

Aircraft Aerodynamic Seals Market by Aircraft Type (Commercial Aircraft, Regional Aircraft, Helicopter, Military Aircraft, and General Aviation), by Application Type (Airframe, Flight Control Surfaces, Landing Gear, Wheels & Brakes, and Others), by Material Type (Polymers, Metals, and Composites), by Motion Type (Static Application and Dynamic Application), and by Region (North America, Europe, Asia-Pacific, and Rest of the World), Trend, Forecast, Competitive Analysis, and Growth Opportunity: 2018-2023

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### **Abstracts**

This report, from Stratview Research, studies the global aircraft aerodynamic seals market over the trend period of 2012 to 2017 and forecast period of 2018 to 2023. The report provides detailed insights into the market dynamics to enable informed business decision making and growth strategy formulation based on the opportunities present in the market.

The Aircraft Aerodynamic Seals Market: Highlights

Seals are used in the multiple areas of an aircraft in order to serve a wide array of functions including aerodynamics, fire resistance, conduction, insulation, and air and fluid handling. Aerodynamic seals are the most widely used in an aircraft in terms of both value and units sold and account for more than 40% of the total aircraft seals market. Aerodynamic seals in an aircraft are exposed to a wide range of challenging and operating conditions, such as high temperature, pressure, aggressive chemicals,



high frequency of oscillation, and the threat of fire and explosion. It becomes necessary to select a sealing material that can handle such extreme circumstances. The most commonly used materials in aircraft aerodynamic seals are polymers, which comprise elastomers, such as silicone, fluorosilicone, PTFE, rubber, and thermoplastics.

The global aircraft aerodynamic seals market is projected to grow at a healthy rate over the next five years to reach US\$ 494.7 million in 2023. Increasing production rates of commercial aircraft are primarily driving the demand for aerodynamic seals. Both major commercial aircraft manufacturers, Boeing and Airbus, are incessantly increasing the production rates of their best-selling aircraft in order to meet such huge order backlogs. At the same time, both have strategically been launching fuel-efficient version of their best-selling aircraft programs to have a better grip on the market growth. Currently, Boeing and Airbus had a combined total order backlog of 13,090 commercial aircraft as of 31 March 2018. Owing to this factor, it is estimated that there would have a sustained demand for aerodynamic seals in the foreseeable future.

Another factor assuring a greater demand for fuel-efficient aircraft. The aerospace industry is highly regulated by stringent regulations imposed by different regulatory bodies located across the world. Currently, these bodies are tightening the aerospace industry by introducing more stringent regulations on the airline industry regarding the carbon emissions reductions. Additionally, volatile crude oil prices plummet the margin of airlines in this fiercely competitive market as fuel is the leading cost component of the overall airline operating cost, roughly accounting for 35% to 40% of the total operating cost. These factors are pushing airlines to demand more fuel-efficient aircraft in order to elevate their profit margin as well as to abide such stringent regulations. Making aircraft lightweight and aerodynamic are the major ways through which the aerospace industry can make aircraft more fuel efficient. This, in turn, is driving the usage of aerodynamic seals in various sections of the aircraft.

The global aircraft aerodynamic seals market is segmented based on aircraft type as Commercial Aircraft, Regional Aircraft, Helicopter, Military Aircraft, and General Aviation. Commercial aircraft is expected to remain the largest and fastest-growing segment of the global aircraft aerodynamic seals market during the forecast period. Increasing demand for commercial aircraft to support rising passenger traffic, increasing production rates of key programs, such as B737, A320 family, B787, and A350XWB; market entry of new players, such as COMAC and Irkut; an introduction of variants of existing best-selling aircraft programs, such as B737 max, A320neo, and B777X; and rising commercial aircraft fleet size across regions are the key factors propelling the



demand for aerodynamic seals in the commercial aircraft segment.

Based on the application type, the global aircraft aerodynamic seals market is segmented as Airframe; Flight Control Surfaces; Landing Gear, Wheels & Brakes; and Others. The airframe is expected to remain the most dominant application segment of the aircraft aerodynamic seals market during the forecast period. Aerodynamic seals are used in a wide spectrum of airframe applications, such as molded seals for doors & hatches, wings and fuselage fairings, and cabin windows.

