Comfortable, efficient and secure

Compressor controls and data-based services

AERZEN
EXPECT PERFORMANCE

Contents

Convenient, efficient and safe
On the way to Industry 4.0

Reduce energy costs and conserve resources

Compressed air generation accounts for around seven percent of industrial power consumption. AERZEN has recognised this considerable saving potential early and paves with digital control technology the way to the efficient, demand-oriented compressed air generation 4.0.

The generation of compressed air for use in industry or in wastewater treatment is energy-intensive. In particular the aeration of wastewater treatment plants is the focus of efforts to achieve energy efficient compressed air generation. The air supply alone in the activated sludge stage of wastewater treatment plants frequently accounts for more than 70 percent of the energy costs in this range.

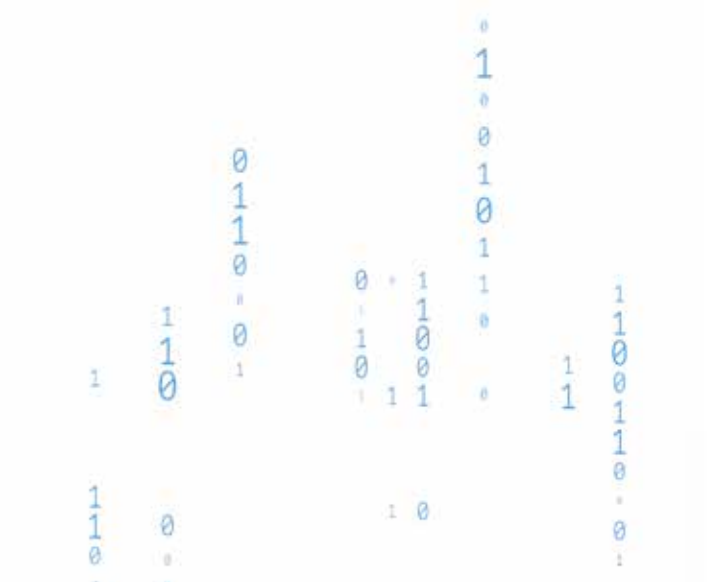
Manufacturers such as AERZEN have been able to significantly improve the efficiency of their positive displacement blowers, rotary lobe compressors, screw compressors and turbo blowers in recent years. The master control technology with the AERtronic Master and AERsmart as well as the data-based solutions from AERprogress offer even greater potential for energy savings.

Transparency and safety

Operators can use modern measuring technology to ensure more transparency in their processes and adapt compressed air generation to the demand profile. The signals from the special sensors and actuators can be integrated into the compressor controls. This leads to more safety in the plant processes. Continuous optimisation of the operation and maintenance processes are possible at any time. The trend in process air supply is towards Industry 4.0. It designates the intelligent networking of machines and processes in industry with the help of information and communication technology.

- How can energy costs be saved in wastewater treatment?
- What are the options when designing new plants?
- How does Predictive Maintenance fit into the total process?

On the following pages we would like to provide you with our answers to these and other questions.



LET'S TALK

"...convenient, efficient and safe solutions for your path to Industry 4.0"

AERtronic
More transparency, more safety, more efficiency

AERtronic is the intelligent package control system from AERZEN. Designed to give you more. More transparency about your plant's status. More efficiency, knowing the system status at all times. More possibilities to perform targeted analyses. Or to integrate further components - for example power cabinets.

Your customer benefit

- Comprehensive transparency on machine condition and operating data
- Energy-efficient operation through optimum control of the process parameters
- Reliable system operation through integration of special sensors and actuators
- Industry 4.0 compatible
- Use of digital services (AERprogess) and the AERZEN Cloud

The intelligent machine control from AERZEN - Basis for all standard packages

AERtronic sets benchmarks.

Because, when it comes to comfort and functionality, the intelligent and uniform package control from AERZEN can hardly be surpassed. Developed for the Delta Blower, Delta Hybrid and Delta Screw ranges, AERtronic takes control of the efficient regulation and monitoring of your machines. Components such as power cabinets from other manufacturers can be easily integrated. With its sophisticated range of functions, AERtronic offers you a wide spectrum of options for controlling, safeguarding and maintaining your compressed air system.

Transparency For sustainably higher operating times

AERtronic gives you more. The system displays operating data, keeps the operating hours counter, reports operating events at an early stage and archives the information. This makes it possible to show at any time how the package is integrated into the process. In this way, any corrective measures can be initiated in a very targeted manner. And this also has clear advantages in terms of maintenance, for example, to make the planning of service calls more efficient.

The new AERtronic - the way into the digital future

With the new edition of the AERtronic control system AERZEN paves the way into the digital future. The newly developed model series replaces the analogue circular instrumentation and offers the user a user-friendly, clear and transparent way to analyse and process relevant process parameters. In the AERtronic control system, all measured values converge and are systematically evaluated. In this way it is always possible to operate the plant at the optimum point and to achieve maximum efficiency with maximum service life. Thanks to the machine control system, the plant operator can achieve full protection and, thus, align his processes for maximum effectiveness. The integrated maintenance book also makes it easier to plan maintenance and, thus, increases maintenance efficiency.

In the same way, almost all common and standardised interfaces of the industry standard allow any data point and any information to be easily transported to higher-level process control systems. This gives plant operators and production managers a clear view of the availability, efficiency and productivity of the machine. The functional scope of the intelligent control system ranges from demand-oriented control to securing compressed air processes and optimising maintenance operations.

