



**BUTTERFLY VALVE**

# **TIANSHENG VALVE**

**HIGH QUALITY INDUSTRIAL VALVES**



**ZHEJIANG TIANSHENG VALVE CO.,LTD**

# ► 型号编制说明 Model Order Instruction



## 蝶阀型号编制说明 Model Order Instruction

Ds 3 6 3 H -16 C -DN300



### 1.蝶阀流向截断方式Butterfly Valve Flow Truncation Method

| Ds                                                                                                          | D                                                                                                         |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 可任意流向截断介质的蝶阀(双向压)<br>Butterfly valve with any flow direction to cut off the medium(Bi-directional pressure) | 只能单一流向截断介质的蝶阀(单向压)<br>Butterfly valve with one way flow direction to cut off the medium(One way pressure) |

### 2.蝶阀驱动方式Butterfly Valve Operator Type

| 3                          | 6                            | 7                            | 9                             |
|----------------------------|------------------------------|------------------------------|-------------------------------|
| 手动减速机驱动<br>Manual Operator | 气动装置驱动<br>Pneumatic Operator | 液动装置驱动<br>Hydraulic Operator | 电动装置驱动<br>Electrical Operator |

### 3.蝶阀连接方式Butterfly Valve Connection Type

| 4                  | 6                        | 7                 | 8               |
|--------------------|--------------------------|-------------------|-----------------|
| 法兰式<br>Flange Type | 对焊式<br>Butt welding Type | 对夹式<br>Wafer Type | 凸耳式<br>Lug Type |

### 4.蝶阀结构型式Butterfly Valve Structure Type

| 3                                                                       |
|-------------------------------------------------------------------------|
| 三偏心面密封结构型式蝶阀<br>Triple Eccentric Sealing Structure Type Butterfly Valve |

### 5.密封面材料代号Sealing Surface Material Code

| H                                                     | Y                                                          | X            | F                           | W                     |
|-------------------------------------------------------|------------------------------------------------------------|--------------|-----------------------------|-----------------------|
| 合金钢<br>HRC30-45度<br>Alloy steel<br>HRC30-45<br>Degree | 司太立合金<br>HRC40-60度<br>Stellite Alloy<br>HRC40-60<br>Degree | 橡胶<br>Rubber | 氟塑料<br>Fluorine<br>Plastics | 本体材料<br>Body Material |

### 6.蝶阀公称压力Nominal Pressure of Butterfly Valve

|                                    |
|------------------------------------|
| 1、用MPa的10倍值表示10 times of MPa Marks |
| 2、用磅级表示Pound Level Marks           |

### 7.阀体材料代号Body Material Code

| 阀体材料<br>Body material | 碳钢<br>carbon steel | 合金钢<br>Alloy Steel | 铬镍钛钢<br>Chromium<br>Nickel Steel | 铬镍钼钛钢<br>Cr.ni.mo.ti steel |
|-----------------------|--------------------|--------------------|----------------------------------|----------------------------|
| 代号Code                | C                  | I                  | P                                | R                          |

### 8.蝶阀公称通径Nominal Diameter of Butterfly Valve

| DN(mm) | inch | DN(mm) | inch | DN(mm) | inch |
|--------|------|--------|------|--------|------|
| 80     | 3    | 450    | 18   | 1600   | 64   |
| 100    | 4    | 500    | 20   | 1800   | 72   |
| 125    | 5    | 600    | 24   | 2000   | 80   |
| 150    | 6    | 700    | 28   | 2200   | 88   |
| 200    | 8    | 800    | 32   | 2400   | 96   |
| 250    | 10   | 900    | 36   | 2600   | 104  |
| 300    | 12   | 1000   | 40   | 2800   | 112  |
| 350    | 14   | 1200   | 48   | 3000   | 120  |
| 400    | 16   | 1400   | 56   |        |      |

## ► 蝶阀密封原理 Butterfly Valve Sealing Principle



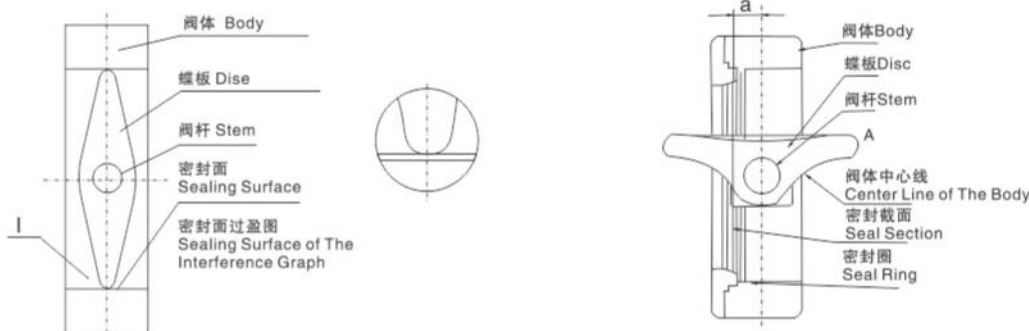
我公司生产的系列蝶阀的密封结构形式有以下几种：中线密封、单偏心密封、双偏心密封，三偏心密封，变偏心密封，各种结构类型蝶阀的密封原理简述如下：

Our butterfly valves are structured to centerline seal, single eccentric seal, double eccentric seal, triple eccentric seal and variable eccentric seal. The sealing principles of these structures are stated as following:

### 中线密封蝶阀的密封原理 Sealing Principle of Centerline Seal Butterfly Valve

蝶阀的蝶板密封中心和阀杆的回转中心重合，阀门依靠一定的过盈量在阀门与蝶板密封面间造成密封比压，保证阀门密封副的密封效果。此结构在阀体上衬胶，多适用于中小口径的蝶阀，由于是挤压变形，阀门在开关过程中，蝶板始终受到挤压，因此上下阀轴部分受到挤压较大，阀门的使用寿命受到影响；阀门的启闭力矩较大。缺点是由于蝶板与阀座始终处于挤压、刮擦状态、阻距大、磨损快。为克服挤压、刮擦、保证密封性能、阀座基本上采用橡胶或聚四氟乙烯等弹性材料、但也因而在使用上受到温度的限制、这就是为什么传统上人们认为蝶阀不耐高温的原因。

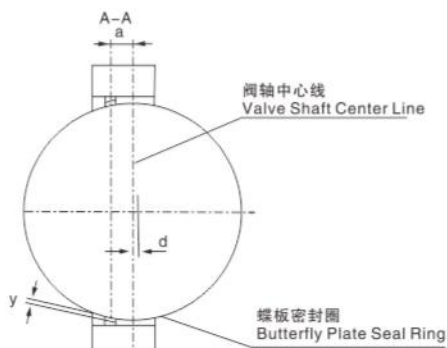
With the disc seal center of butterfly valve and rotation center of stem overlapped, sealing load will be produced between the sealing faces of seat and disc under certain magnitude of interference, thus to ensure effective seal of valve. Lined with rubber on the body, this structure is applicable for medium and small-bore butterfly valves. Due to the deformation under extrusion, during the process of opening and closing, disc is always under extrusion. So, the upper and lower valve shafts are seriously extruded, which can be bad to the service life of valve. And the open-close moment of valve is relatively high. The defect is that disc and seat are always under extrusion, scratch and to ensure the good seal, seat basically uses rubber or PTFE, or other elastic materials. However, the temperature can be the problem. That is why it is said that butterfly valves are conventionally not resistant to high temperature.



### 单偏心密封蝶阀的密封原理 Sealing Principle Of Single Eccentric Seal Butterfly Valve

由于蝶板的回转中心(即阀轴中心)与蝶板密封截面按a偏心设计，使得蝶阀在开启过程中，蝶板密封面逐渐脱离阀座密封面，蝶板转动至15°-25°时，蝶板密封面完全脱离阀座密封，完全开启时，两密封面之间形成间隙，从而使得蝶阀在启闭过程中，两密封面之间相对机械磨损及挤压大为降低，从而保证了蝶阀的密封原理。但由于整个开关过程中蝶板与阀座的刮擦现象并未消失、在应用范围上和同心蝶阀大同小异、故采用不多。

Because of the rotation center of the disc (i.e. valve shaft center) and the butterfly plate sealing section is designed according to a eccentric, making the valve in the opening process, the disc sealing surface gradually separates from the valve seat sealing surface, once the butterfly plate rotates to 15° - 25° degrees, the disc sealing surface separates completely from the valve seat seal once fully open, it forms a gap between the two sealing surface, so that the valve in the opening and closing process, the relative mechanical wear and extrusion between the sealing surface is greatly reduced, so as to ensure the sealing of butterfly valve. However as the scratch between the disc and seat doesn't disappear during the whole process of open and close, they are almost similar to concentric butterfly valves in the area of application, this is why they have not been popularly used.



单偏心密封蝶阀密封副结构  
Single Eccentric Butterfly Valve Sealing Structure



### 三偏心密封蝶阀密封副结构

### Triple Eccentric Butterfly Valve Sealing Pair Structure

- 03 -

## ► 蝶阀结构特征

### Butterfly Valve Structure Characteristic



蝶阀是用来打开和关闭管道内介质流通或调节管道内介质流量。它们主要结构及特点如下：

The butterfly valve is used to open and close the medium circulation or regulate the medium flow in the pipeline.

#### 主要结构特点 The Main Structure Features

1、结构简单、体积小、重量轻、安装尺寸小。根据阀体连接形式可分对夹式(包括凸耳对夹式)、法兰连接和对焊连接三种基本连接形式。

2、密封结构形式有多层次硬密封、整板式硬密封和弹性硬密封三种，可用于各种不同工况，且密封性能好，使用寿命长。

1)多层次硬密封和整板硬密封蝶阀(分别见下图和右上图)，全部采用了三偏心、锥面密封结构形式，密封副具有越关越紧的功能，并能有效清除阀座上的结垢，大锥角设计能承受600℃的高温。本系列蝶阀压力等级达到CLASS600。

2)弹性硬密封结构(见上图)采用J型金属密封圈结构，适用于双偏心结构的蝶阀，压力等级<CLASS300，具有优良的密封性，寿命长、易加工制造。

3)、本系列蝶阀所有的密封部件均采用了防火设计，即使着火后还能保证各个位置的密封性能。

4)、蝶阀在完全开启的情况下流阻较小，部分开启的情况下能进行灵敏的流量控制。

5)、驱动力矩小，操作简便、迅速。

1) Simple structure, small volume, light weight and small size for installation. According to the connection type, there are three kinds of basic connection: wafer type (including lug wafer type), flange type and butt welding type.

2. The sealing structure has three kinds including multi-layer metal sealed, wholly metal Metal Sealed and the elastic Metal Sealed, used for a variety of different conditions, with good sealing performance and long service life.

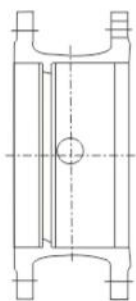
1) Multi-layer metal sealed and the wholly metal sealed (see below picture and the right above picture), all adopt triple eccentric and conical sealing structure, which makes the sealing pair with more tightening function, and can effectively remove scaling on the seat, the design of large cone angle can withstand 600℃ high temperature. The series of butterfly valve pressure rates up to CLASS600.

2) Flexible metal seal structure (see above picture) adopts J type metal seal structure, which is suitable for double eccentric butterfly valve, pressure rating <CLASS300 and characterized by excellent sealing, long service life, easy processing and manufacturing.

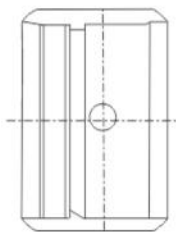
3) All the sealing parts of this series butterfly valve are used with fire protection design, ensuring the sealing performance of each position even after the fire.

4) Small flow resistance as the butterfly valve in the fully open condition, sensitive control of the flow as valve in partially open condition .

5) The torque force is small, operating easily and fast.



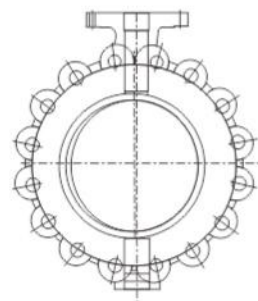
法兰连接形式  
Flange Connection Type



对接焊连接形式  
Butt Welding Connection Type



对夹连接形式  
Wafer Connection Type



凸耳对夹连接形式  
Lug Wafer Connection Type

#### 1) 软密封结构 (见下图) Soft Sealing Structure (SEE Bellow Picture)

适用单偏心和双偏心结构的蝶阀，压力等级≤CLASS 600。(中线密封结构适用压力等级≤CLASS 250)密封圈(材料为PTFE)放置在阀体上具有以下特点：

A)不需要使用附加的密封圈或金属支撑圈即可可靠密封。

B)可保持双向的无泄漏的密封。

C)维修量少，寿命长。

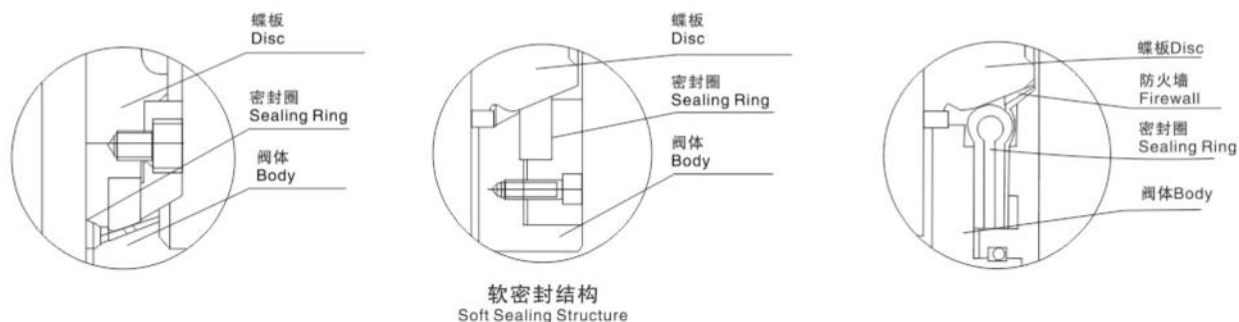
It is applicable for single and double eccentric butterfly valve, the pressure rating≤CLASS 600. (Centerline sealing structure applied to pressure ≤CLASS 250), seal material (PTFE) placed on the body has the following characteristics:

A) Don't require additional sealing ring or metal support ring, with reliably sealed.

B) Maintaining bi-directional sealing with zero leakage.

C) Less repair, long service life.

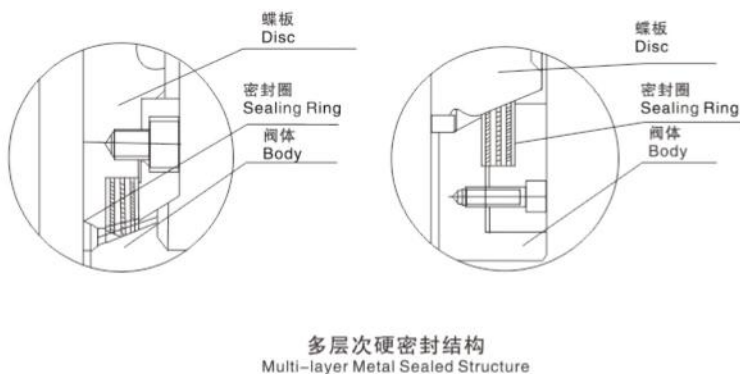
## ► 蝶阀结构特征 Butterfly Valve Structure Characteristic



### 2)多层次硬密封结构 (见下图) The Multi-Layer Metal Sealed Structure (See Bellow Picture)

多层次硬密封结构，适用于单偏心、双偏心和三偏心结构的蝶阀，压力等级 $\leq$ CLASS 600，其中三偏心蝶阀可保持双向无泄漏。多层次密封圈可采用不锈钢和非金属材料复合而成，其中非金属材料根据使用工矿选用柔性石墨、PTFE或非石棉材料等。

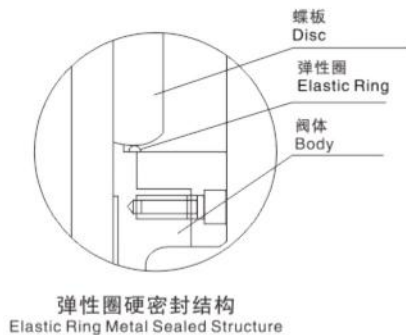
Multi-layer metal sealed structure, is suitable for single eccentric butterfly valves, double eccentric butterfly valves and triple eccentric butterfly valves, with pressure rating $\leq$ CLASS600. Besides, triple eccentric butterfly valves can be bi-directional zero leakage. The multilayer sealing ring can be made of stainless steel and non-metal material, which non-metal material can be flexible graphite, PTFE or non asbestos materials etc.



### 3)弹性圈硬密封结构 (见下图) Elastic Ring Metal Sealed Structure

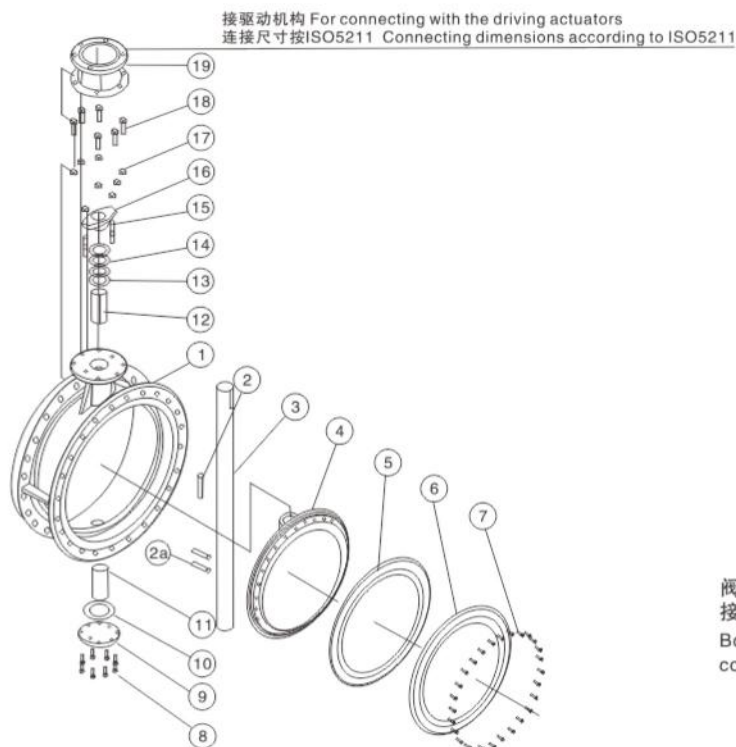
采用J型金属密封圈结构，适用于单偏心双偏心结构的蝶阀，压力等级 $<$ CLASS300。此结构本身具有防火结构，可适用温度变化较大的场合，具有优良的密封性，寿命长、易加工制造。

Using J type metal sealed structure, is suitable for single eccentric butterfly valve and double eccentric butterfly valve, the pressure class rating  $<$ CLASS300. This structure has fireproof structure, can be suitable for large temperature changes, with excellent sealing performance, long service life, easy for processing and manufacturing.



## ► 蝶阀主要零件材质

### Material of Butterfly Valve Main Parts



阀体连接形式有双法兰连接，对夹连接和凸耳对夹连接三种

Body Connection Types have three kinds of flange connection, wafer connection and lug wafer connection.

### 主要零件材质 Material for Main Parts

| 序号 NO. | 零件名称 Part name          | 材料 Material                   | 可选材料 Optional materials        |
|--------|-------------------------|-------------------------------|--------------------------------|
| 1      | 阀体 Body                 | 铸钢 Cast Steel                 | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 2      | 键 Key                   | 不锈钢 Stainless Steel           | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 2a     | 销轴 Pin Shaft            | 不锈钢 Stainless Steel           | 蒙乃尔 Monel                      |
| 3      | 阀杆 Stem                 | 不锈钢 Stainless Steel           | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 4      | 蝶板 Disc                 | 铸钢 Cast Steel                 | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 5      | 密封圈 Seal Ring           | PTFE+SS                       | SS+柔性石墨 Flexible Graphite      |
| 6      | 压板圈 Retainer Flange     | 碳钢 Carbon Steel               | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 7      | 螺钉 Screw                | B7                            | 不锈钢 Stainless Steel            |
| 8      | 螺栓 Bolt                 | B7                            | 不锈钢 Stainless Steel            |
| 9      | 底盖 Bottom Cover         | 碳钢 Carbon Steel               | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 10     | 垫片 Gasket               | SS+柔性石墨 SS+ Flexible Graphite |                                |
| 11     | 下轴套 Down Bushing        | 聚四氟乙烯+黄铜 PTFE + Brass         | 自润滑黄铜 Self Lubricating Brass   |
| 12     | 上轴套 Upper Bushing       | 聚四氟乙烯+黄铜 PTFE + Brass         | 自润滑黄铜 Self Lubricating Brass   |
| 13     | 填料垫 Packing             | 不锈钢 Stainless Steel           | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 14     | 填料 Packing              | 柔性石墨 Flexible Graphite        | TPFE                           |
| 15     | 螺栓 Bolt                 | B7                            | 不锈钢 Stainless Steel            |
| 16     | 填料压套 Packing Gland      | 不锈钢 Stainless Steel           | 不锈钢 Stainless Steel            |
| 17     | 螺母 Nut                  | 2H                            | 不锈钢 Stainless Steel            |
| 18     | 螺栓 Bolt                 | B7                            | 不锈钢 Stainless Steel            |
| 19     | 连接支架 Connecting Bracket | 碳钢 Carbon Steel               | -                              |

提示：1、壳体材料压力温度等级表见附录F  
2、壳体材料化学成分及力学性能见附录G  
3、内件材料及推荐服务范围见附录E

Note: 1. Shell material pressure and temperature rate table refers to Appendix F.  
2. Shell material chemical composition and mechanical properties refer to Appendix G.  
3. Trim Material and recommended service range refer to Appendix E.

# ► 国际蝶阀性能、用途、特点

## GB Butterfly Valve's Performance, Use and Characteristic



### 用途及特点 Purpose and Characteristic

硬密封蝶阀系列产品,是我公司新开发的长寿命、节能型蝶阀。产品符合国家标准JB/T8527-97(金属密封蝶阀)和API 609-2004(双法兰、凸耳和对夹蝶阀)、GB/T13927-92(通用阀门压力试验)标准及阀门其它相关标准的规定。

本产品由阀体、蝶板、密封圈、传动机构等主要部件组成。其结构采用二维或三维偏心原理设计,弹性密封和硬软多层次密封兼容的加工新工艺,使蝶阀在运行工作时,减少其扭矩力,达到省力、节能之功能。从而确保蝶阀整体的抗腐蚀、耐高温、抗磨损的可能性。其主要性能特点是:

- 1、结构独特、型小轻便、操作灵活、省力、方便;
- 2、密封可靠,可满足各级标准;
- 3、流量特性好,且具有调节功能;
- 4、采用偏心原理,使密封面近似零磨损,延长了阀门使用寿命;
- 5、应用范围广,可用于水、蒸气、油品、空气、煤气等介质;
- 6、适用不同温度及6.4MPa以下的压力等级、耐腐蚀等各种工况之管线。

Metal sealed butterfly valves are our new design that has long service life and energy saving. Products comply with national standard JB/T8527-97(metal sealed butterfly valve) and API 609-2004( double flanged butterfly valve, lug butterfly valve and wafer butterfly valve), GB/T13927-92 standards (general valve pressure test) and other relevant standards for valves.

This valve is composed of body, disc, seal ring, driving device and other main units. It adopts double or triple eccentric structure and resilience sealing, and soft/metal multilayer sealing. Its low torque achieves the function of saving energy when the butterfly valve is working. The ability of anti-corrosion, high temperature resistance, anti-wear is assured. Its main performance characteristics are:

1. Unique structure, light volume, smart operation, energy-saving, convenience;
2. Reliable sealing suits any standard;
3. Good flow character and adjustable function;
4. Eccentric theory is adopted to extend the valve service life and make the sealing surface almost zero wearing;
5. Widely used in various media, such as water, steam, oil, air, gas and etc.;
6. Suitable for pipelines of any working condition such as different temperature degree, pressure degrees below 6.4MPa, and corrosive medium.

### 用途 Purpose

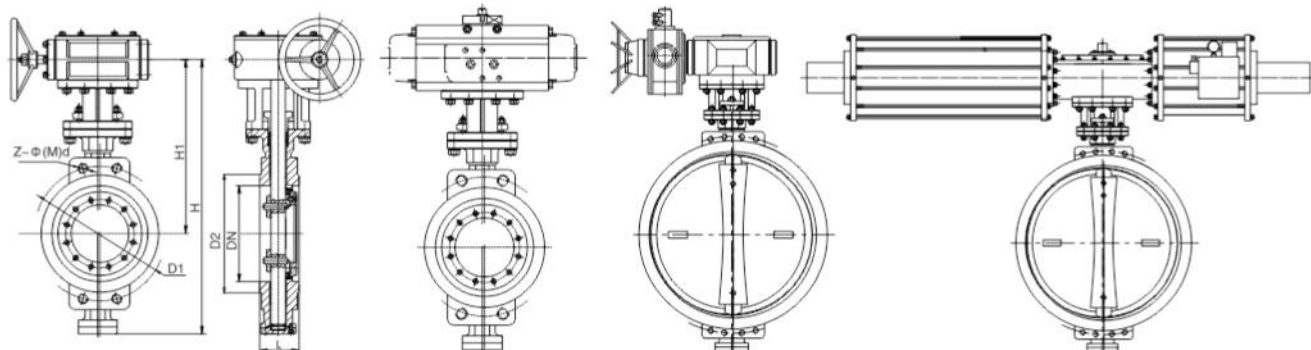
本蝶阀适用于食品、医药、石油化工、电厂、钢厂、工业环保水处理及高层建筑、供排水管道上作调节流量和截断流体最佳装置。

Our butterfly valve can be applied to food, medicine, petroleum and chemical industry, electric plant, steel plant, industrial environmental protection water treatment and high building water supply and drainage etc, being the best device for isolating or regulating flow in pipeline.

### 主要性能参数及采用标准 Main Performance Parameters and Standard

|                                    |                        |                                                            |      |      |
|------------------------------------|------------------------|------------------------------------------------------------|------|------|
| 设计标准 Design Standard               |                        | JB/T8527-97                                                |      |      |
| 法兰连接尺寸 Flange Connection Dimension |                        | GB/T9113-2010 JB/T79.1-94 HG20592-2009                     |      |      |
| 结构长度 Face to Face Length           |                        | GB12221-2005                                               |      |      |
| 压力试验 Pressure Test                 |                        | GB/T13927-2008 JB/T9092-99                                 |      |      |
| 公称通径 Nominal Diameter              |                        | 50~1800                                                    |      |      |
| 公称压力 Nominal Pressure              |                        | 1.0                                                        | 1.6  | 2.5  |
| 试验压力<br>Test Pressure              | 强度试验 Shell Test        | 1.5                                                        | 2.4  | 3.75 |
|                                    | 密封试验 Sealing Test      | 1.1                                                        | 1.76 | 2.75 |
|                                    | 气密封试验 Air Sealing Test | 0.5~0.7MPa                                                 |      |      |
| 适用介质 Applicable Media              |                        | 水、油品、蒸汽、煤气、酸、碱等 Water, Oil, Steam, Gas, Acid, Alkali, Etc. |      |      |
| 适用温度 Applicable Temperature        |                        | -40℃~570℃                                                  |      |      |

# ► 国际对夹式蝶阀 GB Wafer Butterfly Valve



D373H

D673H

D973H

## 主要技术参数 Main Technology Parameter

| 公称通径<br>Nominal<br>Diameter | 公称压力<br>Nominal<br>Pressure | 试验压力(MPa)<br>Test Pressure |                   |                              | 渗漏率<br>Leakage                                                                                   | 适用温度<br>Applicable<br>Temperature                                            | 适用介质<br>Applicable<br>Media                                                                                                        | 驱动形式<br>Operation                                                                                          |
|-----------------------------|-----------------------------|----------------------------|-------------------|------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| DN(mm)                      | PN(MPa)                     | 强度试验<br>Shell Test         | 密封试验<br>Seal Test | 气密封试验<br>Air Sealing<br>Test | <0.1 × DNmm <sup>3</sup> /s<br>(符合GB/T13927<br>-92标准<br>According to<br>Standard<br>GB/T13927-92 | 碳钢<br>Carbon steel:<br>-29℃ ~ 425℃<br>不锈钢<br>Stainless Steel:<br>-40℃ ~ 600℃ | 空气、水、蒸气、煤气、油品以及酸、碱、盐带有弱腐蚀性介质等<br>Air, Water, Steam<br>Coal Gas, Oil and<br>Acid, Alkali, Salt<br>Corrosive<br>Medium<br>and so on. | 蜗杆蜗轮传动、气传动、电传动<br>Lever Operator,<br>Worm Gear<br>Operator,<br>Pneumatic<br>Operator,<br>Electric Operator |
| 50 ~ 2000                   | 0.6                         | 0.9                        | 0.66              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                            |
|                             | 1.0                         | 1.5                        | 1.1               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                            |
|                             | 1.6                         | 2.4                        | 1.76              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                            |
|                             | 2.5                         | 3.75                       | 2.75              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                            |
| 50 ~ 1200                   | 4.0                         | 6.0                        | 4.4               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                            |

## 主要零件材质 Material for Main Parts

| 零件名称Parts Name  | 材料 Material                                                                                          |
|-----------------|------------------------------------------------------------------------------------------------------|
| 阀体Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron, Stainless steel, Cr.Mo.Steel, alloy steel                                  |
| 蝶板Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel, Alloy steel, stainless steel, Cr.Mo.Steel                                 |
| 密封圈Sealing Ring | 不锈钢与耐高温石棉板组合成多层次 Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆Stem          | 2Cr13、1Cr13不锈钢、铬钼钢 Stainless steel, Cr.Mo.Steel                                                      |
| 轴承Bearing       | 奥氏体不锈钢、304氮化 ZG00CrNi10, 304 nitridation                                                             |
| 填料Packing       | 柔性石墨 Flexible Graphite                                                                               |

# ► 国际对夹式蝶阀 GB Wafer Butterfly Valve



主要连接尺寸 Main Connection Dimensions

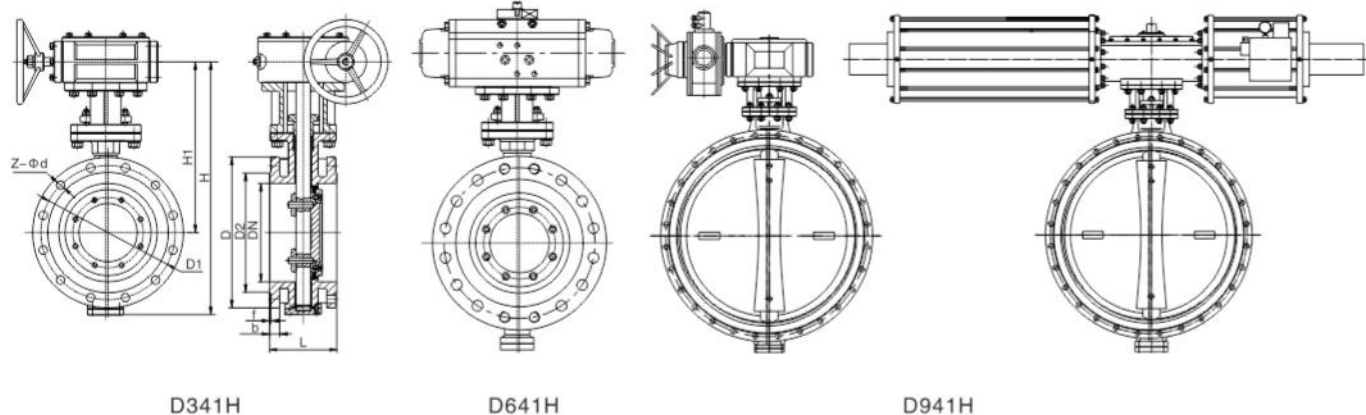
国际 GB/T9113.1-2010 单位: Unit: mm

| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |     |      |      | 0.6MPa |      |         | 1.0MPa |      |         | 1.6MPa |      |         |
|-------------------------|---------------------|-----|------|------|--------|------|---------|--------|------|---------|--------|------|---------|
|                         | L1                  | L2  | H    | H1   | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d |
| D373H/F、D673H/F、D973H/F |                     |     |      |      |        |      |         |        |      |         |        |      |         |
| 50                      | 43                  | 43  | 272  | 200  | 110    | 90   | 4-14    | 125    | 102  | 4-18    | 125    | 102  | 4-18    |
| 65                      | 46                  | 46  | 335  | 225  | 130    | 110  | 4-14    | 145    | 122  | 4-18    | 145    | 122  | 4-18    |
| 80                      | 49                  | 64  | 355  | 240  | 150    | 128  | 4-18    | 160    | 138  | 4-18    | 160    | 138  | 4-18    |
| 100                     | 56                  | 64  | 385  | 255  | 170    | 148  | 4-18    | 180    | 158  | 4-18    | 180    | 158  | 4-18    |
| 125                     | 64                  | 70  | 455  | 305  | 200    | 178  | 4-18    | 210    | 188  | 4-18    | 210    | 188  | 4-18    |
| 150                     | 70                  | 76  | 490  | 325  | 225    | 202  | 4-18    | 240    | 212  | 4-22    | 240    | 212  | 4-22    |
| 200                     | 71                  | 89  | 590  | 380  | 280    | 258  | 4-18    | 295    | 268  | 4-22    | 295    | 268  | 4-22    |
| 250                     | 76                  | 114 | 655  | 410  | 335    | 312  | 4-18    | 350    | 320  | 4-22    | 355    | 320  | 4-26    |
| 300                     | 83                  | 114 | 740  | 460  | 395    | 365  | 4-22    | 400    | 370  | 4-22    | 410    | 378  | 4-26    |
| 350                     | 92                  | 127 | 840  | 525  | 445    | 415  | 4-22    | 460    | 430  | 4-M20   | 470    | 438  | 4-M24   |
| 400                     | 102                 | 140 | 890  | 545  | 495    | 465  | 4-M20   | 515    | 482  | 4-M24   | 525    | 490  | 4-M27   |
| 450                     | 114                 | 152 | 1010 | 630  | 550    | 520  | 4-M20   | 565    | 532  | 4-M24   | 585    | 550  | 4-M27   |
| 500                     | 127                 | 152 | 1065 | 650  | 600    | 570  | 4-M20   | 620    | 585  | 4-M24   | 650    | 610  | 4-M30   |
| 600                     | 154                 | 178 | 1140 | 680  | 705    | 670  | 4-M24   | 725    | 685  | 4-M27   | 770    | 725  | 4-M33   |
| 700                     | 165                 | 229 | 1268 | 780  | 810    | 775  | 4-M24   | 840    | 800  | 4-M27   | 840    | 795  | 4-M33   |
| 800                     | 190                 | 241 | 1432 | 860  | 920    | 880  | 4-M27   | 950    | 905  | 4-M30   | 950    | 900  | 4-M36   |
| 900                     | 203                 | 241 | 1528 | 900  | 1020   | 980  | 4-M27   | 1050   | 1005 | 4-M30   | 1050   | 1000 | 4-M36   |
| 1000                    | 216                 | 300 | 1698 | 1000 | 1120   | 1080 | 4-M27   | 1160   | 1110 | 4-M33   | 1170   | 1115 | 4-M39   |
| 1200                    | 254                 | 360 | 1910 | 1100 | 1340   | 1295 | 4-M30   | 1380   | 1330 | 4-M36   | 1390   | 1330 | 4-M45   |
| 1400                    | 279                 | 390 | 2140 | 1200 | 1560   | 1510 | 4-M33   | 1590   | 1535 | 4-M39   | 1590   | 1530 | 4-M45   |
| 1600                    | 318                 | 440 | 2420 | 1330 | 1760   | 1710 | 4-M33   | 1820   | 1760 | 4-M45   | 1820   | 1750 | 4-M52   |
| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |     |      |      | 2.5MPa |      |         | 4.0MPa |      |         | 6.3MPa |      |         |
|                         | L1                  | L2  | H    | H1   | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d |
| 50                      | 43                  | 43  | 272  | 200  | 125    | 102  | 4-18    | 125    | 102  | 4-18    | 135    | 102  | 4-22    |
| 65                      | 46                  | 46  | 335  | 225  | 145    | 122  | 4-18    | 145    | 122  | 4-18    | 160    | 122  | 4-22    |
| 80                      | 49                  | 64  | 355  | 240  | 160    | 138  | 4-18    | 160    | 138  | 4-18    | 170    | 138  | 4-22    |
| 100                     | 56                  | 64  | 385  | 255  | 190    | 162  | 4-22    | 190    | 162  | 4-22    | 200    | 162  | 4-26    |
| 125                     | 64                  | 70  | 455  | 305  | 220    | 188  | 4-26    | 220    | 188  | 4-26    | 240    | 188  | 4-30    |
| 150                     | 70                  | 76  | 490  | 325  | 250    | 218  | 4-26    | 250    | 218  | 4-26    | 280    | 218  | 4-33    |
| 200                     | 71                  | 89  | 590  | 380  | 310    | 278  | 4-26    | 320    | 285  | 4-M27   | 345    | 285  | 4-M33   |
| 250                     | 76                  | 114 | 655  | 410  | 370    | 335  | 4-30    | 385    | 345  | 4-M30   | 400    | 345  | 4-M33   |
| 300                     | 83                  | 114 | 740  | 460  | 430    | 395  | 4-M27   | 450    | 410  | 4-M30   | 460    | 410  | 4-M33   |
| 350                     | 92                  | 127 | 840  | 525  | 490    | 450  | 4-M30   | 510    | 465  | 4-M33   | 525    | 465  | 4-M36   |
| 400                     | 102                 | 140 | 890  | 545  | 550    | 505  | 4-M33   | 585    | 535  | 4-M36   | 585    | 535  | 4-M39   |
| 450                     | 114                 | 152 | 1010 | 630  | 600    | 555  | 4-M33   | 610    | 560  | 4-M36   | -      | -    | -       |
| 500                     | 127                 | 152 | 1065 | 650  | 660    | 615  | 4-M33   | 670    | 615  | 4-M39   | -      | -    | -       |
| 600                     | 154                 | 178 | 1140 | 680  | 770    | 720  | 4-M36   | 795    | 735  | 4-M45   | -      | -    | -       |
| 700                     | 165                 | 229 | 1268 | 780  | 875    | 820  | 4-M39   | -      | -    | -       | -      | -    | -       |
| 800                     | 190                 | 241 | 1432 | 860  | 990    | 930  | 4-M45   | -      | -    | -       | -      | -    | -       |
| 900                     | 203                 | 241 | 1528 | 900  | 1090   | 1030 | 4-M45   | -      | -    | -       | -      | -    | -       |
| 1000                    | 216                 | 300 | 1698 | 1000 | 1210   | 1140 | 4-M52   | -      | -    | -       | -      | -    | -       |
| 1200                    | 254                 | 360 | 1910 | 1100 | 1420   | 1350 | 4-M52   | -      | -    | -       | -      | -    | -       |

注: 偏心型软密封(X)(J)蝶阀连接尺寸同上。  
4.0MPa以上结构长度为L2

Note: eccentric soft sealing (X) (J) butterfly valve connection size.  
4.0MPa above structure length is L2

# ▶ 国际法兰式蝶阀 GB Flange Butterfly Valve



## 主要技术参数 Main Technology Parameter

| 公称通径<br>Nominal<br>Diameter | 公称压力<br>Nominal<br>Pressure | 试验压力(MPa)<br>Test Pressure |                   |                              | 渗漏率<br>Leakage                                                                                   | 适用温度<br>Appropriate<br>Temperatuer                                           | 适用介质<br>Appropriate<br>Medium                                                                                                 | 驱动形式<br>Drive Modality                                                                                     |
|-----------------------------|-----------------------------|----------------------------|-------------------|------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| DN(mm)                      | PN(MPa)                     | 强度试验<br>Shell Test         | 密封试验<br>Seal Test | 气密封试验<br>Air Sealing<br>Test | <0.1 × DNmm <sup>3</sup> /s<br>(符合GB/T13927<br>-92标准<br>According to<br>Standard<br>GB/T13927-92 | 碳钢<br>Carbon steel:<br>-29℃ ~ 425℃<br>不锈钢<br>Stainless steel:<br>-40℃ ~ 600℃ | 空气、水、蒸气、煤气、油品以及酸、碱、盐带有弱腐蚀性介质等<br>Air,Water,Steam<br>Coal Gas,Oil and<br>Acid,Alkali,Salt<br>Corrosive<br>Medium<br>and so on. | 蜗杆蜗轮传动、气传动、电传动<br>Lever Operator,<br>Worm Gear<br>Operator,<br>Pneumatic<br>Operator,<br>Electric Operator |
| 50 ~ 2000                   | 0.6                         | 0.9                        | 0.66              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                               |                                                                                                            |
|                             | 1.0                         | 1.5                        | 1.1               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                               |                                                                                                            |
|                             | 1.6                         | 2.4                        | 1.76              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                               |                                                                                                            |
|                             | 2.5                         | 3.75                       | 2.75              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                               |                                                                                                            |
| 50 ~ 1200                   | 4.0                         | 6.0                        | 4.4               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                               |                                                                                                            |

## 主要零件材质 Material for Main Parts

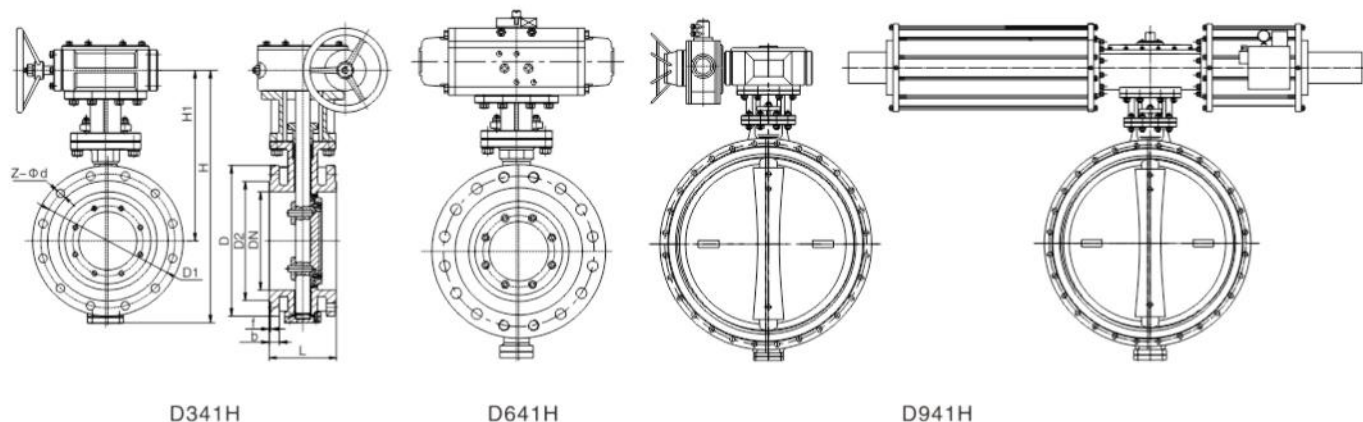
| 零件名称Parts Name  | 材料 Material                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------|
| 阀体Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron,Stainless steel ,Cr.Mo.Steel,alloy steel                                   |
| 蝶板Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel,Alloy steel,stainless steel, Cr.Mo.Steel                                  |
| 密封圈Sealing Ring | 不锈钢与耐高温石棉板组合成多层次Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆Stem          | 2Cr13、1Cr13不锈钢、铬钼钢Stainless steel,Cr.Mo.Steel                                                       |
| 轴承Bearing       | 奥氏体不锈钢、304氮化ZG00CrNi10,304 nitrification                                                            |
| 填料Packing       | 柔性石墨 Flexible Graphite                                                                              |

# ► 俄标法兰式蝶阀 Gost Flange Butterfly Valve



主要尺寸图 Main Connection Dimensions

主要尺寸图 Main Connection Dimensions



## 主要技术参数 Main Technology Parameter

| 公称通径<br>Nominal<br>Diameter | 公称压力<br>Nominal<br>Pressure | 试验压力(MPa)<br>Test Pressure |                   |                              | 泄漏率<br>Leakage                                                                      | 适用温度<br>Appropriate<br>Temperatuer                                           | 适用介质<br>Appropriate<br>Medium                                                                                                                  | 驱动形式<br>Drive Modality                                                                                                   |
|-----------------------------|-----------------------------|----------------------------|-------------------|------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| DN(mm)                      | PN(MPa)                     | 强度试验<br>Shell Test         | 密封试验<br>Seal Test | 气密封试验<br>Air Sealing<br>Test | <0.1 × DNmm³/s<br>(符合GB/T13927<br>-92标准<br>According to<br>Standard<br>GB/T13927-92 | 碳钢<br>Carbon Steel:<br>-29℃ ~ 425℃<br>不锈钢<br>Stainless Steel:<br>-40℃ ~ 600℃ | 空气、水、蒸汽、<br>煤气、油、<br>品以及酸、碱、<br>盐带有弱腐蚀性<br>介质等<br>Air,Water,Steam<br>Coal Gas,Oil and<br>Acid,Alkali,Salt<br>Corrosive<br>Medium<br>and so on. | 蜗杆蜗轮传<br>动、气传动、<br>电传动<br>Lever<br>Operator,<br>Worm Gear<br>Operator,<br>Pneumatic<br>Operator,<br>Electric<br>Operator |
| 50 ~ 2000                   | 0.6                         | 0.9                        | 0.66              | 0.6                          |                                                                                     |                                                                              |                                                                                                                                                |                                                                                                                          |
|                             | 1.0                         | 1.5                        | 1.1               | 0.6                          |                                                                                     |                                                                              |                                                                                                                                                |                                                                                                                          |
|                             | 1.6                         | 2.4                        | 1.76              | 0.6                          |                                                                                     |                                                                              |                                                                                                                                                |                                                                                                                          |
|                             | 2.5                         | 3.75                       | 2.75              | 0.6                          |                                                                                     |                                                                              |                                                                                                                                                |                                                                                                                          |
| 50 ~ 500                    | 4.0                         | 6.0                        | 4.4               | 0.6                          |                                                                                     |                                                                              |                                                                                                                                                |                                                                                                                          |

