



## **Business Results**

**First Half of Fiscal Year ending March 31, 2004**

**Minebea Co., Ltd**

**Tsugio Yamamoto  
Representative Director,  
President and Chief Executive Officer  
November 14, 2003**

## Consolidated Results for First Half of Fiscal Year ending March 31, 2004

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(Millions of Yen)	Year ended Mar. '03		Year ending Mar. '04	Change yoy	First Half	
	1H	2H	1H		Original Forecast	vs. Forecast
<b>Net Sales</b>	137,249	134,953	133,741	-2.6%	136,000	98.3%
<b>Operating Income</b>	10,176	9,176	9,467	-7.0%	8,800	107.6%
<b>Ordinary Income</b>	7,667	5,753	7,558	-1.4%	6,300	120.0%
<b>Income before Income Taxes</b>	6,817	-6,322	6,299	-7.6%	5,600	112.5%
<b>Net Income</b>	2,543	-4,977	2,726	+7.2%	2,500	109.0%

**First Half Income Exceeded Plans**

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Consolidated results for the first half of fiscal year ending March 2004 were net sales of 133.7 billion yen, operating income of 9.4 billion yen, ordinary income of 7.5 billion yen and net income of 2.7 billion yen. Compared to the same period of last fiscal year, which included the first quarter when business was particularly strong, sales and earnings declined, except for net income, which exhibited growth of 7.2%. However, income exceeded target made at the beginning of the first half.

## Consolidated Results for Second Quarter of Fiscal Year ending March 31, 2004

(Millions of Yen)	Year ended Mar. '03	Year ending Mar. '04		2Q Change	
	2Q	1Q	2Q	yoy	qoq
<b>Net Sales</b>	64,882	66,489	67,252	+3.7%	+1.1%
<b>Operating Income</b>	4,145	4,259	5,208	+25.6%	+22.3%
<b>Ordinary Income</b>	3,143	3,285	4,273	+36.0%	+30.1%
<b>Income before Income Taxes</b>	2,614	2,177	4,122	+57.7%	+89.3%
<b>Net Income</b>	640	421	2,305	3.6x	5.5x

**Sales and Income Increased in the Second Quarter**

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Business condition in the first quarter remained sluggish. However, PC and other information and telecommunications equipment industry gradually began to show a recovery, and in the second quarter, orders for PC and HDD related products, and products for office automation and home electronics applications increased considerably. Despite negative impact by decline in unit price and yen appreciation, sales and income followed recovery path. Moreover, in the second quarter, product divisions, where we have been implementing measures for improvement of profitability, showed positive results.

# The First Half Net Sales and Operating Income by Segment

(Millions of Yen)	--Year ended Mar. '03--		Year ending Mar. '04	Change yoy
	1H	2H	1H	
<b>[Net Sales]</b>				
Machined components business	60,309	57,808	55,665	-7.7%
Bearing-related products	50,058	47,880	47,128	-5.9%
Other machined components	10,251	9,929	8,538	-16.7%
Electronic devices and components business	76,940	77,144	78,076	+1.5%
Rotary components	38,933	40,255	43,642	+12.1%
Other electronic devices	38,005	36,892	34,435	-9.4%
<b>Total Net Sales</b>	<b>137,249</b>	<b>134,953</b>	<b>133,741</b>	<b>-2.6%</b>
<b>[Operating Income]</b>				
Machined components business	9,163	9,356	9,178	+0.2%
Electronic devices and components business	1,013	-181	289	-71.5%
<b>Total Operating Income</b>	<b>10,176</b>	<b>9,176</b>	<b>9,467</b>	<b>-7.0%</b>

Operating income of electronic devices and components segment improved better than planned ⇒ total operating income 9.5 billion yen, 108% vs. plan

Breakdown of sales, plan announced in May  
 Bearing related products ¥46.90 bill.  
 Other machined components ¥9.95 bill.  
 Rotary components ¥45.35 bill.  
 Other electronic devices ¥33.80 bill.

Revised breakdown of operating income, announced on Aug. 7  
 Machined components ¥9.1 bill. → ¥9.4 bill.  
 Electronic devices and components ¥-0.3 bill. → ¥-0.6 bill.  
**Total 8.8 bill.**

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The improvement in the operating income of electronic devices and components segment was as a result of more than expected turnaround by the spindle motor business on the back of strong sales and lighting device business generating profit from August.

In the machined components segment, rod-end & spherical and other bearings for aircraft applications, fasteners for aircraft applications and defense-related special machinery components exhibited weaker earnings than we had previously forecast.

Nevertheless, total operating income was 9.4 billion yen, 6 billion yen more than original plan of 8.8 billion yen.

## The Second Quarter Net Sales and Operating Income by Segment

(Millions of Yen)	---Year ended Mar. 03---				-Year ending Mar. 04-		2Q Change	
	1Q	2Q	3Q	4Q	1Q	2Q	yoy	qoq
<b>[Net Sales]</b>								
Machined components business	31,668	28,641	28,723	29,085	28,606	27,059	-5.5%	-5.4%
Bearing-related products	26,420	23,638	23,845	24,035	23,959	23,169	-2.0%	-3.3%
Other machined components	5,249	5,002	4,879	5,050	4,646	3,892	-22.2%	-16.2%
Electronic devices and components business	40,699	36,241	40,000	37,144	37,883	40,193	+10.9%	+6.1%
Rotary components	20,793	18,140	20,521	19,734	21,458	22,184	+22.3%	+3.4%
Other electronic devices	19,908	18,097	19,480	17,412	16,424	18,011	-0.5%	+9.7%
<b>Total Net Sales</b>	<b>72,367</b>	<b>64,882</b>	<b>68,723</b>	<b>66,230</b>	<b>66,489</b>	<b>67,252</b>	<b>+3.7%</b>	<b>+1.1%</b>
<b>[Operating Income]</b>								
Machined components business	5,098	4,065	4,771	4,585	4,908	4,270	+5.0%	-13.0%
Electronic devices and components business	933	80	748	-929	-648	937	11.7x	-
<b>Total Operating Income</b>	<b>6,031</b>	<b>4,145</b>	<b>5,519</b>	<b>3,657</b>	<b>4,259</b>	<b>5,208</b>	<b>+25.6%</b>	<b>+22.3%</b>

