

# Precision Technologies (PT)

**Strong growth potential due to increasing structural demand, particularly for ultra-high quality products creating an overwhelming competitive edge**

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## Core competencies

Through the fundamental strength of the Company's DNA, including ultra-precision machining, vertical integration, global development, and mass production, we are securing a dominant market share and achieving a high-level QCDESS\*. By pursuing overseas development early and strengthening our in-house manufacturing and maintenance capabilities for components and facilities, we have succeeded in balancing ultra-high quality and low costs. The accumulation of knowhow over many years, which cannot be measured in terms of capital investment, forms a barrier to entry.

\* Abbreviation for quality, cost, delivery, ecology/efficiency, service and speed



Bang Pa-in Plant (Thailand)

### Opportunities

- Increase in demand for high-quality bearings in general, which contribute to energy efficiency and the downsizing of end products.
- Increase in bearing usage per vehicle due to electrification and the shift to EVs.
- Increase in demand for bearing pivots for data centers due to increased generation of data.
- Shift to new aircraft equipped with energy-saving and high-efficiency engines by airline companies.

### Risks

- Increased attractiveness for competitors to enter the miniature and small-sized ball bearing market.
- Medium- to long-term, downward trend in sales volume of pivot assemblies due to shrinking Hard Disk Drive ("HDD") market.
- Decline in production rate of new aircraft due to production adjustments by aircraft manufacturers and labor shortages.

### Responding to opportunities and risks

- Strengthen competitiveness by promptly expanding capacity for ball bearings.
- Increase market share by leveraging our strength in bearings for aircraft.
- Establish new machined components capabilities through aggressive M&As.
- Further improve the precision of our products and provide new value to our existing and new customers.

## Overview of the fiscal year ended March 2023

Although sales volume of miniature and small-sized ball bearings, our mainstay products, for data centers and home appliances decreased, those for automobiles increased, resulting in increased sales. Sales of rod-end bearings increased as the aircraft market recovered steadily from the impact of COVID-19. Sales of pivot assemblies fell due to the slowdown in the HDD market. As a result, net sales were 197.3 billion yen, operating income was 43.0 billion yen, and operating margin was 21.8%.

\* Operating income excluding special factors of 45.4 billion yen, operating margin of 22.9%

## Outlook for the fiscal year ending March 2024

We expect sales of ball bearings to increase as demand for automotive applications gradually recovers, with demand for server applications also expected to gradually recover from the second half of the fiscal year, despite the uncertain situation. Business for aircraft applications, including rod-end and fasteners, is expected to fully recover from the second half of the fiscal year. Demand for pivot assemblies is also expected to recover from the second half of the year.

## Midterm Business Plan

Recovery and growth in aircraft production to drive ball bearing business growth

### Main points

- 1 Sales of ball bearings  
**Despite current adjustments in automobiles and data centers inventories, steady growth is expected in the medium to long term.**
- 2 Production of ball bearings  
**Production can be increased up to 370 million units per month when necessary.**
- 3 Rod-end and fasteners  
**Recovery from the COVID-19 pandemic and further growth**

## Basic strategies for next 10 years

Our basic strategy for the PT segment is to maintain the stable and sustainable growth in our core business that has been in effect since the establishment of the Company, and to maximize growth areas by expanding our portfolio. To this end, we have been strengthening our miniature and small-sized ball bearings business, which already enjoys an overwhelming competitive advantage in the market. In addition, we have been taking steps to strengthen our earnings base by pursuing M&As aimed at new technologies and expansion of our business portfolio.

## Strategy for "Becoming the one-of-a-kind supplier through INTEGRATION"



MinebeaMitsumi Aerospace (NMB, NHBB, C&A Tool, myonic, CEROBear, Mach Aero, Minebea Precision, MinebeaMitsumi), MinebeaMitsumi's aerospace product brand, manufactures and supplies machined components such as rod-end bearings, spherical bearings, fasteners, ball bearings, and roller bearings in all three of the major aircraft markets: Europe, North America, and Asia (Japan, Thailand and India).

MinebeaMitsumi is developing an extensive product lineup not only for the aircraft market, but also for the automotive market. Opportunities to supply products for next-generation mobility, such as eVTOL (flying vehicles), are expanding. We will contribute to sustainable flight, which is required in the future, by leveraging our experience of pursuing low fuel consumption, energy savings, electrification, and lightweight materials in both the aircraft and automobile markets.



INTEGRATION of entire Group's products



### eVTOL application examples

Power unit - fuel pump bearings, resolvers  
Flight control - bearings, rod-ends

Landing gear - bearings, bushings

Airframe - latches, door handles

Cabin - antennas, various motors, HVAC, coils, strain gauges

## Creating solutions to social issues



In March 2023, we began mass production of super bearings that have enhanced rotational performance, achieved through innovative precision improvements, making full use of ultra-precision machined components and vertically-integrated manufacturing technologies.

Compared to conventional products, this product is expected to reduce rotational torque by about 40% and power value by about 4-5% at the motor, resulting in improved motor efficiency, improved quietness and product life, and reduction of CO<sub>2</sub> emissions. For data centers and other facilities where heat control is required, the improved motor efficiency from the super

bearings can help reduce CO<sub>2</sub> emissions. Furthermore, as a high value-added product that contributes to solving social issues, we expect them to be used in air conditioners, data center fan motors, and other applications that need to operate for long hours with high reliability. In the second half of the fiscal year ending March 2024, we plan to sell about 15 million units per month of super bearings for fan motors and 10 million units per month for air conditioners.

**Rotational torque**  
Approx. **40%**  
**Reduction!**

**Differences**  
between our conventional products and super bearing



At motor  
**Power value**  
Approx. **4-5%**  
**Reduction!**