

# Single-Use Bio Reactors Market Outlook 2025-2034: Market Share, and Growth Analysis By Type (Stirred-Tank SUBs, Wave-Induced SUBs, Bubble-Column SUBs, Other Types), By Molecule Type (Vaccines, Monoclonal Antibodies, Stem Cells, Recombinant Proteins), By Cell Type, By Application, By End User

<https://marketpublishers.com/r/S5CBD700F136EN.html>

Date: October 2025

Pages: 160

Price: US\$ 3,950.00 (Single User License)

ID: S5CBD700F136EN

## Abstracts

The Single-Use Bio Reactors Market is valued at USD 7.6 billion in 2025 and is projected to grow at a CAGR of 21.8% to reach USD 44.7 billion by 2034. The single-use bioreactors market has emerged as a transformative force in the biopharmaceutical manufacturing landscape, offering scalable, flexible, and cost-effective solutions for cultivating cells and producing biologics. Unlike traditional stainless-steel systems, single-use bioreactors utilize disposable bags and components, minimizing the need for cleaning and sterilization while reducing contamination risks. These systems are particularly valuable in small-batch production, pilot-scale testing, and the manufacture of monoclonal antibodies, vaccines, and cell and gene therapies. Their growing use aligns with the rising demand for modular and multiproduct manufacturing facilities, especially as the biopharma industry shifts toward more personalized treatments and faster development cycles. As a result, single-use bioreactors are playing a critical role in enabling agile manufacturing strategies and supporting both clinical and commercial-scale operations across global markets. The single-use bioreactors market experienced significant growth, driven by the expansion of biologics pipelines and continued innovation in vaccine development. Biotech companies and CDMOs increased investments in flexible manufacturing lines that could accommodate single-use systems for both upstream and downstream processes. The demand for hybrid facilities combining stainless-steel and single-use technologies rose, especially for multiproduct manufacturing. Technological enhancements such as improved agitation systems, real-

time monitoring sensors, and better scalability features enabled greater control and process consistency. Additionally, manufacturers introduced new bioreactor bag materials with higher durability and reduced leachables, enhancing product safety. In Asia-Pacific and Latin America, local production capacity for biosimilars and contract manufacturing saw substantial expansion, further fueling demand for quick-to-deploy single-use systems. However, global supply chain constraints in plastic resins and disposable components remained a challenge for some operations under high-throughput conditions. The single-use bioreactors market is expected to continue its upward trajectory as biologics and advanced therapies dominate the pharmaceutical landscape. The development of next-generation bioreactors capable of handling high-density perfusion cultures and continuous bioprocessing will support more efficient, high-yield manufacturing. Integration with digital bioprocessing platforms and automation will drive data-driven decision-making, improving quality assurance and reducing batch failures. Sustainability will become a more prominent concern, prompting innovation in recyclable and biodegradable materials for single-use systems. As the industry embraces decentralized manufacturing models and smaller production footprints, single-use bioreactors will become essential for rapid facility scaling and regional market responsiveness. Despite the benefits, the sector must address regulatory harmonization, standardization of component compatibility, and material qualification to ensure long-term reliability and compliance across geographies.

### Key Insights Single-Use Bio Reactors Market

Rising integration of single-use bioreactors in continuous bioprocessing systems to support high-efficiency biologics production.

Adoption of sensor-enabled smart bioreactors for real-time process monitoring and adaptive control during cultivation.

Expansion of hybrid manufacturing facilities combining stainless steel and single-use technologies for flexibility and scale.

Use of single-use bioreactors in the growing cell and gene therapy space to maintain sterility and reduce turnaround times.

Development of more durable, low-leachable bioreactor bags to meet regulatory expectations and ensure product safety.

Increasing demand for flexible and scalable biomanufacturing solutions to

support fast-growing biologics and vaccine production.

Reduction in cleaning and sterilization time driving operational cost savings and faster production changeovers.

Expansion of CDMOs and decentralized production models creating need for rapid, modular facility deployment.

Technological innovation improving bioreactor design, scalability, and integration with digital and automated workflows.

Global supply chain instability and dependence on specialized plastic materials continue to pose bottlenecks in meeting rising demand, particularly during high-volume production surges or disruptions in raw material sourcing and logistics networks.

