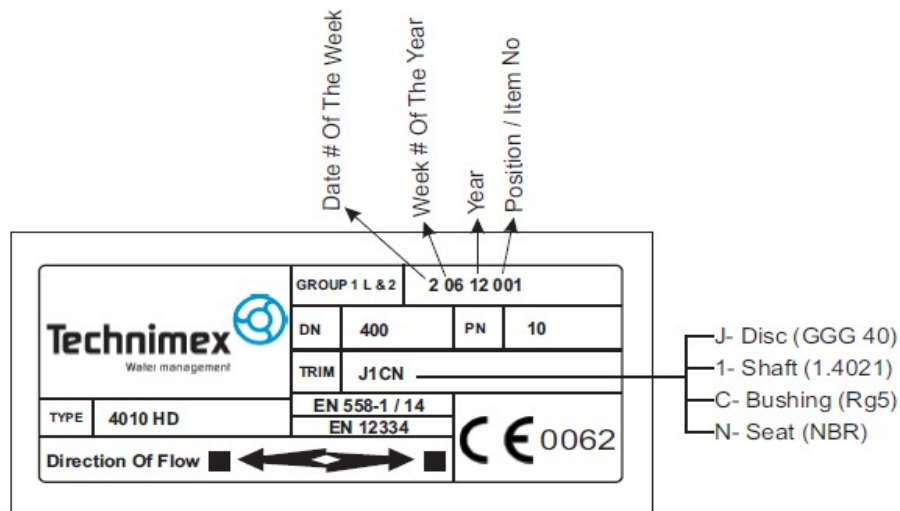


INSTALLATION & MAINTENANCE MANUAL TYPE 2010 DOUBLE FLANGED DOUBLE ECCENTRIC BUTTERFLY VALVE

1-Product Description

Type 2010 is a uni-directional butterfly valve with double eccentric design, resilient seated and tightly closing. A valve disc is connected to the body with a shaft which connects to the actuator. Tight closure is achieved by the stainless steel welded seat in the body. The travel between open and closed position is limited by means of the operating gear. Normally, the valve closes in clockwise direction. Anti-clockwise closing is on request.

2-Identification



3- Seat Selection

<i>ELASTOMER TYPE</i>	<i>CODE</i>	<i>APPLICATIONS</i>
EPDM	E	Air, water, ethyl alcohol, sugar industry, Ammonium weak acids, Hot water (-30°C +130°C)
HEAT EPDM	E1	Hot water steam (Refer to EPDM) (-30°C +145°C)
NEOPRENE	C	Alkali acids, Acids base (-40°C +95°C)
NBR / BUNA-N®	N	Gasoline, Diesel oil, Vegetable oils, Machine oils, Natural gas Sea Water, Synthetic thinner (-30°C +90°C)
VITON® / FKM	V	Acid, Detergant, Water, Steam, Vegetable oils (-30°C +200°C)
HYPALON	H	Petroleum, Hidroxides, Alcohol, Alkali (-30°C + 135°C)
SILICONE	S	Vegetable oils, Water, Steam (-55°C +175°C)
Natural Rubber / NR	R	Abrasion resistance, cement, sand, lime stone etc. (-25°C +85°C)

Note: These temperatures are displayed only for the valve seat.

Please check also the temperature for other valve parts of the valve plus actuator

4-Safety Instructions

The same safety requirements apply both for the valve and the actuator as well as for the pipeline in which the valve is installed. The instructions in this manual provide safety instructions only for the valves.

The customer may not change or modify the valve or mounting parts/fittings that are supplied with the valve. The manufacturer is not liable for any damage when the valve is not installed according to these instructions.

The valves should be used according to general accepted technical rules. No valve should be in operation at temperatures or pressures which differ from the valve's specification. The valve specifications, such as operating temperatures and pressures, are described in the quality documentation or may be written in the order confirmation.

The manufacturer may give approval to using the valve in other conditions after thorough consultation and or testing.

The customer should be aware that all parts of the valve coming in contact with the medium are suitable for that medium. The manufacturer will not be liable for damages resulting from corrosion caused by the medium, see 'seat selection table' above.

5-Transportation and Storage

Butterfly valves have to be handled, transported, and stored carefully:

- The butterfly valves should be transported and stored with the disc in closed position.
- The butterfly valve should be transported and stored in its original protective package until the valve is installed.
- The valves should be stored at roofed locations and need to be protected against contaminations, solar radiation or moisture. The valves must also be protected against dirt and damagings on the building site. The sealing ring should not be exposed to direct light and the disc seat should also kept clean from debris. The valve (disc and seat) should be cleaned before installation.
- Valves should not rub together or come into contact with metal surfaces during transportation. This should be taken into account when the valves are packed for transportation.
- Damages occurred during loading and unloading of the valves are not covered by the warranty.

6- Installation in the line

- Before the installation, remove all packing material. Please leave enough space for easy installation and maintenance. The customer should protect the valve against weather conditions in case of outdoor installation.
- If the valve has been stored for a long time, lubricate the body seat area and open and close the valve once.
- Supply connection flanges matching to valve pressure ratings.
- For flange gaskets we advise steel reinforced elastomer gaskets, type 8000 from Asteknik.
- Weld the flanges appropriately to the face to face dimensions of the valve but parallel to the pipeline.
- Install the butterfly valve between the two flanges according to the flow direction.
- Please check the flow direction on the valve type shield. Preferred installation is, when the valve is closed, that the higher pressure side is on the shaft side of the disc.
- Put the gasket, with suitable flange connection, between the flanges and tighten them by bolts.

7- Maintenance

Type 2010 is equipped with maintenance free bearings. Gearbox stem and gearbox bearing have longterm lubricating properties.

Before taking the valve in use, the valve should be closed and the pipe section should be unpressurized.

- Check the external condition of the valve including the gear box or any type of actuator.
- When necessary clean the valve and check tightness at the flanges.
- Check the operation of the valve and the actuator. Move valve manually.
- Close the valve, check seat tightness.
- Check the pressure drop upstream and downstream of the valve.

8- Bolt tightening torques

When replacing the disc seat please apply the torques as listed below and tighten the bolts in a sequence as displayed in the image.

Retaining ring bolt torques				
M6	M8	M10	M12	M16
5 - 8 Nm	12 - 15 Nm	20 - 25 Nm	35 - 40 Nm	80 - 90 Nm

