



Adaptation technology for hygienic filling

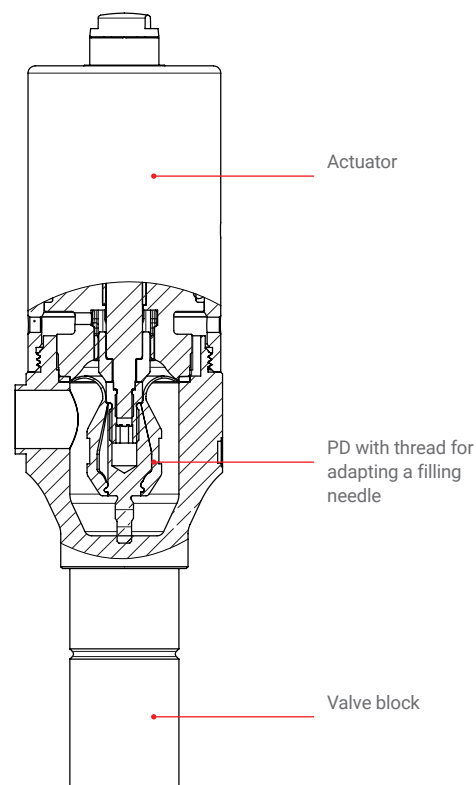
High-quality, tried and tested GEMÜ valves for filling in the pharmaceutical and foodstuff industry.

Process description

Filling needle/filling pipe systems are often used in the fluid filling applications of liquid and viscous media. This principle is used primarily in the cosmetics industry, the foodstuff industry, for example for dairy products, juices and sauces, as well as for filling pharmaceutical products.

In these systems, the filling pipe is dipped into the container to be filled and slowly withdrawn during the filling process in order to fill the container from the bottom to the required level. This prevents the fluid from spurting and stops the container being overfilled. The filling needle/filling pipe system sealing takes place directly at the filling point. The opening operation is performed by withdrawing the needle with the seal, and closing is performed by pressing the needle with the seal against the pipe opening again.

Together with a development partner, GEMÜ has developed a seal based on a PD design. In this solution, the stroke is implemented by unrolling the flexing area of the PD. A constant pressure is applied to the seal using pretensioned spring washers to ensure permanent leak tightness with the actuator.

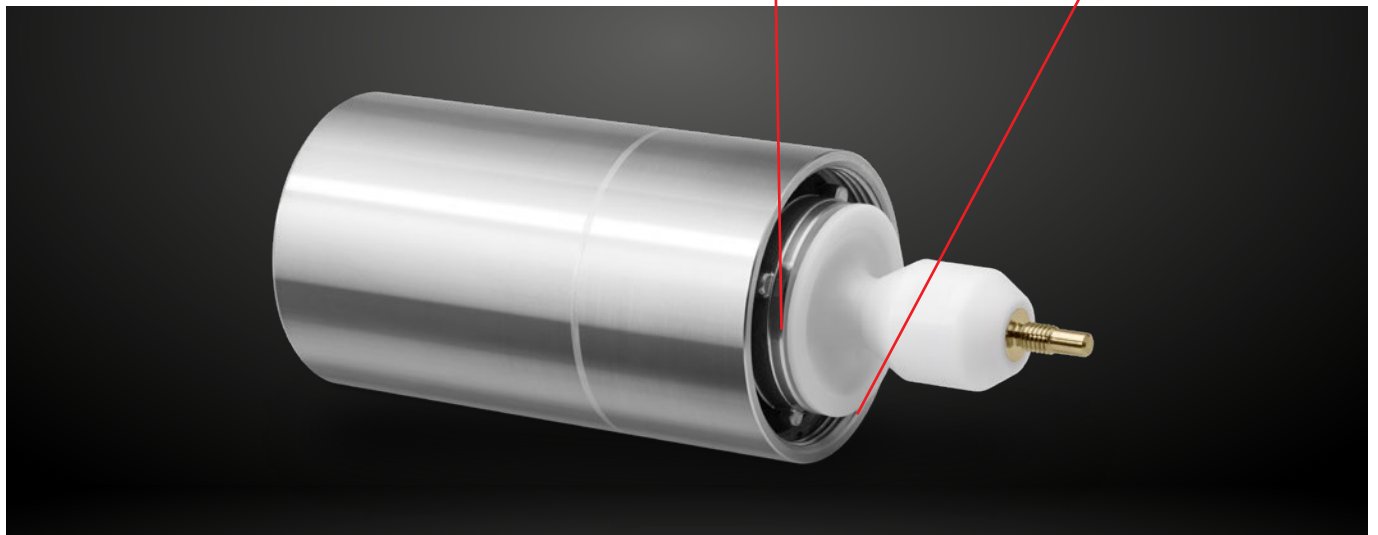
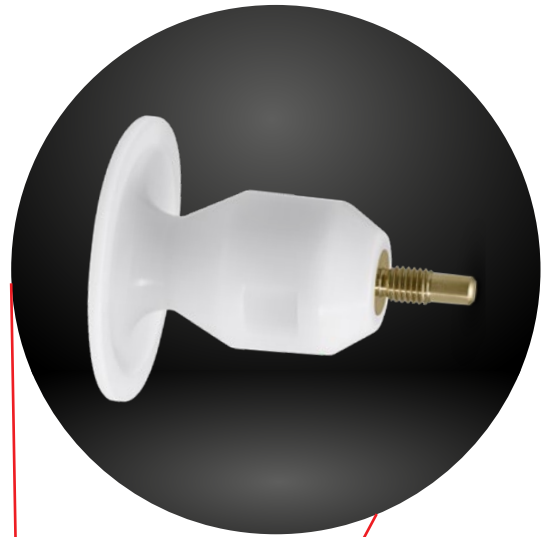


Drive of the new PD design

This new sealing system can be supplied with the robust GEMÜ AF40 drive, which is well established on the market, for multiple fast cycle duties, long downtimes and high output quantities. The motorized GEMÜ F60 servoDrive with freely programmable filling curves is ideal for applications requiring very fast opening and closing cycles where intermediate positions have to be reached in milliseconds with accuracy down to the micrometre. In this way, even critical media can now be filled at a speed and accuracy never seen before.

Advantages at a glance

- Hermetic separation of the medium from the actuator is ensured by the tried and tested PD sealing system
- Lift effect and contamination of the medium are excluded
- High filling accuracy
- Filling technology for many cycle duties
- High flexibility with media, quantities and containers



Why GEMÜ?

GEMÜ has created the perfect valve designs for all types of filling processes and output quantities. Our many years of experience and expertise in valves for sterile applications and auxiliary processes, such as heating and cooling systems and steam generation, is employed to develop the optimal solutions for the filling process. GEMÜ's diaphragm globe valves with PD design are not only aseptic, they also boast fast cycle duties and high flow rates, and are easy to service with long service lives. In addition, GEMÜ Systems also offers the option of building complete subassemblies on

a case-by-case basis. For example, we can provide complete filling lines with flowmeters, two-stage filling and the corresponding auxiliary valves. GEMÜ also offers the right valve designs for the CIP/SIP process cleaning installations integrated in the filling system or installed in the building. Our close-meshed, worldwide sales and service network ensures you and your customers always have access to a knowledgeable contact person locally for all areas of application.