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## **System intelligence for maximum resource efficiency**

AERZEN: holistic approach for wastewater treatment plants

**For 160 years, AERZEN has been supporting operators of wastewater treatment plants and industrial partners with innovative solutions and assisting with issues relating to increasing efficiency, process reliability, digitalisation, conserving resources and increasing capacity. The system intelligence approach is unique. By taking a holistic approach in combination with pioneering state-of-the-art concepts, it is possible to increase capacity in the smallest of spaces and achieve maximum energy savings and cost reductions.**

As a leading global supplier of blowers and compressors and an experienced partner for oxygen supply in aeration tanks, AERZEN knows the different application and process-specific requirements of [wastewater treatment plants](#) exactly and realises efficient aeration concepts with maximum reliability and cost-effectiveness - in every region and for all requirements. The family-owned company pursues a holistic approach to system intelligence. In concrete terms this means: The wastewater treatment plant is analysed in its total form and all individual general conditions are taken into account - from the construction space, wastewater technology and software systems to the performance of the power grid. Energy savings of up to 55% and a reduction in CO<sub>2</sub> emissions of up to 65% can be achieved.

## **Leading international supplier for the aeration of aeration tanks**

Whether measuring and recording requirements, bespoke [machine and technology design](#), smart [control system and regulation technology](#) customised ROI calculations, flexible [rental solutions \(Aerzen Rental\)](#), customer-specific container solutions, [heat recovery](#), machine room ventilation, digital services or support in the range of conveying media: AERZEN serves all fields of activity. The individual modules interlock seamlessly and are geared to each other as required. AERZEN expertise can be found in more than 100,000 wastewater treatment plants worldwide and helps to clean the water of over 2.5 billion people - that's about a third of the world's population.

## **The perfect interaction between blower technology and aeration process**

The focal point is biological cleaning. It is the centrepiece of every wastewater treatment plant, but also the largest energy consumer: 60 to 80 % of the total energy requirement is due to wastewater tank aeration. The savings potential is correspondingly large. System intelligence is an important success factor here, as the individual components - blowers and compressors, aeration elements, machine room, pipes and valves, oxygen monitoring system, etc. - interact strongly with each other. If they are viewed holistically and their mutual influence is taken into account, there are many advantages. The perfect integration of the

blower technology into the aeration process not only enables maximum efficiency, but also absolutely sustainable operation with minimum CO<sub>2</sub> emissions.

## **Holistic technologies, solutions and service concepts**

System intelligence is the key to maximising resource efficiency - and forms the basis for future-proof solutions, especially in today's digital age, as the digital transformation is also leading to closer gearing of individual components, machines and processes. No question about it: The wastewater treatment plant of the future is digital and energy self-sufficient. AERZEN has the necessary expertise, technologies as well as experience and supports water and wastewater treatment with holistic, sustainable and cost-efficient solutions. The dense sales and services network with 52 subsidiaries in 104 countries ensures fast service and competent advice on site.

You will find AERZEN at IFAT 2024 in hall A3 at stand 351/450.

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## **About AERZEN**

Industrial plants all over the world are supplied with gaseous media using AERZEN blowers and compressors. The innovative AERZEN machine technology represents experience gained over more than 160 years of company history. The AERZEN product portfolio includes rotary lobe compressors, positive displacement blowers, turbo blowers and screw compressors and, in addition to standard products, also offers 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 full range of services - from full maintenance contracts to repairs and modernisations of existing plants.

## **Image overview:**



**AERZEN-system-intelligence.jpg:** system intelligence enables capacity increases in the smallest of spaces as well as maximum energy savings and cost reductions

*Image: AERZEN*

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**Deeplinks:**

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**Contact:**

Sebastian Meißler

Aerzener Maschinenfabrik GmbH • Reherweg 28 • 31855 Aerzen

Phone: 0049 5154/81-9970 • Fax: 0049 5154/81-709970

sebastian.meissler@aerzen.com • www.aerzen.com

**Press office:**

Köhler + Partner GmbH

Brauerstraße 42 • 21244 Buchholz i.d.N.

Phone 0049 4181 92892-0 • Fax 0049 4181 92892-55

E-mail: info@koehler-partner.de • www.koehler-partner.de