

Machine Condition Monitoring Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Monitoring Technique (Vibration Monitoring, Thermography, Oil Analysis, Corrosion Monitoring, Ultrasound Emission and Motor Current Analysis), By Offering (Hardware and Software), By Deployment Type (On-premises, Cloud), By Monitoring Process (Online Condition Monitoring and Portable Condition Monitoring), By End User (Oil and Gas, Power Generation, Metals and Mining, Chemicals, Automotive, Aerospace and Defense, Food and Beverages, Marine and Others), By Region, By Competition, 2019-2029F

<https://marketpublishers.com/r/M51D7D355C60EN.html>

Date: April 2024

Pages: 180

Price: US\$ 4,900.00 (Single User License)

ID: M51D7D355C60EN

Abstracts

Global Machine Condition Monitoring Market was valued at USD 4.08 billion in 2023 and is anticipated to project robust growth in the forecast period with a CAGR of 8.19% through 2029. The Machine Condition Monitoring market refers to the dynamic and evolving sector dedicated to providing advanced technologies and solutions for the continuous assessment and management of the operational health of industrial machinery. This market revolves around the implementation of systems, sensors, and data analytics tools designed to monitor key parameters such as vibration, temperature, and oil condition in real-time. The primary goal is to detect early signs of potential equipment failures, enabling proactive maintenance strategies and minimizing unexpected downtime.

Machine Condition Monitoring solutions offer industries a transformative approach to asset management by shifting from traditional, reactive maintenance practices to predictive and preventive methodologies. These systems play a pivotal role in enhancing operational efficiency, extending the lifespan of machinery, and optimizing maintenance schedules. The market encompasses a diverse range of industries, including manufacturing, energy, aerospace, and transportation, reflecting the universal demand for reliable, data-driven methods to ensure the reliability and performance of critical industrial assets. As technology continues to advance, the Machine Condition Monitoring market remains at the forefront of fostering innovation and sustainable practices across global industrial landscapes.

Key Market Drivers

Increasing Embrace of Industry 4.0

The global Machine Condition Monitoring market is being significantly propelled by the escalating adoption of Industry 4.0 across various industrial sectors. Industry 4.0, also known as the Fourth Industrial Revolution, is characterized by the integration of digital technologies, smart automation, and data exchange in manufacturing processes. This paradigm shift has led to the implementation of advanced machine condition monitoring systems, fostering predictive maintenance strategies.

In the context of Industry 4.0, machine condition monitoring has evolved beyond traditional methods, incorporating Internet of Things (IoT) devices, sensors, and connectivity solutions. These technologies enable real-time data collection, analysis, and interpretation, allowing businesses to anticipate potential machinery failures, reduce downtime, and optimize maintenance schedules. As industries increasingly recognize the transformative potential of Industry 4.0, the demand for sophisticated machine condition monitoring solutions is expected to surge.

Growing Focus on Predictive Maintenance

The escalating focus on predictive maintenance is a key driver fueling the growth of the global Machine Condition Monitoring market. Traditionally, maintenance practices were reactive, addressing equipment issues after they occurred, often leading to costly downtime and unexpected failures. However, the paradigm is shifting towards proactive maintenance strategies, with predictive maintenance gaining prominence.

Predictive maintenance leverages machine condition monitoring to analyze real-time data and predict potential failures before they occur. By implementing predictive maintenance, industries can schedule maintenance activities precisely when needed, avoiding unnecessary downtime and minimizing the overall maintenance costs. This approach is particularly crucial in industries where continuous operation is paramount, such as manufacturing, energy, and transportation.

Rising Demand for Cost-effective Asset Management

The global Machine Condition Monitoring market is driven by the increasing demand for cost-effective asset management solutions. Industries across the spectrum are under constant pressure to optimize their operations and maximize the efficiency of their assets. Machine condition monitoring plays a pivotal role in achieving these objectives by providing insights into the health and performance of machinery.

By continuously monitoring the condition of critical assets, businesses can extend the lifespan of equipment, reduce unplanned downtime, and minimize maintenance costs. This proactive approach to asset management aligns with the broader goal of operational efficiency, making machine condition monitoring a valuable investment for organizations seeking to enhance their bottom line.

Technological Advancements in Sensor Technologies

Technological advancements in sensor technologies represent a significant driver for the global Machine Condition Monitoring market. The effectiveness of machine condition monitoring systems heavily relies on the precision and capabilities of sensors deployed to collect data. Over the years, there have been substantial innovations in sensor technologies, leading to the development of more reliable, accurate, and versatile sensors.

Advanced sensors can monitor a wide range of parameters such as vibration, temperature, pressure, and oil condition. Additionally, the integration of wireless and IoT-enabled sensors allows for seamless data transmission and real-time monitoring. As sensor technologies continue to evolve, the capabilities of machine condition monitoring systems will expand, further driving their adoption across diverse industries.

