

SERVICES PROFILE

INTEGRATED CONDITION MONITORING

Condition Monitoring increases overall knowledge of asset condition and allows decision makers to perform Condition-based Maintenance (CbM) by scheduling downtime, labor, and materials based on machinery health. The benefits of a CbM program are many, and they impact a variety of Key Performance Indicators (KPI) by improving your plant metrics:

- Return on Net Assets (RONA)
 - Lower inventory costs
 - Reduce spare parts
 - Defer scheduled maintenance
- Overall Equipment Effectiveness (OEE)
 - Improve availability, rate, quality, and safety
 - Reduce unplanned downtime and planned downtime duration
 - Reduce mean time to repair (MTTR)

Many companies don't fully realize the benefits of an effective CbM program simply because they don't have the knowledge and resources to do so. Whether you have a new or mature CbM program, our Integrated Condition Monitoring Services will help you optimize it to meet production and business goals.

PREDICTIVE MAINTENANCE SERVICES FOR MAXIMIZING THE RELIABILITY OF YOUR PLANT



TAILORED SOLUTIONS

With our Integrated Condition Monitoring Services, you'll receive tailored solutions to help you implement your CbM program. Our program specialists will advise you on program content, machinery criticality, collection frequencies, alarm parameters and appropriate monitoring technologies - or we can run your CbM program for you.

Services available to you include:

- Reliability Services
- Contract Services
- Project Services
- Callout Services

AVAILABLE SERVICES

Reliability Services

Benchmarking your maintenance department and Condition-based Maintenance (CbM) program against other “world class” facilities gives you the ability to make improvements that can directly and positively impact your bottom line. Reliability Services give you the capability to see where you are today and create a maintenance strategy that will meet your goals of the future.

If you need to critically assess the performance of your Maintenance and CbM programs, Rockwell Automation can perform a reliability audit that will show you what tasks you are doing well and where you need to improve to reach “world class” status. A reliability audit concentrates on the effectiveness of your existing CbM program only. This audit ensures that your program is operating at its fullest potential based upon equipment, maintenance practices, operational practices, resources and tools. As part of your audit, our Reliability Specialist will:

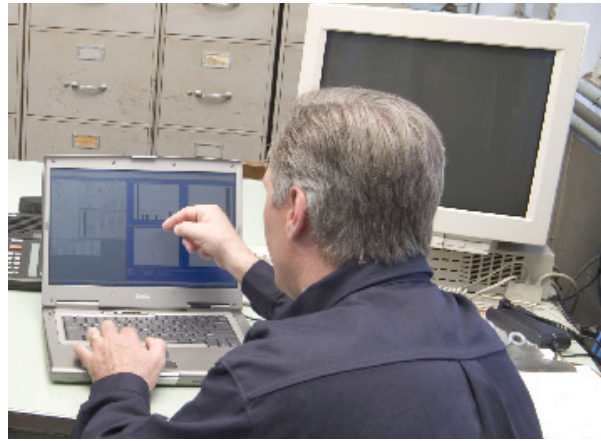
- Interview key plant personnel
- Identify and benchmark KPIs
- Create a Strategic Maintenance plan

If you are investing in a CbM program, Rockwell Automation can provide the experienced resources you need to run the program, giving you a greater chance of success and a faster Return on Investment. We can:

- Oversee and manage the initial and/or ongoing direction of the Program
- Provide the necessary training for key personnel
- Help you formulate program goals and KPIs
- Create a reliability plan which will become a key part of your overall strategic maintenance strategy

Why not ensure your investment in condition monitoring technologies and guarantee success? Rockwell Automation can provide Results Assurance to make sure your CbM program is continually improving and striving to set the performance bar higher. You'll receive:

- Regular visits from a CbM expert
- Coaching by Rockwell Automation, keeping your CbM team focused on continuous improvement and goal achievement



Contract Services

When you need to outsource some of your maintenance functions, but still need to maintain “world class reliability,” Contract Services will give you the capability to achieve this goal. From a single regional facility to a large multi-national company, Rockwell Automation can build a service solution for you using conditioned monitoring technologies as required such as vibration analysis, infrared thermography and oil analysis.

If the investment in human resources, time and equipment proves to be too overwhelming, On-site Contract Services gives you access to “world class” CbM capabilities.

You'll be given:

- On-site vibration, infrared thermography and oil data collection, analysis and program management
- On-site CbM software and your personnel will be directly linked to your Computerized Maintenance Management System (CMMS)
- Access to your asset health information through the internet with an easy to use web portal

When what you need is a way to turn Condition Monitoring *data* into actionable Condition-based Maintenance *information*, Rockwell Automation Reliability On-line Services puts this capability at your finger tips.

