

DIN 浮动德标球阀

DIN Floating Standard Ball Valve

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开维喜阀门集团有限公司
Kaiweixi Valve Group Co., Ltd.

DIN 浮动德标球阀

型号: DIN

公称压力: PN16-PN64

适用温度: ≤450℃

连接方式: 法兰

其他参数: 制造标准按 DIN 3357

规格: DN15-DN250

适用介质: 水、气、油

阀体材质: 铸钢、不锈钢

驱动方式: 手动、电动、气动

DIN Floating Standard Ball Valve

Model: DIN

Nominal Pressure: PN16-PN64

Applicable Temperature: ≤450℃

End Connection : Flange

Other Parameters: Manufacturing standard according to DIN 3357.

Specifications: DN15-DN250

Applicable Media: water, gas, oil

Body Material: cast Steel, Stainless Steel

Operation: Manual, pneumatic, electric, gear

DIN 浮动德标球阀概述

DIN 浮动德标球阀是严格遵循德国工业标准（DIN）设计制造的工业阀门，采用浮动球结构。阀体通常采用铸钢、不锈钢或黄铜材质，球体在介质压力作用下可产生微量浮动位移，紧压出口端阀座形成自紧密封。其设计、尺寸及测试要求全面遵循 DIN 3202、DIN EN 1092-2 等相关规范，通过球体 90 度旋转实现快速启闭。该阀门与德标管道系统完全兼容，适用于水、蒸汽、油品及非腐蚀性介质，广泛应用于化工、能源、暖通及工业流体控制系统，是德标体系下经济可靠的通用截断设备。

DIN Floating Standard Ball Valve Overview

The DIN Floating Standard Ball Valve is an industrial valve designed and manufactured in strict compliance with German Industrial Standards (DIN), featuring a floating ball structure. The valve body is typically made of cast steel, stainless steel, or brass. Under the action of medium pressure, the ball can undergo slight floating displacement, pressing tightly against the outlet seat to form a self-sealing closure. Its design, dimensions, and testing requirements fully adhere to relevant standards such as DIN 3202 and DIN EN 1092-2. Quick opening and closing are achieved through a 90-degree rotation of the ball. This valve is fully compatible with DIN-standard pipeline systems and is suitable for water, steam, oil products, and non-corrosive media. It is widely used in chemical processing, energy, heating, ventilation, and industrial fluid control systems, serving as an economical and reliable general-purpose isolation device within the DIN standard system.



DIN 浮动德标球阀产品图

DIN Floating Standard Ball Valve Product Image

DIN 浮动德标球阀特点

1. 严格 DIN 标准符合性：设计制造全面遵循 DIN 3202、DIN EN 1092-2 等标准，法兰尺寸、压力等级与德标管道系统完全匹配。
2. 浮动球自紧密封：利用介质压力实现球体与阀座的自动压紧密封，结构简单可靠，密封性能好。
3. 操作轻便启闭迅速：90 度旋转即可实现全开或全关，流阻小，操作扭矩低，可配置手动或执行机构。
4. 经济实用维护简便：结构简单，制造成本低，密封件更换方便，维护成本低，性价比高。
5. 适用范围广泛：适用于常规温度压力范围的多种工业介质，与德标及国际标准管道兼容性好，通用性强。

DIN Floating Standard Ball Valve Features

1. Strict Compliance with DIN Standards:

The design and manufacturing fully adhere to standards such as DIN 3202 and DIN EN 1092-2, ensuring complete compatibility with German standard pipeline systems in terms of flange dimensions and pressure ratings.

2. Floating Ball Self-Sealing Design:

Utilizes medium pressure to automatically compress the ball against the seat, creating a reliable seal. The simple and robust structure ensures excellent sealing performance.

3. Lightweight Operation and Quick Opening/Closing:

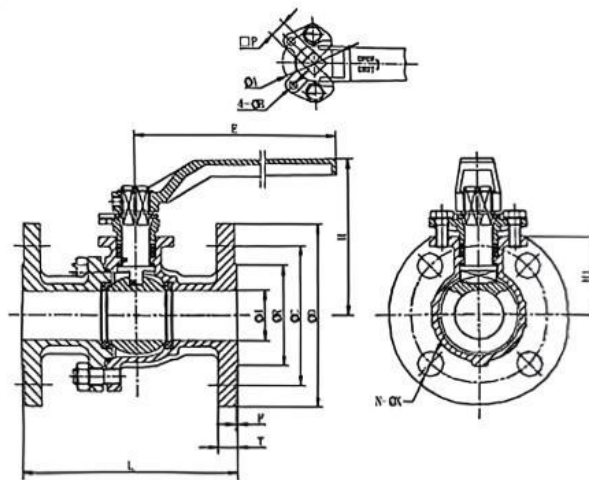
Full opening or closing is achieved with a 90-degree rotation. The valve features low flow resistance and low operating torque, and can be configured for manual or actuator operation.

