

Carbon Capture Equipment Market Forecasts to 2034 – Global Analysis By Equipment Type (Capture Units, Processing & Compression Equipment, Monitoring & Control Systems, and Other Auxiliary Equipment), Capture Capacity (Small-Scale, Mid-Scale, and Large-Scale / Hub-Scale), Capture Technology, End User, and By Geography

<https://marketpublishers.com/r/C19C31D08246EN.html>

Date: February 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: C19C31D08246EN

Abstracts

According to Statistics MRC, the Global Carbon Capture Equipment Market is accounted for \$5.8 billion in 2026 and is expected to reach \$24.5 billion by 2034 growing at a CAGR of 19.6% during the forecast period. Carbon capture equipment includes specialized systems designed to capture, process, and sequester carbon dioxide emissions from industrial sources and the atmosphere. Key equipment categories encompass capture units, processing and compression systems, and monitoring technologies. Market growth is propelled by stringent global climate policies, corporate net-zero commitments, increasing investment in clean energy infrastructure, and technological advancements enhancing capture efficiency and cost-effectiveness.

Market Dynamics:

Driver:

Stringent global climate regulations and net-zero commitments

Governments worldwide are implementing rigorous carbon pricing mechanisms and emission reduction targets, compelling industries to adopt carbon capture solutions. International agreements and national policies, such as the Inflation Reduction Act in

the US and the EU Green Deal, provide substantial tax credits and funding for carbon capture projects. This regulatory push, combined with growing investor and consumer pressure for sustainable practices, is accelerating capital expenditure in capture technologies across high-emission sectors like power generation, cement, and steel manufacturing.

Restraint:

High capital and operational expenditure requirements

The deployment of carbon capture equipment involves significant upfront investment in customized, large-scale infrastructure, alongside substantial ongoing energy consumption for operation. This high cost structure poses a major barrier, particularly for small and medium-sized enterprises in hard-to-abate sectors. Additionally, the economic viability heavily depends on the availability of supportive policy frameworks and carbon credit prices, creating financial uncertainty that can delay or deter large-scale project commitments from private stakeholders.

Opportunity:

Expansion into direct air capture and green hydrogen production

Emerging applications in direct air capture (DAC) and low-carbon hydrogen production present significant growth avenues. DAC technology addresses distributed and historical emissions, attracting both government and venture capital funding. Concurrently, the rising green hydrogen economy necessitates carbon capture for blue hydrogen production from natural gas. This diversification into new, high-growth verticals allows equipment providers to expand their market reach and leverage synergies within the broader carbon management value chain.

Threat:

Competition from alternative decarbonization technologies

The carbon capture equipment market faces competitive pressure from rapidly advancing alternative solutions, such as renewable energy integration, electrification of industrial processes, and energy efficiency improvements. These technologies often present lower operational complexity and cost for emission reduction, potentially displacing the need for capture systems in certain applications. Furthermore, public and

policy focus may shift towards prevention rather than remediation of emissions, impacting long-term investment flows into capture infrastructure.

Covid-19 Impact:

The COVID-19 pandemic initially disrupted supply chains and delayed final investment decisions for large-scale carbon capture projects due to economic uncertainty. However, the subsequent recovery stimulus packages from many governments prioritized green infrastructure, channeling significant funds into decarbonization technologies, including carbon capture. This period underscored the importance of building resilient, sustainable industrial systems, ultimately accelerating policy support and public-private partnerships for carbon management initiatives post-pandemic.

The capture units segment is expected to be the largest during the forecast period

The capture units segment, which includes absorbers/strippers, membrane modules, and cryogenic distillation units, is projected to hold the largest market share. This dominance is attributed to these components forming the core technological foundation of any capture system, with high adoption in established post-combustion applications across power plants and industrial facilities. Continuous innovation aimed at improving solvent efficiency, membrane selectivity, and energy consumption in these units drives recurrent investment and retrofitting activities in existing emission-heavy infrastructure.

The large-scale / hub-scale segment is expected to have the highest CAGR during the forecast period

The large-scale or hub-scale capture capacity segment is anticipated to register the highest growth rate. This trend is driven by the development of integrated carbon capture, utilization, and storage (CCUS) hubs, which offer shared transport and storage infrastructure, dramatically improving project economics. Governments and consortia are heavily investing in these networked projects, particularly in North America and Europe, to achieve deep decarbonization of industrial clusters, making large-scale applications the fastest-growing segment.

Region with largest share:

North America is expected to dominate the global market throughout the forecast period. This leadership is fueled by strong regulatory incentives like the 45Q tax credit in the United States, a mature oil and gas sector investing in carbon management, and the

presence of major technology providers and project developers. Early mover projects in the region, coupled with extensive CO₂ pipeline infrastructure and suitable geological storage sites create a favorable ecosystem for the rapid commercialization and scaling of carbon capture equipment.

