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**Minebea Group  
Environmental Report**

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**2006**

Year Ended March 31, 2006

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**Orchids blooming in the garden of the Bang Pa-in Plant (Thailand)**

Date of photograph: June 23, 2005

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## CORPORATE INFORMATION

### Minebea Co., Ltd.

#### Date of Establishment

July 16, 1951

#### Capital

¥68,258 million (As of March 31, 2006)

#### Net Sales (Year ended March 31, 2006)

Consolidated: ¥318,446 million  
Nonconsolidated: 206,831 million

#### Consolidated Net Sales to External Customers

by Business Segment (Year ended March 31, 2006)

Machined Components ¥129,595 million  
(41% of total)

Electronic Devices and Components ¥188,851 million  
(59% of total)

#### Operating Income (Year ended March 31, 2006)

Consolidated: ¥19,269 million  
Nonconsolidated: 3,075 million

#### Ordinary Income (Year ended March 31, 2006)

Consolidated: ¥14,595 million  
Nonconsolidated: 10,236 million

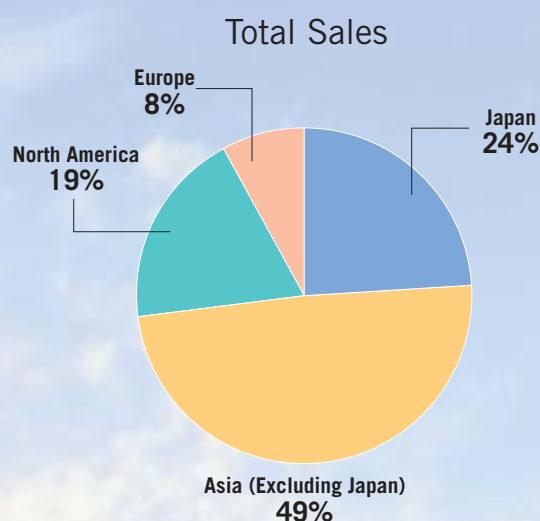
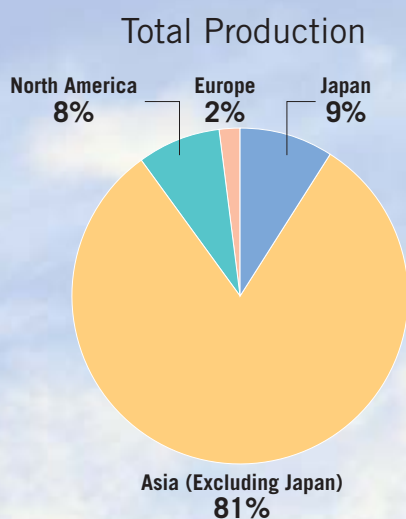
#### Net Income (Loss) (Year ended March 31, 2006)

Consolidated: ¥4,257 million  
Nonconsolidated: (3,378 million)

#### Number of Employees (Year ended March 31, 2006)

Consolidated: 47,526  
Nonconsolidated: 2,425

#### Consolidated Total Production and Total Sales by Region (Year ended March 31, 2006)



# PRINCIPAL PRODUCTS

## ■ MACHINED COMPONENTS

### Bearings and Bearing-Related Products

Miniature ball bearings  
 Small-sized ball bearings  
 Integrated-shaft ball bearings  
 Rod-end bearings  
 Spherical bearings  
 Roller bearings  
 Sleeve bearings  
 Pivot assemblies  
 Tape guides

### Other Machined Components

Aerospace/automotive fasteners  
 Special machined components  
 Magnetic clutches and brakes

## ■ ELECTRONIC DEVICES AND COMPONENTS

### Rotary Components

Hard disc drive (HDD) spindle motors  
 Fan motors  
 Hybrid-type stepping motors  
 Permanent magnet (PM)-type stepping motors  
 Brush DC motors  
 Vibration motors  
 Variable reluctance (VR) resolvers

### Other Electronic Devices and Components

Personal computer (PC) keyboards  
 Speakers  
 Electronic devices  
     Magnetic heads for floppy disc drives (FDDs)  
     Magneto optical disc (MOD) drive subassemblies  
     Lighting devices for liquid crystal displays (LCDs)  
     Backlight inverters  
 Measuring components  
     Strain gauges  
     Load cells

# EDITORIAL OBJECTIVES

- The objective of this report is to present the environmental efforts of Minebea Co., Ltd., and the companies of the Minebea Group to readers worldwide.
- This report has been prepared using the Japanese Ministry of the Environment's *Environmental Reporting Guidelines* (fiscal 2003 version) as a reference.
- Industry terms and other potentially unfamiliar terms are explained on the page on which they first appear.

The following table indicates sections required under the Japanese Ministry of the Environment's *Environmental Reporting Guidelines* (fiscal 2003 version) (unofficial translation) and the page(s) in this report where corresponding sections may be found.

Guidelines	Page(s)
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2. Basis of reporting (Reporting organization, period, fields)	4
3. Summary of nature of business	Inside front cover
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**Takayuki Yamagishi**  
 Representative Director,  
 President and Chief Executive Officer

The discovery of a celestial body in the outer reaches of our solar system that rivaled Pluto in size first made the news in August 2005. At the time, this raised the possibility that the number of bodies classified as planets would be increased to 10. The matter seemed to quickly disappear from public consciousness, though. Until this August, that is, when the International Astronomical Union (IAU) General Assembly sought to resolve differences between scientists seeking to have several new bodies classified as planets, which prompted a proposal to raise the total number to 12, and scientists campaigning for Pluto's planetary status to be revoked and the total number reduced to eight. In the end, the IAU General Assembly voted in favor of Pluto's relegation, as a result of which our solar system now officially has only eight planets.

The exact number of planets existing in our solar system thus seems to depend on how one defines "planet," and whether we decide there are nine or eight or 12, the fact still remains that the only celestial body that has water—and thus the only planet that allows life to flourish—is the Earth.

This is important when one considers the many problems that threaten the Earth's natural environment. Of the billions of celestial bodies visible in a clear night sky, only the Earth, a planet of rare beauty, sustains countless life forms. I believe strongly that as long as humans inhabit the Earth, we have a profound obligation to use our knowledge and wisdom to ensure its preservation. As I stated in last year's report, Minebea has always approached environmental protection as a key management goal, and continues

to implement a variety of initiatives aimed at minimizing the environmental impact of our various corporate activities. We have also formulated an internal organization and an environmental policy, based on an unwavering basic philosophy, to govern our efforts to address crucial environmental issues and ensure the consistency of such efforts regardless of location or country.

There is an old saying that "perseverance will accomplish all things." Efforts to address crucial environmental issues will not yield results overnight. As a company, Minebea will continue to approach environmental stewardship as an ongoing, long-term commitment. At the same time, we will continue to strive, as a global group of companies, to cooperate with our customers, suppliers and subcontractors, and communities to implement a variety of carefully planned, coordinated efforts. We look forward to your ongoing support.

August 2006

**Takayuki Yamagishi**  
 Representative Director,  
 President and Chief Executive Officer



**Ryusuke Mizukami**  
 Director, Senior Managing Officer,  
 Officer in Charge of Environmental Preservation

Since first appearing on the Earth some 150,000 years ago, *Homo sapiens* has overcome famine, disease, toxic substances and other threats to its existence. Guided by instinct, the species has fought for survival, along the way acquiring a broad range of knowledge regarding health and safety that has been passed down from generation to generation.

As human society matures, our desire grows to make our living environment more pleasant and comfortable, and to enhance our own health and safety. As a species, this desire has been our ultimate defining characteristic through the ages, an uninterrupted legacy that continues to this day.

The industrial revolution, which began in the 18th century, brought about not only the mechanization of industry, but also sparked sharp advances in the chemicals industry, including the production of a great number of chemicals. These chemicals have greatly benefited recent generations by contributing to advances in medicine and manufacturing. At the same time, they have negatively impacted the ecosystem and human health, thus constituting yet another threat to our species.

Today, greater awareness of this reality is spurring people to take steps to ensure the problems facing us today are not passed on to subsequent generations. These include such legal measures as the Restriction of Hazardous Substances (RoHS) directive, which went into effect July 1, 2006, that reflects a basic European Union (EU) policy aimed at protecting the health and safety of people in the region. In addition, there are efforts, designed to appeal to our logical, rational side, to ensure health and

safety by implementing restrictions on the use of harmful substances.

Surely this movement to create a secure, sustainable human society can be seen as our generation's industrial revolution.

Minebea views the RoHS directive as an alarm bell, warning us of the importance of taking an inclusive approach to environmental preservation that encompasses the health and safety of people. Thanks to the cooperation of our customers, suppliers and contractors, we achieved full compliance with the directive in March 2006. In line with our basic commitment to enriching rather than harming the Earth, we will continue striving to remain a corporate group deserving of your trust. We look forward to your ongoing guidance in all our efforts.

August 2006

**Ryusuke Mizukami**  
 Director, Senior Managing Officer,  
 Officer in Charge of Environmental Preservation


**Minebea**

## ENVIRONMENTAL PHILOSOPHY

Established August 26, 1993  
Revised July 1, 2005

Minebea strives to contribute to higher quality, more comfortable lifestyles by providing truly valuable products and services. At the same time, the Company works to minimize the environmental burden of its various activities and promote greater harmony, thereby contributing to the preservation and improvement of a healthy environment.

