

Outline and Characteristics of the Steel Business

JFE Steel Corporation

Always Looking 10 Years Ahead, Pursuing Technological Innovation as a World-Leading Steel Maker

As a steelmaker boasting world-leading production facilities and excellent technological development capabilities, JFE Steel is well positioned to meet growing demand for high-end steel. Proactively developing innovative and unique products that offer superior functionality, JFE Steel will continue to ensure the stable supply of high-end steel to domestic customers, while also serving markets worldwide through outstanding production and distribution networks that it has been expanding in partnership with other leading steelmakers. JFE Steel also remains committed to providing solutions to social needs in such fields as environmental protection.



Eiji Hayashida
President & CEO

Two Major Steelworks Equipped with Large-Scale Blast Furnaces

The Chiba District of the JFE Steel East Japan Works was the country's first integrated coastal steelworks constructed after World War II. The East Japan Works also includes the Keihin District, a complex of facilities situated mainly on Ohgishima, a 5.5-million-m² man-made island that belongs to Kawasaki and Yokohama cities and constitutes a part of Tokyo Bay's shoreline.

The West Japan Works includes the Fukuyama District and Kurashiki District, both of which boast advantageous locations due to their proximity to deep harbors. Together, they occupy a total area equivalent to 540 times that covered by the Tokyo Dome. The East and West Japan works are equipped with large, world-class blast furnaces and are part of an extensive, highly efficient production structure.

JFE Steel's production network also includes the Chita Works located in the Chukyo Industrial Zone. This facility boasts world-leading production capabilities, including for a variety of specialty steel pipes and tubes, such as tubular goods for the oil industry and line pipes.



A blast furnace at the Kurashiki District of the West Japan Works

Building the JFE Brand through Customer Satisfaction

JFE Steel is strengthening its integrated service and technology support system, which encompasses everything from planning and product design, manufacturing and delivery to quality assurance, thereby securing greater customer satisfaction and ensuring that JFE remains the brand of choice.



Products shipped from the Fukuyama District of the West Japan Works

A seamless small steel pipe being produced

JFE Steel Manufacturing Bases

West Japan Works



Fukuyama District



Kurashiki District

East Japan Works



Chiba District

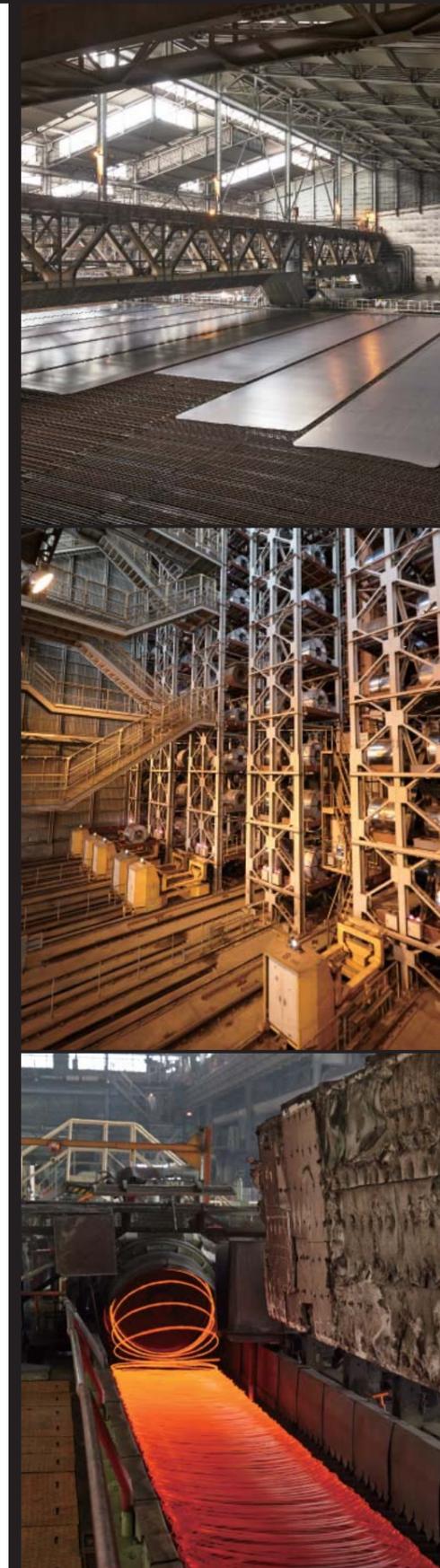
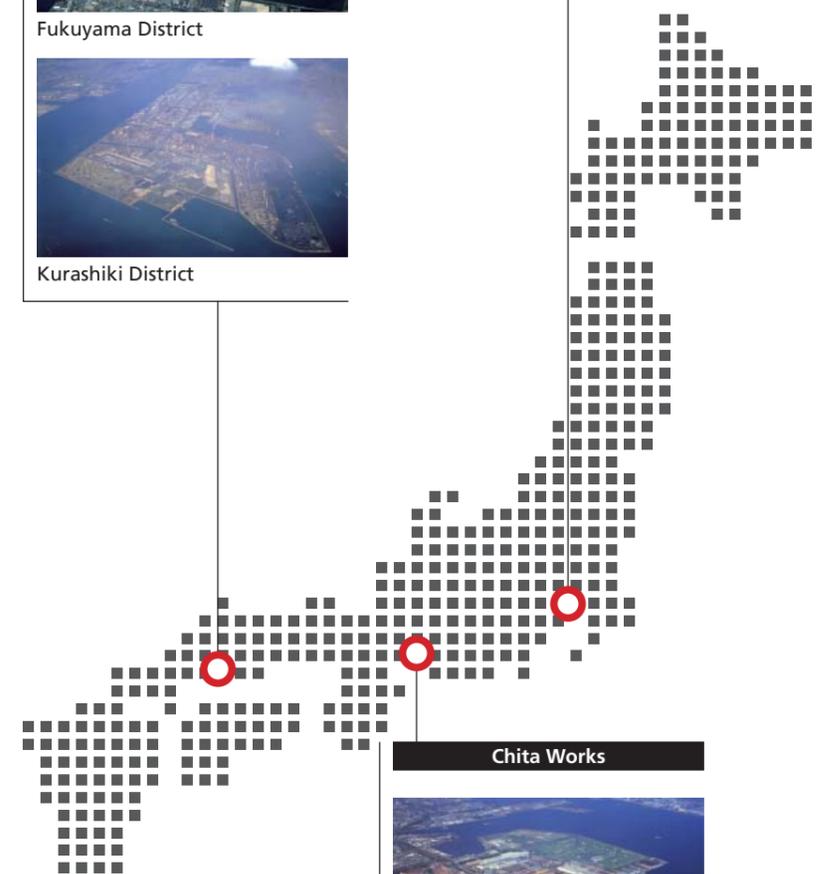