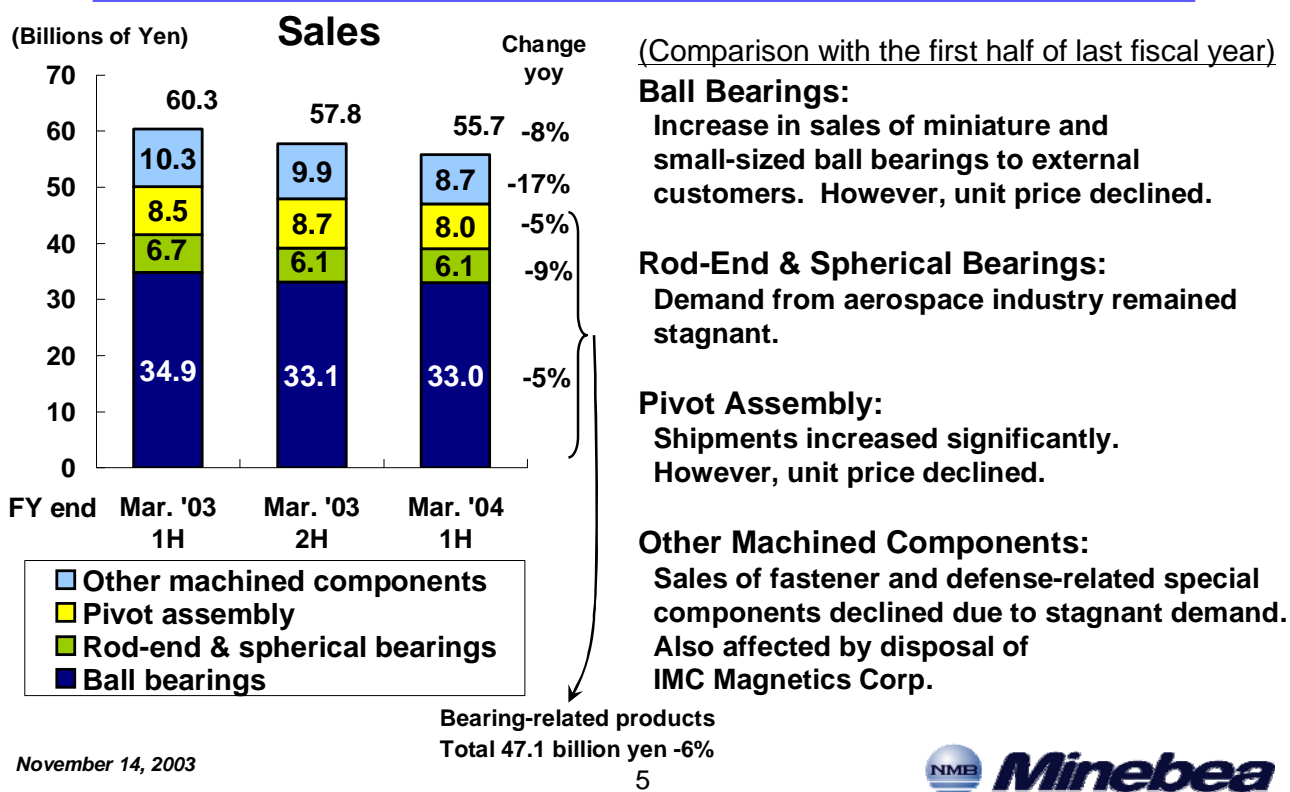
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This slide shows sales and income by segment on quarterly basis.

## Machined Components Business



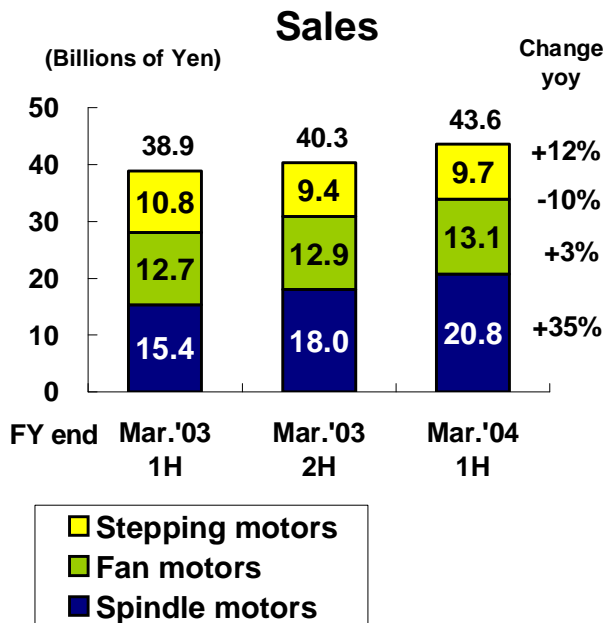
Sales of ball bearings, our mainstay product, in the first half was 33 billion yen, a 5% decline from the same period of the last fiscal year. Shipments of miniature and small-sized ball bearings increased, however unit price fell.

Sales of rod-end and spherical bearings declined 9% from a year ago to 6.1 billion yen. Demand for commercial aircraft continues to be sluggish.

Sales of pivot assemblies declined 5% from a year ago to 8 billion yen. Sales volume expanded considerably in the second quarter on the back of recovery of HDD market. However, unit price, which appeared to have stabilized in the first quarter, declined with slightly accelerated rate in the second quarter.

Sales of other machined components business declined 17% to 8.5 billion yen. This is attributable to decline in sales of fasteners for aircraft application and defense-related special machinery components, affected by stagnant demand, and sales decline at IMC Magnetics Corp., the business of which was sold at the end of July.

## Electronic Devices and Components Business - Rotary Components



**HDD Spindle Motors:**  
Strong growth in sales of FDB Motors.

**Fan Motors:**  
Sales growth remained limited despite volume growth due to falling unit price.

**Stepping Motors:**  
Affected by weak demand from ODD industry under the influence of inventory adjustment in 1Q as well as fierce competition.

