

# Machinery Business

## Pursuing a Growth Strategy Aimed at Building a Global Business

The Machinery Business offers an extensive array of products, including industrial machinery, compressors and equipment for the nuclear and other energy industries. To meet global demand in growing markets, it strives to create original products and technologies, bolster its capabilities in production technology, and build a structure for optimal production.



### Main Products and Services

#### Industrial Machinery

##### [ Tire and Rubber Machinery ]

- Batch mixers
- Twin-screw extruders
- Tire curing presses
- Tire testing machines

##### [ Plastic Process Machinery ]

- Large-capacity mixing and pelletizing systems
- Continuous mixers
- Twin-screw extruders
- Molding machines
- Optical fiber making equipment

##### [ Advanced Technology Equipment ]

- Physical vapor deposition systems (AIP, UBMS)
- Analysis systems and ion beam equipment

##### [ Metalworking Machinery ]

- Steel and nonferrous metal rolling mills
- Automatic flatness control systems
- Continuous casters
- Isostatic pressing systems (HIP, CIP)

#### Compressors

##### [ Nonstandard Compressors ]

- Screw compressors
- Centrifugal compressors
- Reciprocating compressors

##### [ Standard Compressors ]

- Standard air compressors
- Screw refrigeration compressors
- Heat pumps
- Steam-powered generators

#### Equipment

##### [ Chemical and Energy Equipment ]

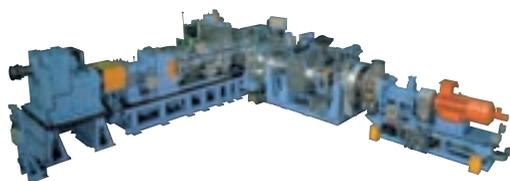
- Heavy-wall pressure vessels (reactors)
- ALEX (brazed aluminum heat exchangers)
- LNG vaporizers (open rack vaporizers, intermediate fluid vaporizers, air fin vaporizers, hot water vaporizers)
- Air separation plants

##### [ Nuclear Equipment ]

- Spent fuel storage and transport casks
- Fuel channels



Open-rack LNG vaporizer



LCM Series plastic mixing and pelletizing system



AIP system

## “Only 1” Products & Technologies



### Kobelion® Standard Compressor

The energy-saving Kobelion® compressor provides a considerable reduction in running costs. The Kobelion has won the Japan Society of Mechanical Engineers (JSME) Award and many other prizes for its outstanding technology.



### Nonstandard Compressors

Kobe Steel provides users across the globe with high-performance nonstandard compressors, including high-pressure screw compressors with world-leading compression capacity and screw compressors for the recovery and reuse of natural gas, which can help combat global warming.



### Heavy-Wall Pressure Vessels for Oil Refining

Using its proprietary improved steel for enhanced performance, Kobe Steel is equipped to produce the world's largest class of pressure vessels, weighing up to 2,000 metric tons per unit, to meet today's needs for larger pressure vessels.

## Business Review

### New companies established in Europe and the Middle East

In July 2012, Kobe Steel established Kobelco Machinery Europe GmbH (located in Munich, Germany) to strengthen marketing and sales, mainly of nonstandard compressors in Europe, and to expand local procurement.

Also in July, we established Kobelco Machinery Middle East FZE (located in Dubai, UAE) to improve after-sales services in the Middle East market for nonstandard compressors.

Kobe Steel is the world's only comprehensive manufacturer that makes screw, centrifugal and reciprocating compressors. The Company boasts a 30% share of the world market for nonstandard screw compressors. Nonstandard compressors are used in petrochemical plants, natural gas plants and other large facilities. Kobe Steel has supplied numerous compressors throughout the world and has an extensive supply record.

Kobe Steel previously had representative offices in Germany and the UAE. By incorporating these offices into companies, Kobe Steel strengthens compressor marketing, parts procurement and after-sales services, as well as increases its presence in the two regions.