## 主要零件材质 Material for Main Parts

| 零件名称Parts Name  | 材料 Material                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------|
| 阀体Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron,Stainless steel ,Cr.Mo.Steel,alloy steel                                   |
| 蝶板Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel,Alloy steel,stainless steel, Cr.Mo.Steel                                  |
| 密封圈Sealing Ring | 不锈钢与耐高温石棉板组合成多层次Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆Stem          | 2Cr13、1Cr13不锈钢、铬钼钢Stainless steel,Cr.Mo.Steel                                                       |
| 轴承Bearing       | 奥氏体不锈钢、304氮化ZG00CrNi10,304 nitrification                                                            |
| 填料Packing       | 柔性石墨 Flexible Graphite                                                                              |

# ▶ 国际法兰式蝶阀 GB Flange Butterfly Valve



主要连接尺寸 Main Connection Dimensions

国标 GB/T9113.1-2010 单位: Unit: mm

| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |      |      |        | 0.6MPa |        |      |        |        |      |        | 1.0MPa |        |        |      |         | 1.6MPa |        |        |      |  |
|-------------------------|---------------------|------|------|--------|--------|--------|------|--------|--------|------|--------|--------|--------|--------|------|---------|--------|--------|--------|------|--|
|                         | L1                  | L2   | H    | H1     | D      | D1     | D2   | Z-Φd   | bxφ    | D    | D1     | D2     | Z-Φd   | bxφ    | D    | D1      | D2     | Z-Φd   | bxφ    |      |  |
| D343H/F、D643H/F、D943H/F |                     |      |      |        |        |        |      |        |        |      |        |        |        |        |      |         |        |        |        |      |  |
| 50                      | 108                 | 150  | 275  | 200    | 140    | 110    | 90   | 4-Φ14  | 14x3   | 165  | 125    | 102    | 4-Φ18  | 18x3   | 165  | 125     | 102    | 4-Φ18  | 18x3   |      |  |
| 65                      | 112                 | 170  | 303  | 210    | 160    | 130    | 110  | 4-Φ14  | 14x3   | 185  | 145    | 122    | 8*-Φ18 | 18x3   | 185  | 145     | 122    | 8*-Φ18 | 18x3   |      |  |
| 80                      | 114                 | 180  | 324  | 226    | 190    | 150    | 128  | 4-Φ18  | 16x3   | 200  | 160    | 138    | 8-Φ18  | 20x3   | 200  | 160     | 138    | 8-Φ18  | 20x3   |      |  |
| 100                     | 127                 | 190  | 380  | 250    | 210    | 170    | 148  | 4-Φ18  | 16x3   | 220  | 180    | 158    | 8-Φ18  | 20x3   | 220  | 180     | 158    | 8-Φ18  | 20x3   |      |  |
| 125                     | 140                 | 200  | 460  | 295    | 240    | 200    | 178  | 8-Φ18  | 18x3   | 250  | 210    | 188    | 8-Φ18  | 22x3   | 250  | 210     | 188    | 8-Φ18  | 22x3   |      |  |
| 150                     | 140                 | 210  | 490  | 315    | 265    | 225    | 202  | 8-Φ18  | 18x3   | 285  | 240    | 212    | 8-Φ22  | 22x3   | 285  | 240     | 212    | 8-Φ22  | 22x3   |      |  |
| 200                     | 152                 | 230  | 600  | 380    | 320    | 280    | 258  | 8-Φ18  | 20x3   | 340  | 295    | 268    | 8-Φ22  | 24x3   | 340  | 295     | 268    | 12-Φ22 | 24x3   |      |  |
| 250                     | 165                 | 250  | 655  | 405    | 375    | 335    | 312  | 12-Φ18 | 22x3   | 395  | 350    | 320    | 12-Φ22 | 26x3   | 405  | 355     | 320    | 12-Φ26 | 26x3   |      |  |
| 300                     | 178                 | 270  | 780  | 480    | 440    | 395    | 365  | 12-Φ22 | 22x4   | 445  | 400    | 370    | 12-Φ22 | 26x4   | 460  | 410     | 378    | 12-Φ26 | 28x4   |      |  |
| 350                     | 190                 | 290  | 875  | 545    | 490    | 445    | 415  | 12-Φ22 | 22x4   | 505  | 460    | 430    | 16-Φ22 | 26x4   | 520  | 470     | 438    | 16-Φ26 | 30x4   |      |  |
| 400                     | 216                 | 310  | 910  | 550    | 540    | 495    | 465  | 16-Φ22 | 22x4   | 565  | 515    | 482    | 16-Φ26 | 26x4   | 580  | 525     | 490    | 16-Φ30 | 32x4   |      |  |
| 450                     | 222                 | 330  | 1000 | 620    | 595    | 550    | 520  | 16-Φ22 | 22x4   | 615  | 565    | 532    | 20-Φ26 | 28x4   | 640  | 585     | 550    | 20-Φ30 | 40x4   |      |  |
| 500                     | 229                 | 350  | 1090 | 680    | 645    | 600    | 570  | 20-Φ22 | 24x4   | 670  | 620    | 585    | 20-Φ26 | 28x4   | 715  | 650     | 610    | 20-Φ33 | 44x4   |      |  |
| 600                     | 267                 | 390  | 1210 | 750    | 755    | 705    | 670  | 20-Φ26 | 30x5   | 780  | 725    | 685    | 20-Φ30 | 34x5   | 840  | 770     | 725    | 20-Φ36 | 54x5   |      |  |
| 700                     | 292                 | 430  | 1350 | 820    | 860    | 810    | 775  | 24-Φ26 | 26x5   | 895  | 840    | 800    | 24-Φ30 | 34x5   | 910  | 840     | 795    | 24-Φ36 | 40x5   |      |  |
| 800                     | 318                 | 470  | 1520 | 910    | 975    | 920    | 880  | 24-Φ30 | 26x5   | 1015 | 950    | 905    | 24-Φ33 | 36x5   | 1025 | 950     | 900    | 24-Φ39 | 42x5   |      |  |
| 900                     | 330                 | 510  | 1570 | 930    | 1075   | 1020   | 980  | 24-Φ30 | 26x5   | 1115 | 1050   | 1005   | 28-Φ33 | 38x5   | 1125 | 1050    | 1000   | 28-Φ39 | 44x5   |      |  |
| 1000                    | 410                 | 550  | 1700 | 980    | 1175   | 1120   | 1080 | 28-Φ30 | 28x5   | 1230 | 1160   | 1110   | 28-Φ36 | 38x5   | 1255 | 1170    | 1115   | 28-Φ42 | 46x5   |      |  |
| 1200                    | 470                 | 630  | 2040 | 1220   | 1405   | 1340   | 1295 | 32-Φ33 | 28x5   | 1455 | 1380   | 1330   | 32-Φ39 | 44x5   | 1485 | 1390    | 1330   | 32-Φ48 | 52x5   |      |  |
| 1400                    | 530                 | 710  | 2240 | 1310   | 1630   | 1560   | 1510 | 36-Φ36 | 32x5   | 1675 | 1590   | 1535   | 36-Φ42 | 48x5   | 1685 | 1590    | 1530   | 36-Φ48 | 58x5   |      |  |
| 1600                    | 600                 | 790  | 2440 | 1460   | 1830   | 1760   | 1710 | 40-Φ36 | 34x5   | 1915 | 1820   | 1760   | 40-Φ48 | 52x5   | 1930 | 1820    | 1750   | 40-Φ56 | 64x5   |      |  |
| 1800                    | 670                 | 870  | 2650 | 1560   | 2045   | 1970   | 1920 | 44-Φ39 | 36x5   | 2115 | 2020   | 1960   | 44-Φ48 | 56x5   | 2130 | 2020    | 1950   | 44-Φ56 | 68x5   |      |  |
| 2000                    | 760                 | 950  | 2860 | 1670   | 2265   | 2180   | 2125 | 48-Φ42 | 38x5   | 2325 | 2230   | 2170   | 48-Φ48 | 60x5   | 2345 | 2230    | 2150   | 48-Φ62 | 70x5   |      |  |
| 通径<br>Diameter<br>(mm)  | 2.5MPa              |      |      |        |        | 4.0MPa |      |        |        |      | 6.3MPa |        |        |        |      | 10.0MPa |        |        |        |      |  |
|                         | D                   | D1   | D2   | Z-Φd   | bxφ    | D      | D1   | D2     | Z-Φd   | bxφ  | D      | D1     | D2     | Z-Φd   | bxφ  | D       | D1     | D2     | Z-Φd   | bxφ  |  |
| 50                      | 165                 | 125  | 102  | 4-Φ18  | 20x3   | 165    | 125  | 102    | 4-Φ18  | 20x3 | 180    | 135    | 102    | 4-Φ22  | 26x3 | 195     | 145    | 102    | 4-Φ26  | 30x3 |  |
| 65                      | 185                 | 145  | 122  | 8-Φ18  | 22x3   | 185    | 145  | 122    | 8-Φ18  | 22x3 | 205    | 160    | 122    | 8-Φ22  | 26x3 | 220     | 170    | 122    | 8-Φ26  | 34x3 |  |
| 80                      | 200                 | 160  | 138  | 8-Φ18  | 24x3   | 200    | 160  | 138    | 8-Φ18  | 24x3 | 215    | 170    | 138    | 8-Φ22  | 28x3 | 230     | 180    | 138    | 8-Φ26  | 36x3 |  |
| 100                     | 235                 | 190  | 162  | 8-Φ22  | 24x3   | 235    | 190  | 162    | 8-Φ22  | 24x3 | 250    | 200    | 162    | 8-Φ26  | 30x3 | 265     | 210    | 162    | 8-Φ30  | 40x3 |  |
| 125                     | 270                 | 220  | 188  | 8-Φ26  | 26x3   | 270    | 220  | 188    | 8-Φ26  | 26x3 | 295    | 240    | 188    | 8-Φ30  | 34x3 | 315     | 250    | 188    | 8-Φ33  | 40x3 |  |
| 150                     | 300                 | 250  | 218  | 8-Φ26  | 28x3   | 300    | 250  | 218    | 8-Φ26  | 28x3 | 345    | 280    | 218    | 8-Φ33  | 36x3 | 355     | 290    | 218    | 12-Φ33 | 44x3 |  |
| 200                     | 360                 | 310  | 278  | 12-Φ26 | 30x3   | 375    | 320  | 285    | 12-Φ30 | 34x3 | 415    | 345    | 285    | 12-Φ36 | 42x3 | 430     | 360    | 285    | 12-Φ36 | 52x3 |  |
| 250                     | 425                 | 370  | 335  | 12-Φ30 | 32x3   | 450    | 385  | 345    | 12-Φ33 | 38x3 | 470    | 400    | 345    | 12-Φ36 | 46x3 | 505     | 430    | 345    | 12-Φ39 | 60x3 |  |
| 300                     | 485                 | 430  | 395  | 16-Φ30 | 34x4   | 515    | 450  | 410    | 16-Φ33 | 42x4 | 530    | 460    | 410    | 16-Φ36 | 52x4 | 585     | 500    | 410    | 16-Φ42 | 68x4 |  |
| 350                     | 555                 | 490  | 450  | 16-Φ33 | 38x4   | 580    | 510  | 465    | 16-Φ36 | 46x4 | 600    | 525    | 465    | 16-Φ39 | 56x4 | 655     | 560    | 465    | 16-Φ48 | 74x4 |  |
| 400                     | 620                 | 550  | 505  | 16-Φ36 | 40x4   | 660    | 585  | 535    | 16-Φ39 | 50x4 | 670    | 585    | 535    | 16-Φ42 | 60x4 | 715     | 620    | 535    | 16-Φ48 | 78x4 |  |
| 450                     | 670                 | 600  | 555  | 20-Φ36 | 46x4   | 685    | 610  | 560    | 20-Φ39 | 57x4 | 735    | 645    | 560    | 20-Φ39 | 64x4 | -       | -      | -      | -      | -    |  |
| 500                     | 730                 | 660  | 615  | 20-Φ36 | 48x4   | 755    | 670  | 615    | 20-Φ42 | 57x4 | 800    | 705    | 615    | 20-Φ48 | 68x4 | -       | -      | -      | -      | -    |  |
| 600                     | 845                 | 770  | 720  | 20-Φ39 | 58x5   | 890    | 795  | 735    | 20-Φ48 | 72x5 | 930    | 820    | 735    | 20-Φ56 | 76x5 | -       | -      | -      | -      | -    |  |
| 700                     | 960                 | 875  | 820  | 24-Φ42 | 50x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 800                     | 1085                | 990  | 930  | 24-Φ48 | 54x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 900                     | 1185                | 1090 | 1030 | 28-Φ48 | 58x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 1000                    | 1320                | 1210 | 1140 | 28-Φ56 | 62x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 1200                    | 1530                | 1420 | 1350 | 32-Φ56 | 70x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 1400                    | 1755                | 1640 | 1560 | 36-Φ62 | 76x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 1600                    | 1975                | 1860 | 1780 | 40-Φ62 | 84x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 1800                    | 2195                | 2070 | 1985 | 44-Φ70 | 90x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |
| 2000                    | 2425                | 2300 | 2210 | 48-Φ70 | 96x5   | -      | -    | -      | -      | -    | -      | -      | -      | -      | -    | -       | -      | -      | -      | -    |  |

# 化工部法兰式蝶阀 HG Flange Butterfly Valve



主要连接尺寸 Main Connection Dimensions

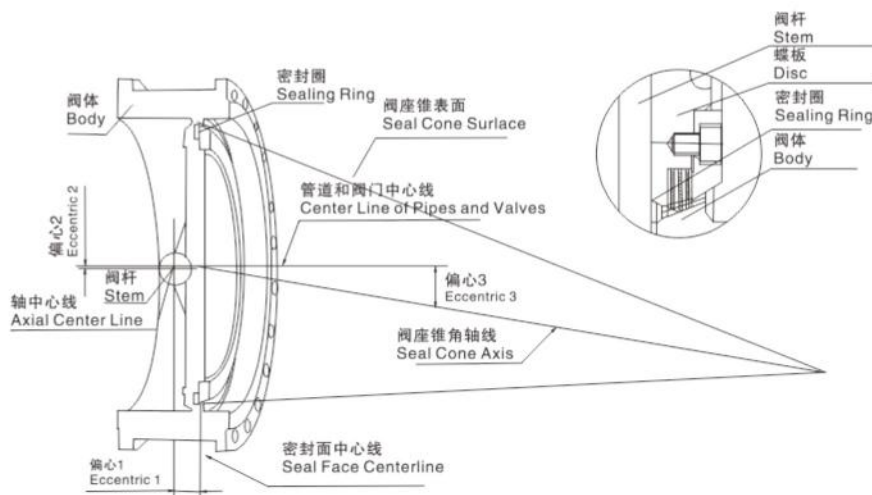
化工部 HG 20592-2009 单位: Unit: mm

| 通径<br>Diameter<br>(mm) | 主要尺寸 Main Dimension     |      |      |        |      | 0.6MPa |      |        |        |      | 1.0MPa |      |        |        |      | 1.6MPa  |      |        |        |      |
|------------------------|-------------------------|------|------|--------|------|--------|------|--------|--------|------|--------|------|--------|--------|------|---------|------|--------|--------|------|
|                        | L1                      | L2   | H    | H1     | D    | D1     | D2   | Z-Φd   | bxφ    | D    | D1     | D2   | Z-Φd   | bxφ    | D    | D1      | D2   | Z-Φd   | bxφ    |      |
|                        | D343H/F、D643H/F、D943H/F |      |      |        |      |        |      |        |        |      |        |      |        |        |      |         |      |        |        |      |
| 50                     | 108                     | 150  | 275  | 200    | 140  | 110    | 90   | 4-Φ14  | 14x2   | 165  | 125    | 102  | 4-Φ18  | 18x2   | 165  | 125     | 102  | 4-Φ18  | 18x2   |      |
| 65                     | 112                     | 170  | 303  | 210    | 160  | 130    | 110  | 4-Φ14  | 14x2   | 185  | 145    | 122  | 8*-Φ18 | 18x2   | 185  | 145     | 122  | 8*-Φ18 | 18x2   |      |
| 80                     | 114                     | 180  | 324  | 226    | 190  | 150    | 128  | 4-Φ18  | 16x2   | 200  | 160    | 138  | 8-Φ18  | 20x2   | 200  | 160     | 138  | 8-Φ18  | 20x2   |      |
| 100                    | 127                     | 190  | 380  | 250    | 210  | 170    | 148  | 4-Φ18  | 16x2   | 220  | 180    | 158  | 8-Φ18  | 20x2   | 220  | 180     | 158  | 8-Φ18  | 20x2   |      |
| 125                    | 140                     | 200  | 460  | 295    | 240  | 200    | 178  | 8-Φ18  | 18x2   | 250  | 210    | 188  | 8-Φ18  | 22x2   | 250  | 210     | 188  | 8-Φ18  | 22x2   |      |
| 150                    | 140                     | 210  | 490  | 315    | 265  | 225    | 202  | 8-Φ18  | 18x2   | 285  | 240    | 212  | 8-Φ22  | 22x2   | 285  | 240     | 212  | 8-Φ22  | 22x2   |      |
| 200                    | 152                     | 230  | 600  | 380    | 320  | 280    | 258  | 8-Φ18  | 20x2   | 340  | 295    | 268  | 8-Φ22  | 24x2   | 340  | 295     | 268  | 12-Φ22 | 24x2   |      |
| 250                    | 165                     | 250  | 655  | 405    | 375  | 335    | 312  | 12-Φ18 | 22x2   | 395  | 350    | 320  | 12-Φ22 | 26x2   | 405  | 355     | 320  | 12-Φ26 | 26x2   |      |
| 300                    | 178                     | 270  | 780  | 480    | 440  | 395    | 365  | 12-Φ22 | 22x2   | 445  | 400    | 370  | 12-Φ22 | 26x2   | 460  | 410     | 378  | 12-Φ26 | 28x2   |      |
| 350                    | 190                     | 290  | 875  | 545    | 490  | 445    | 415  | 12-Φ22 | 22x2   | 505  | 460    | 430  | 16-Φ22 | 26x2   | 520  | 470     | 438  | 16-Φ26 | 30x2   |      |
| 400                    | 216                     | 310  | 910  | 550    | 540  | 495    | 465  | 16-Φ22 | 22x2   | 565  | 515    | 482  | 16-Φ26 | 26x2   | 580  | 525     | 490  | 16-Φ30 | 32x2   |      |
| 450                    | 222                     | 330  | 1000 | 620    | 595  | 550    | 520  | 16-Φ22 | 22x2   | 615  | 565    | 532  | 20-Φ26 | 28x2   | 640  | 585     | 550  | 20-Φ30 | 40x2   |      |
| 500                    | 229                     | 350  | 1090 | 680    | 645  | 600    | 570  | 20-Φ22 | 24x2   | 670  | 620    | 585  | 20-Φ26 | 28x2   | 715  | 650     | 610  | 20-Φ33 | 44x2   |      |
| 600                    | 267                     | 390  | 1210 | 750    | 755  | 705    | 670  | 20-Φ26 | 30x2   | 780  | 725    | 685  | 20-Φ30 | 34x2   | 840  | 770     | 725  | 20-Φ36 | 54x2   |      |
| 700                    | 292                     | 430  | 1350 | 820    | 860  | 810    | 775  | 24-Φ26 | 24x5   | 895  | 840    | 800  | 24-Φ30 | 34x5   | 910  | 840     | 795  | 24-Φ36 | 42x5   |      |
| 800                    | 318                     | 470  | 1520 | 910    | 975  | 920    | 880  | 24-Φ30 | 24x5   | 1015 | 950    | 905  | 24-Φ33 | 36x5   | 1025 | 950     | 900  | 24-Φ39 | 42x5   |      |
| 900                    | 330                     | 510  | 1570 | 930    | 1075 | 1020   | 980  | 24-Φ30 | 26x5   | 1115 | 1050   | 1005 | 28-Φ33 | 38x5   | 1125 | 1050    | 1000 | 28-Φ39 | 44x5   |      |
| 1000                   | 410                     | 550  | 1700 | 980    | 1175 | 1120   | 1080 | 28-Φ30 | 26x5   | 1230 | 1160   | 1110 | 28-Φ36 | 38x5   | 1255 | 1170    | 1115 | 28-Φ42 | 46x5   |      |
| 1200                   | 470                     | 630  | 2040 | 1220   | 1405 | 1340   | 1295 | 32-Φ33 | 28x5   | 1455 | 1380   | 1330 | 32-Φ39 | 44x5   | 1485 | 1390    | 1330 | 32-Φ48 | 52x5   |      |
| 1400                   | 530                     | 710  | 2240 | 1310   | 1630 | 1560   | 1510 | 36-Φ36 | 32x5   | 1675 | 1590   | 1535 | 36-Φ42 | 48x5   | 1685 | 1590    | 1530 | 36-Φ48 | 58x5   |      |
| 1600                   | 600                     | 790  | 2440 | 1460   | 1830 | 1760   | 1710 | 40-Φ36 | 34x5   | 1915 | 1820   | 1760 | 40-Φ48 | 52x5   | 1930 | 1820    | 1750 | 40-Φ56 | 64x5   |      |
| 1800                   | 670                     | 870  | 2650 | 1560   | 2045 | 1970   | 1920 | 44-Φ39 | 36x5   | 2115 | 2020   | 1960 | 44-Φ48 | 56x5   | 2130 | 2020    | 1950 | 44-Φ56 | 68x5   |      |
| 2000                   | 760                     | 950  | 2860 | 1670   | 2265 | 2180   | 2125 | 48-Φ42 | 38x5   | 2325 | 2230   | 2170 | 48-Φ48 | 60x5   | 2345 | 2230    | 2150 | 48-Φ62 | 70x5   |      |
| 通径<br>Diameter<br>(mm) | 2.5MPa                  |      |      |        |      | 4.0MPa |      |        |        |      | 6.3MPa |      |        |        |      | 10.0MPa |      |        |        |      |
|                        | D                       | D1   | D2   | Z-Φd   | bxφ  | D      | D1   | D2     | Z-Φd   | bxφ  | D      | D1   | D2     | Z-Φd   | bxφ  | D       | D1   | D2     | Z-Φd   | bxφ  |
| 50                     | 165                     | 125  | 102  | 4-Φ18  | 20x2 | 165    | 125  | 102    | 4-Φ18  | 20x2 | 180    | 135  | 102    | 4-Φ22  | 26x2 | 195     | 145  | 102    | 4-Φ26  | 30x2 |
| 65                     | 185                     | 145  | 122  | 8-Φ18  | 22x2 | 185    | 145  | 122    | 8-Φ18  | 22x2 | 205    | 160  | 122    | 8-Φ22  | 26x2 | 220     | 170  | 122    | 8-Φ26  | 34x2 |
| 80                     | 200                     | 160  | 138  | 8-Φ18  | 24x2 | 200    | 160  | 138    | 8-Φ18  | 24x2 | 215    | 170  | 138    | 8-Φ22  | 28x2 | 230     | 180  | 138    | 8-Φ26  | 36x2 |
| 100                    | 235                     | 190  | 162  | 8-Φ22  | 24x2 | 235    | 190  | 162    | 8-Φ22  | 24x2 | 250    | 200  | 162    | 8-Φ26  | 30x2 | 265     | 210  | 162    | 8-Φ30  | 40x2 |
| 125                    | 270                     | 220  | 188  | 8-Φ26  | 26x2 | 270    | 220  | 188    | 8-Φ26  | 26x2 | 295    | 240  | 188    | 8-Φ30  | 34x2 | 315     | 250  | 188    | 8-Φ33  | 40x2 |
| 150                    | 300                     | 250  | 218  | 8-Φ26  | 28x2 | 300    | 250  | 218    | 8-Φ26  | 28x2 | 345    | 280  | 218    | 8-Φ33  | 36x2 | 355     | 290  | 218    | 12-Φ33 | 44x2 |
| 200                    | 360                     | 310  | 278  | 12-Φ26 | 30x2 | 375    | 320  | 285    | 12-Φ30 | 34x2 | 415    | 345  | 285    | 12-Φ36 | 42x2 | 430     | 360  | 285    | 12-Φ36 | 52x2 |
| 250                    | 425                     | 370  | 335  | 12-Φ30 | 32x2 | 450    | 385  | 345    | 12-Φ33 | 38x2 | 470    | 400  | 345    | 12-Φ36 | 46x2 | 505     | 430  | 345    | 12-Φ39 | 60x2 |
| 300                    | 485                     | 430  | 395  | 16-Φ30 | 34x2 | 515    | 450  | 410    | 16-Φ33 | 42x2 | 530    | 460  | 410    | 16-Φ36 | 52x2 | 585     | 500  | 410    | 16-Φ42 | 68x2 |
| 350                    | 555                     | 490  | 450  | 16-Φ33 | 38x2 | 580    | 510  | 465    | 16-Φ36 | 46x2 | 600    | 525  | 465    | 16-Φ39 | 56x2 | 655     | 560  | 465    | 16-Φ48 | 74x2 |
| 400                    | 620                     | 550  | 505  | 16-Φ36 | 40x2 | 660    | 585  | 535    | 16-Φ39 | 50x2 | 670    | 585  | 535    | 16-Φ42 | 60x2 | 715     | 620  | 535    | 16-Φ48 | 78x2 |
| 450                    | 670                     | 600  | 555  | 20-Φ36 | 46x2 | 685    | 610  | 560    | 20-Φ39 | 57x2 | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 500                    | 730                     | 660  | 615  | 20-Φ36 | 48x2 | 755    | 670  | 615    | 20-Φ42 | 57x2 | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 600                    | 845                     | 770  | 720  | 20-Φ39 | 58x2 | 890    | 795  | 735    | 20-Φ48 | 72x2 | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 700                    | 960                     | 875  | 820  | 24-Φ42 | 50x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 800                    | 1085                    | 990  | 930  | 24-Φ48 | 54x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 900                    | 1185                    | 1090 | 1030 | 28-Φ48 | 58x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 1000                   | 1320                    | 1210 | 1140 | 28-Φ55 | 62x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 1200                   | 1530                    | 1420 | 1350 | 32-Φ55 | 70x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 1400                   | 1755                    | 1640 | 1560 | 36-Φ62 | 76x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 1600                   | 1975                    | 1860 | 1780 | 40-Φ62 | 84x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 1800                   | 2195                    | 2070 | 1985 | 44-Φ70 | 90x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |
| 2000                   | 2425                    | 2300 | 2210 | 48-Φ70 | 96x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      |      |

## ▶ 美标蝶阀密封形式 ASME Butterfly Valve Sealing Form



美标三偏心蝶阀几何图 American Standard Butterfly Valve Geometric Graph



第一个偏心轴偏离密封面中心线

第二个偏心轴偏管路及阀门中心线

第三个其独特的偏心阀座斜锥角与管路中心的夹角，这样，使得阀座与密封圈在门整个开关过程中完全脱离。这种结构即利用了凸轮效应。又完全消除了摩擦，去除了磨损和泄露的可能。

Firstly: The eccentric shaft deflected from the center line of sealing surface.

Secondly: The eccentric shaft deflected from pipe and center line of valve.

Thirdly: The unique design of eccentric seat oblique cone and the angle of centerline, makes the seat and sealing ring completely out from the door during the open and close. This structure adopted the cam effect, completely eliminating the friction, avoiding the possibility of wear and leakage.

我公司生产的三偏心蝶阀，依靠安装在碟板上的复合不锈钢密封圈来实现真正的零泄漏。

Our triple eccentric butterfly valve realizes zero leakage relying on the composite stainless steel sealing ring installed in the disc.

零泄漏是通过碟板上密封圈的弹性来实现的，该密封圈的弹性(如右图)是通过其径向的压缩和柔动生产的。密封圈与阀座接触面为斜锥面。密封圈与阀座之间的接触角产生轻微的“楔式效应”使密封圈发生柔动和径向压缩。正由于阀座与密封圈之间均匀接触以及密封圈的柔性，使得加载在阀座上的载荷均匀，从而用最少的扭矩实现最严密的切断。扭矩产生的弹性使得阀门严密关断，而与介质流向或介质力无关。

Zero leakage is implemented by the elastic sealing ring mounted on the disc. The elasticity of sealing ring (see to the right picture) is produced by its radial compression and flexibility. The contact surface between the sealing ring and seat is an oblique cone. The contact angle between them gives slight "wedge effect", making the sealing ring producing flexibility and radial compression. The even contact between the seat and sealing ring, and the elasticity of sealing makes the load on the seat even, thus to perform closest cut off by the lowest torque. The elasticity produced by the torque makes the valve closely cut off, regardless of the flow direction or pressure of medium.



# ▶ 美标蝶阀性能、用途、特点

## ASME Butterfly Valve's Performance, Use and Characteristic



### 用途及特点 Purpose and Characteristic

复合金属密封圈的弹性特性使得阀门具有零泄漏性能。

扭矩密封确保阀门持续的双向零泄漏特性。

直角旋转无摩擦设计是通过一个独特的三偏心原理来实现的，它消除了90°开关旋转中阀座与密封圈之间的摩擦。

STL一体式硬面阀座可满足许多工况要求，使用寿命，维修方便。

一体式铸造(板焊)阀体，结构长度符合ISO5752、ASME16.10和API609.可替换高性能蝶阀以及其他种类的阀门，安装简单、灵活全金属结构加上零泄漏性能，使阀门具有‘本质防火安全’特性。

阀杆防吹出设计安全可靠，完全符合API609的要求。

阀杆杆上的阀位指示器以及顶部安装法兰有利于蝶板位置指示。

美标三偏心蝶阀的阀杆采用一根通轴式结构，阀杆与蝶阀连接采用键或销键组合。

Elastic property of composite metal sealing ring performs zero leakage.

Torque sealing ensures the persistent bi-directional zero leakage.

The design of right-angled rotation with zero friction is implemented by the distinctive triple eccentric principle; it eliminates the friction between the seat and sealing ring in 90° rotation.

STL one-piece hard-surface seat may adapt to many working conditions, which is featured with long service life and easy maintenance.

One-piece cast (sheet welded) body, face to face dimensions conforming to ISO5752, ASME16.10 and API609, replacement of high performance butterfly valves and other types of valves, easy and flexible installation, intrinsic fireproof property thanks to all metal structure and leak tight performance.

Anti-blowout stem designs for high dependability, completely conforming to API609.

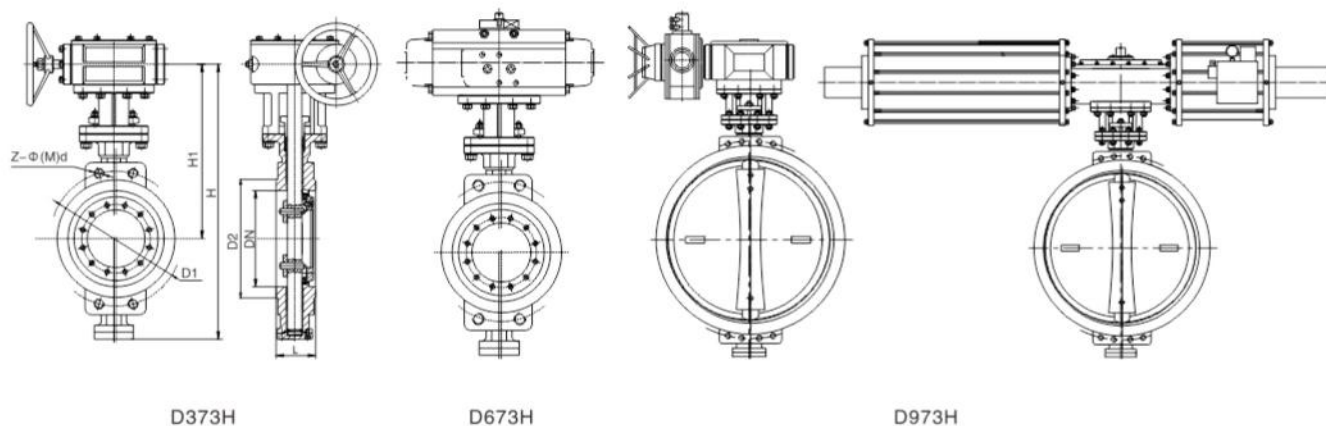
The valve position indicator on the stem and the flange mounted at the top of are in the favor of the indication of disc position.

The stem of American standard triple eccentric butterfly valve, is a shaft structure, stem and disc are connected by key or pin-key combination.

### 采用标准 Adoption Standard

|                                                     |                                 |                                                                                                                                    |       |       |
|-----------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 设计标准 Design Standard                                |                                 | API 609                                                                                                                            |       |       |
| 法兰连接尺寸 Flange Connection Dimension                  |                                 | 口径≤24"根据 ANSI B16.5 口径>24" 根据 ANSI B16.47 Series B<br>Size≤24" according to ANSI B16.5, Size>24" according to ANSI B16.47 Series B |       |       |
| 试验和检验 Test and Inspection                           |                                 | API 598                                                                                                                            |       |       |
| 温压等级 Pressure-Temperature Rate                      |                                 | ASME B16.34                                                                                                                        |       |       |
| 结构长度<br>Face to Face<br>Dimension                   | 短结构 Short Structure             | API609.ISO5752 basic series 13                                                                                                     |       |       |
|                                                     | 长结构 Long Structure              | ASME B16.10                                                                                                                        |       |       |
| 防火制造 Fire Safe                                      |                                 | API 607                                                                                                                            |       |       |
| 压力等级 Pressure Rating                                |                                 | 150LB                                                                                                                              | 300LB | 600LB |
| 常温试验压力(Mpa)<br>Test Pressure at Room<br>Temperature | 壳体试验<br>Shell Test              | 2.93                                                                                                                               | 7.58  | 15.0  |
|                                                     | 高压密封<br>High Pressure Seal Test | 2.07                                                                                                                               | 5.52  | 11.03 |
|                                                     | 低压密封<br>Low Pressure Seal Test  | 0.6                                                                                                                                | 0.6   | 0.6   |
| 适用介质 Applicable Medium                              |                                 | 水、油、气及各类腐蚀性介质(不同的介质选用不同的材质)<br>Water, Oil, Gas and Other Causticity Media (Different Media Use Different Materials)                |       |       |
| 适用温度 Applicable Temperature                         |                                 | -46℃~550℃(不同的工况温度选用不同的材质)<br>(Different Raw Material for Different Work Temperature)                                               |       |       |

# ▶ 美标对夹式蝶阀 ASME Wafer Butterfly Valve



## 主要技术参数 Main Technology Parameter

| 公称压力<br>Nominal<br>Pressure<br>(MPa) | 试验压力(MPa)<br>Test Pressure (MPa) |                               |                              | 适用温度<br>Applicable Temperature | 适用介质<br>Applicable Medium                   |
|--------------------------------------|----------------------------------|-------------------------------|------------------------------|--------------------------------|---------------------------------------------|
|                                      | 壳体试验<br>Shell Test               | 高压密封<br>High<br>Pressure Seal | 低压密封<br>Low<br>Pressure Seal |                                |                                             |
| CLASS150                             | 2.93                             | 2.07                          | 0.6                          | -29 ~ 425℃                     | 水、蒸汽、油品、海水等<br>Water, Steam, Oil, Seawater. |
| CLASS300                             | 7.58                             | 5.52                          | 0.6                          |                                |                                             |
| CLASS600                             | 15.0                             | 11.03                         | 0.6                          |                                |                                             |
| CLASS900                             | 24.0                             | 17.6                          | 0.6                          |                                |                                             |

## 主要零件材质 Material for Main Parts

| 零件名称Parts Name   | 材料 Material                                 |
|------------------|---------------------------------------------|
| 阀体 Body          | WCB、304、316、316SS、CF8M                      |
| 蝶板 Disc          | WCB、304、316、316SS、CF8M                      |
| 阀杆 Stem          | 316、2Cr13、1Cr18Ni9Ti                        |
| 密封圈 Sealing Ring | 316、氟塑料Fluorine Plastic                     |
| 填料 Packing       | 柔性石墨、氟塑料Flexible Graphite, Fluorine Plastic |

# ▶ 美标对夹式蝶阀 ASME Wafer Butterfly Valve

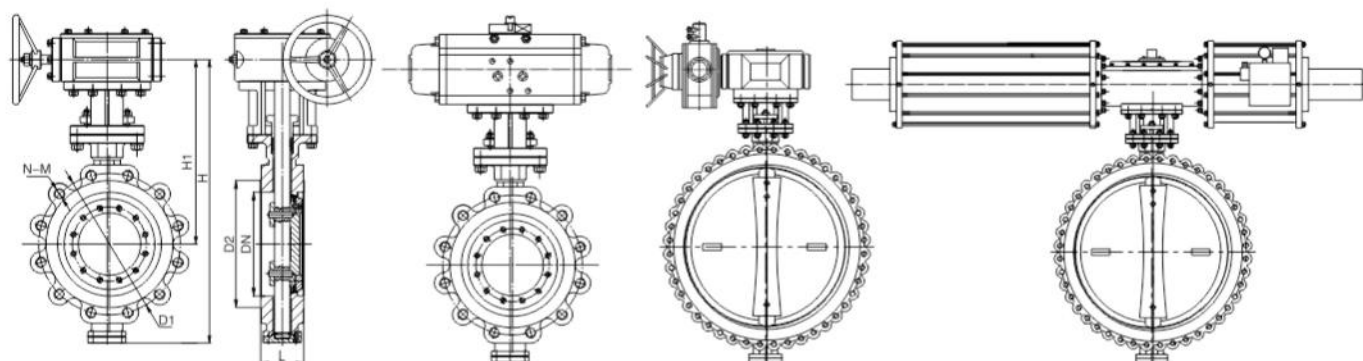


## 主要连接尺寸 Main Connection Dimensions

ASME 16.5 ASME 16.47 B 单位: Unit: mm

| 通径<br>Diameter |      | 150Lb |      |      |        |      |           | 300Lb |      |      |        |      |           |
|----------------|------|-------|------|------|--------|------|-----------|-------|------|------|--------|------|-----------|
| Inch           | mm   | L     | H    | H1   | D1     | D2   | Z-Φ(M)d   | L     | H    | H1   | D1     | D2   | Z-Φ(M)d   |
| 2              | 50   | 43    | 300  | 210  | 120.5  | 92   | 4-19      | 43    | 330  | 230  | 127    | 92   | 4-19      |
| 3              | 80   | 49    | 340  | 230  | 152.5  | 127  | 4-19      | 49    | 420  | 270  | 168.5  | 127  | 4-22      |
| 4              | 100  | 54    | 400  | 265  | 190.5  | 157  | 4-19      | 54    | 490  | 305  | 200    | 157  | 4-22      |
| 5              | 125  | 57    | 480  | 325  | 216    | 186  | 4-22      | 57    | 530  | 345  | 235    | 186  | 4-22      |
| 6              | 150  | 58    | 530  | 345  | 241.5  | 216  | 4-22      | 61    | 590  | 380  | 270    | 216  | 4-(3/4)   |
| 8              | 200  | 64    | 620  | 395  | 298.5  | 270  | 4-22      | 73    | 650  | 410  | 330    | 270  | 4-(7/8)   |
| 10             | 250  | 71    | 680  | 425  | 362    | 324  | 4-25      | 83    | 750  | 470  | 387.5  | 324  | 4-(1)     |
| 12             | 300  | 81    | 800  | 495  | 432    | 381  | 4-25      | 92    | 860  | 545  | 451    | 381  | 4-(1 1/8) |
| 14             | 350  | 92    | 880  | 555  | 476    | 413  | 4-29      | 117   | 940  | 590  | 514.5  | 413  | 4-(1 1/8) |
| 16             | 400  | 102   | 950  | 590  | 540    | 470  | 4-(1)     | 133   | 990  | 640  | 571.5  | 470  | 4-(1 1/4) |
| 18             | 450  | 114   | 1000 | 630  | 578    | 533  | 4-(1 1/8) | 149   | 1100 | 690  | 628.5  | 533  | 4-(1 1/4) |
| 20             | 500  | 127   | 1110 | 700  | 635    | 584  | 4-(1 1/8) | 159   | 1200 | 740  | 686    | 584  | 4-(1 1/4) |
| 24             | 600  | 154   | 1230 | 750  | 749.5  | 692  | 4-(1 1/4) | 181   | 1360 | 850  | 813    | 692  | 4-(1 1/2) |
| 28             | 700  | 165   | 1350 | 810  | 795.3  | 762  | 8-(3/4)   | 229   | 1430 | 870  | 857.2  | 787  | 4-(1 1/4) |
| 32             | 800  | 190   | 1390 | 840  | 900.1  | 864  | 8-(3/4)   | 254   | 1570 | 950  | 977.9  | 902  | 4-(1 1/2) |
| 36             | 900  | 203   | 1660 | 1000 | 1009.6 | 972  | 8-(7/8)   | 254   | 1750 | 1110 | 1089   | 1010 | 4-(1 5/8) |
| 40             | 1000 | 216   | 1720 | 1080 | 1120.8 | 1080 | 8-(1)     | 300   | 1980 | 1200 | 1190.6 | 1114 | 4-(1 5/8) |
| 48             | 1200 | 254   | 2080 | 1250 | 1335.1 | 1289 | 8-(1 1/8) | 360   | 2130 | 1270 | 1416   | 1327 | 4-(1 7/8) |
| 通径<br>Diameter |      | 600Lb |      |      |        |      |           | 900Lb |      |      |        |      |           |
| Inch           | mm   | L     | H    | H1   | D1     | D2   | Z-Φ(M)d   | L     | H    | H1   | D1     | D2   | Z-Φ(M)d   |
| 2              | 50   | 43    | 355  | 230  | 127    | 92   | 4-(5/8)   | -     | -    | -    | -      | -    | -         |
| 3              | 80   | 54    | 480  | 290  | 168.3  | 127  | 4-(3/4)   | -     | -    | -    | -      | -    | -         |
| 4              | 100  | 64    | 510  | 320  | 215.9  | 157  | 4-(7/8)   | -     | -    | -    | -      | -    | -         |
| 5              | 125  | 76    | 590  | 380  | 266.7  | 186  | 4-(1)     | -     | -    | -    | -      | -    | -         |
| 6              | 150  | 78    | 620  | 400  | 292.1  | 216  | 4-(1)     | 104   | 760  | 460  | 317.5  | 216  | 4-(1 1/8) |
| 8              | 200  | 102   | 730  | 460  | 349.2  | 270  | 4-(1 1/8) | 112   | 850  | 530  | 393.7  | 270  | 4-(1 3/8) |
| 10             | 250  | 117   | 870  | 550  | 431.8  | 324  | 4-(1 1/4) | 135   | 980  | 635  | 469.9  | 324  | 4-(1 3/8) |
| 12             | 300  | 140   | 930  | 600  | 489    | 381  | 4-(1 1/4) | 170   | 1050 | 690  | 533.4  | 381  | 4-(1 3/8) |
| 14             | 350  | 155   | 1005 | 630  | 527    | 413  | 4-(1 3/8) | 173   | 1130 | 720  | 558.8  | 413  | 4-(1 1/2) |
| 16             | 400  | 178   | 1135 | 705  | 603.2  | 470  | 4-(1 1/2) | 210   | 1195 | 740  | 616    | 470  | 4-(1 5/8) |
| 18             | 450  | 200   | 1200 | 750  | 654    | 533  | 4-(1 5/8) | 228   | 1340 | 840  | 685.8  | 533  | 4-(1 7/8) |
| 20             | 500  | 216   | 1270 | 780  | 723.9  | 584  | 4-(1 5/8) | 250   | 1410 | 865  | 749.3  | 584  | 4-(2)     |
| 24             | 600  | 232   | 1440 | 880  | 838.2  | 692  | 4-(1 7/8) | 275   | 1645 | 990  | 901.7  | 692  | 4-(2 1/2) |

# ▶ 美标凸耳式蝶阀 ASME Lug Butterfly Valve



## 主要技术参数 Main Technology Parameter

| 公称压力<br>Nominal<br>Pressure<br>(MPa) | 试验压力(MPa)<br>Test Pressure (MPa) |                               |                              | 适用温度<br>Applicable Temperature | 适用介质<br>Applicable Medium                |
|--------------------------------------|----------------------------------|-------------------------------|------------------------------|--------------------------------|------------------------------------------|
|                                      | 壳体试验<br>Shell Test               | 高压密封<br>High<br>Pressure Seal | 低压密封<br>Low<br>Pressure Seal |                                |                                          |
| CLASS150                             | 2.93                             | 2.07                          | 0.6                          | -29 ~ 425℃                     | 水、蒸汽、油品、海水等<br>Water,Steam,Oil,Seawater. |
| CLASS300                             | 7.58                             | 5.52                          | 0.6                          |                                |                                          |
| CLASS600                             | 15.0                             | 11.03                         | 0.6                          |                                |                                          |

