

# **Cerexio AMS**

### Compressed Air Management System

Efficient Compressed Air Management Solution





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#### Smart Compresed Air Management Has Never Being This Easier

Cerexio AMS is a proprietary simulation-based optimisation technique that forecasts demand using data on compressed air usage from the past. Your compressed air-related decisions can now be guided by a central air station's continuous, optimal operation rather than via a constrained pressure range. Acquaint yourself with the main standout features of your preferred counterpart in the AMS realm.







#### 2. Plant Optimisers

Using IIoT technology, this system is known to reduce air consumption by 60% and automatically reduce impactful pressure levels in your factories.

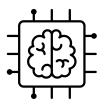
1. Al-powered Asset Predictors

. It gives you a predictive and prescriptive lens to increase the performance and lifespan of the entire fleet of air compressors and

other asset categories.

#### **3. Smart Analytics Framework**

Optimise load sharing and balancing by analysing your compressed air performance across a clean and straightforward dashboard.



#### 4. Energy Efficiency Simulator

It includes hyper-integrative modules and accurate visualisation tools to track CO2 emission rates and effortlessly assist manufacturing facilities.



#### 6. World-Class Robust Software

Cerexio AMS is powered by industry 4.0 capabilities such as IoT, AI, Predictive Analytics, Prescriptive Analytics, Sensor Automation, digital twin platforms, AR and VR immersive experiences and more.



#### 5. Remote Air Operation

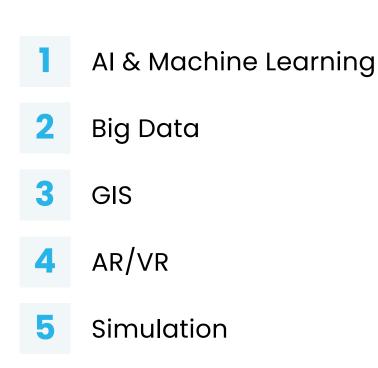
It incorporated seamless integration opportunities to manage air control systems in multiple plants via multiple devices using a single interface.





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### Cindustry 4.0 Capabilities We Offer



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- Satellite Remote Sensing
- CCTV and Laser
- 5G, IoT, Quantum Sensors
- 9 Digital Twin
- O Robotics and CPS





#### Air Criticality Tagging

To make it easier to understand the importance of air quality indicators concerning machine emissions, Cerexio AMS presents an interactive colour-coded tagging system. This makes the ability to adopt a condition-responsive strategy and maintain real-time control over machine emission levels possible for maintenance teams.



#### Compressed Air Predictive Models

Collect information from your prior records, online discussions of greenhouse gas information, real-time emission monitoring systems, and other data sources. Utilise this data to run AI models that predict compressed air quality and its bounds in your industrial regions, all without the need for extraneous human-focused evaluations.



#### Condition-based Asset Future

By allowing Cerexio AMS to enable smart predictive curves, asset protocols, and criticality indexes to automate condition-based asset management programs, you can make sure that all of your pollution control devices operate at their peak performance levels, conditions and statuses.



#### Machines Standard Isolation Metrics

The overview dashboard provides a bird's-eye view of all on-site devices' standby and isolation rates and customisable widgets detailing energy usage, CO2 emission, and savings rates. Supply the necessary data to your air quality experts so they can easily meet environmental compliances.



## **Cerexio AMS Modules**



#### Service Availability Checkers

The central processing of compressed air station operational data ensures a continuous understanding of system maintenance status. As a result, service intervals can be scheduled and optimised from a forward-looking standpoint.



#### Pressure and Flow Curves

Users can access historical, current, and upcoming data on pressure, flow, and temperature in your manufacturing facilities through the solution's extensive visualisation displays. This ensures that your airflow requirements always meet health- and environment-conscious standards.



Cerexio AMS allows your air station managers to equip comprehensive compressed air monitoring in a real-time and predictive manner to rectify systems even when they are not physically available.

#### Real-time and Predictive Monitoring



Rule-abiding Report Generation The compressed air station's operational data is recorded, archived, and processed by Cerexio AMS, which also actively supports energy management tasks per ISO 50001. The necessary critical figures are automatically exported, assessed, and provided as a report.





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## Cerexio AMS Modules



#### **Smart Air Hub**

The Cerexio Smart Air Hub is a proprietary simulation-based optimisation approach utilised to foresee the most efficient switching operations based on this demand prediction, the technical circumstances of the components, and the learned information regarding the system and its behaviour.



#### **Smart Alert Systems**

Through a simple Kanban interface, Cerexio AMS organises air threats more quickly, simply, and efficiently. It permits established protocols that can be filtered by the requestor or addressee, schedulers, and tagging systems.



