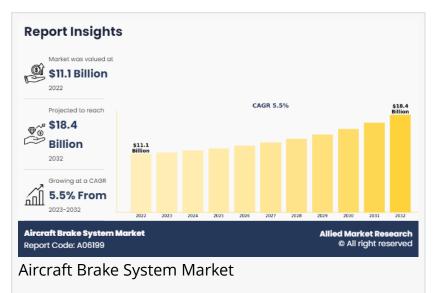


Aircraft Brake System Market Growing at 5.5% CAGR Reach USD 18.4 Billion by 2032

Aircraft brake system market share are increasingly incorporating lightweight materials such as carbon-carbon composites and advanced ceramics.

WILMINGTON, NEW CASTLE, DE, UNITED STATES, September 16, 2024 /EINPresswire.com/ -- The _______ _____ report offers an in-depth analysis of the market size, emerging and current trends, future estimations, and key players. Increase in air passenger traffic in the world and rise in operations in the commercial



aviation sector are expected to fuel the global aircraft brake system market. On the other hand, strict regulatory conditions create hindrances to market growth. On the contrary, usage of advanced technology can offer lucrative market opportunities.

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Rise in demand from airlines for advanced aircraft brake systems and surge in air passenger traffic offer lucrative opportunities to the global aircraft brake system market." *Allied Market Research*

https://www.alliedmarketresearch.com/requestsample/A06199

Brake-by-wire systems are being developed to provide electronic control of brake functions, offering precise control and customizable brake profiles. These systems allow for integration with aircraft flight control systems, enabling advanced features such as automatic brake modulation and anti-skid functionality. In addition, there is a growing focus on implementing predictive maintenance

solutions for <u>aircraft brake system market size</u>. By leveraging data analytics, sensors, and predictive algorithms, operators can monitor brake system health in real-time, anticipate potential failures, and schedule maintenance proactively to minimize downtime and optimize operational efficiency.

The replacement segment attained the highest market share in 2022 in the <u>aircraft brake system</u> industry due to the fact that many commercial aircraft in service are aging and require regular maintenance, repair, and overhaul (MRO) activities. As aircraft age, their brake systems also wear out and require replacement to ensure continued safe operation. The need for replacement brake systems is particularly significant for older aircraft models, which constitute a substantial portion of the global fleet. Furthermore, commercial aircraft are typically in operation for extended periods each day, leading to frequent wear and tear on brake systems. The high utilization rates of commercial aircraft result in more frequent replacements of brake components and systems due to normal wear and fatigue.

Power Brake segment attained the highest market share in 2022 in the aircraft brake system market size. This is attributed to the fact that Power brakes are predominantly used in larger commercial aircraft, which constitute a significant portion of the global aircraft fleet. Commercial aviation drives a considerable demand for brake systems due to the high frequency of flights, long-haul operations, and heavy payloads. As a result, the power brake segment benefits from the dominance of commercial aviation in the market. Furthermore, power brakes offer superior performance and reliability compared to other types of brake systems, particularly in large aircraft with high landing weights. They are capable of generating greater brake force, providing shorter stopping distances, and handling heavy loads effectively. These characteristics make power brakes the preferred choice for commercial airliners and contribute to their higher market share.

Based on actuation, the power break segment contributed to the highest market share in 2020, attributing to more than two-fifths of the total market share, and is anticipated to dominate the market during the forecast period. The same segment is expected to manifest the fastest CAGR of 5.7% from 2021 to 2030. The report also covers segments such as boosted brake and independent brake.

Based on region, Asia-Pacific, followed by North America, contributed to the highest share in 2020, holding around one-third of the total share, and is anticipated to maintain dominance throughout the forecast period. The global aircraft brake system market size across Asia-Pacific is anticipated to exhibit the fastest CAGR of 6.5% during the forecast period.

Regenerative brake systems are being explored as a means to recover energy during deceleration and brake, thereby improving overall energy efficiency and reducing fuel consumption. These systems convert kinetic energy into electrical energy, which can be stored or used to power auxiliary systems on the aircraft. Moreover, aircraft brake systems are increasingly being integrated with health monitoring systems that enable continuous monitoring of system performance and condition. This integration allows operators to detect abnormalities, diagnose issues, and implement corrective actions in real-time, improving safety and reliability.

Based on aircraft type, the fixed wing segment accounted for the largest market share in 2020, contributing to more than three-fourths of the total share, and is expected to maintain the lead throughout the forecast period. The same segment is estimated to witness the fastest CAGR of 5.3% from 2021 to 2030. The report also covers the rotary wing segment.

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