## 主要零件材质 Material for Main Parts

| 零件名称 Parts Name  | 材料 Material                                |
|------------------|--------------------------------------------|
| 阀体 Body          | WCB、304、316、316SS、CF8M                     |
| 蝶板 Disc          | WCB、304、316、316SS、CF8M                     |
| 阀杆 Stem          | 316、2Cr13、1Cr18Ni9Ti                       |
| 密封圈 Sealing Ring | 316、氟塑料Fluorine Plastic                    |
| 填料 Packing       | 柔性石墨、氟塑料Flexible Graphite,Fluorine Plastic |

# ▶ 美标凸耳式蝶阀 ASME Lug Butterfly Valve

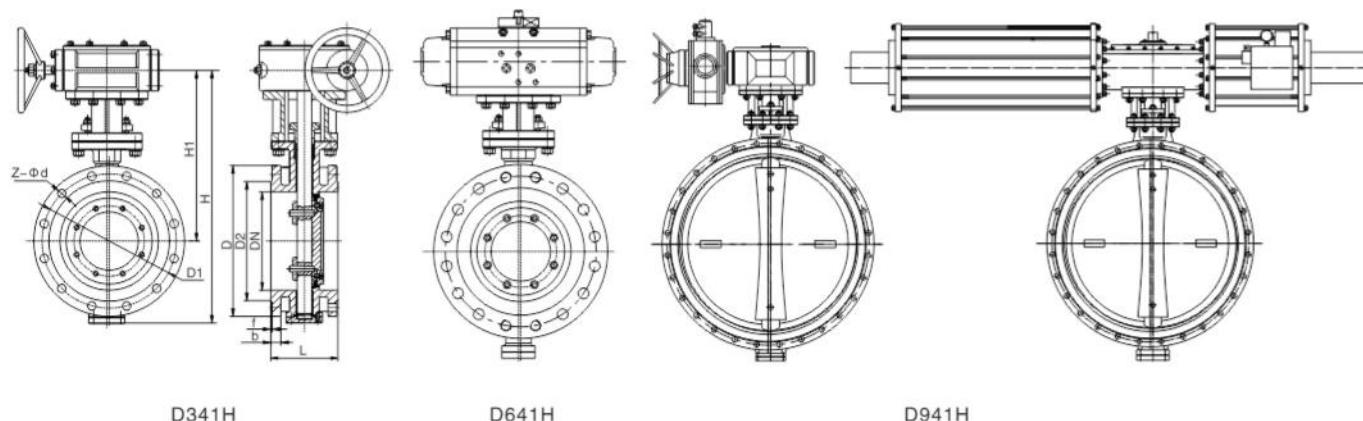


主要连接尺寸 Main Connection Dimensions

ASME 16.5 ASME 16.47 B 单位: Unit: mm

| 通径<br>Diameter |      | 150Lb |      |      |        |      |            | 300Lb |      |      |        |      |            |
|----------------|------|-------|------|------|--------|------|------------|-------|------|------|--------|------|------------|
| Inch           | mm   | L     | H    | H1   | D1     | D2   | N-M        | L     | H    | H1   | D1     | D2   | N-M        |
| 2              | 50   | 43    | 300  | 210  | 120.5  | 92   | 4-(5/8)    | 43    | 330  | 230  | 127    | 92   | 8-(5/8)    |
| 3              | 80   | 49    | 340  | 230  | 152.5  | 127  | 4-(5/8)    | 49    | 420  | 270  | 168.5  | 127  | 8-(3/4)    |
| 4              | 100  | 54    | 400  | 265  | 190.5  | 157  | 8-(5/8)    | 54    | 490  | 305  | 200    | 157  | 8-(3/4)    |
| 5              | 125  | 57    | 480  | 325  | 216    | 186  | 8-(3/4)    | 57    | 530  | 345  | 235    | 186  | 8-(3/4)    |
| 6              | 150  | 58    | 530  | 345  | 241.5  | 216  | 8-(3/4)    | 61    | 590  | 380  | 270    | 216  | 12-(3/4)   |
| 8              | 200  | 64    | 620  | 395  | 298.5  | 270  | 8-(3/4)    | 73    | 650  | 410  | 330    | 270  | 12-(7/8)   |
| 10             | 250  | 71    | 680  | 425  | 362    | 324  | 12-(7/8)   | 83    | 750  | 470  | 387.5  | 324  | 16-(1)     |
| 12             | 300  | 81    | 800  | 495  | 432    | 381  | 12-(7/8)   | 92    | 860  | 545  | 451    | 381  | 16-(1 1/8) |
| 14             | 350  | 92    | 880  | 555  | 476    | 413  | 12-(1)     | 117   | 940  | 590  | 514.5  | 413  | 20-(1 1/8) |
| 16             | 400  | 102   | 950  | 590  | 540    | 470  | 16-(1)     | 133   | 990  | 640  | 571.5  | 470  | 20-(1 1/4) |
| 18             | 450  | 114   | 1000 | 630  | 578    | 533  | 16-(1 1/8) | 149   | 1100 | 690  | 628.5  | 533  | 24-(1 1/4) |
| 20             | 500  | 127   | 1110 | 700  | 635    | 584  | 20-(1 1/8) | 159   | 1200 | 740  | 686    | 584  | 24-(1 1/4) |
| 24             | 600  | 154   | 1230 | 750  | 749.5  | 692  | 20-(1 1/4) | 181   | 1360 | 850  | 813    | 692  | 24-(1 1/2) |
| 28             | 700  | 165   | 1350 | 810  | 795.3  | 762  | 40-(3/4)   | 229   | 1430 | 870  | 857.2  | 787  | 36-(1 1/4) |
| 32             | 800  | 190   | 1390 | 840  | 900.1  | 864  | 48-(3/4)   | 254   | 1570 | 950  | 977.9  | 902  | 32-(1 1/2) |
| 36             | 900  | 203   | 1660 | 1000 | 1009.6 | 972  | 44-(7/8)   | 254   | 1750 | 1110 | 1089   | 1010 | 32-(1 5/8) |
| 40             | 1000 | 216   | 1720 | 1080 | 1120.8 | 1080 | 44-(1)     | 300   | 1980 | 1200 | 1190.6 | 1114 | 40-(1 5/8) |
| 48             | 1200 | 254   | 2080 | 1250 | 1335.1 | 1289 | 44-(1 1/8) | 360   | 2130 | 1270 | 1416   | 1327 | 40-(1 7/8) |
| 通径<br>Diameter |      | 600Lb |      |      |        |      |            | 900Lb |      |      |        |      |            |
| Inch           | mm   | L     | H    | H1   | D1     | D2   | N-M        | L     | H    | H1   | D1     | D2   | N-M        |
| 6              | 150  | 78    | 620  | 400  | 292.1  | 216  | 12-(1)     | 104   | 760  | 460  | 317.5  | 216  | 12-(1 1/8) |
| 8              | 200  | 102   | 730  | 460  | 349.2  | 270  | 12-(1 1/8) | 112   | 850  | 530  | 393.7  | 270  | 12-(1 3/8) |
| 10             | 250  | 117   | 870  | 550  | 431.8  | 324  | 16-(1 1/4) | 135   | 980  | 635  | 469.9  | 324  | 16-(1 3/8) |
| 12             | 300  | 140   | 930  | 600  | 489    | 381  | 20-(1 1/4) | 170   | 1050 | 690  | 533.4  | 381  | 20-(1 3/8) |
| 14             | 350  | 155   | 1005 | 630  | 527    | 413  | 20-(1 3/8) | 173   | 1130 | 720  | 558.8  | 413  | 20-(1 1/2) |
| 16             | 400  | 178   | 1135 | 705  | 603.2  | 470  | 20-(1 1/2) | 210   | 1195 | 740  | 616    | 470  | 20-(1 5/8) |
| 18             | 450  | 200   | 1200 | 750  | 654    | 533  | 20-(1 5/8) | 228   | 1340 | 840  | 685.8  | 533  | 20-(1 7/8) |
| 20             | 500  | 216   | 1270 | 780  | 723.9  | 584  | 24-(1 5/8) | 250   | 1410 | 865  | 749.3  | 584  | 20-(2)     |
| 24             | 600  | 232   | 1440 | 880  | 838.2  | 692  | 24-(1 7/8) | 275   | 1645 | 990  | 901.7  | 692  | 20-(2 1/2) |

# ▶ 美标法兰式蝶阀 ASME Flange Butterfly Valve



## 主要性能参数及采用标准 Main Performance Parameters and Standard

|                                                     |                         |                                                                                                                                                         |       |       |
|-----------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 设计标准 Design Standard                                |                         | API 609                                                                                                                                                 |       |       |
| 法兰连接尺寸 Flange Connection Dimension                  |                         | 口径 $\leq 24"$ 根据 ANSI B16.5 口径 $>24"$ 根据 ANSI B16.47 Series B<br>Size $\leq 24"$ according to ANSI B16.5, Size $>24"$ according to ANSI B16.47 Series B |       |       |
| 试验和检验 Test and Inspection                           |                         | API 598                                                                                                                                                 |       |       |
| 温压等级 Temperature and Pressure Level                 |                         | ASEM B16.34                                                                                                                                             |       |       |
| 结构长度<br>Face to Face<br>Dimension                   | 短结构 Short Structure     | API609.ISO5752 basic series 13                                                                                                                          |       |       |
|                                                     | 长结构 Long Structure      | ASME B16.10                                                                                                                                             |       |       |
| 防火制造 Fire Safe                                      |                         | API 607                                                                                                                                                 |       |       |
| 压力等级 Pressure Rating                                |                         | 150LB                                                                                                                                                   | 300LB | 600LB |
| 常温试验压力(Mpa)<br>Test Pressure at Room<br>Temperature | 壳体试验 Shell Test         | 2.93                                                                                                                                                    | 7.58  | 15.0  |
|                                                     | 高压密封 High Pressure Seal | 2.07                                                                                                                                                    | 5.52  | 11.03 |
|                                                     | 低压密封 Low Pressure Seal  | 0.6                                                                                                                                                     | 0.6   | 0.6   |
| 适用介质 Applicable Medium                              |                         | 水、油、气及各类腐蚀性介质(不同的介质选用不同的材质)<br>Water, Oil, Gas and Other Corrosive Media (Different Media Use Different Materials)                                      |       |       |
| 适用温度 Applicable Temperature                         |                         | $-46^{\circ}\text{C}$ ~ $550^{\circ}\text{C}$ (不同的工况温度选用不同的材质)<br>(Different Temperature Conditions Use Different Materials)                            |       |       |

## 主要零件材质 Material for Main Parts

| 零件名称 Parts Name  | 材料 Material                                                                                          |
|------------------|------------------------------------------------------------------------------------------------------|
| 阀体 Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron, Stainless steel, Cr.Mo.Steel, alloy steel                                  |
| 蝶板 Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel, Alloy steel, Stainless steel, Cr.Mo.Steel                                 |
| 密封圈 Sealing Ring | 不锈钢与耐高温石棉板组合成多层次 Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆 Stem          | 2Cr13、1Cr13 不锈钢、铬钼钢 Stainless steel, Cr.Mo.Steel                                                     |
| 轴承 Bearing       | 奥氏体不锈钢、304氮化 ZG00CrNi10, 304 nitridation                                                             |
| 填料 Packing       | 柔性石墨 Flexible Graphite                                                                               |

# 美标法兰式蝶阀

## ASME Flange Butterfly Valve



### 主要连接尺寸 Main Connection Dimensions

ASME 16.5 ASME 16.47 B 单位: Unit: mm

| 通径Diameter |      | 150Lb |      |      |      |        |      |       |         | 300Lb |      |      |      |        |      |       |         |
|------------|------|-------|------|------|------|--------|------|-------|---------|-------|------|------|------|--------|------|-------|---------|
| Inch       | mm   | L     | H    | H1   | D    | D1     | D2   | Z-Φd  | bxφ     | L     | H    | H1   | D    | D1     | D2   | Z-Φd  | bxφ     |
| 2          | 50   | 108   | 300  | 210  | 150  | 120.5  | 92   | 4-19  | 18x2    | 108   | 385  | 240  | 165  | 127    | 92   | 8-19  | 23x2    |
| 2 1/2      | 65   | 112   | 320  | 220  | 180  | 139.5  | 105  | 4-19  | 20x2    | 112   | 400  | 250  | 190  | 149    | 105  | 8-22  | 26x2    |
| 3          | 80   | 114   | 340  | 230  | 190  | 152.5  | 127  | 4-19  | 22x2    | 114   | 410  | 260  | 210  | 168.5  | 127  | 8-22  | 29x2    |
| 4          | 100  | 127   | 400  | 265  | 230  | 190.5  | 157  | 8-19  | 24x2    | 127   | 420  | 270  | 255  | 200    | 157  | 8-22  | 32x2    |
| 5          | 125  | 140   | 480  | 325  | 255  | 216    | 186  | 8-22  | 24x2    | 140   | 530  | 345  | 280  | 235    | 186  | 8-22  | 35x2    |
| 6          | 150  | 140   | 530  | 345  | 280  | 241.5  | 216  | 8-22  | 26x2    | 140   | 590  | 380  | 320  | 270    | 216  | 12-22 | 37x2    |
| 8          | 200  | 152   | 620  | 395  | 345  | 298.5  | 270  | 8-22  | 29x2    | 152   | 650  | 410  | 380  | 330    | 270  | 12-26 | 42x2    |
| 10         | 250  | 165   | 680  | 425  | 405  | 362    | 324  | 12-25 | 31x2    | 165   | 750  | 470  | 445  | 387.5  | 324  | 16-29 | 48x2    |
| 12         | 300  | 178   | 800  | 495  | 485  | 432    | 381  | 12-25 | 32x2    | 178   | 860  | 545  | 520  | 451    | 381  | 16-32 | 51x2    |
| 14         | 350  | 190   | 880  | 555  | 535  | 476    | 413  | 12-29 | 35x2    | 190   | 940  | 590  | 585  | 514.5  | 413  | 20-32 | 54x2    |
| 16         | 400  | 216   | 950  | 590  | 595  | 540    | 470  | 16-29 | 37x2    | 216   | 990  | 640  | 650  | 571.5  | 470  | 20-35 | 58x2    |
| 18         | 450  | 222   | 1000 | 630  | 635  | 578    | 533  | 16-32 | 40x2    | 222   | 1100 | 690  | 710  | 628.5  | 533  | 24-35 | 61x2    |
| 20         | 500  | 229   | 1100 | 680  | 700  | 635    | 584  | 20-32 | 43x2    | 229   | 1200 | 740  | 755  | 686    | 584  | 24-35 | 64x2    |
| 24         | 600  | 267   | 1230 | 750  | 815  | 749.5  | 692  | 20-35 | 48x2    | 267   | 1360 | 850  | 915  | 813    | 692  | 24-41 | 70x2    |
| 28         | 700  | 292   | 1260 | 770  | 835  | 795.3  | 762  | 40-22 | 43.0x2  | 430   | 1410 | 980  | 920  | 857.2  | 787  | 36-36 | 87.4x2  |
| 30         | 750  | 318   | 1350 | 820  | 885  | 846.1  | 813  | 44-22 | 43.0x2  | 450   | 1495 | 1010 | 990  | 920.8  | 845  | 36-39 | 92.1x2  |
| 32         | 800  | 318   | 1400 | 850  | 940  | 900.1  | 864  | 48-22 | 44.6x2  | 470   | 1535 | 1080 | 1055 | 977.9  | 902  | 32-42 | 101.6x2 |
| 36         | 900  | 330   | 1550 | 930  | 1055 | 1009.6 | 972  | 44-26 | 50.9x2  | 510   | 1585 | 1110 | 1170 | 1089.0 | 1010 | 32-45 | 101.6x2 |
| 40         | 1000 | 410   | 1650 | 980  | 1175 | 1120.8 | 1080 | 44-30 | 54.1x2  | 550   | 1605 | 1150 | 1275 | 1190.6 | 1114 | 40-45 | 114.3x2 |
| 44         | 1100 | 450   | 1850 | 1100 | 1275 | 1222.4 | 1181 | 52-30 | 58.9x2  | 590   | 2100 | 1380 | 1385 | 1295.4 | 1219 | 40-48 | 125.5x2 |
| 48         | 1200 | 470   | 1950 | 1150 | 1390 | 1335.1 | 1289 | 44-33 | 63.6x2  | 630   | 2270 | 1410 | 1510 | 1416.0 | 1327 | 40-51 | 127.0x2 |
| 52         | 1300 | 470   | 2050 | 1200 | 1495 | 1436.7 | 1391 | 52-33 | 68.4x2  | -     | -    | -    | -    | -      | -    | -     | -       |
| 56         | 1400 | 530   | 2200 | 1400 | 1600 | 1543.0 | 1492 | 60-33 | 71.6x2  | -     | -    | -    | -    | -      | -    | -     | -       |
| 60         | 1500 | 530   | 2350 | 1460 | 1725 | 1662.1 | 1600 | 52-36 | 74.7x2  | -     | -    | -    | -    | -      | -    | -     | -       |
| 通径Diameter |      | 600Lb |      |      |      |        |      |       |         | 900Lb |      |      |      |        |      |       |         |
| Inch       | mm   | L     | H    | H1   | D    | D1     | D2   | Z-Φd  | bxφ     | L     | H    | H1   | D    | D1     | D2   | Z-Φd  | bxφ     |
| 2          | 50   | 150   | 355  | 230  | 165  | 127    | 92   | 8-19  | 26x7    | -     | -    | -    | -    | -      | -    | -     | -       |
| 2 1/2      | 65   | 170   | 430  | 260  | 190  | 149.2  | 105  | 8-22  | 29x7    | -     | -    | -    | -    | -      | -    | -     | -       |
| 3          | 80   | 180   | 480  | 290  | 210  | 168.3  | 127  | 8-22  | 32x7    | -     | -    | -    | -    | -      | -    | -     | -       |
| 4          | 100  | 190   | 510  | 320  | 275  | 215.9  | 157  | 8-26  | 38x7    | -     | -    | -    | -    | -      | -    | -     | -       |
| 5          | 125  | 200   | 590  | 380  | 330  | 266.7  | 186  | 8-29  | 45x7    | -     | -    | -    | -    | -      | -    | -     | -       |
| 6          | 150  | 210   | 620  | 400  | 355  | 292.1  | 216  | 12-29 | 48x7    | 250   | 760  | 460  | 380  | 317.5  | 216  | 8-32  | 55.6x7  |
| 8          | 200  | 230   | 730  | 460  | 420  | 349.2  | 270  | 12-32 | 56x7    | 310   | 850  | 530  | 470  | 393.7  | 270  | 8-39  | 63.5x7  |
| 10         | 250  | 250   | 870  | 550  | 510  | 431.8  | 324  | 16-35 | 64x7    | 350   | 980  | 635  | 545  | 469.9  | 324  | 12-39 | 69.9x7  |
| 12         | 300  | 270   | 930  | 600  | 560  | 489    | 381  | 20-35 | 67x7    | 380   | 1050 | 690  | 610  | 533.4  | 381  | 16-39 | 79.4x7  |
| 14         | 350  | 290   | 1005 | 630  | 605  | 527    | 413  | 20-39 | 70x7    | 400   | 1130 | 720  | 640  | 558.8  | 413  | 16-42 | 85.8x7  |
| 16         | 400  | 310   | 1135 | 705  | 685  | 603.3  | 470  | 20-42 | 76x7    | 430   | 1195 | 740  | 705  | 616    | 470  | 16-45 | 88.9x7  |
| 18         | 450  | 330   | 1200 | 750  | 745  | 654    | 533  | 20-45 | 83x7    | 460   | 1340 | 840  | 785  | 685.8  | 533  | 16-52 | 101.6x7 |
| 20         | 500  | 350   | 1270 | 780  | 815  | 723.9  | 584  | 24-45 | 89x7    | 490   | 1410 | 865  | 855  | 749.3  | 584  | 16-54 | 108x7   |
| 24         | 600  | 390   | 1440 | 880  | 940  | 838.2  | 692  | 24-51 | 102x7   | 530   | 1645 | 990  | 1040 | 901.7  | 692  | 16-67 | 139.7x7 |
| 28         | 700  | 430   | 1700 | 1065 | 950  | 863.6  | 784  | 28-48 | 115.9x7 | -     | -    | -    | -    | -      | -    | -     | -       |
| 32         | 800  | 470   | 1835 | 1130 | 1085 | 984.2  | 895  | 28-55 | 130.2x7 | -     | -    | -    | -    | -      | -    | -     | -       |

# ► 德标蝶阀性能、用途、特点

## DIN Butterfly Valve's Performance, Use and Characteristic



### 用途及特点 Purpose and Characteristic

硬密封蝶阀系列产品，是我公司新开发的长寿命、节能型蝶阀。

本产品由阀体、蝶板、密封圈、传动机构等主要部件组成。其结构采用二维或三维偏心原理设计，弹性密封和硬软多层次密封兼容的加工新工艺，使蝶阀在运行工作时，减少其扭矩力，达到省力、节能之功能。从而确保蝶阀整体的抗腐蚀、耐高温、抗磨损的可能性。其主要性能特点是：

- 1、结构独特、型小轻便、操作灵活、省力、方便；
- 2、密封可靠，可满足各级标准；
- 3、流量特性好，且具有调节功能；
- 4、采用偏心原理，使密封面近似零磨损，延长了阀门使用寿命；
- 5、应用范围广，可用于水、蒸气、油品、空气、煤气等介质；
- 6、适用不同温度及6.4MPa以下的压力等级、耐腐蚀等各种工况之管线。

Metal seated series butterfly valve is our company new product with long life and energy-saving.

This valve is composed of body, disc, seal ring, driving device and other main units. It adopts double or triple eccentric structure and resilience sealing, and soft/metal multilayer sealing. Its low torque achieves the function of saving energy when the butterfly valve is working. The ability of anti-corrosion, high temperature resistance, anti-wear is assured. Its main performance characteristics are:

1. Unique structure, light volume, smart operation, energy-saving, convenience;
2. Reliable sealing suits any standard;
3. Good flow character and adjustable function;
4. Eccentric theory is adopted to extend the valve service life and make the sealing surface almost zero wearing;
5. Widely used in various media, such as water, steam, oil, air, gas and etc.;
6. Suitable for pipelines of any working condition such as different temperature degree, pressure degrees below 6.4MPa, and corrosive medium.

### 用途 Purpose

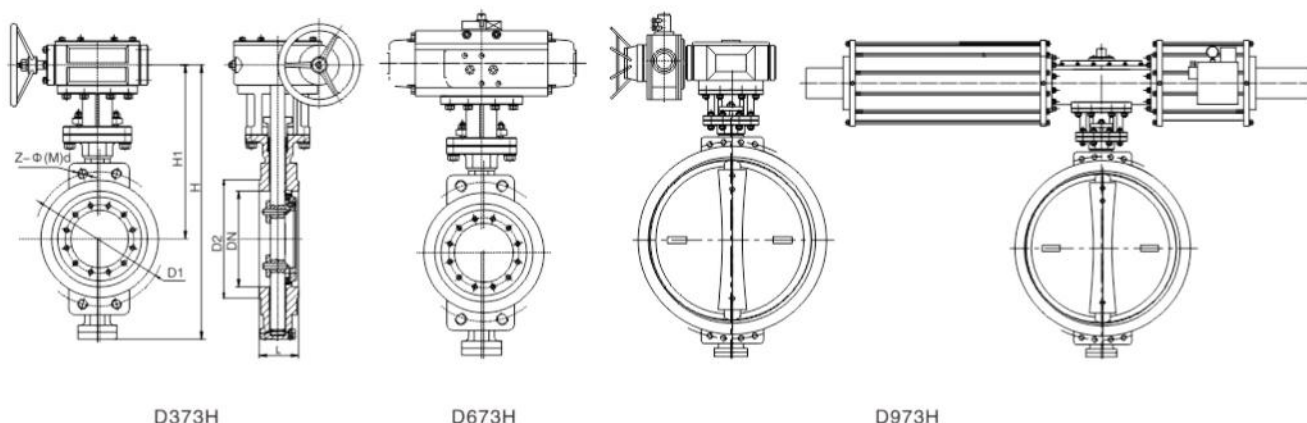
本蝶阀适用于食品、医药、石油化工、电厂、钢厂、工业环保水处理及高层建筑、供排水管道上作调节流量和截断流体最佳装置。

Our butterfly valves are widely used for food, pharmacy, petroleum and chemical industry, electric plant, steel plant, industrial environmental water treatment and high building, is the best device for adjusting and cutting the flow of water supply tube.

### 主要性能参数及采用标准 Main Performance Parameters and Standard

|                                    |                     |                                                           |      |      |
|------------------------------------|---------------------|-----------------------------------------------------------|------|------|
| 设计标准Design Standard                |                     | DIN2559-2007                                              |      |      |
| 法兰连接尺寸 Flange Connection Dimension |                     | EN1092-1:2001                                             |      |      |
| 结构长度Face to Face Dimension         |                     | EN558.1:1995                                              |      |      |
| 压力试验Pressure Test                  |                     | EN12266-1                                                 |      |      |
| 公称通径Nominal Diameter               |                     | 50~1800                                                   |      |      |
| 公称压力Nominal Pressure               |                     | 1.0                                                       | 1.6  | 2.5  |
| 试验压力<br>Test Pressure              | 强度试验Shell Test      | 1.5                                                       | 2.4  | 3.75 |
|                                    | 密封试验Seal Test       | 1.1                                                       | 1.76 | 2.75 |
|                                    | 气密封试验Air Tight Test | 0.5~0.7MPa                                                |      |      |
| 适用介质Applicable Medium              |                     | 水、油品、蒸汽、煤气、酸、碱等Water, Oil, Steam, Gas, Acid, Alkali, Etc. |      |      |
| 适用温度Applicable Temperature         |                     | -40℃~570℃                                                 |      |      |

# ► 德标对夹式蝶阀 DIN Wafer Butterfly Valve



## 主要技术参数 Main Technology Parameter

| 公称通径<br>Nominal<br>Diameter | 公称压力<br>Nominal<br>Pressure | 试验压力(MPa)<br>Test Pressure |                   |                              | 泄漏率<br>Leakage                                                                                   | 适用温度<br>Appropriate<br>Temperatuer                                           | 适用介质<br>Appropriate<br>Medium                                                                                                                 | 驱动形式<br>Drive Modality                                                                                                   |
|-----------------------------|-----------------------------|----------------------------|-------------------|------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| DN(mm)                      | PN(MPa)                     | 强度试验<br>Shell Test         | 密封试验<br>Seal Test | 气密封试验<br>Air Sealing<br>Test | <0.1 × DNmm <sup>3</sup> /s<br>(符合GB/T13927<br>-92标准<br>According to<br>Standard<br>GB/T13927-92 | 碳钢<br>Carbon Steel:<br>-29℃ ~ 425℃<br>不锈钢<br>Stainless Steel:<br>-40℃ ~ 600℃ | 空气、水、蒸<br>气、煤气、油<br>品以及酸、碱、<br>盐带有弱腐蚀性<br>介质等<br>Air,Water,Steam<br>Coal Gas,Oil and<br>Acid,Alkali,Salt<br>Corrosive<br>Medium<br>and so on. | 蜗杆蜗轮传<br>动、气传动、<br>电传动<br>Lever<br>Operator,<br>Worm Gear<br>Operator,<br>Pneumatic<br>Operator,<br>Electric<br>Operator |
| 50 ~ 2000                   | 0.6                         | 0.9                        | 0.66              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                               |                                                                                                                          |
|                             | 1.0                         | 1.5                        | 1.1               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                               |                                                                                                                          |
|                             | 1.6                         | 2.4                        | 1.76              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                               |                                                                                                                          |
|                             | 2.5                         | 3.75                       | 2.75              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                               |                                                                                                                          |
| 50 ~ 500                    | 4.0                         | 6.0                        | 4.4               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                               |                                                                                                                          |

## 主要零件材质 Material for Main Parts

| 零件名称Parts Name  | 材料 Material                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------|
| 阀体Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron,Stainless steel ,Cr.Mo.Steel,alloy steel                                   |
| 蝶板Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel,Alloy steel,Stainless steel, Cr.Mo.Steel                                  |
| 密封圈Sealing Ring | 不锈钢与耐高温石棉板组合成多层次Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆Stem          | 2Cr13、1Cr13不锈钢、铬钼钢Stainless steel,Cr.Mo.Steel                                                       |
| 轴承Bearing       | 奥氏体不锈钢、304氮化ZG00CrNi10,304 nitrification                                                            |
| 填料Packing       | 柔性石墨 Flexible Graphite                                                                              |

# ► 德标对夹式蝶阀 DIN Wafer Butterfly Valve



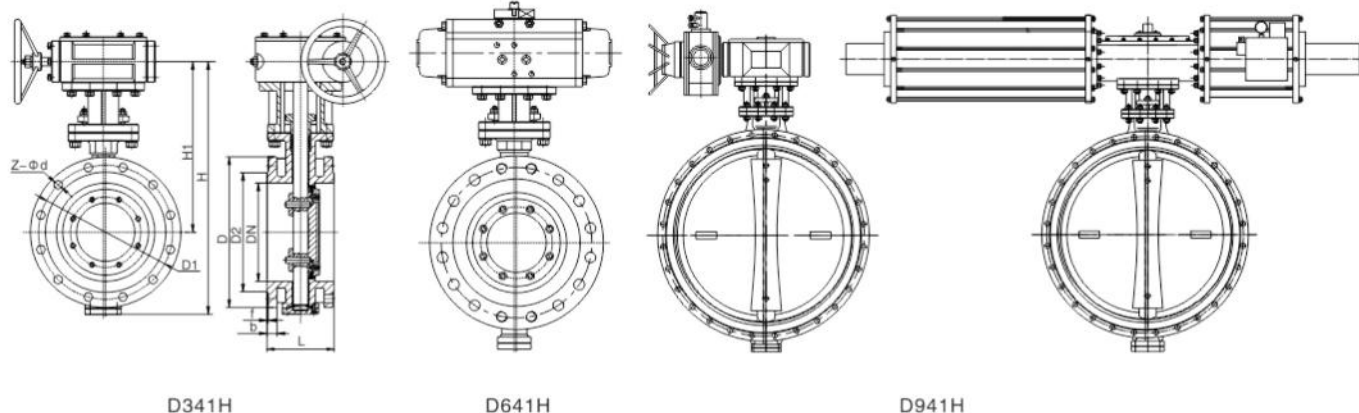
主要连接尺寸 Main Connection Dimensions

德标 EN 1092-1 单位: Unit: mm

| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |     |      |      | 0.6MPa |      |         | 1.0MPa |      |         | 1.6MPa |      |         |
|-------------------------|---------------------|-----|------|------|--------|------|---------|--------|------|---------|--------|------|---------|
|                         | L1                  | L2  | H    | H1   | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d |
| D373H/F、D673H/F、D973H/F |                     |     |      |      |        |      |         |        |      |         |        |      |         |
| 50                      | 43                  | 43  | 272  | 200  | 110    | 90   | 4-14    | 125    | 102  | 4-18    | 125    | 102  | 4-18    |
| 65                      | 46                  | 46  | 335  | 225  | 130    | 110  | 4-14    | 145    | 122  | 4-18    | 145    | 122  | 4-18    |
| 80                      | 49                  | 64  | 355  | 240  | 150    | 128  | 4-18    | 160    | 138  | 4-18    | 160    | 138  | 4-18    |
| 100                     | 56                  | 64  | 385  | 255  | 170    | 148  | 4-18    | 180    | 158  | 4-18    | 180    | 158  | 4-18    |
| 125                     | 64                  | 70  | 455  | 305  | 200    | 178  | 4-18    | 210    | 188  | 4-18    | 210    | 188  | 4-18    |
| 150                     | 70                  | 76  | 490  | 325  | 225    | 202  | 4-18    | 240    | 212  | 4-22    | 240    | 212  | 4-22    |
| 200                     | 71                  | 89  | 590  | 380  | 280    | 258  | 4-18    | 295    | 268  | 4-22    | 295    | 268  | 4-22    |
| 250                     | 76                  | 114 | 655  | 410  | 335    | 312  | 4-18    | 350    | 320  | 4-22    | 355    | 320  | 4-26    |
| 300                     | 83                  | 114 | 740  | 460  | 395    | 365  | 4-22    | 400    | 370  | 4-22    | 410    | 378  | 4-26    |
| 350                     | 92                  | 127 | 840  | 525  | 445    | 415  | 4-22    | 460    | 430  | 4-M20   | 470    | 438  | 4-M24   |
| 400                     | 102                 | 140 | 890  | 545  | 495    | 465  | 4-M20   | 515    | 482  | 4-M24   | 525    | 490  | 4-M27   |
| 450                     | 114                 | 152 | 1010 | 630  | 550    | 520  | 4-M20   | 565    | 532  | 4-M24   | 585    | 550  | 4-M27   |
| 500                     | 127                 | 152 | 1065 | 650  | 600    | 570  | 4-M20   | 620    | 585  | 4-M24   | 650    | 610  | 4-M30   |
| 600                     | 154                 | 178 | 1140 | 680  | 705    | 670  | 4-M24   | 725    | 685  | 4-M27   | 770    | 725  | 4-M33   |
| 700                     | 165                 | 229 | 1268 | 780  | 810    | 775  | 4-M24   | 840    | 800  | 4-M27   | 840    | 795  | 4-M33   |
| 800                     | 190                 | 241 | 1432 | 860  | 920    | 880  | 4-M27   | 950    | 905  | 4-M30   | 950    | 900  | 4-M36   |
| 900                     | 203                 | 241 | 1528 | 900  | 1020   | 980  | 4-M27   | 1050   | 1005 | 4-M30   | 1050   | 1000 | 4-M36   |
| 1000                    | 216                 | 300 | 1698 | 1000 | 1120   | 1080 | 4-M27   | 1160   | 1110 | 4-M33   | 1170   | 1115 | 4-M39   |
| 1200                    | 254                 | 360 | 1910 | 1100 | 1340   | 1295 | 4-M30   | 1380   | 1330 | 4-M36   | 1390   | 1330 | 4-M45   |
| 1400                    | 279                 | 390 | 2140 | 1200 | 1560   | 1510 | 4-M33   | 1590   | 1535 | 4-M39   | 1590   | 1530 | 4-M45   |
| 1600                    | 318                 | 440 | 2420 | 1330 | 1760   | 1710 | 4-M33   | 1820   | 1760 | 4-M45   | 1820   | 1750 | 4-M52   |
| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |     |      |      | 2.5MPa |      |         | 4.0MPa |      |         | 6.3MPa |      |         |
|                         | L1                  | L2  | H    | H1   | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d | D1     | D2   | Z-φ(M)d |
| 50                      | 43                  | 43  | 272  | 200  | 125    | 102  | 4-18    | 125    | 102  | 4-18    | 135    | 102  | 4-22    |
| 65                      | 46                  | 46  | 335  | 225  | 145    | 122  | 4-18    | 145    | 122  | 4-18    | 160    | 122  | 4-22    |
| 80                      | 49                  | 64  | 355  | 240  | 160    | 138  | 4-18    | 160    | 138  | 4-18    | 170    | 138  | 4-22    |
| 100                     | 56                  | 64  | 385  | 255  | 190    | 162  | 4-22    | 190    | 162  | 4-22    | 200    | 162  | 4-26    |
| 125                     | 64                  | 70  | 455  | 305  | 220    | 188  | 4-26    | 220    | 188  | 4-26    | 240    | 188  | 4-30    |
| 150                     | 70                  | 76  | 490  | 325  | 250    | 218  | 4-26    | 250    | 218  | 4-26    | 280    | 218  | 4-33    |
| 200                     | 71                  | 89  | 590  | 380  | 310    | 278  | 4-26    | 320    | 285  | 4-M27   | 345    | 285  | 4-M33   |
| 250                     | 76                  | 114 | 655  | 410  | 370    | 335  | 4-30    | 385    | 345  | 4-M30   | 400    | 345  | 4-M33   |
| 300                     | 83                  | 114 | 740  | 460  | 430    | 395  | 4-M27   | 450    | 410  | 4-M30   | 460    | 410  | 4-M33   |
| 350                     | 92                  | 127 | 840  | 525  | 490    | 450  | 4-M30   | 510    | 465  | 4-M33   | 525    | 465  | 4-M36   |
| 400                     | 102                 | 140 | 890  | 545  | 550    | 505  | 4-M33   | 585    | 535  | 4-M36   | 585    | 535  | 4-M39   |
| 450                     | 114                 | 152 | 1010 | 630  | 600    | 555  | 4-M33   | 610    | 560  | 4-M36   | -      | -    | -       |
| 500                     | 127                 | 152 | 1065 | 650  | 660    | 615  | 4-M33   | 670    | 615  | 4-M39   | -      | -    | -       |
| 600                     | 154                 | 178 | 1140 | 680  | 770    | 720  | 4-M36   | 795    | 735  | 4-M45   | -      | -    | -       |
| 700                     | 165                 | 229 | 1268 | 780  | 875    | 820  | 4-M39   | -      | -    | -       | -      | -    | -       |
| 800                     | 190                 | 241 | 1432 | 860  | 990    | 930  | 4-M45   | -      | -    | -       | -      | -    | -       |
| 900                     | 203                 | 241 | 1528 | 900  | 1090   | 1030 | 4-M45   | -      | -    | -       | -      | -    | -       |
| 1000                    | 216                 | 300 | 1698 | 1000 | 1210   | 1140 | 4-M52   | -      | -    | -       | -      | -    | -       |
| 1200                    | 254                 | 360 | 1910 | 1100 | 1420   | 1350 | 4-M52   | -      | -    | -       | -      | -    | -       |

注: 偏心型软密封(X)(J)蝶阀连接尺寸同上。 Note: eccentric soft sealing (X) (J) butterfly valve connection size.  
4.0MPa以上结构长度为L2 4.0MPa above structure length is L2

# ► 德标法兰式蝶阀 DIN Flange Butterfly Valve



## 主要技术参数 Main Technology Parameter

| 公称通径<br>Nominal<br>Diameter | 公称压力<br>Nominal<br>Pressure | 试验压力Ps(MPa)<br>Test Pressure |                   |                              | 泄漏率<br>Leakage                                                                                    | 适用温度<br>Appropriate<br>Temperatuer                                           | 适用介质<br>Appropriate<br>Medium                                                                                                 | 驱动形式<br>Drive Modality                                                                                           |
|-----------------------------|-----------------------------|------------------------------|-------------------|------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| DN(mm)                      | PN(MPa)                     | 强度试验<br>Shell Test           | 密封试验<br>Seal Test | 气密封试验<br>Air Sealing<br>Test | <0.1 × DNmm <sup>3</sup> /s<br>(符合GB/T13927<br>-92标准<br>According to<br>Standard<br>GB/T13927-92) | 碳钢<br>Carbon Steel:<br>-29℃ ~ 425℃<br>不锈钢<br>Stainless Steel:<br>-40℃ ~ 600℃ | 空气、水、蒸汽、煤气、油品以及酸、碱、盐带有弱腐蚀性介质等<br>Air,Water,Steam<br>Coal Gas,Oil and<br>Acid,Alkali,Salt<br>Corrosive<br>Medium<br>and so on. | 蜗杆蜗轮传动、气传动、电传动<br>Lever<br>Operator,<br>Worm Gear<br>Operator,<br>Pneumatic<br>Operator,<br>Electric<br>Operator |
| 50 ~ 2000                   | 0.6                         | 0.9                          | 0.66              | 0.6                          |                                                                                                   |                                                                              |                                                                                                                               |                                                                                                                  |
|                             | 1.0                         | 1.5                          | 1.1               | 0.6                          |                                                                                                   |                                                                              |                                                                                                                               |                                                                                                                  |
|                             | 1.6                         | 2.4                          | 1.76              | 0.6                          |                                                                                                   |                                                                              |                                                                                                                               |                                                                                                                  |
|                             | 2.5                         | 3.75                         | 2.75              | 0.6                          |                                                                                                   |                                                                              |                                                                                                                               |                                                                                                                  |
| 50 ~ 500                    | 4.0                         | 6.0                          | 4.4               | 0.6                          |                                                                                                   |                                                                              |                                                                                                                               |                                                                                                                  |

## 主要零件材质 Material for Main Parts

| 零件名称Parts Name  | 材料 Material                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------|
| 阀体Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron,Stainless steel ,Cr.Mo.Steel,alloy steel                                   |
| 蝶板Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel,Alloy steel,stainless steel, Cr.Mo.Steel                                  |
| 密封圈Sealing Ring | 不锈钢与耐高温石棉板组合成多层次Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆Stem          | 2Cr13、1Cr13不锈钢、铬钼钢Stainless steel,Cr.Mo.Steel                                                       |
| 轴承Bearing       | 奥氏体不锈钢、304氮化ZG00CrNi10,304 nitrification                                                            |
| 填料Packing       | 柔性石墨 Flexible Graphite                                                                              |

