

INNOVATIVE, VERSATILE, TAILOR-MADE. ACCESSORIES FROM AERZEN.



AERZEN

VERSATILITY. THE BEST FOR EVERY APPLICATION.

Unique. Each solution from AERZEN.

A compressor is a compressor. And yet each one is different. Because each requirement is individual. Every site, every company, every process has its own characteristics. We know this, and have been asking ourselves the question of application for 150 years. Again and again. What makes our technologies the best solutions for your application? You can find the answer here. Page by page.

Only solutions that are perfectly matched to their respective applications are truly efficient, powerful and safe. In every conceivable environmental condition. Optimal equipment and accessory options are therefore now more important than ever. Because we know this, we have developed a close skills network with leading expert manufacturers. This provides a guarantee that every accessory is tailor-made and tailored to

AERZEN products. And is exactly what makes every AERZEN machine so unique. Regardless of whether you choose a Delta Blower, Delta Hybrid or Delta Screw.

Profit from the best. Our partners.

AERZEN offers perhaps the most comprehensive range of blowers and compressors in the world. With an almost limitless range of options and accessories. To develop these components, we have chosen partners who share our demand for quality. Internationally renowned brand-name manufacturers and experienced specialists in their field. This is how we ensure that even the smallest accessory meets the quality standards promised by the AERZEN name.

LET'S TALK!

"...about customised accessories for your application"

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SAVINGS POTENTIAL THROUGH DIGITAL CONTROL TECHNOLOGY. ON THE WAY TO INDUSTRY 4.0.

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.



Reduce energy costs and conserve resources

The generation of compressed air for use in industry or in wastewater treatment is energy-intensive. The aeration of sewage treatment plants in particular is the focus of efforts to achieve energy-efficient compressed air production: The air supply in the activation stage of wastewater treatment plants alone often accounts for more than 70 percent of energy costs in this area.

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. Nevertheless, the higher-level control technology still offers great potential for process optimisation and energy savings. Operators of wastewater treatment plants can use modern measuring technology to ensure

greater transparency in their processes and adapt compressed air production individually to the requirement profile. At the same time, the integration of modern sensor technology into a higher-level control and regulation system enables the continuous optimisation of operating and maintenance processes. The trend in process air supply is towards Industry 4.0.



Visit our website and learn more about the advantages that digital control technology has in store for you.

www.aerzendigital.com

MORE TRANSPARENCY. MORE SAFETY. MORE POSSIBILITIES.

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

AERtronic



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

AERtronic sets standards. Because when it comes to comfort and functionality, the intelligent and uniform assembly control from AERZEN cannot 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 third-party OEMs can be integrated without any problem. With its well thought-out range of functions, AERtronic offers you a wide spectrum of options for controlling, securing and maintaining your compressed air system.

Transparency. For sustainably longer operating times.

AERtronic does more. The system displays operating data, manages the operating hours counter, reports operating events at an early stage and archives the information. This allows you to see at any time how an assembly is integrated into a process. This means that any corrective action can be initiated in a highly targeted manner. And this also has clear advantages in terms of maintenance, for example to make the planning of service calls more efficient.

AERtronic basic equipment

- Intuitive navigation via touch screen and 7" TFT color graphics display
- Monitoring of process values
- Output or logging of events
- Continuous acquisition of operating and service hours
- Protection class IP65 for display
- Extensive language selection

All common interfaces

- Communication via MODBUS RTU (standard)
- MODBUS Gateway between RTU and MODBUS TCP (Ethernet)
- PROFIBUS DP
- PROFINET®
- EtherNet/IP

Expansion options

- UL certified
- Monitoring of electric auxiliary drives
- Regulation according to system pressure for more energy-efficient operation
- Fault notification via text message
- Control of acoustic hood heating and electric fans
- Visualised vibrational monitoring with observance of limit values
- Modifiable for special voltages
- WebView - module for web-based remote monitoring

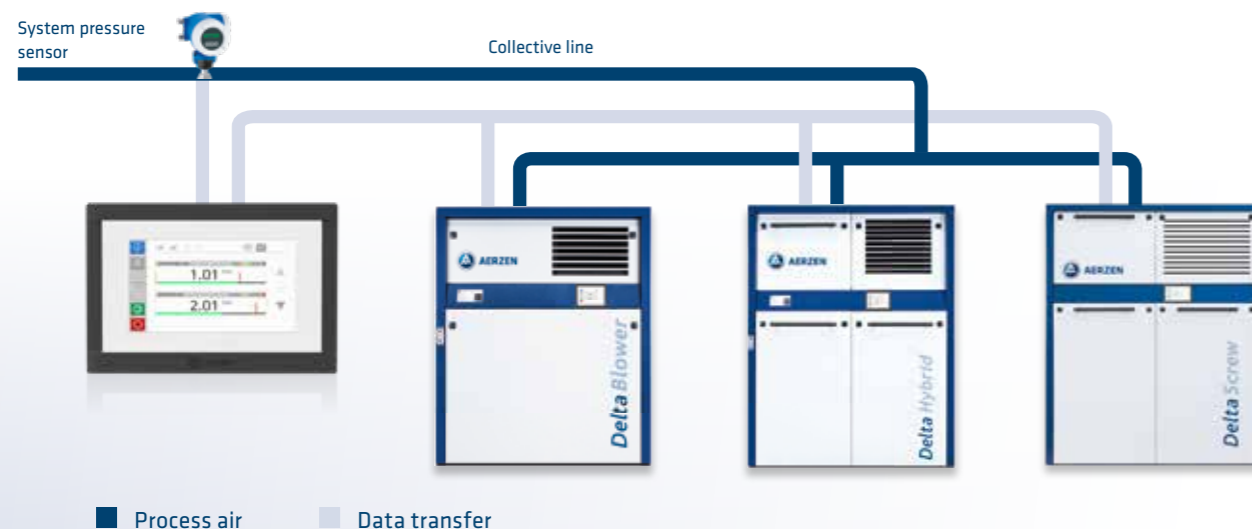
	AERtronic	AERtronic Master	AERsmart	AERprogress
Local machine control	✓			
Higher-level integrated control system for load distribution		✓	✓	
Intelligent control of the machine network to maximise efficiency			✓	
Digital Services with AERZEN Digital Platform Connection (Cloud)				✓
Machine Park Management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

