

Smart Manufacturing Market by Technology (3D printing, AI in Manufacturing, Automated guided vehicle, Condition Monitoring, Cybersecurity, Digital Twin, HMI, Machine Vision, MES, PAM, Robot, Sensor), Industry, Region - Global Forecast to 2028

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Abstracts

The global Smart Manufacturing market is expected to grow from USD 108.9 billion in 2023 to USD 241.0 billion by 2028, registering a CAGR of 17.2%. The growth of the smart manufacturing market is driven by increasing industrial automation adoption, government support, regulatory compliance, complex supply chains, and demand for cost-efficient software. Segmentation includes IT, enabling tech, industry, and region.

“Warehouse management system to grow at highest CAGR in the forecast period.”

The Warehouse Management System (WMS) segment is experiencing robust growth in the market. Warehouse Management System (WMS) solutions oversee diverse warehouse tasks like receiving, sorting, inventory, picking, labor, shipping, yard, and dock management. WMS streamlines inventory flow across single or multiple sites. WMS enhances efficiency, productivity, and adaptability in evolving manufacturing landscapes by automating processes and curbing production expenses.

“Digital twin to be the fastest growing in the forecast period 2023-2028.”

Digital twins are progressively utilized to link data regarding a tangible item and its real-world actions with a 3D digital model, prevalent in engineering and business. For instance, Dassault Systems introduced the virtual twin, aiding teams in visualizing, analyzing, and gaining insights into product behavior, encompassing physical attributes, stress, vibration, and software-driven actions.

“Aerospace Industry to grow at highest CAGR in the forecast period 2023-2028”

Smart manufacturing in the aerospace sector is witnessing vigorous growth, largely driven by the integration of cutting-edge technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), and automation. These integrations enhance production efficiency, ensure superior quality, and elevate safety standards. As the aerospace industry experiences increasing demand for innovative aircraft and components, manufacturers embrace smart manufacturing approaches to streamline operations, reduce costs, and meet demanding industry benchmarks. This trend stems from the desire for improved performance, sustainability, and competitive advantage, shaping a promising path for the aerospace smart manufacturing domain.

“North America to account for the largest market size in 2022.”

The adoption of smart manufacturing in North America is on the rise. This advanced approach employs technologies like the Internet of Things (IoT), data analysis, artificial intelligence (AI), and automation to optimize production. Automotive, aerospace, electronics, and pharmaceutical industries are embracing smart manufacturing to boost efficiency, cut costs, and enhance product quality. Incorporating digital twins, real-time monitoring, and predictive analytics is reshaping conventional manufacturing practices. With a keen emphasis on innovation and technological progress, North America is positioned to maintain its leadership in the global smart manufacturing arena.

The break-up of the profiles of primary participants:

By Company Type – Tier 1 – 35%, Tier 2 – 30%, and Tier 3 – 35%

By Designation – C-level Executives – 45%, Directors – 35%, and Others – 20%

By Region – North America - 35%, Asia Pacific – 30%, Europe – 25%, RoW- 10%

The major players in the market are 3D System, Inc. (US), ABB (Switzerland), Cisco System, Inc. (US), Emerson Electric Co. (US), General Electric (US), Honeywell International Inc. (US), IBM (US), Mitsubishi Electric Corporation (Japan), Rockwell Automation (US), Schneider Electric (France), Siemens (Germany), Oracle (US), SAP (Germany), Stratasys (US), Yokogawa Electric Corporation (Japan).

Research Coverage:

The Smart Manufacturing market has been segmented into information technology, enabling technology, industry, and region. The Smart Manufacturing market was studied in North America, Europe, Asia Pacific, and the Rest of the World (RoW). The report describes the Smart Manufacturing market's major drivers, restraints, challenges, and opportunities and forecasts the same till 2028. Apart from these, the report also consists of leadership mapping and analysis of all the companies included in the Smart Manufacturing ecosystem.

Key Benefits of Buying the Report:

The report will help market leaders/new entrants with information on the closest approximations of the revenue numbers for the Smart Manufacturing market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

Analysis of Key Drivers (Rising emphasis on smart manufacturing in manufacturing processes, Increasing government involvement in supporting smart manufacturing, Growing emphasis on regulatory compliances, Surging demand for software systems that reduce time and cost), restraints (High investments and costs involved in implementing smart manufacturing solutions, Lack of standardization among equipment manufacturers and in connectivity protocols, Requirement of maintenance attributed to frequent software upgrade), Opportunities (Increase in adoption of IIoT and Cloud technologies, Increased integration of different solutions to provide improved performance, Rapid industrial growth in emerging economies), Challenges (Threats related to cybersecurity, Complexity in implementing smart manufacturing technology systems, Lack of skilled workforce).

Product Development/Innovation: Detailed insights on research & development activities and new product launches in the Smart Manufacturing market.

Market Development: Comprehensive information about lucrative markets – the report analyses the Smart Manufacturing market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the Smart Manufacturing market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like 3D System, Inc. (US), ABB (Switzerland), Cisco System, Inc. (US), Emerson Electric Co. (US), General Electric (US), Honeywell International Inc. (US), IBM (US), Mitsubishi Electric Corporation (Japan), Rockwell Automation (US), Schneider Electric (France), Siemens (Germany), Oracle (US), SAP (Germany), Stratasys (US), Yokogawa Electric Corporation (Japan) among others in the Smart Manufacturing market.

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