

# **Industrial Metrology Market by Offering (Hardware, Software, Services), Equipment (CMM, ODS, X-ray, CT), Application, End-User Industry (Aerospace & Defense, Automotive, Manufacturing, Semiconductor) and Region - Global Forecast to 2029**

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## **Abstracts**

The Industrial Metrology Market is projected to reach from USD 14.9 billion in 2024 to USD 20.6 billion by 2029; it is expected to grow at a CAGR of 6.7% from 2024 to 2029. The widespread application of industrial metrology extends to the continuous maintenance and repair of aerospace and defense equipment, assisting in the detection of wear and damage that may affect performance or safety. These industries depend greatly on accurate measurement and inspection to guarantee that components adhere to precise specifications and tolerances, as even slight deviations can lead to notable implications for safety and performance.

“The service offering is projected to grow at the highest CAGR during the forecast period.”

The uptake of service offerings in industrial metrology is driven by the pursuit of cost-effectiveness, flexibility, efficiency, scalability, and access to specialized expertise, all of which enable companies to fulfill their metrology requirements more efficiently. Additionally, service offerings in industrial metrology offer scalability to adjust to changing demand and project needs.

“ODS equipment is projected to have the highest growth during the forecast period.”

ODS equipment is increasingly utilized in industrial metrology due to its ability to perform non-contact measurements, its speed, accuracy, advanced software

functionalities, and compatibility with other metrology technologies. These ODS systems also include advanced software features for analyzing and visualizing data, facilitating thorough examination of measurement results and smooth integration into existing metrology workflows, thereby improving overall productivity and effectiveness in industrial metrology.

“Asia Pacific region is likely to grow at the highest CAGR.”

The industrial metrology market in the Asia-Pacific region has experienced significant growth, driven by the influential presence of key market players that have fueled the regional market's expansion. The rising adoption of advanced manufacturing technologies like additive manufacturing, robotics, and automation is driving increased demand for industrial metrology in the Asia Pacific region. Concurrently, increasing consumer expectations for top-quality products, along with strict regulatory standards, are motivating manufacturers in Asia Pacific to invest in metrology solutions for quality control and assurance.

#### Breakdown of primaries

The study contains insights from various industry experts, ranging from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type - Tier 1 – 35%, Tier 2 – 45%, Tier 3 – 20%

By Designation— C-level Executives - 35%, Directors - 25%, Others – 40%

By Region—North America - 45%, Europe - 20%, Asia Pacific - 30%, RoW - 5%

The industrial metrology market is dominated by a few globally established players such as Hexagon AB (Sweden), Nikon Corporation (Japan), FARO (US), Carl Zeiss AG (Germany), JENOPTIK (Germany), KLA Corporation (US), Renishaw plc (UK), Mitutoyo Corporation (Japan), KEYENCE CORPORATION (Japan), CREAFORM (Canada). The study includes an in-depth competitive analysis of these key players in the industrial metrology market, with their company profiles, recent developments, and key market strategies.

#### Research Coverage:

The report segments the industrial metrology market and forecasts its size by offering, application, equipment, end-user industry, and region. The report also discusses the drivers, restraints, opportunities, and challenges pertaining to the market. It gives a detailed view of the market across four main regions— North America, Europe, Asia Pacific, and RoW. Supply chain analysis has been included in the report, along with the key players and their competitive analysis in the industrial metrology ecosystem.

#### Key Benefits to Buy the Report:

Analysis of Key Drivers (Increasing R&D investments in 3D metrology, Integration of IoT sensors with industrial metrology for promoting evolution in smart manufacturing, High focus on quality control and inspection equipment in precision manufacturing, Increasing demand for automobiles in emerging economies). Restraints (Limited technical knowledge regarding the integration of industrial metrology with robots and 3D models, Integration of industrial metrology processes with existing manufacturing units). Opportunities (Rising adoption of industrial metrology products in the food industry, Adoption of cloud, IIoT, and AI services to integrate metrological data, Rise in demand for industry 5.0) and Challenges (Ensuring data integrity and protection against cyber security, Lack of simplified software solutions).

