

# Asset Management with an Intuitive Approach to Drive Reliability



## AMS Solutions Deliver on Business Goals

Emerson's AMS portfolio enables the Emerson vision for Boundless Automation by unifying data, systems, and people across the enterprise to achieve improvements in safety, production, reliability, sustainability and workforce empowerment.

AMS™

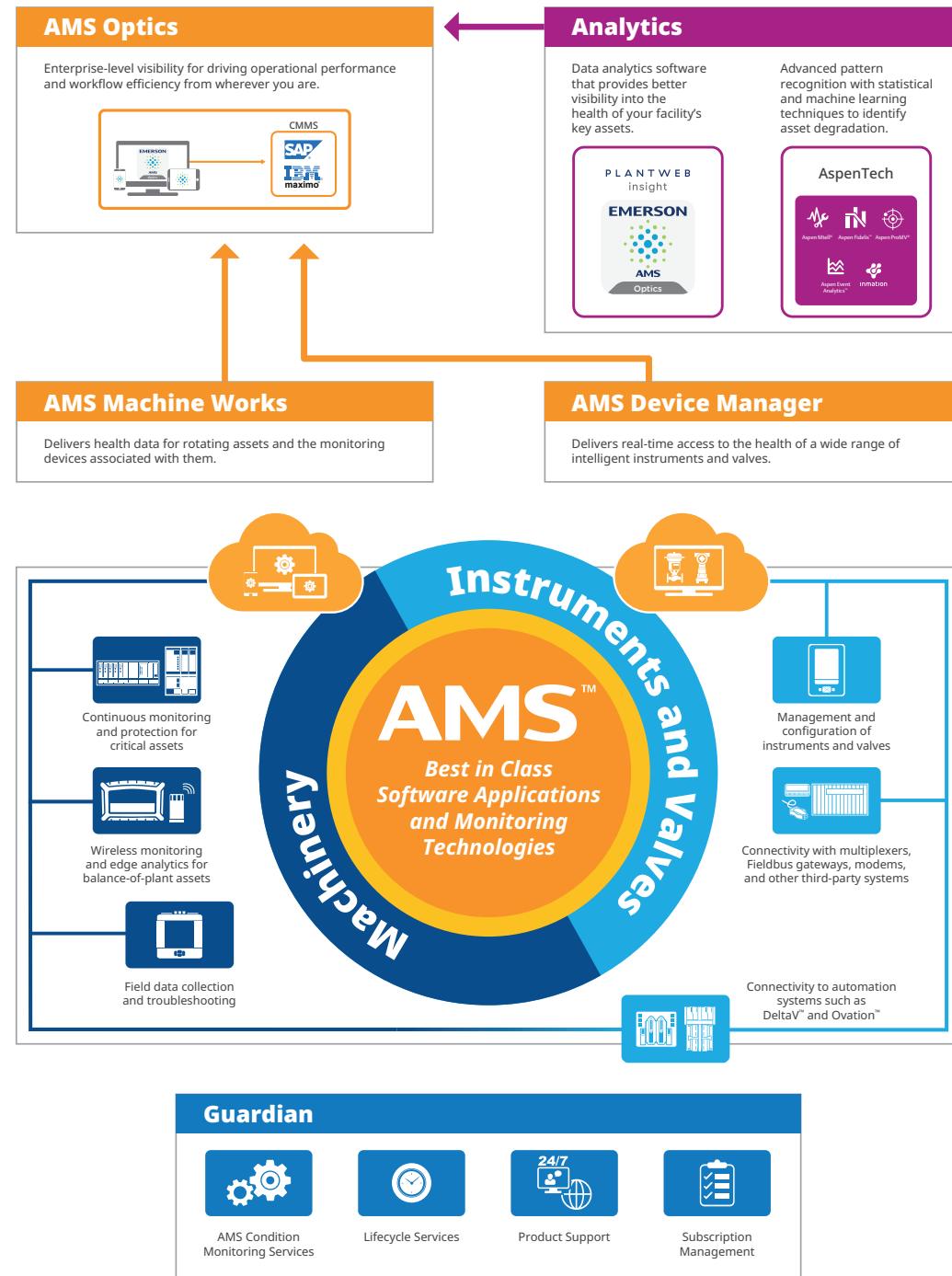
  
**EMERSON**™

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## The AMS portfolio features expertly engineered solutions for a flexible, user-centric approach



Emerson's AMS brand of technology and software solutions is field-proven around the world and in a wide range of industries and applications. They are the basis for an asset management program powered by an integrated and scalable software architecture that manages and flows data from an intelligent field to the modern edge of computing and into a secure cloud environment. They transcend conventional data siloes and unify data, systems, and people to create a true digital transformation.



Equipment condition monitoring plays a pivotal role as teams promote a reliable process with maximum availability. Rely on Emerson for all the capabilities that equipment condition monitoring can offer.

## How do AMS solutions impact industrial facilities?

How do Emerson's condition monitoring offerings impact industrial facilities?

