

## ■ 公司产品 Company products:

内衬球阀, 内衬蝶阀, 内衬旋塞阀, 内衬截止阀, 内衬止回阀, 内衬闸阀, 内衬隔膜阀, 内衬管道, 衬氟过滤器, 化工设备(含内衬), 化工泵等。

Lined ball valves, lined butterfly valves, lined plug valves, lined globe valves, lined check valves, lined gate valves, lined diaphragm valves, lined pipes, fluorine lined filters, chemical equipment (including lining), chemical pumps and etc.

## ■ 公司质量管理体系: ISO 9000

Company quality management system: ISO 9000

## ■ 公司格言 Company motto:

“以质量求生存, 靠技术谋发展”。我们有强大的质量保证体系和绝对让您满意的售后服务, 我们依靠先进的技术, 严把质量关, 不断自主创新, 顾客满意就是我们最大的追求, 我们期待着与您真诚的合作。

"Surviving by quality and seeking development by technology". We have powerful quality guarantee system and satisfactory after service. We strictly control the quality and continuously make independent innovations through advanced technology. Customer satisfaction is our ultimate goal. We are sincerely looking forward to cooperating with you.





## 郑重声明

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## Official statement

All ZHONGNENG valves' designning ,producing,manufacturing are according to Chinese ,international or the enterprise standard ,any change to standard is possible,so,we make a announce as follows:

1. Both sides should confirm each technical parameter and the performance standard together before sign a contract ,and all conditions subject to the written contract finally.
2. The catalog is only a reference for user.
3. We keep the right to revise the catalog ,no further notice with any revising.
4. It was strictly prohibited for any embezzling ,reprinting to our picture and technical information.

## ■ 产品的安装、维修及保养

氟塑料衬里的耐腐蚀阀门及管路附件,由于其固有的特殊性,在产品的安装、维修及保养等方面具有以下的特点:

1. 阀门或管件法兰盖板不能随意拆开,除非已准备与管路连接,否则PTFE法兰面可能因温度、异物造成磕碰划伤或扭曲变形而影响密封,如因检验需要而移动盖板,也必须待检验后速将盖板重新复位,以保护PTFE法兰面。
2. 氟塑料衬里的耐腐蚀阀门及管件与管路连接时,一般并不再单独使用垫片,但与异种材料(金属面等)法兰面连接时,应该采用适当垫片,以保护PTFE法兰面。
3. 产品不系统使用中,如果较高温度下发生泄漏,应首先将系统温度降至室温后,再查明原因,进行维修。
4. 不允许在阀门及管件上做任何高温焊接工作,以免造成衬里层的永久损害。
5. 安装时法兰螺母应按对角线方向(对称)依次均匀旋紧,并配上适当力矩。
6. 阀门及管件应存放在干燥通风的室内,严禁堆叠放置。
7. 长期存放的阀门应该使其密封面与盖板呈微启分离状态,避免密封面长期受压发生永久变形,影响密封性能和使用寿命。
8. 手动操作阀门时,不允许借助其它杠杆加力强行开,关阀门。
9. 有方向性要求的阀门,在安装时候要注意介质的流向应顺阀体上箭头所指示方向,并确保操作、维修方便性。
10. 经过维修后的阀门,使用前应该要按照相关标准测试后方可安装。

## Installation, maintenance and servicing of products

Teflon lined valves and pipelines has its inherent special quality please take attention as when take them into installing ,maintaining ,etc.

1. please do not disconnect valve's roof unless the valves are ready to connect with pipe.if you need any inspecting inside,please back the roof immediately after checking to protect PTFE flange surface .
2. Generally,it is no need to use wafer while connecting with general pipe ,but to special flange(such as metal),please take a appropriate wafer to protect flange surface.
3. If there is any leakage at high temperature ,please decline the using temperature first,then do investigation and maintenance.
4. It is strictly prohibited to do any hight-temperature welding on valves and pipes.
5. Please screw the flange symmetrically with a proper torque in installing .
6. Please put valves and pipes in a dry and ventilative room. Do not stack them.
7. When the valves need long time deposting,please keep the seal pair opened a little .
8. To manual valves ,any forcible open and close or by other levers is disallowed.
9. To direction required valves ,please take attention that .
10. The fixed valve can only be installed after standard inspection.

