

## Swimming pool processes



GEMÜ® Marketing-Services  
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### Application

Water treatment plays a crucial role in swimming pool processes. The pool water is cleaned mechanically by reversible flow filters and then sanitized. Sanitization is carried out by adding, e.g. chlorine gas and/or ozone. The following technical specifications of a typical swimming pool will give an impression of the scale of an installation used in swimming pool processes. There are, however, considerably smaller installations such as those in private pools. The combined pool for swimmers and non-swimmers with a surface of 1250 m<sup>2</sup> is cleaned by 4 large filters with a diameter of 2800 mm each. The filter flow rate is 30 m<sup>3</sup>/h, with a circulation capacity of 172 m<sup>3</sup>/h per filter. The backwashing of the filters takes place semi-automatically. The typical sizes of the piping system and valves in this installation are DN 250 to DN 300 mm. As the water is only slightly contaminated, there are a small number of operations and as large sizes are installed, manually and pneumatically operated butterfly valves are typically used. PVC-U solenoid valves are also used, for example for dosing the chlorine gas.

For the dosing/control of ozone, stainless steel diaphragm valves or globe valves are used.

### Choice of equipment

DESPONIA butterfly valves of a wafer-type design and are hence lightweight, PN 16 rated, and manually and pneumatically operated with integrated limit switches. The butterfly valve disc and shaft is in stainless steel (1.4408).

The body is cast iron / Rilsan® coated with a Hypalon® liner. Rilsan® coated discs and Hypalon® liners are regarded as resistant to swimming pool water up to an ozone and /or chlorine gas level of 2mg/l. PVC-U diaphragm valves with a Viton diaphragm can also be used with chlorinated or ozonated water. The GEMÜ 105 solenoid valve in PVC-U with K-ref.no. 2200 can be used for dosing of dry chlorine gas. Diaphragm or globe valves in stainless steel with CSM diaphragm or PTFE seat are used with concentrated ozone.

