



AERZEN COM·PRESS

AERaudit

Transparency of savings potential for wastewater treatment plants

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New turbo generation

Premiere for Aerzen Turbo G5plus

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New alignment

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Dear Readers,



Klaus-Hasso Heller, CEO of AERZEN

The year 2018 has already picked up speed and one of the most important trade fairs for us, the IFAT in Munich, is just around the corner.

Is your wastewater treatment plant well prepared for the future? Read in this issue how you can guarantee reliable, energy-efficient operation with AERZEN Performance³. Performance³, is the unique and customised solution based on Positive Displacement Blower

Delta Blower, Positive Displacement Compressor Delta Hybrid and Turbo Blower Aerzen Turbo. The starting point is always the load curve of your wastewater treatment plant, because every wastewater treatment plant is different and deserves an individual consideration and perfectly tailored machine configuration. The AERZEN compound control AERsmart ensures that your machine pool is always operated at the energetic optimum.

Speaking of energy efficiency: Do you already know our new G5plus series for Turbo and Delta Blower? Learn more about an increased efficiency of 5 - 10 percent!

If you are not sure which AERZEN machines or machine combinations are the right ones for your plant, simply request the AERaudit. Our service team will develop the optimal concept for you by measurements on site.

The best way to get a first impression is to visit the AERZEN stand in hall A3, stand no. 351/450. We look forward to welcoming you!

Sincerely yours,



AERsmart from AERZEN has the task of optimally distributing the amount of air, required by the aeration energetically optimal to the blowers installed at the Bomlitz wastewater treatment plant. This wastewater treatment plant is located about 1.5 kilometres from the DOW chemical plant.

Turbo-Hybrid symbiosis: The chemistry is right here

Thanks to AERZEN blowers and smart global control system, DOW increases the energy efficiency of the wastewater treatment plant

DOW produces cellulose-based chemical precursors at Bomlitz in Lower Saxony. The communal wastewater treatment plant operated by an American chemical group is accordingly designed to treat the chemical wastewater originating in production. DOW has now used a modernisation of biology to use an intelligent, fully automatic combination of flow and displacement machines from AERZEN in its blower technology.

Cellulose is an important construction material of nature and stabilises plants and trees. It is the main component of plant cell walls and is made of wood or cotton. DOW uses the basic properties of cellulose in the Industrial Park Walsrode (Heath area) and produces derivatives which can develop a wide variety of properties depending on their composition and processing. Some gel at high or low temperatures, others form films or stick, some make liquids differently viscous. Due to their water-binding, thickening and adhesive properties, these derivatives are in demand for a large number of products. In the food and pharmaceutical

industries, for example, they replace gluten in baked goods, help to reduce the fat content in food and enable the delayed release of active ingredients in medicines. In the construction sector, methyl cellulose provides the right properties in tile adhesives, wall plasters or mortar.

Communal wastewater treatment plant for chemistry and municipalities

The waste water arising from production is treated in the wastewater treatment plant 1.5 kilometers away from the factory. DOW operates the 350,000 EWG (population equivalent) plant as a communal wastewater treatment plant, thus

also taking in the municipal wastewater of the city of Bomlitz and the surrounding villages.

In the course of continuous modernisation, the company replaced three turbo blowers equipped with magnetic bearings and causing more and more expenses in 2017. Today, a combination of two AERZEN turbo blowers with air foil bearings and one Delta Hybrid package supplies the aeration tanks of biology. With a rated motor output of 150 kW each, the two AT200 turbo blowers deliver an intake volume of 5340 cubic metres per hour at a maximum differential pressure of one bar. Both assemblies cover the base load in the communal wastewater treatment plant and run with an average differential pressure of 0.8 to 0.9 bar, according to Sebastian Göritz, assistant foreman.

Both turbo machines are operated via an integrated frequency converter so that the volume flow conveyed can be adjusted according to the load operation with a regulating range of 40 to 100%. Decreasing oxygen



Securing subsidies for energy efficiency

Thanks to public subsidy programmes, energy efficiency now has a double pay off. In order to exploit this potential, AERZEN will offer its customers comprehensive support in the areas of energy efficiency, energy recovery and resource management together with the state-subsidised e.qa network. The climate protection targets adopted by the German government are accompanied by numerous subsidy programmes that can be used by operators of water management facilities. A distinction must be made between concept and investment subsidies for energy in the context of climate protection.

