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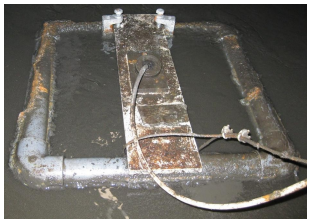
Automatic Precipitation / Flocculation of fatty Sewage

The fatty sewage from the production of a metal processing company is purified continuously by the addition of precipitation and flocculation agents and subsequent separation of ingredients in a flotation plant (< 250 m^3/h). The optimal dosage of chemicals and control of the discharge is fully automated by **ARU** dosing control systems.

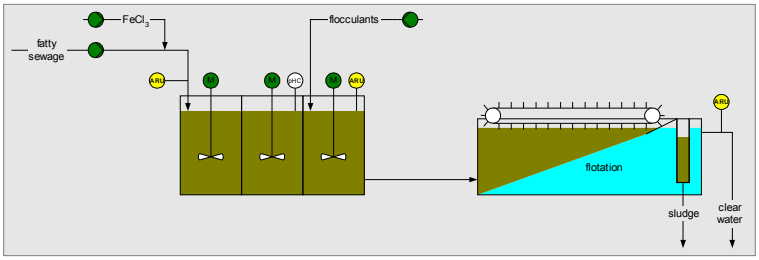
The aim of the measure was the optimization of the costs of chemical agents and the amount of the produced sludge. At the same time, a consistently good quality of water discharge should be ensured.

The dosage of both chemicals originally took place in continuous-flow stirred vessels. The dosage of the precipitation agent was moved to the feed line of the first vessel. The amount of chemicals is now controlled by an **ARU** dosing control system with contactless **ARU** transmitted light measurement.



The dosage of flocculation agents is also controlled by an ARU dosing control system. The success of the flocculation is monitored in the continuous-flow flocculation tank with a floating **ARU** incident light measurement. This design was chosen, because the produced fat flakes tend strongly to incrustations on the lenses of optical probes.

The clear water outlet of the flotation plant is also monitored by a contactless **ARU** transmitted light measurement.



With the automation of the chemical dosage, the chemical costs have been significantly reduced. Optical control of the chemical dosage and the clear water outlet has increased the ease of operation and the operating reliability of the plant.

ARU dosing controls are fully integrated into the process control system.