

## A MESSAGE TO SHAREHOLDERS

### The Year in Review

Fiscal 2001, ended March 31, 2001, was a year of progress for Minebea as we focused on reinforcing core operations and adding more value to products in these areas and on selectively enhancing our business portfolio. At the same time, we continued to make active investments aimed at growing promising businesses.

We benefited from brisk sales of ball bearings, small motors and other core products. Nonetheless, flagging orders and a drop in prices for switching power supplies, speakers and fasteners, together with the negative impact of foreign exchange fluctuations—estimated at ¥10,766 million—held consolidated net sales to ¥287,045 million, an increase of 0.8% from the previous period. In contrast, consolidated operating income rose 6.1%, to ¥32,977 million, as higher production volume and efforts to reduce costs for ball bearings, small motors and other products countered the impact of negative foreign exchange fluctuations—estimated at ¥2,000 million. Consolidated net income amounted to ¥14,826 million as income generated by the transfer of our holding in subsidiary Actus Corporation counterbalanced expenses associated with our decision to withdraw from the wheel business and the liquidation of several loss-making subsidiaries and affiliates.

During the period, we took decisive steps to lower interest-bearing debt. At the same time, however, we invested heavily to expand production capacity in core businesses and to begin manufacturing new products. Expenditure for purchase of property, plant and equipment totaled ¥39,877 million, approximately double the investment in the previous period. As a consequence, free cash flow decreased 103.6%, to ¥(1,536) million.

I am pleased to report that results for the period were largely in line with the forecasts contained in our current three-year management plan, launched in fiscal

2000. We achieved these results despite dramatic changes in our operating environment since January 2001 and significant foreign exchange fluctuations.

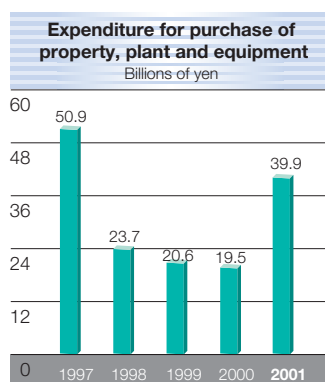
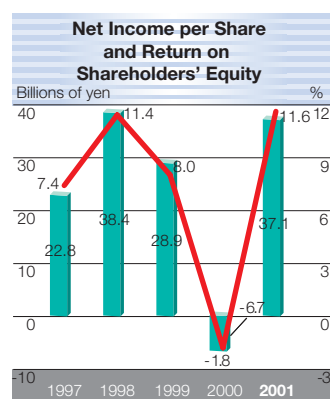
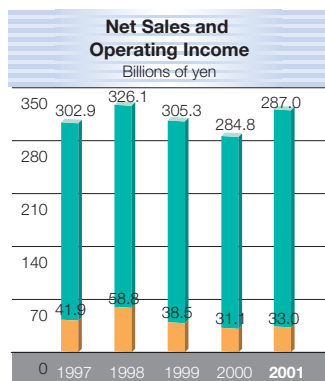
### Management Strategies

#### Three Basic Management Directions

We have set three basic management directions that will guide our efforts to build Minebea into a high-growth, highly profitable company.

**First, we will expand production capacity for our highly profitable mainstay bearings and bearing-related products. Second, we will build our operations in the area of precision small motors and other rotary components until they are similar in scale to our bearing operations. Third, we will increase the ratio of high-value-added products in core product categories.**

In the half-century since its establishment in 1951 as Japan's first specialized manufacturer of miniature ball bearings, Minebea has cultivated ultraprecision machining and mass-production technologies as it has built up its bearing operations. These technologies have given us our most important advantage, the one that distinguishes us from our competitors. Today, our ultraprecision machining technologies are used not only for ball bearings but also for small motors and other core products. These technologies have facilitated the implementation of our vertically integrated manufacturing system, which encompasses all processes—from engineering and development to the manufacture of molds and components to final assembly and testing—thereby enabling us to ensure a stable, high level of quality for our mass-produced components. (We invite you to learn more about this system in the special feature of this year's annual report.)



The effectiveness of measures implemented in line with our three-year management plan to advance these technologies is borne out by the fact that we have achieved results largely equal to the forecasts contained in our current three-year management plan.

#### *Selective Focusing of Resources*

To reinforce the foundation from which we are pursuing the three management directions I have outlined, we implemented a number of key restructuring measures during the period under review.

**First, we completed our withdrawal from the consumer business—in which we have been involved fully since 1993—by transferring our holding in subsidiary Actus, a furniture and interior decor product sales company, to a third party. Second, we reviewed loss-making operations with minimal growth potential and, as a result, made the decision to withdraw from the wheel business and reorganize our speaker business and related subsidiaries. Third, we dissolved our exclusive sales agent agreement with Keiaisha NMB Co., Ltd., which previously handled all domestic sales of Minebea products. This decision was prompted by a desire to improve the efficiency of domestic marketing by integrating manufacturing and reorganizing Our sales structure.**

We will continue to be selective and focus our resources in key businesses in fiscal 2002. As of June 2001, three key restructuring initiatives are in progress, and we will continue to rationalize and review the business plans of loss-making and low-growth businesses.

**The first restructuring initiative entails scaling back and integrating our switching power supply development and manufacturing operations in North America and development operations in Europe. The second initiative comprises a fundamental reforming of personnel and organizational structures and a review of the product lineup in our fastener business. The third initiative involves shifting our speaker box assembly operations from Taiwan to Malaysia—a major center for global audio equipment producers—and implementing a stringent review of our product lineup.**

#### **Product Strategies**

In line with the directions outlined in our three-year management plan, we have invested heavily in two core product categories, notably bearings and bearing-related products and small motors. At the same time, we have focused on developing promising new products and cultivating new markets.

#### *Bearings and Bearing-Related Products*

In fiscal 2001, shipments of ball bearings to outside customers climbed approximately 10% from the previous period, with gains particularly high in Asia (excluding Japan). Shipments for internal use also expanded sharply, spurred by increased output of several key products, including fan motors and pivot assemblies.

In response to soaring demand, we have taken steps in recent years to expand our ball bearing production capacity. As of December 2000, we had established a global monthly capacity of 150 million pieces, in accordance with stated plans, up from 120 million pieces as of October 1999. By March of this year, actual production



RO bearings



Fluid dynamic bearings

RO bearings and fluid dynamic bearings are described in detail on page 15, in Performance by Industry Category.

had caught up to capacity. We have also focused on improving the precision of such key products as RO bearings. At the same time, we have commenced mass production of fluid dynamic bearings, a crucial product for the future. We are the only bearing manufacturer in the world to manufacture both ball bearings and fluid dynamic bearings, a distinction that positions us well to respond effectively to the increasingly diverse demands of principal bearing customers, namely small motor manufacturers, and sets us apart from our competitors.

#### *Small Motors*

Our small motor operations date back more than 30 years and encompass fan motors, stepping motors, hard disk drive (HDD) spindle motors and other products that fully maximize our ultraprecision machining and mass-production technologies. We manufacture most of the parts used in these motors in-house, including the bearings (ball bearings or fluid dynamic bearings), shafts, housings, lead screws and magnets, giving us a considerable advantage in terms of quality, supply capabilities, lead time and manufacturing costs.

In the period under review, we recorded a sharp increase in sales of HDD spindle motors. Sales of fan motors, stepping motors and other key products in this category were also solid. We are taking steps to expand our production capabilities in anticipation of further increases in demand and, in March 2001, completed a new production facility for HDD spindle motors in Thailand. In August, we are scheduled to complete a new fan motor facility in the People's Republic of China (PRC). Demand for our HDD spindle motors is growing in response to the forthcoming launch of high-value-added models containing our RO bearings.

In addition to enhancing production capacity for these motors, we have commenced mass production of HDD spindle motors that incorporate fluid dynamic bearings, positioning us to respond to emerging needs for both types of motor and further reinforcing our competitiveness in this crucial market.

#### *Automotive Components*

In the automotive industry, demand continues to increase for improvements in energy consumption, safety and comfort. Accordingly, demand is also rising for high-performance motors and sensors for advanced control systems. This sector enables us to maximize our motor development capabilities, centered at German subsidiary Precision-Motors-Deutsche-Minebea-GmbH (PMDM); the development and engineering expertise we have accumulated as a manufacturer of resolvers, clutches and other components for aerospace and defense equipment; and, certainly, our ultraprecision machining and mass-production technologies. We view rotary components for automobiles as a business that offers outstanding medium-to long-term growth potential and will actively cultivate new demand for these products.

We already supply motors for electrical power steering systems, dashboard units and headlight actuators to leading European automakers. Domestic automakers are also showing considerable interest in these offerings. As well, we continue to work to develop new products, including motors for antilock brake systems (ABSs) and electric brake systems, and bring them to market.

