COM·PRESS

Efficiency arises in the system

Integrated aeration technology from AERZEN for the biology of the Unterföhring wastewater treatment plant

Customer Journal | No. 1.2026

AERZEN
EXPECT PERFORMANCE

Hubertus Schrage, Head of AERZEN Product Line Water Treatment System

Dear Readers,

For over 160 years, AERZEN has been supporting wastewater treatment plant operators and industrial partners with innovative solutions for efficiency, process reliability, digitalisation, resource protection and capacity expansion. Our holistic approach to system intelligence is unique. That means: we consider the biological treatment stage of a wastewater treatment plant as an overall system and take into account all individual framework conditions - from the construction space, wastewater technology and software to the performance of the power grid. Combined with our state-of-the-art solutions, it is possible to increase capacity even in the most confined spaces, whilst significantly reducing energy consumption and costs - we will also be demonstrating this systems-based approach at IFAT 2026 in Munich.

Under the slogan "Efficient by Nature - Sustainable by Design. It's in our DNA." AERZEN will be presenting the intelligent combination of positive displacement, screw and turbo blowers with aeration systems and process control in Hall A3 / Stand 351. The results of this interplay of innovative blower technology, customised aeration solutions and smart controls enable energy savings of up to 55% in the biological treatment process and a reduction in the carbon footprint of up to 65%. In addition to our highly efficient aerators, the new sizes of the "Delta Hybrid" screw blowers and "Aerzen Turbo" blowers, which are celebrating their premiere at IFAT, play a key role in this. You can find out more about our economical and climate-friendly solutions in our trade fair special from page 14 - as well as in the cover story from page 6 about the modernisation of the Unterföhring wastewater treatment plant.

AERZEN's combination of expertise and decades of experience has also proven itself worldwide in the field of process gas. In early 2026, we integrated GPE Turbo, Leipzig (page 18). AERZEN thus offers a significantly expanded range of turbo compressors for high-pressure and high-flow applications, specifically designed for the process gas industry, combined with extensive customisation expertise and a global service and sales network.

Another key focus for AERZEN is solutions for biogas production - a sector with growing demand for rental solutions (page 21). Our specialists from AERZEN Rental are responding with a new series of biogas blowers that reliably cover a wide range of industrial applications.

I hope you find this an inspiring read!
Yours,

Hubertus Schrage

Imprint
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Cover picture: *The Unterföhring wastewater treatment plant took advantage of the complete overhaul of the blower system to fundamentally optimise the entire aeration system. The local authority relied on the system expertise of AERZEN, whose experts implemented a holistic concept. The intelligent combination of highly efficient blower and aerator technology, together with smart control technology, enables a precise, demand-driven air supply with reduced energy consumption and lower long-term operating costs. You can find out more in our cover story from page 6.*

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Three new AERZEN Managing Directors in South America

Jose Omar Salinas, General Manager Aerzen Perú S.A.C.

Jose Omar Salinas has been appointed General Manager of **Aerzen Perú S.A.C.**, effective January 12, 2026. He studied Electrical Engineering and holds an Executive MBA from INCAE Business School. Salinas worked for eight and a half years at Busch Group (Busch & Pfeiffer) as General Manager, bringing experience in the fields of low pressure and compressed air. A strategist with strong knowledge of the local market, he has worked among others with medium-sized and large mining companies in the country. Jose Omar Salinas has 20 years of experience leading teams in the Peruvian industrial sector.

Gustavo Carvalho, General Manager Aerzen do Brasil Ltda

Gustavo Carvalho has been General Manager of **Aerzen do Brasil Ltda** since January 15, 2026. He holds a degree in Electrical Engineering and is currently expanding his expertise on human behaviour and social interaction through the study of psychology. With over 19 years of professional experience in the industrial B2B equipment sector, Gustavo Carvalho previously held several senior leadership positions at Alfa Laval, focusing on profit and loss (P&L) management and strategic sales. His background includes specialised knowledge in providing complex engineering solutions for the mining, energy, and oil & gas markets.

David Salazar, Managing Director Aerzen Colombia SAS

David Salazar is the new Managing Director at **Aerzen Colombia SAS**, effective March 1, 2026. He holds a Master's degree in Business as well as degrees in Aeronautical and Mechanical Engineering. David Salazar has been working for the AERZEN Group since 2011 and has since held several leadership roles, including Sales Manager and Regional Application Manager for cement and pneumatic conveying applications. In 2023, he relocated to the United States to support the establishment and team development of the West Region at Aerzen USA and is pleased about the return to Colombia to continue supporting the business. ○

Suprafilt: Hannah Nolan takes over as Managing Director

Hannah Nolan, Managing Director Suprafilt Limited

Hannah Nolan has been the Managing Director of **Suprafilt Limited** since January 1, 2026. She has a degree in biological sciences with studies in the USA. With over 20 years experience in the wastewater industry Hannah Nolan brings experience and knowledge of the UK wastewater market and has previously held positions of Operations Director within Suprafilt Limited.

Suprafilt was founded in the UK in 1995. The company specialises in the design, manufacture and installation of aeration systems for the wastewater treatment sector. Suprafilt offers a full turnkey solution, access to a unique product range with fine and coarse bubble tube and disc aerators, manifolds and distribution piping. ○

Further information

www.suprafilt.com

Strategic milestone: Aerzen Japan launches

The team of Aerzen Japan in front of the company building in Kisarazu, Chiba Prefecture

With the foundation of Aerzen Japan Co., Ltd. AERZEN strengthens its presence in one of the world's most advanced industrial markets.

Aerzen Japan builds on a long-standing and successful collaboration with Ebara Jitsugyo, Aerzen Asia's trusted retail partner in Japan. Through the transfer of customers, inventory, and staff continuity for the market was ensured while creating a stronger, dedicated local organisation. The new company employs 10 experienced team members from the existing business. This competent and highly motivated organisation will provide expert support to customers across the country and further strengthen AERZEN's market position.

Leadership of Aerzen Japan is headed by Managing Director Andy Lim, supported locally by Director Toshimasa Tanimoto. Tanimoto brings deep market expertise and strong customer relationships. Together, the leadership team is focused, among other things, on strengthening service capabilities, and delivering the high standards AERZEN customers expect.

Closer to the customer - AERZEN Rental opens new location in the south of France

The AERZEN Group is expanding its presence in Europe: with the establishment of Aerzen Rental France SAS near Valence (south of Lyon), the company is strengthening its on-site service for the French market as well as for Catalonia and northern Italy. This is accompanied by a significant increase in the number of staff in the equipment and service range.

The new location has 450 m² of workshop area and more than 1,000 m² of storage premises. In addition to the classic AERZEN blowers and compressors, Aerzen Rental France also offers customised solutions for oil-free compressed air (up to 10 barg), pneumatic conveying and complete solutions for aeration of tanks in wastewater technology (rental of aeration grids, special containers and complete treatment systems).

