

Aircraft Engine Exhaust Market Forecasts to 2032 – Global Analysis By Component Type (Exhaust Cone, Exhaust Nozzle, Exhaust Pipe, APU Exhaust Liner & Tube, Turbocharger Components and Other Component Types), Engine Type, Material Type, Application and By Geography

<https://marketpublishers.com/r/AD976A845171EN.html>

Date: May 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: AD976A845171EN

Abstracts

According to Statistics MRC, the Global Aircraft Engine Exhaust Market is accounted for \$16.4 billion in 2025 and is expected to reach \$29.1 billion by 2032 growing at a CAGR of 8.5% during the forecast period. Aircraft engine exhaust is responsible for expelling combustion gases, optimizing engine efficiency, reducing noise, and safely managing high-temperature emissions. It includes essential components like exhaust manifolds, stacks, and nozzles, which guide gases away while minimizing turbulence. In gas turbine engines, the exhaust system enhances thrust by efficiently directing high-speed gases. Some systems incorporate heat exchangers to recycle residual heat for cabin heating. Proper maintenance of exhaust components is crucial for safe and efficient aircraft operation.

Market Dynamics:

Driver:

Continuous rise in global air passenger and air cargo traffic

As airlines expand their fleets to accommodate growing passenger volumes, the need for efficient exhaust components that enhance engine performance and fuel efficiency rises. Additionally, the surge in e-commerce and international trade has amplified the

role of air cargo, necessitating improved exhaust technologies for enhanced operational sustainability. The global push toward reducing carbon emissions in aviation has further fueled research into high-performance exhaust solutions.

Restraint:

Complexity in design and integration

Exhaust components must withstand extreme temperatures and aerodynamic pressures while maintaining structural integrity, making design optimization a demanding task. Ensuring compatibility with next-generation propulsion technologies further complicates manufacturing processes, requiring extensive testing and validation. Additionally, regulatory standards governing emissions and noise pollution necessitate continuous improvements in exhaust system design, adding complexity to certification procedures.

Opportunity:

Increasing use of lightweight and high-temperature resistant materials

The adoption of high-temperature-resistant alloys and ceramic composites enhances the thermal efficiency and longevity of exhaust systems, leading to reduced maintenance costs for airlines. With the global aviation industry striving for fuel efficiency and emission reduction, lightweight materials contribute to enhanced aircraft performance. The integration of heat-resistant polymers and advanced coatings offers additional benefits, such as improved corrosion resistance and operational reliability.

Threat:

Macroeconomic shifts or airline-specific financial issues

Airline profitability depends on factors such as fuel prices, geopolitical stability, and consumer travel demand, influencing procurement decisions for new exhaust technologies. Financial instability within airline operators can lead to postponed upgrades, slowing market growth for advanced exhaust systems. Additionally, budget constraints among smaller carriers may limit their ability to adopt high-performance materials and designs, affecting overall adoption rates.

Covid-19 Impact:

The global pandemic had a profound effect on the aviation sector, leading to a sharp decline in air travel demand and disruptions in supply chains. Many airlines delayed aircraft upgrades and maintenance, impacting investments in advanced exhaust systems. However, as travel restrictions lifted, the industry witnessed a resurgence in air traffic, prompting renewed focus on fuel efficiency and emissions reduction. Governments and aviation authorities are now emphasizing greener propulsion technologies, accelerating research in sustainable exhaust materials.

The exhaust cone segment is expected to be the largest during the forecast period

The exhaust cone segment is expected to account for the largest market share during the forecast period owing to the increased emphasis on noise reduction and aerodynamic performance. This has led manufacturers to develop exhaust cones using high-strength alloys and precision-engineered designs. Additionally, improvements in temperature-resistant materials are enabling longer service life and lower maintenance costs for airlines. As aircraft manufacturers prioritize fuel-efficient propulsion systems, the demand for advanced exhaust cones is set to remain strong.

The nickel alloys segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the nickel alloys segment is predicted to witness the highest growth rate due to their superior heat resistance, durability, and corrosion protection, making them ideal for high-performance exhaust components. With the aviation industry advancing toward lighter and more efficient propulsion systems, nickel-based materials are being extensively used in engine exhausts, cones, and afterburners. These alloys enhance thermal stability, ensuring operational reliability under extreme conditions. Additionally, their recyclability and sustainability benefits align with the industry's growing focus on eco-friendly innovations.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share driven by rapid fleet expansion, increased air travel demand, and robust investments in aerospace infrastructure. Countries such as China, India, and Japan are witnessing a surge in aircraft procurement, fueling demand for high-performance exhaust components. The presence of leading aircraft manufacturers and strong defense aviation programs further contribute to regional market growth.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR fueled by technological advancements, strong R&D investment, and extensive aviation operations. The United States and Canada lead in aircraft manufacturing, fostering innovation in high-temperature exhaust materials and next-gen propulsion systems. Defense contracts and commercial aviation upgrades are further driving demand for lightweight and high-durability exhaust components. Additionally, environmental regulations promoting low-emission aircraft are encouraging the development of sustainable exhaust solutions.