## Single-Use Bio Reactors Market Segmentation

### By Type

Stirred-Tank SUBs

Wave-Induced SUBs

Bubble-Column SUBs

Other Types

### By Molecule Type

Vaccines

Monoclonal Antibodies

Stem Cells

Recombinant Proteins

## By Cell Type

Mammalian Cell

Bacteria

Yeast

## By Application

Research And Development (R&D)

Process Development

Bioproduction

## By End User

Pharmaceutical And Biopharmaceutical Companies

Contract Research Organizations (CRO)

Academic And Research Institutes

Contract Manufacturing Organizations (CMO)

## Key Companies Analysed

GE Healthcare Technologies Ltd.

Eppendorf AG

Corning Incorporated

Thermo Fisher Scientific Inc.

Sartorius AG

JM BioConnect BV

Merck KGaA

Pall Corporation

Kuhner AG

PBS Biotech Inc.

Entegris Inc.

DistriCell Inc.

ABEC Inc.

Able Corporation and Biott Corporation

Solida Biotech GmbH

OmniBRx Biotechnologies Pvt. Ltd.

Satake Chemical Equipment Mfg. Co. Ltd.

Stobbe Pharma GmbH

Celltainer Biotech BV

Cellexus BV

Danaher Corporation

Boehringer Ingelheim International GmbH

General Electric Company

Rentschler Biopharma SE

Repligen Corporation

Sollesis Medical Plc

Charter Medical Inc.

Secant Group LLC

Lonza Group Ltd.

Hoffmann-La Roche Ltd.

Novartis AG

Teva Pharmaceutical Industries Ltd.

Sanofi S.A.

Pfizer Inc.

Catalent Inc.

Patheon Inc.

Bio-Rad Laboratories Inc.

Avantor Performance Materials India Limited

MilliporeSigma

Saint-Gobain Performance Plastics Corp.

Meissner Filtration Products Inc.

## Single-Use Bio Reactors Market Analytics

The report employs rigorous tools, including Porter's Five Forces, value chain mapping, and scenario-based modeling, to assess supply–demand dynamics. Cross-sector influences from parent, derived, and substitute markets are evaluated to identify risks and opportunities. Trade and pricing analytics provide an up-to-date view of international flows, including leading exporters, importers, and regional price trends.

Macroeconomic indicators, policy frameworks such as carbon pricing and energy security strategies, and evolving consumer behavior are considered in forecasting scenarios. Recent deal flows, partnerships, and technology innovations are incorporated to assess their impact on future market performance.

### Single-Use Bio Reactors Market Competitive Intelligence

The competitive landscape is mapped through OG Analysis' proprietary frameworks, profiling leading companies with details on business models, product portfolios, financial performance, and strategic initiatives. Key developments such as mergers & acquisitions, technology collaborations, investment inflows, and regional expansions are analyzed for their competitive impact. The report also identifies emerging players and innovative startups contributing to market disruption.

Regional insights highlight the most promising investment destinations, regulatory landscapes, and evolving partnerships across energy and industrial corridors.

### Countries Covered

North America — Single-Use Bio Reactors market data and outlook to 2034

United States

Canada

Mexico

Europe — Single-Use Bio Reactors market data and outlook to 2034

Germany

United Kingdom

France

Italy

Spain

BeNeLux

Russia

Sweden

Asia-Pacific — Single-Use Bio Reactors market data and outlook to 2034

China

Japan

India

South Korea

Australia

Indonesia

Malaysia

Vietnam

Middle East and Africa — Single-Use Bio Reactors market data and outlook to 2034

Saudi Arabia

South Africa

Iran

UAE

Egypt

South and Central America — Single-Use Bio Reactors market data and outlook to 2034

Brazil

Argentina

Chile

Peru

*\* We can include data and analysis of additional countries on demand.*

## Research Methodology

This study combines primary inputs from industry experts across the Single-Use Bio Reactors value chain with secondary data from associations, government publications, trade databases, and company disclosures. Proprietary modeling techniques, including data triangulation, statistical correlation, and scenario planning, are applied to deliver reliable market sizing and forecasting.

## Key Questions Addressed

What is the current and forecast market size of the Single-Use Bio Reactors industry at global, regional, and country levels?

Which types, applications, and technologies present the highest growth potential?

How are supply chains adapting to geopolitical and economic shocks?

What role do policy frameworks, trade flows, and sustainability targets play in shaping demand?

