

严苛工况低温阀门研制专家与解决方案



上海亿凡阀门制造有限公司

SHANGHAI YIFAN VALVE CO.,LTD.

地址：上海市嘉定区北陈路 382 号昶盛企业基地 8510

电话：021-36386357 021-63577909

传真：021-63577910

官网：www.yfvalve.net

ADD: Room 8510, Qisheng Enterprise Base, No. 382 Beichen Road, Jiading District, Shanghai

Tel:+86-021-36376357 021-36377909

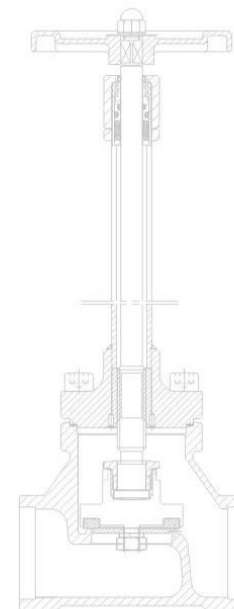
Tel:+86-021-36377910

Website:www.yfvalve.net



CRYOGENIC VALVE SERIES

低温阀门系列



上海亿凡阀门制造有限公司
SHANGHAI YIFAN VALVE CO.,LTD.



安全 完美才是我们的终点

SAFETY, PERFECTION IS WHERE WE END

亿凡多年来致力于 低温阀门的设计和 材料方面的研究工作

YIFAN works for the design of valves under
poor work conditions and the research of materials for over ten years.



上海亿凡阀门制造有限公司
SHANGHAI YIFAN VALVE CO.,LTD.

COMPANY PROFILE

企业简介

YIFAN公司拥有一个完整的质量保证系统，以此确保产品符合各种产品标准的规定。YIFAN全体员工对质量上的全面认同是产品的最佳保证。YIFAN公司创立了一个从最初客户询价到最终产品发展的整个过程的一个质量体系。YIFAN全体员工始终以来“高标准、高要求、高品质、高追求”为服务宗旨，全心全意为用户解决问题，满足用户的需求。

YIFAN拥有超过10年的工程设计经验，且不断进行技术革新。在YIFAN用户可以最大程度地了解本行业的相关知识和工程应用和革新方面的信息。对于客户的特殊要求，YIFAN的设计人员会提供最佳的解决方案。YIFAN是一家专业研究、设计、生产在恶劣环境中、低温环境中使用阀门的公司。实际上，在很大程度上，YIFAN是一个专门按照客户要求定制阀门的公司。YIFAN的工程设计专家可以分析客户需要，设计出满足客户、能够解决客户严酷苛刻工况问题的阀门产品。YIFAN 10多年的致力于耐恶劣工作环境球阀的设计和材料方面的研究工作，并且广泛应用于炼油、石油、化工、电站、采矿、造纸等行业的重要部位。产品在客户工厂的可靠运行及安全操作，一次次地得到了验证。将继续不断地进行研究和革新，通过改进球体及阀座的表面硬化工艺等来实现过程控制领域的解决方案。

YIFAN Company has a perfect quality control system to ensure the products conform to various product standards. personnel's overall identification with the concept of quality foremost is the best guarantee to product quality. YIFAN Company has set up a quality system including the whole process from customer inquiry to development of final products. Holding the service principle of "high standard, high requirement, high quality and high pursuit", YIFAN personnel are wholeheartedly solving customer problems and meeting user demands.

With more than ten years of experience in engineering design, YIFAN is making continuous technical reform. In YIFAN users will know the information relating to the industrial knowledge, engineering applications and renovations as much as possible. YIFAN designers will offer the solutions according to special requirements of customers. YIFAN is the company that specializes in researching, designing and producing full metal seal valves applied under service conditions. Actually, YIFAN is a company mainly specialized in providing customized valves according to customer requirements. The engineering design experts of YIFAN are capable of analyzing customer demands and designing valve products that meet customer requirements for severe service conditions. For over ten years, YIFAN has been devoted to the design of ball valves resistant to severe working environments and the research of materials, and the products are applied in important parts in such industries as oil refining, petroleum, chemical industry, power station, mining, pulp & paper, etc. The reliable running and safe operation of products at customer factories have been verified again and again. We will continue to make research and reform and realize solutions in the process control field through improving the surface hardening technology for the ball and seat.



technical
engineering
best
specialized
severe
customer
YIFAN

目录 CONTENTS

001	型号编制实例	053	低温真空夹套阀系列
002-004	低温阀概述	054-055	低温真空夹套截止阀
005	低温截止阀系列	056	低温真空夹套角式截止阀
006-009	低温长轴截止阀	057-058	低温真空夹套止回阀
010-013	低温短轴截止阀	059	低温真空夹套角式止回阀
014	低温长轴截止阀(止回功能)	060-061	低温真空夹套紧急切断阀
015	低温角式截止阀		
016-021	法兰低温长轴截止阀	062	低温高压阀系列
022	低温止回阀 / 低温过滤阀系列	063	低温高压截止阀
023-024	低温止回阀	064	低温高压止回阀
025	低温过滤阀	065	低温高压紧急切断阀
026	低温紧急切断阀系列	066	低温高压安全阀
027-028	低温紧急切断阀	067	其他低温阀门系列
029	低温调节阀系列	068	低温拉断阀
030-033	低温升压调节阀	069	低温阻火器
034-036	低温降压调节阀	070	低温组合充灌阀
037	低温安全阀系列	71-72	低温旋卡座
038-039	低温微启式安全阀	73	低温快速接头
040-045	低温全启式安全阀		
46-47	低温安全阀		
048	三通球阀系列		
049-052	低温三通球阀		

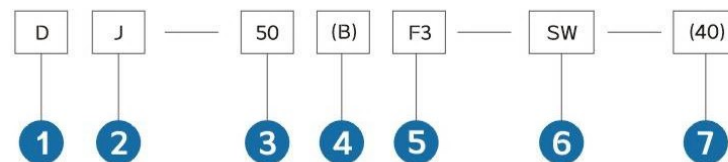
工业低温阀系列

074-084	低温球阀系列
085-096	低温蝶阀系列
097-098	超低温调节阀系列
099-105	低温闸阀系列
106-111	低温截止阀系列
112-117	低温止回阀系列

MODEL PREPARATION EXAMPLE

型号编制实例

型号标准



1 低温状态: D-低温
Low Temperature: D-cryogenic

2 阀门类别: J-截止阀
Valve type: J-globe valve

Q-球阀
Q-ball valve
YJ-降压调节阀
YJ-pressure relief valve

A-微启式安全阀
A-micro-opening safety valve

ZJ-真空夹套低温截止阀
ZJ-vacuum jacketed cryogenic globe valve

JC-低温组合充灌阀
JC-low temperature combination filling valve

D-蝶阀
D-butterfly valve

JL-角式截止阀
JL-angle globe valve

QS-三通球阀
QS-three-way ball valve

YS-升压调节阀
YS-boost pressure regulator

AY-全启式硬密封安全阀
AY-full open hard sealed safety valve

ZH-真空夹套低温止回阀
Z-vacuum jacketed cryogenic check valve

CZ-管道阻火器
CZ-pipe flame arrester

Z-闸阀
Z-gate valve

JS-三通截止阀
JS-three-way globe valve

H-止回阀
H-check valve

JQ-紧急切断阀
JQ-emergency shut-off valve

AF-全启式软密封安全阀
AF-full open soft seal safety valve

ZQ-真空夹套低温紧急切断阀
ZQ-vacuum jacketed cryogenic emergency shut-off valve

3 阀门规格: DN
Valve specification: Dn

4 阀门体型: 默认为常规体型 B-B型阀体 T-铜制阀体 N-NPT螺纹体
Valve body: default conventional body B-B body t-copper body N-NPT thread

5 密封面材质: F3-PCTFE F4-PTFE Y-硬质合金
Sealing surface: F3-PCTFE F4-PTFE y-cemented carbide

6 连接方式: SW-承插焊 BW-对焊 FT-内螺纹 MT-外螺纹 RF/FM/RJ-法兰
Connection: SW-socket welding BW-butt welding FT-internal thread MT-external thread RF/FM/RJ-flange

7 压力等级: 默认PN4.0 PN1.6~32.0 150LB~1500LB
Stress level: default PN4.0 PN1.6~32.0 150LB~1500LB

CRYOGENIC VALVE OVERVIEW

低温阀概述

超低温阀门工作温度一般在 -196°C ~ $+80^{\circ}\text{C}$ 之间，有的甚至更低。在设计这类阀门时，除应遵循一般的设计原则外，还有以下特殊的要求。

设计要求

根据使用条件，低温阀门的设计有下列要求：

- 1、阀门在低温介质及周围环境下应具有长时间工作的能力，一般使用寿命为10年或3000~5000次(循环)。
- 2、阀门不应成为低温系统的一个显著的热源。这是因为热量的流入降低热效率外，如流入过多，还会使内部急速蒸发，产生异常升压，造成危险。
- 3、由于在低温工作下的阀门组合件无法润滑，所以需要采取结构措施，以防止摩擦件擦伤。
- 4、所有的承压减和控压件所使用的材料，均应做低温处理和深冷处理。并应做低温冲击试验，以保证材料在低温状态的韧性。

低温阀门的结构特点

低温阀门主要有闸阀、截止阀、球阀、蝶阀、止回阀、安全阀等。其主要结构与通用阀门大致相同。

阀体

阀体应能充分承受温度变化的、而引起的膨胀、收缩，而且阀座底部的结构不会因温度变化产生永久变形。

阀盖

采用长颈阀盖结构，其目的在于能保护填料函的功能，因为填料函的密封性是低温阀的关键之一。该处如有泄漏，将降低保冷效果。导致液化气体的气化，这是因为在低温状态下随温度的降低，填料弹性逐渐消失，防漏性能随之下降，由于介质渗漏造成填料与阀杆处结冰，影响阀杆正常操作，同时也会因阀杆上下移动而将填料划伤，引起严重泄漏。所以低温阀门必须采用长颈阀盖结构，此外，长颈阀盖结构还便于缠绕保冷材料，防止冷量损失。长颈阀盖的颈长是根据不同的使用温度要求设计，保证填料函底部温度保持在 0°C 以上。

阀瓣(闸板)

闸阀采用弹性闸板或开式闸板，截止阀及针形阀采用锥形密封阀瓣。这些结构形式不论温度如何变化，均能保持可靠密封。

Cryogenic valves orking temperature is general from -196°C to $+80^{\circ}\text{C}$ degrees, even lower. while designing Cryogenic valve, both general design principles and following special requirements are needed.

Design requirements

According to the conditions of use, cryogenic valves design has the following requirements:

1. The valve in the low temperature medium and surrounding environment should have the ability to work for a long time, generally use life of 10 years or 3000 to 5000 times (circulation).
2. The valve should not become a significant temperature system of heat. Because of the heat efficiency, reduce the inflow except as too much, still can make rapid evaporation, internal cause abnormal booster, causes dangerous.
3. Due to the low in the valve assembly work, so I need not lubrication to structure measures to prevent friction parts scratches.
4. And all ports confined and control of materials, and shall make temperature of cryogenic self-tightening processing. And should do low-temperature impact test, to ensure the material at low temperature condition toughness.

The structure characteristics of the cryogenic valves

Cryogenic valve are mainly gate, globe valves, ball valves, butterfly valves, check valves, Safety valve, etc. Its main structure and generic valve roughly the same.

And body

The body can be fully under temperature changes caused by the expansion and contraction, and sealing parts of the structure due to temperature change not caused permanent deformation.

The bonnet

A long neck bonnet structure, its purpose is to protect the stuffing box function, because the stuffing box sealing is one of the key low-temperature valve. Where will decrease as a leak, cooling effect. Liquefied gas in the gasification, this is because in the low temperature condition, packing elastic gradually disappear, leakproof, due to the decrease of performance caused by leakage, medium with stem packing in icy, affect the normal operation of stem, but also because of stem and packing will move up and down, ause serious leakage. So the cryogenic valves must a long neck bonnet structure, in addition, the long neck bonnet structure is easy, prevent the cold material winding cold can damage. The neck length of the long neck bonnet is design according to different requirements to the working temperature. Make sure that the temperature at the bottom of the packing box must be maintained at above 0°C 。

And disc (gate)

Using the elastic disc gate, globe valve wedge type or and needle valve adopts taper seal disc. These structures, regardless of how the temperature change can keep reliable seal.

CRYOGENIC VALVE OVERVIEW

低温阀概述

阀杆

阀杆需镀镍磷或经氮化处理，以提高阀杆表面硬度，防止阀杆与填料、填料压套(压盖)相互咬死，损坏填料，造成填料函泄漏。

垫片

垫片选用要考虑垫片材料的低温性能，如压缩回弹性、预紧力、紧固压力分布以及压力松弛特性等。

填料函及填料

填料函不能与低温段直接连接，而应设在长颈阀盖顶端，使填料函处于离低温较远的位置，在 0°C 以上的温度下工作。这样，提高了填料函的密封效果，在泄漏时.....

上密封

低温阀，除球阀、蝶阀外，都要求设有上密封结构，上密封副要求堆焊钴铬钨硬质合金，进行精加工研磨。

阀座、阀瓣(闸板)密封面

低温阀的启闭件密封面均采用堆焊钴铬钨结构，非金属高分子材料，如聚四氟乙烯膨胀系数大，低温变脆，因此，仅适用于温度高与 -70°C 的低温阀，但聚三氟乙烯可以用于 -196°C 的低温阀。

中法兰连接螺栓

- 1、中法兰连接螺栓应有足够的强度，这是因为螺栓在反复载荷下工作，常会因疲劳而产生破裂。
- 2、因螺栓的根部易引起应力集中，所以最好采用全螺纹结构螺栓。
- 3、拧紧螺栓的预紧压力大小不均匀时，易产生疲劳破坏，所以最好用力矩扳手来拧紧螺栓。
- 4、对碳素钢低温阀门应选用L7、L7M材料的螺栓，不应选用B7、B7M 的螺栓。

保冷

又称保温板，其主要作用是支持保温材料，其次是提高保温效果。

And the valve stem

Stem to electro less nickel plating phosphorus or after nitriding process, in order to improve the surface hardness, prevent stem packing, the valve stem and packing (gland) mutual bite dead and damage caused by the stuffing box packing, leakage.

And gasket

Gasket chooses to consider the gasket materials, such as low recovery, compression performance of prestressing force, tighten the pressure distribution and stress relaxation characteristics, etc.

And the stuffing box and packing

Stuffing box cannot be directly connected with low temperature, and should in long neck bonnet top, make the stuffing box is far from low position, in 0°C above temperature. So, to improve the stuffing box sed leakage in...

And sealed

Cryogenic valves, butterfly valves, besides, all have the sealing structure, seal requirements of tungsten carbide co-cr surfacing, precision grinding.

Seat and disc sealing disc (gate)

Cryogenic valves are part of using co-cr surfing sealing structure, nonmetal polymer materials, tungsten, such as ptfe expansion coefficient low temperature, so brittle, is only applicable to temperature is higher than that of the cryogenic valves -70°C , but together three fluorine ethylene can be used for -196°C degrees Celsius.

In September ,flange bolts

1. In the flange bolts. Should have enough strength, because the bolt in work, often repeated load caused by fatigue fracture.
2. Due to the root of the bolt. To stress concentration, so the all-thread structure bolts.
3. Tighten bolts of prestressing force size uneven, easy generation, so the fatigue damage of torque wrench to tighten bolts.
4. For carbon steel valves. The temperature, L7M L7 should choose the material selection, bolts should not B7M B7, the bolt.

And the cold

And said, whose main board between temperature affect is support insulation materia, the second is to improve the heat preservation effect.

CRYOGENIC VALVE OVERVIEW

低温阀概述

预防异常升压的措施

阀门关闭后，体腔内会残留一些液体。随着时间的增加，这些残留在体腔里的液体会渐渐吸收大气中的热量，回升到常温并重新气化。气化后，体积会急剧膨胀，约600倍之多，因而产生极高的压力，并作用于阀体内部。这种情况称为异常升压，这是低温阀门特有的现象。例如，液化天然气在 -162°C 的压力为 $0.2\sim 0.4\text{MPa}$ 。当气温回升到 20°C 时，压力增加到 29.3MPa 。发生异常升压现象时，会使阀板紧压在阀座上，导致阀板不能开启。这时，高压会将中法兰垫片冲出，或冲坏填料，也可能引起阀体、阀盖变形，使阀座密封性显著下降；甚至阀盖破裂。造成严重事故。

为防止异常升压现象发生，一般低温阀门在结构上采取以下措施：

1、设置泄压孔，又称压力平衡孔或排气孔。即在弹性阀板或双阀板进口侧钻一小孔，作为阀体内腔和进口侧的压力平衡孔，当内腔升压时，气体可以通过小孔排出，这种方法比较简单，被广泛应用。采用泄压孔防止异常升压，在阀体设计时有指示介质流向的箭头，安装时，要注意泄压孔的位置，保证泄压孔通向介质进口的一侧。泄压孔开设在阀板上时，更要注意。泄压孔开设位置视阀门结构而定，有的在阀体上，有的在阀板上。

2、在阀门上设置引出管或安装安全阀以排出异常高压。一般是在阀盖上装一只保证阀体强度的安全阀。当压力升高到一定值时，安全阀开启，排出异常高压，保证阀体安全。也可在阀体下部安装排污阀，将体腔中的残液排净。以防止异常升压的发生。对于低温球阀，可以设计为一个阀座单向密封，一个阀座双向密封，当体腔内压力上升到额定压力的 1.33 倍时，单向阀座就被体腔内介质推开，排放过高压，当压力恢复到额定压力的 1.33 倍以下时，单向座重新关闭，保证密封性能。

Measures to prevent abnormal booster

Shut off the valve will remain within the body, after some liquid. As time increases, the remaining in the body of the liquid will gradually absorbed in atmospheric heat, and back to normal gasification. After gasification, volume rapid expansion, will be about 600 times and high pressure, and used in the body. This kind of situation, it is called the abnormal pressurization valve characteristic of low-temperature phenomena. For example, liquefied natural gas in -162°C degrees of pressure for $0.2\sim 0.4\text{MPa}$. When the temperature rose to 20°C , the pressure increase to 29.3MPa . Unusual phenomenon, will boost pressure in the seat disc tight, can open gate. At this moment high-pressure would be out of flange gaskets, or blunt bad packing, also can cause the body and bonnet deformation, make the seat tightness decreased. Even bonnet rupture. Creates a serious accident.

To pressure abnormal phenomenon occurs, general boost in structure cryogenic valves to take the following measures:

1. Set pressure hole, say again pressure balance aperture or vent. In the elastic disc or double disc as a hole sidetrack import valve inlet side chamber and the pressure balance aperture, when the inner chamber pressurization, gas discharge, through holes relatively simple, this method has been widely used. Adopted to prevent abnormal pressure hole boost in the body, when the flow direction of medium of instruction design, installed, arrow attention reline pressure hole position, ensure pore pressure to import side. Medium Pressure relief hole in the gate open, more attention. Pressure relief valves open hole position and structure, depending on the body, some in the gate.

2. The valve setting. Out pipe or install valve to abnormal high pressure. Usually in the bonnet jacket is a guarantee of the relief valve body strength. When the pressure to a certain value, the relief valve opens eliminate the abnormal high pressure, ensure the safely valve. Also can install drain valve in the body, the body will be the residual liquid. In order to prevent abnormal booster. For cryogenic valves, can design for a seat one-way seal, a seat sealing. when the two-way rose to pressure rated pressure inside of 1.33 times, check seats in the body was open, and high pressure, the pressure when discharge to 1.33 times rated pressure, one-way seat to close, ensure the sealing performance.



01

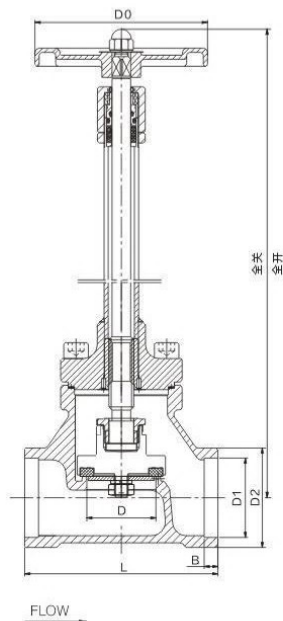
Cryogenic Globe Valve Series

低温截止阀系列



CRYOGENIC GLOBE VALVE

低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

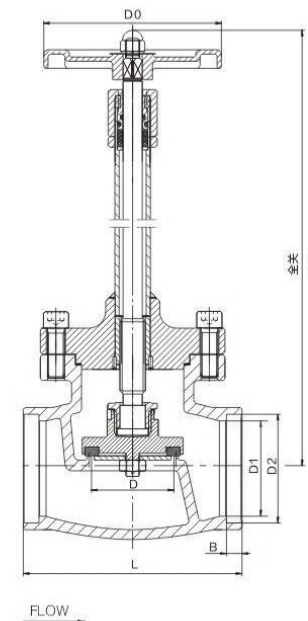
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号 Type	H开	H关	L	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJ-10F3-SW	222	216	60	65	13	14.5	24	6
DJ-15F3-SW	261	251	65	80	15	18.5	29.5	6
DJ-20F3-SW	266	255	80	80	20	25.5	36	8
DJ-25F3-SW	297	283	90	100	25	32.5	43.5	8
DJ-32F3-SW	306	292	105	100	32	38.5	53	8
DJ-40F3-SW	375	357	120	125	40	45.5	62	8
DJ-50F3-SW	383	362	140	140	50	57.5	72	10

CRYOGENIC GLOBE VALVE

低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

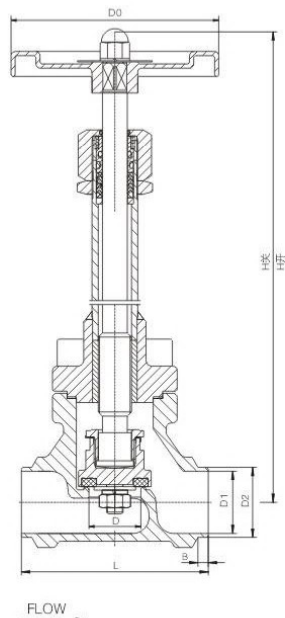
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号 Type	H开	H关	L	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJ-65BF3-SW	402	380	152	140	59	76.5	86	11
DJ-80BF3-SW	540	506	180.5	200	72	90	100	15
DJ-100BF3-SW	550	496	202	250	92	109.5	121	15
DJ-65CF3-SW	420	400	170	200	65	77	90	15
DJ-125CF3-SW	665	630	280	260	125	134	146	15
DJ-150CF3-SW	700	662	350	260	150	159.5	170.0	30
DJ-200CF3-SW	865	790	400	320	198	220.0	250	30