AERtronic Master

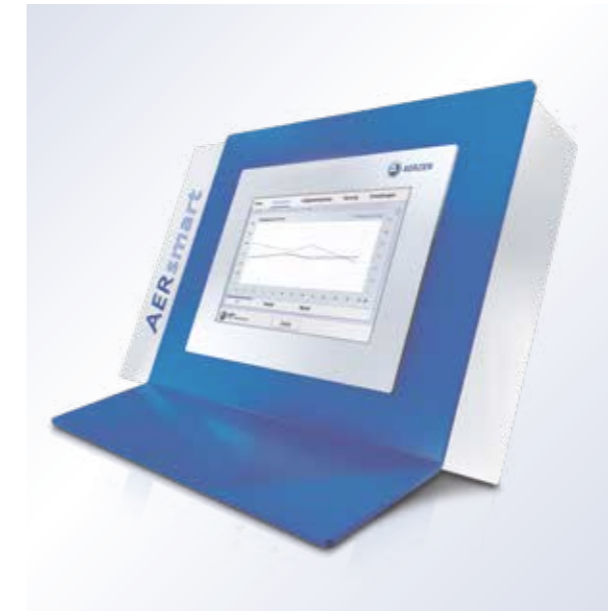
Thanks to the AERtronic Master, it is possible to improve the overall efficiency of the plant, and to make the utilisation of the individual machines more homogeneous. In addition, the AERtronic Master offers the option of graphically displaying the operating status of the machines and sending the data to the customer's control room in compressed form. The connection is made via the RS485 Modbus: Alternatively, this can also be done via an expansion module using Profibus.

- 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%

- Additional cost savings thanks to optimised compressor running times and optimum adjustment of maintenance intervals
- 7" colour display with touch function
- The display provides the most important information about the entire compressed air station at a glance.
- Operating states of the connected compressors
- Graphical representation of the network pressure as a curve over time
- Automatic control system for up to 12 machines



AERsmart – The intelligent integrated control system



efficiency curve as a function of the respective machine type's air volume and compression pressure. AERsmart's software works with the advantages of each technology and avoids their weaknesses in the respective load range. Result: intelligent switching on and off.

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 overriding control system. In this way, AERsmart can control up to 12 machines at maximum efficiency – for efficiency levels as close to optimum as never before, a new level of efficiency in the aeration tank and smart load distribution to the machines operating in combination.

AERsmart – intelligent, efficient, trendsetting

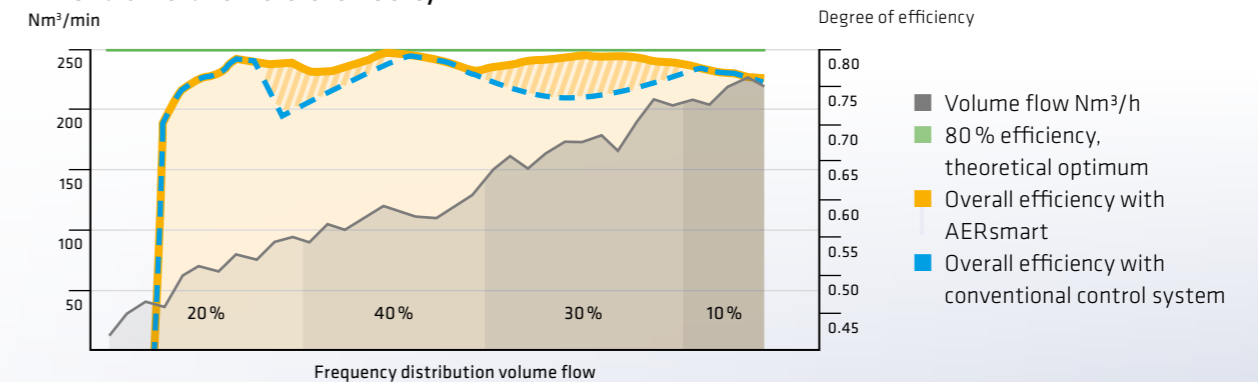
The load operation in biological wastewater treatment plants is characterised by strong fluctuations. The innovative AERsmart machine control system is the intelligent module that distributes the required oxygen demand across the machinery in such a way that low, medium and heavy loads are processed as efficiently as the existing configuration permits. To this end, the performance ranges and efficiencies are factored into the algorithm used by the control system. In this way, the installed machine pool operates as close as possible to the theoretical maximum efficiency.

Intelligent switching on and off.

Operating behaviour and different map characteristics of flow and displacement machines influence the control range and

- Precise and efficient operation of load profiles
- Universal interface for networking with the machinery and the process control system
- Highest efficiencies, close to the optimum
Efficiency increases of up to 15%
- Service- and maintenance intervals of the integrated machines, proactive maintenance
- Pioneering building block for Water 4.0
- Extensive energy analyses and checks
DWA worksheet A-216
- Representation and recording of the required air volumes, plant pressures, temperatures, energy consumptions, machine data
- Other manufacturers can also be integrated

