



Subject Areas

Water

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Products

Unit Operations of Water Treatment

The area of water focuses on water treatment. The aim of water treatment is always to remove specific substances from the water. This can be used to clean wastewater in a wastewater treatment plant prior to discharge into a body of water. From the perspective of environmental protection, the remediation of contaminated groundwater and landfill leachate is another broad application example. However, the aim of water treatment may also be to make water usable for a particular purpose, e.g. in the treatment of potable water.

Regardless of the application, there are a number of basic methods available to water treatment which are classically divided into three groups.

This section contains a teaching unit for each of the most important basic procedures, with which all important aspects of the respective method can be illustrated and taught in a clear and informative manner.

Water treatment plants are usually built in several stages and represent a combination of various basic processes. Therefore, we also offer two devices that enable you to illustrate the complexities of multi-stage water treatment



Mechanical processes

HM 142
Separation in Sedimentation Tanks

CE 587
Dissolved Air Flotation

CE 579
Depth Filtration

Biological processes

CE 705
Activated Sludge Process

CE 701
Biofilm Process

CE 730
Airlift Reactor

CE 702
Anaerobic Water Treatment

Physical/chemical processes

CE 583
Adsorption

CE 530
Reverse Osmosis

CE 300
Ion Exchange

CE 586
Precipitation and Flocculation

CE 584
Advanced Oxidation

Multi-Stage Water Treatment

Combined unit operations

CE 581
Water Treatment Plant 1

CE 582
Water Treatment Plant 2

