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HUNAN HANDA
VALVE CO., LTD
湖南翰达阀门有限公司

- 致力于为流体控制产业提供性能可靠、品质卓越的阀门及相关流体控制产品和服务。
- Devoted to providing valves with reliable performances and excellent quality and other related fluid control products and services for the fluid control industry.

High Performance
Butterfly Valves
高性能蝶阀

www.handavalve.com

International Quality,
Precise Control

湖南翰达阀门有限公司，是一家集研发、设计、生产制造、销售服务为一体的高科技阀门及其自动化控制装置的专业制造工厂。公司占地面积26800m²，建筑面积40000m²，公司员工286人，其中高中级技术人员58人，具有CAD、CAM研发设计制造和ERP企业资源计划管理系统。公司投入注册资金5888万元，拥有加工中心、数控机床及金切加工设备68台；理化、无损检测、光谱分析、三维测量仪及阀门综合性能测试设备25台/套。公司已取得ISO9001国际质量体系认证证书，美国石油学会API-6D、API607、API6FA证书，欧盟CE安全认证，国家技术监督局特种设备生产许可证(TS)以及相关行业的入网证书。

公司自行研发设计的高性能三偏心及双偏心蝶阀获得二十项国家专利。公司主要为石油、化工、冶金、矿山、生物、医药、深冷、空分、核电、火电、水电、机械、供水、燃气以及输油、输气、长输管线等工程提供高温高压、高真空、高性能、耐磨耐腐蚀的各类球阀、蝶阀、闸阀、截止阀、止回阀、安全阀等八大系列共1500余个品种规格。生产公称通径为DN15-3000mm(1/2" -120"),公称压力为1.6MPa-42MPa（150LB-2500LB）,工作温度为-196℃~750℃，阀门的材质有碳钢、不锈钢、耐热合金钢、蒙耐尔合金、低温钢以及其他特殊钢。驱动方式有手动、电动、气动、齿轮传动、涡轮蜗杆传动、气液联动、电液联动及计算机全自动控制系统。产品畅销全国各地，并出口美国、欧洲及全世界各地。

HUNAN HANDA VALVE CO., LTD., which integrates research and development, design, production, sale and service into a whole, is a specialized manufacturer of high-tech valves and automation control devices. The corporation covers an area of 26,800 square meters with a floor space of 40,000 square meters, owns a staff of 286 people including 58 senior and intermediate technicians, and boasts of a system of CAD (Computer-Aided Design) and CAM (Computer-Aided Manufacturing) combined with ERP (Enterprise Resource Planning). With a registered capital of 58.88 million RMB, our company has 68 sets of machining centers, CNC machine tools and metal cutting and machining equipment, as well as physical and chemical testing equipment, nondestructive inspectors, spectrum analyzers, three-dimensional measuring machines and valve comprehensive performance testing equipment, with 25 sets for each type of equipment respectively. Our company has obtained the ISO9001 International Quality System Certificate, API-6D, API607 and API6FA certificates, CE Security Certificate, Special Equipment Production License (TS) issued by the State Technical Supervision Bureau and network access certificates in relevant industries.

The high performance three-eccentric and double-eccentric butterfly valves, which were independently researched and designed by our company, have been granted seven national patents. Our company mainly produces eight series of products amounting to more than 1,500 varieties including ball valves, butterfly valves, gate valves, globe valves, check valves, safety valves, etc. These valves, which are heat-resistant, high pressure resistant, high-vacuum, high-performance, wear-resistant and corrosion-resistant, are manufactured to supply the petroleum industry, chemical engineering, metallurgical industry, mining, biology, medicine, copious cooling, air separation, nuclear power, thermal power, hydroelectric power, machinery, water supply, fuel gas industry and oil transportation, gas transportation, long-distance transportation pipelines, etc. The nominal diameter of these valves is between DN15-3,000 millimeters (1/2-120 inch), the nominal pressure is between 1.6 MPa-42MPa (150LB-2500LB), while the operating temperature is 196℃ below zero to 750 ℃, The valve materials include carbon steel, stainless steel, heat resistant alloy steel, Monel, cryogenic steel and other special steel for certain purpose. The driving models include manual, electric, pneumatic, gear transmission, worm gear and worm transmission, pneumatic and hydraulic linkage, electric and hydraulic linkage, and computer automatic control system. The products are sold well thought out China and exported to the USA, Europe and other places around the world.

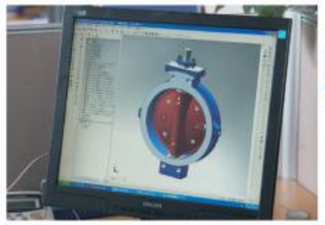
国际品质，精确控制

The Zero-fault Process to
Guarantee the Reliable Performances of Handa Products

过程零缺陷是翰达产品性能可靠的保障

严格的检测是产品质量的保证。不让一点瑕疵出现，不让质量问题损害我们的品牌是我们的宗旨。我们建立了一整套合理的、有序的检测程序，在“我们追求零缺陷”思想的指导下，翰达绝不让一件不合格的产品出厂，我们相信这既是对客户负责，更是对我们自己负责。

Strict inspection is the guarantee for product quality. It is our tenet to avoid any defect and prevent our company from harm brought by quality problems. We have established a complete set of sound and ordered inspection procedures, under the guidance of “our pursuing zero-fault”, Handa will never pass an unqualified product, which we believe it is not only means the responsibility for customers, but also for ourselves.



High Performance Butterfly Valves
高性能蝶阀

成套系统解决方案
Whole-set System Solution

- 阀门驱动装置及附件可配套安装，统一提供。
- 可配套提供电动装置，蜗轮装置，双作用气动装置或弹簧回座气动装置，以及各种附件，包括限位装置，电磁阀和定位器。

- The valve actuator and accessories can be offered and installed.
- Electric actuator, worm gear actuator, dual action pneumatic actuator or spring return pneumatic actuator and various accessories including limit device, solenoid valve and positioner can be offered.

HUNAN HANDA VALVE CO., LTD

湖南翰达阀门有限公司

Devoted to providing valves with reliable performances and excellent quality and other related fluid control products and services for the fluid control industry.

致力于为流体控制产业提供性能可靠、品质卓越的阀门及相关流体控制产品和服务

CONTENTS

Ultra-high performance double-direction sealing fluid regulation and control multifunctional eccentric butterfly valve

超高性能双向密封流体调节与控制多功能偏心蝶阀

蝶阀型号编制说明
Illustration of categorizing of the butterfly valve model

1	2	3	4	—	5	—	6	7	8	9	—	10
DB	A	8	150		M		20	17	34	TT		6"(DN150)

例如：要订购标准型、美标、对夹式、150磅级、手动、阀体材料为WCB，阀杆材料为174PH，碟板材料为304，密封材料为PTFE，阀门通径为6"（DN150）的蝶阀。

E.g.: to order a butterfly valve with standard type, American standard, wafer-style, 150LB, manual, body material WCB, stem material 174PH, butterfly plate material 304 and airproof seal material PTFE, valve diameter 6" (DN150)

型号编写为：DBA8150-M-201734TT-6"
The model is written as: DBA8150-M-201734TT-6"

1	阀门的特征代号	Valve feature code
DB	标准型	Standard code
DF	防火型(耐火型)	Fireproof type (fire resistant type)

2	设计标准代号	Design standard code
G	国标	GBJB
A	美标	ANSI
J	日标	JIS
D	德标	DIN
B	英标	BS

3	连接形式代号	Connection type code
8	对夹式	Wafer type
6	焊接式	Welded type
5	多耳式(单法兰)	Lug type (single flange)
4	法兰式(双法兰)	Flange type (double flange)

4	压力等级代号 Pressure class code
150	ANSI CLASS 150Lb
300	ANSI CLASS 300 Lb
600	ANSI CLASS 600 Lb
900	ANSI CLASS 900 Lb
010	JB79-94，PN10
016	JB79-94，PN16
025	JB79-94，PN25
040	JB79-94，PN40
100	JB79-94，PN100
160	JB79-94，PN160
10K	JIS 10K
20K	JIS 20K
30K	JIS 30K
40K	JIS 40K

5	驱动方式代号	Driving mode code
M	手动	Manual
K	光杆	Bare stem
G	蜗轮传动	Worm gear transmission
P	气动	Pneumatic
D	电动	Electric

6	阀体材料代号	Body material code
20	碳钢WCB	Carbon steel
34	不锈钢CF8	Stainless steel
36	不锈钢CF8M	Stainless steel
41	不锈钢 CF3	Stainless steel
61	不锈钢 CF3M	Stainless steel
66	蒙乃尔	Monel
88	哈氏合金	Ha's alloy

7	阀杆材料代号	Stem material code
17	马氏体不锈钢17-4PH	Martensite stainless steel 17-four PH
34	不锈钢304	Stainless steel 304
36	不锈钢316	Stainless steel 316
13	不锈钢1CR13	Stainless steel CR13 1
23	不锈钢2CR13	Stainless steel CR13 2

8	蝶板材料代号	Butterfly plate material code
22	碳钢+不锈钢(或合金钢)	Carbon steel and stainless steel (or alloy steel)
00	与阀体材料相同	And the same body material
34	不锈钢CF8	Stainless steel CF8
36	不锈钢CF8M	Stainless steel CF8M
41	不锈钢 CF3	Stainless steel CF3
61	不锈钢 CF3M	Stainless steel CF3M

9	密封阀座的材料代号 Seal of the seat material code
TT	PTFE聚四氟乙烯
MT	RPTFE增强聚四氟乙烯
PL	对位聚苯PPL
PK	PEEK
YT	耐烧合金钢+PTFE

10	阀门通径 Valve size
美标	2"-120" (英寸inch)
国标	DN50-DN3000 (mm)

概述
Summary

超高性能蝶阀是本公司自行研制并引进德国“MAYER”的专利产品。该蝶阀具有超独特的产品结构，超可靠的密封性能，超广阔的工况条件，超低小的操作扭矩，超长久的使用寿命，特殊工况安全防火，同类产品处于世界领先地位。

The ultra-high performance butterfly valve is a patented product independently researched and developed by our company through introducing technology from Germany "MAYER". The butterfly valve has a unique product structure, reliable sealing performance, a wide range of working conditions, tiny operating torque and an outlasting working life. It is safe and fireproof under special working conditions, staying at the leading position among other similar products in the world.