Based on the material type, the aircraft aerodynamic seals market is segmented as Polymers, Composites, and Metals. The polymer seal is expected to remain the largest segment of the global aircraft aerodynamic seals market during the forecast period. Elastomers are the most widely preferred seals in the polymer category used for helping the airframers to make aircraft more aerodynamic, driven by their ability to contract 10 times more than steel seals along with an increased flexibility in low temperatures.

Based on the regions, North America is expected to remain the largest aircraft aerodynamic seals market during the forecast period, whereas Asia-Pacific is expected to experience the highest growth during the same period. The highest growth of Asia-Pacific region is driven by a host of factors including increasing demand for commercial aircraft to support rising passenger traffic, the opening of assembly plants of Boeing and Airbus in China, upcoming indigenous commercial and regional aircraft (COMAC C919 and Mitsubishi MRJ), and rising aircraft fleet size.

The supply chain of this market comprises raw material suppliers, aircraft aerodynamic seal manufacturers, distributors, aircraft OEMs, and airline companies. The key aircraft aerodynamic seal manufacturers are Hutchinson SA, Trelleborg AB, Meggitt Plc, Esterline Technologies Corporation, Freudenberg Group, and Parker Hannifin Corporation. The development of lightweight seals with low friction as well as wear and abrasion resistance, regional expansion, and the execution of mergers & acquisitions are the key strategies adopted by the key players to gain a competitive edge in the market.

#### RESEARCH METHODOLOGY

This report offers high-quality insights and is the outcome of detailed research methodology comprising extensive secondary research, rigorous primary interviews with industry stakeholders and validation and triangulation with Stratview Research's internal database and statistical tools. More than 1,000 authenticated secondary



sources, such as company annual reports, fact book, press release, journals, investor presentation, white papers, patents, and articles have been leveraged to gather the data. More than 10 detailed primary interviews with the market players across the value chain in all four regions and industry experts have been executed to obtain both qualitative and quantitative insights.

#### REPORT FEATURES

This report provides market intelligence in the most comprehensive way. The report structure has been kept such that it offers maximum business value. It provides critical insights into the market dynamics and will enable strategic decision making for the existing market players as well as those willing to enter the market. The following are the key features of the report:

Market structure: Overview, industry life cycle analysis, supply chain analysis

Market environment analysis: Growth drivers and constraints, Porter's five forces analysis, SWOT analysis

Market trend and forecast analysis

Market segment trend and forecast

Competitive landscape and dynamics: Market share, product portfolio, product launches, etc.

Attractive market segments and associated growth opportunities

**Emerging trends** 

Strategic growth opportunities for the existing and new players

Key success factors

The global aircraft aerodynamic seals market is segmented into the following categories.

Global Aircraft Aerodynamic Seals Market, By Aircraft Type



Commercial Aircraft (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Regional Aircraft (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Helicopter (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Military Aircraft (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

General Aviation (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Global Aircraft Aerodynamic Seals Market, By Application Type

Airframe (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Flight Control Surfaces (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Landing Gear, Wheels & Brakes (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Others (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Global Aircraft Aerodynamic Seals Market, By Motion Type

Static Applications (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Dynamic Applications (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Global Aircraft Aerodynamic Seals Market, By Material Type



Polymer Seals (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Composite Seals (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Metal Seals (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Global Aircraft Aerodynamic Seals Market, By Region

North America (Country Analysis: The USA, Canada, and Mexico)

Europe (Country Analysis: Germany, France, The UK, Russia, and Rest of Europe)

Asia-Pacific (Country Analysis: China, Japan, India and Rest of Asia-Pacific)

Rest of the World (Sub-Region Analysis: Latin America, The Middle East, and Others)

#### REPORT CUSTOMIZATION OPTIONS

With this detailed report, Stratview Research offers one of the following free customization options to our respectable clients:

#### **COMPANY PROFILING**

Detailed profiling of additional market players (up to 3 players)

SWOT analysis of key players (up to 3 players)

# **MARKET SEGMENTATION**

Current market segmentation of any one of the applications by material type

#### COMPETITIVE BENCHMARKING



Benchmarking of key players on the following parameters: Product portfolio, geographical reach, regional presence, and strategic alliances

Custom Research: Stratview research offers custom research services across the sectors. In case of any custom research requirement related to market assessment, competitive benchmarking, sourcing and procurement, target screening, and others, please send your inquiry at sales@stratviewresearch.com



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Abbreviation

**Currency Exchange** 

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Key Information Gathered from Primary Research

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