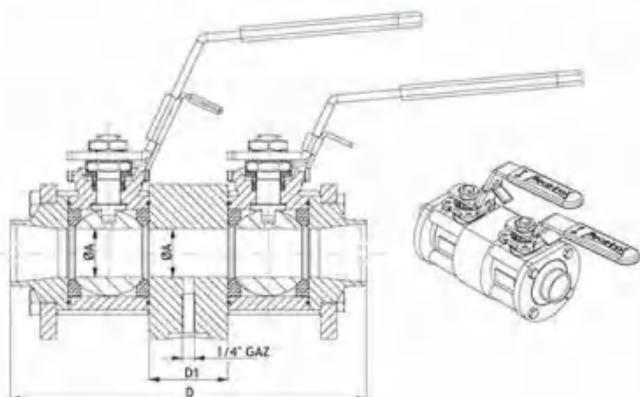
Constant tightness between pressurised pipe and sampling outlet ensures fully safe operation.

Several sampling ball volume are available: 15, 30, 50 & 100cc.

## 双锁泄放阀 DOUBLE BLOCK AND BLEED

DN 15 到 DN 50 | Size 1/2" to 2"

DN 65 到 DN 100 | Size 2" 1/2 to 4"



### 尺寸及连接端类型

根据客户需求

可选项

- 其他材质
- 包覆阀座
- 防爆设计
- 泄放阀
- 执行机构 (可分别采用不同的执行机构)

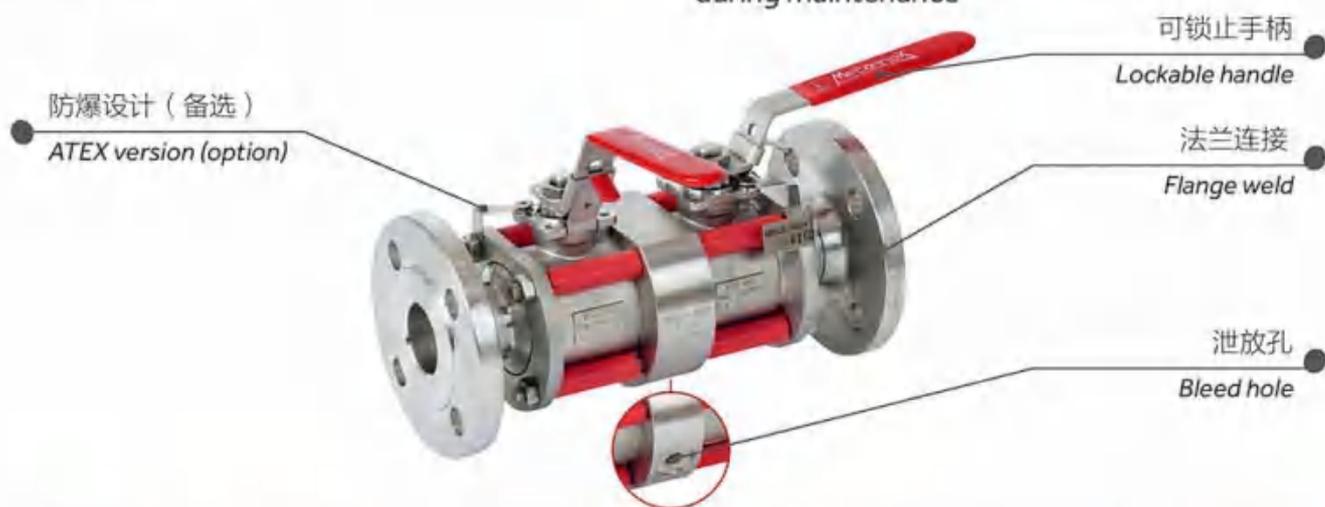
检修时, 各管线保持隔离

### Dimensions & type of connection according to customer needs

On request:

- Other materials
- Cavity fillers
- ATEX version
- Bleed valve
- Actuated version (mixed possible)

Provides safe isolation of lines during maintenance



尺寸 Size	ØA	D	D1	
15	1/2"	14	124.4	30
20	3/4"	19	151.6	35
25	1"	25	181.4	40
32	1" 1/4	32	198.2	40
40	1" 1/2	38	213.8	40
50	2"	50	281	60

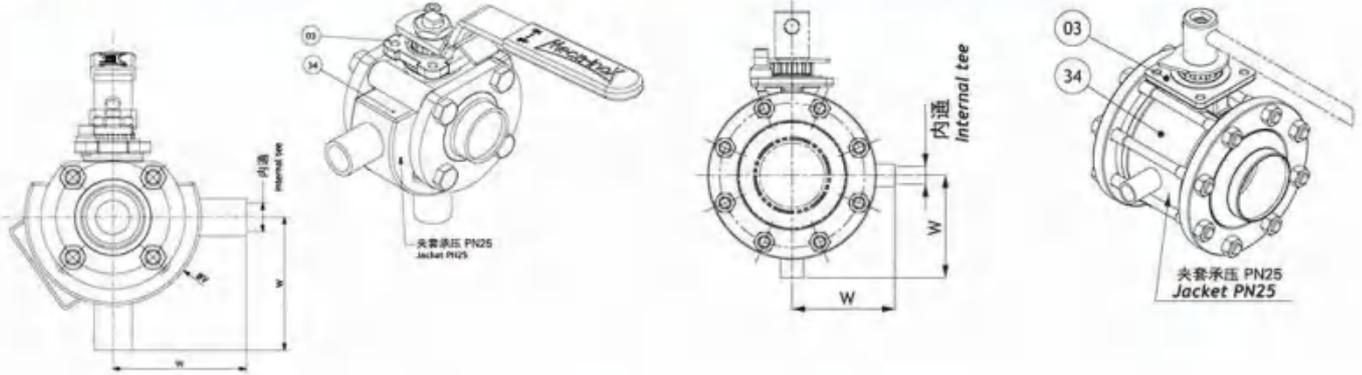
尺寸 Size	ØA	D	D1	
65	2" 1/2	64	324	60
80	3"	76	374	60
100	4"	100	415	60

夹套阀

STEAM JACKETED BALL VALVE

DN 08 到 DN 50 | Size 1/4" to 2"

DN 65 到 DN 150 | Size 2" 1/2" to 6"



- 夹套承压 PN 25  
Jacket PN 25
- 螺纹连接 (法兰连接可选)  
Thread (Flange for option)



编号	数量	描述	材质 (EN) 不锈钢
03	1	阀体	1.4409
34	1	夹套	1.4404

Item	Qty	Description	Material (ASTM)
03	1	Body	CF-3M
34	1	Steam jacket	316L

尺寸 Size	PN	ØV	W	ØY	夹套容积 Volume steam jacket
08-12	100	70	67	3/8"	9 cm <sup>3</sup>
15	100	70	72	3/8"	23 cm <sup>3</sup>
20	100	90	75	3/8"	48 cm <sup>3</sup>
25	70	90	74	3/8"	76 cm <sup>3</sup>
32	70	97	79	3/8"	102 cm <sup>3</sup>
40	50	107	89	3/8"	184 cm <sup>3</sup>
50	50	127	106	1/2"	289 cm <sup>3</sup>
65	40	-	100	1/2"	110 cm <sup>3</sup>
80	40	-	120	1/2"	114 cm <sup>3</sup>
100	25	-	130	1/2"	211 cm <sup>3</sup>
125	25	-	150	3/4"	407 cm <sup>3</sup>
150	16	-	170	3/4"	527 cm <sup>3</sup>

## 止回阀 CHECK VALVE

### DN 08 到 DN 50

#### PN 80

建议垂直安装，介质流向自下而上。  
阀体上标有流向指示箭头。  
在水平安装时，为保证密封效果，  
上下游的压差至少要保证1bar。

#### 可选项：

##### ATEX II2GD

适用于氧气系统的脱脂阀门

深冷低温应用

哈氏合金 C22 / 304L / 904L 材质

根据 2010 / 35 / UE TPED 打上 π 标记

认证 ADR § 1.8.7.6

### Size 1/4" to 2"

#### PN 80

Vertical mounting is advised on an upward flow.

Arrow marked on the body.

In case of an horizontal mounting, the pressure difference between downstream and upstream to ensure sealing should be at least 1bar.

#### On request:

##### ATEX II2GD

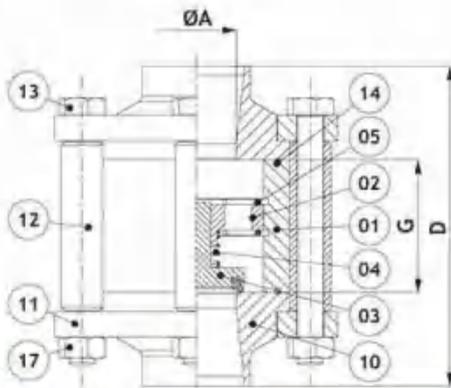
Degreased version for oxygen application

Cryogenics applications

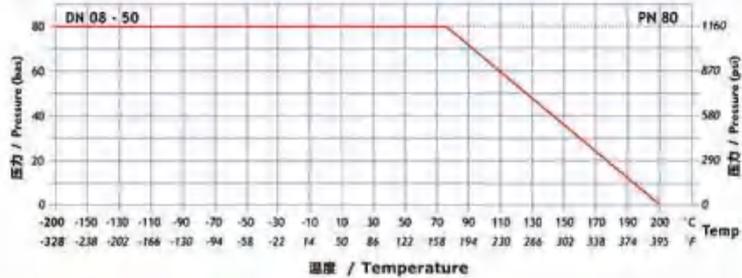
Alloy 22 / 304L / 904L version

π marking according to 2010/35/UE TPED:

certification ADR § 1.8.7.6



开启压力 0.4 到 0.6 bar    Opening pressure 6 to 9 psi



编号	数量	描述	材质 (EN) 不锈钢
01	1	阀体	1.4404
02	1	导向部件	1.4404
03	1	阀瓣	1.4404 + PTFE
04	1	弹簧	1.4401
05	2	五角止动环	1.4401
10	2	活塞连接端	1.4404
11	2	阀体法兰	1.4307
12	4	套管	PTFE
13	4	螺栓	1.4301
14	2	阀体密封	PTFE
17	4	螺母	1.4301

Item	Qty	Description	Material (ASTM)
01	1	Body	316L
02	1	Plate guide	316L
03	1	Disc	316L + PTFE
04	1	Spring	316
05	2	Circlip CERCLAM	316
10	2	Loose end	316L
11	2	Body flange	304L
12	4	Distance piece	PTFE
13	4	Screw TH	304
14	2	Body seal	PTFE
17	4	Nut screw	304

直径	尺寸 / Size		PN	Ø A	D	G	
	N	V					
	Full	缩径					
08-12	1/4"-3/8"	15	1/2"	80	11	65	20.4
15	1/2"	20	3/4"	80	14.2	70	24.4
20	3/4"	25	1"	80	21	85	31.6
25	1"	32	1 1/4"	80	25	100	41.4
32	1 1/4"	40	1 1/2"	80	32	110	48.2
40	1 1/2"	50	2"	80	38	125	56.2
50	2"	65	2 1/2"	80	50	150	71.0

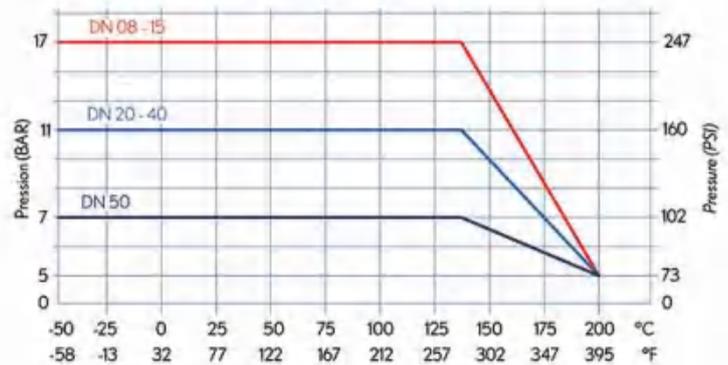
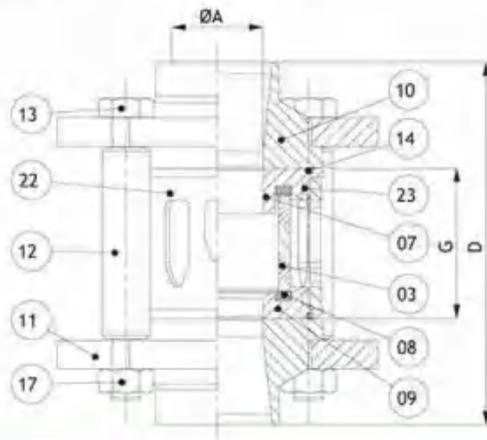
窥视镜  
SIGHT GLASS

DN 08 到 DN 50

预应力玻璃套筒  
玻璃被有效保护(保护支架采用不锈钢)  
防滴漏设计  
其他材质可定制

Size 1/4" to 2"

Pre-stressed cartridge  
Efficient glass protection  
(glass protector in stainless steel)  
Drip avoiding the projection of drops on the walls  
Others materials on request



N	尺寸 / Size		V	PN	Ø A	D	G	压力 pressure bar
	通径 Full	缩径 Reduced						
8-12	1/4"-3/8"	15	1/2"	17	10.5	65	20.4	17
15	1/2"	20	3/4"	17	14	70	24.4	17
20	3/4"	25	1"	11	19	85	31.6	11
25	1"	32	1"1/4	11	25	100	41.4	11
32	1"1/4	40	1"1/2	12	32	110	48.2	12
40	1"1/2	50	2"	11	38	125	56.2	11
50	2"	65	2"1/2	7.5	50	150	71.0	7.5

编号	数量	描述	材质(EN) 不锈钢
03	1	玻璃	PYREX
07	1	密封函	1.4404
08	2	玻璃密封	微孔PTFE
09	1	上密封函	1.4404
10	2	连接端	1.4404
11	2	阀体法兰	1.4307
12	4	套管	PTFE
13	4	螺栓	1.4301
14	2	阀体密封	PTFE
17	4	螺栓螺母	1.4301
22	1	保护支架	1.4404
23	8	螺栓	1.4301

Item	Qty	Description	Material (ASTM)
03	1	Glass	PYREX
07	1	Seal holder	316L
08	2	Glassseal	Microcellular PTFE
09	1	Upper seal holder	316L
10	2	Loose end	316L
11	2	Body flange	304L
12	4	Distance piece	PTFE
13	4	Screw TH	304
14	2	Body seal	PTFE
17	4	Nut screw	304
22	1	Protector	316L
23	8	Screw HC	304

过滤器  
FILTER

## DN 08 到 DN 50

过滤精度

0.45 mm: DN 10 到 DN 20

0.80 mm: DN 25 到 DN 50

其他过滤精度可定制

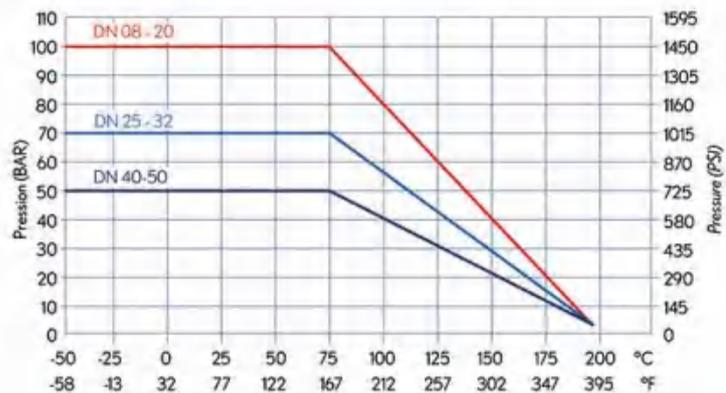
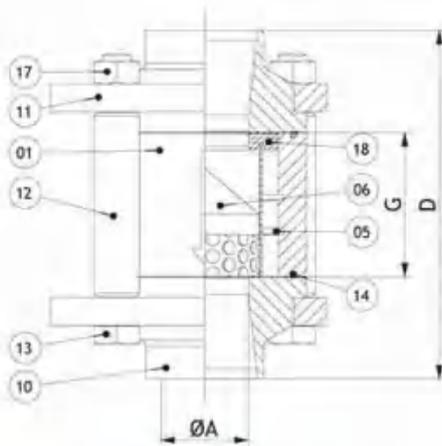
## Size 1/4" to 2"

Filtering grade

0.45mm for size 1/4" to 3/4"

0.8mm for size 1" to 2"

Other filtering grade on request.



