

Semiconductor Manufacturing Equipment Market to Reach USD 283.21 Billion by 2031 - Reports Mordor Intelligence

The market is growing at a 10.95% CAGR from 2026 to 2031, driven by AI, HBM & advanced packaging demand, with Asia-Pacific holding 64.35% share in 2025.

HYDERABAD, TELANGANA, INDIA, September 9, 2026 /EINPresswire.com/ -- According to Mordor Intelligence, the [semiconductor manufacturing equipment market](#) is forecast to grow from USD 143.18 billion in 2025 to USD 168.45 billion in 2026, reaching USD 283.21 billion by 2031 at a 10.95% CAGR during 2026–2031. Market growth is supported by higher investments in advanced logic, memory, AI chips, and next-generation semiconductor production. Rising chip complexity is also increasing demand for equipment used in lithography, deposition, etching, inspection, metrology, testing, and advanced packaging. At the same time, manufacturers are expanding both front-end and back-end capabilities to meet growing demand. However, export restrictions, supply chain disruptions, project delays, and shortages of skilled workers may affect the pace at which planned investments become operational capacity.

Semiconductor Manufacturing Equipment Market Growth Drivers

Rising Complexity in Chip Manufacturing

The shift to smaller process nodes and advanced chip architectures is making semiconductor production more demanding. New designs require tighter control over etching, deposition, lithography, and other fabrication stages. As the number of processing steps increases, manufacturers also need more metrology and inspection tools to maintain quality. This growing equipment intensity is supporting market demand beyond the construction of new fabrication plants.

AI-Driven Chip and Packaging Requirements

The growing adoption of AI accelerators, HBM, chiplets, and advanced packaging is increasing demand for specialized semiconductor equipment. These technologies require more precise etching, deposition, bonding, testing, inspection, and packaging processes. As chip designs become more complex, manufacturers are investing in additional tools to improve yield and performance. Strong activity across Taiwan, South Korea, and North America is further supporting demand for high-value manufacturing and packaging equipment.

Government Support Drives Fab Expansion

Government incentives and semiconductor localization programs are encouraging companies to build and expand domestic chip manufacturing facilities. Financial support, tax benefits, and strategic policies are helping reduce investment barriers and strengthen regional production capabilities. As these projects progress from construction to equipment installation, they create a longer and more diversified pipeline of demand for semiconductor manufacturing equipment.

Recent Developments in the Semiconductor Manufacturing Equipment Industry

September 3, 2026: TSMC reported that its semiconductor equipment requirements had increased sharply as AI-related demand accelerated investment in new fabs and upgrades to existing facilities. The trend highlights growing pressure on equipment suppliers and potential tool shortages.

Jun 25, 2026: Applied Materials introduced new equipment in 2026 targeting DRAM and advanced packaging applications, including systems for deposition, CMP, and metrology. The products are designed to support HBM and increasingly complex 3D chip architectures.

Semiconductor Manufacturing Equipment Market Segmentation Analysis

By Equipment Type

Wafer Fab Equipment / Front-End Equipment – Lithography, deposition, etching, cleaning, CMP, thermal processing, metrology, and inspection equipment.

Assembly and Packaging Equipment – Die attach, wire bonding, flip-chip bonding, wafer bumping, thinning, dicing, and molding equipment.

Semiconductor Test Equipment – Automated test equipment, wafer probers, test handlers, burn-in systems, and final test equipment.

Fab Facility, Automation and Support Equipment – Automation systems, wafer handling systems, AMHS, chemical and gas delivery systems, chillers, and cleanroom support equipment.

By Device Type

Logic and Microcomponents – Logic ICs and other microcomponents.

Memory – DRAM, NAND, HBM, NOR, and other memory devices.

Microprocessors – Microprocessor units (MPUs).

Analog – Power management ICs, signal-chain ICs, interface ICs, and related devices.

Discrete and Power Devices – Diodes, transistors, MOSFETs, and other discrete power devices.

Sensors, MEMS and Optoelectronic Devices – Image sensors, MEMS sensors, and other optoelectronic devices.

By End User

Integrated Device Manufacturers (IDMs)

Foundries

Outsourced Semiconductor Assembly and Test (OSAT) Companies

Others – Research & Development (R&D) and Pilot Lines

Regional Outlook for Semiconductor Manufacturing Equipment Industry

North America is expanding its semiconductor manufacturing base as new fabrication projects move toward production, supported by government incentives and localization initiatives. Europe is also encouraging domestic semiconductor investment through policy support, while India and Singapore are emerging as important locations for semiconductor manufacturing and advanced packaging. Overall, equipment demand is expected to remain concentrated in Asia-Pacific, with North America and emerging manufacturing hubs gradually increasing their contribution.