Customer-oriented support by AERZEN and e.qa ranges from measuring volume flow requirements, energy analysis and optimisation and the preliminary clarification of suitable funding options for energy concepts to support in applying for funding.

One example is sewage treatment: wastewater treatment plants are among the largest energy consumers in municipalities. With the latest technologies, considerable amounts of energy can be saved. In order to meet the increased requirements of the water and wastewater industry, AERZEN has paid special attention to the energy efficiency of its assemblies. In addition, well thought-out solutions for waste heat utilisation can be provided. AERZEN thus also meets the political targets set for energy efficiency and energy generation.



Sebastian Göritz, wastewater treatment plant Bomlitz:

That's an innovative thing.

The AERsmart global control system controls the combination of the three blowers autonomously. The remote terminal solution has its own visualisation with touch pad.



Stepping in for low loads: The Delta Hybrid distinguishes itself by a high energy efficiency even in partial load operation.

> demand leads to the gradual shut-down of both base load devices, as the efficiency of turbo machines decreases drastically with low speeds. "In this case, the Delta Hybrid takes over the air supply", explains Sebastian Göritz. In contrast to the flow principle of the turbo compressors, in partial load operation the displacement principle makes the rotary lobe compressor accordingly more efficient due to its high regulating range of 25 to 100% in low volume flow requirement. With the installed Delta Hybrid type D 98 S, the volume flow conveyed amounts to 5800 cubic metres per hour with a motor power rate of 200 kW.

The Hybrid represents the very best of both worlds

AERZEN combines the operating principles of positive displacement blowers and screw compressors in the Delta Hybrid, providing an energy-efficient solution. The machine uses the Roots principle of full pressure compression in low pressure ranges and the screw compressor principle with internal compression in higher pressure ranges. Compared to conventional compressors,

this type of machine reduces energy consumption by approx. 15 percent.

However, the communal wastewater treatment plant in Bomlitz goes a big step further in terms of energy efficiency, and combines turbo blowers and rotary lobe compressors into an overall system that is independently optimised thanks to the AERsmart AERZEN global control system. "That's an innovative thing", says Sebastian Göritz. AERsmart is designed to optimally distribute the air volume requested by the control room to the connected assemblies. This distribution is based on the available technologies and the associated characteristics and efficiencies. "The controller decides which machines from the pool are operated with which performance data to achieve the best overall efficiency", says the wastewater master at DOW. AERsmart thus goes far beyond cascading with speed control and always runs the machine pool at the energetic overall optimum.

The AERsmart control is equipped as a remote terminal with a visualisation on a touch display. The operational staff can immediately see the operational state on

site and can read the current key figures of the connected assemblies or transfer them into the control room. Sebastian Göritz is confident that plant modernisations in this intelligent form will continue to increase. "Machines that have an ideal speed range should also be operated there". Savings in energy consumption of at least 15 percent speak for themselves, especially as most electricity is consumed in biology.

Outlook

In view of the new efficiency improvements offered by Industry 4.0 for wastewater treatment, in future, DOW intends to monitor the partial streams more continuously in Bomlitz. Online analytics in particular offers very good development potential. "In the case of carbon suppliers, we have to carry out the measurements where the carbon is produced and not only in the wastewater treatment plant. We are in a position to act instead of just reacting", explains Sebastian Göritz. The connection of the AERsmart control to the control level is just as much the right way in this context as the control of freight quantities on the basis of actual values.

Produce with improved energy efficiency and remain competitive with AERZEN

AERaudit makes the savings potential of wastewater treatment plants transparent

Load operation in wastewater treatment plants is subject to considerable fluctuations. Collection and subsequent evaluation of the operating data from a blower station with the high-precision methods of AERaudit delivers actionable results on the current utilisation and efficiency, and informs how it can be designed to run much more efficiently in the future.

AERaudit is an innovative service developed exclusively by AERZEN to improve the energy efficiency of wastewater treatment plants. Municipalities in particular need to make savings wherever possible, and wastewater treatment plants are often their biggest energy consumers. 60 to 80 percent of the total energy requirement of a wastewater treatment plant is generated in the field of biological aeration. As an analysis specialist, AERZEN is a competent partner for running energy checks, and undertaking meaningful analysis in order to optimise energy consumption by blower stations.

The basis for a process and energy-efficient clarification plant is inventory analyses and evaluation of the current operating data. Here, the actual load requirement must be determined and the savings potential demonstrated. In three steps AERaudit can derive the most economical and future-oriented plant configuration.