The headquarters of Aerzen Rental France SAS are located in Valence, south of Lyon.

AERZEN receives international certifications

Whether environmental protection, information security or energy management: certified processes form the basis of our customers' trust. At the beginning of 2026, the AERZEN Group once again proved the reliability of its management systems - all audits were passed without any deviations. With the further roll-out of multi-site certification, our international locations are now moving even closer together to set global quality standards.

Successful recertifications

The Corporate Quality function within the AERZEN Group secures that management systems and certifications are coordinated and continuously developed. The aim is to create standardised structures, efficiently accompany audits and support the locations in implementing international standards. One particular focus of the work at the beginning of 2026 was the recertification according to ISO 9001, as well as several surveillance audits of other management systems. These included among others:

- ISO 14001 (environmental management)
- ISO 45001 (occupational health and safety)
- ISO 50001 (energy management)
- ISO 27001 (information security)
- ISO 22000 (food safety management)

All audits carried out were completed without any deviations. The existing certificates were thus extended as planned. These results underline the stability of the processes introduced and the continuous maintenance of the management systems at the participating locations. The various standards cover different subject areas and together form the basis for comparable and comprehensible processes within the AERZEN Group.

In addition, multi-site certification was launched last year. Examples of this are Operations Hungary and Aerzen Switzerland in accordance with ISO 9001 certification and Aerzen Ibérica (Spain) with the ISO 14001 and ISO 45001 standards.

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 10000406841-MSC-RvA-DEU | Initial certification date: 01 March 2014 | Valid: 01 March 2026 – 28 February 2029

This is to certify that the management system of

AERZEN

Aerzener Maschinenfabrik GmbH
Reher Weg 28, 31855 Aerzen, Germany
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
Development, design, production, assembly, maintenance, sales and service of blowers and compressors

Place and date:
Barendrecht, 16 February 2026

For the issuing office:
DNV - Business Assurance
Zwolseweg 1, 2994 LB Barendrecht, Netherlands

Erie Koek
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance B.V., Zwolseweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689. www.dnv.com/assurance

DNV

Certificate no.: 10000406841-MSC-RvA-DEU
Place and date: Barendrecht, 16 February 2026

Appendix to Certificate

Aerzener Maschinenfabrik GmbH

Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
Aerzener Maschinenfabrik GmbH	Reher Weg 28, 31855 Aerzen, Germany	Development, design, production, assembly, maintenance, sales and service of blowers and compressors
Aerzen Deutschland GmbH & Co. KG	Reher Weg 28, 31855 Aerzen, Germany	Sales, maintenance and service of blowers and compressors
Aerzen Austria Handelsgesmbh	Gewerbepark Tresdorf II / 1, 2111 Tresdorf, Austria	Sales, maintenance and service of blowers and compressors
Aerzen Italia S.R.L.	Via Raffaello Sanzio, 52 - 20021 Bollate MI - Italy	Sales, maintenance and service of blowers and compressors
RKR Gebläse und Verdichter GmbH	Braasstraße 1, 31737 Rinteln, Germany	Development, design, delivery, assembly, sales and service of blowers and compressors
Aerzen Turbo Europe GmbH	Freibusch 2-4, 31789 Hameln, Germany	Development, design, assembly, sales and service of turbo blowers
Aerzen Belgium N.V.	A.De. Coninckstraat 11, 3070 Kortenberg, Belgium	Sales, assembly, maintenance and service of blowers and compressors
Aerzen France S.A.S	Zone Industrielle 10, Avenue Léon Harmel, 92168, Antony Cedex, France	Sales, maintenance and service of blowers and compressors
AERZEN Nederland B.V.	Fotograaf 3, 6921 RR Duiven, Netherlands	Development, design, assembly, maintenance, sales and service of blowers and compressors
AERZEN Iberica S.A.U.	Calle Adaptación 15-17, 28906, Getafe (Madrid), Spain	Sales, maintenance and service of blowers and compressors
Aerzen Operations Hungary Kft.	2500 Esztergom, Dobogókői út 82., Hungary	Assembly of blowers
AERZEN Schweiz AG	Im Alexander 4, Gewerbepark Morgenstern, 8500 Frauenfeld, Switzerland	Sales, maintenance and service of blowers and compressors

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance B.V., Zwolseweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689. www.dnv.com/assurance

Page 2 of 2

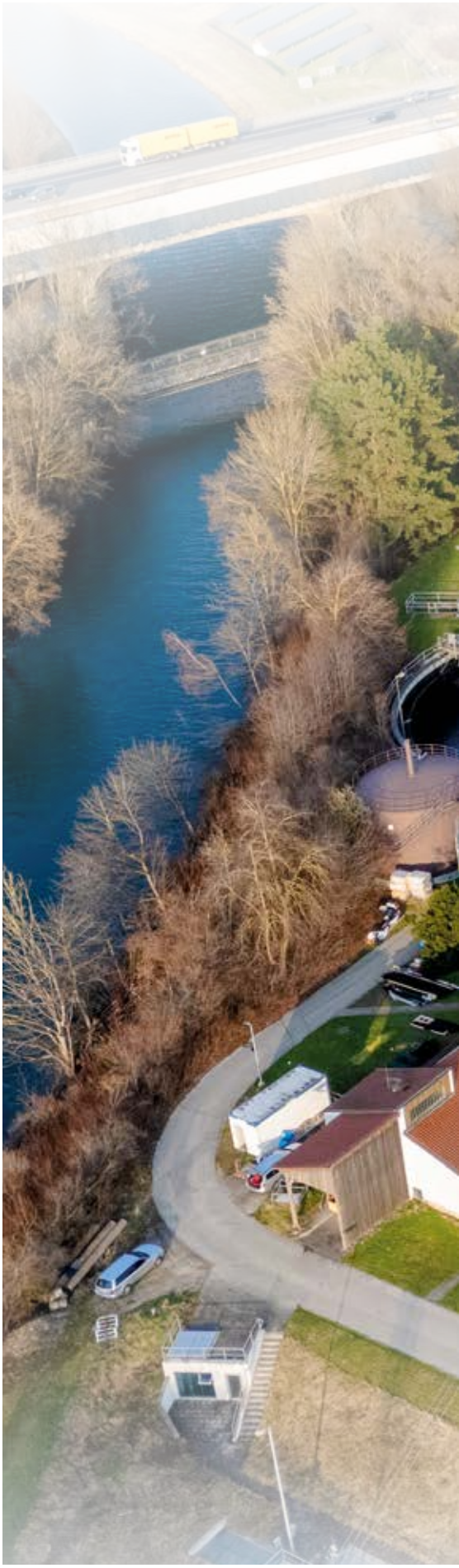
At the beginning of 2026, Aerzener Maschinenfabrik GmbH and numerous other AERZEN companies were recertified according to ISO 9001.