The system provides information on all relevant operating data, reports operating events at an early stage and ensures the complete documentation of all information. In this way, weak points in the process can be reliably identified and targeted corrective measures can be initiated. In terms of user-friendliness, the new AERtronic has set a new market standard. The customer can view all data and information on a state-of-the-art resistive 7 inch touch display in a user-friendly design. In addition, the screen technology also allows operation with work gloves.

This means that the user can now individually create the home screen and save his most important parameters as a favourite. In addition, the new AERtronic offers font size adjustment in several gradations as well as backlighting that can be adjusted to the lighting conditions and is, therefore, easy on the eyes. AERtronic also offers new market standards in terms of application areas. It can be used both indoors and outdoors. Thanks to its IP65 rating, it withstands all weather conditions and can be used outdoors at temperatures down to -20°C. Optional protection is provided by a protective hood, which also significantly enhances durability.

AERtronic basic equipment

- Certified according to UL, CSA,
- Micro SD slot
- Operation -20°C to +55°C
- Intuitive navigation via touch screen and 7" paint graphic TFT display
- Monitoring of process values
- Output or logging of events
- Continuous recording of operating/service hours
- Protection class IP65 for display
- Extensive language selection
- Communication via MODBUS RTU/TCP (standard/ Ethernet) and EtherNet/IP

Extension options

- Certified according to UL
- Monitoring of electrical auxiliary drives
- Control by system pressure for more energy efficient operation
- Fault notification via SMS
- Control system for acoustic hood heating and electrical fan
- Visualised vibrational monitoring with limit value observation
- Modifiable for special voltages
- WebView - Module for web-based remote monitoring
- PROFIBUS DP, PROFINET©

AERtronic Master

Thanks to the AERtronic Master, it is possible to improve the overall efficiency of the plant, and to make the utilisation of the individual machines more homogeneous. In addition, the AERtronic Master offers the option of graphically displaying the operating status of the machines and sending the data to the customer's control room in compressed form. The connection is made via the RS485 Modbus: the connection is made via Profibus-DP or ProfiNet.

- Innovative control system for speed-regulated and unregulated compressors and blowers
- Fast and uncomplicated commissioning
- Consumption-dependent activation/deactivation of compressors/ energy savings of up to 30%
- Supplementary cost savings through optimised running times of the compressors and optimal adjustment of the maintenance intervals
- 7" colour display with touch function
- The display provides the most important information of the total compressed air station at a glance
- Operating states of the connected compressors
- Graphical representation of the network pressure as a temporal curve progression
- Automatic control system for up to 12 machines
- Regulation via oxygen content possible

In comparison - AERZEN machine tunings

	AERtronic	AERtronic Master	AERsmart	AERprogress
Local machine control	✓			
Master integrated control system for load distribution		✓	✓	
Intelligent control of the machine combination to maximise efficiency			✓	
Digital Services with Aerzen Digital Platform Connection (Cloud)				✓
Machine Park Management worldwide live monitoring				✓
Condition monitoring Avoid machine failures, optimise maintenance times				✓
Energy Management Cross-plant consumption optimisation				✓

AERZEN Control technology
Always at the optimum operating point

AERtronic Basic, Advanced, Premium
The differences between the expansion stages at a glance

AERtronic **Basic**
Digital display element

The AERtronic Basic variant acts as a digital machine parameter display and fault indicator. In addition, the device uses sensors to identify critical conditions in the process and shuts down the machine, if necessary, to prevent damage. The display of the AERtronic Basic control system allows the user to clearly read off the following parameters, among others:

- Intake pressure
- Discharge pressure
- Oil pressure
- Discharge temperature
- Belt monitoring via discharge pressure
- Operating hours
- Maintenance messages
- Service history

AERtronic **Advanced**
Active control of processes

The AERtronic Advanced control unit extends the range of functions of the Basic variant by the possibility of actively controlling processes. The optional frequency inverter control creates a symbiosis of control unit and controlled system. This means that the operator can control the machines to the point without the hazard of overproduction - and can thus achieve energy-efficient operation. The connection of frequency inverters is open-brand and independent. Thus, the customer can use his own components or AERZEN standard frequency inverters.

This function enables to make processes in the plant even more transparent and to identify potential for improvement at an early stage. This functional diversity is particularly advantageous in the case of the Delta Hybrid rotary lobe compressors and Delta Screw screw compressors and is therefore provided as standard in the latter. Anyone looking for an "Industry 4.0 ready" solution for their processes will find an advanced and user-friendly machine control system in the AERtronic Advanced.

AERtronic **Premium**
Further interfaces and cloud compatibility

In the premium segment the user can integrate the intelligent AERtronic control into the Aerzen Digital Platform. There, the plant operator and user can, then, acess a wide range of digital services in order to increase the efficiency of his machines as well as the availability and productivity sustainably and analytically with the help of artificial intelligence.