Who are the leading players, and how are their strategies evolving in the face of global uncertainty?

Which regional “hotspots” and customer segments will outpace the market, and what go-to-market and partnership models best support entry and expansion?

Where are the most investable opportunities—across technology roadmaps, sustainability-linked innovation, and M&A—and what is the best segment to invest over the next 3–5 years?

## Your Key Takeaways from the Single-Use Bio Reactors Market Report

Global Single-Use Bio Reactors market size and growth projections (CAGR), 2024-2034

Impact of Russia-Ukraine, Israel-Palestine, and Hamas conflicts on Single-Use Bio Reactors trade, costs, and supply chains

Single-Use Bio Reactors market size, share, and outlook across 5 regions and 27 countries, 2023-2034

Single-Use Bio Reactors market size, CAGR, and market share of key products, applications, and end-user verticals, 2023-2034

Short- and long-term Single-Use Bio Reactors market trends, drivers, restraints, and opportunities

Porter’s Five Forces analysis, technological developments, and Single-Use Bio Reactors supply chain analysis

Single-Use Bio Reactors trade analysis, Single-Use Bio Reactors market price analysis, and Single-Use Bio Reactors supply/demand dynamics

Profiles of 5 leading companies—overview, key strategies, financials, and products

Latest Single-Use Bio Reactors market news and developments

## Additional Support

With the purchase of this report, you will receive

An updated PDF report and an MS Excel data workbook containing all market tables and figures for easy analysis.

7-day post-sale analyst support for clarifications and in-scope supplementary data, ensuring the deliverable aligns precisely with your requirements.

Complimentary report update to incorporate the latest available data and the impact of recent market developments.

*\* The updated report will be delivered within 3 working days*

## Contents

### 1. TABLE OF CONTENTS

- 1.1 List of Tables
- 1.2 List of Figures

### 2. GLOBAL SINGLE-USE BIO REACTORS MARKET SUMMARY, 2025

- 2.1 Single-Use Bio Reactors Industry Overview
  - 2.1.1 Global Single-Use Bio Reactors Market Revenues (In US\$ billion)
- 2.2 Single-Use Bio Reactors Market Scope
- 2.3 Research Methodology

### 3. SINGLE-USE BIO REACTORS MARKET INSIGHTS, 2024-2034

- 3.1 Single-Use Bio Reactors Market Drivers
- 3.2 Single-Use Bio Reactors Market Restraints
- 3.3 Single-Use Bio Reactors Market Opportunities
- 3.4 Single-Use Bio Reactors Market Challenges
- 3.5 Tariff Impact on Global Single-Use Bio Reactors Supply Chain Patterns

### 4. SINGLE-USE BIO REACTORS MARKET ANALYTICS

- 4.1 Single-Use Bio Reactors Market Size and Share, Key Products, 2025 Vs 2034
- 4.2 Single-Use Bio Reactors Market Size and Share, Dominant Applications, 2025 Vs 2034
- 4.3 Single-Use Bio Reactors Market Size and Share, Leading End Uses, 2025 Vs 2034
- 4.4 Single-Use Bio Reactors Market Size and Share, High Growth Countries, 2025 Vs 2034
- 4.5 Five Forces Analysis for Global Single-Use Bio Reactors Market
  - 4.5.1 Single-Use Bio Reactors Industry Attractiveness Index, 2025
  - 4.5.2 Single-Use Bio Reactors Supplier Intelligence
  - 4.5.3 Single-Use Bio Reactors Buyer Intelligence
  - 4.5.4 Single-Use Bio Reactors Competition Intelligence
  - 4.5.5 Single-Use Bio Reactors Product Alternatives and Substitutes Intelligence
  - 4.5.6 Single-Use Bio Reactors Market Entry Intelligence

### 5. GLOBAL SINGLE-USE BIO REACTORS MARKET STATISTICS – INDUSTRY

*Single-Use Bio Reactors Market Outlook 2025-2034: Market Share, and Growth Analysis By Type (Stirred-Tank SUBs...*