# ► 德标法兰式蝶阀 DIN Flange Butterfly Valve



主要连接尺寸 Main Connection Dimensions

德标 EN 1092-1 单位: Unit: mm

| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |      |      |        |      | 0.6MPa |      |        |        |      | 1.0MPa |      |        |        |      | 1.6MPa  |      |        |        |      |
|-------------------------|---------------------|------|------|--------|------|--------|------|--------|--------|------|--------|------|--------|--------|------|---------|------|--------|--------|------|
|                         | L1                  | L2   | H    | H1     | D    | D1     | D2   | Z-Φd   | bxφ    | D    | D1     | D2   | Z-Φd   | bxφ    | D    | D1      | D2   | Z-Φd   | bxφ    |      |
| D343H/F、D643H/F、D943H/F |                     |      |      |        |      |        |      |        |        |      |        |      |        |        |      |         |      |        |        |      |
| 50                      | 108                 | 150  | 275  | 200    | 140  | 110    | 90   | 4-Φ14  | 14x3   | 165  | 125    | 102  | 4-Φ18  | 18x3   | 165  | 125     | 102  | 4-Φ18  | 18x3   |      |
| 65                      | 112                 | 170  | 303  | 210    | 160  | 130    | 110  | 4-Φ14  | 14x3   | 185  | 145    | 122  | 8*-Φ18 | 18x3   | 185  | 145     | 122  | 8*-Φ18 | 18x3   |      |
| 80                      | 114                 | 180  | 324  | 226    | 190  | 150    | 128  | 4-Φ18  | 16x3   | 200  | 160    | 138  | 8-Φ18  | 20x3   | 200  | 160     | 138  | 8-Φ18  | 20x3   |      |
| 100                     | 127                 | 190  | 380  | 250    | 210  | 170    | 148  | 4-Φ18  | 16x3   | 220  | 180    | 158  | 8-Φ18  | 20x3   | 220  | 180     | 158  | 8-Φ18  | 20x3   |      |
| 125                     | 140                 | 200  | 460  | 295    | 240  | 200    | 178  | 8-Φ18  | 18x3   | 250  | 210    | 188  | 8-Φ18  | 22x3   | 250  | 210     | 188  | 8-Φ18  | 22x3   |      |
| 150                     | 140                 | 210  | 490  | 315    | 265  | 225    | 202  | 8-Φ18  | 18x3   | 285  | 240    | 212  | 8-Φ22  | 22x3   | 285  | 240     | 212  | 8-Φ22  | 22x3   |      |
| 200                     | 152                 | 230  | 600  | 380    | 320  | 280    | 258  | 8-Φ18  | 20x3   | 340  | 295    | 268  | 8-Φ22  | 24x3   | 340  | 295     | 268  | 12-Φ22 | 24x3   |      |
| 250                     | 165                 | 250  | 655  | 405    | 375  | 335    | 312  | 12-Φ18 | 22x3   | 395  | 350    | 320  | 12-Φ22 | 26x3   | 405  | 355     | 320  | 12-Φ26 | 26x3   |      |
| 300                     | 178                 | 270  | 780  | 480    | 440  | 395    | 365  | 12-Φ22 | 22x4   | 445  | 400    | 370  | 12-Φ22 | 26x4   | 460  | 410     | 378  | 12-Φ26 | 28x4   |      |
| 350                     | 190                 | 290  | 875  | 545    | 490  | 445    | 415  | 12-Φ22 | 22x4   | 505  | 460    | 430  | 16-Φ22 | 26x4   | 520  | 470     | 438  | 16-Φ26 | 30x4   |      |
| 400                     | 216                 | 310  | 910  | 550    | 540  | 495    | 465  | 16-Φ22 | 22x4   | 565  | 515    | 482  | 16-Φ26 | 26x4   | 580  | 525     | 490  | 16-Φ30 | 32x4   |      |
| 450                     | 222                 | 330  | 1000 | 620    | 595  | 550    | 520  | 16-Φ22 | 22x4   | 615  | 565    | 532  | 20-Φ26 | 28x4   | 640  | 585     | 550  | 20-Φ30 | 40x4   |      |
| 500                     | 229                 | 350  | 1090 | 680    | 645  | 600    | 570  | 20-Φ22 | 24x4   | 670  | 620    | 585  | 20-Φ26 | 28x4   | 715  | 650     | 610  | 20-Φ33 | 44x4   |      |
| 600                     | 267                 | 390  | 1210 | 750    | 755  | 705    | 670  | 20-Φ26 | 30x5   | 780  | 725    | 685  | 20-Φ30 | 34x5   | 840  | 770     | 725  | 20-Φ36 | 54x5   |      |
| 700                     | 292                 | 430  | 1350 | 820    | 860  | 810    | 775  | 24-Φ26 | 30x5   | 895  | 840    | 800  | 24-Φ30 | 35x5   | 910  | 840     | 795  | 24-Φ36 | 40x5   |      |
| 800                     | 318                 | 470  | 1520 | 910    | 975  | 920    | 880  | 24-Φ30 | 30x5   | 1015 | 950    | 905  | 24-Φ33 | 38x5   | 1025 | 950     | 900  | 24-Φ39 | 41x5   |      |
| 900                     | 330                 | 510  | 1570 | 930    | 1075 | 1020   | 980  | 24-Φ30 | 34x5   | 1115 | 1050   | 1005 | 28-Φ33 | 38x5   | 1125 | 1050    | 1000 | 28-Φ39 | 48x5   |      |
| 1000                    | 410                 | 550  | 1700 | 980    | 1175 | 1120   | 1080 | 28-Φ30 | 38x5   | 1230 | 1160   | 1110 | 28-Φ36 | 44x5   | 1255 | 1170    | 1115 | 28-Φ42 | 59x5   |      |
| 1200                    | 470                 | 630  | 2040 | 1220   | 1405 | 1340   | 1295 | 32-Φ33 | 42x5   | 1455 | 1380   | 1330 | 32-Φ39 | 55x5   | 1485 | 1390    | 1330 | 32-Φ48 | 78x5   |      |
| 1400                    | 530                 | 710  | 2240 | 1310   | 1630 | 1560   | 1510 | 36-Φ36 | 56x5   | 1675 | 1590   | 1535 | 36-Φ42 | 65x5   | 1685 | 1590    | 1530 | 36-Φ48 | 84x5   |      |
| 1600                    | 600                 | 790  | 2440 | 1460   | 1830 | 1760   | 1710 | 40-Φ36 | 63x5   | 1915 | 1820   | 1760 | 40-Φ48 | 75x5   | 1930 | 1820    | 1750 | 40-Φ56 | 102x5  |      |
| 1800                    | 670                 | 870  | 2650 | 1560   | 2045 | 1970   | 1920 | 44-Φ39 | 69x5   | 2115 | 2020   | 1960 | 44-Φ48 | 85x5   | 2130 | 2020    | 1950 | 44-Φ56 | 110x5  |      |
| 2000                    | 760                 | 950  | 2860 | 1670   | 2265 | 2180   | 2125 | 48-Φ42 | 74x5   | 2325 | 2230   | 2170 | 48-Φ48 | 90x5   | 2345 | 2230    | 2150 | 48-Φ62 | 124x5  |      |
| 通径<br>Diameter<br>(mm)  | 2.5MPa              |      |      |        |      | 4.0MPa |      |        |        |      | 6.3MPa |      |        |        |      | 10.0MPa |      |        |        |      |
|                         | D                   | D1   | D2   | Z-Φd   | bxφ  | D      | D1   | D2     | Z-Φd   | bxφ  | D      | D1   | D2     | Z-Φd   | bxφ  | D       | D1   | D2     | Z-Φd   | bxφ  |
| 50                      | 165                 | 125  | 102  | 4-Φ18  | 20x3 | 165    | 125  | 102    | 4-Φ18  | 20x3 | 180    | 135  | 102    | 4-Φ22  | 26x3 | 195     | 145  | 102    | 4-Φ26  | 30x3 |
| 65                      | 185                 | 145  | 122  | 8-Φ18  | 22x3 | 185    | 145  | 122    | 8-Φ18  | 22x3 | 205    | 160  | 122    | 8-Φ22  | 26x3 | 220     | 170  | 122    | 8-Φ26  | 34x3 |
| 80                      | 200                 | 160  | 138  | 8-Φ18  | 24x3 | 200    | 160  | 138    | 8-Φ18  | 24x3 | 215    | 170  | 138    | 8-Φ22  | 28x3 | 230     | 180  | 138    | 8-Φ26  | 36x3 |
| 100                     | 235                 | 190  | 162  | 8-Φ22  | 24x3 | 235    | 190  | 162    | 8-Φ22  | 24x3 | 250    | 200  | 162    | 8-Φ26  | 30x3 | 265     | 210  | 162    | 8-Φ30  | 40x3 |
| 125                     | 270                 | 220  | 188  | 8-Φ26  | 26x3 | 270    | 220  | 188    | 8-Φ26  | 26x3 | 295    | 240  | 188    | 8-Φ30  | 34x3 | 315     | 250  | 188    | 8-Φ33  | 40x3 |
| 150                     | 300                 | 250  | 218  | 8-Φ26  | 28x3 | 300    | 250  | 218    | 8-Φ26  | 28x3 | 345    | 280  | 218    | 8-Φ33  | 36x3 | 355     | 290  | 218    | 12-Φ33 | 44x3 |
| 200                     | 360                 | 310  | 278  | 12-Φ26 | 30x3 | 375    | 320  | 285    | 12-Φ30 | 34x3 | 415    | 345  | 285    | 12-Φ36 | 42x3 | 430     | 360  | 285    | 12-Φ36 | 52x3 |
| 250                     | 425                 | 370  | 335  | 12-Φ30 | 32x3 | 450    | 385  | 345    | 12-Φ33 | 38x3 | 470    | 400  | 345    | 12-Φ36 | 46x3 | 505     | 430  | 345    | 12-Φ39 | 60x3 |
| 300                     | 485                 | 430  | 395  | 16-Φ30 | 34x4 | 515    | 450  | 410    | 16-Φ33 | 42x4 | 530    | 460  | 410    | 16-Φ36 | 52x4 | 585     | 500  | 410    | 16-Φ42 | 68x4 |
| 350                     | 555                 | 490  | 450  | 16-Φ33 | 38x4 | 580    | 510  | 465    | 16-Φ36 | 46x4 | 600    | 525  | 465    | 16-Φ39 | 56x4 | 655     | 560  | 465    | 16-Φ48 | 74x4 |
| 400                     | 620                 | 550  | 505  | 16-Φ36 | 40x4 | 660    | 585  | 535    | 16-Φ39 | 50x4 | 670    | 585  | 535    | 16-Φ42 | 60x4 | 715     | 620  | 535    | 16-Φ48 | 78x4 |
| 450                     | 670                 | 600  | 555  | 20-Φ36 | 46x4 | 685    | 610  | 560    | 20-Φ39 | 57x4 | 735    | 645  | 560    | 20-Φ39 | 64x4 | -       | -    | -      | -      | -    |
| 500                     | 730                 | 660  | 615  | 20-Φ36 | 48x4 | 755    | 670  | 615    | 20-Φ42 | 57x4 | 800    | 705  | 615    | 20-Φ48 | 68x4 | -       | -    | -      | -      | -    |
| 600                     | 845                 | 770  | 720  | 20-Φ39 | 58x5 | 890    | 795  | 735    | 20-Φ48 | 72x5 | 930    | 820  | 735    | 20-Φ56 | 76x5 | -       | -    | -      | -      | -    |
| 700                     | 960                 | 875  | 820  | 24-Φ42 | 50x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 800                     | 1085                | 990  | 930  | 24-Φ48 | 53x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 900                     | 1185                | 1090 | 1030 | 28-Φ48 | 57x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1000                    | 1320                | 1210 | 1140 | 28-Φ56 | 63x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1200                    | 1530                | 1420 | 1350 | 32-Φ56 | 70x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1400                    | 1755                | 1640 | 1560 | 36-Φ62 | 76x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1600                    | 1975                | 1860 | 1780 | 40-Φ62 | 84x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1800                    | 2195                | 2070 | 1985 | 44-Φ70 | 90x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 2000                    | 2425                | 2300 | 2210 | 48-Φ70 | 96x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |

# ► 俄标蝶阀性能、用途、特点

## Gost Butterfly Valve's Performance, Use and Characteristic



### 用途及特点 Purpose and Characteristic

硬密封蝶阀系列产品，是我公司新开发的长寿命、节能型蝶阀。

本产品由阀体、蝶板、密封圈、传动机构等主要部件组成。其结构采用二维或三维偏心原理设计，弹性密封和硬软多层次密封兼容的加工新工艺，使蝶阀在运行工作时，减少其扭矩力，达到省力、节能之功能。从而确保蝶阀整体的抗腐蚀、耐高温、抗磨损的可能性。其主要性能特点是：

- 1、结构独特、型小轻便、操作灵活、省力、方便；
- 2、密封可靠，可满足各级标准；
- 3、流量特性好，且具有调节功能；
- 4、采用偏心原理，使密封面近似零磨损，延长了阀门使用寿命；
- 5、应用范围广，可用于水、蒸气、油品、空气、煤气等介质；
- 6、适用不同温度及6.4MPa以下的压力等级、耐腐蚀等各种工况之管线。

Metal seated series butterfly valve is our company new product with long life and energy-saving.

This valve is composed of body, disc, seal ring, driving device and other main units. It adopts double or triple eccentric structure, resilience sealing, and soft/meta multilayer sealing. Its low torque achieves the function of saving energy when the butterfly valve is working. The ability of corrosion-resistance, high temperature resistance and wear-resistance is assured. Characteristics:

- 1.Unique design, light volume, smart operation, energy saving and convenience.
- 2.Reliable sealing suits any standard.
- 3.Good flow character and adjustable function.
- 4.Eccentric theory is adopted to extend the valve service life and the sealing surface almost zero wearing.
- 5.Widely used in various medium, such as water, oil, gas, steam, air and so on.
- 6.Suitable for pipelines of any working condition such as different temperature degree, pressure degree below 6.4Mpa, corrosive medium, etc.

### 用途 Purpose

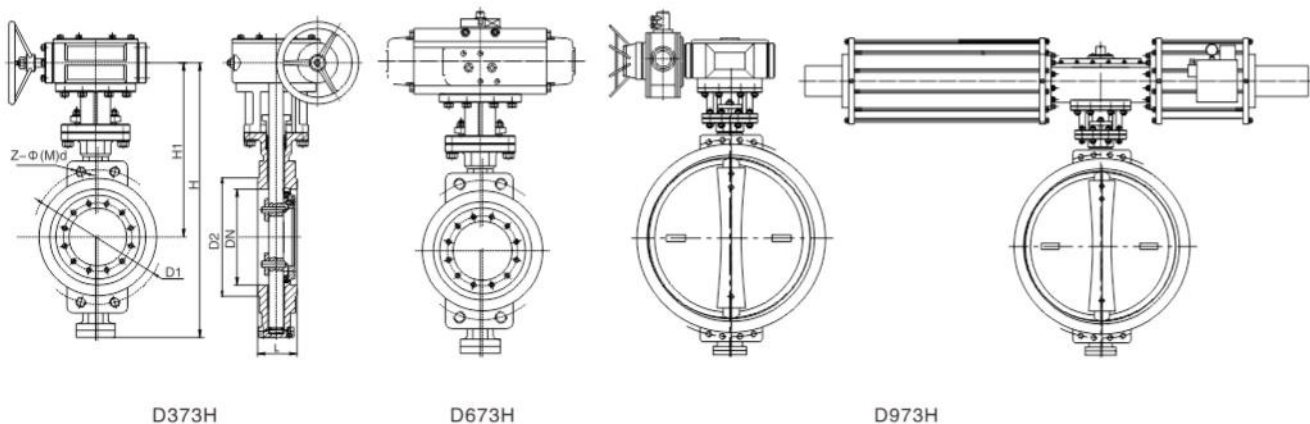
本蝶阀适用于食品、医药、石油化工、电厂、钢厂、工业环保水处理及高层建筑、供排水管道上作调节流量和截断流体最佳装置。

This kind of valve is used as the best device to adjust the flow and stop the medium on the pipeline. It fits various industries such as food, medication, electric station, and so on.

### 主要性能参数及采用标准 Main Performance Parameters and Standard

|                                    |                           |                                                           |      |      |
|------------------------------------|---------------------------|-----------------------------------------------------------|------|------|
| 设计标准Design Standard                |                           | JB/8527-97 API609-2004                                    |      |      |
| 法兰连接尺寸 Flange Connection Dimension |                           | GOST 12815-80                                             |      |      |
| 结构长度 Face to Face Dimension        |                           | GB12221-2005 API609-2004                                  |      |      |
| 压力试验Pressure Test                  |                           | GB/T13927-92 API598-2004                                  |      |      |
| 公称通径Nominal Diameter               |                           | 50~180                                                    |      |      |
| 公称压力Nominal Pressure               |                           | 1.0                                                       | 1.6  | 2.5  |
| 试验压力<br>Test Pressure              | 强度试验Shell Test            | 1.5                                                       | 2.4  | 3.75 |
|                                    | 密封试验Seal Test             | 1.1                                                       | 1.76 | 2.75 |
|                                    | 气密封试验<br>Air Sealing Test |                                                           |      |      |
| 适用介质Applicable Medium              |                           | 水、油品、蒸汽、煤气、酸、碱等Water, Oil, Steam, Gas, Acid, Alkali, Etc. |      |      |
| 适用温度Applicable Temperature         |                           | -40℃~570℃                                                 |      |      |

# ► 俄标对夹式蝶阀 Gost Wafer Butterfly Valve



## 主要技术参数 Main Technology Parameter

| 公称通径<br>Nominal<br>Diameter | 公称压力<br>Nominal<br>Pressure | 试验压力(MPa)<br>Test Pressure |                   |                              | 泄漏率<br>Leakage                                                                                   | 适用温度<br>Appropriate<br>Temperatuer                                           | 适用介质<br>Appropriate<br>Medium                                                                                                      | 驱动形式<br>Drive Modality                                                                                           |
|-----------------------------|-----------------------------|----------------------------|-------------------|------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| DN(mm)                      | PN(MPa)                     | 强度试验<br>Shell Test         | 密封试验<br>Seal Test | 气密封试验<br>Air Sealing<br>Test | <0.1 × DNmm <sup>3</sup> /s<br>(符合GB/T13927<br>-92标准<br>According to<br>Standard<br>GB/T13927-92 | 碳钢<br>Carbon Steel:<br>-29℃ ~ 425℃<br>不锈钢<br>Stainless Steel:<br>-40℃ ~ 600℃ | 空气、水、蒸汽、煤气、油品以及酸、碱、盐带有弱腐蚀性介质等<br>Air, Water, Steam<br>Coal Gas, Oil and<br>Acid, Alkali, Salt<br>Corrosive<br>Medium<br>and so on. | 蜗杆蜗轮传动、气传动、电传动<br>Lever<br>Operator,<br>Worm Gear<br>Operator,<br>Pneumatic<br>Operator,<br>Electric<br>Operator |
| 50 ~ 2000                   | 0.6                         | 0.9                        | 0.66              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                                  |
|                             | 1.0                         | 1.5                        | 1.1               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                                  |
|                             | 1.6                         | 2.4                        | 1.76              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                                  |
|                             | 2.5                         | 3.75                       | 2.75              | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                                  |
| 50 ~ 500                    | 4.0                         | 6.0                        | 4.4               | 0.6                          |                                                                                                  |                                                                              |                                                                                                                                    |                                                                                                                  |

## 主要零件材质 Material for Main Parts

| 零件名称Parts Name  | 材料 Material                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------|
| 阀体Body          | 铸铁、不锈钢、铬钼钢、合金钢 Cast iron, Stainless steel ,Cr.Mo.Steel, alloy steel                                 |
| 蝶板Disc          | 铸钢、合金钢、不锈钢、铬钼钢 Cast steel, Alloy steel, stainless steel, Cr.Mo.Steel                                |
| 密封圈Sealing Ring | 不锈钢与耐高温石棉板组合成多层次Stainless steel and high temperature resistant asbestos composed of multiple layers |
| 阀杆Stem          | 2Cr13、1Cr13不锈钢、铬钼钢Stainless steel, Cr.Mo.Steel                                                      |
| 轴承Bearing       | 奥氏体不锈钢、304氮化ZG00CrNi10, 304 nitrification                                                           |
| 填料Packing       | 柔性石墨 Flexible Graphite                                                                              |

# ▶ 俄标对夹式蝶阀 Gost Wafer Butterfly Valve



主要连接尺寸 Main Connection Dimensions

俄标 GOST 12815-80 单位: Unit: mm

| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |     |      |      | 0.6MPa |      |          | 1.0MPa |      |          | 1.6MPa |      |          |
|-------------------------|---------------------|-----|------|------|--------|------|----------|--------|------|----------|--------|------|----------|
|                         | L1                  | L2  | H    | H1   | D1     | D2   | Z-φ (M)d | D1     | D2   | Z-φ (M)d | D1     | D2   | Z-φ (M)d |
| D373H/F、D673H/F、D973H/F |                     |     |      |      |        |      |          |        |      |          |        |      |          |
| 50                      | 43                  | 43  | 272  | 200  | 110    | 90   | 4-14     | 125    | 102  | 4-18     | 125    | 102  | 4-18     |
| 65                      | 46                  | 46  | 335  | 225  | 130    | 110  | 4-14     | 145    | 122  | 4-18     | 145    | 122  | 4-18     |
| 80                      | 49                  | 64  | 355  | 240  | 150    | 128  | 4-18     | 160    | 138  | 4-18     | 160    | 138  | 4-18     |
| 100                     | 56                  | 64  | 385  | 255  | 170    | 148  | 4-18     | 180    | 158  | 4-18     | 180    | 158  | 4-18     |
| 125                     | 64                  | 70  | 455  | 305  | 200    | 178  | 4-18     | 210    | 188  | 4-18     | 210    | 188  | 4-18     |
| 150                     | 70                  | 76  | 490  | 325  | 225    | 202  | 4-18     | 240    | 212  | 4-22     | 240    | 212  | 4-22     |
| 200                     | 71                  | 89  | 590  | 380  | 280    | 258  | 4-18     | 295    | 268  | 4-22     | 295    | 268  | 4-22     |
| 250                     | 76                  | 114 | 655  | 410  | 335    | 312  | 4-18     | 350    | 320  | 4-22     | 355    | 320  | 4-26     |
| 300                     | 83                  | 114 | 740  | 460  | 395    | 365  | 4-22     | 400    | 370  | 4-22     | 410    | 378  | 4-26     |
| 350                     | 92                  | 127 | 840  | 525  | 445    | 415  | 4-22     | 460    | 430  | 4-M20    | 470    | 438  | 4-M24    |
| 400                     | 102                 | 140 | 890  | 545  | 495    | 465  | 4-M20    | 515    | 482  | 4-M24    | 525    | 490  | 4-M27    |
| 450                     | 114                 | 152 | 1010 | 630  | 550    | 520  | 4-M20    | 565    | 532  | 4-M24    | 585    | 550  | 4-M27    |
| 500                     | 127                 | 152 | 1065 | 650  | 600    | 570  | 4-M20    | 620    | 585  | 4-M24    | 650    | 610  | 4-M30    |
| 600                     | 154                 | 178 | 1140 | 680  | 705    | 670  | 4-M24    | 725    | 685  | 4-M27    | 770    | 725  | 4-M33    |
| 700                     | 165                 | 229 | 1268 | 780  | 810    | 775  | 4-M24    | 840    | 800  | 4-M27    | 840    | 795  | 4-M33    |
| 800                     | 190                 | 241 | 1432 | 860  | 920    | 880  | 4-M27    | 950    | 905  | 4-M30    | 950    | 900  | 4-M36    |
| 900                     | 203                 | 241 | 1528 | 900  | 1020   | 980  | 4-M27    | 1050   | 1005 | 4-M30    | 1050   | 1000 | 4-M36    |
| 1000                    | 216                 | 300 | 1698 | 1000 | 1120   | 1080 | 4-M27    | 1160   | 1110 | 4-M33    | 1170   | 1115 | 4-M39    |
| 1200                    | 254                 | 360 | 1910 | 1100 | 1340   | 1295 | 4-M30    | 1380   | 1330 | 4-M36    | 1390   | 1330 | 4-M45    |
| 1400                    | 279                 | 390 | 2140 | 1200 | 1560   | 1510 | 4-M33    | 1590   | 1535 | 4-M39    | 1590   | 1530 | 4-M45    |
| 1600                    | 318                 | 440 | 2420 | 1330 | 1760   | 1710 | 4-M33    | 1820   | 1760 | 4-M45    | 1820   | 1750 | 4-M52    |
| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |     |      |      | 2.5MPa |      |          | 4.0MPa |      |          | 6.3MPa |      |          |
|                         | L1                  | L2  | H    | H1   | D1     | D2   | Z-φ (M)d | D1     | D2   | Z-φ (M)d | D1     | D2   | Z-φ (M)d |
| 50                      | 43                  | 43  | 272  | 200  | 125    | 102  | 4-18     | 125    | 102  | 4-18     | 135    | 102  | 4-22     |
| 65                      | 46                  | 46  | 335  | 225  | 145    | 122  | 4-18     | 145    | 122  | 4-18     | 160    | 122  | 4-22     |
| 80                      | 49                  | 64  | 355  | 240  | 160    | 138  | 4-18     | 160    | 138  | 4-18     | 170    | 138  | 4-22     |
| 100                     | 56                  | 64  | 385  | 255  | 190    | 162  | 4-22     | 190    | 162  | 4-22     | 200    | 162  | 4-26     |
| 125                     | 64                  | 70  | 455  | 305  | 220    | 188  | 4-26     | 220    | 188  | 4-26     | 240    | 188  | 4-30     |
| 150                     | 70                  | 76  | 490  | 325  | 250    | 218  | 4-26     | 250    | 218  | 4-26     | 280    | 218  | 4-33     |
| 200                     | 71                  | 89  | 590  | 380  | 310    | 278  | 4-26     | 320    | 285  | 4-M27    | 345    | 285  | 4-M33    |
| 250                     | 76                  | 114 | 655  | 410  | 370    | 335  | 4-30     | 385    | 345  | 4-M30    | 400    | 345  | 4-M33    |
| 300                     | 83                  | 114 | 740  | 460  | 430    | 395  | 4-M27    | 450    | 410  | 4-M30    | 460    | 410  | 4-M33    |
| 350                     | 92                  | 127 | 840  | 525  | 490    | 450  | 4-M30    | 510    | 465  | 4-M33    | 525    | 465  | 4-M36    |
| 400                     | 102                 | 140 | 890  | 545  | 550    | 505  | 4-M33    | 585    | 535  | 4-M36    | 585    | 535  | 4-M39    |
| 450                     | 114                 | 152 | 1010 | 630  | 600    | 555  | 4-M33    | 610    | 560  | 4-M36    | -      | -    | -        |
| 500                     | 127                 | 152 | 1065 | 650  | 660    | 615  | 4-M33    | 670    | 615  | 4-M39    | -      | -    | -        |
| 600                     | 154                 | 178 | 1140 | 680  | 770    | 720  | 4-M36    | 795    | 735  | 4-M45    | -      | -    | -        |
| 700                     | 165                 | 229 | 1268 | 780  | 875    | 820  | 4-M39    | -      | -    | -        | -      | -    | -        |
| 800                     | 190                 | 241 | 1432 | 860  | 990    | 930  | 4-M45    | -      | -    | -        | -      | -    | -        |
| 900                     | 203                 | 241 | 1528 | 900  | 1090   | 1030 | 4-M45    | -      | -    | -        | -      | -    | -        |
| 1000                    | 216                 | 300 | 1698 | 1000 | 1210   | 1140 | 4-M52    | -      | -    | -        | -      | -    | -        |
| 1200                    | 254                 | 360 | 1910 | 1100 | 1420   | 1350 | 4-M52    | -      | -    | -        | -      | -    | -        |

注: 偏心型软密封(X)(J)蝶阀连接尺寸同上。 Note: eccentric soft sealing (X) (J) butterfly valve connection size.  
4.0MPa以上结构长度为L2 4.0MPa above structure length is L2

# ► 俄标法兰式蝶阀 Gost Flange Butterfly Valve



主要连接尺寸 Main Connection Dimensions

俄标 GOST 12815-80 单位: Unit: mm

| 通径<br>Diameter<br>(mm)  | 主要尺寸 Main Dimension |      |      |        |      | 0.6MPa |      |        |        |      | 1.0MPa |      |        |        |      | 1.6MPa  |      |        |        |      |
|-------------------------|---------------------|------|------|--------|------|--------|------|--------|--------|------|--------|------|--------|--------|------|---------|------|--------|--------|------|
|                         | L1                  | L2   | H    | H1     | D    | D1     | D2   | Z-Φd   | bxφ    | D    | D1     | D2   | Z-Φd   | bxφ    | D    | D1      | D2   | Z-Φd   | bxφ    |      |
| D343H/F、D643H/F、D943H/F |                     |      |      |        |      |        |      |        |        |      |        |      |        |        |      |         |      |        |        |      |
| 50                      | 108                 | 150  | 275  | 200    | 140  | 110    | 90   | 4-Φ14  | 14x3   | 160  | 125    | 102  | 4-Φ18  | 18x3   | 160  | 125     | 102  | 4-Φ18  | 18x3   |      |
| 65                      | 112                 | 170  | 303  | 210    | 160  | 130    | 110  | 4-Φ14  | 14x3   | 180  | 145    | 122  | 8*-Φ18 | 18x3   | 180  | 145     | 122  | 8*-Φ18 | 18x3   |      |
| 80                      | 114                 | 180  | 324  | 226    | 185  | 150    | 128  | 4-Φ18  | 16x3   | 195  | 160    | 138  | 8-Φ18  | 20x3   | 195  | 160     | 138  | 8-Φ18  | 20x3   |      |
| 100                     | 127                 | 190  | 380  | 250    | 205  | 170    | 148  | 4-Φ18  | 16x3   | 215  | 180    | 158  | 8-Φ18  | 22x3   | 215  | 180     | 158  | 8-Φ18  | 20x3   |      |
| 125                     | 140                 | 200  | 460  | 295    | 235  | 200    | 178  | 8-Φ18  | 18x3   | 245  | 210    | 188  | 8-Φ18  | 22x3   | 245  | 210     | 188  | 8-Φ18  | 22x3   |      |
| 150                     | 140                 | 210  | 490  | 315    | 260  | 225    | 202  | 8-Φ18  | 18x3   | 280  | 240    | 212  | 8-Φ22  | 22x3   | 280  | 240     | 212  | 8-Φ22  | 22x3   |      |
| 200                     | 152                 | 230  | 600  | 380    | 315  | 280    | 258  | 8-Φ18  | 20x3   | 335  | 295    | 268  | 8-Φ22  | 24x3   | 335  | 295     | 268  | 12-Φ22 | 24x3   |      |
| 250                     | 165                 | 250  | 655  | 405    | 370  | 335    | 312  | 12-Φ18 | 22x3   | 390  | 350    | 320  | 12-Φ22 | 26x3   | 405  | 355     | 320  | 12-Φ26 | 26x3   |      |
| 300                     | 178                 | 270  | 780  | 480    | 435  | 395    | 365  | 12-Φ22 | 22x4   | 440  | 400    | 370  | 12-Φ22 | 26x4   | 460  | 410     | 370  | 12-Φ26 | 28x4   |      |
| 350                     | 190                 | 290  | 875  | 545    | 485  | 445    | 415  | 12-Φ22 | 22x4   | 500  | 460    | 430  | 16-Φ22 | 26x4   | 520  | 470     | 430  | 16-Φ26 | 30x4   |      |
| 400                     | 216                 | 310  | 910  | 550    | 535  | 495    | 465  | 16-Φ22 | 22x4   | 565  | 515    | 482  | 16-Φ26 | 26x4   | 580  | 525     | 482  | 16-Φ30 | 32x4   |      |
| 450                     | 222                 | 330  | 1000 | 620    | 590  | 550    | 520  | 16-Φ22 | 22x4   | 615  | 565    | 532  | 20-Φ26 | 28x4   | 640  | 585     | 532  | 20-Φ30 | 40x4   |      |
| 500                     | 226                 | 350  | 1090 | 680    | 640  | 600    | 570  | 20-Φ22 | 24x4   | 670  | 620    | 585  | 20-Φ26 | 28x4   | 710  | 650     | 585  | 20-Φ33 | 44x4   |      |
| 600                     | 267                 | 390  | 1210 | 750    | 755  | 705    | 670  | 20-Φ26 | 30x5   | 780  | 725    | 685  | 20-Φ30 | 34x5   | 840  | 770     | 685  | 20-Φ36 | 54x5   |      |
| 700                     | 292                 | 430  | 1350 | 820    | 860  | 810    | 775  | 24-Φ26 | 26x5   | 895  | 840    | 800  | 24-Φ30 | 34x5   | 910  | 840     | 800  | 24-Φ36 | 40x5   |      |
| 800                     | 318                 | 470  | 1520 | 910    | 975  | 920    | 880  | 24-Φ30 | 26x5   | 1010 | 950    | 905  | 24-Φ33 | 36x5   | 1020 | 950     | 905  | 24-Φ39 | 42x5   |      |
| 900                     | 330                 | 510  | 1570 | 930    | 1075 | 1020   | 980  | 24-Φ30 | 26x5   | 1110 | 1050   | 1005 | 28-Φ33 | 38x5   | 1120 | 1050    | 1005 | 28-Φ39 | 44x5   |      |
| 1000                    | 410                 | 550  | 1700 | 980    | 1175 | 1120   | 1080 | 28-Φ30 | 28x5   | 1220 | 1160   | 1110 | 28-Φ36 | 38x5   | 1255 | 1170    | 1110 | 28-Φ42 | 46x5   |      |
| 1200                    | 470                 | 630  | 2040 | 1220   | 1400 | 1340   | 1295 | 32-Φ33 | 28x5   | 1455 | 1380   | 1330 | 32-Φ39 | 44x5   | 1485 | 1390    | 1330 | 32-Φ48 | 52x5   |      |
| 1400                    | 530                 | 710  | 2240 | 1310   | 1620 | 1560   | 1510 | 36-Φ36 | 32x5   | 1675 | 1590   | 1530 | 36-Φ42 | 48x5   | 1685 | 1590    | 1530 | 36-Φ48 | 58x5   |      |
| 1600                    | 600                 | 790  | 2440 | 1460   | 1820 | 1760   | 1710 | 40-Φ36 | 34x5   | 1915 | 1820   | 1750 | 40-Φ48 | 52x5   | 1925 | 1820    | 1750 | 40-Φ56 | 64x5   |      |
| 1800                    | 670                 | 870  | 2650 | 1560   | 2045 | 1970   | 1920 | 44-Φ39 | 36x5   | 2115 | 2020   | 1950 | 44-Φ48 | 56x5   | 2125 | 2020    | 1950 | 44-Φ56 | 68x5   |      |
| 2000                    | 760                 | 950  | 2860 | 1670   | 2265 | 2180   | 2125 | 48-Φ42 | 38x5   | 2325 | 2230   | 2150 | 48-Φ48 | 60x5   | 2340 | 2230    | 2150 | 48-Φ62 | 70x5   |      |
| 通径<br>Diameter<br>(mm)  | 2.5MPa              |      |      |        |      | 4.0MPa |      |        |        |      | 6.3MPa |      |        |        |      | 10.0MPa |      |        |        |      |
|                         | D                   | D1   | D2   | Z-Φd   | bxφ  | D      | D1   | D2     | Z-Φd   | bxφ  | D      | D1   | D2     | Z-Φd   | bxφ  | D       | D1   | D2     | Z-Φd   | bxφ  |
| 50                      | 160                 | 125  | 102  | 4-Φ18  | 20x3 | 160    | 125  | 102    | 4-Φ18  | 20x3 | 175    | 135  | 102    | 4-Φ22  | 26x3 | 195     | 145  | 102    | 4-Φ26  | 30x3 |
| 65                      | 180                 | 145  | 122  | 8-Φ18  | 22x3 | 180    | 145  | 122    | 8-Φ18  | 22x3 | 200    | 160  | 122    | 8-Φ22  | 26x3 | 220     | 170  | 122    | 8-Φ26  | 34x3 |
| 80                      | 195                 | 160  | 138  | 8-Φ18  | 24x3 | 195    | 160  | 138    | 8-Φ18  | 24x3 | 210    | 170  | 138    | 8-Φ22  | 28x3 | 230     | 180  | 138    | 8-Φ26  | 36x3 |
| 100                     | 230                 | 190  | 162  | 8-Φ22  | 24x3 | 230    | 190  | 162    | 8-Φ22  | 24x3 | 250    | 200  | 162    | 8-Φ26  | 30x3 | 265     | 210  | 162    | 8-Φ30  | 40x3 |
| 125                     | 270                 | 220  | 188  | 8-Φ26  | 26x3 | 270    | 220  | 188    | 8-Φ26  | 26x3 | 295    | 240  | 188    | 8-Φ30  | 34x3 | 310     | 250  | 188    | 8-Φ33  | 40x3 |
| 150                     | 300                 | 250  | 212  | 8-Φ26  | 28x3 | 300    | 250  | 218    | 8-Φ26  | 28x3 | 340    | 280  | 218    | 8-Φ33  | 36x3 | 350     | 290  | 218    | 12-Φ33 | 44x3 |
| 200                     | 360                 | 310  | 278  | 12-Φ26 | 30x3 | 375    | 320  | 285    | 12-Φ30 | 34x3 | 405    | 345  | 285    | 12-Φ36 | 42x3 | 430     | 360  | 285    | 12-Φ36 | 52x3 |
| 250                     | 425                 | 370  | 335  | 12-Φ30 | 32x3 | 445    | 385  | 345    | 12-Φ33 | 38x3 | 470    | 400  | 345    | 12-Φ36 | 46x3 | 500     | 430  | 345    | 12-Φ39 | 60x3 |
| 300                     | 485                 | 430  | 395  | 16-Φ30 | 34x4 | 510    | 450  | 410    | 16-Φ33 | 42x4 | 530    | 460  | 410    | 16-Φ36 | 52x4 | 585     | 500  | 410    | 16-Φ42 | 68x4 |
| 350                     | 550                 | 490  | 450  | 16-Φ33 | 38x4 | 570    | 510  | 465    | 16-Φ36 | 46x4 | 595    | 525  | 465    | 16-Φ39 | 56x4 | 655     | 560  | 465    | 16-Φ48 | 74x4 |
| 400                     | 610                 | 550  | 505  | 16-Φ36 | 40x4 | 655    | 585  | 535    | 16-Φ39 | 50x4 | 670    | 585  | 535    | 16-Φ42 | 60x4 | 715     | 620  | 535    | 16-Φ48 | 78x4 |
| 450                     | 660                 | 600  | 555  | 20-Φ36 | 46x4 | 680    | 610  | 560    | 20-Φ39 | 57x4 | 735    | 645  | 560    | 20-Φ39 | 64x4 | -       | -    | -      | -      | -    |
| 500                     | 730                 | 660  | 615  | 20-Φ36 | 48x4 | 755    | 670  | 615    | 20-Φ42 | 57x4 | 800    | 705  | 615    | 20-Φ48 | 68x4 | -       | -    | -      | -      | -    |
| 600                     | 840                 | 770  | 720  | 20-Φ39 | 58x5 | 890    | 795  | 735    | 20-Φ48 | 64x5 | 930    | 820  | 735    | 20-Φ56 | 76x5 | -       | -    | -      | -      | -    |
| 700                     | 960                 | 875  | 820  | 24-Φ42 | 50x5 | 995    | 900  | 840    | 24-Φ48 | 68x5 | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 800                     | 1075                | 990  | 930  | 24-Φ48 | 54x5 | 1135   | 1030 | 960    | 24-Φ56 | 76x5 | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 900                     | 1185                | 1090 | 1030 | 28-Φ48 | 58x5 | 1250   | 1140 | 1070   | 28-Φ56 | 82x5 | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1000                    | 1315                | 1210 | 1140 | 28-Φ56 | 62x5 | 1360   | 1250 | 1180   | 28-Φ56 | 88x5 | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1200                    | 1525                | 1420 | 1350 | 32-Φ56 | 70x5 | 1575   | 1460 | 1380   | 32-Φ62 | 96x5 | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1400                    | 1750                | 1640 | 1560 | 36-Φ62 | 76x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1600                    | 1970                | 1860 | 1780 | 40-Φ62 | 84x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 1800                    | 2190                | 2070 | 1985 | 44-Φ70 | 90x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |
| 2000                    | 2420                | 2300 | 2210 | 48-Φ70 | 96x5 | -      | -    | -      | -      | -    | -      | -    | -      | -      | -    | -       | -    | -      | -      | -    |

## ► 双向硬密封蝶阀

### Bidirectional Metal Seated Butterfly Valve



双向硬密封蝶阀是我公司专业技术人员经优化设计、含国家专利的优点、高性能产品。

#### 阀门结构型式

双向硬密封蝶阀结构形式采用可浮动的密封环，密封环在阀体上可以依阀板关闭时的推力适当调整自身的位置，可浮动的密封能补偿阀门在不同工况(如高温)下产生变形、热膨胀等因数，消除对密封面的损坏，确保密封吻合均匀，延长密封件使用寿命，提高密封效果。

阀座圈在温度循环状态下保持关闭性能；阀体的收缩不传向阀座，不是阀门出现阻滞。

阀门的可浮动密封，长期使用密封性能下降时，可通过更换密封环，即可恢复密封性能，同时可以实现在现场拆卸更换密封环，同一规格蝶阀的密封环具有很好的通用互换性。

阀门采用轴向定位装置不发生轴向蝶板窜动而引起上下密封面部分压伤，磨损泄漏。

阀门适用于热力管道的关断及流量控制，应具有优良的耐腐蚀性能和双向密封性能。

再设计参数下，阀门的双向密封等级均达到GB/T13927-92标准中最大允许泄漏量B级。

阀体能承受热力网可能产生的最大扭矩 $300\text{N}/\text{mm}^2$ ，阀门的外壳壁厚能承受热网的轴向力，并在保证使用年限内，再设计参数下开关灵活自如，无卡涩现象。

Bidirectional metal seated butterfly valve is the high performance product which is designed optimally by our company's professional technicians containing the advantages of national patent.

#### Valve Structure

Bidirectional metal seated butterfly Valve adopts the floating seal ring structure. It can adjust position on the body automatically depending on the pushing power of closing the disc. Floating seal can compensate for various factors such as deformation and thermal expansion in different working conditions. It can eliminate the damage of sealing surface to assure the sealing fitted and evenly affording pressure. Using life is extended and sealing performance is improved.

Seat ring keeps closing performance under the cycling temperature; the contraction of the body won't pass to the seat. It will prevent the valve from obstruction.

When the sealing performance decreased after long time using, changing the seal ring, and the sealing performance would be recovered. The seal ring can be disboarded and changed at the spot. The seal ring of same specification butterfly valves has good changeable performance.

The valve adopts shaft direction position device. It can avoid the pressure damage, wear and leakage of sealing surface caused by the disc moves.

The valve is adjustable for flow control and the stop of pipeline, and has great corossion resistance and bidirectional sealing.

Valves' bidirectional sealing degree achieves the max leakage of B degree under design parameter according to GB/T13927-92.

The valve can afford the heat network max torque  $300\text{N}/\square 2$ . It is assured that the wall thickness of the valve can afford the axial force of heating net and smart operation in limited using years.

## ► 双向硬密封蝶阀 Bidirectional Metal Seated Butterfly Valve



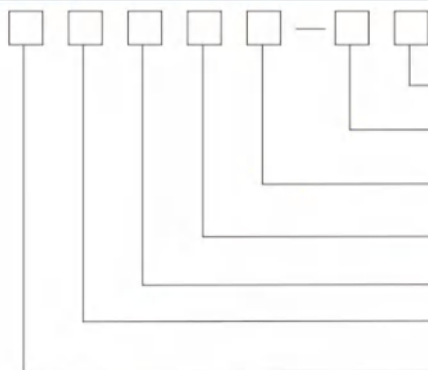
双向密封蝶阀系列是我公司应广大用户要求，精心研究设计的新一代产品。该系列蝶阀引进了国内外先进的制造技术，以独特新颖的结构，获得高品质的性能。该阀结构合理，密封严密可靠、流阻小、压差低、驱动灵活省力，使用寿命倍增。符合GB/T12238《法兰和对夹连接蝶阀》和JB/T8527《金属密封蝶阀》标准，并参照美国ANSI/AWWAC504标准，采用美国CAD软件辅助设计。特殊的设计，特殊的几何结构，使阀板具有越关越紧的功能，当打开阀门时，只要阀轴稍微旋转，阀板即全部脱离阀座，减少了摩擦力，使开启力矩呈现最小最佳状态，密封严实可靠，经久耐用，广泛的应用于水利工程、自来水、水力循环水、石油、化工等工业管道上作截断介质流动。

Bidirectional metal seated butterfly valve series is our company new product designed meticulously according to the customers' requirements. This series product adopts advanced technology around the world, achieving the high quality performance by the unique design. The valve is characterised by reasonable structure, reliable sealing, small flow-resistance, smart driving, low pressure, differential and several times working life. The valve is suitable for GB/T12238 *Flange and Wafer Connection Butterfly Valve* and JB/T *Metal Seated Butterfly Valve*. The Valve is designed with CAD and refers to ANSI/AWWAC504. Unique design and geometric structure makes the disc more closing, more tight. When the valve is opening, the stem rotates lightly, and the disc separates from seat completely, reducing the friction. These design make the valve torque minimum, the sealing reliable and the valve durable. This series valve is widely used in various industries such as irrigation, tap water, oil, chemical industry and circulating water, etc.

### 用途及特点 uses And Charac Teristics

- 1、蝶阀为双向承压，双向密封。采用了偏心S型锥形阀座或可移动活塞式阀座，确保了反向承压性能。
  - 2、操作扭矩较小，转90度启闭，轻便迅速。
  - 3、流阻小，具有良好的水力特性，流量特性近似倾斜直线，节能效果好，双向密封对水流无方向要求。
  - 4、密封可靠，启闭寿命达到数25000次以上，使用寿命25年以上。
  - 5、阀板采用符合流体力学性能的双平板桁架式多流道设计。
- 1.The butterfly valve is bidirectional sealing and pressure-affording. It adopts eccentric S type and cone seat or mobile piston seat to assure the ability of affording the reverse pressure.
  - 2.Small torque, smart operation and convenience, 90° opening and closing.
  - 3.Small flow-resistance, good water feature, good energy-saving. Flow feature is similar to oblique line and no direction requirements.
  - 4.Life of opening and closing is above 25000 times, and valve using life is above 25 years, and it has reliable sealing.
  - 5.Valve disc adopts double flat and trussed construction and multiflow channel structure which suits hydrodynamics.

### 型号说明 Model Description



阀体材料：C-碳钢、P-不锈钢、Q-球墨铸铁  
Body material: C- Carbon steel, P- Stainless steel, Q- Ductile iron

公称压力：数字表示，为单位MPa的10倍  
Nominal pressure: digital representation, is 10 times the per unit MPa

密封面材料：H-Cr13系不锈钢、P-不锈钢、X-橡胶  
Sealing surface material: H-Cr13 stainless steel, P- stainless steel, X- rubber.

结构形式代号：3-三偏心金属密封、7-双偏心橡胶密封  
Structure of code: 3- three eccentric metal sealing, 7- double eccentric rubber seal

连接方式：4-法兰式 Connection: 4-flange type

传动方式：3-蜗轮、6-气动、9-电动  
Operator mode: 3-worm, 6-pneumatic, 9- electric

类别：第一空格DS表示双向密封 Category: the first space DS two-way sealing

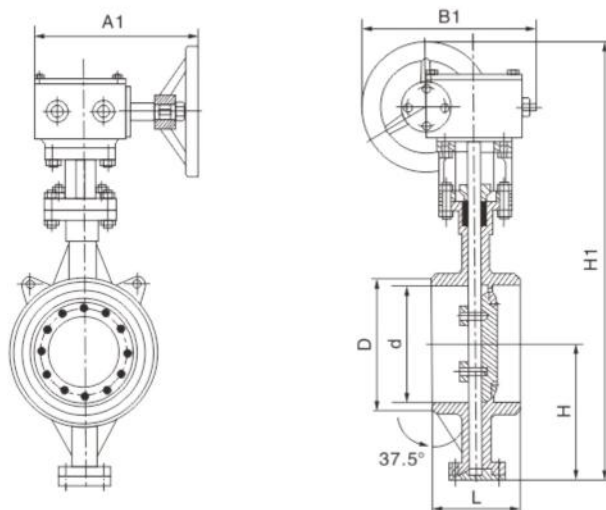
### 主要技术参数 Main Technology Parameter

|                                |                                                                           |               |               |               |
|--------------------------------|---------------------------------------------------------------------------|---------------|---------------|---------------|
| 公称压力<br>Nominal Pressure       | 0.6MPa                                                                    | 1.0MPa        | 1.6MPa        | 2.5MPa        |
| 公称通径<br>Nominal Diameter       | 80~3000<br>mm                                                             | 80~3000<br>mm | 80~2000<br>mm | 80~1200<br>mm |
| 密封试验<br>Seal Test              | 0.66MPa                                                                   | 1.1MPa        | 1.76MPa       | 2.75MPa       |
| 壳体强度试验<br>Shell Strength Test  | 0.9MPa                                                                    | 1.5MPa        | 2.4MPa        | 3.75MPa       |
| 适用温度<br>Applicable Temperature | ≤100℃~600℃                                                                |               |               |               |
| 适用介质<br>Applicable Medium      | 烟气、热水、蒸汽、煤气、酸、碱、食品<br>Flue gas, Hot water, Steam, Gas, Acid, Alkali, Food |               |               |               |
| 驱动形式<br>Operation              | 蜗轮传动、电动、气动<br>Worm gear, Electric, Pneumatic                              |               |               |               |

### 主要零件材质 Material for Main Parts

|                     |                                                                                   |
|---------------------|-----------------------------------------------------------------------------------|
| 阀体<br>Body          | 铸钢、不锈钢、球墨铸铁<br>Cast steel, Stainless steel, Ductile iron                          |
| 阀座<br>Seat          | 不锈钢<br>Stainless Steel                                                            |
| 蝶板<br>Disc          | 铸钢、不锈钢、球墨铸铁<br>Cast steel, Stainless steel, Ductile iron                          |
| 密封圈<br>Sealing Ring | 不锈钢、橡胶<br>Stainless steel, Rubber                                                 |
| 阀杆<br>Stem          | 2Cr13不锈钢、1Cr13不锈钢、45#钢<br>2Cr13 stainless steel, 1Cr13 stainless steel, 45# steel |
| 衬套<br>Bushing       | 铸铝青铜、自润轴承<br>Molybdenum bronze casting, Self lubricating bearing                  |

# ▶ 对焊式金属硬密封蝶阀 Butt Welding Metal Seated Butterfly Valve



## 用途及特点 Uses And Charac Teristics

本蝶阀适用于高温、高压、防火、保温等管道上作启闭或调节介质之用。其主要特点如下：

- 1、结构紧凑、体积小、重量轻、操作灵活、使用方便；
- 2、采用三维偏心弹性或多层次硬密封结构，其密封性能可靠达到零泄漏；
- 3、此阀无法兰，对管道的保温包扎带来很大方便和美观；
- 4、具有耐高温、高压、耐腐蚀、耐磨损等特点。

The butterfly valve is used as opening and closing, or adjusting medium on the pipe of high temperature, high pressure and fireproof. Its main characteristics as below:

1. Tight structure, small volume, light weight, smart operation and convenient using.
2. The valve adopts triple eccentric resilience or multilayer metal seated structure to achieve zero leakage of sealing.
3. This valve doesn't have flange, so it is convenient for thermal insulation of the pipeline.
4. The valve is characterised by high temperature resistance, high pressure resistance, corrosion resistance and wear resistance, etc.

