

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

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