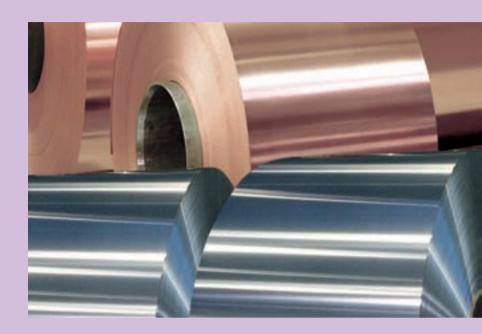
# **Aluminum & Copper Business**

# One of Japan's Leading Suppliers to the Automotive and IT Industries

Defining applications for automotive and IT industries as priority areas, we aspire to enhance and enrich our "Only One" products with distinctive value. As one of Japan's leading aluminum and copper producers, we are stepping up our overseas operations, backed by our long-nurtured technologies and trust built up over the years.



## **Main Products and Services**

### **Aluminum Sheet and Plate**

- · Can stock
- Automotive body panel material
- Disk material
- · General sheet and plate

### **Aluminum Extrusions and Fabricated Products**

- Extrusions (shapes, tubes, bars)
- Fabricated products

### **Aluminum and Magnesium Castings and Forgings**

- Castings
- Forgings
- Fabricated products

# Copper Sheet and Strip

- · Leadframe material for semiconductors
- Material for terminals and connectors

## **Copper Tube**

- Copper tube for air conditioners
- Copper tube for construction and hot water supply



Gearbox for aircraft



Aluminum coils



Aluminum extrusions

#### **Business Review**

Expansion of capacity at U.S. and China manufacturing facilities for aluminum forgings for automotive suspensions

Kobe Aluminum Automotive Products (China) Co., Ltd. (or KAAP China), a manufacturing and sales base for aluminum forgings for automotive suspensions that began operations in China in August 2012, completed the expansion of its production capacity at a cost of ¥4.5 billion and began massproduction in April 2013.

As a result of the expansion, KAAP China has doubled its production capacity to 250,000 pieces per month. Also, with the installation of melting and casting equipment, we have established an integrated system of production from melting and casting to final product manufacturing.

Meanwhile, at Kobe Aluminum Automotive Products LLC (or KAAP), our production base in the U.S. for these components, in response to growing demand for aluminum forgings for automotive suspensions in the U.S., in January 2013 we

decided to expand our integrated production system, which includes melting and casting equipment and a mechanical forging press. Capital investment will came to approximately US\$66



New forging press at KAAP China

# "Only 1" Products & Technologies



#### **Aluminum Bottle Can Stock**

Today, aluminum cans account for about 50% of beverage cans in Japan. Kobe Steel supplies more than 30% of the aluminum can stock. We are particularly strong in the field of bottle can stock with a market share of around 70%.



#### **Aluminum Automotive Panels**

Aluminum is being used in more and more mass-produced vehicles. Swiftly paying attention to this trend, Kobe Steel capitalizes on its comprehensive technical strength, from materials and design to assembly, to meet the needs for aluminum in automobiles.



#### **Aluminum Disk Blanks**

Kobe Steel supplies nearly 60% of the disk blanks worldwide. With production centers in Japan and Malaysia, we are contributing to an advanced information society.

million (about ¥5.2 billion). Construction has commenced with operations expected to begin in the spring of 2014.

The aluminum forging business has met expanding global demand for aluminum suspensions with a network of bases in three countries: Japan (including the Daian Plant), the United States and China.

Kobe Steel licenses high-end copper alloys CAC™5 and SuperKFC™

In November 2012, Kobe Steel concluded a licensing agreement with Wieland-Werke AG of Germany for the production and sale of Kobe Steel's CAC<sup>TM</sup>5 copper alloy for terminals and connectors.

Kobe Steel developed CAC<sup>™</sup>5, a high-end product, in 2005 mainly for use as a new alloy in automotive terminals and connections due to its outstanding stress relaxation resistance and high strength. A leading European producer of copper rolled products, Wieland is the top supplier of copper alloys for automotive terminals and connectors in Europe. As a global supplier of CAC<sup>™</sup>5, Kobe Steel is working to establish CAC<sup>™</sup>5 as a next-generation world standard.

In the same month, Kobe Steel and JX Nippon Mining & Metals Corporation (or JX Metals), a major copper alloy producer in Japan, concluded a licensing agreement for the manufacture and sale of SuperKFC<sup>TM</sup>, a copper alloy for use in

electric and electronic components. SuperKFC™ is a high-end product developed in 2006 by Kobe Steel featuring high conductivity and high strength and it is therefore mainly used as an alloy in semiconductor lead frames for ICs.

JX Metals is a leading copper alloy producer in Japan whose alloys are used in a wide range of fields in electric and electronic component applications.

Production of new ALJADE™ aluminum alloy plates for precision machining

Kobe Steel has developed ALJADE™, an improved version of its 5052 aluminum alloy plate for precision machining. Production began in June 2013.

The new ALJADE™ is being sold in Japan and other Asian countries for use in semiconductor and LCD manufacturing equipment, robots and precision machinery.

A major enhancement of ALJADE™ is significantly improved flatness, which contributes to higher processing yield and reduces the total cost for customers.



ALJADE™ aluminum alloy plate