# Product Model Coding

## 产品型号编码

### ■ 如何订购 How To Order

在订购时，请使用“中能”的产品型号以保证能迅速准确地处理您的订单。任何特殊的订单都必须附带详细的说明。  
when ordering please use "zhongneng" figure numbers to ensure correct and prompt processing of you order. Buyers are recommended to specify detailed description for special order:

例如：Q341 F416C具体代表型号如下：

|                              |   |   |   |   |    |    |   |
|------------------------------|---|---|---|---|----|----|---|
| 阀门代号 Valve Code              | Q | 3 | 4 | 1 | F4 | 16 | C |
| 以下序号 Following Serial Number | 1 | 2 | 3 | 4 | 5  | 6  | 7 |

### ■ 1. 阀门类型代号 Code For The Valve Type

|                 |               |                    |                |                     |               |                 |                 |
|-----------------|---------------|--------------------|----------------|---------------------|---------------|-----------------|-----------------|
| 阀门类型 Valve Type | 球阀 Ball Valve | 蝶阀 Butterfly Valve | 旋塞阀 Plug Valve | 隔膜阀 Diaphragm Valve | 闸阀 Gate Valve | 截止阀 Globe Valve | 止回阀 Check Valve |
| 代号 Code         | Q             | D                  | X              | G                   | Z             | J               | H               |

### ■ 2. 阀门驱动方式代号 Code For Drive Mode

|                 |                  |         |           |                |              |             |
|-----------------|------------------|---------|-----------|----------------|--------------|-------------|
| 驱动方式 Drive Mode | 手轮 Handwheel     | 蜗轮 Worm | 正齿轮 Gears | 锥齿轮 Bevel Gear | 气动 Pneumatic | 电动 Electric |
| 代号 Code         | 0 (可省略 Optional) | 3       | 4         | 5              | 6            | 9           |

### ■ 3. 阀门端连接形式代号 Code For The Connetion Type

|                      |                     |                      |             |             |           |           |            |
|----------------------|---------------------|----------------------|-------------|-------------|-----------|-----------|------------|
| 连接形式 Connection Type | 内螺纹 In Screw Thread | 外螺纹 Out Screw Thread | 法兰式 Flanged | 焊接式 Welding | 对夹式 Wafer | 卡箍式 Clamp | 卡套式 Sleeve |
| 代号 Code              | 1                   | 2                    | 4           | 6           | 7         | 8         | 9          |

### ■ 4. 阀门结构形式代号 Structure Code

|                |                            |                    |                    |                    |
|----------------|----------------------------|--------------------|--------------------|--------------------|
| 球阀 Ball Valve  |                            |                    |                    |                    |
| 结构形式 Structure | 直通流道 Straight-through Flow | Y形三通流道 Y-type Flow | L形三通流道 L-Type Flow | T形三通流道 T-type Flow |
| 代号 Code        | 1                          | 2                  | 4                  | 5                  |

|                    |                      |                   |                   |                       |
|--------------------|----------------------|-------------------|-------------------|-----------------------|
| 蝶阀 Butterfly Valve |                      |                   |                   |                       |
| 结构形式 Structure     | 单偏心 Single-Eccentric | 中心垂直板 Middle Line | 双偏心 DOU-Eccentric | 三偏心 Three - Eccentric |
| 代号 Code            | 0                    | 1                 | 2                 | 3                     |

|                |                            |                     |                    |
|----------------|----------------------------|---------------------|--------------------|
| 旋塞阀 Plug Valve |                            |                     |                    |
| 结构形式 Structure | 直通流道 Straight-Through Flow | T形三通流道 T- Tpye Flow | 四通流道 Four Way Flow |
| 代号 Code        | 3                          | 4                   | 5                  |

|                     |                     |                  |                            |                    |
|---------------------|---------------------|------------------|----------------------------|--------------------|
| 隔膜阀 Diaphragm Valve |                     |                  |                            |                    |
| 结构形式 Structure      | 屋脊流道 Fastigium Flow | 直流流道 Direct Flow | 直通流道 Straight-Through Flow | Y形角式流道 Y-Type Flow |
| 代号 Code             | 1                   | 5                | 6                          | 8                  |