N	尺寸 / Size		V	PN	Ø A	D	G
	Full	缩径 / Reduced					
8-12	1/4"-3/8"	15	1/2"	100	11.1	65	20.4
15	1/2"	20	3/4"	100	14	70	24.4
20	3/4"	25	1"	100	19	85	31.6
25	1"	32	1"1/4	70	25	100	41.4
32	1"1/4	40	1"1/2	70	32	110	48.2
40	1"1/2	50	2"	50	38	125	56.2
50	2"	65	2"1/2	50	50	150	71.0

编号	数量	描述	材质(EN) 不锈钢
01	1	阀体	1.4404
05	1	五角形定位环	1.4404
06	1	过滤部件 DN08 到 DN20 : 0.45 mm DN25 到 DN50 : 0.80 mm	1.4404
10	2	活套连接端	1.4404
11	2	阀体法兰	1.4404
12	4	套管	PTFE
13	4	螺栓	1.4404
14	2	阀体密封	PTFE
17	4	螺母	1.4404

Item	Qty	Description	Material (ASTM) S.steel
01	1	Body	316L
05	1	Circlip CERCLAM	316L
06	1	Filter element 1/4"-3/4": 0.45mm 1"-2": 0.80mm	316L
10	2	Loose end	316L
11	2	Body flange	304L
12	4	Distance piece	PTFE
13	4	Screw TH	304
14	2	Body seal	PTFE
17	4	Nut screw	304

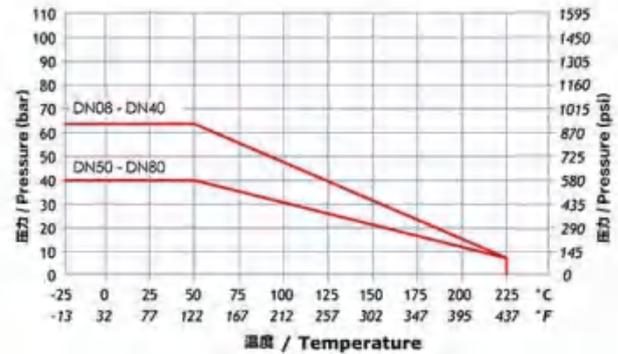
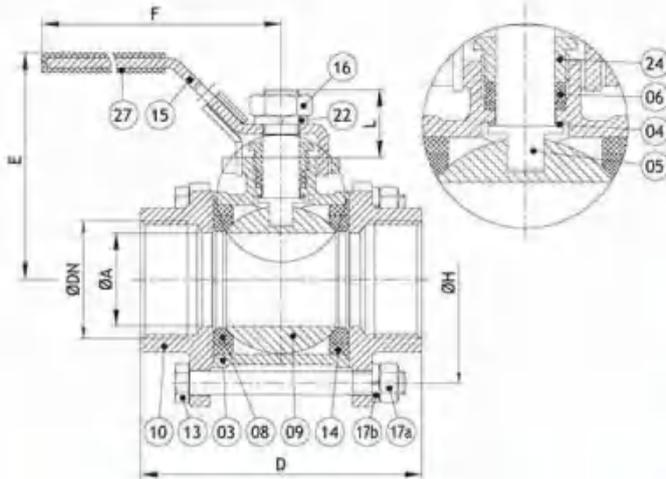
三片式经济型球阀  
3-PIECE ECONOMIC VALVE

DN 08 到 DN 80

螺纹及对接  
口径  
防静电装置

Size 1/4" to 3"

Thread & Butt welding  
Full bore  
Antistatic device



编号	数量	描述	材质 (EN) 不锈钢
03	1	阀体	1.4408
04	1	阀杆密封	PTFE + 25% 碳
05	1	阀杆	1.4401
06	1	填料密封	PTFE + 25% 碳
08	2	阀座	PTFE + 25% 碳
09	1	阀球	1.4408
10	2	阀盖	1.4408
13	4	螺栓 DN08-DN65	1.4301
13	6	螺栓 DN80	1.4301
14	2	垫圈	PTFE + 25% 碳
15	1	手柄	1.4301
16	1	阀杆螺母	1.4301
17a	4	螺母螺栓 DN08-DN65	1.4301
17a	6	螺母螺栓 DN80	1.4301
17b	4	螺栓垫片 DN08-DN65	1.4301
17b	6	螺栓垫片 DN80	1.4301
22	1	弹簧垫圈	1.4301
24	1	填料压盖	1.4301
27	1	塑料手柄套	塑料

Item	Qty	Description	Material (ASTM) S.steel
03	1	Body	CF8M
04	1	Stem thrust seal	PTFE + 25% Carbon
05	1	Stem	316
06	3	Stem packing	PTFE + 25% Carbon
08	2	Seat	PTFE + 25% Carbon
09	1	Ball	CF8M
10	2	Cap	CF8M
13	4	Bolt DN 1/4" to 2" 1/2	304
13	6	Bolt DN 3" to 4"	304
14	2	Gasket	PTFE + 25% Carbon
15	1	Handle	304
16	1	Stem nut	304
17a	4	Nut screw DN 1/4" to 2" 1/2	304
17a	6	Nut screw DN 3" to 4"	304
17b	4	Bolt washer DN 1/4" to 2" 1/2	304
17b	6	Bolt washer DN 3" to 4"	304
22	1	Spring Washer	304
24	1	Gland	304
27	1	Plastic Cover	Plastic

尺寸 Size	ØA	D	E	F	ØH	L	M	ISO 5211	重量 (公斤) Weight (Kg)
8	1/4"	11.6	58	56	102	40.5	15	F03	0.400
12	3/8"	12.7	58	56	102	40.5	15	F03	0.400
15	1/2"	15	63	65	123	47	16	F03	0.550
20	3/4"	20	73	67	123	53.5	16	F03	0.700
25	1"	25	85	79	153	59.6	21	F04	1.050
32	1 1/4"	32	96	84	153	74.2	21	F04	1.600
40	1 1/2"	38	114	92	183	84	25	F05	2.250
50	2"	50	134	99	183	101	29	F05	3.400
65	2 1/2"	65	180	136	246	132	40	F07	-
80	3"	80	200	146	246	161.5	48	F07	-

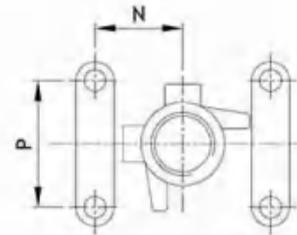
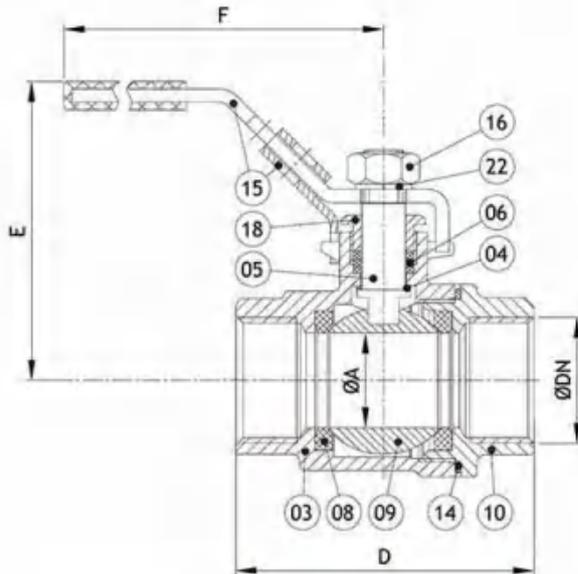
## 单片式球阀 1-PIECE BALL VALVE

DN 08 到 DN 80

BSP & NPT 螺纹连接  
通径

Size 1/4" to 3"

BSP & NPT thread  
Full bore

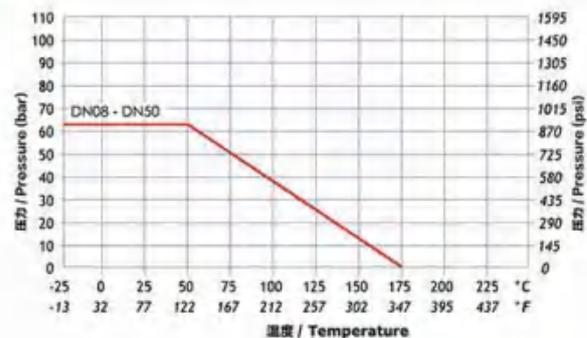


DN 65-80  
DN 2 1/2 - 3"  
尺寸: 2.5英寸到3英寸

编号	数量	零部件名称	材质 (EN)
03	1	阀体	1.4408
04	1	阀体密封	PTFE
05	1	阀杆	1.4404
06	1	阀杆填料	PTFE
08	2	阀座	PTFE
09	1	阀球	1.4408
10	1	阀体连接端	1.4408
14	1	阀体密封	PTFE
15	1	手柄	1.4301
16	1	阀杆螺母	1.4301
18	1	压盖螺母	1.4301
22	1	阀杆垫片	1.4301

Item	Qty	Description	Material (ASTM)
03	1	Body	CF8M
04	1	Stem thrust seal	PTFE
05	1	Stem	316
06	1	Stem packing	PTFE
08	2	Seat	PTFE
09	1	Ball	CF8M
10	1	Body connector	CF8M
14	1	Body seal	PTFE
15	1	Handle	304
16	1	Stem nut	304
18	1	Gland nut	304
22	1	Stem washer	304

尺寸/Size	ØA	D	E	F	N	P	
8	1/4"	11.6	52	56	102	12.7	28.5
12	3/8"	12.7	52	56	102	12.7	28.5
15	1/2"	15	58	65	123	12.7	28.5
20	3/4"	20	67	68	123	21	35
25	1"	25	78	79	153	21	35
32	1 1/4"	32	90	84	153	23.5	38
40	1 1/2"	40	104	93	183	23.5	38
50	2"	50	127	99	183	23.5	38
65	2 1/2"	65	158	136	246	35	54
80	3"	80	187	146	246	35	54





### 气动执行器机构

单作用或双作用  
铝合金气缸

### Pneumatic Actuator

Spring return or double acting  
Aluminum Alloy Type

### 电动执行器机构

双作用  
EZ 系列

### Electric Actuator

Double acting  
EZ-Type



气动执行器  
Pneumatic actuator



EZ4-EZ15 类型 电动执行器  
"EZ4-EZ15" Type electric actuation



EZ25-EZ60 类型 电动执行器  
"EZ25-EZ60" Type electric actuation

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**气动执行器**  
**PNEUMATIC ACTUATION****特征和优点**

挤压铝质 (ASTM 6005) 缸体，内表面细磨精加工，内部和外部均采用高级防腐技术，气缸摩擦系数小，使用寿命长，抗腐蚀性能强。

双活塞齿轮齿条式设计，结构紧凑、安装位置对称、改变输出轴转向方便，使用寿命长、动作迅速。

在导轨和活塞上采用复合轴承和导环设计，从而实现低摩擦、高运转寿命和防止轴喷出。

模块式预紧式弹簧盒设计，带涂层弹簧，从而实现更多的系列，更大的安全系数，更好的抗腐蚀能力和更长的使用寿命。  
高精度齿轮和齿条，啮合间隙小、精度高，输出功率大。  
采用不锈钢紧固件，实现长期防腐蚀。

采用国际规范尺寸：  
输出轴槽，螺孔：顶部安装孔尺寸符合 NAMUR。  
气源接口尺寸符合 NAMUR。  
底部安装孔尺寸符合 ISO 5211、DIN 3337。  
方便安装电磁阀，限位开关等附件。

**Features and benefits**

Extruded aluminum ASTM 6005 body with both internal and external corrosion protection having honed cylinder surface for longer life and low coefficient of friction.

Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation, reverse rotation can be accomplished in the field by simply inverting the pistons.

Multiple bearings and guides on racks and pistons, low friction, high cycle life and prevent shaft blowout.

Modular preloaded spring cartridge design, with coated spring for simple versatile range, greater safety and corrosion resistance, longer cycle life. Fully machined teeth on piston and pinion for accurate low backlash rack and pinion engagement, maximum efficiency. Stainless steel fasteners for long term corrosion resistance

Full conformance to the latest specifications: ISO 5211, DIN 3337 and Namur or product interchangeability and easy mounting of solenoids, limit switches and other accessories.

气动执行器  
**PNEUMATIC ACTUATION**

**基本的操作细节**

DA系列 双作用  
出口 "A" = 开启供气口 (逆时针)  
出口 "B" = 关闭供气口 (顺时针)

SR系列 单作用  
出口 "A" = 开启供气口 (逆时针)  
出口 "B" = 关闭供气口 (顺时针)

使用介质 压缩空气、无腐蚀性气体和  
轻质液压油

工作温度 标准型: -20 °C +80 °C

最高使用压力 输入气压不超过 10 bar

**Basic operating details**

DA model Double acting  
Port "A" = Air to open (anti-clockwise)  
Port "B" = Air to close (clockwise)

SR model Simple acting (Spring return)  
Port "A" = Air to open (anti-clockwise com  
pressing springs)  
Port "B" = Springs to close (clockwise)

Operating medium Air (dry or lubricated), non-corrosive  
gas, light hydraulic oil

Operating temperature Standard: -20 °C +80 °C

Maximum air pressure Should not exceed 10 bar

最长操作时间 (秒) (气源压力=5 bar) / Maximum operating time in second (air pressure = 5 bar)

Actuator 气动执行器	2MICA-045	2MICA-052	2MICA-063	2MICA-075	2MICA-083	2MICA-092	2MICA-105	2MICA-125	2MICA-140	2MICA-160	2MICA-190	2MICA-210
双作用开启 Double acting (DA) open	0.5	0.6	0.7	0.8	0.9	1	1.5	2	2.5	4	5	5
双作用关闭 Double acting (DA) close	0.5	0.6	0.7	0.7	0.8	1	1.5	2	2.5	3	4	4
单作用开启 Spring return (SR) open	2	2	2	2	2.5	3	3	4	4	4	5	6
单作用关闭 Spring return (SR) close	0.5	0.5	1	1	1	1	1	1	1	1.5	3	3

每一冲程空气消耗量 (升) / Air consumption per stroke (liter)

气动执行器 Actuator	2MICA-045	2MICA-052	2MICA-063	2MICA-075	2MICA-083	2MICA-092	2MICA-105	2MICA-125	2MICA-140	2MICA-160	2MICA-190	2MICA-210
开启供气口: A Port 'A' to open	0.08	0.11	0.2	0.29	0.41	0.62	0.94	1.47	2.43	3.65	5.9	7.4
关闭供气口: B Port 'B' to close	0.11	0.14	0.23	0.38	0.55	0.91	1.18	1.85	3.2	5.03	7.9	9.7

气动头总重 (kg) / Overall actuator weight (kg)

气动执行器 Actuator	2MICA-045	2MICA-052	2MICA-063	2MICA-075	2MICA-083	2MICA-092	2MICA-105	2MICA-125	2MICA-140	2MICA-160	2MICA-190	2MICA-210
双作用 Double acting (DA)	1.05	1.1	1.8	2.16	2.85	4.3	6.15	8.8	12.15	20.1	38.1	45.1
单作用 Spring return (SR)	1.12	1.23	1.95	2.43	3.15	5.05	6.95	9.25	15.3	23.8	44.8	53.6

气动执行器  
**PNEUMATIC ACTUATION**

**标准和认证**

气动执行器平台标准:

- 平台接口和驱动方孔根据 ISO 5211 和 DIN 3337 进行设计
- 与电磁阀和限位开关的接口, 根据Namur和 VDI / VDE 3845标准

欧洲规范:

- 美嘉诺采用的驱动装置符合欧盟规范中有关安全和健康要求。
- ATEX 94 / 9 / EC: 用于潜在爆炸性环境中的设备和防护系统认证。
  - 欧盟规范 98 / 37 / EC & 98 / 79 / EC: 机械安全指令。

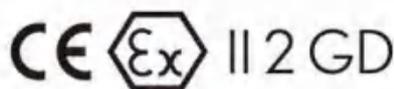
**Standard & approvals**

Interface standard of actuators:

- ISO flange and drive square according to ISO 5211 ; DIN 3337
- Interface for solenoid valve and limit switch box according to Namur standard VDI / VDE 3845

European Directives:

- Meca-Inox actuators are in accordance to the main requirements of safety and health for workers according to the European Directives:
- ATEX 94 / 9 / EC: Concerning equipment and protective systems intended for use in potentially explosive atmospheres
  - Directive 98 / 37 / EC & 98 / 79 / EC: machinery equipment directive



双作用气动执行器操作扭矩 / Double acting operating torques (N.m)

气动执行器 Actuator	气源压力 / Air supply pressure			
	4 bar	5 bar	6 bar	7 bar
2MICA-045DA	12.1	15.1	18.1	21.1
2MICA-052DA	16.1	20.2	24.2	28.2
2MICA-063DA	28.4	35.5	42.6	49.7
2MICA-075DA	40.3	50.3	60.4	70.5
2MICA-083DA	61.6	77.1	92.5	107.9
2MICA-092DA	90.9	113.6	136.3	159.1
2MICA-105DA	131.6	164.4	197.3	230.2
2MICA-125DA	205	256	308	359
2MICA-140DA	351	439	526	614
2MICA-160DA	535	668	802	935
2MICA-190DA	861	1077	1295	1508
2MICA-210DA	1052	1316	1579	1842

气动执行器  
**PNEUMATIC ACTUATION**

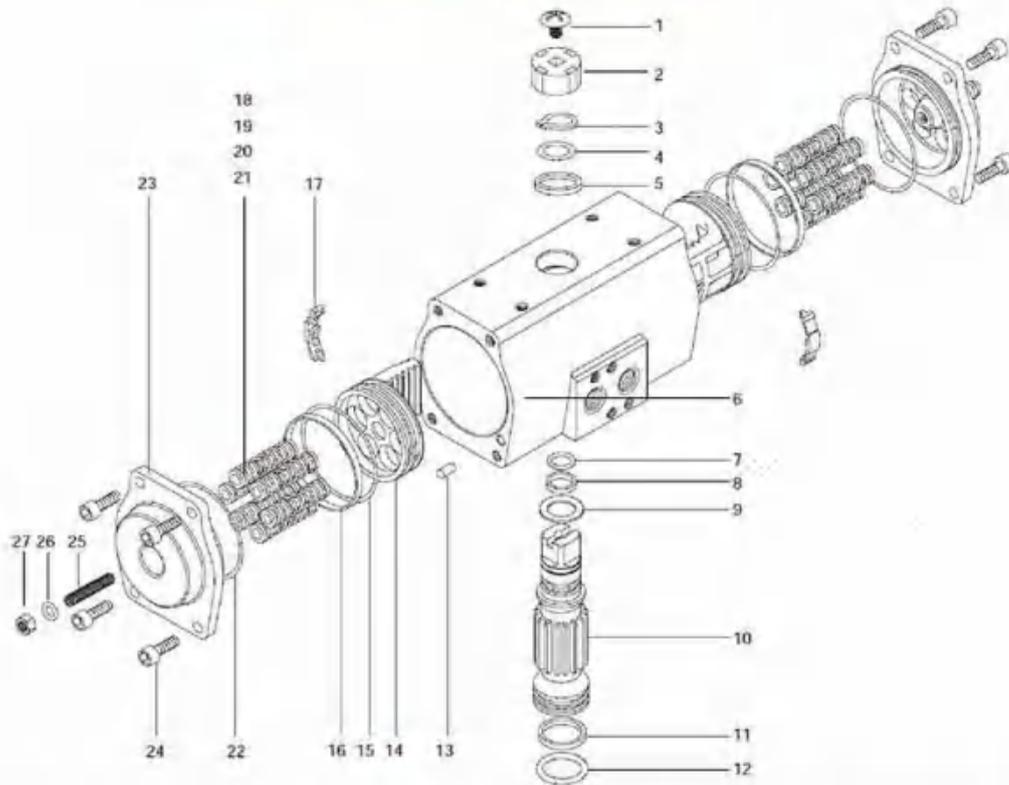
单作用气动执行器操作扭矩 / Spring return operating torques (N.m)