You will find AERZEN at IFAT 2026 in **Hall A3, stand 351**.

Efficiency arises in the system

Integrated aeration technology from AERZEN for the biology of the Unterföhring wastewater treatment plant

A holistic approach to aeration: in the Unterföhring wastewater treatment plant, AERZEN combines blowers, aerators and control systems into an integrated system - taking the biological treatment stage to a new level. The individual components are perfectly tuned to each other and enable a highly dynamic, load-dependent air supply. The results: energy and CO_2 savings of an estimated 40% with high control quality and permanently stable effluent values.



Digital information
Further information on various website links and QR codes on page 12.

A bird's eye view of the Unterföhring wastewater treatment plant

You will find AERZEN at IFAT 2026 in **Hall A3, stand 351**.

The municipality of Unterföhring on the north-eastern outskirts of Munich is an important media and insurance centre. The number of workplaces is correspondingly high. The just under 12,000 local inhabitants see an influx of up to 25,000 commuters every day. For the local wastewater treatment plant, this imbalance leads to considerable load fluctuations throughout the day. The load profile is also changing with the increasing shift of workplaces to the home office. As more employees are working from home, some of the previous wastewater volumes are missing during the day. The load fluctuations continue to increase as a result. "The volume of wastewater has changed significantly. We have to react to this in running operations, especially in the biological treatment stage," says Michael Schmidt-Biro, Deputy Operations Manager of the Unterföhring wastewater treatment plant, adding: "The previous design no longer met our requirements in terms of energy efficiency and adjustability. As a general overhaul of the blower technology was taking place in 2026 anyway, we took this opportunity to fundamentally optimise the entire aeration system." The municipality relied on the system expertise of AERZEN, whose experts implemented a holistic concept. The intelligent combination of highly efficient blower and aeration technology and smart control technology enables a precise, needs-based air supply with reduced energy consumption and lower long-term operating costs.

The holistic aeration concept from AERZEN enables a leap in efficiency in the biological cleaning stage.

Continuous modernisation with a focus on energy efficiency

The Unterföhring wastewater treatment plant has been in operation since summer 1981 and has been continuously modernised and upgraded to the latest state of the art. Among other things, it is equipped with a solar sludge drying plant in which the sludge from the digestion tower is dewatered from around 75% to almost 100% dry matter using solar energy. Co-digestion also increases gas production; the biogas produced is utilised in a gas turbine to generate its own energy and this reduces the amount of electricity required from the grid. The control room is also fully digitalised. "Wastewater treatment plants move between the poles of climate protection, costs and safety of supply. We consistently exploit the technical possibilities to reduce energy consumption and CO_2 emissions and ensure stable operation," emphasises Dipl.-Ing. (FH) Thomas Scholz, Head of Civil Engineering and Transport at Unterföhring, who is responsible for the technical equipment of the wastewater treatment plant. "With AERZEN, we are now taking the next step towards greater efficiency."

The Delta Hybrid is characterised by very energy-efficient operation and a high turndown. This allows the oxygen supply to be adapted to the load fluctuations of the Unterföhring wastewater treatment plant as required.

> Wastewater treatment plants move between the poles of climate protection, costs and safety of supply. We consistently exploit the technical possibilities to reduce energy consumption and CO_2 emissions and ensure stable operation. With AERZEN, we are now taking the next step towards greater efficiency.

Graduate Engineer (FH) Thomas Scholz,
Head of the Civil Engineering and Transport Department at Unterföhring

Holistic optimisation of the aeration system

The plant is designed for 30,000 PE (population equivalents), but the current capacity utilisation is only around 13,000 PE. The annual inlet volume is around 800,000 m^3. The biological treatment stage comprises two aeration tanks. The first is flowed through in three cascades connected in series, while the second is divided into three channels operated in parallel. The aeration was previously realised using AERZEN positive displacement blowers in combination with tube diffusers. A Delta Blower GM 25 S and two Delta Blower GM 50 L (volume flow range from 17.3 to 52 m^3/min, drive power 75 kW) were used.

The aeration system was redesigned to increase energy efficiency. Since March 2026, two AERZEN screw blowers of the type Delta Hybrid D 31 S with direct drive have

been installed (volume flow range from 6 to 29 m^3/min, drive power 30 kW). The blower output fell from around 52 to around 30 m^3/min. The two D 31 S are taken over for regular operation, while the GM 25 S remains as a redundancy machine. Oxygen is introduced via highly efficient MESSNER aeration panels®, controlled by the MESSNER® Control system.

Integrated system technology for a new generation of wastewater treatment plants

AERZEN thinks of aeration as an integrated system. Blower, aeration and control technology are perfectly in tune with each other – "One Hand - One Solution". "We look at the system as a whole and precisely coordinate the machine and aeration technology. The intelligent aeration control system takes care of this. This creates an integrated system with maximal efficiency," explains Gajanthan Arumugaswamy, Application Manager Wastewater at Aerzen Deutschland, adding: "Each project is individually designed by our engineers and process technology specialists. This is based on the inflow loads and the respective process requirements. From this, we determine the oxygen requirement, from which the quantity and configuration of the aeration elements and the design of the blower technology are derived." AERZEN works in close harmony with system manufacturers and engineering offices.

One blower for the entire turndown range

The decisive factors in choosing the Delta Hybrid were the high turndown and the focus on energy-efficient operation. The screw blowers have a direct drive using gear wheels, an IE5 synchronous permanent magnet reluctance motor and an integrated VFD and, depending on the project, enable energy savings of up to 37% compared to conventional blowers. Both sizes convey 100% oil- and PFAS-free process and compressed air (oil-free operation according to ISO 8573-1, class 0) and offer a very large turndown ratio of 1:5. The integrated AERtronic package control monitors and regulates all relevant pressure and temperature parameters, ensuring safe, efficient and transparent operation. With a maximum sound pressure level of 73 dB(A), these machines are among the quietest in their performance class on the market.

Two AERZEN Delta Hybrid D 31 S screw blowers with direct drive ensure the oxygen supply in the aeration tanks. A Delta Blower GM 25 S positive displacement blower serves as a redundancy machine.

Installation of MESSNER aeration panels®

Highly efficient aeration panels

The aeration technology is also designed for energy efficiency and long-term reliability. The MESSNER®Classic aeration panels in 2 × 1 m format are made of high-quality stainless steel and fitted with a permanently elastic, low-maintenance and blockage-free membrane film made of thermoplastic polyurethane (TPU). The separate air connection line of the aerator elements ensures even air distribution, improves adjustability and increases operational reliability. This means that each aeration panel can be taken out of operation, if required, which facilitates maintenance and replacement. The aeration panels are assembled directly on the bottom of the tank. Once the service life of 15 to 20 years has been reached, they can be renewed using the replacement panel method. The stainless-steel components are retained, and only the TPU diaphragm is replaced or refitted. This enables a high level of reusability of the components and reduces material and disposal costs.