- Your employees or local resources collect the data or it is done automatically with the XM or Enwatch online hardware
- Rockwell Automation provides the analysis expertise remotely
- You access your asset health information through the Internet with an easy to use web portal

Project Services

If you are installing a new on-line condition monitoring system, or refurbishing an existing one, Project Services provides the expertise needed to ensure your success. From setting up and commissioning standalone on-line monitoring to complete installation of large, complex monitoring solutions, you'll receive experience that has proven to be invaluable to customers worldwide.

From start to finish, Rockwell Automation will provide a solution for your needs. Our track record and depth of knowledge help us to deliver successful Turn Key projects of all shapes and sizes. We'll make sure:

- Your project needs are properly defined
- Your solution is planned, designed, built and installed, making sure it integrates with your plant
- Your project is tested, commissioned before it is turned-over to you

Many companies don't have all of the engineering and installation skill needed to successfully complete a condition monitoring installation. Rockwell Automation Commissioning Services can fill in those gaps and ensure the success of the project.

- Initial project scope consultation and design
- Software installation services and database administration services
- System integration and final hardware commissioning services



Callout Services

Do you occasionally need a fan balanced, Infrared Thermography performed or a critical oil analysis completed to supplement your existing CbM Program? Or, do you have a reliability problem that just can't seem to be solved? Callout Services can help you get the problem solved and production back on track in a timely manner.

Sometimes it's most cost effective to purchase service as the need arises. As business conditions dynamically change, Callout Services can provide you with a flexible labor pool to ensure your equipment reliability.

- Standard vibration analysis and rotor balancing to solve rotating asset issues
- Infrared thermography to solve electrical, mechanical and process issues
- Highly skilled database administrators and network technicians can ensure the integrity of your condition monitoring systems is maintained

When a reliability problem stumps even the best maintenance team, companies turn to the Rockwell Automation High End Analysis Team. The best, brightest and most experienced of our engineers and field service representatives will be deployed to solve your problems. Analysis Services include:

- Turbine run up and run down analysis
- Multi channel, simultaneous data capture and analysis
- Machine resonance analysis and corrective recommendation

HOW TO ORDER

Integrated Condition Monitoring Services can be ordered by catalog number for packaged or hourly rate services. For tailored or turnkey services, please contact your local Rockwell Automation sales office or authorized distributor for order information.

Category	Service	Program	Catalog Number
RELIABILITY SERVICES	Reliability Program Audit (Basic)	Small Facility Program ¹	1443-R-BPAS
		Medium Facility Program ²	1443-R-BPAM
		Large Facility Program ³	1443-R-BPAL
	Reliability Program Audit (Advanced)	Small Facility Program ¹	1443-R-APAS
		Medium Facility Program ²	1443-R-APAM
		Large Facility Program ³	1443-R-APAL
Results Assurance Package	Monthly follow-up visits ⁴	1443-P-RAM	
	Quarterly follow-up visits ⁴	1443-P-RAQ	
CONTRACT SERVICES	On-site Monthly Vibration Predictive Maintenance Service (annual contracts)	One day per month	1443-C-PDM1D
		Two days per month	1443-C-PDM2D
		Three days per month	1443-C-PDM3D
		Four days per month	1443-C-PDM4D
		Five days per month	1443-C-PDM5D
PROJECT SERVICES	Monitors or On-line Systems Commissioning and Inspection	1443-S-MON	
	XM commissioning & installation services	1443-S-XM	
CALL OUT SERVICES	Vibration analysis & in-place Dynamic Balancing	1443-R-CBM	
	Infrared Thermography data collection, off-site analysis & web based reporting	1443-P-IR	
	High End Analysis Team (HEAT) Services	1443-R-HEAT	

- 1 Up to 500 machines or 5000 point programs
- 2 1,000 machines or 10,000 point program
- 3 Greater than 1000 machines or 10,000 point program
- 4 Two days each visit



ROCKWELL AUTOMATION® SERVICES & SUPPORT

An integrated, collaborative maintenance strategy that includes the right combination of reactive, preventive and predictive methods and leverages vendor support resources (such as those from Rockwell Automation) can help you reduce downtime, operate equipment to specifications and expedite performance improvement changes.

To learn which Rockwell Automation Services & Support will be most beneficial to your maintenance strategy, contact your local authorized Allen-Bradley distributor or Rockwell Automation sales office. More information can also be found online at www.rockwellautomation.com/services and www.rockwellautomation.com/support.

www.rockwellautomation.com

Power, Control and Information Solutions

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Asia Pacific: Rockwell Automation, Level 14, Core F Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846