## **REVENUE, MARKET SHARE, GROWTH TRENDS AND FORECAST BY SEGMENTS, TO 2034**

5.1 World Single-Use Bio Reactors Market Size, Potential and Growth Outlook, 2024-2034 (\$ billion)

5.1 Global Single-Use Bio Reactors Sales Outlook and CAGR Growth By Type, 2024-2034 (\$ billion)

5.2 Global Single-Use Bio Reactors Sales Outlook and CAGR Growth By Molecule Type, 2024- 2034 (\$ billion)

5.3 Global Single-Use Bio Reactors Sales Outlook and CAGR Growth By Cell Type, 2024- 2034 (\$ billion)

5.4 Global Single-Use Bio Reactors Sales Outlook and CAGR Growth By Application, 2024- 2034 (\$ billion)

5.5 Global Single-Use Bio Reactors Sales Outlook and CAGR Growth By End User, 2024- 2034 (\$ billion)

5.6 Global Single-Use Bio Reactors Market Sales Outlook and Growth by Region, 2024-2034 (\$ billion)

## **6. ASIA PACIFIC SINGLE-USE BIO REACTORS INDUSTRY STATISTICS – MARKET SIZE, SHARE, COMPETITION AND OUTLOOK**

6.1 Asia Pacific Single-Use Bio Reactors Market Insights, 2025

6.2 Asia Pacific Single-Use Bio Reactors Market Revenue Forecast By Type, 2024-2034 (USD billion)

6.3 Asia Pacific Single-Use Bio Reactors Market Revenue Forecast By Molecule Type, 2024- 2034 (USD billion)

6.4 Asia Pacific Single-Use Bio Reactors Market Revenue Forecast By Cell Type, 2024-2034 (USD billion)

6.5 Asia Pacific Single-Use Bio Reactors Market Revenue Forecast By Application, 2024- 2034 (USD billion)

6.6 Asia Pacific Single-Use Bio Reactors Market Revenue Forecast By End User, 2024-2034 (USD billion)

6.7 Asia Pacific Single-Use Bio Reactors Market Revenue Forecast by Country, 2024-2034 (USD billion)

6.7.1 China Single-Use Bio Reactors Market Size, Opportunities, Growth 2024- 2034

6.7.2 India Single-Use Bio Reactors Market Size, Opportunities, Growth 2024- 2034

6.7.3 Japan Single-Use Bio Reactors Market Size, Opportunities, Growth 2024- 2034

6.7.4 Australia Single-Use Bio Reactors Market Size, Opportunities, Growth 2024-2034

## **7. EUROPE SINGLE-USE BIO REACTORS MARKET DATA, PENETRATION, AND BUSINESS PROSPECTS TO 2034**

7.1 Europe Single-Use Bio Reactors Market Key Findings, 2025

7.2 Europe Single-Use Bio Reactors Market Size and Percentage Breakdown By Type, 2024- 2034 (USD billion)

7.3 Europe Single-Use Bio Reactors Market Size and Percentage Breakdown By Molecule Type, 2024- 2034 (USD billion)

7.4 Europe Single-Use Bio Reactors Market Size and Percentage Breakdown By Cell Type, 2024- 2034 (USD billion)

7.5 Europe Single-Use Bio Reactors Market Size and Percentage Breakdown By Application, 2024- 2034 (USD billion)

7.6 Europe Single-Use Bio Reactors Market Size and Percentage Breakdown By End User, 2024- 2034 (USD billion)

7.7 Europe Single-Use Bio Reactors Market Size and Percentage Breakdown by Country, 2024- 2034 (USD billion)

7.7.1 Germany Single-Use Bio Reactors Market Size, Trends, Growth Outlook to 2034

7.7.2 United Kingdom Single-Use Bio Reactors Market Size, Trends, Growth Outlook to 2034

7.7.2 France Single-Use Bio Reactors Market Size, Trends, Growth Outlook to 2034

7.7.2 Italy Single-Use Bio Reactors Market Size, Trends, Growth Outlook to 2034

7.7.2 Spain Single-Use Bio Reactors Market Size, Trends, Growth Outlook to 2034

## **8. NORTH AMERICA SINGLE-USE BIO REACTORS MARKET SIZE, GROWTH TRENDS, AND FUTURE PROSPECTS TO 2034**

8.1 North America Snapshot, 2025

8.2 North America Single-Use Bio Reactors Market Analysis and Outlook By Type, 2024- 2034 (\$ billion)

8.3 North America Single-Use Bio Reactors Market Analysis and Outlook By Molecule Type, 2024- 2034 (\$ billion)

8.4 North America Single-Use Bio Reactors Market Analysis and Outlook By Cell Type, 2024- 2034 (\$ billion)

8.5 North America Single-Use Bio Reactors Market Analysis and Outlook By Application, 2024- 2034 (\$ billion)

8.6 North America Single-Use Bio Reactors Market Analysis and Outlook By End User, 2024- 2034 (\$ billion)

8.7 North America Single-Use Bio Reactors Market Analysis and Outlook by Country,

2024- 2034 (\$ billion)

