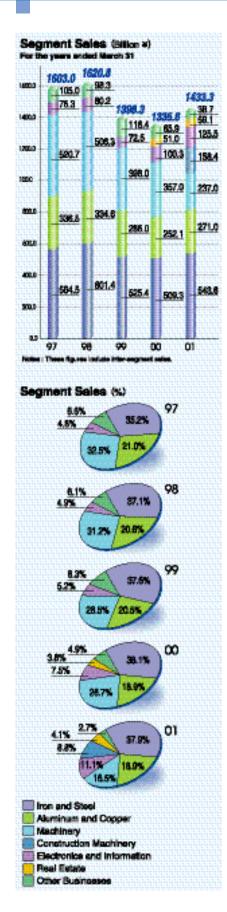
# **Review of Operations**



# Iron and Steel Segment

Demand for steel rose in the construction and manufacturing industries. reflecting solid growth in private capital investment on the back of burgeoning IT demand, increased automobile production, and large-scale redevelopment projects in metropolitan areas. However, the export environment deteriorated sharply. Global demand contracted following a strong start in 2000. In the second half, sales began to fall in Asia, which until then was an expanding market, due to the slowdown in the U.S. economy. At the same time, trade friction with China and South Korea intensified.

For Kobe Steel, both domestic shipments and sales increased, while export sales fell year on year. In steel castings and forgings, sales went up sharply, thanks to a large increase in orders for crankshafts, following an upturn in global shipbuilding. Sales of titanium and steel powder products also rose in comparison to the previous year. Sales of titanium products were lifted by an increase in demand from the aircraft and IT industries, while steel powder sold well in the automotive field.

Domestic sales of welding consumables improved, owing to investments by the IT industry and in urban redevelopment projects. Asian demand helped push export volume up, but prices fell both at home and overseas, so sales rose only slightly. Orders for robot welding systems were also buoyant, thanks to demand from the steel structural, construction equipment and bridge markets.

As a result, Kobe Steel's Iron and Steel segment sales rose 6.7%, to ¥543.6 billion, and operating income climbed 8.8%, to ¥46.7 billion.

#### **New Products**

Kobe Steel introduced a number of new products for the automotive industry: ultrahigh strength bolts; 980MPa class hot dip galvanized, high strength steel sheet; and a record-high 1,470MPa class high strength steel sheet.

For the shipbuilding industry, we developed and commercialized high strength steel plate with half the deviation of the deformation arising in gas cutting and welding operations. And in the construction field, we introduced a coated steel sheet with significantly higher corrosion resistance than conventional zinc-5% aluminum sheet.

In welding consumables, we commercialized SE Wire, a solid welding wire without a copper coating, and developed the market for MG55 solid wire and MX55 flux-cored wire for welding steel structurals, to meet new



This FASTMET® Direct Reduction Plant contributes to zero emission activities at Kakogawa Works by reclaiming zinc-rich iron oxide dust from blast furnace and steelmaking operations.

construction standards.

Kobe Steel essentially completed investments that sharpen its competitive edge in wire rod, sheet and plate production. Underway at Kakogawa Works is the integration of the pickling and cold-rolling processes at the sheet mill. In environmental activities, we started using waste plastic in February 2000 as a supplement to coal used in blast furnaces at Kakogawa Works. We have also successfully started up a steel dust recycling plant using the FASTMET® Direct Reduction Process, as we work to achieve zero emissions at the Works.

## **New Group Companies**

Shinko Kaiun Co., Ltd., and Shinko Rikuun Co., Ltd. were merged in April 2000 to form Kobelco Logistics, Ltd., as part of cost-cutting measures. To overhaul and strengthen our specialty steel business, we turned Nippon Koshuha Steel Co., Ltd. into a consolidated subsidiary, and Nippon Koshuha transferred its bearing steel production and marketing to us. Furthermore, to strengthen our wire rope business, in April 2001 Tesac Corporation's steel rope and wire division was transferred to the joint venture Tesac Wirerope Co., Ltd., with us as the main shareholder.