# Product Model Coding

## 产品型号编码



### 闸阀 Gate Valve

| 结构形式<br>Structure | 楔式刚性闸板<br>H.O.Wedge | 平行式刚性闸板<br>Parallel Wedge |
|-------------------|---------------------|---------------------------|
| 代号 Code           | 1                   | 3                         |

### 截止阀 Globe Valve

| 结构形式<br>Structure | 直通流道<br>Straight-Through Flow | 三通流道<br>Three-Through Flow | 角式流道<br>Cornu-Through Flow | 直流流道<br>Direct Flow |
|-------------------|-------------------------------|----------------------------|----------------------------|---------------------|
| 代号 Code           | 1                             | 3                          | 4                          | 5                   |

### 止回阀 Check Valve

| 结构形式 Structure | 升降式止回阀 Lift type check valve  |   | 旋启式止回阀 Swing type check valve    |   |
|----------------|-------------------------------|---|----------------------------------|---|
| 代号 Code        | 直通流道<br>Straight-Through Flow | 1 | 单瓣结构<br>Single Petal Structure   | 4 |
|                | 立式结构<br>Stand-up Structure    | 2 |                                  |   |
|                | 角式流道<br>Cornu-Through Flow    | 3 | 对夹式止回阀<br>Wafer type check valve | 7 |

### ■ 5. 衬里材料代号 Code For The Lined Material

| 衬里材料<br>Material | 聚烯烃 | 聚三氟氯乙烯 | 聚四氟乙烯 | 聚全氟乙丙烯 | 可溶性聚四氟乙烯 |
|------------------|-----|--------|-------|--------|----------|
| 英文简称             | PO  | PCTFE  | PTFE  | FEP    | PFA      |
| 代号 Code          | PO  | F3     | F4    | F46    | PFA      |

### ■ 6. 压力等级代号 Code For The Pressure

#### 国标 Standard For GB

| 压力等级 Grade | 0.6MPa | 1.0MPa | 1.6MPa | 2.5MPa | 4.0MPa | 6.3MPa | 10.0MPa |
|------------|--------|--------|--------|--------|--------|--------|---------|
| 代号 Code    | 6      | 10     | 16     | 25     | 40     | 63     | 100     |

#### 美标 Standard For API

| 压力等级 Grade | Class 150 | Class 300 | Class 600 |
|------------|-----------|-----------|-----------|
| 代号 Code    | 150       | 300       | 600       |

### ■ 7. 壳体材料 Body Material

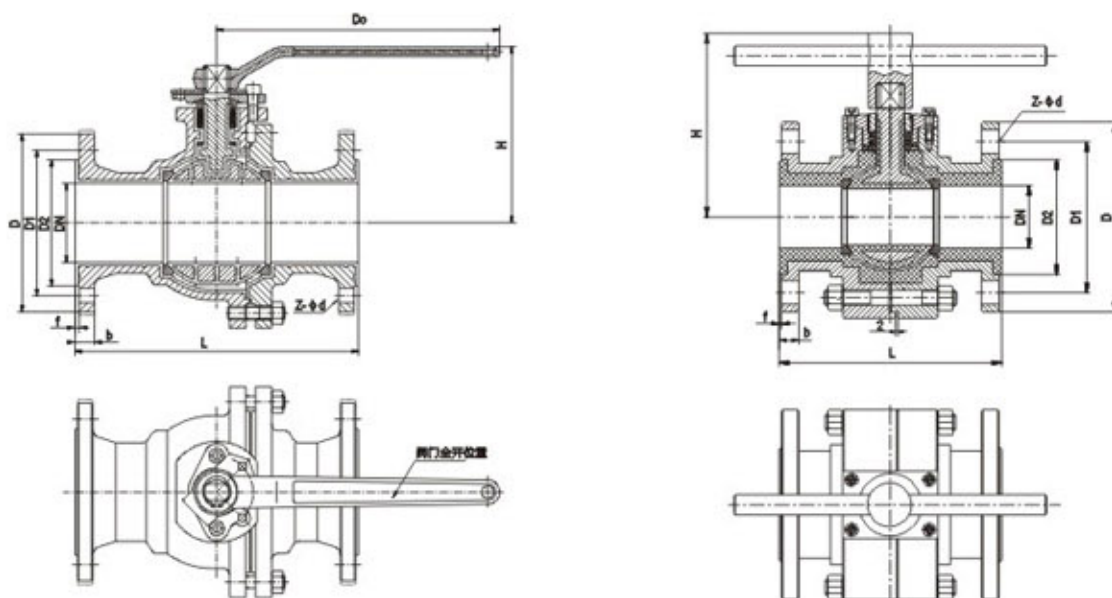
| 材料 Materials | QT400 | HT250 | WCB | LCB | WC6 | WC9 | C5 | CF8 | CF8M | CF3 | CF3M |
|--------------|-------|-------|-----|-----|-----|-----|----|-----|------|-----|------|
| 代号 code      | Q     | H     | C   | F   | H   | V   | I  | P   | R    | S   | L    |