阀门尺寸有 Valve size includes

DBA8150(对夹式)	2"~60"	(DN50~1500)
DBA5150(单/双法兰式)	2 1/ 2"~60"	(DN65~1500)
DFA8150(防火型)	3"~60"	(DN80~1500)
DBA8300(对夹式)	2"~60"	(DN80~1500)
DBA5300(单/双法兰式)	3"~60"	(DN80~1500)
DFA8300(防火型)	3"~60"	(DN80~1500)
DBA9150(对夹式)	2"~60"	(DN80~1500)

该系列高性能对夹式蝶阀使用多种结构材料，包括符合NACE要求和抗磨蚀的。并可提供用于氯气、氧气、高真空和腐蚀生介质及低温环境的特殊阀门。

The series of high performance wafer-style butterfly valves adopt various structure materials, including those that agree with the NACE requirements and anti-corrosive, besides, they can be applied to chlorine, oxygen and high-vacuum, corrosive media and cryogenic condition are also available.

特点 Features

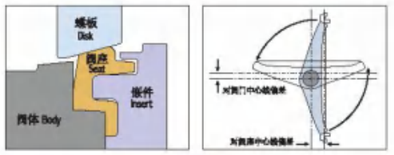
- 使用独特的动载密封PTFE阀座设计，弹性好，可靠性高；
- 无须增加O形圈或金属部件来保持密封；
- 唇缘式密封结构可补偿温度和压力的变化；
- 使用寿命长，维修量小；
- 密封试验，双向达到无气泡泄漏。

- The unique dynamic load seal PTFE seat design is adopted with good elasticity and high reliability.
- The sealing can be maintained without adding O-shape ring or any metal part.
- The lip-edge sealing structure can compensate for the changes of temperature and pressure.
- It boasts of a longer working life and a smaller capacity of repairs.
- In seal test, there is no bubble and leakage at both directions.

偏置轴和偏心蝶板设置
Design of offset shaft and eccentric butterfly plate

- 在开启和处于中间位置时阀座与蝶板不发生接触；
- 在阀座上下部位无磨损点；
- 扭矩低，操作机构要求小。

- The seat and butterfly plate do not contact each other when the valve is opened or at the middle position.
- There is no wear point at the upper and lower parts of the seat.
- Low torque with low requirement for operating mechanism.



耐火结构 Fire resistant structure

耐火型阀门按API 607经过火烧试验。
The fireproof valve has been tested by fire according to the standard of API 607.

阀座类型 Valve Seat Type

PTFE、R-PTFE、PEEK、防火阀座等。
PTFE, R-PTFE, PEEK, Fireproof valve seat, etc.

轴的固定可靠 Reliable Fixing of Shaft

轴的顶端有防吹出结构，在轴意外断裂时防止轴的上部移窜出压盖。
The anti-blow-out structure is set up at the top of the shaft to prevent the accidentally fractured shaft from running out of the gland.

阀座维修保养方便 Convenient Repair and Maintenance of Valve Seat

只要取下嵌件即可更换阀座，不必拆卸蝶阀和轴。
The valve seat can be replaced simply by screwing off the inserts rather than the butterfly valve and shaft.

断流和控制装备 Provided with shut-off and control functions

- 具有优良的控特性；
- 流量特性曲线等比变化；
- 调节范围广；
- 即使用于控制仍能紧密密封。

- Having excellent control characteristics,
- Proportional change of flow characteristic curve,
- A wide adjusting range
- Tight sealing can be realized even when it is used for control.

产品结构特征
Structure Features of Products

超高性能双偏心蝶阀，除常规阀门所适应的工况介质外 根据不同的介质，选用了不同结构材料和特殊处理材料，还可用于深冷、蒸汽、氯气、氧气、高真空、抗腐蚀等特殊工况。

Apart from the suitable working conditions and media for conventional valves, the ultra-high-performance double-eccentric butterfly valve, when adopted different structural materials and special processing materials according to different kinds of medium, can also be used for copious cooling, steam and chlorine.

阀门的整体结构 Integral structure of the valve

【A】阀杆

轴顶部的扁显示蝶板的正确位置
The flat tongue at the top of the valve indicates the correct position of the butterfly plate

【B】不锈钢轴承

PTFE衬里的不锈钢轴承，耐腐蚀性高，并能自润滑
The PTFE-lined stainless steel bearing is highly anti-corrosive and self-lubricating.

【C】止推垫中轴

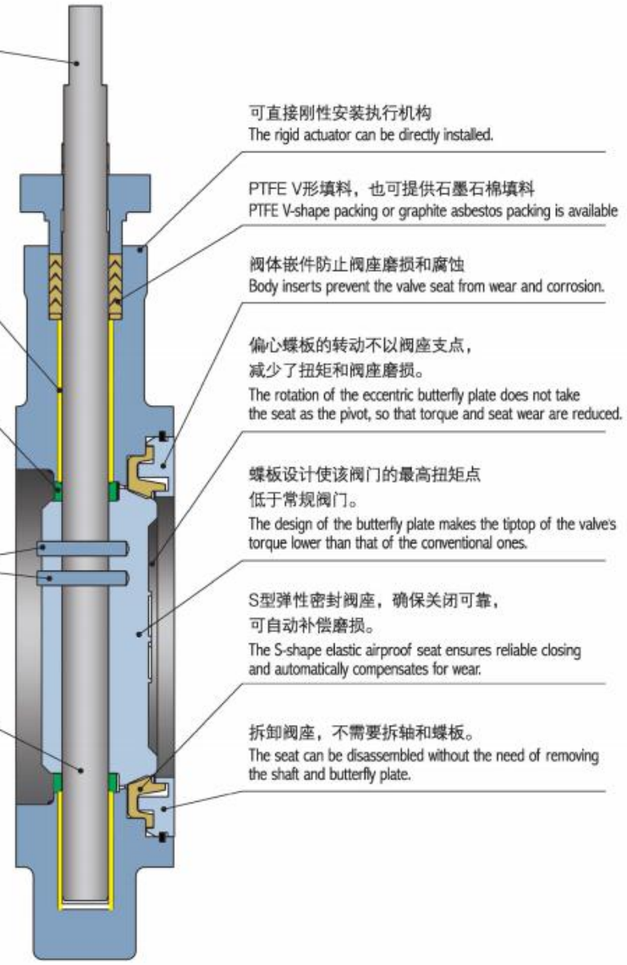
止推垫圈保持蝶板的中心位置
The thrust washer maintains the central position of the butterfly plate.

【D】直销

压入式的直销使阀杆与蝶板结合更稳定，同时外观更整洁，有效增强介质的流通性能。
The press-in straight pin makes the stem and the butterfly plate link more stably, and the appearance cleaner, which effectively enhances the flowing capacity of media.

【E】整体轴

整体式单直径轴把偏差减小到最低。
The integral single diameter shaft reduces deviation to the minimum extent.



可直接刚性安装执行机构
The rigid actuator can be directly installed.

PTFE V形填料，也可提供石墨石棉填料
PTFE V-shape packing or graphite asbestos packing is available

阀体嵌件防止阀座磨损和腐蚀
Body inserts prevent the valve seat from wear and corrosion.

偏心蝶板的转动不以阀座支点，减少了扭矩和阀座磨损。
The rotation of the eccentric butterfly plate does not take the seat as the pivot, so that torque and seat wear are reduced.

蝶板设计使该阀门的最高扭矩点低于常规阀门。
The design of the butterfly plate makes the tiptop of the valve's torque lower than that of the conventional ones.

S型弹性密封阀座，确保关闭可靠，可自动补偿磨损。
The S-shape elastic airproof seat ensures reliable closing and automatically compensates for wear.

拆卸阀座，不需要拆轴和蝶板。
The seat can be disassembled without the need of removing the shaft and butterfly plate.

独特的阀座密封结构

传统的中线蝶阀是衬氟或衬胶，而本公司采用的德国迈尔引进和自行研制改进的独立单一体的S型弹性密封阀座结构，使用了进口的RPTFE材料，弹性好，寿命长，可自动补偿温度和压力的变化，以及因长期开关使用而磨损的密封补偿；能达到双向密封无泄漏；采用活动嵌件结构，保养快捷方便，不必拆卸蝶板和阀杆，只要单面取下嵌件，即可更换密封阀座和检修密封面。

Unique Seat Sealing Structure

The traditional central line butterfly valve is lined with fluorine or rubber, but the S-shape elastic airproof seat structure independently researched and developed by our company through introducing technology from Germany MAYER adopts the imported RPTFE material with good elasticity and long working life. It can automatically compensate for the changes of temperature and pressure and can realize sealing compensation for the wear due to long-time opening, closing and use. It can realize double-direction sealing without any leakage as well. And it adopts mobile inserts structure, which its quick and easy to upkeep and convenient without the need of removing the butterfly plate and stem. The seal seat can be replaced and the sealing face can be repaired just through taking off the inserts at one side.

阀座密封

ANSI/FCI 70–2规定了控制阀的泄漏等级和试验程序。其中VI级为最低泄漏等级。高性能对夹式蝶阀能达到MSS–SP61规定的无气泡密封，要高于VI级。

Seat sealing

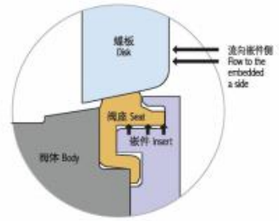
ANSI/FCI 70-2 stipulated the control valve leakage level and test procedures. Among them, the VI level is the lowest leakage level. High performance wafer-style butterfly valve can reach the specification of MSS-SP61,which prescribed no bubble seal, higher than the VI level.

阀门关闭时蝶板使阀座稍稍变形，这一变形“激励”了阀座。阀座密封面的激励使它与蝶板的边缘保持持久的密封。

When the valve is closed, the butterfly plate makes the seat slightly deform. The deformation excites the seat and the seat seals. The stimulation of surface of the seat sealing enables permanent sealing to be maintained between the surface and the edges of the butterfly plate.

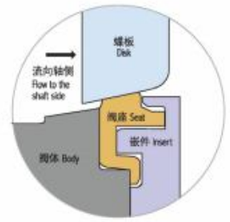
当嵌件侧受压时，压力被施加于唇缘的下方进一步加大了蝶板与阀座之间的密封力。

When the inserts receive pressure, the pressure is exerted at the bottom of the lip edge, which further increases the sealing force between the butterfly plate and seat.



当压力施加于非嵌件的一侧时，蝶板被推向阀座。由于蝶板的轮廓呈球形，蝶板越向阀座推进，关闭就越紧密。唇缘与嵌件底部的槽接触，限制了阀座的过量移动。

When the pressure is exerted at the non-insert side, the butterfly plate is pushed towards the seat. As the butterfly plate is of the ball shape, the further the butterfly plate is pushed towards the seat, the tighter the closing will be. The common boarder of the lip edge and the bottom of the inserts, limits the excessive movement of the seat.