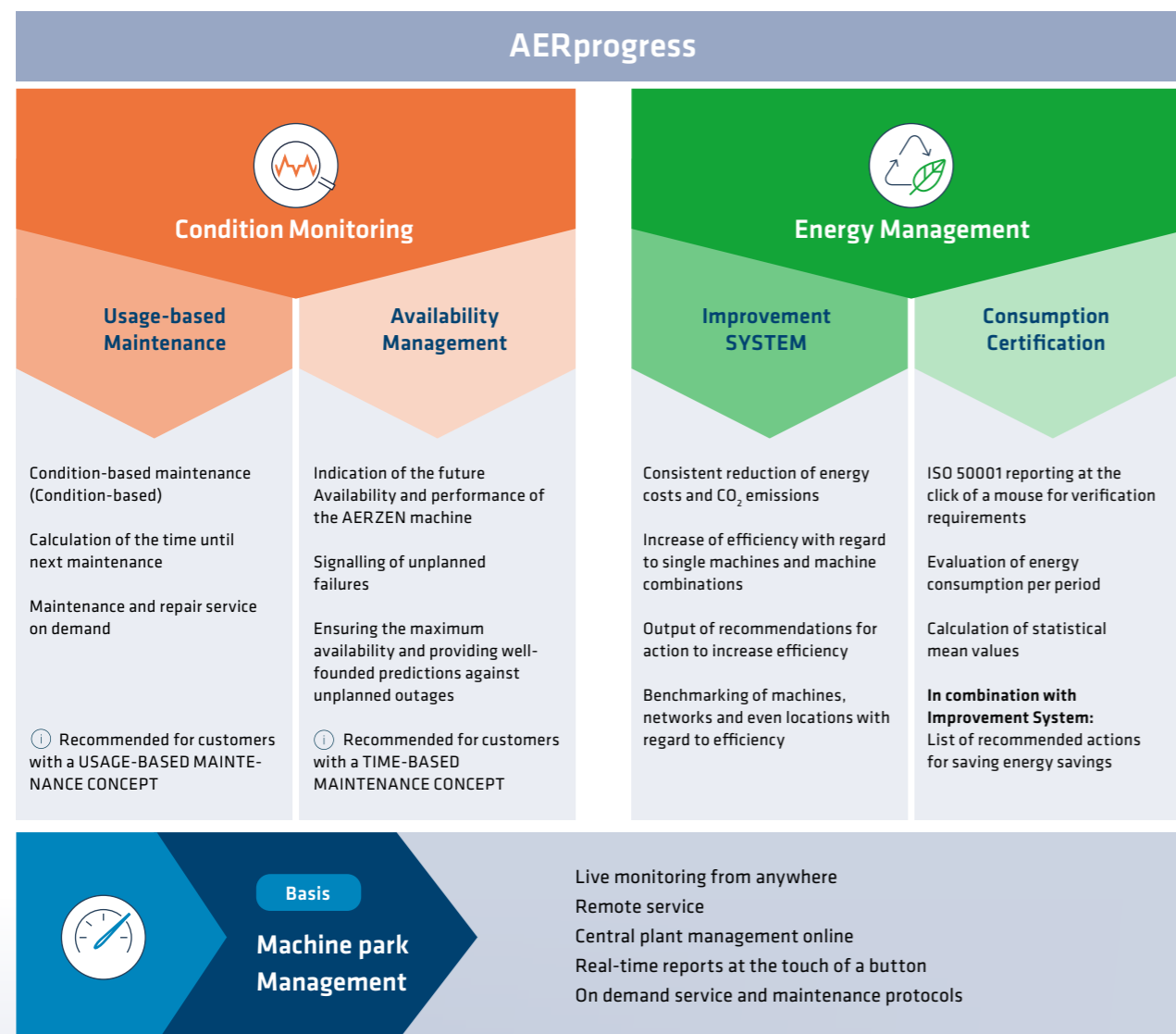
AERsmart – for a new level of efficiency



AERprogress.

DIGITAL TRANSFORMATION OF BLOWER TECHNOLOGY.

Data-based services have the potential to support you in the operation of compressors to a completely different extent than before. The automated collection, evaluation and analysis of data provides tailored information, reports and recommendations for action.

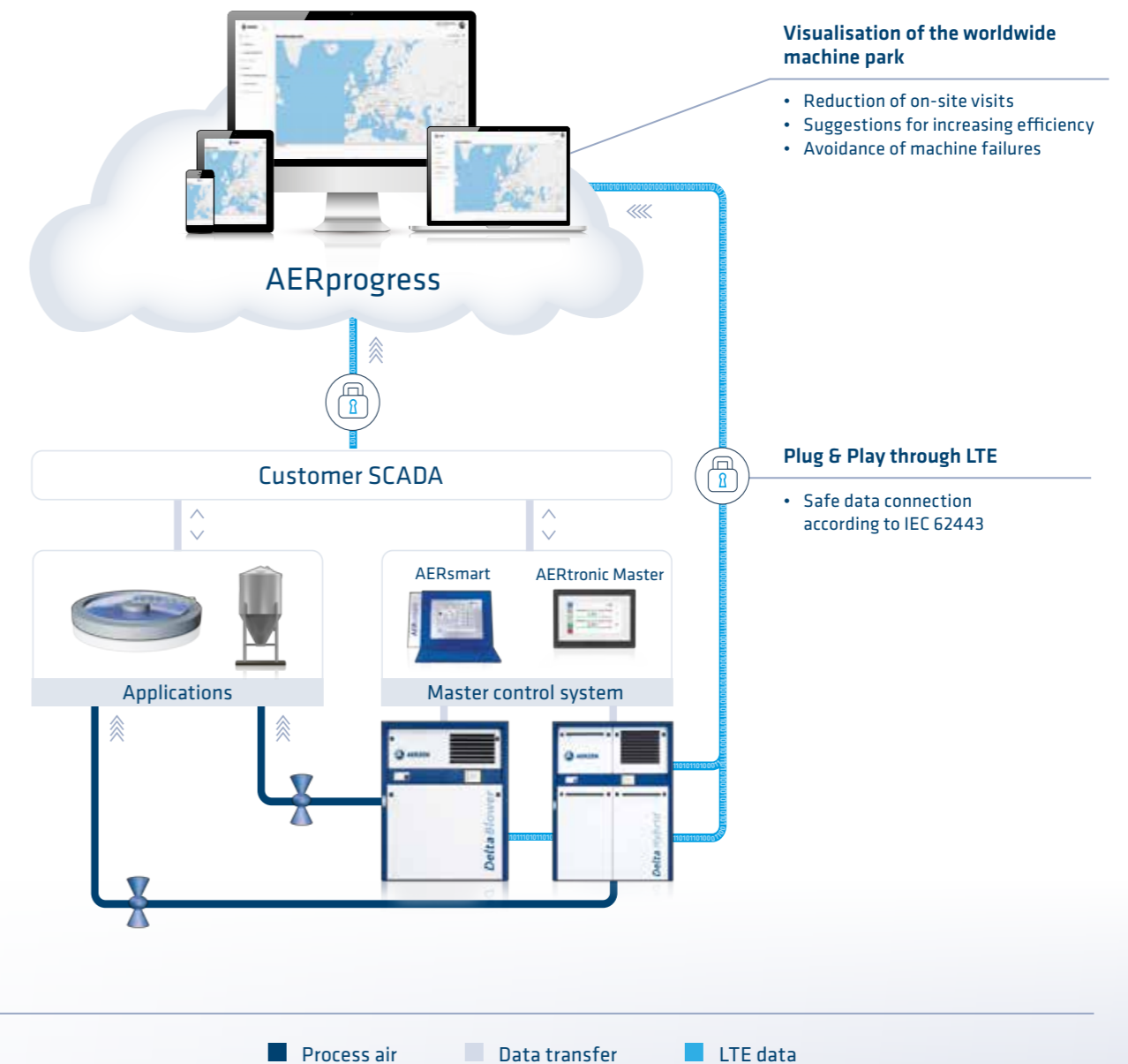


Digitisation opens up new opportunities for companies in many industries to optimise processes. In blower and compressor technology, the trend is moving more and more towards automated recording, evaluation and analysis of operating data. This approach makes it possible to identify potential for improvement and to optimise the operation of compressors in the long term.