### Environmental Policy

#### 1. Development/Design

Minebea shall focus on the development and design of products that contain no chemical substances harmful to the environment or the health and safety of humans, consume little energy and satisfy the "3R" criteria, that is, can be "reduced," "reused" or "recycled."

#### 2. Manufacturing

Minebea shall set targets and restructure and revise its manufacturing procedures by using materials that contain no chemical substances harmful to the environment or the health and safety of humans, thereby improving yield, reducing waste output and lowering energy consumption.

#### 3. Distribution

Minebea shall employ packaging materials that contain no chemical substances harmful to the environment or the health and safety of humans and satisfy the "3R" criteria, as well as procedures that lower energy consumption and prevent the release of harmful substances.

#### 4. Cooperation with Authorities and Local Public Entities

When coordinating manufacturing and/or distribution activities in other countries, Minebea shall observe environment-related rules and regulations imposed by local authorities and support environmental protection efforts of local communities. At the same time, Minebea shall take a proactive approach to sharing new environmental protection technologies.

#### 5. Overseas Activities

In its manufacturing and distribution activities overseas, Minebea shall observe environment-related protection rules and regulations imposed by local authorities and do its best to preserve the environment in adjacent areas. Minebea shall also be an aggressive supplier of new environmental protection technologies.

#### 6. Environmental Audits

Minebea shall conduct periodical environmental audits at all of its production and other facilities with the aim of ensuring the effective implementation of its environmental management system and improving the system as necessary.

#### 7. Employee Education

Minebea shall require employees to attend related courses to encourage their involvement in environmental protection activities in the workplace and at home.

#### 8. Observe Minebea's Environmental Policy

All Minebea Group employees and other individual working at our sites shall adhere to Minebea's Environmental Policy. If any individual has an environment-related concern, he or she shall report it promptly to his or her manager, who shall respond promptly.

Takayuki Yamagishi  
Representative Director,  
President and Chief Executive Officer  
Minebea Co., Ltd.

## Period under review

- Fiscal 2006 (Year ended March 31, 2006)  
(Some activities that took place subsequent to March 31, 2006, are also included.)

## Manufacturing facilities

- This report covers the following Minebea Group manufacturing facilities.

### Europe

#### United Kingdom

- NMB-MINEBEA UK LTD
- Lincoln Plant
  - Skegness Plant

#### Germany

Precision Motors Deutsche Minebea GmbH

### Japan

Minebea Co., Ltd.

- Karuizawa Plant
- Matsuida Plant
- Saku Plant
- Fujisawa Plant
- Omori Plant
- Hamamatsu Plant

Minebea-Matsushita Motor Corporation

- Karuizawa Plant
- Hamamatsu Plant
- Yonago Plant

NMB Electro Precision, Inc.

### North America

#### United States

- Hansen Corporation  
New Hampshire Ball Bearings, Inc.
- Peterborough Plant
  - Laconia Plant
  - Chatsworth Plant

### Asia

#### Thailand

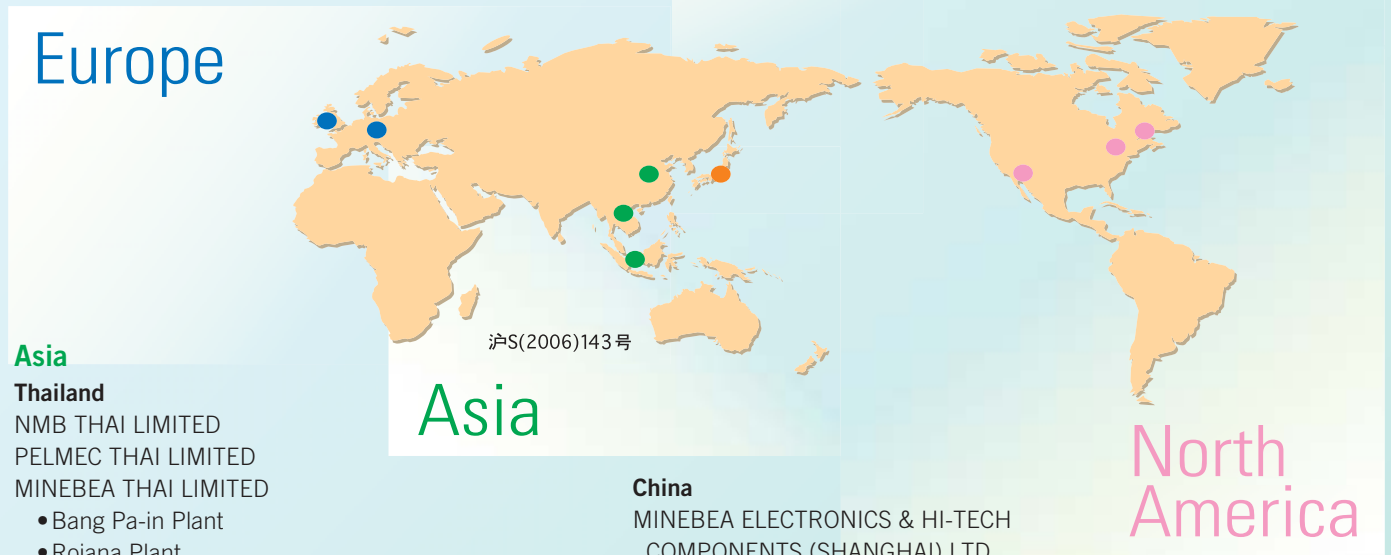
- NMB THAI LIMITED  
PELMEC THAI LIMITED  
MINEBEA THAI LIMITED
- Bang Pa-in Plant
  - Rojana Plant
  - Lop Buri Plant
- NMB HI-TECH BEARINGS LIMITED  
NMB PRECISION BALLS LIMITED  
MINEBEA ELECTRONICS (THAILAND) COMPANY LIMITED  
POWER ELECTRONICS OF MINEBEA COMPANY LIMITED  
MINEBEA ELECTRONICS MOTOR (THAILAND) COMPANY LIMITED
- Bang Pa-in Plant
  - Lop Buri Plant

#### China

- MINEBEA ELECTRONICS & HI-TECH COMPONENTS (SHANGHAI) LTD.
- Shanghai Plant
  - Xicen Plant
- Shanghai Shunding Technologies Ltd.

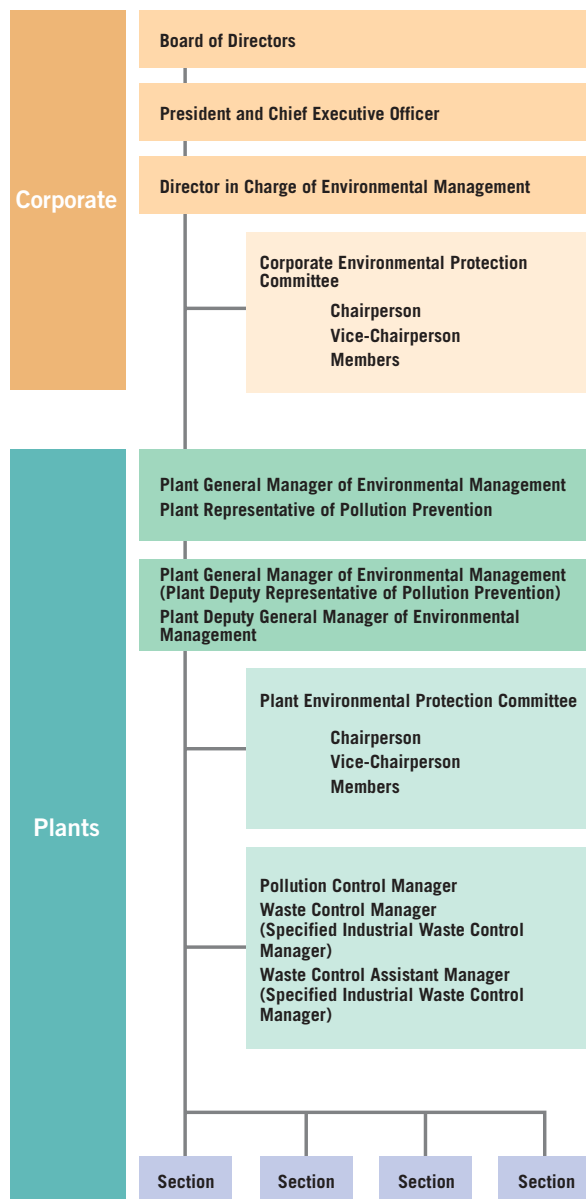
#### Singapore

- NMB SINGAPORE LIMITED
- Chai Chee Plant
  - Jurong Plant (Tool & Die Div.)
- PELMEC INDUSTRIES (PTE.) LIMITED



Minebea has always recognized environmental protection as a top management priority and has taken an active role in addressing related issues. The Corporate Environmental Protection Committee, under the guidance of the director in charge of environmental preservation, currently spearheads environmental protection efforts for the entire Minebea Group. Actual activities are overseen by individual plant environmental protection committees, which proceed in accordance with decisions made by the Corporate Environmental Protection Committee and pertinent legislation and regulations.

