PROCESSTECHNIK GMBH
Germaniastraße 28
D 44379 Dortmund
Telefon: +49 (0)231/61009-0
E-mail: gefa@gefa.com
Postfach 700110
D 44371 Dortmund
Fax: +49 (0)231/61009-80
Internet: www.gefa.com

# Operating instructions Installation / Operation flanged ball valve series FGT

## General information

- The valve may be fitted in any position in the pipework.
- The pipes must not have any tension.
- Do not carry out welding work on the flanges and pipelines when the ball valve has been installed, as this could cause damage to the valve.
- The ball valves are supplied with end caps for protecting the flange connections and the interior space of the valves. The caps must not be removed before installation of the valves.
- The ball valves are shipped in fully open position to prevent damage of seats and ball surface.
- **CAUTION:** The rotating ball may cause injury. Keep away from space between ball and body!

## Flange connection:

The GEFA flanged ball valve series FGT is designed for mounting between DIN-flanges. It should be taken into account, that a valve which is designed for a particular flange standard cannot be normally used for other flanges. If pipeline flanges are to be used which are not in accordance with the specifications of the order, the manufacturer is to be consulted.

## Installation

- Prior to the mounting of the valve, flush the pipeline to remove all traces of soiling, welding residues, etc.
- Remove the end caps, flange facings must be undamaged and clean.
- Check whether the flange clearance is in accordance with the face-to-face dimension of the ball valve.
- Before mounting the valve, the flanges are to be sufficiently spread using a suitable tool.
- The valve must be completely opened.
- Insert the ball valve between the flanges.
- Install the valve with shaft top side or horizontal.
- Insert the flange screws and nuts.
- Remove the spreader and hand-tighten the screws.
- Check whether the valve and the counter-flanges are in true alignment.
- Tighten the flange screws crosswise using the specified torque. (see table for tightening torques for flange screws).
- **CAUTION:** Do not operate the valve before flushing, **the valve must stay in open position**, as otherwise the seats may be damaged!

## Tightening torques for flange screw

| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|---|---|---|---|---|---|---|
| NPS | ½“ | ¾“ | 1“ | 1 ¼“ | 1 ½“ | 2“ |
| tightening torques for flange screws [Nm] | 12 | 18 | 24 | 36 | 44 | 67 |

## Putting into operation

- Flush the ball valve and pipe thoroughly again.
- Open and close the valve for test run.

## Mounting of actuators

- It must be ensured that the actuator is centred on the valve shaft.
- The mounted actuator must not cause a thrust load on the valve shaft. If necessary the actuator must be fastened / supported. NOTE: In case of moving pipelines the fastening of the actuator must not be rigid.
- For working temperatures up to max. 140°C the actuators can be directly mounted. If temperatures are higher a mounting bracket should be used as thermal isolation between actuator and valve.
- We recommend the use of air throttles for pneumatic actuators to achieve optimal durability.

## Removal

- Ensure that the pipeline has been rendered depressurised and emptied.
- Loosen and remove the flange screws and nuts.
- Spread the flanges using a suitable tool and remove the valve.