**Product Development/Innovation:** Detailed insights on upcoming technologies, research and development activities, and new product launches in the industrial metrology market.

**Market Development:** Comprehensive information about lucrative markets – the report analyses the industrial metrology market across varied regions

**Market Diversification:** Exhaustive information about new products and services, untapped geographies, recent developments, and investments in the industrial metrology market.

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, and product offerings of leading players like Hexagon AB (Sweden), Nikon Corporation (Japan), FARO (US), Carl Zeiss AG (Germany), JENOPTIK (Germany), KLA Corporation (US) among others in the industrial metrology market.

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\*Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

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## About

According to the new market research report on "Industrial Metrology Market by Offering, Product, Application (Reverse Engineering, Quality & Inspection, Mapping & Modelling), Industry (Aerospace & Defense, Automotive, Precision Manufacturing, Consumer), and Geography - Global Forecast to 2023", the industrial metrology market, the market is expected to grow from USD 9.62 Billion in 2018 to USD 12.97 Billion by 2023, at a CAGR of 6.2% during the forecast period. The growing big data analytics market and increasing demand for inspection services from precision manufacturing drive the growth of industrial metrology market. Moreover, increasing focus on quality control in various industries also contributes to the growth of this market.

### **The major players in the industrial metrology market include**

Hexagon (Sweden)

FARO Technologies (US)

Nikon Metrology (Belgium)

Carl Zeiss Optotechnik (Germany)

Jenoptik (Germany)

GOM (Germany)

Creaform (Canada)

Renishaw (UK)

KLA-Tencor (US)

Applied Materials (US)

Perceptron (US)

GoM (Germany)

Automated Precision (US)

JLM Advanced Technical Services (US)

Precision Products (US)

CARMAR ACCURACY (Taiwan)

Pollen Metrology (France)

Cairnhill Metrology (Singapore).

### **Hardware to hold largest size of industrial metrology market between 2018 and 2023**

The major driver for the growth of the industrial metrology market for hardware is the increasing adoption of industrial metrology products in the industries such as aerospace and defense, and automotive to maintain product quality. Moreover, the use of 2D metrology products for dimensioning and inspection applications also contributes to the growth of the market for hardware.

### **Industrial metrology market for coordinate measuring machine to grow at a high CAGR between 2018 and 2023**

The rising need for precision dimensional analysis and validation of geometric accuracy in the manufacturing, automotive, aerospace, and military industries contribute to the largest share of coordinate measuring machines (CMMs) in the market based on equipment.

### **Quality control and inspection application to hold largest size of industrial metrology market between 2018 and 2023**

Industries such as automotive and aerospace face increasing demand for intense quality control and inspection; not meeting quality standards can hamper their reputation and, ultimately, their brand and business. Thus, these industries are prominently adopting industrial metrology for the quality control and inspection application.

## **Industrial metrology market for automotive industry to grow at significant CAGR between 2018 and 2023**

The shift in preference from off-line quality inspection to near-line or in-line measurement techniques, enabling higher sampling rates and shorter inspection times in automotive sector, drives the growth of the industrial metrology market for the automotive industry. Moreover, the growing demand for automobiles in developing countries, such as India and China, is expected to fuel the growth of industrial metrology market in the near future.

## **APAC held largest share of industrial metrology market in 2017**

Highest CAGR of the market in APAC is attributed to the high economic growth of the major countries, such as China and Japan, in this region. China has a huge potential in terms of the applications of industrial metrology offerings. Moreover, with the initiatives taken by the Government of India to encourage local and foreign players to have a manufacturing set-up in India is likely to boost the industrialization, thereby making it an attractive market for industrial metrology.

## I would like to order

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