## 传动型式 Drive Type

蜗轮传动、气动传动、电动传动。  
Worm gear drive, pneumatic drive, electric drive.

## 采用标准 Adoption Standard

焊接尺寸 Welding dimension: GB12224; ANSI B16.25; DIN2559  
结构长度 Face to face length: GB/T12221-1989; API609  
压力试验 Pressure test: GB/T13927-1992; API598

## 主要技术参数 Main Technology Parameter

| 公称通径 Nominal Diameter            | DN(mm)                                                        | 50 ~ 700 |     |      |      |     |
|----------------------------------|---------------------------------------------------------------|----------|-----|------|------|-----|
| 公称压力 Nominal Pressure            | PN(MPa)                                                       | 0.6      | 1.0 | 1.6  | 2.5  | 4.0 |
| 试验压力<br>Ps(MPa)<br>Test Pressure | 强度试验 Shell test                                               | 0.9      | 1.5 | 2.4  | 3.75 | 6.0 |
|                                  | 密封试验 Seal test                                                | 0.66     | 1.1 | 1.76 | 2.75 | 4.4 |
|                                  | 气密封试验 Air Sealing Test                                        | 0.6      | 0.6 | 0.6  | 0.6  | 0.6 |
| 适用介质 Appropriate Medium          | 水、蒸气、油品、酸类腐蚀性等。Water, Steam, Oil, Acid corrosive and so on.   |          |     |      |      |     |
| 适用温度 Appropriate Temperatuer     | 碳钢 Carbon steel: -29℃ ~ 425℃ 不锈钢 Stainless steel: -40℃ ~ 600℃ |          |     |      |      |     |

## 主要零件材质 Material for Main Parts

| 零件名称 Parts Name  | 材料 Material                                                                                           |
|------------------|-------------------------------------------------------------------------------------------------------|
| 阀体 Body          | 铸钢、不锈钢、铬钼钢及特殊材料 Cast steel, stainless steel, Cr.Mo.Steel and ad hoc material                          |
| 蝶板 Disc          | 铸钢、合金钢（镀硬铬）、不锈钢、铬钼钢及特殊材料<br>Cast steel, Alloy steel, stainless steel, Cr.Mo.Steel and ad hoc material |
| 密封圈 Sealing Ring | 不锈钢、抗磨材料 Stainless steel, resist grind material                                                       |
| 阀杆 Stem          | 2Cr13、1Cr13 不锈钢、铬钼钢 Stainless steel, Cr.Mo.Steel                                                      |
| 填料 Packing       | 柔性石墨 Flexible Graphite                                                                                |

# ▶ 对焊式金属硬密封蝶阀 Butt Welding Metal Seated Butterfly Valve



主要连接尺寸 Main Connection Dimensions

单位: Unit: mm

| 公称压力 Nominal Pressure PN0.6MPa |      |                                          |      |      |      |      |      |     | 公称压力 Nominal Pressure PN1.0MPa |      |                                          |      |      |      |      |      |     |
|--------------------------------|------|------------------------------------------|------|------|------|------|------|-----|--------------------------------|------|------------------------------------------|------|------|------|------|------|-----|
| 通径 Diameter                    |      | 外形尺寸(参考值)<br>External Dimension(Consult) |      |      |      |      |      |     | 通径 Diameter                    |      | 外形尺寸(参考值)<br>External Dimension(Consult) |      |      |      |      |      |     |
| mm                             | inch | L                                        | D    | d    | H    | H1   | A    | B   | mm                             | inch | L                                        | D    | d    | H    | H1   | A    | B   |
| 600                            | 24   | 390                                      | 636  | 602  | 499  | 1280 | 570  | 660 | 600                            | 24   | 390                                      | 636  | 602  | 499  | 1280 | 570  | 660 |
| 700                            | 28   | 430                                      | 726  | 692  | 566  | 1480 | 750  | 550 | 700                            | 28   | 430                                      | 726  | 692  | 566  | 1480 | 750  | 550 |
| 800                            | 32   | 470                                      | 826  | 792  | 632  | 1608 | 750  | 550 | 800                            | 32   | 470                                      | 826  | 792  | 632  | 1608 | 750  | 550 |
| 900                            | 36   | 510                                      | 926  | 892  | 693  | 1857 | 750  | 550 | 900                            | 36   | 510                                      | 926  | 892  | 693  | 1857 | 750  | 550 |
| 1000                           | 40   | 550                                      | 1028 | 992  | 757  | 2038 | 900  | 750 | 1000                           | 40   | 550                                      | 1028 | 992  | 757  | 2038 | 900  | 750 |
| 1200                           | 48   | 630                                      | 1228 | 1192 | 851  | 2237 | 1000 | 925 | 1200                           | 48   | 630                                      | 1228 | 1192 | 851  | 2237 | 1000 | 925 |
| 1400                           | 56   | 710                                      | 1428 | 1392 | 876  | 2411 | 1000 | 925 | 1400                           | 56   | 710                                      | 1428 | 1392 | 876  | 2411 | 1000 | 925 |
| 1600                           | 64   | 790                                      | 1628 | 1592 | 1095 | 2756 | 1000 | 925 | 1600                           | 64   | 790                                      | 1628 | 1592 | 1095 | 2756 | 1000 | 925 |
| 1800                           | 72   | 870                                      | 1828 | 1792 | 1214 | 3093 | 1100 | 980 | 1800                           | 72   | 870                                      | 1828 | 1792 | 1214 | 3093 | 1100 | 980 |
| 2000                           | 80   | 950                                      | 2028 | 1992 | 1332 | 3355 | 1100 | 980 | 2000                           | 80   | 950                                      | 2028 | 1992 | 1332 | 3355 | 1100 | 980 |

| 公称压力 Nominal pressure PN1.6MPa |      |                                          |     |     |     |      |     |     | 公称压力 Nominal pressure PN1.6MPa |      |                                          |      |      |      |      |      |     |
|--------------------------------|------|------------------------------------------|-----|-----|-----|------|-----|-----|--------------------------------|------|------------------------------------------|------|------|------|------|------|-----|
| 通径 Diameter                    |      | 外形尺寸(参考值)<br>External Dimension(consult) |     |     |     |      |     |     | 通径 Diameter                    |      | 外形尺寸(参考值)<br>External Dimension(consult) |      |      |      |      |      |     |
| mm                             | inch | L                                        | D   | d   | H   | H1   | A   | B   | mm                             | inch | L                                        | D    | d    | H    | H1   | A    | B   |
| 80                             | 3    | 180                                      | 90  | 78  | 90  | 356  | 180 | 200 | 600                            | 24   | 390                                      | 636  | 602  | 509  | 1369 | 570  | 660 |
| 100                            | 4    | 190                                      | 110 | 96  | 100 | 375  | 180 | 200 | 700                            | 28   | 430                                      | 726  | 692  | 572  | 1492 | 750  | 550 |
| 125                            | 5    | 200                                      | 135 | 121 | 113 | 401  | 180 | 200 | 800                            | 32   | 470                                      | 826  | 792  | 638  | 1622 | 750  | 550 |
| 150                            | 6    | 210                                      | 161 | 146 | 130 | 450  | 270 | 280 | 900                            | 36   | 510                                      | 926  | 892  | 700  | 1924 | 750  | 550 |
| 200                            | 8    | 230                                      | 222 | 202 | 205 | 545  | 400 | 425 | 1000                           | 40   | 550                                      | 1028 | 992  | 765  | 2054 | 900  | 750 |
| 250                            | 10   | 250                                      | 278 | 254 | 235 | 630  | 400 | 425 | 1200                           | 48   | 630                                      | 1228 | 1192 | 860  | 2259 | 1000 | 925 |
| 300                            | 12   | 270                                      | 330 | 303 | 275 | 715  | 450 | 560 | 1400                           | 56   | 710                                      | 1428 | 1392 | 986  | 2610 | 1000 | 925 |
| 350                            | 14   | 290                                      | 382 | 351 | 309 | 817  | 450 | 560 | 1600                           | 64   | 790                                      | 1628 | 1592 | 1106 | 2856 | 1000 | 925 |
| 400                            | 16   | 310                                      | 432 | 398 | 346 | 923  | 535 | 580 | 1800                           | 72   | 870                                      | 1828 | 1792 | 1226 | 3121 | 1100 | 980 |
| 450                            | 18   | 330                                      | 484 | 450 | 392 | 1059 | 535 | 580 | 2000                           | 80   | 950                                      | 2028 | 1992 | 1345 | 3385 | 1100 | 980 |
| 500                            | 20   | 350                                      | 535 | 501 | 427 | 1126 | 535 | 580 |                                |      |                                          |      |      |      |      |      |     |

| 公称压力 Nominal Pressure PN2.5MPa |      |                                          |      |      |      |      |      |     | 公称压力 Nominal Pressure PN4.0MPa |      |                                          |     |     |     |      |     |     |
|--------------------------------|------|------------------------------------------|------|------|------|------|------|-----|--------------------------------|------|------------------------------------------|-----|-----|-----|------|-----|-----|
| 通径 Diameter                    |      | 外形尺寸(参考值)<br>External Dimension(consult) |      |      |      |      |      |     | 通径 Diameter                    |      | 外形尺寸(参考值)<br>External dimension(consult) |     |     |     |      |     |     |
| mm                             | inch | L                                        | D    | d    | H    | H1   | A    | B   | mm                             | inch | L                                        | D   | d   | H   | H1   | A   | B   |
| 80                             | 3    | 180                                      | 90   | 78   | 90   | 356  | 180  | 200 | 80                             | 3    | 180                                      | 90  | 78  | 108 | 430  | 180 | 200 |
| 100                            | 4    | 190                                      | 110  | 96   | 106  | 387  | 180  | 200 | 100                            | 4    | 190                                      | 110 | 96  | 108 | 392  | 180 | 200 |
| 125                            | 5    | 200                                      | 135  | 121  | 122  | 413  | 180  | 200 | 125                            | 5    | 200                                      | 135 | 120 | 120 | 414  | 180 | 200 |
| 150                            | 6    | 210                                      | 161  | 146  | 136  | 459  | 270  | 280 | 150                            | 6    | 210                                      | 161 | 145 | 135 | 494  | 270 | 280 |
| 200                            | 8    | 230                                      | 222  | 202  | 215  | 585  | 400  | 425 | 200                            | 8    | 230                                      | 222 | 200 | 202 | 578  | 400 | 425 |
| 250                            | 10   | 250                                      | 278  | 254  | 247  | 649  | 400  | 425 | 250                            | 10   | 250                                      | 278 | 252 | 235 | 673  | 400 | 425 |
| 300                            | 12   | 270                                      | 330  | 303  | 288  | 771  | 450  | 560 | 300                            | 12   | 270                                      | 330 | 301 | 280 | 793  | 450 | 560 |
| 350                            | 14   | 290                                      | 382  | 351  | 333  | 929  | 450  | 560 | 350                            | 14   | 290                                      | 382 | 351 | 315 | 921  | 450 | 560 |
| 400                            | 16   | 310                                      | 432  | 398  | 359  | 993  | 535  | 580 | 400                            | 16   | 310                                      | 432 | 398 | 355 | 1021 | 535 | 580 |
| 450                            | 18   | 330                                      | 484  | 450  | 405  | 1053 | 535  | 580 | 450                            | 18   | 330                                      | 484 | 448 | 370 | 1143 | 535 | 580 |
| 500                            | 20   | 350                                      | 535  | 501  | 444  | 1245 | 535  | 580 | 500                            | 20   | 350                                      | 535 | 495 | 420 | 1192 | 535 | 580 |
| 600                            | 24   | 390                                      | 636  | 602  | 521  | 1750 | 570  | 660 | 600                            | 24   | 390                                      | 636 | 595 | 490 | 1327 | 570 | 660 |
| 700                            | 28   | 430                                      | 726  | 692  | 586  | 1519 | 750  | 550 |                                |      |                                          |     |     |     |      |     |     |
| 800                            | 32   | 470                                      | 826  | 792  | 659  | 1659 | 750  | 550 |                                |      |                                          |     |     |     |      |     |     |
| 900                            | 36   | 510                                      | 926  | 892  | 720  | 1829 | 750  | 550 |                                |      |                                          |     |     |     |      |     |     |
| 1000                           | 40   | 550                                      | 1028 | 992  | 780  | 1949 | 900  | 750 |                                |      |                                          |     |     |     |      |     |     |
| 1200                           | 48   | 630                                      | 1228 | 1192 | 889  | 2243 | 1000 | 925 |                                |      |                                          |     |     |     |      |     |     |
| 1400                           | 56   | 710                                      | 1428 | 1392 | 1000 | 2462 | 1000 | 925 |                                |      |                                          |     |     |     |      |     |     |

## ► 伸缩蝶阀 Telescopic Butterfly Valve



### 用途及特点 Uses And Characteristics

伸缩蝶阀适用于温度 $\leq 80^{\circ}\text{C}$ ，公称压力 $\leq 1.6\text{MPa}$ 的食品、医药、化工、石油、电力、轻纺、造纸等给排水、气体管道上作调节流量和截流介质的作用，具有补偿管道热胀冷缩的功能。其主要特点如下：

- 1、设计新颖、合理、结构独特、重量轻、操作方便、启闭迅速；
- 2、伸缩蝶阀除了能作调节和截流作用、补偿管道温差所产生的热胀冷缩功能外，还有为安装更换、维修阀门提供方便；
- 3、密封部位可调节更换、密封性能可靠等特点。

Telescopic butterfly valve is suitable for various industries such as food, medication, chemical industry, oil, electricity textile and paper making, etc. The valve can be used as adjusting flow and stopping the medium. The valve compensates the pipeline's expansion caused by heat and contraction caused by cold. Its main characteristic as below:

1. Neoteric design, reasonable and unique structure, light weight, and quick opening and closing.
2. Telescopic valve is also convenient for installation, replacing and valve-repairing.
3. The valve has reliable sealing, and the sealing parts can be changeable.

### 采用标准 Adoption Standard

设计标准 Design Standard: GB/T12238-1989

法兰连接尺寸 Flange Connection Dimension: GB/T9113.1-2000; GB/T9113.2-2000

GB/T9115.1-2000; GB/T9115.2-2000

压力试验 Pressure Test: GB/T13927-1992; JB/T9092-1999

### 主要技术参数 Main Technology Parameter

| 公称通径 Nominal diameter            | DN(mm)                                                    | 50 ~ 2000 |     |      |
|----------------------------------|-----------------------------------------------------------|-----------|-----|------|
| 公称压力 Nominal pressure            | PN(MPa)                                                   | 0.6       | 1.0 | 1.6  |
| 压力试验<br>Ps(MPa)<br>Pressure Test | 强度试验 Shell Test                                           | 0.9       | 1.5 | 2.4  |
|                                  | 密封试验 Seal Test                                            | 0.66      | 1.1 | 1.76 |
|                                  | 气密封试验 Air Sealing Test                                    | 0.6       | 0.6 | 0.6  |
| 适用温度 Applicable Temperature      | $\leq 80^{\circ}\text{C}$                                 |           |     |      |
| 适用介质 Applicable Media            | 空气、水蒸气、煤气、油品等。 Air, Steam, Gas, oil etc.                  |           |     |      |
| 驱动形式 Operation                   | 手动、蜗杆蜗轮传动、气传动、电传动。 Manual, Worm Gear, Pneumatic, Electric |           |     |      |

### 主要零件材质 Material for Main Parts

| 零件名称 Parts name   | 材料 Material                                                                                    |
|-------------------|------------------------------------------------------------------------------------------------|
| 阀体 Body           | 铸铁、铸钢、不锈钢、铬钼钢、合金钢 Cast iron, Cast Steel, Stainless Steel, Chrome-molybdenum Steel, Alloy Steel |
| 蝶板 Disc           | 铸钢、合金钢、不锈钢、铬钼钢 Cast Steel, Alloy Steel, Stainless Steel, Chrome-molybdenum Steel               |
| 密封圈 Seal Ring     | 橡胶、聚四氟、聚内脂、不锈钢 Rubber, PTFE, Polyester, Stainless Steel                                        |
| 阀杆 Stem           | 2Cr13、不锈钢、铬钼钢 2Cr13, Stainless Steel, Chrome-molybdenum Steel                                  |
| 伸缩管 Flexible Tube | 铸铁、铸钢、不锈钢、铬钼钢 Cast Iron, Cast Steel, Stainless Steel, Chrome-molybdenum Steel                  |
| 填料 Packing        | 柔性石墨 Flexible Graphite                                                                         |

## ► 伸缩蝶阀安装使用注意事项 Telescopic Butterfly Valve Installation Precautions



- 1、伸缩蝶阀在安装前必须平放，切勿随意磕碰。
- 2、伸缩蝶阀出厂时结构长度为最小长度，安装时，拉至安装长度(即设计长度)。
- 3、当管道间长度超过伸缩阀安装长度时，请调整管道间隔，切勿强行拉伸伸缩阀，以免损坏伸缩阀。
- 4、伸缩蝶阀可在任意位置安装，做温度补偿用时，在管道安装完成后，需沿管道轴线方向两端加支架，防止伸缩阀伸缩管拉出(见图1)，支架的支承力按下列公式计算，运行时严禁将支架卸掉。

$$F > \frac{\pi}{4} PS \cdot DN^2 \cdot (kgf)$$

式中：PS—管道试验压力，DN—管道直径

5、伸缩蝶阀不做温度补偿时，只做安装更换、维修阀门方便用时，可用通螺栓限位，对称夹紧伸缩蝶阀以防止伸缩管拉出(见图2)，损坏伸缩蝶阀及管道装置或建筑物。螺栓直径可按照法兰螺栓直径，其螺栓强度和承受试验压力及管道拉力，按上公式进行计算，运行时限位螺栓严禁卸掉(螺栓另配)

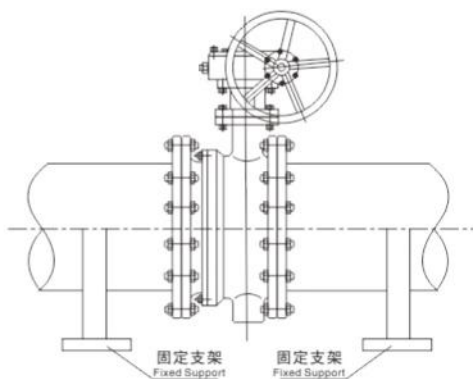
- 6、管道施工现场严禁随意拆卸解体伸缩蝶阀。
- 7、本伸缩蝶阀，加工精细，配合严密，请勿在现场随意反复拉长压短伸缩蝶阀。管道安装时，要求伸缩阀两端管道必须同心，管道上的两法兰面要求平行。
- 8、法兰固定螺栓应对称紧固，请勿单边强行紧固法兰固定螺栓。
- 9、伸缩管安装在阀门后。
- 10、伸缩阀伸缩部分不得安装在管道拐角处或管道末端。

1. Telescopic butterfly valve should be placed horizontally, any collision is not allowed.
2. When telescopic butterfly valve left factory, its face to face dimension is the minimum length. While installing, the valve should be stretched to installation length (Design Length).
3. When the space between pipelines is larger than the valve installation length, plz adjust the space between pipelines, and don't force to stretch the valve to prevent the damage of valve.
4. Telescopic butterfly valve can be installed in any position. When it used as temperature compensation, brackets should be added both ends along the axis of the pipeline to prevent the telescopic tube of the valve extends after installing the pipeline (Figure 1). It's not allowed that disboarding the bracket under working. Holding power of brackets is calculated as below:

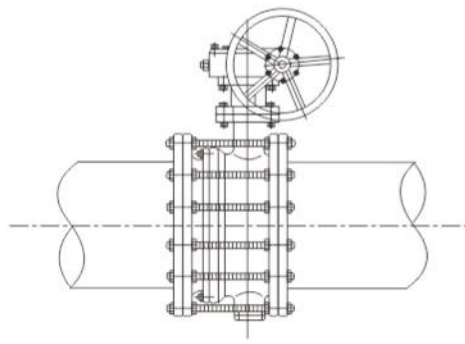
$$F > \frac{\pi}{4} PS \cdot DN^2 \cdot (kgf)$$

Note: PS stands for Pipe Test Pressure DN stands for Nominal Diameter

5. Telescopic butterfly valve can limit space through bolts when the valve is used as installation, valve-repairing and replacing. Clamp the telescopic butterfly valve tightly to prevent the stretch tube extending (Figure 2), and damaging the valve, pipe devices and buildings. Diameter of bolts can be calculated through upper formula according to the flange bolts' diameter and strength, affording test pressure and traction of pipeline. Disboarding bolts is not allowed under working (Equipped bolts).
6. It's not allowed that disboard the valve at live pipeline construction spot.
7. This product is processed minutely and working tightly, plz don't stretch the valve causally at the spot. Two flange flats is required parallel, and the both ends' pipeline of the valve should be concentric while installing the pipeline.
8. Fixed flange bolts should be symmetrically fastened, plz don't force to fasten the bolts on one side.
9. Telescopic tube should be installed as the back of the valve.
10. The stretch part of telescopic butterfly valve isn't allowed to install as the corner of the pipeline.

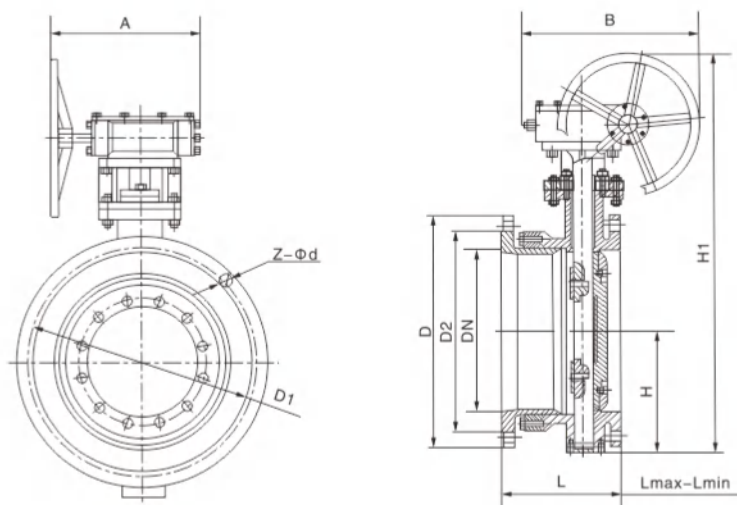


(图1)



(图2)

# ► 伸缩蝶阀 Telescopic Butterfly Valve



主要连接尺寸 Main Connection Dimensions

单位: Unit: mm

| 公称通径<br>Nominal<br>Diameter<br>(mm) |        | 外形尺寸 (参考值)<br>External Dimension(Consult) |      |                                            |                                            |                                   |      |     | 法兰尺寸和螺栓孔尺寸 (标准值)<br>Flange Dimension and Bolt Hole Dimension(Standard) |      |      |       |        |      |      |       |        |      |      |       |
|-------------------------------------|--------|-------------------------------------------|------|--------------------------------------------|--------------------------------------------|-----------------------------------|------|-----|------------------------------------------------------------------------|------|------|-------|--------|------|------|-------|--------|------|------|-------|
|                                     |        | H                                         | H1   | 设计<br>最大<br>长度<br>Design<br>Max.<br>Length | 设计<br>最小<br>长度<br>Design<br>Min.<br>Length | 设计<br>长度<br>L<br>Design<br>Length | A    | B   | 0.6MPa                                                                 |      |      |       | 1.0MPa |      |      |       | 1.6MPa |      |      |       |
|                                     |        |                                           |      |                                            |                                            |                                   |      |     | D                                                                      | D1   | D2   | Z-Φd  | D      | D1   | D2   | n-Φd  | D      | D1   | D2   | Z-Φd  |
| 50                                  | 2      | 80                                        | 309  | 186                                        | 156                                        | 171                               | 180  | 200 | 140                                                                    | 110  | 88   | 4-14  | 165    | 125  | 99   | 4-18  | 165    | 125  | 99   | 4-18  |
| 65                                  | 2 1/2" | 95                                        | 337  | 190                                        | 160                                        | 175                               | 180  | 200 | 160                                                                    | 130  | 108  | 4-14  | 185    | 145  | 118  | 4-18  | 185    | 145  | 118  | 4-18  |
| 80                                  | 3      | 98                                        | 347  | 198                                        | 166                                        | 182                               | 180  | 200 | 190                                                                    | 150  | 124  | 4-18  | 200    | 160  | 132  | 8-18  | 200    | 160  | 132  | 8-18  |
| 100                                 | 4      | 114                                       | 373  | 228                                        | 188                                        | 208                               | 180  | 200 | 210                                                                    | 170  | 144  | 4-18  | 220    | 180  | 156  | 8-18  | 220    | 180  | 156  | 8-18  |
| 125                                 | 5      | 128                                       | 405  | 240                                        | 201                                        | 220                               | 180  | 200 | 240                                                                    | 200  | 174  | 8-18  | 250    | 210  | 184  | 8-18  | 250    | 210  | 184  | 8-18  |
| 150                                 | 6      | 139                                       | 440  | 246                                        | 206                                        | 226                               | 270  | 280 | 265                                                                    | 225  | 199  | 8-18  | 285    | 240  | 211  | 8-22  | 285    | 240  | 211  | 8-22  |
| 200                                 | 8      | 174                                       | 612  | 265                                        | 219                                        | 242                               | 400  | 425 | 320                                                                    | 280  | 254  | 8-18  | 340    | 295  | 266  | 8-22  | 340    | 295  | 266  | 12-22 |
| 250                                 | 10     | 215                                       | 693  | 295                                        | 240                                        | 267                               | 400  | 425 | 375                                                                    | 335  | 309  | 12-18 | 395    | 350  | 319  | 12-22 | 405    | 355  | 319  | 12-26 |
| 300                                 | 12     | 245                                       | 747  | 308                                        | 254                                        | 282                               | 450  | 560 | 440                                                                    | 395  | 363  | 12-22 | 445    | 400  | 370  | 12-22 | 460    | 410  | 370  | 12-26 |
| 350                                 | 14     | 270                                       | 802  | 327                                        | 272                                        | 300                               | 450  | 560 | 490                                                                    | 445  | 413  | 12-22 | 505    | 460  | 429  | 16-22 | 520    | 470  | 429  | 16-26 |
| 400                                 | 16     | 305                                       | 991  | 368                                        | 308                                        | 338                               | 535  | 580 | 540                                                                    | 495  | 463  | 16-22 | 565    | 515  | 480  | 16-26 | 580    | 525  | 480  | 16-30 |
| 450                                 | 18     | 325                                       | 1037 | 370                                        | 310                                        | 340                               | 535  | 580 | 595                                                                    | 550  | 518  | 16-22 | 615    | 565  | 530  | 20-26 | 640    | 585  | 548  | 20-30 |
| 500                                 | 20     | 360                                       | 1127 | 392                                        | 332                                        | 362                               | 535  | 580 | 645                                                                    | 600  | 568  | 20-22 | 670    | 620  | 582  | 20-26 | 715    | 650  | 609  | 20-33 |
| 600                                 | 24     | 445                                       | 1377 | 441                                        | 375                                        | 408                               | 570  | 660 | 755                                                                    | 705  | 667  | 20-26 | 780    | 725  | 682  | 20-30 | 840    | 770  | 720  | 20-36 |
| 700                                 | 28     | 505                                       | 1496 | 460                                        | 400                                        | 430                               | 750  | 550 | 860                                                                    | 810  | 772  | 24-26 | 895    | 840  | 794  | 24-30 | 910    | 840  | 794  | 24-36 |
| 800                                 | 32     | 560                                       | 1584 | 499                                        | 445                                        | 475                               | 750  | 550 | 975                                                                    | 920  | 878  | 24-30 | 1015   | 950  | 901  | 24-33 | 1025   | 950  | 901  | 24-39 |
| 900                                 | 36     | 630                                       | 1676 | 520                                        | 460                                        | 490                               | 750  | 550 | 1075                                                                   | 1020 | 978  | 24-30 | 1115   | 1050 | 1001 | 28-33 | 1125   | 1050 | 1001 | 28-39 |
| 1000                                | 40     | 680                                       | 1760 | 600                                        | 530                                        | 565                               | 900  | 750 | 1175                                                                   | 1120 | 1078 | 28-30 | 1230   | 1160 | 1112 | 28-36 | 1255   | 1170 | 1112 | 28-42 |
| 1200                                | 48     | 795                                       | 2018 | 675                                        | 571                                        | 623                               | 1000 | 925 | 1405                                                                   | 1340 | 1295 | 32-33 | 1455   | 1380 | 1328 | 32-39 | 1485   | 1390 | 1328 | 32-48 |
| 1400                                | 56     | 900                                       | 2363 | 760                                        | 683                                        | 722                               | 1000 | 925 | 1630                                                                   | 1560 | 1510 | 36-36 | 1675   | 1590 | 1530 | 36-42 | 1685   | 1590 | 1530 | 36-48 |
| 1600                                | 64     | 1100                                      | 2723 | 860                                        | 770                                        | 815                               | 1000 | 925 | 1830                                                                   | 1760 | 1710 | 40-36 | 1915   | 1820 | 1750 | 40-48 | 1930   | 1820 | 1750 | 40-56 |
| 1800                                | 72     | 1124                                      | 2844 | 930                                        | 830                                        | 880                               | 1100 | 980 | 2045                                                                   | 1970 | 1718 | 44-39 | 2115   | 2020 | 1950 | 44-48 | 2130   | 2020 | 1950 | 44-56 |
| 2000                                | 80     | 1292                                      | 3127 | 1020                                       | 920                                        | 970                               | 1100 | 980 | 2265                                                                   | 2180 | 2125 | 48-42 | 2325   | 2230 | 2150 | 48-48 | 2345   | 2230 | 2150 | 48-62 |

## ► 通风蝶阀 Aeration Butterfly Valve



### 用途及特点 Uses And Characteristics

通风蝶阀采用与阀体相同材料加工成密封圈，其适用温度随阀体选材而定，公称压力 $\leq 0.6\text{MPa}$ ，一般适用于工业、冶金、环保等管道作通风调节介质流量之用。其主要特点为：

- 1、设计新颖、合理、结构独特，重量轻，启闭迅速。
- 2、操作力矩小，操作方便，省力灵巧。
- 3、采用适应的材料以满足低、中、高不同介质温度及其腐蚀性介质等。

Aeration butterfly valve adopts the material same to body to process the seal ring. Applicable temperature is up to the body material, Nominal pressure  $\leq 0.6\text{ Mpa}$ , usually used as aeration and adjusting medium and flow in the pipe of various industries such as environmental protection, metallurgy and industry, etc.

Products' characteristics:

1. Neoteric design, reasonable and unique structure, light weight, and quick closing and opening.
2. Small torque, convenient and smart operation and labor-saving.
3. Adopting applicable material to satisfy different media temperature of low, middle and high grade and corrosive medium.

### 采用标准 Adoption Standard

设计标准 Design Standard: GB/T12238-1989 JB/T8692-1998

法兰连接尺寸 Flange Connection Dimension: GB/T9115.1-2000

结构长度 Face to Face Dimension: GB/T12221-1989

压力试验 Pressure Test: GB/T13927-1992; JB/T9092-1999

### 主要技术参数 Main Technology Parameter

|                               |                                                           |                    |       |     |
|-------------------------------|-----------------------------------------------------------|--------------------|-------|-----|
| 公称通径 Nominal Diameter         | DN(mm)                                                    | 50 ~ 2000          |       |     |
| 公称压力 Nominal Pressure         | PN(MPa)                                                   | 0.05               | 0.25  | 0.6 |
| 试验压力 PS(MPa)<br>Test Pressure | 强度试验 Strength Test                                        | 0.075              | 0.375 | 0.9 |
|                               | 密封试验 Seal Test                                            | ≤ 1.5% 泄漏量 Leakage |       |     |
| 适用介质 Applicable Media         | 煤气、含尘气体、烟道气等。 Coal Gas, Gas Containing Dust, Flue Gas     |                    |       |     |
| 驱动形式 Operation                | 手动、蜗杆蜗轮传动、气传动、电传动。 Manual, Worm Gear, Pneumatic, Electric |                    |       |     |

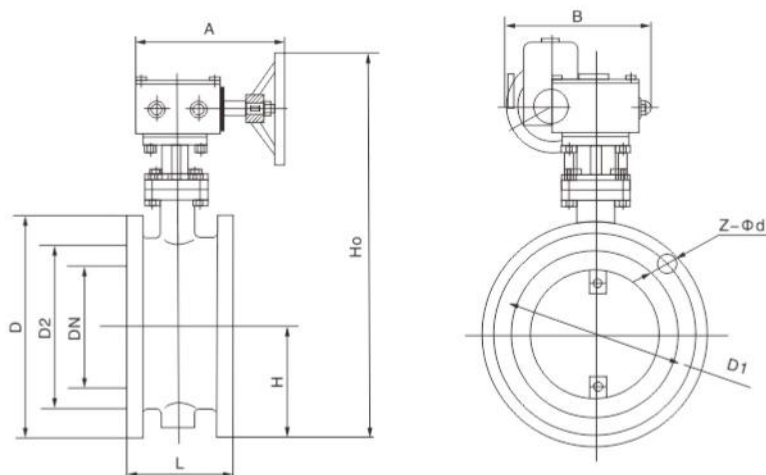
### 主要零件材质 Material for Main Parts

| 零件名称 Parts name  | 材料 Material                                                                                                  |
|------------------|--------------------------------------------------------------------------------------------------------------|
| 阀体 Body          | 铸钢、不锈钢、铬镍钼钛钢、铬钼钛钢等特殊材料<br>Cast steel, stainless steel, Cr.Ni.Mo.Ti Steel, Cr.Mo.Ti Steel and ad hoc material |
| 蝶板 Disc          | 铸钢、不锈钢、铬镍钼钛钢、铬钼钛钢等特殊材料<br>Cast steel, stainless steel, Cr.Ni.Mo.Ti Steel, Cr.Mo.Ti Steel and ad hoc material |
| 密封圈 Sealing Ring | 与阀体相同 Same as Body of Valve                                                                                  |
| 阀杆 Stem          | 碳钢、2Cr13、不锈钢、铬镍钼钛钢 Carbon Steel, 2Cr13, Stainless Steel, Cr.Ni.Mo.Ti steel                                   |
| 填料 Packing       | 氟塑料、柔性石墨 Fluorine plastic, flexible graphite                                                                 |

### 蝶阀密封材料选用和适用温度 Butterfly Valve Seal Material Choice and Appropriate Temperature

| 材料品种<br>Material Variety              | 碳素钢<br>Cast Steel        | 低温碳钢<br>Cryogenic<br>Cast Steel | 合金钢<br>Alloy Steel       |                          | 奥氏体不锈钢<br>Austenitic Stainless Steel | 铬钼钢<br>Chrome-<br>molybdenum Steel |
|---------------------------------------|--------------------------|---------------------------------|--------------------------|--------------------------|--------------------------------------|------------------------------------|
| 代号 Code Name                          | WCB                      | LCB                             | WC6或orWC9                | C5或orC12                 | 铬Cr-18型type、304、316                  | 12CrMoV                            |
| 耐最高温度<br>Max. Enduring Temperature    | 425℃                     | 345℃                            | 595℃                     | 650℃                     | 600℃                                 | 560℃                               |
| 耐最低温度<br>Min. Enduring Temperature    | -29℃                     | -46℃                            | -29℃                     | -29℃                     | -196℃                                | -40℃                               |
| 适用工作温度<br>Applicable Work Temperature | $\leq 425^\circ\text{C}$ | $\leq 345^\circ\text{C}$        | $\leq 595^\circ\text{C}$ | $\leq 650^\circ\text{C}$ | $\leq 600^\circ\text{C}$             | $\leq 560^\circ\text{C}$           |

# ► 通风蝶阀 Aeration Butterfly Valve

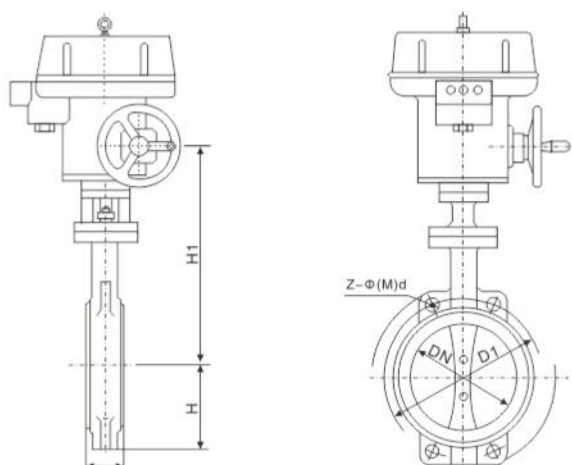


主要连接尺寸 Main Connection Dimensions

单位: Unit: mm

| 公称通径<br>Nominal<br>Diameter<br>(mm) |        | 结构长度(标准值)<br>Face to Face<br>Dimension<br>(Standard) | 外形尺寸(参考值)<br>External Dimension(Consult) |      |     |      | 连接尺寸(标准值)<br>Connection Dimension(Standard) |      |       |        |      |       |
|-------------------------------------|--------|------------------------------------------------------|------------------------------------------|------|-----|------|---------------------------------------------|------|-------|--------|------|-------|
|                                     |        |                                                      |                                          |      |     |      | 0.05MPa和0.25MPa                             |      |       | 0.6MPa |      |       |
| mm                                  | inch   | L                                                    | H                                        | H0   | A   | B    | D                                           | D1   | Z-Φd  | D      | D1   | Z-Φd  |
| 50                                  | 2      | 108                                                  | 70                                       | 418  | 250 | 225  | 140                                         | 110  | 4-14  | 140    | 110  | 4-14  |
| 65                                  | 2 1/2" | 112                                                  | 80                                       | 438  | 250 | 225  | 160                                         | 130  | 4-14  | 160    | 130  | 4-14  |
| 80                                  | 3      | 114                                                  | 95                                       | 466  | 250 | 225  | 190                                         | 150  | 4-18  | 190    | 150  | 4-18  |
| 100                                 | 4      | 127                                                  | 105                                      | 486  | 250 | 225  | 210                                         | 170  | 4-18  | 210    | 170  | 4-18  |
| 125                                 | 5      | 140                                                  | 120                                      | 516  | 325 | 245  | 240                                         | 200  | 8-18  | 240    | 200  | 8-18  |
| 150                                 | 6      | 140                                                  | 132                                      | 541  | 325 | 245  | 265                                         | 225  | 8-18  | 265    | 225  | 8-18  |
| 200                                 | 8      | 152                                                  | 160                                      | 779  | 325 | 245  | 320                                         | 280  | 8-18  | 320    | 280  | 8-18  |
| 250                                 | 10     | 165                                                  | 187                                      | 836  | 363 | 313  | 375                                         | 335  | 12-18 | 375    | 335  | 12-18 |
| 300                                 | 12     | 178                                                  | 220                                      | 901  | 363 | 313  | 440                                         | 395  | 12-22 | 440    | 395  | 12-22 |
| 350                                 | 14     | 190                                                  | 245                                      | 954  | 363 | 313  | 490                                         | 445  | 12-12 | 490    | 445  | 12-22 |
| 400                                 | 16     | 216                                                  | 270                                      | 1003 | 363 | 313  | 540                                         | 495  | 16-22 | 540    | 495  | 16-22 |
| 450                                 | 18     | 222                                                  | 297                                      | 1058 | 465 | 439  | 595                                         | 550  | 16-22 | 595    | 550  | 16-22 |
| 500                                 | 20     | 229                                                  | 322                                      | 1111 | 546 | 556  | 645                                         | 600  | 20-22 | 645    | 600  | 20-22 |
| 600                                 | 24     | 267                                                  | 377                                      | 1233 | 546 | 556  | 755                                         | 705  | 20-26 | 755    | 705  | 20-26 |
| 700                                 | 28     | 292                                                  | 430                                      | 1338 | 546 | 556  | 860                                         | 810  | 24-26 | 860    | 810  | 24-26 |
| 800                                 | 32     | 318                                                  | 487                                      | 1452 | 546 | 556  | 975                                         | 920  | 24-30 | 975    | 920  | 24-30 |
| 900                                 | 36     | 330                                                  | 537                                      | 1588 | 632 | 706  | 1075                                        | 1020 | 24-30 | 1075   | 1020 | 24-30 |
| 1000                                | 40     | 410                                                  | 587                                      | 1689 | 632 | 706  | 1175                                        | 1120 | 28-30 | 1175   | 1120 | 28-30 |
| 1200                                | 48     | 470                                                  | 702                                      | 1938 | 632 | 706  | 1375                                        | 1320 | 32-30 | 1405   | 1340 | 32-33 |
| 1400                                | 56     | 530                                                  | 782                                      | 2670 | 790 | 1338 | 1575                                        | 1520 | 36-30 | 1630   | 1560 | 36-36 |
| 1600                                | 64     | 600                                                  | 895                                      | 2810 | 868 | 1476 | 1790                                        | 1730 | 40-30 | 1830   | 1760 | 40-36 |
| 1800                                | 72     | 670                                                  | 995                                      | 3020 | 868 | 1476 | 1990                                        | 1930 | 44-30 | 2045   | 1970 | 44-39 |
| 2000                                | 80     | 760                                                  | 1095                                     | 3220 | 965 | 1600 | 2190                                        | 2130 | 48-30 | 2265   | 2180 | 48-42 |

# ► 对夹式软密封蝶阀 Wafer Soft Seated Butterfly Valve

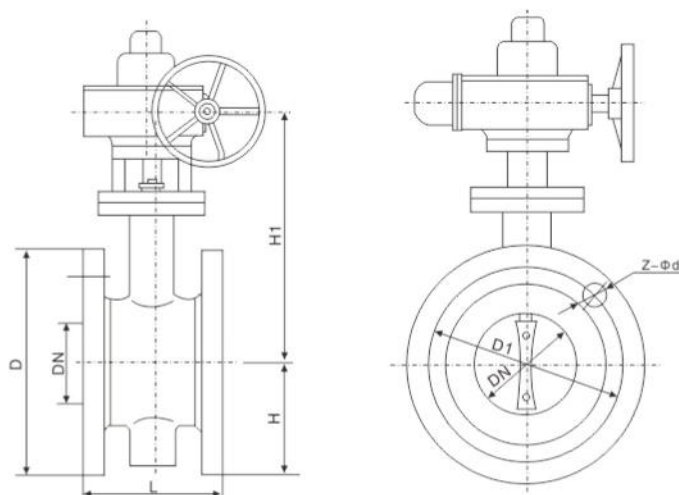


主要连接尺寸 Main Connection Dimensions

单位: Unit: mm

| 公称通径<br>Nominal Diameter |        | 主要尺寸<br>Main Dimension |     |     | 0.25MPa~0.6MPa |         |         | 1.0MPa |         |         | 1.6MPa |         |         |
|--------------------------|--------|------------------------|-----|-----|----------------|---------|---------|--------|---------|---------|--------|---------|---------|
| mm                       | inch   | L                      | H   | H1  | D1             | Z-Φ(M)d | a       | D1     | Z-Φ(M)d | a       | D1     | Z-Φ(M)d | a       |
| D71、D371、D671、D971(X.J)  |        |                        |     |     |                |         |         |        |         |         |        |         |         |
| 50                       | 2      | 43                     | 80  | 160 | 110            | 4-14    | 45°     | 125    | 4-18    | 45°     | 125    | 4-18    | 45°     |
| 65                       | 2 1/2" | 46                     | 88  | 175 | 130            | 4-14    | 45°     | 145    | 4-18    | 45°     | 145    | 4-18    | 45°     |
| 80                       | 3      | 46                     | 96  | 180 | 150            | 4-18    | 22° 30' | 160    | 4-18    | 22° 30' | 160    | 4-18    | 22° 30' |
| 100                      | 4      | 52                     | 115 | 200 | 170            | 4-18    | 22° 30' | 180    | 4-18    | 22° 30' | 180    | 4-18    | 22° 30' |
| 125                      | 5      | 56                     | 125 | 213 | 200            | 4-18    | 22° 30' | 210    | 4-18    | 22° 30' | 210    | 4-18    | 22° 30' |
| 150                      | 6      | 56                     | 140 | 225 | 225            | 4-18    | 22° 30' | 240    | 4-23    | 22° 30' | 240    | 4-23    | 22° 30' |
| 200                      | 8      | 60                     | 175 | 260 | 280            | 4-18    | 22° 30' | 295    | 4-23    | 22° 30' | 295    | 4-23    | 15°     |
| 250                      | 10     | 68                     | 202 | 290 | 335            | 4-18    | 15°     | 350    | 4-23    | 15°     | 355    | 4-25    | 15°     |
| 300                      | 12     | 78                     | 242 | 330 | 395            | 4-23    | 15°     | 400    | 4-23    | 15°     | 410    | 4-25    | 15°     |
| 350                      | 14     | 78                     | 266 | 360 | 445            | 4-23    | 11° 15' | 460    | 4-23    | 11° 15' | 470    | 4-25    | 11° 15' |
| 400                      | 16     | 102                    | 298 | 390 | 495            | 4-23    | 11° 15' | 515    | 4-25    | 11° 15' | 525    | 4-30    | 11° 15' |
| 450                      | 18     | 114                    | 315 | 710 | 550            | 4-23    | 9°      | 565    | 4-25    | 9°      | 585    | 4-30    | 9°      |
| 500                      | 20     | 127                    | 348 | 430 | 600            | 4-23    | 9°      | 620    | 4-25    | 9°      | 650    | 4-34    | 9°      |
| 600                      | 24     | 154                    | 400 | 490 | 705            | 4-25    | 9°      | 725    | 4-30    | 9°      | 770    | 4-41    | 9°      |
| 700                      | 28     | 165                    | 520 | 550 | 810            | 4-25    | 7° 30'  | 840    | 4-M27   | 7° 30'  | 840    | 4-M36   | 7° 30'  |
| 800                      | 32     | 190                    | 591 | 610 | 920            | 4-30    | 7° 30'  | 950    | 4-M30   | 7° 30'  | 950    | 4-M36   | 7° 30'  |
| 900                      | 36     | 203                    | 660 | 680 | 1020           | 4-M27   | 6° 26'  | 1050   | 4-M30   | 6° 26'  | 1050   | 4-M36   | 6° 26'  |
| 1000                     | 40     | 216                    | 670 | 730 | 1120           | 4-M27   | 6° 26'  | 1160   | 4-M30   | 6° 26'  | 1170   | 4-M42   | 6° 26'  |
| 1200                     | 48     | 254                    | 780 | 835 | 1340           | 4-M30   | 5° 38'  | 1380   | 4-M36   | 5° 38'  | 1390   | 4-M45   | 5° 38'  |
| 1400                     | 56     | 279                    | 950 | 985 | 1560           | 4-M33   | -       | -      | -       | -       | -      | -       | -       |