Keihin District

Chita Works



Chita Works



JFE Group Overview

Developing Manufacturing Platforms in Japan

With the aim of securing stable operations as well as greater cost competitiveness for its domestic steelworks and other manufacturing bases, JFE Steel is tackling such immediate priorities as enhancing its manufacturing platforms in terms of both facilities and human resources. With regard to facilities, JFE Steel proactively carries out repairs and upgrades, targeting mainly aging facilities with the aim of restoring and improving their operational efficiency and thus raising their competitiveness to new levels. Among recently upgraded facilities are coke ovens as well as raw material loading, unloading and distribution facilities that needed quite extensive repairs.

With regard to human resources, in October 2013 JFE Steel launched a new initiative, appointing a group of dedicated trainers, or "technical experts," to help it counter the effects of rapidly changing age distribution within its overall workforce due to the mass retirement of baby boomers. Selected from among veteran employees and rehired retirees, these trainers have been dispatched to every manufacturing site, where they impart their skills to younger employees, with particular emphasis on instilling troubleshooting know-how and other technical wisdom.



Exterior view of a coke oven (Kurashiki District)



Raw material unloading facility (Fukuyama District)

Securing Access to Burgeoning Markets Worldwide

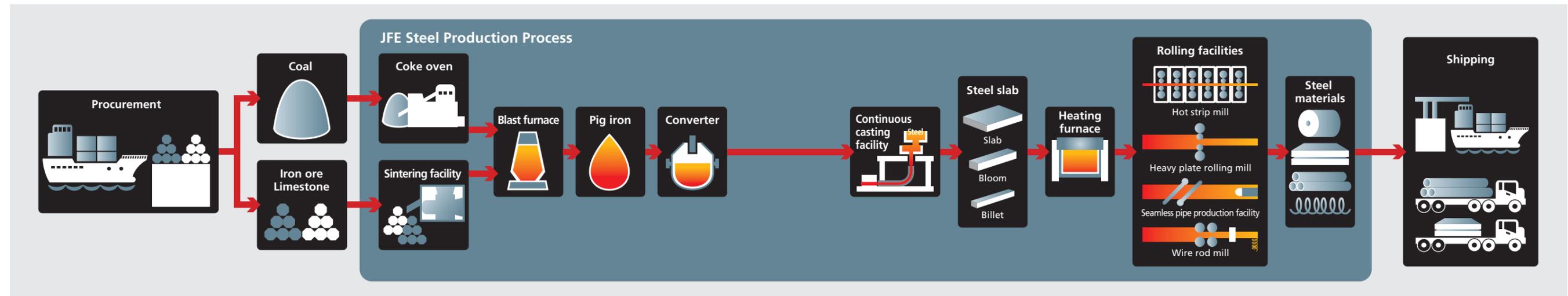
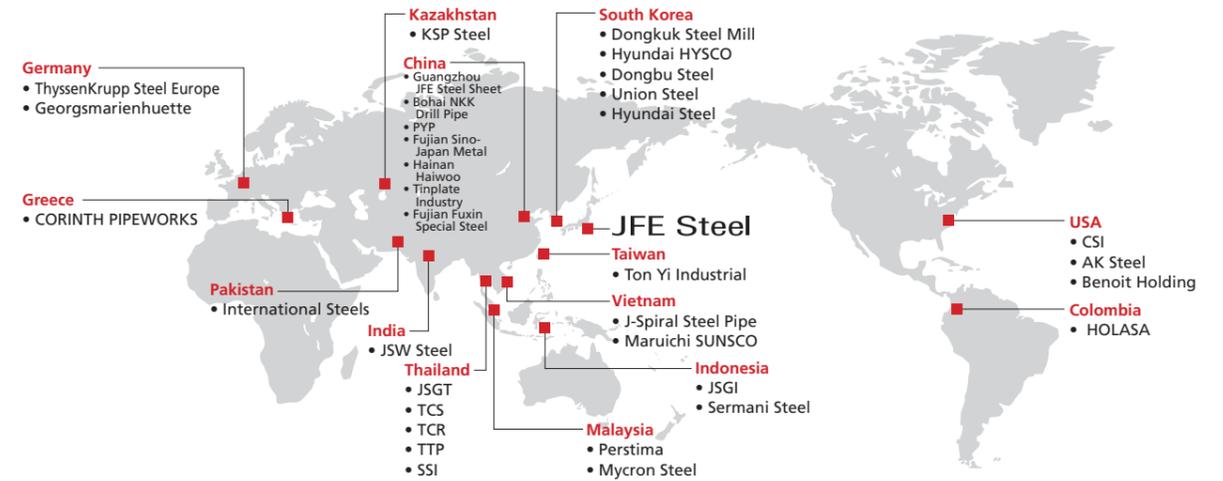
With an eye on the world's steel market, which is poised for growth, JFE Steel is reinforcing its ability to respond to rising steel demand, taking such steps as stepping up exports. For example, targeting such emerging markets as China, India and Southeast Asia, high-end steel production and distribution networks have been established by securing local alliance partners to supply automotive steel sheets.