In November 2000, we began sample shipments of variable reluctance (VR) resolvers with resolver-to-digital (RD) converters. Automakers in Japan, Europe and the United States have expressed strong interest in these units.



VR resolver with RD converter



New fluid dynamic bearing and HDD spindle motor plant in Thailand

VR resolvers with RD converters and our new fluid dynamic bearing and HDD spindle motor plant in Thailand are described in detail on page 17, in Performance by Industry Category.

## Outlook for Fiscal 2002

Our three-year management plan, announced in fiscal 2000, contains the following forecasts:

	2001		2002		2003
	Initial		Initial	New	Initial
	Target	Actual	Target	Target	Target
Net sales	¥290,000	¥287,045	¥332,000	¥300,000	¥373,000
Operating income	33,000	32,977	39,000	33,000	47,000
Net income	15,000	14,826	20,000	15,000	27,000
Expenditure for purchase of property, plant and equipment	31,300	39,877	32,000	25,700	32,000

We currently forecast net sales of ¥300 billion, operating income of ¥33 billion and net income of ¥15 billion for fiscal 2002. While all figures represent slight increases, they are closer to the fiscal 2001 targets contained in our three-year management plan and fall short of the targets for fiscal 2002. These forecasts reflect several key factors.

**First, we have accounted for slow-downs in the global economy and the market for information and telecommunications equipment since January 2001. Second, we now do not expect our switching power supply business to break even until fiscal 2003 or later, contrary to our initial projection that this would happen in fiscal 2002. Third, we now anticipate sales and operating income for speakers and fasteners will fall significantly below initial expectations. Finally, the sale of Actus will eliminate approximately ¥13,300 million from net sales and ¥800 million from operating income in fiscal 2002.**

## A High-Growth, Highly Profitable Company

We expect the second year of our management plan to be essentially a repeat of the first in terms of sales and profit



**Tsugio Yamamoto**  
President and Representative Director

performance. I stress, however, that the reasons for this represent the outcome of measures, implemented in line with our management plan's three basic management directions, to selectively concentrate resources in key areas and maximize our ultraprecision machining and mass-production technologies. We will continue to use such measures to ensure achievement of the plan's goals and further growth for Minebea in the future.

I thank our shareholders for their support to date. I look forward to responding to your expectations in the years ahead by building Minebea into a high-growth, highly profitable company and ask for your continued endorsement of our efforts.

June 28, 2001



Tsugio Yamamoto  
President and Representative Director



# Minebea's Competitive Advantages

**Ultraprecision  
machining technologies  
amassed through  
the production of  
ball bearings**

**A vertically integrated  
manufacturing system  
that facilitates mass  
production of  
high-precision  
components**

**High-growth markets**

# Minebea has cultivated ultraprecision machining technologies as it has developed its bearing operations

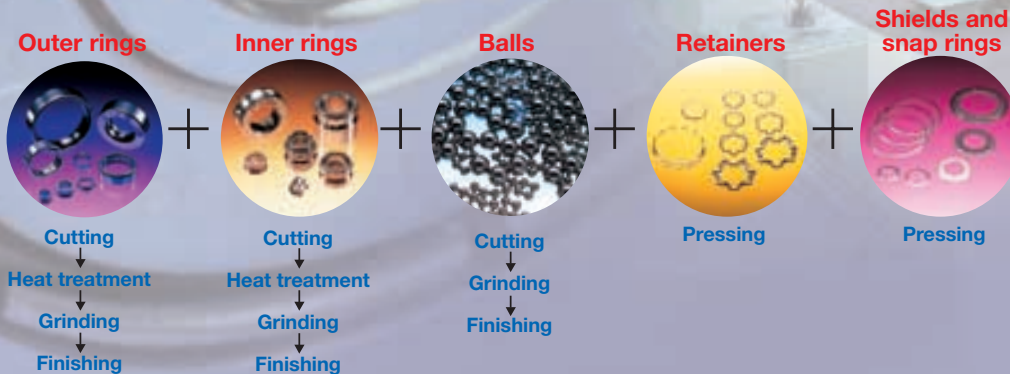
A ball bearing is a typical machine-processed part and usually comprises an outer and inner ring; balls; one or two retainers, which keep the balls in place; shields, protective covers fitted onto the outer rings; and snap rings. Very little about this basic design has changed in more than a century.

Today, however, ball bearings—particularly miniature and small-sized ball bearings—are the most crucial high-precision machined components in industry and the key element in determining the performance and quality of innumerable products essential to contemporary life, including PCs and other information and telecommunications equipment and household electrical appliances.

The precision of a ball bearing is determined by several factors, including the raceway roundness of the inner and outer rings, sphericity of balls and the raw materials used in each component. Improving precision demands uncompromising strictness on all counts. Moreover, the ability to mass produce high-precision ball bearings while ensuring a stable level of quality requires production lines composed of high-precision machining and assembly equipment, as well as high-level maintenance technology to ensure line efficiency.

The specialized expertise Minebea has amassed over the past 50 years enables it to achieve levels of precision that competitors cannot match simply by using state-of-the-art production equipment. The difference is our vertically integrated manufacturing system, whereby we conduct all ball bearing manufacturing processes—from machining to final assembly and testing—in-house. This system ensures the same superior quality for ball bearings produced at any of our mass-production bases worldwide.

## Internal Production of Parts



RO bearings



Ball bearings



Integrated-shaft bearings



# Minebea's Ultraprecision Machining Technologies



**Ultraprecision machining technologies  
amassed through the production  
of ball bearings**

## Minebea's Small Motors



HDD spindle motors



HDD spindle motors  
containing fluid  
dynamic bearings



Fan motors



Stepping motors

## Other Minebea Products



Pivot assemblies



Rod-end bearings



Spherical bearings



Precision machined parts  
for aerospace vehicles



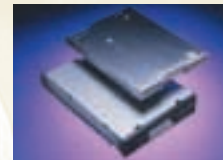
PC keyboards



Speakers



Front light assemblies  
for reflective color LCDs



FDD subassemblies



Fasteners



Resolvers

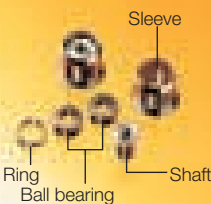


Special machinery  
components



Measuring equipment

A good example of Minebea's ultraprecision machining technologies at work is our fluid dynamic bearings, for which demand is expected to rise sharply in the future. The basic structure of a fluid dynamic bearing comprises a shaft, sleeve and plate—essentially the same as that of our global market-leading pivot assemblies for HDDs. This has given us a considerable competitive advantage, in terms of quality and manufacturing costs, in mass producing these revolutionary bearings.



Pivot Assembly



Fluid dynamic bearing



# Minebea's vertically integrated manufacturing system facilitates mass production of high-precision components

Minebea's mainstay products are used primarily in information and telecommunications equipment, household electrical appliances and automobiles.