- Startups and Turnarounds** – Most facilities spend months planning for the activities that must occur during the startup of a new line or scheduled turnaround. AMS technologies can help identify where maintenance needs to occur and streamline the performance of maintenance related to production assets.
- Predictive Intelligence** – The breadth of data collection and diagnostic tools supported by comprehensive software applications provides insight to the developing issues in both rotating equipment and field devices.
- Machinery Protection Systems** – Dedicated protection systems as well as protection capabilities layered onto existing monitoring systems create multiple ways to apply the benefits of protection to a wide range of assets.
- Balance of Plant Condition Monitoring** – Prediction and protection can now be efficiently and cost-effectively applied to more than just the most critical production assets. Both wireless and online monitoring can be a part of a broader, more successful condition monitoring program than ever before.
- Troubleshooting and Handheld Devices** – In a modern digital transformation, handheld tools can still play a critical role in troubleshooting developing problems and managing devices in the field.
- Workflow and Collaboration Software Tools** – To eliminate data silos that impede the optimization of condition monitoring programs, Emerson offers a software platform that maximizes workflow opportunities and encourages collaboration across the enterprise.
- Continuous Value** – Emerson offers services, education, and support capabilities to ensure successful installation and on-going value from investment in technologies and software.

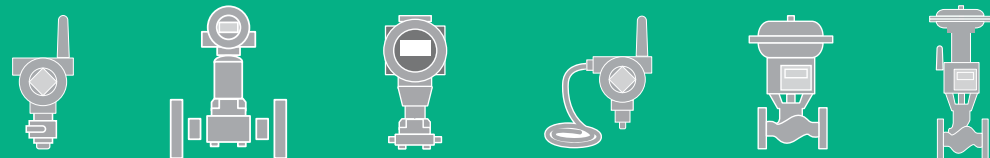


## Startup and Turnaround – Intelligent Field Device Management

## Achieve a smoother startup or turnaround

AMS solutions reduce the inevitable stresses of startups and turnarounds by reducing errors as well as labor. In essence, the many innovative tools become part of the organization's tech team. Because AMS solutions reduce the time spent in the field, risk is also reduced while safety is increased.

Of course, the life of a facility does not stop there — and neither does AMS. The many tools and answers that AMS provides guide the team through startup and move with them throughout the lifecycle of the facility.



Successful commissioning and start-up phases are typically indicative of the future success of ongoing operations. Therefore, they require appropriate focus and resource allocation to ensure overall project success.

*Eric J. Klein, Ph.D., P.E., PMP, Considerations for Successful Project Commissioning and Start-Up Planning and Execution, Copyright ©2023 Long International Inc.*

### Start configuration immediately by powering the loop



**Take configuration off the critical path.** Instead of leaving transmitter configuration to the end of a project, where it can be on the critical path, technicians can begin configuring devices as soon as they arrive. Power the Loop technology means teams don't need to wait for the host-system installation, for hardware or I/O set up, or for cabling to be run.

### Streamline device commissioning with AMS Device Manager



**Define once, use many times.** Efficient device configuring and commissioning are made possible by AMS Device Manager Bulk Transfer. The safe and proven process streamlines tasks, significantly reduces the number of configuration and validating steps, reduces errors, and provides complete digital records.

### Re-use configurations across platforms via AMS Trex



**Reuse configuration files.** Using Emerson's AMS Trex Device Communicator, teams can reduce time and effort by saving device configurations and using them later through many Trex units.

### Document easily with Audit Trail



**Create documentation automatically.** Easily compile, save, and print detailed reports before and after configuration to simplify compliance after startups and turnarounds.