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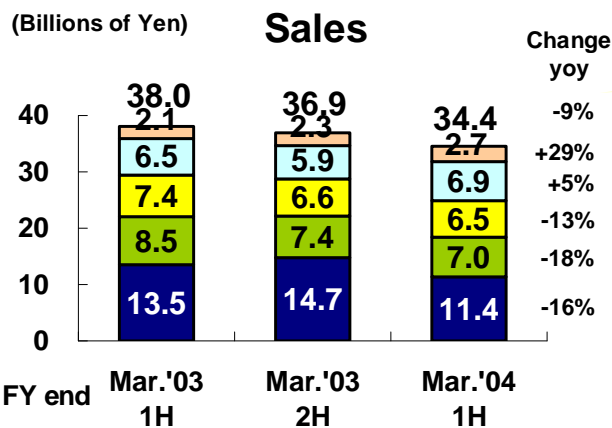
Sales of rotary components business expanded further in the first half. Sales increased 12% from the same period last fiscal year to 43.6 billion yen. Shipments of fan motors and HDD spindle motors reached a new high.

Sales of spindle motors increased 35% to 20.8 billion yen. We increased shipments of FDB motors for 3.5inch desktop HDDs owing to higher demand and strong business at our main customers.

Sales of fan motors increased 3% to 13.1 billion yen in the first half. Shipment volume is on an increasing trend, however, unit price fall and change in product mix, due to increased shipments for game applications, sales growth in the second quarter was limited.

First half sales of stepping motors declined 10% to 9.7 billion yen. Hybrid type remained at a stable level, however, PM type was affected by stagnant demand from ODD (optical disk drive) industry and overall price drop in the first quarter.

# Electronic Devices and Components Business - Other Electronic Devices



3% sales decline if FDD subassembly business, which was terminated during last fiscal year, and switching power supplies and related businesses, which are scheduled to end, are excluded.

## Keyboards:

Customers' inventory adjustment and loss of market share due to delay in start of SST.

## Electronic Devices:

Decreased sales as a result of termination of FDD subassembly business. Expanded lighting devices business.

## Switching Power Supplies:

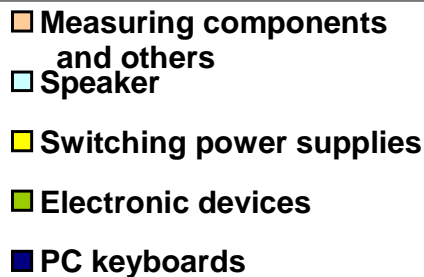
Decreasing sales before the completion of withdrawal.

## Speakers:

Increased demand for PC related products.

## Measuring Components and Others:

Increased demand due to recovery in capital investment.



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Sales of other electronic devices business were 34.4 billion yen in the first half, a decline of 3.6 billion yen from the same period of the last fiscal year. However, 2.5 billion yen of this decline was 1.7 billion yen in sales of FDD subassembly business, which was terminated during last fiscal year, and 0.8 billion yen in sales of switching power supplies and related businesses, which are scheduled to end this fiscal year.

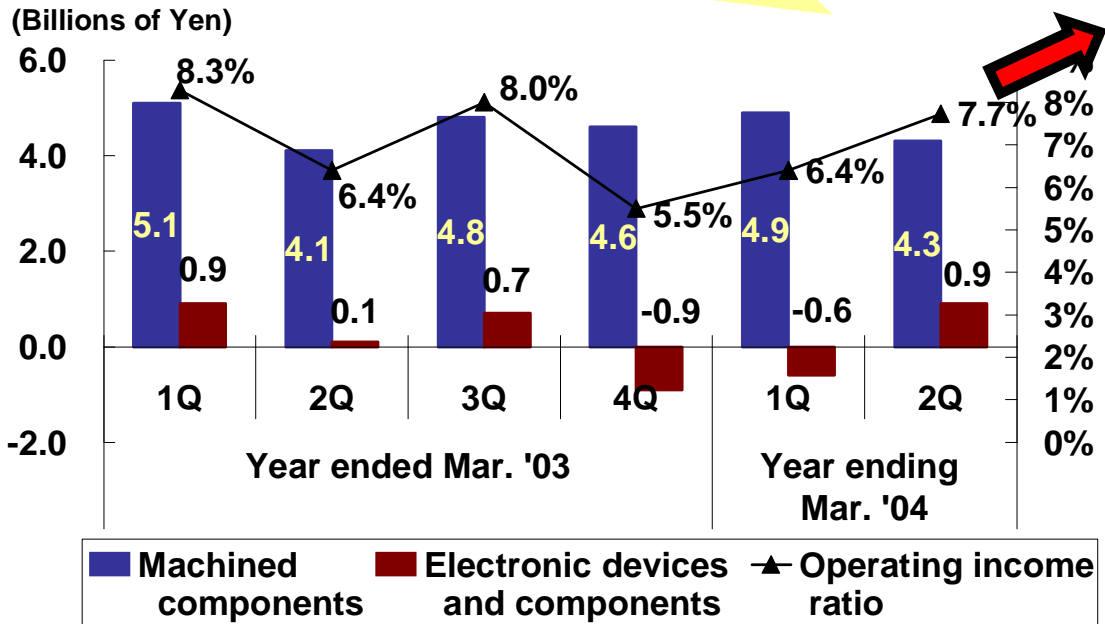
First half sales of keyboards declined 16% to 11.4 billion yen. Second quarter sales increased helped by recovery in demand and end of inventory adjustment at our customers. However, accelerated price competition and loss in market share, which was attributable to delay in start of production at the new factory in China, caused sales to be below plan.

Sales of electronic devices division declined 18% to 7 billion yen but excluding decline in sales of FDD subassembly business, which was terminated during last fiscal year, sales of this division increased. The largest driver for the growth was lighting devices. The business got under way toward expansion as our high performance backlight received good recognition by customers and mass production for main mobile phone models began.



## Operating Income

Operating income margin has been improving since 4Q of the previous fiscal year.  
 Operating income margin is estimated to exceed 8% in the second half



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Total operating income margin has been on a recovery. The margin in the second quarter was 7.7%, an improvement from the fourth quarter of the last fiscal year when the margin was 5.5%. We plan to expand margin to more than 8% in the second half.

## 2Q Sales by User Industry & by Region

Comparing 2Q to 1Q, sales of home electronics declined as a result of decrease in sales for air conditioners. Improved demand pushed up sales for office automation and PC equipment.

### Sales by user industry

	Automobile	Aerospace	Home electronics	Office automation	PC and PC related equipment	Motors	Others	Total
% of Sales	7.6%	8.7%	9.8%	10.7%	45.7%	5.6%	12.0%	100.0%
Change qoq	+3.4%	-12.4%	-19.8%	+32.1%	+6.3%	+8.5%	-9.3%	+1.1%

\*Comparison to 1Q.

