

## Global Machine Condition Monitoring Market: Size, Trend, Share, Opportunity Analysis & Forecast, 2014–2025

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### Abstracts

Condition monitoring is an essential component of any predictive maintenance as it monitors the parameters for a condition in machinery such as vibration analysis and diagnostics, lubricant analysis, acoustic emission (airborne ultrasound), infrared thermography, ultrasound testing (material thickness/flaw testing), motor condition monitoring, and motor current signature analysis (MCSA). This type of monitoring identifies a significant change, which is indicative of a developing fault.

The use of condition monitoring facilitates extended bearing service life, minimized unscheduled downtime, maximized machine productivity, minimized number of open, inspect & repair if necessary, safely extend overhaul intervals, and increased machine life.

It allows maintenance to be scheduled, or other actions to be taken to prevent failure and avoid its consequences. However, there are some shortcomings of condition monitoring such as all machines not following the same schedule and minor errors, for instance, alignment, mounting conditions, and balancing of components, which are expected to dematerialize in the coming year owing to the research activities being conducted by the key manufacturers in the market. The global machine condition monitoring market is expected to grow at a CAGR of 6.8% from 2017 to 2025.

Based on technology, the market comprises of lubricating oil analysis, vibration analysis & diagnostics, corrosion monitoring, infrared thermography, motor current signature analysis (MCSA), and ultrasound emission testing. Vibration analysis & diagnostics machine condition monitoring is one of the leading markets in 2015. Furthermore, the market is categorized based on industry vertical of machine condition monitoring, which



includes oil and gas, steel and metal, chemical & petrochemical, automotive, pharmaceutical, and others (cement, power, pulp & paper, and food & beverage). Geographically, the market is analyzed across North America, Europe, Asia-Pacific, and LAMEA.

#### MARKET DYNAMICS:

Drivers:

The demand for machine condition monitoring market is expected to rise due to enhanced life and proper maintenance of machines enabled by machine monitoring system.

Machine monitoring system eliminates unexpected downtime & reduce repair cost.

Restraints:

Extra cost incurred in case of minor errors in machine condition monitoring system restrain the market growth.

#### **MARKET PLAYERS:**

The top players in the global machine condition monitoring market include Honeywell International Inc., General Electric Company, Emerson Process Management, National Instruments Corporation, Rockwell Automation, Inc., and others.

#### KEY TAKEAWAYS

#### MARKET LANDSCAPE

By Technology

Lubricating Oil Analysis

Vibration Analysis & Diagnostics

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**Corrosion Monitoring** 

Infrared Thermography

Motor Current Signature Analysis (MCSA)

**Ultrasound Emission Testing** 

By Industry Vertical

Oil and Gas

Steel and Metal

Chemical & Petrochemical

Automotive

Pharmaceutical

Others (Cement, Power, Pulp & Paper, and Food & Beverage)

By Geography

North America

U.S.

Canada

Mexico

Europe

UK

Germany



France

Spain

Italy

Rest of Europe

Asia-Pacific

China

Japan

India

Australia

South Korea

**Rest of Asia-Pacific** 

LAMEA

Brazil

Saudi Arabia

South Africa

**Rest of LAMEA** 



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#### **COMPANIES MENTIONED**

General Electric Company, Emerson Process Management, National Instruments Corporation, Rockwell Automation, Inc., and others.



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