※ 本表中没有规定型号的特殊阀门请及时与“中能”销售部联系

※ in this table does not require a special valve models please promptly "and to" sales department

# Ball Valve

## 球阀



手动内衬球阀 (Q41F)  
Manual lined ball valve (Q41F)

### 基本型号 Basic Type

| 手动 Hand         | 蜗轮 Worm gear           |
|-----------------|------------------------|
| Q41F4           | Q341F4                 |
| Q41F46          | Q341F46                |
| Q41PFA          | Q341PFA                |
| Q41F3           | Q341F3                 |
| Q41PO           | Q341PO                 |
| 气动 Air-operated | 电动 Electrically-driven |
| Q641F4          | Q941F4                 |
| Q641F46         | Q941F46                |
| Q641PFA         | Q941PFA                |
| Q641F3          | Q941F3                 |
| Q641PO          | Q941PO                 |

### 衬氟球阀标准 Standard

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| 设计与制造 Design          | GB/T 12237, API 608/API 6D                         |
| 结构长度 Face to Face     | HG/T 3704-2003, GB12221, ASME B16.10               |
| 法兰尺寸 Flange Dimension | HG20592-97, ANSI B16.5a                            |
| 驱动方式 Mode of Driving  | 手动.电动.气动 (Hand, electrically-drive, air-operated)  |
| 公称压力 Nominal Pressure | 0.6MPa, 1.0MPa, 1.6MPa, 2.5MPa, Class 150, JIS 10k |
| 压力试验 Pressure Test    | GB/T 13927-92, API 598                             |

### 主要零部件材料表 Main Parts Material Specifications

| 零件名称<br>Name       | 灰铸铁<br>Grey cast iron                   | 碳钢<br>Cast steel | 不锈钢<br>Stainless Steel |          | 超低碳不锈钢<br>Low carbon stainless steel |          |
|--------------------|-----------------------------------------|------------------|------------------------|----------|--------------------------------------|----------|
| 阀体/阀盖 Body Cover   | HT250                                   | WCB              | CF8                    | CF8M     | CF3                                  | CF3M     |
| 球 Ball             | WCB                                     | WCB              | CF8                    | CF8M     | CF3                                  | CF3M     |
| 衬里层/阀座 Lining/Seat | PTFE (F4) FEP (F46) PFA (可溶F4) Po (聚稀烃) |                  |                        |          |                                      |          |
| 填料压盖 Packing Cover | HT250                                   | WCB              | CF8                    | CF8M     | CF3                                  | CF3M     |
| 填料 Packing         | PTFE (F4) 聚四氟乙烯                         |                  |                        |          |                                      |          |
| 螺栓 Bolt            | 35                                      | 35               | 1Cr17Ni2               | 1Cr17Ni2 | 1Cr18Ni9                             | 1Cr18Ni9 |
| 螺母 Nut             | 45                                      | 45               | 0Cr18Ni9               | 0Cr18Ni9 | 0Cr18Ni9                             | 0Cr18Ni9 |
| 手柄 Lever           | WCB                                     | WCB              | WCB                    | WCB      | WCB                                  | WCB      |