# ► 法兰软密封蝶阀 Flange Soft Seated Butterfly Valve



主要连接尺寸 Main Connection Dimensions

单位: Unit: mm

| 公称通径<br>Nominal Diameter |      | 主要尺寸<br>Main Dimension |      |      | 0.25MPa~0.6MPa |              |                | 1.0MPa |      |       | 1.6MPa |      |       |
|--------------------------|------|------------------------|------|------|----------------|--------------|----------------|--------|------|-------|--------|------|-------|
| mm                       | inch | L                      | H    | H1   | D              | D1           | Z-Φd           | D      | D1   | Z-Φd  | D      | D1   | Z-Φd  |
| D41、D341、D641、D941(X.J)  |      |                        |      |      |                |              |                |        |      |       |        |      |       |
| 80                       | 3    | 114                    | 115  | 235  | 185            | 150          | 4-18           | 195    | 160  | 4-18  | 195    | 160  | 8-18  |
| 100                      | 4    | 127                    | 120  | 240  | 205            | 170          | 4-18           | 215    | 180  | 8-18  | 215    | 180  | 8-18  |
| 125                      | 5    | 140                    | 130  | 270  | 235            | 200          | 8-18           | 245    | 210  | 8-18  | 245    | 210  | 8-18  |
| 150                      | 6    | 140                    | 150  | 300  | 260            | 225          | 8-18           | 280    | 240  | 8-23  | 280    | 240  | 8-23  |
| 200                      | 8    | 152                    | 180  | 300  | 315            | 280          | 8-18           | 335    | 295  | 8-23  | 335    | 295  | 12-23 |
| 250                      | 10   | 250                    | 220  | 400  | 370            | 335          | 12-18          | 390    | 350  | 12-23 | 405    | 355  | 12-25 |
| 300                      | 12   | 270                    | 250  | 410  | 435            | 395          | 12-23          | 440    | 400  | 12-23 | 460    | 410  | 12-25 |
| 350                      | 14   | 290                    | 270  | 460  | 485            | 445          | 12-23          | 500    | 460  | 16-23 | 520    | 470  | 16-25 |
| 400                      | 16   | 310                    | 290  | 510  | 535            | 495          | 16-23          | 565    | 515  | 16-25 | 585    | 525  | 16-30 |
| 450                      | 18   | 330                    | 320  | 560  | 590            | 550          | 20-23          | 615    | 565  | 20-25 | 640    | 585  | 20-30 |
| 500                      | 20   | 350                    | 360  | 590  | 640            | 600          | 20-23          | 670    | 620  | 20-25 | 705    | 650  | 20-34 |
| 600                      | 24   | 390                    | 390  | 660  | 755            | 705          | 20-25          | 780    | 725  | 20-30 | 840    | 770  | 20-41 |
| 700                      | 28   | 430                    | 460  | 780  | 860            | 810          | 24-25          | 895    | 840  | 24-30 | 910    | 840  | 24-41 |
| 800                      | 32   | 470                    | 530  | 850  | 975            | 920          | 24-30          | 1010   | 950  | 24-34 | 1020   | 950  | 24-41 |
| 900                      | 36   | 510                    | 570  | 920  | 1075           | 1020         | 24-30          | 1110   | 1050 | 28-34 | 1120   | 1050 | 28-41 |
| 1000                     | 40   | 550                    | 630  | 990  | 1175           | 1120         | 28-30          | 1220   | 1160 | 28-34 | 1255   | 1170 | 28-48 |
| 1200                     | 48   | 630                    | 750  | 1115 | 1400<br>1375   | 1340<br>1320 | 32-34<br>32-30 | 1450   | 1380 | 32-41 | 1485   | 1390 | 32-54 |
| 1400                     | 56   | 710                    | 850  | 1228 | 1620<br>1575   | 1560<br>1520 | 36-34<br>36-30 | 1675   | 1590 | 36-48 | -      | -    | -     |
| 1600                     | 64   | 790                    | 990  | 1340 | 1820<br>1785   | 1760<br>1730 | 40-34<br>40-30 | 1915   | 1820 | 40-54 | -      | -    | -     |
| 1800                     | 72   | 870                    | 1100 | 1570 | 2045<br>1985   | 1970<br>1930 | 44-41<br>44-30 | 2115   | 2020 | 44-54 | -      | -    | -     |
| 2000                     | 80   | 950                    | 1170 | 1680 | 2265<br>2185   | 2180<br>2130 | 48-48<br>48-30 | 2325   | 2230 | 46-54 | -      | -    | -     |

# ► 高性能蝶阀 High Performance Butterfly Valve



## 高性能蝶阀（对夹式） High Performance Butterfly valve (Wafer Type)

一般的高性能蝶阀为单偏心或双偏心结构。双偏心结构是在设计时将阀轴偏离密封面中线，形成第一个偏心；轴稍稍离管路中心线，形成第二个偏心，偏心的目的在于使蝶阀开至大约20°之后，阀座与密封圈之间脱离，从而减少摩擦。

High performance butterfly valve usually adopts single eccentric or double eccentric structure. The first eccentricity is that shaft deviates from centerline of sealing surface. The second eccentricity is that shaft deviates from centreline of the pipe. Eccentricity aims to reduce the friction between the seal ring and seat after the valve opens to 20°.

软密封阀座选用TFE、PTFE、RTFE，防火结构符合API607的火烧试验，在发生火灾时具有密封能力。

硬密封结构具有本质的防火能力，可保持双向无泄漏。可在不拆蝶阀、阀杆的情况下更换阀座，上下阀杆处设有低摩擦系数的轴套，减少了阀门启闭时阀杆的摩擦力。

双偏心的设计结构，减少了开启频繁的密封副上下两端的磨损

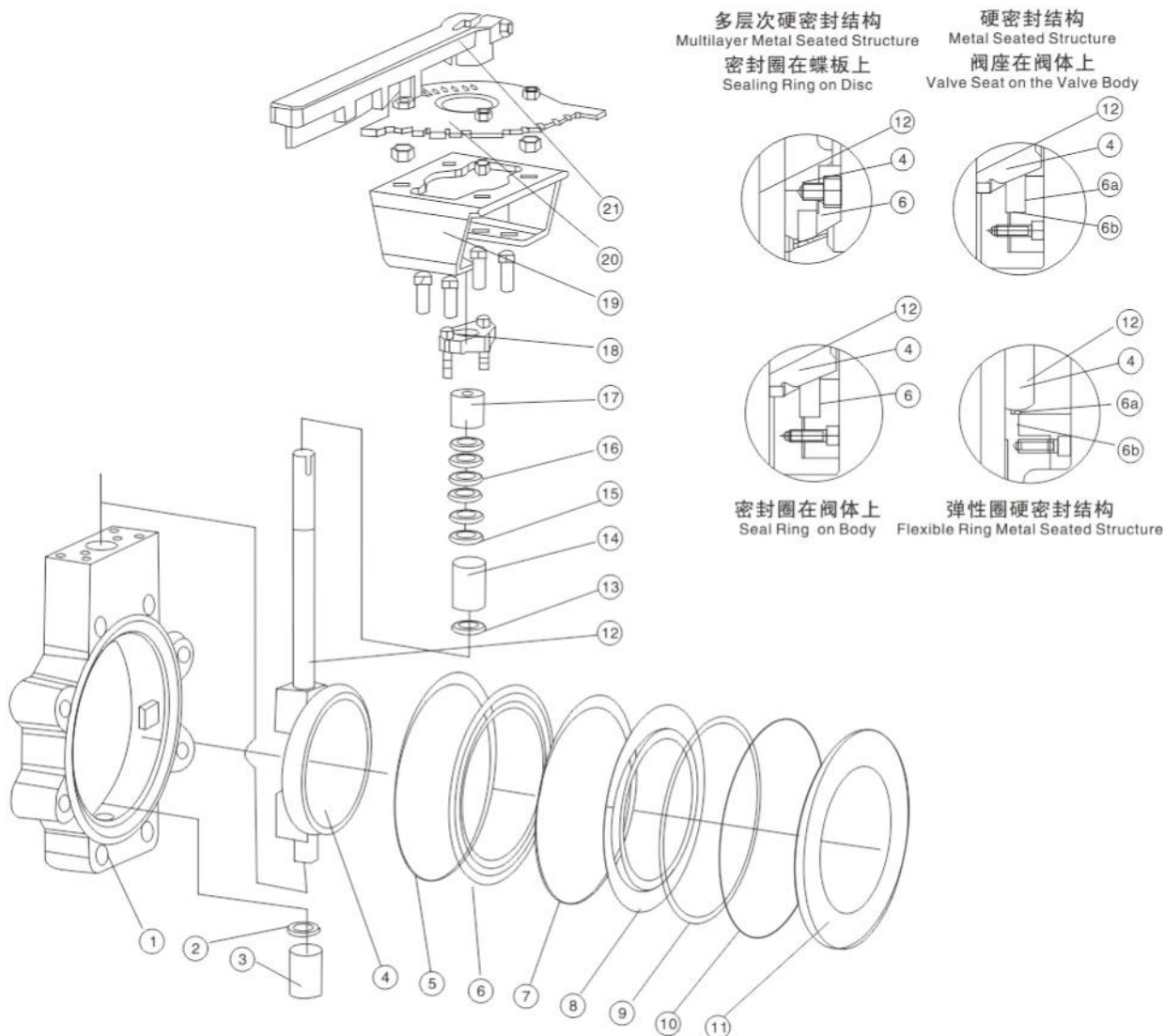
阀门与驱动装置接口符合ISO5211，产品质量严格按ISO5211进行控制。

Soft seat which adopts TFE, PTFE and RTFE, also has good sealing when the fire occurs, because fireproof structure suits for the fire test according to API607.

Metal Sealing structure has the entitative fireproof ability, it can assure the zero leakage of bidirection. Seat can be replaced when the shaft and the disc aren't dismantled. There's no low friction coefficient bush bearing at up and bottom shafts, so the friction is reduced when the valve is opening and closing.

Double eccentric structure decreases the damage of secondary sealing when the valve is opening or closing frequently.

The interface of the valve and the driving mechanism is suitable for ISO5211, and the quality of product is controlled seriously according to ISO5211.



# ► 高性能蝶阀 High Performance Butterfly Valve



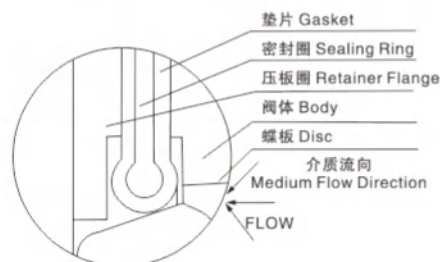
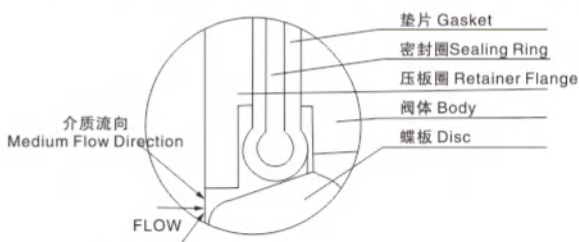
## 阀座密封原理 Sealing Principle of Seat

1、蝶板处于关闭状态，介质从阀座上游进入，在介质力的作用下，密封圈紧贴蝶板密封面，由于密封圈的弹性和变形作用，保证密封副的密封。

2、蝶板处于关闭状态，介质从阀座下游进入，在压板上下挤压下，密封圈克服介质的作用力，紧贴蝶板密封面，保证密封副的密封。

1.The disc is under closing, media enters from the upstream of seat, as media's action of force, seal ring clings to seal surface because of seal ring's resilience and deformation effect to assure the secondary has a good sealing.

2.The disc is under closing, media enters from the downstream of seat, as pressure plate extrudes up and down, seal ring covers the media's force action, and clings to the seal surface to assure the secondary has a good sealing.



## 主要零件材质 Material for Main Parts

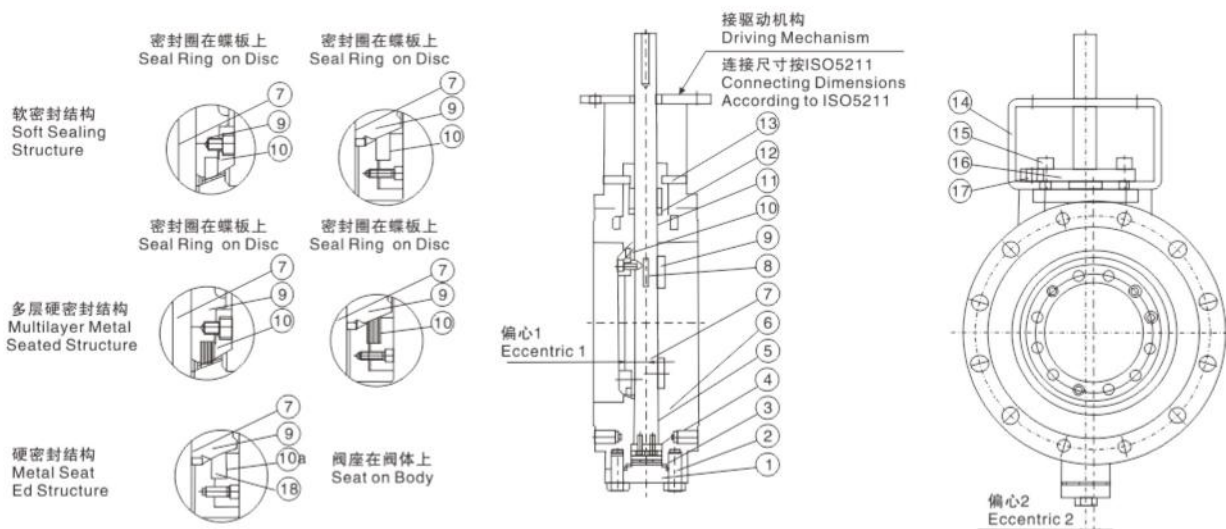
| 序号 NO. | 零件名称 Part Name          | 材料 Material            | 可选材料 Optional Materials        |
|--------|-------------------------|------------------------|--------------------------------|
| 1      | 阀体 Body                 | 铸钢 Cast steel          | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 2      | 调整垫A Adjusting pad A    | 不锈钢 Stainless steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 3      | 下轴套 Bottom Bushing      | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self lubricating Brass   |
| 4      | 蝶板 Disc                 | 铸钢 Cast Steel          | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 5      | 垫片 Gasket               |                        |                                |
| 6      | 密封圈 Seal Ring           | PTFE/PTFE+SS           | SS+柔性石墨 SS+Flexible graphite   |
| 6a     | 阀座 Seat                 | 碳钢 Carbon steel+13Cr   | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 6b     | 垫片 Gasket               | 柔性石墨 Flexible graphite |                                |
| 6c     | 密封圈 Sealing ring        | 不锈钢 Stainless Steel    | -                              |
| 6d     | 垫片 Gasket               | 柔性石墨 Flexible Graphite |                                |
| 7      | 垫片 Gasket               | 柔性石墨 Flexible Graphite |                                |
| 8      | 防火圈 Fire Safe Ring      | 不锈钢 Stainless Steel    | -                              |
| 9      | 垫片 Gasket               | 柔性石墨 Flexible Graphite |                                |
| 10     | 挡圈 Ring                 | NBR                    | FPM                            |
| 11     | 压板圈 Retainer Flange     | 碳钢 Carbon Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 12     | 阀杆 Stem                 | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 13     | 调整垫 Adjusting Pad       | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 14     | 上轴套 Upper Bushing       | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self lubricating brass   |
| 15     | 填料垫 Packing             | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel |
| 16     | 填料 Packing              | 柔性石墨 Flexible graphite | PTFE                           |
| 17     | 填料压套 Packing Gland      | 碳钢 Carbon steel        | 不锈钢 Stainless Steel            |
| 18     | 填料压板 Packing Plate      | 不锈钢 Stainless steel    | 不锈钢 Stainless Steel            |
| 19     | 连接支架 Connecting Bracket | 碳钢 Carbon steel        | -                              |
| 20     | 限位板 Limit Plate         | 碳钢 Carbon steel        | 不锈钢 Stainless Steel            |
| 21     | 手柄 Handle               | 碳钢 Carbon steel        | -                              |

提示：1、壳体材料压力温度等级表见附录F  
2、壳体材料化学成分及力学性能见附录G  
3、内件材料及推荐服务范围见附录E

Tips: 1, shell material pressure temperature rating table in Appendix F  
2, the material chemical composition and mechanical properties of the shell see Appendix G  
3, in a range of materials and services recommended in Appendix E

# 高性能蝶阀

## High Performance Butterfly Valve



### 主要连接尺寸 Main Connection Dimensions

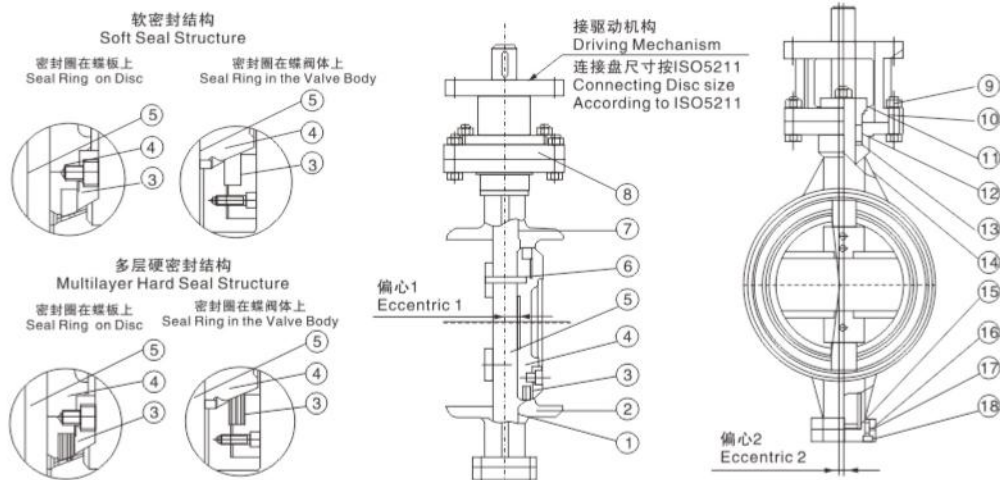
单位: Unit: mm

| 序号 NO. | 零件名称 Part Name          | 材料 Material Science    | 可选材料 Optional Materials              |
|--------|-------------------------|------------------------|--------------------------------------|
| 1      | 底盖 Bottom Cover         | 碳钢 Carbon Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 2      | 螺栓 Bolt                 | 合金钢 Alloy Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 3      | 垫片 Gasket               | 柔性石墨 Flexible Graphite |                                      |
| 4      | 调整垫 Adjusting Pad       | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 5      | 下轴套 Down Bushing        | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self lubricating Brass         |
| 6      | 阀体 Body                 | 铸钢 Cast Steel          | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 7      | 阀杆 Stem                 | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 8      | 键 Key                   | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 9      | 蝶板 Disc                 | 铸钢 Cast Steel          | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 10     | 密封圈 Sealing Ring        | PTFE/PTFE+SS           | MBR/SS+柔性石墨 MBR/SS+Flexible Graphite |
| 10a    | 阀座 Seat                 | 碳钢 Carbon steel+13Cr   | 不锈钢、蒙乃尔 Stainless steel, Monel       |
| 11     | 上轴套 Upper Bushing       | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self lubricating Brass         |
| 12     | 填料垫 Packing             | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 13     | 填料 Packing              | 柔性石墨 Flexible Graphite | PTFE                                 |
| 14     | 连接支架 Connecting Bracket | 碳钢 Carbon Steel        | -                                    |
| 15     | 螺栓 Bolt                 | 合金钢 Alloy Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 16     | 填料压板 Packing Plate      | 碳钢 Carbon Steel        | 不锈钢 Stainless Steel                  |
| 17     | 螺栓 Bolt                 | 合金钢 Alloy Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 18     | 垫片 Gasket               | 柔性石墨 Flexible Graphite |                                      |

提示: 1、壳体材料压力温度等级表见附录F  
2、壳体材料化学成分及力学性能见附录G  
3、内件材料及推荐服务范围见附录E

Note: 1. The class of valve body's material pressure and temperature on Appendix F.  
2. The chemical composition and mechanical property of valve body on Appendix G.  
3. Trim material and supplying service range on Appendix E.

# 高性能蝶阀 High Performance Butterfly Valve



## 主要连接尺寸 Main Connection Dimensions

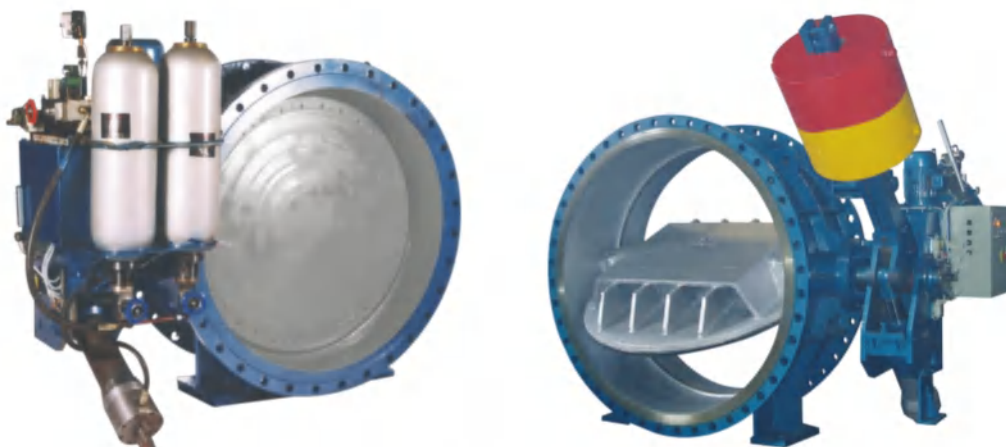
单位: Unit: mm

| 序号 NO. | 零件名称 Part name          | 材料 Material Science    | 可选材料 Optional Materials              |
|--------|-------------------------|------------------------|--------------------------------------|
| 1      | 下轴套 Down Bushing        | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self lubricating Brass         |
| 2      | 阀体 Body                 | 铸钢 Cast Steel          | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 3      | 密封圈 Seal Ring           | 聚四氟乙烯+黄铜 PTFE + Brass  | MBR/SS+柔性石墨 MBR/SS+Flexible Graphite |
| 4      | 蝶板 Disc                 | 铸钢 Cast Steel          | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 5      | 阀杆 Stem                 | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 6      | 销 Pin                   | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 7      | 上轴套 Upper Bushing       | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self Lubricating Brass         |
| 8      | 连接支架 Connecting Bracket | 碳钢 Carbon Steel        | -                                    |
| 9      | 螺母 Nut                  | 碳钢 Carbon Steel        | 合金钢 Alloy Steel                      |
| 10     | 螺栓 Bolt                 | 合金钢 Alloy Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 11     | 填料压板 Packing Plate      | 碳钢 Carbon Steel        | 不锈钢 Stainless Steel                  |
| 12     | 填料 Packing              | 柔性石墨 Flexible Graphite | PTFE                                 |
| 13     | 填料垫 Packing Gasket      | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 14     | 上轴套 Upper Bushing       | 聚四氟乙烯+黄铜 PTFE + Brass  | 自润滑黄铜 Self Lubricating Brass         |
| 15     | 对开圆环 Cutting Ring       | 不锈钢 Stainless Steel    | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 16     | 螺栓 Bolt                 | 合金钢 Alloy Steel        | 不锈钢、蒙乃尔 Stainless Steel, Monel       |
| 17     | 垫片 Gasket               | 柔性石墨 Flexible Graphite |                                      |
| 18     | 底盖 Bottom Cover         | 碳钢 Carbon Steel        | 不锈钢 Stainless Steel                  |

提示: 1、壳体材料压力温度等级见附录F  
2、壳体材料化学成分及力学性能见附录G  
3、内件材料及推荐服务范围见附录E

Note: 1. The class of valve body's material pressure and temperature on Appendix F.  
2. The chemical composition and mechanical property of valve body on Appendix G.  
3. Trim material and supplying service range on Appendix E.

## ► 流控蝶阀 Hydraulic Control Butterfly Valve



HBD7(B、S、X、XS)41X(H)

### 用途及特点 Uses And Characteristics

液控缓闭止回蝶阀是目前国内外较先进的管理控制设备，主要安装于水电站水轮机进口，用作水轮机进口阀；或安装于水利、电力、给排水等各类泵站的水泵出口，替代止回阀和闸阀的功能。工作时，阀门与管道主机配合，按照水力过渡过程原理，通过预设的启闭程序，有效消除管路水锤，实现管路的可靠截止，起到保护管路系统安全的作用。

本公司生产的液控缓闭止回蝶阀流阻系数小、智能化程度高、功能齐全、性能稳定可靠，是我公司设计人员在广泛搜集、研究、总结国内外同类产品性能的基础上，引入阀门、液压、电气等行业的多项研究成果，厚积而薄发，开发出来的新一代智能化高效节能产品。公司技术力量雄厚，并可根据用户的特殊要求单独进行设计，多方位满足广大用户对该类产品的需要。

该产品主要有如下特点：

- 1、可取代水泵出口处原电动闸阀和止回阀的功能，且机、电、液系统集成成为一个整体，减少占地面积及基建投资。
- 2、电液控制功能齐全，无需另外配置即可以作为一个独立的系统单机就地调试、控制；也可以作为集散性控制系统(DCS)的一个设备单元，通过I/O通道由中央计算机进行集中管理，与水泵、水轮机、旁通阀及其他管道设备实现联动操作；并配有手动功能，无动力电源时也可以实现手动开、关阀，满足特殊工况下的阀门调试、控制要求。
- 3、可控性好，调节范围大、适应性强。电液控制系统设有多处调节节点，可以按不同的管道控制要求进行启闭程序设置，保证在满足开、关阀条件时，阀门能够且才能够自动按预先设定的时间、角度开启和分快、慢二阶段关闭。并能实现无电关阀，有效消除破坏性水锤，防止水泵和水轮机组飞逸事故的发生，降低管网系统的压力波动，保障设备的安全可靠运行。
- 4、主阀密封副为三偏心金属或双偏心橡胶密封结构，启闭轻松、密封可靠；并有一道额外加大的偏心，使阀门具有良好的自关闭、自密封性能。中、小口径蝶阀设计面双平板桁架式结构，排挤小、水流平顺，阀门流阻系数仅为0.1~0.6，远小于止回阀的流阻系数(1.7~2.6)，节能效果明显。

The hydraulic slow-closing check butterfly valve is more advanced managing and control equipment in the world at present. It is mainly used as hydroturbine inlet valve which is installed at hydropower station, or replacing the functions of check valves and gate valves, installed as pump outlet at various pump stations, such as irrigation, electric power and water supply and drainage. In working time, valves cooperating with pipeline main engine achieve pipeline's reliable cutting off and effectively protect the pipeline system from pipeline water hammer through presupposed procedure of opening and closing.

The hydraulic slow-closing check butterfly valve is based on that our designers empolder new intelligent, high-effect and energy-saving products, widely searching, studying and concluding same type products' performance, adopted various industries research results, such as valve, hydraulic pressure and electricity, etc. Our products are characterised by small flow-resistance, high intelligence, comprehensive functions and reliable performance. Our company can design on customers' special requirements through our strong tech strength to satisfy the customers' demands.

The main characteristics of the valves are as below:

1. It can replace the function of the electric gate valve and check valve at water pump outlet, and reduce the footprint area and initial cost because the systems of electricity, liquid and machinery integrate one part.
2. Products have comprehensive functions of electric and hydraulic control, can finish local adjustment and control independently; also can be an equipment unit of Distributed Control System(DCS), can achieve linkage operation with water pump, hydroturbine, by-pass valve and other pipeline equipments by centre computer managing integrately through I/O channel.
3. Products have good controllability, great adjustable range and strong applicability. The electric and hydraulic control system is designed as many adjust points, and it can set up the procedure of opening and closing according to the different pipe control requirements, to assure the valve can open automatically according to the presupposed time and angle and close as fast or slow two stages when the condition satisfies opening and closing the valve. It can be achieved that close the valve without electricity to assure the equipment word reliably. It can effectively eliminate destructive water hammer, prevent the runaway accident of the pump and hydroturbine, and reduce the pressure fluctuation of pipe network system.
4. The secondary sealing of main valve is triple offset metal sealing or double eccentric rubber sealing structure. It is easily opening and closing, and sealing is reliable. There's an extra increasing eccentricity to make the valve have good self-sealing and closing automatically. Middle and small size disc design and double flat trussed construction make the valve little supplant and the flow smooth. The effect of energy-saving is obvious, the valve flow-resistance coefficient is only 0.1~0.6, far from the check valve flow-resistance coefficient(1.7~2.6).

# ► 流控蝶阀 Hydraulic Control Butterfly Valve



## 主要性能规范 Main Performance Specification

|                            |                                                |                         |
|----------------------------|------------------------------------------------|-------------------------|
| 产品标准 Product Standard      | GB/T 14478-1993、GB/T 12238-1989、JB/T 8527-1997 |                         |
| 传动装置 Transmission Device   | JB/T 5299-1998                                 |                         |
| 结构长度 Face to Face Length   | GB/T 12221-2005                                |                         |
| 配管法兰 Pipe Flange           | 灰铸铁法兰 Grey Iron Flange                         | GB/T 17241.6-1998       |
|                            | 球墨铸铁法兰 Ductile Iron Flange                     | GB 12380.1-12380.3-1990 |
|                            | 钢制法兰 Steel Flange                              | GB/T 9112-6124-2000     |
| 蓄能器标准 Accumulator Standard | GB/T 2352-2003                                 |                         |
| 试验与检验 Test and Inspection  | GB/T 14478-1997、GB/T 13927-1992                |                         |
| 质量保证 QA                    | ISO9001: 2000                                  |                         |

注Note: 可采用其他有关标准和国外标准, 法兰尺寸可按用户要求制造, 但应在订货合同中写明。Note: It can adopt other relevant standards and foreign standards, and flange dimension can be manufactured according to user requirements, but it should be stated in the ordering contract .

## 主要技术参数 Main Technology Parameter

|                                  |                                                    |          |
|----------------------------------|----------------------------------------------------|----------|
| 公称通径DN(mm) Nominal Diameter      | 150~4000                                           |          |
| 公称压力PN(MPa) Nominal Pressure     | 0.25~4.0                                           |          |
| 试验压力<br>Test Pressure<br>PS(MPa) | 密封 Seal                                            | 1.1 × PN |
|                                  | 强度 Strength                                        | 1.5 × PN |
| 工作压力(MPa) Working Pressure       | ≤1.0 × PN                                          |          |
| 介质温度(°C) Medium Temperature      | ≤80                                                |          |
| 适用介质 Applicable Medium           | 清水、海水、泥沙水、油品等 Water, Sea water, Sediment, Oil etc. |          |

注: 1、1MPa=10.2kgf/cm<sup>2</sup>; 2、用于水电站时, 密封试验压力可按电站最高静水头计算值。For the hydropower station, the sealing test pressure can be calculated according to the maximum hydrostatic head power station.

## 启闭参数 Opening and Closing Parameters

| 公称通径 Nominal diameter                                | < 1000           |            | ≥ 1000     |
|------------------------------------------------------|------------------|------------|------------|
| 开阀时间(可调) Valve opening time (adjustable)             | 10~16秒(S)        |            | 20~120秒(S) |
| 关阀时间(可调)<br>Valve closing time (adjustable)          | 快关 Quick Closing | 3.5~15秒(S) | 4~30秒(S)   |
|                                                      | 慢关 Slow Closing  | 5~60秒(S)   | 8~90秒(S)   |
| 关阀角度(可调)<br>Valve Closing angle (Adjustable)         | 快关 Quick Closing | 70 ± 10°   | 70 ± 10°   |
|                                                      | 慢关 Slow Closing  | 20 ± 10°   | 70 ± 10°   |
| 全开位最小流阻系数 Open a Minimum Flow Resistance Coefficient | 0.1              |            |            |

## 主要零件材质 Material for Main Parts

| 零件名称 Part Name                             | 材料 Material                                                                        |
|--------------------------------------------|------------------------------------------------------------------------------------|
| 阀体 Body                                    | 灰铸铁、球墨铸铁、碳素钢、镍铬铸铁 Grey Iron, Ductile Iron, Carbon Steel, Nickel Chromium Cast Iron |
| 蝶板 Disc                                    | 灰铸铁、球墨铸铁、碳素钢、镍铬铸铁 Grey Iron, Ductile Iron, Carbon Steel, Nickel Chromium Cast iron |
| 阀轴 Shaft                                   | 不锈钢、碳素钢 Stainless Steel, Carbon Steel                                              |
| 阀体密封面<br>Sealing Surface Of The Valve Body | 铜合金、不锈钢 Copper Alloy, Stainless Steel                                              |
| 蝶板密封圈 Disc Seal Ring                       | 优质丁腈橡胶、不锈钢/柔性石墨层叠 High Quality Rubber, Stainless Steel / Graphite Layers           |
| 滑动轴承 Sliding Bearing                       | 铜合金 Copper Alloy                                                                   |
| 填料 Packing                                 | V形密封圈、柔性石墨 V Shaped Sealing ring, Flexible Graphite                                |
| 墙板 Wallboard                               | 碳素钢 Carbon Steel                                                                   |

## ► 流控蝶阀

### Hydraulic Control Butterfly Valve



#### 产品结构说明 Products Structure Description

产品按照控制系统蓄能类型分为重锤式和蓄能器式两大系列，其中重锤式控制系统又分为普通重锤式、自动保压重锤式(B)和锁定型自动保压重锤式(S)；蓄能器式控制系统则分为普通蓄能器式(X)和锁定型蓄能器式(XB)。

阀门主要由阀门本体、传动机构、液压站、电控箱等四部分组成。

阀门本体由阀体、蝶板、阀轴、滑动轴承、密封组件等主要零件组成。

重锤式阀体均采用卧式结构，阀轴采用半轴结构。

蓄能器式一般采用卧式布置；也可根据用户要求采用立式布置。

传动机构主要由液压缸、摇臂、支撑墙板(重锤式还有重锤、杠杆、锁定油缸等)等连接、传动件组成，是液压动力开、关阀门的主执行机构。

传动液压缸上设有快关时间调节阀、慢关时间调节阀和快、慢关角度调节阀。调节范围见第五节<启闭参数>。

卧式布置时，传动机构一般采用正向安装；受现场空间限制时也可根据用户要求采用反装型。

液压站包括油泵机组，手动泵、蓄能器、电磁阀、溢流阀、流量控制阀、截止阀、液压集成块、油箱等零部件。

重锤式自动保压系统中，蓄能器用作系统压力的补偿。

锁定型重锤式自动保压系统中，蓄能器作系统压力的补偿和锁定油缸的解锁蓄能器式系统中，蓄能器为阀门启闭提供主动力源。

流量控制阀用于开阀时间调节，调节范围见第五章<启闭参数>。

手动泵用于系统调节和特殊工况下的阀门启闭。

液压系统电磁换向阀控制特征一般为正作用型，即：电磁阀得电蝶阀开阀、失电蝶阀关阀。；反之则为反作用型，即电磁阀失电蝶阀开阀、得电蝶阀关阀。常规配套用作水轮机进口阀时电磁换向阀为反作用型，其余工况采用正作用型，如有不同选择应在订货时说明。

液压系统与阀门本体可以是整体式安装，也可以分开安装。用户未作特殊说明时为整体式安装。蓄能器式采用立式布置时均为分体式安装。

Products in accordance with the control system energy storage type can be divided into two series: heavy hammer type and accumulator type. Heavy hammer control system is divided into ordinary heavy hammer, automatic pressure hammer type (B) and lock automatic pressure (S). Accumulator control system is divided into ordinary accumulator type (X) and lock type accumulator type (XB).

Valve is mainly composed of four parts: valve body, transmission, hydraulic station, electric control box.

Valve body is composed of body, disc, shaft, sliding bearings, sealing components and other major components.

The body of heavy hammer type valve adopts horizontal structure and the shaft adopt half axle structure.

Accumulator type valve generally adopts horizontal layout, which also can adopt vertical arrangement according to users' requirements.

Transmission mechanism is mainly composed of connections and transmission components, including the hydraulic cylinder, rocker, wall supporting (there are heavy hammer, lever, locked cylinder, etc. in heavy hammer type), which is the main valve actuator that hydraulic power open and close valve.

There are fast-closing time control valve, slow-off time control valve and fast-off & slow-off angle control valve on transmission hydraulic cylinder. The adjustment range is shown in Section 5 <Opening and closing parameters>.

As layout is horizontal, the transmission mechanism generally adopts positive installation. When limited by the space, it can also adopt anti-loaded type according to user requirements.

Hydraulic station includes oil pump unit, manual pump, accumulator, solenoid valve, relief valve, flow control valve, globe valve, hydraulic manifold, fuel tank and other parts.

In the automatic pressure maintaining system of heavy hammer type, the accumulator is used as compensation of the system pressure.

In lock-type heavy hammer automatic pressure maintaining system, the accumulator for the system pressure compensation and lock cylinder lockout accumulator system, the accumulator for the valve opening and closing to provide the main power source.

The flow control valve aims to adjust opening time of the valve, the adjustment range is shown in Section 5 <Opening and closing parameters>.

The manual pump is using to adjust the system and open and close the valve in the special working condition.

The solenoid directional valve in hydraulic system is in positive effect, the solenoid valve gets power, and the butterfly valve opens. If the solenoid directional valve in hydraulic system is in negative effect, the solenoid valve gets power, and the butterfly valve closes. All working condition adopts positive effect without as normal supporting turbine inlet valve. If have other choices, plz explain as ordering goods.

The hydraulic system and valve body connection can be installed as unitary and split. If the customer doesn't explain, it is installed as unitary. If the accumulator adopts vertical structure, it is installed as split.

#### 电气控制方式说明 Electric Control Instruction

本阀电气控制系统按主逻辑元件类别分为普通继电型和PLC智能控制型。出厂配套一般为普通继电型，需PLC智能控制型应在订货时说明。

按液压系统类别分为普通型、B型、S型、X型、XS型等，每类中又分为离心泵、轴流泵和水轮机等使用工况。其中：

开阀离心泵(含离心式混流泵)工况：先启动泵，延迟预定时间后开阀，或泵阀同时启动。

开阀轴流泵(含轴流式混流泵)工况：先开阀至一定角度，再启动泵，或泵阀同时启动。

开阀水轮机工况：先开启旁通阀平衡压力，在开阀，后运行水轮机。

各种工况一般要求在管道主机停机或控制电源失电的同时关闭阀门；也可先关阀至一定角度，在联锁停泵，或将“管道主机停机”设计成阀门关闭的充要条件。

本阀电气控制系统均配有就地控制回路和远程联动控制回路。就地控制回路主要用于现场调试，正常工作时一般均使用远程联动控制回路。

系统动力电源为AC380V，控制电源可以是AC220V、DC220V、DC110V、DC24V或其它电源等级。

电液控制原理详细说明参看我公司各类液控蝶阀产品<安装使用说明书>。

The electric control system of the valve is divided into common relay type and PLC intelligent control type. Usually common relay type is matched before leaving the factory, plz explain in order if you need PLC intelligent control type.

According to the hydraulic system, the electric control system is divided into Ordinary type, B type, S type, X type and XS type, etc. In each type, there are many working conditions, such as centrifugal pump, axial pump and hydroturbine.

Opening centrifugal pump valves (contain centrifugal mixed-flow pump) working condition: open the pump, and open the valve after delaying conserted time, or open the pump and the valve as the same time.

Opening axial pump valves (contain axial mixed-flow pump) working condition: open the valve to a fixed angle, and open the pump, or open the pump and the valve at the same time.

Opening hydroturbine working condition: open the by-pass vavle to balance the pressure, and open the valve, finally open hydroturbine.

It is required that close the valve meanwhile the pipeline's main engine doesn't work and the control power is out of supplying in any working condition, or close the valve as a fixed angle, and stop the pump interlockingly, or design the "pipeline main engine" as the valve closing's necessary and sufficient condition.

The electric control system of the valve is matched with local control circuit and remote linkage control circuit. Local control circuit uses to adjust at the live, normal work uses remote linkage control circuit.

# 液控蝶阀 Hydraulic Control Butterfly Valve

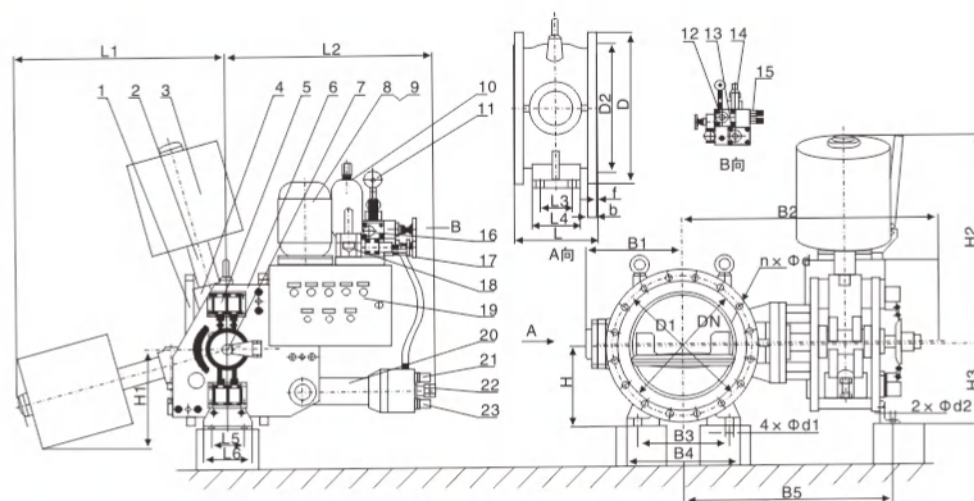


用户订货时请详细说明主逻辑元件类别、液压系统类别、管道主机联动方式、换向阀控制特征、控制电源等级等具体使用工况条件。我公司可按用户的不同要求进行一定调整，并可根据用户特殊工况要求单独进行设计。

Customer should note detailed working condition, such as the type of main logic element and hydraulic system, pipeline main engine linkage method, the feature of reversing valve and control power class, etc.

Our company can adjust products according to customers' requirements, or design depending on unique working condition.

