

3D Metrology Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global 3D metrology market size reached US\$ 9.4 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 15.7 Billion by 2028, exhibiting a growth rate (CAGR) of 8.6% during 2023-2028.

3D metrology refers to the technological system of measuring distance, length, height and point of a 3D object. It is primarily used to reverse engineer and analyze defects in different materials and objects. It includes various hardware and software tools, such as a coordinate measuring machine (CMM), optical digitizer and scanner (ODS), video measuring machine (VMM) and 3D automated optical inspection (AoI) system. These systems convert 2D architectural models into images and videos for improved design, manufacturing processes and production workflows. This aids in quality control, inspection, reverse engineering and virtual simulation of the products and finds extensive applications across several industries, including aerospace, defense, automotive, architecture, medical, energy and power.

3D Metrology Market Trends:

The growing automotive industry across the globe is one of the key factors driving the market. There is widespread adoption of optical 3D metrology and 3D testing for capturing detailed information and running full-field evaluations. It involves inspection, measurement and quality checks of various tools, castings, plastic and sheet metal parts in assemblies and vehicle bodies. Furthermore, significant growth in the aviation industry is also providing a boost to the market growth. 3D metrology is widely used for scanning and inspecting intricate components and recreating the scanned parts digitally. It is also utilized for various other applications, including corrosion inspection, hail damage depth, fixture measurement, part archival and tooling measurement. Other factors, including rapid urbanization, the growing need for industrial automation and



extensive research and development (R&D) activities to develop 3D metrology technologies for modeling and analysis with enhanced precision and quality control, are projected to drive the market further.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global 3D metrology market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on offering, product, application and end-use industry.

Breakup by Offering:

Hardware Software Services

Breakup by Product:

Coordinate Measuring Machine (CMM) Optical Digitizer & Scanner (ODS) Video Measuring Machine (VMM) 3D Automated Optical Inspection System (AoI) Form Measurement

Breakup by Application:

Quality Control & Inspection Reverse Engineering Virtual Simulation Others

Breakup by End-Use Industry:

Aerospace & Defense Automotive Architecture & Construction Medical Electronics Energy & Power



Heavy Industry Mining Others

Breakup by Region:

North America United States Canada Asia Pacific China Japan India South Korea Australia Indonesia Others Europe Germany France **United Kingdom** Italy Spain Russia Others Latin America Brazil Mexico Others Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined with some of the key players being 3D Digital Corporation, Automated Precision Inc., Carl Zeiss AG, Creaform, Inc., FARO Technologies, Inc., GOM GmbH, Hexagon AB, Jenoptik AG, KLA Corporation, Mitutoyo Corporation, Nikon Metrology NV, Perceptron, Inc. and Renishaw PLC.

Key Questions Answered in This Report



1. What was the size of the global 3D metrology market in 2022?

2. What is the expected growth rate of the global 3D metrology market during 2023-2028?

3. What has been the impact of COVID-19 on the global 3D metrology market?

- 4. What are the key factors driving the global 3D metrology market?
- 5. What is the breakup of the global 3D metrology market based on the offering?
- 6. What is the breakup of the global 3D metrology market based on the product?
- 7. What is the breakup of the global 3D metrology market based on the application?

8. What is the breakup of the global 3D metrology market based on the end-use industry?

9. What are the key regions in the global 3D metrology market?

10. Who are the key players/companies in the global 3D metrology market?



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