CRYOGENIC GLOBE VALVE

低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

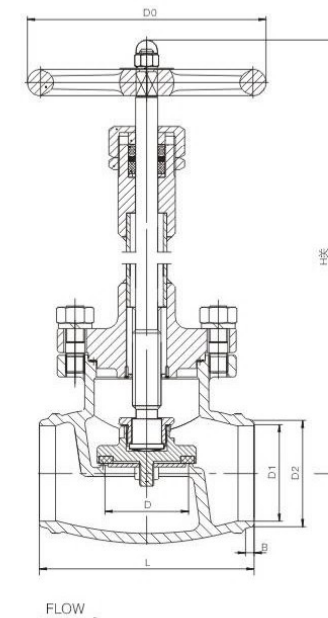
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	BW(A)		BW(B)	
						ΦD1	ΦD2	ΦD1	ΦD2
DJ-10F3-BW	222	216	60	65	13	13	17	-	-
DJ-15F3-BW	261	251	65	80	15	17	21.3	14	18
DJ-20F3-BW	266	255	80	80	20	22.5	26.9	20	25
DJ-25F3-BW	297	283	90	100	25	28	33.7	27	32
DJ-32F3-BW	306	292	105	100	32	36	42.2	38	32
DJ-40F3-BW	375	357	120	125	40	43	48.3	45	39
DJ-50F3-BW	383	362	140	140	50	55	60.3	57	51

CRYOGENIC GLOBE VALVE

低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

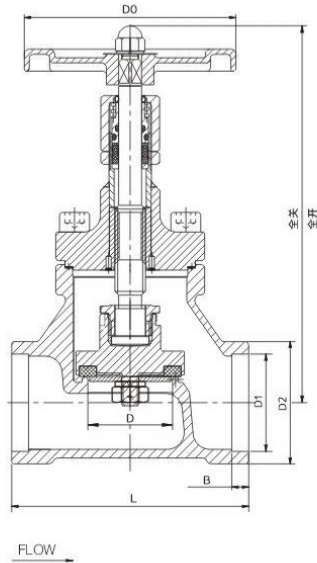
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	BW(A)		BW(B)	
						ΦD1	ΦD2	ΦD1	ΦD2
DJ-65BF3-BW	402	380	152	140	59	-	-	-	-
DJ-80BF3-BW	540	506	180.5	200	72	81	88.0	81	89
DJ-100BF3-BW	550	496	202	250	92	106.3	114.3	100	108
DJ-65CF3-BW	420	400	170	200	65	68	76.1	68	76
DJ-125CF3-BW	665	630	280	260	125	162	139.7	155	133
DJ-150CF3-BW	700	662	350	260	150	194	168.3	185	159
DJ-200CF3-BW	865	790	400	320	198	245	219.1	245	219

SHORT STEM CRYOGENIC GLOBE VALVE

低温短轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: O₂, N₂, Ar, NG, Co₂
连接方式: 承插焊
Nominal Pressure: 4.0MPa
Design Temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: O₂, N₂, Ar, NG, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

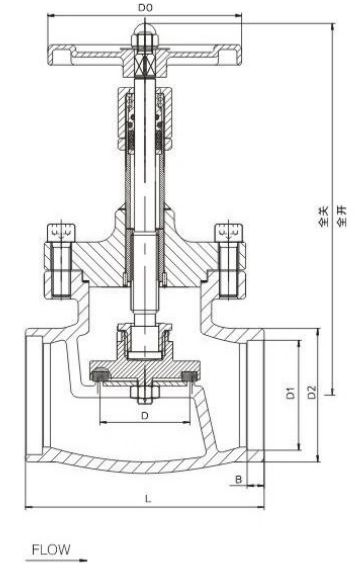
阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PTFE、硬质合金
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJ-10F4-SW	138	132	60	65	13	14.5	24	6
DJ-15F4-SW	163	154	65	80	15	18.5	29.5	6
DJ-20F4-SW	166	155	80	80	20	25.5	36	8
DJ-25F4-SW	186	173	90	100	25	32.5	43.5	8
DJ-32F4-SW	198	183	105	100	32	38.5	53	8
DJ-40F4-SW	236	218	120	125	40	45.5	62	8
DJ-50F4-SW	245	226	140	140	50	57.5	72	10

SHORT STEM CRYOGENIC GLOBE VALVE

低温短轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: O₂, N₂, Ar, NG, Co₂
连接方式: 承插焊
Nominal Pressure: 4.0MPa
Design Temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: O₂, N₂, Ar, NG, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

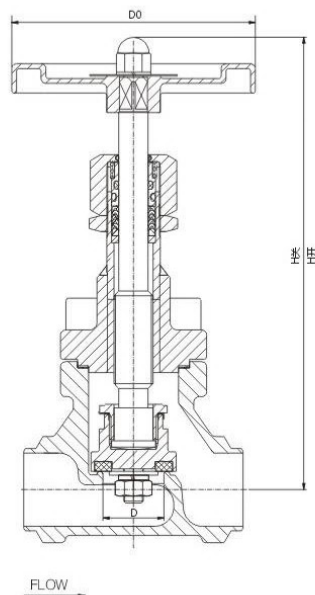
阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PTFE、硬质合金
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJ-65BF4-SW	240	218	152	140	59	76.5	86	11
DJ-80BF4-SW	290	257	180.5	200	72	90	100	15
DJ-100BF4-SW	327	273	202	250	92	109.5	121	15
DJ-65CF4-SW	361	344	170	200	65	77	90	15
DJ-125CF4-SW	530	500	280	260	125	134	146	15
DJ-150CF4-SW	616	580	350	260	150	159.5	170.0	30
DJ-200CF4-SW	750	700	400	320	198	220.0	250	30

SHORT STEM CRYOGENIC GLOBE VALVE

低温短轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: O₂, N₂, Ar, NG, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: O₂, N₂, Ar, NG, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PTFE、硬质合金

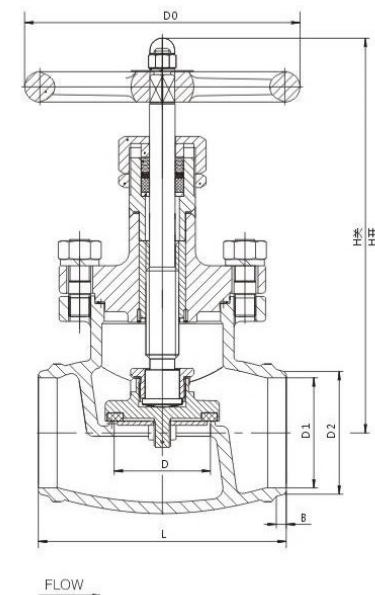
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	D	D0	BW(A)		BW(B)	
						D1	D2	D1	D2
DJ-10F4-BW	138	132	60	65	13	13	17		
DJ-15F4-BW	163	154	65	80	15	17	21.3	14	18
DJ-20F4-BW	166	155	80	80	20	22.5	26.9	20	25
DJ-25F4-BW	186	173	90	100	25	28	33.7	27	32
DJ-32F4-BW	198	183	105	100	32	36	42.2	38	32
DJ-40F4-BW	236	218	120	125	40	43	48.3	45	39
DJ-50F4-BW	245	226	140	140	50	55	60.3	57	51

SHORT STEM CRYOGENIC GLOBE VALVE

低温短轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: O₂, N₂, Ar, NG, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: O₂, N₂, Ar, NG, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

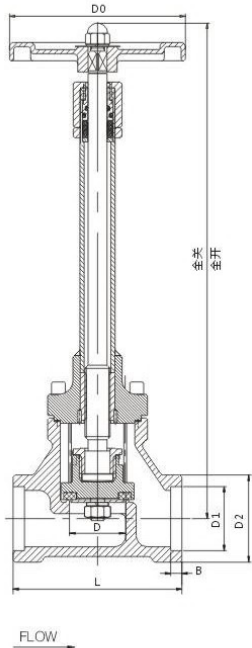
阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	BW(A)		BW(B)	
						ΦD1	ΦD2	ΦD1	ΦD2
DJ-65BF4-BW	240	218	152	140	59				
DJ-80BF4-BW	290	257	180.5	200	72	81	88.0	81	89
DJ-100BF4-BW	327	273	202	250	92	106.3	114.3	100	108
DJ-65CF4-BW	361	344	170	200	65	68	76.1	68	76
DJ-125CF4-BW	530	500	280	260	125	162	139.7	155	133
DJ-150CF4-BW	616	580	350	260	150	194	168.3	185	159
DJ-200CF4-BW	750	700	400	320	198	245	219.1	245	219

CRYOGENIC GLOBE VALVE(CHECK FUNCTION) 低温长轴截止阀(止回功能)



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 承插焊(对焊、法兰)

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld(Butt Weld, Flange)

主要零部件材料 Materials of Main Parts

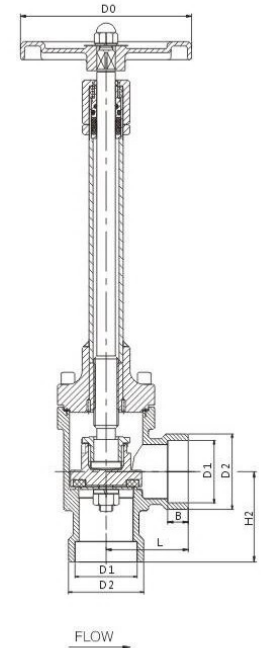
阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJH-10F3-SW	218	212	60	65	13	14.5	24	6
DJH-15F3-SW	253	244	65	80	15	18.5	29.5	6
DJH-20F3-SW	260	249	80	80	20	25.5	36	8
DJH-25F3-SW	291	278	90	100	25	32.5	43.5	8
DJH-32F3-SW	301	286	105	100	32	38.5	53	8
DJH-40F3-SW	366	348	120	125	40	45.5	62	8
DJH-50F3-SW	375	353	140	140	50	57.5	72	10

ANGLE TYPE CRYOGENIC GLOBE VALVE 低温角式截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

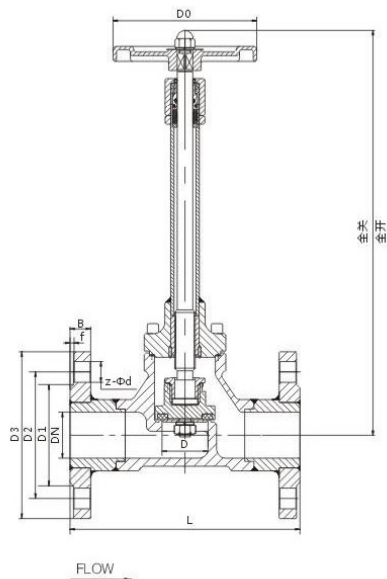
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	H2	L	ΦD	ΦD0	SW		
							ΦD1	ΦD2	B
DJL-40F3-SW	342	325	66	60	125	40	45.5	62	8

FLANGE CRYOGENIC GLOBE VALVE

法兰低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 法兰式(FM、RF、RJ)

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Flange(FM, RF, RJ)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	ΦDN	ΦD1	ΦD2	ΦD3	B	Z-φd	f
DJ-10F3-RF-40P	218	212	130	65	13	12	40	60	90	16	4-Φ14	2
DJ-15F3-RF-40P	253	244	65	80	15	15	45	65	95	16	4-Φ14	2
DJ-20F3-RF-40P	260	249	80	80	20	20.0	55.0	75.0	105.0	16	4-Φ14	2
DJ-25F3-RF-40P	291	278	90	100	25	25.0	61.0	85.0	115.0	16	4-Φ14	2
DJ-32F3-RF-40P	301	286	105	100	32	32.0	78	100	135	18	4-Φ18	2
DJ-40F3-RF-40P	366	348	120	125	40	40.0	85	110	145	18	4-Φ18	3
DJ-50F3-RF-40P	375	353	140	140	50	50.0	100	125	160	20	4-Φ18	3

FLANGE CRYOGENIC GLOBE VALVE

法兰低温长轴截止阀

产品性能规范 Product Performance Specifications

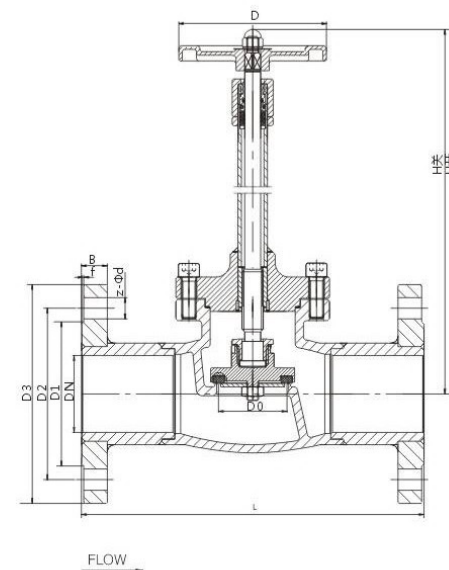
公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 法兰式(FM、RF、RJ)

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Flange(FM, RF, RJ)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

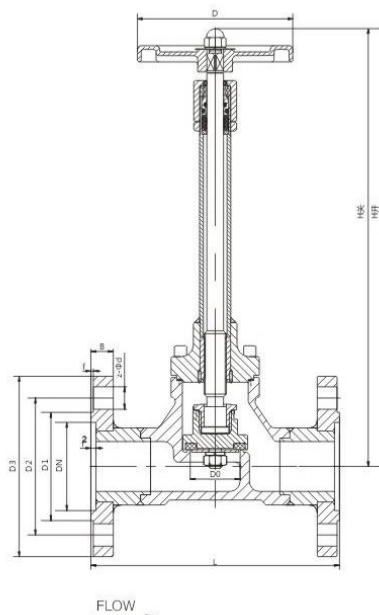


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	ΦDN	ΦD1	ΦD2	ΦD3	B	Z-φd	f
DJ-65BF3-RF-40P	402	380	290	140	59	65.0	120	145	185	22	8-Φ18	3
DJ-80BF3-RF-40P	540	506	310	200	72	80	135	160	200	24	8-Φ18	3
DJ-100BF3-RF-40P	550	496	350	250	92	100.0	156	190	235	26	8-Φ22	3

FLANGE CRYOGENIC GLOBE VALVE

法兰低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 法兰式(FM、RF、RJ)

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Flange(FM, RF, RJ)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	ΦDN	ΦD1	ΦD2	ΦD3	D4	B	Z-Φd	f	12
DJ-10F3-FM-40P	222	216	170	65	13	12	35	40	60	90	16	4-Φ14	2	4
DJ-15F3-FM-40P	261	251	170	80	15	15	40	45	65	95	16	4-Φ14	2	4
DJ-20F3-FM-40P	266	255	150	80	20	20.0	51.0	58.0	75.0	105.0	16	4-Φ14	2	4
DJ-25F3-FM-40P	297	283	160	100	25	25.0	58.0	68.0	85.0	115.0	16	4-Φ14	2	4
DJ-32F3-FM-40P	306	292	180	100	32	32.0	66	78	100	140	18	4-Φ14	2	4
DJ-40F3-FM-40P	375	357	200	125	40	40.0	76	88	110	150	18	4-Φ16	2	4
DJ-50F3-FM-40P	383	362	230	140	50	50.0	88	100	125	160	20	4-Φ18	2	4

FLANGE CRYOGENIC GLOBE VALVE

法兰低温长轴截止阀

产品性能规范 Product Performance Specifications

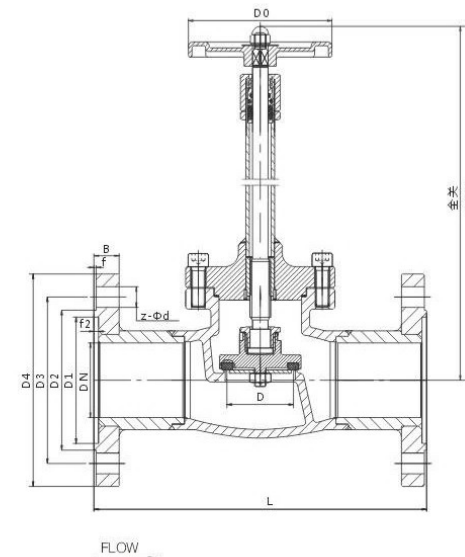
公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 法兰式(FM、RF、RJ)

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Flange(FM, RF, RJ)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

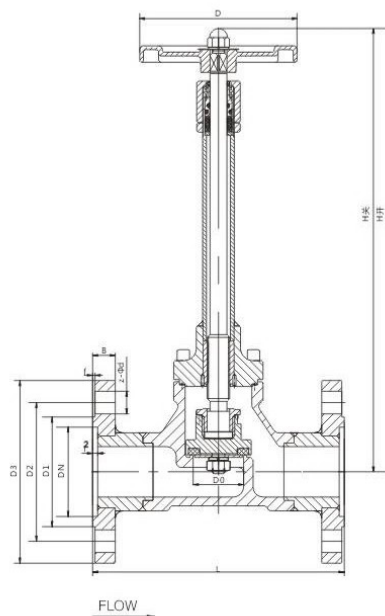


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	ΦDN	ΦD1	ΦD2	ΦD3	ΦD4	B	Z-Φd	f	12
DJ-65BF3-FM-40P	402	380	290	140	59	65.0	110	122	160	205	26	8-Φ22	2	4
DJ-80BF3-FM-40P	540	506	380	200	72	90	121	138	170	215	28	8-Φ22	2	4
DJ-100BF3-FM-40P	550	496	430	250	92	109.5	150	162	200	250	30	8-Φ26	3	4.5

FLANGE CRYOGENIC GLOBE VALVE

法兰低温长轴截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 法兰式(FM、RF、RJ)

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Flange(FM, RF, RJ)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	ΦDN	ΦD1	ΦD2	ΦD3	ΦD4	B	Z-Φd	f	f2
DJ-10F3-FM-63P	222	216	170	65	13	12	35	40	60	90	16	4-Φ14	2	3.5
DJ-15F3-FM-63P	261	251	170	80	15	15	40	43	65	95	16	4-Φ14	2	4
DJ-20F3-FM-63P	266	255	150	80	20	20.0	51.0	56.0	75.0	105.0	16	4-Φ14	2	4
DJ-25F3-FM-63P	297	283	160	100	25	25.0	58.0	78.0	100.0	135.0	16	4-Φ14	2	4
DJ-32F3-FM-63P	306	292	180	100	32	32.0	66	82	110	150	24	4-Φ23	2	4
DJ-40F3-FM-63P	375	357	200	125	40	40.0	76	95	125	165	24	4-Φ23	2	4
DJ-50F3-FM-63P	383	362	230	140	50	50.0	88	105	135	175	26	4-Φ23	2	4

FLANGE CRYOGENIC GLOBE VALVE

法兰低温长轴截止阀

产品性能规范 Product Performance Specifications

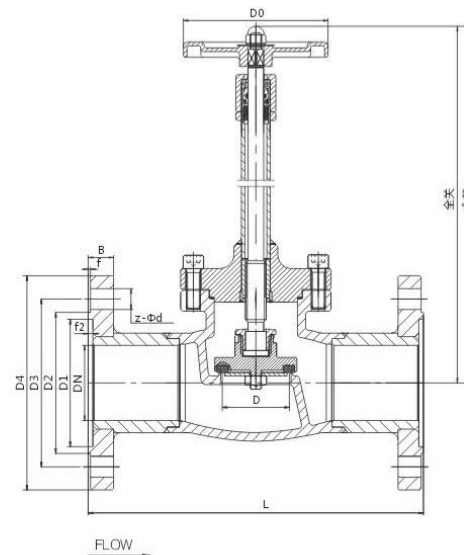
公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 法兰式(FM、RF、RJ)

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Flange(FM, RF, RJ)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE、硬质合金

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE, ALLOY



主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	L	ΦD	ΦD0	ΦDN	ΦD1	ΦD2	ΦD3	ΦD4	B	Z-Φd	f	f2
DJ-65BF3-FM-63P	402	380	340	140	59	65.0	110	122	160	205	26	8-Φ22	2	4
DJ-80BF3-FM-63P	540	506	380	200	72	90	121	138	170	215	28	8-Φ22	2	4
DJ-100BF3-FM-63P	550	496	430	250	92	109.5	150	162	200	250	30	8-Φ26	3	4.5

Cryogenic Check Valve
Cryogenic Strainer Valve Series
低温止回阀 / 低温过滤阀系列

02



CRYOGENIC CHECK VALVE

低温止回阀

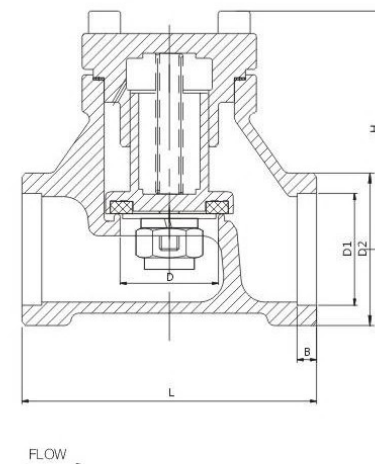
产品性能规范
Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 承插焊(对焊、法兰)
Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Socket Weld(Butt Weld, Flange)

主要零部件材料
Materials of Main Parts

阀体: CF8
阀盖: CF8
阀瓣: S30408
弹簧: S30210
阀瓣密封件: PTFE、硬质合金

Body: CF8
Cover: CF8
Disc: S30408
Spring: S30210
Disc Seals: PTFE, ALLOY

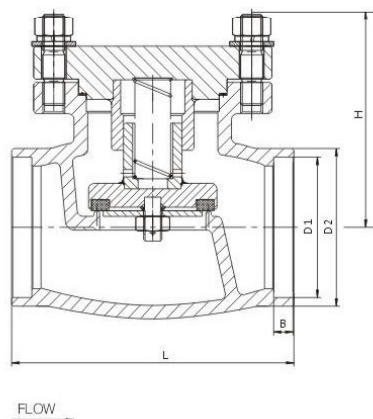


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	ΦD0	SW		
				ΦD1	ΦD2	B
DH-10F4-SW	55	60	13	14.5	24	6
DH-15F4-SW	62	65	15	18.5	29.5	6
DH-20F4-SW	70	80	20	25.5	36	8
DH-25F4-SW	77	90	25	32.5	43.5	8
DH-32F4-SW	89	105	32	38.5	53	8
DH-40F4-SW	98	120	40	45.5	62	8
DH-50F4-SW	111	140	50	57.5	72	10

CRYOGENIC CHECK VALVE

低温止回阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 承插焊(对焊、法兰)
Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld(Butt Weld, Flange)

主要零部件材料 Materials of Main Parts

阀体: CF8
阀盖: CF8
阀瓣: S30408
弹簧: S30210
阀瓣密封件: PTFE、硬质合金

Body: CF8
Cover: CF8
Disc: S30408
Spring: S30210
Disc Seals: PTFE, ALLOY

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	ΦD0	SW		
				ΦD1	ΦD2	B
DH-65BF4-SW	116	152	58	76.5	86	11
DH-80BF4-SW	146	180.5	70	90	100	15
DH-100BF4-SW	153	202	90	109.5	121	15

CRYOGENIC STRAINER VALVE

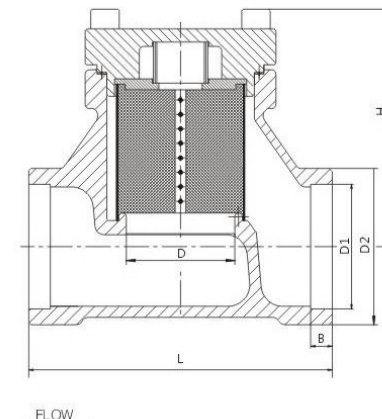
低温过滤阀

产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG、LO₂、LN₂、LAr、Co₂
连接方式: 承插焊
Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀盖: CF8
Body: CF8
Cover: CF8



