

CASE STUDY

EFFICIENCY THAT VITALISES

Wastewater Treatment Plant Oberschleißheim:
Performance³ makes the difference.

30%

Blower technologies

60%

Less energy consumption

50%

Smaller tank volume



THE ISSUE

The precise operation of load changes.

Depending on the time of day, the season and the amount of precipitation, the volume of wastewater and the degree of contamination change. As a result, the amount of air required in the aeration tanks varies constantly. If this is not optimally controlled, it will lead to extreme energy consumption and unnecessary waste of resources.



We now have forward-looking technology which will provide optimum performance and savings for years to come.“

Anton Mayer
Head of the Oberschleißheim WWTP



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AERZEN

THE SOLUTION

The Performance³ technology mix.

The key to maximum efficiency is the precise control of load changes. The goal: operating base loads in an energy-saving way and absorbing supply peaks with pinpoint accuracy.

1

A tailor-made AERZEN Performance³ technology mix ensures an optimal compressed air supply in the aeration tanks. As most efficient machine, the turbo takes over the base load, the Delta Blower works at low load and the Delta Hybrid helps out at peak times.

2

The AERZEN AERsmart integrated control system spreads the required volume flows across the machine park in such a way that the three blowers are operated very close to the theoretically highest efficiency. The continuous recording of the operating parameters as well as the visualisation in real time allow the early detection of a deviation of individual values. The user can react at an early stage and process failures are avoided.



Type of technology

Turbo blower
Rotary lobe compressor
Positiv displacement blower
AERsmart

Version

Overpressure

Volume flows

110 to 16.200 m³/h

Overpressure

1,000 mbar

Conveying media

Air and neutral gases

Conveying

Oil-free

THE RESULT

Highest efficiency in the aeration tank.

In the past, the effluent values showed relatively high fluctuations. Thanks to the new control technology, now, the values are uniform and in a very low range. The electricity consumption for the biological cleaning stage was reduced by 60 percent, which corresponds to a saving of €60,800 per year. Two of the four aeration tanks were taken out of operation.



61.000 €

Cost saving/year

SUMMARY

More efficiency, lower costs and cleaner wastewater: for the Oberschleißheim wastewater treatment plant, the energy optimisation measures were exactly the right step into the future. Today, it is one of the most modern of its kind in Germany in terms of process technology and serves as an international reference plant for the industry network „German Water Partnership e.V. (GWP)“.