

Wastewater Association oberes Lavanttal - wastewater treatment plant Twimberg (AT)

New inlet regulation in the wastewater treatment plant

PP-Engineering, Euratsfeld; In course of the extension of the wastewater treatment plant and the adaptation to the state of the art in Twimberg, several tasks were fulfilled by the installation of the STEBATEC flow control TF-PNA.

Requirement:

- Inlet limitation (control) of the maximum mixed water inlet while considering a second subsequent inlet of concentrated wastewater (during the respective pumping time, the maximum mixed water inlet volume is reduced accordingly).
- Exact inflow measurement for the purpose of subsequent water distribution into the two downstream box-type basins.
- Installation of a system within the inflow channel of the wastewater treatment plant without additional constructional work.
- Avoidance of hydraulic loss by installing the throttle unit.
- The throttle value can be variably parameterised/adjusted over the entire discharge spectrum.
- Removable and easy to maintain.
- Continuous transmission of all data to the process control system.



Figure 1: Installed inlet control



Figure 2: Overview Twimberg wastewater treatment plant

Execution:

In order to meet these many requirements, the wastewater association decided to install a pneumatic discharge control system with a partially filled flow measurement from STEBATEC.

The calibrated measuring channel guarantees flow measurement without backwater and, due to its channel shape, can measure dry and rainy weather quantities with the highest measuring accuracy.

The measuring channel combined with the pneumatic discharge throttle incl. calming section was calibrated in our own water laboratory and guarantees a short installation length.

The entire maintenance-friendly unit measures the flow rate with a maximum of 1% deviation from the measured value, regulates with high precision with the shortest possible resetting times and without running time limitation.

The measured data are transferred to the DCS and recorded. Hence, throttle values can be individually preset or modified via the DCS at any time.



Figure 4:

The managing director Mr. Ing. Franz Stoni (on the right) and sewage treatment specialist Mr. Andreas Probst from the wastewater association oberes Lavanttal are pleased about the exact inlet control and the reliable measuring data