

# **Mass Flow Controller Market Size, Share, and Outlook, 2025 Report- By Application (Catalyst Research, Gas Chromatography, Spray and Coating Processes, Fluid and Gas Processing and Control, Fuel Cell, Others), By Flow Rate (Low Flow Rate, Medium Flow Rate, High Flow Rate), By Material (Stainless Steel, Exotic Alloys, Others), By End-User (Chemicals, Food & Beverages, Oil & Gas, Pharmaceuticals, Semiconductors, Others), By Media (Gas, Liquid, Others), 2018-2032**

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## **Abstracts**

### **Mass Flow Controller Market Outlook**

The Mass Flow Controller Market size is expected to register a growth rate of 13.6% during the forecast period from \$1.82 Billion in 2025 to \$4.4 Billion in 2032. The Mass Flow Controller market is a thriving business that is poised to keep growing and presents potential growth opportunities for companies across the industry value chain.

The comprehensive market research report presents 12-year historic and forecast data on Mass Flow Controller segments across 22 countries from 2021 to 2032. Key segments in the report include By Application (Catalyst Research, Gas Chromatography, Spray and Coating Processes, Fluid and Gas Processing and Control, Fuel Cell, Others), By Flow Rate (Low Flow Rate, Medium Flow Rate, High Flow Rate), By Material (Stainless Steel, Exotic Alloys, Others), By End-User (Chemicals, Food & Beverages, Oil & Gas, Pharmaceuticals, Semiconductors, Others), By Media (Gas,

Liquid, Others). Over 70 tables and charts showcase findings from our latest survey report on Mass Flow Controller markets.

## Mass Flow Controller Market Insights, 2025

Mass flow controllers (MFCs) are experiencing increasing demand due to their critical role in semiconductor manufacturing, pharmaceutical production, and industrial automation. As the semiconductor industry continues to advance toward smaller nodes and complex chip designs, high-precision gas flow control is becoming even more essential. In pharmaceuticals, stringent regulatory requirements are driving the adoption of advanced MFCs for precise fluid management in drug production and biotechnology applications. Additionally, the growing hydrogen economy and fuel cell technology sector are further boosting demand for MFCs in gas flow measurement and control. Manufacturers are enhancing MFC designs with digital connectivity, real-time analytics, and AI-driven predictive maintenance to improve efficiency and process control.

## Five Trends that will define global Mass Flow Controller market in 2025 and Beyond

A closer look at the multi-million market for Mass Flow Controller identifies rapidly shifting consumer preferences across categories. By focusing on growth and resilience, leading Mass Flow Controller companies are prioritizing their investments across categories, markets, and geographies. The report analyses the most important market trends shaping the new landscape to support better decisions for the long and short-term future. The impact of tariffs by the US administration also significantly impact the profitability of Mass Flow Controller vendors.

## What are the biggest opportunities for growth in the Mass Flow Controller industry?

The Mass Flow Controller sector demonstrated remarkable resilience over the past year across developed and developing economies. Further, the market presents significant opportunities to leverage the existing momentum towards actions by 2032. On the other hand, recent macroeconomic developments including rising inflation and supply chain disruptions are putting pressure on companies. The chapter assists users to identify growth avenues and address business challenges to make informed commercial decisions with unique insights, data forecasts, and in-depth market analyses.

## Mass Flow Controller Market Segment Insights

The Mass Flow Controller industry presents strong offers across categories. The

analytical report offers forecasts of Mass Flow Controller industry performance across segments and countries. Key segments in the industry include%li%By Application (Catalyst Research, Gas Chromatography, Spray and Coating Processes, Fluid and Gas Processing and Control, Fuel Cell, Others), By Flow Rate (Low Flow Rate, Medium Flow Rate, High Flow Rate), By Material (Stainless Steel, Exotic Alloys, Others), By End-User (Chemicals, Food & Beverages, Oil & Gas, Pharmaceuticals, Semiconductors, Others), By Media (Gas, Liquid, Others). The largest types, applications, and sales channels, fastest growing segments, and the key factors driving each of the categories are included in the report.

Forecasts of each segment across five regions are provided from 2021 through 2032 for Asia Pacific, North America, Europe, South America, Middle East, and African regions. In addition, Mass Flow Controller market size outlook is provided for 22 countries across these regions.

### Market Value Chain

The chapter identifies potential companies and their operations across the global Mass Flow Controller industry ecosystem. It assists decision-makers in evaluating global Mass Flow Controller market fundamentals, market dynamics, and disruptive trends across the value chain segments.

### Scenario Analysis and Forecasts

Strategic decision-making in the Mass Flow Controller industry is multi-faceted with the increased need for planning across scenarios. The report provides forecasts across three case scenarios%li%low growth, reference case, and high growth cases.

