



## Inactivating waste water

High-quality, tried and tested GEMÜ valves for the sterilization of infectious waste water or waste water contaminated with genetic material.

### Process description

Contaminated waste water, for example from the pharmaceutical industry and the biotechnology industry, must be inactivated before being conveyed to undergo waste water post-treatment. Inactivating is understood as the complete destruction of the biological activities of micro-organisms. This is done through thermal sterilization, where the waste water is warmed to a target temperature, kept at this temperature and then cooled back down to ambient temperature.

At the beginning of the process, the infectious waste water is collected in a collection container. From there, the waste water is pumped into the plant via a dirt filter and warmed via a heat exchanger. Before the inactivated waste water is conveyed further, e.g. for neutralization, it still needs to be cooled down to ambient temperature.

For the purpose of saving energy, this is done according to the counterflow principle with heat exchangers for preheating the incoming waste water.

For successful thermal sterilization, the warmed waste water must be kept at the target temperature for a sufficiently long time. This requires a correspondingly long distance between warming and cooling. So that such a plant can be constructed compactly, the required pipe rods are joined with pipe bends and arranged as a compact pipe bundle.

### Suitable GEMÜ product range

#### Ball valves

- GEMÜ B24, GEMÜ B44

#### Angle seat globe valves

- GEMÜ 507, GEMÜ 550, GEMÜ 554

#### Butterfly valves

- GEMÜ R491 Edessa

### Key process data

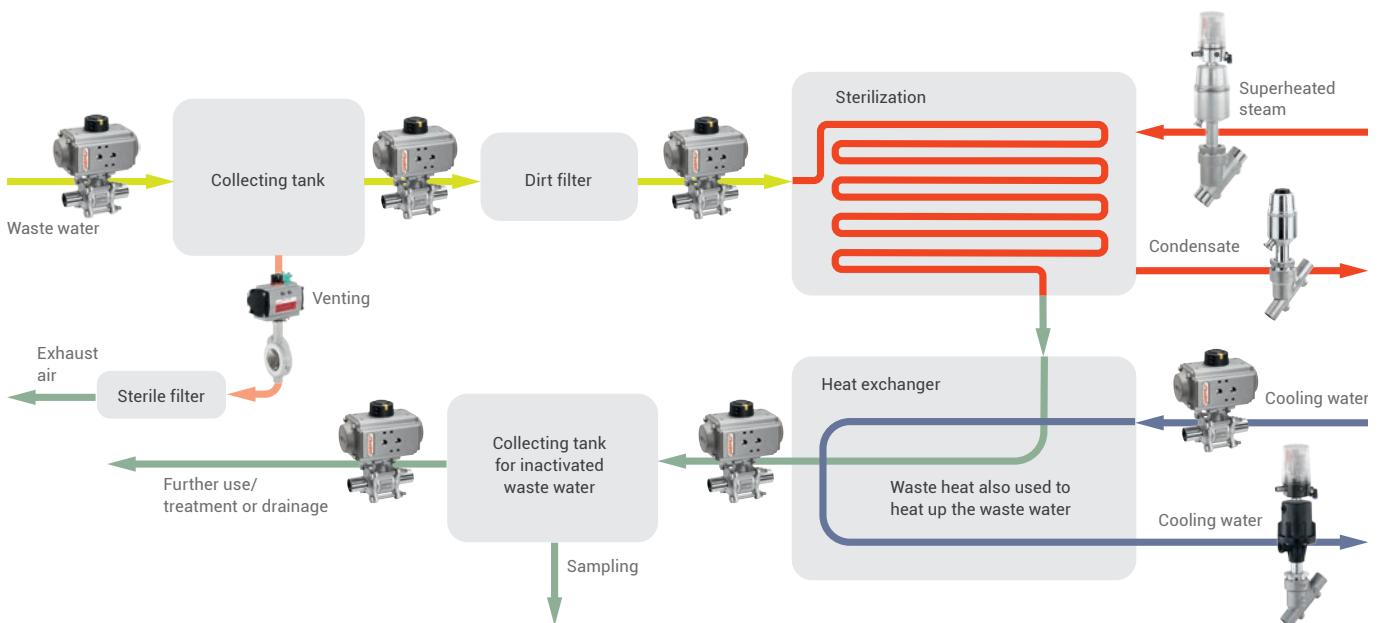
- Working medium: Waste water, steam
- Operating temperature: Approx. 150 °C
- Operating pressure: Approx. 5 bar
- Special requirements: Official acceptance of the process plant

If you want to find out more about this, you're welcome to watch our application video.





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## Why GEMÜ?

With a wide range of valve types and accessories with various properties, approvals and certificates, GEMÜ delivers complete valves as well as measurement and control systems from a single source.

We are your strong partner if you're searching for a competent provider as a system supplier. We can also supply you with the technical expertise relating to the procedures applied. For supply and auxiliary processes in particular, we offer a variety of tried and tested valve fittings manufactured by us in-house with the highest standards of quality. The wide variety of control valves and quarter turn valves is particularly noteworthy here.

As are the space-saving possibilities of block solutions, even for complex applications, and the planning and production of entire subsystems via GEMÜ Systems.

We ensure optimal support, including of end users on site, through a worldwide sales and service network via subsidiaries and distributors.



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