Remote monitoring via WebView

The transmission, analysis, visualisation and monitoring of data is of particular importance in the master control system and optimisation of compressed air processes. Therefore, AERZEN has created with the WebView concept a central control instrument, which extends the functional scope of the AERtronic control decisively. The module gives the user access to the operating and service data of his individual machine from anywhere in the world. The integration of WebView offers decisive advantages for the user:

- High transparency of current and historical plant statuses
- Online access to operating data, operating hours, error messages and more
- Worldwide availability
- No additional software required
- Higher process reliability and availability
- Simple and clear maintenance planning
- Unidirectional access via customary stationary or mobile terminal devices

		Basic	Advanced	Premium
Digital Display instrument	7” full touchscreen display	✓	✓	✓
	Digital display of all measured parameters	✓	✓	✓
	Display of warnings, faults and maintenances	✓	✓	✓
	Designed for indoor and outdoor installation up to IP65 and ambient temperatures in operation from -20°C to +55°C	✓	✓	✓
	Machine control by start signal	✓	✓	✓
	Extensive language selection	✓	✓	✓
	Functional extensions via activation codes	✓	✓	✓
	Emergency shutdown in case of machine malfunctions	✓	✓	✓
	Process data storage on SD card	✓	✓	✓
	Process control connection via Modbus RTU (RS485)	✓	✓	✓
	Process control connection via Modbus TCP (RJ45)	Option	Option	✓
Active plant and process control	Visualisation of the measurement data via trend graphs	•	✓	✓
	On-site switch on/off via touch	•	✓	✓
	Integration of special sensors and actuators	•	✓	✓
	Function update via SD card	•	✓	✓
	Remote control of the machine via bus and digital communication	•	✓	✓
	Process control connection via ProfiNet® or ProfiBus®	•	Option	Option
	Process control connection via EtherNet/IP	•	Option	Option
	Process control according to set pressure and oxygen content in customer system	•	Option	Option
Remote monitoring and optimisation in the cloud	Connection to Aerzen Digital Platform via 4G/LTE modem	•	•	✓
	AERprogress Machine Park Management Live monitoring with remote access from anywhere	•	•	✓
	AERprogress Improvement System Increase of machines and plant efficiency	•	•	Option
	AERprogress Consumption Certification: reports according to energy management standard ISO 50001:2018	•	•	Option
	AERprogress Availability Management: optimisation of availability	•	•	Option
	AERprogress Usage-based Maintenance: maximisation of maintenance intervals	•	•	Option

More intelligent control of the blower combination

Achieve significant efficiency gains

AERZEN has with Blower, Hybrid and Turbo the best machine technologies for this task. AERsmart, a new higher-level control system, further increases their performance. AERsmart distributes the air volumes optimally to the technologies and their individual efficiencies. The result: stand-alone efficiency values close to the theoretical optimum. Additional savings of up to 15%. Integration of other makes is also possible.

AERsmart -
intelligent, efficient, trendsetting

Appropriate service of load changes

The load operation in biological wastewater treatment plants is characterised by strong fluctuations. The innovative machine control system AERsmart is the intelligent module that distributes the requested oxygen demand to the machinery in such a way that light, medium and heavy loads are processed as efficiently as the existing configuration allows. The characteristic diagrams and efficiencies are integrated in the algorithm of the control system. In this way, the installed machinery operates as close as possible to the theoretical maximum efficiency.

Autopilot for up to 12 machines.

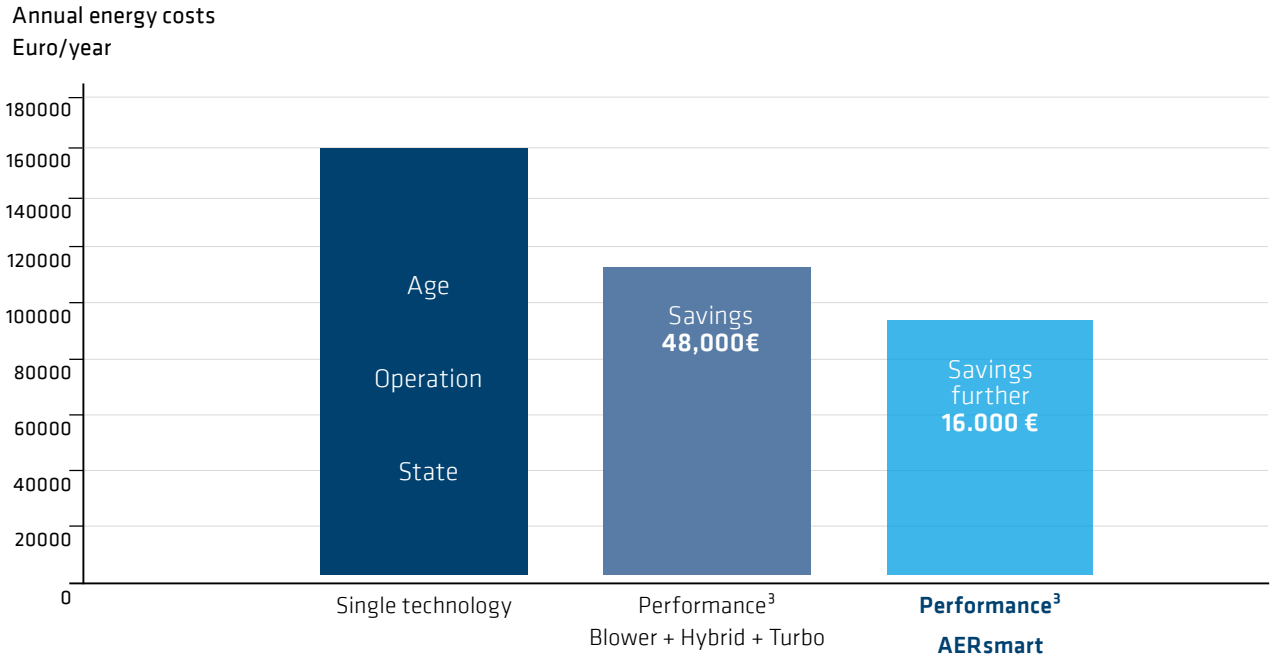
AERsmart takes over the complete control and regulating management of a group of compressors and increases the enormous energy saving potential resulting from the combination operation of different machine types of the Performance³ world. Even third-party products and installations with only one machine technology can be controlled via the master control system. In this way, AERsmart can control up to 12 machines to maximum efficiency - for efficiencies close to optimum as never before and a new level of efficiency in the aeration tank.