Key players in the market

Some of the key players in Aircraft Engine Exhaust Market include Rolls-Royce, Safran Aircraft Engines, General Electric Aviation, Honeywell Aerospace, Pratt & Whitney, Kawasaki Aerospace Company, Acorn Welding, Garrett Motion, Experimental Exhaust, Zodiac Aerospace, Firewall Forward, Northrop Grumman, Scaled Composites, Bombardier Aerospace, Embraer, and Bell Helicopter.

Key Developments:

In April 2025, Rolls-Royce announced a collaboration with the German Aerospace Center (DLR) to develop cutting-edge jet engine technology focused on reducing harmful emissions. The partnership aims to enhance engine efficiency and significantly lower the environmental impact of aviation.

In March 2025, Bombardier Aerospace introduced a new series of regional jets designed to meet the rising demand for regional air travel. These jets are equipped with state-of-the-art avionics and fuel-efficient engines, enhancing operational efficiency and reducing environmental impact.

In February 2025, Firewall Forward announced a strategic partnership with a leading aerospace manufacturer to develop advanced fire suppression systems for commercial aircraft. This collaboration aims to enhance in-flight safety by integrating state-of-the-art fire detection and suppression technologies into aircraft designs.

Component Types Covered:

Exhaust Cone

Exhaust Nozzle

Exhaust Pipe

APU Exhaust Liner & Tube

Turbocharger Components

Other Component Types

Engine Types Covered:

Turbofan Engine Exhaust

Turbojet Engine Exhaust

Turboprop Engine Exhaust

Rotor Engine Exhaust

Other Engine Types

Material Types Covered:

Nickel Alloys

Titanium Alloys

Stainless Steel

Composite Materials

Applications Covered:

Commercial Aviation

Military Aviation

General Aviation

Other Applications

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market

estimations

- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Application Analysis
- 3.7 Emerging Markets
- 3.8 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL AIRCRAFT ENGINE EXHAUST MARKET, BY COMPONENT TYPE

Aircraft Engine Exhaust Market Forecasts to 2032 – Global Analysis By Component Type (Exhaust Cone, Exhaust No...

- 5.1 Introduction
- 5.2 Exhaust Cone
- 5.3 Exhaust Nozzle
- 5.4 Exhaust Pipe
- 5.5 APU Exhaust Liner & Tube
- 5.6 Turbocharger Components
- 5.7 Other Component Types

6 GLOBAL AIRCRAFT ENGINE EXHAUST MARKET, BY ENGINE TYPE

- 6.1 Introduction
- 6.2 Turbofan Engine Exhaust
- 6.3 Turbojet Engine Exhaust
- 6.4 Turboprop Engine Exhaust
- 6.5 Rotor Engine Exhaust
- 6.6 Other Engine Types

7 GLOBAL AIRCRAFT ENGINE EXHAUST MARKET, BY MATERIAL TYPE

- 7.1 Introduction
- 7.2 Nickel Alloys
- 7.3 Titanium Alloys
- 7.4 Stainless Steel
- 7.5 Composite Materials

8 GLOBAL AIRCRAFT ENGINE EXHAUST MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 Commercial Aviation
- 8.3 Military Aviation
- 8.4 General Aviation
- 8.5 Other Applications

9 GLOBAL AIRCRAFT ENGINE EXHAUST MARKET, BY GEOGRAPHY

- 9.1 Introduction
- 9.2 North America
 - 9.2.1 US

- 9.2.2 Canada
- 9.2.3 Mexico
- 9.3 Europe
 - 9.3.1 Germany
 - 9.3.2 UK
 - 9.3.3 Italy
 - 9.3.4 France
 - 9.3.5 Spain
 - 9.3.6 Rest of Europe
- 9.4 Asia Pacific
 - 9.4.1 Japan
 - 9.4.2 China
 - 9.4.3 India
 - 9.4.4 Australia
 - 9.4.5 New Zealand
 - 9.4.6 South Korea
 - 9.4.7 Rest of Asia Pacific
- 9.5 South America
 - 9.5.1 Argentina
 - 9.5.2 Brazil
 - 9.5.3 Chile
 - 9.5.4 Rest of South America
- 9.6 Middle East & Africa
 - 9.6.1 Saudi Arabia
 - 9.6.2 UAE
 - 9.6.3 Qatar
 - 9.6.4 South Africa
 - 9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

