

# **North America Aircraft Engine Forging Market Size and Forecast (2021 - 2031), Regional Share, Trend, and Growth Opportunity Analysis Report Coverage: By Forging Type (Closed Die Forging and Seamless Rolled Ring Forging), Material Type (Nickel Alloy, Titanium Alloy, Aluminum, and Others), Aircraft Type (Commercial Aircraft, Military Aircraft, and General Aviation), and Application (Fan Case, Combustion Chamber Outer Case, Turbine Disc, Rotors, and Others)**

<https://marketpublishers.com/r/NFFBF8C97600EN.html>

Date: March 2026

Pages: 134

Price: US\$ 3,450.00 (Single User License)

ID: NFFBF8C97600EN

## **Abstracts**

The North America Aircraft Engine Forging Market is projected to grow significantly, reaching an estimated US\$ 2,124.2 million by 2031, up from US\$ 1,340.5 million in 2024. This growth represents a compound annual growth rate (CAGR) of 6.9% from 2025 to 2031.

### **Executive Summary and Market Analysis**

In North America, aircraft manufacturers are increasingly focusing on the development of lightweight and high-strength forged components to enhance engine efficiency and performance. The aerospace sector, particularly in the United States and Canada, is witnessing substantial investments in forging technologies to comply with rigorous safety and quality standards. Notably, in 2024, the U.S. defense initiative known as the Next-Generation Adaptive Propulsion (NGAP) allocated significant resources towards advanced forging research and development. Additionally, regulatory bodies such as the Federal Aviation Administration (FAA) and the Environmental Protection Agency (EPA) are driving the demand for cleaner and more efficient engines, which in turn

boosts the need for high-performance forged parts.

On February 13, 2025, the Canadian government announced a federal funding package of CAD 180 million to support the Calgary Airport Authority and Lufthansa Technik in constructing a 150,000 square foot engine test and maintenance hub at Calgary International Airport (YYC). This project is expected to commence in mid-2025 and be completed by 2027, further enhancing the region's capabilities in aircraft engine maintenance and testing.

The market is also characterized by the presence of key industry players and ongoing innovations in materials, particularly titanium and nickel-based alloys, which are crucial for the production of high-performance engine components. However, challenges such as high production costs and the complexities associated with forging processes remain prevalent. As a response, manufacturers are increasingly focusing on automation and precision forging techniques to improve efficiency and reduce costs.

#### Market Segmentation Analysis

The North America Aircraft Engine Forging Market can be segmented based on various criteria:

**Forging Type:** The market is divided into Closed Die Forging and Seamless Rolled Ring Forging, with Closed Die Forging holding the largest market share in 2024.

**Material Type:** The segmentation includes Nickel Alloy, Titanium Alloy, Aluminum, and Others, where Titanium Alloy dominated the market in 2024.

**Aircraft Type:** The market is categorized into Commercial Aircraft, Military Aircraft, and General Aviation, with Commercial Aircraft leading in market share in 2024.

**Application:** This includes components such as Fan Case, Combustion Chamber Outer Case, Turbine Disc, Rotors, and others, with the Combustion Chamber Outer Case being the most significant segment in 2024.

#### Market Outlook

As aerospace manufacturers transition towards advanced, fuel-efficient, and lightweight aircraft, the demand for high-performance engine components is rapidly increasing. Forged engine parts are recognized for their superior strength, fatigue resistance, and structural integrity, making them essential for meeting the stringent performance and safety standards of modern aviation.

Next-generation aircraft engines operate under extreme conditions, necessitating components that can withstand high temperatures and pressures without failure. Forging processes that utilize high-temperature alloys, such as titanium and nickel-based superalloys, are critical for producing turbine disks, shafts, and compressor blades. As original equipment manufacturers (OEMs) aim to optimize thrust-to-weight ratios and minimize emissions, the role of forged components becomes increasingly vital in ensuring reliable engine performance.

The shift towards sustainable aviation, including the development of hybrid and electric propulsion systems, further amplifies the demand for precision-forged components. These emerging technologies require innovative design architectures and materials, presenting opportunities for forging companies to expand their capabilities and innovate. The growing demand for air travel in emerging markets, coupled with the increasing number of aircraft fleet upgrades, creates a robust pipeline for the production of engine components. Investment in digital forging technologies, automation, and advancements in material science enables manufacturers to produce parts with tighter tolerances, shorter lead times, and enhanced performance.