Even more performance for the "Dream Team" of water treatment.

AERsmart differs from classic so-called "group control systems", only controlling compressors of the same type. AERsmart also controls compressors of different technologies, primarily Performance³ configurations made by AERZEN. Each machine technology and each machine size has different efficiencies within its characteristic diagram. AERsmart shares the required air volume so that the highest efficiencies of the individual machines or the entire configuration are utilised. In this way, the installed machinery operates as close as possible to the theoretical maximum efficiency.

Strong trio made by AERZEN - Blower, Hybrid and Turbo

Savings potential in figures - Shortest ROI times



Example of the German wastewater treatment plant with 326.000 population equivalents (PE)

Cleverly tune the air supply
Operate load profiles more efficiently

AERsmart consists of innovative soft and hardware components. The required oxygen volume is transferred to the AERZEN integrated control system as setpoint value e.g. as 4-20 mA signal or via bus connection. AERsmart selects the optimal machine combination, the most efficient load distribution and visualises the results in real time.

Universal interface

- For networking with the machinery and the process control system
- Connection via analogue signal and various bus protocols such as Modbus, Profibus, Profinet
- Internal database and USB and SD card slot
- Option: embedded web server for data transmission via internet, remote diagnosis

Flexible design

- Wall mounting or console design
- Simple installation

Efficient control

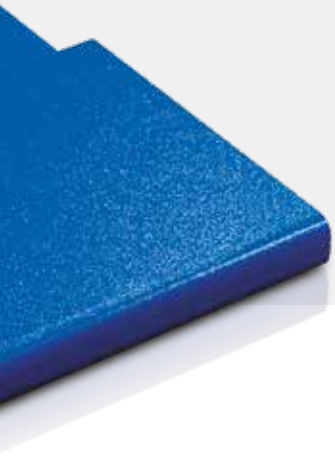
- AERZEN algorithm and precise integration of machine maps
- Highest efficiencies close to the optimum, efficiency increases of up to 15 %
- Operate load profiles precisely and efficiently
- Technology diversity combined, both displacement and turbo machines
- Integration of machines from other manufacturers
  Integrated control system for up to 12 machines

Extensive visualisation and analysis

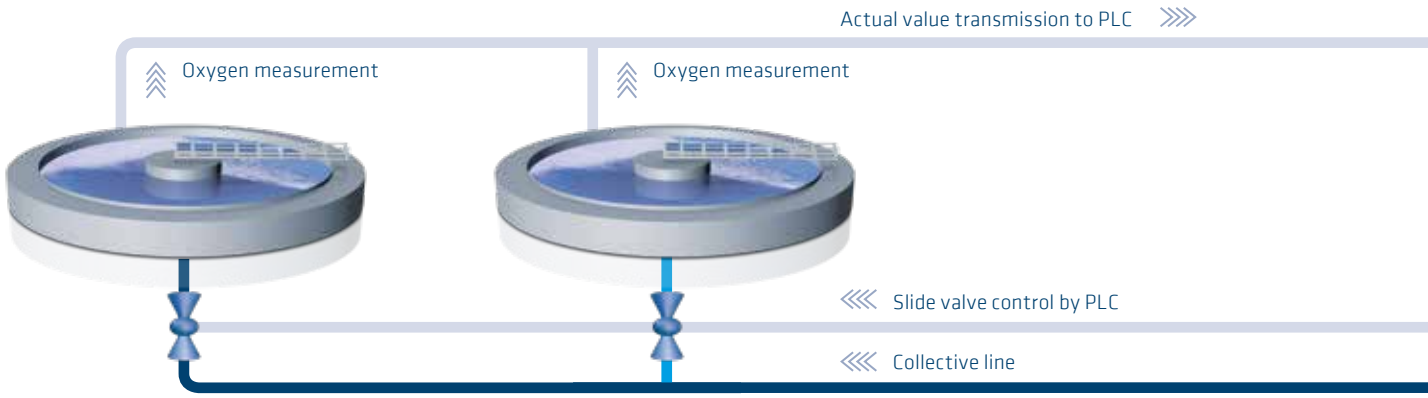
- Display and recording of the required air volumes, system pressures, temperatures, energy consumption, machine data
- Real-time display, trend analyses and annual comparative values; reporting functionalities
- Services and maintenance intervals of the machines integrated into predictive maintenance
- Comprehensive energy analyses and checks
- Trend-setting building block for Water 4.0

User-friendly interface

- High resolution 12" touch screen
- Intuitive menu navigation
- Everything at a glance: Overall data and data of the individual machines
- Extensive language selection



