+357 96 030922
info@marketpublishers.com

Automation in Biopharma Industry Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Technology (Automation Technology, Digitization Technology), By Application (Clinical Phase, Drug Discovery Phase, Production Phase), by Component (Automation Hardware, Automation Software, Services Project Phase, Services Operation Phase), By Region & Competition, 2020-2030F

https://marketpublishers.com/r/AAF7CEBC880FEN.html
Date: March 2025
Pages: 180
Price: US$ 4,500.00 (Single User License)
ID: AAF7CEBC880FEN

Abstracts

Global Automation in Biopharma Industry Market was valued at USD 1894.3 million in 2024 and is expected to reach USD 2783.6 million by 2030 with a CAGR of 6.63% during the forecast period. Automation in the biopharmaceutical (biopharma) industry refers to the use of advanced technology, systems, and processes to perform various tasks, experiments, and manufacturing processes with minimal human intervention. The primary goals of automation in the biopharma industry are to improve efficiency, accuracy, consistency, and safety in research, development, and manufacturing activities. In biopharmaceutical manufacturing, process automation is crucial. It involves the use of automated systems and instruments for tasks such as cell culture, fermentation, purification, and fill-finish operations. Process automation ensures the precise control of critical parameters (e.g., temperature, pH, and agitation) to maintain product quality and consistency. Robotic systems are employed for a wide range of tasks, from drug discovery and sample handling to filling and packaging in manufacturing. Robots can be programmed to handle samples, reagents, and labware, performing tasks with precision and repeatability.

+357 96 030922
info@marketpublishers.com

Key Market Drivers

Technological Advancements

Robotics and automation have become increasingly sophisticated, with the integration of advanced robotics in laboratories and production facilities. These robots can perform a wide range of tasks, from liquid handling and sample preparation to cell culture maintenance. Automation systems have improved the efficiency of High-Throughput Screening (HTS) in drug discovery. Automated liquid handling and data analysis tools allow for the rapid screening of thousands of compounds for potential drug candidates. Lab-on-a-Chip (LOC) Technology integrates various laboratory functions onto a single chip, reducing the need for manual interventions. This technology is particularly useful for sample preparation and analysis. Advancements in software and data analytics enable real-time monitoring and analysis of experimental data. This facilitates quicker decision-making in drug development and manufacturing processes. Artificial Intelligence (AI) and Machine Learning (ML) are being used for data analysis, predictive modeling, and optimization of bioprocessing. They can help identify potential drug candidates and optimize manufacturing processes.

Key Market Challenges

Cost of Implementation

The purchase of automation equipment, software, and related technologies requires a substantial capital investment. This includes the costs of acquiring hardware, robotics, sensors, and other automation components. Tailoring automation systems to the specific needs of biopharmaceutical processes often involves customization. Custom solutions are typically more expensive than off-the-shelf products. Integrating automation systems with existing processes and infrastructure can be complex and costly. Compatibility and interoperability with legacy systems may require additional investments. Ensuring that automation systems meet regulatory standards and industry-specific validation requirements adds to the cost. Extensive testing, documentation, and validation processes are necessary to ensure compliance. Employees must be trained to operate and maintain automation systems effectively. Training programs come with associated costs, including staff time and external training resources. Automation systems require ongoing maintenance and technical support. This includes software updates, equipment maintenance, and troubleshooting, all of which have associated costs.

+357 96 030922
info@marketpublishers.com

Key Market Trends

Lab Automation

Lab automation systems enable high-throughput screening of compounds, allowing researchers to quickly test many potential drug candidates. This is essential in the early stages of drug discovery. Automation systems in the lab provide precise and accurate handling of samples, reducing the risk of human error and ensuring consistent and reliable results. Automation simplifies data collection, storage, and analysis. It enables real-time monitoring and data processing, facilitating faster decision-making in research and development. Automated processes are more efficient and can run continuously, reducing the time and effort required for experiments and assays. This accelerates research and development timelines. Automation reduces the need for manual labor in repetitive and time-consuming tasks, resulting in cost savings and the redeployment of human resources to more strategic activities. Automation optimizes the use of resources, such as reagents, consumables, and equipment, making laboratory operations more cost-effective.

ABB Robotics will return for a second year to the Society for Laboratory Automation and Screening (SLAS) 2025 International Conference & Exhibition, January 25-29 at the San Diego Convention Center (Booth #2541). Highlights of ABB’s participation include two live robotic automation demos and a roundtable discussion with industry leaders, including METTLER TOLEDO and Agilent Technologies, to explore the challenges laboratories face and how robotics can help, on January 28.

Key Market Players

PerkinElmer, Inc.

AMETEK, Inc.

Autodesk, Inc.

Baumueller-Nuermont Corp

Emerson Electric Co.

Kawasaki Robotics

+357 96 030922
info@marketpublishers.com

RheoSense Inc.

Rockwell Automation, Inc.

Sartorius Stedim Biotech SA

Siemens Healthineers

Report Scope:

In this report, the Global Automation in Biopharma Industry Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Automation in Biopharma Industry Market, By Technology:

Automation Technology

Digitization Technology

Automation in Biopharma Industry Market, By Application:

Clinical Phase

Drug Discovery Phase

Production Phase

Automation in Biopharma Industry Market, By Component:

Automation Hardware

Automation Software

Services Project Phase

Services Operation Phase

+357 96 030922
info@marketpublishers.com

Automation in Biopharma Industry Market, By Region:

North America

United States

Canada

Mexico

Asia-Pacific

China

India

South Korea

Australia

Japan

Europe

Germany

France

United Kingdom

Spain

Italy

South America

Brazil

Argentina

+357 96 030922
info@marketpublishers.com

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Automation in Biopharma Industry Market.

Available Customizations:

Global Automation in Biopharma Industry Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

6. ASIA PACIFIC AUTOMATION IN BIOPHARMA INDUSTRY MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

7. EUROPE AUTOMATION IN BIOPHARMA INDUSTRY MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

8. NORTH AMERICA AUTOMATION IN BIOPHARMA INDUSTRY MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

9. SOUTH AMERICA AUTOMATION IN BIOPHARMA INDUSTRY MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

10. MIDDLE EAST AND AFRICA AUTOMATION IN BIOPHARMA INDUSTRY MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Automation in Biopharma Industry Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Technology (Automation Technology, Digitization Technology), By Application (Clinical Phase, Drug Discovery Phase, Production Phase), by Component (Automation Hardware, Automation Software, Services Project Phase, Services Operation Phase), By Region & Competition, 2020-2030F

Product link: https://marketpublishers.com/r/AAF7CEBC880FEN.html

Price: US$ 4,500.00 (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/AAF7CEBC880FEN.html