

Service life is up to three times longer for new EPDM diaphragms

GEMÜ has developed a new EPDM diaphragm 17 for use at high temperatures and steam for the pharmaceutical and biotechnological industries.



The development and manufacture of the new EPDM diaphragms was carried out completely within the GEMÜ group from the compound development to the final design and production. The diaphragms feature a greatly improved thermal load capacity. Steam tests at GEMÜ and at customers in production have revealed potentially up to three times longer service life in comparison with other diaphragms of the same design. An additional sealing bead has been integrated on the top which further improves external sealing.

The new diaphragm is FDA-conforming in accordance with title 21 paragraph 177.2600. It was tested by an independent institute in accordance with USP Class VI, is free from animal ingredients and is ROHS conform. At the same time, the design places emphasis on meeting the demands made on the EHEDG-certified original GEMÜ sealing system. The compound is peroxide cured and all compounding is carried out according to the strict quality specifications of GEMÜ. Certified production is made exclusively for GEMÜ within the GEMÜ group. This ensures a fully integrated process and quality control.

The diaphragm (given an order designation "17") is available in all sizes MG 8 - 100 (DN 4 - 100). The size 8 diaphragm is pushed into the compressor as current designs, the diaphragm sizes 10 - 100 are screwed positively into the compressor with a threaded pin. The new diaphragm fits easily in to the existing modular valve system and can be used and retrofitted for all GEMÜ diaphragm valves.

GEMÜ EPDM diaphragms can even be used in place of PTFE diaphragms easily and without any conversion. The diaphragms can be changed in both directions depending on the specific process conditions and preference of the user. The owner of a system can therefore react flexibly to a product or process changeover without expensive, major conversion measures. The greatly increased service life of the new diaphragm also reduces the running costs and ideally suits modern TCO concepts (Total-Cost of Ownership).