Stringent Regulatory Requirements

Stringent regulatory requirements in various industries, particularly in sectors like

aerospace, healthcare, and energy, are driving the adoption of machine condition monitoring systems. Compliance with regulatory standards is imperative to ensure the safety, reliability, and quality of products and services. Machine condition monitoring aids in meeting these regulatory requirements by providing a systematic and data-driven approach to equipment maintenance.

Industries that operate in highly regulated environments must adhere to strict maintenance and performance standards. Machine condition monitoring not only helps in meeting these standards but also provides documentation and evidence of compliance. As regulatory scrutiny continues to increase, the demand for robust machine condition monitoring solutions is expected to rise.

Growing Awareness of the Benefits of Machine Condition Monitoring

The global Machine Condition Monitoring market is experiencing a surge in demand due to the growing awareness of the benefits associated with implementing these systems. As industries become more cognizant of the potential advantages, including reduced downtime, lower maintenance costs, and enhanced operational efficiency, the adoption of machine condition monitoring is gaining momentum.

Educational efforts by solution providers, industry associations, and government initiatives are contributing to the dissemination of information regarding the positive impact of machine condition monitoring. As businesses recognize the strategic importance of these systems in maintaining a competitive edge, the market is expected to witness sustained growth driven by an increasing number of organizations incorporating machine condition monitoring into their operational frameworks.

Government Policies are Likely to Propel the Market

Promoting Industry Standards for Machine Condition Monitoring

Governments worldwide are recognizing the critical role of machine condition monitoring in enhancing industrial efficiency and minimizing environmental impacts. As a response, many nations are formulating and implementing policies aimed at promoting standardized practices in the deployment and operation of machine condition monitoring systems.

One facet of these policies involves the establishment of industry standards for machine condition monitoring technologies. These standards encompass guidelines for sensor

calibration, data accuracy, interoperability, and cybersecurity. By fostering a standardized approach, governments aim to create a cohesive and reliable ecosystem for machine condition monitoring across diverse industries. This initiative not only ensures the quality and reliability of these systems but also facilitates seamless integration and collaboration among different stakeholders.

Standardization policies contribute to the global competitiveness of industries by aligning them with international benchmarks. Moreover, adherence to standardized practices enhances the interoperability of machine condition monitoring solutions, encouraging innovation and the development of advanced technologies in the market.

Incentives for Adoption of Predictive Maintenance Technologies

Governments worldwide are increasingly recognizing the economic and environmental benefits of predictive maintenance technologies facilitated by machine condition monitoring. In response, policies are being formulated to incentivize industries to adopt these technologies, thereby fostering a paradigm shift from reactive to proactive maintenance practices.

One such policy involves providing financial incentives, tax breaks, or subsidies for businesses that invest in predictive maintenance solutions. These incentives aim to offset the initial costs associated with acquiring and implementing machine condition monitoring systems. By reducing the financial barriers to entry, governments seek to accelerate the adoption of these technologies, promoting a more sustainable and cost-effective approach to equipment maintenance.

Governments may collaborate with industry associations and educational institutions to offer training programs and resources focused on the effective implementation of predictive maintenance strategies. This multifaceted approach not only supports businesses in adopting machine condition monitoring but also contributes to the overall skill development of the workforce.

Data Security and Privacy Regulations for Machine Condition Monitoring

The increasing reliance on machine condition monitoring systems has prompted governments to address concerns related to data security and privacy. Governments around the globe are formulating policies to regulate the collection, storage, and utilization of data generated by machine condition monitoring technologies, ensuring that sensitive information is adequately protected.

These policies typically include guidelines for secure data transmission, encryption standards, and access controls. Governments recognize the potential risks associated with unauthorized access to machine condition data, such as industrial espionage or sabotage. As a result, regulatory frameworks aim to establish a balance between fostering innovation in machine condition monitoring and safeguarding critical information.

Compliance with data security and privacy regulations not only protects businesses from potential cyber threats but also fosters trust among consumers and stakeholders. Governments play a crucial role in creating an environment where machine condition monitoring technologies can flourish while ensuring that data security and privacy remain top priorities.

Research and Development Funding for Machine Condition Monitoring

Governments worldwide are increasingly acknowledging the strategic importance of research and development (RD) in advancing machine condition monitoring technologies. To stimulate innovation and maintain a competitive edge in the global market, governments are formulating policies that allocate funding and resources to support RD initiatives in the field of machine condition monitoring.

These policies involve establishing grants, subsidies, and collaborative programs between government agencies, research institutions, and private enterprises. The objective is to encourage the development of cutting-edge technologies, novel sensor solutions, and advanced analytics algorithms that can significantly enhance the capabilities of machine condition monitoring systems.

By fostering a robust ecosystem for RD, governments aim to position their nations at the forefront of technological advancements in machine condition monitoring. This not only stimulates economic growth but also contributes to the development of solutions that address emerging challenges in various industries, such as manufacturing, energy, and transportation.

