

Computer Numerical Control Market Forecasts to 2030 – Global Analysis By Type (Lathe Machines, Laser Machines, Welding Machines, Grinding Machines, Milling Machines, Routers and Other Types), Component, Technology, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Computer Numerical Control Market is accounted for \$22.8 billion in 2024 and is expected to reach \$36.1 billion by 2030 growing at a CAGR of 7.9% during the forecast period. Computer Numerical Control (CNC) automates machine tools using computers to execute pre-programmed commands. Commonly utilized in manufacturing, CNC machines control equipment such as lathes, mills, routers, and grinders. CNC machines operate based on coded instructions, usually in the form of G-code, which detail specific tasks like tool movement, rotation speed, and tool path. The benefits of CNC technology include higher production efficiency, minimized human error, and the ability to create complex designs with high precision and it also offers manufacturing flexibility, as machines can be easily reprogrammed for different parts enabling the mass production of high-quality components with consistent accuracy.

According to American computer numerical control association the demand for computer numerical control machines is estimated to reach over 2,800 thousand units by 2030.

Market Dynamics:

Driver:

Increased demand for automation

Industries strive to enhance productivity and reduce labor costs, the adoption of automated machinery becomes crucial. CNC machines offer precision, repeatability, and efficiency, making them indispensable in manufacturing processes. The growing trend of Industry 4.0 and the integration of IoT in manufacturing further boost the demand for CNC systems. Additionally, the need for high-quality products with consistent standards drives the adoption of computer numerical control machines across various sectors contribute to the increasing demand for market growth.

Restraint:

Complexity of operation

Operating CNC machines requires specialized skills and knowledge, which can be a barrier for small and medium-sized enterprises (SMEs) with limited resources. The initial learning curve and the need for continuous training to keep up with technological advancements add to the operational challenges. Furthermore the reliance on skilled operators also poses a risk of workforce shortages, impacting the overall efficiency and productivity of manufacturing processes.

Opportunity:

Globalization of manufacturing processes

As companies expand their production capabilities globally, the demand for standardized and efficient manufacturing solutions increases. CNC machines enable manufacturers to achieve consistent product quality and meet international standards, facilitating global trade and supply chain integration. The growing trend of reshoring and nearshoring, driven by the need for supply chain resilience, further boosts the demand for computer numerical control market.

Threat:

High initial investment & maintenance costs

The acquisition of computer numerical control machines requires substantial capital expenditure, which can be a deterrent for small businesses and startups. Furthermore,

the maintenance and repair costs of CNC systems can be significant, impacting the overall profitability of manufacturing operations. The need for regular upgrades and the potential for unexpected breakdowns add to the financial burden on manufacturers necessitating further investments in newer technologies.

Covid-19 Impact

The Covid-19 pandemic has had a profound impact on the CNC market. The disruption of global supply chains and the temporary shutdown of manufacturing facilities led to a decline in demand for CNC machines. As industries recover, there is an increased focus on adopting advanced manufacturing technologies, including CNC systems, to enhance operational efficiency and reduce dependency on manual labour. The shift towards remote monitoring and predictive maintenance solutions further drives the adoption of smart CNC machines.

The laser machines segment is expected to be the largest during the forecast period

The laser machines segment is expected to account for the largest market share during the forecast period owing to their ability to work with diverse materials, including metals, plastics, and composites, has expanded market opportunities. Additionally, laser machines reduce material waste, lower operational costs, and provide higher accuracy, making them a preferred choice for industries like aerospace, automotive, and electronics. The integration of laser technology with CNC automation has also driven innovation, leading to advancements such as fiber and CO₂ lasers for faster and more precise machining boosting the market.

The computer-aided manufacturing segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the computer-aided manufacturing segment is predicted to witness the highest growth rate due to enhanced precision and reducing human error. CAM software enables seamless integration between design and manufacturing, allowing for efficient programming of CNC machines. This has led to improved productivity, reduced setup times, and optimized tool paths, resulting in cost savings and higher-quality outputs thereby encouraging the growth of the market.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest

market share due to its advanced manufacturing sector, strong technological innovation, and high demand for automation. The region, particularly the U.S. and Canada, is home to leading CNC machine manufacturers and software developers, driving continuous advancements in precision machining, automation, and smart manufacturing influencing global trends and fostering technological innovation in automated manufacturing.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by rapid industrialization, increasing automation, and strong manufacturing sectors in countries like China, Japan, South Korea, and India. The region is a global hub for CNC machine production and consumption, fuelled by high demand from industries such as automotive, aerospace, electronics, and precision engineering. China, in particular, dominates CNC manufacturing, benefiting from cost-effective production, government support, and growing adoption of smart manufacturing technologies. Japan and South Korea contribute through technological advancements and high-precision CNC systems.

Key players in the market

Some of the key players in Computer Numerical Control market include AMS Micromedical LLC, Bosch Rexroth AG, Datron AG, DMG Mori Seiki Co., Dr. Johannes Heidenhain GmbH, Fanuc Corporation, GSK CNC Equipment Co. Ltd, Haas Automation, Hurco Companies Inc., Metal Craft, Mitsubishi Electric Corporation, OKUMA Corporation, Protomatic Inc., Sandvik AB, Shenyang Machine Tool Part Co Ltd., Siemens AG and Takisawa Machine Tool Co. Ltd.

Key Developments:

In February 2025, Mitsubishi Electric Corporation announced that it has signed an agreement with HD Renewable Energy Co., Ltd., a Taipei-based developer and operator of solar power and battery storage systems, to collaborate on initiatives that will help realize carbon neutrality.

In February 2025, Fanuc Corporation has been recognized for leadership in corporate transparency and performance on climate change by global environmental non-profit CDP, securing a place on its annual 'A List' for two consecutive years.

In February 2025, Siemens and Guofu Hydrogen partner to accelerate global green

hydrogen production. The collaboration also includes plans to jointly develop a hydrogen partner ecosystem

Types Covered:

Lathe Machines

Laser Machines

Welding Machines

Grinding Machines

Milling Machines

Routers

Other Types

Components Covered:

Hardware

Software

Services

Other Components

Technologies Covered:

Computer-Aided Manufacturing

Artificial Intelligence (AI)-Integrated CNC

Cloud-Based

Hybrid

Other Technologies

Applications Covered:

Prototyping

Manufacturing

Fabrication

Other Applications

End Users Covered:

Aerospace & Defense

Industrial Machinery

Electronics

Healthcare

Automotive

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2022, 2023, 2024, 2026, and 2030
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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Note: Tables for North America, Europe, APAC, South America, and Middle East &

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