The biological treatment stage comprises two aeration tanks. The first is flowed through in three cascades connected in series, while the second is divided into three channels operated in parallel.

Dynamic, load-dependent regulation of the oxygen input

Control is handled by the interactive MESSNER® Control system, which was specially developed for the dynamic, load-dependent regulation of oxygen input. Intermittent and alternating aeration can be realised using sliding pressure control, pulse aeration and demand-based recirculation control. The integration of ammonium and nitrate sensors allows process-controlled adjustment of the O_2 setpoint to the actual load. This ensures stable effluent values, high process stability and reduced energy

Regular checks ensure the quality of the treated wastewater and compliance with effluent values.

demand. At the same time, N_2O emissions are also minimised by avoiding over- and under-aeration.

Efficiency leap for the biological purification stage

"The new aeration system works very efficiently and can be flexibly adapted to different load ranges. This saves energy and reduces our maintenance costs," says an enthusiastic Michael Schmidt-Biro: "The investment costs for the aeration panels are somewhat higher, but thanks to the efficient oxygen input and the long service life of around 20 years, they are more economical over their entire service life. Another advantage is the homogeneous mixing of the activated sludge during the non-aerated denitrification phases by the control system. This means we can do without agitators. The high level of adjustability of the screw blowers also enables us to reliably map both low-load and high-load phases."

Energy savings of an estimated 40%

The bottom line is that the wastewater treatment plant in Unterföhring expects to reduce its energy consumption in the biological stage by around 40% thanks to the holistically harmonised concept, while at the same time reducing the associated CO_2 emissions.

The conversion was carried out at the plant during live operations. "Together with our partners, we carried out extensive work in advance so that conversion to the new aeration system could be implemented quickly and there was no downtime," says Gajanthan Arumugaswamy.

Modern, efficient wastewater treatment

Efficient, durable, low-maintenance and quiet: with the integrated system technology from AERZEN, Unterföhring is taking biological wastewater treatment to a new level. Blower, aerator and control system form a seamless gearing unit and turn the aeration into an intelligently and load-dependent controlled overall system. The result: high energy efficiency, stable processes and a high-performance system.

By the way, AERZEN blowers are not only used in the main biology, but also in the process water treatment for the treatment of the highly nitrogenous centrate from the digested sludge dewatering and in the sand trap. "We are very satisfied with the AERZEN technology. The blowers operate reliably and require little maintenance. The technology has also proven to be very robust over many years of operation," says Michael Schmidt-Biro. ○

Further information

https://www.aerzen.com/applications/water-and-waste-water-treatment

https://www.aerzen.com/product/screw-blower-delta-hybrid-direct-driven

https://www.unterfoehring.de/mobilitaet-umwelt/ver-und-entsorgung/klaeranlage.html

AERZEN
EXPECT PERFORMANCE

Hall A3 | Stand 351

Efficient by Nature
Sustainable by Design
It's in our DNA.

Intelligent linking of Roots,
Screw and Turbo Blowers
with aeration systems

AERZEN photo campaign
Your portrait for a better climate
For every portrait taken, AERZEN plants a tree. So, be a part of it!

Product Launch
4th May | 11.00 a.m.
Presentation of our new products for wastewater treatment.

AERZEN exhibition highlights

Unique
The new AERZEN screw blowers with direct drive

Innovative
The new AERZEN turbo blowers with air foil bearings

Intelligent
The perfect interplay between blower and aeration technology with smart control systems

Tour of the Unterföhring Wastewater Treatment Plant

Experience the perfect interaction between innovative blower and aeration technology and smart control systems live and in operation.

Register here

www.aerzen.com/ifat

You can also find AERZEN here

AERZEN | Rental Solutions: Hall A3, Stand 353
MESSNER | The Aeration Experts: Hall A3, Stand 514
German Water Partnership: Hall B2, Stand 227

AERZEN Party

05th May | from 16:30 p.m.
Cool drinks and live music with the "Singing Barkeeper".

You will find AERZEN at IFAT 2026 in **Hall A3, stand 351**.

AERZEN Delta Hybrid: new sizes D11S and D16S

More flexibility and efficiency in the lower volume flow range

AERZEN is expanding its successful Delta Hybrid series in the lower volume flow range. With the new sizes D11S and D16S, the compressor specialist is further expanding its portfolio of directly-driven screw blowers and creating additional flexibility for economical and energy-efficient process air generation in smaller performance ranges.

The AERZEN screw blowers of the Delta Hybrid series stand for maximum energy efficiency, minimum life cycle costs, 100% pure process air, high operational reliability and a long service life and are among the absolute high performers among process air generators. The two new sizes now bring these efficiency and technological advantages to new performance ranges.

D11S and D16S: small sizes, great performance

The smallest one is the D11S. The package is designed for a maximal volume flow of 780 m^3/h and proves that true Delta Hybrid performance is not a question of size. The D16S covers volume flows between 100 m^3/h and 1,020 m^3/h and adds a further, finely graduated performance size to the portfolio. System manufacturers and operators benefit from greater flexibility in terms of design and more precise adaptation to specific process requirements. Like all Delta Hybrid models, the new models also provide reliable 100% oil- and PFAS-free process air and operate highly efficiently and economically in an extended turn-down of up to 1:5. Energy savings of up to 37% compared to conventional blowers are possible.

Maximum energy efficiency with maximal reliability

The screw blowers are characterised by an innovative compressor stage with new, highly efficient screw rotor profiles and internal flow optimisation, motors with energy efficiency class IE4 or IE5 and a direct drive. One VFD is already integrated and ensures precise and stepless adjustment of the volume flow to the current demand. The packages are designed for maximum reliability and

Further information

https://www.aerzen.com/

https://www.aerzen.com/product/screw-blower-delta-hybrid-direct-driven

https://www.aerzen.com/products/control-technology/aertronic-unit-control

AERZEN is adding the D11S and D16S sizes to its successful Delta Hybrid series with direct drive.

durability and guarantee absolute process reliability. Contributing factors include bearings with a theoretical service life of more than 60,000 operating hours, pressure lubrication of the anti-friction bearings, extended oil change intervals of up to 16,000 operating hours and an oil cooler. The machines also set new standards in terms of noise minimisation and are among the quietest on the market in their performance class.

