

# **Cleanroom Construction for Semiconductor Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 – 2034**

<https://marketpublishers.com/r/C70CB1ADE966EN.html>

Date: January 2025

Pages: 225

Price: US\$ 4,850.00 (Single User License)

ID: C70CB1ADE966EN

## **Abstracts**

The Global Cleanroom Construction For Semiconductor Market was valued at USD 1.7 billion in 2024 and is projected to grow steadily at a CAGR of 3.6% between 2025 and 2034. The expanding demand for semiconductor chips, driven by advancements in technologies such as 5G, artificial intelligence (AI), the Internet of Things (IoT), and electric vehicles, is the primary factor fueling the market's growth. As these cutting-edge technologies continue to develop, the need for precision and contamination-free environments becomes even more critical, highlighting the importance of cleanroom infrastructure. With semiconductor manufacturing playing a central role in global technological innovation, cleanrooms are essential to meet the rising demand for high-quality chips, which require strict environmental controls to ensure the production of flawless, reliable products. This creates a strong demand for sophisticated cleanroom construction solutions that are adaptable to the ever-evolving needs of the industry.

The cleanroom construction for the semiconductor market is segmented into various categories, such as cleanrooms, ceilings and floors, HVAC systems, filtration technologies, and energy recovery systems. The HVAC technology segment, in particular, generated USD 638.4 million in 2024 and is expected to grow at a CAGR of 3.9% through 2035. HVAC systems are indispensable in semiconductor manufacturing as they help maintain the required temperature, humidity, and airflow levels, ensuring a contamination-free environment for sensitive equipment. As the semiconductor industry pushes for greater sustainability, energy-efficient HVAC solutions are becoming increasingly important. These solutions not only reduce energy consumption but also minimize particulate emissions, aligning with the industry's growing focus on environmental responsibility.

In terms of construction types, the cleanroom construction market for semiconductor manufacturing is divided into modular cleanrooms, stick-built cleanrooms, and softwall and hardwall cleanrooms. Modular cleanrooms, which accounted for 52.6% of the market share in 2024, are expected to see significant growth, with a projected CAGR of 3.7% between 2025 and 2034. The popularity of modular cleanrooms can be attributed to their flexibility, cost-effectiveness, and faster installation times. As semiconductor production demands fluctuate, these prefabricated units provide the scalability and adaptability needed to quickly meet varying production requirements, making them an ideal solution for the dynamic nature of the semiconductor industry.

In the United States, the cleanroom construction market for semiconductors reached USD 400.5 million in 2024 and is projected to grow at a CAGR of 3.7% between 2025 and 2034. The U.S. remains a key player in the cleanroom construction market due to substantial investments in advanced technologies and ongoing government support. These investments, coupled with extensive research and development efforts, have significantly strengthened the nation's semiconductor industry and its cleanroom infrastructure, positioning the U.S. as a leader in the global market.

## Contents

### CHAPTER 1 METHODOLOGY & SCOPE

- 1.1 Market scope & definition
- 1.2 Base estimates & calculations
- 1.3 Forecast parameters
- 1.4 Data sources
  - 1.4.1 Primary
- 1.5 Secondary
  - 1.5.1.1 Paid sources
  - 1.5.1.2 Public sources

### CHAPTER 2 EXECUTIVE SUMMARY

- 2.1 Industry synopsis, 2021 - 2034

### CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
  - 3.1.1 Factor affecting the value chain
  - 3.1.2 Profit margin analysis
  - 3.1.3 Disruptions
  - 3.1.4 Future outlook
  - 3.1.5 Manufacturers
  - 3.1.6 Distributors
  - 3.1.7 Retailers
- 3.2 Supplier landscape
- 3.3 Profit margin analysis
- 3.4 Key news & initiatives
- 3.5 Regulatory landscape
- 3.6 Impact forces
  - 3.6.1 Growth drivers
    - 3.6.1.1 Increasing demand for advanced semiconductors.
    - 3.6.1.2 Rising adoption of IoT and AI technologies.
    - 3.6.1.3 Expansion of semiconductor manufacturing facilities.
    - 3.6.1.4 Stringent contamination control requirements.
  - 3.6.2 Industry pitfalls & challenges
    - 3.6.2.1 High construction and maintenance costs.

