

DOUBLE FLANGED BUTTERFLY VALVES SERIES 2E3

Operating And Maintenance Instruction For Eccentric Double Flanged Butterfly Valves Series 2E3

1. Brief Introduction

This product is used for throttling and adjusting flow volume in supply and drainage pipeline system.

2. Product Description

This kind of product is a kind of wafer or flange type eccentric butterfly valve manufactured by our factory that is installed between flanges. Valve stem rotates in vertical direction. It is designed according to ASME B16.34-1996, BS 5155 or DIN 3354 standard.

The name and material of the main spare parts as follows:

| Materials Spare parts | Germany | American | England |
|--------------------------|-------------------------------------------|----------------------------------|-------------------------------------------------|
| Body Disc | GG GGG 1.0619 | CI DI WCB | GI DI 161 Grade 480E |
| Shaft | 1.4021 1.4301 1.4401 | 420 304 316 | Gr 420 S29 Gr 304 S15 Gr S16 S16 |
| Seat | NBR EPDM 1.4541 1.4301 1.4021 | NBR EPDM 321 304 420 | NBR EPDM Gr321S12 Gr304S15 Gr420S29 |

3. Storage, Maintenance, Installation and Operation

Storage and Maintenance

Valve should be stored in dry and ventilated room, and the passage should be protected from the contamination entering inside of the body.

Valve that will be stored for a long time should be checked, cleaned and painted anticorrosive oil on the machined surface termly.

If the time of storage is longer than 18 months, valve should be checked completely to ensure the integrality of the structure and functions. And the record is also required.

When valve is storing, the disc should keep open by 5-10 degree.

Valve having been stored for a long time should be checked and maintained before being installed. Especially for the following points:

- Sealing surface
- Valve stem and stem nut
- Packing
- Whether there is contamination in the body and bonnet.

Installation

Before being installed, check the tab (e.g. valve style, nominal diameter, pressure, and material, etc.) and make ensure it is in accordance with the requirement.

Before being installed, check carefully the passage and sealing surface. If there is any contamination, clean them immediately. Before being installed, check the screw is tightened closely or not. Before being installed, check the packing is tightened closely or not and the shaft should rotate flexibly.

Often closed valve isn't fitting for installed in a place where the working pressure changes frequently in order to shaft tired. Valve should be installed in a natural status to prevent the valve from larger installation pressure due to pipeline and stand. After installation, valve must be fully opened when testing the pressure of the pipe system.

Operating and Usage

When opening or closing valve, use hand wheel instead of assistant lever or other tools. The working pressure shouldn't exceed the maximum permissible pressure at the range of working temperature. Ensure the instantaneous pressure of pipeline can't exceed 1.1 times of the maximum permissible pressure at working temperature within the range of working temperature. The safe setting should be installed inside the pipe to prevent the working pressure from exceeding the maximum permissible pressure within the range of working temperature. Replacing packing under pressure status is not allowed.

Take measures to eliminate and limit the valve damage and leakage because of pipeline shaking acutely for a long time.

The valve can't be used when the corrosiveness of the medium exceeds the anti-corrosiveness performance of valve material.

Check the following sealing surface termly (every 6 months in normal case):

| | |
|-------------------|---------|
| ITEM | Leaking |
| Flange connection | zero |
| Packing seal | zero |

Valve sealing ring acc. to technical standard

Check termly the status of sealing surface's abrasion, life and packing invalidation. If anything wrong with them, maintain and replace in time are required. After maintenance, valve should be re-mounted and debugged, then check the sealing surface and make a record. Check and maintain termly every 12 months.

4. The possible problems, the reasons and the measures to be taken as follows:

| Problem description | Reasons | Measures |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Leakage on sealing surface | 1. Dirt and sundries on sealing surface. 2. Scratch and wear-out of sealing surface. 3. The close position of the sealing surface is not accurate. | 1. Eliminate the dirt and sundries. 2. Repair or replace sealing pieces. 3. Adjust the limited bolt of actuation. |
| Leakage on the packing of shaft | 1. The screw on packing gland isn't fastened tightly. 2. The packing is not enough. | 1. Fasten the screw. 2. Add packing. |

Note: The maintainer should have relative knowledge and experience.

5. Warranty: 12 months from ex-works.

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