Integrated control and monitoring technology

The integrated AERtronic package control takes over the efficient control and monitoring of the Delta Hybrid. All relevant operating data can be transmitted to the master control system and accessed at any time via browser, tablet or smartphone. This simplifies operation, creates a high level of transparency and supports reliable process control. The result is maximum machine availability, reliability and efficiency.

Compact Plug & Play solution

The Delta Hybrid packages are fully pre-assembled and pre-programmed and are therefore immediately ready for connection and operation. The space-saving side-by-side installation and the excellent volume flow per square metre value result in smaller machine rooms and thus lower building investments. Operation and maintenance are performed exclusively from the front and rear.

Future technology for maximal efficiency

Exceptional energy efficiency, extreme compactness, durability and reliability, minimal maintenance costs and quiet operation: with the new sizes D11S and D16S, AERZEN opens up further application possibilities for the Delta Hybrid series and consistently develops the successful screw blower technology further. ○

At a glance

	D11S	D16S
Volume flow	100 to 780 m^3/h	100 to 1020 m^3/h
Turndown ratio	1:5	1:5
Differential pressure	up to 1,250 mbar (g)	up to 1,250 mbar (g)
Motor rating	30 kW	37 kW
Sound pressure level	max. 69 dB(A)	max. 70 dB(A)

You will find AERZEN at IFAT 2026 in **Hall A3, stand 351**.

AERZEN presents new turbo generation 6

Energy efficiency can be increased by up to 15%

AERZEN is pushing the technological development of its successful Turbo series and is presenting the first sizes of the new generation 6 with the AT125-0.9S G6, the AT125-1.3S G6 and the AT250-0.9S G6. They set new standards in terms of energy efficiency, turndown and digitisation and open up new possibilities for future-oriented applications. Another new addition to the portfolio is the AT450-0.9S turbo stage for high volume flows. AERZEN is thus further expanding its position as a technology leader in the range of powerful and efficient turbo solutions.

AERZEN turbo blowers stand for high energy efficiency, extreme compactness, maximal durability and lowest life cycle costs.

At a glance

	AT125-0,9S G6	AT250-0,9S G6	AT125-1,3S G6
Volume flow	83 m^3/min	157 m^3/min	70m^3/min
Turndown ratio	1:4	1:5	1:3
Nominal pressure	up to 900 mbar (g)	up to 900 mbar (g)	up to 1,300 mbar (g)
Motor rating	130 kW	190 kW	150 kW
Sound pressure level	max. 74 dB(A)	max. 76 dB(A)	max. 74 dB(A)
Footprint	1,3 m^2	1,5 m^2	1,3 m^2

With the new generation 6 (G6), AERZEN is developing the innovative G5^{plus} design of the Turbo series consistently. At the heart of the package is a new turbo stage with maximum energy efficiency and an unrivalled turndown of up to 1:5. The decisive factor here is the perfectly tuned interaction of impeller, spiral and all flow-guiding components, whose design is based on complex CFD-supported flow analyses and is precisely matched to the respective performance class. Compared to conventional turbo technology, energy efficiency can be increased by up to 15%. The control system has also been completely redesigned and the operating display has been rated IoT-ready. This is complemented by a compact and space-saving design that reduces the machine footprint and facilitates the installation in machine rooms.

New turbo packages of the generation 6

The new Aerzen Turbo AT125-0.9S G6 covers volume flows up to 83 m^3/min and the new Aerzen Turbo AT250-0.9S G6 up to 157 m^3/min. Both turbo sizes are designed for nominal pressures of 900 mbar. The Aerzen Turbo AT125-1.3 G6 version, on the other hand, achieves a volume flow of up to 70 m^3/min and a nominal pressure of up to 1300 mbar. A powerful and energy-saving permanent magnet synchronous motor, which meets the future requirements of the IE5 classification (ultra premium efficiency), as well as the particularly aerodynamic design of the turbo impeller and spiral casing ensure a consistently high overall efficiency. The packages also deliver extraordinary performance in partial load operation.

High efficiency and operational reliability

The modern multilevel VFD technology reduces the power loss in the motor by up to 90% and thus significantly improves the overall efficiency of the system. Another advantage: is that the VFD eliminates the need for an additional motor choke or a sinusoidal filter, required for standard VFDs. In addition, the air-cooled AERZEN VFD is designed for intake temperatures of up to 50°C. The innovative AERZEN air foil bearing with double coating ensures an increased service life of more than 80,000 operating hours and maximum reliability. In addition, the turbo blowers operate absolutely oil-free and PFAS-free in process air generation.

Further information

https://www.aerzen.com

https://www.aerzen.com/products/turbo-blowers

IoT-ready for remote monitoring

The new AERZEN Turbo control system is designed for remote monitoring as standard. The system can be activated and used if there is appropriate Internet connectivity on site, for example via LAN, WLAN or mobile radio. It enables transparent monitoring of relevant operating parameters in real time, including differential pressure, volume flow, temperature, speed, electrical power, operating hours, warnings and error histories. This increases transparency and operational reliability and supports integration into networked systems.

New AT450-0.9S turbo stage

The new AT450-0.9S turbo stage complements the turbo series in the upper volume flow range. It is designed for volume flows of up to 300 m^3/min and nominal pressures of up to 900 mbar and is the largest size in the current turbo portfolio. Other advantages include increased energy efficiency by up to 15% and an extended turndown. The innovative twin turbo stage with dual-flow compression is specially designed for higher volume flows and offers significant advantages in terms of efficiency, operational reliability, turndown and installation space. ○

Turbo expertise for the process gas portfolio

AERZEN Group integrates GPE Turbo

AERZEN, a pioneer in compressor technology and one of the world's leading manufacturers of blowers, compressors and turbos, signifcantly expands its Turbo portfolio through the integration of GPE Turbo from Leipzig in the higher pressure and volume flow range. Customers benefit from a significantly expanded product portfolio specifically for the process gas industry, bundled customising expertise and a global service and sales network.

