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Operating instructions throttle valve series KGT

Product description

The GEFA butterfly valve series KGT is a not tight, swing through throttle valve.
The valve is designed to be used between all common DIN flanges with pressure class PN10.
If pipe flanges shall be used which do not correspond to the order the manufacturer has to be consulted.
The free inside diameter of the flange must provide sufficient space to the disk of the valve.

Storage

- Storage and transport of the valves to be dry and clean (without any dirt).
- Temperatures for storing: - 15°C to + 30°C
- In humid rooms drying material respectively heating is necessary to avoid condensation of water.
- Valves have to be protected against force (shock, blow, vibration etc.).
- During storage or transport the ball valve must be either in open or closed position (no intermediate position!).

Installation instructions

- The valve doesn´t have any recommended flow direction and may be fitted in any position in the pipework.
- All standard flange seals can be used.
- DANGER: Moving parts may cause injury.

To ensure proper operation:

- Prior to the mounting of the valve, flush the pipeline to remove all traces of soiling, welding residues, etc.
- Check whether the flange clearance is in accordance with the face-to-face dimension of the high performance butterfly valve.
- Before mounting the valve, the flanges are to be sufficiently spread using a suitable tool.
- The valve must be closed completely.
- Insert the throttle valve and the seals between the flanges.
- Put the flange screws in.
- Remove the spreader and hand-tighten the screws.
- Check whether the valve, the seals and the counter-flanges are in true alignment.
- Carefully open and close the valve in order to ensure that the valve disc is not getting in touch with the pipeline.
- Tighten the flange screws crosswise using the stipulated torque.
- Carefully assemble all connection parts and check them for tightness.

To prevent the danger of stumbling:

- Place all connections (cable, hose pipes and tubing) in such a way that they will not cause any stumbling (cable ducts, brackets etc).

Mounting of actuators

- If necessary a square adapter has to be fitted on the stem before mounting the actuator.
- 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.

Putting into operation

Before the plant is started for the first time, the following must be checked in order:

- Flush the pipes and valve and clean them of any impurities (e.g. welding residue)
- Check that all the required electrical connections have been plugged in and the connectors are secure.
- Check that the compressed air hose is connected to the actuator and that it is secure.
  Check the pressure display for operating pressure.

Before starting up after maintenance or repair:

- Check that screw connections are tightly fitted
- Ensure that any parts removed have been re-assembled
- Check that all the required electrical connections have been plugged in and the connectors are secure.
- Check that the compressed air hose is connected to the actuator and that it is secure. Check the pressure display for operating pressure.

Trouble shooting

If functional faults occur during operation, specialised personnel for maintenance and repair should always be consulted. Operators must inform their superior. They must not, under any circumstances, try to remove faults in the electrical equipment.

To prevent danger to life through electric shock:

- Work on the electrical equipment should only be carried out by qualified and authorized electrician.
- The operators should only remove those faults which are caused by operating or maintenance error.

Maintenance

Routine maintenance or lubrication of the throttle valve is not required.

Work on the electrical equipment

Repair on any electrical equipment (e.g. electric actuator, solenoid valve) is only to be carried out by a qualified electrician.

Work on hydraulic and pneumatic equipment

Maintenance and repair on hydraulic and pneumatic equipment (e.g. pneumatic actuator) are only to be carried out by specially trained personnel!
Depressurize the machine's pneumatic and hydraulic equipment before starting any maintenance or repair.
Regularly replace hose pipes as part of preventive maintenance, even if there is no obvious damage.

Removal

- Ensure that the pipeline has been rendered depressurized and emptied.
- Completely close the valve. The position marker situated on the face of the square shaft is positioned parallel to the valve disc.
- Loosen and remove the flange screws.
- Spread the flanges using a suitable tool and remove the valve.

Disassembly / Assembly

- Remove the operating element.
- Loosen the stopper disc fixing and lift the stopper disc.
- Loosen the connection between stem and disc by removing the straight pin.
- Remove the stem together with the seal carrier and the bearings out of the body.
- Remove the disc and the axial securing device.
- Remove the o-rings from the seal carrier.
- Clean all parts carefully.
- Put new o-rings into the seal carrier and mount the seal carrier into the body.
- Mount the bearings into the body. (if necessary use new bearings)
- Mount the disc with the axial securing devices into the body. (if necessary use new axial securing devices)
- Push the stem through and connect the disc and the stem with a straight pin. Fix the straight pin with a weld point.
- Fix the stopper disc and mount the operating element.