### Asia Pacific Mass Flow Controller Market Analysis%li%A Promising Growth Arena for Business Expansion

As companies increasingly expand across promising Asia Pacific markets with over 4.5 billion population, the medium-to-long-term future remains robust. The presence of the fastest-growing economies such as China, India, Thailand, Indonesia, and Vietnam coupled with strengthening middle-class populations and rising disposable incomes drive the market. In particular, China and India are witnessing rapid shifts in consumer purchasing behavior. China is recovering steadily with optimistic forecasts for 2025. Further, Japanese and South Korean markets remain stable with most companies focusing on new product launches and diversification of sales channels.

## The State of Europe Mass Flow Controller Industry 2025%li%Focus on Accelerating Competitiveness

As companies opt for an integrated agenda for competitiveness, the year 2025 presents optimistic scenarios for companies across the ecosystem. With signs of economic recovery across markets, companies are increasing their investments. Europe is one of the largest markets for Mass Flow Controller with demand from both Western Europe and Eastern European regions increasing over the medium to long-term future. Increasing omnichannel shopping amidst robust consumer demand for value purchases shapes the market outlook. The report analyses the key Mass Flow Controller market drivers and opportunities across Germany, France, the United Kingdom, Spain, Italy, Russia, and other Europe.

The US Mass Flow Controller market Insights%li%Vendors are exploring new opportunities within the US Mass Flow Controller industry.

Easing inflation coupled with strengthening consumer sentiment is encouraging aggressive actions from the US Mass Flow Controller companies. Market players consistently focusing on innovation and pursuing new ways to create value are set to excel in 2025. In addition, the Canadian and Mexican markets offer lucrative growth pockets for manufacturers and vendors. Focus on private-brand offerings and promotions, diversified sales channels, expansion into niche segments, adoption of advanced technologies, and sustainability are widely observed across the North American Mass Flow Controller market.

Latin American Mass Flow Controller market outlook rebounds in line with economic growth.

Underlying demand remains higher among urban consumers with an optimistic economic outlook across Brazil, Argentina, Chile, and other South and Central American countries. Increased consumer spending has been reported in Q1 -2025 and the prospects remain strong for rest of 2025. Aggressive ecosystem moves to create new sources of income are widely observed across markets in the region. Marketing activities focused on customer insights, operations, and support functions are quickly gaining business growth in the region.

Middle East and Africa Mass Flow Controller Markets%li%New Opportunities for Companies Harnessing Diversity

Rapid growth in burgeoning urban locations coupled with a young and fast-growing population base is attracting new investments in the Middle East and African Mass Flow Controller markets. Designing expansion and marketing strategies to cater to the local consumer base supports the market prospects. In addition to Nigeria, Algeria, South Africa, and other markets, steady growth markets in Ethiopia, Rwanda, Ghana, Tanzania, the Democratic Republic of Congo, and others present significant prospects for companies. On the other hand, Middle Eastern Mass Flow Controller markets including the UAE, Saudi Arabia, Qatar, and Oman continue to offer lucrative pockets of growth.

## Competitive Landscape%li%How Mass Flow Controller companies outcompete in 2025?

The ability to respond quickly to evolving consumer preferences and adapt businesses to niche consumer segments remains a key growth factor. The report identifies the leading companies in the industry and provides their revenue for 2024. The market shares of each company are also included in the report. Further, business profiles, SWOT analysis, and financial analysis of each company are provided in detail. Key companies analyzed in the report include Alicat Scientific, Bronkhorst, Brooks Instrument, Christian B?rkert GmbH & Co. KG, Horiba, MKS Instruments, Parker-Hannifin Corp, Sensirion, Sierra Instruments, Teledyne Hastings Instruments, Tokyo Keiso Co. Ltd, V?gtlin Instruments GmbH.

## Mass Flow Controller Market Segmentation

### By Application

#### Catalyst Research

#### Gas Chromatography

#### Spray and Coating Processes

#### Fluid and Gas Processing and Control

#### Fuel Cell

#### Others

By Flow Rate

Low Flow Rate

Medium Flow Rate

High Flow Rate

By Material

Stainless Steel

Exotic Alloys

Others

By End-User

Chemicals

Food & Beverages

Oil & Gas

Pharmaceuticals

Semiconductors

Others

By Media

Gas

Liquid

Others

## Leading Companies

Alicat Scientific

Bronkhorst

Brooks Instrument

Christian B?rkert GmbH & Co. KG

Horiba

MKS Instruments

Parker-Hannifin Corp

Sensirion

Sierra Instruments

Teledyne Hastings Instruments

Tokyo Keiso Co. Ltd

V?gtlin Instruments GmbH

## Reasons to Buy the report

Make informed decisions through long and short-term forecasts across 22 countries and segments.