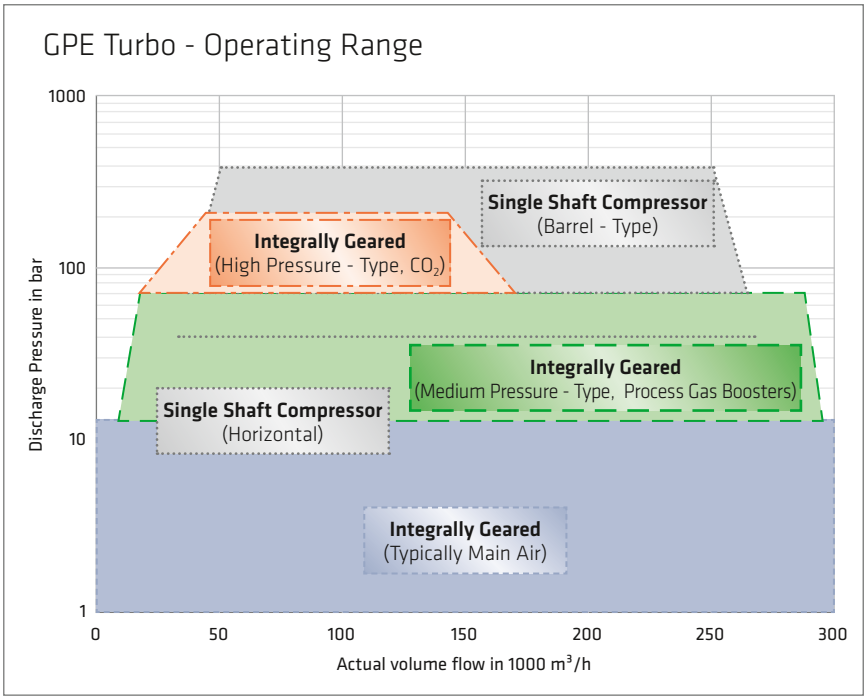
GPE Turbo is a proven specialist for single and multi-stage turbo solutions for the process gas industry and has many years of experience in a wide range of scopes of application as well as worldwide references. A particular strength lies in customised solutions and future-oriented technologies, such as "green" technologies, for example Green DRI or Green Methanol. An own R&D centre and in-house manufacturing enable application-specific adaptations with a short time-to-market. Since the end of January 2026, GPE Turbo, together with its entire existing workforce, has been operating as a business unit of the newly established AERZEN Process Gas GmbH.

The integration of GPE Turbo into the AERZEN Group leads to an extension of the product portfolio for process gas solutions to include turbo compressors with a pressure range of up to 300 bar and up to 300,000 m^3/h volume flow, for example for oil and gas technology, steel production, power plant technology and chemical and process engineering. The range of single-stage turbo

With the integration of GPE Turbo's expertise – here is a photo of the Leipzig site – AERZEN is strengthening its position in the international process gas business.

We are looking forward to working with AERZEN and the integration into the Group's global sales and service network. This brings together our expertise and enables us to market our customised turbo solutions worldwide.

Ralf Stephani,
Director Business Unit GPE Turbo



The diagram illustrates the field of application of the volume flows and pressure ranges.

solutions in the low pressure segment up to 1.5 bar will also be significantly expanded. In addition to the proven AERZEN turbo series Generation 5^{plus} (up to 9,400 m³/h) and Generation 5 (up to 16,200 m³/h), volume flows of up to 100,000 m³/h can now be provided. Process air applications in wastewater technology, mining and vapour compression benefit from this.

"AERZEN and GPE Turbo - that's a perfect fit. We share the same DNA and have a consistent mindset - innovative strength, quality thinking, future orientation, consistent customising and a pronounced solution orientation. Together we define new standards and shape the success of our customers," emphasises Klaus Peter Glöckner, Managing Director of AERZEN.

Ralf Stephani from GPE Turbo adds: "We are looking forward to working with AERZEN and the integration into the Group's global sales and service network. This brings together our expertise and enables us to market our customised turbo solutions worldwide."

Technical pioneering spirit

German Pneumatics Engineering GmbH - the company known in the market as GPE Turbo - was founded in Leipzig in 2013. The primary focus of the business was initially on services, retrofits and reverse engineering for turbo compressors. After initial successes in servicing third-party compressors and thanks to consistent customer orientation, the company entered the international project business for new installations just a few years later - with single and multi-stage centrifugal compressors developed in-house, the so-called integrally geared turbos. The technical pioneering spirit paid off and has characterised the company, which was expanded in 2023 to include GPE-Turbo Berlin GmbH, to this day (see also box "Expansion and milestones").

Turbo compressors tend to be used where process conditions are stable and where suction volume flows exceed the capacities of screw compressors. In addition,

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Klaus Peter Glöckner,
Managing Director of AERZEN

multi-stage centrifugal compressors achieve significantly higher final pressures and efficiencies. Whenever process conditions fluctuate or gases are contaminated, screw compressors can fully utilise their strengths (compared to turbos).

The GPE portfolio

Three compressor types are available in different versions:

- **Type CC:**
  up to eight-stage geared turbo as a high-, medium- or low-pressure variant
- **Type CCS-H:**
  up to eight-stage, single-shaft types with horizontally split cylinder
- **Type CCS-V:**
  high pressure (barrel-type) compressor

Electric or gas motors as well as steam turbines can be used as drives. As is customary in the international project business in the oil and gas or energy sector, the systems are carried out as standard in accordance with US regulations API 672 for air applications and API 617 for special gas applications.

The application limits of the portfolio have recently been extended to up to 300,000 intake cubic metres per hour for the CC and CCS-H types and up to 300 bar discharge pressure for the CCS-V barrel-type compressor. The tip speeds of the gearbox turbos with semi-open impellers and titanium alloys are up to 500 m/s. ○

Expansion and milestones

At the GPE balancing station, impellers of up to 1,200 mm in diameter are tested for imbalances at high speed.

Steady expansion characterised GPE Turbo after its early years. As part of the first new plants for satisfied customers in the DRI (Direct Reduced Iron) and methanol production range, the office and workshop space was significantly expanded for the first time between 2018 and 2020, and a new hall was built. This was followed in 2023 by the planning of a supplemental production centre with around 2,500 square metres of space, which is nearing completion.

Since 2020, GPE has been manufacturing the impellers previously purchased itself using its own five-axis milling machines. By means of modern CFD simulation (Computational Fluid Dynamics), the growing test/inspection field and bundled engineering expertise, optimum conditions for further efficiency increases and application-optimised machine designs have been created in Leipzig.

Since then, an impressive success story has unfolded: in just six years, customers in around ten countries have been supplied with customised compressor packages for a wide range of applications in the chemical, oil and gas and steel industries - all top segments of AERZEN Process Gas GmbH. The number of employees has now increased to over 50. The in-house R&D team works on innovative machine designs and new manufacturing technologies such as 3D printing of large-volume, critical components. In addition to the Leipzig site, the Berlin office, which handles business relating to single-shaft compressor types, will also continue to operate.

State-of-the-art machinery

With the project references and reputation, the test department facilities and machinery have also grown continuously and are now of the highest standard. The Leipzig location operates one of the world's most modern test departments for turbo compressors, which covers the entire speed range of all operating cases. The Schenck Overspeed vacuum test centre, with four megawatts of installed drive power and a speed of up to 63,000 rpm, ensures the quality of the impellers. All rotating parts of the compressors are manufactured and tested in-house. The key production facilities include four five-axis milling machines, two high-speed balancing stations and extensive lifting capacities with twelve cranes with lifting capacities ranging from 2.5 to 80 tonnes. Further conventional turning, milling and drilling machines round off the production capacities. ○

AERZEN Rental successful with new biogas blowers

Rental units prove their worth in practice

The demand for rental solutions in the biogas production range is constantly increasing. AERZEN Rental is responding to this with a new series of biogas blowers type GVO 2006.