- 10.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 10.2 Acquisitions & Mergers
- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 Rolls-Royce
- 11.2 Safran Aircraft Engines
- 11.3 General Electric Aviation
- 11.4 Honeywell Aerospace
- 11.5 Pratt & Whitney
- 11.6 Kawasaki Aerospace Company
- 11.7 Acorn Welding
- 11.8 Garrett Motion
- 11.9 Experimental Exhaust
- 11.10 Zodiac Aerospace
- 11.11 Firewall Forward
- 11.12 Northrop Grumman
- 11.13 Scaled Composites
- 11.14 Bombardier Aerospace
- 11.15 Embraer
- 11.16 Bell Helicopter

List Of Tables

LIST OF TABLES

- Table 1 Global Aircraft Engine Exhaust Market Outlook, By Region (2024-2032) (\$MN)
- Table 2 Global Aircraft Engine Exhaust Market Outlook, By Component Type (2024-2032) (\$MN)
- Table 3 Global Aircraft Engine Exhaust Market Outlook, By Exhaust Cone (2024-2032) (\$MN)
- Table 4 Global Aircraft Engine Exhaust Market Outlook, By Exhaust Nozzle (2024-2032) (\$MN)
- Table 5 Global Aircraft Engine Exhaust Market Outlook, By Exhaust Pipe (2024-2032) (\$MN)
- Table 6 Global Aircraft Engine Exhaust Market Outlook, By APU Exhaust Liner & Tube (2024-2032) (\$MN)
- Table 7 Global Aircraft Engine Exhaust Market Outlook, By Turbocharger Components (2024-2032) (\$MN)
- Table 8 Global Aircraft Engine Exhaust Market Outlook, By Other Component Types (2024-2032) (\$MN)
- Table 9 Global Aircraft Engine Exhaust Market Outlook, By Engine Type (2024-2032) (\$MN)
- Table 10 Global Aircraft Engine Exhaust Market Outlook, By Turbofan Engine Exhaust (2024-2032) (\$MN)
- Table 11 Global Aircraft Engine Exhaust Market Outlook, By Turbojet Engine Exhaust (2024-2032) (\$MN)
- Table 12 Global Aircraft Engine Exhaust Market Outlook, By Turboprop Engine Exhaust (2024-2032) (\$MN)
- Table 13 Global Aircraft Engine Exhaust Market Outlook, By Rotor Engine Exhaust (2024-2032) (\$MN)
- Table 14 Global Aircraft Engine Exhaust Market Outlook, By Other Engine Types (2024-2032) (\$MN)
- Table 15 Global Aircraft Engine Exhaust Market Outlook, By Material Type (2024-2032) (\$MN)
- Table 16 Global Aircraft Engine Exhaust Market Outlook, By Nickel Alloys (2024-2032) (\$MN)
- Table 17 Global Aircraft Engine Exhaust Market Outlook, By Titanium Alloys (2024-2032) (\$MN)
- Table 18 Global Aircraft Engine Exhaust Market Outlook, By Stainless Steel (2024-2032) (\$MN)

Table 19 Global Aircraft Engine Exhaust Market Outlook, By Composite Materials (2024-2032) (\$MN)

Table 20 Global Aircraft Engine Exhaust Market Outlook, By Application (2024-2032) (\$MN)

Table 21 Global Aircraft Engine Exhaust Market Outlook, By Commercial Aviation (2024-2032) (\$MN)

Table 22 Global Aircraft Engine Exhaust Market Outlook, By Military Aviation (2024-2032) (\$MN)

Table 23 Global Aircraft Engine Exhaust Market Outlook, By General Aviation (2024-2032) (\$MN)

Table 24 Global Aircraft Engine Exhaust Market Outlook, By Other Applications (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Aircraft Engine Exhaust Market Forecasts to 2032 – Global Analysis By Component Type (Exhaust Cone, Exhaust Nozzle, Exhaust Pipe, APU Exhaust Liner & Tube, Turbocharger Components and Other Component Types), Engine Type, Material Type, Application and By Geography

Product link: <https://marketpublishers.com/r/AD976A845171EN.html>

Price: US\$ 4,150.00 (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/AD976A845171EN.html>