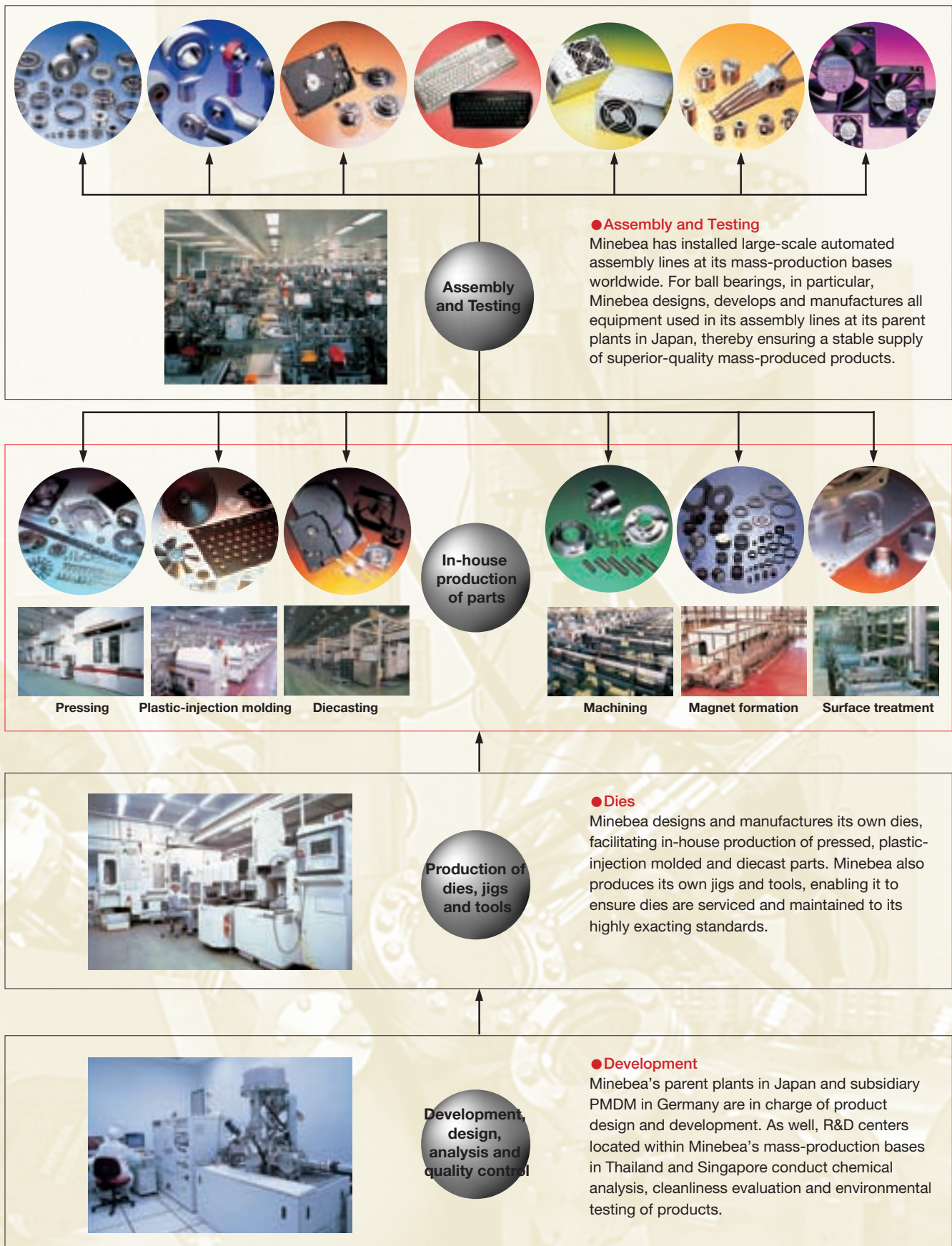
Growing technological sophistication in these industries continues to spur demands for higher levels of precision and quality at greater-than-ever production volumes. Minebea's ability to respond to such demands is due to its unique vertically integrated manufacturing system. This system, which encompasses all processes—including design and research; production and maintenance of dies; production of parts for in-house use, including pressed, plastic-injection molded, diecast and machined parts, and magnets; assembly and testing—facilitates mass production of high-precision machined components.

This system also enables our mass-production facilities in Thailand, the PRC and Singapore—which account for approximately 80% of total group sales—to coordinate smoothly and efficiently with parent plants in Japan and R&D bases worldwide. This ensures our ability to provide consistently superior-quality products from all of our mass-production bases.





# Vertically Integrated Manufacturing System

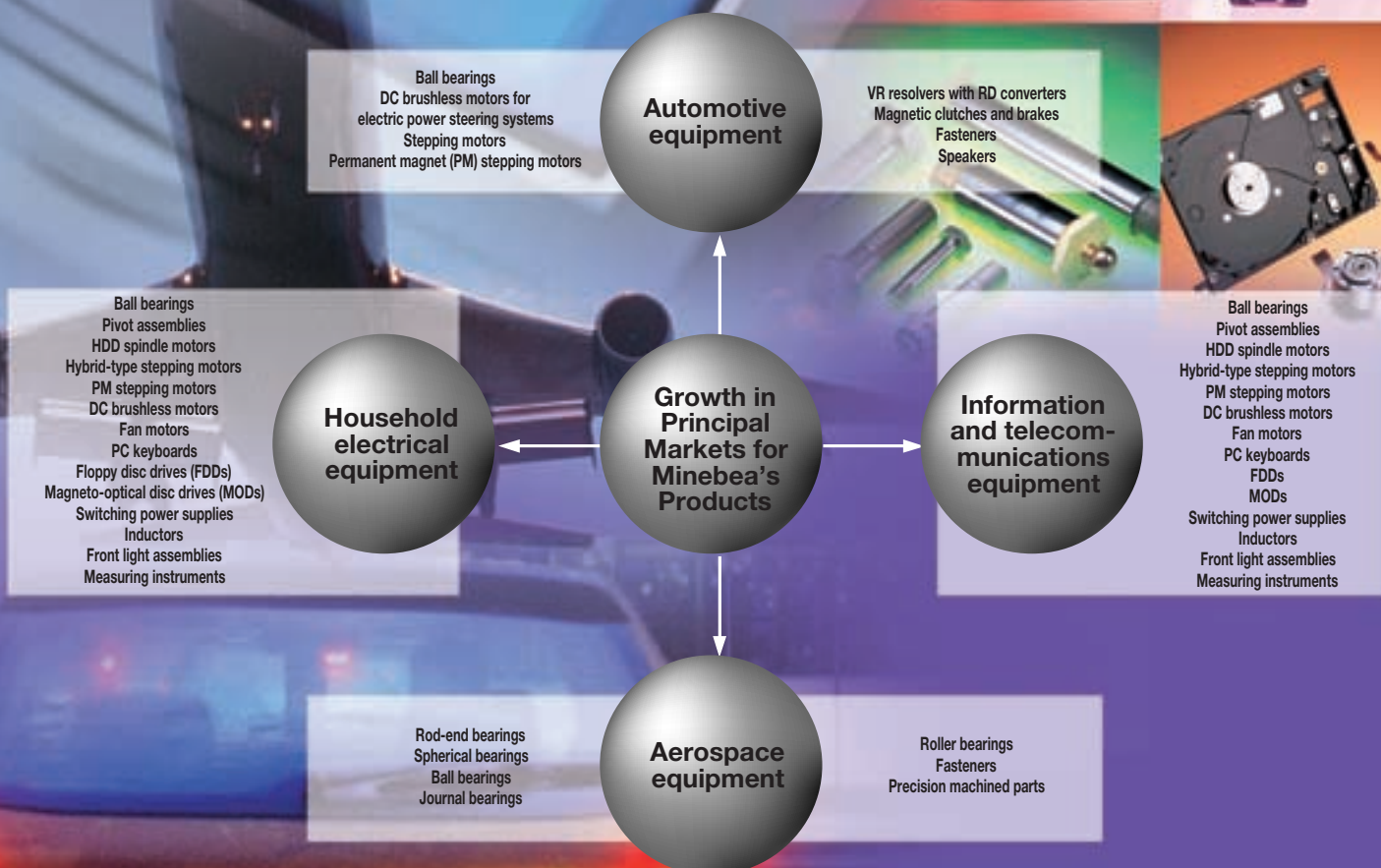
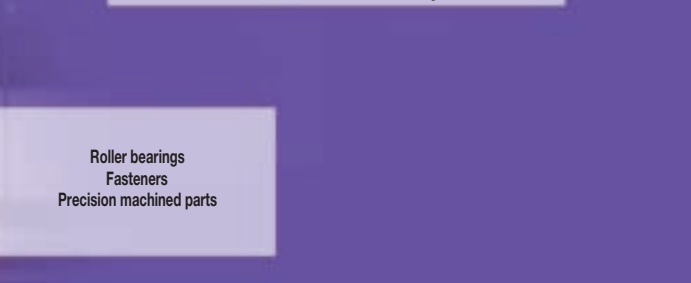
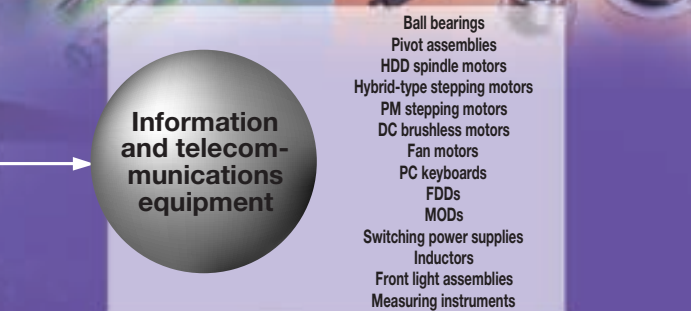




# Minebea continues to capitalize on the expansion and diversification of key markets to achieve growth

Minebea's mainstay products are sold extensively to manufacturers of information and telecommunications equipment, household electrical appliances, aerospace equipment and automobiles.

When we started out 50 years ago as a specialized manufacturer of miniature ball bearings in Japan, we supplied bearings for use in aircraft instruments. Since then, we have responded to demand for our precision machined components in an increasingly wide range of industries. In the 1970s, we expanded our focus to include VCRs and other household electrical appliances. We added office automation (OA) equipment to our list of key customer industries in the 1980s and PCs in the 1990s. These markets are expected to continue growing. We also anticipate increased demand from the automotive industry for high-precision, highly reliable control sensors, reflecting greater concern for fuel efficiency, safety and comfort, and from the markets for cellular telephones, personal digital assistants (PDAs) and digital household electrical appliances. Accordingly, we anticipate new opportunities to maximize the competitive edge afforded by our ultraprecision machining and mass-production technologies.