型号 Model	弹簧数量 Number of springs	弹簧行程 Spring stroke		气源压力 / Air supply (bar)							
				4 bar		5 bar		6 bar		7 bar	
		开始 Start (0)°	结束 End (90)°	开始 Start (0)°	结束 End (90)°	开始 Start (0)°	结束 End (90)°	开始 Start (0)°	结束 End (90)°	开始 Start (0)°	结束 End (90)°
2MICA-045SR8	2 x 4	4.6	7.4	7.2	4.3	-	-	-	-	-	-
2MICA-045SR10	2 x 5	5.8	9.2	-	-	9.0	5.4	-	-	-	-
2MICA-045SR12	2 x 6	7.0	11.1	-	-	-	-	10.8	6.5	13.8	9.5
2MICA-052SR8	2 x 4	6.8	9.9	9.0	5.7	-	-	-	-	-	-
2MICA-052SR10	2 x 5	8.5	12.4	-	-	11.3	7.2	-	-	-	-
2MICA-052SR12	2 x 6	10.1	14.8	-	-	-	-	13.5	8.6	17.5	12.6
2MICA-063SR8	2 x 4	10.9	16.7	16.9	10.8	-	-	-	-	-	-
2MICA-063SR10	2 x 5	13.7	20.9	-	-	21.1	13.5	-	-	-	-
2MICA-063SR12	2 x 6	16.4	25.0	-	-	-	-	25.3	16.2	32.4	23.3
2MICA-075SR8	2 x 4	16.9	23.2	22.5	15.9	-	-	-	-	-	-
2MICA-075SR10	2 x 5	21.1	29.0	-	-	28.1	19.8	-	-	-	-
2MICA-075SR12	2 x 6	25.3	34.7	-	-	-	-	33.8	23.8	43.9	33.9
2MICA-083SR8	2 x 4	25.3	36.8	35.0	22.8	-	-	-	-	-	-
2MICA-083SR10	2 x 5	31.6	46.0	-	-	43.8	28.7	-	-	-	-
2MICA-083SR12	2 x 6	38.0	55.2	-	-	-	-	52.5	34.4	67.9	49.8
2MICA-092SR8	2 x 4	37.3	55.0	51.6	33.0	-	-	-	-	-	-
2MICA-092SR10	2 x 5	46.7	68.7	-	-	64.5	41.2	-	-	-	-
2MICA-092SR12	2 x 6	56.0	82.5	-	-	-	-	77.3	49.5	100.1	72.3
2MICA-105SR8	2 x 4	50.6	78.7	78.3	48.7	-	-	-	-	-	-
2MICA-105SR10	2 x 5	63.3	98.4	-	-	97.8	60.8	-	-	-	-
2MICA-105SR12	2 x 6	75.9	118.1	-	-	-	-	117.4	73.0	150.3	105.9
2MICA-125SR8	2 x 4	83.8	125.4	116.8	73.0	-	-	-	-	-	-
2MICA-125SR10	2 x 5	104.7	156.8	-	-	145.8	91.0	-	-	-	-
2MICA-125SR12	2 x 6	125.7	188.1	-	-	-	-	175.7	110.0	226.7	161.0
2MICA-140SR8	2 x 4	137.3	206.3	206.5	133.8	-	-	-	-	-	-
2MICA-140SR10	2 x 5	171.6	257.9	-	-	258.4	167.5	-	-	-	-
2MICA-140SR12	2 x 6	205.9	309.5	-	-	-	-	309.3	200.2	397.3	288.2
2MICA-160SR8	2 x 4	223	333	299.8	184.2	-	-	-	-	-	-
2MICA-160SR10	2 x 5	279	417	-	-	374	229.5	-	-	-	-
2MICA-160SR12	2 x 6	335	500	-	-	-	-	449.2	275.7	582.1	408.7
2MICA-190SR8	2 x 4	303	469	524	340	-	-	-	-	-	-
2MICA-190SR10	2 x 5	379	586	-	-	656	426	-	-	-	-
2MICA-190SR12	2 x 6	455	703	-	-	-	-	787	511	1003	727
2MICA-210SR8	2 x 4	417	575	589	413	-	-	-	-	-	-
2MICA-210SR10	2 x 5	521	719	-	-	737	517	-	-	-	-
2MICA-210SR12	2 x 6	625	863	-	-	-	-	884	620	1147	883

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气动执行器  
PNEUMATIC ACTUATION

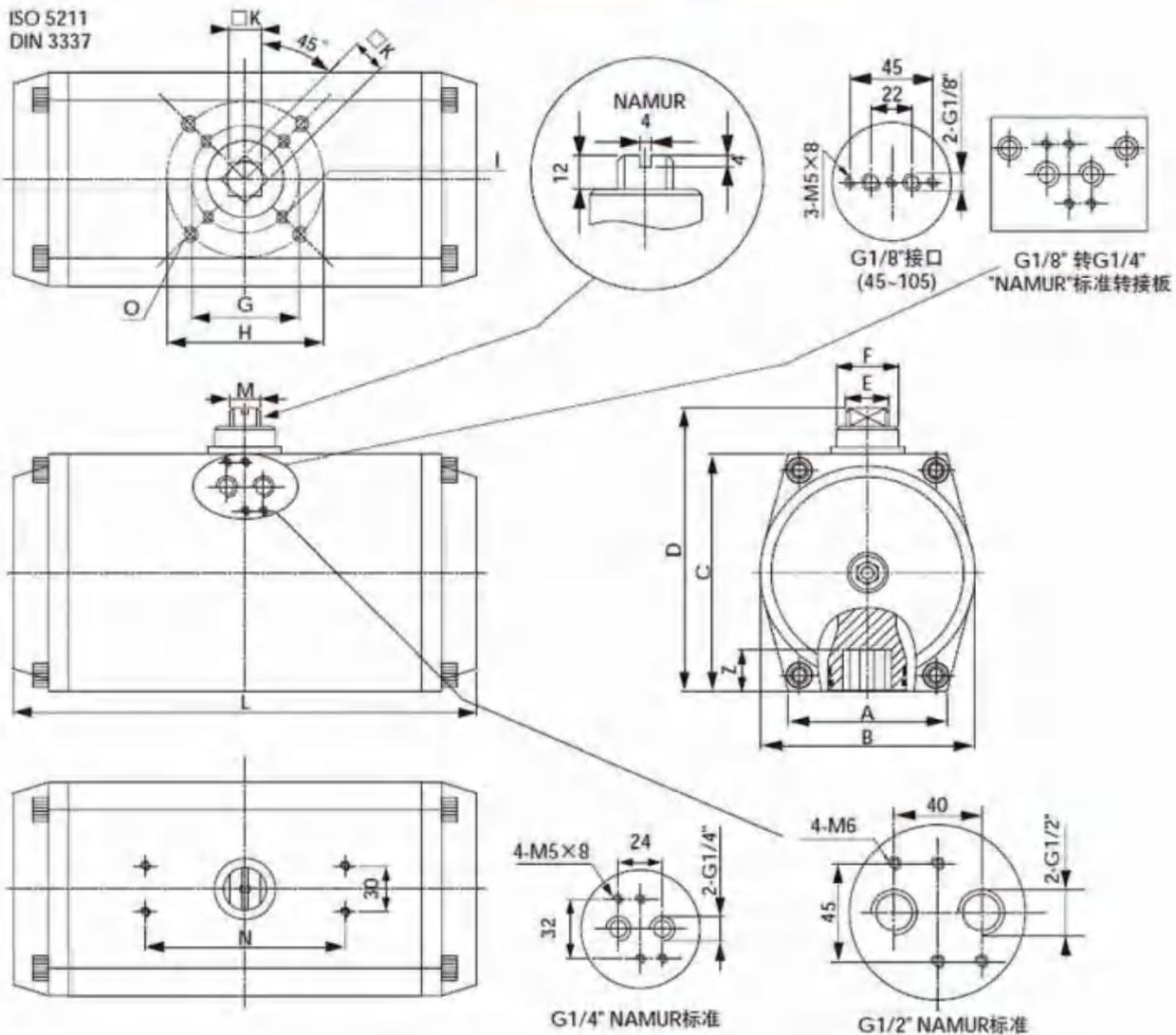
零部件 Components



Ref	Description	名称	数量 / Qty	Material	材料
1	Indicator Screw	指示器螺钉	1	Stainless steel (304)	不锈钢
2	Indicator	指示器	1	Plastic (ABS)	塑料
3	Circlip	弹性挡圈	1	Stainless steel (304)	不锈钢
4	Thrust washer	垫片	1	Stainless steel (304)	不锈钢
5	Outside washer	外垫片	1	Polyoxymethylene	工程塑料
6	Body	缸体	1	Extruded aluminum alloy (6005-T5)	铝合金 (6005-T5)
7	Inside washer	上轴“O”型圈	1	NBR	氟橡胶、丁腈橡胶
8	O-ring (pinion top)	上轴支承圈	1	Polyoxymethylene	工程塑料
9	Bearing (pinion top)	内垫片	1	Polyoxymethylene	工程塑料
10	Pinion	轴	1	#45 steel	#45 钢
11	Bearing (pinion bottom)	下轴支承圈	1	Polyoxymethylene	工程塑料
12	O-ring (pinion bottom)	下轴“O”型圈	1	NBR	氟橡胶、丁腈橡胶
13	Plug	塞头	2	NBR	橡胶
14	Piston	活塞	2	Die-casting aluminum (101A)	压铸铝 (101A)
15	O-ring (piston)	活塞“O”型圈	2	NBR	氟橡胶、丁腈橡胶
16	Bearing (piston)	活塞支承圈	2	Polyoxymethylene	工程塑料
17	Guide (piston)	活塞导板	2	Nylon66	尼龙 66
18	Spring	弹簧	*	Spring steel	弹簧钢
19	Spring retainer (L)	弹簧左套	*	Nylon66	尼龙 66
20	Spring retainer (R)	弹簧右套	*	Nylon66	尼龙 66
21	Retainer connector	弹簧套连杆	*	Brass	铜
22	O-ring(End-cap)	端盖“O”型圈	2	NBR	氟橡胶、丁腈橡胶
23	End-cap	端盖	2	Die-casting aluminum (ADC12)	压铸铝 (ADC12)
24	End-cap screw	端盖紧固螺杆	8	Stainless steel (304)	不锈钢 (304)
25	Adjust screw	调节螺杆	2	Stainless steel (304)	不锈钢 (304)
26	O-ring (adjust screw)	调节螺杆“O”型圈	2	Stainless steel (304)	不锈钢 (304)
27	Nut (adjust screw)	调节螺杆螺母	2	NBR	氟橡胶、丁腈橡胶

气动执行器  
**PENUMATIC ACTUATION**

外形尺寸 Overall dimensions



型号/Model	A	B	C	D	E	F	G	H	I	K	L	M	N	O	Z	Air connection 气源接口
2MICA-045	48	58	65	95	12	14	F04	F05	M5×8	11	146	10	80	M6×10	14	G1/8"
2MICA-052	50	59	74	104	12	14	F04	F05	M5×8	11	146	10	80	M6×10	14	G1/8"
2MICA-063	60	72	88	118	12	18	F05	F07	M6×10	14	168	10	80	M8×13	18	G1/8"
2MICA-075	65	83	100	130	12	18	F05	F07	M6×10	14	184	10	80	M8×13	18	G1/8"
2MICA-083	67	90	109	139	14	18	F05	F07	M6×10	17	204	10	80	M8×13	21	G1/8"
2MICA-092	76	104	120	150	18	25	F05	F07	M6×10	17	260	14	80	M8×13	21	G1/8"
2MICA-105	90	115	133	163	20	25	F07	F10	M8×13	22	268	14	80	M10×16	26	G1/8"
2MICA-125	104	140	155	185	28	40	F07	F10	M8×13	22	298	20	130	M10×16	26	NAMUR G1/4"
2MICA-140	107	152	171.5	201.5	28	40	F10	F12	M10×16	27	390	20	130	M12×20	31	NAMUR G1/4"
2MICA-160	128	175.8	197	227	36	40	F10	F12	M10×16	27	458	28	130	M12×20	31	NAMUR G1/4"
2MICA-190	135	206	230	260	45	60	-	F14	-	36	525	32	130	M16×25	40	NAMUR G1/4"
2MICA-210	135	226	255	285	45	60	-	F14	-	36	532	32	130	M16×25	40	NAMUR G1/4"

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电动执行器  
**ELECTRIC ACTUATION**

型号EZ 4 - EZ 60

扭矩 45 - 600 N.m

EZ 4 to EZ 60 presentation

Torque 45 to 600 N.m



**执行器规格**

概述	EZ 执行机构包括带有热保护的电机、齿轮传动系统、紧急操作手轮、行程限位开关、扭矩开关（除EZ4 - EZ15）、防冷凝加热器以及带可拆卸轴套的输出驱动装置
齿轮设计	齿轮系统可机械自锁，并且润滑终生有效
设计寿命	EZ4 - EZ50: 20,000 次循环 (开关型) / 300,000 启动 (调节型) EZ100 - EZ1000: 10,000 循环 (开关型) / 200,000 启动 (调节型) 依据 EN15714-2 Class A & B 进行测试
外壳	执行机构箱体采用铸铝材料，表面采用阳离子环氧涂层，颜色 RAL 1017 IP67
电机技术	全密封式，三相或单相鼠笼式电机，F级绝缘，内置过热保护
电机工作制	S4-25% 电机工作制（依据 IEC 60034-1），峰值启动频率 360 次启动/小时
温度范围	温度范围 -20 ... +60°C / -4 ... +140°F
位置指示	机械式位置指示器，即使在电源故障时依然可以连续指示阀位
电气接线	螺钉式电源与控制接线端子。内置接地柱。
电缆进口	2 x M20，带堵丝密封
采用的指令与标准	执行机构符合如下指令与标准： CE指令：2004 / 108 / EC、2006 / 95 / EC 标准：EN 61000-6-4、EN 61000-6-2、EN 60034-1 和 EN 60529

**General specifications**

General	EZ actuators include motor with thermal protection, gear case, emergency handwheel, travel limit switches, torque switches (except EZ4 to EZ15) anti-condensation heater, and output drive with removable socket
Gear design	Gears are mechanically self-locking and are lubricated for product lifetime
Design life	EZ4 to EZ60: 20,000 cycles (On-Off) / 300,000 starts (Positioning) EZ100 to EZ1000: 10,000 cycles (On-Off) / 200,000 starts (Positioning) Tested to EN15714-2 Class A & B
Enclosures	Actuator housing in aluminium die casting, cathaphoresis & epoxy paint RAL 1017 IP67
Motor technology	Totally-enclosed, squirrel cage 3-phase or 1-phase motor, class F insulation with integral thermal overload protection.
Motor duty	S4-25% motor duty rating to IEC 60034-1. 360 starts/hour in peak
Temperature range	-20°C to +60°C / -4°F to +140°F
Position indication	Mechanical position indicator for a continuous indication even in the event of power supply loss
Electrical connection	Screw-type terminals for controls and power supply. Internal earth grounding post.
Cable entries	2 x M20 sealed by caps
Compliance with Directives & Standards	Actuators comply with: EC directives 2004 / 108 / EC, 2006 / 95 / EC and standards EN 61000-6-4, EN 61000-6-2, EN 60034-1 and EN 60529

电动执行器  
ELECTRIC ACTUATION

基本操作参数

Basic operating details

开关型控制	
行程限位系统	4个SPDT触点;最大负载250 VAC-16 A / 48 VDC-2,5 A. (电阻性负载)
扭矩限位系统	扭矩限位开关可提供瞬时触点 (除EZ4-EZ15) 标配2个触点, SPDT, 最大负载250VAC-16A / 48 VDC-2,5 A. (电阻性负载)
远程位置信号 (可选)	1000 Ohm 电位计, 0.3 W, 极限动触点电流1 mA。 TA M位置变送器: 4-20mA (采用12、24或32V电源及150、750或1050 ohms负载)

On-Off controls	
Travel limit system	4 SPDT contacts; 250 VAC-16 A / 48 VDC-2.5 Amax. (resistive load)
Torque limiting system	The torque limit switch gives a short duration contact. (except EZ4 to EZ15) 2 contacts as standard; SPDT; 250VAC-16A / 48 VDC-2.5 Amax. (resistive load)
Remote position signal (option)	1000 Ohm potentiometer; 0.3 W - wiper current = max. 1 mA. "TAM" position transmitter: 4-20 mA (12, 24 or 32V) power supply for maximum permissible load of 150, 750 or 1050 Ohms

带Minigam的一体化调节型控制	
定位精度	高于2% 带死区调节电位计
命令 (设置点)	可配置输入信号 (输入阻抗) 4-20 mA (260 Ω) / 0-20 mA (260 Ω) / 0-10 V (10 kΩ)
位置反馈	输出信号类型与输入信号相同 (例如输入信号 4-20 mA - 输出信号 4-20 mA) 4-20 mA (最大300 Ω) / 0-20 mA (最大300 Ω) / 0-10 V (最小5 kΩ) 2个SPDT触点; 最大容量250 VAC-16 A / 48 VDC-2,5 A. (电阻性负载)
集成保护功能	保险丝保护、电机热保护、过扭矩保护 (EZ25及以上型号)