主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	ΦD0	SW		
				ΦD1	ΦD2	B
DGF-10-SW	55	60	13	14.5	24	6
DGF-15-SW	62	65	15	18.5	29.5	6
DGF-20-SW	70	80	20	25.5	36	8
DGF-25-SW	77	90	25	32.5	43.5	8
DGF-32-SW	89	105	32	38.5	53	8
DGF-40-SW	98	120	40	45.5	62	8
DGF-50-SW	111	140	50	57.5	72	10

Cryogenic Emergency
Shut-off Valve Series
低温紧急切断阀系列

03



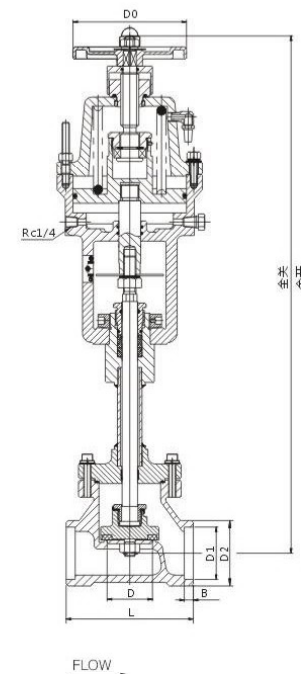
CRYOGENIC EMERGENCY SHUT-OFF VALVE
低温紧急切断阀

产品性能规范
Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+75℃
适用介质: LNG、LO2、LN2、LAr、Co2
连接方式: 承插焊(对焊、法兰)
Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+75℃
Suitable Media: LNG, LO2, LN2, LAr, Co2
Connection: Socket Weld(Butt Weld, Flange)

主要零部件材料
Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

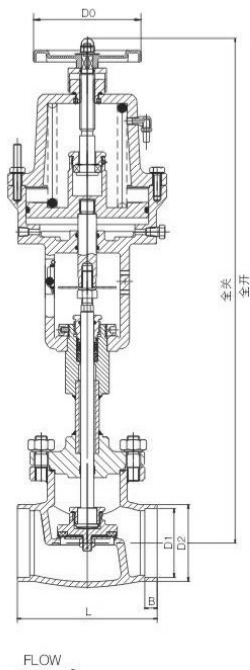


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	L1	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJQ-15F3-SW	475	175	65	100	15	18.5	29.5	6
DJQ-20F3-SW	479	179	80	100	20	25.5	36	8
DJQ-25F3-SW	486	186	90	100	25	32.5	43.5	8
DJQ-32F3-SW	501	200	105	100	32	38.5	53	8
DJQ-40F3-SW	578	223	120	125	40	45.5	62	8
DJQ-50F3-SW	584	230	140	125	50	57.5	72	10

CRYOGENIC EMERGENCY SHUT-OFF VALVE

低温紧急切断阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C} \sim +75^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊(承插焊, 法兰)

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C} \sim +75^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld(Socket Weld, Flange)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

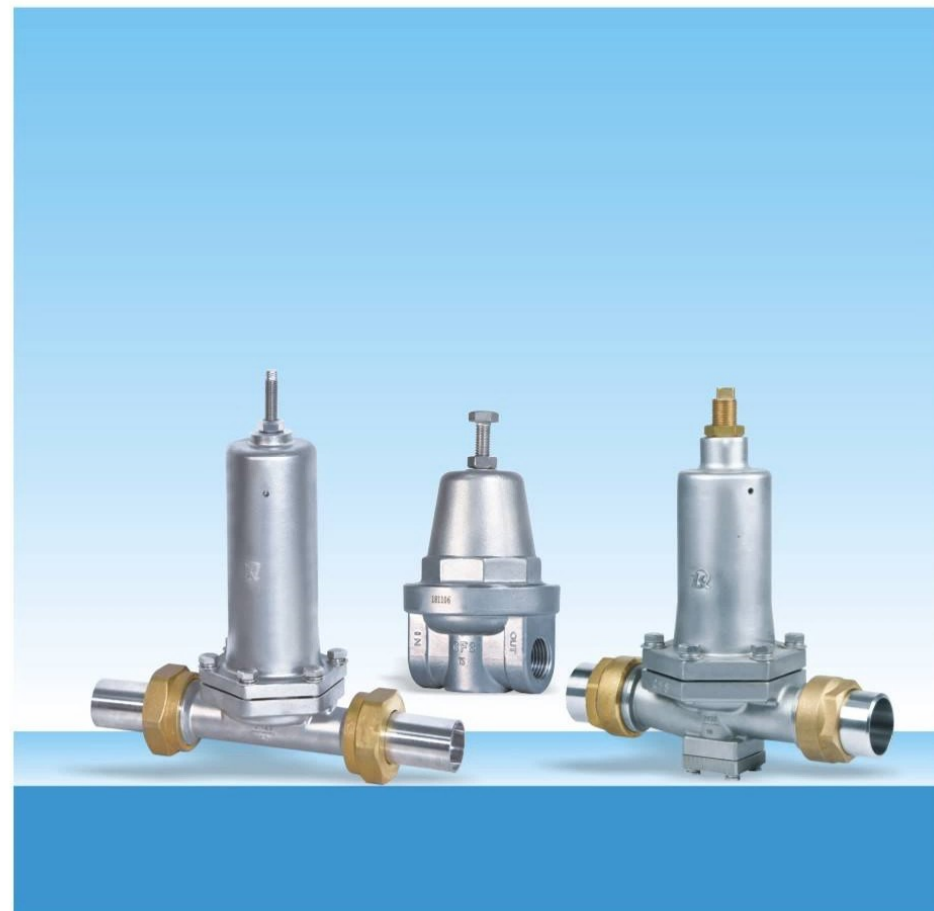
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	L1	ΦD	ΦD0	SW		
						ΦD1	ΦD2	B
DJQ-65CF3-SW	654	638	170	140	65	77	90	15
DJQ-80BF3-SW	674	658	180.5		73	90	100	15
DJQ-100BF3-SW	682	666	202		90	109.5	121	15
DJQ-125CF3-SW	1000	278	350	150	125	134	148	15
DJQ-150CF3-SW	1200	350	450	150	150	159.5	170	30
DJQ-200CF3-SW	1200	400	450	200	200	220	250	30

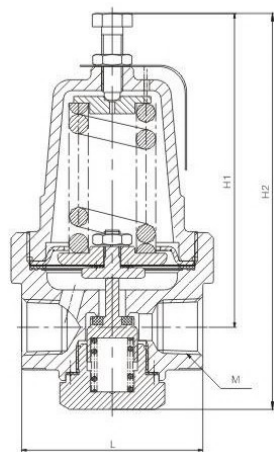
Cryogenic Pressure Regulating Valve Series 低温调节阀系列

04



CRYOGENIC PRESSURE REGULATING VALVE

低温升压调压阀



FLOW →

产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: NPT内螺纹
Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: NPT Female Thread

主要零部件材料 Materials of Main Parts

阀体: HPb59-1
阀盖: HPb59-1
膜片: QSn6.5-0.1
主密封件: PTFE+MoS₂
Body: HPb59-1
Disc: HPb59-1
Diaphragm: QSn6.5-0.1
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H1	H2	L	M	连接方式	可调压力值 MPa
DYS-15F4-BW	110	141	68	RC1/2	BW	0.2~1.6
DYS-15F4-BW2						2.0~3.2

CRYOGENIC PRESSURE REGULATING VALVE

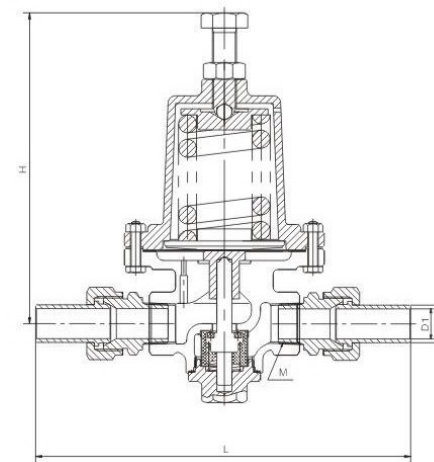
低温升压调压阀

产品性能规范 Product Performance Specifications

设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂
Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂



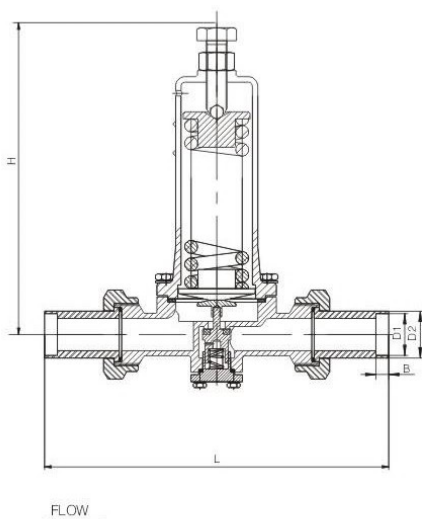
FLOW →

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	ΦD1	ΦD2	M	连接方式	可调压力值 MPa
DYS-20F4-BW	192	248	20	25	Rc3/4	BW	0.2~0.8
DYS-20F4-BW2							0.4~1.6

CRYOGENIC PRESSURE REGULATING VALVE

低温升压调压阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂

Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	ΦD1	ΦD2	B	连接方式	可调压力值 MPa
DYS-25F4-SW	256	272	32.5	37	10	SW	0.2~0.8
DYS-25F4-SW2							0.8~1.6
DYS-25F4-SW3							1.6~3.5

CRYOGENIC PRESSURE REGULATING VALVE

低温升压调压阀

产品性能规范 Product Performance Specifications

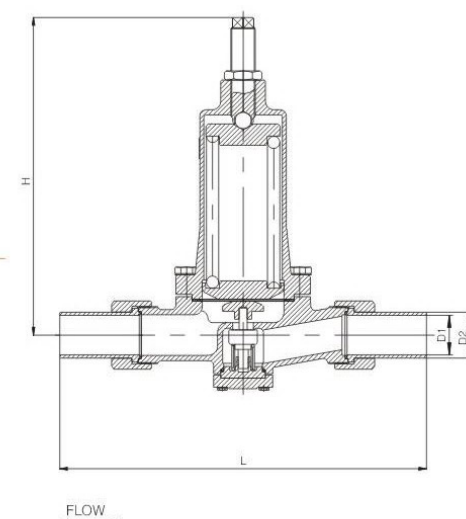
公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂

Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂



主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	ΦD1	ΦD2	连接方式	可调压力值 MPa
DYS-40F4-BW	311	308	39	45	BW	0.2~0.8
DYS-40F4-BW2						0.8~1.6
DYS-40F4-BW3		308	39	45	BW	1.6~2.0
DYS-40F4-BW4						2.0~3.0
DYS-50F4-BW		308	49	57	BW	0.2~0.8
DYS-50F4-BW2						0.8~1.6
DYS-50F4-BW3		308	49	57	BW	1.6~2.0
DYS-50F4-BW4						2.0~3.0

CRYOGENIC PRESSURE REGULATING VALVE

低温降压调压阀

产品性能规范 Product Performance Specifications

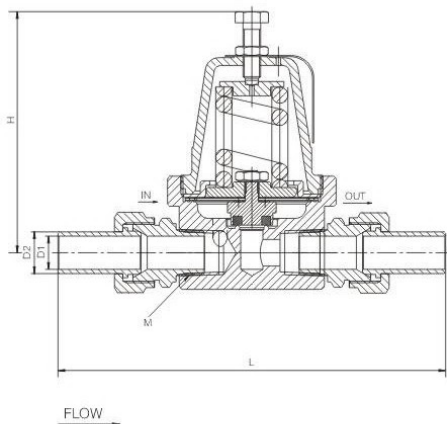
公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂

Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂



主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	M	ΦD1	ΦD2	连接方式	可调压力值 MPa
DYJ-15F4-BW	108	189	RC1/2	14	18	BW	0.2~1.6
DYJ-15F4-BW2							2.0~3.2

CRYOGENIC PRESSURE REGULATING VALVE

低温降压调压阀

产品性能规范 Product Performance Specifications

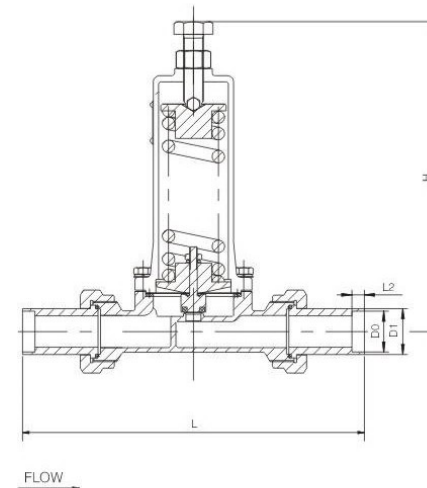
公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂

Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂

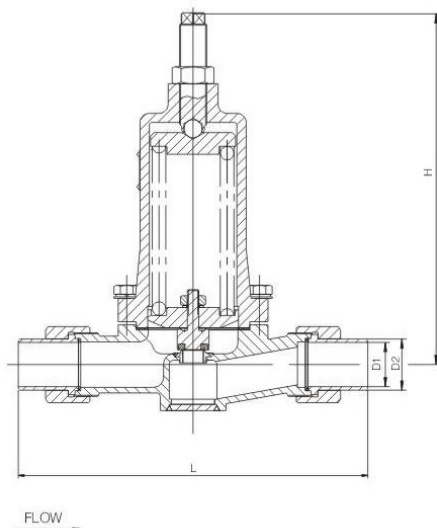


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	L2	ΦD1	ΦD2	连接方式	可调压力值 MPa
DYJ-25F4-SW	208	272	10	32.5	37	SW	0.2~0.8
DYJ-25F4-SW2							0.8~1.6

CRYOGENIC PRESSURE REGULATING VALVE

低温降压调压阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂

Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	L2	ΦD1	ΦD2	连接方式	可调压力值 MPa
DYJ-40F4-BW	311	308	10	39	45	BW	0.2~0.8
DYJ-40F4-BW2							0.8~1.6
DYJ-50F4-BW	311	308	10	49	57	BW	0.2~0.8
DYJ-50F4-BW2							0.8~1.6

05

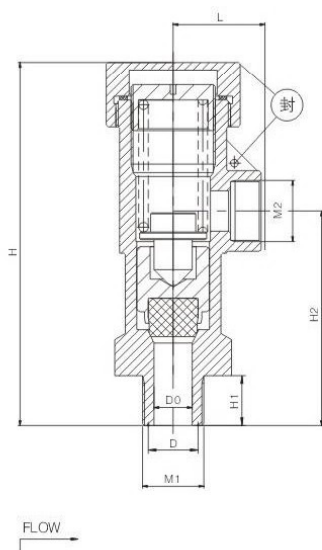
Cryogenic Safety Valve Series

低温安全阀系列



CRYOGENIC SAFETY VALVE

低温微启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: CF8
阀瓣: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂

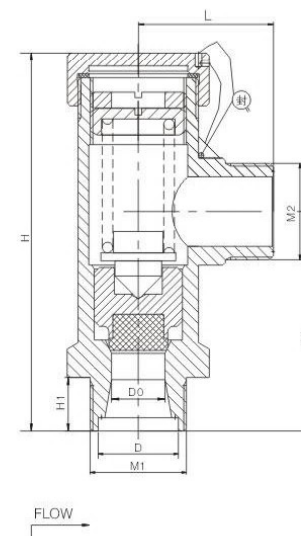
Body: CF8
Disc: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD	H	H1	H2	L	M1	M2	整定压力MPa		
									1	2	3
DA-10-BW	10	13	95	13	56	23	M16*1	M16*1	0.4-1.1	1.21-1.9	1.91-3.91
DA-25-BW	20	30	141.5	20	82	40.5	M36*2	M33*2	0.4-1.0	1.01-2.1	2.1-2.6

CRYOGENIC SAFETY VALVE

低温微启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: CF8
阀瓣: S30210
主密封件: PTFE+MoS₂

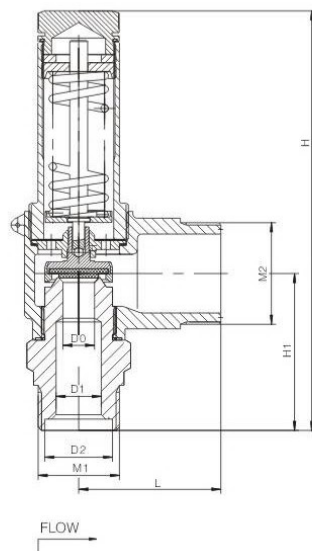
Body: CF8
Spring: S30210
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD	H	H1	H2	L	M1	M2	整定压力MPa		
									1	2	3
DA-10B-BW	10	13	95	13	56	36	M16*1	M20*1.5	0.4-1.1	1.21-1.9	1.91-3.91
DA-15-BW	12	18	109.5	18	63	42	M30*1.5	M32*1.5	0.4-1.1	1.21-1.9	1.91-3.91
DA-25B-BW	20	30	141.5	20	82	50.5	M36*2	M36*2	0.4-1.0	1.01-2.1	2.1-2.6

CRYOGENIC SAFETY VALVE

低温全启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

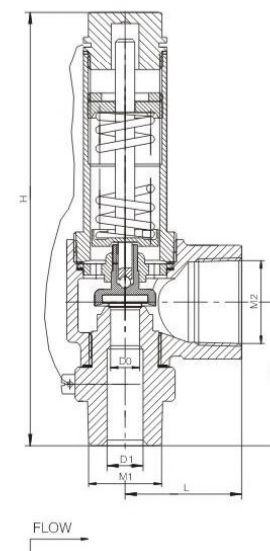
阀体: CF8
阀瓣, 阀座: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂
Body: CF8
Disc, Seat: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD1	ΦD2	H	H1	L	M1	M2	整定压力MPa		
									1	2	3
DAF-10-BW	10.5	10	26	160.5	56.5	49	M30*1.5	36*2			
DAF-15-BW	10.5	13	26	160.5	56.5	49	M30*1.5	36*2	0.4~1.59	1.6~2.7	2.71~3.5
DAF-25-BW	15	20	30	186	69.5	63.8	M36*2	M45*2			

CRYOGENIC SAFETY VALVE

低温全启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

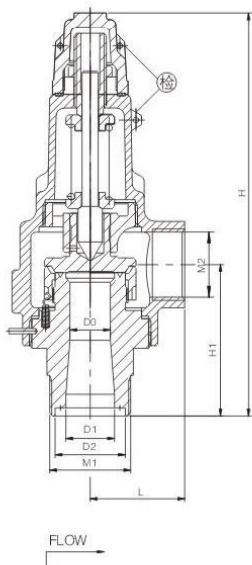
阀体: CF8
阀瓣, 阀座: HPb59-1
弹簧: S30210
主密封件: PTFE+MoS₂
Body: CF8
Disc, Seat: HPb59-1
Spring: S30210
Main Sealing: PTFE+MoS₂

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD1	H	H1	L	M1	M2	整定压力MPa		
								1	2	3
DAF-15N-BW	10.5	13	155	51	42	NPT 1/2	NPT1			
DAF-20N-BW	10.5	13	156.5	51.7	42	NPT 3/4	NPT1	0.4~1.59	1.6~2.7	2.71~3.5
DAF-25N-BW	15	20	181	64.5	50	NPT 1/2	NPT 1 1/4			

CRYOGENIC SAFETY VALVE

低温全启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: CF8
阀瓣: S32168+STL
弹簧: S30210
阀座: S32168+STL

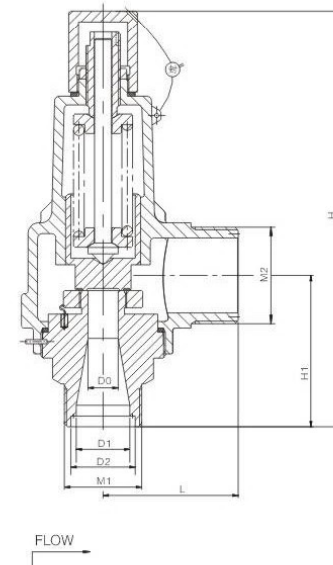
Body: CF8
Disc: S32168+STL
Spring: S30210
Seat: S32168+STL

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD1	ΦD2	H	H1	L	M1	M2	整定压力MPa		
									1	2	3
DAY-10-BW	10.5	18	26	150	56	35	M30*1.5	G3/4			
DAY-15-BW	15	18	26		56	35	M30*1.5	G3/4	0.4-1.0	1.01-2.0	2.1-3.0
DAY-25-BW	25	25	30	197	69	47	M36*2	G1 1/4			

CRYOGENIC SAFETY VALVE

低温全启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: CF8
阀瓣: S32168+STL
弹簧: S30210
阀座: S32168+STL

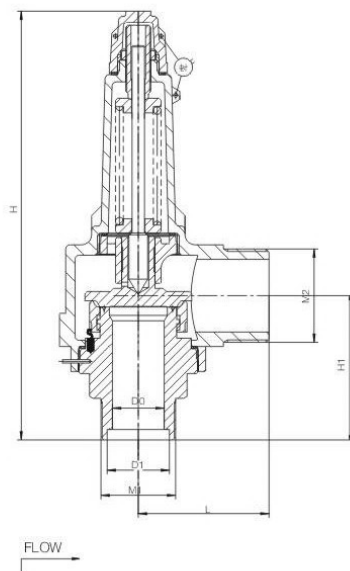
Body: CF8
Disc: S32168+STL
Spring: S30210
Seat: S32168+STL

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD1	ΦD2	H	H1	L	M1	M2	整定压力MPa		
									1	2	3
DAY-25C-BW	14	25	30	70.5	63	M36*2	M45*2	2.0-2.79	2.0-2.75	2.8-3.15	

CRYOGENIC SAFETY VALVE

低温全启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: CF8
阀瓣: S32168
弹簧: S30210
阀座: S32168

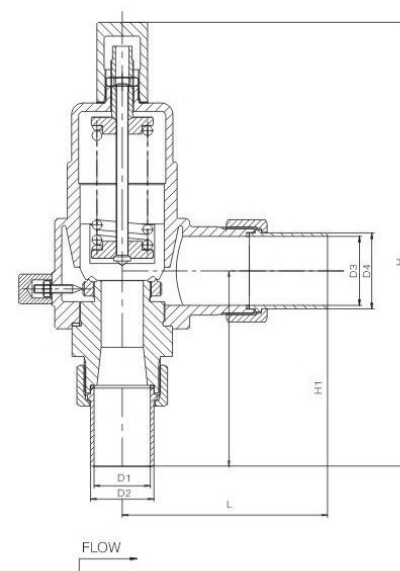
Body: CF8
Disc: S32168
Spring: S30210
Seat: S32168

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	L	ΦD1	M1	M2	ΦDN	整定压力MPa		
								1	2	3
DAY-10B-BW	150	56	49	26	M30*1.5	M32*1.5	10.5			
DAY-15B-BW	150	56	49	26	M30*1.5	M32*1.5	15	0.4~1.0	1.01~2.0	2.1~3.0
DAY-25B-BW	197	69.5	63	30	M36*2	M45*2	25			

CRYOGENIC SAFETY VALVE

低温全启式安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: CF8
阀瓣: S32168
弹簧: S30210
阀座: S32168

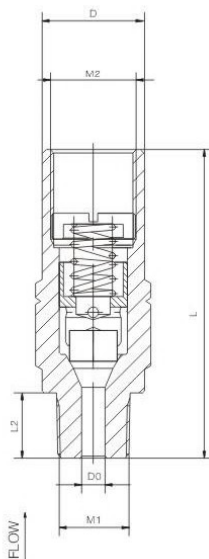
Body: CF8
Disc: S32168
Spring: S30210
Seat: S32168