The change to networked compressor and blower packages is worthwhile for operators in several respects. First, it is possible to meet the steadily increasing requirements for CO₂ reduction in accordance with the Paris Climate Agreement by significantly reducing energy consumption. This is accompanied by a noticeable reduction in energy costs through

lower power consumption. Second, operators benefit through greater process safety, transparency and reliability. Thanks to automated production data acquisition, compression processes no longer represent a "black box" and can be systematically analysed for their efficiency. With modern, data-supported service and maintenance concepts, operators of compressor and blower packages can reduce the number of incidents and carry out maintenance work appropriate to the situation.

The AERZEN Group is committed to digital transformation and with AERprogress now offers its customers customised digital services for compressors and blowers.



SYSTEM OPTIMISATION DUE TO PROCESS MONITORING. FULL TRANSPARENCY FOR YOUR SYSTEM.

Transfer, analyse and monitor data worldwide. To ensure full and future-proof transparency for the management of your machinery, the WebView concept provides a central control tool that offers a special strategic advantage. The need for process reliability, predictive maintenance and anomaly detection are decisive factors for integrating WebView into your process air supply.

WebView



AERZEN WebView: Access to operational and service data from anywhere in the world

Spare parts from AERZEN.

A single module that has it all: WebView is a decisive plus for AERtronic. After all, it considerably expands the functional range of AERtronic. It visualises, analyses and stores up-to-date process data. In addition, it automatically generates integrated fault and status messages. Once connected to the system, all process data can be completely displayed via PC, smartphone or tablet. And this without additional software. Locally or worldwide.

One module. Decisive advantages.

The integration of WebView has many advantages. First and foremost: a high degree of transparency when it comes to current and historical plant status. Operating data, operating hours, error messages etc. – all this can be viewed and configured online. From any location. At any time. The result: significantly increased system availability. Because condition monitoring, the option to react quickly to deviations, the integration of vibration monitoring for the early detection of signs of wear, needs-based maintenance planning, intelligent documentation and analysis of the process data are all practical advantages. Giving you that often decisive plus in process reliability and availability: AERtronic and WebView are thus elementary building blocks for industry 4.0.

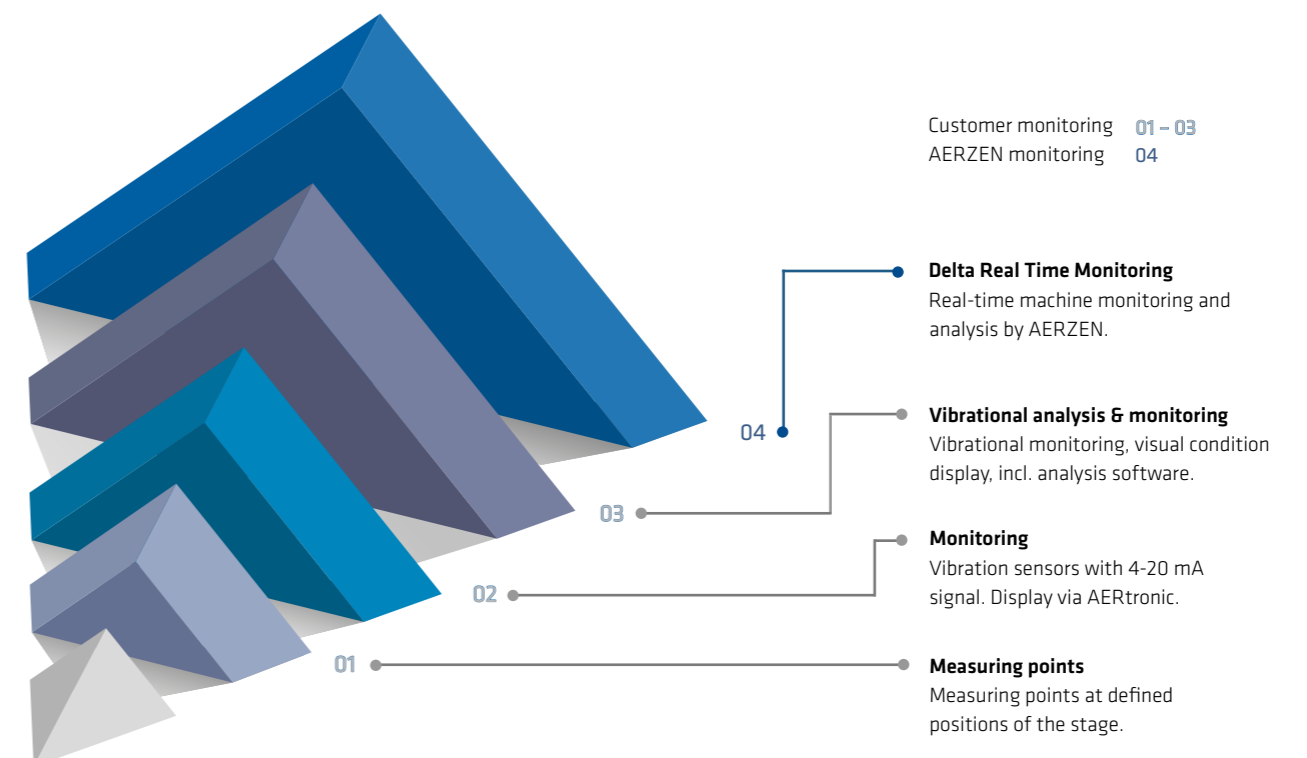
Condition Monitoring



Vibration measurement in practice

Reliable protection against unplanned downtimes and a central tool for plant diagnosis in every predictive maintenance strategy: vibration measurement. AERZEN offers several options for high-performance machines. They differ in the increasing level of detail in the analysis values.

