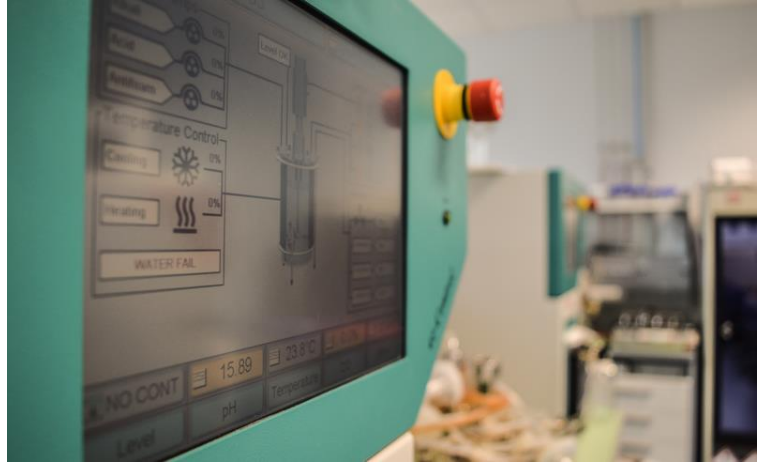


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# Global Single-Use Upstream Bioprocessing Products

May 2018



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# About This Report

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## Scope & Method

This report forecasts the global market for single use systems for upstream bioprocessing by product and major world region in nominal US dollars at the manufacturer level for 2017-2021. Product segments include:

- sensors and probes
- media bags
- bioreactors
- mixing systems
- bioprocess containers
- tubing and connectors

Major world regions include:

- US
- Western Europe
- APAC
- Latin America
- Rest of World

To illustrate historical trends, world, product (including regional segments), and regional demand are provided for 2016.

Unless otherwise indicated, both historical and forecasted market values are expressed in US dollars at a fixed 2016 rate of exchange with local currencies.

Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the Table of Contents.

Freedonia quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or  $r^2$ . The most stable data series relative to the trend carries an  $r^2$  value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

## Sources

*Global Single-Use Upstream Bioprocessing Products (FW40082)* is based on *Single Use Upstream Bioprocessing Markets* published by Kalorama Information.

Market forecasts cover various segments and are based on an examination of current market conditions and on investigations into the development of new products by key companies. The market data provide multiple year forecasts for different product segments covered in the report. The information presented in this report is the result of data gathered from company product literature and other corporate brochures and documents, as well as information found in the scientific and trade press. In addition, interviews were conducted with company executives.

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

## Industry Codes

**Table 10 | Industry Codes Related to Single-Use Upstream Bioprocessing Products**

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industrial Classification	
325412	Pharmaceutical Preparation Mfg	2834	Pharmaceutical Preparations
325414	Biological Product (except Diagnostic) Mfg	2836	Biological Products, Except Diagnostic Substances
334510	Electromedical and Electrotherapeutic Apparatus Mfg	3845	Electromedical and Electrotherapeutic Apparatus
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	5047	Medical, Dental, and Hospital Equipment and Supplies

Source: US Census Bureau

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## Resources

### Kalorama Information

*Single Use Upstream Bioprocessing Markets*, May 2018

### The Freedonia Group

#### Freedonia Industry Studies

*Disposable Medical Supplies in the US*, June 2018

*Pharmaceutical Packaging Market in the US*, June 2017

*Medical Implants in the US*, November 2016

*World Medical Disposables*, August 2016

#### Freedonia Focus Reports

*Global Contract Biopharmaceuticals*

*Global Telehealth Products & Services*

*Healthcare Insurance: United States*

*Healthcare: United States*

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American Medical Association

American Society of Mechanical Engineers

ASTM International

BioPhorum Operations Group

Bio-Process Systems Alliance

International Organization for Standardization

Parenteral Drug Association

United States Pharmacopeial Convention

World Health Organization