## Environmental Management System



Environmental management meeting (Thailand)



Production facility inspection (Karuizawa Plant)

Minebea's global presence currently encompasses 28 plants in nine countries and 43 sales offices in 13 countries. Minebea acknowledges that these plants and sales offices exert a burden on the environment. This burden comprises "input," that is, the raw materials, energy and other materials the Company consumes for use in production, and "output," or the CO<sub>2</sub> emissions, industrial waste and products it discharges. The chart below depicts input and output from Minebea's plants in fiscal 2006.

## Input-Output Flow and Material Balance<sup>11</sup>

### Energy

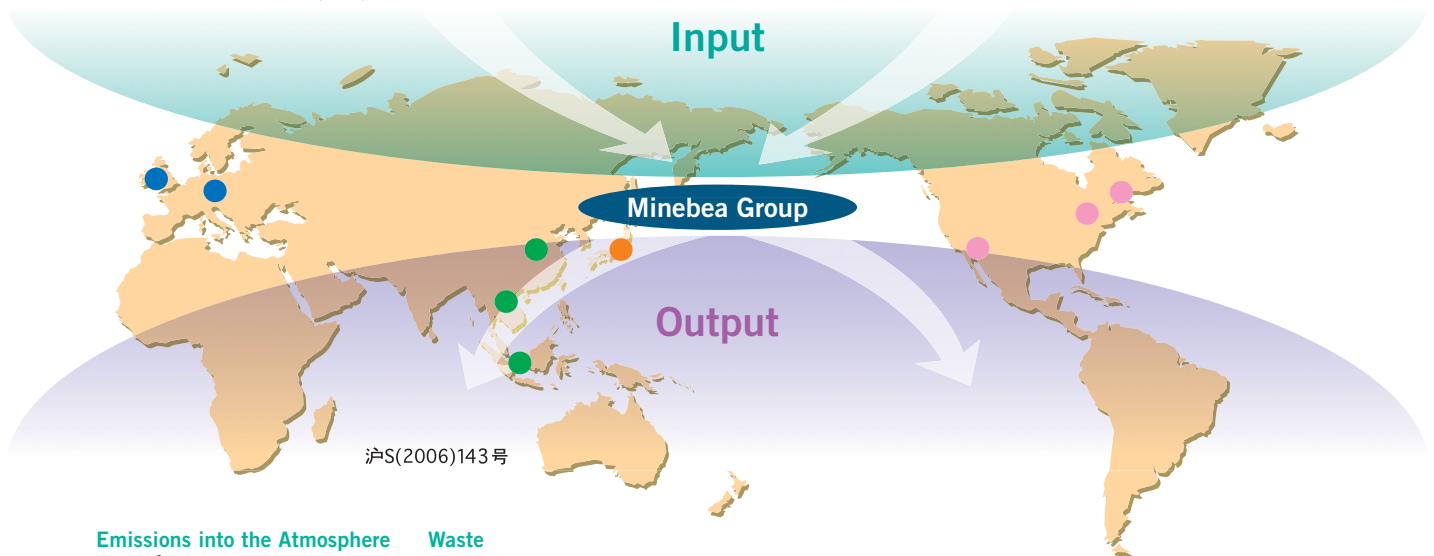
- Electricity: 813,003,000 kwh
- LPG: 1,714 tons
- City gas: 1,893,000 m<sup>3</sup>
- Oil: 3,548 kiloliters
- Water: 3,854,000 m<sup>3</sup>

### Raw Materials/Components

- Steel: approximately 57,000 tons
- Resin: approximately 19,000 tons
- Electronic components
- Packaging materials

### Chemical Substances

- PRTR chemicals<sup>7</sup>: 9.4 tons (Japan)



### Emissions into the Atmosphere

- CO<sub>2</sub><sup>1</sup>: 513,666 tons
- NO<sub>x</sub><sup>2</sup>
- SO<sub>x</sub><sup>3</sup>
- Particulates<sup>10</sup>

### Waste

- Waste disposed of as waste outside the Company: 22,838 tons
- Waste recycled or reused: 15,751 tons
- Waste disposed of as landfill: 4,240 tons

### Emissions into Water

- Wastewater: 3,500,000 m<sup>3</sup>
- pH<sup>4</sup>
- COD<sup>5</sup>
- BOD<sup>6</sup>
- SS<sup>8</sup>
- n-Hexane extractions<sup>9</sup>

### Products

- Bearings
- Motors
- PC keyboards
- Speakers
- Electronic devices
- Measuring components
- Others

### Chemical Substances

- PRTR chemicals<sup>7</sup>: 8.0 tons (Japan)

### Glossary

1. **CO<sub>2</sub>:** Carbon dioxide
2. **NO<sub>x</sub>:** Nitrogen oxides
3. **SO<sub>x</sub>:** Sulfur oxides

Emissions of CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>x</sub> result from the burning of coal, oil, gasoline and other fuels by, among others, thermal power generation, plant boilers and exhaust emissions from cars and trucks.

4. **pH:** A solution's pH reading indicates whether it is alkaline or acidic. The pH range is from 0 to 14, with 7.0 being neutral. Anything above 7.0 is alkaline, anything below 7.0 is acidic.

5. **COD: Chemical oxygen demand**  
The amount of oxygen required for oxidation of organic solids in water to CO<sub>2</sub>. COD readings can be obtained more quickly than BOD readings, but they are less reliable. COD is commonly used to monitor pollution in effluent discharged into oceans and lakes.

6. **BOD: Biological oxygen demand**  
The amount of oxygen required for the biological oxidation of organic solids in water. The higher the BOD reading, the greater the level of pollution. BOD ratings usually take five days. BOD is commonly used to monitor pollution in effluent discharged into rivers.

7. **PRTR substances: Substances included in a Pollutant Release and Transfer Register (PRTR)**

In Japan, the Law Concerning the Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management requires companies to register and monitor the release and transfer of designated PRTR substances. Data for plants overseas is in the process of being collated.

8. **SS: Suspended solids**

This term refers to matter suspended or dissolved in water or wastewater. The higher the percentage, the greater the water's turbidity.

9. **n-Hexane extractions**

This term refers to the volume of oils and cleaning fluids extracted from water using the chemical n-Hexane. As used in this report, it denotes the volume of mineral oil extracted using n-Hexane.

10. **Particulates**

Particulates are microscopic solid matter contained in exhaust gas generated as a result of combustion, heating or chemical reaction.

11. **Material balance**

The net of "input" and "output."



## Energy Consumption and Resulting CO<sub>2</sub> Emissions (Fiscal 2006)

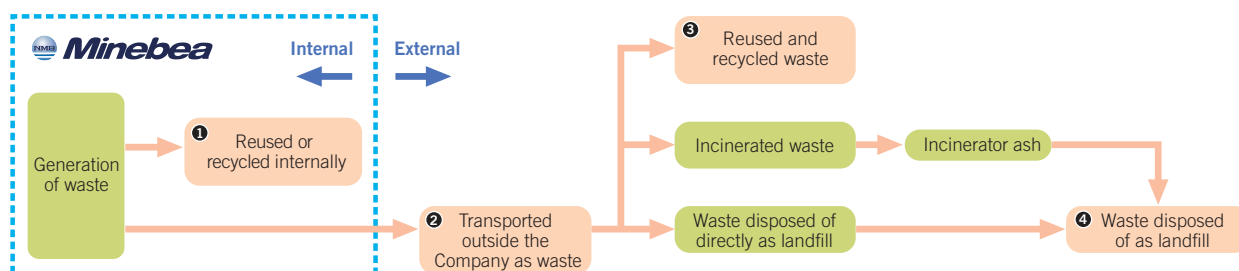
Energy	Unit	Japan	Thailand	China	Singapore	United Kingdom	Germany	United States	Total
Electricity	1,000 kWh	50,772	540,380	94,916	65,336	21,086	2,512	38,001	<b>813,003</b>
Kerosene	Kiloliters	67	0	168	0	0	0	0	<b>235</b>
Heavy oil	Kiloliters	1,261	0	0	0	0	0	0	<b>1,261</b>
Fuel oil	Kiloliters	10	770	278	272	0	0	138	<b>1,468</b>
Gasoline	Kiloliters	29	311	168	60	0	12	4	<b>584</b>
LPG	Tons	370	1,211	67	16	0	0	50	<b>1,714</b>
City gas	1,000 m <sup>3</sup>	779	0	0	0	428	131	555	<b>1,893</b>
Water	1,000 m <sup>3</sup>	230	2,380	388	199	560	7	90	<b>3,854</b>
CO <sub>2</sub> emissions	Tons	25,622	325,202	76,248	50,687	10,792	1,535	23,580	<b>513,666</b>

Note: In determining values for use in calculating CO<sub>2</sub> emissions at sites in Japan, Minebea referred to the Greenhouse Gas Emission Calculation Guideline for Businesses, published by Japan's Ministry of the Environment. In determining values for use in calculating CO<sub>2</sub> emissions overseas, Minebea referred to Greenhouse Gas (GHG) Protocol and Clean Development Mechanism and Joint Implementation (CDM/JI) criteria. Although consumption of electricity rose approximately 1.1% from fiscal 2005, ended March 31, 2005, a decline in the consumption of other types of energy resulted in a decline in CO<sub>2</sub> emissions of approximately 0.5%.