The AERaudit service is a component of Water 4.0, a forward-looking process orientation in water management. As one of the market leaders in wastewater technology, AERZEN accompanies its customers on their journey towards Water 4.0 with

the holistic concept AERwater, which includes solutions for digitalisation, automation and resource efficiency. AERaudit provides the data basis.



With AERaudit, AERZEN determines the exact load requirements of wastewater treatment plants.

Three steps to transparency

1. On-site measurement: the AERZEN service team brings transparency to the key figures of your blower station. A mobile measuring station records the relevant data in your ventilation system. Volume flow, system pressure, temperature and kW output are measured live and recorded in the form of load profiles.

2. Analysis: evaluation of the recorded data is carried out carefully and in detail at AERZEN headquarters – every low and peak load, no matter how small, is registered. Based on the results, AERZEN experts then develop one or more solutions tailored to customer requirements that are as efficient as possible.

3. Report: all data of your blower station is displayed in detail and transparently. Temperatures, load profiles and energy consumption are visualised and explained in detail in the form of diagrams. We will also show you your customised Performance³ solution with the ideal machine configuration. In addition, what the saving potential of energy or CO₂ is and which amortisation times can be achieved.

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Premiere for the new turbo generation

Aerzen Turbo G5^{plus}: more compact, more efficient, simply better

With the new generation Aerzen Turbo G5^{plus} AERZEN has developed the most compact and efficient turbo in its class.

The now introduced series Aerzen Turbo G5^{plus} lives up to its name, because it convinces through numerous advantages. The new turbos have an extremely compact design and require very little space. Further outstanding features are the innovative AERZEN air foil bearings with double coating and the new multilevel frequency converter technology (> 55 kW),

which reduces the heat loss in the motor to a minimum and, consequently, improves the total efficiency significantly. A further advantage: an additional motor throttle or a sine filter, which have to be used on conventional frequency converters, is no longer necessary.

A further decisive development are the new air foil bearings with double coat-



AERZEN sets standards with the new generation Turbo G5^{plus}.

The advantages at a glance

- Increase in energy efficiency by up to 10 percent compared to conventional turbo technology
- Extended bearing life thanks to innovative AERZEN air foil bearings with double coating, maximum reliability even under extreme operating conditions
- 100 percent oil-free
- Low maintenance effort, only regular filter change
- Extended application possibilities at ambient temperatures up to 50 °C
- Active pump protection through automatic speed increase
- Space-saving design

ing consisting of Teflon and graphite. It convinces through an increased temperature resistance and lifetime of > 80,000 hours of operation independently from start and stop cycles.

Aerzen Turbo G5^{plus} is offered for volume flows from 300 m³/h to 8,400 m³/h and for a maximum pressure of 1,000 bar. Eight sizes from the small AT 25-0.8 G5^{plus} to the largest model AT 200-1.0 G5^{plus} are currently available, five more are in preparation.

Modernisation with AERZEN technology

Eleven assemblies for Spanish wastewater treatment plant

A wastewater treatment plant in the Spanish city of Ourense has been modernised by means of AERZEN technology. Eleven AERZEN assemblies are now being used there for waste water treatment.

About 350,000 people live in the catchment area of the city of Ourense in the northwestern province of Galicia. Comprehensive modernisation measures have been taken to clean the waste water in this region in accordance with current regulations. These include the construction of collection tanks, a new wastewater treatment plant, dismantling of the existing wastewater treatment plant and the environmental remediation of the affected area.

With a maximum flow rate of 4,238 m³/h of waste water to be treated, the new plant in Ourense is three times larger than the previous wastewater treatment plant. AERZEN technology plays an important role here. The assemblies installed therein by Aerzen Ibérica are:

- Four Delta Blower GM 7L
- Two Hybrid D 98S
- Five Turbo AT 300

Bernardo Alonso and Jesús Carrasco from the technical team of Aerzen Ibérica, and Alexander Mau from Aerzen, participated in the commissioning of the machines. The combination of technologies is possible



AERZEN technology was used to renew the wastewater treatment plant in the Spanish city of Ourense, where around 350,000 people live.



thanks to the three different technologies developed by AERZEN (see infobox) for oil-free air solutions: Delta Blower (conventional blowers), Delta Hybrid (hybrid machines) and Aerzen Turbo (turbo blower).