- 3.6.2.2 Complex regulatory and certification standards
- 3.7 Technological landscape
- 3.8 Growth potential analysis
- 3.9 Porter's analysis
- 3.10 PESTEL analysis

## **CHAPTER 4 COMPETITIVE LANDSCAPE, 2024**

- 4.1 Introduction
- 4.2 Company market share analysis
- 4.3 Competitive positioning matrix
- 4.4 Strategic outlook matrix

## **CHAPTER 5 MARKET ESTIMATES AND FORECAST, BY PRODUCT TYPE, 2021 – 2034 (USD MILLION)**

- 5.1 Key trends
- 5.2 Cleanroom walls, ceilings, and floors
  - 5.2.1 Wall systems
    - 5.2.1.1 Monolithic walls
    - 5.2.1.2 Glass walls
    - 5.2.1.3 Antistatic & Non-Shedding walls
  - 5.2.2 Ceiling systems
    - 5.2.2.1 Cleanroom-Grade ceiling tiles
    - 5.2.2.2 Suspended ceiling systems
    - 5.2.2.3 Laminar flow ceiling panels
  - 5.2.3 Floor systems
    - 5.2.3.1 Anti-Static flooring
    - 5.2.3.2 Raised access flooring
    - 5.2.3.3 Epoxy-Coated floors
    - 5.2.3.4 Rubber flooring (ESD Resistant)
  - 5.2.4 Hot plates
    - 5.2.4.1 Single hot plate
    - 5.2.4.2 Double hot plate
    - 5.2.4.3 Multi hot plate
- 5.3 HVAC (Heating, Ventilation, and Air Conditioning) technology
  - 5.3.1 HVAC components and systems
    - 5.3.1.1 Air handling units (AHU)
    - 5.3.1.2 Cleanroom HVAC systems

- 5.3.1.3 Airflow control systems
- 5.3.2 Temperature and humidity control
  - 5.3.2.1 Precision temperature control systems
  - 5.3.2.2 Humidity control systems
- 5.4 Filtration technology
  - 5.4.1 Pre-filters
  - 5.4.2 HEPA/ULPA filtration in ductwork
  - 5.4.3 Air scrubbers
- 5.5 Energy recovery systems

## **CHAPTER 6 MARKET ESTIMATES AND FORECAST, BY CONSTRUCTION TYPE, 2021 – 2034 (USD MILLION)**

- 6.1 Key trends
- 6.2 Modular cleanrooms
- 6.3 Stick-Built cleanrooms
- 6.4 Softwall and hardwall cleanrooms

## **CHAPTER 7 MARKET ESTIMATES AND FORECAST, BY APPLICATION, 2021 – 2034 (USD MILLION)**

- 7.1 Key trends
- 7.2 Standard/Dry cleanrooms
- 7.3 Humidity-Controlled cleanrooms
- 7.4 Temperature-Controlled cleanrooms
- 7.5 High Efficiency/Ultra-High Purity cleanrooms

## **CHAPTER 8 MARKET ESTIMATES & FORECAST, BY REGION, 2021 – 2034, (USD MILLION)**

- 8.1 Key trends
- 8.2 North America
  - 8.2.1 U.S.
  - 8.2.2 Canada
- 8.3 Europe
  - 8.3.1 UK
  - 8.3.2 Germany
  - 8.3.3 France
  - 8.3.4 Italy

- 8.3.5 Spain
- 8.4 Asia Pacific
  - 8.4.1 China
  - 8.4.2 Japan
  - 8.4.3 India
  - 8.4.4 Australia
- 8.5 Latin America
  - 8.5.1 Brazil
  - 8.5.2 Mexico
- 8.6 MEA
  - 8.6.1 South Africa
  - 8.6.2 Saudi Arabia
  - 8.6.3 UAE

## **CHAPTER 9 COMPANY PROFILES (BUSINESS OVERVIEW, FINANCIAL DATA, PRODUCT LANDSCAPE, STRATEGIC OUTLOOK, SWOT ANALYSIS)**

- 9.1 AES Clean Technology
- 9.2 Clean Air Products
- 9.3 Clean Room International
- 9.4 Cleanroom Industries Sdn Bhd
- 9.5 CRB
- 9.6 Envirotec
- 9.7 Exyte
- 9.8 Gillbane Building Co.
- 9.9 Horton Automatics
- 9.10 Integrated Project Services
- 9.11 Jacobs Engineering
- 9.12 SKAN Group
- 9.13 Stancold plc
- 9.14 Terra Universal
- 9.15 Turner Construction

## I would like to order

Product name: Cleanroom Construction for Semiconductor Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 – 2034

Product link: <https://marketpublishers.com/r/C70CB1ADE966EN.html>

Price: US\$ 4,850.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/C70CB1ADE966EN.html>