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD1	ΦD2	ΦD3	ΦD4	H	H1	L	整定压力MPa		
									1	2	3
DAY-40-BW	30	40	45	49	57	335	139	146	0.4~1.0	1.01~2.0	2.1~3.0

CRYOGENIC SAFETY VALVE

低温安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: S30408
阀瓣: HPb59-1
弹簧: S30210

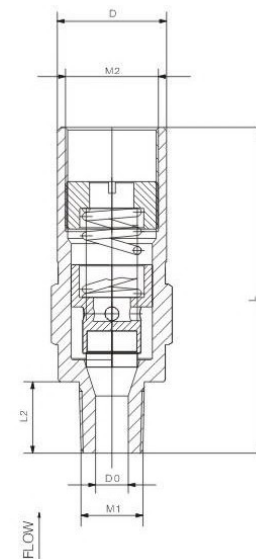
Body: S30408
Disc: HPb59-1
Spring: S30210

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	L	L1	ΦD	M1	M2	整定压力MPa			
							1	2	3	4
DA-3/8Rc-BW	6	72.3	15.3	24	3/8Rc	M20*1.5	0.2~2.0	2.1~3.0	3.1~4.2	4.2~5.5

CRYOGENIC SAFETY VALVE

低温安全阀



产品性能规范

Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料

Materials of Main Parts

阀体: HPb59-1
阀瓣: HPb59-1
弹簧: S30210

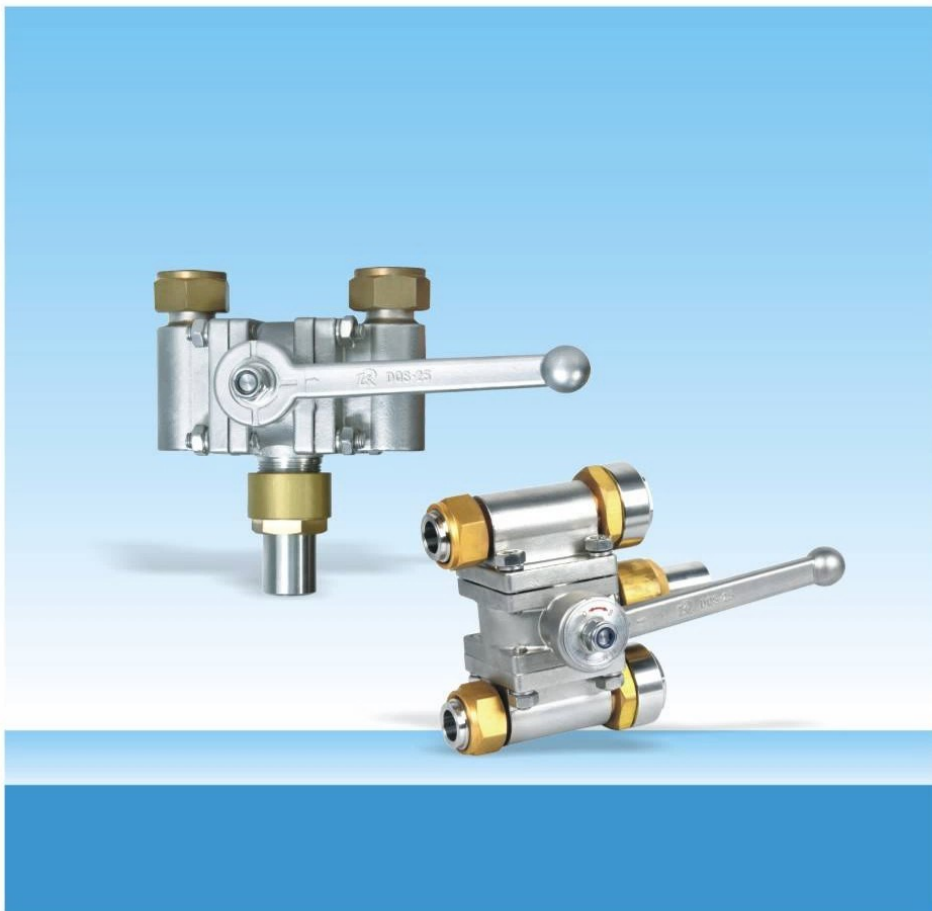
Body: HPb59-1
Disc: HPb59-1
Spring: S30210

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	L	L1	ΦD	M1	M2	整定压力MPa			
							1	2	3	4
DA-1/4N-BW	7	70	15.3	24	1/4NPTF	M20*1.5	0.2~2.0	2.1~3.0	3.1~4.2	4.2~5.5

Three-Way Ball Valve
Series
三通球阀系列

06



CRYOGENIC THREE-WAY BALL VALVE
低温三通球阀

产品性能规范
Product Performance Specifications

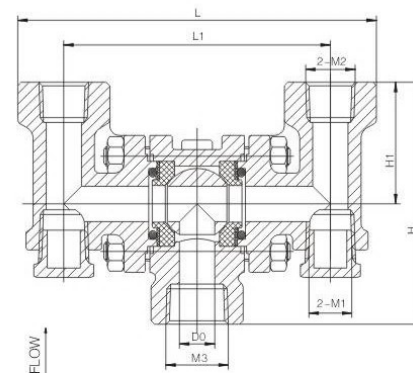
公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, CO₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, CO₂
Connection: Butt Weld

主要零部件材料
Materials of Main Parts

阀体: CF8
球体: S30408
阀盖: CF8
主密封件: PCTFE+C

Body: CF8
Ball: S30408
Cover: CF8
Disc Seals: PCTFE+C

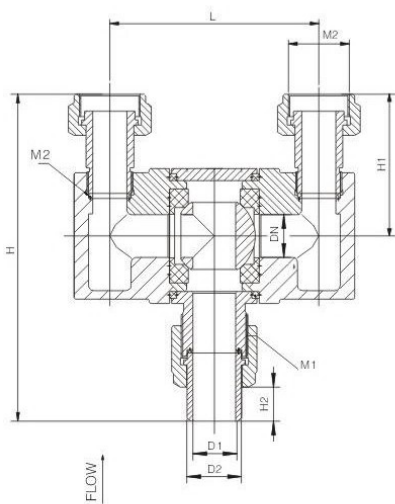


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	L	L1	ΦD0	M1	M2	M3
DQS-15AF4-BW	220	96	152	113	15	NPT1/2	NPT1/2	NPT3/4

CRYOGENIC THREE-WAY BALL VALVE

低温三通球阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
球体: S30408
阀盖: CF8
主密封件: PCTFE+C

Body: CF8
Ball: S30408
Cover: CF8
Disc Seals: PCTFE+C

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	H2	L	ΦDN	ΦD1	ΦD2	M1	M2
DQS-25F4-BW	206	83	20	122.5	25	25	32	M39*2	M36*2

CRYOGENIC THREE-WAY BALL VALVE

低温三通球阀

产品性能规范 Product Performance Specifications

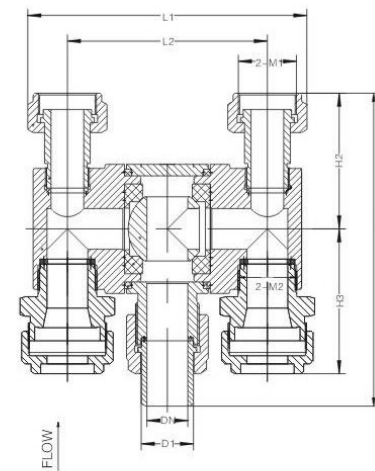
公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
球体: S30408
阀盖: CF8
主密封件: PCTFE+C

Body: CF8
Ball: S30408
Cover: CF8
Disc Seals: PCTFE+C

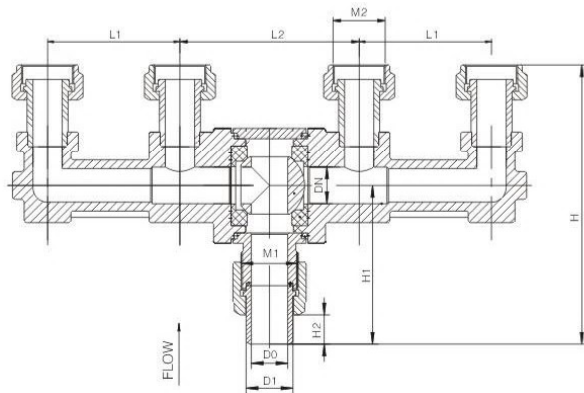


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H2	H3	L1	L2	ΦD0	ΦD1	M1	M2
DQS-25AF4-BW	206	83	88	171	122.5	25	32	M36*2	M36*2

CRYOGENIC THREE-WAY BALL VALVE

低温三通球阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196°C~+80°C
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊

Nominal Pressure: 4.0MPa
Design Temperature: -196°C~+80°C
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
球体: S30408
阀盖: CF8
主密封件: PCTFE+C

Body: CF8
Ball: S30408
Cover: CF8
Disc Seals: PCTFE+C

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	H2	L1	L2	ΦDN	ΦD0	ΦD1	M1	M2
DQS-25S4F4-BW	199.5	118	20	100	140	25	25	32	M36*2	M36*2

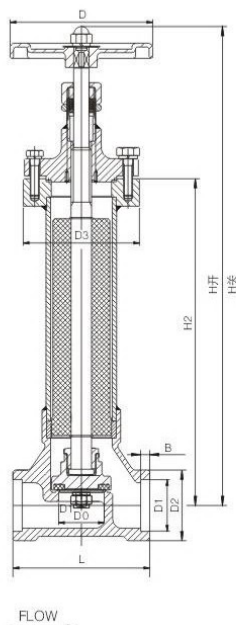
07

Cryogenic Valve Vacuum Jacket Series 低温真空夹套阀系列



CRYOGENIC GLOBE VALVE VACUUM JACKET

低温真空夹套截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

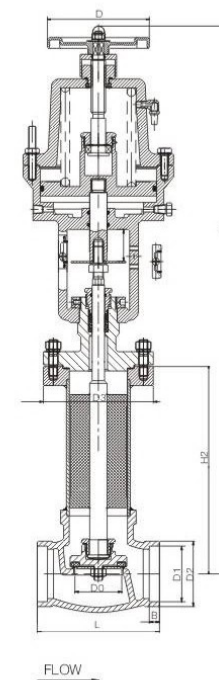
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	H2	ΦD3	L	ΦD	ΦD0	SW		
								ΦD1	ΦD2	B
DZJ-10F3-SW	289	275	181	63	60	65	13	14.5	24	6
DZJ-15F3-SW	289	275	181	63	65	80	15	18.5	29.5	6
DZJ-25F3-SW	375	364	240	82	90	100	25	32.5	43.5	8
DZJ-32F3-SW	386	374	250	101	105	100	32	38.5	53	8
DZJ-40F3-SW	451	434	286.5	101	120	125	40	45.5	62	8
DZJ-50DF3-SW	458	443	290	108	140	140	50	57.5	72	10
DZJ-50F3-SW	458	443	290	126	140	140	50	57.5	72	10

CRYOGENIC GLOBE VALVE VACUUM JACKET

低温真空夹套截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

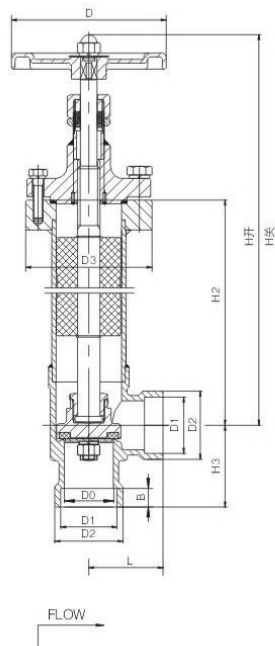
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	H2	ΦD3	L	ΦD	ΦD0	SW		
								ΦD1	ΦD2	B
DZJ-65CF3-SW	485	463	285	150	170	200	65	77	90	15
DZJ-80BF3-SW	539	507	322	160	180.5	200	73	90	100	15

ANGLE TYPE CRYOGENIC GLOBE VALVE VACUUM JACKET

低温真空夹套角式截止阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PTFE

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H关	H2	H3	ΦD3	L	ΦD	ΦD0	SW		
									ΦD1	ΦD2	B
DZJL-40F3-SW	416	398	263	66	263	120	125	40	45.5	55	14

CRYOGENIC CHECK VALVE VACUUM JACKET

低温真空夹套止回阀

产品性能规范 Product Performance Specifications

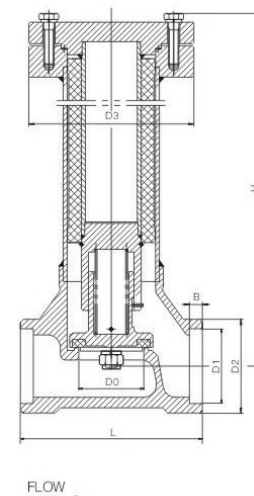
公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣: S30408
阀瓣密封件: PTFE

Body, Cover: CF8
Disc: S30408
Disc Seals: PTFE

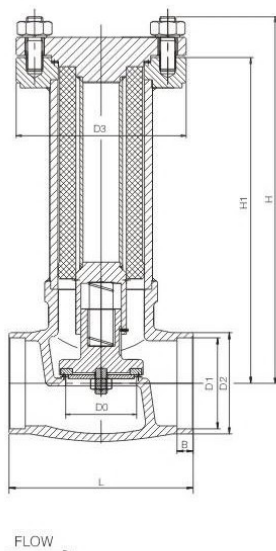


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H2	ΦD3	L	ΦD0	SW		
						ΦD1	ΦD2	B
DZH-10F4-SW	202	181	63	60	13	14.5	24	6
DZH-15F4-SW	202	181	63	65	15	18.5	29.5	6
DZH-15F4-SW	264	250	63	65	15	18.5	29.5	6
DZH-25F4-SW	262	240	82	105	32	38.5	53	8
DZH-32F4-SW	273.5	250	101	120	40	45.5	62	8
DZH-40F4-SW	310	286.5	101	140	50	57.5	72	10
DZH-50DF4-SW	315.7	290	108	140	50	57.5	72	10
DZH-50F4-SW	315.7	290	126	140	50	57.5	72	10

CRYOGENIC CHECK VALVE VACUUM JACKET

低温真空夹套止回阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣: S30408
阀瓣密封件: PTFE

Body, Cover: CF8
Disc: S30408
Disc Seals: PTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H2	ΦD3	L	ΦD	ΦD0	SW		
							ΦD1	ΦD2	B
DZH-65CF4-SW	329	285	150	170	200	65	77	90	15
DZH-80BF4-SW	362	322	160	180.5	200	73	90	100	15

ANGLE TYPE CRYOGENIC CHECK VALVE VACUUM JACKET

低温真空夹套角式止回阀

产品性能规范 Product Performance Specifications

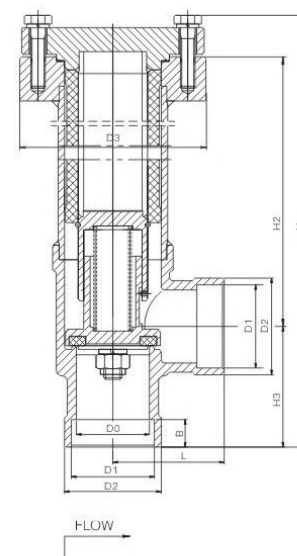
公称压力: 4.0MPa
设计温度: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 4.0MPa
Design Temperature: $-196^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣: S30408
阀瓣密封件: PTFE

Body, Cover: CF8
Disc: S30408
Disc Seals: PTFE

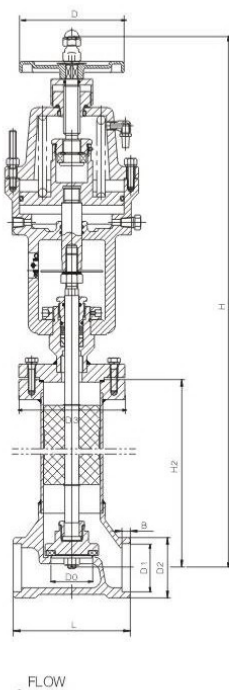


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	H2	H3	ΦD3	L	ΦD	ΦD0	SW		
								ΦD1	ΦD2	B
DZHL-40F4-SW	284	263	66	263	120	125	40	45.5	55	14

CRYOGENIC EMERGENCY SHUT-OFF GLOBE VALVE VACUUM JACKET

低温真空夹套紧急切断阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊(对焊, 法兰)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld(Butt Weld, Flange)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

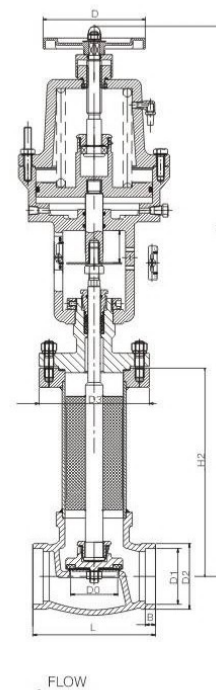
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H2	ΦD3	L	ΦD	ΦD0	SW		
							ΦD1	ΦD2	B
DZQ-10F3-SW	536	181	63	60	100	13	14.5	24	6
DZQ-15F3-SW	536	181	63	65		15	18.5	29.5	6
DZQ-25F3-SW	597	240	82	90		25	32.5	43.5	8
DZQ-32F3-SW	603	250	101	105		32	38.5	53	8
DZQ-40F3-SW	683	286.5	101	120	125	40	45.5	62	8
DZQ-50DF3-SW	697	290	108	140		50	57.5	72	10
DZQ-50F3-SW	697	290	126	140		50	57.5	72	10

CRYOGENIC EMERGENCY SHUT-OFF GLOBE VALVE VACUUM JACKET

低温真空夹套紧急切断阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊(对焊, 法兰)

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld(Butt Weld, Flange)

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PCTFE

Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PCTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H2	ΦD3	L	ΦD	ΦD0	SW		
							ΦD1	ΦD2	B
DZQ-65CF3-SW	754	285	150	170	140	65	76.5	90	14
DZQ-80BF3-SW	809	322	160	180.5	140	72	90	100	15

High-pressure
Cryogenic Valve Series
低温高压阀系列

08



HIGH-PRESSURE CRYOGENIC GLOBE VALVE
低温高压截止阀

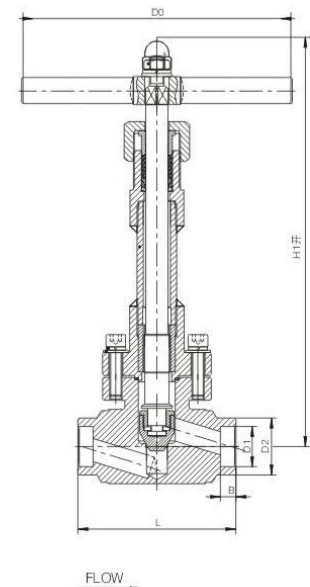
产品性能规范
Product Performance Specifications

公称压力: 32.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 32.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料
Materials of Main Parts

阀杆、阀盖: S30408
阀瓣、阀体: S30408+STL
Stem, Cover: S30408
Disc, Body: S30408+STL

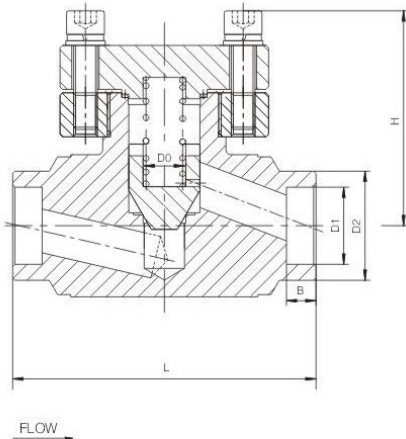


主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号 Type	H开	H关	L	B	ΦD0	SW	
						ΦD1	ΦD2
DGJ-10Y-SW-320P	268	257	100	12	170	18.5	36
DGJ-15Y-SW-320P	268	257	100	12	170	22.5	36
DGJ-20Y-SW-320P	346	327	128	12.5	220	27.5	46
DGJ-25Y-SW-320P	346	327	128	12.5	220	32.5	46
DGJ-40Y-SW-320P	490	470	180	15	400	49.0	65
DGJ-50Y-SW-320P	530	500	200	15	450	450.0	76

HIGH-PRESSURE CRYOGENIC CHECK VALVE

低温高压止回阀



产品性能规范 Product Performance Specifications

公称压力: 32.0MPa
设计温度: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 32.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+80^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀盖: S30408
阀体、阀瓣: S30408+STL

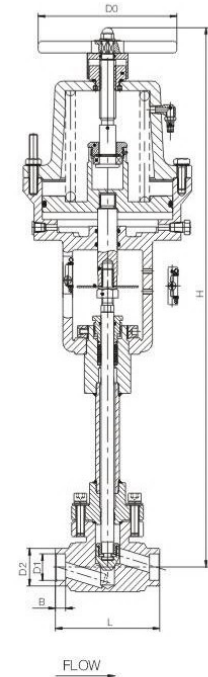
Cover: S30408
Body, Disc: S30408+STL

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	L	B	SW	
				ΦD1	ΦD2
DGH-10Y-SW-320P	75	100	10	18.5	36
DGH-15Y-SW-320P	75	100	12	22.5	36
DGH-20Y-SW-320P	75	100	12	27.5	36
DGH-25Y-SW-320P	91	128	12.5	32.5	46
DGH-40Y-SW-320P	200	180	15	49.0	65
DGH-50Y-SW-320P	200	200	15	450.0	76

HIGH-PRESSURE CRYOGENIC EMERGENCY SHUT-OFF VALVE

低温高压紧急切断阀



产品性能规范 Product Performance Specifications

公称压力: 32.0MPa
设计温度: $-196^{\circ}\text{C}\sim+75^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 承插焊

Nominal Pressure: 32.0MPa
Design Temperature: $-196^{\circ}\text{C}\sim+75^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Socket Weld

主要零部件材料 Materials of Main Parts

阀杆、阀盖: S30408
阀瓣、阀体: S30408+STL

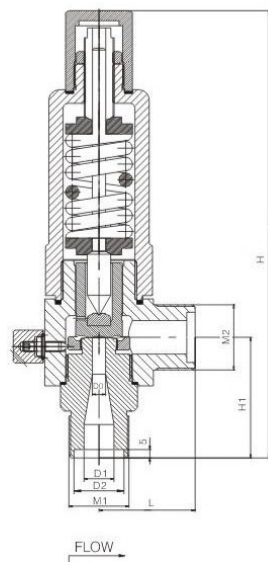
Stem, Cover: S30408
Disc, Body: S30408+STL

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H开	L	B	ΦD0	SW	
					ΦD1	ΦD2
DGQ-10Y-SW-320P	567	100	10	170	18.5	36
DGQ-15Y-SW-320P	567	100	12	170	22.5	36
DGQ-20Y-SW-320P	567	100	12	170	27.5	36
DGQ-25Y-SW-320P	665	128	12.5	170	32.5	46