产品结构特征(续)
Product structure features (continued)

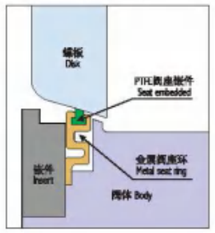
防火耐火结构

耐火型蝶阀按API607标准进行设计执行，经过火烧试验。在阀门的使用现场发生火灾时，当聚四氟乙烯等非金属材料制作的阀尾密封圈在高温下分解或破坏时，能借助金属辅助内压自密封结构，起到瞬间密封作用，可有效阻止介质的大量泄漏，控制火灾的蔓延和扩大。

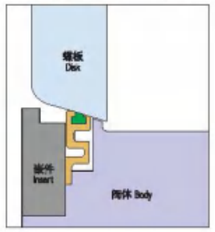
Fireproof structure

The fire-resistant butterfly valve is designed according to API607 standard and is subjected to fire test. If the fire occurs on spot, and the seal ring made of non-metal materials such as PTFE is decomposed or damaged under high temperature, the valve can instantly seal with the help of the structure of metal-aided inside pressure self-sealing, which can effectively prevent large amount of media from large amounts of leakage and fire spreading.

火烧前
Before fire



火烧时和火烧后
During fire and after fire



偏心阀轴和偏心蝶板的设计结构

阀杆采用符合国际标准的高强度不锈钢174PH材料。轴的两端装有不锈钢+RPTFE永久自润滑轴承。蝶板两端配有止推轴套，能有效的控制蝶板定位，防止金属咬合，降低阀座与蝶板发生摩擦的磨损，保证蝶阀开关频繁的可靠性，大大地减轻阀门开关的扭矩。

Design structure of eccentric valve shaft and eccentric butterfly plate

Design structure of eccentric valve shaft and eccentric butterfly plate The stem is made of high strength stainless steel 174PH that conforms to international standards. Each end of the shaft is provided with the stainless steel +RPTFE permanent self-lubricating bearing. Each end of the butterfly plate is provided with the thrust bush to effectively control the positioning of butterfly valve, avoid the metal jam, reduce the wear of the seat and butterfly plate, in order to guarantee the reliability of the opening and closing of the butterfly valve, which largely reduces the opening and closing torque of the valve.

独特的开关与控制结构

2"–6"为手柄开关和近似流量百分比调节控制结构，还可随意按手柄总承的齿轮盘近似流量调整锁定功能，设有开关限位装置；8"以上的蝶阀可根据工况需要合理选型配装蜗轮或电动、气动装置。

Unique opening, closing and control structure

For butterfly valves of 2"-6", the handle switch and approximate flow percentage control structure is adopted. The handle assembly gear plate approximate flow adjusting and locking function is provided and the switch limit device is also provided. For butterfly valves of 8" and above, they can reasonably choose suitable sets of worm wheel or electric or pneumatic actuator, according to different working conditions.

特殊工况 Special working conditions

蒸气工况 Steam working condition

本对夹式蝶阀，包括PTFE阀座的额定值较低的阀门到Peek阀座很适用于蒸气工况。在蒸气工况作开关用的阀门额定值如下表所列，根据轴材料的选用，额定值会减低。

Wafer type butterfly valves, including valves of PTFE seat with lower rated values and valves with Peek seat, are suitable for steam working condition. The rated values of valves used as a switch in the steam working condition are shown in the following table. The rated values may be decreased according to the selected different shaft materials.

氧气工况 Oxygen working condition

本阀门经过特殊处理可用于氧气工况进行断流和控制。在零部件准备、装配、试验和包装方面有一套严格的程序确保清洁、避免氧气与油脂和其它杂质起反应造成内部危险。

After special treatment, the valve can be used for shut-off and control in oxygen working condition. A series of strict procedures for spare parts preparation, assembly, test and packing is followed to ensure cleanliness, and avoid inherent danger caused by reaction of oxygen with grease and other impurities.

真空工况 Vacuum working condition

标准的对夹式蝶阀的额定密封可达到真空度2×10^{-2}托。也可提供真空度为2×10^{-5}托的特殊对夹式高真空阀门。此外特殊高真空阀门经确认在真空度为2×10^{-5}托时其氦泄漏率不超过2×10^{-6}CC/秒。

Standard wafer type butterfly valves are rated for tight shut-off of vacuum of $2x10^{-2}$ torr. Special high vacuum wafer valves can also be provided for vacuum of $2x10^{-5}$ torr. In addition, high-vacuum valves are confirmed to below $2x10^{-6}$ CC/ sec.

高寿命的选择 Selection for high service life

包括增强PTFE轴密封、PEEK–增强PTFE止推轴承在内的零部件组合的阀门其使用寿命要大大高于普通阀门。当然，实际的性能取决于介质、压力和温度条件。氧、氮、氢、水及清洁介质使用这一组合是最为理想的。
注意：要避免含有酸、氯、溴、二氧化硫、蒸汽介质及温度超过325° F(163℃)工况。

The service life of valves assembled by spare parts such as reinforced PTFE shaft seal, PEEK-reinforced PTFE thrust bearing, and etc. is much higher than that of ordinary valves. Certainly, the actual performances depend on the media, pressure and temperature and other conditions. It is the most ideal situation that the combination of oxygen, nitrogen, hydrogen, water and clean media is used.
Notice: try to avoid media and temperature such as acid, chlorine, bromine, sulfur dioxide and steam with temperature exceeding 325° F(163℃) in the working condition.

标准与规范
Standard and specification

API 609	凸缘式和对夹式蝶阀 Flange type and wafer type butterfly valves
BS6755	英国阀门试验标准第二部分耐火试验要求 British valve testing standard: part II fire testing requirements
MSS SP-25	阀门标准标记体系 Valve standard marking system
MSS SP-44	钢制管线法兰 Steel pipe flange
MSS SP-55	钢铸件质量标准 Quality standard for steel castings
MSS SP-61	钢阀门压力试验 Pressure testing of steel valves
MSS SP-69	阀门和连接件术语 Terminology for valves and connectors
ANSI B 31.3	化工厂和炼油厂管道 Chemical plant and refinery piping
ANSI B 31.8	气体传输和分配管道系统 Gas transportation and distribution pipe system
API 607	软密封阀门耐火试验 Soft seal valve fire test
API 598	阀门检验和试验 Valve inspection and testing
ANSI B 16.10	铁素体类阀门面对面，端对端尺寸 Face-to-face and end-to-end dimensions of ferrite valves
ANSI B 16.5	钢管法兰和法兰连接件 Pipe flanges and flanged fittings
ANSI B 16.47	NPS26–NPS60大口径钢法兰 NPS26-NPS60 large diameter steel flange
ANSI B 16.34	法兰端和对焊端钢制阀门 Flange end and butt welding end steel valves
ANSI B 31.1	发电厂管道 Power plant pipes
ANSI B 31.4	无水氨和酒精，碳氢化合物输送系统 Anhydrous ammonia and alcohol, hydrocarbon transportation system
ANSI/FCI 70-2-1991	控制阀门阀座泄漏 Control valve seat leakage

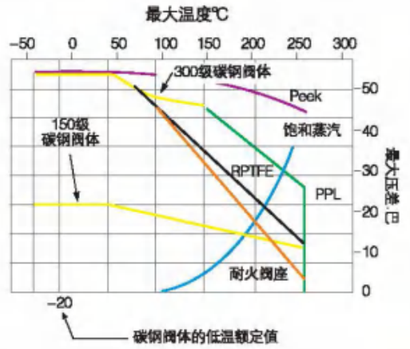
额定值
Rated value

阀座额定值

曲线上表示的阀座额定值只对阀座而言，是基于阀门全闭是蝶阀两端的压差。这些额定值可作为通用条件下使用指南。依据以往经验，经过改进和变换其他阀座材料，使用的额定值可更高。对于特殊工况，请向DESW咨询。

Seat rated value

The seat rated values indicated on the curve are only for the seat. It is the differential pressure between the two ends of the butterfly valve when the valve is fully closed. These rated values can serve as instructions under general conditions. According to past experience, after updating and changing other seat materials, the rated value they use should be higher. For special working condition, please consult DESW.



注意：316不锈钢或20号合金阀杆的14"–60"（DN350–1500）的150级阀门的最大压力差为150psi

316不锈钢或20号合金阀门的3"–36"（DN80–900）的300级阀门的最大压力差为300psi

Note: The maximum differential pressure of valve of 316 stainless steel or 20# alloy stem, 14"-60" (DN350-1500), 150lb is 150psi

The maximum differential pressure of valve of 316 stainless steel or 20# alloy stem, 3"-36" (DN80-900), 300lb is 300psi

阀体额定值

阀体的最大工作压力和各种材料阀体的试验压力示于下面的阀体压力额定值表中。实际工况使用压力要根据阀座额定值来决定。

Body rated value

The maximum working pressure of body and testing pressure of body of various materials are listed in the body pressure ratings table. The actual working pressure in the working conditions shall be decided according to the seat rated values.

150级阀体的额定值(bar)
Rated value of 150lb body (bar)

温度° C Temperature	碳钢* Carbon steel	球铁* Ductile Iron	316不锈钢* Stainless steel	20合金* 20# alloy	蒙乃尔 Monel
-20 to38	19.7	17.2	19.0	15.8	15.8
93	17.9	16.2	16.5	13.8	13.8
149	15.8	14.8	14.8	12.4	13.1
204	13.8	13.8	13.4	11.0	12.8
260	11.7	11.7	11.7	10.3	11.7
试验压力	31	27.6	29.3	24.1	24.1

300级阀体的额定值(bar)
Rated value of 300lb body (bar)

温度° C Temperature	碳钢* Carbon steel	316不锈钢* Stainless steel	20合金* 20# alloy	蒙乃尔 Monel
-20 to38	51	49.6	41.4	41.1
93	46.5	42.7	35.9	36.5
149	45.2	38.6	32.1	34.1
204	43.8	35.5	29.0	33.1
260	41.4	33.1	26.9	32.8
试验压力	77.6	75.8	62	62

阀门扭矩
Valve torque

阀门尺寸 Valve size		150磅级扭矩，轴处于下游，T,M,U,X阀座 关闭压差 Closing differential pressure					
英寸 Inch	DN	lb-ft@ 100psi	N.m@ 6.9bar	lb-ft@ 200psi	N.m@ 13.8bar	lb-ft@ 285psi	N.m@ 19.7bar
2	50	20.35	27.6	21.7	29.42	22.85	31
2-1/2	65	21	29	23	31	24	33
3	80	25	24	27	37	29	39
4	100	35	47	39	53	43	58
5	125	48	65	56	76	63	86
6	150	72	97	83	113	93	126
8	200	121	164	142	193	160	217
10	250	163	222	202	274	234	318
12	300	214	290	287	390	350	475
14	350	362	491	505	684	626	849
16	400	463	628	646	876	802	1087
18	450	602	816	844	1144	1050	1423
20	500	810	1098	1140	1546	1421	1926
24	600	1234	1673	1758	2384	2200	2983
28	700	1945	2637	2570	3484	3100	4202
30	750	2170	2942	2940	3986	3595	4873
32	800	3318	4498	4548	6166	5474	7422
36	900	3530	4786	4860	6589	5990	8121
42	1050	5780	7837	8060	10928	10000	13558
48	1200	9170	12433	12840	17409	15960	21638
56	1350	12950	17558	17900	24269	22110	29977
60	1500	19020	25790	26040	35310	32000	43397