## Waste<sup>1</sup>

	Japan	Thailand	China	Singapore	United Kingdom	Germany	United States	Total
① Reused or recycled internally	127	187	1,663	610	29	0	430	<b>3,046</b>
② Transported outside the Company as waste	1,136	2,908	8,649	6,672	1,077	46	2,350	<b>22,838</b>
③ Reused or recycled externally	265	1,189	6,983	4,718	306	10	2,280	<b>15,751</b>
④ Disposed of as landfill	112	1,719	33	965	771	0	640	<b>4,240</b>

Note: Waste disposed of as landfill declined approximately 12.9% from fiscal 2005.



## Handling and Transfer of PRTR Chemicals (Japan; as reported to relevant authorities)

PRTR Number	Chemical	Volume Handled	Emissions			Transfer	
			Released into the Atmosphere	Released into Water	Landfill	Waste	Plant
69	Hexavalent chromium compounds	0.7	0	0	0	0.3	Fujisawa Plant
144	Dichloropentafluoropane (HCFC-225)*	7.4	7.0	0	0	0.4	Karuizawa Plant
232	Nickel compounds	1.3	0	0	0	0.3	Fujisawa Plant

\*Scheduled for elimination by the end of 2007.

### Glossary

#### 1. Waste

As used in this report, waste refers to industrial waste, that is, unwanted materials from industrial operations, and includes materials with negotiable value and materials to be recycled.

## Minimizing Water and Air Pollution

### Concentrations in Water

#### Japan

Karuziwa Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	5.8–8.6	6.0–8.0	7.7	7.3
COD	40	30	3.4	2.6
BOD	40	30	2.0	0.6
SS	60	55	48.0	15.0
n-Hexane extractions	5	5	<1.0	<1.0

Hamamatsu Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	5.8–8.6	6.0–8.0	7.5	7.3
COD	40	20	5.6	5.0
BOD	25	20	1.7	1.0
SS	40	25	16.8	4.0
n-Hexane extractions	5	5	<1.0	<1.0

Fujisawa Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	5.8–8.6	6.6–7.8	7.6	7.2
COD	60	30	7.0	3.4
BOD	60	30	6.0	3.0
SS	90	10	8.5	3.5
n-Hexane extractions	5	2	2.0	<1.0

#### China

Shanghai Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	6–9	7–8	8.0	7.6
COD	60	20	20.0	13.6
BOD	15	5	4.0	1.4
SS	70	10	9.0	5.0
n-Hexane extractions	3	1	1.0	0.7

Xicen Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	6–9	7–8	8.0	7.7
COD	60	20	18.0	11.0
BOD	15	5	3.0	1.1
SS	70	10	9.0	6.0
n-Hexane extractions	3	1	1.0	0.7

#### Thailand

Bang Pa-in Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	5.5–9.0	6.5–8.5	8.0	7.7
COD	120	80	61.7	34.3
BOD	20	18	7.4	3.5
SS	50	20	2.3	2.0
n-Hexane extractions	5	5	2.8	1.6

Lop Buri Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	5.5–9.0	6.5–8.5	7.8	7.7
COD	120	80	32.0	32.0
BOD	20	18	8.0	6.0
SS	50	20	7.0	5.0
n-Hexane extractions	5	5	3.0	2.0

Rojana Plant (Mg/liter)				
	Limit for Industrial Estate	Voluntary Limit	Maximum	Average
pH	5.5–9.0	6.5–8.0	7.0	6.6
COD	1,250	1,000	356.0	294.9
BOD	1,000	500	66.0	62.8
SS	200	150	25.0	19.9
n-Hexane extractions	10	10	2.2	1.6

Ayutthaya Plant (Mg/liter)				
	Legal Limit	Voluntary Limit	Maximum	Average
pH	5.5–9.0	6.5–8.5	8.1	7.4
COD	120	80	39.8	21.7
BOD	20	18	3.0	3.0
SS	50	20	1.6	0.6
n-Hexane extractions	5	5	1.0	0.8

### Concentrations in Air

Karuziwa Plant (Absorption 600-ton boiler)					
	Unit	National Limit	Voluntary Limit	Maximum	Average
Particulates	g/m <sup>3</sup> N	0.3	0.25	0.016	—
NO <sub>x</sub>	ppm	180	150	64.0	—
SO <sub>x</sub>	m <sup>3</sup> N/h	1.2	1.0	0.19	—

Fujisawa Plant (Sectional hot water boiler)					
	Unit	National Limit	Voluntary Limit	Maximum	Average
Particulates	g/m <sup>3</sup> N	0.3	0.15	—	<0.001
NO <sub>x</sub>	ppm	150	80	36.4	36.0
SO <sub>x</sub>	m <sup>3</sup> N/h	0.525	0.250	0.005	0.005

Hamamatsu Plant (Absorption chiller heater)					
	Unit	National Limit	Voluntary Limit	Maximum	Average
Particulates	g/m <sup>3</sup> N	0.3	0.2	—	<0.01
NO <sub>x</sub>	ppm	180	100	68.0	64.0
SO <sub>x</sub>	m <sup>3</sup> N/h	—	—	—	—

Note: The Karuziwa Plant scrapped its boiler during fiscal 2006. Accordingly, concentrations were measured only once during the period, rather than twice, as required by law, and concentrations thus measured have been entered as maximum.



Wastewater treatment facility, Shanghai Plant (China)

Minebea recognizes accounting for environmental protection efforts using economic indicators as a crucial aspect of management. By applying economic indicators to the costs incurred by these efforts, Minebea strives to ensure its investments are both appropriate and effective. Minebea's environmental accounting system is based on the *Environmental Accounting Guidelines* published by the Japanese Ministry of the Environment. Environmental costs incurred by overseas production bases area also accounted for using these guidelines.

## Scope

- Period covered: Fiscal 2006 (April 1, 2005–March 31, 2006)
- Scope of calculations: Minebea and Minebea Group (see page 4)

## Costs of Environmental Protection Activities

		(Millions of yen)	
Category	Description	Investment	Expenses
1. Business area costs (Environmental protection costs to minimize the environmental burden resulting from manufacturing and service activities within the business area)	See specific entries for a, b and c below.	<b>1,108</b>	<b>2,005</b>
Breakdown			
a. Pollution prevention costs	Costs related to the installation, disposal, maintenance and management of facilities to prevent water and air pollution, others	<b>137</b>	<b>625</b>
b. Environmental protection costs	Installation, depreciation, operating and maintenance costs for ozone-depleting substance (ODS)-free water-based cleaning facilities, others	<b>490</b>	<b>796</b>
c. Resource recycling costs	Waste disposal and recycling equipment, costs, others	<b>481</b>	<b>584</b>
2. Upstream/downstream costs (Environmental protection costs to minimize the burden of key upstream and downstream operations)	Costs related to the installation of analyzers, analysis of materials as part of the Green Procurement Program, printing and revenue stamp costs for contracts with suppliers, others	<b>8</b>	<b>34</b>
3. Administration costs (Environmental protection costs stemming from administrative activities)	Personnel, maintenance and management costs for environmental management system, others	<b>1</b>	<b>178</b>
4. R&D costs (Environmental protection costs stemming from R&D activities)	Costs related to the research and development of ODS-free water-based cleaning facilities, others	<b>1</b>	<b>27</b>
5. Community activity costs (Environmental protection costs stemming from community activities)	Costs related to greening programs, landscape preservation, others	<b>1</b>	<b>101</b>
6. Environmental remediation costs (Costs incurred for environmental remediation efforts)	Costs related to soil replacement and the operation, maintenance and depreciation of water-based cleaning facilities, others	<b>0</b>	<b>127</b>
Other costs	Costs related to the creation of a system for managing chemical substances	<b>0</b>	<b>8</b>
Total		<b>1,119</b>	<b>2,480</b>

Exchange rates used: S\$1.00=¥72.6; 1 baht=¥3.0; 1 yuan=¥14.7; £1.00=¥205.2; €1.00=¥142.8; US\$1.00=¥117.5

# ACHIEVEMENTS AND OBJECTIVES

This section focuses on Minebea's environmental achievements and objectives in fiscal 2006 and objectives for fiscal 2007. For detailed information and specific examples, please refer to the page(s) indicated in the right column.

