

GEMÜ Quick Guide

Changing diaphragms size 10-300 / DN 10-300

code 2 \triangle NBR, code 4 \triangle FKM, code 6 \triangle Butyl, code 8 \triangle CR, 13, 17, 19, 28, 29, 36 \triangle EPDM,
code 54, 5E \triangle PTFE/EPDM, code 56 \triangle PTFE/FKM

Not valid for diaphragm code 5M (see separate document)



1. Move the valve to the „open“ position.



2. Loosen the valve body, diaphragm and / bonnet bolts diagonally and remove the actuator / bonnet from the valve body.



3. Move the actuator / bonnet to the „closed“ position. For manual bonnets make sure that it is only closed so far that the compressor stays in its outer guides.



4. Unscrew the diaphragm from the spindle / compressor (Attention: right-hand thread, turn anti-clockwise to loosen it). Check the diaphragm for damage, if any.



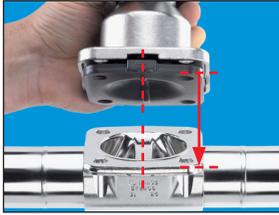
5. Screw new diaphragm into spindle / compressor until you feel strong resistance. With 2-piece diaphragms place the elastomer backing onto the actuator / bonnet flange so that it fits perfectly, invert the PTFE face and proceed as described above.



6. Then turn the diaphragm (with 2-piece diaphragms only the PTFE face) back anti-clockwise to the next possible bolt alignment (max. 180°). Ensure that the sealing weir and the diaphragm are aligned (return the PTFE face to its original shape).



7. Move the actuator / bonnet to the „open“ position.



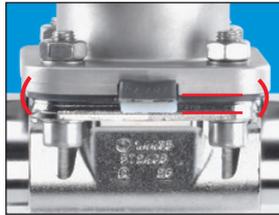
8. Place the actuator / bonnet with mounted diaphragm onto the valve body. Ensure that the valve body, diaphragm and actuator / bonnet are in correct alignment.



9. Insert the four bolts with their respective washers from the body side and tighten diagonally hand tight only. (Do not use force).



10. Move the actuated valve to the „closed“ position. Move the manually operated valve to the „half open“ position.



11. Tighten the connecting bolts diagonally in several steps with a suitable tool until the diaphragm is evenly compressed by 10 to 15% of its original thickness. If the diaphragm has an even outer bulge all round, correct compression has been achieved.

Important notes:

Due to the setting behaviour of elastomers, the compression of the diaphragm must be checked before commissioning the system and periodically during use and its bolting tightened if necessary (for valves in sterile applications once additionally after the first sterilization cycle). Other regular inspections during operation are recommended depending on the use of the valves.

Attachments and accessories such as seal adjusters, stroke limiters, optical position indicators, electrical position indicators, positioners and process controllers must be recalibrated after changing the diaphragm and / or readjusting the diaphragm (see relevant function description). The setting of manual valves with a seal adjuster must also be readjusted.