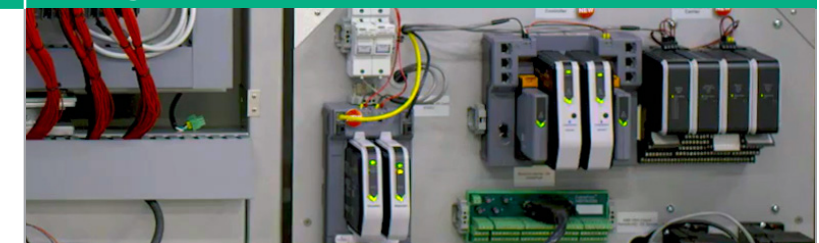
### Streamline tasks with SNAP-ONS



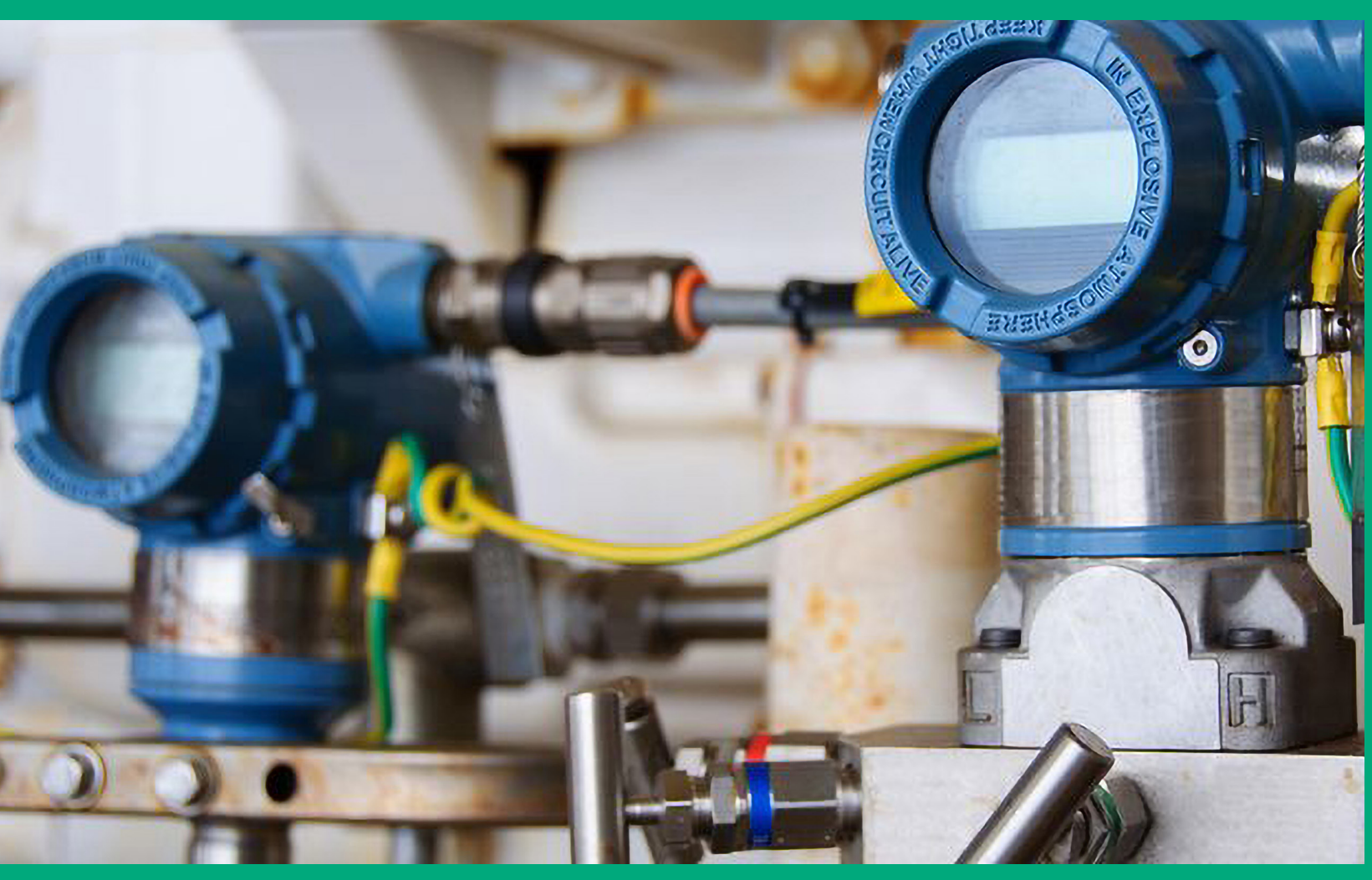
**Rely on powerful, time-saving SNAP-ONS for many tasks.**

- **Verify wiring:** Combine AMS Device Manager and QuickCheck SNAP-ON to verify all wiring from the field to the control room, allowing you to focus on checking the DCS configuration and logic.
- **Perform testing:** ProofCheck incorporates all elements of proper testing in a single customizable solution, including field devices, wiring, signal conditioners, safety logic, BPCS logic, final control element response, and manually entered data.
- **Manage wireless networks:** The AMS Wireless SNAP-ON helps you plan networks and validate them against recommended design practices. After installation, communication and status of networks can be graphically viewed to enable identification of potential trouble spots.

### Extend reach into 3rd-party systems with a range of interfaces



**Manage devices across systems.** AMS Device Manager is the premier plant asset management (PAM) software for expert management of measurement instruments, wireless and analytical devices, control valves, and more. Through its HART-IP interface, it seamlessly integrates and oversees all smart devices across a near-endless range of host systems, whether from Emerson platforms like DeltaV and Ovation, or from other automation manufacturers' DCS, SIS, PLC and discrete environments.



## Real approaches to a more rapid startup



### Taking configuration off the critical path

"We set up our instruments remotely with AMS Device Manager. It improved configuration accuracy, provided better documentation, and allowed faster start-up."

*Herman Hutter, Head of Automation LES at Lonza (Lonza Exclusive Synthesis)*

### Achieve goals simply

"We needed to go from purchase to modernization very quickly. We achieved our goals because Emerson's solution was easy from installation to configuration. The solution continues to be easy in condition monitoring, vibration analysis, and embedded expert guidance."

*Onsite Automation Engineer*

### Save on commissioning

"If you consider that it saves one hour for each instrument, and the cost of an instrument technician is \$70 per hour, then the total savings in commissioning 1,400 instruments is an astounding \$98,000."

*Herman Hutter, Head of Automation LES at Lonza (Lonza Exclusive Synthesis)*

## Lonza Saves \$98,000 and achieves 200% ROI with AMS Device Manager

Lonza's largest research, development, and production center knew that predictive maintenance could lead to substantial savings. They chose AMS Device Manager. In addition to superior predictive maintenance, Lonza experienced significant savings during commissioning.

- An hour saved for each of 1400 instruments led to a savings of \$98,000 in commissioning.
- Achieved double the return on investment because AMS Device Manager easily integrated with their instruments and the DeltaV control system.
- Experienced improved documentation and reduced workload with AMS Device Manager Audit Trail.

