

Aircraft Actuators - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

Aircraft Actuators Market Analysis

The aircraft actuators market size stands at USD 10.16 billion in 2025 and is forecasted to climb to USD 13.73 billion by 2030, reflecting a 6.21% CAGR. Production backlogs for single-aisle programs, fleet electrification strategies, and retrofits that embed health-monitoring electronics combine to keep order books robust across all major platform types. Electrical and electromechanical units gain share as airlines focus on fuel burn, while hydraulic designs retain a foothold in the most safety-critical primary controls. Rapid widebody replacement cycles, accelerating eVTOL certification paths, and a tightening rare-earth supply chain further complicate capacity planning for tier-one integrators and tier-two component specialists.

Global Aircraft Actuators Market Trends and Insights

Surge in Narrowbody Production Backlog

Record order books for single-aisle jets are stretching delivery schedules to the end of the decade, and each airframe carries multiple linear and rotary units that underpin the aircraft actuators market. Airbus handed over 766 aircraft in 2024 while Boeing shipped 348, yet the combined backlog set a 14-year peak in 2025. Tier-one suppliers are adding automated cells to raise output; Parker Hannifin's aerospace arm achieved a 28.7% operating margin in Q3 2025 after lean-manufacturing upgrades. Every delivered narrowbody drives 15-20 years of predictable aftermarket demand, anchoring a stable revenue base for actuator vendors. North America and Europe host most of the backlog, so these regions continue to attract capital for new actuator test

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stands and digital thread initiatives.

Increased Electrification of Secondary Flight Systems

Airframers are migrating flaps, slats, landing-gear steering, and environmental controls from hydraulics to electromechanical architectures, expanding the addressable aircraft actuators market. Collins Aerospace earmarked USD 3 billion for electric-system development, signalling a long-term commitment to lighter, cleaner platforms. Safran's electric brake on the B787 removed hydraulic lines and enabled in-service wear analytics. The Clean Aviation electrical nose-gear demonstrator aims for 20% mass reduction through electro-hydrostatic actuation. Higher electrical loads elevate demand for embedded thermal control, spurring innovation in power-dense drives and advanced dielectric oils.

Persistent Reliability Concerns versus Hydraulics in Primary Flight Controls

Aviation regulators hold primary-control surfaces to the industry's highest fault-tolerance thresholds, and electromechanical units still face skepticism when benchmarked against triple-redundant hydraulic circuits. The FAA's revised system-safety rules require exhaustive common-cause failure analysis, extending certification programs by up to seven years. Although Moog has fielded aerospace EMAs for three decades, adoption remains limited to spoiler, slat, and trim tabs, while elevators and ailerons retain hydraulics. Airframers view any unresolved reliability perception as a schedule and liability risk, moderating the near-term growth of the aircraft actuators market for primary-surface applications.

Other drivers and restraints analyzed in the detailed report include:

Rising Retrofit Demand for Health-Monitoring Smart Actuators / More-Electric and Hybrid-Electric Aircraft Programs / Thermal Management Limits for High-Power EMAs on Supersonic Platforms /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Linear designs held 69.00% of 2024 revenue, as every narrowbody still embeds multiple screw-jack solutions for flaps, spoilers, and doors. The aircraft actuators market size for rotary mechanisms will expand fastest, gaining from adaptive-wing and tilt-rotor systems that value precise angular positioning at lower mass. Rotary demand in the aircraft actuators market comes from eVTOL tilt systems and future variable-camber wings that require tight backlash control and long life cycles.

Electromechanical rotary packages are displacing hydraulics in high-lift systems of next-gen single aisles. Meanwhile, linear hydraulics stay dominant in main landing-gear uplocks, where brute force and heritage standards favor fluid power. Tier-one suppliers, therefore, pursue dual-platform portfolios to hedge cycles, a strategy exemplified by Regal Rexnord's compact eVTOL-ready gearbox married to Honeywell's digital motor controller.

Hydraulics captured 43.50% of the 2024 spend, mainly for primary flight controls, yet electric formats will capture outsized growth at 6.82% CAGR. Retrofit conversions of secondary surfaces underpin steady share gains for electric drives, especially as battery-electric and hybrid propulsion projects demand common-voltage buses across all systems. Electro-hydrostatic hybrids offer a bridge solution where force density or certification culture still favors fluids, protecting revenue even as the aircraft actuators market tilts electric.

Thermal-management breakthroughs in wide-bandgap power electronics allow higher duty cycles for electric jackscrews without triggering derates. Hydraulic integrators respond by embedding digital pressure sensors and edge analytics that extend fluid

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change intervals, defending installed bases while positioning for eventual migration.

The Aircraft Actuators Market is Segmented by Type (Linear and Rotary), System (Hydraulic Actuators, Electrical/Electromechanical Actuators, Pneumatic Actuators, and Mechanical Actuators), Application (Flight-Control Surfaces, and More), End User (Commercial Aircraft, Military Aircraft, and More), Fit (OEM and Aftermarket) and Geography (North America, Europe, and More). The Market Forecasts are Provided in Terms of Value (USD).

Geography Analysis

North America retained 35.25% of 2024 sales, driven by Boeing's narrow-body recovery, Lockheed Martin's combat aircraft output, and Honeywell's strong aftermarket pull. Federal incentives for hybrid-electric demonstrators funnel R&D grants toward Collins, Moog, and Safran plants, deepening the region's technology bench while exposing supply chains to rare-earth shocks.

Asia-Pacific will post an 7.09% CAGR through 2030. China's C919 ramp and COMAC's CR929 design studies elevate local content targets, prompting tier-ones to establish joint ventures in Chengdu, Shanghai, and Xi'an. India's Tejas Mk1A and forthcoming AMCA fighters embed 65% indigenous hardware quotas that open doors for domestic actuator machining and electronics firms. Japanese rearmament budgets double missile and fighter volumes over the decade.

Europe advances through Airbus rate increases and Clean Aviation programs championing 100% SAF and hydrogen-compatible systems. Safran, Liebherr, and Woodward leverage EU sustainability credits to fund all-electric brake, nose-gear, and trim-tab demonstrators. Middle East and South America see moderate uptake tied to fleet renewals at Emirates, Qatar Airways, and Embraer's E2 line, complemented by expanding MRO hubs in Dubai and Sao Jose dos Campos.

List of Companies Covered in this Report:

Honeywell International Inc. / Collins Aerospace (RTX Corporation) / Parker-Hannifin Corporation / Moog Inc. / Eaton Corporation plc / Safran SA / Woodward, Inc. / Triumph Group, Inc. / Liebherr-International Deutschland GmbH / Nabtesco Corporation / Crane Company / Curtiss-Wright Corporation / Electromech Technologies (TransDigm Group) / BAE Systems plc / Servotecnica SpA / SAM GmbH / ITT Inc. / Heroux-Devtek /

Additional Benefits:

The market estimate (ME) sheet in Excel format /
3 months of analyst support /

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