**DC brushless motor for electric power steering systems**

#### ● Automotive Components

Minebea, which enjoys a solid reputation as a manufacturer of high-quality special machinery components, and U.S. firm Analog Devices, Inc., a leading VR resolver and hybrid integrated circuit (IC) manufacturing company, have developed an innovative VR resolver with RD converter that combines a VR resolver, which senses the rotation angle and the revolutions per minute of the motor shaft, and an RD converter. We also manufacture motors for electric power steering systems, dashboard units and light control systems for automakers in Europe and are developing ABS motors, electric brake motors and other rotary components, which we expect to bring to market in the near future.



**VR resolver with RD converter**

### Growth in New Markets



#### ● Front Light Assemblies for Reflective Color Liquid Crystal Displays (LCDs)

These front light assemblies comprise a light-conducting, transparent polymethyl methacrylate (PMMA) panel made from a number of fine prisms and white light-emitting diode (LED) chips. This exclusive product, which capitalizes on Minebea's advanced plastic-injection molding technologies, improves the brightness and readability of the display, delivering better visibility in the dark and lower power consumption, enabling it to significantly reduce the power demands of PDAs, which use batteries, cellular telephones and other mobile equipment.



#### ● Fluid Dynamic Bearings

In a fluid dynamic bearing, a thin layer of oil or other lubricant is injected between the shaft and sleeve. The structure of the bearing features a rotating shaft, which generates a hydrodynamic force, causing the shaft to float. The noncontact construction of fluid dynamic bearings gives them certain advantages over conventional ball bearings. Minebea's fluid dynamic bearings bring together Seagate Technology, Inc.'s design and development capabilities and Minebea's ultraprecision machining and mass-production technologies, giving the Company a significant advantage in terms of precision, quality and manufacturing costs.



Desktop PCs



Notebook PCs



Facsimile machines



Laser printers



Sewing machines



Copy machines



Electronic music and game devices



Air conditioners



Audio components



Dehumidifiers



Televisions



VCRs



Interphones



Portable cassette players



Air sanitizers



Video cameras



Telephones



Sliding bookshelves



Microwave ovens



Weight scales



Micro-computerized wash/dry toilets



Oil fan heaters



Window shutters



Vacuum cleaners



Oil and gas water heaters



Rice cookers



Blenders



PDAs



Low tables with built-in heaters



Models



Refrigerators



In-line roller skates



Electric power tools



Fishing reels



Cellular telephones

Ball bearings  
Fan motors  
Hybrid-type stepping motors  
PM stepping motors  
HDD spindle motors  
FDD spindle motors  
DC spindle motors  
Induction motors  
Keyboards  
Speakers  
Transformers  
FDD subassemblies  
Head carriage assemblies  
Magnetic heads  
Switching power supplies  
Inductors  
Front light assemblies  
Strain gauges  
Load cells  
Pivot assemblies  
Tape guides

## Minebea's Mainstay Products at Home and at Work

## ENVIRONMENTAL ACHIEVEMENTS

### A Decade of Contribution to Environmental Preservation

**1991** Minebea organizes the Anti-CFC Committee with the aim of phasing out the use of specified chlorofluorocarbons (CFCs) and ethane as cleaning agents.

**1993** Minebea develops a water-based washing system, which it installs at all of its plants, becoming the first bearing manufacturer in the world to completely eliminate specified CFCs and ethane from all production and assembly processes.

The parent company and Minebea's Thai subsidiaries receive the Stratospheric Ozone Protection Award from the U.S. Environmental Protection Agency (EPA) for eliminating specified CFCs and contributing to overall efforts to encourage environmental protection by actively disclosing technical information on its water-based washing system.

Minebea's Anti-CFC Committee is replaced by the Environmental Protection Committee.

Minebea formulates its own "Charter for Environmental Protection."

**1995** Former president Goro Ogino receives the Stratospheric Ozone Protection Award for individuals from the U.S. EPA.

**1996** Minebea Electronics & Hi-Tech Components (Shanghai) Ltd. establishes the Shanghai-Minebea Environmental Protection Fund, aimed at protecting the quality of the water in Lake Daishan-hu as well as the surrounding environment.

**1997** In April, the Karuizawa Manufacturing Unit and U.K. subsidiary Rose Bearings' Lincoln plant obtain ISO 14001 certification, making Minebea the first bearing manufacturer to do so. In October, seven subsidiaries and four sites in Thailand, home of Minebea's largest production base, and two plants in China also received this endorsement.

The Minebea Group is selected as winner of the U.S. EPA's Best-of-the-Best Stratospheric Ozone Protection Award.

**1998** In January, Minebea's Singapore plants obtain ISO 14001 certification. This endorsement is also awarded to five plants and three subsidiaries in Japan and one subsidiary in Germany during the year.

**1999** One plant in Japan, two plants of a subsidiary in England and one plant in the United States obtain ISO 14001 certification.

**2000** One plant of a subsidiary in the United Kingdom obtains ISO 14001 certification.

Cleanup measures were implemented promptly after an investigation at subsidiary Minebea Onkyo Co., Ltd.'s Ichinoseki Plant, in Ichinoseki, Iwate Prefecture, confirmed trichloroethylene and trichloroethane contamination of the soil and groundwater.

(As of June 28, 2001)

### Topics

#### Shanghai-Minebea Environmental Protection Fund Increased

On May 23, 2001, subsidiary Minebea Electronics & Hi-Tech Components (Shanghai), in the PRC, increased the Shanghai-Minebea Environmental Protection Fund to Rmb110 million, from Rmb75 million. This was done in commemoration of the 50th anniversary of the founding of the parent company, which was observed on July 16, 2001.

The Shanghai-Minebea Environmental Protection Fund was established in April 1996 as part of Minebea Electronics & Hi-Tech Components (Shanghai)'s commitment to environmental protection. The purpose of the fund is to support activities aimed at preserving the quality of the water in Lake Daishan-hu and the environment of the surrounding area, particularly the town of Xicen. The fund is endowed by Minebea Electronics & Hi-Tech Components (Shanghai), and accrued interest is used to finance activities. To date, the fund has assisted efforts to:

- install 4,000 chemical toilets in Xicen;
- build green belts in and around the Shanghai and Xicen plants;
- clean up Lake Daishan-hu and the nearby highway, No. 318; and
- provide saplings to the Shanghai Sapling Center.



The Shanghai Plant of Minebea Electronics & Hi-Tech Components (Shanghai) Ltd.



Speech by Minebea President Yamamoto at a commemorative presentation ceremony on May 23, 2001



Sapling donation ceremony at the Shanghai Sapling Center



## PERFORMANCE BY INDUSTRY CATEGORY

### Review of operations and results in Minebea's three industry categories in fiscal 2001

#### Machinery Components

##### *Bearings and Bearing-Related Products*



Ball bearings



Ball bearings  
(RO bearings)



Fluid dynamic bearings



Pivot assemblies



Rod-end bearings



Spherical bearings

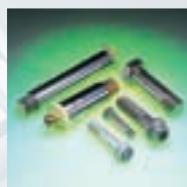
##### *Other Machinery Components*



Journal bearings



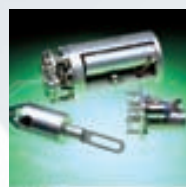
Roller bearings



Fasteners



Wheels



Special machinery  
components



Solenoid valves

#### Electronic Devices and Components

##### *Rotary Components*



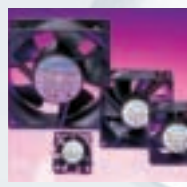
HDD spindle motors



Hybrid-type  
stepping motors



PM stepping motors



Fan motors

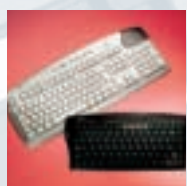


DC brushless motors

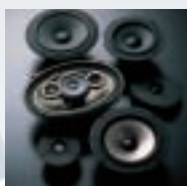


VR Resolvers

##### *Other Electronic Devices and Components*



PC keyboards



Speakers



Switching power  
supplies



FDD subassemblies



Front light assemblies for  
reflective color LCDs



Measuring equipment  
(strain gauges, load cells)

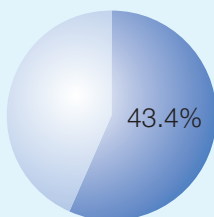
#### Consumer and Others

Operations in this category focus on retail sales of furniture and interior decor products.

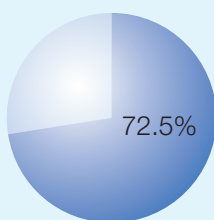
(This segment comprises the operations of subsidiary Actus Corporation. In February 2001, Minebea transferred its holding in Actus to TRS Co., Ltd.)