Integration of Machine Condition Monitoring in Environmental Regulations

Governments are increasingly recognizing the environmental implications of machine condition monitoring technologies and are incorporating them into broader environmental regulations. Policies are being developed to encourage the adoption of

machine condition monitoring as part of sustainable practices in industries with potential environmental impact, such as manufacturing and energy production.

One aspect of these policies involves setting emission standards and environmental performance criteria that can be monitored and managed through machine condition monitoring systems. By integrating these technologies into environmental regulations, governments aim to promote cleaner and more efficient industrial processes, aligning with global sustainability goals.

Incentives such as tax credits or regulatory relief may be provided to industries that demonstrate a commitment to incorporating machine condition monitoring for environmental monitoring and control. This policy approach not only benefits the environment but also supports industries in adopting technologies that contribute to long-term sustainability.

International Collaboration on Machine Condition Monitoring Standards

Recognizing the global nature of industries and the interconnectedness of economies, governments are increasingly emphasizing international collaboration in establishing standards for machine condition monitoring. Policies are being developed to facilitate cross-border cooperation on regulatory frameworks, interoperability, and data exchange standards.

These policies aim to create a harmonized global environment where machine condition monitoring solutions can seamlessly operate across different regions and industries. By fostering international collaboration, governments seek to eliminate barriers to trade and promote the widespread adoption of machine condition monitoring technologies on a global scale.

Participation in international standardization bodies and agreements allows governments to contribute to the development of common guidelines while ensuring that the interests of their industries are represented. This collaborative approach not only enhances the efficiency of global supply chains but also accelerates the diffusion of best practices and innovations in machine condition monitoring.

Key Market Trends

Integration of Artificial Intelligence and Machine Learning

The Global Machine Condition Monitoring Market is witnessing a significant trend towards the integration of artificial intelligence (AI) and machine learning (ML) technologies. AI and ML algorithms are increasingly being employed to enhance the capabilities of condition monitoring systems, enabling more accurate predictions of machinery health and performance.

Traditionally, machine condition monitoring systems have relied on predetermined thresholds and rules to detect anomalies and predict failures. However, these conventional methods often lack the adaptability and precision required to address the complexities of modern industrial environments. By leveraging AI and ML techniques, condition monitoring systems can analyze vast amounts of data in real-time, identify subtle patterns indicative of impending faults, and predict equipment failures with greater accuracy.

One of the key advantages of AI and ML-based condition monitoring systems is their ability to continuously learn and improve over time. As these systems analyze more data and encounter new operating conditions, they become better equipped to detect and diagnose various types of machinery faults. This adaptive learning capability enables proactive maintenance strategies, allowing organizations to address potential issues before they escalate into costly downtime or equipment failures.

AI and ML algorithms enable condition monitoring systems to provide actionable insights and recommendations for optimizing equipment performance and maintenance schedules. By leveraging historical data, real-time sensor readings, and contextual information, these systems can identify opportunities for efficiency improvements and predictive maintenance interventions, ultimately enhancing overall equipment effectiveness and reducing operational costs.

To predictive maintenance applications, AI and ML technologies are also being utilized to optimize condition monitoring data analysis workflows. Advanced analytics tools powered by AI can automate data preprocessing, feature extraction, and model training processes, allowing engineers and maintenance personnel to focus their efforts on interpreting insights and implementing corrective actions.

The integration of artificial intelligence and machine learning represents a transformative trend in the Global Machine Condition Monitoring Market, offering organizations the opportunity to unlock new levels of efficiency, reliability, and performance in their asset management practices.

Key Market Challenges

Integration Complexity and Compatibility Issues

One of the significant challenges facing the global Machine Condition Monitoring market is the complexity of integrating these systems into existing industrial infrastructures and ensuring compatibility with diverse machinery and equipment. While machine condition monitoring offers invaluable benefits in terms of predictive maintenance and operational efficiency, the seamless integration of these systems poses a multifaceted challenge for industries.

Industrial settings often comprise a heterogeneous mix of machinery from different manufacturers, each with its own communication protocols, sensor types, and data formats. Integrating machine condition monitoring solutions across such a diverse landscape requires careful planning, customized solutions, and sometimes the development of middleware to facilitate communication between disparate systems.

Compatibility issues arise due to the lack of standardized communication protocols across the entire spectrum of machinery. This challenge is further exacerbated by the continuous evolution of technology and the introduction of new equipment with varying degrees of connectivity and data-sharing capabilities. Achieving interoperability and ensuring that machine condition monitoring systems can effectively communicate with all types of machinery remain ongoing challenges for both solution providers and end-users.

The integration process may necessitate retrofitting existing equipment with sensors and communication modules, which can be time-consuming and resource-intensive. The complexity of integration can result in longer deployment times, increased costs, and potential disruptions to ongoing operations. As industries strive to implement comprehensive machine condition monitoring strategies, addressing these integration complexities is crucial to realizing the full potential of these systems.