The new rental units, which follow the convenient "plug and play" principle, offer a decisive difference to the familiar standard solutions: the switch cabinet, which also houses the VFD, is removable and can therefore be easily positioned outside the ATEX zone.

All biogas blowers have ATEX class II 2 G Ex h IIA T3 Gb approval. All of the internal piping is made of high-quality stainless steel.

Blowers with a GM 35 S stage are currently available in biogas design. The volume flow turndown ranges from 11.3 m^3/min to 28.7 m^3/min with a differential pressure of 900 mbar.

Smooth operation

Current deployments indicate that this concept has proven its worth in practice: from the paper and sugar industries to direct feeding into the natural gas network of the Sindelfingen municipal utility, the new biogas rental solutions from Aerzen Rental ensure smooth operation.

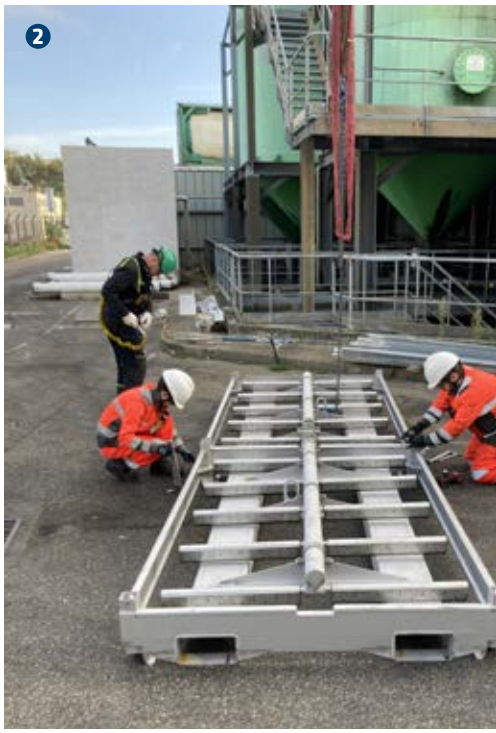
AERZEN Rental meets a growing demand with the new GVO 6000 biogas blowers.

For more information about AERZEN Rental, simply scan the QR code:

Optimised aeration systems for complex wastewater

AERZEN Rental combines blower technology with innovative aeration technology for maximum efficiency and flexibility

For more than a decade, AERZEN Rental supports wastewater treatment plant operators by supplying temporary aeration systems.



A complete wastewater treatment plant is planned

In the future, AERZEN Rental is planning to work closely with the AERZEN product line "Wastewater Treatment System" to offer a complete temporary AERZEN wastewater treatment system that would include tanks and pumps.

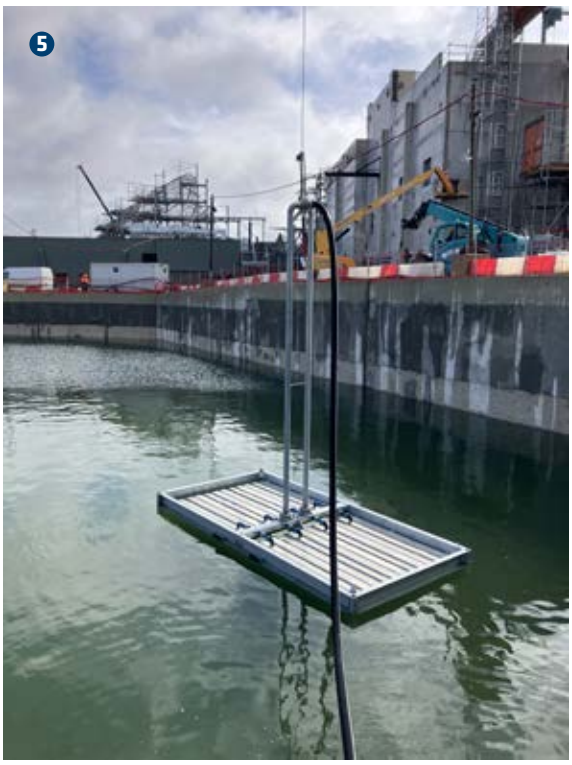
Technical facts:
- Dimensions: 5x2.4m
- SSOTE (Standard Surface Oxygen Transfer Efficiency; the efficiency with which oxygen is transferred into the water under standard conditions): up to 7% per meter
- Connection with the blower through camelock hoses
- Can be on feet or attached to a floater
- Typical accessories: DO probe for determining dissolved oxygen, acid dosing units, hoses and manifolds.

The aeration sets, or grids are the natural extension to the AERZEN blower portfolio, as often a broken blower is a symptom of an aging aeration system rather than an of an aging blower itself.

For many years now, AERZEN blowers, combined with the right aeration technology, have been the most efficient solution for the aeration process in municipal wastewater treatment plants. AERZEN also provides customised solutions for industrial customers: to treat wastewater with highly varied compositions – for example, from dairies, refineries and paper mills – the AERZEN Group has expanded its aeration portfolio.

Wide range of different aeration technologies

Now that specialised companies like SUPRAFILT and MESSNER (in Europe), STS and AQUARIUS (in the USA), have joined the AERZEN Group, AERZEN Rental's



1 *Floating grids in action*
2 *Stainless steel coarse-bubble pipe aerators*
3 *EPDM pipe aerators made by SUPRAFILT*
4 *MESSNER aeration panel in a removable grid frame*
5 *MESSNER panels in Disneyland Paris, France*

customers have access to a wide range of aerators and technologies.

In Europe, aerators from both MESSNER and SUPRAFILT were added to the range of products, and AERZEN Rental was able to expand its product range as follows:

- Coarse-bubble stainless steel aerators: for very demanding effluents, like refineries, or tanks which only need mixing
- EPDM pipe aerators: general use, good all rounder, cost effective to replace
- Silicone pipe aerators: with very good results in dairy industries
- Polyurethane aeration panels: very efficient, the best solution for municipal wastewaters

The grids consist of a stainless steel frame to which the aeration elements are attached. Depending on the application, these can also be fitted with sacrificial anodes (for example, in saltwater applications). The elements can be placed directly on the tank floor or fitted with feet at each corner to clear obstacles or existing pipework or aerators. Alternatively, the elements can be attached to floats if the tank floor or waterways cannot be used. ○

Compressed air gamechanger

Efficiency as a success factor: shaping the future with AERZEN technologies

With the extension of the oil-injected SI series of screw compressors, AERZEN is setting new standards in the upper performance segment. The proven SI series is now available in additional sizes and thus covers a further extended scope of application. The new performance spectrum now ranges from 25 to 1,662 m^3/h with pressure ranges from 5,500 to 13,000 mbar and motor ratings from 7.5 to 160 kW. Operators benefit from even more flexibility and power reserves - without having to compromise on energy efficiency, reliability and cost-effectiveness.