8.7.1 United States Single-Use Bio Reactors Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.7.1 Canada Single-Use Bio Reactors Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.7.1 Mexico Single-Use Bio Reactors Market Size, Share, Growth Trends and Forecast, 2024- 2034

## **9. SOUTH AND CENTRAL AMERICA SINGLE-USE BIO REACTORS MARKET DRIVERS, CHALLENGES, AND FUTURE PROSPECTS**

9.1 Latin America Single-Use Bio Reactors Market Data, 2025

9.2 Latin America Single-Use Bio Reactors Market Future By Type, 2024- 2034 (\$ billion)

9.3 Latin America Single-Use Bio Reactors Market Future By Molecule Type, 2024- 2034 (\$ billion)

9.4 Latin America Single-Use Bio Reactors Market Future By Cell Type, 2024- 2034 (\$ billion)

9.5 Latin America Single-Use Bio Reactors Market Future By Application, 2024- 2034 (\$ billion)

9.6 Latin America Single-Use Bio Reactors Market Future By End User, 2024- 2034 (\$ billion)

9.7 Latin America Single-Use Bio Reactors Market Future by Country, 2024- 2034 (\$ billion)

9.7.1 Brazil Single-Use Bio Reactors Market Size, Share and Opportunities to 2034

9.7.2 Argentina Single-Use Bio Reactors Market Size, Share and Opportunities to 2034

## **10. MIDDLE EAST AFRICA SINGLE-USE BIO REACTORS MARKET OUTLOOK AND GROWTH PROSPECTS**

10.1 Middle East Africa Overview, 2025

10.2 Middle East Africa Single-Use Bio Reactors Market Statistics By Type, 2024- 2034 (USD billion)

10.3 Middle East Africa Single-Use Bio Reactors Market Statistics By Molecule Type, 2024- 2034 (USD billion)

10.4 Middle East Africa Single-Use Bio Reactors Market Statistics By Cell Type, 2024- 2034 (USD billion)

10.5 Middle East Africa Single-Use Bio Reactors Market Statistics By Application, 2024-

2034 (USD billion)

10.6 Middle East Africa Single-Use Bio Reactors Market Statistics By End User, 2024-2034 (USD billion)

10.7 Middle East Africa Single-Use Bio Reactors Market Statistics by Country, 2024-2034 (USD billion)

10.7.1 Middle East Single-Use Bio Reactors Market Value, Trends, Growth Forecasts to 2034

10.7.2 Africa Single-Use Bio Reactors Market Value, Trends, Growth Forecasts to 2034

## **11. SINGLE-USE BIO REACTORS MARKET STRUCTURE AND COMPETITIVE LANDSCAPE**

11.1 Key Companies in Single-Use Bio Reactors Industry

11.2 Single-Use Bio Reactors Business Overview

11.3 Single-Use Bio Reactors Product Portfolio Analysis

11.4 Financial Analysis

11.5 SWOT Analysis

## **12 APPENDIX**

12.1 Global Single-Use Bio Reactors Market Volume (Tons)

12.1 Global Single-Use Bio Reactors Trade and Price Analysis

12.2 Single-Use Bio Reactors Parent Market and Other Relevant Analysis

12.3 Publisher Expertise

12.2 Single-Use Bio Reactors Industry Report Sources and Methodology

## I would like to order

Product name: Single-Use Bio Reactors Market Outlook 2025-2034: Market Share, and Growth Analysis By Type (Stirred-Tank SUBs, Wave-Induced SUBs, Bubble-Column SUBs, Other Types), By Molecule Type (Vaccines, Monoclonal Antibodies, Stem Cells, Recombinant Proteins), By Cell Type, By Application, By End User

Product link: <https://marketpublishers.com/r/S5CBD700F136EN.html>

Price: US\$ 3,950.00 (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/S5CBD700F136EN.html>