Positioning with Minigam integrated controls	
Positioning precision	Better than 2%. Dead band adjustable by potentiometer
Command (set-point)	Configurable input signal (input impedance): 4-20 mA (260 Ω) / 0-20 mA (260 Ω) / 0-10 V (10k Ω)
Position feedback	Output signal identical to the input signal (i.e. input signal: 4-20 mA - output signal: 4-20 mA) 4-20 mA (300 Ω max.) / 0-20 mA (300 Ω max.) / 0-10 V (5 kΩ min.) 2 SPDT contacts; 250 VAC-16 A / 48 VDC-2.5 Amax. (resistive load)
Integrated protections	Fuse protection - Motor thermal protection - Torque limiter protection (EZ25 and above)

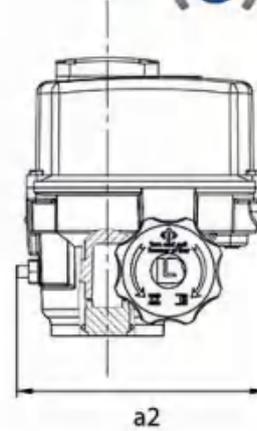
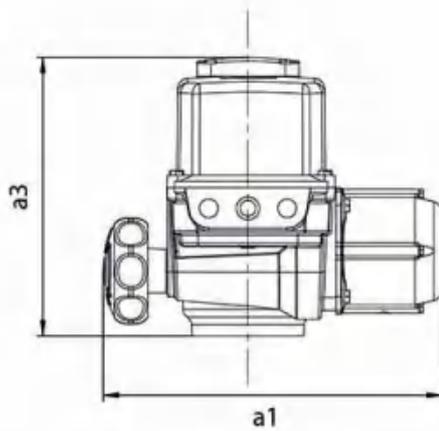
1x230 VAC 50 Hz								
						电机-S4-25% Motor - S4 service - Duty rating: 25%		
型号	最大扭矩(N.m)	是否可用Minigam	调节扭矩(N.m)	行程时间(s / 90°)	ISO平台	功率(kw)	额定电流(A)	起动电流(A)
Type	Max torque N.m	Available in Minigam version	Positioning torque	Operating time s / 90°	Flange ISO	Power kw	Current rated A	Current start A
EZ4	45	non	-	6	F05/F07	0.03	0.6	0.9
EZ6	60	non	-	6	F05/F07	0.03	0.6	0.9
EZ10	100	non	-	6	F05/F07	0.06	1.2	1.7
EZ10	100	oui	50 N.m	35	F05/F07	0.02	0.5	0.6
EZ15	150	oui	75 N.m	25	F05/F07	0.03	0.6	0.9
EZ25	250	oui	125 N.m	30	F07/F10	0.03	0.6	0.9
EZ60	600	oui	250 N.m	30	F07/F10	0.06	1.2	1.7
3x400 VAC 50 Hz								
EZ6	60	non	-	6	F05/F07	0.03	0.3	0.5
EZ10	100	non	-	6	F05/F07	0.1	0.6	1.1
EZ15	150	non	-	25	F05/F07	0.03	0.3	0.5
EZ25	250	non	-	30	F07/F10	0.03	0.3	0.5
EZ60	600	non	-	30	F07/F10	0.06	0.3	0.8

ACT | ACC

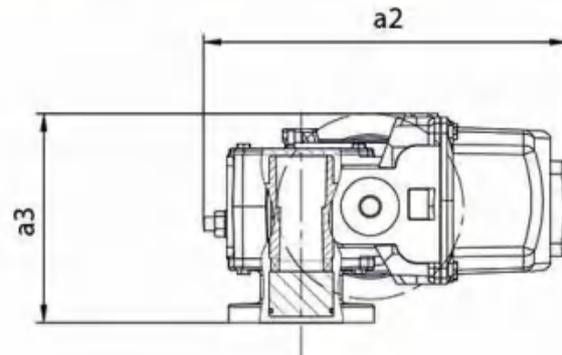
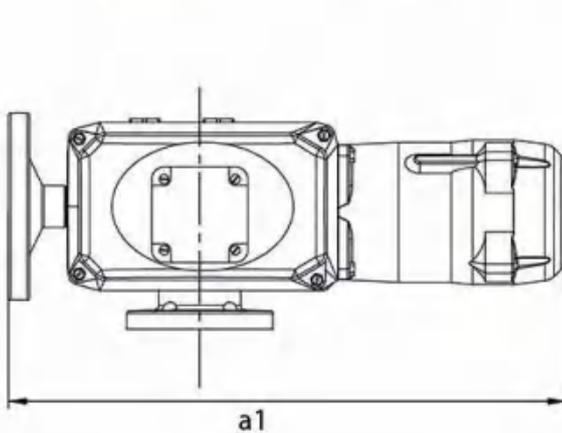
电动执行器  
**ELECTRIC ACTUATION**

**EZ 系列外形尺寸**

**Overall dimensions "EZ" type**



	ISO 5211 法兰平台 Flange ISO5211	最大阀杆尺寸 / Stem size (mm)		a1 (mm)	a2 (mm)	a3 (mm)	重量(公斤) Weight (kg)
		圆轴 Bore (Max)	方轴 Square(Max)				
EZ4	F05/F07	22	19	≤273	≤200	≤225	6
EZ6	F05/F07	22	19	≤319	≤200	≤225	7
EZ10	F05/F07	22	19	≤362	≤200	≤225	7
EZ15	F05/F07	22	19	≤362	≤200	≤225	7



	ISO 5211 法兰平台 Flange ISO5211	最大阀杆尺寸 / Stem size (mm)		a1 (mm)	a2 (mm)	a3 (mm)	重量(公斤) Weight (kg)
		圆轴 Bore (max.)	方轴 Square (max.)				
EZ25	F07/F10	30	22	≤479	≤313	≤180	18
EZ60	F07/F10	32	27	≤528	≤313	≤180	20

可选项：  
其他电压  
防爆型 (ATEX)

On request:  
Other voltage  
ATEX version





**限位开关 / 电磁阀**

防护等级  
IP65 / IP67  
爆炸危险区域  
EEx "ia"  
EEx "ed"  
EEx "em"  
ATEX II2 G / D

**Limit switches / Solenoid valves**

Classes of protection  
IP65 / IP67  
Hazardous area protection  
EEx "ia"  
EEx "ed"  
EEx "em"  
ATEX II2 G / D



感应器  
Inductive sensors

EEx 'ia' 电磁阀  
EEx 'ia' solenoid valve



EEx 'em' 电磁阀  
EEx 'em' solenoid valve

EEx 'ed' 限位开关  
EEx 'ed' Limited switch box

ACT | ACC

附件  
ACCESSORIES

限位开关

安全区域



防护  
IP67

外壳  
铝制模具成型，聚酯粉末喷涂  
VDI / VDE 3845 支架

布线  
2 x 1/2" G 螺纹

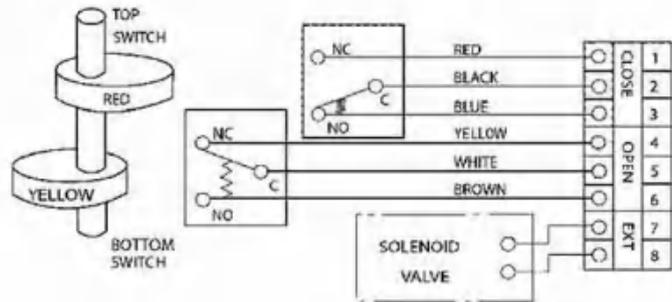
信号  
2 x SPDT 机械开关

位置指示  
在限位开关盒的顶部 (开 / 关)

技术参数  
电压: 最大 250 V  
电流: 最大 16 A  
温度: -20°C 到 80°C

Limit switch box

Safe area



Protection  
IP67

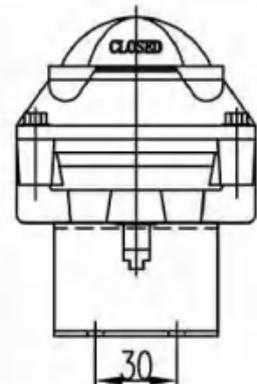
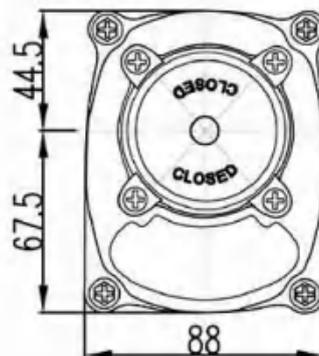
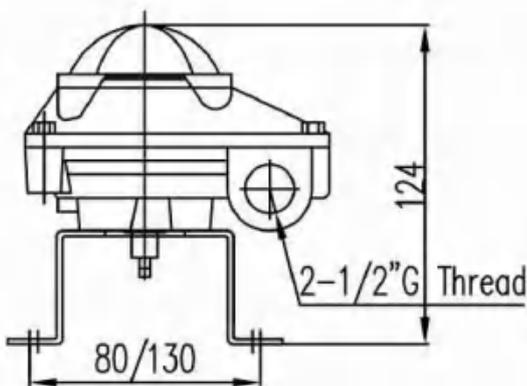
Housing  
Polyester powder coated die-casted aluminium  
Bracket according to VDI / VDE 3845

Cabling  
2 x 1/2" G thread

Signal  
2 x SPDT mechanical switches

Position indication  
On the top of the box (Open / Closed)

Technical data  
Voltage: 250V max  
Current: 16A max  
Temperature: -20°C to 80°C



**ASCO 电磁阀**

安全区域

*Solenoid valve ASCO*

*Safe area*



**G531 型电磁阀**

5/2 - 3/2 型式

阀体作阳极铝处理

空气或中性气体 (经过滤)

压力: 2 到 10 bar

空气流量 (6 bar): 1100 l / min

温度: -10°C 到 +60°C

外壳 IP65

带手动操作螺栓

**IP65 先导阀**

型号: SCG 531

标准电压: 24VDC, 24VAC, 115VAC, 230 VAC 50Hz

接头 M 20x1.5

*Solenoid valve G531 type*

*5/2 - 3/2 type*

*Body in anodized aluminium*

*Supply: air, neutral gaz (filtered)*

*Pressure: 2 to 10 bar*

*Air flowrate (Qv at 6 bar): 1100 l / min.*

*Temperature: -10°C to +60°C*

*Housing IP65*

*Manual override*

*IP65 pilot*

*Type: SCG 531*

*Voltages: 24VDC, 24VAC, 115VAC, 230VAC 50Hz*

*Gland entry M20 x 1.5*

**ACT | ACC**

附件  
**ACCESSORIES**

**Parker 电磁阀**

安全区域

*Solenoid valve Parker*

Safe area



**BNK AD6 JNC2 型电磁阀**

5/2 - 3/2 型式  
阀体作铝处理  
空气或中性气体 (经过滤)  
压力: 2 到 10 bar  
空气流量 (6 bar):  $Q_v = 600 \text{ l/min}$   
温度:  $-10^\circ\text{C}$  到  $60^\circ\text{C}$   
外壳 P65  
带手动操作螺栓

**IP65 先导阀**

型号: 496593C2  
标准电压: 24VDC, 24VAC, 115VAC, 230 VAC 50Hz  
接头 M 20x1.5

*Solenoid valve BNKAD6JNC2 type*

*5/2 - 3/2 type*  
*Body in Aluminum*  
*Supply: air, inert gas (filtered)*  
*Pressure: 2 to 10 bar*  
*Air flowrate ( $Q_v$  at 6 bar): 600 l/min*  
*Temperature:  $-25^\circ\text{C}$  to  $80^\circ\text{C}$*   
*Housing IP65*  
*Manual operation screw*

*IP65 pilot*

*Type: 496593C2*  
*Standard voltages: 24VDC, 24VAC, 115VAC, 230 VAC*  
*50Hz*  
*Gland entry M20x1.5*

**感应器**

安全区域



**防护**  
IP67

**感应器**  
两个 PBTP 模制传感器  
防抖动及震动  
VDI / VDE 3845

**布线**  
M 18 接头

**信号**  
两个常开感应器，带目标盘

**位置指示**  
两个黄色 LED 灯

**技术参数**  
电压: 10 到 36 VDC  
电流: 250mA  
温度: -20°C 到 80°C

**可选项**  
可定制其它型号的 IFM 感应器

*Inductive sensor*

*Safe area*



*Protection*  
IP67

*Sensors*  
2 sensors moulded in PBTP.  
Shocks and vibrations resistant  
VDI / VDE 3845

*Cabling*  
M 18 connector

*Signal*  
2 inductive sensors normally open with target puck

*Position Indication*  
2 yellow LED

*Technical data*  
Voltage: 10 to 36 VDC  
Current: 250mA  
Temperature : -20°C to +80°C

*On request*  
Other types of IFM sensors

**ACT | ACC**

附件  
ACCESSORIES

**BÜRKERT EEx"ia"电磁阀**

爆炸危险区域 (ATEX)

**EEx"ia" solenoid valve BÜRKERT**

'Hazardous area' protection (ATEX)



**6519 型号电磁阀**

5/2 - 3/2 型式  
带手动操作螺栓  
聚酰胺阀体  
空气或中性气体 (经过滤)  
压力: 从 2 到 8 bar  
空气流量(6 bar): 900 l / min  
温度: -20°C 到 55°C  
外壳 IP65

**Solenoid valve 6519 type**

5/2 - 3/2 type  
Manual override  
Body in polyamid  
Supply: air, neutral gaz (filtered)  
Pressure: 2 to 8 bar  
Air flowrate (Qv at 6 bar): 900 l / min.  
Temperature: -20°C to +55°C  
Housing IP65

**EEx"ia" 先导阀**

ATEX 94 / 9 / EC II2G EEx"ia" IIC T6  
电压: 24 VDC  
接头: M20 x 1.5

**EEx"ia" pilot**

ATEX 94 / 9 / EC II2G EEx"ia" IIC T6  
Voltage: 24 VDC  
Gland entry M20 x 1.5

附件  
**ACCESSORIES**

**EEx"ia"感应传感器**

爆炸危险区域 (ATEX)



**防护**

本质安全 EEx"ia" IIC T6  
ATEX 94 / 9 / EC II2GD  
IP67 (防水、空气、尘)

**感应器**

两个 PBTP 模制感应器  
VDI / VDE 3845 防抖动及震动

**布线**

M 18 接头

**信号**

两个常开感应器，带目标盘

**位置指示**

两个黄色 LED 灯

**技术参数**

电压: 7.5 to 15 VDC  
名义电压: 8.2 VDC (Namur)  
电流: < 1mA (阻尼电流)  
> 2.1mA (感应电流)  
温度: -20°C 到 70°C

**可选项**

可定制其他型号的 IFM 感应器

**Inductive sensors EEx"ia"**

'Hazardous area' protection (ATEX)



**Protection**

Intrinsically safe EEx"ia" IIC T6.  
ATEX 94 / 9 / EC II2GD  
IP67 (splatterings of water, air, dust)

**Sensors**

2 sensors moulded in PBTP.  
Shocks and vibrations resistant VDI / VDE 3845

**Cabling**

M 18 connector

**Signal**

2 inductive sensors normally close with target puck

**Position Indication**

2 yellow LED

**Technical data**

Voltage: 7.5 to 15 VDC  
Nominal voltage: 8.2VDC (Namur)  
Current: < 1mA (damped)  
> 2.1mA (undamped)  
Temperature: -20°C à +70°C

**On request**

Other types of IFM sensors

附件  
**ACCESSORIES**

**EEEx"d"限位开关**

爆炸危险区域



**保护**  
IP67  
隔爆型 Ex d IIC T6

**外壳**  
铝制铸造成型，聚酯粉末喷涂  
VDI / VDE 3845支架

**布线**  
2 x 3/4" NPT 螺纹

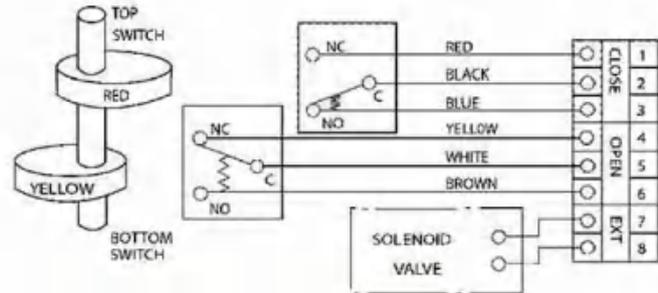
**信号**  
2 x SPDT 机械开关

**位置指示**  
在限位开关盒的顶部 (开 / 关)

**技术参数**  
电压: 最大 250V  
电流: 最大 16A  
温度: -20°C 到 80°C

**Limit switch box EEEx"d"**

'Hazardous area' protection



**Protection**  
IP67  
Explosion proof Ex d IIC T6

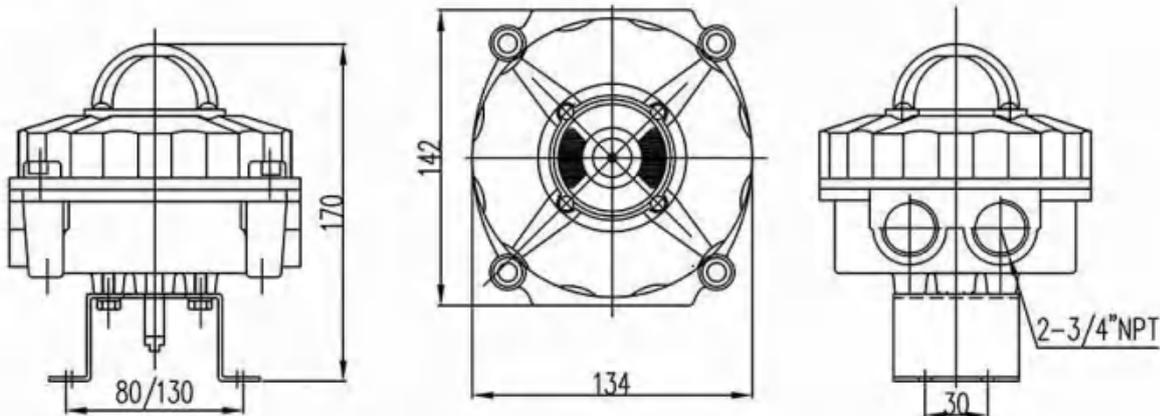
**Housing**  
Polyester powder coated die-casted aluminium  
Bracket according to VDI / VDE 3845

**Cabling**  
2 x 3/4" NPT thread

**Signal**  
2 x SPDT mechanical switches

**Position indication**  
On the top of the box (Open / Closed)

**Technical data**  
Voltage: 250V max  
Current: 16A max  
Temperature: -20°C to 80°C



**BÜRKERT EEx"em"电磁阀**

爆炸危险区域 (ATEX)

**EEx"em" solenoid valve BÜRKERT**

'Hazardous area' protection (ATEX)



**6519 型号电磁阀**

5/2 - 3/2 型式

手动操作螺栓

聚酰胺阀体

空气或中性气体 (经过滤)

压力: 2 到 8 bar

空气流量: (6 bar): 900 l / min

温度: -20°C到55°C

外壳 IP65

**Solenoid valve 6519 type**

5/2 - 3/2 type

Manual override

Body in polyamid

Supply: air, neutral gaz (filtered)

Pressure: 2 to 8 bar

Air flowrate (Qv at 6 bar): 900 l / min.