[Read the Full Case Study](#)





## Predictive Intelligence

# Predict and assess issues to improve reliable and available operation

Predictive intelligence is crucial for improving efficiency and safety across the enterprise, as well as achieving business goals. Teams know when to schedule maintenance, understand the severity of issues, and avoid unnecessary – and sometimes hazardous – trips to the field.

Emerson continues to modernize this well-established practice to create innovative solutions, redefining the tools of predictive intelligence so they stay fresh and take advantage of current technologies. While the collection of necessary data is defined by the asset being monitored and its criticality to the production process, the key to a successful monitoring program is a comprehensive yet user-friendly application for creating accurate diagnoses that lead to actionable information.

Maintenance and operations teams – and the organization as a whole – continue to see the benefits of predictive maintenance, particularly as equipment ages and requires more support.



Successful commissioning and start-up phases are typically indicative of the future success of ongoing operations. Therefore, they require appropriate focus and resource allocation to ensure overall project success.

*Eric J. Klein, Ph.D., P.E., PMP, Considerations for Successful Project Commissioning and Start-Up Planning and Execution, Copyright ©2023 Long International Inc.*

## Enhance operational efficiency

### Why is it important to enhance operational efficiency?

When your work processes aren't efficient, your plant could be throwing away money and wasting time and resources. Efficient operations result in cost-effective work processes and reduce waste while maintaining product quality and production schedules.

AMS Machine Works allows your team to focus on developing issues instead of chasing the next breakdown, and eliminate the surprise that can derail maintenance and production schedules.

When managing what can be hundreds of field devices on your production line, the ability to address them quickly and in mass can represent huge efficiencies in the process. AMS Device Manager allows you to easily group your devices into test schemes and calibration routes for maximum efficiency.

## Save time and costs

### There's a reason why they say time is money.

Avoiding the unexpected interruption of day-to-day operations and maintenance is like creating time and money – more resources and budget available to keep the facility running at peak performance!

By adding Emerson Alert Monitoring and ValveLink to the AMS Device Manager application, teams have prediction power that will save them time and effort. ValveLink is an on-site data management solution that performs scheduled online valve testing, and continuously monitors and alarms a variety of valve issues. Machine learning and artificial intelligence help to flag developing problems and suggest solutions.

Inside AMS Machine Works, Machine Journal utility enables you to keep track of your analysis activities and record information to be used for asset management. With the predictive power of AMS Machine Works, facilities can take advantage of online monitoring, eliminating in-field data collection.

## Improve safety

### Fewer unexpected incidents save lives and equipment.

Condition monitoring enhances plant safety by providing continuous oversight of equipment health, enabling proactive maintenance, reducing the risk of unexpected failures, and ensuring that operations comply with safety standards.

By preventing accidents and ensuring that equipment is operating safely, condition monitoring directly protects the lives of workers and reduces the likelihood of injury.

## Enable advanced planning

### Fix problems on your schedule, before they shut down production.

Scheduled maintenance based on timely work orders put you in control and keeps production on schedule.

AMS Machine Works improves the fault diagnosis and analysis process by combining predictive maintenance techniques with comprehensive analysis tools to provide easy and accurate assessment of machinery health in your facility. Inefficient practices are not uncommon when there are hundreds of field devices to maintain.

AMS Device Manager provides a window to these devices – from start up and calibration through daily operation – so that anomalies are identified early to be addressed at the next opportunity.





## Vibration monitoring with analysis reduces labor while improving reliability

A chemical manufacturer needed to monitor vibration in the critical vertical motor driving a reactor reciprocating compressor. In the previous two failures of this reactor motor, the company experienced lost production, repairs, re-start, and scrapped materials.

To avoid the safety risk involved in sending personnel out to manually test the vertical motor, the team chose to use Emerson's AMS machinery health portfolio for their vibration monitoring/protection system. They also employed Emerson's embedded PeakVue™ technology to correctly initiate and understand condition trends, perform analysis, and execute actions.

They now can see indicators of bearing impact even earlier than vibrations can be sensed in the equipment. Issues are addressed before they cause process slowdowns. Avoiding these expenses in the future will reduce the team's workload and improve the site's throughput.

Not only can the team now improve the response to potential risks, but the site can share data with experts throughout the global company.

- Avoid equipment failures that could lead to unplanned expenses
- Increase reliability of equipment and production for fewer maintenance hours
- Improve availability of equipment for uninterrupted production

[Read the Full Case Study](#)

### Real approaches to predictive maintenance



#### Double the worth of vibration technicians.

"Vibration technicians at [Evergy] have gone from supporting two/four plants to supporting the entire fleet for troubleshooting. The vibration-monitoring project has led to approximately \$150,000 in risk avoidance from vibration calls when data was used from previous sensors."

*Control Magazine*

#### Expertise built into the analysis tools.

"With the new solution in place, the customer's team can review the spectrum and waveform data to see if a machine has a defect that would result in unplanned plant downtime or expensive machine repair costs."

*Power Generation Company*



#### Gain understanding about asset health in one place.

"Instead of having to search for details after an outage, AMS Device Manager can always be on, scanning and assessing usage, and sending active status alerts to a list. We now have a one-stop-shop to determine asset health."