HIGH-PRESSURE CRYOGENIC SAFETY VALVE

低温高压安全阀



产品性能规范 Product Performance Specifications

公称压力: 32.0MPa
设计温度: $-196^{\circ}\text{C} \sim +75^{\circ}\text{C}$
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 螺纹(活接头对焊)
Nominal Pressure: 32.0MPa
Design Temperature: $-196^{\circ}\text{C} \sim +75^{\circ}\text{C}$
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Thread(Butt Welding Union)

主要零部件材料 Materials of Main Parts

阀体: S30408
阀瓣: S30408+STL
弹簧: S30210
阀座: S30408+STL
Body: S30408
Disc: S30408+STL
Spring: S30210
Seat: S30408+STL

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	ΦD0	ΦD1	ΦD2	H	H1	H2	L	M1	M2	整定压力MPa	
										1	2
DGA-10Y-BW	8	18	30	268	28	72	57.5	M36*2	M39*2	2.0~10.0	13.5~27.5
DGA-15Y-BW	12	18	30	268	28	72	57.5	M36*2	M39*2	2.0~10.0	13.5~27.5
DGA-20Y-BW	16	18	30	268	28	72	57.5	M36*2	M39*2	2.0~10.0	13.5~27.5
DGA-25Y-BW	20	18	30	268	28	72	57.5	M36*2	M39*2	2.0~10.0	13.5~27.5

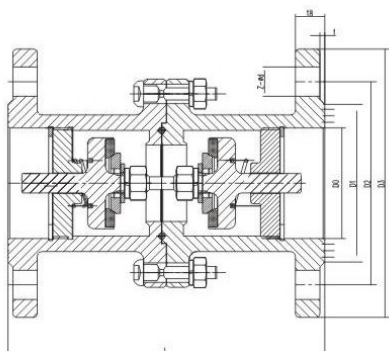
09

Other Cryogenic Valve Series 其他低温阀系列



CRYOGENIC BREAKING VALVE

低温拉断阀



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 法兰

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Flange

主要零部件材料 Materials of Main Parts

阀体、阀盖: CF8
阀瓣、阀杆: S30408
阀瓣密封件: PTFE

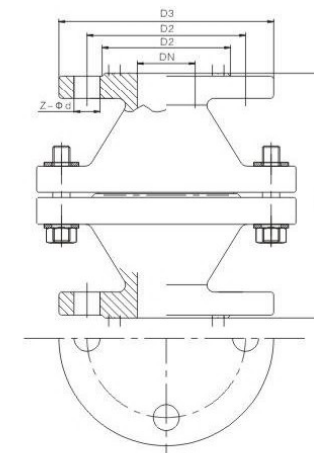
Body, Cover: CF8
Disc, Stem: S30408
Disc Seals: PTFE

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	L	ΦD1	ΦD2	ΦD3	ΦD4	B	Z-φd	f
DLH-25F-RF	190	52.5	68	85	115	16	4-Φ14	2
DLH-32F-RF	190	52.5	74	100	135	18	4-Φ18	3
DLH-40F-RF	190	59	85	110	149	18	4-Φ18	3
DLH-50F-RF	195	68.2	103	125	165	18	4-Φ18	3

CRYOGENIC FLAME ARRESTER

低温阻火器



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 法兰

Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Flange

主要零部件材料 Materials of Main Parts

阀体: CF8
阻火芯: S30408

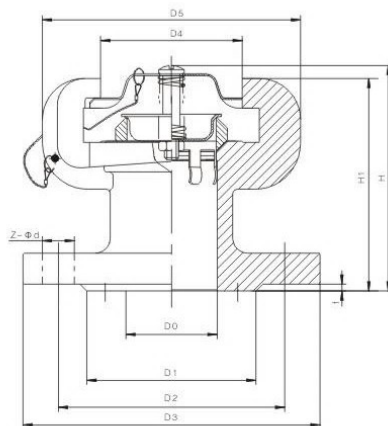
Body: CF8
Disc: S30408

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	ΦDN	ΦD1	ΦD2	ΦD3	B	Z-φd	f
DGYW-25-RF-40P	139	25.0	61.0	85.0	115.0	16	4-Φ14	2
DGYW-40-RF-40P	178.5	40.0	85	110	145	18	4-Φ18	3
DGYW-50-RF-40P	178.5	50.0	100	125	160	20	4-Φ18	3

CRYOGENIC ROTARY SEAT

低温旋卡座



产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 法兰式(RF)
Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Flange(RF)

主要零部件材料 Materials of Main Parts

阀体: CF8
Body: CF8

主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	H	H1	ΦD0	ΦD1	ΦD2	ΦD3	ΦD4	ΦD5	Z-Φd	f
DXK-40B-RF	104	97	40	74	99	130	62	113	4-Φ14	3

CRYOGENIC QUICK JOINT

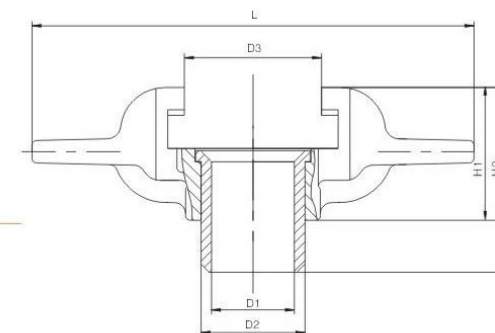
低温快速接头

产品性能规范 Product Performance Specifications

公称压力: 4.0MPa
设计温度: -196℃~+80℃
适用介质: LNG, LO₂, LN₂, LAr, Co₂
连接方式: 对焊
Nominal Pressure: 4.0MPa
Design Temperature: -196℃~+80℃
Suitable Media: LNG, LO₂, LN₂, LAr, Co₂
Connection: Butt Weld

主要零部件材料 Materials of Main Parts

阀体: CF8
Body: CF8



主要外形和连接尺寸(mm) Major Overall & Connection Dimensions

型号Type	L	H	H1	ΦD1	ΦD2	ΦD3
DXK-40-RF	200	84	60	37.5	46.7	61

Cryogenic
Ball Valve Series
低温球阀系列

10



CRYOGENIC BALL VALVE

低温球阀

设计特色 Design Feature

- 1、填料密封的加长阀盖设计
- 2、为防止异常升压现象发生，在球体进口侧钻一小孔
- 3、阀杆防吹出结构
- 4、公称材料的选用确保了热应力下的低扭矩操作
1. Bonnet extension with live loaded stem seal
2. Body cavity relief hole in ball to prevent over pressure due to thermal expansion
3. Blow out proof stem
4. Engineered material component to ensure low torque throughout the thermal stress

技术规范 Technical Specification

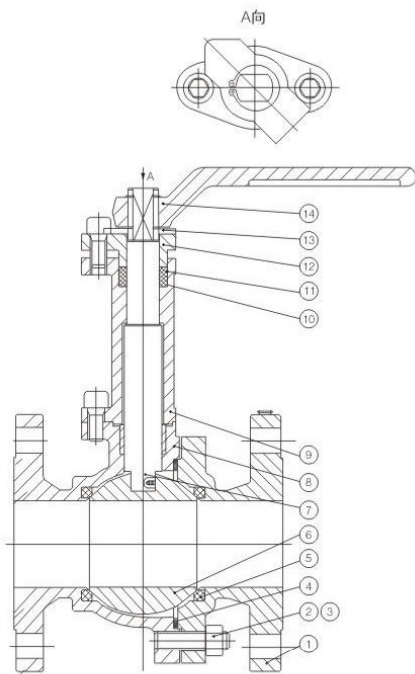
- 1、设计制造标准：API 6D、API 608、GB/T 12237
- 2、结构长度：ASME B16.10、GB/T 12221
- 3、法兰端：ASME B16.5、GB/T 9113、JB/T 79
承插焊端：ASME B16.11
螺纹端：ASME B1.20.1
- 4、压力温度等级：ASME B16.34
- 5、阀门检验和试验：API 598、JB/T 9092
1. Design and manufacture standard: API 600, JB/T 7749, ASME B16.34
2. Face-to-face: ASME B16.10, GB/T 12221
3. Flanged ends: ASME B16.5, Gb9113, JB/T 79
SW ends: ASME B16.11
NPT ends: ASME B1.20.1
4. Pressure and temperature: ASME B16.34
5. Inspection and test: API 598, JB/T 7749

球阀阀体低温材料最低使用温度 The lowest usage temperature of body material

锻件 Forged Material		铸件 Casting Material	
标准材料牌号 Standard Material Code	最低温度 Lowest temperature	标准材料牌号 Standard Material Code	最低温度 Lowest temperature
ASTMA350LF2	-45.6℃	ASTM A352 LCB, LCC	-46℃
ASTMA350LF2	-59.4℃	ASTM A352 LC1	-59℃
ASTMA350LF9	-73.3℃	ASTM A352 LC2	-73℃
ASTMA350LF3	-101.1℃	ASTM A352 LC3	-101℃
ASTMA182F304	-254℃	ASTM A351 CF8	-254℃
ASTMA182F316	-254℃	ASTM A351 CF8M	-254℃
ASTMA182F304L	-254℃	ASTM A351 CF3	-254℃
ASTM A182F316L	-254℃	ASTM A351 CF3M	-254℃

CRYOGENIC BALL VALVE

低温球阀



主要零件材质 Form of major parts materials

序号 No.	零件名称 Part name	材质 Material
1	右体 Bonnet	ASTM A352 LCB, LC3, ASTM A351 CF8
2	螺母 Nut	ASTM A194 4, 8
3	螺栓 Bolt	ASTM A320 L7, B8
4	垫片 Gasket	PTFE, PTFE & stainless steel
5	阀座 Seat	PTFE, ASME A182, F304+STL
6	球体 Ball	ASTM A352 LCB, LC3, ASTM A351 CF8
7	阀杆 Stem	ASTM A182 F304
8	阀体 Body	ASTM A182304+Ni.P
9	阀盖 Bonnet	ASTM A352 LCB, LC3, ASTM A351 CF8
10	填料垫 Packing seat	ASTM A276 410, ASTM A182 F304
11	填料 Packing	PTFE, 柔性石墨 Graphite
12	填料压盖 Gland	ASTM A216 WCB, ASTM A351 CF8
13	点位片 Locating piece	Carbon steel
14	手柄 Wrench	A47-667 GR.32510

产品性能规范 Products Performance Specification

压力等级 Pressure grade	1.6~42.0MPa	Class 150~2500
试验压力 Test pressure(MPa)	强度试验 Shell test	1.5xPN
	密封试验 Sealing test	1.1xPN
	气压密封试验 Air test pressure	0.6MPa
工作温度 Working temperature	-196℃~+180℃	
工作介质 Working medium	水、油品、天然气、腐蚀性介质等 Water, oil, natural gas, corrosive medium etc	

CRYOGENIC FLOATING BALL VALVE

DQ41F(Y)-150Lb/300Lb/600Lb 低温浮动式球阀

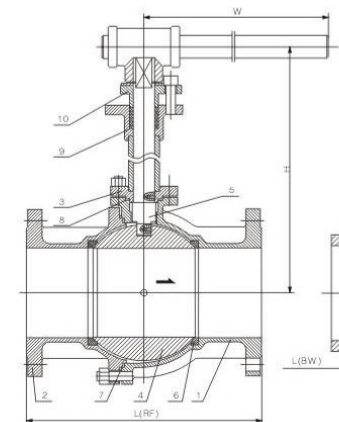
设计制造标准 Design and manufacturing standards

设计制造 The design and manufacture: ASME B16.34, BS6364, API608
 检验测试 Inspection test: API598, BS 6364
 连接尺寸 Connection size: ASME B16.5, ASME B16.25
 结果长度 Length of the structure: ASME B16.10

结构特性 Structural Characteristics

长动阀盖
 体盖螺栓连接
 浮动式
 全通径或缩径
 法兰端或对焊端
 手动、气动或电动开关操作
 防火设计
 球体上游端有泄压平衡孔 (单一流向)
 软密封阀座或硬密封阀座

Long time cover
 Bolt connection
 floating
 Full size or reducing
 Flange end or butt end
 Manual and pneumatic or electric switch operation
 Fire protection design
 Sphere upstream side has pressure balance hole (single flow)
 The soft sealing seat or hard sealing seat



主要参数 Main Parameters

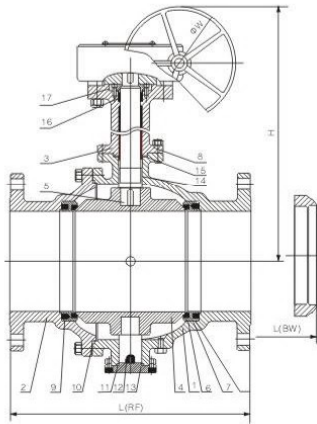
压力等级 Class	强度试验 (MPa)	密封试验 (MPa)	气密封试验 (MPa)	工作温度及使用介质 Working temperature and working medium		
150Lb	3.0	2.2		-46℃ 液氮、丙烷	-101℃ 乙烯、二氧化碳	-196℃ 甲烷、液化天然气
300Lb	7.67	5.62	0.6			
600Lb	15.3	11.23				

主要外形及连接尺寸 Main Shapes and Connection Size

压力等级	尺寸 (mm)	1'	1-1/2'	2'	3'	4'	6'
150Lb	H	377	464	502	580	585	639
	W	230	290	330	410	457	610
	L	BW	165	190	216	282	305
		RF	127	165	178	203	229
300Lb	H	377	464	502	560	613	683
	W	230	290	330	457	520	610
	L	BW	165	190	216	282	305
		RF	165	190	216	282	305
600Lb	H	385	464	523	580	652	773
	W	280	340	380	520	610	660
	L	BW	216	241	292	356	432
		RF	216	241	292	356	432

CRYOGENIC TRUNNION BALL VALVE

DQ47F(Y)-150Lb/300Lb/600Lb 低温固定式球阀



设计制造标准 Design and manufacturing standards

设计制造 The design and manufacture: ASME B16.34, BS6364, API 6D
 检验测试 Inspection test: API 598, BS 6364
 连接尺寸 Connection size: ASME B16.5, ASME B16.25
 结构长度 Length of the structure: ASME B16.10

结构特性 Structural Characteristics

长颈阀盖
 体盖螺栓连接
 固定式
 全通径或缩径
 防火设计
 法兰 端或对焊端
 手动、气动或电动开关操作
 球体上游端有泄压平衡孔
 软密封阀座或硬密封阀座

Long neck cover
 Bolt connection
 stationary
 Full size or reducing
 Fire protection design
 Flange, or butt weld ends
 Manual and pneumatic or electric switch operation
 The ball pressure balance hole is the upstream end
 The soft sealing seat or hard sealing seat

主要参数 Main Parameters

压力等级 Class	强度试验 (Mpa)	密封试验 (Mpa)	气密封试验 (Mpa)	工作温度及使用介质 Working temperature and working medium		
150Lb	3.0	2.2		-46℃ 液氮、丙烷	-101℃ 乙烯、二氧化碳	-196℃ 甲烷、液化天然气
300Lb	7.67	5.62	0.6			
600Lb	15.3	11.23				

主要外形及连接尺寸 Main Shapes and Connection Size

压力等级	尺寸 (mm)	8"	10"	12"	14"	16"
150Lb	H	776	902	1008	1040	1294
	W	762	762	765	762	762
	L	BW	521	559	635	762
		RF	457	533	610	686
300Lb	H	776	902	1008	1040	1294
	W	762	762	914	914	914
	L	BW	521	559	635	762
		RF	502	568	648	762
600Lb	H	932	995	1293	1293	1434
	H	762	914	917	914	914
	L	BW	660	787	838	889
		RF	660	787	838	889

CRYOGENIC 3PCS FORGED BALL VALVE

DSQ47F(Y)-150Lb/300Lb/600Lb 低温锻钢三片式球阀

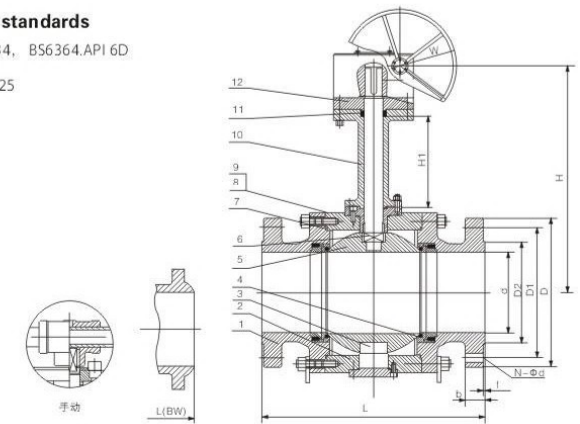
设计制造标准 Design and manufacturing standards

设计制造 The design and manufacture: ASME B16.34, BS6364, API 6D
 检验测试 Inspection test: API 598, BS 6364
 连接尺寸 Connection size: ASME B16.5, ASME B16.25
 结构长度 length of the structure: ASME B16.10

结构特性 Structural Characteristics

长颈阀盖
 体盖螺栓连接
 固定式或浮动式
 全通径或缩径
 法兰 端或对焊端
 手动、气动或电动开关操作
 防火设计
 球体上游端有泄压平衡孔
 软密封阀座或硬密封阀座

Long neck cover
 Bolt connection
 Fixed or floating
 Full size or reducing
 Flange, or butt weld ends
 Manual and pneumatic or electric switch operation
 Fire protection design
 The ball pressure balance hole is the upstream end
 The soft sealing seat or hard sealing seat



主要参数 Main Parameters

压力等级 Class	强度试验 (Mpa)	密封试验 (Mpa)	气密封试验 (Mpa)	工作温度及使用介质 Working temperature and working medium		
150Lb	3.0	2.2		-46℃ 液氮、丙烷	-101℃ 乙烯、二氧化碳	-196℃ 甲烷、液化天然气
300Lb	7.67	5.62	0.6			
600Lb	15.3	11.23				

主要外形及连接尺寸 Main Shapes and Connection Size

150LB外型及法兰尺寸

公称通径 Nominal diameter		尺寸 Size (mm)			
DN	in	LRF	LBW	H	H1
50	2"	178	216	310	170
65	2 1/2"	191	241	355	190
80	3"	203	283	368	190
100	4"	229	305	430	200
125	5"	356	381	500	220
150	6"	394	457	630	220
200	8"	457	521	780	220
250	10"	533	559	840	240
300	12"	610	635	940	240
350	14"	686	762	1080	250
400	16"	762	838	1160	250

CRYOGENIC 3PCS FORGED BALL VALVE

DSQ47F(Y)-150Lb/300Lb/600Lb 低温锻钢三片式球阀

主要外形及连接尺寸 Main Shapes and Connection Size

300LB外型及法兰尺寸

公称通径 Nominal diameter		尺寸 Size (mm)			
DN	in	LRF	LBW	H	H1
50	2"	216	216	310	170
65	2 1/2"	241	241	355	190
80	3"	283	283	368	190
100	4"	305	305	430	200
125	5"	381	381	500	220
150	6"	403	457	630	220
200	8"	502	521	780	220
250	10"	568	559	840	240
300	12"	648	635	940	240
350	14"	762	762	1080	250
400	16"	838	838	1160	250

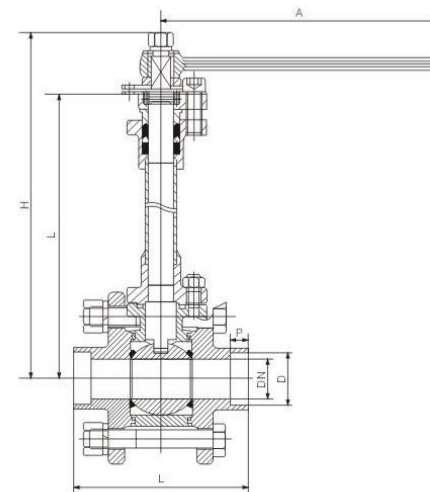
主要外形及连接尺寸 Main Shapes and Connection Size

600LB外型及法兰尺寸

公称通径 Nominal diameter		尺寸 Size (mm)			
DN	in	LRF	LBW	H	H1
50	2"	292	295	310	170
65	2 1/2"	330	333	355	190
80	3"	356	359	368	190
100	4"	432	435	430	200
125	5"	508	511	500	220
150	6"	559	562	630	220
200	8"	660	664	780	220
250	10"	787	790	840	240
300	12"	838	841	940	240
350	14"	826	829	1080	250
400	16"	991	994	1160	250

CRYOGENIC FLOATING BUTT WELDING BALL VALVE

DQ61F(Y)-150Lb 低温浮动式对焊球阀



主要参数 Main Parameters

公称压力 Nominal pressure	PN≤5MPa
适用介质 Applicable medium	液氧、液氮 Liquid oxygen, liquid nitrogen
工作环境温度 Environment temperature	常温 Normal temperature
阀体材料 body material	1Cr18Ni9Ti
结构形式 Structure form	长杆式 Long pole type

主要外形及连接尺寸 Main Shapes and Connection Size

尺寸 (mm)	DN	E	L	H	A	D	P
01-5/32	32	110.4	342	435	200	43	14
01-5/40	40	126.3	346.5	440	200	49	16
01-5/50	50	165	370	450	250	61	17.5
01-5/65	65	180	399	454	480	74	19
01-5/80	80	220	410	465	480	80	21

CRYOGENIC TOP-ENTRY BALL VALVE

DSQ41F(Y)-150Lb/300Lb/600Lb 低温上装式球阀

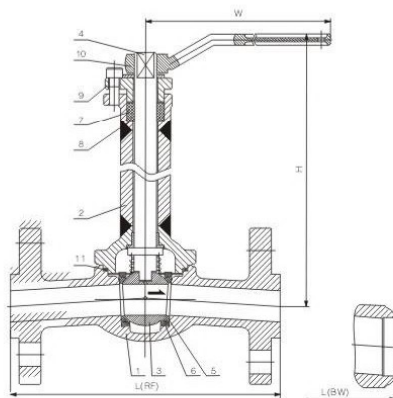
设计制造标准 Design and manufacturing standards

设计制造 The design and manufacture: ASME B16.34, BS6364, API608
 检验测试 Inspection test: API598, ASME B16.25
 连接尺寸 Connection size: ASME B16.5, ASME B16.25
 结构长度 length of the structure: ASME B16.10

结构特性 Structural Characteristics

长劲阀盖
 体盖螺栓连接
 浮动式
 全通径或缩径
 法兰端或对焊端
 手动、气动或电动开关操作
 防火设计
 球体上游端有泄压平衡孔（单一流向）
 软密封阀座

Long time cover
 Bolt connection
 floating
 Full size or reducing
 Flange end or butt end
 Manual and pneumatic or electric switch operation
 Fire protection design
 Sphere upstream side has pressure balance hole (single flow)
 Soft seal seat



主要参数 Main Parameters

压力等级 Class	强度试验 (MPa)	密封试验 (MPa)	气密封试验 (MPa)	工作温度及使用介质 Working temperature and working medium		
150Lb	3.0	2.2		-46℃ 液氨、丙烷	-101℃ 乙烯、二氧化碳	-196℃ 甲烷、液化天然气
300Lb	7.67	5.62	0.6			
600Lb	15.3	11.23				

主要外形及连接尺寸 Main Shapes and Connection Size

压力等级	尺寸 (mm)	1'	1-1/2'	2'	3'	4'	6'
150Lb	H	377	464	502	580	585	639
	W	230	290	330	410	457	610
	L	BW	165	190	216	282	305
		RF	127	165	178	203	229
300Lb	H	377	464	502	560	613	683
	W	230	290	330	457	520	610
	L	BW	165	190	216	282	305
		RF	165	190	216	282	305
600Lb	H	385	464	523	580	652	773
	W	280	340	380	520	610	660
	L	BW	216	241	292	356	432
		RF	216	241	292	356	432