Collaborations between aerospace OEMs and forging suppliers are fostering innovation and strengthening supply chains to meet future demands. In summary, the evolution of next-generation aircraft represents a significant technological advancement for the aviation industry and serves as a catalyst for growth in the aircraft engine forging sector. Companies that invest in advanced forging processes and adapt to the changing aerospace landscape are well-positioned to capitalize on the industry's transformation.

#### Country Insights

The North America Aircraft Engine Forging Market is primarily segmented by country into the U.S., Canada, and Mexico, with the U.S. holding the largest market share in 2024. The U.S. aerospace and defense industry is characterized by advanced technological capabilities, a high demand for performance-driven materials, and the presence of leading global manufacturers. The market is primarily driven by growth in commercial aviation, military aircraft modernization programs, and a strong emphasis on fuel efficiency and engine performance. Major engine OEMs, such as General Electric Aviation, Pratt & Whitney, and Rolls-Royce North America, rely heavily on high-strength forged components for turbine engines, which are essential for producing reliable and efficient aircraft.

## Contents

### **1. INTRODUCTION**

- 1.1 Report Guidance
- 1.2 Market Segmentation

### **2. EXECUTIVE SUMMARY**

- 2.1 Key Insights
- 2.2 Market Attractiveness

### **3. RESEARCH METHODOLOGY**

- 3.1 Secondary Research
- 3.2 Primary Research
  - 3.2.1 Hypothesis formulation:
  - 3.2.2 Macroeconomic factor analysis:
  - 3.2.3 Developing base number:
  - 3.2.4 Data Triangulation:
  - 3.2.5 Country-level data:

### **4. AIRCRAFT ENGINE FORGING MARKET LANDSCAPE**

- 4.1 Market Overview
- 4.2 Porter's Five Forces Analysis
  - 4.2.1 Threat of New Entrants:
  - 4.2.2 Threat of Substitutes:
  - 4.2.3 Bargaining Power of Buyers:
  - 4.2.4 Bargaining Power of Suppliers:
  - 4.2.5 Competitive Rivalry:
- 4.3 Ecosystem Analysis
  - 4.3.1 Raw Material Suppliers
  - 4.3.2 Manufacturers
  - 4.3.3 Distributors or Suppliers
  - 4.3.4 End-Use Industry
  - 4.3.5 List of Vendors in the Value Chain

### **5. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET - KEY MARKET**

## **DYNAMICS**

- 5.1 Market Drivers
- 5.2 Market Restraints
- 5.3 Market Opportunities
- 5.4 Future Trends
- 5.5 Impact of Drivers and Restraints:

## **6. AIRCRAFT ENGINE FORGING MARKET - NORTH AMERICA MARKET ANALYSIS**

- 6.1 North America Aircraft Engine Forging Market Revenue (US\$ Million), 2024 - 2031
- 6.2 North America Aircraft Engine Forging Market Forecast and Analysis

## **7. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET REVENUE ANALYSIS - BY FORGING TYPE**

- 7.1 Closed Die Forging
  - 7.1.1 Overview
  - 7.1.2 Closed Die Forging: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- 7.2 Seamless Rolled Ring Forging
  - 7.2.1 Overview
  - 7.2.2 Seamless Rolled Ring Forging: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

## **8. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET REVENUE ANALYSIS - BY MATERIAL TYPE**

- 8.1 Nickel Alloy
  - 8.1.1 Overview
  - 8.1.2 Nickel Alloy: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- 8.2 Titanium Alloy
  - 8.2.1 Overview
  - 8.2.2 Titanium Alloy: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- 8.3 Aluminum
  - 8.3.1 Overview

