Improvement of the operation in the sewage treatment plant
Bad Vilbel with Binder’s VACOMASS® System

On August 1st 2013 VACOMASS® system was taken officially into operation in Bad Vilbel.
So a further project to improve the operation and increase efficiency of sewage treatment plants in Germany was successfully completed.

8 VACOMASS® control loops were installed, each consisting of a diaphragm control valve with falling flow axis, a thermal mass airflow meter and a master- control module. The project related control parameter were investigated and set during fine-tuning and optimization phase.

Due to the existing piping and the limited pipe length for the measuring and control section, the calibration of the air flow meter was done under consideration of real piping and together with the control valves in the company owned CAMASS® Calibration Lab.

Furthermore real gas temperature and pressure were taken into consideration during calibration at all measurement points (calibration is done in a closed loop). During calibration each individual flow meter is adjusted to high precision calibrated and/or custody-transferred meter.

There are load fluctuations in the plant due to relatively high proportion of industrial influent, which cannot adequately get compensated using the classic oxygen control loop. Therefore over- and under aeration took place regularly.

After adjusting the control parameters to the specific conditions of the treatment plant, the oxygen concentrations in the four aeration tanks became much more uniform.

Thanks to all project participants!