CRYOGENIC TOP-ENTRY BALL VALVE

DSQ47F(Y)-150Lb/300Lb/600Lb 低温上装式球阀

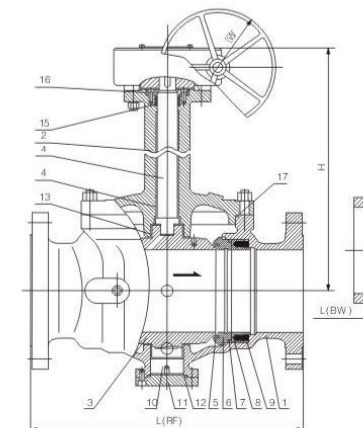
设计制造标准 Design and manufacturing standards

设计制造 The design and manufacture: ASME B16.34, BS6364, API6D
 检验测试 Inspection test: API598, BS 6364
 连接尺寸 Connection size: ASME B16.5, ASME B16.25
 结构长度 length of the structure: ASME B16.10

结构特性 Structural Characteristics

长劲阀盖
 体盖螺栓连接
 固定式
 全通径或缩径
 防火设计
 法兰端或对焊端
 手动、气动或电动开关操作
 球体上游端有泄压平衡孔
 软密封阀座或硬密封阀座

Long time cover
 Bolt connection
 stationary
 Full size or reducing
 Fire protection design
 Flange end or butt end
 Manual and pneumatic or electric switch operation
 The ball pressure balance hole is the upstream end
 The soft sealing seat or hard sealing seat



主要参数 Main Parameters

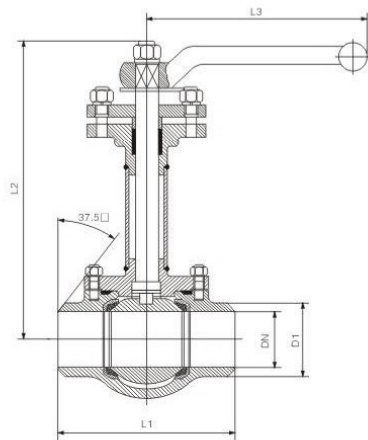
压力等级 Class	强度试验 (MPa)	密封试验 (MPa)	气密封试验 (MPa)	工作温度及使用介质 Working temperature and working medium		
150Lb	3.0	2.2		-46℃ 液氨、丙烷	-101℃ 乙烯、二氧化碳	-196℃ 甲烷、液化天然气
300Lb	7.67	5.62	0.6			
600Lb	15.3	11.23				

主要外形及连接尺寸 Main Shapes and Connection Size

压力等级	尺寸 (mm)	1'	1-1/2'	2'	3'	4'	6'
150Lb	H	377	776	902	1008	1040	1294
	W	230	762	762	762	762	762
	L	BW	165	521	559	636	762
		RF	127	457	533	610	686
300Lb	H	377	776	902	1008	1040	1294
	W	230	762	762	914	914	914
	L	BW	165	521	559	635	762
		RF	165	502	568	648	762
600Lb	H	385	932	995	1293	1293	1434
	W	280	762	914	914	914	914
	L	BW	216	660	787	838	889
		RF	216	660	787	838	889

CRYOGENIC TOP-ENTRY BALL VALVE

DSQ61F-16/25/40(150Lb/300Lb/600Lb)P 低温上装式球阀



长杆对焊式低温手动球阀
Long Stem BW End Type Cryogenic Manual Ball Valve

主要参数 Main Parameters

公称压力 Nominal pressure	PN≤15MPa	公称压力 Nominal pressure	PN≤2MPa
适用介质 Applicable medium	液氧、液氮 Liquid oxygen, liquid nitrogen	适用介质 Applicable medium	液氧、液氮 Liquid oxygen, liquid nitrogen
工作环境温度 Environment temperature	常温 Normal temperature	工作环境温度 Environment temperature	常温 Normal temperature
阀体材料 body material	1Cr18Ni9Ti	阀体材料 body material	1Cr18Ni9Ti
结构形式 Structure form	长杆式 Long pole type	结构形式 Structure form	长杆式 Long pole type

主要参数 Main Parameters

尺寸 (mm)	DN	L1	L2	L3	D1
15	15	165	380	280	27
20	20	190	445	360	42
25	25	215	445	360	50
40	40	260	460	360	62
50	50	292	480	360	76
80	80	283	580	500	104
100	100	305	600	600	134

Cryogenic Butterfly Valve Series 低温蝶阀系列

11



CRYOGENIC BUTTERFLY VALVE

低温蝶阀

用途 Use

低温蝶阀主要用于液化天然气 (LNG) 乙烯、液氮、液氧等介质，作为调节和输送液态低温介质的启闭装置。

结构特点 Structure Features

- 填料函抬高设计，保证了密封填料在低温下的长期稳定性 阀杆密封采用低泄漏填料，确保满足低泄漏要求；
- 设置滴水板有效防止冷凝水流入保温层；
- 根据标准要求，关键部件在精加工之前进行深冷处理，消除材料相变的影响；
- 采用三偏心设计原理，启闭过程中无摩擦，启闭力矩小，操作灵活、轻便；
- 阀体密封面采用堆焊硬质合金或不锈钢，密封面具有耐冲刷、耐腐蚀、耐磨损等特点；
- 阀杆部位装有轴套支撑，可有效减小启闭力矩和阀杆磨损，保证密封更加可靠；
- 根据用户要求，可选用电动、气动、液动、电液联动等执行机构，实现远距离控制和自动化操作。

Cryogenic butterfly valve is mainly used as the on-off device to control the low temperature liquid medium such as LNG, ethylene, liquid nitrogen, loxygen and etc.

- The high positioned packing part ensures the stabilization of its sealing under low temperature environment.
- Low emission stem packing material is adopted to meet the fugitive emission requirement.
- A draining plate structure is used to prevent the condensed water from flowing into the heat jacket.
- The important parts' material would be used low-temperature treatment before the finishing machine to eliminate the influence caused by phase changing
- Tripple eccentric design is used to ensure no friction during the close and open, and also enjoys the features of low torque, easy handling.
- The body sealing is deposited with hard alloy or stainless steel which has the characteristic of anti-corrosion, anti-erosion and anti-wear and so on.
- Stem bushing structure can reduce the open torque and wearing and reach a reliable sealing.
- Electric, pneumatic, hydraulic, hydro-electric actuator and so on could be used according to clients' request to realize remote and automatic controlling.

技术规范 Technical specification

1. 设计制造标准：API 609, GB/T 12238, JB/T8527
2. 结构长度：ASME B16.10, GB/T 12221
3. 法兰端：ASME B16.25, GB9113, JB/T 79
对接焊端：ASME B16.25, GB/T 12224-2007
4. 压力温度等级：ASME B16.34
5. 阀门检验和试验：API 598, JB/T 9092, GB/T13927

1. Design and manufacture standard: API 609, GB/T 12238, JB/T8527
2. Face-to-face: ASME B16.10, GB/T 12221
3. Flanged ends: ASME B16.5, GB9113, JB/T 79
BW ends: ASME B16.25, GB/T 12224-2007
4. Pressure and temperature: ASME B16.34
5. Inspection and test: API 598, JB/T 9092, GB/T13927

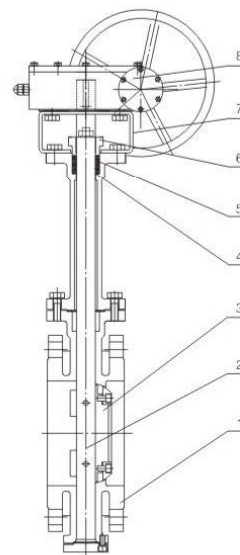
设计依据 Design Basis	GB	BS EN	API
低温阀门技术要求	GB/T 24925, BS 6364, MSS SP-134		
设计标准 Design Standard	GB/T 12238	BS EN 593	API 609
结构长度 Face-to-Face	GB/T 12221	BS EN 558	API 609
连接端* Connection End	法兰连接 Flanged	GB/T 9113	BS EN 1092-1
试验和检验 Test and Check	GB/T 13927	BS EN 12266	API 598

* 阀门连接端形式和尺寸可按用户要求设计制造

The end type and dimension can be designed and manufactured according to the buyers's request

CRYOGENIC BUTTERFLY VALVE

低温蝶阀



主要零件材质 Form of major parts materials

序号 No.	零件名称 Part name	材质 Material
1	阀体 Body	ASTM A352 LCB, LC3 ASTM A351 CF8
2	阀杆 Stem	ASME A182 F304
3	蝶板组合件 Disc	ASTM A352 LCB, LC3+F4 不锈钢复合件、STL ASME A351 CF8
4	填料垫 Packing seat	ASME A276-410, ASTM A182 F304
5	填料 Packing	PTFE, 柔性石墨 Graphite
6	填料压盖 Gland	ASME A216 WCB ASME A351 CF8
7	支架 Yoke	ASME A216 WCB ASME A351 CF8
8	蜗轮蜗杆装置	

主要零件与材质 Main Parts and Materials

常规型 Conventional Type

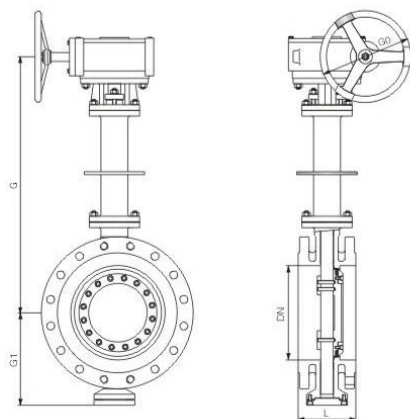
零件名称 Part Name	不锈钢 Stainless Steel			
阀体 Body	A351-CF8	A351-CF8M	A351-CF3	A351-CF3M
蝶板 Disc	A351-CF8	A351-CF8M	A351-CF3	A351-CF3M
阀杆 Stem	A182-F304	A182-F316	A182-F304L	A182-F316L
密封圈 Seal ring	聚四氟乙烯、聚三氟氯乙烯 PTFE, PCTFE			
填料 Packing	聚四氟乙烯、低泄漏组合式填料 PTFE, Low emission combined packing			

产品性能规范 Products Performance Specification

压力等级 Pressure grade	1.6~42.0MPa	Class 150~2500
试验压力 Test pressure (Mpa)	强度试验 Shell test	1.5xPN
	密封试验 Sealing test	1.1xPN
	气压密封试验 Air test pressure	0.6MPa
工作介质 Working medium	水、油品、天然气、腐蚀性介质等 Water, oil, natural gas, corrosive medium etc	

FLANGED TYPE CRYOGENIC BUTTERFLY VALVE

DD343F(H,Y)-10P/16P/25P/40P 法兰式低温蝶阀



主要外形尺寸 Main size of outside

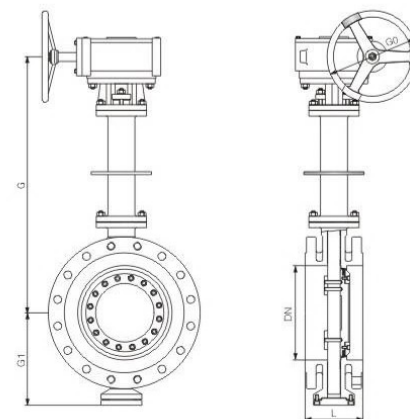
公称压力 Nominal Pressure	PN10 ~ PN40							
DN	PN10/PN16/PN25				PN40			
	L	G	G1	G0	L	G	G1	G0
50	108	575	70	160	150	575	80	160
65	112	590	80	160	170	590	90	160
80	114	630	93	160	180	630	98	160
100	127	650	103	160	190	650	115	160
125	140	658	118	205	200	658	135	205
150	140	660	198	205	210	660	198	205
200	152	683	236	235	230	685	246	235
250	165	718	276	235	250	723	290	235
300	178	780	297	300	270	780	312	300
350	190	840	324	300	290	850	352	300
400	216	887	352	300	310	895	392	400
450	222	948	368	400	330	950	412	400
500	229	1035	411	400	350	1040	460	440
600	267	1170	460	400	390	1180	516	440

注：低温蝶阀的阀杆/填料加长部分长度，应根据流体介质和相应标准确定。

Remark: The extended partial dimension of cryogenic butterfly valves' stem/packing should be determined according to fluid medium and relative standard.

FLANGED TYPE CRYOGENIC BUTTERFLY VALVE

DD373F(H,Y)-150Lb/300Lb 法兰式低温蝶阀



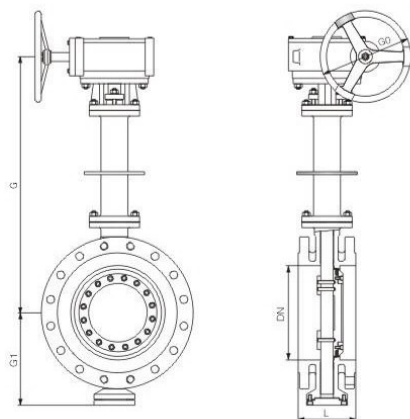
主要外形尺寸 Main size of outside

公称压力 Nominal Pressure	Class150 ~ Class300							
NPS	Class150				Class300			
	L	G	G1	G0	L	G	G1	G0
2	108	575	70	160	150	575	80	160
2-1/2	112	590	80	160	170	590	90	160
3	114	630	93	160	180	630	98	160
4	127	650	103	160	190	650	115	160
5	140	658	118	205	200	658	135	205
6	140	660	198	205	210	660	198	205
8	152	683	236	235	230	685	246	235
10	165	718	276	235	250	723	290	235
12	178	780	297	300	270	780	312	300
14	190	840	324	300	290	850	352	300
16	216	887	352	300	310	895	392	400
18	222	948	368	400	330	950	412	400
20	229	1035	411	400	350	1040	460	440
24	267	1170	460	400	390	1180	516	440

注：低温蝶阀的阀杆/填料加长部分长度，应根据流体介质和相应标准确定。

Remark: The extended partial dimension of cryogenic butterfly valves' stem/packing should be determined according to fluid medium and relative standard.

WAFER TYPE CRYOGENIC BUTTERFLY VALVE DD343F(H,Y)-10P/16P/25P/40P 对夹式低温蝶阀

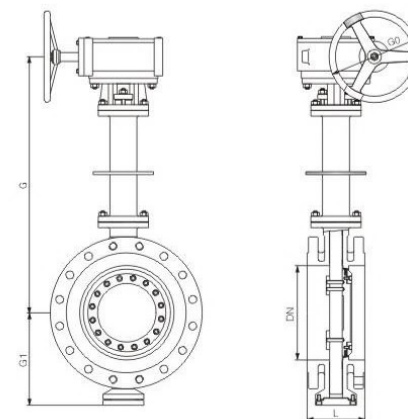


主要外形尺寸 Main size of outside

公称压力 Nominal Pressure	PN10 ~ PN40							
DN	PN10/PN16/PN25				PN40			
	L	G	G1	G0	L	G	G1	G0
50	43	575	70	160	43	575	80	160
65	46	590	80	160	46	590	90	160
80	49	630	93	160	64	630	98	160
100	56	650	103	160	64	650	115	160
125	64	658	118	205	70	658	135	205
150	70	660	198	205	76	660	198	205
200	71	683	236	235	89	685	246	235
250	76	718	276	235	114	723	290	235
300	83	780	297	300	114	780	312	300
350	92	840	324	300	127	850	352	300
400	102	887	352	300	140	895	392	400
450	114	948	368	400	152	950	412	400
500	127	1035	411	400	152	1040	460	440
600	154	1170	460	400	178	1180	516	440

注：低温蝶阀的阀杆/填料加长部分长度，应根据流体介质和相应标准确定。
Remark: The extended partial dimension of cryogenic butterfly valves' stem/packing should be determined according to fluid medium and relative standard.

WAFER TYPE CRYOGENIC BUTTERFLY VALVE DD373F(H,Y)-150Lb/300Lb 对夹式低温蝶阀



主要外形尺寸 Main size of outside

公称压力 Nominal Pressure	Class150 ~ Class300							
NPS	Class150				Class300			
	L	G	G1	G0	L	G	G1	G0
2	43	575	70	160	43	575	80	160
2-1/2	46	590	80	160	46	590	90	160
3	48	630	93	160	48	630	98	160
4	54	650	103	160	54	650	115	160
5	55	658	118	205	55	658	135	205
6	57	660	198	205	59	660	198	205
8	64	683	236	235	73	685	246	235
10	71	718	276	235	83	723	290	235
12	81	780	297	300	92	780	312	300
14	92	840	324	300	117	850	352	300
16	102	887	352	300	133	895	392	400
18	114	948	368	400	149	950	412	400
20	127	1035	411	400	159	1040	460	440
24	154	1170	460	400	181	1180	516	440

注：低温蝶阀的阀杆/填料加长部分长度，应根据流体介质和相应标准确定。
Remark: The extended partial dimension of cryogenic butterfly valves' stem/packing should be determined according to fluid medium and relative standard.

BW ENDS CRYOGENIC BUTTERFLY VALVE WITH EXAMING PASSAGE

对焊式带检修口低温蝶阀

用途 Use

阀体上带检修口的低温蝶阀，解决了传统的需要拆卸维修、维护的问题，检修时不必将整个阀体从管线上拆卸下来，也不需将阀杆和阀瓣有连接的部件都拆卸下来，就可更换阀体内的密封件，使阀门在线维修、维护变得更方便、快捷。

结构特点 Structure Features

- 阀体设置检修口，在线维修方便、快捷。
- 填料函抬高设计，保证了密封填料在低温下的长期稳定性。
- 阀杆密封采用低泄漏填料，确保满足低泄漏要求；
- 设置滴水板有效防止冷凝水流入保温层；
- 根据标准要求，关键部件在精加工之前进行深冷处理，消除材料相变的影响；
- 采用三偏心设计原理，启闭过程中无摩擦，启闭力矩小，操作灵活、轻便；
- 阀体密封面采用堆焊硬质合金或不锈钢，密封面具有耐冲刷、耐腐蚀、耐磨损 等特点；
- 阀杆部位装有轴套支撑，可有效减小启闭力矩和阀杆磨损，保证密封更加可靠；
- 根据用户要求，可选用电动、气动、液动、电液联动等执行机构，实现远距 离控制和自动化操作。

This type of valve solves the problem that traditional valve need to be removed from the pipeline for maintenance. It makes on-line maintenance and repair more convenient and easy as you could replace the sealing part in the body without removing off the valve or disassembling the stem and internal parts connected with the disc.

- Valve's body with exam passage, easy and convenient on-line maintenance.
- The high positioned packing part ensures the stabilization of its sealing under low temperature environment.
- Low emission stem packing material is adopted to meet the fugitive emission requirement.
- A draining plate structure is used to prevent the condensed water from flowing into the heat jacket.
- The important parts' material would be used low-temperature treatment before the finishing machine to eliminate the influence caused by phase changing.
- Tripple eccentric design is used to ensure no friction during the close and open, and also enjoys the features of low torque, easy handling.
- The body sealing is deposited with hard alloy or stainless steel which has the characteristic of anti-corrosion, anti-erosion and anti-wear and so on.
- Stem bushing structure can reduce the open torque and wearing and reach a reliable sealing.
- Electric, pneumatic, hydraulic, hydro-electric actuator and so on could be used according to clients' request to realize remote and automatic controlling.

主要零件与材质 Main Parts and Materials

常规型 Conventional Type

零件名称 Part Name	不锈钢 Stainless Steel			
阀体Body	A351-CF8	A351-CF8M	A351-CF3	A351-CF3M
蝶板Disc	A351-CF8	A351-CF8M	A351-CF3	A351-CF3M
阀杆Stem	A182-F304	A182-F316	A182-F304L	A182-F316L
密封圈Seal ring	聚四氟乙烯、聚三氟氯乙烯 PTFE、PCTFE			
填料Packing	聚四氟乙烯、低泄漏组合式填料 PTFE、Low emission combined packing			

技术规范 Technical specification

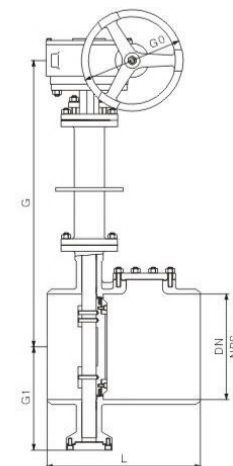
设计依据 Design Basis		GB	BS EN	API
低温阀门技术要求		GB/T 24925、BS 6364、MSS SP-134		
设计标准 Design Standard		GB/T 24925	BS 6364	MSS SP-134
结构长度 Face-to-Face		GB/T 12238	BS EN 593	API 609
连接端* Connection End	法兰连接 Flanged	GB/T 12224	BS EN 12627	ASME B16.5
试验和检验 Test and Check		GB/T 13927	BS EN 12266	API 598

* 阀门连接端形式和尺寸可按用户要求设计制造

The end type and dimension can be designed and manufactured according to the buyers's request

BW ENDS CRYOGENIC BUTTERFLY VALVE WITH EXAMING PASSAGE

DD363F(H,Y)-10P/16P/25P/150Lb 对焊式带检修口低温蝶阀



主要外形尺寸 Main size of outside

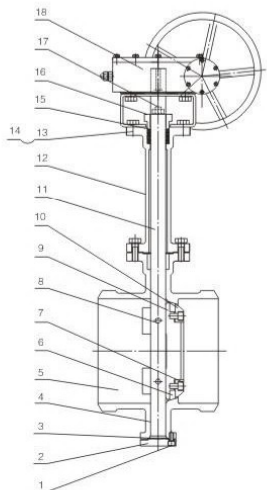
公称压力 Nominal Pressure		PN10 - PN25/Class150			
公称尺寸		L	G	G1	G0
NPS	DN				
6	150	395	658	198	205
8	200	410	683	236	235
10	250	455	718	276	235
12	300	480	780	297	300
14	350	530	840	324	300
16	400	555	887	352	300
18	450	590	948	368	400
20	500	625	1035	411	400
24	600	680	1170	460	400
28	700	750	1250	518	440
30	750	775	1328	546	440
32	800	830	1475	582	440
36	900	905	1700	623	440

注：低温蝶阀的阀杆/填料加长部分长度，应根据流体介质和相应标准确定。

Remark: The extended partial dimension of cryogenic butterfly valves' stem/packing should be determined according to fluid medium and relative standard.