*Derek Ybarra  
Maintenance and Reliability System Engineer, Bayer*

## Machinery Protection Systems



## Protect the process by protecting equipment

As assets like compressors, turbines, and generators age, process protection becomes more important. With so much at stake, running with outdated or absent protection is running the process blind — a dangerous prospect.

Going beyond life- and equipment-savings, the ideal protection system reduces costs by delivering insight to the operating condition of the asset, avoiding unnecessary downtime and potentially risky trips to the field.

To ensure personnel and systems have the actionable information they need, Emerson's AMS 6500 ATG communicates directly over Ethernet to AMS Machine Works to provide high resolution waveform and spectrum analysis with transient recordings of data, all available on demand, by alert, via schedules. In fact, the ATG View Mobile app delivers asset health information to the user anywhere on the plant network via mobile devices.

For non-critical assets, Emerson's AMS Asset Monitor provides protection while managing pervasive sensing, prediction, and process monitoring capabilities. It is designed to mount at the asset, reducing cabling requirements and other installation costs.

### Flexible and cost-effective



#### Add protection tools easily.

Emerson's AMS 6500 ATG brings a lower total cost of ownership with universal monitor and process cards. Inputs are user-configurable, allowing I/O changes in the field and requiring fewer spare cards to accommodate a wide range of measurement types. The A6500-UM cards are designed to work with existing sensors, eliminating installation labor cost associated with the upgrade.

### Accessibility and integration



#### Find information quickly.

Stay in touch with asset health through existing DCS/PLC, Historian, or HMI systems via OPC UA and Modbus TCP and RTU. All information is available via mobile app.

### Safe and Compliant



#### Naturally meet safety requirements.

The AMS 6500 ATG is API 670 compliant and meets safety certification required for use in hazardous environments: SIL 2, CSA Class 1 Div 2, IECex Zone 2, ATEX, and DNV GL certifications.

### Prediction



#### See potential failures early.

Protection systems provide maximum value when they include predictive intelligence. Know the health of assets by taking advantage of powerful embedded prediction capabilities included in all AMS vibration analysis solutions, including PeakVue™ technology, for the earliest indication of failure.





## International gas processing plant reduces failures in compressors by combining protection, prediction, and prescriptive analytics

To avoid repeated equipment failures, a gas processor requested a vibration condition monitoring solution for three two-cylinder vertical oxygen reciprocating compressors. Their current configuration had no sensors or vibration monitoring systems, and no data was captured. The company had analytics software from another vendor, but the mechanical integrity models needed real-time vibration data.

Running now with an Emerson protection solution, the gas processing personnel throughout the organization have access to data via multiple tools. The company can reduce failures because the team can find issues, design solutions, and learn from shared insights.

Emerson's ATG View mobile app, an important piece of the solution, enables analysts to view the information on a mobile device from any location. In addition, PeakVue™ technology, a part of AMS Machine Works, enables personnel to see trends in data well before vibration becomes a critical issue. It also simplifies data interpretation so that operators, not experts in vibration analysis, can understand what the machinery vibration could require.

- Savings of \$2M in averted production losses
- Reduced costs of \$1.5M by prevention of repeated failures
- Material savings of \$1.5M by avoiding replacement of compressors and vibration switches.

[Read the Full Case Study](#)

### Real approaches to a more rapid startup

#### Always have the right part in stock.

"AMS 6500 ATG universal module gives us confidence that we will always have the right part in our stock in case we need to replace a defective card in the future. We also like the flexibility of the universal cards to accept a wide portfolio of third-party sensors because it helps with budget constraints."

*Timothy Johnson  
Control Systems Technician  
Calumet Specialty  
Shreveport, LA USA*

#### Plan rather than react.

"Having access to the data in real time means we can address issues before they cause failures."

*Customer Onsite Subject Matter Expert  
Instrumentation and Controls*

#### Inform actions and improve safety.

"As part of our asset management initiative, we are gathering, storing, and analyzing data to inform our actions and improve safety across multiple sites."