Optimisation of processes

The wastewater treatment plant in Ourense comprises the compact SEDIPAC 3D lamellar transfer plant and the CYCLOR biological wastewater treatment plant for the water

line and an advanced digestion process for the sewage sludge line, consisting of thermal pretreatment by thermal hydrolysis and subsequent mesophilic anaerobic digestion, as well as a special assembly for the treatment of waste water (CLEARGREEN).

The design, and the incorporation of new technologies for waste water treatment, made it possible to optimise the processes at the wastewater treatment plant in Ourense, with the following results:

- Reduction of energy consumption
- Increase in energy production
- Reduction of biological solids
- Upgrading of sewage sludge for agricultural use
- Reduction in the consumption of reactants
- Reduction of odour emissions and the volume of air to be deodorised

Delta Blower series extended

With the Generation 5 positive displacement blowers AERZEN has set new standards. Now, the series is extended by two new blower stages: GM 110 S and GM 130 S types close the gaps in the volume flow range. The figures "110" and "130" stand for intake volume flows of 110 and 130 m³/min respectively (6,660 and 7,800 m³/h). Previously, there had been a jump from 90 m³/min (5,400 m³/h) to up to 150 m³/min (9,000 m³/h) and with it also a jump in the nominal diameter from DN250 to DN300. With the new blower sizes, this volume flow range is now finer graded, which brings decisive advantages for plant manufacturers and operators in terms of investment costs, dimensions and control range.

What is also new: the enhanced Delta Blower series G5^{plus}. Energy efficiency is currently the most important focus, particularly in the field of compressor technology where energy costs exceed 90% of the life-cycle-costs. AERZEN has always been a standard setter to develop more efficient and environmentally friendly processes. To expand upon the success of the AERZEN Delta Blower series, an exciting new design sets energy saving records. The new G5^{plus} series distinguishes itself by increased energy efficiency of up to 5% and significantly reduced dimensions.

Experience the new blower sizes at the trade fair stand of Aerzener Maschinenfabrik at the IFAT in Munich and the ACHEMA in Frankfurt.

This is AERZEN Performance³

AERZEN defines Performance³ as an individual solution for the oxygen supply of biological aeration in waste water technology. Individual assemblies of Delta Blower positive displacement blowers, Delta Hybrid rotary lobe compressors and Aerzen Turbo blowers of the AERZEN range of products or a combination of assemblies of different efficiencies and regulating ranges can be used.

What is so special about Performance³

Every technology has its strengths, but is also subject to physical limitations. By means of a possible technology mix and the use of different sizes, the individual strengths of assemblies can be added to a highly efficient combination with the best control range. The AERZEN Performance³ concept takes into account the respective requirements of a plant and offers you a right-sized solution that suits you and your plant perfectly. You will be supported by AERZEN wastewater experts during the entire process until your Performance³ solution is found.

How does AERZEN proceed?

In a first step, the load profile of a wastewater treatment plant is evaluated and important parameters for the following calculations are determined. If this load profile is not known it makes sense to record the measured value before. For this purpose, AERZEN uses its AERaudit product which is used to measure the volume flow and other important variables during operation of a plant (see page 2). An analysis of the recorded load profile forms the basis for the Performance³ process. At the beginning, the solution space consists of a multitude of variants. Taking your plant requirements into account, AERZEN will develop the Performance³ solution that best suits you and your plant.

New Head of Opportunity Engineering in Supply Process Gas

On 1 September 2017, Carsten Holldock assumed responsibility for the group Opportunity Engineering in the Supply Process Gas division. The graduate mechanical engineer, born in 1970, has more than 20 years of professional experience in the field of rotating equipment. His previous roles were in development, product management and sales management. The "Opportunity Engineering" group at the Aerzen site, led by Holldock, consists of six experienced process gas specialists.



Carsten Holldock



The Team Supply Process Gas at AERZEN head office

Reorganisation according to Lean criteria

AERZEN Process Gas: new alignment, more customer benefit

AERZEN customers will benefit from the reorganisation of the company in the range Process Gas.

For more than six decades, AERZEN Process Gas has been available to provide customised solutions with maximum customer support covering the total product life cycle, as well as in modernisation or re-engineering projects. The value promise that AERZEN gives, as a family-owned business builds on long-term win-

win partnerships, and its customers can rely on the company. "In future, we will be able to support the projects of our customers more specifically and, consequently, create values as a preferred partner from the early stages of the evaluation and the front-end engineering design", explains Pierre Noack, manager of Supply Process Gas.

