

DIN 德标铸钢法兰球阀

DIN Standard Cast Steel Flanged Ball Valve

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开 维 喜 阀 门 集 团 有 限 公 司
Kaiweixi Valve Group Co., Ltd.

DIN 德标铸钢法兰球阀

型号: DIN

规格: DN15-DN500

公称压力: PN16-PN64

适用介质: 水、气、油

适用温度: -29-150℃

阀体材质: 铸钢

连接方式: 法兰

驱动方式: 手动、电动、气动

其他参数: 制造标准按 DIN 3352.

DIN Standard Cast Steel Flanged Ball Valve

Model: DIN

Specifications: DN15-DN500

Nominal Pressure: PN16-PN64

Applicable Media: water, gas, oil

Applicable Temperature: -29-150℃

Body Material: cast Steel,

End Connection : Flange

Operation: Manual, pneumatic, electric ,gear

Other Parameters: Manufacturing standard according to DIN 3352.

DIN 德标铸钢法兰球阀概述

DIN 德标铸钢法兰球阀是严格按照德国工业标准（DIN）体系设计制造的工业阀门，采用铸钢阀体与标准法兰连接。其设计、尺寸、压力等级及材料要求全面遵循 DIN 3202、DIN EN 1092 等相关规范，阀体通常采用碳钢或不锈钢铸造，采用浮动球或固定球结构，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，广泛适用于化工、能源、水处理及机械设备等工业领域，是德标体系下可靠的中高压流体控制设备。

DIN Standard Cast Steel Flanged Ball Valve Overview

The DIN Standard Cast Steel Flanged Ball Valve is an industrial valve designed and manufactured in strict compliance with the German Industrial Standards (DIN) system. It features a cast steel body with standard flange connections. Its design, dimensions, pressure ratings, and material requirements fully adhere to relevant DIN standards, including DIN 3202 and DIN EN 1092. The valve body is typically cast from carbon steel or stainless steel and employs a floating or fixed ball structure, enabling rapid opening and closing through a 90-degree rotation of the ball. This valve is fully compatible with DIN-standard pipeline systems and is widely applicable across industrial sectors such as chemical processing, energy, water treatment, and machinery equipment. It serves as a reliable medium-to-high-pressure fluid control device within the DIN standard system.



DIN 德标铸钢法兰球阀产品图

DIN Standard Cast Steel Flanged Ball Valve Product Image

DIN 德标铸钢法兰球阀特点

1. 严格 DIN 标准符合性：设计制造全面遵循 DIN 3202、DIN EN 1092 等标准，法兰尺寸、压力等级（PN 系列）与德标管道系统无缝对接。
2. 铸钢阀体强度可靠：采用精密铸造工艺，阀体结构致密，机械性能优良，适用于中高压工业工况。
3. 密封性能优良：提供软密封（PTFE 等）与金属硬密封选项，密封可靠，满足水、蒸汽、油品及温和腐蚀性介质需求。
4. 操作维护简便：90 度启闭操作轻便，部分型号配备防火防静电设计。结构便于拆卸，维护成本低。
5. 兼容性与适用范围广：法兰接口兼容德标及部分国际标准，广泛适用于工业管道、机械设备及欧洲标准项目，通用性强。

DIN Standard Cast Steel Flanged 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, ensuring seamless integration with German standard pipeline systems in terms of flange dimensions and pressure ratings (PN series).

2. Reliable Strength of Cast Steel Body:

The valve body is produced using precision casting technology, ensuring a dense structure and excellent mechanical properties, making it suitable for medium- to high-pressure industrial applications.

3. Excellent Sealing Performance:

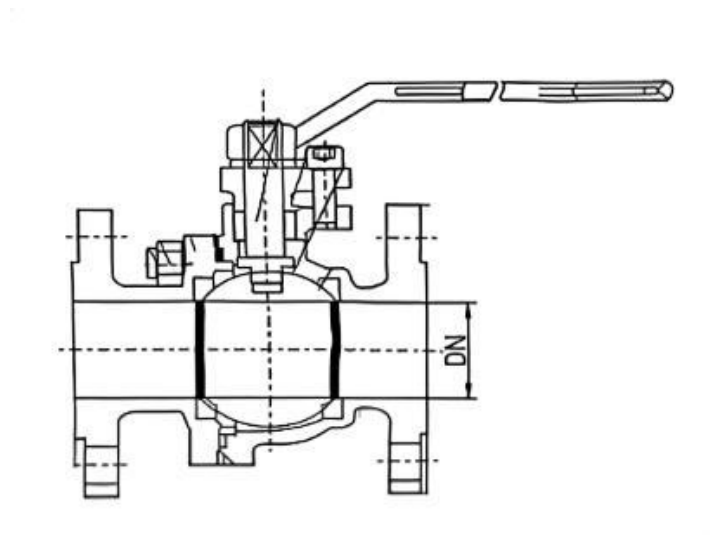
Offers both soft seal (e.g., PTFE) and metal hard seal options, providing reliable sealing for water, steam, oil products, and mildly corrosive media.