阀门尺寸 Valve size		150磅级扭矩，轴处于下游，防火阀座 关闭压差 Closing differential pressure					
英寸	DN	lb-ft@ 100psi	N.m@ 6.9bar	lb-ft@ 200psi	N.m@ 13.8bar	lb-ft@ 285psi	N.m@ 19.7bar
2-1/2	65	42	57	45	61	47	64
3	80	53	72	57	77	59	81
4	100	67	91	74	100	80	108
5	125	97	132	114	155	128	174
6	150	131	178	152	206	170	230
8	200	218	296	256	347	288	391
10	250	333	452	406	550	468	635
12	300	508	589	636	862	745	1010
14	350	604	819	758	1028	889	1205
16	400	710	963	920	1247	1099	1489
18	450	970	1315	1370	1857	1710	2318
20	500	1390	1885	1980	2685	2482	3364
24	600	2050	2779	2700	3661	2200	2983
30	750	2920	3959	3940	5342	4807	6517
36	900	3530	4786	4960	6725	5990	8121
42	1050	5620	7620	7440	10087	10000	13558
48	1200	8800	11931	12100	16405	14905	20208

阀门尺寸 Valve size		300磅级扭矩，轴处于下游，T,M,U,X阀座 关闭压差 Closing differential pressure											
英寸 Inch	DN	lb-ft@ 300psi	N.m@ 20.7bar	lb-ft@ 400psi	N.m@ 27.6bar	lb-ft@ 500psi	N.m@ 34.5bar	lb-ft@ 600psi	N.m@ 41.4bar	lb-ft@ 700psi	N.m@ 48.3bar	lb-ft@ 740psi	N.m@ 51bar
2	50	24	33	26	35	28	37	29	40	31	42	32	43
2-1/2	65	27	36	29	39	31	42	33	45	35	48	36	49
3	80	31	42	34	46	38	51	41	55	44	60	45	62
4	100	52	70	58	79	65	88	72	97	78	106	81	110
5	125	105	143	124	168	142	193	160	217	179	242	186	252
6	150	119	161	138	188	158	214	178	241	197	267	205	278
8	200	231	313	271	368	312	422	352	477	392	532	408	553
10	250	354	480	422	572	490	664	557	756	625	848	652	885
12	300	492	667	582	790	673	912	764	1035	854	1158	890	1207
14	350	824	1117	1012	1372	1200	1627	1388	1882	1576	2137	1651	2239
16	400	989	1341	1212	1643	1435	1946	1658	2248	1881	2550	1970	2671
18	450	1279	1734	1562	2118	1845	2501	2128	2885	2411	3269	2524	3422
20	500	1707	2314	2096	2842	2485	3369	2874	3897	3263	4424	3419	4635
24	600	2309	3131	2832	3840	3355	4549	3878	5258	4401	5967	4610	6251
28	700	3990	5410	4820	6535	5650	7660	6480	8786	7310	9911	7642	10361
30	750	4210	5708	5080	6887	5950	8067	6820	9247	7690	10426	8038	10898
32	800	6570	8908	7960	10792	9350	12677	10740	14561	12130	16446	12686	17200
36	900	7220	9789	8760	11877	10300	13965	11840	16053	13380	18141	13996	18976

阀门尺寸 Valve size		300磅级扭矩，轴处于下游，防火阀座 关闭压差 Closing differential pressure											
英寸 Inch	DN	lb-ft@ 300psi	N.m@ 20.7bar	lb-ft@ 400psi	N.m@ 27.6bar	lb-ft@ 500psi	N.m@ 34.5bar	lb-ft@ 600psi	N.m@ 41.4bar	lb-ft@ 700psi	N.m@ 48.3bar	lb-ft@ 740psi	N.m@ 51bar
3	80	57	77	58	79	60	81	61	83	63	85	63	86
4	100	86	117	94	127	102	138	110	149	118	160	121	164
6	150	189	256	212	287	235	319	258	350	281	381	290	394
8	200	313	424	354	480	395	536	436	591	477	647	493	669
10	250	464	629	522	708	580	786	638	865	696	944	719	975
12	300	825	1119	960	1302	1095	1485	1230	1668	1365	1851	1419	1924
14	350	922	1250	1076	1459	1230	1668	1384	1877	538	2085	1600	2169
16	400	1170	1586	1396	1885	1610	2183	1830	2481	2050	2779	2138	2899
18	450	1980	2685	2440	3308	2900	3932	3360	4556	3820	5179	4004	5429
20	500	2800	3796	3460	4691	4120	5586	4780	6481	5400	7376	5704	7734
24	600	4400	5966	5400	7321	6400	8677	7400	10033	8400	11389	8800	11931

需要精确计算或介质粘度较大的扭矩请咨询HANDA技术部门
For torque that needs precise calculation or with media of higher viscosity, please consult the technology department of HANDA.

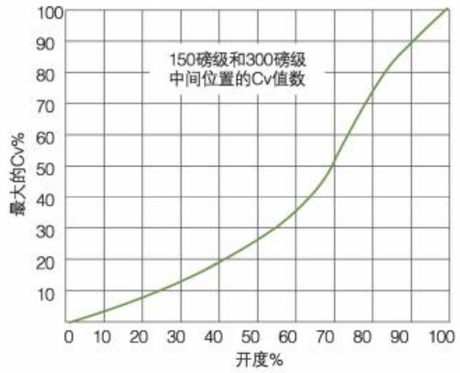
流量参数
Flow parameters

下表提供了150磅级和300磅级蝶阀的流量系数。Cv值表示压差为1磅/英寸2（0.07巴），温度为60° F（15.6℃）时每分钟流过全开启阀门的水流量，单位为美国加仑数/分钟。

The flow coefficient of 150lb and 300lb butterfly valves is listed in the following table. Cv value indicates water flow per minute that passes through the fully opened valve when the differential pressure is 1psi (0.07bar) and the temperature is 60° F (15.6℃), and its unit is USgal/min.

150磅级 Class		
阀门尺寸 Valve size		Cv
英寸 Inch	DN	
2-1/2	65	78
3	80	165
4	100	400
5	125	650
6	150	1,050
8	200	2,200
10	250	3,300
12	300	5,100
14	350	5,800
16	400	8,000
18	450	10,500
20	500	14,000
24	600	21,600
30	750	34,000
36	900	55,500
42	1050	82,650
48	1200	108,300
54	1350	133,500
60	1500	159,000

300磅级 Class		
阀门尺寸 Valve size		Cv
英寸 Inch	DN	
3	80	165
4	100	400
6	150	1,050
8	200	1,800
10	250	3,150
12	300	4,750
14	350	5,200
16	400	6,900
18	450	9,300
20	500	11,300
24	600	18,500
30	750	29,100
36	900	47,500



为确定中间位置阀门的Cv值：
To confirm Cv value of the valve at the middle position:

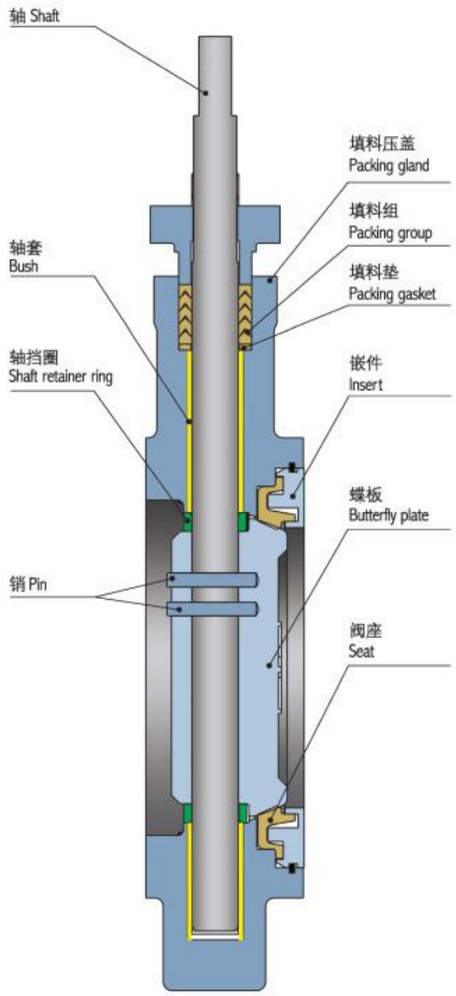
1.从曲线表中确定最大Cv值的百分率
2.将曲线表中的最大Cv值的百分率乘以流量数据表中的Cv值

1. Confirm the percentage of the maximum Cv value from the curve
2. Multiply the percentage of the maximum Cv value from the curve by the Cv value from the flow datasheet

例如：6"(DN150)150级蝶阀70%开度时的Cv值为：
（1）从曲线表中确定6"（DN150）150级蝶阀70%开度时的最大Cv值的百分率为53%
（2）53%的最大Cv值为，Cv值=0.53×1050=560

For example: The Cv value of the butterfly valve of 6"(DN150), 150lb under opening of 70% is:
(1) Confirm the percentage of the maximum Cv value of the butterfly valve of 6"(DN150), 150lb under opening of 70% is 53%.
(2) The maximum Cv value is: Cv value=0.53×1050=560

零件材料明细表
Table of materials for spare parts



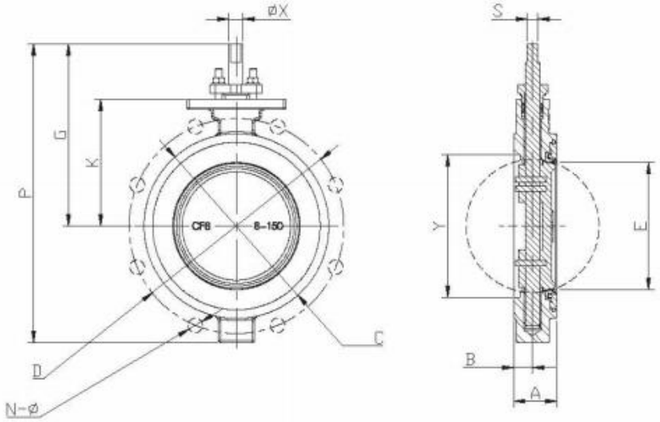
序号 NO.	零件名称 Part name	150磅级和300磅级 150lb and 300lb		
		201734	341734	361736
1	阀体 Valve body	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	蝶板 Butterfly plate	ASTM A351 CF8	ASTM A351 CF8	ASTM A351 CF8M
3	嵌件 Insert	碳钢 Carbon steel	316	316
4	阀座 Valve seat	RPTFE 或 PPL		
5	轴 Shaft	17-4PH	17-4PH	17-4PH
6	填料压盖 Packing gland	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
7	填料组 Packing group		RPTFE或石墨 RPTFE or graphite	
8	填料垫 Packing pad	316	316	316
9	轴套 Axle sleeve	316+RPTFE		
10	轴挡圈 Shaft collar	316	316	316
11	销 Pin	17-4PH	17-4PH	17-4PH
12	螺柱、螺母 Bolt, nut	碳钢 Carbon steel	不锈钢 Stainless steel	不锈钢 Stainless steel

