

## **Performance<sup>3</sup> - the new generation. AERZEN expands technology concept.**

Precise operation of load changes: new blower generations, increased efficiency.

**The innovative Performance<sup>3</sup> concept from AERZEN is considered to be probably the most efficient, powerful and flexible technology solution for demand-oriented oxygen supply in wastewater tanks. Now the blower and compressor specialist is taking the next step with new blower generations of the Delta Hybrid and Aerzen Turbo series - for even more efficiency in the aeration tank.**

Depending on the region, time of day and season, as well as the amount of precipitation and pollution load, municipal or industrial biological wastewater treatment plants experience different degrees of pollution and strong fluctuations within the load profiles. Due to this fluctuating load profile, the air demand in the aeration tank changes continuously. With the efficiency concept Performance<sup>3</sup>, AERZEN offers a unique strategy for the exact control of the load changes and thus an optimal solution for an energy-efficient oxygen supply. Thanks to the possible combination of different technologies, sizes and design points, the blower and compressor specialist achieves individual blower solutions which allow energy savings of up to 30%. The current technological progress in the Delta Hybrid and Aerzen Turbo series ensures that further performance and efficiency potentials can be maximised.

### **Ideal combination of technological advantages**

Whether Delta Blower, screw blower, Delta Hybrid or Aerzen Turbo: each blower technology has individual strengths, but also physical limits. The key to success is the combination of the technologies: in this way, the respective technological strengths can be combined and possible weaknesses eliminated.

Thus, the turbo blower offers above-average energy efficiency at the design point and is thus predestined to handle the base load. However, the control range of turbo machines is physically limited between 35% and 100 %. Thus, the efficiency decreases in part-load operation. This is the strength of rotary lobe machines, which are characterised by a controllability of 25% to 100 % and an almost constant efficiency even in partial load operation. The innovative screw blowers and the robust positive displacement blowers are



therefore perfectly suited for generating peak or off-peak load requirements. Depending on the system configuration and load, these three technologies can be switched in interaction or as individual solutions to achieve maximum efficiency for the entire load demand based on their focus.

### **Technically and economically the optimum**

During the development of the new Delta Hybrid and Aerzen Turbo packages, the focus was mainly on a further increase of the energy efficiency and thus the consistent optimisation of the cost balance. These advantages are also reflected in the Performance<sup>3</sup> concept. The result: highest energy savings with best control range and lowest investment volume. Furthermore, depending on the system, the payback period is less than two years.

### **AERZEN at the IFAT 2022**

Visit AERZEN at IFAT in Munich from 30 May to 3 June 2022 and find out about the advantages of the Performance<sup>3</sup> concept and the new blower generations for your wastewater treatment plant. You will find AERZEN in hall A3 at stand 351/450.

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## **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 screw blowers, 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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