Invisible, universal, indispensable: compressed air is the driving force behind countless industrial processes - and at the same time an immense cost factor. AERZEN shows that there is another way. Innovative compressors, intelligent air conditioning, digital technologies and customised services make the difference. The result: remarkable energy efficiency, maximal reliability and optimum compressed air quality - no matter what the requirements are.

High-tech compressors from AERZEN

With the compressors of the series DS (oil-free, double-stage) and SI (oil-injected, single-stage) AERZEN offers powerful, flexible and economical solutions for

Compressed air is indispensable for many industrial processes.

The single stage, oil-injected air compressors in the SI sesies has now been expanded to include additional sizes. The PM motor delivers high efficiency even at low speeds, achieving excellent energy efficiency of around 96% even during partial load operation.

With the DS series, AERZEN offers a highly energy efficient solution for oil-free compression from 4 to 10.5 bar.

compressed air generation up to 10.5 bar (oil-free) or 13 bar (oil-injected). The screw compressors are at home in all applications, processes and environments and score points with innovative compressor stages, state-of-the-art motor technology such as permanent magnet motors (SI series), integrated VFD technology, smart control and an extremely compact design. Maintenance costs are low and sound pressure levels are minimum. Thanks to their high power density and reliability, the packages make a significant contribution to reduced life cycle costs and ensure noticeable savings.

"Compressed air generation is connected with high energy consumption and is therefore a significant cost factor. At the same time, it offers an important lever for energy savings," says Stephan Brand. The AERZEN Director Marketing & Director Turbo Business adds: "This is exactly where we come in with our solutions. Our compressors combine maximum energy efficiency with uncompromising reliability and support you on your way to greater efficiency and process reliability. They reduce operating costs, minimise downtime and enable significant increases in productivity. The savings potential can be maximised even further with integrated heat recovery systems."

The DS and SI series at a glance

	DS series: double-stage oil-free screw compressors	SI series: single-stage oil-injected screw compressors
Differential pressure	4 to 10.5 bar	5.5 to 13 bar
Volume flow	259 to 3,636 m^3/h	25 to 1,662 m^3/h
Motor rating	55 to 355 kW	7.5 to 160 kW
Turndown ratio	from 40% to 100%	from 40% to 100%

Safe and pure processes

If absolutely oil-free compressed air quality is not required for the downstream process, oil-injected SI series compressors impress with their optimum combination of performance, robustness and economy. In many processes, however, there is a strict zero tolerance for contamination. In order to reliably exclude impurities in the compressed air - such as dust, moisture, oil particles or microorganisms - it is essential that the compressed air generation and treatment systems are seamless and carefully designed and installed. These include oil-free compressor stages, reactive silencers without absorption material, PFAS-free coatings and perfectly matched filter systems.

The powerful AERZEN compressors are extremely durable and ensure reliable operation. This also benefits the chemical and petrochemical industry, among others.

AERZEN's oil-free compressed air technology ensures 100% product purity - ideal for the food and beverage industry.

Home game for the DS compressors from AERZEN. Our DS compressors are completely oil-free in accordance with ISO 8573-1 Class 0, and PFAS-free, guaranteeing 100% product purity. Sound attenuation is achieved by means of interference methods. This process eliminates the need for absorption material. Thanks to the purity of the medium, contaminations in the machine are also prevented. There are no pressure losses caused by deposits in the machine, which reduces cleaning and maintenance costs. The pressure losses that occur in every compressed air application remain constant over the entire service life.

Compressed air systems for every challenge

Whether DS or SI: all AERZEN compressors are designed for continuous operation with minimum maintenance costs. The robust construction and service-friendly design ensure high machine availability - even in demanding production environments. Even with high wind loads of over 200 km/h, at extreme heights (with correspondingly low absolute ambient pressure), in highly dusty environments, in extreme climatic conditions or in earthquake-prone areas, the machines ensure a reliable compressed air supply. A comprehensive range of options and integrated modifications is available for targeted customisation to individual process requirements.

Professional compressed air treatment for optimum compressed air quality

However, the quality of the compressed air does not depend on the compressor alone. The decisive factor is the interaction between compression and processing. "Compressors work with the ambient air. The impurities it contains, such as steam, dust, oil particles or moisture, can have a negative impact on processes and must be reliably avoided - especially in applications where compressed air quality determines the success of production," explains Stephan Brand, and he clarifies further: "Air conditioning is not a supplement, but a process-critical necessity. A correctly dimensioned compressed air treatment system ensures optimum air quality and forms the basis for maximum process safety, productivity and cost-effectiveness."

AERZEN therefore offers a wide range of solutions for filtering, cleaning and drying the compressed air produced in the compressor. The product range extends from application-optimised filters to cyclone separators with almost 100% condensate separation, condensate drains with level control depending on the climate, temperature and time of year and day, and oil-water separators through to refrigeration and adsorption dryers, oil heaters and aftercoolers. All components are designed to secure product quality, extend the service life of machines and systems,

The wide range of options and auxiliary parts enables targeted customisation to individual customer process requirements.

minimise pressure losses, reduce energy consumption, lower operating costs and guarantee process safety. The systems are particularly effective in sectors with high hygiene requirements or sensitive processes. In addition to absolute cleanliness, precise regulation of air humidity is frequently also essential.

160 years of technological innovation

The challenges are clear: rising energy prices, stricter legal requirements and higher quality and sustainability requirements. At the same time, the markets require flexible solutions that can be adapted precisely to the unique features of a location. AERZEN understands what drives companies and shows the way forward. The solutions from AERZEN combine know-how and experience backed by over 160 years of technological expertise and optimally combine performance, reliability, cost-effectiveness and sustainability. They consistently focus on the needs of the user and are individually customised to the application-specific requirements. ○

Further information

https://www.aerzen.com/product/oil-injected-single-stage-screw-compressor-series-si

https://www.aerzen.com/product/oil-free-double-stage-screw-compressor-series-ds

https://www.aerzen.com/applications/pneumatic-transport-for-bulk-material-handling/safety

https://www.aerzen.com/products/productsearch

Efficient by Nature
Sustainable by Design
It's in our DNA.

Intelligent linking of Roots, Screw and Turbo Blowers with aeration systems

- Up to 55% energy saving potential in the biological wastewater treatment process
- Minimising CO_2 footprint by 65% to achieve your common climate goals
- Perfect interaction between innovative blower technology, tailored aeration solutions and smart control systems

LET'S TALK

about efficiency and sustainability
www.aerzen.com/wastewater

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