4. Cost-Effective and Easy Maintenance:

The simple structure results in low manufacturing costs, while sealing components are easy to replace, ensuring low maintenance costs and high cost-effectiveness.

5. Wide Range of Applications:

Suitable for a variety of industrial media within conventional temperature and pressure ranges. It offers excellent compatibility with German and international standard pipelines, making it highly versatile.



DIN 浮动德标球阀结构图

DIN Floating Standard Ball Valve Structure Diagram

零部件名称材料表

Parts Name Material List

序号 NO.	名称 Name	材料 Material
1	阀体 body	铸钢、不锈钢 cast Steel, Stainless Steel
2	球体 ball	铸钢、不锈钢 cast Steel, Stainless Steel
3	密封垫 seal gasket	PTFE、VITON
4	填料 packing	柔性石墨 Flexible Graphite、PTFE
5	阀杆 stem	铸钢、不锈钢 cast Steel, Stainless Steel

性能规范表 Performance Specification

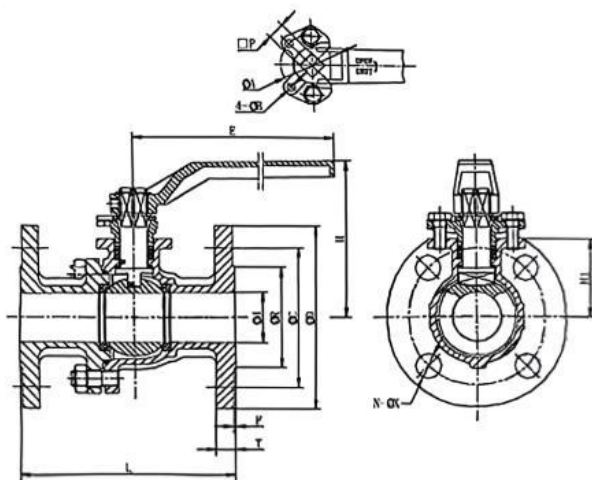
公称压力 Nominal Pressure	1.6-6.4	Mpa
强度试验压力 Shell Test	2.4-9.6	
密封试验压力 Seal Test	1.76-7.04	
适用温度 Suitable Temp.	450	℃

外形尺寸标准要求

- 1、阀门的结构长度按 DIN 3202 的标准
- 2、连接法兰按 DIN EN 1092 的标准

Dimensions Standard Requirements

1. The structural length of the valve shall conform to the standard DIN 3202.
2. The connecting flange shall conform to the standard DIN EN 1092.



DIN 浮动德标球阀外形图

DIN Floating Standard Ball Valve View Drawing

DIN 浮动德标球阀外形尺寸表

DIN Floating Standard Ball Valve Dimensions Table

Size	PN	d	L	R	C	D	H	H1	E	F	T	□P	ø A	ØB	N	ØX	ISO 5211
DN15	10-40	15	115	45	65	95	78	34	150	2	14	11	42	4	4	14	F04
DN20	10-40	20	120	58	75	105	80	35	150	2	16	11	42	4	4	14	F04
DN25	10-40	25	125	68	85	115	88	45	150	2	16	11	42	4	4	14	F04
DN32	10-40	32	130	78	100	140	100	50	170	2	16	14	50	5	4	18	F05
DN40	10-40	38	140	88	110	150	122	60	230	3	16	17	70	6	4	18	F07
DN50	10-40	50	150	102	125	165	130	68	230	3	18	17	70	6	4	18	F07
DN65	10-16	65	170	122	145	185	148	86	230	3	18	17	70	6	4	18	F07
DN80	10-16	78	180	138	160	200	167	96	305	3	20	22	102	8	8	18	F10
DN100	10-16	100	190	158	180	220	188	117	305	3	20	22	102	8	8	18	F10
DN125	10-16	125	325	188	210	250	246	141	500	3	22	22	125	10	8	18	F12
DN150	10-16	150	350	212	240	285	288	172	650	3	22	27	125	10	8	22	F12

DN200	10-16	200	400	268	295	340	329	213	850	3	24	27	125	10	12	22	F12
DN250	10-16	250	450	320	355	405	396	255	1400	3	26	36	140	14	12	26	F14

DIN 浮动德标球阀安装、使用与维护说明

安装指南

- 1. 安装前准备：**核对阀门型号、压力等级（PN）、法兰标准及阀体材质是否符合 DIN 标准和管道设计要求。清洁阀门内腔及管道法兰密封面，确保无杂质。
- 2. 法兰连接与紧固：**使用符合 DIN 标准的垫片及螺栓螺母。将阀门置于管道法兰之间，确保阀体流向箭头与介质流向一致。按 DIN 规范要求的对角线顺序分步、均匀拧紧所有螺栓至规定扭矩。
- 3. 安装方向：**阀门可安装于水平或垂直管道，推荐阀杆垂直向上安装。若垂直安装需确保执行机构固定可靠。
- 4. 系统初步测试：**安装后手动操作阀门全行程数次，确认启闭顺畅无卡阻。缓慢开启上游阀门，检查连接处有无泄漏。
- 5. 压力测试：**阀门参与管道系统压力试验，试验压力需符合 DIN EN 12266 等规范，试验后复查密封性。