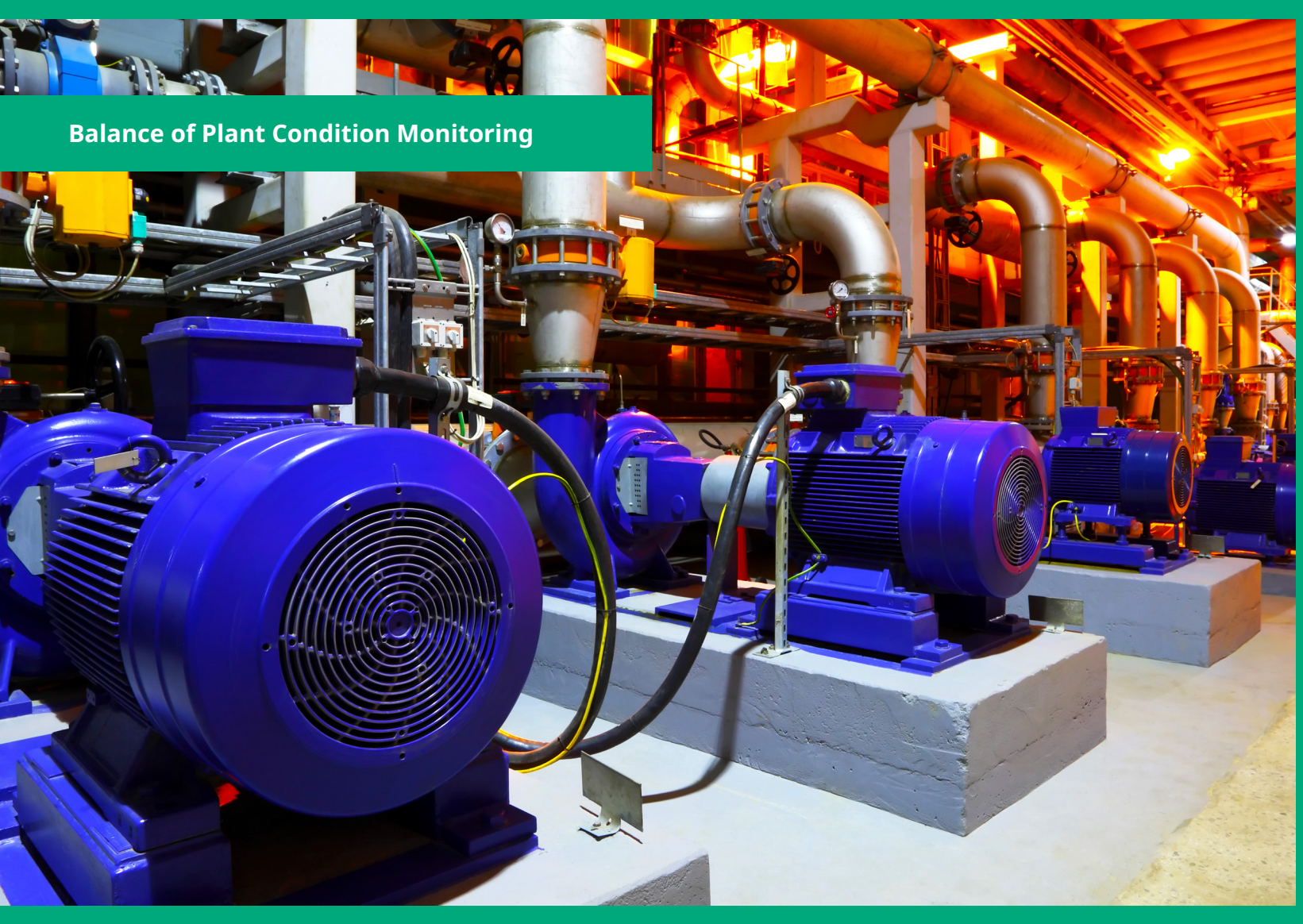
*Customer Onsite Subject Matter Expert  
Rotating Machinery*

#### Ease and protection can be equal.

"We like the technical functionality of the AMS 6500 ATG and its seamless integration with the DeltaV system. We now have a simple and cost-effective process, which is as important as the reliability of our compressor"

*Jason Palarca  
Electrical Supervisor  
Ingomar Packing, Los Banos, CA*





**Balance of Plant Condition Monitoring**

## Monitor more assets for greater reliability improvements

On average, only 20% of equipment is critical to continued safe process operations. But ask any operations manager and they will say that the other 80% — the Balance of Plant (BOP) equipment — is important too.

Many organizations lack the headcount and analysis expertise to expand their monitoring program to BOP equipment. AMS solutions extend the condition monitoring program to include these without additional headcount — delivering maximum visibility to asset health.

By digitally monitoring the health of these without additional headcount. Both safety and efficiency are improved when team members make fewer trips to the field to confirm the operational status of BOP assets.

### Reduce entry costs to monitor BOP equipment



**Monitor more for less.**

To keep costs low for monitoring the health of BOP equipment, AMS Wireless Vibration Monitor is an easy-to-deploy vibration sensor that performs prescriptive analytics on vibration data using native software to identify failure modes in rotating equipment. This compact device simplifies monitoring more equipment, reducing downtime and improving reliability.

### Reduce time spent on maintenance



**Long battery life and short installation.**

The AMS Wireless Vibration Monitor has a three-to-five-year battery life and can be installed in as few as five minutes.

### Maintain sophisticated analysis



**Spend less for rich information.**

The wireless monitor features complete data acquisition – triax vibration with temperature and PeakVue™ measurements – to provide a sophisticated look at asset health on par with other online and portable monitoring options.

### Reduce effort to gather data



**No more route collection.**

Free personnel to perform other tasks and introduce less risk in monitoring BOP equipment health by replacing time-consuming route-based data collection.



## Troubleshooting with Handhelds



## Expertise you can take to the field

When troubleshooting in the field, personnel want to gather data quickly and easily, understand the problem, receive prescriptive guidance, and find a solution to the potential issue. They want a helpful and knowledgeable partner.

In addition to providing fast, actionable information, effective troubleshooting tools must take advantage of modern communication and interface innovations that make tasks easier and paths more intuitive.

Emerson has tools designed for a wide variety of troubleshooting tasks. In fact, many of the troubleshooting tools can replace or work in tandem with older, traditional technology — and deliver efficiencies from both options.

