

Bioprocess Automation Market by Type of Controllers (Upstream / Downstream Controller System and Bioprocess Control Software), Scale of Operation (Preclinical / Clinical Operations and Commercial Operations), Mode of Operation (Batch, Fed-Batch and Perfusion), Compatibility with Bioprocessing Systems (Single-Use Systems, and Stainless Steel / Other Systems), and Key Geographical Regions (North America, Europe, Asia-Pacific and Rest of the World): Industry Trends and Global Forecasts, 2021-2035

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Abstracts

The bioprocess automation market is expected to reach USD 3.8 billion in 2021 anticipated to grow at a CAGR of 12% during the forecast period 2021-2035.

Over the last ten years, approvals for various biologics have consistently risen, making this sector a fast-growing segment in the pharmaceutical industry. These therapies offer high efficacy, targeted action, and good safety profiles. Despite their advantages, biologics face challenges due to their lesser stability compared to small molecules. To overcome this, freeze-drying, known as lyophilization, has become popular to extend their shelf life. While establishing in-house lyophilization capabilities is costly and time-consuming, many biologic developers are outsourcing this process to specialized contract manufacturing organizations (CMOs) to save costs and leverage expertise. Presently, over 105 CMOs offer lyophilization services for biotherapeutics, forming alliances to meet the growing demand. This preference for outsourcing, combined with an expanding pipeline and increased drug approvals, indicates a promising future for

the lyophilization services market in biopharmaceuticals.

Report Coverage

Executive summary summarizes research insights on the bioprocess controller and automation systems market's current state and future evolution.

Introduction to bioprocess controllers including trends, process control models, automation's role, and benefits/challenges.

Upstream controller market analysis evaluating around 35 controllers based on parameters like scale, features, compatibility, operation mode, and controlling type. Includes company details.

Downstream controller market analysis including details over 50 controller systems based on scale, features, system types, operation modes, and application areas. Includes company details.

Bioprocess control software analysis covers around 35 software systems based on scale, features, compatibility, process stage, and type. Includes company details.

Competitiveness analysis evaluating upstream controllers, downstream systems, and software based on product applicability and strength.

Detailed profiles of key players, covering company overview, financials, product portfolio, recent developments, and future outlook.

Market trend analysis covers regional distribution, heat map & grid analyses for controllers and software.

Patent analysis examines over 3,350 patents, highlighting trends, issuing authorities, organizations, focus areas, assignees, characteristics, and geography.

Brand positioning analysis evaluates industry players' brand perceptions considering manufacturer experience, product range, diversity, and patent count.

Market forecast analysis projects the market's growth till 2035, segmented by controller types, operation scales/modes, compatibility, and geographical regions using conservative, base, and optimistic scenarios.

Key Market Companies

Cytiva Lifesciences

Thermo Fisher Scientific

Sepragen

Repligen

Applikon Biotechnology

Sartorius

Solaris Biotech

Sysbiotech

Contents

1. PREFACE

- 1.1. Overview
- 1.2. Scope of the Report
- 1.3. Key Questions Answered
- 1.4. Research Methodology
- 1.5. Chapter Outlines

2. EXECUTIVE SUMMARY

3. INTRODUCTION

- 3.1. Chapter Overview
- 3.2. Bioprocess Control
- 3.3. Building Block of Process Control
 - 3.3.1. Components of Process Control Systems
 - 3.3.1.1. Sensors
 - 3.3.1.2. Actuators
 - 3.3.1.3. Controllers
- 3.4. Purpose of Process Control
- 3.5. Bioprocess Automation
- 3.6. Advantages of Bioprocess Automation
- 3.7. Challenges Faced in Automated Control
 - 3.7.1. Process Related Challenges to Automate
 - 3.7.2. Compatibility and Infrastructure Challenges
 - 3.7.3. Regulatory Challenges
 - 3.7.4. IT Concerns and Data Integrity
- 3.8. Breakthrough in Bioprocess Control
 - 3.8.1. Flexible and Automated Skids
 - 3.8.2. Spectroscopy
 - 3.8.3. Multivariate data Analytics
- 3.9. Future Perspective

4. MARKET LANDSCAPE: UPSTREAM CONTROLLERS

- 4.1. Chapter Overview
- 4.2. Upstream Controllers: Product Pipeline

- 4.2.1. Analysis by Scale of Operation
- 4.2.2. Analysis by Key Features
- 4.2.3. Analysis by Compatibility with Bioreactor System
- 4.2.4. Analysis by Mode of Operation
- 4.2.5. Analysis by Types of Processes Controlled
- 4.3. Upstream Controllers: Developer Landscape
 - 4.3.1. Analysis by Year of Establishment
 - 4.3.2. Analysis by Company Size
 - 4.3.3. Analysis by Location of Headquarters
 - 4.3.4. Leading Developers: Analysis by Number of Upstream Controllers