Wafer type butterfly valve
对夹式蝶阀

2"~12"(DN50~300)DBA8150型 尺寸及重量
2"~12"(DN50~300) Size & Weight

阀门规格 Valve specification		美标法兰150LB American standard flange 150LB		国标法兰GB PN16 National standard flange GB PN16		日标法兰JIS 10K Japanese standard flange JIS 10K	
NPS	DN	D	N-Φ	D	N-Φ	D	N-Φ
2"	50	Φ120.5	4-Φ19	Φ125	4-Φ18	Φ120	4-Φ19
2.5"	65	Φ139.5	4-Φ19	Φ145	4-Φ18	Φ140	4-Φ19
3"	80	Φ152.5	4-Φ19	Φ160	8-Φ18	Φ150	8-Φ19
4"	100	Φ190.5	8-Φ19	Φ180	8-Φ18	Φ175	8-Φ19
5"	125	Φ216	8-Φ22	Φ210	8-Φ18	Φ210	8-Φ23
6"	150	Φ241.5	8-Φ22	Φ240	8-Φ23	Φ240	8-Φ23
8"	200	Φ298.5	8-Φ22	Φ395	12-Φ23	Φ290	12-Φ23
10"	250	Φ362	12-Φ25	Φ355	12-Φ25	Φ355	12-Φ25
12"	300	Φ432	12-Φ25	Φ410	12-Φ25	Φ432	12-Φ25

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）											近似重量 Weight（kg）
	A	B	C	E	G	H	K	P	S扁势	X	Y*	
50	43.3	23.3	96	38	124.3	279	80	186.3	7	24	50	3.2
65	49	27	119	59	194	279	111	275	11.2	14.8	48	5
80	49	27	132	73	203	279	121	316	11.2	14.8	74	6
100	54	30	157	95	216	279	133	341	11.2	14.8	97	8
125	64	30	186	111	217	279	135	362	11.2	14.8	111	12
150	57	33	216	142	235	279	152	378	14	18	146	13
200	64	36	270	188	270	559	187	441	15.9	21.9	194	20
250	71	41	324	236	329	559	232	530.6	20.6	28	243	35
300	81	48	381	282	357	559	260	595.5	23.8	33.3	289	51



以上资料仅供参考，具体参数以HANDA技术部规格书为标准
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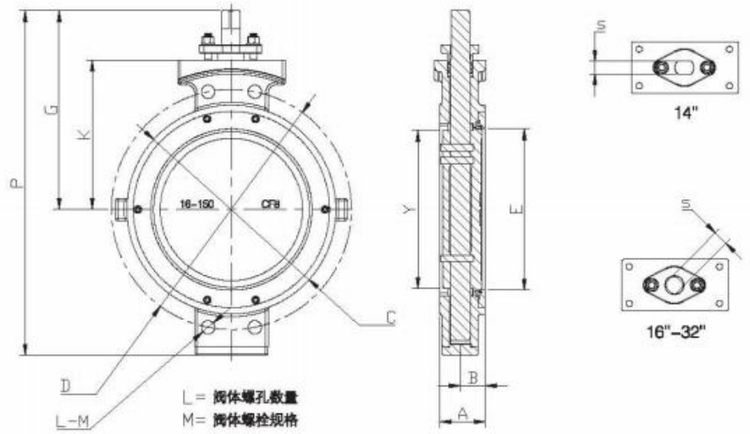
14"~32"(DN350~800)DBA8150 尺寸及重量
14"~32"(DN350~800) Size & Weight

阀门规格 Valve specification		美标法兰150LB American standard flange 150LB			国标法兰GB PN16 National standard flange GB PN16			日标法兰JIS 10K Japanese standard flange JIS 10K		
NPS	DN	D	N-Φ	L-M	D	N-Φ	L-M	D	N-Φ	L-M
14"	350	Φ476	12-Φ30	0	Φ470	16-Φ26	4-M24	Φ445	16-Φ25	4-M22
16"	400	Φ540	16-Φ30	4-Φ30	Φ525	16-Φ30	4-M27	Φ510	16-Φ27	4-M24
18"	450	Φ578	16-Φ33	4-Φ33	Φ585	20-Φ30	4-M27	Φ565	20-Φ27	4-M24
20"	500	Φ635	20-Φ33	4-M30	Φ650	20-Φ33	4-M30	Φ620	20-Φ27	4-M24
24"	600	Φ749.5	30-Φ35.5	4-M33	Φ770	20-Φ36	4-M33	Φ730	24-Φ33	4-M30
26"	650	Φ806.5	24-Φ35	4-M33	-	-	-	Φ780	24-Φ33	4-M30
28"	700	Φ863.6	28-Φ35	4-M33	Φ840	24-Φ36	4-M33	Φ840	24-Φ33	4-M30
30"	750	Φ914	28-Φ35	4-M33	-	-	-	Φ900	24-Φ33	4-M30
32"	800	Φ978	28-Φ41	4-M39	Φ950	34-Φ39	4-M36	Φ950	28-Φ33	4-M30

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）															近似重量 Weight（kg）
	A	B	C	D	E	F	G	K	L1	L2	M	P	S	X	Y	
350	92	52	413	476	314	413	425	315	1-1/8*	ϕ29	0	710	28.5	37	318	82
400	102	56	470	540	363	470	444	333	1-1/16*	ϕ30	4	767	33.5	42	365	115
450	114	67	533	578	414	533	466	355	1-3/16*	ϕ33	4	812	41.5	47	416	156
500	127	67	584	635	456	584	492	378	1-1/8~8+	M30	4	879	41.4	50	454	199
600	154	76	692	749	549	692	610	480	1-1/4~8+	M33	4	1094	51	64	542	333
650	164.6	86.5	749	806.5	549	749	620	480	1-1/4~8+	M33	4	1103	51	64	542	371
750	167	87	857	914	702	857	697	570	1-1/4~8+	M33	4	1307	51	66.8	711	594
800	190	87	905	977.9	702	905	697	570	1-1/4~8+	M39	4	1307	51	66.8	711	638



以上资料仅供参考，具体参数以HANDA技术部规格书为标准
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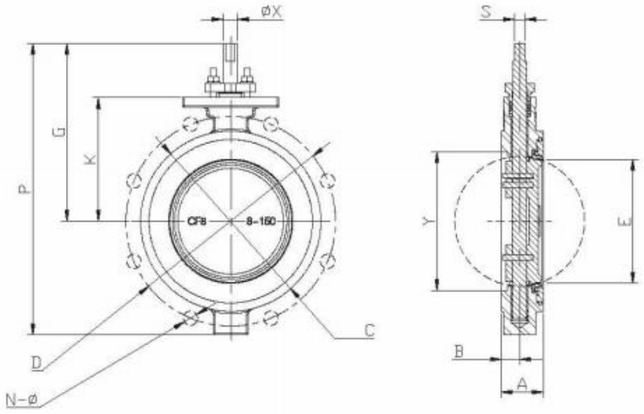
Wafer type butterfly valve
对夹式蝶阀

2"~12"(DN80~300)DBA8300 尺寸及重量
2"~12"(DN80~300) Size & Weight

阀门规格 Valve specification		美标法兰300LB American standard flange 300LB			国标法兰GB PN40 National standard flange GB PN40			日标法兰JIS 20K Japanese standard flange JIS 10K		
NPS	DN	D	N-Φ	L-M	D	N-Φ	L-M	D	N-Φ	L-M
2"	50	Φ127	8-Φ19	-	Φ125	4-Φ18	-	Φ120	8-Φ19	-
2.5"	65	Φ149	8-Φ22	-	Φ145	4-Φ18	-	Φ140	8-Φ19	-
3"	80	Φ168	8-Φ22	-	Φ160	8-Φ18	-	Φ160	8-Φ23	-
4"	100	Φ200	8-Φ22	-	Φ190	8-Φ22	-	Φ185	8-Φ23	-
5"	125	Φ235	8-Φ22	-	Φ220	8-Φ26	-	Φ225	8-Φ25	-
6"	150	Φ270	12-Φ22	-	Φ250	8-Φ26	-	Φ260	12-Φ25	-
8"	200	Φ330	12-Φ25	-	Φ320	12-Φ30	-	Φ305	12-Φ25	-
10"	250	Φ387	16-Φ29	4-M27	Φ385	12-Φ33	4-M30	Φ380	12-Φ27	4-M24
12"	300	Φ451	16-Φ32	4-M30	Φ450	16-Φ33	4-M30	Φ430	16-Φ27	4-M24

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）															近似重量 Weight（kg）
	A	B	C	D	E	G	H	K	L1	L2	M	P	S	X	Y	
50	43.3	23.3	96	-	38	124.3	279	80	-	-	-	186.3	7	24	50	3.2
65	49	27	119	-	59	194	279	111	-	-	-	275	11.2	14.8	48	5
80	49	27	132	-	73	203	279	121	-	-	-	316	11.2	14.8	74	6
100	54	30	157	-	95	216	279	133	-	-	-	341	11.2	14.8	97	8
125	64	30	186	-	111	217	279	135	-	-	-	362	11.2	14.8	111	12
150	59	34	216	-	142	257	559	175	-	-	-	413	15.9	21.9	146	15
200	73	40	270	-	188	306	559	213	-	-	-	495	20.6	28	194	27
250	83	44	324	387	236	353	559	254	1~8	M27	4	592	23.8	33.3	243	48
300	92	50	381	451	282	389	-	283	1-1/8~8+	M30	4	675	28.7	37	289	66



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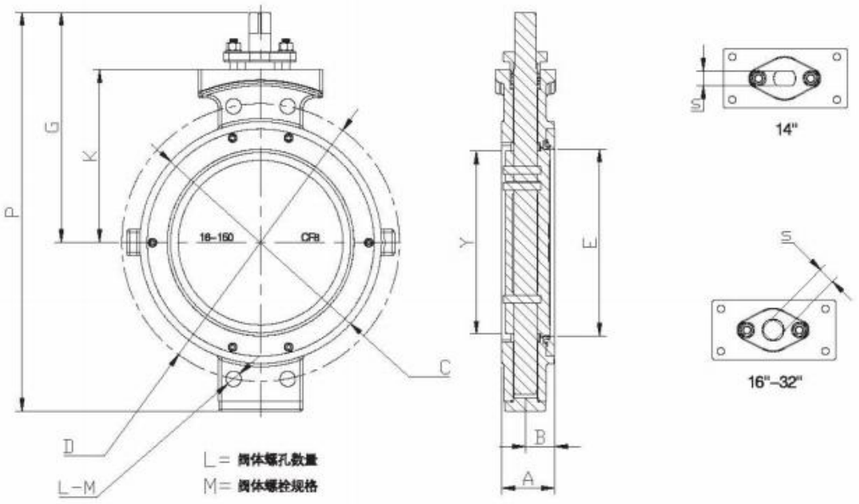
14"~24"(DN350~600)DBA8300 尺寸及重量
14"~24"(DN350~600) Size & Weight