#### Alliances and Joint Ventures

We entered into a research and development agreement for automotive steel sheet technology with U.S. Steel in December 2000. In specialty steel wire rod and bar for the automotive industry, we signed an agreement in April this year to conduct technical exchanges with Europe's Lucchini Group. This will serve as the basis on which our two companies will consider the formation of a technical alliance. Through such cooperative arrangements in advanced steel production and processing, we aim to position ourselves to serve the global procurement needs of the automotive industry.

In addition, a wire rod processing joint venture in Nanjing, China with the Shanghai Baosteel Group began commercial production in fiscal 2000. Steel powder producer, Kobelco Metal Powder of America, Inc., increased capacity by approximately 15%, to 5,000 short tons a month, to meet growing demand in North America. Moreover, our Thai wire rod processing venture, Kobe CH Wire (Thailand) Co., Ltd., is expanding its facilities to provide more top-quality CHQ wire rod. Meanwhile, Kobe Welding of Korea Co., Ltd., which supplies the booming South Korean shipbuilding industry, has expanded its production lines of fluxcored welding wire.

#### **IPP Business**

In our wholesale electricity supply business, we began trial runs in July this year at the No. 1 Power Plant of the Shinko Kobe Power Station, in anticipation of full operation in April 2002. Construction of the No. 2 Power Plant began in February, and it will go on stream in April 2004. With each plant having a generating capacity of 700,000 kilowatts, the two together will be able to produce 1.4 million kilowatts. This independent power producer (IPP) business is anticipated to contribute to our profitability in the near future.

### Looking Ahead

In fiscal 2001, domestic and overseas demand for steel is expected to slacken. In these difficult times, we will continue to promote products of excellence, including high strength steel sheet and plate. At the same time, we will continue to rationalize operations, reduce costs, pursue efficient results-oriented R&D, and upgrade our overseas production bases. By following these policies in a concerted effort throughout the Kobe Steel Group, we intend to raise our competitiveness, bring to bear the advantages of our products, and further raise our presence in the market.



In 2004, we will have the capacity to generate 1.4 million kilowatts of electricity at Kobe Works. With trial runs underway at the No. 1 Power Plant, construction is proceeding on the No. 2 Power Plant.



MG55 solid wire for welding steel structurals provides high welding efficiency and excellent cost performance.

# Aluminum and Copper Segment

In rolled aluminum products, demand for can stock rose year on year. Although PET bottles came into wider use, demand increased due to strong sales of happoshu, a low-malt beer-like beverage, and from the growing switch to aluminum bottle cans. Strong demand also came from makers of automotive heat exchangers and semiconductor fabrication equipment. In rolled copper products, shipments of copper sheet and strip for semiconductor leadframes were down, but the sales volume of copper tubing rose, supported by seasonal demand from air conditioner makers.

Overall sales in the Aluminum and Copper segment rose 7.5%, to ¥271.0 billion, due to an increase in shipments of rolled aluminum products and higher aluminum ingot prices. Operating income rose 21.7%, to ¥12.4 billion, due to the increased shipments of rolled aluminum products and cost cutting measures.

## **Products for Growing Markets**

Our research and development activities are focused on the core products of aluminum can stock, aluminum fin material and copper tubing for air conditioners, and copper sheet and strip

for automotive electrical terminals. We are also developing products in the promising automotive, electronics, and information fields.

Products developed for the automotive industry include aluminum sheet with outstanding formability and corrosion-resistance properties for use in body panels, highly shock-absorbent extruded aluminum products for frames, extruded aluminum door beams, and aluminum forgings for use in suspension systems. We are leveraging our expertise in welding, surface treatment, structural analysis and processing to offer a wide variety of aluminum products to automakers in their quest to reduce vehicle weight.

For the electronics and information industries, we have been marketing high-strength, high-conductivity copper alloys for leadframes and high-durability aluminum vacuum chambers used in the semiconductor manufacturing industry. Both products are selling well. In providing environmental solutions, we have succeeded in developing technology for recycling aluminum dross into a usable raw material.