Temperature: -20°C to +55°C

Housing IP65

**EEx"em" 先导阀**

ATEX 94 / 9 / EC II2GD EEx"em" T6

电压: 24VDC, 24VAC, 115VAC, 230VAC 50Hz

接头: M20x1.5

**EEx"em" pilot**

ATEX 94 / 9 / EC II2GD EEx"em" T6

Voltage: 24VDC, 24VAC, 115VAC, 230VAC 50Hz

Gland entry M20x1.5

附件  
**ACCESSORIES**

**ASCO EEx"d"电磁阀**

爆炸危险区域 (ATEX)

**EEx"d" solenoid valve ASCO**

'Hazardous area' protection (ATEX)



**G551 LPKF 型号电磁阀**

5/2 - 3/2 型式  
手动操作螺栓  
铝制阀体  
空气或中性气体 (经过滤)  
压力: 2 到 10 bar  
空气流量 (6 bar): 900 l / min  
温度: -40°C 到 60°C  
外壳 IP67  
符合 CEI 335

**EEx"d" 先导阀**

防护等级: II2G Ex d IIB + H2 Gb T6  
电压  
DC: 24VDC, 48VDC  
AC50Hz: 24VAC, 48VAC, 115VAC, 230VAC  
对直径在 6 - 12mm 的非铠装电缆交货时带此接头

**Spool valve Asco G551 LPKF**

5/2 and 3/2 type  
Manual override  
Aluminium body  
Supply: air, neutral gaz (filtered)  
Pressure: 2 to 10 bar  
Air flowrate (6 bar): 900 l / min.  
Temperature: -40°C to +60°C  
IP67 Housing  
Compliant to CEI 335

**EEx "d" pilot**

Protection: II2G Ex d IIB+H2 Gb T6  
Voltage (Power):  
DC: 24VDC, 48VDC  
AC 50Hz: 24VAC, 48VAC, 115VAC, 230VAC  
Delivered with cable gland packing for unarmored cable  
diameter: 6 - 12mm

附件  
ACCESSORIES

其他可选项

Others solutions on request



示例  
限位开关盒  
带电磁阀

Example  
Limit switch box  
including solenoid  
valve

ACT | ACC



## DN 08 到 DN 200

用于三片式球阀 PS4 系列  
用于两片式球阀 R2 系列

## Size 1/4" to 8"

For 3-piece ball valves PS4 type  
For 2-piece ball valves R2 type



紧急切断解决方案  
Emergency shut-off solution



加高手柄  
Extended handle



延长阀杆  
Stem extension

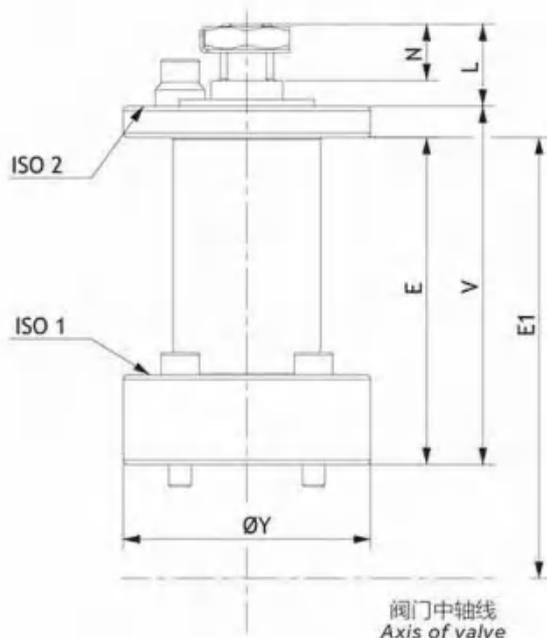


不锈钢手轮  
Stainless steel handwheel

OPT | MAI

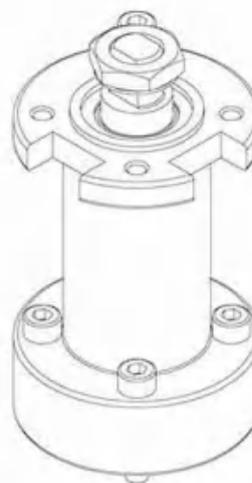
延长阀杆

DN 10 到 DN 50



Stem extension

1/4" to 2"



RH4: 不锈钢延长阀杆，用于保留管道，且可与保温外层焊接，延长阀杆顶端同阀门一样，采用ISO标准平台。

可锁紧的手轮 / 手柄

RH4: Stainless steel stem extension on which pipe insulation, can be welded.

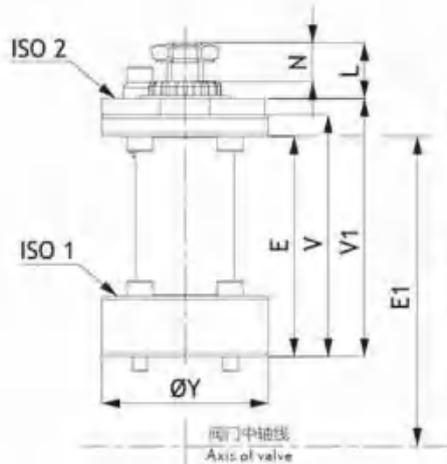
Top of the extension similar to the valve ISO top flange.

Lockable handwheel / lever

尺寸 (PS4) Size (PS4)		尺寸 (R2) Size (R2)		E	E1	L	N	V	ØY	ISO 1	ISO 2		
通径 Full Bore	缩径 Reduced Bore	通径 Full Bore	通径 Full Bore										
10	1/4"-3/8"	15	1/2"	-	-	44	71.5	13.3	9.7	50	46	F03	F03
15	1/2"	20	3/4"	15	1/2"	44	75	13.3	9.7	50	46	F03	F03
20	3/4"	25	1"	20	3/4"	48	85.9	18.3	12.6	55	55	F04	F04
25	1"	32	1"1/4	25	1/2"	48	90	18.3	12.6	55	55	F04	F04
32	1"1/4	40	1"1/2	32	1"1/4	57	111	24.1	16.4	65	65	F05	F05
40	1"1/2	50	2"	40	1"1/2	57	116	24.1	16.4	65	65	F05	F05
50	2"	65	2"1/2	50	2"	64	137	29.5	19	75	89.5	F07	F07

### 延长阀杆

DN 10 到 DN 150



RHS: 球阀与延长阀杆之间不带密封。

RHT: 球阀与延长阀杆之间带有 PTFE 密封。

RHJ: 球阀与延长阀杆之间带有氟素硅胶O型圈密封, 用于热冲击介质。

### Stem extension

1/4" to 6"



● DN 10 到 DN 50  
Size 1/4" to 2"

● DN 65 到 DN 150  
Size 2" 1/2 to 6"

RHS: without sealing between valve and extension.

RHT: PTFE sealing between valve and extension.

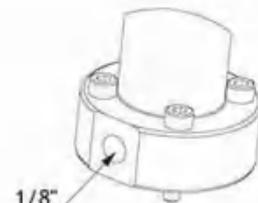
RHJ: Fluorosilicone O-ring sealing between valve and extension for thermal fluid.

### PS4

尺寸/Size		E	E1	L	N	V	V1	ØY	ISO 1	ISO 2		
通径/Full Bore	缩径/Reduced Bore											
10	1/4"-3/8"	15	1/2"	74	101.5	13.4	8.7	80	85	46	F03	F03
15	1/2"	20	3/4"	74	105	13.4	8.7	80	85	46	F03	F03
20	3/4"	25	1"	73	110.9	18.4	12.6	80	85.5	55	F04	F04
25	1/2"	32	1"1/4"	73	115	18.4	12.6	80	85.5	55	F04	F04
32	1"1/4"	40	1"1/2"	92	146	24.2	16.2	100	109	65	F05	F05
40	1"1/2"	50	2"	92	151	24.2	16.2	100	109	65	F05	F05
50	2"	65	2"1/2"	89	162	29.6	19	100	108	90	F07	F07
65	2"1/2"	80	3"	105.5	209.5	43.2	25	120	-	90	F07	F07
80	3"	100	4"	105.5	219.5	43.2	25	120	-	125	F10	F10
100	4"	125	5"	102	235	48.7	30	120	-	125	F10	F10
125	5"	150	6"	136	297	58.2	32.5	150	-	150	F12	F12
150	6"	200	8"	136	316	58.2	32.5	150	-	150	F12	F12

### R2

尺寸/Size		E	E1	L	N	V	V1	ØY	ISO 1	ISO 2
15	1/2"									
20	3/4"	73	110.9	18.4	12.6	80	85.5	55	F04	F04
25	1"	73	115	18.4	12.6	80	85.5	55	F04	F04
32	1"1/4"	92	146	24.2	16.2	100	109	65	F05	F05
40	1"1/2"	92	151	24.2	16.2	100	109	65	F05	F05
50	2"	89	172	29.6	19	100	108	90	F07	F07
65	2"1/2"	105.5	209.5	43.2	25	120	-	90	F07	F07
80	3"	105.5	219.5	43.2	25	120	-	125	F10	F10
100	4"	102	235	48.7	30	120	-	125	F10	F10
150	6"	136	316	58.2	32.5	150	-	150	F12	F12



可选项 option:

为压力传感器预留的螺纹孔 (检测泄漏)

● Threaded hole to insert manometer. (leak detection)

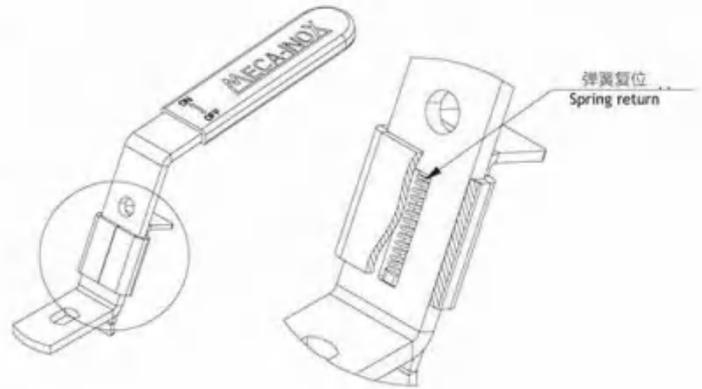
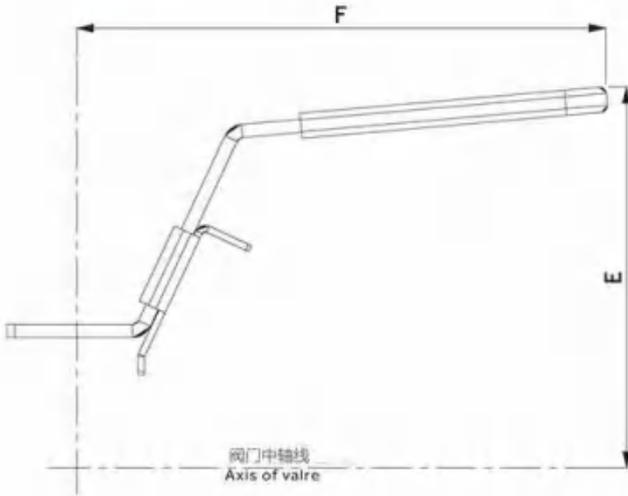
OPT | MAI

不锈钢可锁止手柄

DN 10 到 DN 50

Stainless steel lockable handle

Size 1/4" to 2"



RR4NICV:

304 不锈钢手柄，带弹簧可锁止复位装置。

BR4NICV:

304 不锈钢手柄，带可锁止装置，仅适用于PS4系列。

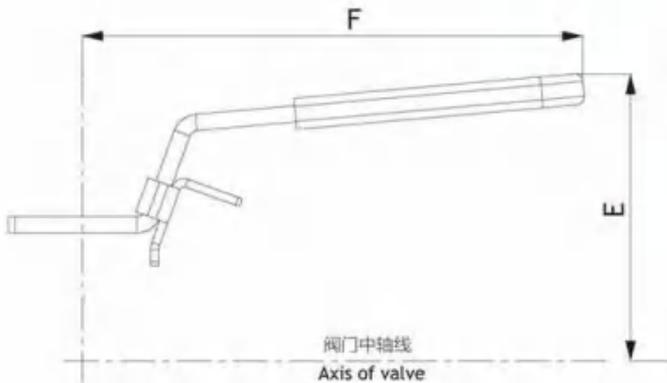
尺寸 / Size				BR4NICV PS4		RR4NICV PS4-R2	
口径 Full Bore		缩径 Reduced Bore		E	F	E	F
10	1/4"-3/8"	15	1/2"	68	118	105.5 (PS4)	118
15	1/2"	20	3/4"	73	118	108.5	118
20	3/4"	25	1"	88	158	117.5	158
25	1"	32	1"1/4	92	158	121.7	158
32	1"1/4	40	1"1/2	109	188	135.7	188
40	1"1/2	50	2"	114	188	140.7	188
50	2"	65	2"1/2	137	225	158.5 (PS4) 168.5 (R2)	225

RR4NICV:

304 stainless steel lever. Equipped with a spring lockable system.

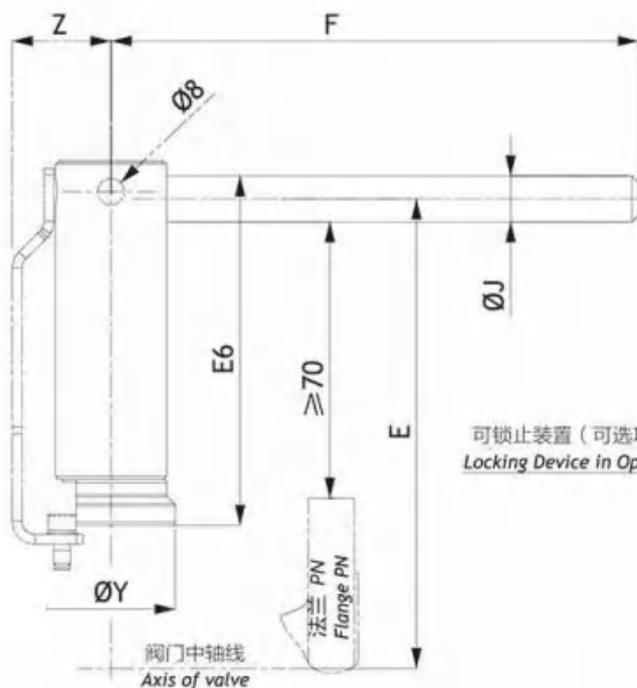
BR4NICV:

304 stainless steel lever. Equipped with a lockable system. Mounting only for PS4 series.



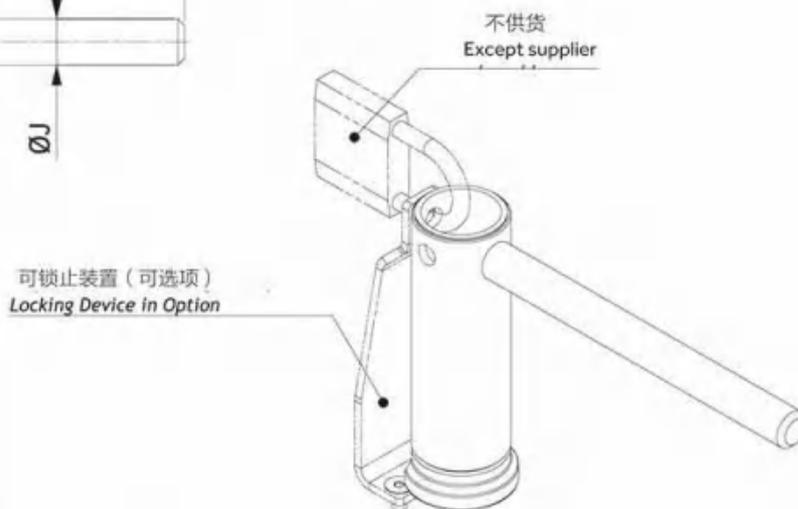
加高手柄

304L



Extended handle

304L



PLRJ4: 保温管路要求适用于不锈钢加高手柄

PLRJ4: Stainless steel extended lever for insulated pipes.

可选项:

- 滑动选择 (PLRJ4 CL)
- 可锁止装置 (PLRJ4 CAD8)

On request:

- Sliding option (PLRJ4 CL).
- Locking device (PLRJ4 CAD8).