### Sales by region

	Japan	Asia (ex-Japan)	North and South America	Europe	Total
% of Sales	24.4%	47.0%	17.0%	11.6%	100.0%
Change qoq	-0.2%	+4.0%	+0.5%	-5.9%	+1.1%

Sales increased in Asia

\*Comparison to 1Q.

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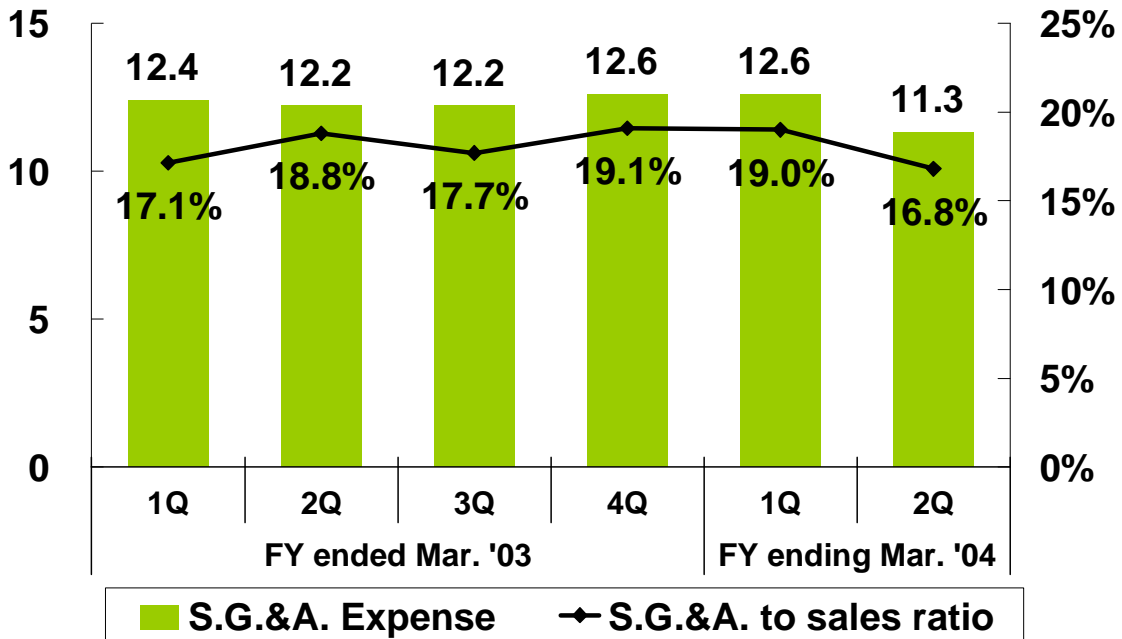
In the second quarter, sales of main products for PC, HDD, office automation equipment such as multi-function copiers grew compared to the first quarter. Sales growth of lighting devices for mobile phone application also lifted sales for office automation category.

On the other hand, the decline in sales for home electronics applications was due to seasonal decline in demand from air conditioner industry for ball bearings and lower sales of switching power supplies for air conditioners.

By region, sales in Asia region continued to grow. In the second quarter, sales in Greater China region continued to grow by more than 10%.

## SG&A Expenses

(Billions of yen)



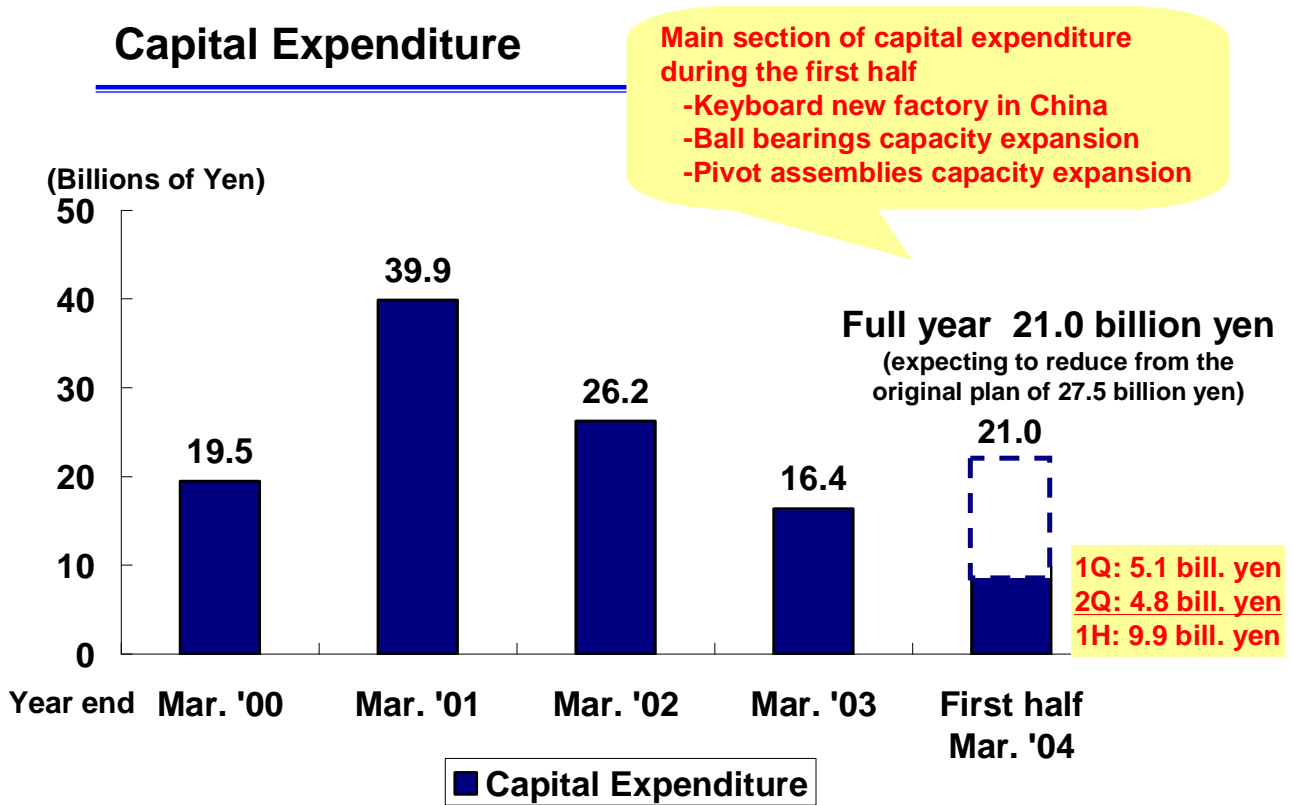
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A significant reduction of SGA was achieved in the second quarter. We are working to reduce expenses of all categories.

