

## Wastewater Treatment Plant of Oberhoppfen

Fast assistance, high energy savings and operating safety!

*"Finally, a company that delivers what it promises! In this case, the results achieved were even clearly higher than the savings that were advertised!"*

Statement by Miss Behninger, Manager at WWTP Oberhoppfen after one year of operation.

The Verbandsgemeindewerke Asbach operates its collective wastewater treatment plant, which features an expansion size of 18,000 inhabitants. The load of the aerobic stabilising wastewater plant, which is just below the expansion size, is broken down in two parallel aeration basins that are operated intermittently. These two circulation basins have a total volume of 6,000 m<sup>3</sup> for biological and advanced wastewater purification.

### Initial situation:

During an attempt by the Verbandsgemeindewerke Asbach to lift out one of the existing aeration grids to replace the tube diffusers, this grid cracked and needed to be lowered again immediately. A replacement for the fine bubble aeration system installed in the sludge tank needed to be found and installed quickly. In this case, a special focus was placed on the durability and high efficiency of the new aeration system.



### Measures taken:

Prior to the decision, multiple neighbouring wastewater plants were visited; operating experience and long-term results were examined and weighed against each other. In November 2014, after the decision, the MESSNER Aeration Panel from *RUDOLF MESSNER UMWELTECHNIK AG* was specified as the desired product.

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After a visit at the beginning of December 2014 on-site, the Verbandsgemeindewerke Asbach requested a concept suitable to their needs free of charge. In direct comparison with the existing system, the solution from *RUDOLF MESSNER UMWELTTECHNIK AG* was more cost-effective and simultaneously clearly more interesting due to the high efficiency and service life of the aerators of up to 20 years. The installation of a total of 100 MESSNER Aeration Panels was ordered for April 2015 and implemented in two construction phases.

### Results and Benefits:

The installation of the MESSNER Aeration Panels increased the operating safety of the wastewater treatment plant Oberhoppen significantly. The oxygen requirement may now also be covered independently at peak load times, even with unchanged blower technology originating from 1994. The average effluent values for total nitrogen remain under 5 mg/l. The annual energy consumption of the blowers was able to be reduced from 392,469 kWh to 165,993 kWh. This corresponds with a reduction of 57.7%. For the municipality, this means 43,700 euros less in terms of energy costs every year. At an expected service life of minimum 15 years, this corresponds with total savings of 655,500 euros!