阀门规格 Valve specification		美标法兰300LB American standard flange 300LB			国标法兰GB PN40 National standard flange GB PN40			日标法兰JIS 20K Japanese standard flange JIS 10K		
NPS	DN	D	N-Φ	L-M	D	N-Φ	L-M	D	N-Φ	L-M
14"	350	Φ514	20-Φ33	4-M30	Φ510	16-Φ36	4-M33	Φ480	16-Φ33	4-M30
16"	400	Φ572	20-Φ35	4-M33	Φ585	16-Φ39	4-M36	Φ540	16-Φ33	4-M30
18"	450	Φ629	20-Φ35	4-M33	Φ610	20-Φ39	4-M36	Φ605	20-Φ33	4-M30
20"	500	Φ686	24-Φ35	4-M33	Φ670	20-Φ42	4-M39	Φ660	20-Φ33	4-M30
24"	600	Φ813	24-Φ35	4-M33	Φ795	20-Φ48	4-M45	Φ770	24-Φ39	4-M36

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）															近似重量 Weight（kg）
	A	B	C	D	E	F	G	K	L1	L2	M	P	S	X	Y	
350	118	59	413	514	314	413	427	325	1-1/8~8+	M30	4	738	41.4	50	289	167
400	133	62	470	572	363	470	452	350	1-1/4~8+	M33	4	791	41.4	50	346	195
450	149	75	533	629	414	533	542	424	1-1/4~8+	M33	4	955	51	64	392	324
500	162	81	584	686	455	584	576	446	1-1/4~8+	M33	4	1075	51	65	433	406
600	184	92	692	813	549	692	646	501	1-1/2~8+	M39	4	1151	51	65	524	631



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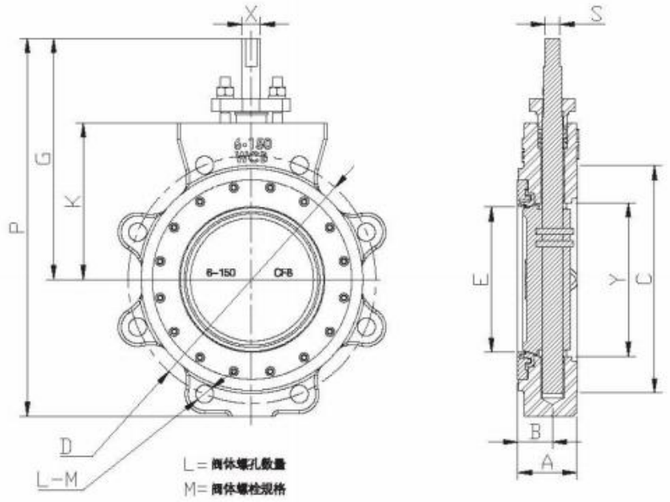
Single flange butterfly valve
单法兰蝶阀

2-1/2"~12"(DN65~300)DBA5150 尺寸及重量
2-1/2"~12"(DN65~300) Size & Weight

阀门规格 Valve specification		美标法兰150LB American standard flange 150LB		国标法兰GB PN16 National standard flange GB PN16		日标法兰JIS 10K Japanese standard flange JIS 10K	
NPS	DN	D	N-Φ	D	N-Φ	D	N-Φ
2.5"	65	Φ139.5	4-M16	Φ145	4-M16	Φ140	4-M16
3"	80	Φ152.5	4-M16	Φ160	8-M16	Φ150	8-M16
4"	100	Φ190.5	8-M16	Φ180	8-M16	Φ175	8-M16
5"	125	Φ216	8-M20	Φ210	8-M16	Φ210	8-M20
6"	150	Φ241.5	8-M20	Φ240	8-M20	Φ240	8-M20
8"	200	Φ298.5	8-M20	Φ395	12-M20	Φ290	12-M20
10"	250	Φ362	12-M22	Φ355	12-M22	Φ355	12-M22
12"	300	Φ432	12-M24	Φ410	12-M24	Φ432	12-M24

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）																近似重量 Weight（kg）
	A	B	C	D	E	F	G	H	K	L1	L2	M	P	S偏差	X	Y*	
65	49	27	105	140	59	178	194	279	111	5/8~11	M16	4	275	11	16	48	6.4
80	49	27	132	152	73	191	203	279	121	5/8~11	M16	4	316	11	16	74	8
100	54	30	157	191	95	229	216	279	133	5/8~11	M16	8	341	11	16	97	11
125	64	30	186	216	111	264	217	279	135	3/4~10	M20	8	341	11	16	111	18
150	57	33	216	241	142	279	235	279	152	3/4~10	M20	8	384	13	19	146	16.2
200	64	36	270	298	188	343	270	559	187	3/4~10	M20	8	464	16	22	194	31
250	71	41	324	362	236	406	325	559	232	7/8~9	M22	12	560	21	29	243	42.2
300	81	48	381	432	282	483	359	559	260	7/8~9	M24	12	632	24	35	289	64.8



以上资料仅供参考，具体参数以HANDA技术部规格书为标准
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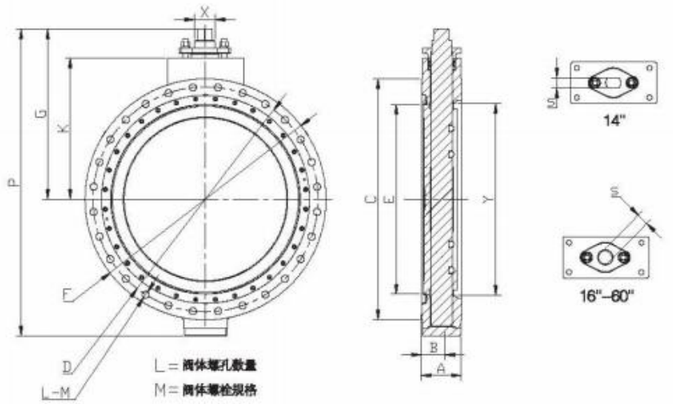
14"~60"(DN350~1500)DBA5150 尺寸及重量
14"~60"(DN350~1500) Size & Weight

阀门规格 Valve specification		美标法兰150LB American standard flange 150LB		国标法兰GB PN16 National standard flange GB PN16		日标法兰JIS 10K Japanese standard flange JIS 10K	
NPS	DN	D	L-M	D	L-M	D	L-M
14	350	Φ476.3		Φ470	4-M24	Φ445	4-M22
16	400	Φ539.8	4-Φ29	Φ525	4-M27	Φ510	4-M24
18	450	Φ577.9	4-Φ32	Φ585	4-M27	Φ565	4-M24
20	500	Φ635.0	4-M30	Φ650	4-M30	Φ620	4-M24
24	600	Φ749.3	4-M33	Φ770	4-M33	Φ730	4-M30
26	650	Φ806.5	4-M33	-	-	Φ780	4-M30
28	700	Φ863.6	4-M33	Φ840	4-M33	Φ840	4-M30
30	750	Φ914.4	4-M33	-	-	Φ900	4-M30
32	800	Φ977.9	4-M39X3	Φ950	4-M36X3	Φ950	4-M36X3
36	900	Φ1085.8	4-M39X3	Φ1050	4-M36X3	Φ1050	4-M36X3
42	1050	Φ1257.3	4-M39X3	-	-	-	-
48	1200	Φ1422.4	4-M39X3	Φ1390	4-M45X3	Φ1380	4-M36X3
56	1350	Φ1651.0	4-M45X3	-	-	Φ1540	4-M42X3
60	1500	Φ1759.0	4-M45X3	-	-	Φ1700	4-M42X3

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）															近似重量 Weight（kg）
	A	B	C	D	E	F	G	K	L1	L2	M	P	S	X	Y*	
350	92	52	413	476	314	533	394	309	1-8	M27	12	705	24	41	318	105
400	102	56	470	540	363	597	446.4	335.4	1-8	M27	16	766.7	41	48	365	163
450	114	67	533	578	414	635	449	356	1-1/8~8+	M30	16	802	41	54	416	205
500	127	67	584	635	456	699	467	378	1-1/8~8+	M30	20	842	41	60	454	270
600	154	76	692	749	549	813	607	490	1-1/4~8+	M33	20	1161	51	70	542	437
750	167	87	857	914	702	984	697	570	1-1/4~8+	M33	28	1307	51	89	711	741
900	184	92	1108	1086	886	1168	794	660	1-1/2~8+	M39	32	1432	51	102	876	1189
1050	222	114	1194	1257	1016	1346	1067	737	1-1/2~8+	M39	36	1731	102Dia.*	127	1026	1724
1200	254	130	1359	1422	1168	1511	1130	845	1-1/2~8+	M39	44	1953	127Dia.*	140	1173	2117
1350	267	133	1511	1594	1329	1686	1248	953	1-3/4~8+	M45	44	2178	152Dia.*	152	1322	2631
1500	292	146	1676	1759	1472	1854	1391	1045	1-3/4~8+	M45	52	2423	152Dia.*	165	1468	3175



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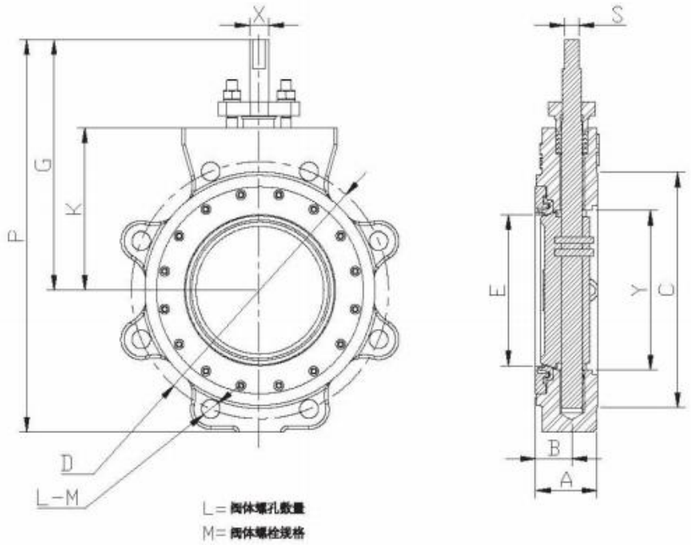
Single flange butterfly valve
单法兰蝶阀