## Capital Expenditure



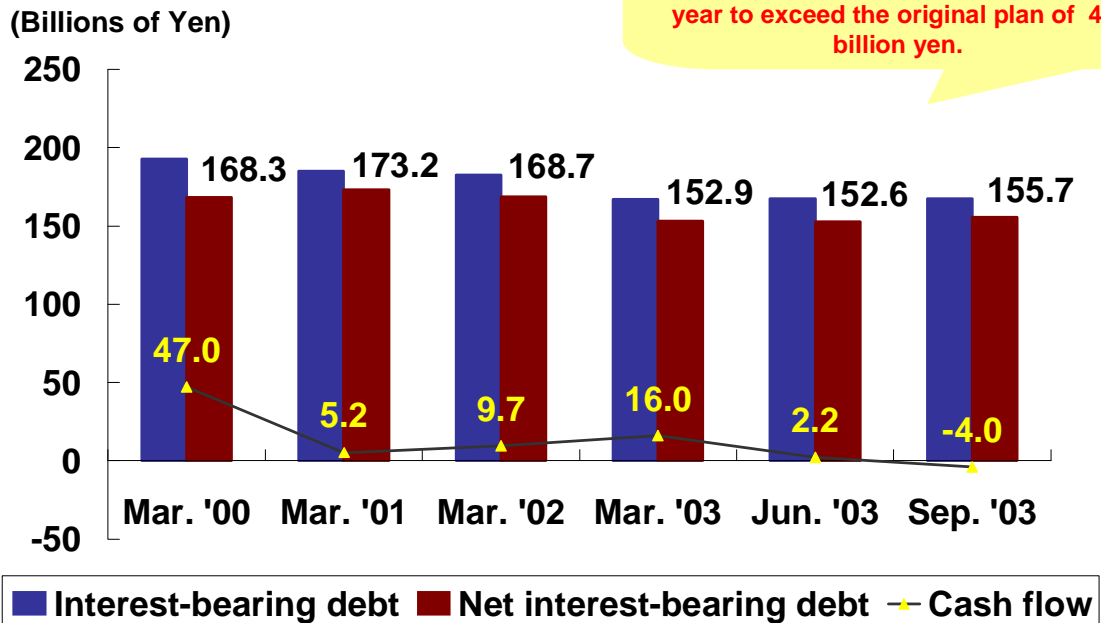
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Capex in the first half amounted to 9.9 billion yen. Main areas of investment were keyboard's new factory in China and capacity expansion of ball bearings and pivot assemblies. We expect the full year capex to be 21 billion yen, a large reduction from the original plan of 27.5 billion yen, as a result of successful outcome of productivity measures at all product divisions.

## Interest-Bearing Debt



Stocks and accounts receivable increased in the first half. Estimate reduction by the end of the full year to exceed the original plan of 4.5 billion yen.

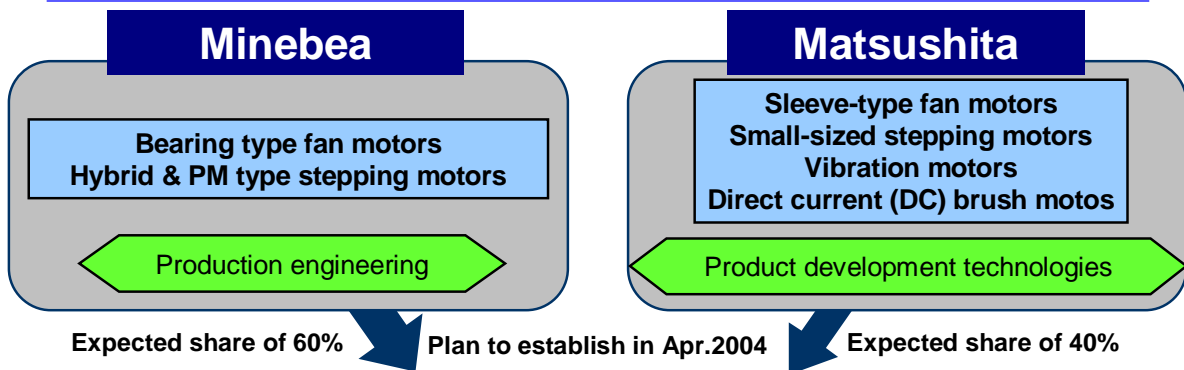
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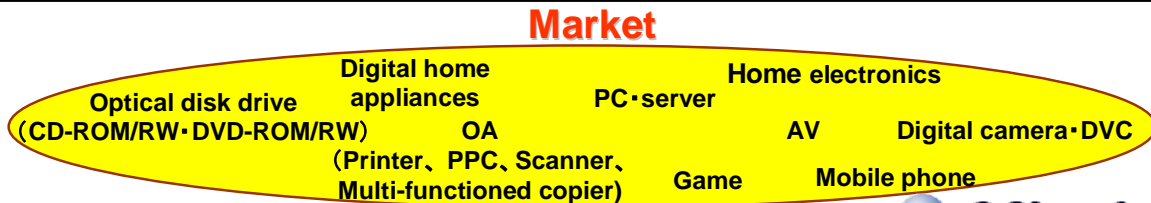
Interest-bearing debt, net of cash and equivalent, at the end of the first half amounted to 155.7 billion yen, an increase from the end of March. Increase in accounts receivables, due to expanding sales, and increase in inventory were the reasons. We expect to exceed the original reduction target of 4.5 billion yen for the full year, help by reduced capex plan.

# Joint Venture in Information Equipment Motor Business



## Information equipment motor joint venture company

For the industry's No.1 product range, technologies and competitiveness



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We made several important achievement in the second quarter. On August 27, we agreed with Matsushita Electric Industrial Co., Ltd. to establish a new joint venture company for information equipment motors. We are currently working to reach final agreement by December. I would like to explain details after the final agreement in December.