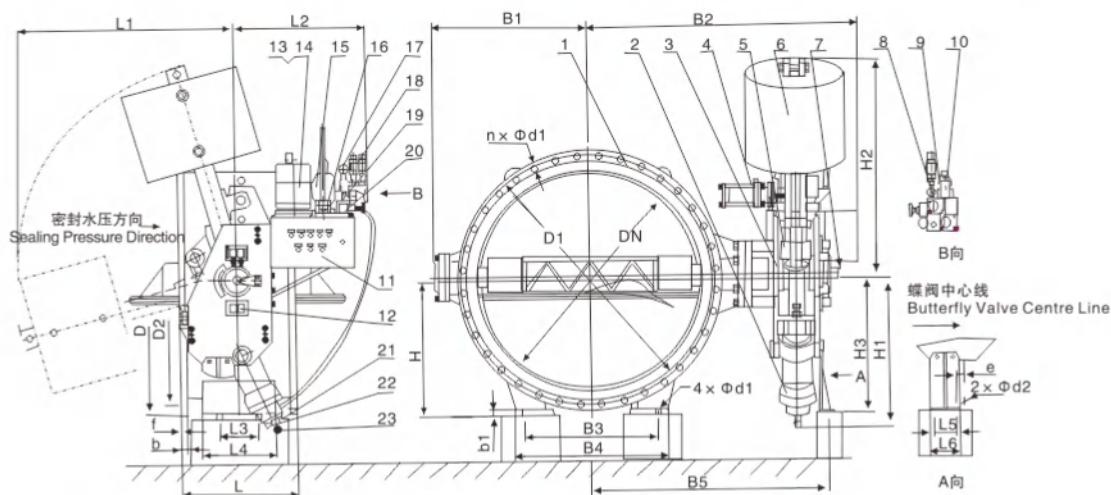
## 外形尺寸图 Appearance Size Drawing



- 1、阀体 2、杠杆 3、重锤 4、摇臂 5、行程开关 6、墙板 7、开度电位器 8、电机 9、油泵 10、蓄能器  
11、耐震压力表 12、常开截止阀 13、常闭截止阀 14、电磁阀 15、压力开关 16、流量控制阀 17、溢流阀  
18、手动泵 19、电气控制箱 20、油缸 21、快调节阀 22、快慢角度调节 23、慢调节阀  
1、Body 2、Lever 3、Heavy Hammer 4、Rocker 5、Position Switch 6、Wallboard 7、Open Potentionmeter 8、Motor 9、Oil Pump  
10、Accumulator 11、Shock-resistant Pressure Guages 12、Normally Open Globe Valve 13、Normally Close Globe Valve  
14、Solenoid Valve 15、Pressure Switch 16、Flow Control Valve 17、Relief Valve 18、Manual Pump 19、Electric Control Box  
20、Hydrocylinder 21、Fast Closing Regulator 22、Fast-slow Angle Regulator 23、Slow Closing Regulator

图1 自动保压重锤式液控缓闭止回蝶阀外形及连接尺寸图(DN≤500)

Figure 1 The Appearance and Connection Size of Automatic Pressure Heavy Hammer Hydraulic Closure Check Butterfly Valve (Dn≤500)



- 1、阀体 2、油缸 3、传动支架 4、摇臂 5、杠杆 6、重锤 7、开度电位器 8、常开截止阀 9、常闭截止阀  
10、电磁阀 11、压力开关 12、行程开关 13、电机 14、油泵 15、蓄能器 16、手动泵 17、压力表  
18、流量控制阀 19、溢流阀 20、电气控制箱 21、快调节阀 22、慢调节阀 23、快慢角度调节  
1、Body 2、Hydrocylinder 3、Transmission Bracket 4、Rocker 5、Lever 6、Heavy Hammer 7、Open Potentionmeter  
8、Normally Open Globe Valve 9、Normally Close Globe Valve 10、Solenoid Valve 11、Pressure Switch 12、Position Switch  
13、Motor 14、Oil Pump 15、Accumulator 16、Manual Pump 17、Piezometer 18、Flow Control Valve 19、Relief Valve  
20、Electric Control Box 21、Fast Closing Regulator 22、Slow Closing Regulator 23、Fast-slow Angle Regulator

图2 自动保压重锤式液控缓闭止回蝶阀外形及连接尺寸图(DN≥600)

Figure 2 The Appearance and Connection Size of Automatic Pressure Heavy Hammer Hydraulic Closure Check Butterfly Valve (Dn≥600)

# 液控蝶阀 Hydraulic Control Butterfly Valve

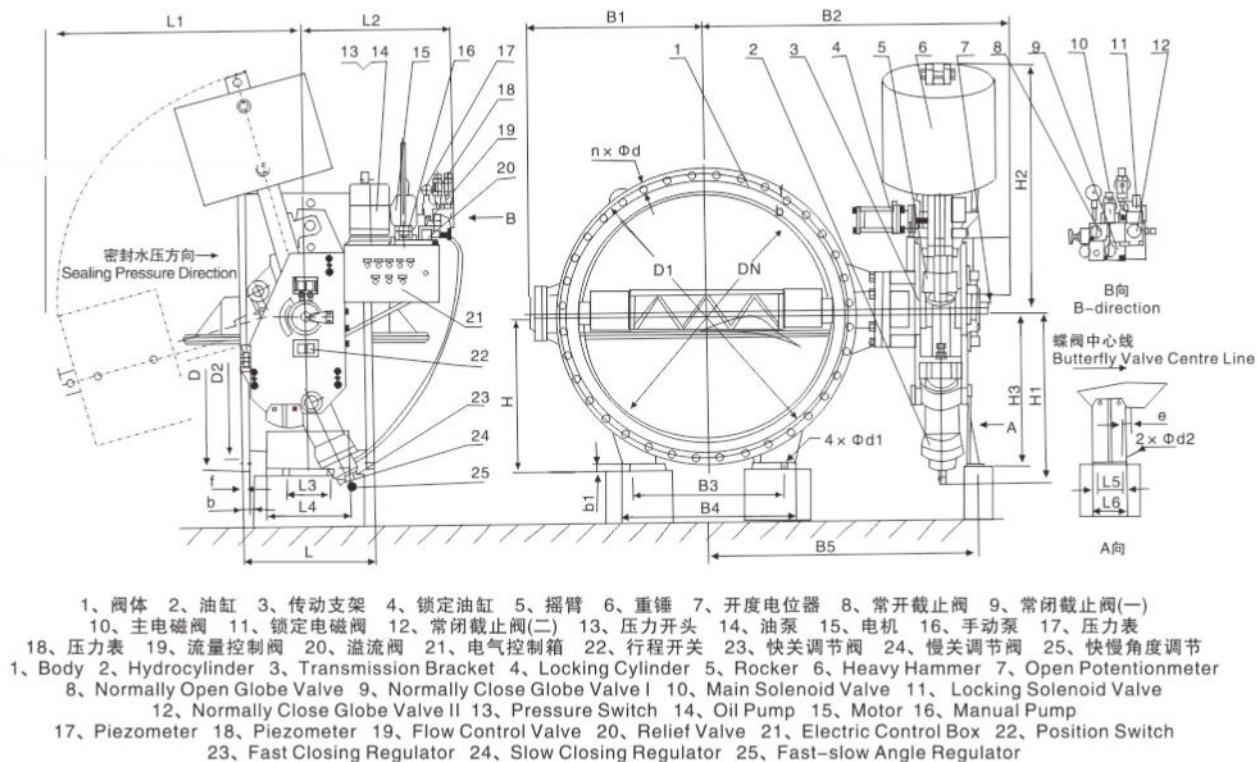


图3 自动锁定型自动保压重锤式液控缓闭止回蝶阀外形及连接尺寸  
Figure 3 Outline Dimensions and Connection Dimensions of Automatic Lock and Automatic Pressure Heavy Hammer Hydraulic Control Slow-closing Butterfly Valve

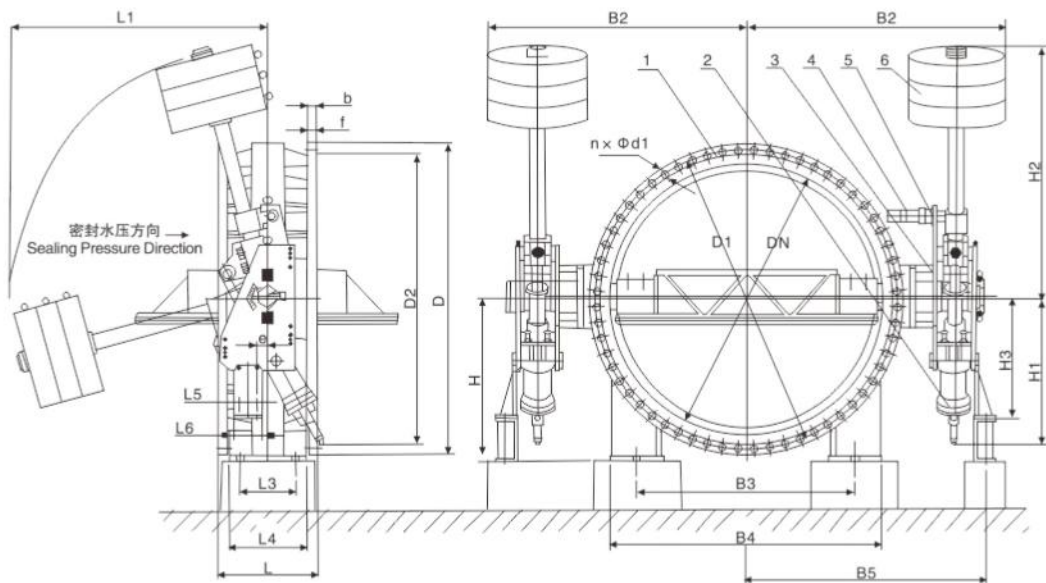
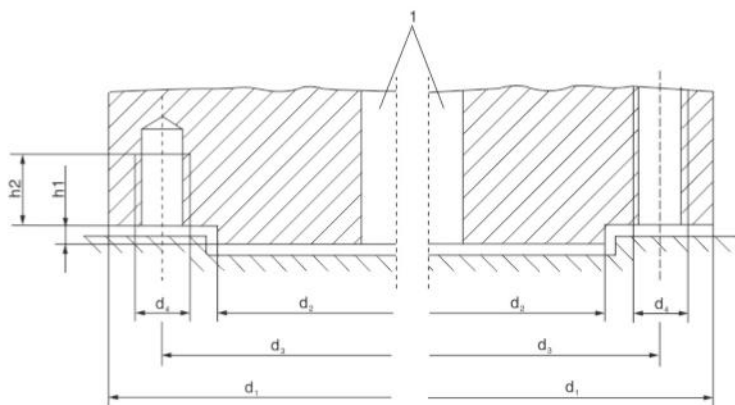


图4 自动保压双锤式液控缓闭止回蝶阀外形及连接尺寸  
Figure 4 Outline Dimensions and Connection Dimensions of Automatic Pressure Double Hammer Hydraulic Control Slow-closing Butterfly Valve

## ► 阀门驱动装置的选择 Choice of Valve Driving Device



驱动装置与阀门的连接示意图部分回转执行器  
The connection diagram of part of the rotary actuator and valve driving device

### 部分回转驱动装置的连接 The Connection of Part of the Rotary Driving Device

部分回转阀门驱动装置是指对阀门产生角行程的驱动装置。该驱动装置和阀门连接的法兰尺寸和法兰代号与其相对应的最大转矩和驱动件的结构形貌和尺寸按GB/T12223--2005 (idt ISO5211:2001) 《部分回转阀门驱动装置的连接》规定。

Part of the rotary valve driving device is a driving device of producing the valve angle stroke. The driving device and the valve connecting flange size, flange code, max corresponding torque, structure and morphology and size of driving units refer to GB/T122232005(idt ISO5211-2001) *The Connection of Part of Rotary Valve Driving Device*.

### 法兰代号——最大转矩 Flange Code -- Max Torque

| 法兰代号<br>Flange Code            | F03 | F04 | F05 | F07 | F10 | F12  | F14  | F16  | F25  | F30   | F35   | F40   | F48    | F60    |
|--------------------------------|-----|-----|-----|-----|-----|------|------|------|------|-------|-------|-------|--------|--------|
| 最大转矩<br>Maximum Torque<br>/N·m | 32  | 63  | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 16000 | 32000 | 63000 | 125000 | 250000 |

注：表中规定值是在螺栓拉伸应力只有390MPa且法兰接合面之间的摩擦系数为0.2的基础上确定的，不同的参数会得出不同的传输转矩值。  
Note: Specified values in the sheet is based on bolts' tensile strength which is only 390 Mpa, and frictional coefficient between flange joints is 0.2. Different parameters will calculate different torques.

### 驱动装置与阀门相连接的法兰尺寸 Connection Flange Size of Driving Device and Valve

| 法兰代号<br>Flange Code | d1  | d2(f8) | d3  | d4  | h1min | h2min | 螺栓或螺栓数量<br>Number of Bolts&Bonnet |
|---------------------|-----|--------|-----|-----|-------|-------|-----------------------------------|
| F03                 | 46  | 25     | 36  | M5  | 3     | 8     | 4                                 |
| F04                 | 54  | 30     | 42  | M5  | 3     | 8     | 4                                 |
| F05                 | 65  | 35     | 50  | M6  | 3     | 9     | 4                                 |
| F07                 | 90  | 55     | 70  | M8  | 3     | 12    | 4                                 |
| F10                 | 125 | 70     | 102 | M10 | 3     | 15    | 4                                 |
| F12                 | 150 | 85     | 125 | M12 | 3     | 18    | 4                                 |
| F14                 | 175 | 100    | 140 | M16 | 4     | 24    | 4                                 |
| F16                 | 210 | 130    | 165 | M20 | 5     | 30    | 4                                 |
| F25                 | 300 | 200    | 254 | M16 | 5     | 24    | 8                                 |
| F30                 | 350 | 230    | 298 | M20 | 5     | 30    | 8                                 |
| F35                 | 415 | 260    | 356 | M30 | 5     | 45    | 8                                 |
| F40                 | 475 | 300    | 406 | M36 | 8     | 54    | 8                                 |
| F48                 | 560 | 370    | 483 | M36 | 8     | 54    | 12                                |
| F60                 | 686 | 470    | 603 | M36 | 8     | 54    | 20                                |

# ▶ 壳体最小壁厚tm Minium thickness of Shell(tm)



GB/T12224-2005

单位Unit: mm

| 口径<br>Size<br>DN | 公称压力PN Nominal pressure |      |      |      |      |      |      |      |       |       |       |        |       |       |
|------------------|-------------------------|------|------|------|------|------|------|------|-------|-------|-------|--------|-------|-------|
|                  | 16                      |      | 25   | 40   |      | 63   | 100  |      |       | 160   |       | 320    |       |       |
|                  |                         | 20   |      |      | 50   |      |      | 110  | 150   |       | 260   |        | 420   | 760   |
| 6                | 3.0                     | 3.0  | 3.0  | 3.0  | 3.0  | 3.0  | 3.0  | 3.0  | 3.3   | 3.3   | 3.8   | 4.2    | 4.8   | 7.6   |
| 10               | 3.0                     | 3.0  | 3.0  | 3.0  | 3.0  | 3.1  | 3.3  | 3.3  | 3.6   | 3.8   | 4.3   | 5.2    | 5.8   | 10.1  |
| 15               | 3.0                     | 3.0  | 3.0  | 3.1  | 3.1  | 3.2  | 3.3  | 3.3  | 4.1   | 4.3   | 4.8   | 6.2    | 6.9   | 12.7  |
| 20               | 3.0                     | 3.0  | 3.4  | 3.7  | 3.8  | 4.2  | 4.3  | 4.5  | 5.1   | 5.3   | 6.1   | 7.4    | 8.9   | 17.5  |
| 25               | 4.0                     | 4.1  | 4.2  | 4.6  | 4.8  | 4.8  | 4.8  | 4.8  | 6.4   | 6.4   | 7.1   | 8.7    | 11.2  | 22.3  |
| 32               | 4.8                     | 4.8  | 4.8  | 4.8  | 4.8  | 4.8  | 4.8  | 4.8  | 6.6   | 6.9   | 8.6   | 10.8   | 13.5  | 26.9  |
| 40               | 4.8                     | 4.8  | 4.8  | 4.8  | 4.8  | 5.0  | 5.7  | 5.8  | 7.4   | 7.6   | 9.9   | 12.6   | 15.7  | 32.0  |
| 50               | 5.5                     | 5.6  | 5.7  | 6.0  | 6.3  | 6.3  | 6.3  | 6.4  | 7.9   | 8.3   | 11.7  | 14.7   | 20.1  | 42.4  |
| 65               | 5.5                     | 5.6  | 5.7  | 6.2  | 6.4  | 7.0  | 7.1  | 7.1  | 9.1   | 9.8   | 14.5  | 18.5   | 24.1  | 52.3  |
| 80               | 5.6                     | 5.6  | 6.1  | 6.7  | 7.1  | 7.9  | 8.1  | 8.1  | 10.7  | 11.5  | 16.8  | 22.3   | 29.0  | 62.2  |
| 90               | 5.8                     | 6.4  | 6.7  | 7.1  | 7.4  | 7.7  | 8.4  | 8.6  | 11.9  | 12.6  | 19.1  | 24.2   | 32.8  | 72.4  |
| 100              | 6.2                     | 6.4  | 6.6  | 7.3  | 7.9  | 9.1  | 9.4  | 9.7  | 13.0  | 13.4  | 21.1  | 26.7   | 37.3  | 82.3  |
| 125              | 6.6                     | 7.1  | 7.4  | 8.1  | 8.6  | 9.2  | 10.8 | 11.2 | 16.0  | 16.9  | 25.9  | 33.4   | 46.0  | 102.1 |
| 150              | 6.8                     | 7.1  | 7.5  | 8.8  | 9.7  | 10.4 | 12.2 | 12.7 | 18.8  | 19.9  | 30.7  | 39.7   | 54.6  | 122.2 |
| 175              | 7.2                     | 7.6  | 8.1  | 9.5  | 10.4 | 11.3 | 13.8 | 14.5 | 21.1  | 22.4  | 35.8  | 46.3   | 63.8  | 142.0 |
| 200              | 7.7                     | 7.9  | 8.5  | 10.1 | 11.2 | 12.2 | 15.2 | 16.0 | 23.6  | 25.1  | 40.4  | 52.2   | 71.9  | 162.0 |
| 225              | 7.9                     | 8.4  | 9.0  | 10.7 | 11.9 | 13.2 | 16.8 | 17.8 | 26.2  | 27.9  | 44.7  | 58.1   | 80.5  | 181.9 |
| 250              | 8.1                     | 8.6  | 9.3  | 11.3 | 12.7 | 14.2 | 18.5 | 19.6 | 28.7  | 30.6  | 49.3  | 64.3   | 89.2  | 201.9 |
| 275              | 8.5                     | 9.1  | 9.8  | 12.0 | 13.5 | 15.3 | 20.3 | 21.6 | 31.5  | 33.5  | 53.8  | 70.3   | 97.8  | 221.7 |
| 300              | 9.1                     | 9.7  | 10.5 | 12.7 | 14.2 | 16.2 | 21.9 | 23.4 | 34.3  | 36.5  | 58.7  | 76.6   | 106.4 | 241.8 |
| 325              | 9.5                     | 10.2 | 11.1 | 13.7 | 15.5 | 17.5 | 23.1 | 24.6 | 37.1  | 39.5  | 63.5  | 82.7   | 114.8 | 261.6 |
| 350              | 9.9                     | 10.7 | 11.7 | 14.6 | 16.5 | 18.6 | 24.6 | 26.2 | 39.6  | 42.2  | 68.3  | 89.0   | 123.4 | 281.7 |
| 400              | 10.5                    | 11.4 | 12.5 | 15.8 | 18.0 | 22.6 | 28.0 | 30.0 | 45.0  | 48.0  | 77.7  | 101.3  | 140.7 | 321.6 |
| 450              | 11.2                    | 12.2 | 13.5 | 17.3 | 19.8 | 22.7 | 31.1 | 33.3 | 49.8  | 53.2  | 86.9  | 113.8  | 158.5 | 361.4 |
| 500              | 11.9                    | 13.0 | 14.4 | 18.5 | 21.3 | 24.7 | 34.5 | 37.1 | 55.1  | 58.8  | 96.3  | 126.1  | 175.8 | 401.3 |
| 550              | 12.5                    | 13.7 | 15.3 | 20.0 | 23.1 | 26.8 | 37.5 | 40.4 | 61.0  | 65.0  | 105.4 | 138.3  | 193.0 | 441.2 |
| 600              | 13.4                    | 14.7 | 16.4 | 21.3 | 24.6 | 28.7 | 40.1 | 43.7 | 66.3  | 70.7  | 115.1 | 150.9  | 210.3 | 481.1 |
| 650              | 14.0                    | 15.5 | 17.3 | 22.8 | 26.4 | 30.9 | 43.6 | 47.0 | 71.6  | 76.4  | 124.5 | 163.2  | 227.6 | 521.0 |
| 700              | 14.8                    | 16.3 | 18.2 | 24.0 | 27.9 | 32.9 | 47.0 | 50.8 | 77.0  | 82.1  | 133.6 | 175.4  | 245.1 | 560.8 |
| 750              | 15.3                    | 17.0 | 19.1 | 25.5 | 29.7 | 35.0 | 50.0 | 54.1 | 82.0  | 87.5  | 143.0 | 187.8  | 262.4 | 600.7 |
| 800              | 16.2                    | 18.0 | 20.2 | 26.8 | 31.2 | 36.9 | 53.3 | 57.7 | 87.4  | 93.3  | 152.4 | 200.1  | 279.7 | 640.6 |
| 850              | 16.9                    | 18.8 | 21.2 | 28.3 | 33.0 | 39.1 | 56.3 | 61.0 | 92.7  | 99.0  | 161.8 | 212.5  | 296.9 | 680.5 |
| 900              | 17.6                    | 19.6 | 21.1 | 29.7 | 34.8 | 41.2 | 59.6 | 64.5 | 98.0  | 104.7 | 171.2 | 224.8  | 314.2 | 720.3 |
| 950              | 18.2                    | 20.3 | 23.0 | 31.0 | 36.3 | 43.5 | 62.8 | 68.1 | 103.4 | 110.4 | 180.6 | 237.2  | 331.5 | 760.2 |
| 1000             | 19.1                    | 21.3 | 24.1 | 32.5 | 38.1 | 45.3 | 65.9 | 71.4 | 108.7 | 116.1 | 190.0 | 249.6  | 349.0 | 800.1 |
| 1050             | 19.8                    | 22.1 | 25.0 | 33.8 | 39.6 | 47.2 | 69.0 | 74.9 | 114.0 | 121.8 | 199.4 | 262.0  | 366.3 | 840.0 |
| 1100             | 20.4                    | 22.9 | 26.0 | 35.2 | 41.4 | 49.4 | 72.1 | 78.2 | 119.4 | 127.5 | 208.5 | 274.01 | 383.5 | 879.6 |
| 1150             | 21.0                    | 23.6 | 26.9 | 36.7 | 43.2 | 51.6 | 75.4 | 81.8 | 124.7 | 133.2 | 217.9 | 286.5  | 400.8 | 919.5 |
| 1200             | 21.9                    | 24.6 | 28.0 | 38.0 | 44.7 | 53.5 | 78.4 | 85.1 | 130.0 | 138.8 | 227.3 | 298.9  | 418.1 | 959.4 |
| 1250             | 22.6                    | 25.4 | 28.9 | 39.5 | 46.5 | 55.6 | 81.6 | 88.6 | 135.1 | 144.3 | 236.7 | 311.3  | 435.6 | 999.2 |

# ► 三偏心蝶阀阀门扭矩值

## Triple Eccentric Butterfly Valve Torque Valve



三偏心蝶阀阀门扭矩值 (NM) Triple Eccentric Butterfly Valve Torque Valve

单位: Unit: mm

| 公称尺寸<br>Nominal Size |        | 公称压力PN/MPa Nominal pressure |       |       |       |       |       | CL    |       |       |
|----------------------|--------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |        | 0.6                         | 1.0   | 1.6   | 2.5   | 4.0   | 6.4   | 150   | 300   | 600   |
| DN/mm                | NPS/in | 力矩/N.m Torque/N.m           |       |       |       |       |       |       |       |       |
| 50                   | 2      | 25                          | 29    | 37    | 59    | 83    | 127   | 42    | 92    | 182   |
| 65                   | 2 1/2  | 29                          | 35    | 60    | 82    | 106   | 142   | 69    | 123   | 213   |
| 80                   | 3      | 34                          | 57    | 81    | 102   | 148   | 290   | 174   | 271   | 460   |
| 100                  | 4      | 61                          | 102   | 141   | 180   | 259   | 526   | 250   | 395   | 834   |
| 125                  | 5      | 104                         | 165   | 228   | 289   | 412   | 641   | 283   | 548   | 979   |
| 150                  | 6      | 178                         | 250   | 450   | 564   | 790   | 1060  | 473   | 825   | 2938  |
| 200                  | 8      | 201                         | 400   | 601   | 800   | 1201  | 1567  | 674   | 1503  | 3616  |
| 250                  | 10     | 353                         | 518   | 956   | 1250  | 1862  | 2697  | 983   | 1887  | 5649  |
| 300                  | 12     | 635                         | 992   | 1352  | 1711  | 2428  | 3147  | 2022  | 2508  | 11863 |
| 350                  | 14     | 819                         | 1623  | 2234  | 2844  | 4067  | 4855  | 2520  | 4158  | 14123 |
| 400                  | 16     | 1047                        | 1944  | 2842  | 3738  | 5533  | 6473  | 3175  | 6271  | 17061 |
| 450                  | 18     | 1451                        | 2451  | 3452  | 4412  | 6454  | 13450 | 4239  | 7864  | 21015 |
| 500                  | 20     | 2043                        | 3285  | 4527  | 5769  | 8253  | 16993 | 5531  | 10361 | 26551 |
| 600                  | 24     | 2779                        | 5548  | 6018  | 9495  | 13443 | 24586 | 6011  | 17559 | 38415 |
| 700                  | 28     | 3080                        | 6331  | 6890  | 14200 | 22720 | -     | 10440 | 27923 | -     |
| 750                  | 30     | 3230                        | 6723  | 7700  | 16552 | 26483 | -     | 12654 | 33105 | -     |
| 800                  | 32     | 3912                        | 7307  | 8760  | 19847 | 31755 | -     | 14462 | 39696 | -     |
| 900                  | 36     | 5275                        | 8474  | 9750  | 26438 | 36188 | -     | 18078 | 52877 | -     |
| 1000                 | 40     | 6915                        | 11717 | 13560 | 35553 | 44113 | -     | 24179 | 71105 | -     |
| 1050                 | 42     | 8135                        | 15253 | 16270 | 40110 | 51827 | -     | 28457 | 80219 | -     |
| 1200                 | 48     | 12540                       | 20563 | 23360 | 48900 | 61962 | -     | 36155 | -     | -     |
| 1300                 | 52     | 18300                       | 21806 | 29977 | -     | -     | -     | -     | -     | -     |
| 1400                 | 56     | 24650                       | 26589 | 34900 | -     | -     | -     | -     | -     | -     |
| 1500                 | 60     | 26440                       | 36155 | 43397 | -     | -     | -     | -     | -     | -     |
| 1600                 | 64     | 40850                       | 43375 | 48600 | -     | -     | -     | -     | -     | -     |

# ► 高性能蝶阀参数扭矩表

## High Performanve Butterfly Valve Parameter Torque Table



### 高性能防火蝶阀扭矩值 (仅供参考) High Performance Fireproof Butterfly Valve Torque Value(Reference)

| 规格 Specifications (mm) |        | 压力等级 Pressure Rating |        |        |        |        |        |        |        |         |         |
|------------------------|--------|----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| DN                     | NPS    | 100PSI               | 150PSI | 200PSI | 285PSI | 300PSI | 400PSI | 600PSI | 740PSI | 1200PSI | 1480PSI |
| 50                     | 2"     | -                    | -      | -      | -      | -      | -      | -      | -      | -       | -       |
| 65                     | 2 1/2" | -                    | -      | -      | -      | -      | -      | -      | -      | -       | -       |
| 80                     | 3"     | 67                   | -      | 87     | 107    | 116    | 134    | 147    | 179    | 215     | 256     |
| 100                    | 4"     | 71                   | -      | 92     | 113    | 130    | 167    | 198    | 258    | 302     | 371     |
| 125                    | 5"     | 130                  | -      | 169    | 228    | -      | -      | -      | -      | -       | -       |
| 150                    | 6"     | 198                  | -      | 297    | 424    | 453    | 511    | 559    | 606    | 698     | 856     |
| 200                    | 8"     | 463                  | -      | 531    | 593    | 680    | 870    | 1039   | 1314   | 1621    | 1909    |
| 250                    | 10"    | 610                  | -      | 815    | 1037   | 1129   | 1297   | 1424   | 2271   | 2700    | 3175    |
| 300                    | 12"    | 936                  | -      | 1328   | 1780   | 1907   | 2121   | 2288   | 3576   | 4221    | 5011    |
| 350                    | 14"    | 1644                 | -      | 1743   | 1829   | 2754   | 3841   | 4604   | 5566   | 6335    | 7048    |
| 400                    | 16"    | 1896                 | -      | 2154   | 2306   | 4576   | 6489   | 7828   | 9457   | 10767   | 11976   |
| 450                    | 18"    | 2813                 | -      | 3017   | 3220   | 5491   | 7813   | 9439   | 11411  | 12993   | 14451   |
| 500                    | 20"    | 3603                 | -      | 3888   | 4180   | 7698   | 11025  | 13355  | 16157  | 18383   | 20450   |
| 600                    | 24"    | 5722                 | -      | 6168   | 6547   | 11784  | 16948  | 20495  | 24766  | 28190   | 31368   |
| 700                    | 28"    | 6542                 | 8022   | -      | -      | -      | -      | -      | -      | -       | -       |
| 50                     | 30"    | 11570                | 10813  | 12349  | 13118  | 25376  | 37002  | 45137  | -      | -       | -       |
| 800                    | 32"    | -                    | -      | -      | -      | -      | -      | -      | -      | -       | -       |
| 900                    | 36"    | 16213                | 15139  | 17422  | 18292  | -      | -      | -      | -      | -       | -       |
| 1000                   | 40"    | -                    | -      | -      | -      | -      | -      | -      | -      | -       | -       |
| 1050                   | 42"    | 18869                | 23727  | -      | -      | -      | -      | -      | -      | -       | -       |
| 1200                   | 48"    | 33251                | 34121  | 36505  | 38618  | -      | -      | -      | -      | -       | -       |
| 1350                   | 54"    | -                    | 39375  | -      | -      | -      | -      | -      | -      | -       | -       |

### PTFE阀座扭矩值 (仅供参考) PTFE Seat Torque Value(Reference)

| 规格 Specifications (mm) |        | 压力等级 Pressure Rating |       |       |      |       |       |       |       |       |
|------------------------|--------|----------------------|-------|-------|------|-------|-------|-------|-------|-------|
| DN/mm                  | NPS/in | 100                  | 200   | 285   | 300  | 400   | 600   | 740   | 1200  | 1480  |
|                        |        | 力矩 Moment /N.M       |       |       |      |       |       |       |       |       |
| 50                     | 2      | 27                   | 33    | 37    | 40   | 48    | 59    | 70    | 83    | 130   |
| 65                     | 2 1/2  | 31                   | 39    | 46    | 47   | 55    | 71    | 82    | 95    | 142   |
| 80                     | 3      | 43                   | 54    | 64    | 66   | 77    | 100   | 115   | 133   | 199   |
| 100                    | 4      | 83                   | 111   | 134   | 138  | 166   | 222   | 261   | 305   | 333   |
| 125                    | 5      | 125                  | 167   | 202   | 208  | 250   | 333   | 391   | 458   | 700   |
| 150                    | 6      | 188                  | 250   | 304   | 313  | 375   | 500   | 588   | 687   | 718   |
| 200                    | 8      | 363                  | 476   | 572   | 589  | 702   | 929   | 1087  | 1268  | 1409  |
| 250                    | 10     | 602                  | 806   | 980   | 1010 | 1215  | 1623  | 1909  | 2236  | 2862  |
| 300                    | 12     | 910                  | 1250  | 1538  | 1589 | 1929  | 2609  | 3084  | 3628  | 4579  |
| 350                    | 14     | 1052                 | 1411  | 1715  | 1767 | 2127  | 2844  | 3346  | 4824  | 5357  |
| 400                    | 16     | 131                  | 1758  | 2133  | 2199 | 2640  | 3522  | 4139  | 8202  | 9124  |
| 450                    | 18     | 1817                 | 2488  | 3058  | 3159 | 3830  | 5172  | 6111  | 9893  | 11005 |
| 500                    | 20     | 2501                 | 3346  | 4065  | 4191 | 5037  | 6726  | 7910  | 13999 | 15569 |
| 600                    | 24     | 3496                 | 4698  | 5719  | 5900 | 7102  | 9505  | 11188 | 21467 | 23885 |
| 700                    | 28     | 4130                 | 6018  | 6870  | 8079 | 10668 | 15273 | 18500 | -     | -     |
| 750                    | 30     | 4949                 | 6678  | 8021  | 9169 | 12451 | 18157 | 22156 | -     | -     |
| 800                    | 32     | 5292                 | 7254  | 8731  | -    | -     | -     | -     | -     | -     |
| 900                    | 36     | 5982                 | 8406  | 10151 | -    | -     | -     | -     | -     | -     |
| 1000                   | 40     | 8344                 | 11208 | 14515 | -    | -     | -     | -     | -     | -     |
| 1050                   | 42     | 9525                 | 12609 | 16698 | -    | -     | -     | -     | -     | -     |
| 1150                   | 46     | 13117                | 17873 | 22406 | -    | -     | -     | -     | -     | -     |
| 1200                   | 48     | 14914                | 20506 | 25260 | -    | -     | -     | -     | -     | -     |
| 1300                   | 52     | 17395                | 19896 | -     | -    | -     | -     | -     | -     | -     |
| 1400                   | 56     | 19876                | 22787 | -     | -    | -     | -     | -     | -     | -     |
| 1500                   | 60     | 21517                | -     | -     | -    | -     | -     | -     | -     | -     |
| 1600                   | 64     | 25690                | -     | -     | -    | -     | -     | -     | -     | -     |

## ► 压力-温度等级 Pressure-Temperature Rating



### 钢制阀门压力——温度等级 Steel Valve Pressure——Temperature Rating

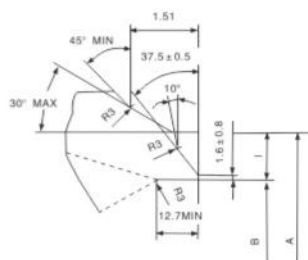
阀门在各工作温度下的最大允许工作压力按下表确定。当工作温度为表中温度级中间值时，可用内插法决定最大允许工作压力。

Valves' max working pressure in working temp. refers to the below sheet. When the working temp. is a median, it's recommended that using interpolation to decide the max working pressure.

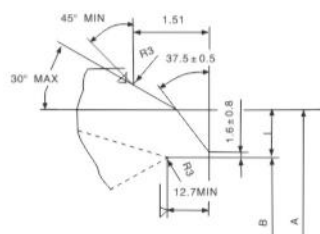
| 钢号 Steel No.                                                   | 基准温度(°C)<br>Basic Temperature(°C) | 工作温度(°C) Working Temperature(°C) |     |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------------------------------------------|-----------------------------------|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10、20、25<br>ZG200、ZG250                                        | 200                               | 250                              | 300 | 350 | 400 | 425 | 435 | 445 | 455 | -   | -   | -   | -   | -   |
| 15CrMo<br>ZG20CrMo                                             | 200                               | 320                              | 450 | 490 | 500 | 510 | 515 | 525 | 535 | 545 | -   | -   | -   | -   |
| 12Cr1MoV<br>15Cr1Mo1V<br>ZG20CrMoV<br>ZG15Cr1Mo1V              | 200                               | 320                              | 450 | 510 | 520 | 530 | 540 | 550 | 560 | 570 | -   | -   | -   | -   |
| 1Cr5Mo<br>ZG1Cr5Mo                                             | 200                               | 325                              | 390 | 430 | 450 | 470 | 490 | 500 | 510 | 520 | 530 | 540 | 550 | -   |
| 1Cr18Ni9Ti<br>ZG1Cr18Ni9Ti<br>1Cr18Ni12MoTi<br>ZG1Cr18Ni12MoTi | 200                               | 300                              | 400 | 480 | 520 | 560 | 590 | 610 | 630 | 640 | 660 | 670 | 690 | 700 |

| 公称压力(MPa)<br>Nominal Pressure | 强度压力(MPa)<br>Sheel Pressure | 最大工作压力(MPa) Maximum Working Pressure |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------------|-----------------------------|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.1                           | 0.2                         | 1.10                                 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 | 0.05 | 0.05 | -    | -    | -    | -    | -    | -    |
| 0.25                          | 0.4                         | 0.25                                 | 0.22 | 0.20 | 0.18 | 0.16 | 0.14 | 0.12 | 0.11 | 0.01 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 |
| 0.6                           | 0.9                         | 0.60                                 | 0.56 | 0.50 | 0.45 | 0.40 | 0.36 | 0.32 | 0.28 | 0.25 | 0.22 | 0.20 | 0.18 | 0.16 | 0.14 |
| 1.0                           | 1.5                         | 1.0                                  | 0.90 | 0.80 | 0.70 | 0.64 | 0.56 | 0.50 | 0.45 | 0.40 | 0.36 | 0.32 | 0.28 | 0.25 | 0.22 |
| 1.6                           | 2.4                         | 1.6                                  | 1.4  | 1.25 | 1.1  | 1.0  | 0.90 | 0.80 | 0.70 | 0.64 | 0.56 | 0.50 | 1.45 | 0.40 | 0.36 |
| 2.6                           | 3.8                         | 2.5                                  | 2.2  | 2.0  | 1.8  | 1.6  | 1.4  | 1.25 | 1.1  | 1.0  | 0.9  | 0.80 | 0.70 | 0.64 | 0.56 |
| 4.0                           | 6.0                         | 4.0                                  | 3.6  | 3.2  | 2.8  | 2.5  | 2.2  | 2.0  | 1.8  | 1.6  | 1.4  | 1.25 | 1.1  | 1.0  | 0.90 |
| 6.4                           | 9.6                         | 6.4                                  | 5.6  | 5.0  | 4.5  | 4.0  | 3.6  | 3.2  | 2.8  | 2.5  | 2.2  | 2.0  | 1.8  | 1.6  | 1.4  |
| 10.0                          | 15.0                        | 10.0                                 | 9.0  | 8.0  | 7.1  | 6.4  | 5.6  | 5.0  | 4.5  | 4.0  | 3.6  | 3.2  | 2.8  | 2.5  | 2.2  |
| 16.0                          | 24.0                        | 16.0                                 | 14.0 | 12.5 | 11.2 | 10.0 | 9.0  | 8.0  | 7.1  | 6.4  | 5.6  | 5.0  | 4.5  | 4.0  | 3.6  |
| 20.0                          | 30.0                        | 20.0                                 | 18.0 | 16.0 | 14.0 | 12.5 | 11.2 | 10.0 | 9.0  | 8.0  | 7.1  | 6.4  | 5.6  | 5.0  | 4.5  |
| 25.0                          | 38.0                        | 25.0                                 | 22.5 | 20.0 | 18.0 | 16.0 | 14.0 | 12.5 | 11.2 | 10.0 | 9.0  | 8.0  | 7.1  | 6.4  | 5.6  |
| 32.0                          | 48.0                        | 32.0                                 | 28.0 | 25.0 | 22.5 | 20.0 | 18.0 | 16.0 | 14.0 | 12.5 | 11.2 | 10.0 | 9.0  | 8.0  | 7.1  |

# ► 钢制管法兰焊接接头 Steel Pipe Flange Welded Joints



壁厚T在4.76-22.2焊接坡口尺寸  
Weld Groove Size of Shell  
Thickness at 4.76-22.2



壁厚T在≥22.2焊接坡口尺寸  
Weld Groove Size of Shell  
Thickness ≥22.2

注: STD-标准壁厚  
XS-超强壁厚  
XXS-双倍超强壁厚  
本附录没有加入带连接  
衬环的尺寸, 经参照  
ASME、B16.25

Note: STD-Standard Shell Thickness  
XS-Super Shell Thickness  
XXS-Double Super Shell Thickness  
This appendix isn't attached additional connection.  
Lining Size refers to ASME B16.25

## Dasme B16.25焊接端坡口尺寸 Welding end Groove Size

| 公称管径直<br>Nominal Diameter |     | 管号<br>Steel<br>Number | 阀门压力等级<br>Valve Pressure Class |      |     |     |     | 尺寸 Size       |     |               |     |        |     |       |       |
|---------------------------|-----|-----------------------|--------------------------------|------|-----|-----|-----|---------------|-----|---------------|-----|--------|-----|-------|-------|
|                           |     |                       | 2500                           | 1500 | 900 | 600 | 300 | A(锻造 Forging) |     | A(铸造 Casting) |     | B      |     | t     |       |
| NPS                       | DN  |                       |                                |      |     |     |     | In            | mm  | In            | mm  | In     | mm  | In    | mm    |
| 2-1/2                     | 65  | 40                    | X                              | X    |     |     |     | 2.875         | 73  | 2.96          | 75  | 2.469  | 63  | 0.203 | 5.15  |
|                           |     | 80                    | X                              | X    | X   | X   |     |               |     |               |     | 2.323  | 59  | 0.276 | 7     |
|                           |     | 160                   |                                |      | X   | X   |     |               |     |               |     | 2.215  | 54  | 0.375 | 9.55  |
|                           |     | xxs                   |                                |      |     |     | X   |               |     |               |     | 1.771  | 45  | 0.552 | 14    |
| 3                         | 80  | 40                    | X                              | X    |     |     |     | 3.50          | 89  | 3.59          | 91  | 3.068  | 78  | 0.216 | 5.5   |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 2.900  | 74  | 0.300 | 7.6   |
|                           |     | 160                   |                                |      | X   | X   | X   |               |     |               |     | 2.624  | 67  | 0.438 | 11.15 |
|                           |     | xxs                   |                                |      |     |     | X   |               |     |               |     | 2.300  | 58  | 0.600 | 15.25 |
| 4                         | 100 | 40                    | X                              | X    |     |     |     | 4.500         | 114 | 4.62          | 117 | 4.026  | 102 | 0.237 | 6     |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 3.826  | 97  | 0.337 | 8.55  |
|                           |     | 120                   |                                |      | X   | X   |     |               |     |               |     | 3.624  | 92  | 0.438 | 11.15 |
|                           |     | 160                   |                                |      |     |     | X   |               |     |               |     | 3.438  | 87  | 0.531 | 13.5  |
| 5                         | 125 | xxs                   |                                |      |     |     | X   | 5.563         | 141 | 5.69          | 144 | 3.152  | 80  | 0.674 | 17.1  |
|                           |     | 40                    | X                              | X    |     |     |     |               |     |               |     | 5.047  | 128 | 0.258 | 6.55  |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 4.813  | 122 | 0.375 | 9.55  |
|                           |     | 120                   |                                |      | X   | X   |     |               |     |               |     | 4.563  | 116 | 0.500 | 12.7  |
| 6                         | 150 | 160                   |                                |      |     |     | X   | 6.625         | 168 | 6.78          | 172 | 4.313  | 110 | 0.625 | 15.9  |
|                           |     | xxs                   |                                |      |     |     | X   |               |     |               |     | 6.063  | 103 | 0.750 | 19.05 |
|                           |     | 40                    | X                              | X    |     |     |     |               |     |               |     | 6.065  | 154 | 0.280 | 7.1   |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 5.761  | 146 | 0.432 | 10.95 |
| 8                         | 200 | 120                   |                                |      | X   | X   |     | 8.625         | 218 | 8.78          | 223 | 5.501  | 140 | 0.562 | 14.25 |
|                           |     | 160                   |                                |      |     |     | X   |               |     |               |     | 5.187  | 132 | 0.719 | 18.25 |
|                           |     | xxs                   |                                |      |     |     | X   |               |     |               |     | 4.897  | 124 | 0.864 | 21.95 |
|                           |     | 40                    | X                              | X    |     |     |     |               |     |               |     | 7.981  | 203 | 0.322 | 8.2   |
| 10                        | 250 | 60                    |                                | X    | X   |     |     | 10.750        | 273 | 10.94         | 278 | 7.813  | 198 | 0.406 | 10.3  |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 7.625  | 194 | 0.500 | 12.7  |
|                           |     | 100                   |                                | X    | X   | X   |     |               |     |               |     | 7.437  | 189 | 0.594 | 15.1  |
|                           |     | 120                   |                                |      |     | X   |     |               |     |               |     | 7.187  | 183 | 0.719 | 18.25 |
| 12                        | 300 | 140                   |                                |      |     | X   |     | 12.750        | 320 | 12.97         | 329 | 7.001  | 178 | 0.812 | 20.6  |
|                           |     | 160                   |                                |      |     |     | X   |               |     |               |     | 6.875  | 175 | 0.875 | 22.25 |
|                           |     | std                   | X                              | X    |     |     |     |               |     |               |     | 6.813  | 173 | 0.906 | 23    |
|                           |     | 40                    | X                              | X    |     |     |     |               |     |               |     | 10.02  | 255 | 0.365 | 9.25  |
| 12                        | 300 | xs                    | X                              | X    |     |     |     | 12.750        | 320 | 12.97         | 329 | 9.750  | 248 | 0.500 | 12.7  |
|                           |     | 40                    |                                | X    |     |     |     |               |     |               |     | 9.562  | 243 | 0.594 | 15.1  |
|                           |     | 60                    |                                | X    | X   | X   |     |               |     |               |     | 9.312  | 237 | 0.719 | 18.25 |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 9.062  | 230 | 0.844 | 21.45 |
| 12                        | 300 | 120                   |                                |      |     | X   |     | 12.750        | 320 | 12.97         | 329 | 8.750  | 222 | 1.000 | 25.4  |
|                           |     | 140                   |                                |      |     | X   | X   |               |     |               |     | 8.50   | 216 | 1.125 | 28.6  |
|                           |     | 160                   |                                |      |     | X   | X   |               |     |               |     | 12.000 | 305 | 0.375 | 9.55  |
|                           |     | std                   | X                              | X    |     |     |     |               |     |               |     | 11.938 | 303 | 0.406 | 10.3  |
| 12                        | 300 | xs                    | X                              | X    |     |     |     | 12.750        | 320 | 12.97         | 329 | 11.750 | 298 | 0.500 | 12.7  |
|                           |     | 40                    |                                | X    |     |     |     |               |     |               |     | 11.625 | 295 | 0.562 | 14.25 |
|                           |     | 60                    |                                | X    | X   | X   |     |               |     |               |     | 11.374 | 289 | 0.688 | 17.5  |
|                           |     | 80                    |                                | X    | X   | X   |     |               |     |               |     | 11.062 | 281 | 0.844 | 21.45 |
| 12                        | 300 | 120                   |                                |      |     | X   |     | 12.750        | 320 | 12.97         | 329 | 10.750 | 273 | 1.000 | 25.4  |
|                           |     | 140                   |                                |      |     | X   | X   |               |     |               |     | 10.500 | 267 | 1.125 | 28.6  |
|                           |     | 160                   |                                |      |     | X   | X   |               |     |               |     | 10.126 | 257 | 1.312 | 33.3  |
|                           |     | std                   | X                              | X    |     |     |     |               |     |               |     |        |     |       |       |

