

# Aerospace Bearings Market Forecasts to 2034 – Global Analysis By Bearing Type (Ball Bearings, Roller Bearings, Plain Bearings, Hybrid Bearings, and Thrust Bearings), Material, Platform, Sales Channel, Application, and By Geography

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## Abstracts

According to Statistics MRC, the Global Aerospace Bearings Market is accounted for \$19.6 billion in 2026 and is expected to reach \$31.0 billion by 2034, growing at a CAGR of 5.9% during the forecast period. Aerospace bearings are specialized mechanical elements that minimize friction and enable controlled motion in aviation and space applications. Built to perform under harsh environments, including extreme heat, heavy stress, strong vibration, and fluctuating speeds, they are essential for critical systems such as engines, landing mechanisms, control surfaces, and actuators. Their advanced design enhances operational efficiency, safety, durability, and reliability while complying with rigorous aerospace quality, performance, and certification requirements.

### Market Dynamics:

#### Driver:

Increasing global air passenger traffic and fleet expansion

The surge in commercial aviation production necessitates a proportional increase in the supply of high-precision bearings for airframes, engines, and landing systems.

Furthermore, the trend toward lightweight, fuel-efficient aircraft is driving innovation in bearing materials and design. As original equipment manufacturers (OEMs) ramp up production to clear backlogs and meet future travel demands, the requirement for advanced, durable bearings capable of enduring rigorous flight cycles becomes more

critical, underpinning sustained market growth.

**Restraint:**

High manufacturing and material costs

The manufacturing process involves complex machining, heat treatment, and rigorous quality assurance testing, all of which contribute to exceptionally high production costs. These expenses are subsequently passed down the supply chain, making aircraft components more expensive. For smaller manufacturers and suppliers, the capital investment required for specialized machinery and certification can be prohibitive. This cost barrier limits the entry of new players and can slow down the adoption of next-generation bearing technologies in cost-sensitive segments of the market.

**Opportunity:**

Growth of the unmanned aerial vehicle (UAV) market

Drones require miniature, high-speed, and lightweight bearings that can deliver reliable performance in compact spaces. As UAV technology evolves to include heavier payloads and longer flight durations, the demand for specialized bearings in gimbals, propulsion systems, and control surfaces increases. This niche application encourages innovation in micro-bearing technology and the use of advanced materials. Manufacturers who can develop cost-effective, high-precision solutions for the burgeoning drone market are poised to capture a substantial and rapidly expanding revenue stream.

**Threat:**

Volatility in raw material prices

Geopolitical instability, trade disputes, and supply chain disruptions can cause sudden spikes in material costs, squeezing profit margins for manufacturers locked into long-term fixed-price contracts with aerospace OEMs. This volatility makes financial planning and inventory management challenging. To mitigate this threat, companies must develop resilient supply chains, explore alternative material sourcing strategies, and invest in forecasting tools to better navigate the unpredictable landscape of global commodity markets.

**Covid-19 Impact:**

The COVID-19 pandemic severely disrupted the aerospace industry, grounding fleets and causing a sharp decline in air travel, which led to deferred aircraft orders and reduced production rates. This downturn directly impacted the demand for OEM bearings. However, the aftermarket segment saw mixed effects, with initial delays in maintenance being offset by a later surge as aircraft were brought back into service. The crisis exposed vulnerabilities in global supply chains, prompting manufacturers to diversify sourcing and increase inventory buffers.

The ball bearings segment is expected to be the largest during the forecast period

The ball bearings segment is expected to account for the largest market share during the forecast period, due to its versatility and widespread use across various aircraft systems. These bearings are essential in applications requiring high-speed operation and low friction, such as instruments, gearboxes, and auxiliary power units. Their ability to handle both radial and thrust loads in compact spaces makes them indispensable. Continuous improvements in materials, including hybrid ceramic variants, are enhancing their durability and performance.

The aftermarket segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the aftermarket segment is predicted to witness the highest growth rate, driven by the expanding global aircraft fleet and stringent maintenance regulations. As airlines focus on extending the service life of their existing aircraft, the demand for replacement bearings for routine maintenance and overhaul activities intensifies. The trend toward predictive maintenance, enabled by digital monitoring technologies, is creating opportunities for timely bearing replacements, preventing costly in-service failures.

**Region with largest share:**

During the forecast period, the Asia Pacific region is expected to hold the largest market share, propelled by its position as the global hub for commercial aircraft manufacturing and assembly. Countries such as China, Japan, and Singapore host major production facilities for leading aerospace OEMs, creating sustained demand for precision bearings integrated into new aircraft. The region's dominance is further reinforced by aggressive government policies promoting indigenous manufacturing and technology transfer

through joint ventures.

### **Region with highest CAGR:**

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, propelled by the rapid expansion of its commercial aviation sector and increasing defense spending. Countries like China and India are investing heavily in domestic aircraft manufacturing capabilities and modernizing their air forces, creating substantial demand for new aircraft. The region's growing middle class is fueling a surge in air travel, prompting airlines to expand their fleets and, consequently, their maintenance requirements.

### **Key players in the market**

Some of the key players in Aerospace Bearings Market include SKF Group, National Precision Bearing Group, The Timken Company, Kaman Specialty Bearings, NSK Ltd., AST Bearings LLC, NTN Corporation, New Hampshire Ball Bearings, Inc., Schaeffler AG, Pacamor Kubar Bearings (PKB), JTEKT Corporation, MinebeaMitsumi Inc., RBC Bearings Incorporated, Aurora Bearing Company, and GGB Bearing Technology.

### **Key Developments:**

In September 2025, NSK Ltd. announces that it has completed, the acquisition of share of NSK Steering & Control, Inc., currently an equity-method affiliate of NSK, held by Japan Industrial Solutions III Investment Limited Partnership, as previously announced in the 'Notice Concerning Equity-Method Affiliates and thereby, completed the conversion of NS&C into a consolidated subsidiary.

In December 2020, The Timken Company has acquired the assets of Aurora Bearing Company (Aurora). Aurora manufactures rod ends and spherical plain bearings, which serve a diverse range of industrial sectors, including aerospace and defense, racing, off-highway equipment and packaging. Its sales are expected to be around \$30 million for the full year 2020.

### **Bearing Types Covered:**

Ball Bearings

Roller Bearings

Plain Bearings

Hybrid Bearings

Thrust Bearings

#### Materials Covered:

Stainless Steel

Chrome Steel

Polymer

Titanium Alloys

Composite Materials

Ceramic

#### Platforms Covered:

Commercial Aircraft

Military Aircraft

Spacecraft

Business Jets

Unmanned Aerial Vehicles (UAVs)

Helicopters / Rotorcraft

#### Sales Channels Covered:

Original Equipment Manufacturer (OEM)

Aftermarket

Applications Covered:

Engine & Transmission Systems

Auxiliary Systems

Landing Gear

Actuation Systems

Flight Control Systems

Avionics

Airframe

Electro-Optical Targeting Systems (EOTS)

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

## Rest of Africa

### **What our report offers:**

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

### **Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

#### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

#### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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