While closely monitoring market trends, we are increasing our production capabilities for products in the automotive and semiconductor industries. We have added a coreless furnace for special copper alloys and a slitter in

response to rising demand for thinner copper sheet for semiconductor applications. In the casting and forging field, we are building a new mechanical press to meet the growing need for aluminum forged parts for car suspensions.

#### **Global Networks**

Our can stock joint venture with Alcoa, Inc., KAAL Australia Pty. Ltd., continues to perform well. We have licensed our copper alloy technology for semiconductors, terminals and connectors to U.S. and European manufacturers. In Asia, we process and market copper strip and leadframes at Singapore Kobe Pte. Ltd. and Kobe Leadframe Singapore Pte. Ltd. Through the line up of these companies, we have established a global supply network spanning Japan, the United States, Europe, and Asia.

#### **Alliances**

We have actively formed alliances with other companies to strengthen our competitiveness and raise profitability. In December 2000, we agreed with Sumitomo Light Metal Industries, Ltd. to explore tie-ups in extruded aluminum products. In the previous year, we formed a cooperative agreement with Mitsubishi Materials Corporation and Mitsubishi Shindoh Co., Ltd. that covers copper rolling and leadframes.



We supply can stock for aluminum bottles, which are growing in popularity owing to their convenience, ease of use and recyclability.



Aluminum forgings in suspension systems contribute to lighter cars. Demand for these and other aluminum products are expected to grow.

#### Outlook

The market for aluminum and copper products is anticipated to expand in the medium term. Demand from the information sector will center on copper sheet and strip for semiconductors, aluminum plate for semiconductor manufacturing equipment, and aluminum sheet for automobiles.

Automotive lightweighting is a strategic priority in our midterm business plan. With our comprehensive technological capabilities, including parts design, we are intent on meeting the need for lighter cars.

We have seen a reduction in demand for aluminum can stock in recent years due to the increasing use of PET bottles. However, we expect PET bottles will be replaced by aluminum bottle cans, which are coming into wider use. Like aluminum automotive parts, aluminum bottles are environment-friendly as they are easily recycled, and demand is expected to burgeon.

We are determined to maintain our position as a leading company in the aluminum and copper industries. We intend to be internationally competitive in price, quality and service as we create new markets using our technological strengths.

# **Machinery Segment**

In our infrastructure and plant engineering business, overseas demand was curtailed by weak conditions, but demand in Japan was strong. Our waste treatment business had a particularly good year. A tightening of restrictions on dioxin emissions in Japan from December 2002 pushed demand for municipal refuse treatment plants to a peak. In particular, we received orders for three pyrolysis melting incineration plants. As a result, both order levels and our share in this market rose to record highs. Orders in our machinery business also increased, thanks to higher demand for compressors and optical fiber manufacturing equipment. Consequently, overall orders in this sector rose 16.3%, to ¥234.7 billion, and the backlog of orders at the end of the fiscal year stood at ¥232.8 billion.

Segment sales rose 6.8%, to ¥237.0 billion, and operating income rose 50.7%, to ¥1.7 billion. Although domestic sales in the infrastructure and plant engineering business were buoyant thanks to an increase in orders in the previous fiscal year, overseas sales were flat due to weak market conditions. In the machinery business, sales rose for crushing equipment, medium-sized to large compressors, and UPS (uninterruptible power supply) equipment.

## **Environment Technology**

We have developed solid waste and wastewater treatment processes, while pursuing recycling and non-polluting technologies. We have been marketing pyrolysis melting incineration facilities for solid waste treatment, and plants for recovering fluorocarbons from used refrigerators.

In wastewater treatment, we have brought to market a sophisticated carrier-added activated sludge process and an advanced oxidization process using ozone to break down dioxins. We also offer a thermal recycling process using biomass to treat sewage sludge.

### **Process Engineering**

In our engineering business, we have completed trials on a new 2,6-DMN process to make an intermediate material for high performance PEN plastic and are currently marketing the technology.

