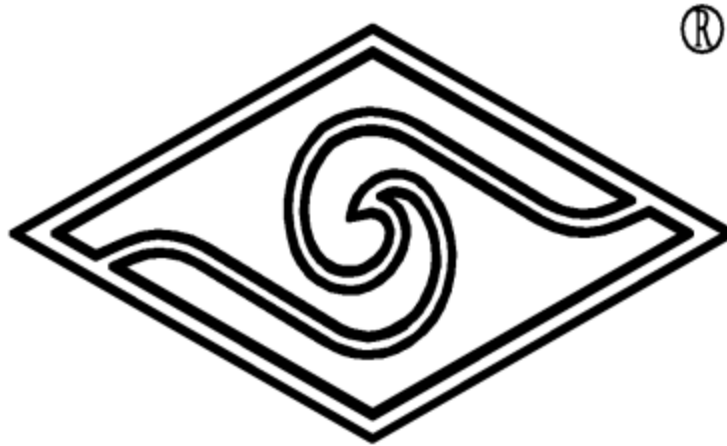




济南玫德铸造有限公司
JINAN MEIDE CASTING CO., LTD.

Installation & Maintenance Instructions

Grooved Butterfly Valve



Jinan Meide Casting Co., Ltd.



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1. Product Review

1.1 Application:

Butterfly valve serve to cut off medium flow in the piping system, widely applied in systems of water supply, fire protection, etc., and it can also serve as adjusting valve.

1.2 Product Feature

- a) Compact Design and light weight, less use of bolts and nuts, easy for installation and maintenance, perfect choice for work areas with space constraints;
- b) Linear flow characteristic, good flow adjusting capability;
- c) Long service life, with open and shut-off cycling up to 10,000 times;
- d) With different material options for the valve parts the valve can be applied under different working conditions.
- e) Fusion bonded epoxy coating both interior and exterior surface provide reliable corrosion resistance.

2. Technical Parameters

2.1 Guiding Standards:

2.1.1 Design Standards:

MSS SP-67 Butterfly Valves

2.1.2 Groove Dimension:

AWWA C606 Grooved and Shouldered Joints;

ISO 6182 Fire protection — Automatic sprinkler systems —Part 12: Requirements and test methods for grooved-end components for steel pipe systems

2.1.3 Face to Face dimension:

MSS SP-67, Table 4;

2.1.4 Pressure Testing:

Tightness Test: 1.1 times of rated working pressure;

Shell Test: 1.5 times of rated working pressure

2.2 Model Designation



Des.	Model No.	Pressure Rating	Size Designation (DN)	Working Temperature
Grooved Butterfly Valve, c/w indicating flag, without tamper switch	D381X4-300	300PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-250	250PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-200	200PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-175	175PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-PN16	300PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-PN10	300PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
Grooved Butterfly Valve, c/w indicating flag & tamper switch	D381X4-300	300PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-250	250PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-200	200PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-175	175PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-PN16	300PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C
	D381X4-PN10	300PSI	50,65,76.1,80,100,125,139.7,150,165.1,200,250,300	0~-80°C

2.3 Statement of Connection

2.3.1 The valves are designed to be connected to the piping system with couplings;

2.3.2 The valves can be operated in lever handle, gear box, gear box with tamper switch, electrical actuator, pneumatic actuator, etc.

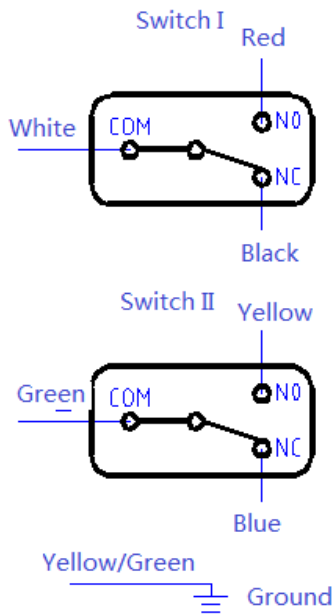
2.4 Material Specification

Part No.	Part	Material Specification
1	Valve Body	Ductile Iron ASTM A536, 65-45-12
2	Disc	Ductile Iron ASTM A536, 65-45-12+EPDM
3	Stem	SS431, 420, 304, 316, 416