Data Overload and Analytics Complexity

While machine condition monitoring generates vast amounts of data crucial for predictive maintenance, the challenge lies in managing and extracting actionable insights from this data deluge. The complexity of handling large volumes of data and the need for sophisticated analytics tools pose significant challenges for industries looking to harness the full potential of machine condition monitoring systems.

In a typical industrial setup, sensors continuously collect data on various parameters such as vibration, temperature, and pressure. The sheer volume and velocity of this data require robust storage infrastructure and efficient data management practices. Storing and processing this data in real-time demands substantial computational resources, leading to increased costs for both hardware and software.

The complexity of data analytics poses challenges in extracting meaningful insights. Analyzing diverse data streams and identifying patterns indicative of potential machinery issues require advanced machine learning algorithms and data science expertise. Many industries face a shortage of skilled professionals capable of implementing and maintaining these complex analytics systems, hindering the effective utilization of machine condition monitoring data.

The challenge extends to the need for continuous refinement and adaptation of analytics algorithms to accommodate evolving machinery dynamics and changing operational conditions. As machinery and processes undergo modifications or upgrades, the analytics models must be recalibrated to ensure accurate predictions and reduce false positives.

This challenge involves the interpretation of data by end-users. The insights generated by machine condition monitoring systems are often highly technical and may require a deep understanding of both the machinery and the analytics models. Bridging the gap between data science experts and operational personnel remains a challenge, emphasizing the importance of user-friendly interfaces and clear communication of insights.

In addressing the challenge of data overload and analytics complexity, industries must invest in both technological solutions and workforce development. This includes the deployment of scalable and efficient data storage and processing infrastructure, ongoing training programs for personnel, and collaboration with data science experts to develop and maintain effective analytics models. Overcoming these challenges is crucial for ensuring that machine condition monitoring systems translate data into actionable intelligence, ultimately improving the reliability and efficiency of industrial operations.

Segmental Insights

Monitoring Technique Insights

The Vibration Monitoring segment held the largest Market share in 2023. Vibration monitoring is exceptionally effective in detecting early signs of mechanical issues in rotating machinery such as motors, pumps, and turbines. Changes in vibration patterns can indicate imbalances, misalignments, bearing wear, or other mechanical problems before they escalate into critical failures.

Vibration monitoring is versatile and applicable across various industries, including manufacturing, energy, aerospace, and transportation. Its effectiveness in different settings, coupled with its ability to monitor a wide range of equipment, has contributed to its widespread adoption.

Vibration monitoring has a long track record of reliability and success in identifying potential faults. Industries trust this technique for its ability to provide accurate and consistent data, leading to increased confidence in the health assessments of critical machinery.

Over the years, industry standards and best practices for machine condition monitoring have often centered around vibration analysis. This has led to a standardized approach in many sectors, making it easier for companies to implement and integrate vibration monitoring into their maintenance strategies. Vibration monitoring can be a cost-effective solution for predictive maintenance. Compared to dealing with unexpected equipment failures and downtime, the investment in vibration monitoring systems is often justified by the potential cost savings achieved through proactive maintenance.

Ongoing advancements in sensor technologies, including accelerometers and other vibration sensors, have enhanced the capabilities of vibration monitoring systems. These technologies offer higher precision, better sensitivity, and the ability to capture more nuanced vibration patterns. Vibration monitoring systems can integrate with the Internet of Things (IoT) and advanced data analytics, allowing for real-time monitoring and analysis. This integration enhances the overall effectiveness of vibration monitoring, making it a key component in the era of Industry 4.0.

Regional Insights

North America was the largest market for machine condition monitoring market in 2023. North America stands out as the largest market for the Global Machine Condition Monitoring Market due to its technological leadership and culture of innovation. The region is home to some of the world's most prominent technology companies, research

institutions, and innovators, who continuously drive advancements in machine condition monitoring solutions. With a strong emphasis on research and development (RD) and investment in cutting-edge technologies, North American companies are at the forefront of developing state-of-the-art condition monitoring systems that offer superior performance, accuracy, and reliability.

North America benefits from a robust ecosystem of technology startups, accelerators, and venture capital firms that fuel innovation and entrepreneurship in the field of machine condition monitoring. These dynamic ecosystems provide a fertile ground for the incubation of new ideas, the development of disruptive technologies, and the commercialization of innovative solutions. As a result, North American companies are well-positioned to capitalize on emerging trends such as predictive maintenance, Industrial Internet of Things (IIoT), and artificial intelligence (AI) in machine condition monitoring, driving the growth of the market in the region.

North America's strong focus on technological leadership and innovation fosters collaboration between industry stakeholders, academia, and government agencies to address key challenges and drive continuous improvement in machine condition monitoring solutions. Public-private partnerships and initiatives aimed at promoting technology adoption, skills development, and standards harmonization further contribute to the region's competitive advantage in the global machine condition monitoring market.