Seeing what's what
Controlling and regulating machines in realtime



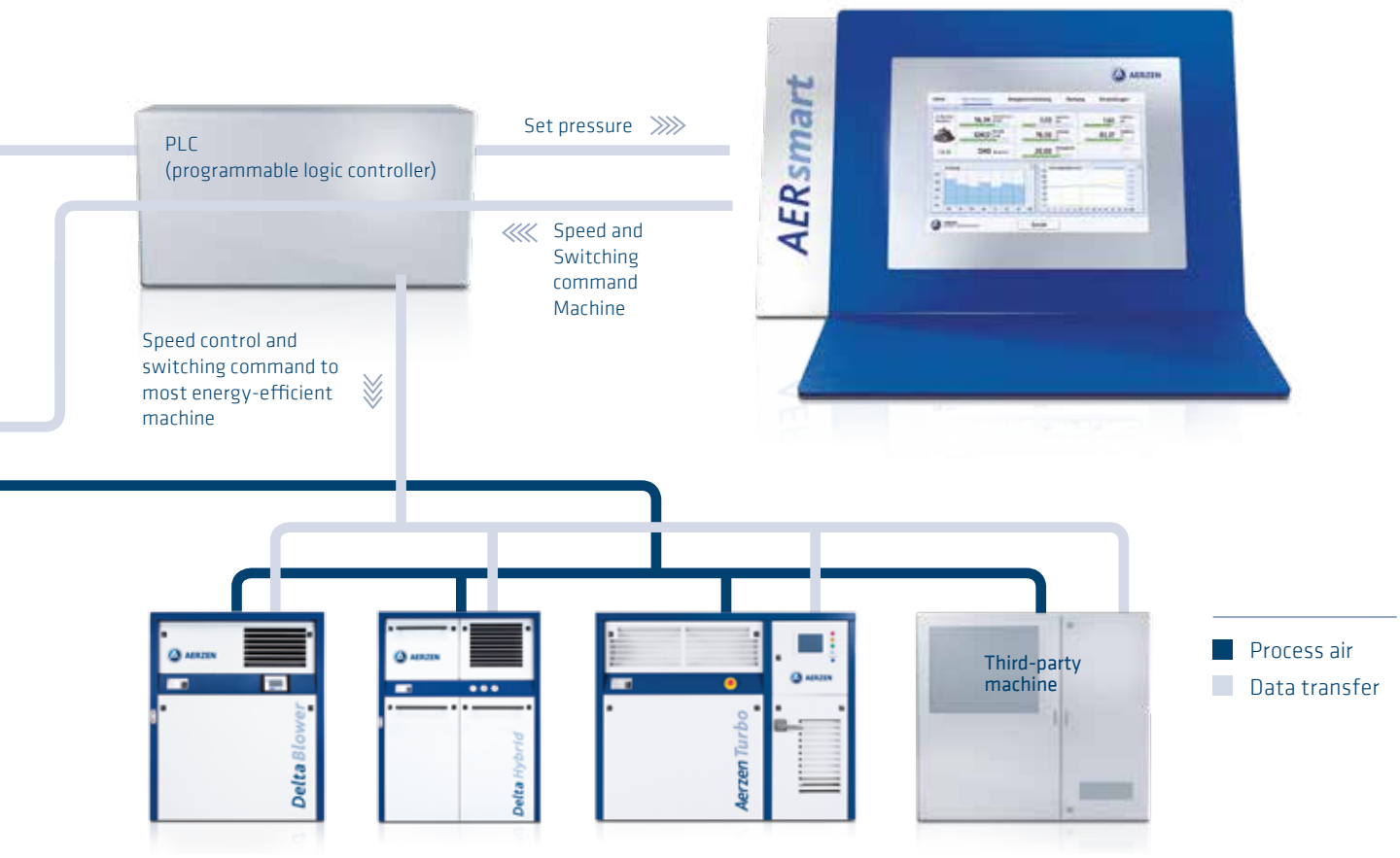
Ease of use, transparency, real-time control of the connected machines: the AERsmart meets demanding specifications for user information and visualisation. As an intelligent module, it can be networked universally with the process control system. Often, exact characteristic data on air volumes and energy consumption for the aeration system are not sufficiently available. AERsmart thereby creates transparency across the total life cycle.

Superior knowledge as a software solution.

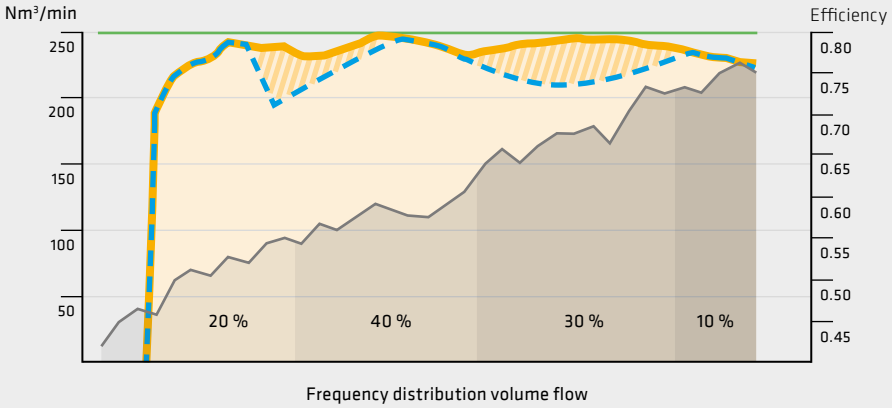
The control of compressors in group operation, especially when using different machine types, requires basic machine knowledge and special control patterns. The AERsmart software contains detailed information of the connected machines and uses it to calculate the optimum load distribution in combination operation.

Intelligent switching on and off

Operating behaviour and different characteristics of flow and displacement machines influence the control range and efficiency curve depending on the air volume and compression pressure of the respective machine type. AERsmart's software works with the advantages of each technology and avoids their weaknesses in the respective load range. The result: intelligent switching on and off, smart load distribution to the machines in combined operation.