8.3.2 Aluminum: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.4 Others

8.4.1 Overview

8.4.2 Others: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

## **9. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET REVENUE ANALYSIS - BY AIRCRAFT TYPE**

9.1 Commercial Aircraft

9.1.1 Overview

9.1.2 Commercial Aircraft: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.2 Military Aircraft

9.2.1 Overview

9.2.2 Military Aircraft: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.3 General Aviation

9.3.1 Overview

9.3.2 General Aviation: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

## **10. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET REVENUE ANALYSIS - BY APPLICATION**

10.1 Fan Case

10.1.1 Overview

10.1.2 Fan Case: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.2 Combustion Chamber Outer Case

10.2.1 Overview

10.2.2 Combustion Chamber Outer Case: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.3 Turbine Disc

10.3.1 Overview

10.3.2 Turbine Disc: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.4 Rotors

#### 10.4.1 Overview

10.4.2 Rotors: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

#### 10.5 Others

##### 10.5.1 Overview

10.5.2 Others: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

## **11. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET - COUNTRY ANALYSIS**

### 11.1 North America

11.1.1 North America Aircraft Engine Forging Market Revenue and Forecast and Analysis - by Country

11.1.1.1 North America Aircraft Engine Forging Market Revenue and Forecast and Analysis - by Country

11.1.2.2 US: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

11.1.2.2.1 US: North America Aircraft Engine Forging Market Share - by Forging Type

11.1.2.2.2 US: North America Aircraft Engine Forging Market Share - by Material Type

11.1.2.2.3 US: North America Aircraft Engine Forging Market Share - by Aircraft Type

11.1.2.2.4 US: North America Aircraft Engine Forging Market Share - by Application

11.2.3.3 Canada: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

11.2.3.3.1 Canada: North America Aircraft Engine Forging Market Share - by Forging Type

11.2.3.3.2 Canada: North America Aircraft Engine Forging Market Share - by Material Type

11.2.3.3.3 Canada: North America Aircraft Engine Forging Market Share - by Aircraft Type

11.2.3.3.4 Canada: North America Aircraft Engine Forging Market Share - by Application

11.3.4.4 Mexico: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

11.3.4.4.1 Mexico: North America Aircraft Engine Forging Market Share - by Forging Type

11.3.4.4.2 Mexico: North America Aircraft Engine Forging Market Share - by Material Type

11.3.4.4.3 Mexico: North America Aircraft Engine Forging Market Share - by Aircraft Type

11.3.4.4.4 Mexico: North America Aircraft Engine Forging Market Share - by Application

## **12 COMPETITIVE LANDSCAPE**

12.1 Heat Map Analysis by Key Players

12.2 Company Positioning & Concentration

## **13 INDUSTRY LANDSCAPE**

13.1 Overview

13.2 New Product Development

13.3 Merger and Acquisition

13.4 Other Strategic Developments

## **14 COMPANY PROFILES**

14.1 Safran SA

14.1.1 Key Facts

14.1.2 Business Description

14.1.3 Products and Services

14.1.4 Financial Overview

14.1.5 SWOT Analysis

14.1.6 Key Developments

14.2 All Metals & Forge Group

14.2.1 Key Facts

14.2.2 Business Description

14.2.3 Products and Services

14.2.4 Financial Overview

14.2.5 SWOT Analysis

14.2.6 Key Developments

14.3 Farinia Group

14.3.1 Key Facts

14.3.2 Business Description

14.3.3 Products and Services

- 14.3.4 Financial Overview
- 14.3.5 SWOT Analysis
- 14.3.6 Key Developments
- 14.4 Pacific Forge Incorporated
  - 14.4.1 Key Facts
  - 14.4.2 Business Description
  - 14.4.3 Products and Services
  - 14.4.4 Financial Overview
  - 14.4.5 SWOT Analysis
  - 14.4.6 Key Developments
- 14.5 Precision Castparts Corp.
  - 14.5.1 Key Facts
  - 14.5.2 Business Description
  - 14.5.3 Products and Services
  - 14.5.4 Financial Overview
  - 14.5.5 SWOT Analysis
  - 14.5.6 Key Developments
- 14.6 OTTO FUCHS KG
  - 14.6.1 Key Facts
  - 14.6.2 Business Description
  - 14.6.3 Products and Services
  - 14.6.4 Financial Overview
  - 14.6.5 SWOT Analysis
  - 14.6.6 Key Developments
- 14.7 VSMPO-AVISMA Corp
  - 14.7.1 Key Facts
  - 14.7.2 Business Description
  - 14.7.3 Products and Services
  - 14.7.4 Financial Overview
  - 14.7.5 SWOT Analysis
  - 14.7.6 Key Developments
- 14.8 Doncasters Group
  - 14.8.1 Key Facts
  - 14.8.2 Business Description
  - 14.8.3 Products and Services
  - 14.8.4 Financial Overview
  - 14.8.5 SWOT Analysis
  - 14.8.6 Key Developments
- 14.9 LISI GROUP