The factor contributing to North America's dominance in the Global Machine Condition Monitoring Market is the widespread adoption of condition monitoring solutions across diverse industry verticals. The region boasts a highly diversified industrial landscape encompassing sectors such as manufacturing, energy, aerospace, automotive, healthcare, and infrastructure, all of which rely on machinery and equipment to support their operations.

In the manufacturing sector, North American companies leverage machine condition monitoring technologies to optimize production processes, minimize downtime, and maximize asset utilization. By implementing real-time monitoring and predictive maintenance strategies, manufacturers can proactively identify potential equipment failures, schedule maintenance activities more efficiently, and avoid costly unplanned downtime, thereby improving overall operational efficiency and productivity.

Key Market Players

Siemens AG

Honeywell International Inc.

Schneider Electric SE

Rockwell Automation Inc.

Emerson Electric Co.

General Electric Company

ABB Ltd.

Yokogawa Electric Corporation

Hitachi Ltd.

Parker Hannifin Corporation

Report Scope:

In this report, the Global Machine Condition Monitoring Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Machine Condition Monitoring Market,By Monitoring Technique:

oVibration Monitoring

oThermography

oOil Analysis

oCorrosion Monitoring

oUltrasound Emission

oMotor Current Analysis

Machine Condition Monitoring Market,By Offering:

oHardware

oSoftware

Machine Condition Monitoring Market,By Deployment Type:

oOn-premises

oCloud

Machine Condition Monitoring Market, By Monitoring Process:

oOnline Condition Monitoring

oPortable Condition Monitoring

Machine Condition Monitoring Market, By End User:

oOil and Gas

oPower Generation

oMetals and Mining

oChemicals

oAutomotive

oAerospace and Defense

oFood and Beverages

oMarine

oOthers

Machine Condition Monitoring Market, By Region:

oNorth America

United States

Canada

Mexico

oEurope

France

United Kingdom

Italy

Germany

Spain

oAsia-Pacific

China

India

Japan

Australia

South Korea

oSouth America

Brazil

Argentina

Colombia

oMiddle East Africa

South Africa

Saudi Arabia

UAE

Kuwait

Turkey

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Machine Condition Monitoring Market.

Available Customizations:

Global Machine Condition Monitoring Marketreport with the given Market data, Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional Market players (up to five).

Contents

1.PRODUCT OVERVIEW

- 1.1.Market Definition
- 1.2.Scope of the Market
 - 1.2.1.Markets Covered
 - 1.2.2.Years Considered for Study
- 1.3.Key Market Segmentations

2.RESEARCH METHODOLOGY

- 2.1.Objective of the Study
- 2.2.Baseline Methodology
- 2.3.Formulation of the Scope
- 2.4.Assumptions and Limitations
- 2.5.Sources of Research
 - 2.5.1.Secondary Research
 - 2.5.2.Primary Research
- 2.6.Approach for the Market Study
 - 2.6.1.The Bottom-Up Approach
 - 2.6.2.The Top-Down Approach
- 2.7.Methodology Followed for Calculation of Market Size Market Shares
- 2.8.Forecasting Methodology
 - 2.8.1.Data Triangulation Validation

3.EXECUTIVE SUMMARY

4.VOICE OF CUSTOMER

5.GLOBAL MACHINE CONDITION MONITORING MARKET OUTLOOK

- 5.1.Market Size Forecast
 - 5.1.1.By Value
- 5.2.Market Share Forecast
 - 5.2.1.By Monitoring Technique (Vibration Monitoring, Thermography, Oil Analysis, Corrosion Monitoring, Ultrasound Emission and Motor Current Analysis)
 - 5.2.2.By Offering (Hardware and Software)
 - 5.2.3.By Deployment Type (On-premises, Cloud)

5.2.4.By Monitoring Process (Online Condition Monitoring and Portable Condition Monitoring)

5.2.5.By End User (Oil and Gas, Power Generation, Metals and Mining, Chemicals, Automotive, Aerospace and Defense, Food and Beverages, Marine and Others)

5.2.6.By Region

5.2.7.By Company (2023)