## Machinery Components

Percentage of net sales



Percentage of operating income



### Principal Products

#### Bearings and Bearing-Related Products

Miniature ball bearings  
Small-sized ball bearings  
Integrated-shaft ball bearings  
RO bearings  
Fluid dynamic bearings  
Rod-end bearings  
Spherical bearings  
Roller bearings  
Journal bearings  
Pivot assemblies  
Tape guides

#### Other Machinery Components

Aerospace/automotive fasteners  
Wheels  
Special machinery components  
Magnetic clutches and brakes  
Solenoid valves

**Sales of machinery components amounted to ¥124,461 million in fiscal 2001, down 2.6% from the previous period, and accounted for 43.4% of net sales. Reflecting efforts to lower manufacturing costs, particularly for ball bearings, category operating income advanced 8.7% from fiscal 2000, to ¥23,906 million, or 72.5% of operating income.**

### Bearings and Bearing-Related Products

Despite solid sales of ball bearings, sales of bearings and bearing-related products edged down 0.7%, to ¥101,096 million, owing to declines in sales of rod-end and spherical bearings and pivot assemblies.

Sales of ball bearings remained firm as increased demand from manufacturers of air conditioners, vacuum cleaners and other household electrical appliances countered the impact of inventory adjustments by PC manufacturers after January 2001. Shipments to external customers rose 9.5% as shipments to Asia (excluding Japan) climbed 33.0%. Volume for in-house use also rose sharply in response to expanded production of small motors, notably HDD spindle motors and fan motors.

In response to soaring demand, we expanded our ball bearing production capacity. As of December 2000, we had established a global monthly capacity of 150 million pieces—up from 120 million pieces as of October 1999—in line with stated plans. By March of 2001, actual production had caught up to capacity. With demand from the information and telecommunications equipment, household electronic appliance and automotive industries forecast to continue growing in fiscal 2002 and demand for use in-house in fan motors, stepping motors and HDD spindle motors also expected to expand, we expect ball bearing production facilities to operate at full capacity from the second half of fiscal 2002. We have also focused on improving the precision of RO bearings and other mainstay bearing products—an important factor given the increasing use of our HDD spindle motors for high-end applications.

In November 2000, we began mass production of fluid dynamic bearings for HDD spindle motors for Seagate Technology, Inc., of the United States. In March 2001, we completed a new plant for fluid dynamic bearings and HDD spindle motors within the Bang Pa-in Plant in Thailand, thereby positioning

ourselves to respond to requirements for various types of HDD spindle motor.

Sales of rod-end and spherical bearings edged down, owing to a drop in orders in fiscal 2000. Demand from U.S. aerospace companies—the principal customers for these products—began to recover in the second half of the period, following two consecutive years of decline. We will strive to expand sales in this product group by stepping up marketing to U.S., European and Japanese manufacturers of large commercial aircraft, as well as by cultivating demand from manufacturers of small and medium-sized aircraft in South America, the PRC and other key markets. At the same time, we will implement measures to reduce inventory and improve production efficiency.

Sales of pivot assemblies fell below the fiscal 2000 level, owing to such factors as inventory adjustments by HDD manufacturers, our principal customers for these products. Although the outlook for the PC industry is uncertain, we expect the launch of a new duplex-type pivot assembly developed in-house to bolster sales in this product group.

### Other Machinery Components

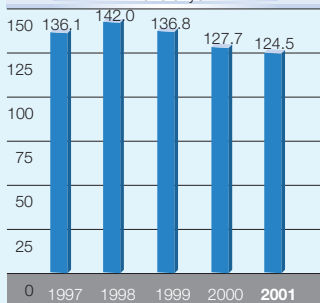
Despite firm sales of special machinery components, sales of fasteners and wheels decreased. As a consequence, sales of other machinery components fell 9.7%, to ¥23,365 million.

A decline in fastener sales was largely attributable to slack demand from the domestic aerospace and automotive industries. Although market conditions are expected to remain difficult in fiscal 2002, we will continue to implement a fundamental restructuring of this product group's personnel organization and review its product lineup in an effort to improve results.

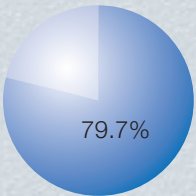
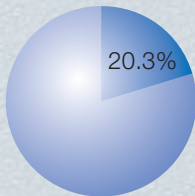



Falling sales of wheels reflected a decline in demand from principal customers, namely, manufacturers of industrial and construction vehicles and snow tires. Based on our view that the market for steel wheels is unlikely to grow significantly in the future, we decided to withdraw from the wheel business.

Expanded marketing to private-sector customers offset a decrease in demand for special machinery components from the public sector. As a consequence, sales of special machinery components were level with the previous period and are expected to remain so in fiscal 2002.

Net Sales of Machinery Components  
Billions of yen

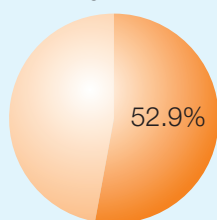




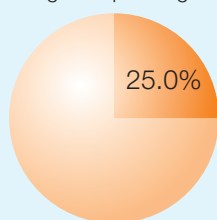
	Bearings and Bearing-Related Products	Other Machinery Components
Category Sales	<ul style="list-style-type: none"> <li>Net sales in fiscal 2001: ¥101,096 million</li> <li>Percentage of category sales: 79.7%</li> </ul> 	<ul style="list-style-type: none"> <li>Net sales in fiscal 2001: ¥23,365 million</li> <li>Percentage of category sales: 20.3%</li> </ul> 
Fiscal 2001 Highlights	<ul style="list-style-type: none"> <li>Global monthly production capacity for ball bearings was increased to 150 million pieces, in line with stated plans.</li> <li>Mass production of fluid dynamic bearings commenced.</li> <li>A plant for fluid dynamic bearings and HDD spindle motors was completed in Thailand.</li> </ul>	
RO Bearings	<ul style="list-style-type: none"> <li>RO bearings are high-precision bearings developed by Minebea for use in HDD spindle motors. Conventional HDD spindle motors feature two standard discrete ball bearings on the shaft. The groundbreaking RO bearing—which features two raceways on the inside of the outer ring and one each on the shaft and the inner ring fitted on the shaft—combines the functions of two standard ball bearings in one. In addition to reducing misalignment and minimizing the nonrepeatable run-out (NRRO) that often occurs with two ordinary ball bearings, RO bearings facilitate more compact motor designs. RO bearings also use Minebea's proprietary ceramic balls, ensuring even higher levels of precision.</li> </ul>	
Fluid Dynamic Bearings	<ul style="list-style-type: none"> <li>In a fluid dynamic bearing, a thin layer of oil or other lubricant is injected between the shaft and sleeve. The structure of the bearing features a rotating shaft, which generates a hydrodynamic force, causing the shaft to float. The noncontact construction of fluid dynamic bearings gives them certain advantages over conventional ball bearings. Minebea's fluid dynamic bearings bring together Seagate Technology's design and development capabilities and Minebea's ultraprecision machining and mass-production technologies, giving the Company a significant advantage in terms of precision, quality and manufacturing costs.</li> </ul>	
Duplex-Type Pivot Assemblies	<ul style="list-style-type: none"> <li>Pivot assemblies are components for positioning HDD magnetic heads, which Minebea holds the largest market share in the world. The duplex-type pivot assembly is Minebea's original development and, essentially, combines two special structured ball bearings with a shaft. Compared to a conventional pivot assembly, a graded sleeve that fits around the ball bearings is not required. It has the advantage of smaller running torque and torque band over a conventional pivot assembly.</li> </ul>	

## Electronic Devices and Components

Percentage of net sales



Percentage of operating income



### Principal Products

#### Rotary Components

HDD spindle motors  
Hybrid-type stepping motors  
PM stepping motors  
DC brushless motors  
Fan motors  
DC brushless motors for electric power steering systems  
Resolvers

#### Other Electronic Devices and Components

PC keyboards  
Speakers  
Electronic devices  
(FDD subassemblies, magnetic heads for FDDs, MODs, front light assemblies for reflective color LCDs)  
Power electronic components (switching power supplies, inductors, hybrid ICs)  
Measuring equipment (strain gauges, load cells)

Sales in this category rose 4.0%, to ¥151,910 million, and represented 52.9% of net sales. Category operating income was held to a 0.1% increase, to ¥8,259 million, or 25.0% of operating income, owing to flagging orders and declining prices for switching power supplies, speakers and other electronic devices.

#### Rotary Components

Reflecting firm sales of small motors, including HDD spindle motors, stepping motors and fan motors, sales of rotary components advanced 15.4%, to ¥73,603 million.

Despite the impact of inventory adjustments by PC manufacturers after January 2001, we recorded firm gains in shipments and sales of HDD spindle motors. Quality and performance improvements, particularly for motors containing RO bearings, have made Minebea motors a leading choice of manufacturers for use in high-end 3.5-inch and new 2.5-inch HDDs. Accordingly, we anticipate a significant increase in demand in fiscal 2002.