## Products

Objectives for Fiscal 2006	Achievements in Fiscal 2006	Objectives for Fiscal 2007	Page
<b>Reduction or Elimination of Hazardous Chemical Substances in Products</b> <ol style="list-style-type: none"> <li>1. Achieve RoHS compliance for all products (except certain special components)</li> <li>2. Eliminate hexavalent chromium in automotive fasteners: Promote elimination in line with customer specifications</li> <li>3. Promote non-PVC coating materials for speaker boxes</li> </ol>	<ol style="list-style-type: none"> <li>1. Achieve RoHS compliance for all products (except certain special components): Achieved in March 2006</li> <li>2. Eliminate hexavalent chromium in automotive fasteners: Achieved for approximately 80% of products; remainder behind schedule owing to customer specifications</li> <li>3. Promote non-PVC coating materials for speaker boxes: Ongoing</li> </ol>	<ol style="list-style-type: none"> <li>1. Enforce management to ensure continued RoHS compliance for all products (except certain special components)</li> <li>2. Eliminate hexavalent chromium in automotive fasteners: Promote elimination in line with customer specifications</li> <li>3. Promote non-PVC coating materials for speaker boxes</li> </ol>	14
<b>Reduction of Energy Consumption/ Contribution to Prevention of Global Warming</b> Ongoing	<ol style="list-style-type: none"> <li>1. Developed a vibration motor that offers reduced power consumption and uses fewer environmentally damaging substances</li> <li>2. Developed a DC motor that delivers high efficiency and uses fewer environmentally damaging substances</li> </ol>	Ongoing	15

## Procurement

Objectives for Fiscal 2006	Achievements in Fiscal 2006	Objectives for Fiscal 2007	Page
<b>Green Procurement</b> Promote ongoing implementation of green procurement	<ol style="list-style-type: none"> <li>1. Published <i>Minebea Group Green Procurement Standard, 2nd Edition</i></li> <li>2. Held green procurement presentations at principal procurement bases</li> </ol>	Promote ongoing implementation of green procurement	16 17

## Distribution

Objectives for Fiscal 2006	Achievements in Fiscal 2006	Objectives for Fiscal 2007	Page
<b>Environmentally Sound Distribution</b> <ol style="list-style-type: none"> <li>1. Expand use of energy-efficient distribution methods</li> <li>2. Use packaging materials with minimal negative environmental impact</li> </ol>	<ol style="list-style-type: none"> <li>1. Continued to promote use of energy-efficient distribution methods</li> <li>2. Introduced pallets made of paper products</li> </ol>	<ol style="list-style-type: none"> <li>1. Continue to promote use of energy-efficient distribution methods</li> <li>2. Improve packaging materials and transport methods</li> </ol>	18

Note: The objectives presented herein were formulated based on certain assumptions. Please note that the Company's actual performance may vary significantly from any particular objective, owing to various factors. Persons interested in transactions with Minebea are advised to contact the appropriate person in charge in advance.



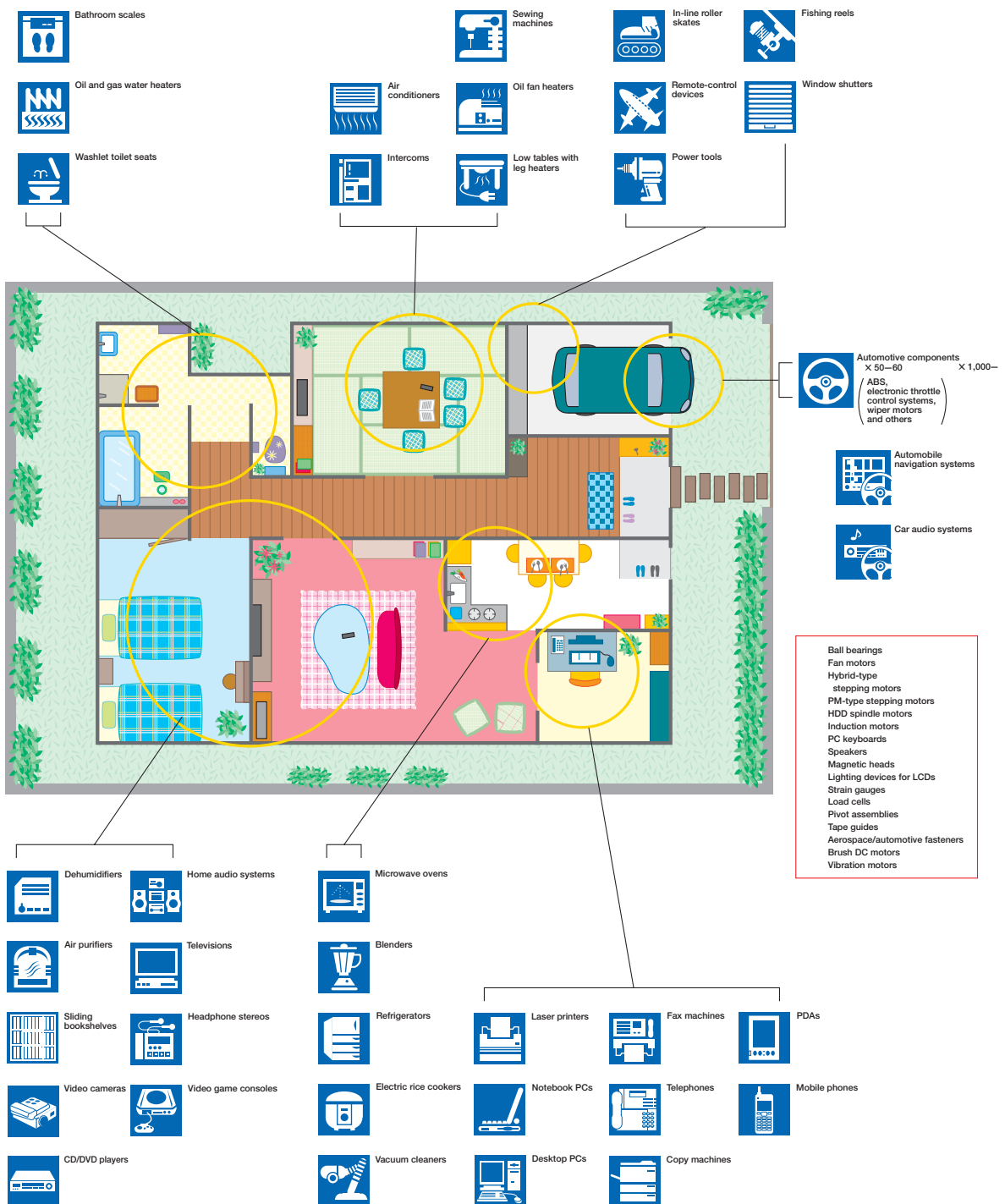
Objectives for Fiscal 2006	Achievements in Fiscal 2006	Objectives for Fiscal 2007	Page
<b>Rehabilitation of Contaminated Soil and Groundwater</b> 1. Observe environmental laws and regulations 2. Continue to implement measures at plant sites found to be contaminated	1. Continued to take steps to resolve contamination caused by chlorinated organic solvents 2. Greatly reduced concentrations of contaminants in soil at Karuizawa and Fujisawa plants and site of former Ichinoseki Plant	1. Observe environmental laws and regulations 2. Continue to implement measures at plant sites found to be contaminated	22
<b>Prevention of Damage to the Ozone Layer</b> Switch to air conditioners that do not use ODSs when installing new or replacing existing units	Number of units switched: 1	Number of units scheduled to be switched: 9 Switch to air conditioners that do not use ODSs when installing new or replacing existing units	—
<b>Promotion of “3R” Compatibility for Waste</b> Reduce the total waste output 15% from the fiscal 2003 level by March 2006	Reduced disposal of waste as landfill: Fiscal 2005 volume: 4,869 tons Fiscal 2006 volume: 4,240 tons (-13%)	Reduce the total waste output 10% from the fiscal 2006 level by June 2009	7
<b>Prevention of Water Contamination</b> Observe environmental laws and regulations	1. Japan: All plants have brought contamination below levels stipulated by local laws and regulations 2. Thailand: All plants have brought contamination below levels stipulated by local laws and regulations 3. China: All plants have brought contamination below levels stipulated by local laws and regulations	Observe environmental laws and regulations	8
<b>Prevention of Air Pollution</b> Observe environmental laws and regulations	Japan: All plants were below levels stipulated by local laws and regulations	Observe environmental laws and regulations	8
<b>Reduction of Energy Consumption/Contribution to Prevention of Global Warming</b> Lower energy consumption (per unit of production) 1% annually	1. Total energy consumption at plants worldwide: Fiscal 2005: 804,435,000 kWh Fiscal 2006: 813,003,000 kWh Note: Although consumption of electricity rose approximately 1.1% from fiscal 2005, CO <sub>2</sub> emissions declined approximately 0.5%. 2. Purchased green power 3. Implemented measures to lower energy consumption Examples: • Switched to compressors with inverters • Introduced free cooling 4. Promoted greening of plants 5. Changed fuels used • Replaced LPG with city gas	Lower energy consumption (per unit of production) 1% annually	7 19
<b>Management of Chemical Substances</b> 1. Expand use of MMDB-II 2. Commence use of English-language version of MMDB-II 3. Commence use of XRF spectroscopes to detect presence of substances banned under the RoHS directive Note: MMDB-II is a chemical substance management database.	1. Commenced use of MMDB-II 2. Commenced use of English-language version of MMDB-II 3. Commenced use of XRF spectroscopes to detect presence of substances banned under the RoHS directive: Introduced four XRF spectroscopes	1. Expand use of MMDB-II 2. Expand use of English-language version of MMDB-II 3. Step up use of XRF spectroscopes to detect presence of substances banned under the RoHS directive	— 22
<b>Establishment of Pollution Patrol Programs</b> 1. Continue to implement and improve regular patrols 2. Conduct regular audits of waste processing service providers	1. Implemented environmental patrols covering plants as well as surrounding areas 2. Conducted regular audits of waste processing service providers	1. Continue to implement and improve regular patrols 2. Conduct regular audits of waste processing service providers	27 21