3"~12"(DN 80~300)DBA5300 尺寸及重量
3"~12"(DN 80~300) Size & Weight

阀门规格 Valve specification		美标法兰300LB American standard flange 300LB		国标法兰GB PN40 National standard flange GB PN40		日标法兰JIS 20K Japanese standard flange JIS 10K	
NPS	DN	D	L-M	D	L-M	D	L-M
3"	80	Φ168	8-M20	Φ160	8-M16	Φ160	8-M20
4"	100	Φ200	8-M20	Φ190	8-M20	Φ185	8-M20
6"	150	Φ270	12-M20	Φ250	8-M22	Φ260	12-M22
8"	200	Φ330	12-M22	Φ320	12-M27	Φ305	12-M22
10"	250	Φ387	16-M27	Φ385	12-M30	Φ380	12-M24
12"	300	Φ451	16-M30	Φ450	16-M30	Φ430	16-M24

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）																近似重量 Weight（kg）
	A	B	C	D	E	F	G	H	K	L1	L2	M	P	S	X	Y*	
80	49	27	132	168	73	207	203	279	121	3/4~10	M20	8	316	11	16	74	9
100	54	30	157	200	95	238	216	279	133	3/4~10	M20	8	341	11	16	97	13
150	59	34	216	270	142	308	257	599	175	3/4~10	M20	12	413	16	22	146	24
200	73	40	270	330	188	381	306	599	213	7/8~9	M22	12	495	21	29	194	42
250	83	44	324	387	236	445	353	599	254	1-8	M27	16	592	24	35	243	73
300	92	50	381	451	282	514	389	-	283	1-1/8~8+	M30	16	675	29	41	289	100



L= 阀体螺孔数量
M= 阀体螺栓规格

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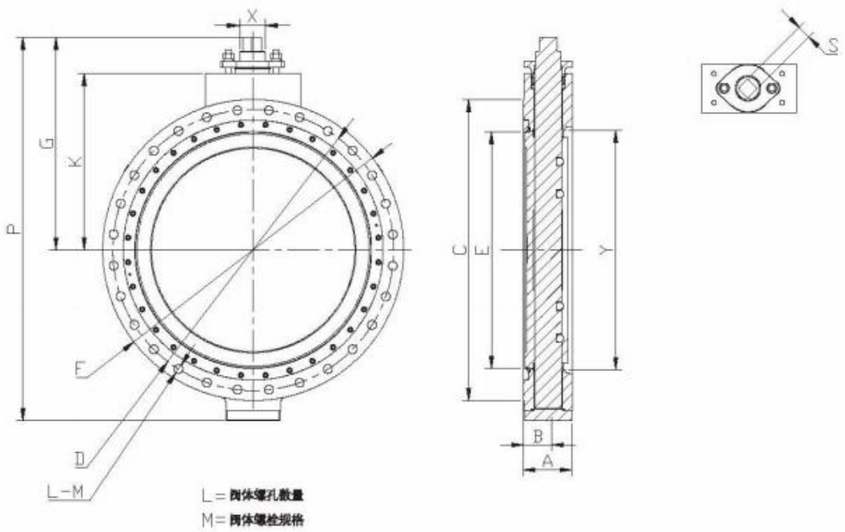
14"~24(DN 350~600)DBA5300 尺寸及重量
14"~24"(DN 350~600) Size & Weight

阀门规格 Valve specification		美标法兰300LB American standard flange 300LB		国标法兰GB PN40 National standard flange GB PN40		日标法兰JIS 20K Japanese standard flange JIS 10K	
NPS	DN	D	L-M	D	L-M	D	L-M
14"	350	Φ514	20-M30	Φ510	16-M33	Φ480	16-M30
16"	400	Φ572	20-M33	Φ585	16-M36	Φ540	16-M30
18"	450	Φ629	20-M33	Φ610	20-M36	Φ605	20-M30
20"	500	Φ686	24-M33	Φ670	20-M39	Φ660	20-M30
24"	600	Φ813	24-M33	Φ795	20-M45	Φ770	24-M36

阀门规格 Size (DN)	近似尺寸 Approximate size（毫米 mm）															近似重量 Weight（kg）
	A	B	C	D	E	F	G	K	L1	L2	M	P	S	X	Y	
350	118	59	413	514	314	584	417	325	1-1/8~8+	M30	20	730	41	54	298	253
400	133	62	470	572	363	648	440	651	1-1/4~8+	M33	20	781	41	54	346	328
450	149	75	533	629	414	711	542	424	1-1/4~8+	M33	24	960	51	70	392	503
500	162	81	584	686	455	775	574	447	1-1/4~8+	M33	24	1015	51	89	433	648
600	184	92	692	813	549	914	634	501	1-1/2~8+	M39	24	1141	51	102	524	984



L= 阀体螺孔数量
M= 阀体螺栓规格

以上资料仅供参考，具体参数以HANDA技术部规格书为标准
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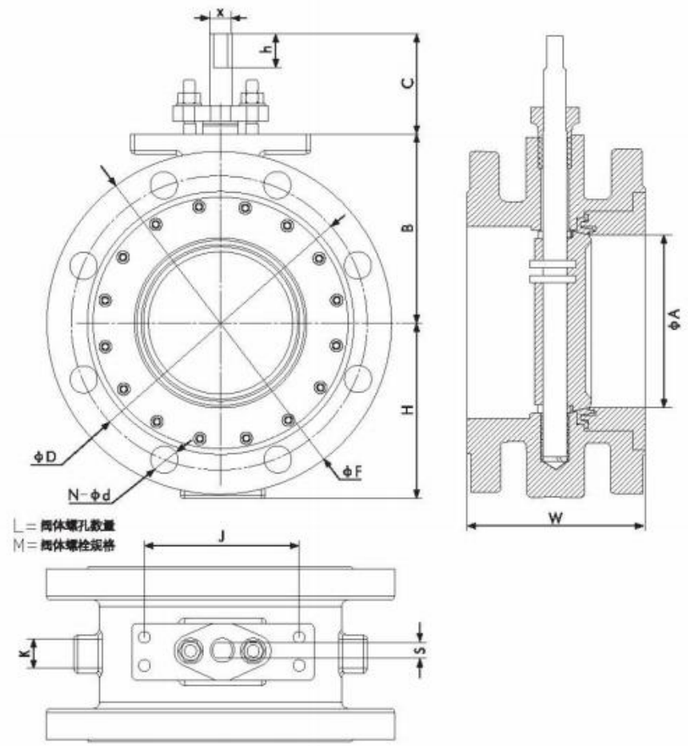
Double flange butterfly valve
双法兰蝶阀

3"~14"(DN 80~350)815D 尺寸及重量
3"~14"(DN 80~350) 815D Size & Weight

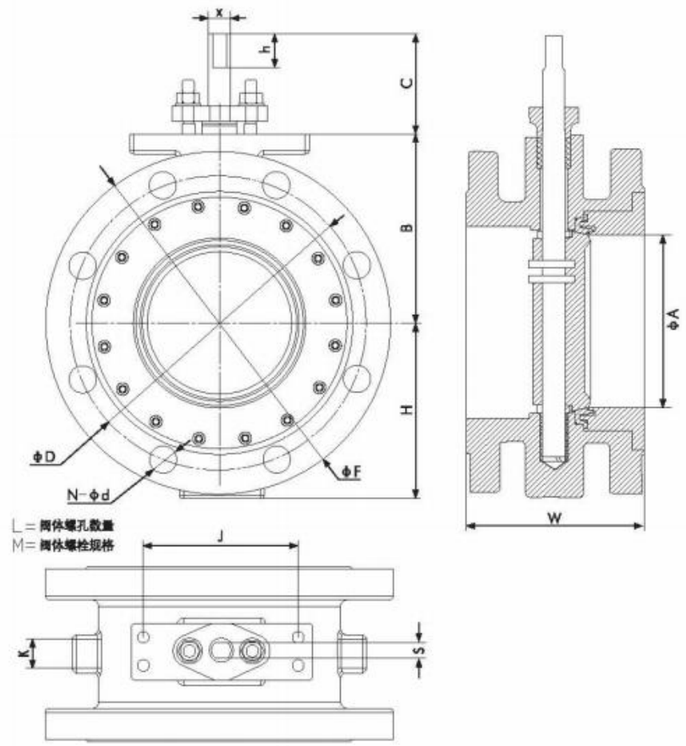
阀门规格 Size (英寸)	815D CLASS 150 近似尺寸 Approximate size（毫米 mm）														
	ϕA	B	C	H	ϕF	W	ϕD	ϕd	N	ϕX	S	h	J	K	L
3"	73.1	120.7	93.7	82	190	114	152.4	19	4	14.8	11.2	27	125.4	22.4	M10
4"	95.6	133.4	110	81.8	230	127	190.5	19	8	14.8	11.2	27	125.4	22.4	M10
5"	111.4	134.9	126.5	82.2	255	140	215.9	22.5	8	14.8	11.2	27	125.4	22.4	M10
6"	141.7	152.4	143.4	82.6	280	140	241.3	22.5	8	18	14	27	125.4	22.4	M10
8"	188	187.3	172	81.7	345	152	298.5	22.5	8	21.9	15.9	27	125.4	22.4	M10
10"	235.9	231.8	202	96.8	405	165	362	25.5	12	28	20.6	27	142.8	37.3	M12
12"	281.5	260.4	238.1	97	485	178	431.8	25.5	12	33.3	23.8	33	142.8	37.3	M12
14"	315.3	315	294.6	100	535	190	476.3	28.5	12	37	28.7	41	142.8	37.3	M16



以上资料仅供参考，具体参数以HANDA技术部规格书为标准
The above data is only for reference, and the detailed parameters in the specification book of the technology department of HANDA shall prevail.

16"~60"(DN 400~800)815D 尺寸及重量
16"~60"(DN 400~800) 815D Size & Weight

阀门规格 Size (英寸)	815D CLASS 150 近似尺寸 Approximate size（毫米 mm）														
	ϕA	B	H	C	ϕF	W	ϕD	ϕd	N	ϕX	S	h	J	K	L
16"	362.8	335.3	111	329.6	595	216	539.8	28.5	16	42	33.5	41	203.2	82.6	M16
18"	413.3	356.2	111	344.6	635	222	577.9	32	16	47	41.4	41	203.2	82.6	M16
20"	454.9	377.1	114.9	386.9	700	229	635	32	20	50	41.4	41	203.2	82.6	M16
24"	548.8	489.8	130	473.7	815	267	749.3	35	20	64	51	50	254	107.7	M20
28"	682	567	140	524	925	292	863.6	35	28	88	58.8	50.8	254	107.7	M33
32"	702	570	150	530	985	318	914.4	35	28	-	-	-	254	107.7	M33



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DY series welding and metal-sealed butterfly valve
DY系列焊接端金属密封蝶阀

主要用途和使用范围
Main use and scope of use

主要用途 The main purpose

DY系列焊接端金属密封蝶阀适用于石油、天然气长输管线和地区集中供热、城市供暖的热力管线以及轻工、冶金、电力、煤化工、食品、医药等行业的高温及带颗介质的管道上。

DY series of welding metal seal butterfly valve for oil and gas long-distance pipeline and regional central heating, urban heating, thermal power lines and light industry, metallurgy, power, coal chemical industry, food, medicine and other industries with high temperature and medium on.