AERZEN created the necessary preconditions for this on 1 November 2017: on this date, the former Process Gas Division became a value stream, now known as "Supply Process Gas". This reorganisation, which

was done according to Lean criteria offers AERZEN's customers several advantages in their cooperation with us. Above all, a significant enhancement of the early technical preclarification can now be achieved, in order to accelerate the (basic) engineering. Among others, a shortened specification and procurement time of "long-lead items" with critical delivery dates, as well as more efficient preparation of documentation and faster approval, have been made possible. This front loading is pushed by the new group Application Management. In

parallel, specific application-related standard concepts will deepen existing business relations in AERZEN's key segments. "We will address the most important purchasing criteria by further reducing the project risks of our customers and improving their return on investment", emphasises Noack. With a powerful, experienced and expanding group in Aerzen, the competence centres in the USA and Hungary, as well as numerous subsidiaries in close proximity to our customers, AERZEN is well equipped to do this. Expect Performance! ○

New field of activity for AERZEN's Biogas Business Unit

AERZEN expands its product range with standardised gas compressors

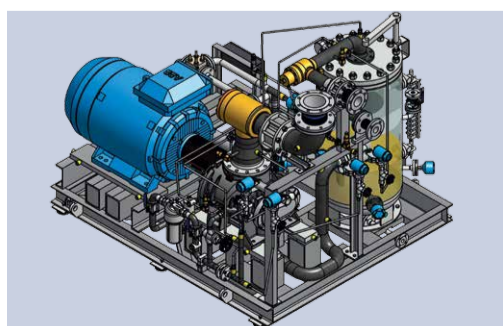
AERZEN takes another step along the path of becoming an application-oriented compressor supplier for the compression of gases.

Whenever an application-oriented compressor solution is required, but no special customer-specific requirements are placed on the design of the compressor package, AERZEN now has the appropriate machine: based on a modular system, AERZEN now offers these customers standardised gas compressors of the series VMY and VMX.

Product liability issues have become increasingly significant in recent years, so, in line with all other AERZEN products, the modular concept ensures strict compliance with the applicable regulations. As these compressors are defined as compressors for handling process gases, EN 1012-3 (safety requirements for process gas compressors) is also applicable here. According to these requirements, for example, the design of the compressor housing in a ductile material is mandatory – see EN-GJS-400 LT (GGG40.3).

With the extension of AERZEN's product range through these new standard gas compressors, the field of activity of AERZEN's biogas business unit expands accordingly. This

business unit, which was established five years ago specifically to serve the biogas market and its customers, is responsible, in co-operation with the global AERZEN sales organisation, for sales of this product line. In addition to Axel Cichon, head of the biogas business unit, and sales and project engineers Jens Dripte and Tim Haasler, Olaf Malachewitz in sales and Jannik Bartling in order processing are new members of the team. The biogas business unit team is looking forward to being a competent partner for AERZEN's customers. ○



AERZEN's portfolio now also includes standardised gas compressors series VMY and VMX.



AERZEN VMX unit in the pilot plant in Thailand

AERZEN supports biomethane production in the "land of smiles"

Biogas compressors for pilot plant in Thailand

Thailand, the "land of smiles," is renowned for its tropical beaches and carefree holiday pleasures. But Thailand is also an industrial and agricultural country, which has been making great efforts for some time to reduce CO₂ emissions in order to help the environment. A successful example of this is Thailand's first biogas treatment plant in which biogas is produced from agricultural waste. In a downstream multi-stage treatment process, the CO₂ and other impurities contained in the biogas are separated from the methane. The biomethane produced in this way is then further processed to CNG (compressed natural gas) and can thus be used as fuel for CNG-powered vehicles.

Important components of this pilot plant are AERZEN biogas packages of the VMX series, which are used to compress the biogas in various process steps. The customer chose AERZEN products because of their well-known reliability, the low maintenance requirements of this compressor series and the multiple references that AERZEN can show with its biogas compressors for the most varied biogas treatment processes. ○

AERZEN relies on decentralised training concept

APAC Training Centre opened

The Training Centre of the Asia-Pacific region (APAC) was opened in Singapore – this is the first regional training centre established within AERZEN group.