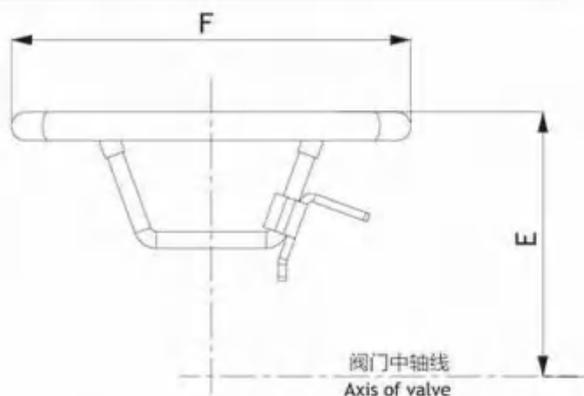
尺寸 / Size				E		E6	F	ØJ	ØY	Z
通径 Full Bore	缩径 Reduced Bore	PS4	R2							
10	1/4"-3/8"	15	1/2"	128.9	-	104	120	12	37.5	27
15	1/2"	20	3/4"	133.7	133.7	104	120	12	37.5	27
20	3/4"	25	1"	143.2	143.2	106.5	160	14	39	30
25	1"	32	1"1/4"	147.3	147.3	106.5	160	14	39	30
32	1"1/4"	40	1"1/2"	156	156	102	190	16	47.5	33
40	1"1/2"	50	2"	161	161	102	190	16	48	33
50	2"	65	2"1/2"	180.6	190.6	106	224	18	64.5	46

手轮  
**HANDWHEEL**

不锈钢手轮

DN 10 到 DN 50

RVONIRM / RVONICVRM

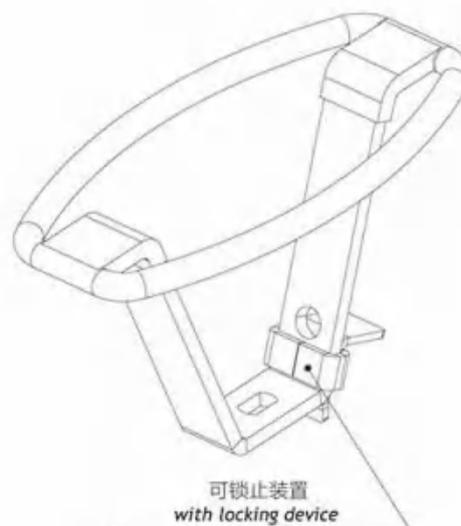
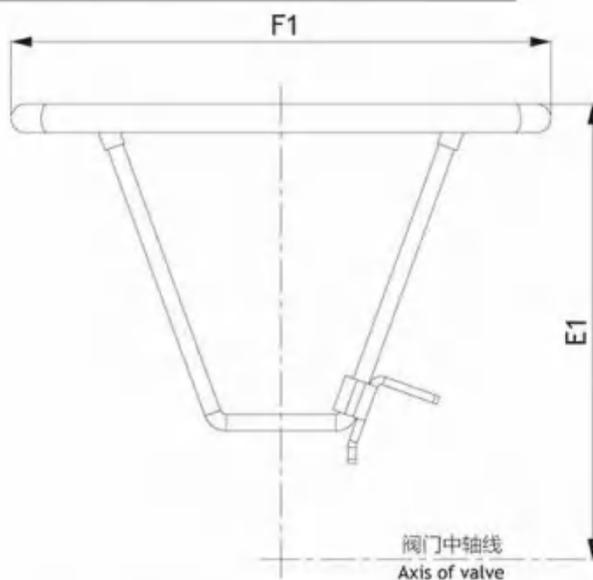


Stainless steel handwheel

Size 1/4" to 2"



RVONIHM / RVONICVHM



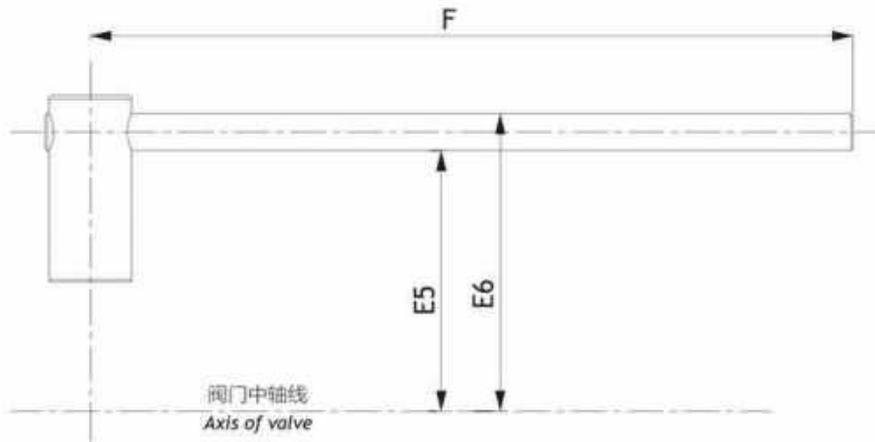
尺寸 / Size				RVONIRM - RVONICVRM		RVONIHM - RVONICVHM		RVONIHM - RVONICVHM	
通径		缩径		PS4		PS4		R2	
Full Bore	Reduced Bore	Full Bore	Reduced Bore	E	F	E1	F1	E1	F1
10	1/4"-3/8"	15	1/2"	60	96 x 59	107	131 x 68	-	-
15	1/2"	20	3/4"	64	96 x 59	111	131 x 68	111	131 x 68
20	3/4"	25	1"	80	121 x 72	131	169 x 88	131	169 x 88
25	1"	32	1 1/4"	85	121 x 72	135	169 x 88	135	169 x 88
32	1 1/4"	40	1 1/2"	-	-	156	209 x 109	156	209 x 109
40	1 1/2"	50	2"	-	-	161	209 x 109	161	209 x 109
50	2"	65	2 1/2"	-	-	174	243 x 148	184	243 x 148

\*不适用于两片式球阀 / *not mounting R2 BALL VALVE*

加高手柄

Extended handle

P4NIRH



KCAD1



用于 P4NI 和 P4NIRH 手柄的可锁止装置 (不锈钢)

Locking device for P4NI and P4NIRH handle (stainless steel)

尺寸 / Size				P4NIRH					
通径 Full Bore		缩径 Reduced Bore		PS4			R2		
				E5	E6	F	E5	E6	F
65	2"1/2	80	3"	194	212	370	194	212	370
80	3"	100	4"	204	222	440	204	222	440
100	4"	125	5"	235	255	505	235	255	505
125	5"	150	6"	263	290	700	-	-	-
150	6"	200	8"	282	309	700	282	309	700

安全操作  
OPERATION SAFETY

手动

Manual version



"Dead-man"手柄球阀:  
球阀装有弹簧盒, 当  
操作者松开手柄时,  
会立即将阀门恢复到  
安全位置。

"Dead-man" lever ball valves:  
a spring box is assembled on the  
valve and switch the valve into  
safety position as soon as the  
operator releases the handle.

气动

Pneumatic actuation version



当没有气源时, 单作用气  
动执行器会将阀门关闭。  
ABOP 选项可将气动执行  
器与阀门分离, 从而实现  
手动安全操作。

A spring return actuator  
closes the valve any case of  
air power shutdown.  
ABOP option included an  
actuator release to allow  
safe manual operating.

## 紧急切断解决方案 EMERGENCY SHUT-OFF SOLUTION

### 操作说明

紧急情况下关闭球阀：可自动（遇火），可手动。  
 无需外部动力源（如压缩空气，电源等），阀门  
 正常情况下始终保持开启状态。  
 - 通过一个锁止装置使弹簧保持负荷状态。  
 通过扳动紧急手动装置或热熔断路器的方式触发操作。  
 - 弹簧的卸载扭力可使阀门关闭。

### Operation safety

Close ball valve in case of emergency: automatically  
 (Fire) or manually.  
 Energy-independent (no compressed air, no power).  
 Valve is always maintained in the open position.  
 - A locker keeps a spring loaded.  
 Triggering by manual emergency action or where the  
 thermal fuse melts (fire).  
 - Unloading spring allows valve closing.



### 紧急切断气动阀

渐进式手动操作  
 开启或关闭阀门需要较大的扭矩。

### Emergency operation of the actuated valve

Manual valve gradual opening  
 Open/close valves with high operating torque





**备件清单**

ATEX规范  
 装配说明书  
 密封件  
 阀球  
 阀杆  
 弹簧组

*Spare parts list*

ATEX  
 Assembly instruction  
 Sealing components  
 Ball  
 Stem  
 Springs kit



**ATEX规范**  
**ATEX**

“从2003年7月1日起，防止爆炸危险成为所有工业行业的义务，作为一个‘新的规范’在 ATEX 指令中我们可以看到其应用范围非常广阔，即公布之日起，所有应用于具有潜在爆炸危险区域存在（气体，烟雾或灰尘排放）的设备都必须严格遵守安全规则。

用户有责任按照 99 / 92 / EC 指令来界定所要求的防护等级，并有责任在订单中记载，向供货商提供所有有关防护等级要求的信息。

必要时，必须在订单中清晰地记载 ATEX 所要求的大气分类、区域、属性信息。

装配者和组装者必须按照指令 94 / 9 / EC 要求，对不同零件装配的、由先前制造商投放到市场上的成套装置进行检查，确认他们是否完全符合指令和 CE 标识的要求。

如果零件既没有 CE 标识也不符合要求，那么装配者和组装者有责任评估该零件是否符合装配要求。

94 / 9 / EC 指令也称为“ATEX”，描述了要求制造商在投放市场前进行合规生产的最低要求。

Since July the 1<sup>st</sup> 2003, protection against explosion risk has become an obligation in all industrial sectors. Through a "new approach", ATEX directives have seen their application widely used: from this time, all equipments submitted to potential explosion areas (gas, fog, or dust emission), must respect very strict safety rules.

It is the user's responsibility to define the requested protection level according to the 99 / 92 / EC directive. It is again his responsibility to mention in the orders and provide the supplier all information in regards to the level of protection demanded.

The ATEX request must be clearly stated on orders when necessary by mentioning atmosphere category, zone and nature.

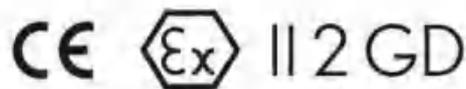
Assemblers and integrators must check that a complete system made of the assembly of different components following directive 94 / 9 / EC, that have been put on that market previously by manufacturers, fulfill comply with the directive and CE marking.

In case components do not show CE marking nor compliance, it is the assembler or integrator responsibility to evaluate the assembly conformity.

94 / 9 / EC directive "ATEX" is describing the minimum requirements asked to manufacturers to produce in compliance prior to any market launching.

**标识举例**

**Marking example:**

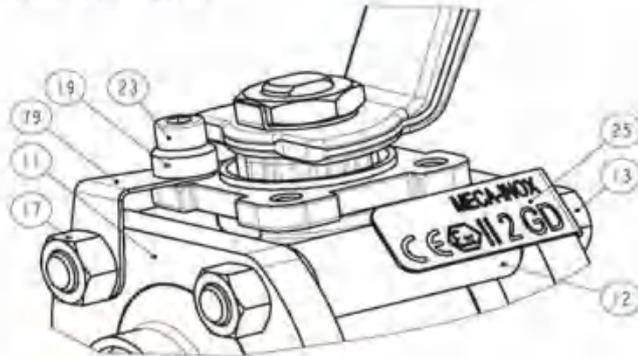


爆炸危险区域与设备类别的对应关系 Correspondence between zones and categories				
"Equipment group 设备组"	I 组 / Group I	矿井下 / Mining		
	II 组 / Group II	所有其他爆炸性环境 / All other explosive areas		
"Equipment category 设备类别"	类别 / Category	风险 / Risk	环境 / Atmosphere	
			G = 气体-蒸气-薄雾 / Gas - Vapors	D = 粉尘 / Dusts
	1类 / Category 1	连续 / Permanent	0区 / Zone 0	20 区 / Zone 20
	2类 / Category 2	经常 / Frequent	1区 / Zone 1	21 区 / Zone 21
	3类 / Category 3	偶尔 / Infrequent	2区 / Zone 2	22 区 / Zone 22

ATEX装配套装  
ATEX KIT ASSEMBLY

DN 08 到 DN 50

Size 1/4" to 2"



A- 装配 PS4 用 ATEX 支架 (79)

- 1- 卸下止位螺钉 (23) 和止位螺钉垫圈 (19)
- 2- 卸下螺母 (17), 拉出螺栓 (13) 与法兰 (11) 持平
- 3- 在螺栓上定位 ATEX 支架 (79)
- 4- 更换螺栓 (13), 按照表中给出的扭矩上紧螺母 (17)
- 5- 逆序更换止位螺钉并上紧

B- 装配 PS4 用 ATEX 标签 (25)

- 1- 卸下螺母 (17), 右侧拉出螺栓 (13), 注意不要松动套管 (12)
- 2- 定位 ATEX 标签 (25)
- 3- 更换套管 (12) 和螺栓 (13), 按照表中给出的扭矩上紧螺母 (17)

A - Assembling the ATEX bracket (79) for PS4

- 1 - Remove the stop (23) and the stop ring (19)
- 2 - Remove the nut (17) and pull out the bolt (13) to the level of the flange (11)
- 3 - Locate the ATEX bracket (79) onto the bolt
- 4 - Replace the bolt (13) and tighten the nut (17) to the torque given in the table
- 5 - Replace the stop in reverse order and tighten

B - Assembling the ATEX label (25) for PS4

- 1 - Remove the nut (17) and pull the bolt (13) right the way out taking care not to lose the spacer (12)
- 2 - Locate the ATEX label (25)
- 3 - Replace the spacer (12) and bolt (13), and tighten the nut (17) to the torque given in the table

DN65 到 DN150

Size 2"1/2 to 6"



A- 装配 PS4 用 ATEX 支架 (79)

- 1- 卸下螺栓 (39) 和垫片
- 2- 卸下螺母 (17), 拉出螺栓 (13) 与法兰 (11) 持平
- 3- 在螺栓 (13) 上定位 ATEX 支架 (79)
- 4- 更换螺栓 (13), 按照表中给出的扭矩上紧螺母 (17)
- 5- 更换螺栓 (39), 没有垫片, 上紧

B- 装配 PS4 用 ATEX 标签 (25)

- 1- 卸下螺母 (17), 右侧拉出螺栓 (13)
- 2- 定位 ATEX 标签 (25)
- 3- 更换螺栓 (13), 按照表中给出的扭矩上紧螺母 (17)

A - Assembling the ATEX bracket (79) for PS4

- 1 - Remove the bolt (39) and the washer
- 2 - Remove the nut (17) and pull out the bolt (13) to the level of the flange (11)
- 3 - Locate the ATEX bracket (79) onto the bolt (13)
- 4 - Replace the bolt (13) and tighten the nut (17) to the torque given in the table
- 5 - Replace the bolt (39) without the washer and tighten

B - Assembling the ATEX label (25) for PS4

- 1 - Remove the nut (17) and pull the bolt (13) right
- 2 - Locate the ATEX label (25)
- 3 - Replace the bolt (13), and tighten the nut (17) to the torque given in the table

DN	N	8	12	15	20	25	32	40	50	65	80	100	125	150
	V		15	20	25	32	40	50	65	80	100	125	150	200
扭矩 (N.m) Torque in N.m		10	10	10	22	22	40	40	60	80	80	80	100	100

仅当遵守了上述指示, 并按照 ATEX 标识符合声明中的建议采取了预防措施时, 我们才保证其符合 94 / 9 / EC 指令和 99 / 92 / EC 的要求。

Compliance with the requirements of the 94 / 9 / EC and 99 / 92 / EC directives is only ensured if all the aforementioned instructions are followed and precautions are taken in compliance with the recommendations contained in the ATEX marking conformity declaration.

阀门组装说明  
VALVE ASSEMBLY

DN 10 到 DN 50

球阀组装示意图 (图 4)

1. 将阀体法兰 (11) 套到管道上;
2. 将端子 (10) 焊到管道上;
3. 将螺栓 (13) 套管 (12) 螺母 (17) 套到阀体法兰 (11) 上, 注意: 请预留一只螺栓的位置, 以便留出空间随后安装阀体;
4. 将阀体安装到两个连接端中间, 阀球应处于打开位置;
5. 把其余未安装的螺栓 (13) 套管 (12) 螺母 (17) 安装到位;
6. 绕着管道将阀门调整到所要求朝向, 按照图表扭矩值拧紧螺母 (17)。

DN	N	8	12	15	20	25	32	40	50
	V		15	20	25	32	40	50	65
扭矩 ( N.m) Torque in N.m		10	10	10	22	22	40	40	60

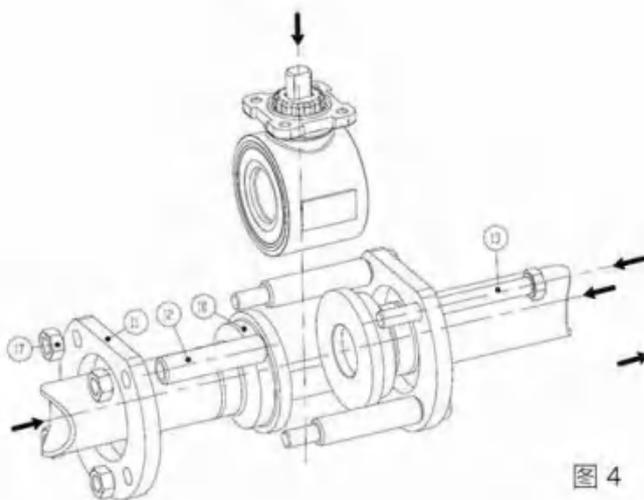


图 4

DN 65 到 DN 150

阀体的球阀组装示意图 (图 5)

1. 将阀体法兰 (11) 套到管道上;
2. 将连接端 (10) 焊到管道上;
3. 将螺栓 (13) 螺母 (17) 套到阀体法兰 (11) 上, 注意: 请预留几只螺栓的位置, 以便留出空间随后安装阀体;
4. 将阀体安装到两个连接端中间, 阀球应处于打开位置;
5. 把其余未安装的螺栓 (13) 螺母 (17) 安装到位;
6. 绕着管道将阀门调整到所要求朝向, 按照图表扭矩值拧紧螺母 (17)。

DN	N	65	80	100	125	150
	V	80	100	125	150	200
扭矩 ( N.m) Torque in N.m		80	80	80	100	100