AERsmart – for a new level of efficiency

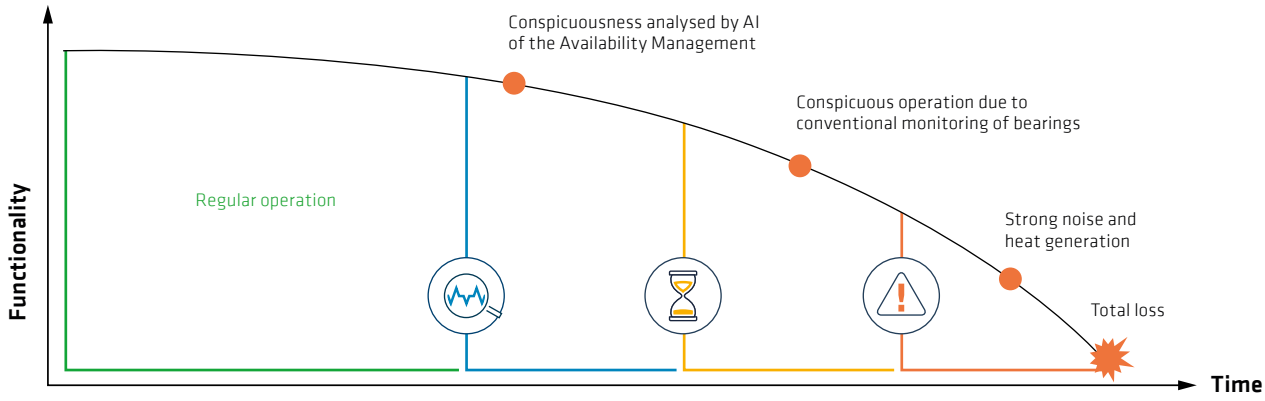


Frequency distribution volume flow

AERprogress
Digital Transformation of Blower Technology

The digital transformation is also having a major impact on blower and compressor technology and is becoming increasingly important. By using digital technologies, plant operators can increase their energy efficiency and improve their environmental footprint. This requires digitising and networking all plants and machines as well as continuously monitoring data.

Our vision for the AERprogress product is to shape the future of industrial process air optimisation. We strive to create a pioneering platform that supports companies in making their production processes more efficient, sustainable and forward-looking. By connecting advanced digital technology, big data analytics and machine learning, we strive to create a world where businesses are able to make the best use of their resources and minimise their environmental impact while increasing their competitiveness.



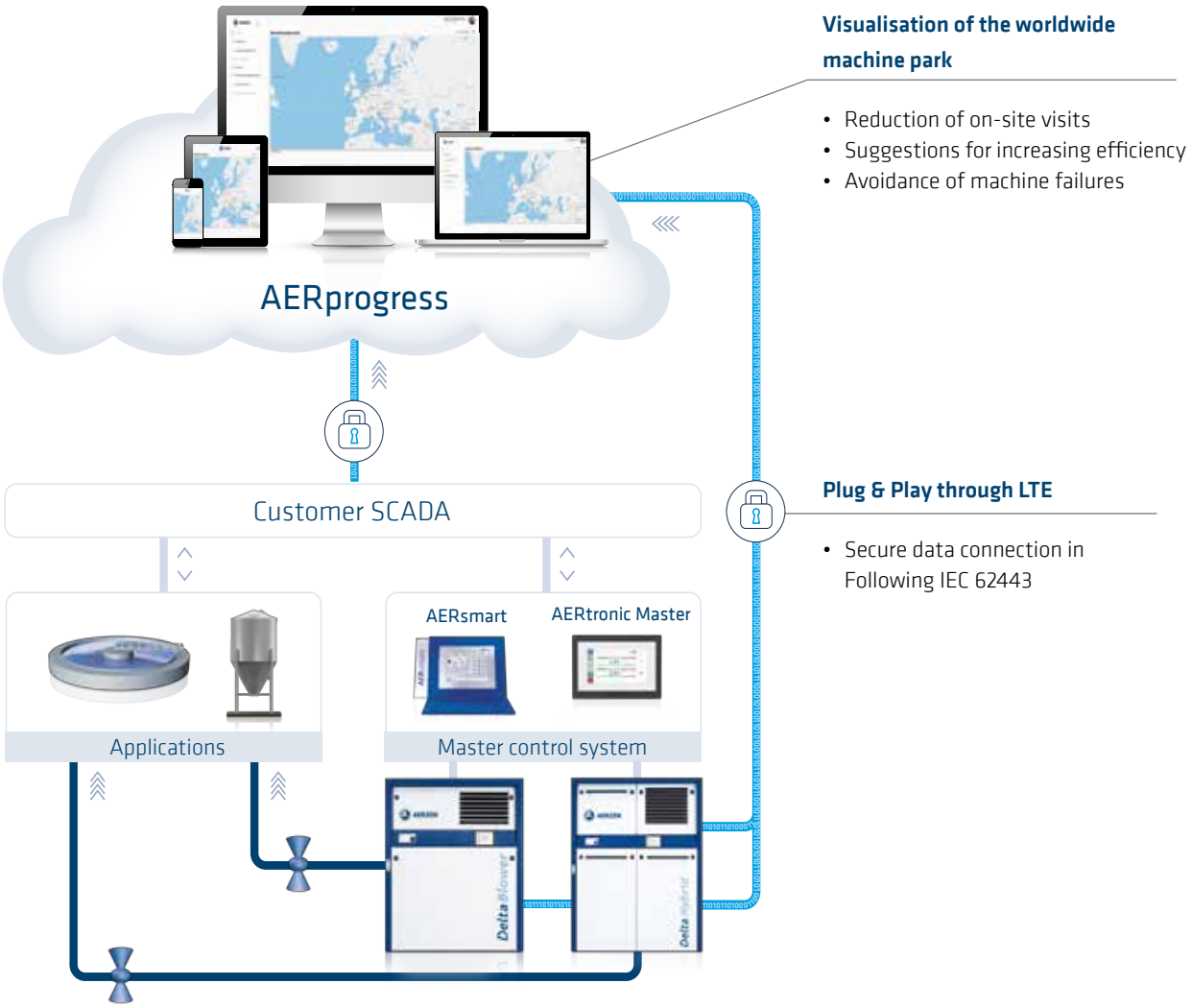
Availability Management - Reliable early warning system to avoid plant downtime