Region with highest CAGR:

The Asia Pacific region is forecast to exhibit the highest CAGR, driven by rapidly industrializing economies committing to carbon neutrality, such as China and Japan. Massive investments in new industrial capacity, particularly in steel, chemicals, and power generation, are incorporating carbon capture as a compliance and sustainability strategy. Furthermore, significant government-led RD&D funding and international collaborations are facilitating technology transfer and the development of pilot and demonstration projects across the region.

Key players in the market

Some of the key players in Carbon Capture Equipment Market include Aker Carbon Capture, Carbon Clean, Linde plc, Air Liquide, Air Products and Chemicals, Mitsubishi Heavy Industries (MHI), Honeywell UOP, Schlumberger, Fluor Corporation, Shell Cansolv, GE Vernova, ExxonMobil, Baker Hughes, CarbonCure, Carbfix, and Doosan Enerbility.

Key Developments:

In January 2026, Carbon Clean was ranked among Britain's fastest-growing private technology companies in The Sunday Times 100 Tech, reflecting rapid global deployment of its modular CycloneCC™ carbon capture systems.

In November 2025, Carbon Clean announced an alliance with Samsung Engineering & Construction to accelerate worldwide deployment of industrial carbon capture solutions.

In July 2024, Air Liquide's Cryocap™ LQ CO₂ liquefaction technology was selected by Stockholm Exergi for a world-scale BECCS project, enabling large-scale carbon capture and storage.

In February 2024, Fluor Corporation licensed its Econamine FG Plus? carbon capture technology to Chevron New Energies for the Eastridge Cogeneration facility in California, expected to reduce CO₂ emissions by ~95%.

Equipment Types Covered:

- Capture Units
- Processing & Compression Equipment
- Monitoring & Control Systems
- Other Auxiliary Equipment

Capture Capacities Covered:

- Small-Scale
- Mid-Scale
- Large-Scale / Hub-Scale

Capture Technologies Covered:

- Pre-Combustion Capture
- Post-Combustion Capture
- Oxy-Fuel Combustion Capture
- Direct Air Capture (DAC)

End Users Covered:

- Oil & Gas
- Power Generation
- Hard-to-Abate Sectors

Hydrogen Production

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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- 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

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 End User Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL CARBON CAPTURE EQUIPMENT MARKET, BY EQUIPMENT TYPE

- 5.1 Introduction
- 5.2 Capture Units
 - 5.2.1 Absorbers/Strippers
 - 5.2.2 Membrane Modules
 - 5.2.3 Cryogenic Distillation Units
- 5.3 Processing & Compression Equipment
 - 5.3.1 Compressors
 - 5.3.2 Pumps
 - 5.3.3 Heat Exchangers
 - 5.3.4 Driers & Purification Units
- 5.4 Monitoring & Control Systems
- 5.5 Other Auxiliary Equipment

6 GLOBAL CARBON CAPTURE EQUIPMENT MARKET, BY CAPTURE CAPACITY

- 6.1 Introduction
- 6.2 Small-Scale
- 6.3 Mid-Scale
- 6.4 Large-Scale / Hub-Scale

7 GLOBAL CARBON CAPTURE EQUIPMENT MARKET, BY CAPTURE TECHNOLOGY

- 7.1 Introduction
- 7.2 Pre-Combustion Capture
- 7.3 Post-Combustion Capture
- 7.4 Oxy-Fuel Combustion Capture
- 7.5 Direct Air Capture (DAC)

8 GLOBAL CARBON CAPTURE EQUIPMENT MARKET, BY END USER

- 8.1 Introduction
- 8.2 Oil & Gas
- 8.3 Power Generation
- 8.4 Hard-to-Abate Sectors
 - 8.4.1 Cement & Lime Production
 - 8.4.2 Iron & Steel Manufacturing

- 8.4.3 Chemical & Petrochemical Processing
- 8.5 Hydrogen Production
- 8.6 Other End Users

9 GLOBAL CARBON CAPTURE EQUIPMENT MARKET, BY GEOGRAPHY

- 9.1 Introduction
- 9.2 North America
 - 9.2.1 US
 - 9.2.2 Canada
 - 9.2.3 Mexico
- 9.3 Europe
 - 9.3.1 Germany
 - 9.3.2 UK
 - 9.3.3 Italy
 - 9.3.4 France
 - 9.3.5 Spain
 - 9.3.6 Rest of Europe
- 9.4 Asia Pacific
 - 9.4.1 Japan
 - 9.4.2 China
 - 9.4.3 India
 - 9.4.4 Australia
 - 9.4.5 New Zealand
 - 9.4.6 South Korea
 - 9.4.7 Rest of Asia Pacific
- 9.5 South America
 - 9.5.1 Argentina
 - 9.5.2 Brazil
 - 9.5.3 Chile
 - 9.5.4 Rest of South America
- 9.6 Middle East & Africa
 - 9.6.1 Saudi Arabia
 - 9.6.2 UAE
 - 9.6.3 Qatar
 - 9.6.4 South Africa
 - 9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