Using defined measuring points and an existing measuring system, any deviations from the standard can be independently identified. Alternatively, vibration sensors can be connected to an existing AERtronic control system and the measured values can be displayed. Permanent monitoring of the assembly can also be carried out completely and automatically using a connected vibration analysis system. The customer is thus able to carry out an analysis at rotor bearing level in addition to vibration measurement. As the final expansion stage, "Delta Real Time Monitoring" monitors the vibrations, pressure and temperature of the machine via sensors. All measured values from up to eight diagnostic units are combined here in a separate control cabinet in real time and immediately transmitted via Ethernet or LTE modem to a special server at AERZEN. Here, the values are monitored at all times, trend deviations are detected and countermeasures are initiated.



AIR CONDITIONING PERFECTS THE PROCESS

It is well known that the best solutions result from practical experience. They are only effective and efficient if they are precisely matched to the application. Aerzener Maschinenfabrik knows exactly the requirements in the field of process air. AERZEN completes its blower and compressor range with a wide range of options and accessories

Application specialisation

As one of the leading technology pioneers, AERZEN is characterised by innovative development strength. This includes a constant focus on improvements and modifications within its own technology as well as on changes in the market and across industry. The company has its own design programs, which can be used, for example, to select suitable aftercoolers according to customer requirements. A simulation of the process data is included, in order to offer customers the most efficient solution for their subsequent use and to illustrate clearly its influence on the entire customer process.

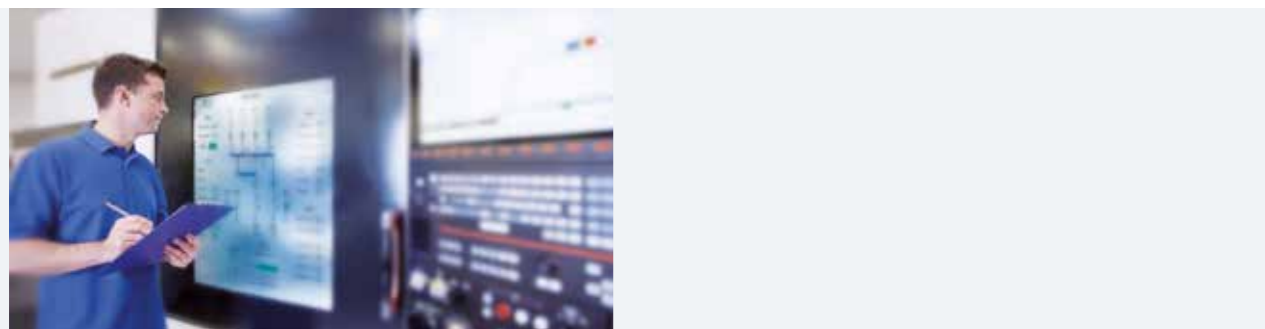
Aftercoolers from AERZEN set standards with their minimal pressure losses, reduced energy consumption and extremely high cooler inlet temperatures. All of our aftercoolers are suitable for cooling air and nitrogen up to 280 °C.

Air-to-air aftercoolers can optionally be equipped with a special paint or coating, special motors for the fan, as well as cyclone separators and condensate drains. The installation is simple, with neither infrastructure, nor conditioned cooling water required. A special feature is the speed control of the fan according to the customer's specifications. This allows process fluctuations to be minimised and the end product to be maintained at the highest quality standard. An integrated stainless steel precooler is ideal for temperature ranges of 250 °C and above.

Water-air aftercoolers withstand even high ambient temperatures and convince with their durability. Heat recovery is also possible. In water-air aftercoolers, the compressed medium flows through the cooler tubes, cooling water flows around the tubes in counterflow. The water-air aftercoolers are available in stainless steel or copper-nickel design and are permanently installed or as dismountable tube bundles with ribbed or smooth walls. Also optionally with cyclone separator, automatic condensate drain, flange and mating flange kit, special painting and corrosion protection.

In addition to the filter elements for protecting the machine, a further protective function can be set up by means of downstream filters on the pressure side. The filters with a separation class from F7 to H13 are supplied as a complete, connectable unit consisting of a stainless steel container, filter element, seals and support elements.

Cyclone separators and condensate drains are low-maintenance and robust at the same time and are also effective in a wide range of applications. With a condensate separation efficiency of almost 100%, cyclone separators provide the perfect protection for compressed air systems. They can be protected against corrosion for onshore/offshore use. It is possible to design the separators in accordance with ASME. AERZEN automatic condensate drains operate via level control depending on climate, temperature, time of year and time of day.



Filter technology



Coarser pored or finer - AERZEN offers filters for almost all ambient conditions

AERZEN offers filters in a range of options - tailored to a wide variety of room air conditions. For example, the filter solution F7 for increased requirements. The filter cartridge has an identical construction to that of the standard filter G4. It can therefore also be replaced without any problems in existing Generation 5 machines. We have designed suitable zone separation filters for various ATEX requirements and zones so that customer systems can also be operated safely in potentially explosive areas. Our zone separation filter complies with dust class M5.

- High-quality, stable standard filters with G4 separation efficiency
- Filter cartridges also available in F5 or F7
- Quick interchangeability with a few simple steps thanks to simple plug & play procedure
- Optional zone separation filter for use with suction conveying (vacuum operation) with EX-atmospheres

Additional filter on the discharge side



One filter for all classes from F7 to H13

In addition to the filter elements for protecting a machine, a customer's process can also be protected by using a downstream, discharge-side filter. With a separation class from F7 to H13, the filters are supplied as a complete, connectable unit consisting of a stainless steel container, filter element, seals and support elements. The high filter classes mean that these components are often used in sensitive areas, for example in the food or chemical industry. They are flow-optimised and generally have pressure losses of less than 25 mbar. The filter cartridge can be changed in just a few simple steps, thus avoiding long downtimes. These units can also be equipped with sight glass or differential pressure measurements for filter control. Filters, sight glass and seals are FDA compliant and therefore predestined for use in the food industry

Maximum operating data:

- 6 bar (abs.)
- 20,000 m³/h
- 150 °C
- DN 50 to DN 400

Aftercooler - air-to-air



Perfectly designed and regulated – the air-to-air aftercooler from AERZEN

Aftercoolers from AERZEN set standards. With minimal pressure losses and extremely high cooler inlet temperatures: All aftercoolers are suitable for cooling air and nitrogen up to 280 °C! Always perfectly designed to lower temperatures to the desired level. Developed in cooperation with renowned international manufacturers, AERZEN offers a complete range of air-to-air and water-to-air aftercoolers. Independent series, specially adapted for the machine types Delta Screw, Delta Hybrid, Delta Blower and Aerzen Turbo. With extensive accessories. If required, including downstream cyclone separator and automatic condensate drain.