## Other Areas

	Objectives for Fiscal 2006	Achievements in Fiscal 2006	Objectives for Fiscal 2007	Page
<b>Education</b>	<b>New employees</b> Ongoing	Implemented environmental education programs for new recruits	Ongoing	23
	<b>In-house training (internal auditors)</b> Ongoing	Implemented training programs for internal environmental auditors: Fiscal 2006: 22 in Japan (cumulative total: 163)	Ongoing	23
	<b>Basic employee education</b> Ongoing	Provided regular environmental education for all employees	Ongoing	—
	<b>Emergency response training</b> Ongoing	Implemented fire and oil leak drills	Ongoing	—
<b>Environmental Communications</b>	<b>Present information on environmental protection efforts</b> Publish <i>Minebea Group Environmental Report</i>	1. Presented information on environmental protection efforts on the Minebea web site 2. Published <i>Minebea Group Environmental Report 2005</i>	Publish <i>Minebea Group Environmental Report</i>	24
	<b>Communication with local communities</b> Continue to communicate with local communities	1. Organized clean-up programs around plant sites 2. Distributed the <i>Minebea Group Environmental Report 2005</i> to local authorities and participants in plant tours	Ongoing	25 —
<b>Community Activities</b>	<b>Clean-up programs</b> Ongoing	Organized clean-up programs around plant sites	Ongoing	27
	<b>Tree-planting/Greening of plants</b> Ongoing	Implemented/participated in programs at plants and sales offices	Ongoing	27
	<b>Support for local environmental protection efforts</b> Provide support for local environmental protection efforts	Implemented/participated in programs at plants and sales offices	Ongoing	—
	<b>Environmental protection fund</b> Continue to use fund to assist local environmental protection activities Shanghai–Minebea Lake Dianshan-hu Environmental Protection Fund (Established April 1, 1996): Rmb11.0 million (approx. ¥162.0 million)	Used fund to assist local environmental protection activities: • Undertook river dredging project	Continue to use fund to assist local environmental protection activities	26

Minebea's ball bearings, fan motors, electronic devices and components and other precision products are used in a wide range of applications in the home and office, as well as in the aerospace and automotive industries. It is estimated that, for example, between 100 and 200 small-sized ball bearings are used in the average home. Ball bearings are bearings that contain rolling elements, that is, balls, which minimize friction, thus enabling devices to rotate smoothly. In today's increasingly sophisticated, information-driven society, miniature ball bearings are required in ever-greater numbers for advanced home and office electronic equipment and are contributing to efforts to develop models that are smaller, use less energy and last longer.

## Minebea Products: Essential to Modern Lifestyles

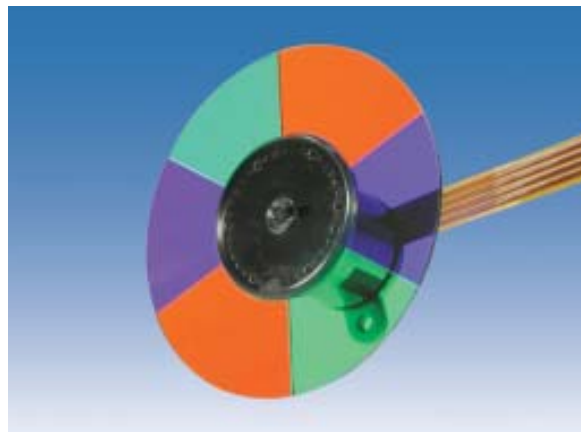


## Development of Environment-Friendly Products

### ● Newly developed high-performance, long-life color wheel

Digital Micromirror Devices (DMD™)<sup>1</sup> are semiconductor chips used in Digital Light Processing (DLP™)<sup>2</sup> projectors. The most widely used type of DLP projector uses a single DMD. Single-chip DLP projectors use a color wheel to create color images. The characteristics of the optical thin-film filters used in the color wheel are the key to achieving exceptional colorization and color rendition. Since the color wheel must also rotate at a high speed, a high-performance, long-life motor is also essential.

Minebea has capitalized on its accrued thin-film filter technologies to develop a high-performance optical film that facilitates outstanding colorization and color rendition. The combination of these optical technologies and brushless DC motor technologies cultivated through the production of spindle motors—a core Minebea product—have enabled the Company to realize integrated production of optical-thin film filters and motors.



Six-segment color wheel

## Reduction or Elimination of Hazardous Chemical Substances in Products

### ● Promote Non-PVC Coating Materials for Speaker Boxes

Until recently, polyvinyl chloride (PVC) has been one of the most popular coating materials for speaker boxes because it is easy to process and does not deteriorate significantly over time. However, it is believed that the incineration of waste PVC is a source of dioxins in the atmosphere because the material tends to not burn completely. There are also concerns that additives in PVC pose a human health hazard.

Although Minebea has used PVC to coat its speaker boxes to date, it is currently promoting a decisive switch to alternative materials. A paper sheet material is already in use, while the use of polypropylene sheet is under consideration.



Speaker box

#### Glossary

##### 1. DLP™ (Digital Light Processing)

A projection format that uses one or more DMDs.

##### 2. DMD™ (Digital Micromirror Device)

A silicon semiconductor chip upon which several tens of thousands of microscopic mirrors have been laid in a matrix.

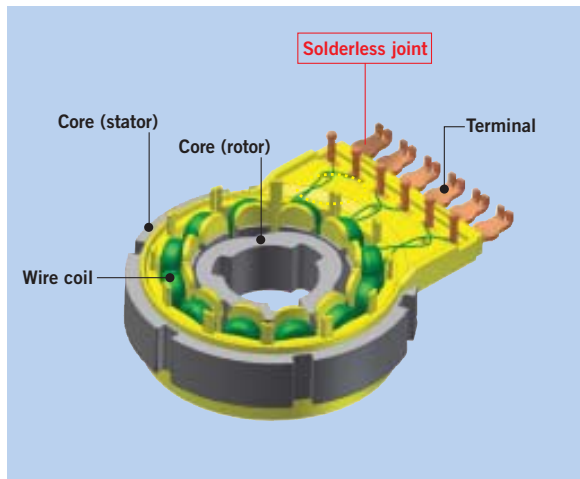
DLP™ and DMD™ are trademarks of Texas Instruments Incorporated.



## Development of Environment-Friendly Products

### Environment-friendly design of variable reluctance (VR) resolver

This VR resolver senses the rotating angle of the motor shaft in electronic power steering (EPS) systems. EPS systems use electric, rather than hydraulic, power to provide steering assistance. As assistance is provided only when needed, EPS systems do not require a constantly running hydraulic pump and thus offer significantly improved fuel efficiency over conventional hydraulic power steering systems. The environment-friendly design of this VR resolver uses no lead solder and eliminates or reduces the use of substances that negatively impact the environment. This product is compatible with the RoHS<sup>1</sup> and ELV<sup>2</sup> directives.



VR resolver

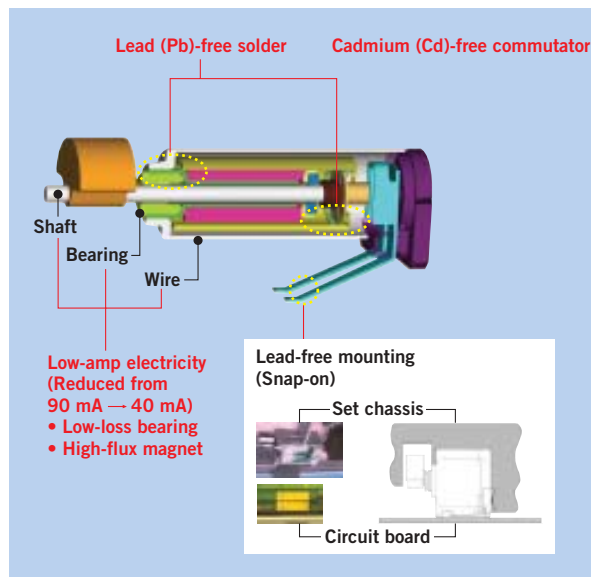
## Reduction of Energy Consumption/Contribution to Prevention of Global Warming

### Environment-Friendly Design of Vibration Motors

Product name: Vibration motor for cellular phones

This vibration motor was designed specifically for use in cellular phones.

Engineered to be environment friendly, this motor features a design that uses no lead solder, eliminates cadmium from the commutator and reduces energy-consumption. This motor is compatible with the RoHS and ELV directives.



Vibration motor for cellular phones

#### Glossary

##### 1. RoHS (Restriction of Hazardous Substances) directive

An EU directive banning the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE) in electrical and electronic equipment brought to market after July 1, 2006.

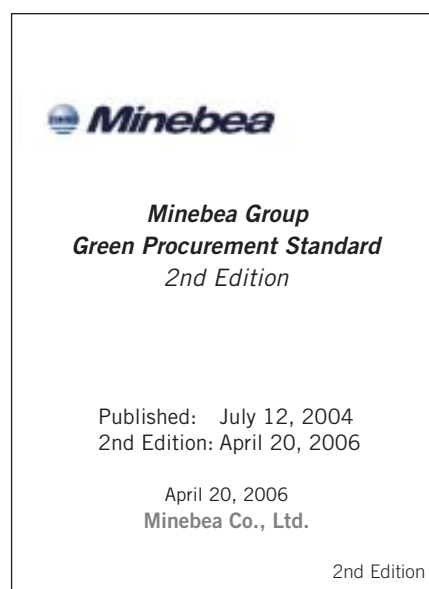
##### 2. ELV (End-of-Life Vehicles) directive

An EU directive aimed at reducing environmental impact and improving the recyclability of end-of-life vehicles by banning the use therein of lead, cadmium, mercury and hexavalent chromium after July 2003.