# Ball Valve

## 球阀

### ■ 主要连接尺寸及重量 Dimensions and Weights

| 公称通径<br>Size  | 标准值<br>Standard |     |       |     |   |    |        | 参考值<br>Reference |     |        |
|---------------|-----------------|-----|-------|-----|---|----|--------|------------------|-----|--------|
| DN<br>(mm)    | L               | D   | D1    | D2  | f | b  | Z-Φd   | D0               | H   | WT(kg) |
| PN1.0 (MPa)   |                 |     |       |     |   |    |        |                  |     |        |
| 15            | 140             | 95  | 65    | 45  | 3 | 15 | 4-Φ14  | 140              | 90  | 2.5    |
| 20            | 140             | 105 | 75    | 55  | 3 | 17 | 4-Φ14  | 140              | 100 | 3      |
| 25            | 150             | 115 | 85    | 65  | 3 | 17 | 4-Φ14  | 180              | 105 | 4.5    |
| 32            | 165             | 140 | 100   | 75  | 3 | 19 | 4-Φ18  | 180              | 120 | 5.7    |
| 40            | 180             | 150 | 110   | 85  | 3 | 19 | 4-Φ18  | 225              | 140 | 7      |
| 50            | 200             | 165 | 125   | 100 | 3 | 21 | 4-Φ18  | 225              | 150 | 9.5    |
| 65            | 220             | 185 | 145   | 120 | 3 | 21 | 4-Φ18  | 360              | 160 | 15     |
| 80            | 250             | 200 | 160   | 135 | 3 | 21 | 8-Φ18  | 420              | 215 | 19     |
| 100           | 280             | 220 | 180   | 155 | 3 | 23 | 8-Φ18  | 420              | 240 | 33     |
| 125           | 320             | 250 | 210   | 185 | 4 | 24 | 8-Φ18  | 520              | 250 | 58     |
| 150           | 360             | 285 | 240   | 210 | 4 | 26 | 8-Φ23  | 520              | 290 | 93     |
| 200           | 400             | 340 | 295   | 265 | 4 | 26 | 8-Φ23  | 240*             | 340 | 155    |
| 250           | 450             | 395 | 350   | 320 | 4 | 28 | 12-Φ23 | 240*             | 380 | 210    |
| PN1.6 (MPa)   |                 |     |       |     |   |    |        |                  |     |        |
| 15            | 140             | 95  | 65    | 45  | 3 | 15 | 4-Φ14  | 140              | 90  | 2.5    |
| 20            | 140             | 105 | 75    | 55  | 3 | 17 | 4-Φ14  | 140              | 100 | 3      |
| 25            | 150             | 115 | 85    | 65  | 3 | 17 | 4-Φ14  | 180              | 105 | 4.5    |
| 32            | 165             | 140 | 100   | 75  | 3 | 19 | 4-Φ18  | 180              | 120 | 5.7    |
| 40            | 180             | 150 | 110   | 85  | 3 | 19 | 4-Φ18  | 225              | 140 | 7      |
| 50            | 200             | 165 | 125   | 100 | 3 | 21 | 4-Φ18  | 225              | 150 | 9.5    |
| 65            | 220             | 185 | 145   | 120 | 3 | 21 | 4-Φ18  | 360              | 160 | 15     |
| 80            | 250             | 200 | 160   | 135 | 3 | 22 | 8-Φ18  | 420              | 215 | 19     |
| 100           | 280             | 220 | 180   | 155 | 3 | 23 | 8-Φ18  | 420              | 240 | 33     |
| 125           | 320             | 250 | 210   | 185 | 4 | 24 | 8-Φ18  | 520              | 250 | 58     |
| 150           | 360             | 285 | 240   | 210 | 4 | 26 | 8-Φ23  | 520              | 290 | 93     |
| 200           | 400             | 340 | 295   | 265 | 4 | 26 | 12-Φ23 | 240*             | 340 | 155    |