## Mass Production Began at Keyboard's New Shanghai Factory

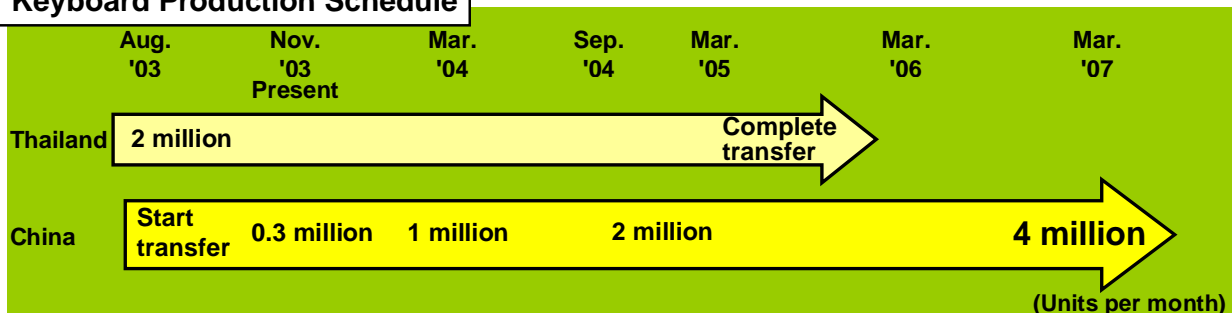
### Shanghai Shun Ding Technologies Ltd.

- Manufacturing subsidiary in China of joint venture with Huan Hsin Group
- Operation began in August. Target 300 thousand units per month in November.
- Capital expenditure approximately 4 billion yen for this fiscal year



Competitiveness of mass volume models should be enhanced through significant cost reduction, flexible and efficient delivery and reduced logistics costs. By strengthening product development capabilities for high value added models, aim to become the world's top keyboard supplier.

### Keyboard Production Schedule



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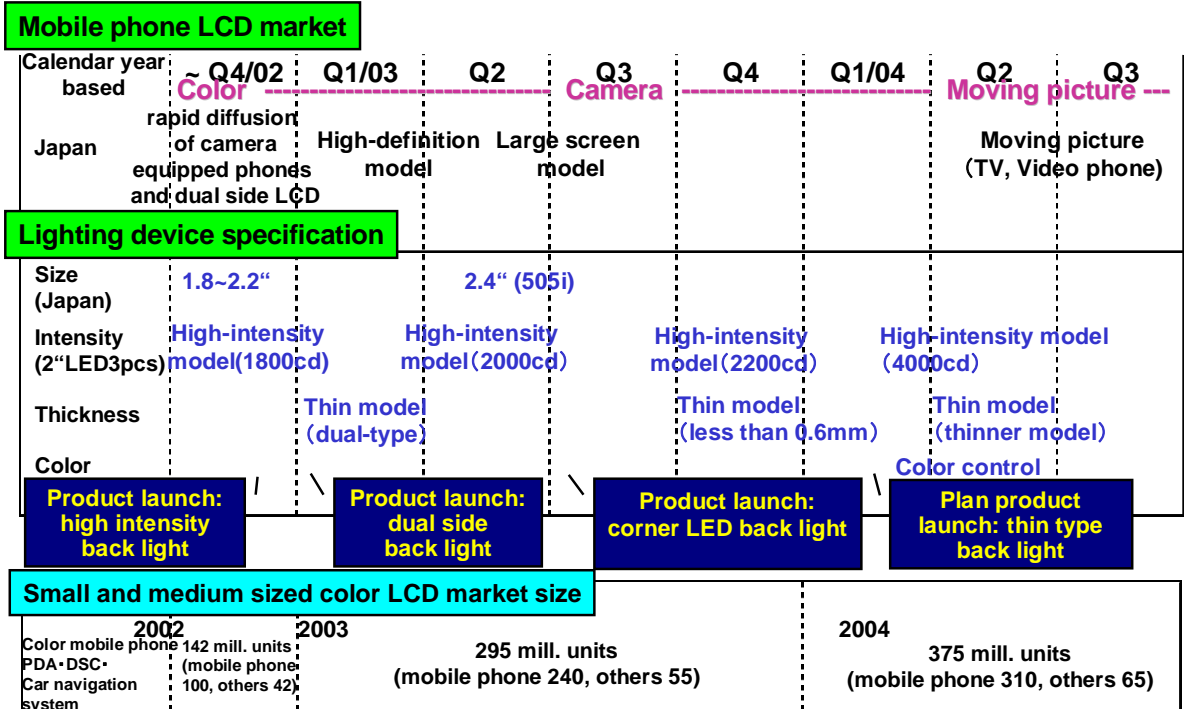
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Keyboard's new factory in China began operation at the end of August. Production in November should reach 300,000 units. We intend to accelerate the shift from Thailand to China and bring production in China to 1 million units per month in March next year and complete transfer in mid 2005.

Profitability of keyboard operation has been weak this fiscal year due to upfront costs at SST and loss of market share. We aim to enhance competitiveness through cost reduction and reinforcement of marketing and logistics in the area of mass produced models while we reinforce technological capabilities for high-end model, and thus create a strong operational base that can sustain profitability.

# Lighting Device Product Roadmap



Based on data by Nikkei BP Consulting, Inc

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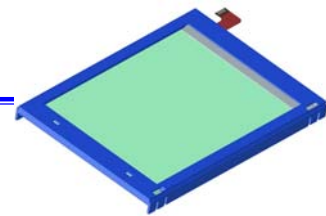
Lighting device business is getting under way toward expansion. The shift from front light to back light has come out as a success and now most of new business is for back light.

We, as a late entrant into the backlight market, promoted development of products with performance that is superior to competitors' products. We launched in the market back light with the highest level of brightness in the second half of last fiscal year, and then dual side back light. We have recently started mass production of corner LED back light. Early next year we intend to bring thin-type back light to mass production.

