

## **The new AERsmart: also for varying pressure.**

AERZEN's energy-efficient composite control system opens up new areas of application.

**AERsmart: the name stands for a composite control system that has set out to effectively improve the energy efficiency of oxygen supply in aeration tanks, especially in wastewater technology. AERZEN has now further developed the solution. The control system for the composite operation of different compressed air assemblies offers new features and improved visualisation. All in all, this opens up new areas of application, for example in SBR wastewater treatment plants.**

The AERsmart can now also control a machine network in an energy-efficient manner when variable pressures are present in the application. For this purpose it is sufficient to define the minimum as well as the average pressure. AERsmart, then, calculates the maps of the connected machines in this pressure window using the current target pressure. If this changes by more than 20 mbar compared to the map pressure, AERsmart simply recalculates the map of the assemblies. This function is also effective when the oxygen input is controlled by volume flow. The intelligent control unit is, therefore, able to use the energetic performance of positive displacement blowers (Delta Blower), rotary lobe compressors (Delta Hybrid) or turbo blowers (Aerzen Turbo) in the best possible way, even under changed operating conditions. The end result is energy efficiency close to the theoretical optimum.

New areas of application for AERsmart are, for example, SBR plants. Behind a "Sequencing-Batch-Reactor" are small wastewater treatment plants, which allow a high purification capacity in a small space. Biological purification and secondary sedimentation are combined in one chamber. Batch operation results in different pressures.

With a view to operability - keyword usability - AERZEN has also revised the AERsmart software at this point. The new control system can, now, be conveniently parameterised directly on site using a touch panel. The visualisation presents itself with a new design. It is also designed for working

ergonomics and opens the way to combining maximum energy efficiency and comfort.

As of: 06/2021  
Scope: 334 words / 2203 characters (with blanks)

### **The company**

Industrial plants all over the world are provided with gaseous media using AERZEN blowers and compressors. The innovative AERZEN machine technology represents experience gained over more than 150 years of company history. The range of products includes rotary lobe compressors, positive displacement blowers, turbo blowers and screw compressors. The AERZEN product portfolio is flexible and offers besides standard products customised special solutions. Digital services can be used to increase efficiency, availability and productivity in a sustainable and future-oriented manner.

In addition, AERZEN After Sales Service offers the whole range of services - from full maintenance contracts to repairs and modernisations of existing plants.

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