The AERZEN group consequently implements the quality requirements of the market to the service competence and establishes a decentralised training concept. The concept is based on the “Train-the-Trainer-Principle”. This means that: selected technicians from the regions will be trained in the head office as AERZEN trainers. In their training, in addition to gaining technical skills knowledge about standardised processes, they are also exposed to our training philosophy. We also place importance to the communication skills of the trainers in order that the training contents can be passed on profes-



The APAC Blower BASIC 1+2 training group with (from left) trainer Liew Fook Kim (Asia), the fitters Huang Ya Qiang (China), Lee Mollison (Australia), Jalang Anak Lumpo (Asia) and Rahul Mehta (India), as well as Mike Kersting (Aerzener Maschinenfabrik)



The training group with the trainers Michael Bolte (Aerzener Maschinenfabrik, 2nd from left) and Liew Fook Kim (Asia, 3rd from left)

sionally. Our target is to achieve a uniform trainer and training level groupwide of which our customers profit worldwide.

An important part of the concept is a standardised, uniform equipment in the regional training centres, with equipment and tools, supplied by the head office. The product-specific training documentation rounds off the concept.

In October 2017, a big step forward was taken towards the successful implementation of the training concept. The first group of four fitters from India, Australia, China and Malaysia were trained on AERZEN products in the APAC Training Centre in Shanghai. They received Blower BASIC 1+2 training – this is a basic four week course which focuses on the overhauling of blower stages.

In addition to the core practical elements of the training, theoretical knowledge was also covered. An official certificate and a fitter passport certificate were the awards for their successful participation in the training. The fitter passports can only be issued by certified trainers in AERZEN group: they are proof of the professional qualification of our fitters.

Customer Satisfaction Survey 2017

Key findings at a glance

Customer opinions are valuable and extremely important to us. Therefore, between mid and late 2017, AERZEN asked a significant number of customers in selected markets in Europe and South America to participate in a Customer Satisfaction Survey. Thanks to the great response, a representative sample was achieved, which is based on almost 500 telephone interviews with participants from France, Italy, Spain, Portugal, Mexico, Colombia and Peru.

During this survey, both overall satisfaction and loyalty, as well as the individual performance characteristics in the different value-added areas of AERZEN, were recorded. The results are based on “school grades” that were converted into a points system (0-100) and from which action needs were defined.

General evaluation

“How satisfied are you with AERZEN?” This question was answered at 78 points with “very satisfied” or “satisfied.” When asked about long-term overall loyalty, 81 percent of the customers surveyed rated AERZEN as a loyal and future-proof partner. While this is a good result, there is also room for improvement.

Evaluations of the various value-added areas

The good ratings for overall satisfaction and loyalty are no reason for self-satisfaction for AERZEN. This is because, as is so often the case, it is crucial to go into more detail and to examine the individual value-added areas and performance criteria carefully. Customer satisfaction and

loyalty are closely linked to how important the individual performance parameters are to customers. The performance criteria “Products” and “Field Service” are the most important areas of evaluation for AERZEN customers. We are pleased to report positive results there in particular. In other important areas, such as “Local Headquarters,” “Quotation Preparation,” “Order Processing” and “Delivery Service,” AERZEN was judged with a satisfactory

result, which also means a corresponding optimisation potential. Even though relatively less importance was attached to “Complaint Management” by customers responding to the survey, this assessment has given us a clear signal on which we will work.

Consequences and further action

As customers, you have made it clear to us that we can improve our performance in

the areas of “Local Headquarters,” “After Sales Service” and “Complaint Management” - because these are important parameters for sustainable and customer-oriented cooperation.

This is what we want to achieve

Our primary goal at AERZEN is to offer our customers a smooth cooperation that saves time and effort. This year’s Customer Satisfaction Survey has brought us clear insights directly from the most important source - from you, our valued customers. We have been given clear tasks for optimisation. It is now up to us at AERZEN to take on board the feedback to further optimise the cooperation with you.

Performance Range	Importance	Action required	Evaluation
Products	++	■	Good
Field Service	++	■	Good
Local Headquarters	+	■	Satisfactory
Preparation of Quotations	+	■	Satisfactory
Order Processing	+	■	Satisfactory
Delivery Service	+	■	Satisfactory
After Sales Service	+	■	Satisfactory
Marketing	0	■	Satisfactory
Complaint Management	0	■	Needs Improvement

The most important results from the Customer Satisfaction Survey 2017 at a glance.

