



# AUTOMATIC TURBID WATER REMOVAL AW-ATAB-21

## Turbid water removal for sludge storage tanks with automatic detection of the turbid water zone

### APPLICATION

- Sludge storage tanks in municipal and industrial wastewater treatment plants

### DESIGN FEATURES

The key point of the device is a compact function block with integrated sensor system and cable routing. The submersible pump is fixed onto the underside of the block. This design solution forms a closed unit without the usual approaches (e.g. float switch) for entanglement and entwining.

A flexible discharge pipe carries the turbid water to the outside. The cable of the lifting device is fixed to the top part of the function block. The cable made of stainless-steel is routed via the arm of a small crane to the winch. The cable winch is situated in a housing.

The control system uses the reflection principle, thereby ensuring automatic detection of all turbid water layers and their position in the tank. The whole tank fill is recorded according to the predefined schedule. The data recording enables optimisation of schedules. Pumping operation is activated and stopped according to the threshold values for the turbid water.

### PRODUCT DESCRIPTION

After initial release, the combined removal and sensor unit moves slowly over a freely movable lifting device from its resting position and vertically through the sludge storage tank.

As soon as a turbid water layer is detected the unit pauses until the turbid water has been pumped away through a flexible discharge pipe.

After the tank has been scanned successfully and the turbid water layers have been removed, the unit returns to the predefined resting position.

Turbid water limits, start times and cycles as well as other parameters can be determined using the hand-held panel or via the control room, depending on the version.

### ADVANTAGES

- Fully-automatic, reliable removal through innovative solution (reflection principle) for turbid water and position detection
- Optimised tank utilisation and improved thickening
- Compact design largely prevents entanglement and entwining
- Full integration in the control engineering equipment of the wastewater treatment plant
- Safe operation due to standard ATEX certification
- Suitable for any tank type or tank shape, including tanks with agitators or rabble rakes
- Easy accessibility, almost maintenance-free
- Installation possible during on-going operation
- Substantial savings in sludge disposal costs