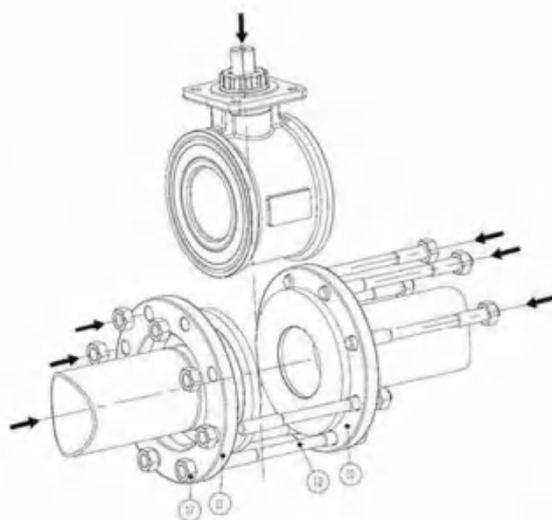


图 5

阀门组装说明  
VALVE ASSEMBLY

DN 10 to DN 50

Valve assembly body DN10 to DN 50 (Fig 4)

1. Insert body flanges (11) into the pipe
2. Weld the ends (10) on pipe
3. Insert screws (13), and nuts in the body flanges (11) only insert 3 in order to further allow valve body positioning
4. Insert valve body between ends (ball should be in the open position)
5. Put on the 4th screw (13), spacer (12) and nut (17)
6. Orientate the valve body as required around the pipe and tighten screws (13) and nuts (17) according to the following torque values

DN	N	8	12	15	20	25	32	40	50
	V		15	20	25	32	40	50	65
扭矩 (N.m)		10	10	10	22	22	40	40	60
Torque in N.m		10	10	10	22	22	40	40	60

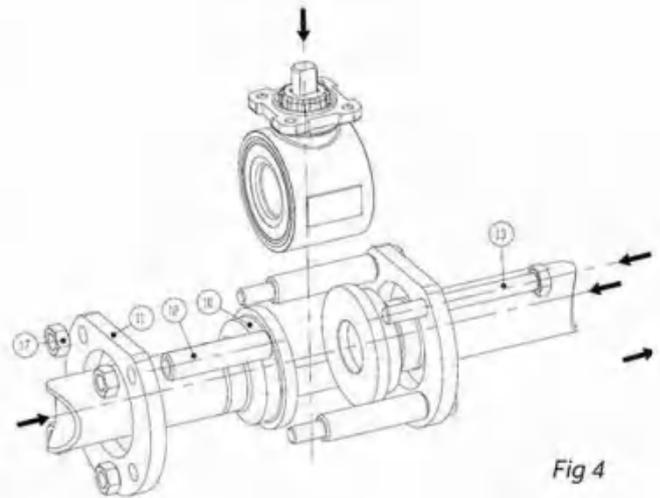


Fig 4

Valve assembly body DN65 to 150

Valve assembly body DN10 to DN 50 (Fig 5)

1. Insert body flanges (11) into the pipe
2. Weld the ends (10) on pipe
3. Insert screws (13), and nuts in the body flanges (11) note to keep some screws apart in order to further allow valve body positioning
4. Insert the valve body between ends (ball should be in the open position)
5. ut on the last screws (13), and nuts (17)
6. Orientate the valve body as required around the pipe and tighten screws (13) and nuts (17) according to the following torque values

DN	N	65	80	100	125	150
	V	80	100	125	150	200
扭矩 (N.m)		80	80	80	100	100
Torque in N.m		80	80	80	100	100

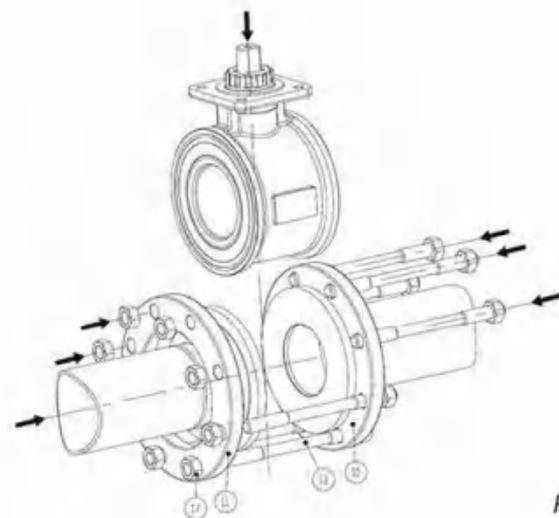


Fig 5

DN 10 到 DN 50

阀座 (08), 阀体密封 (14), 阀球 (09) 的更换

1. 松开一只螺栓 (13) 随同套管 (12) 螺母 (17) 一起

拆下以便取出阀体;

2. 取出阀体, 阀球 (09) 应处于打开位置;

3. 旋转 90°, 使阀球 (09) 处于关闭位置;

4. 将阀球从阀体推出, 阀座 (08) 也随之被推出;

5. 取出阀体密封 (14);

6. 更换破损的部件;

7. 按照拆开顺序, 重新安装 (步骤6-1)。

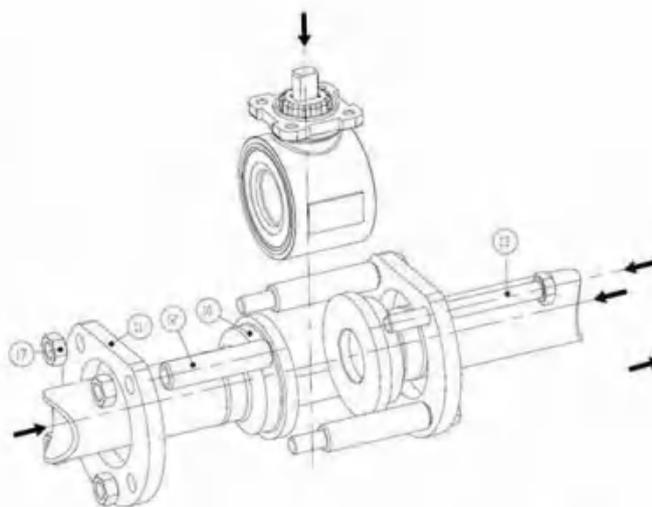


图 4

填料 (06) 和阀杆密封 (04) 的更换

1. 松开一只螺栓 (13) 随同套管 (12) 螺母 (17) 一起

拆下以便取出阀体;

2. 取出阀体, 阀球 (09) 应处于打开位置;

3. 旋转 90°, 使阀球 (09) 处于关闭位置;

4. 将阀球从阀体推出, 阀座 (08) 也随之被推出;

5. 取出螺母止动片 (28), 松开压盖螺母 (18);

6. 取出弹簧垫片 (07) 和填料压盖 (24);

7. 将阀杆推向阀腔, 保持阀杆密封留在阀杆上;

8. 取出阀杆 (05), 更换阀杆密封 (04);

9. 取出阀体内的填料 (06), 用新的进行更换;

注意: 填料位置凸在下, 凹在上。

10. 按照拆开顺序和拆卸说明重新安装好;

11. 按照下表扭矩值拧紧, 压盖螺母 (18), 勿忘重新装上螺母防滑盖 (28)。

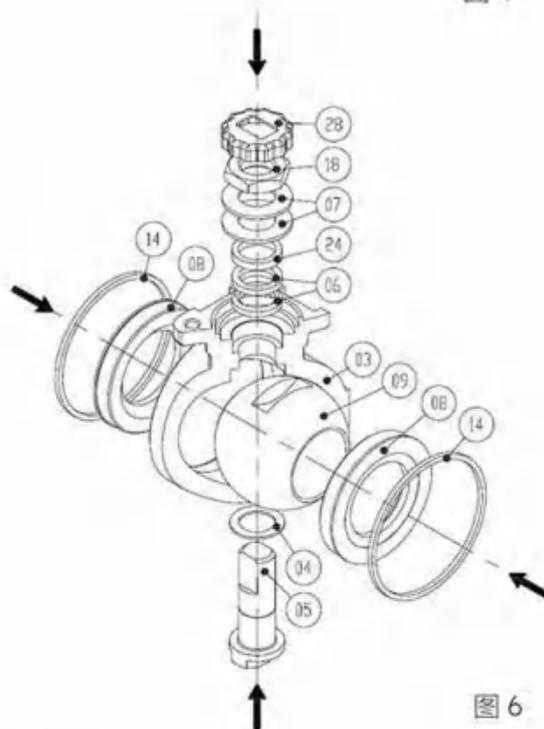


图 6

DN	N V	8	12	15	20	25	32	40	50
			15	20	25	32	40	50	65
扭矩 (N.m) Torque in N.m		4	4	4	8	8	12	12	16

DN 10 to DN 50

Seats (08), body seals (14) and ball (09) replacement

1. Unscrew one screw (13) and take it out with the spacer (12) and the nut (17) to allow valve body to be taken out
2. Take out valve body. Ball must be in the open position
3. Operate 90° to allow the ball (09) to be in the close position
4. Push the ball (09) outside of the body. Seats (08) will be pushed as well
5. Take the body seals out (14)
6. Change damaged components
7. Re assemble all components following opposite instructions from 6. to 1.

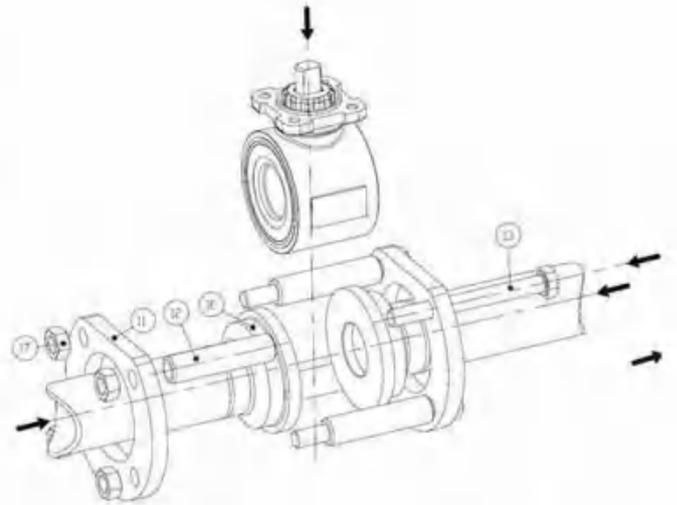


Fig 4

Packing (06), stem seal (04) replacement

1. Unscrew one screw (13) and take it out with the spacer (12) and the nut (17) to allow valve body to be taken out.
2. Take out valve body. Ball must be in the open position.
3. Operate 90° to allow the ball (09) to be in the close position
4. Push the ball (09) outside of the body. Seats (08) will be pushed as well
5. Take out Nut lock (28) and unscrew the nut (18)
6. Take spring washers (07) and gland (24)
7. Push the stem (05) inside the valve – the stem seal keep staying on the stem.
8. Take out stem (05) and replace stem seal (04)
9. Take out packing (06) from valve body and replace with a new one
10. Re assemble following opposite disassembly instructions
11. Screw packing nut (18) following torques values mentioned in here after table. Do not forget to refit nut stop (28)

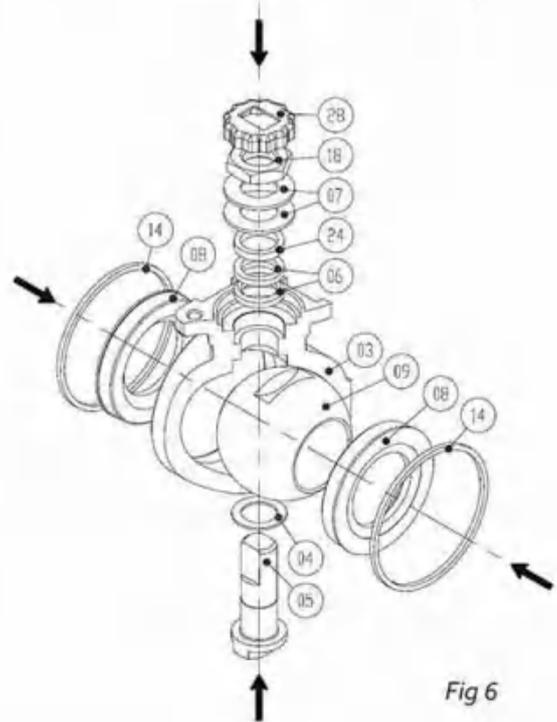


Fig 6

DN	N	8	12	15	20	25	32	40	50
	V		15	20	25	32	40	50	65
扭矩 ( N.m) Torque in N.m		4	4	4	8	8	12	12	16

DN65 到 DN150

阀座 (08), 阀体密封 (14), 阀球 (09) 的更换

1. 松开一只螺栓 (13) 螺母 (17) 并拆下;
  2. 取出阀体, 阀球 (09) 应处于打开位置;
  3. 旋转 90°, 使阀球 (09) 处于关闭位置;
  4. 将阀球从阀体推出, 阀座支撑 (20) 也随之被推出;
  5. 将阀座 (08) 从阀座支撑里取出;
  6. 将阀体密封 (14) 从阀体上取出;
  7. 更换破损的部件;
  8. 按照拆开顺序和拆卸说明重新安装好;
- 当重新安装阀座 (08) 和阀座支撑 (20) 时, 请确保按照图上所示位置安装。

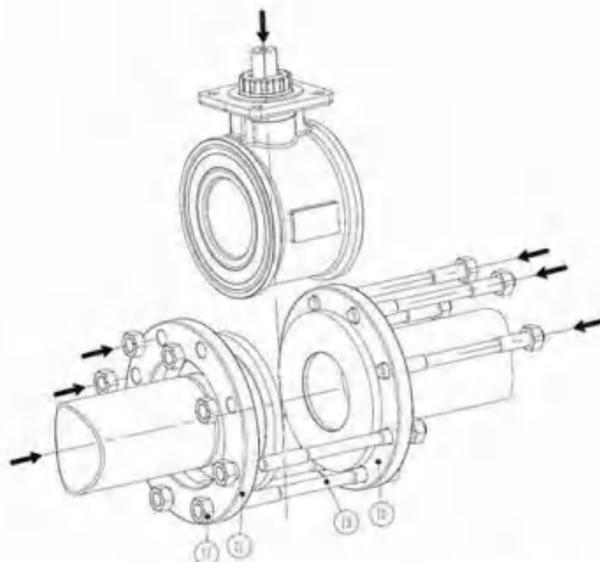


图 5

填料 (06) 和阀杆密封 (04) 的更换

1. 松开部分螺栓 (13) 随同螺母 (17) 一起拆下便取出阀体;
  2. 取出阀体, 阀球 (09) 应处于打开位置;
  3. 旋转 90°, 使阀球 (09) 处于关闭位置;
  4. 将阀球从阀体推出, 阀座 (08) 和阀座支撑 (20) 也随之被推出;
  5. 取出螺母止动片 (28), 松开压盖螺母 (18);
  6. 取出弹簧垫圈 (07) 和填料压盖 (24);
  7. 将阀杆推向阀腔, 保持阀杆密封留在阀杆上;
  8. 取出阀杆 (05), 更换阀杆密封 (04);
  9. 取出阀体内的填料 (06), 用新的进行更换;
- 注意: 填料位置凸在下, 凹在上。
10. 按照拆开顺序和拆卸说明重新安装好;
  11. 按照下表扭矩值拧紧, 压盖螺母 (18), 勿忘重新装上螺母防滑盖 (28)。

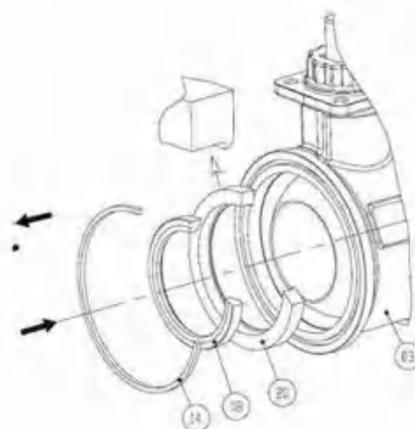


图 7

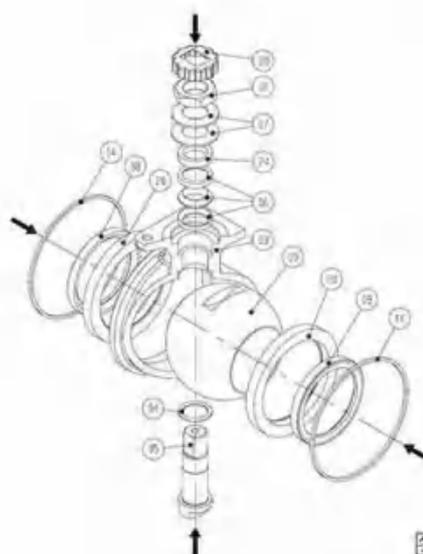


图 8

DN	N	65	80	100	125	150
	V	80	100	125	150	200
扭矩 (N.m) Torque in N.m		35	35	35	50	50

Valve body DN 65 to 150

Seats (08), body seals (14), ball (09) replacement (Fig 5 & Fig 7)

1. Unscrew nuts (17) and boltings (13)
2. Take out valve body. Ball must be in open position
3. Operate a 90° turn in order for the ball (09) to be in the closed position
4. Push the ball (09) out of the valve body. Seat supports (20) are also pushed out
5. Take the seats (08) out of the seat supports (20)
6. Take body seals out (14)
7. Replace damage components
8. Re assemble all parts following opposite disassembly instructions. When re assembling the seats (08) and seat support (20), make sure it is done as per shown on figure 7