4. Easy Operation and Maintenance:

The valve is lightweight and easy to operate with its 90-degree opening and closing mechanism. Some models are equipped with fire-safe and anti-static designs. The structure is designed for easy disassembly, resulting in low maintenance costs.

5. Wide Compatibility and Application Range:

The flange connections are compatible with German standards and some international standards, making the valve widely applicable in industrial pipelines, mechanical equipment, and European standard projects, with strong versatility.



DIN 德标铸钢法兰球阀结构图

DIN Standard Cast Steel Flanged 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 Cast Steel
2	球体 ball	铸钢 Cast Steel
3	密封垫 seal gasket	RPTFE
4	填料 packing	RPTFE
5	阀杆 stem	13CR

性能规范表 Performance Specification

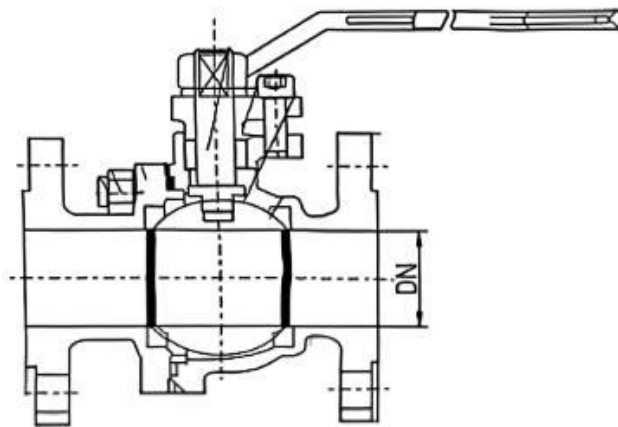
公称压力 Nominal Pressure	1.6-6.4	Mpa
强度试验压力 Shell Test	2.4-9.6	
密封试验压力 Seal Test	1.76-7.04	
适用温度 Suitable Temp.	150	℃

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 德标铸钢法兰球阀外形图

DIN Standard Cast Steel Flanged Ball Valve View Drawing

DIN 德标铸钢法兰球阀外形尺寸表

DIN Standard Cast Steel Flanged Ball Valve Dimensions Table

DN	L(F4)	LIF5)	D	D ₁	D ₂	b	Z-Φd	H	Li
15	115	•	95	65	46	14	4-14	118	118
20	120	•	105	75	56	16	4-14	125	125
25	125	120	115	85	65	16	4-14	135	135
32	132	140	140	100	76	18	4-18	150	150
40	140	240	150	110	84	18	4-18	135	165
5Q	150	250	165	125	9	20	4-18	200	200
65	170	270	185	145	118	22	8-18	220	220
80	180	280	200	160	182	24	8-18	230	230
100	180	300	235	190	166	24	8-22	270	270
125		325	270	220	184	26	8-26	305	306
150		350	300	250	211	28	8-26	390	390
200		400	360	310	274	30	12-26	430	430
250		450	425	370	330	32	12-30	480	650
300		500	465	430	389	34	16-30	480	550

DIN 德标铸钢法兰球阀安装、使用与维护说明

1. 安装前准备：核对阀门型号、压力等级（PN）、法兰标准（如 DIN EN 1092-2）及阀体材质是否符合管道设计要求。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. 焊接端连接（如适用）：若为对焊端阀门，需由合格焊工按焊接工艺规程施焊。焊接时阀门应处于全开位置，并采取阀体冷却措施。
5. 系统压力测试：阀门安装后参与管道系统压力试验。试验压力需符合 DIN EN 12266 等规范，试验后检查所有连接处有无泄漏。

使用操作

1. 启闭操作：通过手柄、齿轮箱或执行器进行 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，可尝试通过阀座注脂阀（如配备）注入适量密封脂。若内漏持续，需安排离线检修。
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。检查球体与阀座密封面磨损情况，必要时更换密封件。注意浮动球与阀杆连接状态。
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 Standard Cast Steel Flanged Ball Valve Installation Guide

1. Pre-Installation Preparation

Verify that the valve model, pressure rating (PN), flange standard (e.g., DIN EN 1092-2), and body material comply with the 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. Welded-End Connection (If Applicable)

For butt-weld end valves, welding must be performed by a qualified welder following approved welding procedures. The valve must be fully open during welding, and cooling measures should be applied to the valve body.

5. System Pressure Testing

After installation, 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, inspect all connections for leaks.

Operation Instructions

1. Opening and Closing Operations

Operate the valve by rotating it 90 degrees using a handle, gearbox, 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, attempt to inject an appropriate amount of sealing grease through the seat injection valve (if equipped). If leakage persists, schedule offline maintenance.

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 ball and seat sealing surfaces, and replace seals if necessary. Pay attention to the connection between the floating 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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