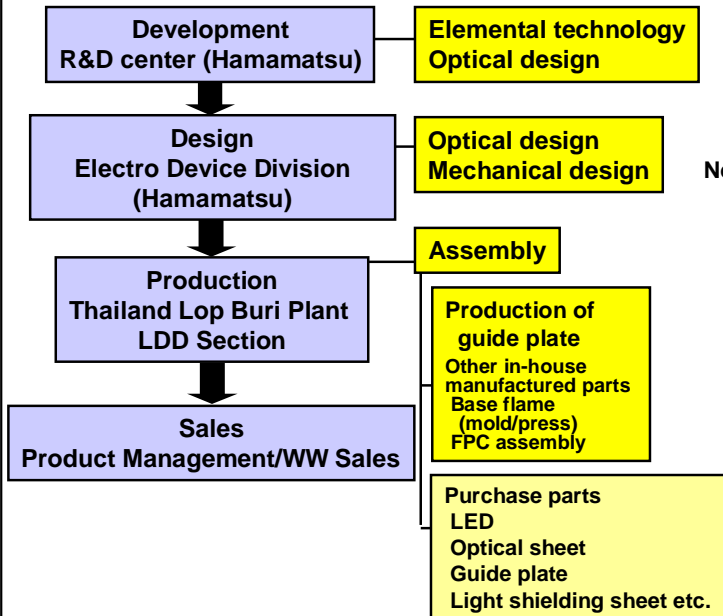
We aim to continue to expand market share further by promoting development of back light that goes ahead of the market.



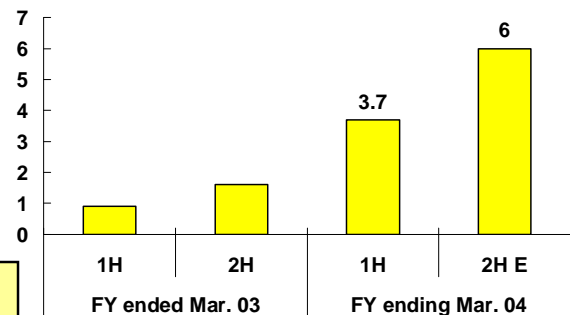
# Lighting Device Business



High performance, high quality and competitive cost are realized with Minebea's precision mold technologies and integrated manufacturing system



Net sales of lighting devices  
(Billions of yen)



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Our strength is optical design technologies, development and manufacture of light guide by utilizing mold technologies, and development, design and manufacture of assembled units by utilizing vertically integrated manufacturing system.

Sales of lighting devices reached 3.7 billion yen in the first half, a significant growth from previous level. Our back light was selected for several main stream models of mobile telephones. Sales for digital cameras and PDAs are continuing to grow.

In the second half some products will end before the start of the next generation models, however, we expect sales of 6 billion yen, making the full year sales to exceed the plan of 9 billion yen. Improvement of yield and productivity in the second quarter, as well as sales level that goes above the breakeven level, should enable the division to generate stable profitability.

## Progress of Measures for the Current Fiscal Year

### Six measures

1. Expand and further strengthen **Ball Bearing** business
2. Improve profitability of **HDD Spindle Motor** business
3. Improve profitability of **Pivot Assemblies**
4. Improve profitability of **Other Electronic Device Products**
5. Further expand **Fan Motor** business
6. Terminate **Switching Power Supplies and Related** businesses

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In May, we announced six important measures for improvement of profitability.

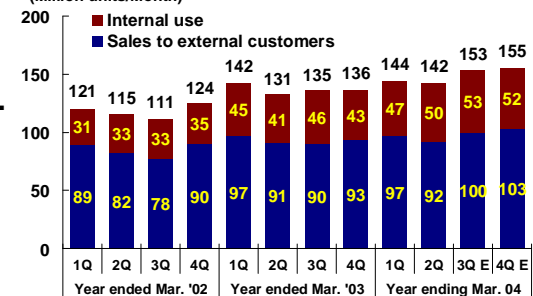
## Progress of Measures for the Current Fiscal Year

# Ball Bearings

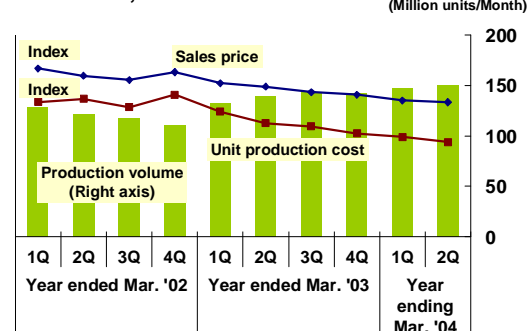
### Miniature and small-sized ball bearings

- Further progress in reducing production costs in 2Q, offsetting decline in unit price.
- Promoted further expansion of sales of ball bearings and cost reduction, aimed at realizing monthly sales and production target of 180 million units.
- Internal shipments continue to increase in the second half. External shipments are also expected to increase.
- Because of further progress in productivity efficiency, expenditure for increasing production by 30 million units per month is expected to be far below 5 billion yen. Timing for expenditure to be determined by assessing sales outlook.

### Miniature and Small-sized Ball Bearing Shipments



### Miniature and Small-sized Ball Bearing Shipments Sales Price, Unit Production Cost



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Demand for ball bearings is expected to recover in the third quarter. Our shipments, including internal sales, reached more than 160 million units in October, setting the record high. The new season for air conditioners has started early this year due to reduced inventory level in China after heatwave. Sales for fan motors is also very strong from September on the back of PC recovery.

We continue to promote expansion toward 180 million units of sales and production. We are expanding market share in every area. We expect to see positive effect as demand rises.

Unit price was almost flat in the second quarter compared to the first quarter, however, compared to the last year, price is down by about 6%, partly affected by yen appreciation. However, unit production cost is being reduced at a pace that exceeds the rate of price decline. We continue to promote further cost reduction.

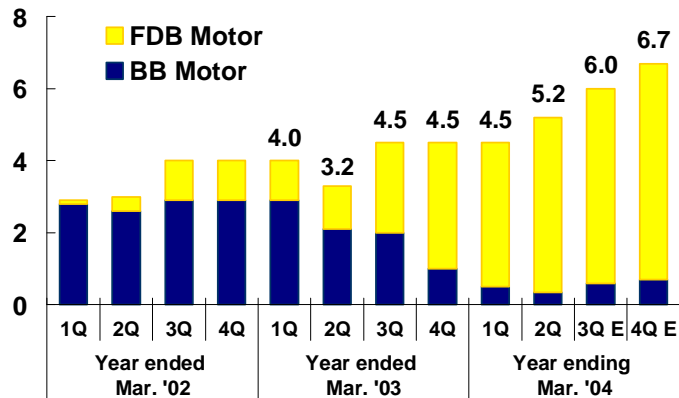
Because of further progress in productivity efficiency, expenditure for increasing production by 30 million units per month is expected to be far below 5 billion yen. Timing for expenditure to be determined by assessing sales outlook.