3. Supervisory Switch

3.1 Power Instructions: 5A 250VAC

3.2 Wiring Instructions



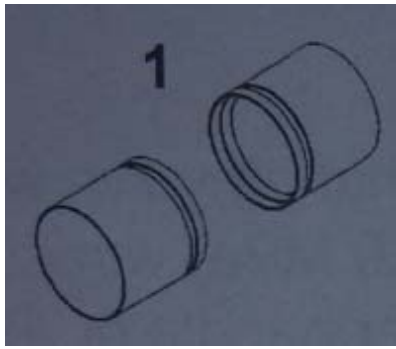
3.3 Application Environment

Both indoor and outdoor.

4. Installation & Application

4.1 Installation

- a) Check carefully the working conditions to make sure that the valve is suitable to work under the specified working condition;
- b) Be careful when open the crate to avoid damage to the valve or valve part; Check if the valve parts are complete;
- c) Observe and feel with hand the grooving area of the valve, piping and coupling to check if there is burs, cracking or damage, clear out the debris;
- d) Lubricate the coupling gasket and place over the adjoining pipe or fittings; make sure that the gasket is with even tension around the pipe.
- e) Make sure that the disc is under closed condition, so that the impurities will not fall on the valve seating and block the seating surface;
- f) Open and close the valve to the full position to check if it's operating and functioning well.
- g) Illustration of installation procedures:



Piping checking



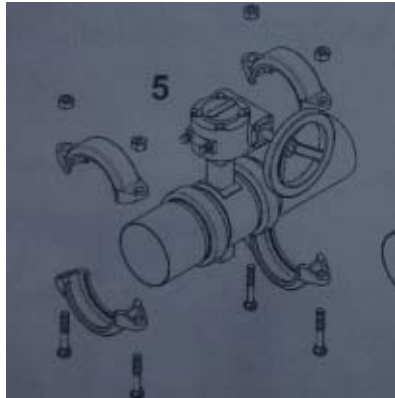
Gasket checking and lubrication



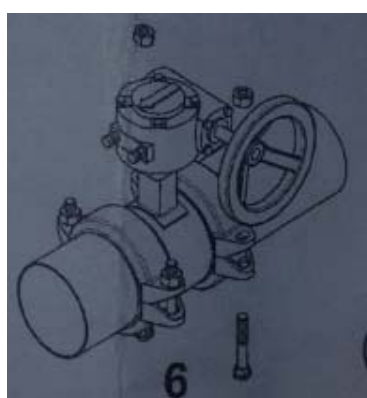
Install gasket



Connection of valve and piping with gasket



Coupling installation



Tightening of bolts and nuts



Installation completed

4.2 Application

- a) Make sure that the flow medium through the valve does not contain hard particles

which might cause damage to the sealing surface.

- b) The valves should be handled carefully to avoid breakage and damage to the valve parts.
- c) Make sure that the disc in open position when doing piping system pressure test.
- d) For butterfly valves with bypass, open the bypass first before opening of the valve.
- e) If the valve is heavy, prepare support first before installation

5. Problems and Proposed Solutions

Possible Problems	Possible Causes	Proposed Solutions
Sealing Surface leakage	1. debris lodged in the waterway around the seating area; 2. Sealing surface damaged; 3. Sealing surface worn out during operation	1. Clear out the impurities; 2. Change valve seat; 3. Change valve seat;
Lever handle not flexible or disc not able to open or close well.	1. Stem is damaged or there is impurities around stem; 2. Stem get crooked;	1. Check the stem area and remove the impurities; 2. Change for a new stem

6. Care & Maintenance

- a) These valves should be stored in cool and dry environment, with the two ends well protected from entering of impurities; When the valves are on storage for more than 6 months, check every 6months the condition of the valves;
- b) Disc of the butterfly valves are designed to be installed aligned with the diameter of the pipelines. The discs are operated 0~90° axially around the stem, and when it turns 90°, the valves come to fully open position.
- c) For manual operation, the valve opens when operates anti-clockwise and the valve closes when operates clockwise; for operation with electric actuator, need to follow the instruction of the actuator.