Asia-Pacific remains the leading regional market for semiconductor manufacturing equipment, supported by strong manufacturing bases in China, Taiwan, South Korea, and Japan. Continued investment in advanced logic, memory, HBM, and packaging capacity is strengthening equipment demand across the region.

The Semiconductor Manufacturing Equipment Market is also available in the following languages:

Japanese: https://www.mordorintelligence.com/ja/industry-reports/semiconductor-manufacturing-equipment-market?utm_source=einpr

French: https://www.mordorintelligence.com/fr/industry-reports/semiconductor-manufacturing-equipment-market?utm_source=einpr

German: https://www.mordorintelligence.com/de/industry-reports/semiconductor-manufacturing-equipment-market?utm_source=einpr

Spanish: https://www.mordorintelligence.com/es/industry-reports/semiconductor-manufacturing-equipment-market?utm_source=einpr

Portuguese: https://www.mordorintelligence.com/pt/industry-reports/semiconductor-manufacturing-equipment-market?utm_source=einpr

Semiconductor Manufacturing Equipment Industry Competitive Landscape

The report describes the competitive landscape of the semiconductor manufacturing equipment market as moderately concentrated, with a small group of leading companies holding strong positions in process-critical equipment such as lithography, deposition, etch, and inspection. Major players compete through equipment performance, manufacturing capacity, global service networks, and their ability to meet the increasingly demanding requirements of advanced semiconductor production.

Semiconductor Manufacturing Equipment Market Key Companies:

Applied Materials, Inc.

ASML Holding N.V.

Lam Research Corporation

Tokyo Electron Limited

KLA Corporation

SCREEN Holdings Co., Ltd.

Advantest Corporation

ASM International N.V.

Teradyne, Inc.

Hitachi High-Tech Corporation

Discover the latest trends, growth opportunities, and competitive developments in the semiconductor manufacturing equipment market:

<https://www.mordorintelligence.com/industry-reports/semiconductor-manufacturing-equipment-market>

[equipment-market?utm_source=einpr](#)

Explore More Industry Research by Mordor Intelligence

[Engineering Services Outsourcing Market Size](#): The Engineering Services Outsourcing Market is projected to grow from USD 164.71 billion in 2026 to USD 312.65 billion by 2031, registering a CAGR of 13.68% during 2026–2031. Growth is supported by software-defined product development, shorter design cycles, shifting global delivery models, and the increasing use of AI-assisted engineering tools to speed up simulation, testing, and validation.

United States Semiconductor Manufacturing Equipment Market Size: The United States semiconductor manufacturing equipment market is projected to grow from USD 14.44 billion in 2026 to USD 24.83 billion by 2031, registering a CAGR of 11.4% during 2026–2031. Domestic fabrication projects are moving from construction toward equipment installation, supporting demand for wafer processing, packaging, testing, and fab support systems. Federal incentives, manufacturing tax credits, and semiconductor companies' capital investment plans are also influencing the timing and scale of equipment purchases.

https://www.mordorintelligence.com/industry-reports/united-states-semiconductor-manufacturing-equipment-market?utm_source=einpr

[Asia-Pacific Semiconductor Manufacturing Equipment Market](#): The Asia-Pacific Semiconductor Manufacturing Equipment Market Report is segmented by equipment type, including wafer fab and front-end equipment; by device type, covering logic and micro-components, memory, analog, and other devices; by end user, including integrated device manufacturers (IDMs), foundries, and other users; and by geography, covering China, Taiwan, Japan, and other markets. The report provides market size and value forecasts for each segment.

About Mordor Intelligence:□□

Mordor Intelligence is a trusted partner for businesses seeking comprehensive and actionable market intelligence. Our global reach, expert team, and tailored solutions empower organizations and individuals to make informed decisions, navigate complex markets, and achieve their strategic goals.□□

□□

With a team of over 550 domain experts and on-ground specialists spanning 150+ countries, Mordor Intelligence possesses a unique understanding of the global business landscape. This expertise translates into comprehensive syndicated and custom research reports covering a wide spectrum of industries, including aerospace & defense, agriculture, animal nutrition and wellness, automation, automotive, chemicals & materials, consumer goods & services, electronics, energy & power, financial services, food & beverages, healthcare, hospitality & tourism, information & communications technology, investment opportunities, and logistics.□

For media inquiries or further information, please contact:□

media@mordorintelligence.com
Mordor Intelligence Private Limited
<https://www.mordorintelligence.com/>

Jignesh Thakkar
Mordor Intelligence Private Limited
+1 617-765-2493

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Instagram](#)

[Facebook](#)

[X](#)

[Other](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/940879823>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.