WELDED BUTTERFLY VALVE

对焊密封蝶阀



应用规范 Application Specification

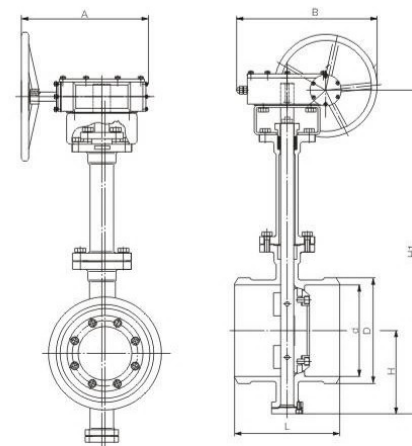
1. 阀门的设计与制造按GB/T12238的规定
 2. 阀门的结构长度按GB/T 13927的规定
 3. 连接法兰按GB/T 9113.1的规定
 4. 阀门的检验与验收按GB/T 12221的规定
1. Valve design and manufacture according to GB/T 12238 requirements
 2. Valve structural length according to GB/T 13927 requirements
 3. The connection flange according to GB/T 9113.1 requirements
 4. Valve inspection and acceptance by GB/T 12221 requirements

主要零件材质 Form of major parts materials

序号 No.	零件名称 Parts Name	材质 Material	
		不锈钢 Stainless Steel	铸钢 Cast Steel
1	螺钉 Screw	0Cr18Ni9	35CrMoA
2	后盖 Back cover	0Cr18Ni9	25
3	密封垫片 Gasket	PTFE	304+石墨
4	轴套 Sleeve	ZCuA19	ZCuA19
5	阀体 Body	ZG0Cr18Ni9	WCB/ST
6	密封圈 Sealing Ring	0Cr18Ni9+XB450	2Cr13+XB450
7	螺钉 Screw	0Cr18Ni9	35CrMoA
8	销 Pin	0Cr18Ni9	45
9	蝶板 Disc	ZG0Cr18Ni9	WCB
10	压板 Plate	0Cr18Ni9	25
11	阀杆 Stem	0Cr18Ni9	2Cr13
12	上支承钢管 The supporting steel	0Cr18Ni9	25
13	螺栓 Bolt	0Cr18Ni9	35CrMoA
14	垫圈 Washer	0Cr18Ni9	65Mn
15	填料 Filler	PTFE	石墨
16	填料压盖 Gland	ZG0Cr18Ni9	WCB
17	螺钉 Screw	0Cr18Ni9	35CrMoA
18	蜗轮 Worm	组合件	组合件

WELDED BUTTERFLY VALVE

DD61F(H,Y)-6P/10P 对焊密封蝶阀



主要外形尺寸 Main size of outside

通径 Diameter		PN0.6MPa						
mm	inch	L	D	d	H	H1	A	B
600	24	340	636	602	499	1280	570	660
700	28	460	726	692	566	1480	750	550
800	32	480	826	792	632	1608	750	550
900	36	500	926	892	693	1857	750	550
1000	40	510	1028	992	757	2038	900	750
1200	48	530	1228	1192	851	2237	1000	925
1400	56	550	1428	1392	876	2411	1000	925
1600	64	570	1628	1592	1095	2756	1000	925
1800	72	590	1828	1792	1214	3093	1100	980
2000	80	610	2028	1992	1332	3355	1100	980

通径 Diameter		PN1.0MPa						
mm	inch	L	D	d	H	H1	A	B
600	24	340	636	602	499	1280	570	660
700	28	460	726	692	566	1480	750	550
800	32	480	826	792	632	1608	750	550
900	36	500	926	892	693	1857	750	550
1000	40	510	1028	992	757	2038	900	750
1200	48	530	1228	1192	851	2237	1000	925
1400	56	550	1428	1392	876	2411	1000	925
1600	64	570	1628	1592	1095	2756	1000	925
1800	72	590	1828	1792	1214	3093	1100	980
2000	80	610	2028	1992	1332	3355	1100	980

WELDED BUTTERFLY VALVE

DD61F(H,Y)-16P/25P 对焊密封蝶阀

主要外形尺寸 Main size of outside

通径Diameter		PN1.6MPa						
mm	inch	L	D	d	H	H1	A	B
80	3	140	90	78	90	356	180	200
100	4	160	110	96	100	375	180	200
125	5	180	135	121	113	401	180	200
150	6	180	161	146	130	450	270	280
200	8	220	222	202	205	545	400	425
250	10	220	278	254	235	630	400	425
300	12	240	330	303	275	715	450	560
350	14	260	382	351	309	817	450	560
400	16	280	432	398	346	923	535	580
450	18	300	484	450	392	1059	535	580
500	20	320	535	501	427	1126	535	580
600	24	340	636	602	509	1369	570	660
700	28	460	726	692	572	1492	750	550
800	32	480	826	792	638	1622	750	550
900	36	500	926	892	700	1924	750	550
1000	40	510	1028	992	765	2054	900	750
1200	48	530	1228	1192	860	2259	1000	925
1400	56	550	1428	1392	986	2610	1000	925
1600	64	570	1628	1592	1106	2856	1000	925
1800	72	590	1828	1792	1216	3121	1100	980
2000	80	610	2028	1992	1345	3385	1100	980
通径Diameter		PN2.5MPa						
mm	inch	L	D	d	H	H1	A	B
80	3	140	90	78	90	356	180	200
100	4	160	110	96	106	387	180	200
125	5	180	135	121	122	413	180	200
150	6	180	161	146	136	459	270	280
200	8	220	222	202	215	585	400	425
250	10	220	278	254	247	649	400	425
300	12	240	330	303	288	771	450	560
350	14	260	382	351	333	929	450	560
400	16	280	432	398	359	993	535	580
450	18	300	484	450	405	1053	535	580
500	20	320	535	501	444	1245	535	580
600	24	340	636	602	521	1750	570	660
700	28	460	726	692	586	1519	750	550
800	32	480	826	792	659	1659	750	550
900	36	500	926	892	720	1829	750	550
1000	40	510	1028	992	780	1949	900	750
1200	48	530	1228	1192	889	2243	1000	925
1400	56	550	1428	1392	1000	2462	1000	925

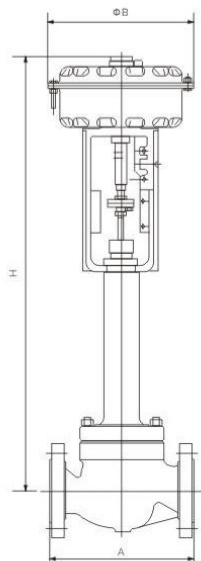
12

Ultra-Cryogenic Control Valve Series 超低温调节阀系列



CRYOGENIC REGULATING VALVE

DT41F(Y)-150Lb/300Lb/600Lb低温调节阀



外形尺寸 Overall dimensions

公称通径(mm) Nominal diameter	执行机构 Actuator	H	ΦB
20	DOCAN-A	995	270
25	DOCAN-A	995	
40	DOCAN-B	1085	
50	DOCAN-B	1090	
65	DOCAN-C	1390	400
80	DOCAN-C	1400	
100	DOCAN-C	1415	
150	DOCAN-C	1545	
200	DOCAN-C	1715	
250	DOCAN-D	2120/2500/2650	565/620
300	DOCAN-D	2130/2510/2660	565/620

法兰距尺寸 Flange is apart from the size

公称通径 Nominal diameter (mm)	A							
	ANSI 150RF PN1.6MPa	ANSI 300RF PN4.0MPa	ANSI 600RF PN6.3MPa	ANSI 150RJ	ANSI 300RJ	ANSI 600RJ	ANSI 150 SW,BW	ANSI 300,600 SW,BW
20	184	194	206	194	206	206	206	206
25	184	197	210	197	210	210	210	210
40	222	235	251	235	248	251	251	251
50	254	267	286	267	283	289	286	286
65	276	292	311	289	308	314	311	311
80	298	317	337	311	333	340	337	337
100	352	368	394	365	384	397	394	394
150	451	473	508	464	489	511	473	508
200	543	568	610	556	584	613	568	610
250	673	708	752	686	724	756		
300	737	775	819	749	791	822		

13

Cryogenic Gate Valve Series 低温闸阀系列



CRYOGENIC GATE VALVE OVERVIEW

低温闸阀概述

设计特点 Design Features

在各种类型阀门中，闸阀是应用最广泛的一种。闸阀是指关闭件(闸板)沿通道轴线的垂直方向移动，达到开启或关闭目的的阀门。在管路中主要作为接通或切断介质用，即全开或全闭使用。一般闸阀不可作为节流使用，它可以用于高温和高压，也可以用于低温和低压，并可以用于各种不同介质。闸阀一般不用于输送带颗粒、粘稠性、易结垢的介质管道中。

闸阀具有如下优点：

- 1、流体阻力比较小，安全可靠；
- 2、开启或关闭时所需力矩较小；
- 3、可以使用在介质向两个方向流动的环网管路上，也就是说介质的流向不受限制；
- 4、全开时，密封面受工作介质的冲刷比截止阀小；
- 5、形体比较简单，易于铸造和加工；
- 6、结构长度比较小；

闸阀也有一些缺点，主要是：

- 1、外形尺寸和开启高度都较大，所需安装空间亦较大；
- 2、在启、闭过程中，密封面有相对摩擦，磨损较小，容易引起擦伤现象；
- 3、一般闸阀都有两个密封副，给加工、研磨个维修增加了一些困难；
- 4、开启、关闭时间长。

In various types of valve, gate valve is the most widely used one. Gate valves are closed (gate to the vertical axis) along the passage direction, to open or close the valve purpose. In main lies as connected or cut open, namely with medium or fully closed. Do not use valves for throttling commonly, it can be used for high temperature and high pressure, low pressure and can also be used to, and can be used in a variety of different medium. Gate valve containing particles generally used for sex, scar, viscous medium in pipelines.

Gate valves has the following advantages:

1. Fluid resistance is small, safe and reliable;
2. And open or closed needed less torque;
3. And can be used in the medium to two direction of flow of ring road network, i.e. the media is not restricted to;
4. Open, sealing the erosion by working medium than globe valves are small;
5. And form is simple, easy to casting and machining;
6. And structural length.

Gate valve also has some shortcomings, mainly are:

1. Size, and shape is large, the height of open space are needed to install;
2. In the process of opening and closing sealing, have relatively friction and wear, easy cause scratches;
3. And there are two general gate seal, give processing, polishing a maintenance added some difficulty;
4. Pened and closed for along time.

设计规范 Design Specifications

项目 Item	应用规范 Applicable Specification
壁厚与通用阀门设定 Wall thickness and general valve design	API 602 (forged), API 600 (cast)
压力-温度等级 Pressure-Temperature rating	ASME B 16.34
结构长度 Face-to-face dimensions	ASME B 16.10
法兰设计 Flange design	ASME B 16.5
对焊连接设计 Butt welding design	ASME B 16.25
低温阀门 Cryogenic valves	BS 6364

CRYOGENIC GATE VALVE OVERVIEW

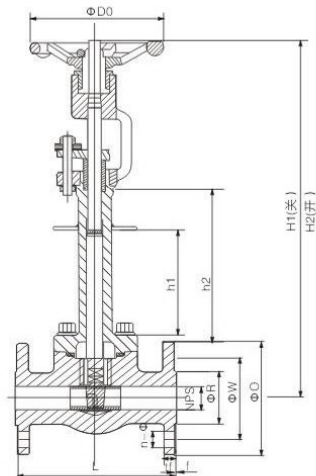
低温闸阀概述

材料表 Standard Materials

零件 Part	锻钢 Forged 1/4-2'	铸钢 Cast steel
阀体 Valve body	SS 316	CF8M
阀盖 Bonnet	SS 316	CF8M
阀杆 Valve stem	ss 316/Nimonic	
楔子 Wedge	CF8M/ STL 6	
阀座 Seat	STL 6	
填料法兰 Packing flange	SS 316	
密封垫片 Gland bushing	SS 316	
填料环 Packing ring	RTFE+GRAP	
压盖螺栓 Gland stud	F316, B8M	F316, B8M
压盖螺母 Gland nut	Gr. 8M	
阀体/阀盖螺母 Body/bonnet nut	Gr. 8M	
阀体/阀盖螺栓 Body/bonnet stud	B8M	
上密封阀座 Back seat	N/A	SS 316
垫圈 Gasket	石墨缠绕垫 Spiral SS/GRAP	
键 Key	N/A	碳钢 Carbon steel
支架衬套 Yoke bushing	N/A	不锈钢 Stainless steel
轴承 Bearing	N/A	钢 Steel
手轮螺母 Handwheel nut	可锻铸铁 Malleable iron	
手轮 Handwheel	可锻铸铁 Malleable iron	
润滑油嘴 Grease fitting	N/A	钢 Steel
槽销 Groove pin		不锈钢 Stainless steel
衬套 Bushing		不锈钢 Stainless steel
垫圈 Washer		不锈钢 Stainless steel
名牌 Famous brand		不锈钢 Stainless steel
识别标签 Identification tag		不锈钢 Stainless steel
铆钉 Rivet	不锈钢/铜 SS / Bronze	不锈钢 Stainless steel
阀杆螺母 Stem nut		Ni-resist type D2C

CRYOGENIC FORGED STEEL GATE VALVE

DDZ40F(Y) -150Lb/300Lb/600Lb 低温锻钢闸阀

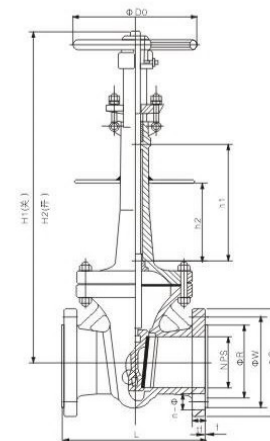


尺寸 Dimension

Class150												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
1/2"	108	90	60.3	34.9	4-16	8.0	2	250	100	395	410	125
3/4"	117	100	69.9	42.9	4-16	8.9	2	250	100	395	410	125
1"	127	110	79.4	50.8	4-16	9.6	2	250	100	405	425	125
1 1/4"	140	115	88.9	63.5	4-16	11.2	2	250	100	475	505	160
1 1/2"	165	125	98.4	73.0	4-16	12.7	2	250	110	465	495	180
2"	178	150	120.7	92.1	4-19	14.3	2	300	110	525	565	180
Class300												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
1/2"	108	90	60.3	34.9	4-16	8.0	2	250	100	395	410	125
3/4"	117	100	69.9	42.9	4-16	8.9	2	250	100	395	410	125
1"	127	110	79.4	50.8	4-16	9.6	2	250	100	405	425	125
1 1/4"	140	115	88.9	63.5	4-16	11.2	2	250	100	475	505	160
1 1/2"	165	125	98.4	73.0	4-16	12.7	2	250	110	465	495	180
2"	178	150	120.7	92.1	4-19	14.3	2	300	110	525	565	180
Class600												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
1/2"	165	95	66.7	34.9	4-16	14.3	2	250	100	395	410	125
3/4"	190	115	82.6	42.9	4-19	15.9	2	250	100	395	410	125
1"	216	125	88.9	50.8	4-19	17.5	2	250	100	405	425	125
1 1/4"	229	135	98.4	63.5	4-19	20.7	2	250	100	475	505	160
1 1/2"	241	155	114.3	73.0	4-22	22.3	2	250	110	465	495	130
2"	292	165	120.7	92.1	8-19	25.4	2	300	110	525	565	130

CRYOGENIC CAST STEEL GATE VALVE

DZ40F(Y) -150Lb/300Lb/600Lb 低温铸钢闸阀

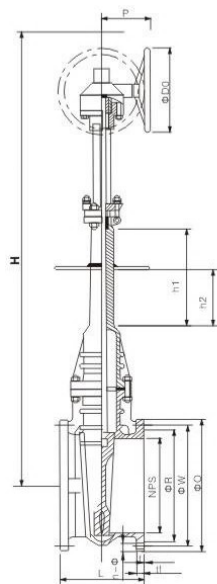


尺寸 Dimension

Class150												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
2"	178	150	120.7	92.1	4-19	14.3	2	302	140	589	647	200
2-1/2"	190	180	139.7	104.8	4-19	15.9	2	302	140	657	730	200
3"	203	190	152.4	127	4-19	17.5	2	302	150	662	747	250
4"	229	230	190.5	157.2	8-19	22.3	2	350	160	777	889	300
6"	267	280	241.3	215.9	8-22	23.9	2	350	170	921	1084	350
8"	292	345	298.5	269.9	8-22	27.0	2	400	180	1113	1325	350
10"	330	405	362	323.8	12-26	28.6	2	400	185	1264	1534	400
Class300												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
2"	216	165	127	92.1	8-19	20.7	2	300	140	539	647	200
2-1/2"	216	165	127	92.1	8-19	20.7	2	300	150	528	730	200
3"	282	210	168.3	127	8-22	27.0	2	300	150	662	747	250
4"	305	255	200	157.2	8-22	30.2	2	350	160	777	889	250
6"	403	320	269.9	215.9	12-22	35	2	350	215	936	1097	350
8"	419	330	330.2	269.9	12-26	39.7	2	400	255	1122	1338	400
10"	457	445	387.4	323.8	16-29	46.1	2	400	285	1294	1565	450
Class600												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
2"	292	165	127.0	92.1	3-19	25.4	7	300	140	589	647	300
2-1/2"	330	190	149.2	104.8	8-22	28.6	7	300	150	620	680	300
3"	356	210	168.3	127.0	8-22	31.8	7	300	150	612	662	350
4"	432	275	215.9	157.2	8-25.5	38.1	7	350	160	777	889	350
6"	559	355	292.1	215.9	12-28.5	47.7	7	350	215	936	1097	450
8"	660	420	349.2	269.9	12-32	55.6	7	450	160	1278	1498	500
10"	787	510	431.8	323.8	16-35	63.5	7	450	185	1353	1623	640

CRYOGENIC CAST STEEL GATE VALVE

DZ40F(Y) -150Lb/300Lb/600Lb 低温铸钢闸阀



超低温闸阀尺寸 Cryogenic Gate Valve Dimensions

铸钢齿轮 Cast With Gear Class150(8"~36")

NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H	D0	P
8"	660	420	349.2	269.9	12-32	55.6	7	450	180	1410	310	345
10"	787	510	431.8	323.8	16-35	63.5	7	450	185	1594	460	345
12"	838	560	489.0	381.0	20-35	66.7	7	500	190	1791	610	420
14"	889	605	527.0	412.8	20-38	69.9	7	550	190	2034	610	433
16"	991	685	603.2	469.9	20-41	76.2	7	550	200	2248	610	433
18"	1092	745	654.0	533.4	20-44.5	82.6	7	550	200	2426	710	580
20"	1194	815	723.9	584.2	24-44.5	88.9	7	600	230	2667	800	610
24"	1397	940	838.2	692.2	24-51	101.6	7	669	230	3234	800	610
28"	1549	950	863.6	784.0	28-48	115.9	7	745	240	3870	800	610
30"	1651	1020	927.1	841.0	28-51	125.5	7	810	240	4055	800	610
32"	1778	1085	984.2	895.0	28-55	130.2	7	860	240	4400	1000	710
36"	2082	1215	1104.9	1010	28-60	146.1	7	965	270	4800	1000	710

CRYOGENIC GATE VALVE

低温闸阀

超低温闸阀尺寸 Cryogenic Gate Valve Dimensions

铸钢齿轮 Cast With Gear Class300(8"~36")

NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H	D0	P
8"	419	380	330.2	269.9	12-25.5	39.7	2	400	180	1350	310	242
10"	457	445	387.4	323.3	16-28.5	46.1	2	400	185	1580	310	242
12"	502	520	450.8	381	16-32	49.3	2	450	190	1844	310	345
14"	762	585	514.4	412.8	20-32	52.4	2	450	190	2026	460	345
16"	838	650	571.5	469.9	20-35	55.6	2	450	200	2226	610	420
18"	914	710	628.6	533.4	24-35	58.8	2	500	200	2428	610	433
20"	991	775	685.8	584.2	24-35	62	2	560	230	2680	610	433
24"	1143	915	812.8	692.2	24-41	68.3	2	669	230	3205	710	580
28"	1346	920	857.2	787	36-35	87.4	2	745	240	3870	800	610
30"	1397	990	920.8	845	36-38	92	2	810	240	4115	800	610
32"	1524	1055	977.9	902	32-41.3	101.6	2	860	240	4335	800	610
36"	1727	1170	1089.0	1010	32-44.5	101.6	2	965	270	4775	800	610

铸钢齿轮 Cast With Gear Class600(8"~36")

NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H	D0	P
8"	292	345	298.5	269.9	8-22	27.0	2	450	180	1113	310	242
10"	330	405	362.0	323.8	12-25.5	28.6	2	450	185	1264	310	242
12"	356	485	431.8	381.0	12-25.5	30.2	2	500	190	1770	460	345
14"	381	535	476.3	412.8	12-28.5	33.4	2	550	190	1986	460	345
16"	406	595	539.8	469.9	16-28.5	35.0	2	550	200	2196	460	345
18"	432	635	577.9	533.4	16-32	38.1	2	550	200	2414	610	420
20"	457	700	635.0	584.2	20-32	41.3	2	600	230	2682	610	420
24"	508	815	749.3	692.2	20-35	46.1	2	660	230	3151	610	420
28"	610	835	795.3	762	40-22	43.0	2	775	240	3755	710	580
30"	610	885	846.1	813	44-22	43.0	2	820	240	3904	710	580
32"	660	940	900.1	864	48-22	44.6	2	885	240	4260	710	580
36"	711	1055	1009.6	972	44-25.4	50.9	2	955	270	4720	800	610

CRYOGENIC GLOBE VALVE OVERVIEW

低温截止阀概述

材料表 Standard Materials

部件 Part	类型 Type	
	锻钢 Forged	铸钢 Cast
阀体 Body	F316	CF8M
阀座 Seat	STL	STL
阀盖 Bonnet	F316	CF8M
阀杆 Stem		SS316
密封环 Packing ring	RTFE+GRAP	
压盖螺栓 Gland stud	F 316, B8M	
压盖螺母 Gland nut Gr.8M	Gr.8M	
法兰垫 Packing flange	SS	
压盖衬套 Gland bushing	SS	
阀盖螺栓 Bonnet stud	B8M	
阀盖螺母 Bonnet nut	Gr.8M	
铰链销 Hingepin	N/A	SS
垫圈 Gasket	石墨缠绕垫	
阀杆螺母 Stem nut		ZQAL9-4
手轮螺母 Handwheel nut	Integral	Gr.2M
手轮 Handwheel	可锻铸铁 Malleable iron	
上密封 Backseat	STL	SS 316
阀盘螺母 Disc nut	N/A	sS 304 or 316
阀盘 Disc	STL6	CF8M or F 316

铸钢的设计特点 Design Features For Cast Steel:

- 阀座表面堆焊，打磨和抛光达到镜面光洁度。锥形阀加工到8RMS。
- 平板阀：固定浮动的阀杆，经过STL6或蒙乃尔硬化，随阀座进行研磨抛光。
- 锥形阀：导向阀体，经过STL6或蒙乃尔硬化，随阀座进行打磨抛光。
- 阀体和阀盖：铸件是精密加工的。一体式阀帽可更好的对齐，零部件少。
- 填料箱达到63AARH或更好。
- 阀体和阀盖精密加工。全封闭密封垫，阀垫材料在第3页。
- 阀杆具有精密梯形螺纹和经过抛光的表面光泽度。
- 填料盖是两件式结构，便于调整。
- 阀杆螺母，镍铬钼耐蚀铸铁，可更换，非旋转框架套管，旋转阀杆(如图所示)
- 下列阀门提供一个旋转阀杆螺母，一个非旋转阀杆和两个推力轴承 Class 150:12"(300mm)
Class 300:8"(200mm)
Class 600:6"(150mm)
- 冲击式手轮，同阀座直径和压力等级的截止阀和截止止回阀。关于密封，最简化的手法是冲击式手轮，除非客户指定制造商规定两耳轮轴同时撞击下给3-10倍标准手轮关闭力。

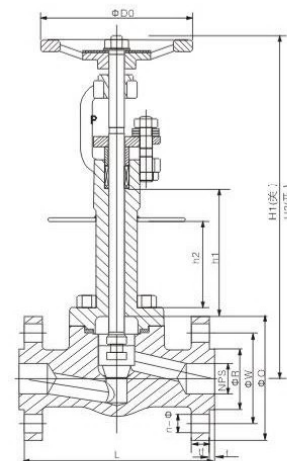
- Seat face Stellite, ground and lapped to a mirror finish. Conical seat machined to 8 RMS.
- Flat disc. Floating stem-disc engagement, hard faced with Stellite 6 or Monel, ground and lapped with seat.
- Tapered disc. Body-guided disc, hard faced with Stellite 6 or Monel, ground and lapped with seat.
- Body and bonnet. Castings are precision machined. One-piece bonnet for better alignment, fewer parts.
- Stuffing box finish to 63AARH or better.
- Body and bonnet joint accurately machined. Fully enclosed gasket. Gasket materials on page 3.
- Stem with precision Acme threads and burnished finish.
- Gland has two-piece construction for easy alignment.
- Yoke bushing, Ni-resist, renewable in-line, nonrotating yoke bushing, rotating stem (as shown).