Minebea's Green Procurement Program focuses on the purchase of materials and parts that are ecologically sound, that is, raw materials and parts that contain no hazardous substances and the production of which does not result in emissions of hazardous substances.

## Publication of Minebea Group Green Procurement Standard

The *Minebea Group Green Procurement Standard* was published in July 2004 to guide its procurement efforts. In light of shifting social conditions and resulting changes in legal requirements and customer demands, and in response to technological advances, on April 20, 2006, Minebea published a new version, the *Minebea Group Green Procurement Standard, 2nd Edition*. For the new edition, revisions were made to the list of banned chemical substances, scope of the ban, permitted concentrations and analysis methods. Phrasing was simplified in the interest of clarity.



The *Minebea Group Green Procurement Standard, 2nd Edition*

## Ban on Hazardous Substances

In accordance with the RoHS directive and other laws and regulations in Japan and elsewhere, Minebea has banned the use of a number of hazardous substances in the parts, materials and packaging it uses. For certain of these substances, Minebea has set separate limitations on the scope and period of the ban. For further information, please refer to the *Minebea Group Green Procurement Standard, 2nd Edition*, published April 20, 2006. (Polychlorinated terphenyls (PCTs) were added to Minebea's list of banned chemical substances in this edition.)

### Chemical Substances Banned in Products from Suppliers

No.	Name	RoHS	Minebea
<b>Heavy Metals and Metal Compounds</b>			
1.	Lead and lead compounds	○	○
2.	Cadmium and cadmium compounds	○	○
3.	Hexavalent chromium compounds	○	○
4.	Mercury and mercury compounds	○	○
5.	Tributyltin oxide (TBTO)		○
6.	Tributyl tin (TBT)		○
	Triphenyl tin (TPT)		○
<b>Halogen System Organic Compounds</b>			
7.	Polybrominated biphenyls (PBB)	○	○
8.	Polybrominated diphenyl ether (PBDE)	○	○
9.	Polychlorinated biphenyls (PCB)		○
10.	Polychlorinated naphthalenes (PCN)		○
11.	Polychlorinated terphenyls (PCT)		○
12.	Short-chain chlorinated parafins		○
<b>Others</b>			
13.	Asbestos		○
14.	Specified azo compounds and specified amines		○
15.	Ozone-depleting substances (ODSs)		○
16.	Radioactive substances		○
17.	Formaldehyde		○
18.	Dioxins		○
19.	Polyvinyl chloride (PVC) and PVC compounds		○

## Green Procurement Presentations

Following the revision of the *Minebea Group Green Procurement Standard*, Minebea conducted green procurement presentations for key suppliers and customers. These presentations sought to explain revisions to the standard and forms for submission to suppliers and to secure their cooperation. Minebea will continue to conduct such presentations both in Japan and overseas.



Presentation at Minebea's Fujisawa Plant

## Information Concerning Green Procurement Activities on Minebea's Web Site

Information on Minebea's green procurement activities is available on Minebea's web site. Interested suppliers and customers are invited to visit the following page:

<http://www.minebea.co.jp/procurements/en/green/index/>



Top page of the green procurement section of Minebea's web site

Reducing environmental impact over the course of a product's life necessitates improving the environmental soundness of distribution practices. Minebea is taking steps to reduce emissions of CO<sub>2</sub> and atmospheric pollutants.

## Implementation of Environmentally Sound Distribution Practices

### Specialty Paper Pallets Developed and Introduced as an Alternative to Wood Pallets

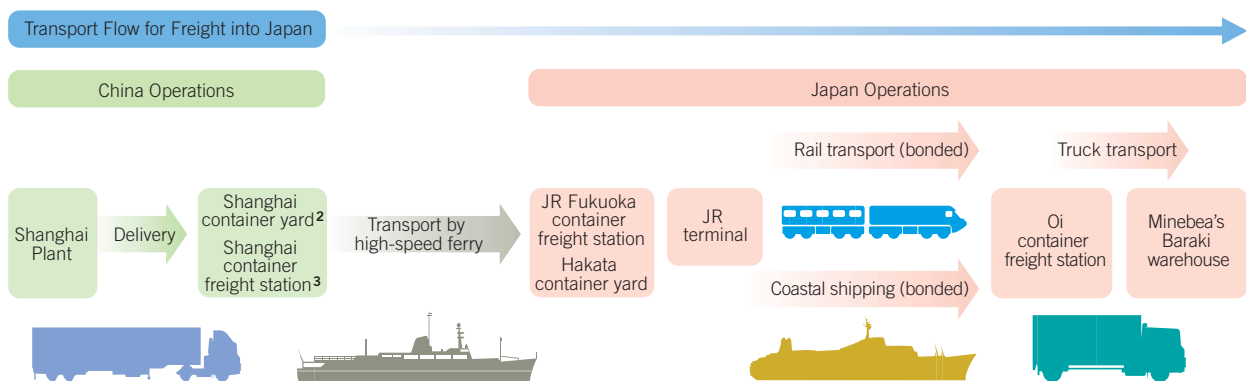
Minebea is promoting the use of specialty paper pallets for shipping products from its plants overseas. Compared with wood pallets, these paper pallets reduce the weight of freight, contributing to a reduction in energy used by the planes and trains used in transport. As much as possible, natural materials are used, with a high priority placed on materials with a high recycling rate, thereby contributing to efforts to lower energy consumption and conserve resources. Going forward, Minebea expects to expand use of these paper pallets.



A new Minebea paper pallet (visible under crate)

### Energy-Efficient Transport

Since 2004, Minebea has used high-speed ferries to transport freight between Shanghai and Hakata, and Japan Railways (JR) rail transport or coastal shipping between Hakata and Tokyo. This reduces the transport lead time by eight or nine days over conventional transport methods, while at the same time uses less fuel and releases less CO<sub>2</sub> into the atmosphere.



#### Glossary

##### 1. Transport lead time

Period from commencement of arrangements through to transfer into Minebea warehouse.

##### 2. Container yard

Container storage facility designated by the shipping company.

##### 3. Container freight station

Station where the shipping company transfers loaded freight to shipping containers.

“Minebea’s manufacturing activities depend on the communities in which its plants are located. Accordingly, we must strive to contribute to these communities and to not be a burden on them.” These words were spoken in June 1993 by then-president Goro Ogino at a meeting of the Corporate Environmental Protection Committee. Today, this conviction is shared by all Minebea Group companies and serves as a guideline for environmental protection and other efforts at Group plants.

## ◆ Reduction of Energy Consumption/Contribution to Prevention of Global Warming

### ● Trial Use of Photovoltaic Panels (Karuizawa Plant)

As part of its effort to reduce power consumption, the Karuizawa Plant began using photovoltaic panels on a trial basis. Minebea also plans to introduce these panels at plants overseas.



Photovoltaic panels at the Karuizawa Plant with Mt. Asama in the background

### ● Switch to Environment-Friendly Fuel (Fujisawa Plant)

For several decades, the Fujisawa Plant has used liquefied petroleum gas (LPG) butane for heat-treatment processes. In fiscal 2005, however, the plant switched to city (natural) gas. This, together with efforts to reduce the volume of fuel used, enabled the plant to lower CO<sub>2</sub> emissions\* into the atmosphere by approximately 19% (monthly average). This move also facilitated the removal of the LPG plant, reducing the risk of fire and gas explosions.



LPG plant

\* Comparison of CO<sub>2</sub> emissions by different fuels (index):  
 Diesel: 100; Gasoline: 98; LPG: 87; city gas: 74

Note: The above were calculated based on the Guidance for Calculation of Greenhouse Gas Emissions from Businesses, Annex 1: Fuel Consumption Emission Factor.



Site of LPG plant after removal

● **Effective Use of Cooling Tower to Lower Energy Consumption (Shanghai Shunding Technologies Ltd.)**

Until recently, Shanghai Shunding Technologies used refrigeration units year-round to create cooling water for use in production. By introducing free cooling, which uses low-temperature winter air to cool water within the cooling tower, the company was able to shut off refrigeration units during the winter, thereby reducing electric power used by an amount equivalent to a 2% decline in annual energy consumption.



Shanghai Shunding Technologies' cooling tower

● **Use of Heat-Resistant Paint on Plant Building Roofs (Rojana Plant, Thailand)**

In a bid to counter the impact of intense summer sunlight, the Rojana Plant coated the roofs of plant buildings (a total area of 19,000 m<sup>2</sup>) with heat-resistant paint. As a result, ceiling-level air temperatures inside plant buildings decreased to 43°C, from 50°C, facilitating a significant reduction in energy used for air conditioning.