Evaluate market fundamentals, dynamics, and disrupting trends set to shape 2025 and beyond.

Gain a clear understanding of the competitive landscape, with product portfolio and growth strategies.

Get an integrated understanding of the entire market ecosystem and companies.

Stay ahead of the competition through plans for growth in a changing environment for your geographic expansion.

Assess the impact of advanced technologies and identify growth opportunities based on actionable data and insights.

Get free Excel spreadsheet and PPT versions along with the report PDF.



## Contents

### 1. TABLE OF CONTENTS

List of Figures and Tables

### 2. EXECUTIVE SUMMARY

#### 2.1 Key Highlights

2.1.1 Mass Flow Controller Market Size Outlook, 2018-2024 and 2025-2032

2.1.2 Largest Mass Flow Controller Market Types and Applications

2.1.3 Fastest Growing Segments

2.1.4 Potential Markets

2.1.5 Market Concentration

#### 2.2 Market Scope and Segmentation

2.2.1 Market Scope- Segments

2.2.2 Market Scope- Countries

2.2.3 Macroeconomic and Demographic Outlook

2.2.4 Abbreviations

2.2.5 Units and Currency Conversions

### 3. RESEARCH METHODOLOGY

#### 3.1 Primary Research Surveys

#### 3.2 Secondary Data Sources

#### 3.3 Data Triangulation

#### 3.4 Forecast Methodology

#### 3.5 Assumptions and Limitations

### 4. INTRODUCTION TO GLOBAL MASS FLOW CONTROLLER MARKET IN 2025

#### 4.1 Industry Panorama

#### 4.2 Leading Companies Profiled in the Study

#### 4.3 Asia Pacific Markets offer Robust Market Prospects for New Entrants

#### 4.4 Market Dynamics

4.4.1 Market Dynamics- Trends and Drivers

4.4.2 Market Dynamics- Opportunities and Challenges

#### 4.5 Regional Analysis

#### 4.6 Porter's Five Force Analysis

- 4.6.1 Intensity of Competitive Rivalry
- 4.6.2 Threat of New Entrants
- 4.6.3 Threat of Substitutes
- 4.6.4 Bargaining Power of Buyers
- 4.6.5 Bargaining Power of Suppliers
- 4.7 Mass Flow Controller Industry Value Chain Analysis
  - 4.7.1 Stage of Value Chain
  - 4.7.2 Key Activities of Companies
  - 4.7.3 Companies Included in Each Stage
  - 4.7.4 Key Insights

## **5. MASS FLOW CONTROLLER MARKET OUTLOOK TO 2032**

- 5.1 Market Size Forecast by Type, 2021-2024 and 2025-2032
- 5.2 Market Size Forecast by Application, 2021-2024 and 2024-2032
- 5.3 Market Size Forecast by Geography, 2021-2024 and 2024-2032

### **By Application**

#### **Catalyst Research**

#### **Gas Chromatography**

#### **Spray and Coating Processes**

#### **Fluid and Gas Processing and Control**

#### **Fuel Cell**

#### **Others**

### **By Flow Rate**

#### **Low Flow Rate**

#### **Medium Flow Rate**

#### **High Flow Rate**

### **By Material**

#### **Stainless Steel**

#### **Exotic Alloys**

#### **Others**

### **By End-User**

#### **Chemicals**

#### **Food & Beverages**

#### **Oil & Gas**

#### **Pharmaceuticals**

#### **Semiconductors**

#### **Others**

### **By Media**

**Gas**  
**Liquid**  
**Others**

## **6. GLOBAL MASS FLOW CONTROLLER MARKET OUTLOOK ACROSS GROWTH SCENARIOS**

- 6.1 Low Growth Scenario**
- 6.2 Base/Reference Case**
- 6.3 High Growth Scenario**

## **6. NORTH AMERICA MASS FLOW CONTROLLER MARKET SIZE OUTLOOK**

- 6.1 Key Market Statistics, 2024**
- 6.2 North America Mass Flow Controller Market Trends and Growth Opportunities**
  - 6.2.1 North America Mass Flow Controller Market Outlook by Type**
  - 6.2.2 North America Mass Flow Controller Market Outlook by Application**
- 6.3 North America Mass Flow Controller Market Outlook by Country**
  - 6.3.1 The US Mass Flow Controller Market Outlook, 2021- 2032**
  - 6.3.2 Canada Mass Flow Controller Market Outlook, 2021- 2032**
  - 6.3.3 Mexico Mass Flow Controller Market Outlook, 2021- 2032**