# ► 钢制管法兰焊接接头

## Steel Pipe Flange Welded Joints



Dasme B16.25焊接端坡口尺寸 Welding end Groove Size

| 公称管径直<br>Nominal Diameter |     | 管号<br>Steel<br>Number | 阀门压力等级<br>Valve Pressure Class |      |     |     |     | 尺寸 Size       |     |               |     |        |     |       |       |
|---------------------------|-----|-----------------------|--------------------------------|------|-----|-----|-----|---------------|-----|---------------|-----|--------|-----|-------|-------|
|                           |     |                       | 2500                           | 1500 | 900 | 600 | 300 | A(锻造 Forging) |     | A(铸造 Casting) |     | B      |     | t     |       |
| NPS                       | DN  |                       |                                |      |     |     |     | In            | mm  | In            | mm  | In     | mm  | In    | mm    |
| 14                        | 350 | std                   | x                              | x    |     |     |     | 14.00         | 356 | 14.25         | 362 | 13.25  | 337 | 0.375 | 9.55  |
|                           |     | 40                    |                                | x    |     |     |     |               |     |               |     | 13.124 | 333 | 0.438 | 11.15 |
|                           |     | xs                    |                                | x    |     |     |     |               |     |               |     | 13     | 330 | 0.5   | 12.7  |
|                           |     | 60                    |                                | x    | x   | x   |     |               |     |               |     | 12.812 | 325 | 0.594 | 15.1  |
|                           |     | 80                    |                                | x    | x   | x   |     |               |     |               |     | 12.5   | 318 | 0.75  | 19.05 |
|                           |     | 100                   |                                |      | x   | x   |     |               |     |               |     | 12.124 | 308 | 0.938 | 23.85 |
|                           |     | 120                   |                                |      |     | x   |     |               |     |               |     | 11.812 | 300 | 1.094 | 27.8  |
|                           |     | 140                   |                                |      |     | x   |     |               |     |               |     | 11.5   | 292 | 1.25  | 32.75 |
| 16                        | 400 | 160                   |                                |      |     | x   | x   | 16.00         | 406 | 16.25         | 416 | 11.188 | 284 | 1.406 | 35.7  |
|                           |     | std                   |                                | x    |     |     |     |               |     |               |     | 15.25  | 387 | 0.375 | 9.55  |
|                           |     | 40                    |                                | x    |     |     |     |               |     |               |     | 15     | 381 | 0.5   | 12.7  |
|                           |     | 60                    |                                | x    |     |     |     |               |     |               |     | 14.688 | 373 | 0.656 | 16.65 |
|                           |     | 80                    |                                | x    | x   | x   |     |               |     |               |     | 14.312 | 364 | 0.844 | 21.45 |
|                           |     | 100                   |                                | x    | x   | x   |     |               |     |               |     | 13.938 | 354 | 1.031 | 26.2  |
|                           |     | 120                   |                                |      |     | x   |     |               |     |               |     | 13.562 | 344 | 1.219 | 30.95 |
|                           |     | 140                   |                                |      |     | x   |     |               |     |               |     | 13.124 | 333 | 1.438 | 36.55 |
| 18                        | 450 | 160                   |                                |      |     | x   | x   | 18.000        | 457 | 18.28         | 464 | 12.812 | 325 | 1.594 | 40.5  |
|                           |     | 40                    |                                | x    |     |     |     |               |     |               |     | 16.876 | 429 | 0.562 | 14.25 |
|                           |     | 60                    |                                | x    |     |     |     |               |     |               |     | 16.500 | 419 | 0.75  | 19.05 |
|                           |     | 80                    |                                | x    | x   |     |     |               |     |               |     | 16.124 | 410 | 0.938 | 23.85 |
|                           |     | 100                   |                                | x    | x   | x   |     |               |     |               |     | 15.688 | 398 | 1.156 | 29.35 |
|                           |     | 120                   |                                |      | x   | x   | x   |               |     |               |     | 15.250 | 387 | 1.375 | 34.95 |
|                           |     | 140                   |                                |      |     | x   | x   |               |     |               |     | 14.876 | 378 | 1.562 | 39.65 |
|                           |     | 160                   |                                |      |     | x   | x   |               |     |               |     | 14.438 | 367 | 1.781 | 45.25 |
| 20                        | 500 | 40                    |                                | x    |     |     |     | 20.000        | 508 | 20.31         | 516 | 18.812 | 478 | 0.594 | 15.1  |
|                           |     | 60                    |                                | x    |     |     |     |               |     |               |     | 18.376 | 467 | 0.812 | 20.2  |
|                           |     | 80                    |                                | x    | x   |     |     |               |     |               |     | 17.938 | 456 | 1.031 | 26.2  |
|                           |     | 100                   |                                | x    | x   | x   |     |               |     |               |     | 17.438 | 443 | 1.281 | 32.55 |
|                           |     | 120                   |                                |      | x   | x   | x   |               |     |               |     | 17     | 432 | 1.5   | 38.1  |
|                           |     | 140                   |                                |      |     | x   | x   |               |     |               |     | 16.5   | 419 | 1.75  | 44.5  |
|                           |     | 160                   |                                |      |     | x   | x   |               |     |               |     | 16.062 | 408 | 1.969 | 50    |
|                           |     | std                   |                                |      |     |     |     |               |     |               |     | 21.25  | 540 | 1.375 | 9.55  |
| 22                        | 550 | XS                    |                                | x    |     |     |     | 22.00         | 559 | 22.34         | 567 | 21     | 533 | 0.5   | 12.7  |
|                           |     | 60                    |                                | x    | x   |     |     |               |     |               |     | 20.25  | 514 | 0.875 | 22.25 |
|                           |     | 80                    |                                | x    | x   | x   |     |               |     |               |     | 19.75  | 502 | 1.125 | 28.6  |
|                           |     | 100                   |                                |      | x   | x   | x   |               |     |               |     | 19.25  | 489 | 1.375 | 34.95 |
|                           |     | 120                   |                                |      |     | x   | x   |               |     |               |     | 18.75  | 476 | 1.625 | 41.3  |
|                           |     | 140                   |                                |      |     | x   | x   |               |     |               |     | 18.25  | 464 | 1.875 | 47.65 |
|                           |     | 160                   |                                |      |     |     |     |               |     |               |     | 17.75  | 451 | 2.125 | 54    |
|                           |     | std                   |                                |      |     |     |     |               |     |               |     | 23.25  | 591 | 0.375 | 9.55  |
| 24                        | 600 | XS                    |                                | x    |     |     |     | 24.000        | 610 | 24.38         | 619 | 23     | 584 | 0.5   | 12.7  |
|                           |     | 30                    |                                | x    |     |     |     |               |     |               |     | 22.876 | 581 | 0.562 | 14.25 |
|                           |     | 40                    |                                | x    |     |     |     |               |     |               |     | 22.624 | 575 | 0.688 | 17.5  |
|                           |     | 60                    |                                | x    | x   |     |     |               |     |               |     | 22.062 | 560 | 0.969 | 24.6  |
|                           |     | 80                    |                                | x    | x   | x   |     |               |     |               |     | 21.562 | 548 | 1.219 | 30.95 |
|                           |     | 100                   |                                |      |     | x   | x   |               |     |               |     | 20.938 | 532 | 1.531 | 38.9  |
|                           |     | 120                   |                                |      |     | x   | x   |               |     |               |     | 20.376 | 518 | 1.812 | 46    |
|                           |     | 140                   |                                |      |     | x   | x   |               |     |               |     | 19.876 | 505 | 2.062 | 52.35 |
| 26                        | 650 | 160                   |                                |      |     |     |     | 26.000        | 660 | 24.38         | 619 | 19.312 | 491 | 2.344 | 59.55 |
|                           |     | 10                    |                                |      |     |     |     |               |     |               |     | 25.376 | 645 | 0.312 | 7.90  |
| 28                        | 700 | 20                    |                                |      |     |     |     | 28.000        | 711 | 28.38         | 721 | 25.000 | 635 | 1.50  | 12.70 |
|                           |     | 30                    |                                |      |     |     |     |               |     |               |     | 27.376 | 665 | 0.312 | 7.90  |
|                           |     | 40                    |                                |      |     |     |     |               |     |               |     | 27.000 | 686 | 1.50  | 12.70 |
| 30                        | 750 | 20                    |                                |      |     |     |     | 30.000        | 762 | 0.338         | 772 | 26.750 | 679 | 0.625 | 15.90 |
|                           |     | 30                    |                                |      |     |     |     |               |     |               |     | 29.376 | 746 | 0.312 | 7.90  |
|                           |     | 40                    |                                |      |     |     |     |               |     |               |     | 29.000 | 737 | 1.50  | 12.70 |
| 32                        | 800 | 10                    |                                |      |     |     |     | 32.000        | 813 | 32.50         | 825 | 28.750 | 730 | 0.625 | 15.90 |
|                           |     | 20                    |                                |      |     |     |     |               |     |               |     | 31.413 | 797 | 0.312 | 7.90  |
|                           |     | 30                    |                                |      |     |     |     |               |     |               |     | 31.084 | 787 | 1.50  | 12.70 |
|                           |     | 40                    |                                |      |     |     |     |               |     |               |     | 32.865 | 781 | 0.625 | 15.90 |
| 34                        | 850 | 10                    |                                |      |     |     |     | 34.000        | 864 | 34.50         | 876 | 32.755 | 778 | 0.688 | 17.50 |
|                           |     | 20                    |                                |      |     |     |     |               |     |               |     | 33.376 | 848 | 0.312 | 7.90  |
|                           |     | 30                    |                                |      |     |     |     |               |     |               |     | 33.000 | 838 | 1.50  | 12.70 |
|                           |     | 40                    |                                |      |     |     |     |               |     |               |     | 32.750 | 832 | 0.625 | 15.90 |
| 36                        | 900 | 10                    |                                |      |     |     |     | 36.000        | 914 | 36.50         | 927 | 32.624 | 829 | 0.688 | 17.50 |
|                           |     | 20                    |                                |      |     |     |     |               |     |               |     | 35.376 | 899 | 0.312 | 7.90  |
|                           |     | 30                    |                                |      |     |     |     |               |     |               |     | 35.000 | 889 | 1.50  | 12.70 |
|                           |     | 40                    |                                |      |     |     |     |               |     |               |     | 34.750 | 883 | 0.625 | 15.90 |
|                           |     |                       |                                |      |     |     |     |               |     |               |     | 34.500 | 876 | 0.750 | 19.05 |

# ► 蝶阀压力-温度额定值 Butterfly Valve Pressure- Temperature Rating



## 阀座温度额定值 Seat Temperature Rating

| 阀座材料<br>Seat Material                             | 温度等级 Temperature Grade |         |
|---------------------------------------------------|------------------------|---------|
|                                                   | ℃                      | F°      |
| 丁腈橡胶 Nitrile Rubber                               | -12~82                 | +10~180 |
| 耐磨丁腈 Wear Nitrile                                 | -12~84                 | +10~180 |
| 氧丁橡胶 Oxygen-Butadiene Rubber                      | -7~93                  | 20~200  |
| 乙丙橡胶 Ethylene-Propylene Rubber(2"-16")            | -35~135                | -30~275 |
| 乙丙橡胶 Ethylene-Propylene Rubber(18"以上) (above 18") | -35~110                | -30~225 |
| 食品乙丙橡胶 Food Grade Ethylene-Propylene Rubber       | -35~110                | -30~225 |
| 海波伦 Hypalon                                       | -32~135                | 0~275   |
| 氟橡胶 Fluorinated Rubber                            | -12~135                | 10~275  |
| 高温氟橡胶 High Temperature Fluorinated Rubber         | -12~382                | 10~400  |
| 聚四氟乙烯 Poly Tetrafluorine(125psi2"-12")            | 4~121                  | 40~250  |
| Over Buna-N(75si,2"-12")                          | 4~135                  | 40~275  |

说明：阀座可承受更低温度而不至于损坏。然而，橡胶会硬且扭矩增大。有些流体介质可能会对公布温度进一步限制或大大减少阀寿命。

请注意：高温氟橡胶在高于275℃的温度时压力承受会降低。

Instruction: The valve seat can afford lower temperature without damaging. However, rubber will gradually harden and torque increases. Some flow media has a limited temperature range, and the valves' life might be greatly reduced.

Note: High temperature fluorine rubber will reduce pressure affording ability at temperature above 275℃

## 压力温度额定值 ASME B16.34 最大允许非冲击压力值 (MPa)(标准级)

Pressure Temperature Rating ASME B16.34 Max Allowable Non-impact Pressure(MPa)(Standard Level)

PN2.0MPa CLASS 150

| 工作温度℃<br>Working Temperature                          | A216-WCB<br>A105 | A217-WC6<br>A182-F11 | A217-WC5<br>A182-F22 | A217-WC5<br>A182-F5 | A352-LCB | A352-LCB | A315-CF8<br>A315-CF3 | A315-CF8M<br>A315-CF3M | A182-F304L<br>A182-F316L | Monel |
|-------------------------------------------------------|------------------|----------------------|----------------------|---------------------|----------|----------|----------------------|------------------------|--------------------------|-------|
| -29-38                                                | 1.96             | 2.00                 | 2.00                 | 2.00                | 2.00     | 1.84     | 1.90                 | 1.90                   | 1.59                     | 1.59  |
| 50                                                    | 1.92             | 1.92                 | 1.92                 | 1.92                | 1.90     | 1.81     | 1.84                 | 1.84                   | 1.53                     | 1.54  |
| 100                                                   | 1.77             | 1.77                 | 1.77                 | 1.77                | 0.77     | 1.77     | 1.57                 | 1.57                   | 1.32                     | 1.38  |
| 150                                                   | 1.58             | 1.58                 | 1.58                 | 1.58                | 1.58     | 1.58     | 1.39                 | 1.39                   | 1.20                     | 1.39  |
| 200                                                   | 1.40             | 1.40                 | 1.40                 | 1.40                | 1.40     | 1.40     | 1.26                 | 1.26                   | 1.10                     | 1.26  |
| 250                                                   | 1.21             | 1.21                 | 1.21                 | 1.21                | 1.21     | 1.21     | 1.17                 | 1.17                   | 1.02                     | 1.17  |
| 300                                                   | 1.02             | 1.02                 | 1.02                 | 1.02                | 1.02     | 1.02     | 1.02                 | 1.02                   | 0.97                     | 1.02  |
| 350                                                   | 0.84             | 0.84                 | 0.84                 | 0.84                | 0.84     | 0.84     | 0.84                 | 0.84                   | 0.84                     | 0.84  |
| 375                                                   | 0.74             | 0.74                 | 0.74                 | 0.74                | 0.74     | 0.74     | 0.74                 | 0.74                   | 0.74                     | 0.74  |
| 400                                                   | 0.65             | 0.65                 | 0.65                 | 0.65                | 0.65     | 0.65     | 0.65                 | 0.65                   | 0.65                     | 0.65  |
| 425                                                   | 0.56             | 0.56                 | 0.56                 | 0.56                | 0.56     | 0.56     | 0.56                 | 0.56                   | 0.56                     | 0.56  |
| 450                                                   | 0.47②            | 0.47                 | 0.47                 | 0.47                | 0.47     | 0.47     | 0.47                 | 0.47                   | 0.47                     | -     |
| 475                                                   | 0.37             | 0.37                 | 0.37                 | 0.37                | 0.37     | 0.37     | 0.37                 | 0.37                   | -                        | -     |
| 500                                                   | 0.28             | 0.28                 | 0.28                 | 0.28                | 0.28     | 0.28     | 0.28                 | 0.28                   | -                        | -     |
| 525                                                   | 0.19             | 0.19                 | 0.19                 | 0.19                | 0.19     | 0.19     | 0.19                 | 0.19                   | -                        | -     |
| 540                                                   | -                | -                    | -                    | -                   | -        | -        | -                    | -                      | -                        | -     |
| 550                                                   | -                | 0.13②                | 0.13②                | 0.13②               | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 575                                                   | -                | 0.13②                | 0.13②                | 0.13②               | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 625                                                   | -                | 0.13                 | 0.13                 | 0.13                | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 650                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 675                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 700                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 725                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 750                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 775                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 800                                                   | -                | -                    | -                    | -                   | -        | -        | 0.13②                | 0.13②                  | -                        | -     |
| 壳体液体静压试验<br>Shell Test with Liquid<br>Static Pressure | 2.9              | 3.0                  |                      |                     |          | 2.8      | 3.0                  |                        | 2.85                     |       |
| 密封试验<br>Seal Test                                     | 2.1              | 2.2                  |                      |                     |          | 2.0      | 2.0                  |                        | 1.7                      |       |
| 液压气压<br>Hydraulic Pressure<br>and Air Pressure        | 0.6              |                      |                      |                     |          |          |                      |                        |                          |       |

# ► 蝶阀压力-温度额定值 Butterfly Valve Pressure- Temperature Rating



注：1、允许在450使用，但不推荐长时间使用温度超过425。

2、超过540只能使用对焊端连接，而且不能采用法兰连接。

3、低温材料在低温状态下的工作压力不能超过常温的额定压力值。

Note: 1. Valves can be used at 450°C, but it is not recommended that using it above 425°C in a long time.

2. Only Use Butt Welding Connection, but not Flange over 540°C

3. Low temp. materials' working pressure in low temp. condition can't exceed the nominal temperature rating.

## PN5.0MPa CLASS300

| 工作温度℃<br>Working Temperature                          |                                                | A216-WCB<br>A105 | A217-WC6<br>A182-F11 | A217-WC5<br>A182-F22 | A217-WC5<br>A182-F5 | A352-LCB | A352-LCB | A315-CF8<br>A315-CF3 | A315-CF8M<br>A315-CF3M | A182-F304L<br>A182-F316L | Monel |
|-------------------------------------------------------|------------------------------------------------|------------------|----------------------|----------------------|---------------------|----------|----------|----------------------|------------------------|--------------------------|-------|
| -29-38                                                |                                                | 5.11             | 5.17                 | 5.17                 | 5.17                | 5.17     | 4.79     | 4.96                 | 4.96                   | 4.14                     | 4.14  |
| 50                                                    |                                                | 5.01             | 5.11                 | 5.12                 | 5.17                | 5.17     | 4.73     | 4.78                 | 4.78                   | 4.00                     | 4.03  |
| 100                                                   |                                                | 4.04             | 4.88                 | 4.90                 | 5.15                | 5.15     | 4.51     | 4.09                 | 4.09                   | 3.45                     | 3.61  |
| 150                                                   |                                                | 4.52             | 4.64                 | 4.64                 | 5.02                | 5.02     | 4.40     | 3.63                 | 3.85                   | 3.12                     | 3.96  |
| 200                                                   |                                                | 4.38             | 4.55                 | 4.55                 | 4.88                | 4.88     | 4.27     | 3.28                 | 3.77                   | 2.87                     | 3.30  |
| 250                                                   |                                                | 4.07             | 4.45                 | 4.45                 | 4.63                | 4.63     | 4.06     | 3.05                 | 3.34                   | 2.67                     | 3.28  |
| 300                                                   |                                                | 3.87             | 4.24                 | 4.24                 | 4.24                | 4.24     | 3.77     | 2.91                 | 3.63                   | 2.52                     | 3.22  |
| 350                                                   |                                                | 3.70             | 4.02                 | 4.02                 | 4.06                | 4.06     | 3.60     | 2.81                 | 3.28                   | 2.40                     | 3.17  |
| 375                                                   |                                                | 3.65             | 3.88                 | 3.88                 | 3.88                | 3.88     | 3.53     | 2.78                 | 3.05                   | 2.36                     | -     |
| 400                                                   |                                                | 3.45             | 3.66                 | 3.66                 | 3.06                | 3.45     | 3.24     | 2.75                 | 2.91                   | 2.32                     | -     |
| 425                                                   |                                                | 2.88             | 3.51                 | 3.51                 | 3.45                | 2.88     | 2.73     | 2.72                 | 2.87                   | 2.27                     | -     |
| 450                                                   |                                                | 2.00             | 3.38                 | 3.38                 | 3.09                | 2.00     | 1.98     | 2.69                 | 2.81                   | 2.23                     | -     |
| 475                                                   |                                                | 1.35             | 3.17                 | 3.17                 | 2.59                | 1.35     | 1.35     | 2.66                 | 2.74                   | -                        | -     |
| 500                                                   |                                                | 0.88             | 2.78                 | 2.78                 | 2.03                | 0.88     | 0.88     | 2.61                 | 2.68                   | -                        | -     |
| 525                                                   |                                                | 0.52             | 2.03                 | 2.19                 | 1.54                | 0.52     | 0.52     | 2.39                 | 2.58                   | -                        | -     |
| 540                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | -                    | -                      | -                        | -     |
| 550                                                   |                                                | -                | 12.8                 | 1.64                 | 1.17                | -        | -        | 2.18                 | 2.50                   | -                        | -     |
| 575                                                   |                                                | -                | 0.85                 | 1.17                 | 0.88                | -        | -        | 2.01                 | 2.41                   | -                        | -     |
| 625                                                   |                                                | -                | 0.34                 | 0.66                 | 0.45                | -        | -        | 1.31                 | 1.83                   | -                        | -     |
| 650                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 1.05                 | 1.14                   | -                        | -     |
| 675                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 0.78                 | 1.26                   | -                        | -     |
| 700                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 0.60                 | 0.99                   | -                        | -     |
| 725                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 0.46                 | 0.77                   | -                        | -     |
| 750                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 0.37                 | 0.59                   | -                        | -     |
| 775                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 0.28                 | 0.46                   | -                        | -     |
| 800                                                   |                                                | -                | -                    | -                    | -                   | -        | -        | 0.21                 | 0.35                   | -                        | -     |
| 壳体液体静压试验<br>Shell Test with Liquid<br>Static Pressure |                                                | 7.6              | 7.7                  |                      |                     |          | 7.2      | 7.4                  |                        | 6.2                      |       |
| 密封试验<br>Seal Test                                     | 液压气压<br>Hydraulic Pressure<br>and Air Pressure | 5.6              | 5.7                  |                      |                     |          | 5.3      | 5.4                  |                        | 4.5                      |       |
|                                                       |                                                | 0.6              |                      |                      |                     |          |          |                      |                        |                          |       |

# ► 蝶阀压力-温度额定值 Butterfly Valve Pressure- Temperature Rating



## PN6.8MPa CLASS400

| 工作温度℃<br>Working Temperature                          |                                                | A216-WCB<br>A105 | A217-WC6<br>A182-F11 | A217-WC5<br>A182-F22 | A217-WC5<br>A182-F5 | A217-WC12<br>A182-F9 | A352-LCB | A352-LCB | A315-CF8<br>A315-CF3 | A315-CF8M<br>A315-CF3M | A182-F304L<br>A182-F316L | Monel |
|-------------------------------------------------------|------------------------------------------------|------------------|----------------------|----------------------|---------------------|----------------------|----------|----------|----------------------|------------------------|--------------------------|-------|
| -29~38                                                |                                                | 6.81             | 6.90                 | 6.90                 | 6.90                | 6.90                 | 6.90     | 6.38     | 6.62                 | 6.62                   | 5.51                     | 5.52  |
| 50                                                    |                                                | 6.68             | 6.82                 | 6.82                 | 6.90                | 6.90                 | 6.90     | 6.31     | 6.38                 | 6.42                   | 5.33                     | 5.37  |
| 100                                                   |                                                | 6.18             | 6.50                 | 6.54                 | 6.87                | 6.87                 | 6.87     | 6.01     | 5.54                 | 5.63                   | 4.60                     | 4.81  |
| 150                                                   |                                                | 6.03             | 6.18                 | 6.22                 | 6.69                | 6.69                 | 6.69     | 5.86     | 4.84                 | 6.62                   | 4.16                     | 4.47  |
| 200                                                   |                                                | 5.84             | 6.06                 | 5.98                 | 6.50                | 6.50                 | 6.50     | 5.69     | 4.37                 | 6.42                   | 3.83                     | 4.40  |
| 250                                                   |                                                | 5.56             | 5.93                 | 5.90                 | 6.18                | 6.18                 | 6.18     | 5.41     | 4.07                 | 5.63                   | 3.56                     | 4.37  |
| 300                                                   |                                                | 5.16             | 5.66                 | 5.66                 | 5.66                | 5.66                 | 5.66     | 5.03     | 3.87                 | 4.22                   | 3.37                     | 4.37  |
| 350                                                   |                                                | 4.93             | 5.36                 | 5.36                 | 5.36                | 5.36                 | 5.36     | 4.80     | 3.74                 | 4.06                   | 3.21                     | 4.37  |
| 375                                                   |                                                | 4.86             | 5.17                 | 5.17                 | 5.17                | 5.17                 | 5.17     | 4.71     | 3.70                 | 3.96                   | 3.15                     | 4.37  |
| 400                                                   |                                                | 4.60             | 4.88                 | 4.88                 | 4.88                | 4.88                 | 4.60     | 4.32     | 3.66                 | 3.88                   | 3.09                     | 4.30  |
| 425                                                   |                                                | 3.83             | 4.68                 | 4.68                 | 4.60                | 4.68                 | 3.83     | 3.64     | 3.62                 | 3.82                   | 3.03                     | 4.22  |
| 450                                                   |                                                | 2.68             | 4.51                 | 4.51                 | 4.12                | 4.51                 | 2.68     | 2.64     | 3.58                 | 3.74                   | 2.97                     | -     |
| 475                                                   |                                                | 1.81             | 4.22                 | 4.22                 | 3.45                | 4.22                 | 1.81     | 1.81     | 3.54                 | 3.65                   | -                        | -     |
| 500                                                   |                                                | 1.17             | 3.71                 | 3.71                 | 2.70                | 3.67                 | 1.17     | 1.17     | 3.47                 | 3.58                   | -                        | -     |
| 525                                                   |                                                | 0.69             | 2.70                 | 2.92                 | 2.06                | 3.01                 | 0.69     | 0.69     | 3.18                 | 3.44                   | -                        | -     |
| 540                                                   |                                                | 0.43             | -                    | -                    | -                   | -                    | 0.43     | 0.43     | -                    | -                      | -                        | -     |
| 550                                                   |                                                | -                | 1.70                 | 2.18                 | 1.56                | 2.26                 | -        | -        | 2.91                 | 3.33                   | -                        | -     |
| 575                                                   |                                                | -                | 1.13                 | 1.56                 | 1.17                | 1.50                 | -        | -        | 2.68                 | 3.21                   | -                        | -     |
| 625                                                   |                                                | -                | 0.78                 | 1.02                 | 0.87                | 0.96                 | -        | -        | 2.23                 | 2.86                   | -                        | -     |
| 650                                                   |                                                | -                | 0.45                 | 0.88                 | 0.60                | 0.66                 | -        | -        | 1.74                 | 2.43                   | -                        | -     |
|                                                       |                                                | -                | 0.31                 | 0.49                 | 0.40                | 0.46                 | -        | -        | 1.40                 | 1.88                   | -                        | -     |
| 壳体液体静压试验<br>Shell Test with Liquid<br>Static Pressure |                                                | 10.2             | 10.35                |                      |                     |                      |          | 9.6      | 9.6                  |                        | 8.28                     | 8.28  |
| 密封试验<br>Seal Test                                     | 液压气压<br>Hydraulic Pressure<br>and Air Pressure | 7.50             | 7.6                  |                      |                     |                      |          | 7.0      | 7.3                  |                        | 6.1                      | 6.1   |
|                                                       |                                                | 0.6              |                      |                      |                     |                      |          |          |                      |                        |                          |       |

## PN10.0MPa CLASS600

| 工作温度℃<br>Working Temperature                          |                                                | A216-WCB<br>A105 | A217-WC6<br>A182-F11 | A217-WC5<br>A182-F22 | A217-WC5<br>A182-F5 | A217-WC12<br>A182-F9 | A352-LCB | A352-LCB | A315-CF8<br>A315-CF3 | A315-CF8M<br>A315-CF3M | A182-F304L<br>A182-F316L | Monel |
|-------------------------------------------------------|------------------------------------------------|------------------|----------------------|----------------------|---------------------|----------------------|----------|----------|----------------------|------------------------|--------------------------|-------|
| -29~38                                                |                                                | 10.21            | 10.34                | 10.34                | 10.34               | 10.34                | 10.34    | 9.57     | 9.92                 | 9.93                   | 8.27                     | 8.28  |
| 50                                                    |                                                | 10.02            | 10.23                | 10.23                | 10.34               | 10.34                | 10.34    | 9.46     | 9.57                 | 9.63                   | 7.99                     | 8.06  |
| 100                                                   |                                                | 9.28             | 9.75                 | 9.75                 | 10.31               | 10.31                | 10.31    | 9.02     | 8.18                 | 8.44                   | 6.90                     | 7.21  |
| 150                                                   |                                                | 9.05             | 9.27                 | 9.27                 | 10.04               | 10.04                | 10.04    | 8.79     | 7.27                 | 7.70                   | 6.25                     | 6.71  |
| 200                                                   |                                                | 8.76             | 9.10                 | 9.10                 | 9.76                | 9.76                 | 9.76     | 8.54     | 6.55                 | 7.13                   | 5.74                     | 6.60  |
| 250                                                   |                                                | 8.34             | 8.89                 | 8.89                 | 9.27                | 9.27                 | 9.27     | 8.12     | 6.11                 | 6.68                   | 5.34                     | 6.56  |
| 300                                                   |                                                | 7.74             | 8.49                 | 8.49                 | 8.49                | 8.46                 | 8.49     | 7.54     | 5.81                 | 6.63                   | 5.05                     | 6.55  |
| 350                                                   |                                                | 7.39             | 8.05                 | 8.05                 | 8.05                | 8.49                 | 8.05     | 7.19     | 5.61                 | 6.08                   | 4.81                     | 6.55  |
| 375                                                   |                                                | 7.29             | 7.76                 | 7.76                 | 7.76                | 8.05                 | 7.76     | 7.06     | 5.55                 | 5.94                   | 4.72                     | 6.55  |
| 400                                                   |                                                | 6.90             | 7.32                 | 7.32                 | 7.32                | 7.76                 | 6.90     | 6.48     | 5.49                 | 5.82                   | 4.63                     | 6.45  |
| 425                                                   |                                                | 5.75             | 7.02                 | 7.02                 | 6.90                | 7.32                 | 5.75     | 5.46     | 5.43                 | 5.72                   | 4.54                     | 6.33  |
| 450                                                   |                                                | 4.01             | 6.67                 | 6.67                 | 6.18                | 7.02                 | 4.01     | 3.96     | 5.37                 | 5.62                   | 4.45                     | -     |
| 475                                                   |                                                | 2.71             | 6.33                 | 6.33                 | 5.18                | 6.76                 | 2.71     | 2.71     | 5.31                 | 5.47                   | -                        | -     |
| 500                                                   |                                                | 1.76             | 5.56                 | 5.56                 | 4.05                | 6.33                 | 1.76     | 1.76     | 5.21                 | 5.37                   | -                        | -     |
| 525                                                   |                                                | 1.04             | 4.05                 | 4.05                 | 3.08                | 4.52                 | 1.04     | 1.04     | 4.78                 | 5.16                   | -                        | -     |
| 540                                                   |                                                | -                | -                    | -                    | -                   | -                    | 0.65     | 0.65     | -                    | -                      | -                        | -     |
| 550                                                   |                                                | -                | 2.55                 | 2.55                 | 2.34                | 3.40                 | -        | -        | 4.36                 | 4.99                   | -                        | -     |
| 575                                                   |                                                | -                | 1.70                 | 1.70                 | 1.76                | 2.25                 | -        | -        | 4.01                 | 4.82                   | -                        | -     |
| 600                                                   |                                                | -                | 1.12                 | 1.13                 | 1.31                | 1.44                 | -        | -        | 3.34                 | 4.29                   | -                        | -     |
| 625                                                   |                                                | -                | 0.68                 | 0.68                 | 0.90                | 0.99                 | -        | -        | 2.62                 | 3.65                   | -                        | -     |
| 650                                                   |                                                | -                | 0.46                 | 0.46                 | 0.60                | 0.70                 | -        | -        | 2.10                 | 2.82                   | -                        | -     |
| 675                                                   |                                                | -                | -                    | -                    | -                   | -                    | -        | -        | 1.55                 | 2.53                   | -                        | -     |
| 700                                                   |                                                | -                | -                    | -                    | -                   | -                    | -        | -        | 1.20                 | 1.99                   | -                        | -     |
| 725                                                   |                                                | -                | -                    | -                    | -                   | -                    | -        | -        | 0.93                 | 1.54                   | -                        | -     |
| 750                                                   |                                                | -                | -                    | -                    | -                   | -                    | -        | -        | 0.73                 | 1.00                   | -                        | -     |
| 775                                                   |                                                | -                | -                    | -                    | -                   | -                    | -        | -        | 0.56                 | 0.91                   | -                        | -     |
| 800                                                   |                                                | -                | -                    | -                    | -                   | -                    | -        | -        | 0.41                 | 0.70                   | -                        | -     |
| 壳体液体静压试验<br>Shell Test with Liquid<br>Static Pressure |                                                | 10.2             | 10.35                |                      |                     |                      | 9.6      |          | 9.6                  |                        | 8.28                     | 8.28  |
| 密封试验<br>Seal Test                                     | 液压气压<br>Hydraulic Pressure<br>and Air Pressure | 7.5              | 7.5                  |                      |                     |                      | 7.0      |          | 7.3                  |                        | 6.1                      | 6.1   |
|                                                       | 0.6                                            |                  |                      |                      |                     |                      |          |          |                      |                        |                          |       |

# ▶ 壳体材料的化学成分和力学性能

## Shell Material s Chemical Components and Mechanical Properties



化学成分和力学性能 Chemical Components and Mechanical Performance

| 材料<br>Material                 | 碳钢<br>Carbon Steel  |                     |           |               | 合金钢<br>Alloy Steel  |                     |                    |                     | 不锈钢<br>Stainless Steel |                      |                     |
|--------------------------------|---------------------|---------------------|-----------|---------------|---------------------|---------------------|--------------------|---------------------|------------------------|----------------------|---------------------|
|                                | ASTM<br>A216<br>WCB | ASTM<br>A216<br>WCC | ASTM A352 |               | ASTM<br>A217<br>WC6 | ASTM<br>A217<br>WC9 | ASTM<br>A217<br>C5 | ASTM<br>A217<br>C12 | ASTM<br>A351<br>CF8    | ASTM<br>A351<br>CF8M | ASTM<br>A351<br>CF3 |
|                                |                     |                     | LCB       | LCC           |                     |                     |                    |                     |                        |                      |                     |
| 碳 Carbon                       | 0.3                 | 0.25                | 0.3       | 0.25          | 0.05–0.20           | 0.05–0.18           | 0.2                | 0.2                 | 0.08                   | 0.08                 | 0.03                |
| 锰 Mn                           | 1                   | 1.2                 | 1         | 1.2           | 0.50–0.8            | 0.40–0.70           | 0.40–0.70          | 0.40–0.70           | 1.5                    | 1.5                  | 1.5                 |
| 磷 P                            | 0.04                | 0.04                | 0.04      | 0.04          | 0.05                | 0.05                | 0.05               | 0.05                | 0.04                   | 0.04                 | 0.04                |
| 硫 Sulfur                       | 0.045               | 0.045               | 0.045     | 0.045         | 0.06                | 0.06                | 0.06               | 0.06                | 0.04                   | 0.04                 | 0.04                |
| 硅 Silicon                      | 0.6                 | 0.6                 | 0.6       | 0.6           | 0.6                 | 0.6                 | 0.75               | 1                   | 2                      | 1.5                  | 2                   |
| 镍 Ni                           | 0.5                 | 0.5                 | 0.5       | 0.5           | –                   | –                   | –                  | –                   | 8.00–11.0              | 9.00–12.0            | 8.00–12.0           |
| 铬 Cr                           | 0.5                 | 0.5                 | 0.5       | 0.5           | 1.00–1.50           | 2.00–2.75           | 4.00–6.50          | 8.00–10.0           | 18.00–21.0             | 18.00–21.00          | 18.00–21.0          |
| 钼 Mo                           | 0.2                 | 0.2                 | 0.2       | 0.2           | 0.45–0.65           | 0.90–1.20           | 0.45–0.65          | 0.90–1.20           | 0.5                    | 2.00–3.00            | 0.5                 |
| 铜 Copper                       | 0.3                 | 0.3                 | 0.3       | 0.3           | 0.5                 | 0.5                 | 0.5                | 0.5                 | –                      | –                    | –                   |
| 铌 NB                           | –                   | –                   | –         | –             | –                   | –                   | –                  | –                   | –                      | –                    | –                   |
| 钒 V                            | 0.03                | 0.03                | 0.03      | 0.03          | –                   | –                   | –                  | –                   | –                      | –                    | –                   |
| 最小抗拉强度<br>Min Tensile Strength | 70,000–95,000       | 7,000–              | 65.00     | 70,000–95,000 | 70,000              | 70,000              | 90,000–15,000      | 90,000–15,000       | 70,000                 | 70,000               | 70,000              |
| 最小屈服强度<br>Min Yield Strength   | 36,000              | 40,000              | 35,000    | 40,000        | 40,000              | 40,000              | 60.000             | 60.000              | 30,000                 | 30,000               | 30,000              |
| 最小延伸率<br>Min Elongation        | 22                  | 22                  | 24        | 22            | 20                  | 20                  | 18                 | 18                  | 35                     | 30                   | 30                  |
| 最小伸缩<br>Min Extend Rating      | 35                  | 35                  | 35        | 35            | 35                  | 35                  | 35                 | 35                  | –                      | –                    | –                   |
| 最大(HB)<br>The maximum (HB)     | 185                 | 185                 | 190       | 200           | 200                 | 200                 | 237                | 237                 | –                      | –                    | –                   |

# ► 安装使用维修

## Installation, Use and Maintenance



### 运输与贮存 Transportation and Storage

- 1、蝶阀在搬运过程中，应对两密封面加以保护，以防止碰伤。
- 2、蝶阀应在防雨、防尘、干燥处存放，使蝶板处于开启 $5^{\circ}$  -  $10^{\circ}$  状态，并加以覆盖，防止杂物进入密封面。
1. Butterfly valves' double sealing surfaces should be protected to prevent damage during transportation.
2. Butterfly valves should be stored at dry, rain-proof and dust-proof places with the disc opening  $5^{\circ}$  -  $10^{\circ}$ . The valves should be covered to prevent anything entering the sealing surface.

### 安装使用注意事项 Notice for Installation and Use

- 1、安装前应核对蝶阀规格、压力、温度、耐腐蚀性是否满足使用要求。应检查各部零件是否损坏或松动。
- 2、本蝶阀可安装在任意角度的管道上，应关闭安装为宜；焊接管道法兰时应将阀门密封口用板挡住以防止颗粒、杂物挫伤密封面，焊后取下阀门，对阀门密封面及管道内腔进行清洁，然后再安装固定阀门。
- 3、安装时请注意阀门关闭状态承压方向，普通管道阀门正向安装，泵前阀门反向安装。
- 4、安装前应将密封面(两端密封面、碟板密封面、阀座密封面)彻底擦干净，去掉灰尘和污物。
- 5、安装前应空试蝶阀，启闭应灵活，启闭位置与指针指示位置符合。
- 6、手动操作顺时针为关，逆时针为开，指针指示到位后不准再加力启闭阀门。
- 7、阀门做压力试验时，不准用单法兰进行安装试压，必须采用双法兰安装试压。其试验压力应符合GB/T 13927标准规定。
- 8、紧固螺栓时应对称交替进行紧固，不准依次单独紧固。
- 9、限位螺钉出厂前，已经调好，不准轻易调整。若配置驱动装置为电动、气动时请阅读配套驱动装置说明书。
- 10、电动蝶阀出厂时已将控制机构的启闭行程调好，为防止电源接通时方向搞错，用户在第一次接通电源前要先手动开启至半开位置，再按点开关，检查指示盘方向与阀门开启方向一致即可。
- 11、发现阀门启闭失常应查明原因进行修理和排除，防止用加力方法开关阀门，造成阀门的损伤。
- 12、阀门故障实在无法排除，请通知我们为您做好产品安装使用售后服务。
1. It is confirmed that whether butterfly valves' specification, pressure, temperature and corrosion resistance satisfy the using requirements, and whether parts are damaged or loose.
2. The butterfly valves can be installed at the pipeline with any angle, and should be installed in closing condition, when welding the pipe flange, valve sealing ends should be blocked with boards to prevent the particles, debris damaging the sealing surface. After welding, take down the valve and clean the valve sealing surface and pipeline inside, later install and fix the valve.
3. During installation, pay attention to the direction of the valve affording. Ordinary pipeline valves are incet installed, pump valves are outlet installed as.
4. Before installation, wipe off the sealing surfaces(at both ends, disc and seat), clean the dust and obstacles.
5. Before installation, the valve should be flexible to open and close with the air condition. The position of opening and closing is fit for the indicator position.
6. During manual operation, it should be clockwise to close and anticlockwise to open. Do not force to open and close after the valve indication in the right place.
7. During the valve pressure testing, it is forbidden that using single flange, it is adopted that double flange as. The pressure test should fits the standard of GB/T13927.
8. Bolts should be fastened alternately and symmetrical, not individually.
9. The limit screw have a good tune before leaving factory, so adjusting casually is forbidden. If the driver is pneumatic or electric, plz read the instruction of the driver carefully.
10. Eletric butterfly valve has a good tune in opening and closing stroke of the control mechanism. When customer open the valve first time, open the valve as half-open position with manual operation, and point the switch, and check the direction of valve is in accordance with the indicator.
11. If the valve was in an abnormal opening and closing situation, check the reason and maitain it, avoiding the damage from forcing opening and closing the valve.
12. If the hitch couldn't be solved by yourself, plz contact us to arrange the after-sales service.

### 可能发生的故障及消防方法 The Possible Fault and Fire

| 可能发生的故障<br>Probable Fault             | 原因<br>Reason                                                                                                                                                                                                                                                                                                                                                                                                                                               | 消除方法<br>Elimination Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 密封泄漏<br>Seal Leakage                  | <ol style="list-style-type: none"> <li>1、蝶板、密封圈夹有杂物</li> <li>2、蝶板、密封圈关闭吻合不正</li> <li>3、出口侧配装法兰螺栓受力不均或未压紧</li> <li>4、试压方向未按箭头方向要求</li> <li>1. There is debris on the disc and seal ring.</li> <li>2. The closing position of disc and seal ring is not correct.</li> <li>3. Fitting pipe flange at external position is compressed unevenly and untightly</li> <li>4. Direction of testing pressure doesn' t according to the arrow requirements</li> </ol> | <ol style="list-style-type: none"> <li>1、消除杂质，清洗阀门内腔</li> <li>2、调正蜗轮或电动执行器等执行机构的调节螺钉，以达到阀门关闭位置正确</li> <li>3、检查配装法兰平面及螺栓压紧力，应均匀压紧</li> <li>4、按箭头密封方向进行施压</li> <li>1. Clean the valve cavity and eliminate the debris.</li> <li>2. Adjust the screws of wormgear and electric actuator or other driving devices to correct the valve closing position.</li> <li>3. Fitting flange at external position should be compressed evenly and tightly.</li> <li>4. Direction of testing pressure should depend on the arrow of seal.</li> </ol> |
| 阀门两端面泄漏<br>Valve Leakage of Both Ends | <ol style="list-style-type: none"> <li>1、两侧密封垫片失效</li> <li>2、管法兰压紧力不均未压紧</li> <li>3、密封圈上、下密封圈垫片失效</li> <li>1. Sealing gaskets of both ends are invalid.</li> <li>2. Pipe flange is compressed unevenly and untightly.</li> <li>3. Gaskets on the up and bottom of seal ring are invalid.</li> </ol>                                                                                                                                                        | <ol style="list-style-type: none"> <li>1、更换密封垫片</li> <li>2、压紧法兰螺栓(均匀用力)</li> <li>3、卸下阀门的压板圈，更换密封圈失效垫片</li> <li>1. Replacing sealing gaskets</li> <li>2. Compressing flange bolts (uniform force)</li> <li>3. Removing the plate ring of valve and replacing the invalid gasket</li> </ol>                                                                                                                                                                                                                                              |



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