阀门基本参数 Valve basic parameters

阀门名称 Valve name	金属密封蝶阀 Metal seal butterfly valve
工作温度 Operating temperature	-196~450℃ -196 ~ 450 ℃
工作介质 Working medium	液体、气体等 Liquid, gas and so on
主体材料 Main material	碳钢、不锈钢、合金钢 Carbon steel, stainless steel, alloy steel
连接型式 Connection type	焊接、法兰、对夹 Welding, flange, wafer

阀门压力范围 Valve pressure range

压力等级 Pressure	Cl150 Cl300 CL600

阀门温度范围 Valve temperature range

标准型 Standard	250℃
高温型 High temperature type	450℃

采用标准和规范
Adoption of standards and specifications

金属密封蝶阀 Metal seal butterfly valve	JB/T 8527
钢制阀门(一般要求) Steel valves (general requirements)	GB/T 12224
金属阀门(结构长度) Metal valve (structural length)	GB/T 12221
工业阀门(压力试验) Industrial valves (pressure test)	GB/T 13927
管线阀门 Pipeline valves	API 6D
阀门的检验和试验 Validation and testing of valves	API 589
阀门结构长度 Valve structure length	ASME B16.10
管法兰及法兰管件 Pipe flange and flange fittings	ASME B16.5
对接焊端 Butt weld	ASME 16.25
法兰、螺纹和焊接端连接的阀门 Flange, threaded and welded ends connected to the valve	ASME 16.34

handa翰达

主要结构特点
Main structural features

阀门采用铸钢制造，整体式结构，强度高、重量轻。结构紧凑，密封可靠。操作灵活方便，备有开关指示和机械限位，便于与管道焊接。

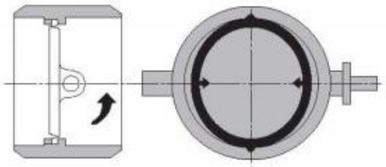
金属密封蝶阀的密封形式为不受介质压力影响的独立密封。它的蝶板与阀座靠机械力作用进行密封。因此无论介质压力大小，它均可以实现双向密封。由于金属密封圈可以移动和浮动，即使在介质温度变化下仍可保持可靠的密封。而且阀体的变形也不会造成密封圈夹持而影响密封功能。金属密封蝶阀独特的三偏心密封设计，便阀门能广泛的应用在供热系统的蒸汽管路上。

Valves are made of cast steel with the overall structure. They are also with high strength and light weight. Compact structure and reliable sealing is another feature of DY-series of BV. Operation is flexible and convenient, with switch instructions and mechanical limit, makes it easy to weld with the pipeline.

Our metal-sealed butterfly valve is an independent seal that is not affected by the pressure of any kind of medium by mechanical force from butterfly plate and seat. So regardless of the size of the medium pressure, it can achieve two-way seal as the metal ring can move and float, even in the medium temperature changes. And the deformation of the valve body will not cause the sealing ring and affect the sealing function. This kind of metal seal butterfly valve has the unique three- eccentric sealing design that can be widely used in the heating system of the steam pipe.

阀门的蝶板成椭圆形状，以双偏心位置安装。当蝶板与圆形阀座密封圈接触时，将密封圈向外挤压，造成其短轴处与密封圈接触。当阀门开启时，接触立即解除，密封圈恢复原来形状。这样防止了蝶板和密封圈的相互磨损。阀门可以经受几十万次运行。

The butterfly plate of the valve is elliptical and is mounted in double-eccentric position. When the disk contacts with the seal, squeezing the sealing ring out, as a result, its short axis contacts with the ring. When the valve is opened, the immediately disconnection and the seal returns to its original shape that prevents the discs and seals from wearing against each other. That's why this valve can operates hundreds of thousands times.



浮动式阀座密封圈 The Floating Seat Seal

阀门使用浮动式阀座密封圈，该密封圈可在阀体槽内作径向扩伸或定位，因而在各种工作条件下均可进行自我调整以保持最佳密封位置。

The valve uses a floating valve seat ring that can be radially expanded or positioned in the valve body so that it can be self-adjusted to maintain the optimum sealing position under all operating conditions.

阀门的适用 The application of the valve

金属密封蝶阀适用于蒸汽管道、主管路系统、城市热网的介质分隔和节流。可以配装气动装置和电动装置进行阀门的遥控和自动控制。

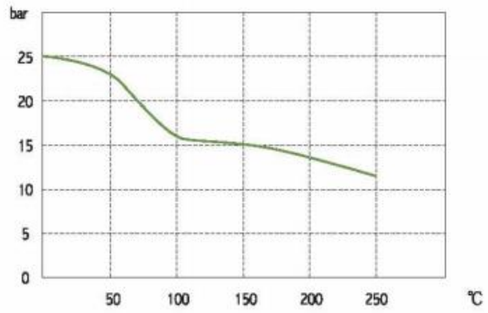
Metal Sealed Butterfly Valves are suitable for steam piping, main piping systems, and urban heating system of separation and throttling. It can also be equipped with pneumatic devices and electric devices for remote control and automatic control.

DY series welding and metal-sealed butterfly valve
DY系列焊接端金属密封蝶阀

技术数据
Technical Data

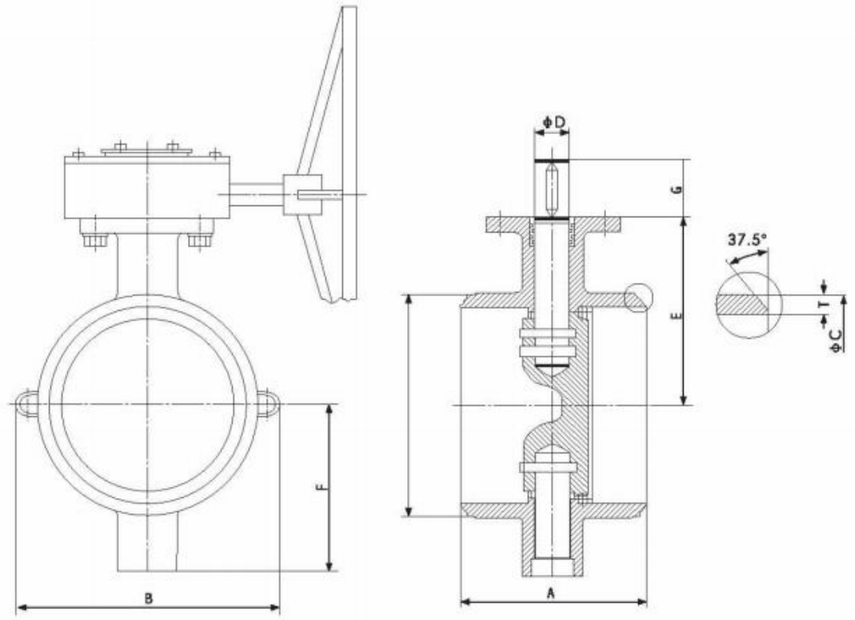
产品形式 Type	金属密封，焊接端 (其它连接形式：双法兰、对夹式) 高性能缩口蝶阀 Metal seal, welded end (other connection form: double flange, wafer type) high-performance necking butterfly valve	
压力级 Pressure level	ANSI CL150/PN16、ANSI CL300/PN40	
尺寸规范 Size specification	DN100~DN1500，NPS4"~NPS60"	
温度范围 Temperature range	标准型 Standard 250℃，高温型 High temperature type 450℃	
标准材料 Standard material	阀体 Valve body	GB/T 699 20号钢(No.20 steel) 合金钢(Alloy steel)
	蝶板 Butterfly plate	ASTM A351 CF8M (或≥DN400，ASTM A216 WCB+316)
	阀座 Valve seat	ASTM B424 INCOLOY 825
	轴 Shaft	ASTM A564 17-4PH
	轴套 Axle sleeve	RPTFE+316
	O形圈 O-ring	EPDM
阀门试验 Valve test	壳体试验 (1.5×PN) 密封试验 (1.1×PN) 试验介质：水	Shell test (1.5 × PN) Seal test (1.1 × PN) Test medium: water
阀门密封 Valve seal	API 598 ANSI/FCI 70-2 GB/T 13927	金属密封阀门的允许泄漏率 (表六) Allowable leakage rate of metal sealed valves (Table 6) V级 D级

阀门压力温度曲线
Graph of Valve Pressure and Temperature



阀门尺寸
Size

阀门规格 DN	DN125~500 近似尺寸 Approximate size (毫米 mm)								
	A	B	ϕC	T	ϕD	E	F	G	启闭力矩Torque
125	200	150	141.3	5 (4~6.6)	20	135	95	55	130
150	210	180	168.3	5 (4.8~7.1)	20	148	108	55	160
200	230	224	219.1	5 (5~8.2)	20	174	154	55	200
250	250	277	273.1	5.6 (5.2~9.3)	25	214	279	65	400
300	270	416	323.9	5.6 (5.6~10.3)	30	250	190	70	600
350	290	446	355.6	5.6 (5.6~11.1)	35	284	223	85	960
400	310	500	406.4	5 (4~6.6)	40	300	252	90	1400
450	330	572	457.2	6.3 (5.6~12.7)	45	350	284	110	2600
500	350	626	508.0	6.3 (6.4~14.3)	50	386	341	120	3800



DY series welding and metal-sealed butterfly valve
DY系列焊接端金属密封蝶阀

阀门尺寸
Size

阀门规格 DN	近似尺寸 Approximate size（毫米 mm）								
	A	B	ϕC	T	ϕD	E	F	G	启闭力距Torque
600	390	662	609.6	6.3 (6.4~15.1)	55	530	350	120	5300
700	430	836	711.2	8.0 (6.4~17.5)	70	540	430	125	6500
750	450	900	762	8.8 (7.1~16.0)	85	560	550	130	7800
800	470	940	812.8	8.8 (7.1~9.5)	85	560	550	130	9800
850	490	995	863.6	8.8 (7.1~12.7)	85	590	580	130	11500
900	510	1045	914.4	10.0 (7.1~14.0)	95	640	610	140	12500
1000	550	1170	1016	10.0 (7.9~16.0)	95	680	640	140	15800
1100	630	1282	1118	11.0 (8.7~14.3)	120	770	730	150	22360
1200	630	1375	1219	11.9 (10.3~17.5)	120	770	730	150	29000