## **7. EUROPE MASS FLOW CONTROLLER MARKET SIZE OUTLOOK**

- 7.1 Key Market Statistics, 2024**
- 7.2 Europe Mass Flow Controller Market Trends and Growth Opportunities**
  - 7.2.1 Europe Mass Flow Controller Market Outlook by Type**
  - 7.2.2 Europe Mass Flow Controller Market Outlook by Application**
- 7.3 Europe Mass Flow Controller Market Outlook by Country**
  - 7.3.2 Germany Mass Flow Controller Market Outlook, 2021- 2032**
  - 7.3.3 France Mass Flow Controller Market Outlook, 2021- 2032**
  - 7.3.4 The UK Mass Flow Controller Market Outlook, 2021- 2032**
  - 7.3.5 Spain Mass Flow Controller Market Outlook, 2021- 2032**
  - 7.3.6 Italy Mass Flow Controller Market Outlook, 2021- 2032**
  - 7.3.7 Russia Mass Flow Controller Market Outlook, 2021- 2032**
  - 7.3.8 Rest of Europe Mass Flow Controller Market Outlook, 2021- 2032**

## **8. ASIA PACIFIC MASS FLOW CONTROLLER MARKET SIZE OUTLOOK**

## **8.1 Key Market Statistics, 2024**

## **8.2 Asia Pacific Mass Flow Controller Market Trends and Growth Opportunities**

### **8.2.1 Asia Pacific Mass Flow Controller Market Outlook by Type**

### **8.2.2 Asia Pacific Mass Flow Controller Market Outlook by Application**

## **8.3 Asia Pacific Mass Flow Controller Market Outlook by Country**

### **8.3.1 China Mass Flow Controller Market Outlook, 2021- 2032**

### **8.3.2 India Mass Flow Controller Market Outlook, 2021- 2032**

### **8.3.3 Japan Mass Flow Controller Market Outlook, 2021- 2032**

### **8.3.4 South Korea Mass Flow Controller Market Outlook, 2021- 2032**

### **8.3.5 Australia Mass Flow Controller Market Outlook, 2021- 2032**

### **8.3.6 South East Asia Mass Flow Controller Market Outlook, 2021- 2032**

### **8.3.7 Rest of Asia Pacific Mass Flow Controller Market Outlook, 2021- 2032**

## **9. SOUTH AMERICA MASS FLOW CONTROLLER MARKET SIZE OUTLOOK**

## **9.1 Key Market Statistics, 2024**

## **9.2 South America Mass Flow Controller Market Trends and Growth Opportunities**

### **9.2.1 South America Mass Flow Controller Market Outlook by Type**

### **9.2.2 South America Mass Flow Controller Market Outlook by Application**

## **9.3 South America Mass Flow Controller Market Outlook by Country**

### **9.3.1 Brazil Mass Flow Controller Market Outlook, 2021- 2032**

### **9.3.2 Argentina Mass Flow Controller Market Outlook, 2021- 2032**

### **9.3.3 Rest of South and Central America Mass Flow Controller Market Outlook, 2021- 2032**

## **10. MIDDLE EAST AND AFRICA MASS FLOW CONTROLLER MARKET SIZE OUTLOOK**

## **10.1 Key Market Statistics, 2024**

## **10.2 Middle East and Africa Mass Flow Controller Market Trends and Growth Opportunities**

### **10.2.1 Middle East and Africa Mass Flow Controller Market Outlook by Type**

### **10.2.2 Middle East and Africa Mass Flow Controller Market Outlook by Application**

## **10.3 Middle East and Africa Mass Flow Controller Market Outlook by Country**

### **10.3.1 Saudi Arabia Mass Flow Controller Market Outlook, 2021- 2032**

### **10.3.2 The UAE Mass Flow Controller Market Outlook, 2021- 2032**

### **10.3.3 Rest of Middle East Mass Flow Controller Market Outlook, 2021- 2032**

### **10.3.4 South Africa Mass Flow Controller Market Outlook, 2021- 2032**

### **10.3.5 Egypt Mass Flow Controller Market Outlook, 2021- 2032**

### **10.3.6 Rest of Africa Mass Flow Controller Market Outlook, 2021- 2032**

## **11. COMPANY PROFILES**

### **11.1 Leading 10 Companies**

**Alicat Scientific**

**Bronkhorst**

**Brooks Instrument**

**Christian B?rkert GmbH & Co. KG**

**Horiba**

**MKS Instruments**

**Parker-Hannifin Corp**

**Sensirion**

**Sierra Instruments**

**Teledyne Hastings Instruments**

**Tokyo Keiso Co. Ltd**

**V?gtlin Instruments GmbH**

### **11.2 Overview**

### **11.3 Products and Services**

### **11.4 SWOT Profile**

## **12. APPENDIX**

### **12.1 Subscription Options**

### **12.2 Customization Options**

### **12.3 Publisher Details**

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