The following valves are supplied with a rotating stem nut, non-rotating stem and two thrust bearings:

- Class 150:12"(300 mm) and up,
- Class 300:8"(200 mm) and up,
- Class 600:6"(150 mm) and up.
- Impactor hand wheels. Globe and stop check valves require higher closing torques than gate valves with the same seat diameter and pressure class. The most economical mechanism for tight shutoff is the impactor handwheel. Two lugs cast under the wheel strike simultaneous blows and give 3-10 times the closing force of standard hand wheels. Impactor hand wheels are supplied at manufacturer's option unless specified by customer.

CRYOGENIC FORGED STEEL GLOBE VALVE

DJ240F(Y) -150Lb/300Lb/600Lb低温锻钢截止阀



尺寸 Dimension

Class 150												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
1/2"	108	90	60.3	34.9	4-16	8.0	2	250	100	395	410	125
3/4"	117	100	69.9	42.9	4-16	8.9	2	250	100	395	410	125
1"	127	110	79.4	50.8	4-16	9.6	2	250	100	405	425	125
1 1/4"	140	115	88.9	63.5	4-16	11.2	2	250	100	475	505	160
1 1/2"	165	125	98.4	73.0	4-16	12.7	2	250	110	465	495	180
2"	203	150	120.7	92.1	4-19	14.3	2	300	110	525	565	180
Class 300												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
1/2"	152	95	66.7	34.9	4-16	12.7	2	250	100	395	410	125
3/4"	178	115	82.6	42.9	4-19	14.3	2	250	100	395	410	125
1"	203	125	88.9	50.8	4-19	15.9	2	250	100	405	425	125
1 1/4"	216	135	98.4	63.5	4-19	17.5	2	250	110	459	477	160
1 1/2"	229	155	114.3	73.0	4-22	19.1	2	250	110	465	495	180
2"	267	165	120.7	92.1	8-19	20.7	2	300	110	525	565	180
Class 600												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
1/2"	165	95	66.7	34.9	4-16	14.3	2	250	100	395	410	125
3/4"	190	115	82.6	42.9	4-19	15.9	2	250	100	395	410	125
1"	216	125	88.9	50.8	4-19	17.5	2	250	100	405	425	125
1 1/4"	229	135	98.4	63.5	4-19	20.7	2	250	100	455	475	160
1 1/2"	241	155	114.3	73.0	4-22	22.3	2	250	110	465	495	180
2"	292	165	120.7	92.1	8-19	25.4	2	300	110	525	565	180

Cryogenic
Globe Valve Series
低温截止阀系列

14



CRYOGENIC GLOBE VALVE OVERVIEW

低温截止阀概述

设计特点 Design Features

- 阀体和阀帽：奥氏体不锈钢锻件用在阀体和阀帽具有极好的冲击强度，最小的热损耗和防腐蚀保护。只有特别批准铸造厂可使用铸钢阀门进行铸件。
- 阀杆：为了减少磨损，阀杆是预先在氮50(等级XM-19 a479)中高度拉伸，即使在极低的温度，优良的低摩擦和无磨损下阀杆接触点自由运动。替代316阀杆用于要求不高的应用。
- 部件：全奥氏体不锈钢，小规格1/4~2"锻钢阀门、阀座、楔板或阀瓣通常是STL6。
- 轴承套管：铜
- 润滑：二硫化钼润滑剂33或复合润滑脂2
- 包装：聚四氟乙烯或其他塑料包装使用绝缘气柱进行冷冻保护，使用石墨的二次包装用于防火操作。
- 阀座面：STL是用来防止磨损和擦伤。如需软密封，阀门提供PCTFE或PTFE等其它密封材料
- 螺栓连接：硬化奥氏体不锈钢。
- 焊接：必须使用镍电极。
- 清洁：所有低温阀门进行脱脂、清洗和密封，以防止污染。

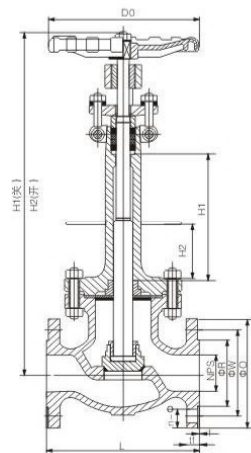
- Body and bonnet: Austenitic stainless steel forgings used for bodies and bonnets offer excellent impact strength, minimal heat loss and protection against corrosion. For cast steel valves radiographed castings are used only from specially approved foundries.
- Stem: To reduce galling, stems are made from advanced Nitronic 50 (grade XM-19 A479) with high tensile even at extreme low temperatures, excellent low friction and galling-free movement at points of stem contact. Alternative 316L stems are used for less demanding applications.
- Wetted parts: All Austenitic stainless steel. On small 1/4~2" forged valves seats, wedges or discs are often Stellite 6.
- Yoke bushings: Bronze.
- Lubrication: Molykote 33 or Plex 2.
- Packing: PTFE or other plastic packing protected from freezing by a column of insulating gas. For fire safe operation a secondary packing is provided using graphite.
- Seating faces: Stellite 6 is used to prevent seizing and galling. When extremely tight shutoff is required, valves are supplied with PCTFE, PTFE or other soft inserts.
- Bolting: Strain-hardened Austenitic stainless steel.
- Welding: Inconel electrodes must be used.
- Cleaning: All cryogenic valves are thoroughly degreased, cleaned and sealed to prevent contamination.

设计规范 Design Specifications

项目 Item	应用规范 Applicable Specification
壁厚与通用阀门设定 Wall thickness and general valve design	API600, BS 1873
压力-温度等级 Pressure-Temperature rating	ASME B16.34
结构长度 Face-to-face dimensions	ASME B16.10
法兰设计 Flange design	ASME B16.5
对焊接设计 Butt welding design	ASME B16.25
低温阀门 Cryogenic valves	BS 6364

CRYOGENIC CAST STEEL GLOBE VALVE

DJ40F(Y) -150Lb/300Lb/600Lb低温铸钢截止阀

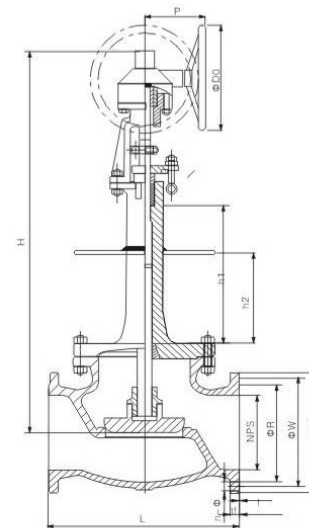


尺寸 Dimension

Class150												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
2'	203	150	120.7	92.1	4-19	14.3	2	304	140	603	638	200
2 1/2'	216	180	139.7	104.8	4-19	15.9	2	303	150	631	666	200
3'	241	190	152.4	127.0	4-19	17.5	2	350	155	656	743	250
4'	292	230	190.5	157.2	8-19	22.3	2	400	160	759	852	300
6'	406	280	241.3	215.9	8-22	23.9	2	450	170	813	973	400
8'	495	345	298.5	269.9	8-22	27.0	2	450	185	921	1041	450
10'	622	405	362.0	323.8	12-25.5	28.6	2	450	185	1024	1159	500
Class300												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
2'	267	165	127	92.1	8-19	20.7	2	304	140	599	634	200
2-1/2'	292	165	127	92.1	8-19	20.7	2	300	150	631	731	250
3'	318	210	168.3	127.0	8-22	27.0	2	303	155	703	743	250
4'	356	255	200	157.2	8-22	30.2	2	352	160	807	852	350
6'	445	320	269.9	215.9	12-22	35.0	2	350	170	957	1019	450
8'	559	380	330.2	269.9	12-25.5	39.7	2	400	185	1057	1137	600
10'	622	445	387.4	323.8	16-28.5	46.1	2	450	185	1201	1287	600
Class600												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H1	H2	D0
2'	292	165	127.0	92.1	8-19	25.4	7	300	140	629	664	250
2 1/2'	330	190	149.2	104.8	8-22	28.6	7	300	150	651	686	300
3'	356	210	168.3	127.0	8-22	31.8	7	350	155	740	779	350
4'	432	275	215.9	157.2	8-25.5	38.1	7	400	160	850	896	450
6'	559	355	292.1	215.9	12-28.5	47.7	7	450	170	1057	1118	560
8'	660	420	349.2	269.9	12-32	55.6	7	450	185	1198	1268	600
10'	787	510	431.8	323.8	16-35	63.5	7	450	185	1356	1441	700

CRYOGENIC CAST STEEL GLOBE VALVE

DJ40F(Y) -150Lb/300Lb/600Lb低温铸钢截止阀

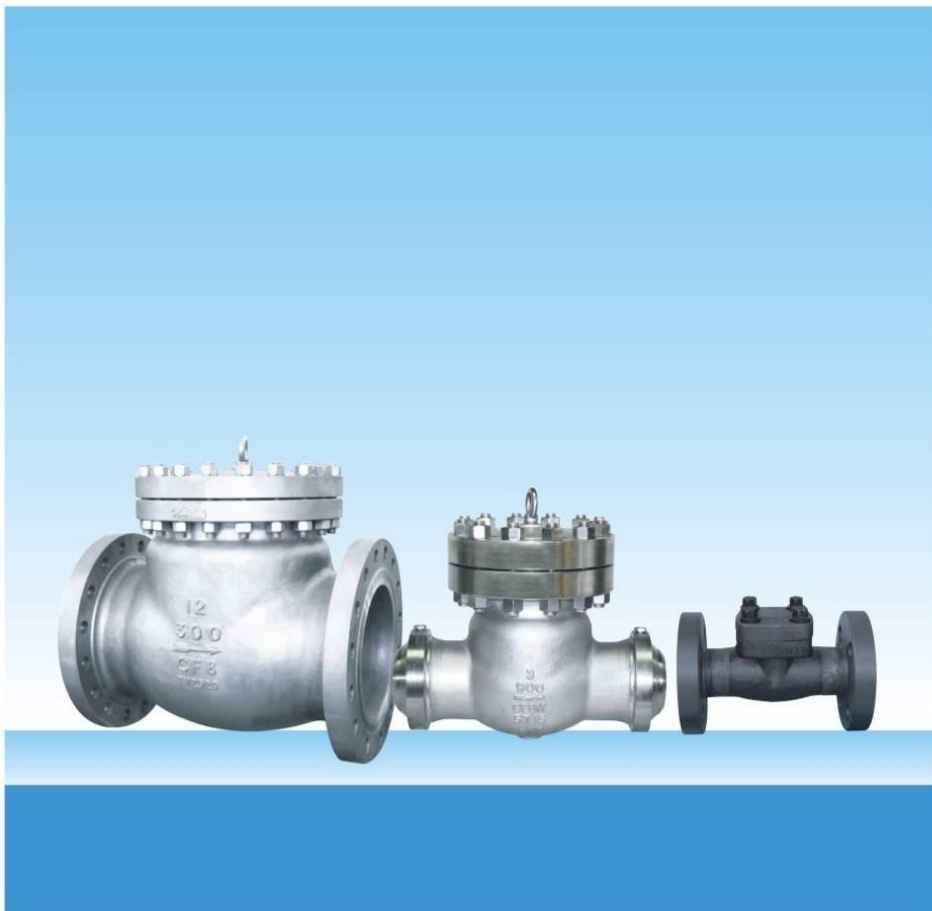


尺寸 Dimension

Class150												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H	D0	P
8'	495	345	298.5	269.9	8-22	27.0	2	450	185	1125	460	345
10'	622	405	362.0	323.3	12-25.5	28.6	2	450	185	1248	610	433
12'	699	485	431.8	381.0	12-25.5	30.2	2	500	190	1373	610	433
Class300												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H	D0	P
8'	559	380	330.2	269.9	12-25.5	39.7	2	400	185	1192	460	345
10'	622	445	387.4	323.3	16-28.5	46.1	2	450	185	1441	610	433
12'	711	520	450.8	381.0	16-32	49.3	2	500	190	1525	610	433
Class600												
NPS	L	O	W	R	n-Φ	tf	f	h1	h2	H	D0	P
8'	660	420	349.2	269.9	12-32	55.6	7	400	185	1326	710	530
10'	787	510	431.8	323.8	16-35	63.5	7	450	185	1441	710	580
12'	838	560	489.0	381.0	20-35	66.7	7	500	190	1704	800	610

Cryogenic Check
Valve Series
低温止回阀系列

15



CRYOGENIC CHECK VALVES OVERVIEW

低温止回阀概述

设计规范Design Specifications

项目 Item	应用规范 Applicable Specification
壁厚与通用阀门设定 Wall thickness and general valve design	API602(锻钢forged) Api 600(铸钢cast)
压力-温度等级 Pressure-Temperature rating	ASME B16.34
结构长度 Face-to-face dimensions	ASME B16.10
法兰设计 Flange design	ASME B16.5
对焊接设计 Butt welding design	ASME B16.25
低温阀门 Cryogenic valves	BS 6364

材料表Standard Materials

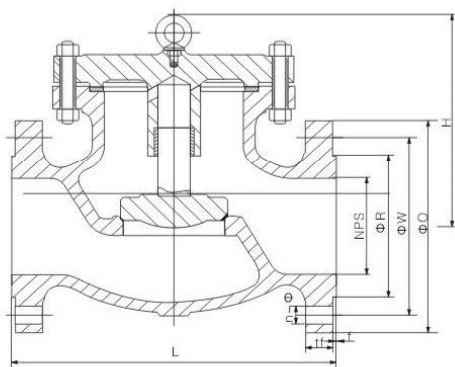
部位 Part	标准物料 Standard Materials	
	锻造 Forged	铸造 Forged
阀体 Body	316	CF8M
阀座 Seat	STL6	
铰接销 Hinge pin	316	
垫片 Gasket	GRSP+304	
螺钊 Cover stud	B8M	B8M
螺母 Cover nut	2H B8M	Gr.8M
盖 Cover	316	CF8M
垫圈 Washer	304	
阀瓣 Disc	316	CF8M
阀瓣支架 Disc hanger	CF8M	CF8M
阀瓣螺 Disc nut	Gr.8M	Gr.8M

材料表Standard Materials

部位 Part	标准物料 Standard Materials	
	锻造 Forged	铸造 Forged
阀体 Body	316	CF8M
阀座 Seat	STL6	
铰接销 Hinge pin	316	
垫片 Gasket	GRSP+304	
螺钊 Cover stud	B8M	B8M
螺母 Cover nut	2H B8M	Gr.8M
盖 Cover	316	CF8M
垫圈 Washer	304	
阀瓣 Disc	316	CF8M
阀瓣支架 Disc hanger	CF8M	CF8M
阀瓣螺 Disc nut	Gr.8M	Gr.8M

CRYOGENIC LIFT CHECK VALVE

DH41F(Y) -150Lb/300Lb/600Lb低温升降式止回阀

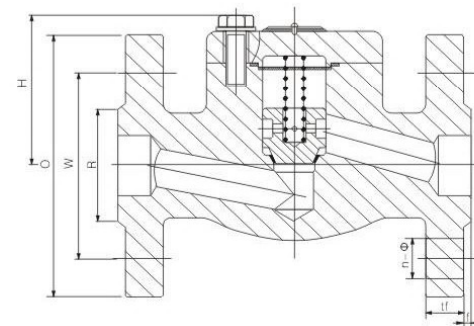


尺寸 Dimension

Class150								
NPS	L	O	W	R	n-Φ	tf	f	H
2'	203	150	120.7	92.1	4-19	14.3	2	160
2 1/2'	216	180	139.7	104.8	4-19	15.9	2	180
3'	241	190	152.4	127.0	4-19	17.5	2	185
4'	292	230	190.5	157.2	8-19	22.3	2	215
6'	406	280	241.3	215.9	8-22	23.9	2	245
8'	495	345	298.5	269.9	8-22	27.0	2	250
10"	622	405	362.0	323.8	12-25.5	28.6	2	300
12"	699	485	431.8	381.0	12-25.5	30.2	2	350
Class300								
NPS	L	O	W	R	n-Φ	tf	f	H
2'	267	165	269.9	92.1	8-19	20.7	2	175
2 1/2'	292	165	127.0	92.1	8-19	20.7	2	185
3'	318	210	127.0	127.0	8-22	27.0	2	215
4'	356	255	168.3	157.2	8-22	30.2	2	235
6'	445	320	200.0	215.9	12-22	35.0	2	300
8'	559	380	330.2	269.9	12-25.5	39.7	2	325
Class600								
NPS	L	O	W	R	n-Φ	tf	f	H
2'	292	165	127.0	92.1	8-19	25.4	7	290
2 1/2'	330	190	149.2	104.8	8-22	28.6	7	300
3'	356	210	168.3	127.0	8-22	31.8	7	330
4'	432	275	215.9	157.2	8-25.5	38.1	7	395
6'	559	355	292.1	215.9	12-28.5	47.7	7	430
8'	660	420	349.2	269.9	12-32	55.6	7	460

CRYOGENIC LIFT CHECK VALVE

DH41F(Y) -150Lb/300Lb/600Lb低温升降式止回阀

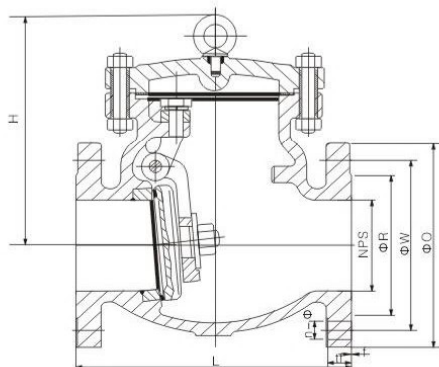


尺寸 Dimension

Class150								
NPS	L	O	W	R	n-Φ	tf	f	H
1/2"	108	90	60.3	34.9	4-16	8	2	63
3/4"	117	100	69.9	42.9	4-16	8.9	2	65
1"	127	110	79.4	50.8	4-16?	9.6	2	78
1 1/2"	165	125	98.4	73.0	4-16	12.7	2	104
2"	178	150	120.7	92.1	4-19	14.3	2	120
Class300								
NPS	L	O	W	R	n-Φ	tf	f	H
1/2"	152	95	66.7	34.9	4-16	12.7	2	63
3/4"	178	115	82.6	42.9	4-16	14.3	2	65
1"	203	125	88.9	50.8	4-16?	15.9	2	78
1 1/2"	229	155	114.3	73.0	4-22	19.1	2	104
2"	267	165	127.0	92.1	8-19	20.7	2	120
Class600								
NPS	L	O	W	R	n-Φ	tf	f	H
1/2"	165	95	66.7	34.9	4-16	14.3	7	63
3/4"	190	115	82.6	42.9	4-19	15.9	7	65
1"	216	125	88.9	50.8	4-19?	17.5	7	78
1 1/2"	241	155	114.3	73.0	4-22	22.3	7	104
2"	292	165	127.0	92.1	8-19	25.4	7	120

CRYOGENIC FORGED STEEL SWING CHECK VALVE

DH44F(Y)-150Lb/300Lb/600Lb超低温锻钢旋启式止回阀



尺寸 Dimension

Class150								
NPS	L	O	W	R	n-Φ	tf	f	H
2'	203	150	120.7	92.1	4-19	14.3	2	156
2 1/2'	216	180	139.7	104.8	4-19	15.9	2	168
3'	241	190	152.4	127.0	4-19	17.5	2	180
4'	292	230	190.5	157.2	8-19	22.3	2	217
6'	356	280	241.3	215.9	8-22	21.9	2	270
8'	495	345	298.5	269.9	8-22	27.0	2	310
10'	622	405	362.0	323.8	12-26	28.6	2	370
12"	699	485	431.8	381.0	12-26	30.2	2	440
14"	787	535	476.3	412.8	12-29	33.4	2	505
16"	864	595	539.8	469.9	16-29	35.0	2	540
18"	978	635	577.9	533.4	16-32	38.1	2	580
20"	978	700	635.0	584.2	20-32	41.3	2	680
24"	1295	815	749.3	692.2	20-35	46.1	2	740

CRYOGENIC FORGED STEEL SWING CHECK VALVE

DH44F(Y) -150Lb/300Lb/600Lb超低温锻钢旋启式止回阀

尺寸 Dimension

Class300								
NPS	L	O	W	R	n-Φ	tf	f	H
2'	267	165	127.0	92.1	8-19	20.7	2	175
2 1/2'	292	190	149.2	104.8	8-22	23.9	2	185
3'	318	210	168.3	127.0	8-22	27.0	2	215
4'	356	255	200.0	157.2	8-22	30.2	2	235
6'	445	320	269.9	215.9	12-22	35.0	2	300
8'	533	380	330.2	269.9	12-26	39.7	2	325
10'	622	445	387.4	323.8	16-29	46.1	2	380
12"	711	520	450.8	381.0	16-32	49.3	2	420
14"	838	585	514.4	412.8	20-32	52.4	2	450
16"	864	650	571.5	469.9	20-35	55.6	2	490
18"	978	710	628.6	533.4	24-35	58.8	2	555
20"	1016	775	685.8	584.2	24-35	62.0	2	573
24"	1346	915	812.8	692.2	24-41	68.3	2	725

尺寸 Dimension

Class600								
NPS	L	O	W	R	n-Φ	tf	f	H
2'	292	165	127.0	92.1	8-19	25.4	7	242
2 1/2'	330	190	149.2	104.8	8-22	23.6	7	255
3'	356	210	168.3	127.0	8-22	31.8	7	275
4'	432	275	215.9	157.2	8-26	38.1	7	315
6'	559	355	292.1	215.9	12-29	47.7	7	400
8'	660	420	349.2	269.9	12-32	55.6	7	470
10'	787	510	431.8	323.8	16-35	63.5	7	555
12"	838	560	489.0	381.0	20-35	66.7	7	620
14"	889	605	527.0	412.8	20-38	69.9	7	620
16"	991	685	603.2	469.9	20-41	76.2	7	670
18"	1092	745	654.0	533.4	20-44.5	82.6	7	750
20"	1194	815	723.9	584.2	24-44.5	88.9	7	970
24"	1397	940	838.2	692.2	24-51	101.6	7	1110