One example of digital transformation in blower technology is the implementation of IoT (Internet of Things) solutions. The networking of blowers and sensors enables plant operators to collect real-time data on the operational state and performance of the machines. As a result, maintenance requirements are detected at an early stage, downtimes are minimised and the service life of the machines is extended.

Furthermore, digital transformation also enables the integration of AI (artificial intelligence) and machine learning. By analysing large amounts of data, patterns and trends can be identified, which can be used to further optimise existing processes. AI-driven algorithms help reduce energy consumption and maximise the efficiency of the machines.

AERprogress value proposition

- Innovation: we always offer the latest technologies and solutions to meet changing industry requirements.
- Excellency: quality, technology and expertise are the foundations of our first-class products and services.
- Partnership: as a partner, we understand the individual needs of our customers and offer standardised or bespoke solutions.
- Sustainability: we convey resource efficiency, energy saving and environmental protection for a sustainable future.
- Trust: data privacy and data security are our highest priority.
- Customer orientation: the needs of our customers are the prime focus of our attention.



Visualisation of the worldwide machine park

- Reduction of on-site visits
- Suggestions for increasing efficiency
- Avoidance of machine failures

Plug & Play through LTE

- Secure data connection in Following IEC 62443

Process air Data transfer LTE data

Reduce maintenance costs
Increase energy efficiency

AERprogress is the solution for your process air application to reduce maintenance costs and increase energy efficiency in the plant. With the use of selected sensors and the data analysis based on them, AERprogress enables precise monitoring of the plant. This means that potential problems can be detected early and quickly rectified, leading to a reduction in maintenance costs. Furthermore, AERprogress offers the option to monitor energy consumption in order to optimise the plant's operation. This leads to more efficient use and conservation of resources and a reduction in energy demand. Overall, AERprogress helps to reduce the total cost of ownership (TCO) and thus continuously improve the sustainability of the plant without supplementary staffing.

The correct features and services for every industry

Machine Learning

- Machine learning can be used to identify dependencies between different data points and to calculate and show probabilities of failure.
- Failures can be predicted with an approach of up to two weeks.
- Specialist know-how no longer necessary

Optimise maintenance and servicing costs

- By using AERprogress, the maintenance costs of plants and machines can be reduced by up to 50 %.
- The actual costs in the event of a breakdown, such as material costs for repairs, rental costs for replacement plants and other equipment required for the maintenance of the plant, as well as Sunday and holiday surcharges, can be minimised.
- Using AERprogress, the times between faults can be predicted and coordinated so that machine failures can be moved to non-critical times and combined with planned downtimes.

Investment security & Increase in Overall profitability

- The reduction of disturbances and damage increases machine uptime and thus improves ROI.
- Historical data is very important for future process optimisations and contributes to a compliant transparency of the machine.
- Data remains the property of the system operator and is not available to third parties.

IoT Device & Cloud Security

- The connection between the IoT gateway and the cloud platform is made via https with its own private and public key for authentication.
- Data communication is via secure TLS encryption.
- The platform is operated and hosted in European data centres on Infrastructure as a Service from Microsoft Azure.
- Both the IoT device and the platform are developed according to the IEC 62443 standard.
- A central user management with roles & rights as well as a 2-factor authentication allows each access only personalised and authorised.

Fast scalability

- AERprogress offers the option of fast and arbitrary scalability.
- Plants and machines can be connected to AERprogress without spending a lot of time.

Reduction of downtimes & Increase of service life

- By using predictive maintenance, the frequency of repairs and the severity of machine damage can be minimised, significantly improving the life and actual condition of the machines.
- Preventing machine damage increases the useful life of the machines by up to 30%.
- MTTR (mean time to repair) is reduced by AERprogress because the component to be repaired is identified directly and long diagnostic times are avoided.

Improved energy efficiency

- Thanks to the continuous energy monitoring (compliant with DIN EN 50 001), creeping energetic changes can be easily detected and their causes eliminated.
- Machines can be operated in an optimised state, reducing energy consumption by up to 8%.
- AERprogress provides a check on the CO_2 balance as well as a comparison with previous periods.
- The machine's energy costs are completely transparent.

Performance and functionality
The AERprogress cloud platform

AERprogress offers a wide range of performance and functional scopes. The platform enables plant and machine operators to optimise processes by using a scalable and flexible infrastructure. With AERprogress, data can be saved and managed securely in the cloud. In addition, AERprogress offers a wide range of tools and services to facilitate the operation, monitoring, maintenance and power supply of machines. The exact performance and functional scopes of AERprogress can be adapted to the machines and plants, as well as to the requirements of the operators.

Machine Park Management

Thanks to the decentralised monitoring of all systems installed worldwide, operators of blower and compressor packages benefit from maximum transparency. All relevant data on machine performance can be viewed at any time and from anywhere. Time-consuming, provisional inspections of individual locations become superfluous and routine measures are reduced to a necessary minimum. With one glance at the platform, the user is always aware of the status of his machines.