- 14.9.1 Key Facts
- 14.9.2 Business Description
- 14.9.3 Products and Services
- 14.9.4 Financial Overview
- 14.9.5 SWOT Analysis
- 14.9.6 Key Developments
- 14.10 Allegheny Technologies Inc
  - 14.10.1 Key Facts
  - 14.10.2 Business Description
  - 14.10.3 Products and Services
  - 14.10.4 Financial Overview
  - 14.10.5 SWOT Analysis
  - 14.10.6 Key Developments

## **15. APPENDIX**

- 15.1 About The Insight Partners

## List Of Tables

### LIST OF TABLES

Table 1. North America Aircraft Engine Forging Market Segmentation

Table 2. List of Vendors

Table 3. North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Table 4. North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Forging Type

Table 5. North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Material Type

Table 6. North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Aircraft Type

Table 7. North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 8. North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Country

Table 9. US: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Forging Type

Table 10. US: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Material Type

Table 11. US: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Aircraft Type

Table 12. US: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 13. Canada: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Forging Type

Table 14. Canada: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Material Type

Table 15. Canada: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Aircraft Type

Table 16. Canada: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 17. Mexico: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Forging Type

Table 18. Mexico: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Material Type

Table 19. Mexico: North America Aircraft Engine Forging Market - Revenue and

Forecast, 2021 - 2031 (US\$ Million) - by Aircraft Type  
Table 20. Mexico: North America Aircraft Engine Forging Market - Revenue and  
Forecast, 2021 - 2031 (US\$ Million) - by Application  
Table 21. Heat Map Analysis by Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1. North America Aircraft Engine Forging Market Segmentation - Country

Figure 2. Porter's Analysis

Figure 3. Ecosystem: Aircraft Engine Forging Market

Figure 4. North America Aircraft Engine Forging Market - Key Market Dynamics

Figure 5. Impact Analysis of Drivers and Restraints

Figure 6. North America Aircraft Engine Forging Market Revenue (US\$ Million), 2024 - 2031

Figure 7. North America Aircraft Engine Forging Market Share (%) - by Forging Type, 2024 and 2031

Figure 8. Closed Die Forging: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 9. Seamless Rolled Ring Forging: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 10. North America Aircraft Engine Forging Market Share (%) - by Material Type, 2024 and 2031

Figure 11. Nickel Alloy: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 12. Titanium Alloy: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 13. Aluminum: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 14. Others: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 15. North America Aircraft Engine Forging Market Share (%) - by Aircraft Type, 2024 and 2031

Figure 16. Commercial Aircraft: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 17. Military Aircraft: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 18. General Aviation: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 19. North America Aircraft Engine Forging Market Share (%) - by Application, 2024 and 2031

Figure 20. Fan Case: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 21. Combustion Chamber Outer Case: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 22. Turbine Disc: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 23. Rotors: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 24. Others: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 25. North America Aircraft Engine Forging Market Breakdown by Key Countries, 2024 and 2031 (%)

Figure 26. US: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 27. Canada: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 28. Mexico: North America Aircraft Engine Forging Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 29. Company Positioning & Concentration

## I would like to order

Product name: North America Aircraft Engine Forging Market Size and Forecast (2021 - 2031), Regional Share, Trend, and Growth Opportunity Analysis Report Coverage: By Forging Type (Closed Die Forging and Seamless Rolled Ring Forging), Material Type (Nickel Alloy, Titanium Alloy, Aluminum, and Others), Aircraft Type (Commercial Aircraft, Military Aircraft, and General Aviation), and Application (Fan Case, Combustion Chamber Outer Case, Turbine Disc, Rotors, and Others)

Product link: <https://marketpublishers.com/r/NFFBF8C97600EN.html>

Price: US\$ 3,450.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/NFFBF8C97600EN.html>