Questions, Suggestions, Ideas?

We are looking forward to all your queries, comments and suggestions on our customer journal and we are at your disposal for further information on AERZEN products and services. Give us a visit on our website:

www.aerzen.com/news

Klaus Peter Glöckner new member of the General Management

Since 1 December 2017, the General Management of Aerzener Maschinenfabrik consists again of three persons: Graduate engineer Mr. Klaus Peter Glöckner completes the Management team and has got to know the company intensively over the past few months. Klaus Peter Glöckner is responsible for the EMEA region. He was previously employed as Chief Sales Officer and Managing Director at Messrs. Kelvion.



Klaus Peter Glöckner

Aerzen Colombia celebrated its 10th anniversary

On 27 September 2017, Aerzen Colombia S.A.S., based near the capital, Bogotá, celebrated its tenth anniversary. The subsidiary, which when it opened was called Aerzen Andina, started out as an agency of Aerzen Iberica. This developed into two separate subsidiaries - Aerzen Colombia, which now has 15 employees, and Aerzen Andina Peru, where four colleagues are currently employed. The markets in Bolivia, Ecuador and Venezuela are supervised by commercial agents. Ricardo Castillo, Managing Director of Aerzen Colombia, is pleased about the tenth birthday celebrations: "We hope to be able to celebrate many more anniversaries and to contribute to the growth of the AERZEN group."



The team of Aerzen Colombia in celebratory mood (from left): Miguel Calderon, Alejandro Jimenez, Natalia Rojas, Alfonso Vilches, Laura Rlos, Ricardo Castillo, Isabel Ortiz, Anderson Castiblanco, William Moreno, Oscar Sanchez, David Salazar, Vanessa Franco, Luis Gama, Andres Gonzalez

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The team of Aerzen USA in front of the expanded company building in Coatesville.

View into the modernised and expanded main production hall

The newly planned production area was also presented at an Open House

Aerzen USA celebrates the expansion of its headquarters

At Aerzen USA all the signs point to growth and expansion. This is evidenced by the recent expansion of the company's headquarters in Coatesville, Pennsylvania, by around 2,000 square metres, a development which the company celebrated at an Open House event held on 19 September 2017.

The festive event in Coatesville was well attended: participants included the management of Aerzen Germany, representatives of the Commonwealth of Pennsylvania, representatives of the U.S. sales team, employees, customers, suppliers and personnel from construction companies. The keynote speakers were, Tony Morris, President of Aerzen USA, Neil Weaver from the Pennsylvania Department of Economic & Community Development and Klaus-Hasso Heller, CEO of AERZEN.

As a result of the expansion of the building, which has increased the available space by 50 percent, the facility has new office and seating areas, new conference rooms and a new break room. The additional production and storage space created takes account of the growing product range and Lean production.

The planning for the redesign of the production areas was carried out by a team of employees from the Technology division at the AERZEN parent company and Aerzen USA. At a one-week factory planning workshop in Aerzen, the layout of the production hall, as well as the set-ups of the production and logistics processes, were

revised. The factory structure was developed in close cooperation with local colleagues in Coatesville and the Lean team, combining site-specific conditions and

experience as well as proven AERZEN processes and Lean criteria.

When entering the production hall, a clear structure is immediately visible. This is as a result of the newly-designed material flow, workstations equipped according to 5S and visual management, which means, for example, the colour coding of the various areas according to product types, floor markings for material supply and visual signals for material control.



The keynote speakers on occasion of the opening of Aerzen USA (from left): AERZEN CEO Klaus-Hasso Heller, Tony Morris, president Aerzen USA, and Neil Weaver of the Pennsylvania Department of Economic & Community Development

Facts at a glance

- Number of employees: 112
- Size of the company site: around 5,800 square metres, including 1,400 square metres of office space and 4,400 square metres of production
- Ecological characteristics of the company premises:
 - Permeable paved areas with underground layers of rock to store rainwater
 - Solar systems that generate a large part of the company's energy requirements
- Ground ducts that channel outside air into the interior to cool the production areas
- Recycled furniture and materials throughout the building
- Wild meadow with native trees and bushes instead of well-kept lawn
- Geothermal heat pump for heating and cooling
- Straw bale construction of the large conference room: R-value 48
- Footpaths with 40 percent recycled glass



The new repair centre



The new Turbo Blower assembly line



Packaging of process gas products