- The AMS 2140 Machinery Health Analyzer takes vibration data and analysis measurements to the next level. With simultaneous four-channel plus phase data collection and unique peak detection capabilities, it delivers faster data collection. Results include less time in the field or more machines monitored.
- With an AMS Trex Device Communicator in hand, you can properly diagnose field device issues. Maintenance teams realize savings in work hours and gain peace of mind knowing that problems will be fixed quickly and properly the first time.

### Troubleshooting field devices



#### Work efficiently through user-centered design.

The AMS Trex Device Communicator improves efficiency with a modern, intuitive user experience that includes a larger display, touchscreen, and a task-based user interface. Device dashboards, advanced diagnostics, and troubleshooting tips help personnel fix issues in the field when they find them.

#### Understand the problem.

As soon as the field device is connected to the Trex, the device overview screen puts relevant information at the user's fingertips. The user immediately sees device information, alerts, status, primary measurements, and relevant menus to get a fast and accurate start on diagnosing the issue.

#### Envision a solution with guidance.

The Trex handheld provides in-field diagnostics for Fieldbus devices and valve assembly conditions without impacting the process.

#### Easily maintain asset management database integrity.

Emerson's AMS Trex Device Communicator with Auto Sync technology helps maintain data integrity in an asset management database without technician intervention.

Equipped with Auto Sync, the Trex communicator instantly delivers visibility of all field changes, automatically synchronizing any changes with AMS Device Manager. Every change made in the field is automatically recorded, timestamped, and uploaded — no running back to document the change. The database and audit trail remain true and reliable.

### Troubleshooting equipment vibration



#### Confirm and collect accurate current data.

In this age of digital transformation, plants use online solutions to collect and use vast amounts of data. Emerson's 2140 Machinery Health Analyzer helps teams be sure that the online data and parameters accurately represent the situation. With that data, they can identify developing faults and determine and address the root cause of a machinery problem.

#### Solve with the help of diagnostics.

The AMS 2140 adds power to routine data collection by providing diagnostic tests at the machine site. With embedded intelligence, the AMS 2140 enables even novice users to conduct sophisticated troubleshooting tests.

The bottom-line impact is that users can quickly do more in the field, thus avoiding wasted time and potential further deterioration of equipment.

#### Move quickly with predefined analyses.

For troubleshooting especially difficult machine problems, the AMS 2140 delivers advanced in-field analysis tools, including many predefined analysis such as coast down, bump tests, time synchronous averaging, order tracking, MCSA, high resolution, high frequency, and more



**Diagnose problems in a fraction of the time**  
 "With this tool (Trex), I can determine what's wrong with a valve in 20 minutes. Existing troubleshooting procedures can take up to 10 hours before determining whether or not a valve needs to be pulled – and even then, the root cause of the problem may not be found."  
 – Ken Howard, I&E Reliability Analyst, Chevron El Segundo Refinery

## Workflow and Collaboration Software Tools



## Enterprise-wide Performance Boost

To boost plant performance, teams must be able to share and access current, actionable information gathered from the entire enterprise. Often that's easier said than done. Emerson simplifies the task by helping organizations get their arms around operations scattered across the globe, across town, or on the other side of the building.

Understanding the root causes to issues goes beyond trends found in a dashboard. Teams need the next level of advanced analysis tools to answer questions like "Why does this keep happening? How can we do better?"

Emerson offers a variety of solutions to provide actionable information with technology that empowers the workforce and delivers value across automated workflows. Through these tools, the workforce has situational awareness and can make advances while avoiding errors.

## Expertly Manage Assets and Enable an Integrated Workflow

### Bridge operational and information technology with AMS Optics



#### Get an informed head start on decisions.

AMS Optics is the enterprise-level software that boosts business performance through simplified data management, automated workflows, and enhanced decision support.

Effectively bridging operational technology (OT) and information technology (IT), AMS Optics can improve collaboration by delivering field device condition data and equipment vibration data to the people that need it.

AMS Optics can give decision-making a head start by prioritizing and assigning severity to issues, helping teams to:

- Increase productivity and drive action by enabling access to a single asset health dashboard.
- Automatically or manually create work requests for rotating equipment and implement closed loop work processes with CMMS (SAP or IBM Maximo).
- Make sense of KPIs displayed in a single dashboard.

### Improve decision-making with information from across the enterprise



#### Gather information for enterprise-wide use with Emerson Connectors.

The information you need to stay informed and enhance collaboration is spread throughout the enterprise in multiple systems from many devices and pieces of equipment. There is a way to gather all that information in a format that helps your teams make sense of it.

Data collectors in software such as AMS Machine Works and AMS Device Manager have ties to systems and make the information accessible to AMS Optics for analysis and decision-making. AMS Optics integrates data from:

- AMS Machine Works – Gather predictive analytics from AMS Machine Works to provide quick and accurate assessments of machinery health.
- AMS Device Manager – Connect existing AMS Device Manager installations to AMS Optics and allow users to monitor device health from anywhere.
- AspenTech's Mtell software, where data can be viewed against RCFA templates and machine learning will lead to more automated, intelligent diagnostics.
- Plantweb Insight™ – Gain analytics based on decades of process and industry experience into AMS Optics for key assets such as Pumps, Heat Exchangers, Steam Traps, Air-Cooled Heat Exchangers, Pressure Relief Devices, Cooling Towers, Network Management, and Power Modules.
- DeltaV Control Loop – Understand which loops need maintenance or tuning and have full insight into which processes are currently running in manual mode.
- AMS Machinery Manager – Connect existing AMS Machinery Manager installations to AMS Optics for discovery, monitoring, and reporting of rotating equipment assets.

