

# **Commercial Aircraft Carbon Brakes Market Report by Aircraft Type (Narrow-body Aircraft, Wide-body Aircraft, and Others), Material (Petroleum Pitch, Polyacrylonitrile), Manufacturing Process (Chemical Vapor Infiltration, Liquid Phase Infiltration), End User (OEM, Aftermarket), and Region 2024-2032**

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## **Abstracts**

The global commercial aircraft carbon brakes market size reached US\$ 1,010.7 Million in 2023. Looking forward, IMARC Group expects the market to reach US\$ 1,875.4 Million by 2032, exhibiting a growth rate (CAGR) of 6.9% during 2024-2032.

Carbon brakes help stop a moving aircraft by exploiting friction between the rotating and stationary discs. These brakes are durable and resistant against high temperature, thermal shock and mechanical fatigue. Consequently, they are widely preferred over steel brakes in commercial aircraft. The retrofitting of these brakes in certain airplanes models can help decrease fuel consumption and reduce carbon dioxide (CO<sub>2</sub>) emissions. Moreover, improvements in the manufacturing and overhaul procedures have reduced the overall cost of carbon brakes, which is expanding their applications in small, short-haul commercial aircraft.

The rising air passenger traffic on account of inflating disposable incomes, increasing business travels and the easy availability of online travel bookings represents one of the key factors bolstering the market growth. Moreover, the growing international trade, along with the escalating demand for high-performance brakes in commercial aircraft, is also stimulating the market growth. Furthermore, advantages associated with carbon brakes, such as long service intervals, low maintenance costs, high energy absorption and fast cooling rates, are increasing their adoption over conventional brakes. Apart

from this, with the rising environmental concerns, governing agencies of various countries are imposing stringent standards on greenhouse gas (GHG) emission from the aviation industry, which is influencing the market positively. However, a decline in travel and tourism activities due to the spread of the coronavirus disease (COVID-19) and suspension of various domestic and international airline services is negatively impacting the market growth. It is anticipated to experience growth once lockdown restrictions are relaxed.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global commercial aircraft carbon brakes market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on aircraft type, material, manufacturing process and end user.

#### Breakup by Aircraft Type:

- Narrow-body Aircraft
- Wide-body Aircraft
- Others

#### Breakup by Material:

- Petroleum Pitch
- Polyacrylonitrile

#### Breakup by Manufacturing Process:

- Chemical Vapor Infiltration
- Liquid Phase Infiltration

#### Breakup by End User:

- OEM
- Aftermarket

#### Breakup by Region:

- North America
- United States

Canada  
Asia Pacific  
China  
Japan  
India  
South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

#### Competitive Landscape:

The report has also analysed the competitive landscape of the market with some of the key players being Airbus SE, Crane Company, Honeywell International Inc., Meggitt Plc, Mersen, Mitsubishi Heavy Industries Ltd., Parker-Hannifin Corporation, Raytheon Technologies Corporation, Safran S.A. and SGL Carbon SE.

#### Key Questions Answered in This Report:

How has the global commercial aircraft carbon brakes market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global commercial aircraft carbon brakes market?

What are the key regional markets?

What is the breakup of the market based on the aircraft type?

What is the breakup of the market based on the material?

What is the breakup of the market based on the manufacturing process?

What is the breakup of the market based on the end user?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global commercial aircraft carbon brakes market and who are the key players?

What is the degree of competition in the industry?

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