## Progress of Measures for the Current Fiscal Year HDD Spindle Motors

- Turned profitable in September 2003. Aim to generate stable profitability in the second half.
- Plan 3Q sales of 6 million units per month, 15% increase from 2Q. Expect to increase ball bearing sales for 1.8 inch HDDs.
- Development of 2.5 inch FDB motors is progressing.
- During 3Q, plan to start building an extension at PMDM, subsidiary for designing and development of motors in Germany.

HDD Spindle Motor Shipments

(Million units/Month)



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HDD spindle motor business turned profitable in September as a result of volume expansion, yield improvement and reduction in production costs of parts. We aim to stabilize profitability by continuing to reduce costs at a pace that exceeds the rate of price decline.

We expect average monthly sales of 6 million units in the third quarter. Sales of motors for servers and 1.8 inch HDDs is expected to expand in addition to FDB motors.

As for 2.5 inch FDB motors, we are working from angles. We are continuing to work on development of our in-house designed 2.5 inch FDB motors.

We decided to build an extension at PMDM, a subsidiary for development of motors in Germany, starting in the third quarter. More space for life test and design, development and manufacturing of automated production lines and development of new products is required.

## **Other Products**

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### ➤ **Pivot Assemblies**

- Shipments (partly include internal sales) in 3Q is expected to increase 15% compared to 2Q and reach more than 17 million units per month. Seek to maximize synergetic effect with ball bearings.

### ➤ **Other Electronic Device Products**

- Solid improvement in profitability of stepping motors and electronic device was confirmed in 2Q. Further progress in 3Q.
- Steadily expand lighting devices business. Solid profitability since August.

### ➤ **Fan Motors**

- Shipment for the PC and server applications is expected to increase in 3Q.

### ➤ **Switching Power Supplies and Related Businesses**

- Proceeding toward the withdrawal by the end of current fiscal year. Plan to terminate production at the end of 3Q.

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Sales is expanding considerably for pivot assemblies on the back of robust demand for HDDs. Shipments in the third quarter is estimated to expand 15% from the second quarter and monthly average shipments should exceed 17 million units. We intend to expand sales by seeking synergetic effect with ball bearings.

Of other electronic devices and components, measures are making progress for stepping motors and electronic devices.

For fan motors, we expect to increase sales for PC and server applications.

For switching power supplies and related businesses we expect to end business by the end of the fiscal year.

## Outlook for the Second Half

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### ➤ Operating environment from October onward

- Business confidence is improving
- Brisk demand for PC related products.
- Demand for HDD is expected to increase further
- All products except for PC applications are expected continue to grow in demand in 4Q.

### ➤ Full year business outlook

- Recovering demand is a positive factor.  
However, FX fluctuation have negative impact.

#### ⇒ Net sales

forecast announced in May: 280 billion yen

⇒ new forecast 275 billion yen.

#### ⇒ Operating income

No revision to full year forecast of 21 billion yen.

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Further cost reduction of ball bearings and improvement in profitability for spindle motors and lighting devices as well as better demand environment should work positively in the second half.

In the fourth quarter we expect some fall in demand for products that are closely linked to PCs, however, for ball bearings increased demand for air conditioners and home electrical appliances should offset the fall in demand for PCs, and for HDDs, we expect to expand our customer base.

Effect of FX volatility is 8billion yen on second half sales and 0.3 billion yen on operating profit. For this reason we now expect full year sales at 275 billion yen, 5 billion yen less from the original forecast, and operating profit to remain unchanged.

## Forecast for Fiscal Year ending March 31, 2004

(Millions of Yen)	Year ended Mar. '03	---- Year ending Mar. '04 ----			Change yoy	Full year
	Full year	1H	2H revised est.	Full year revised est.		Original forecast
Net Sales	272,202	133,741	141,259	275,000	+1.0%	280,000
Operating Income	19,352	9,467	11,533	21,000	+8.5%	21,000
Ordinary Income	13,420	7,558	9,442	17,000	+26.7%	17,000
Income before Income Taxes	495	6,299	9,701	16,000	32x	16,000
Net Income	-2,434	2,726	5,774	8,500	-	8,500

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## Forecast for Net Sales and Operating Income by Segment

(Millions of Yen)	Year ended Mar. '03	Year ending Mar. '04			Change yoy	Full year	
		1H	2H	Full year		Original forecast	vs. forecast
<b>[Net Sales]</b>							
Machined components business	118,117	55,665	59,335	111,500	-2.6%	115,000	100.0%
Bearing-related products	97,938	47,128	50,272	97,400	-0.5%	94,250	103.3%
Other machined components	20,180	8,538	9,062	17,600	-12.8%	20,750	84.8%
Electronic devices and components business	154,084	78,076	81,924	160,000	+3.8%	165,000	97.0%
Rotary components	79,188	43,642	46,058	89,700	+13.3%	95,100	94.3%
Other electronic devices	74,897	34,435	35,865	70,300	-6.1%	69,900	100.6%
<b>Total Net Sales</b>	<b>272,202</b>	<b>133,741</b>	<b>141,259</b>	<b>275,000</b>	<b>+1.0%</b>	<b>280,000</b>	<b>98.2%</b>
<b>[Operating Income]</b>							
Machined components business	18,519	9,178	10,322	19,500	+5.3%	19,600	99.5%
Electronic devices and components business	832	289	1,211	1,500	+80.3%	1,400	107.1%
<b>Total Operating Income</b>	<b>19,352</b>	<b>9,467</b>	<b>11,533</b>	<b>21,000</b>	<b>+8.5%</b>	<b>21,000</b>	<b>100.0%</b>

November 14, 2003

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# **Business Results**

**First Half of Fiscal Year ending March 31, 2004**

**Minebea Co., Ltd**

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

Any statements in the presentation which are not an historical fact are future projections made based on certain assumptions and our management's judgment drawn from currently available information.

Please note that actual performance may vary significantly from any particular projection, due to various factors.

Factors affecting our actual performance include: (i) changes in economic indicators surrounding us or demand trends; (ii) fluctuation of foreign exchange rates or interest rates; and (iii) our ability to continue R&D, manufacturing and marketing in a timely manner in the electronics business sector, where technological innovations are rapid and new products are launched continuously. However, this is not a complete list of the factors affecting actual performance.