Energy Management

Energy Management gives you the opportunity to view and compare the energy consumption of all plants transparently at a central point at any time. Existing potentials for optimising energy efficiency and reducing costs can be quickly and easily identified. This is not just about implementing the legal requirements, but rather energy management is an ongoing process, the only way to ensure continuous optimisation.

Condition Monitoring

Condition monitoring permits two maintenance strategies, a usage-based or a time-based strategy, for optimising system availability. By continuously recording and evaluating the process and machine data, the condition of individual components can be accurately represented. Long before a component reaches the end of its lifetime and causes a time-consuming and costly plant shut-down, the Aerzen Digital Platform generates corresponding advisory messages.

	MPM	EM	CM
Display of machine status / decentralised system management (operation, disturbance, maintenance)	✓	•	•
Display of process data via KPIs (across locations)	✓	•	•
Diagrams and trend display	✓	•	•
Transparency over plants and machines (condition monitoring)	✓	•	•
Transparency of process data (at any time and independent of location)	✓	•	•
Reduce / minimise maintenance costs	✓	•	•
Reduction of the mean time to repair (MTTR)	✓	•	•
Reduction of the diagnosis time (MTTI)	✓	•	•
Structured maintenance planning	✓	•	•
Machine/device detail pages	✓	•	•
Threshold and limit definitions incl. alarming	✓	•	•
Event alerts and events by e-mail	✓	•	•
Reports / Verification obligation compliant with ISO 50001:2018	•	✓	•
Compare energy efficiency of locations	•	✓	•
Efficiency increase or avoidance of efficiency losses of up to 8%	•	✓	•
Dependencies on other values/ suggestions based on the history data	•	•	✓
Automatic anomaly detection up to 14 days in advance	•	•	✓
Optimisation recommendation for plant maintenance and operation	•	•	✓
Use-related maintenance intervals	•	•	✓

Cost example from practice

By using AERprogress, it was found that the intake temperature of a delta hybrid rotary lobe compressor was too high. The delta (ΔT) between ambient temperature (Tamb) and intake temperature (T1) was between 15 and 20 Kelvin. An installed temperature sensor provided the data.

The delta (ΔT) was quickly detected by using the AERprogress solution, the cause was found early on and high energy costs were avoided. A too high temperature difference (ΔT) means that the machine consumes more energy at the same volume flow. Due to increased suction temperatures of three Kelvin, approx. 1% higher energy consumption is to be expected.

Delta (T1 - Tamb = ΔT) in Kelvin	15 Kelvin
Days in operation	210 days
Operating hours	2100 hours
Energy consumption + 1% consumption per 3 Kelvin	0.05
Motor power	85 kW
Energy costs per kW	0.30 €

Calculation:
Supplementary energy consumption:
(motor rating * supplementary energy consumption) * operating hours (85kW * 5%) *2100 = 8,925kW
Supplementary costs:
Supplementary energy consumption * energy costs = 8.925kW * 0.3€ = 2,677.50€

Supplementary energy costs per month €382.50

Everything - Except ordinary
The service world of **AERZEN**

The long service life of AERZEN machines is legendary. So why is service even an issue? Because it's about more than availability and OEM original parts. The services from AERZEN secure investments, productivity, and a decisive competitive edge. And this worldwide.

AERZEN on-site service.

Our service teams work where our machines are. All over the world. Onshore or offshore. Often under extreme conditions. How do we achieve this? With short distances. AERZEN has established for you a dense network of service centres and decentralised parts warehouses around the globe. More than 200 excellently trained service technicians are available to assist you from there. Anytime and wherever you need us.

From rental service and other services.

The service world of AERZEN offers you so much. Bespoke service kits, for example. Replacement stages, machine diagnostics, sound optimisations. One of our most important services is Aerzen Rental Division, which provides a large fleet of rental machines. Blowers, turbo machines and compressors - made by AERZEN. In a wide range of performance classes. For all common pressure ranges. Can be used immediately and delivered turnkey on request. What does that mean for you? You are also well prepared for unexpectedly upcoming needs **www.aerzenrental.com**

Contact around the world
AERZEN employs 2,500 people Across all continents. We service your German needs with six sales offices in Germany alone. And we have 50 subsidiaries in more than 100 countries of the world. This ensures short distances to you - wherever you need us. Call us:
+49 5154 81-0

Service Hotline
We are there for you, even if we are not actually there – outside our business hours. Use the direct line to AERZEN via our regional service hotlines:
+49 700 49318551

Customer Net
Where you can learn more about the company and the leading compressor technologies from AERZEN? It's simple: in our Customer Net on our homepage. Here, we have made available everything you need to know:
www.aerzen.com

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Find your local contact
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AERZEN Compression as a principle of success

The Aerzener Maschinenfabrik GmbH was founded in 1864. In 1868, we built Europe's first positive displacement blower. In 1911, the first turbo blowers followed, in 1943 the first screw compressors and in 2010 the first rotary lobe compressor package of the world. Innovations made by AERZEN continue to keep driving the development of the compressor technology. Today, AERZEN is among the world's longest established and most significant manufacturers of positive displacement blowers, rotary lobe compressors, screw compressors and turbo blowers. AERZEN is among the undisputed market leaders in many areas of application. At our 50 subsidiaries around the world, more than 2,500 experienced employees are working hard to shape the future of compressor technology. Their technological expertise, our international network of experts, and constant feedback we get from our customers provide the basis for our success. AERZEN products and services set standards. In particular, with regard to reliability, stability of value and efficiency. Challenge us.

LET'S TALK

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