All the data from across the enterprise is made available to users in AMS Optics. Collaboration across multiple users and departments is simplified so teams can work together to resolve issues based on up-to-date data.

## Services and Training



### Joint success near and far

"As a reliability engineer analyst, I get to assist customer teams who might not have in-house vibration SMEs. I am part of the customer team. I look at customer success as my success also. Success comes because I can see the big picture and really know the customer — by going on site and by monitoring conditions from 400 miles away."

– Reliability Engineer, Emerson Impact Partner

## Continuous value delivered through services and training

Continued smooth and efficient operation of the enterprise returns value. To achieve that value, teams must understand the information and be able to act based on that information.

When organizations blend Emerson's Guardian offerings and Educational Services with their technology investment, they create ideal conditions to optimize the investment in both the process and the equipment. Organizations then transfer expertise from Emerson to the entire team, sharing expertise among team members.

## Bring Out the Best in Personnel through Training

### Customize the topic. Customize the location. For all levels.

Engage the power of advanced tools and capabilities by giving your personnel the training and confidence to use them in the best ways. Emerson training is the short- and long-term solution that maximizes the return on your most significant investments: your employees.

No matter the level of experience, and no matter the topic, training is customized for the needs of the users.

- Live in-person training. In-class instructors guide your personnel through hands-on exercises grounded in real-world experiences.
- Virtual classroom. The same expert instructors who lead traditional classes present courses in a virtual setting.
- Onsite training at your facility. Classes can be presented at a site that is convenient for your personnel.
- ELearning and blended learning. Any combination of class sites and formats are available based on your needs.

## Maintain Value with End-to-End Digital Lifecycle Services

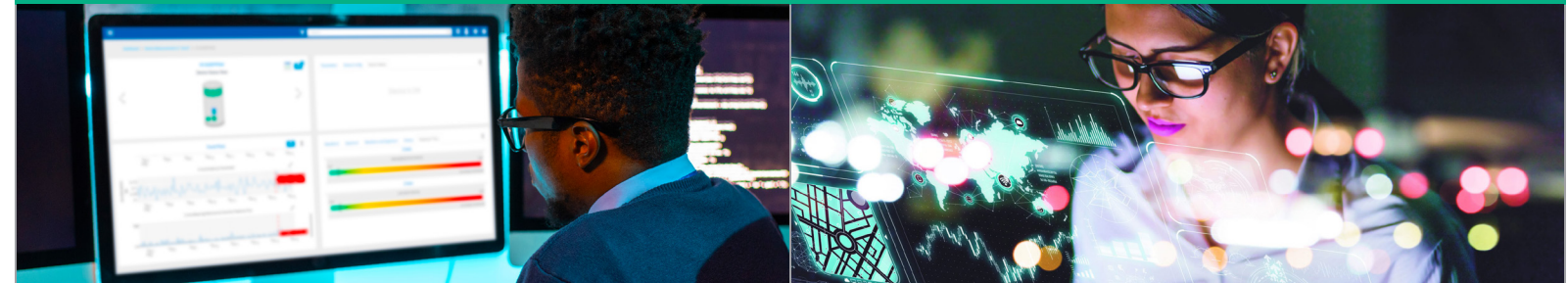
### Drive system health and performance.

Emerson's Guardian™ line-up of services provides customers a secure digital experience that enables them easily to connect to product support, manage subscriptions, and interact with additional software and services tailored to their operations.

Customers choose from services such as these:

- Emerson's highly skilled and certified analysts provide remote condition monitoring of critical plant assets.
- A configurable dashboard for real-time system health information and corrective actions for potential issues.
- Access to the latest software updates, patches, and hotfixes matched to system content.
- Connection to Emerson's product experts for collaboration with your personnel to resolve issues or enhance operations.
- Remote system diagnosis to speed up troubleshooting and problem resolution.

## Gain Insights with Remote Condition Monitoring Services



### Supplement your in-house expertise.

Shortages of expert personnel have caused organizations to shift how they handle machine reliability analysis. Companies have found remote analysis programs to be effective.

Tailored to your requirements, Emerson services can supplement and build your in-house knowledge with expertise, technology, and processes that help your facility operate safely, improve asset reliability, and optimize process capabilities.

Working with Emerson, you'll have the resources to maximize the effectiveness of your assets. Emerson's automated condition and asset monitoring solutions can provide accurate and reliable asset data from anywhere inside or outside your operation, keeping your people safe from harm and your goals still within reach.

# Improve reliability, safety, production, sustainability and workforce empowerment with AMS solutions



## Emerson's AMS Solutions

### Request a Quote or Information Today.

Choose from the picklist of products shown on the accompanying quoting form and leave us a detailed note regarding to your inquiry.

Choose from our line of Machinery Health Management, Field Device Management, Workflow and Collaboration Software, Accessories and more.

[Request for Quote](#)

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