#### **Machinery Business**

We are selling the environmentfriendly, low-energy Inverter series of screw compressors, the Ecosand Recymer, which turns waste sludge into sand or formed products, and the Astro GS Mill for sand manufacture.

Overseas, we set up Kobelco Compressors (Shanghai) Corporation to market and service standard compres-



We have developed high-strength, high conductivity copper alloys for terminals, connectors, and semiconductor leadframes.



Our fluidized bed pyrolysis melting furnace offers high-performance incineration of solid waste with minimal emissions.



The Inverter series of medium-sized screw compressors, using a permanent magnet synchronous motor, is noted for low energy consumption.

sors in East China. Similar companies were established last year in Singapore and the Philippines.

Kobe Steel regards its environmental business as a strategic area of high priority. We are developing new products as well as exploring new fields in the environment protection market. With public works programs shrinking and competition intensifying in Japan, we will bring to bear our strengths in pricing and technology to further hone our competitiveness.

# Construction Machinery Segment

Demand for construction equipment was dragged down by slack construction in Japan. Overseas, Europe was firm, but the U.S. economy lost steam and business was also slack in Asia. Nevertheless, although unit sales of cranes declined, we increased our share of the excavator market, chiefly through new product launches.

Fiscal 2000 sales in this segment rose 16.7%, to ¥158.4 billion. Operating income also improved greatly from the previous fiscal year, to ¥5.2 billion, reflecting cost-cutting and efforts.

## Strategic Moves

Kobelco Construction Machinery Co., Ltd., which runs Kobe Steel's construction equipment operations, has turned a profit since its establishment in 1999. It has increased its share of the domestic and overseas markets and strengthened profitability with shortened lead times and improved distribution efficiency.

In March 2001, Kobelco laid the groundwork for its evolution into a truly global concern by reaching an agreement to form an alliance with CNH Global N.V. of the Fiat Group. It has also tied up with Tadano Ltd. for the production of rough terrain cranes.

## **New and Upgraded Products**

Fiscal 2000 saw a full upgrade of Kobelco's zero tail swing mini excavators. Kobelco also introduced a new range of telescopic crawler cranes that combines the technologies of its lattice boom crawler cranes and rough terrain cranes.

### **Global Activities**

Kobelco America Inc. (currently Kobelco Construction America LLC) faced a decelerating U.S. economy, a tailing off of demand due to higher dealer inventories, and intensified competition from the rental sector. Nevertheless, it increased revenues and income by expanding sales through the launch of a new range of hydraulic excavators and crawler cranes in the North American market.

With recovery in the Southeast Asian markets remaining elusive, Thai Kobelco Construction Machinery, Ltd. was converted into a supply base for attachments and spare parts for the Kobelco Group. However, sales fell year on year amid a persistently severe economic environment characterized by the weak baht.

In the growing Chinese market, Chengdu Kobelco Construction Machinery Co., Ltd., expanded sales with the launching of new products.



The Ecosand Recymer is the world's first commercial waste sludge stabilization and treatment system. Stabilizing dry rock dust, construction sludge or dredged sludge, the plant produces artificial sand, which can be used in concrete, or formed products, such as interlocking blocks. By using stabilized waste sludge, the system contributes to improving the environment.



The 200SR is one in a series of excavators with zero tail swing. We pioneered this space-saving features now found in both mini excavators and excavators

#### For the Future

Kobelco Construction Machinery intends to expand its excavator business worldwide. The alliance with CNH will lead to the formation of a production base in Europe and to the introduction of new products in the domestic market as Kobelco becomes a full line supplier. The alliance will also contribute to a more efficient business structure. In the crane business, the Company will focus resources on expanding overseas sales, especially in North America, while maximizing the benefits of its production tie-up with Tadano.

# Electronics and Information Segment

During the year under review, sales in this segment rose 25.1%, to ¥125.5 billion and operating income shot up 249.4% to ¥26.0 billion. The strong performance reflected growth for products and services from semiconductor subsidiaries serving the IT industry and an increase in unit prices.