5.3.Market Map

6.NORTH AMERICA MACHINE CONDITION MONITORING MARKET OUTLOOK

6.1.Market Size Forecast

6.1.1.By Value

6.2.Market Share Forecast

6.2.1.ByMonitoring Technique

6.2.2.By Offering

6.2.3.By Deployment Type

6.2.4.By Monitoring Process

6.2.5.By End User

6.2.6.By Country

6.3.North America: Country Analysis

6.3.1.United States Machine Condition Monitoring Market Outlook

6.3.1.1.Market Size Forecast

6.3.1.1.1.By Value

6.3.1.2.Market Share Forecast

6.3.1.2.1.By Monitoring Technique

6.3.1.2.2.By Offering

6.3.1.2.3.By Deployment Type

6.3.1.2.4.By Monitoring Process

6.3.1.2.5.By End User

6.3.2.Canada Machine Condition Monitoring Market Outlook

6.3.2.1.Market Size Forecast

6.3.2.1.1.By Value

6.3.2.2.Market Share Forecast

6.3.2.2.1.By Monitoring Technique

6.3.2.2.2.By Offering

6.3.2.2.3.By Deployment Type

6.3.2.2.4.By Monitoring Process

6.3.2.2.5.By End User

6.3.3.Mexico Machine Condition Monitoring Market Outlook

- 6.3.3.1. Market Size Forecast
 - 6.3.3.1.1. By Value
- 6.3.3.2. Market Share Forecast
 - 6.3.3.2.1. By Monitoring Technique
 - 6.3.3.2.2. By Offering
 - 6.3.3.2.3. By Deployment Type
 - 6.3.3.2.4. By Monitoring Process
 - 6.3.3.2.5. By End User

7. EUROPE MACHINE CONDITION MONITORING MARKET OUTLOOK

- 7.1. Market Size Forecast
 - 7.1.1. By Value
- 7.2. Market Share Forecast
 - 7.2.1. By Monitoring Technique
 - 7.2.2. By Offering
 - 7.2.3. By Deployment Type
 - 7.2.4. By Monitoring Process
 - 7.2.5. By End User
 - 7.2.6. By Country
- 7.3. Europe: Country Analysis
 - 7.3.1. Germany Machine Condition Monitoring Market Outlook
 - 7.3.1.1. Market Size Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share Forecast
 - 7.3.1.2.1. By Monitoring Technique
 - 7.3.1.2.2. By Offering
 - 7.3.1.2.3. By Deployment Type
 - 7.3.1.2.4. By Monitoring Process
 - 7.3.1.2.5. By End User
 - 7.3.2. United Kingdom Machine Condition Monitoring Market Outlook
 - 7.3.2.1. Market Size Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share Forecast
 - 7.3.2.2.1. By Monitoring Technique
 - 7.3.2.2.2. By Offering
 - 7.3.2.2.3. By Deployment Type
 - 7.3.2.2.4. By Monitoring Process
 - 7.3.2.2.5. By End User

7.3.3.Italy Machine Condition Monitoring Market Outlook

7.3.3.1.Market Size Forecast

7.3.3.1.1.By Value

7.3.3.2.Market Share Forecast

7.3.3.2.1.By Monitoring Technique

7.3.3.2.2.By Offering

7.3.3.2.3.By Deployment Type

7.3.3.2.4.By Monitoring Process

7.3.3.2.5.By End User

7.3.4.France Machine Condition Monitoring Market Outlook

7.3.4.1.Market Size Forecast

7.3.4.1.1.By Value

7.3.4.2.Market Share Forecast

7.3.4.2.1.By Monitoring Technique

7.3.4.2.2.By Offering

7.3.4.2.3.By Deployment Type

7.3.4.2.4.By Monitoring Process

7.3.4.2.5.By End User

7.3.5.Spain Machine Condition Monitoring Market Outlook

7.3.5.1.Market Size Forecast

7.3.5.1.1.By Value

7.3.5.2.Market Share Forecast

7.3.5.2.1.By Monitoring Technique

7.3.5.2.2.By Offering

7.3.5.2.3.By Deployment Type

7.3.5.2.4.By Monitoring Process

7.3.5.2.5.By End User

8.ASIA-PACIFIC MACHINE CONDITION MONITORING MARKET OUTLOOK

8.1.Market Size Forecast

8.1.1.By Value

8.2.Market Share Forecast

8.2.1.By Monitoring Technique

8.2.2.By Offering

8.2.3.By Deployment Type

8.2.4.By Monitoring Process

8.2.5.By End User

8.2.6.By Country

- 8.3.Asia-Pacific: Country Analysis
 - 8.3.1.China Machine Condition Monitoring Market Outlook
 - 8.3.1.1.Market Size Forecast
 - 8.3.1.1.1.By Value
 - 8.3.1.2.Market Share Forecast
 - 8.3.1.2.1.By Monitoring Technique
 - 8.3.1.2.2.By Offering
 - 8.3.1.2.3.By Deployment Type
 - 8.3.1.2.4.By Monitoring Process
 - 8.3.1.2.5.By End User
 - 8.3.2.India Machine Condition Monitoring Market Outlook
 - 8.3.2.1.Market Size Forecast
 - 8.3.2.1.1.By Value
 - 8.3.2.2.Market Share Forecast
 - 8.3.2.2.1.By Monitoring Technique
 - 8.3.2.2.2.By Offering
 - 8.3.2.2.3.By Deployment Type
 - 8.3.2.2.4.By Monitoring Process
 - 8.3.2.2.5.By End User
 - 8.3.3.Japan Machine Condition Monitoring Market Outlook
 - 8.3.3.1.Market Size Forecast
 - 8.3.3.1.1.By Value
 - 8.3.3.2.Market Share Forecast
 - 8.3.3.2.1.By Monitoring Technique
 - 8.3.3.2.2.By Offering
 - 8.3.3.2.3.By Deployment Type
 - 8.3.3.2.4.By Monitoring Process
 - 8.3.3.2.5.By End User
 - 8.3.4.South Korea Machine Condition Monitoring Market Outlook
 - 8.3.4.1.Market Size Forecast
 - 8.3.4.1.1.By Value
 - 8.3.4.2.Market Share Forecast
 - 8.3.4.2.1.By Monitoring Technique
 - 8.3.4.2.2.By Offering
 - 8.3.4.2.3.By Deployment Type
 - 8.3.4.2.4.By Monitoring Process
 - 8.3.4.2.5.By End User
 - 8.3.5.Australia Machine Condition Monitoring Market Outlook
 - 8.3.5.1.Market Size Forecast