In November 2000, we commenced mass production of fluid dynamic bearing HDD spindle motors for Seagate Technology, Inc. In March 2001, we completed a new plant for fluid dynamic bearings and HDD spindle motors in Thailand, thereby increasing our monthly production capacity for the latter to 10 million units and positioning us to respond to demand for HDD spindle motors containing either ball bearings or fluid dynamic bearings.

Sales of stepping motors declined as falling prices countered increased shipments for use in printers and other information and telecommunications equipment. In fiscal 2002, we will step up efforts to reduce costs and cultivate new markets for stepping motors.

Brisk demand from the information and telecommunications, household electronic appliances and other key customer industries supported sharp gains in sales and shipments of fan motors. We conduct vertically integrated production of fan motors at our plant in Xicen, Shanghai, in the PRC, and are currently building a new facility there—scheduled for completion in August 2001—which will increase our monthly production capacity for fan motors to 10 million units.

In the area of other rotary components, production of DC brushless motors for electric power steering systems for Delphi Automotive Systems of the United States proceeded steadily in fiscal 2001. During the period, we commenced sample shipments of a new VR resolver with RD converter to take advantage

of an anticipated increase in demand for these innovative units, particularly from the automotive industry.

#### Other Electronic Devices and Components

Sales in this category decreased 4.9%, to ¥78,307 million. Although sales of PC keyboards and measuring instruments were favorable, flagging orders and falling prices drove down sales of speakers, electronic devices, such as FDDs, and power electronic components, notably switching power supplies.

PC keyboard sales continued to grow despite the impact of inventory adjustments by PC manufacturers after January 2001, owing to an increase in the weighting of high-value-added models.

In fiscal 2002, we will focus on further enhancing product quality and increasing sales of high-value-added models. At the same time, we will work to lower manufacturing costs.

Sales of speakers dropped sharply, reflecting unfavorable conditions in the audiovisual equipment market—the principal destination for these products—and falling orders from customers in multimedia industries. In fiscal 2002, we will take steps to rationalize production and shift the weight of our product lineup toward high-value-added models. One such step will be to shift our speaker box assembly operations from Taiwan to Malaysia, a major center for global audio equipment producers.

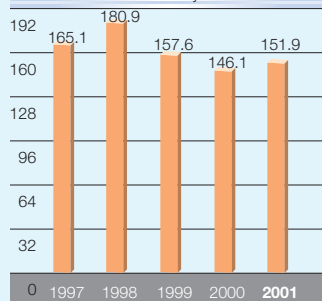
Sales of electronic devices slipped as negative conditions in the PC market and falling prices hampered sales of FDD subassemblies and MODs. We have already commenced mass production of front light assemblies for reflective color LCDs, which have been selected for use in cellular telephones put out by leading names in this industry. A manufacturer of PDAs has also decided to employ our front light assemblies, prompting us to project a significant increase in demand in fiscal 2002.

Sales of power electronic components declined as a consequence of sluggish demand and falling prices for mainstay switching power supplies. In fiscal 2002, we will continue to promote rationalization measures in this area in an effort to improve the efficiency of development activities and the profitability of newly developed products. These will include integrating and scaling back R&D and production in the United States and R&D in Europe.

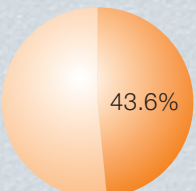
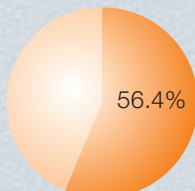



Measuring equipment sales exhibited stable growth in fiscal 2001. During the period, we reached the decision to liquidate subsidiary Minebea Geotechnology Co., Ltd., a manufacturer of construction and civil engineering-related measuring equipment. We will continue to take steps to rationalize production and narrow down our lineup of measuring equipment.

Net Sales of Electronic Devices and Components

Billions of yen

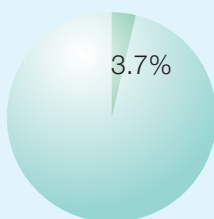




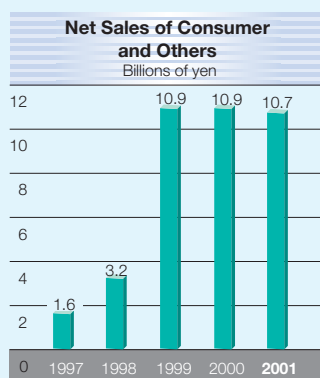
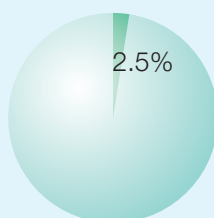
	Rotary Components	Other Electronic Devices and Components
Category Sales	<ul style="list-style-type: none"> <li>Net sales in fiscal 2001: ¥73,603 million</li> <li>Percentage of category sales: 43.6%</li> </ul> 	<ul style="list-style-type: none"> <li>Net sales in fiscal 2001: ¥78,307 million</li> <li>Percentage of category sales: 56.4%</li> </ul> 
Fiscal 2001 Highlights	<ul style="list-style-type: none"> <li>A plant for fluid dynamic bearings and HDD spindle motors was completed in Thailand in March 2001.</li> <li>Construction began on a new fan motor plant in the PRC. The plant is scheduled for completion in August 2001.</li> <li>A new facility for German small motor development subsidiary Precision-Motors-Deutsch-Minebea-GmbH (PMDM) was completed.</li> <li>Sample shipments of a newly developed VR resolver with RD converter commenced.</li> <li>Mass production of front light assemblies for reflective color LCDs was launched.</li> </ul>	
New Plant for Fluid Dynamic Bearings and HDD Spindle Motors	<ul style="list-style-type: none"> <li>During the period under review, we completed a new plant for fluid dynamic bearings and HDD spindle motors. The plant boasts a floor space of 24,960 square meters, large enough to accommodate a monthly production capacity of 6 million HDD spindle motors, bringing total capacity at this location to 10 million units. We will continue to introduce new equipment, as necessary in response to market needs.</li> </ul>	
VR Resolvers with RD Converters	<ul style="list-style-type: none"> <li>Our VR resolvers with RD converters bring together our resolvers—a result of advanced precision manufacturing technologies cultivated as a manufacturer of special machinery components—and innovative RD converters developed by Analog Devices, Inc., a leading U.S. manufacturer of ICs. We expect demand for our VR resolvers with RD converters to expand considerably in the years ahead for use in sensors for next-generation automobiles.</li> </ul>	
Front Light Assemblies for Reflective Color LCDs	<ul style="list-style-type: none"> <li>When attached on a reflective color LCD, such as that on a PDA or a cellular phone, Minebea's front light assemblies for color LCDs improve the brightness and readability of the display, delivering better visibility in the dark and lower power consumption than back-lit assemblies. As a consequence, we anticipate significant growth in demand.</li> <li>These innovative front light assemblies combine a light-conducting, transparent PMMA panel comprising a number of fine prisms and white LED chips. These assemblies were developed using Minebea's exclusive design and simulation software and advanced injection-molding technologies.</li> </ul>	

## Consumer and Others

Percentage of net sales



Percentage of operating income



This category comprises the operations of subsidiary Actus Corporation, which engages in retail sales of furniture and interior decor products in Japan, and which continued to record favorable results in the period under review. In line with our commitment to focusing on core manufacturing operations, bolstering results and reinforcing our financial condition, we transferred our holding in Actus to TRS Co., Ltd., in February 2001. This move marks the completion of our withdrawal from the consumer business, in which we have been involved fully since 1993.

As a consequence of this, our results for the period include the sales and income of Actus for the 11-month period from April 2000 through February 2001. As a consequence, sales in this category declined 2.0%, to ¥10,674 million, equivalent to 3.7% of net sales, while category operating income dipped 0.9%, to ¥812 million, or 2.5% of operating income.

The transfer of our holding in Actus generated ¥5,215 million in proceeds from sale of a subsidiary.



## PERFORMANCE BY REGION

Minebea divides its operations into four regions based on the locations of its principal manufacturing facilities.



The Minebea Group's headquarters and the Karuizawa and Hamamatsu manufacturing units are located in Japan. The two manufacturing units act as parent plants and coordinate the production, quality control and environmental management activities of the Company's mass-production facilities in Thailand, the PRC and Singapore. The Karuizawa and Hamamatsu facilities are also responsible for developing mainstay products and manufacturing technologies, pilot production and small-lot production runs, as well as for overall support of overseas plants and the training of overseas employees. Plants in Fujisawa, Omori, Kyoto and elsewhere are primarily engaged in manufacturing products for the Group's domestic customers.

Japan remains the biggest market for Minebea's products, although the size of this market is gradually shrinking as key domestic customers shift production overseas.



