

Asset Reliability Services for Mechanical Equipment



MACHINERY ANALYSIS ISN'T SOMETHING WE “ALSO DO” — IT’S THE FOUNDATION OF OUR BUSINESS.

Since 1984, Emerson’s Machinery Health™ Management business has been at the forefront of the machinery analysis field. From designing the fastest, most advanced machinery analyzers in the industry to offering complete and experienced contract machinery analysis services, Emerson has defined machinery analysis.

Like you, we are concerned about more than just the rotating equipment in your plant. As an Emerson Process Management business, we can provide you with a single source for your mechanical, electrical, valve, instrumentation and control reliability needs. All of this with a single point of contact and in many cases a single order.

ONSITE MACHINERY MONITORING AND ANALYSIS

Onsite Machinery Monitoring and Analysis delivers experienced and complete onsite monitoring and analysis of your equipment using one or more of Emerson’s CSI technologies. A certified and experienced Machinery Health Analyst is onsite at regular intervals to monitor and analyze routes of equipment. He

is equipped with advanced hardware and software tools to perform maintenance technology database development, baseline data acquisition, regular monitoring and analysis, and problem identification and reporting at your facility.

Onsite Machinery Monitoring and Analysis is the quickest path to developing program returns, and all results can be stored on facility computers using AMS Suite™: Machinery Health Manager software and integrated with other PdM technologies.

FEATURES INCLUDE:

- A complete survey of the your plant including recommendations on equipment, frequency and location of measurements
- Efficient configuration of AMS Suite: Machinery Health Manager
- Setup of specialized analysis parameters and alarm limits
- Collection of machinery baseline data
- Continued operation of the program with periodic database optimization



Asset Reliability Services for Mechanical Equipment

Onsite Machinery Monitoring and Analysis establishes the basis for a long-term program which can be transitioned over to plant personnel as appropriate.

MACHINERY INSPECTION AND DIAGNOSTICS

Even well established Machinery Health programs sometimes require additional expertise to diagnose tough problems. To this end, Emerson offers Machinery Inspection and Diagnostic support services. An experienced Machinery Health Analyst is dispatched to your site to inspect and analyze specific machinery. An onsite evaluation of the problem can be provided in most cases. Where more detailed analysis is required, Emerson's in-house staff has sophisticated data analysis and evaluation techniques to get conclusive results.

The Machinery Inspection and Diagnostic service includes a complete written report of the problem and recommendations for corrective measures. This means an efficient and cost effective resolution of your machinery health problem. From detailed analysis of basic machinery drive trains to sophisticated modal analysis of structures, Emerson has the expertise to solve your problem

ADVANCED VIBRATION AND ENGINEERING ANALYSIS

Modal analysis is a tool for measuring and computer modeling the structural characteristics of a machine or supporting framework—independent of the operating environment. It is used to pinpoint structural flaws, inadequate design or resonance behavior, often in conjunction with ODS analysis.

Operating Deflection Shape (ODS) analysis is a technique for visualizing the actual movement of a machine component of structure as it vibrates in response to operational loads. This technique highlights problem areas and demonstrates how components interact.

Cyclic behaviors such as impacting or irregular and unusual events are captured by transient analysis techniques. The same techniques are also applied to study the spin-up or coast-down of machinery to determine critical speeds and vibration responses.

OTHER ONSITE TESTING INCLUDES:

- Oil Analysis
- Infrared Thermography
- Sonic and Ultrasonic Analysis
- Motor Current Testing

©2005, Emerson Process Management.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

All rights reserved. Emerson Process Management, PlantWeb, AMS, CSI logo and Machinery Health are marks of one of the Emerson Process Management family of companies. The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are the property of their respective owners

OS-ALSOF-052005

Emerson Process Management

Asset Optimization Division

835 Innovation Drive

Knoxville, Tennessee 37932

T (865) 675-2400

F (865) 218-1401

www.mhm.assetweb.com