- 8.3.5.1.1.By Value
- 8.3.5.2.Market Share Forecast
 - 8.3.5.2.1.By Monitoring Technique
 - 8.3.5.2.2.By Offering
 - 8.3.5.2.3.By Deployment Type
 - 8.3.5.2.4.By Monitoring Process
 - 8.3.5.2.5.By End User

9.SOUTH AMERICA MACHINE CONDITION MONITORING MARKET OUTLOOK

- 9.1.Market Size Forecast
 - 9.1.1.By Value
- 9.2.Market Share Forecast
 - 9.2.1.By Monitoring Technique
 - 9.2.2.By Offering
 - 9.2.3.By Deployment Type
 - 9.2.4.By Monitoring Process
 - 9.2.5.By End User
 - 9.2.6.By Country
- 9.3.South America: Country Analysis
 - 9.3.1.Brazil Machine Condition Monitoring Market Outlook
 - 9.3.1.1.Market Size Forecast
 - 9.3.1.1.1.By Value
 - 9.3.1.2.Market Share Forecast
 - 9.3.1.2.1.By Monitoring Technique
 - 9.3.1.2.2.By Offering
 - 9.3.1.2.3.By Deployment Type
 - 9.3.1.2.4.By Monitoring Process
 - 9.3.1.2.5.By End User
 - 9.3.2.Argentina Machine Condition Monitoring Market Outlook
 - 9.3.2.1.Market Size Forecast
 - 9.3.2.1.1.By Value
 - 9.3.2.2.Market Share Forecast
 - 9.3.2.2.1.By Monitoring Technique
 - 9.3.2.2.2.By Offering
 - 9.3.2.2.3.By Deployment Type
 - 9.3.2.2.4.By Monitoring Process
 - 9.3.2.2.5.By End User
 - 9.3.3.Colombia Machine Condition Monitoring Market Outlook

- 9.3.3.1. Market Size Forecast
 - 9.3.3.1.1. By Value
- 9.3.3.2. Market Share Forecast
 - 9.3.3.2.1. By Monitoring Technique
 - 9.3.3.2.2. By Offering
 - 9.3.3.2.3. By Deployment Type
 - 9.3.3.2.4. By Monitoring Process
 - 9.3.3.2.5. By End User

10. MIDDLE EAST AND AFRICA MACHINE CONDITION MONITORING MARKET OUTLOOK

- 10.1. Market Size Forecast
 - 10.1.1. By Value
- 10.2. Market Share Forecast
 - 10.2.1. By Monitoring Technique
 - 10.2.2. By Offering
 - 10.2.3. By Deployment Type
 - 10.2.4. By Monitoring Process
 - 10.2.5. By End User
 - 10.2.6. By Country
- 10.3. Middle East and Africa: Country Analysis
 - 10.3.1. South Africa Machine Condition Monitoring Market Outlook
 - 10.3.1.1. Market Size Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share Forecast
 - 10.3.1.2.1. By Monitoring Technique
 - 10.3.1.2.2. By Offering
 - 10.3.1.2.3. By Deployment Type
 - 10.3.1.2.4. By Monitoring Process
 - 10.3.1.2.5. By End User
 - 10.3.2. Saudi Arabia Machine Condition Monitoring Market Outlook
 - 10.3.2.1. Market Size Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share Forecast
 - 10.3.2.2.1. By Monitoring Technique
 - 10.3.2.2.2. By Offering
 - 10.3.2.2.3. By Deployment Type
 - 10.3.2.2.4. By Monitoring Process