| 250           | 450             | 405 | 355   | 320 | 4 | 28 | 12-Φ26 | 240*             | 380 | 210    |
| PN2.5 (MPa)   |                 |     |       |     |   |    |        |                  |     |        |
| 15            | 140             | 95  | 65    | 45  | 3 | 15 | 4-Φ14  | 140              | 90  | 2.5    |
| 20            | 140             | 105 | 75    | 55  | 3 | 17 | 4-Φ14  | 140              | 100 | 3      |
| 25            | 150             | 115 | 85    | 65  | 3 | 17 | 4-Φ14  | 180              | 105 | 4.5    |
| 32            | 165             | 140 | 100   | 75  | 3 | 19 | 4-Φ18  | 180              | 120 | 5.7    |
| 40            | 180             | 150 | 110   | 85  | 3 | 19 | 4-Φ18  | 225              | 140 | 7      |
| 50            | 200             | 165 | 125   | 100 | 3 | 21 | 4-Φ18  | 225              | 150 | 9.5    |
| 65            | 220             | 185 | 145   | 120 | 3 | 23 | 8-Φ18  | 360              | 160 | 15     |
| 80            | 250             | 200 | 160   | 135 | 3 | 25 | 8-Φ18  | 420              | 215 | 19     |
| 100           | 280             | 235 | 190   | 155 | 3 | 25 | 8-Φ22  | 420              | 240 | 33     |
| 125           | 320             | 270 | 220   | 185 | 4 | 28 | 8-Φ26  | 520              | 250 | 58     |
| 150           | 360             | 300 | 250   | 210 | 4 | 30 | 8-Φ26  | 520              | 29  | 93     |
| 200           | 400             | 360 | 310   | 275 | 4 | 32 | 12-Φ26 | 240*             | 340 | 155    |
| 250           | 450             | 425 | 370   | 330 | 4 | 34 | 12-Φ30 | 240              | 380 | 210    |
| 公称通径<br>Size  | 标准值<br>Standard |     |       |     |   |    |        | 参考值<br>Reference |     |        |
| NPS<br>(Inch) | L               | D   | D1    | D2  | f | b  | Z-Φd   | D0               | H   | WT(kg) |
| Class150      |                 |     |       |     |   |    |        |                  |     |        |
| 1/2           | 110             | 89  | 60.5  | 35  | 3 | 15 | 4-Φ15  | 140              | 90  | 2.5    |
| 3/4           | 117             | 98  | 70    | 43  | 3 | 15 | 4-Φ15  | 140              | 100 | 3      |
| 1             | 127             | 108 | 79.5  | 51  | 3 | 15 | 4-Φ15  | 180              | 105 | 4.5    |
| 1 1/4         | 140             | 117 | 89    | 64  | 3 | 15 | 4-Φ15  | 180              | 120 | 5.7    |
| 1 1/2         | 165             | 127 | 98.5  | 73  | 3 | 16 | 4-Φ15  | 225              | 140 | 7      |
| 2             | 178             | 152 | 120.5 | 92  | 3 | 17 | 4-Φ19  | 225              | 150 | 9.5    |
| 2 1/2         | 190             | 178 | 139.5 | 105 | 3 | 19 | 4-Φ19  | 360              | 160 | 15     |
| 3             | 203             | 190 | 152.5 | 127 | 3 | 20 | 4-Φ19  | 420              | 215 | 19     |
| 4             | 229             | 229 | 190.5 | 157 | 3 | 24 | 8-Φ19  | 420              | 240 | 33     |
| 5             | 254             | 254 | 216   | 186 | 4 | 25 | 8-Φ22  | 520              | 250 | 58     |
| 6             | 394             | 279 | 241.5 | 216 | 4 | 27 | 8-Φ22  | 520              | 290 | 93     |
| 8             | 457             | 343 | 298.5 | 270 | 4 | 30 | 8-Φ22  | 240*             | 340 | 155    |
| 10            | 533             | 406 | 362   | 324 | 4 | 32 | 12-Φ25 | 240              | 380 | 210    |