The air-to-air aftercooler in particular.

- Already available in standard: aluminium cooler, motor, motor mount, fan box, protective screen, fan
- Numerous options: Special paintwork, special coating, special motors for the fan, cyclone separator and automatic condensate drain
- AERZEN Highlight: Fan speed regulation according to specified final air temperature (optional)
- From 250 °C with integrated stainless steel pre-cooler
- Just one electrical connection

Cyclone separators

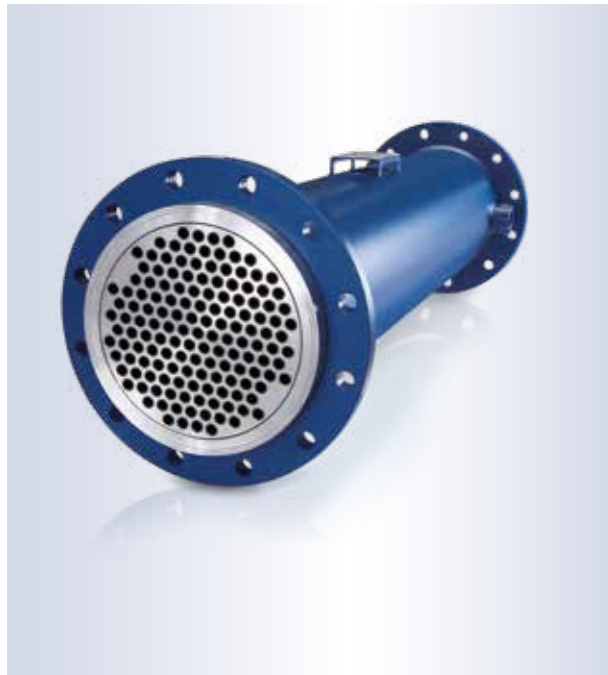


Highly efficient and effective: the cyclone separator for safe condensate removal from the compressed air

99% condensate separation efficiency – with these values, cyclone separators from AERZEN provide perfect protection for compressed air systems. And for every downstream process. Our cyclone separators are precisely coordinated to the AERZEN air-to-air or water-to-air aftercooler range. Highly efficient, with only minimal pressure losses in the lower mbar range.

- High separation efficiency
- Reduces system maintenance
- Designed with no moving parts, thus removing the need for spare parts
- Optionally with corrosion protection, e.g. for onshore/offshore applications
- ASME-compliant design possible

Aftercooler - water-to-air



The air-to-water aftercooler is ideal for heat recovery. Designed to provide maximum heat transfer to cooling water when needed

Special features of the water-to-air aftercooler.

- Precisely regulated discharge temperature
- Functional principle: Compressed medium flows through the cooler pipes, cooling water rinses around the pipes in counterflow
- Can also be used for heat recovery
- Designed for minimum pressure loss
- Versions: fixed or removable pipe bundles, smooth or ribbed pipes, made of stainless steel for high gas temperatures, made of copper-nickel for seawater. Incidentally: what's more, ribbed pipes increase pressure loss compared with smooth pipes, but offer better heat transfer
- Accessories and Options: Cyclone separators, automatic condensate drain, flange and counter flange kits, special paintwork, corrosion protection

Automatic condensate drain



Level-controlled and efficient – the automatic condensate drain from AERZEN

Ideal for draining condensate from the cyclone separator housing. And whenever, depending on climate, temperature, time of year and time of day, condensate can be produced from the process. In other words: excellent as always. The AERZEN automatic condensate drain operates according to the level control principle. Self-regulating. And extremely efficient. The intelligent design prevents compressed air losses and thus minimises energy consumption.

- Extremely low maintenance
- Reliable drainage of the accruing condensate volume
- Dirt resistant and durable
- No pressure loss during drainage of condensate
- Optional version with corrosion protection available

HEAT RECOVERY. REDUCES COSTS IN COMPRESSED AIR GENERATION.

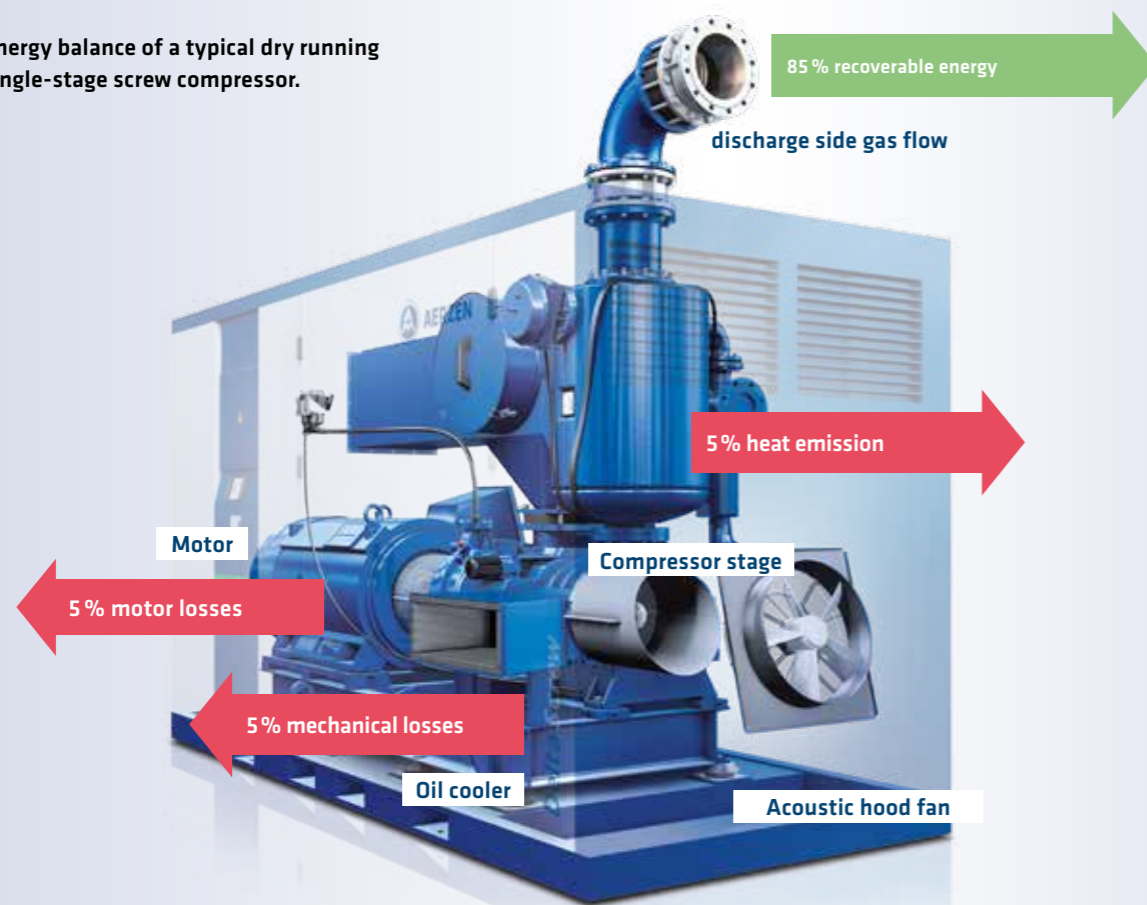
Waste heat and heat losses are no bad thing if they are used. AERZEN offers a particularly efficient way to recover this heat energy with the technology of its water-to-air aftercoolers.