- 10.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 10.2 Acquisitions & Mergers
- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 Aker Carbon Capture
- 11.2 Carbon Clean
- 11.3 Linde plc
- 11.4 Air Liquide
- 11.5 Air Products and Chemicals
- 11.6 Mitsubishi Heavy Industries (MHI)
- 11.7 Honeywell UOP
- 11.8 Schlumberger
- 11.9 Fluor Corporation
- 11.10 Shell Cansolv
- 11.11 GE Vernova
- 11.12 ExxonMobil
- 11.13 Baker Hughes
- 11.14 CarbonCure
- 11.15 Carbfix
- 11.16 Doosan Enerbility

List Of Tables

LIST OF TABLES

Table 1 Global Carbon Capture Equipment Market Outlook, By Region (2025–2034) (\$MN)

Table 2 Global Carbon Capture Equipment Market Outlook, By Equipment Type (2025–2034) (\$MN)

Table 3 Global Carbon Capture Equipment Market Outlook, By Capture Units (2025–2034) (\$MN)

Table 4 Global Carbon Capture Equipment Market Outlook, By Absorbers / Strippers (2025–2034) (\$MN)

Table 5 Global Carbon Capture Equipment Market Outlook, By Membrane Modules (2025–2034) (\$MN)

Table 6 Global Carbon Capture Equipment Market Outlook, By Cryogenic Distillation Units (2025–2034) (\$MN)

Table 7 Global Carbon Capture Equipment Market Outlook, By Processing & Compression Equipment (2025–2034) (\$MN)

Table 8 Global Carbon Capture Equipment Market Outlook, By Compressors (2025–2034) (\$MN)

Table 9 Global Carbon Capture Equipment Market Outlook, By Pumps (2025–2034) (\$MN)

Table 10 Global Carbon Capture Equipment Market Outlook, By Heat Exchangers (2025–2034) (\$MN)

Table 11 Global Carbon Capture Equipment Market Outlook, By Driers & Purification Units (2025–2034) (\$MN)

Table 12 Global Carbon Capture Equipment Market Outlook, By Monitoring & Control Systems (2025–2034) (\$MN)

Table 13 Global Carbon Capture Equipment Market Outlook, By Other Auxiliary Equipment (2025–2034) (\$MN)

Table 14 Global Carbon Capture Equipment Market Outlook, By Capture Capacity (2025–2034) (\$MN)

Table 15 Global Carbon Capture Equipment Market Outlook, By Small-Scale (2025–2034) (\$MN)

Table 16 Global Carbon Capture Equipment Market Outlook, By Mid-Scale (2025–2034) (\$MN)

Table 17 Global Carbon Capture Equipment Market Outlook, By Large-Scale / Hub-Scale (2025–2034) (\$MN)

Table 18 Global Carbon Capture Equipment Market Outlook, By Capture Technology

(2025–2034) (\$MN)

Table 19 Global Carbon Capture Equipment Market Outlook, By Pre-Combustion Capture (2025–2034) (\$MN)

Table 20 Global Carbon Capture Equipment Market Outlook, By Post-Combustion Capture (2025–2034) (\$MN)

Table 21 Global Carbon Capture Equipment Market Outlook, By Oxy-Fuel Combustion Capture (2025–2034) (\$MN)

Table 22 Global Carbon Capture Equipment Market Outlook, By Direct Air Capture (DAC) (2025–2034) (\$MN)

Table 23 Global Carbon Capture Equipment Market Outlook, By End User (2025–2034) (\$MN)

Table 24 Global Carbon Capture Equipment Market Outlook, By Oil & Gas (2025–2034) (\$MN)

Table 25 Global Carbon Capture Equipment Market Outlook, By Power Generation (2025–2034) (\$MN)

Table 26 Global Carbon Capture Equipment Market Outlook, By Cement & Lime Production (2025–2034) (\$MN)

Table 27 Global Carbon Capture Equipment Market Outlook, By Iron & Steel Manufacturing (2025–2034) (\$MN)

Table 28 Global Carbon Capture Equipment Market Outlook, By Chemical & Petrochemical Processing (2025–2034) (\$MN)

Table 29 Global Carbon Capture Equipment Market Outlook, By Hydrogen Production (2025–2034) (\$MN)

Table 30 Global Carbon Capture Equipment Market Outlook, By Other End Users (2025–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Carbon Capture Equipment Market Forecasts to 2034 – Global Analysis By Equipment Type (Capture Units, Processing & Compression Equipment, Monitoring & Control Systems, and Other Auxiliary Equipment), Capture Capacity (Small-Scale, Mid-Scale, and Large-Scale / Hub-Scale), Capture Technology, End User, and By Geography

Product link: <https://marketpublishers.com/r/C19C31D08246EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/C19C31D08246EN.html>