5. MARKET LANDSCAPE: DOWNSTREAM CONTROLLER SYSTEMS

- 5.1. Chapter Overview
- 5.2. Downstream Controller Systems: Product Pipeline
 - 5.2.1. Analysis by Scale of Operation
 - 5.2.2. Analysis by Key Features
 - 5.2.3. Analysis by Types of Systems Involved
 - 5.2.4. Analysis by Mode of Operation
 - 5.2.5. Analysis by Application Area
- 5.3. Downstream Controller Systems: Developer Landscape
 - 5.3.1. Analysis by Year of Establishment
 - 5.3.2. Analysis by Company Size
 - 5.3.3. Analysis by Location of Headquarters
 - 5.3.4. Leading Developers: Analysis by Number of Products

6. MARKET LANDSCAPE: BIOPROCESS CONTROL SOFTWARE

- 6.1. Chapter Overview
- 6.2. Bioprocess Control Software: Product Pipeline
 - 6.2.1. Analysis by Stage of Bioprocess
 - 6.2.2. Analysis by Scale of Operation
 - 6.2.3. Analysis by Key Features
 - 6.2.4. Analysis by Compatibility with Systems
 - 6.2.5. Analysis by Types of Processes Controlled
- 6.3. Bioprocess Control Software: Developer Landscape
 - 6.3.1. Analysis by Year of Establishment
 - 6.3.2. Analysis of Company Size
 - 6.3.3. Analysis by Location of Headquarters

6.3.4. Leading Developers: Analysis by Number of Bioprocess Control Software

7. PRODUCT COMPETITIVENESS ANALYSIS

7.1. Chapter Overview

7.2. Methodology

7.3. Assumptions / Key Parameters

7.4. Product Competitiveness Analysis: Upstream Controllers

7.5. Product Competitiveness Analysis: Downstream Controller Systems

7.6. Product Competitiveness Analysis: Bioprocess Controller Software

8. BIOPROCESS CONTROLLER AND AUTOMATION SYSTEM DEVELOPERS IN NORTH AMERICA: COMPANY PROFILES

8.1. Chapter Overview

8.2. Cytiva Lifesciences

8.2.1. Company Overview

8.2.2. Bioprocess Controller and Automation System Portfolio

8.2.3. Recent Developments and Future Outlook

8.3. Thermo Fisher Scientific

8.3.1. Company Overview

8.3.2. Bioprocess Controller and Automation System Portfolio

8.3.3. Recent Developments and Future Outlook

8.4. Sepragen

8.4.1. Company Overview

8.4.2. Bioprocess Controller and Automation System Portfolio

8.4.3. Recent Developments and Future Outlook

8.5. Repligen

8.5.1. Company Overview

8.5.2. Bioprocess Controller and Automation System Portfolio

8.5.3. Recent Developments and Future Outlook

9. BIOPROCESS CONTROLLER AND AUTOMATION SYSTEM DEVELOPERS IN EUROPE: COMPANY PROFILES

9.1. Chapter Overview

9.2. Applikon Biotechnology

9.2.1. Company Overview

9.2.2. Bioprocess Controller and Automation System Portfolio

9.2.3. Recent Developments and Future Outlook

9.3. Sartorius

9.3.1. Company Overview

9.3.2. Bioprocess Controller and Automation System Portfolio

9.3.3. Recent Developments and Future Outlook

9.4. Solaris Biotech

9.4.1. Company Overview

9.4.2. Bioprocess Controller and Automation System Portfolio

9.4.3. Recent Developments and Future Outlook

9.5. Sysbiotech

9.5.1. Company Overview

9.5.2. Bioprocess Controller and Automation System Portfolio

9.5.3. Recent Developments and Future Outlook

10. MARKET TREND ANALYSIS

10.1. Chapter Overview

10.2. World Map Representation: Analysis of Players by Location of Headquarters and Type of Product(s) Offered

10.3. Market Trend Analysis: Upstream Controllers

10.3.1. Heat Map Representation: Analysis by Scale of Operation, Compatibility with Bioreactor Systems and Operating Mode

10.3.2. Grid Analysis: Analysis by Scale of Operation, Compatibility with Bioreactor Systems and Types of Processes Controlled

10.4. Market Trend Analysis: Downstream Controller Systems

10.4.1. Grid Analysis: Analysis by Scale of Operation, Type of System(s) and Key Features

10.4.2. Analysis by Operation Mode and Application Area

10.5. Market Trend Analysis: Bioprocess Control Software

10.5.1. Grid Analysis: Analysis by Scale of Operation, Key Features and Types of Processes Controlled

10.5.2. Analysis by Scale of operation and Compatibility with Systems

11. PATENT ANALYSIS

11.1. Chapter Overview

11.2. Scope and Methodology

11.3. Bioprocess Controller and Automations Systems: Patent Analysis

11.3.1. Analysis by Publication Year

- 11.3.2. Analysis by Application Year
- 11.3.3. Analysis by Patent Office
- 11.3.4. Analysis by Geographical Location
- 11.3.5. Analysis by CPC Symbols
- 11.3.6. Emerging Focus Area
- 11.3.7. Analysis by Type of Organization
- 11.3.8. Leading Players: Analysis by Number of Patents
- 11.4. Patent Benchmarking Analysis
 - 11.4.1. Analysis by Patent Characteristics
- 11.5. Bioprocess Controller and Automations Systems: Patent Valuation Analysis
- 11.6. Leading Patents by Number of Citations

