

# Welding Business

## Striving to Be the Most Trusted Welding Company by Providing Welding Solutions

By combining welding materials, welding systems, power sources, equipment and construction methods, we contribute to industries around the world through our welding technologies. We aim to be a top manufacturer globally by maintaining our No. 1 position in Japan and the ASEAN region as we strive to spur our overseas development.



### Main Products and Services

#### Welding Materials

- Covered arc welding electrodes
- Flux-cored and solid welding wires for semi-automatic welding
- Solid wires and dozed fluxes for submerged arc welding
- TIG welding rods
- Backing materials

- Educational guidance
- Consulting
- Maintenance and inspection of industrial robots, power sources and equipment

#### High Functional Materials

- High functional filters that deodorize, dehumidify, decompose ozone, and remove harmful gases and oil mist
- Odor neutralizers

#### Welding Systems

- Robot systems for welding steel frames
- Welding systems for bridge construction
- Welding systems for construction machinery
- Other types of robot welding systems
- Off-line teaching systems
- Welding robots
- Welding power sources

#### Overseas Operations

#### Testing and Inspection

- Testing, analysis, inspection, commissioned research



Welding materials



Robot systems for construction machinery



Kobe Welding Tangshan training center

### Business Review

#### Welding Solutions Development

The progress of welding robots has been remarkable from the standpoint of their versatile use and automation and labor saving capabilities, but above all, in the welding of medium to heavy plate, such as for construction machinery, in which high efficiency is strongly desired.

In October 2012, Kobe Steel began sales of the Ultra High Current MAG Welding Process, which is extremely stable at high currents, has low spatter and offers high-performance welding using the SENSARC™ AB500 digitally-controlled welding power source and FAMILIARC™ MX-A100D wire specially developed for this process. Following last year's release of J-Solution™ Zn, we will continue to bring out new welding solutions that combine welding materials, construction technology, and welding systems, as well as supply products that are high in customer satisfaction.



High deposition welding process using two parallel-connected welding power sources

## “Only 1” Products & Technologies



### Flux-Cored Wires

Flux-cored wires enable high-efficiency welding and are used across a wide range of sectors, including shipbuilding, bridges and industrial machinery. They significantly reduce man-hours in the welding process, increase welding efficiency and improve the external appearance of the weld bead.



### Non-Copper-Coated Solid Wires (SE Wire Series)

With a new wire surface treatment technology, non-copper-coated solid wire offers a revolutionary level of wire feed ability and unrivaled arc stability. The copper coating process is eliminated from the manufacturing process to minimize the impact on the global environment.



### ARCMAN™-GS robot

Used in steel frames, construction machinery and many other applications involving the welding of medium and thick plates, the ARCMAN™ series of welding robots is equipped with torches and cables designed to make the robots more appropriate in confined areas and tandem welding.

## Strengthening Overseas Business — Raising our Presence in China and ASEAN

Thai-Kobe Welding was Kobe Steel Group's first overseas base, and it has retained the number one market share in Asia ever since. To further increase our presence in the ASEAN region, in 2011, we assigned overall control for ASEAN to our company in Singapore, which is now taking steps to strengthen marketing, technology, service, *monozukuri-ryoku* (manufacturing capabilities), and upgrade and expand development functions for the entire region.

We consolidated our venture into China by assigning overall control to a local unit also in 2011 and have worked mainly on sales and marketing activities. To further expand sales and orders in the world's largest and intensely competitive Chinese market, we added production capacity at Kobe Welding of Qingdao Co., Ltd. and launched a new distributor system, thus conducting ever more activities that forge a deep and broad connection with the market and customers.



KOBE WELDING OF QINGDAO CO., LTD.

Beginning in 2010, we established sales bases in Shanghai, South Korea, and India, which gives us coverage in nearly every region except for the Middle East and South America. Retaining the number one position in Japan and ASEAN, Kobe Steel seeks to speed up overseas expansion and become a top global manufacturer.

## Relief funds donated for flooding in Thailand

The Welding Business donated 1 million Thai baht (about ¥27 million) to the flood support project under the auspices of Princess Sirindhorn of the Royal Household of Thailand to help pay for damage caused by floods in Thailand in 2011. The Kobe Steel Group started its first overseas base in Thailand in 1968. Since this market has supported the Group's business activities for many years, we made this donation to the project to help disaster areas and victims.



Princess Sirindhorn of the Royal Household of Thailand expresses gratitude for relief fund donation