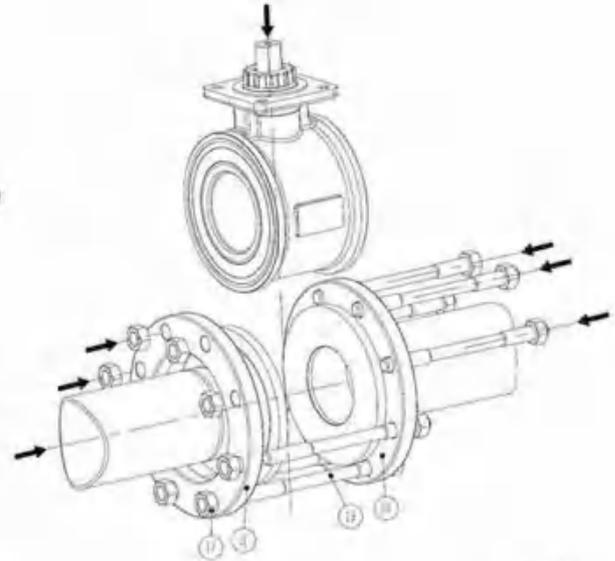


Fig 5

Packing (06) and stem seal (04) replacement (Fig 5, Fig 7 & Fig 8)

1. Unscrew one screw (13) and take it out and the nut (17) to allow valve body to be taken out
2. Take out valve body. Ball must be in the open position
3. Operate 90° to allow the ball (09) to be in the close position
4. Push the ball (09) outside of the body. Seats (08) will be pushed as well
5. Take out Nut lock (28) and unscrew the nut (18)
6. Take spring washers (07) and gland (24)
7. Push the stem (05) inside the valve the stem seal keep staying on the stem
8. Take out stem (05) and replace stem seal (04)
9. Take out packing (06) from valve body and replace with a new one
10. Re assemble following opposite disassembly instructions
11. Screw packing nut (18) following torques values mentioned in here after table. Do not forget to refit nut stop (28)

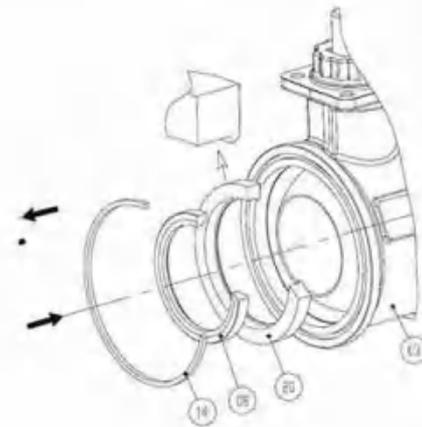


Fig 7

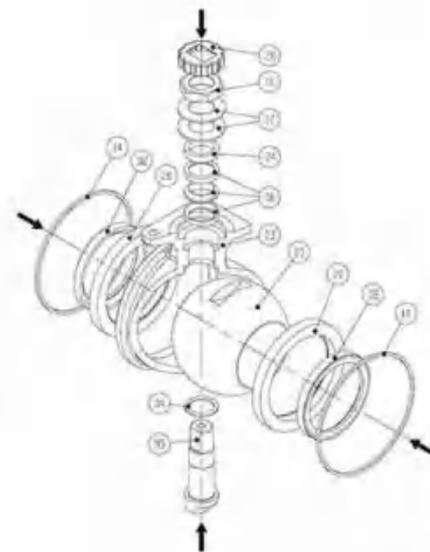


Fig 8

DN	N	65	80	100	125	150
	V	80	100	125	150	200
扭矩 ( N.m)		35	35	35	50	50
Torque in N.m		35	35	35	50	50

## 阀门与执行器套件装配示意图 (图1和图2)

1. 将执行器支架 (30) 装到球阀 ISO 法兰平台 (03) 上。
2. 检查防滑盖 (28) 是否安装;
3. 安装4只垫圈 (40) 和 4 只螺栓 (39), 并将其拧紧;
4. DN 10 至 DN 50 的阀体: 将连接杆 (29) 安装到阀杆上 (05) (图1);
5. DN 65 至 DN 200 的阀体: 将套筒 (19) 安装到阀杆 (05) 上, 再将连接杆 (29) 安装到套筒 (19) 上 (图2)。

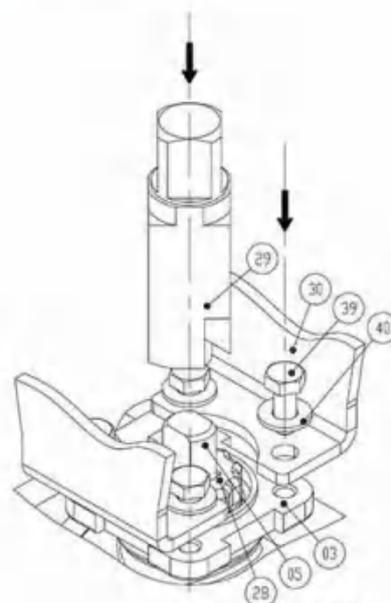


图 1

## 执行器与套件装配示意图(图3)

### 单作用执行器

单作用执行器在发货时是按照客户的常闭或常开要求作为默认为之安装的。

对于常闭阀门, 须先用手柄或任何合适的工具将阀杆旋转 1/4 圈关闭阀门, 然后再装气动执行器; 对于常开阀门, 要保证阀门是在开启的位置。

1. 将执行器 (31) 装到连接杆 (29) 上;
2. 安装垫圈 (33) 和螺栓 (32);
3. 检查执行器与球阀位置是否垂直;
4. 拧紧螺栓。

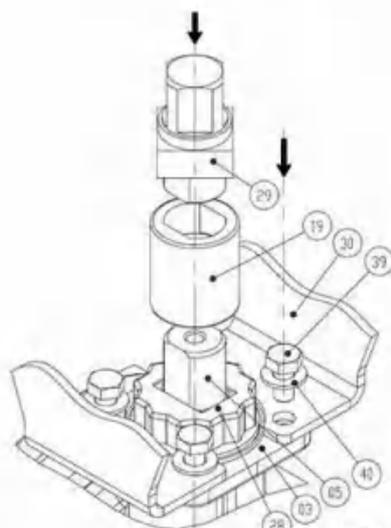


图 2

### 双作用执行器

双作用执行器供货时在关闭位置。指示器指示方向 (41) 和指示器缸体 (1) 垂直。

1. 执行器打开倒开启的位置;
2. 检查球阀是否已打开;
3. 执行器 (31) 装到连接杆 (29) 上;
4. 安装垫圈 (33) 和螺栓 (32);
5. 检查执行器与球阀位置是否垂直;
6. 拧紧螺栓。

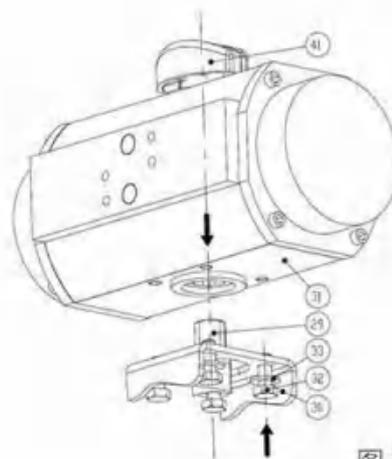


图 3

气动执行器组装说明  
ACTUATION ASSEMBLY INSTRUCTIONS

Mounting of the kit on the valve (Fig 1 & Fig 2)

1. Position the kit (30) on Valve ISO top flange (03)
2. Check that nut stop (28) is mounted
3. Position the 4 washers (40) and the 4 screws (39) and tighten them all
4. Body DN 10 to 50: position coupling part (29) on the valve stem (05)(Fig 1)
5. DN 65 to DN 200: position adaptor xx (19) on the valve stem (05) and insert coupling part (29) into the stem adaptor(Fig 2)

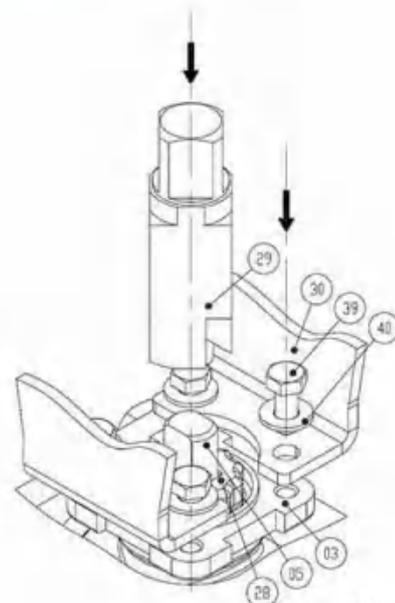


Fig 1

Mounting of the actuator on the kit (Fig 3)

Spring return actuator

Actuator is delivered in closed position when Failure Close and in Open position when Failure Open. When Failure close, it is necessary to close the valve either with lever or any appropriate tool by turning a ¼ turn the valve stem (29) In case of Failure Open, make sure the valve is in the open position.

1. Insert actuator (31) onto the coupling part
2. Position the washers (33) and the screws (32)
3. Check actuator position ( in line with the valve)
4. Screw and tighten

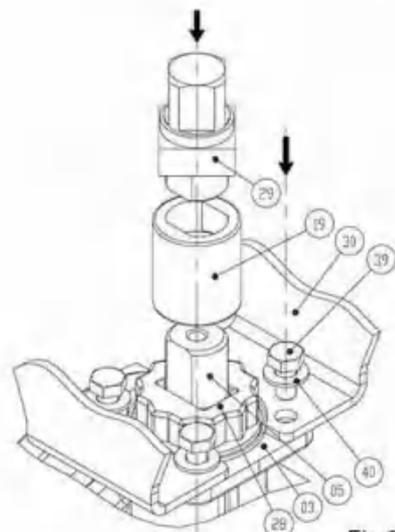


Fig 2

Double Acting actuator

Double acting actuator is supplied in closed position. Visual indicator (41) is perpendicular to the actuator body (31)

1. Position the actuator (31) in the open position
2. Check that valve is in the open position
3. Insert actuator (31) onto coupling part (29)
4. Position the washers (33) and screws (32)
5. Check actuator position (must be in line with the valve)
6. Screw and tighten

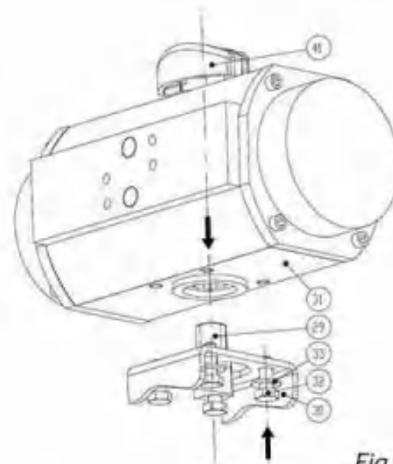


Fig 3

备件清单  
**SPARE PARTS LIST**

密封件套装

包括

- 2 个阀座
- 2 个阀体密封
- 1 组填料
- 1 个阀杆密封

Spare sealings kits

Including:

- 2 seats
- 2 body gaskets
- 1 gland packing
- 1 stem thrust seal

		PS4	PZ4	PY4	PY4 CY
		TFM 1600	20%PEEK PTFE	PTFE+碳 / PTFE Carbon	
通径 Full bore	缩径 Reduce bore	编号 Ref.	编号 Ref.	编号 Ref.	编号 Ref.
8 - 12	15	POCH-PS410	POCH-PZ410	POCH-PY410	POCH-YN4010
15	20	POCH-PS415	POCH-PZ415	POCH-PY415	POCH-YN4015
20	25	POCH-PS420	POCH-PZ420	POCH-PY420	POCH-YN4020
25	32	POCH-PS425	POCH-PZ425	POCH-PY425	POCH-YN4025
32	40	POCH-PS432	POCH-PZ432	POCH-PY432	POCH-YN4032
40	50	POCH-PS440	POCH-PZ440	POCH-PY440	POCH-YN4040
50	65	POCH-PS450	POCH-PZ450	POCH-PY450	POCH-YN4050
65	80	POCH-PS4065	POCH-PZ4065	POCH-PY465	POCH-YN4065
80	100	POCH-PS4080	POCH-PZ4080	POCH-PY480	POCH-YN4080
100	125	POCH-PS4100	POCH-PZ4100	POCH-PY4100	POCH-YN4100
125	150	POCH-PS4125	POCH-PZ4125		
150	200	POCH-PS4150	POCH-PZ4150		

316L 不锈钢球阀

316L stainless steel ball

通径 Full bore	缩径 Reduce bore	编号 Ref.
8 - 12	15	041009 P4NI
15	20	401509 2PNI
20	25	402009 2PNI
25	32	402509 2PNI
32	40	403209 2PNI
40	50	404009 2PNI
50	65	405009 2PNI
65	80	406509 2PNI
80	100	408009 2PNI
100	125	410009 2PNI
125	150	412509 2PNI
150	200	415009 2PNI

316L 不锈钢阀杆

316L stainless steel stem

通径 Full bore	缩径 Reduce bore	编号 Ref.
8 - 12	15	041005 P4NI
15	20	041505 P4NI
20	25	042005 P4NI
25	32	042005 P4NI
32	40	043205 P4NI
40	50	043205 P4NI
50	65	045005 P4NI
65	80	406505 2PNI
80	100	406505 2PNI
100	125	410005 2PNI
125	150	412505 2PNI
150	200	412505 2PNI

备件清单  
**SPARE PARTS LIST**

**密封件套装**

包括

- 2 个阀座
- 1 个阀体密封
- 1 组填料
- 1 个阀杆密封

*Spare sealings kits*

*Including:*

- 2 seats*
- 1 body gasket*
- 1 gland packing*
- 1 stem thrust seal*

口径 Full bore	R2S	R2Z	R2H
	TFM 1600	PTFE +20%PEEK	TFM 1600
编号 Ref .	编号 Ref .	编号 Ref .	编号 Ref .
15	POCH-R2S015-P1	POCH-R2Z015-P1	POCH-R2H015-P9
20	POCH-R2S020-P1	POCH-R2Z020-P1	POCH-R2H020-P9
25	POCH-R2S025-P1	POCH-R2Z025-P1	POCH-R2H025-P9
32	POCH-R2S032-P1	POCH-R2Z032-P1	POCH-R2H032-P9
40	POCH-R2S040-P1	POCH-R2Z040-P1	POCH-R2H040-P9
50	POCH-R2S050-P1	POCH-R2Z050-P1	POCH-R2H050-P9
65	POCH-R2S065-P0	POCH-R2Z065-P0	POCH-R2H065-P9
80	POCH-R2S080-P0	POCH-R2Z080-P0	POCH-R2H080-P9
100	POCH-R2S100-P0	POCH-R2Z100-P0	POCH-R2H100-P9
150	POCH-R2S150-P0	POCH-R2Z150-P0	POCH-R2H150-P9
200	POCH-R2S200-P0	POCH-R2Z200-P0	POCH-R2H200-P9

**316L 不锈钢球阀**

*316L stainless steel ball*

口径 Full bore	编号 Ref .
15	401509 2PNI
20	402009 2PNI
25	402509 2PNI
32	403209 2PNI
40	404009 2PNI
50	405009 2PNI
65	406509 2PNI
80	408009 2PNI
100	410009 2PNI
150	415009 2PNI
200	420009 2PNI

**316L 不锈钢阀杆**

*316L stainless steel stem*

口径 Full bore	编号 Ref .
15	041505 P4NI
20	042005 P4NI
25	042005 P4NI
32	043205 P4NI
40	043205 P4NI
50	445005 2PNI
65	406505 2PNI
80	406505 2PNI
100	410005 2PNI
150	412505 2PNI
200	420005 2PNI

备件清单  
**SPARE PARTS LIST**

**止回阀**

包括: 1个止回阀阀体 + 2个阀体密封

**Check valve**

Including: 1 body check valve + 2 body gaskets

**窥视镜**

包括: 1个窥视镜阀体 + 2个阀体密封

**Sight glass**

Including: 1 body sight glass + 2 body gaskets

**过滤器**

包括: 1个过滤器阀体 + 2个阀体密封

**Filter**

Including: 1 body filter + 2 body gaskets

**气动执行器**

密封件套装

**Pneumatic actuation**

Spare seats kit

**气动执行器**

弹簧组

**Pneumatic actuation**

Springs kit

通径 Full bore	缩径 Reduce bore	编号 Ref.
8 - 12	15	KCL4I 010
15	20	KCL4I 015
20	25	KCL4I 020
25	32	KCL4I 025
32	40	KCL4I 032
40	50	KCL4I 040
50	65	KCL4I 050

通径 Full bore	缩径 Reduce bore	编号 Ref.
15	20	KVC4I 015
20	25	KVC4I 020
25	32	KVC4I 025
32	40	KVC4I 032
40	50	KVC4I 040
50	65	KVC4I 050

通径 Full bore	缩径 Reduce bore	编号 Ref.
15	20	KFL4I 015
20	25	KFL4I 020
25	32	KFL4I 025
32	40	KFL4I 032
40	50	KFL4I 040
50	65	KFL4I 050

气动执行器 / Actuator		编号 Ref.
双作用 Double acting	单作用 Spring return	
2MICA-045DA	2MICA-045SR	POCH-MICA045
2MICA-052DA	2MICA-052SR	POCH-MICA052
2MICA-063DA	2MICA-063SR	POCH-MICA063
2MICA-075DA	2MICA-075SR	POCH-MICA075
2MICA-083DA	2MICA-083SR	POCH-MICA083
2MICA-092DA	2MICA-092SR	POCH-MICA092
2MICA-105DA	2MICA-105SR	POCH-MICA105
2MICA-125DA	2MICA-125SR	POCH-MICA125
2MICA-140DA	2MICA-140SR	POCH-MICA140
2MICA-160DA	2MICA-160SR	POCH-MICA160
2MICA-190DA	2MICA-190SR	POCH-MICA190
2MICA-210DA	2MICA-210SR	POCH-MICA210

气动执行器 Actuator	编号 Ref.	描述 Description
2MICA-045SR	2RES-MICA045	2 x 6 springs kit 2 x 6 弹簧组
2MICA-052SR	2RES-MICA052	
2MICA-063SR	2RES-MICA063	
2MICA-075SR	2RES-MICA075	
2MICA-083SR	2RES-MICA083	
2MICA-092SR	2RES-MICA092	
2MICA-105SR	2RES-MICA105	
2MICA-125SR	2RES-MICA125	
2MICA-140SR	2RES-MICA140	
2MICA-160SR	2RES-MICA160	
2MICA-190SR	2RES-MICA190	
2MICA-210SR	2RES-MICA210	