Compressed air with reduced energy consumption.

Approximately 85% of the electrical power that blowers and compressors consume is converted into thermal energy; this is contained in the discharge-side gas flow. The water-to-air aftercoolers are optimally designed to ensure that up to 100% of this lost heat is recovered. The strongly heated air is cooled with circulating water; it heats the water from this secondary circuit, which is then available for a subsequent process. This hot water can be used for sludge drying, hot water production or for supporting heating systems, depending on the installation and industry. Several positive effects can be

achieved with this system. Above all, it saves on costs for heat generation. This in turn causes a reduction in the use of gas or oil, which has a direct positive effect on the pollutant emission balance through CO2 reduction! Thanks to the heat recovery solution from AERZEN, you can save big on energy costs for primary heat generation with a comparatively low investment; it quickly pays for itself.

Energy balance of a typical dry running single-stage screw compressor.



STATE-OF-THE-ART LOGISTICS TECHNOLOGY:
IT'S HOW WE ENSURE AVAILABILITY. WORLDWIDE.

MODIFICATIONS AND ACCESSORIES

PERFECT FIT FOR YOUR APPLICATION

Only when machines are perfectly tailored to the respective applications can they be truly safe and efficient. That is why every AERZEN blower or compressor accessory is bespoke and designed for AERZEN products.

Special motors



AERZEN special motors – for special ambient conditions and deviating voltages

After the second stage of regulation of electric drives (IEC60034-30-1 standard), the IE3 energy efficiency class applies to motors in the power range 0.75 – 375 kW AERZEN always uses IE3 motors as standard. Of course, the Super Premium Efficiency motors of the IE4 class are also optionally available.

All AERZEN assemblies are delivered with 2-pole or 4-pole asynchronous motors as standard. They provide a strong drive in the compression process. Depending on the ambient conditions, customised motors are recommended as an alternative. AERZEN offers a variety of modifications for this purpose.

- Broad supplier range comprised of renowned motor manufacturers
- Deviating voltage up to 10,000 V
- Reinforced bearings
- Integrated and automated relubrication devices
- Motor standstill heaters
- Special protection classes
- Special coating
- ATEX design
- Bearing monitoring for vibration and temperature
- Winding temperature
- Motor according to NEMA standard
- Diesel motors

In addition to the above-mentioned electric drives, there is always the option to use a combustion engine. The corresponding assembly including sound hood and control unit is then specially prepared for use.



Special materials



Stainless steel rotors for the use of extremely corrosive media

In certain applications it is necessary to make all parts of the blower or compressor that come into contact with the medium out of stainless steel or provide them with a special coating. For example with extremely corrosive media. Or in certain chemical processes. In addition to cylinder coating, this include above all sealing the compressor or conveying chamber as well as the rotors. This assembly concept from AERZEN prevents machine parts from being attacked by the medium. And ensures the high wear protection of your AERZEN machine.

Stainless steel version.

Stage:

- Cylinder
- Sealing of compressor and conveying chambers
- Rotors

Complete suction and discharge side:

- Intake channel, air filter housing, piping, silencers, compensators, safety valves, check valves
- Available in 1.4301 or 1.4571

Special oils



AERZEN special oils have been tried and tested over millions of operating hours

72% of all bearing damage is due to unsuitable, impure or rapidly ageing lubricants. This could easily be avoided. With the blue devices from AERZEN. Specially developed high-performance oils. Optimised by AERZEN for your high-performance machines. Suitable for every application. Giving your plant a long and reliable service life. And many more advantages.

- Standard oil Delta Lube 06
- Silicone oil
- Food grade oils (FDA approved)
- High performance oils

Additional advantages Delta Lube 06:

- Elimination of the first oil change after 500 hours
- Extended replacement intervals up to 16,000 operating hours

Special acoustic hoods



Ideal for desert installation: the acoustic hood with sand separator

They protect workers and the environment from high noise emissions. And machines from extreme conditions. Modified acoustic hoods from AERZEN. Guaranteeing that compressors and blowers from AERZEN can be used everywhere. For indoor and outdoor installation. In industrial parks as well as near residential areas. Onshore and offshore. Stationary or mobile. As reliable in Siberia as in the Sahara. And worldwide under all conceivable environmental conditions. Our portfolio of modified acoustic hoods always offers an optimal solution. For all applications. Like this one:

- On- and offshore according to corrosion protection class C5-M or C5-I as per DIN ISO 12944
- Earthquake-proof according to magnitude 5.9 on the Richter scale
- Reduction of very high sound emission up to 35 dB(A)
- Desert installations with additional sand collector
- Truck or ship installations with stabilisation
- Increased wind loads up to around 210 km/h
- Extremely cold temperature zones of -40 °C and more
- Use of HV and MV motors with special dimensions

OTHER ACCESSORIES

Pressure relief and overflow valves



Overflow regulators and pressure control valves ensure stable conditions

For constant pressure ratios and uninterrupted plant operation, AERZEN offers you premium class components. The pressure-retaining valves provide the required back pressure. Extending the service life of your compressor considerably. Incidentally, with minimum pressure loss when the valves are open. What about the overflow valves? They dissipate excess compressed air. Without having to stop the system. Ideal if you need less compressed air at certain points.