#### **Virtual AQI Metres**

Manufacturing floor operators can handle Human-Machine Interface (HMI) systems using data-driven and process-oriented scheduling, automating procedures thanks to the abilities of trained AI models. These systems also employ automated improvements by using AI core memories.



Demand Navigation Demand-oriented compressed air management now has a whole new meaning thanks to the Cerexio AMS, which is adaptive, effective, and networked. With previously unheard-of efficiency, this cutting-edge compressed air management system orchestrates the functioning of numerous compressors, dryers, and filters.





### **Cerexio AMS Benefits**

#### For Forward-thinking, Sustainable Industrial Players

Cerexio AMS employs Industry 4.0 technologies to improve compressed air quality management, guarantee healthy and controlled emissions, and create comfortable workplaces. By utilising these cutting-edge tools, Cerexio AMS is paving the way for your growth. Here are a few features of Cerexio AMS that you cannot afford to miss.



#### **End-to-end Optimisation**

Cerexio AMS delivers comprehensive end-to-end optimisation, enhancing compressed air functions, emissions, and operational efficiency through its advanced features, modules and tools.

#### Lowest Environmental Impact

Energy-efficient compressed air systems help to reduce environmental effects and carbon emissions. Businesses can link their operations with sustainability goals by maximising energy use and reducing waste.

### Futuristic Predictive Maintenance

Based on data trends and performance patterns, the software may forecast maintenance requirements. This makes it possible to schedule preventive maintenance, lowering the chance of unplanned breakdowns and cutting down on downtime.

#### Remote Capabilities

Compressed air systems may be monitored and managed remotely, thanks to Industry 4.0 solutions. Businesses with various sites or spread activities can notably benefit from this. Reducing the requirement for on-site staff through remote management saves time and money.



### **Cerexio AMS Benefits**

#### Manage Long-lasting, Power-saving and Safe Assets

Controlling industrial air pollution and managing emissions provide several difficulties for practitioners. These difficulties can differ based on the sector, setting, and procedures involved. Cerexio AMS continuously monitors, assesses, and regulates the state of indoor or outdoor air to offer a healthy and secure environment for occupants while ensuring they adhere to stringent health and environmental requirements. Here are more benefits that you can capitalise on.

#### Success-guaranteed Insights

Insights regarding system performance, energy usage, and usage trends can be gained from this data. These revelations can be utilised to pinpoint areas that need improvement and to decide intelligently on system modifications.

#### > Ultimate Energy Efficiency

Recognise energy-hungry components, adjust pressure levels, and schedule operations during off-peak hours using Industry 4.0 software. This may lead to substantial energy savings and lower operating expenses.



#### **Industry Flexibility**

Cerexio offers advanced energysaving solutions specifically designed for compressed air managers to achieve the highest standards of eco-friendly and operational excellence in compressed air management. Their flagship product, the Cerexio Air Management System (AMS), leverages Industry 4.0 technologies such as AI-powered predictive models, real-time data analytics, and smart automation to optimize compressed air usage in industrial settings.

#### Modern Solutions for Air Hazards

Cerexio AMS provides modern, comprehensive solutions to effectively manage and mitigate compressed air hazards, ensuring safer industrial environments and enhanced operational safety. Not only does it safeguard employees and equipment from compressed air hazards, but also supports regulatory compliance and sustainability goals, making it a leading modern solution for industrial air hazard management.



### **Cerexio Client Stories**

Cerexio has been at the forefront of digital transformation in manufacturing, empowering companies to achieve operational excellence and sustainable growth. Through its flagship solutions, Cerexio has partnered with industry leaders to solve complex challenges, ranging from throughput optimisation to emission control, while delivering measurable business value.

### A company that manufactures and fabricates precision parts, moulds, and dies.

Vertically-integrated manufacturing services since 1978. They had a challenge in digitally transforming factories to improve operational efficiencies and reduce labour costs.

CEREXIO MES improved the throughput by digitally transforming their factory of 200+ moulding machines while the same labour capacity was able to deliver a +10% profit



#### **Cement Manufacturer**

According to Forbes, this company was on the list of the 700 largest global public companies in 2015. They had challenges in achieving kiln stability and optimisation.

CEREXIO MES was utilised by them to prevent poor quality, suboptimal throughput, unhealthy emission rates and energy losses by predicting failures in cyclone infrastructure.

#### ARTC- Advanced Remanufacturing Technology Centre



A Singaporean government agency that researches to facilitate the advanced manufacturing ecosystem in the region.

CEREXIO MES Services and Modules optimised their hyperpersonalisation Line- a solution that manufactures personalised products in a fully automated production line.







Don't hesitate to get in touch with us for further clarification or to book a demo this week. The contact particulars of our company are as below:



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