Major production facilities in Asia form the Minebea Group's production nucleus, with output from plants in Thailand, the PRC, Singapore and elsewhere accounting for approximately 75% of total Group production. Most of the products manufactured in this region are exported to customers around the world. The Group's facilities in Thailand, which represent about 60% of total output, form its largest production base and are responsible for most of Minebea's mainstay products. As vertically integrated operations, these facilities conduct all processes, including the manufacture and maintenance of dies and the machining of parts, in-house.

With the increasing number of Japanese, North American and European manufacturers of PCs and household electrical appliances establishing production facilities in Asia, this region has evolved into the Minebea Group's second-largest market after Japan.



Minebea's operations in this region focus on the manufacture of rod-end and spherical bearings and small motors. The region is also home to technical centers that engage primarily in quality testing for automotive components and develop switching power supplies and other products.

Sales activities in the region mainly involve the import of products supplied by the Group's mass-production facilities in Asia for customers in North America.



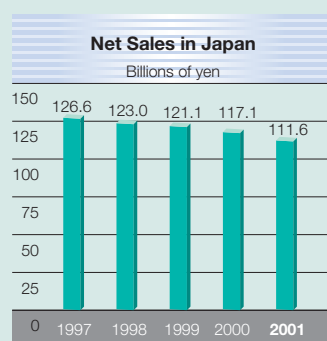
The Minebea Group's plants in England manufacture rod-end and spherical bearings and small ball bearings, primarily for the European market, while the Group's plant in Scotland prints key caps in regional languages on PC keyboards supplied by its mass-production facilities in Thailand. The Group also has an R&D center in Europe, which functions as a design and development base for small motors, fan motors, switching power supplies and a variety of other products.

In addition to production, the Minebea Group has sales and marketing subsidiaries in the United Kingdom, Germany, Italy and France, which are responsible for local distribution of products manufactured at its plants in Asia.

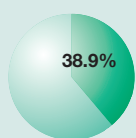
## Japan

The accelerated shift of production to Asia (excluding Japan) by its principal customers combined with Japan's ongoing recession to drive Minebea's sales in Japan down in fiscal 2001. Income was hampered by a number of factors, notably falling prices for certain electronic devices.

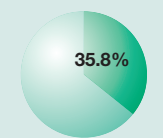
Sales in Japan declined 4.7%, to ¥111,643 million, equivalent to 38.9% of net sales, while operating income edged down 0.6%, to ¥11,806 million, or 35.8% of operating income. The value of domestic production was ¥40,149 million, equivalent to 14.0% of total production.



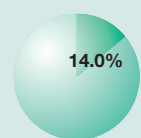
Percentage of net sales



Percentage of operating income



Percentage of total production



Karuizawa Manufacturing Unit, the parent plant for bearings, small motors and other machinery components



Hamamatsu Manufacturing Unit, the parent plant for switching power supplies and other electronic devices and components

With the aim of focusing key resources in core manufacturing businesses, we transferred our holding in subsidiary Actus, a furniture and interior product sales company, to TRS Co., Ltd. We also took decisive steps to restructure loss-generating businesses, including deciding to withdraw from the wheel business and closing down transformer manufacturing subsidiary Minebea Onkyo's Ichinoseki Plant and shifting its operations to its Kofu Plant and facilities in Thailand. We also decided to liquidate construction and civil engineering equipment manufacturing subsidiary Minebea Geotechnology Co., Ltd., in fiscal 2002. On another front, we dissolved our domestic exclusive sales agent contract with Keiaisha NMB Co., Ltd., to improve the efficiency of domestic sales and marketing.

### Domestic Offices and Manufacturing Units

- Karuizawa Manufacturing Unit
- Matsuida Factory
- Saku Factory
- Hamamatsu Manufacturing Unit
- Fujisawa Manufacturing Unit
- Omori Manufacturing Unit
- Kyoto Manufacturing Unit
- Tokyo Head Office

### Principal Domestic Subsidiaries and Affiliates

- Minebea Electronics Co., Ltd.
- NMB Electro Precision, Inc.
- Minebea Onkyo Co., Ltd.

### Principal Domestic Sales Divisions, Branches and Offices

- Minebea Co., Ltd., Sales Headquarters
- Tokyo Branch
  - Fukushima Office
  - Mito Office
  - Utsunomiya Office
  - Kumagaya Office
  - Hachioji Office
  - Atsugi Office
- Nagoya Branch
  - Hamamatsu Office
  - Hokuiku Office
  - Suwa Office
  - Karuizawa Office
- Osaka Branch
  - Kyoto Office
  - Akashi Office
  - Hiroshima Office
  - Shikoku Office
  - Kyushu Office



## Asia (Excluding Japan)

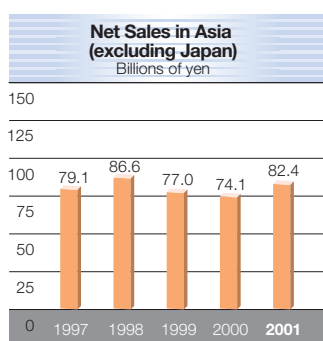
The Minebea Group recorded increased shipments of ball bearings, small motors and other core products in Asia (excluding Japan), reflecting the expansion of production in the region by global manufacturers, particularly of information and telecommunications equipment and household electrical appliances.

As a consequence, sales generated by our operations in this region advanced 11.3%, to ¥82,437 million, and represented 28.7% of net sales. Regional operating income climbed 14.4%, to ¥17,362 million, and accounted for 52.6% of operating income. The value of production by plants in the region was ¥219,392 million, or 76.4% of total production.

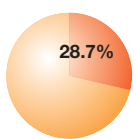
Highlights of the period included the completion of a new production facility for fluid dynamic bearings and HDD spindle motors

within the Bang Pa-in Plant, our largest manufacturing base in Thailand. We also took steps to expand production capacity and strategically position the plant for future growth, such as acquiring a piece of land adjacent to the Bang Pa-in Plant, doubling the total area of the facility to 850,000 square meters.

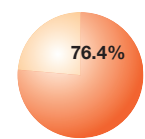
We also increased monthly production capacity for ball bearings at our plant in Shanghai, our second-largest production base after Thailand, to 20 million pieces, from 10 million pieces. Work progressed on a new fan motor facility within the Shanghai Plant, built in response to rising demand. Completion of the new facility is scheduled for August 2001. In light of the growing importance of our operations in the PRC, we created a supervisory position for China Operations, to which a director of the parent company was appointed and stationed in Shanghai.



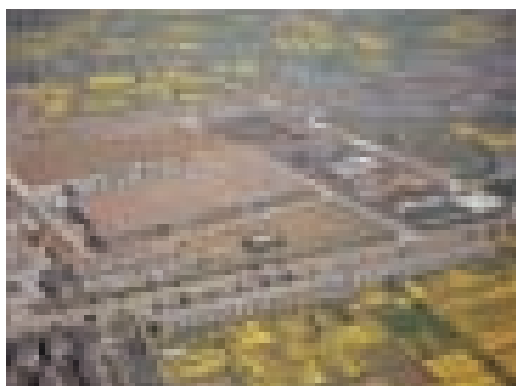
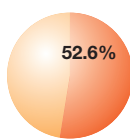
Percentage of net sales



Percentage of operating income



Percentage of total production



The Xicen Plant of Minebea Electronics & Hi-Tech Components (Shanghai) Ltd.



New facility for fluid dynamic bearings and HDD spindle motors, Bang Pa-in, Thailand

### Subsidiaries in Asia (excluding Japan)

#### Thailand

- NMB Thai Ltd.
- Pelmec Thai Ltd.
- Minebea Thai Ltd.
- Bang Pa-in Plant
- Ayutthaya Plant
- Rojana Plant
- NMB Hi-Tech Bearings Ltd.
- NMB Precision Balls Ltd.
- Minebea Electronics (Thailand) Co., Ltd.
- Power Electronics of Minebea Co., Ltd.
- Minebea Thai Ltd., Bangkok Office

#### Singapore

- NMB Singapore Ltd.
- Chai Chee Plant
- Jurong Plant
- Kallang Plant
- Pelmec Industries (Pte.) Ltd.
- NMB Precision Tool & Die (Pte.) Ltd.
- Minebea Technologies Pte. Ltd.