Options for AERZEN overflow valves.

- Silencer for the reduction of exhaust noise
- Solenoid valve for precise opening of the valve (can also be used as start unloading device)
- Valve position display for quick information on the current opening condition
- Documentation of function and leak tests as well as individual material itemisations (also for the pressure retaining valve of AERZEN)

Silencer



AERZEN's discharge silencers work according to the interference principle without using any absorption material

Pipe silencers are used when there are particularly high requirements for a customer's plants with regard to noise emissions. The additional silencers, which are installed on the pressure side between the assembly and the customer's pipeline, can be used in new construction projects or retrofitted. These silencers have several advantages:

Reactive silencers

Silencers designed as slotted tube reactive silencers with purely metallic fittings, and thus no absorption material. The effect is generated via the interference principle, which achieves an attenuation of -20 to -25 dB(A). Silencers without absorption material have several advantages:

- The process gas has the required quality and purity
- The system's energy efficiency remains unchanged at a high level
- The noise development on the discharge side remains constantly low



The cartridge silencer has a damping power of -8 to -10 dB(A).

Cartridge silencer

Pipe silencer designed as cartridge silencer. This type of silencer achieves its effect with the conventional use of absorption material. Since these silencers are only installed in the piping, the thermal effect and influence of the conveying impulse (blower/compressor stage) on the removal of the absorption material is only weakened, albeit substantially. Damping power of -8 to -10 dB(A) is achieved.

PERFORMANCE-DRIVEN.

THE PERFECT START FOR YOUR PROCESS AIR SYSTEM.

They ensure the perfect start. And for the high efficiency of the AERZEN assemblies: Tailor-made power supply panels for the most diverse requirements. The assemblies can be powered via various power units. The selection of the appropriate power supply panel is just as individual as the actual conveying process.

Power modules



The power supply panels are just as individual as the conveying process itself. The suitability and price benefits of the respective drive variants are dependent on whether the load is to be relieved or loaded or whether the conveying volume is variable. AERZEN offers complex solutions, from frequency inverters and soft starters to star/trick- or DOL relays (Direct On-Line). Integrated or stand-alone installation. In power ranges from 3 kW to 710 kW.

Especially with large machines, this is an important factor to keep the load on machines and plants low. In addition, the wrong start-up technology can cause high grid loads, which can lead to deviations in service provision from your energy supplier. Therefore, the correct selection of the power supply panel is an important factor in the area of peak load management. Exceeding the maximum power consumption can cause your energy supplier to increase supply costs and thus incur unplanned additional expenses.

Standard or customised – power supply panels from AERZEN ensure the perfect motor start

	DOL	Star Delta	Soft starter	Frequency inverter
Variable speed	No	No	No	yes
Thermal relief for winding	No	yes	yes	yes
High inrush current	IA >= 7x IN	IA >= 3x IN	Yes - voltage control	No - power adjustment
Starting with full torque	yes	No	No	yes
Wear-reduced start-up thanks to torque control	No	No	yes	yes
Power reduction in the partial load range	No	No	No	yes
Operation of motor above mains frequency (50 or 60 Hz)	No	No	No	yes
Investment cost	Low	Low	Low	Medium to High

Use of frequency converters

In addition to the run-up characteristics, operation with a power supply panel is just as important. After run-up, most of the start-up technologies such as DOL, Start Delta or soft starters have served their purpose. They are through-connected to generate as little loss as possible during operation. Only the frequency inverter remains active during operation. Thanks to its frequency and voltage regulating properties, the frequency inverter can be used for torque or power adjustment as required. For example, it is possible to

control blowers and compressors with pinpoint accuracy and in line with a narrow pressure band. Without the use of frequency converters, it is necessary here either to switch the machine on or off or to blow off air that is not required. A real energy dissipation circuit. Intelligent control using frequency inverters allows significant savings to be made over the operating range and thus enables a quick return on investment compared to cheaper start-up methods.

- Exactly designed for compressors and blowers from AERZEN
- Application range optional up to 55 °C ambient temperature
- Integrated switch cabinet heating for protection against condensate optionally available
- Modified standard switch cabinets also available for 460/480V or 500/525V at 50 and 60 Hz
- Power and control circuit completely wired
- Pre-parameterised according to customer data
- Significantly reduced installation space thanks to integrated power cabinet
- Perfect control of the nominal speed via frequency inverter
- Optional: Connection for auxiliary drives such as air-to-air aftercoolers up to 5 kW

Re-lubrication devices



Intelligent components that save maintenance costs. Relubrication devices from AERZEN grease the bearings of electric motors. Automatic. As required. And precisely measured according to manufacturer specifications. At intervals of up to 36 months This saves a lot of on-site service work. And ensures the long-term economical operation of your compressed air packages.

System Vario:

Self-sufficient system thanks to integrated power supply.

System Control:

Re-lubrication over service life without danger of over- or undergreasing. Power supply via preconfigured and parameterised AERtronic. Output of fault message at higher viscosity or empty cartridge.

- Easy to retrofit in any existing system
- Low annual costs, optimised maintenance result
- The dispensers provide optimised grease quantity delivery with flexible programming up to 36 months
- Cartridge or battery change visible on the dispenser

Reduce your maintenance costs – relubrication devices from AERZEN

AERZEN. Compression - the key to our success.

AERZEN was founded in 1864 as Aerzener Maschinenfabrik. In 1868, we built Europe's first positive displacement blower. The first turbo blowers followed in 1911, the first screw compressors in 1943 and in 2010: the world's first rotary lobe compressor package. Innovations „made by AERZEN“ keep driving forward the development of 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 the constant feedback we get from our customers provide the basis for our success. Products and services from AERZEN set standards. In terms of reliability, lasting value and efficiency. Go ahead - challenge us!



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