使用操作

- 1. 启闭操作：**通过手柄或执行器进行 90 度旋转操作。操作应平稳到位，达到全开或全关位置时停止，避免强行过位操作。
- 2. 状态确认：**通过手柄位置指示器或执行器反馈信号明确判断阀门开关状态。关键管线建议设置状态标识牌。
- 3. 常规运行：**本阀门用于全开或全关闭断，不应用于流量调节。长期全开运行时，建议定期进行全行程开关操作以保持阀座弹性。
- 4. 注意事项：**带压操作时若感觉扭矩异常增大，应立即停止并检查系统压力是否超标或阀门是否有卡阻现象。

维护保养

- 1. 定期检查：**定期检查法兰连接处有无泄漏，阀体表面有无异常腐蚀或损伤。检查所有外部紧固件是否松动。
- 2. 阀座密封维护：**若阀门出现轻微内漏，可能是阀座密封面磨损或杂质附着。可在系统泄压后尝试清洗阀座区域，若无效则需更换阀座密封件。
- 3. 阀杆填料维护：**若阀杆处出现外漏，可均匀适度拧紧填料压盖螺母。若无效或泄漏严重，需在系统泄压后更换填料。
- 4. 内部检修：**需拆卸阀门内部时，应先确认系统已完全泄压。检查浮动球体与阀座密封面磨损情况，必要时更换密封件。注意球体与阀杆连接状态。

5. 长期停用：阀门长期存放应处于全开或全关状态，对阀杆及外露金属表面采取防锈措施。重新启用前需进行压力测试和操作灵活性检查。

Installation, Operation, and Maintenance Instructions for DIN Floating Standard Ball Valve

Installation Guide

1. Pre-Installation Preparation

Verify that the valve model, pressure rating (PN), flange standards, and body material comply with DIN standards and pipeline design requirements. Clean the internal cavity of the valve and the sealing surfaces of the pipeline flanges to ensure they are free from contaminants.

2. Flange Connection and Tightening

Use gaskets, bolts, and nuts compliant with DIN standards. Position the valve between the pipeline flanges, ensuring the flow direction arrow on the valve body aligns with the medium flow direction. Gradually and evenly tighten all bolts to the specified torque in a diagonal sequence as required by DIN standards.

3. Installation Orientation

The valve can be installed in horizontal or vertical pipelines. It is recommended to install the valve with the stem oriented vertically upward. For vertical installation, ensure the actuator is securely fixed.

4. Preliminary System Testing

After installation, manually operate the valve through its full stroke several times to confirm smooth opening and closing without jamming. Slowly open the upstream valve and inspect all connections for leaks.

5. Pressure Testing

The valve must participate in the pipeline system's pressure test. The test pressure must comply with DIN EN 12266 and other relevant standards. After testing, recheck the sealing performance.

Operation Instructions

1. Opening and Closing Operations

Operate the valve by rotating it 90 degrees using a handle or actuator. The operation should be smooth and precise, stopping once the fully open or fully closed position is reached. Avoid over-torquing or forcing the valve beyond its limits.

2. Status Confirmation

Confirm the valve's open or closed status using the handle position indicator or actuator feedback signal. For critical pipelines, it is recommended to install status identification plates.

3. Normal Operation

This valve is designed for on/off isolation and should not be used for flow regulation. If the valve remains fully open for extended periods, perform periodic full-stroke opening and closing operations to maintain seat elasticity.

4. Precautions

If abnormal torque increase is felt during pressurized operation, stop immediately and check whether the system pressure exceeds limits or if the valve is jammed.

Maintenance

1. Regular Inspections

Periodically inspect flange connections for leaks and check the valve body surface for abnormal corrosion or damage. Ensure all external fasteners are secure and not loose.

2. Seat Seal Maintenance

If minor internal leakage occurs, it may be due to wear of the seat sealing surface or contamination. After depressurizing the system, attempt to clean the seat area. If leakage persists, replace the seat seal.

3. Stem Packing Maintenance

If external leakage occurs at the stem, evenly and moderately tighten the packing gland nut. If ineffective or if leakage is severe, replace the packing after depressurizing the system.

4. Internal Inspection

Before disassembling the valve internals, ensure the system is fully depressurized. Inspect the wear condition of the floating ball and seat sealing surfaces, and replace seals if necessary. Pay attention to the connection between the ball and the stem.

5. Long-Term Storage

For long-term storage, the valve should be in the fully open or fully closed position. Apply anti-rust measures to the stem and other exposed metal surfaces. Perform pressure testing and operational flexibility checks before returning the valve to service.

非常感谢您的阅读！

Thank you very much for reading!

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