# Semiconductor Products and Services

Our semiconductor-manufacturing unit, KMT Semiconductor, Ltd. registered impressive improvements in both sales and operating profit following high sales volume for a second consecutive year, on the back of favorable conditions in the IT industry. KMT Semiconductor was a joint venture with Micron Technology, Inc. of the United States. For KMT to remain a world-class manufacturing facility for DRAMs, we decided the best strategy would be for Micron, a leader in semiconductor development and manufacturing technologies, to take full control of KMT's management and continue to make capital investments. As a result, in May 2001 we transferred our 75% shareholding in KMT to Micron.

Genesis Technology Inc., a subsidiary involved in semiconductor testing ser-

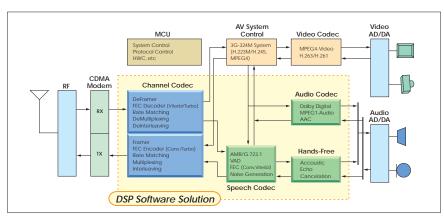
vices, enjoyed another year of robust sales as semiconductor manufacturers increased production capacity and boosted demand for outsourced post-processing operations.

Engaged in the design of semiconductors, Kobelco LSI Design Inc. expanded its business by meeting the outsourcing needs for LSI chip design for audio and telecommunications use.

#### **Solutions Business**

Kobelco Systems Corporation, a subsidiary in the IT business, has played a vital role in assisting Kobe Steel and Group companies in constructing network systems. It has also enjoyed significant growth in its solutions business outside the Group, on the back of increased demand for IT products. It posted an increase in e-business demand from its mainstay customer groups, manufacturers, and financial and insurance companies. Based on our technological strength in host computer operation and management as well as production management system design and telecommunications, we are building this business on the twin pillars of solutions and customer services.

Kobe Steel's sales in the IT and telecommunication systems field were stagnant, after dissolving an agreement



Kobelco LSI Design, Inc., specializes in the development of digital signal processor (DSP) software, a core technology in voice, telecommunications, video and audio processing.

to market real-time operating systems, a mainstay product, and a decline in sales of urban information and environment monitoring systems. To get this business on track, we are expanding sales of current products and services, as well as add new menus.

# **Real Estate Segment**

Sales in this segment rose 15.7%, to ¥59.1 billion, mainly reflecting strong condominium sales in the Kobe area. However, operating income decreased 30.7%, to ¥13.6 billion, chiefly because of changes in the types of real estate sales.

## **Emphasis on Regional Activities**

With regard to Company land development projects, urban projects in Hyogo Prefecture that emphasize distinctive regional features are underway in the new city center in eastern Kobe, Okubo in Akashi, and Doicho in Amagasaki, all in Hyogo Prefecture, as well as Hachinohe in Aomori Prefecture.

At the Maya Seaside Place condominium project in the new city center in eastern Kobe, we have already sold 400 units in the western zone following the start of construction in autumn 1999. We are now putting together a detailed business plan for the eastern zone. Meanwhile, at O's Town, a development in the Okubo area of Akashi, more than 1,300 families have moved into condominiums since their completion in March 1997, located near Mycal Akashi, one of the largest commercial complexes in Japan.

Our real estate subsidiary, Shinko

Kosan, Ltd., is conducting business in real estate sales, rentals, and building management services in the Osaka-Kobe area. In the year under review, it worked to strengthen profitability by aggressively developing business in the Tokyo area, as well.

# Other Businesses Segment

A total of 27 consolidated and nonconsolidated subsidiaries and four affiliates are engaged in this serviceoriented segment covering such fields as materials inspection, pressure vessel fabrication, trading and travel services.

Segment sales fell 41.3%, to ¥38.7 billion, and operating income dropped 56.3%, to ¥1.7 billion. This was due mainly to Shinko Lease Co., Ltd. ceasing to be a consolidated subsidiary after we reduced our equity in that company.



Maya Seaside Place, a condominium development in eastern Kobe