12. BRAND POSITIONING ANALYSIS

- 12.1. Chapter Overview
- 12.2 Methodology
- 12.3. Key Parameters
- 12.4. Brand Positioning Matrix of Upstream Controller Developers
 - 12.4.1. Brand Positioning Matrix: Applikon Biotechnology
 - 12.4.2. Brand Positioning Matrix: Eppendorf
 - 12.4.3. Brand Positioning Matrix: Thermo Fisher Scientific
 - 12.4.4. Brand Positioning Matrix: ILS Automation
 - 12.4.5. Brand Positioning Matrix: Pierre Guerin
- 12.5. Brand Positioning Matrix of Downstream Controller System Developers
 - 12.5.1. Brand Positioning Matrix: Cytiva Lifesciences
 - 12.5.2. Brand Positioning Matrix: Sepragen
 - 12.5.3. Brand Positioning Matrix: Merck Millipore
 - 12.5.4. Brand Positioning Matrix: Sartorius Stedim Biotech
 - 12.5.5. Brand Positioning Matrix: Repligen
 - 12.5.6. Brand Positioning Matrix: Agilitech
- 12.6. Brand Positioning Matrix of Bioprocess Controller Software Developers
 - 12.6.1. Brand Positioning Matrix: Applikon Biotechnology
 - 12.6.2. Brand Positioning Matrix: Pierre Guerin
 - 12.6.3. Brand Positioning Matrix: Thermo Fisher Scientific
 - 12.6.4. Brand Positioning Matrix: Merck Millipore
 - 12.6.5. Brand Positioning Matrix: Sartorius Stedim Biotech
 - 12.6.6. Brand Positioning Matrix: Cytiva Lifesciences
 - 12.6.7. Brand Positioning Matrix: Bionet Engineering

13. MARKET FORECAST AND OPPORTUNITY ANALYSIS

13.1. Chapter Overview

13.2. Forecast Methodology and Key Assumptions

13.3. Overall Bioprocess Controller and Automation Market, 2021-2035

13.4. Bioprocess Controller and Automation Market, 2021-2035: Distribution by Type of Controller

13.4.1. Bioprocess Controller and Automation Market for Upstream / Downstream Controller Systems, 2021-2035

13.4.2. Bioprocess Controller and Automation Market for Bioprocess Control Software, 2021-2035

13.5. Bioprocess Controller and Automation Market, 2021-2035: Distribution by Scale of Operation

13.5.1. Bioprocess Controller and Automation Market for Preclinical / Clinical Operations, 2021-2035

13.5.2. Bioprocess Controller and Automation Market for Commercial Operations, 2021-2035

13.6. Bioprocess Controller and Automation Market, 2021-2035: Distribution by Mode of Operation

13.6.1. Bioprocess Controller and Automation Market for Batch / Fed-batch Manufacturing, 2021-2035

13.6.2. Bioprocess Controller and Automation Market for Perfusion Manufacturing, 2021-2035

13.7. Bioprocess Controller and Automation Market, 2021-2035: Distribution by Type of Systems

13.7.1. Bioprocess Controller and Automation Market for Single-use Systems, 2021-2035

13.7.2. Bioprocess Controller and Automation Market for Stainless Steel / Other Systems, 2021-2035

13.8. Bioprocess Controller and Automation Market, 2021-2035: Distribution by Key Geographical Regions

13.8.1. Bioprocess Controller and Automation Market in North America, 2021-2035

13.8.2. Bioprocess Controller and Automation Market in Europe, 2021-2035

13.8.3. Bioprocess Controller and Automation Market in Asia-Pacific and Rest of the World, 2021-2035

14. CONCLUSION

14.1. Chapter Overview

15. EXECUTIVE INSIGHTS

16. APPENDIX 1: TABULATED DATA

17. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATIONS

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Product name: Bioprocess Automation Market by Type of Controllers (Upstream / Downstream Controller System and Bioprocess Control Software), Scale of Operation (Preclinical / Clinical Operations and Commercial Operations), Mode of Operation (Batch, Fed-Batch and Perfusion), Compatibility with Bioprocessing Systems (Single-Use Systems, and Stainless Steel / Other Systems), and Key Geographical Regions (North America, Europe, Asia-Pacific and Rest of the World): Industry Trends and Global Forecasts, 2021-2035

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