Workers coat the roof of the Rojana Plant with heat-resistant paint

● **Introduction of Electric Transport Vehicles (Lop Buri Plant, Thailand)**

With the aim of improving the environmental soundness of on-site product movement, the Lop Buri Plant introduced electric vehicles to transport small lots, replacing the diesel-powered trucks previously used for this purpose. This move enabled the plant to reduce CO<sub>2</sub> emissions from the combustion of diesel fuel during on-site product transport by approximately 60%. Plans are in place to expand use of these vehicles by introducing them at other group plants in Thailand, including the Bang Pa-in Plant.



Electric vehicle used for product transport at the Lop Buri Plant

## ◆ Earthquake Safety Measures

### ◎ Application of Shatter-Resistant Window Film (Karuzawa Plant)

During earthquakes, shards of glass from shattered windows are a cause of secondary injuries. To mitigate this hazard to employee safety, the Karuzawa Plant has applied shatter-resistant film to windows, primarily those that are high up.



Shatter-resistant film on the windows of the Karuzawa Plant's cafeteria

## ◆ Management of Industrial Waste

### ◎ Audits of Waste Disposal Facilities (Japan, China and Thailand)

To ensure waste from its various plants is disposed of appropriately, Minebea periodically audits the facilities of subcontracted disposal and recycling firms to examine facilities in operation and manifests.



Audit of facility of subcontracted waste disposal firm (Thailand)

## Management of Hazardous Chemical Substances

### Acquisition of ISO/IEC 17025 for Testing Laboratories (Thailand and China)

The R&D centers of Minebea's largest and second-largest production bases, in Thailand and China, acquired ISO/IEC 17025, the global standard for testing laboratories established by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Under a Mutual Recognition Arrangement (MRA), testing certificates issued by accredited laboratories are valid for use in international trade.

In March 2006, Minebea succeeded in eliminating all substances targeted by the RoHS directive from its products. Establishing a testing program that assures its products contain no regulated chemical substances is an important step that will help the Company further reduce the impact of its products on the environment.



Certificate of accreditation from the Thai Industrial Standards Institute, Ministry of Industry



Certificate of accreditation from the China National Accreditation Board for Laboratories

## Rehabilitation of Contaminated Soil and Groundwater

### Cleanup of Contamination from Organic Chlorinated Solvents

Since it previously used organic chlorinated solvents in its manufacturing processes, Minebea has conducted voluntary inspections of its plants in Japan. These inspections confirmed the presence of contamination at the Karuizawa, Fujisawa and Omori plants, as well as at the site of the former Ichinoseki Plant. Minebea promptly informed local authorities and, in line with directives issued thereof, is implementing cleanup measures.



Minebea provides a variety of environmental education programs for its employees with the aim of maintaining and improving its environmental management system, enhancing employee skills and minimizing the impact of environmental emergencies.

## ● Training Program for In-House Environmental Auditors

To enhance the capabilities of in-house environmental auditors, Minebea provides annual training programs for employees. These programs are instructed by accredited in-house auditors and comprise lectures on, among others, ISO 14001 audit procedures, global environmental issues, environment-related technologies, environmental laws and internal auditing methods. Following the lectures, students divide into teams to review the program and present and debate conclusions, and attend a lecture by the director in charge of environmental preservation.

Employees who complete the program are presented with certificates of completion by the director in charge of environmental preservation. As of the fiscal 2006 year-end, Minebea had 163 qualified in-house environmental auditors.



Lecture by the director in charge of environmental preservation

## ● Educational Programs for New Recruits

As part of their initial group training program, new recruits attend lectures on Minebea's Environmental Protection Principle, environmental management system and environmental protection efforts. These lectures are aimed at raising the environmental awareness of these individuals, both as responsible members of society and employees.

After the program, recruits must prepare reports on specific topics covered in these lectures, a task that demands a solid understanding of environmental protection efforts.



Lecture for new recruits by the chairperson of the Corporate Environment Protection Committee

## ● Environmental Program for Families (Thailand)

With the aim of enhancing the environmental awareness of employees and their families, Minebea companies in Thailand launched the Green Family Program. The first activity of the program was a family camping trip to Pran Buri Forest Park in central Thailand, where participants planted approximately 500 pine trees.

As part of their environmental protection efforts, Minebea companies in Thailand will endeavor to create opportunities like this for families to learn about the environment.



Participants in the first Green Family Program activity

Corporate entities today must respond to public demand for information on their environmental protection efforts and achievements. Minebea provides extensive information to the public via its web site and its annual environmental report. Minebea also actively solicits the views of its employees regarding its environmental activities.

## Information on Environmental Efforts on the Minebea Web Site

The Minebea web site features information on current environmental protection efforts, as well as Minebea's Environmental Protection Principle and a history of efforts to date.

<http://www.minebea.co.jp/english/environment/>

For inquiries and comments on Minebea's environmental efforts, please see the back cover of this report.

## Publication of the Minebea Group Environmental Report

In recent years, companies have come under increasing pressure to disclose information on their efforts to incorporate environmental protection efforts into their business activities. In 2003, Minebea published its first annual Group environmental report.

To ensure that future editions of its environmental report are as useful and informative as possible, Minebea includes a brief questionnaire for readers in each copy of the report.



Top page of Minebea's web site



Minebea Group Environmental Report 2005

◎ **Summer Night Festival (Fujisawa Plant)**

The Fujisawa Plant organizes an annual summer night festival to which it also invites members of the community. This event enables the plant to promote effective communication with local residents.



The Fujisawa Plant's summer night festival features a wide range of entertainment and activities for local residents



◎ **Plant Tour (Lop Buri Plant, Thailand)**

The Lop Buri Plant in Thailand invites students of the Lop Buri College of the Dramatic Arts and the Rajabhat Tepsatri Institute for a tour organized around the theme of environmental preservation. The tour includes learning about measures the plant is taking to minimize emissions, as well as seeing its wastewater and waste management facilities. The plant's aim is to enhance awareness of environmental concerns and promote concrete measures for addressing key issues.



Students view the Lop Buri Plant's wastewater management facilities

Minebea is working with national and municipal authorities, educational institutions and other organizations with the aim of contributing to environmental protection and the creation of a sustainable recycling-oriented society.

◎ Shanghai–Minebea Lake Dianshan-hu Environmental Protection Fund (Minebea Electronics & Hi-Tech Components (Shanghai) Ltd.)

The Shanghai–Minebea Lake Dianshan-hu Environmental Protection Fund (currently Rmb11.0 million) was established on April 20, 1996, with the aim of helping preserve the quality of water in Lake Dianshan-hu, located near Minebea Electronics & Hi-Tech Components (Shanghai). The fund continues to assist a variety of efforts, including the dredging of and planting of greenery around rivers in the vicinity of the plant. In March 2006, a project was launched to dredge 14 local rivers. Work was largely completed by the end of August.

Reporting on the project, local station Qingpu TV said: “In a project timed to coincide with World Environment Day (June 5), Minebea Electronics & Hi-Tech Components (Shanghai), which is based in Jinze Town, and the Jinze Town council has launched a project to clean up 14 local rivers. The cost of the project, which was greeted enthusiastically by local residents, was Rmb1.2 million, of which Rmb1.0 million was provided by the Shanghai–Minebea Lake Dianshan-hu Environmental Protection Fund and the remainder by the Jinze Town council.” (Excerpt from Qingpu TV report, translated from the original)



Employees of Minebea Electronics & Hi-Tech Components (Shanghai) and local town council representatives involved in the river dredging project



Removal of sludge using heavy machinery

Cleaning of the river bed following sludge removal



A local river before dredging



The same river after dredging



A local river after completion of dredging and planting of greenery

◎ **Conducting Local Cleanup and Safety Patrols (Omori Plant)**

Several teams of two mid-level managers from the Omori Plant conduct cleanup and safety patrols of the area surrounding the plant twice weekly, on Monday and Friday afternoons. Participants also use the patrols as an opportunity to exchange greetings and otherwise promote communication with local residents.



A two-person cleanup and safety patrol team

◎ **“Eco-Niko Office” Accreditation Received from the City of Sendai (NMB Electro Precision, Inc.)**

NMB Electro Precision earned “Eco-Niko Office” accreditation from the city of Sendai under a program established by the local government to recognize environment-friendly offices, plants and other non-retail commercial premises in the city.

NMB Electro Precision is also an official “Sendai Urban Beautification Supporter,” and continues to promote a variety of related efforts.



“Eco-Niko Office” sticker

◎ **Participation in the Fourth “Kokeshi no Mori” Project (NMB Electro Precision, Inc.)**

On May 27, 2006, employees from NMB Electro Precision participated on a volunteer basis in the fourth “Kokeshi no Mori” Project, sponsored by the city of Sendai. On the day, a portion of the savings attributable to the decline in power used by the company as a result of its switch to fluorescent lights with inverters was donated to the project in the form of saplings for planting.



Project participants

◎ **Contribution of Books to Primary and Middle Schools (Thailand)**

The Takahashi Foundation, established by former Minebea Group chairman Takami Takahashi, contributed books to Banchung School, in Tambon Banchung, Nakornluang District, Ayutthaya Province. The foundation also set up environmental awareness corners, featuring display boards, small gardens and ponds, in schools with the aim of encouraging greater awareness of the environment among students.



Display board featuring information on energy and resource conservation, waste separation and other environmental topics



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**Additional information on Minebea's environmental efforts is available in English at:**

<http://www.minebea.co.jp/english/environment/>



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