#### People's Republic of China

- Minebea Electronics & Hi-Tech Components (Shanghai) Ltd.
- Shanghai Plant
- Xicen Plant
- Minebea Technologies Pte. Ltd.
- Shanghai Office
- Shenzhen Office
- Hong Kong Branch

#### Taiwan

- Hwan Chong Enterprise Co., Ltd.
- Minebea Technologies Pte. Ltd., Taipei Branch

#### Republic of Korea

- NMB Korea Co., Ltd.
- Pusan Office
- Kumi Office

#### Malaysia

- Kuen Dar (M) Sdn. Bhd.
- Minebea Co., Ltd., Kuala Lumpur Branch
- Penang Office

#### Philippines

- Minebea Technologies Pte. Ltd., Manila Office

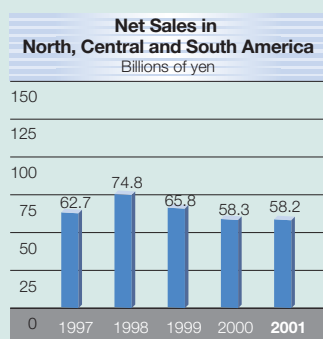
#### India

- Minebea Technologies Pte. Ltd., Bangalore Office

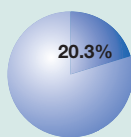
## North, Central and South America

Demand from the U.S. aerospace industry—our principal customer in this region—bottomed out in the first half and began to recover thereafter. Nonetheless, our performance in this region was hampered by a sharp decline in the market for information and telecommunications equipment, compounded by worsening losses in our switching power supply business.

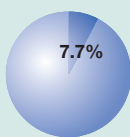
Sales in the region edged down 0.1%, to ¥58,192 million, or 20.3% of net sales. Operating income fell 51.8%, to ¥1,327 million, equivalent to 4.0% of operating income. Production in the region was valued at ¥22,122 million, or 7.7% of total production.



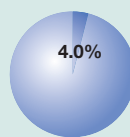
Percentage of net sales



Percentage of operating income



Percentage of total production



Key achievements during the period included the completion of the Chatsworth Plant of New Hampshire Ball Bearings, Inc., our largest manufacturing subsidiary in the region, and a new head office for holding company NMB (USA) Inc. and sales company NMB Technologies Corporation. These moves have positioned us to broaden production of miniature ball bearings and more effectively coordinate and manage regional production and sales activities.

With the aim of improving our profit performance in the region, we made the decision to close Power Systems, Inc., in the United States, and Minebea Electronics Mexico S.A. de C.V. in fiscal 2002. The former is a development facility, while the latter is a production facility for switching power supplies.



NMB Technologies Corporation's Technical Center



The new Chatsworth Plant of New Hampshire Ball Bearings, Inc.

### Subsidiaries in North and Central America

#### United States

- NMB (USA) Inc.
- NMB Technologies Corporation
- (Precision Components Div.)
- (Technologies Div.)
- Technical Center
- New Hampshire Ball Bearings, Inc.
- Peterborough Plant
- Laconia Plant
- Chatsworth Plant
- IMC Magnetics Corp.
- Hansen Corporation
- Power Systems, Inc.

#### Mexico

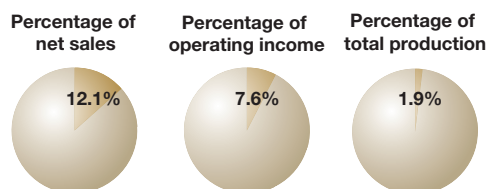
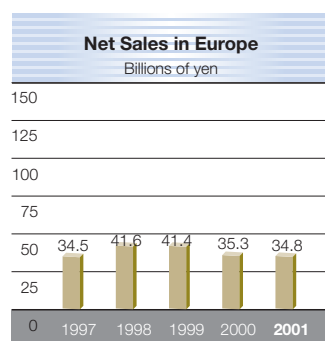
- Minebea Electronics Mexico S.A. de C.V.



## Europe

Despite an increase in sales of volume core ball bearings, small motors and PC key-boards, falling prices—notably for electronic devices—caused a decline in overall sales. Growth in income at German subsidiary PMDM, which designs and develops small motors, notably HDD spindle motors, contributed to a substantial improvement in our profit performance in this region.

Regional sales dipped 1.5%, to ¥34,773 million, and accounted for 12.1% of net sales. In contrast, operating income soared 93.3%, to ¥2,482 million, and represented 7.6% of operating income. The value of production in Europe was ¥5,382 million, or 1.9% of total production.



The Lincoln Plant of Rose Bearings Ltd.



New facility built for Precision-Motors-Deutsche-Minebea-GmbH

In November 2000, we completed construction of a new facility for PMDM, which played a crucial role in the development of HDD spindle motors and DC brushless motors. Since fiscal 2000, we have supplied these motors on an original equipment manufacturer basis to Delphi Automotive Systems of the United States for use in electric power steering systems. We will continue to enhance the capabilities of PMDM, which will serve as the Minebea Group's principal small motor development base. At subsidiary Rose Bearings, we proceeded with the installation of a new fully automated ball bearing production line encompassing all processes—from grinding through assembly—in a move aimed at improving production efficiency and lowering production costs.

With the aim of revamping the product line-ups of our U.K. and German switching power supply development bases to emphasize profitable offerings, thereby enhancing the efficiency of development efforts, we will scale back development efforts in the United Kingdom in fiscal 2002. We expect this move to improve the profitability of these operations.

### Subsidiaries in Europe

#### United Kingdom

- Rose Bearings Ltd.
- Lincoln Plant
- Skegness Plant
- Minebea Electronics (UK) Ltd.
- NMB (U.K.) Ltd.
- Inchinnan Keyboard Printing Plant
- Airmover Division

#### Germany

- Precision-Motors-Deutsche-Minebea-GmbH (PMDM)
- NMB-Minebea-GmbH
- Minebea Europe PE Development Centre

#### Italy

- NMB Italia S.r.l.

#### France

- NMB Minebea S.a.r.l.

## BOARD OF DIRECTORS



**Tsugio Yamamoto**  
President and Representative Director

### Senior Managing Directors



**Masahito Saigusa**  
Member of Tokyo Office Administration Executive Council, Administration in general



**Yoshihisa Kainuma**  
Member of the Tokyo Office Administration Executive Council, in charge of Personnel & General Affairs and Logistic & Procurement



**Takayuki Yamagishi**  
General Manager of the 2nd Manufacturing Headquarters and Hamamatsu Manufacturing Unit, in charge of R&D Headquarters



**Rikuro Obara**  
General Manager of the 1st Manufacturing Headquarters, Karuizawa Manufacturing Unit and Bearings Manufacturing Div., Karuizawa Manufacturing Unit, in charge of R&D Headquarters



**Ryusuke Mizukami**  
Member of Tokyo Office Administration Executive Council, in charge of Corporate Planning, Business Administration Information Systems, Environmental Preservation and R&D Headquarters



**Kenji Senoue**  
Member of Tokyo Office Administration Executive Council, in charge of Strategy Planning Dept.



**Tosei Takenaka**  
In charge of Asian Region Operations

### Managing Directors



**Takashi Yamaguchi**  
Member of Tokyo Office Administration Executive Council, in charge of Finance



**Tomihiro Maruta**  
General Manager of Fujisawa Manufacturing Unit



**Koichi Dosho**  
General Manager of Sales Headquarters, European & American Regional Sales Headquarters, and European Region Operations, in charge of R&D Headquarters

### Directors

**Sadao Sawamura**  
General Manager of Information Systems Dept.

**Akihiro Hirao**  
General Manager of Omori Manufacturing Unit, in charge of Engineering Management Office and General Manager of Engineering Management Office

**Sadahiko Oki**  
In charge of Accounting and General Manager of Accounting Dept. and Internal Auditing Office

**Takuya Naka**  
In charge of Legal and General Manager of Legal Dept. and Patent Administration Office, Secretary of R&D Headquarters

**Yukio Shimizu**  
Deputy General Manager of Sales Headquarters (in charge of Japan & Asian Region), General Manager of Japan & Asian Regional Sales Headquarters

**Masayoshi Yamanaka**  
In charge of North and South American Region Operations

**Shunji Mase**  
General Manager of Personnel & General Affairs Dept., Secretary of Office Tokyo Office Administration Executive Council

**Hiroharu Katogi**  
In charge of Business Administration

**Masamitsu Osada**  
General Manager of Mechatronics Division

**Susumu Fujisawa**  
In charge of China Operations

**Akio Okamiya**  
In charge of R&D Center of Karuizawa Manufacturing Unit

**Atsushi Matsuoka**  
President and Representative Director of Keiaisha Co., Ltd.

**Chanchai Leetavorn**  
Chairman of Asia Credit Plc.

**Tomeshiro Takeuchi**  
Senior Managing Director of Keiaisha Co., Ltd.

### Standing Corporate Auditors

**Shinichi Mori**  
**Yoshinori Amano**

### Corporate Auditors

**Mitsuo Ichikawa**  
Senior Managing Director of Keiaisha Co., Ltd.  
**Toshiro Uchida**  
Certified Public Tax Accountant

Note: Messrs. Mitsuo Ichikawa and Toshiro Uchida are external corporate auditors as required under paragraph 1 of Article 18 of the Law For Special Exceptions to the Commercial Code concerning Audit, etc., of Corporations.