- 10.3.2.2.5.By End User
- 10.3.3.UAE Machine Condition Monitoring Market Outlook
 - 10.3.3.1.Market Size Forecast
 - 10.3.3.1.1.By Value
 - 10.3.3.2.Market Share Forecast
 - 10.3.3.2.1.By Monitoring Technique
 - 10.3.3.2.2.By Offering
 - 10.3.3.2.3.By Deployment Type
 - 10.3.3.2.4.By Monitoring Process
 - 10.3.3.2.5.By End User
- 10.3.4.Kuwait Machine Condition Monitoring Market Outlook
 - 10.3.4.1.Market Size Forecast
 - 10.3.4.1.1.By Value
 - 10.3.4.2.Market Share Forecast
 - 10.3.4.2.1.By Monitoring Technique
 - 10.3.4.2.2.By Offering
 - 10.3.4.2.3.By Deployment Type
 - 10.3.4.2.4.By Monitoring Process
 - 10.3.4.2.5.By End User
- 10.3.5.Turkey Machine Condition Monitoring Market Outlook
 - 10.3.5.1.Market Size Forecast
 - 10.3.5.1.1.By Value
 - 10.3.5.2.Market Share Forecast
 - 10.3.5.2.1.By Monitoring Technique
 - 10.3.5.2.2.By Offering
 - 10.3.5.2.3.By Deployment Type
 - 10.3.5.2.4.By Monitoring Process
 - 10.3.5.2.5.By End User

11.MARKET DYNAMICS

- 11.1.Drivers
- 11.2.Challenges

12.MARKET TRENDS DEVELOPMENTS

13.COMPANY PROFILES

- 13.1.Siemens AG

- 13.1.1. Business Overview
- 13.1.2. Key Revenue and Financials
- 13.1.3. Recent Developments
- 13.1.4. Key Personnel/Key Contact Person
- 13.1.5. Key Product/Services Offered
- 13.2. Honeywell International Inc.
 - 13.2.1. Business Overview
 - 13.2.2. Key Revenue and Financials
 - 13.2.3. Recent Developments
 - 13.2.4. Key Personnel/Key Contact Person
 - 13.2.5. Key Product/Services Offered
- 13.3. Schneider Electric SE
 - 13.3.1. Business Overview
 - 13.3.2. Key Revenue and Financials
 - 13.3.3. Recent Developments
 - 13.3.4. Key Personnel/Key Contact Person
 - 13.3.5. Key Product/Services Offered
- 13.4. Rockwell Automation Inc.
 - 13.4.1. Business Overview
 - 13.4.2. Key Revenue and Financials
 - 13.4.3. Recent Developments
 - 13.4.4. Key Personnel/Key Contact Person
 - 13.4.5. Key Product/Services Offered
- 13.5. Emerson Electric Co.
 - 13.5.1. Business Overview
 - 13.5.2. Key Revenue and Financials
 - 13.5.3. Recent Developments
 - 13.5.4. Key Personnel/Key Contact Person
 - 13.5.5. Key Product/Services Offered
- 13.6. General Electric Company
 - 13.6.1. Business Overview
 - 13.6.2. Key Revenue and Financials
 - 13.6.3. Recent Developments
 - 13.6.4. Key Personnel/Key Contact Person
 - 13.6.5. Key Product/Services Offered
- 13.7. ABB Ltd.
 - 13.7.1. Business Overview
 - 13.7.2. Key Revenue and Financials
 - 13.7.3. Recent Developments

- 13.7.4.Key Personnel/Key Contact Person
- 13.7.5.Key Product/Services Offered
- 13.8.Yokogawa Electric Corporation
 - 13.8.1.Business Overview
 - 13.8.2.Key Revenue and Financials
 - 13.8.3.Recent Developments
 - 13.8.4.Key Personnel/Key Contact Person
 - 13.8.5.Key Product/Services Offered
- 13.9.Hitachi Ltd.
 - 13.9.1.Business Overview
 - 13.9.2.Key Revenue and Financials
 - 13.9.3.Recent Developments
 - 13.9.4.Key Personnel/Key Contact Person
 - 13.9.5.Key Product/Services Offered
- 13.10.Parker Hannifin Corporation
 - 13.10.1.Business Overview
 - 13.10.2.Key Revenue and Financials
 - 13.10.3.Recent Developments
 - 13.10.4.Key Personnel/Key Contact Person
 - 13.10.5.Key Product/Services Offered

14.STRATEGIC RECOMMENDATIONS

15.ABOUT US DISCLAIMER

I would like to order

Product name: Machine Condition Monitoring Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Monitoring Technique (Vibration Monitoring, Thermography, Oil Analysis, Corrosion Monitoring, Ultrasound Emission and Motor Current Analysis), By Offering (Hardware and Software), By Deployment Type (On-premises, Cloud), By Monitoring Process (Online Condition Monitoring and Portable Condition Monitoring), By End User (Oil and Gas, Power Generation, Metals and Mining, Chemicals, Automotive, Aerospace and Defense, Food and Beverages, Marine and Others), By Region, By Competition, 2019-2029F

Product link: <https://marketpublishers.com/r/M51D7D355C60EN.html>

Price: US\$ 4,900.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/M51D7D355C60EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970