In China, the cold-rolling line and hot-dip galvanizing line maintained by Guangzhou JFE Steel Sheet Co., Ltd., a 50-50 joint venture, have been enjoying steady operations, while in Thailand, JFE Steel Galvanizing (Thailand) Ltd., a wholly owned subsidiary, launched a hot-dip galvanizing line

in 2013. In India, strategic partner JSW Steel Ltd. began operating a second cold-rolling mill at its Vijayanagar Works, a facility that leverages automotive steel sheet production technologies licensed from JFE Steel. In Indonesia, PT. JFE Steel Galvanizing Indonesia, a wholly owned subsidiary, is constructing a hot-dip galvanizing line.

Also, efforts are now under way to establish a supply structure for steel pipe for energy infrastructure use in the burgeoning global market. The U.S.-based 50-50 joint venture California Steel Industries, Inc. is building its No. 2 electrical resistance welded pipe mill, with the aim of initiating operations in August 2014.

Main Capital and Alliance Partners



Fiscal 2013 Highlights

April 2013

- Conducted a test for the long-term production of ferro-coke, an innovative blast furnace feed, while verifying the applicability of ferro-coke in actual blast furnaces
- Received Commendation for Science and Technology from the Minister of Education, Culture, Sports, Science and Technology for the development of spray-transfer type carbon arc welding technology boasting superior workability

May 2013

- The Fukuyama District of the West Japan Works became the first in the world to achieve cumulative crude steel output of 400 million tons
- Agreed on the establishment of a joint venture in Zhejiang Province, China, to manufacture and sell automotive steel pipes
- Decided to install another converter in the No. 3 steel mill of the Fukuyama District of the West Japan Works in order to introduce a cutting-edge process for the preliminary treatment of molten pig iron
- Held spring festivals in the Keihin District of the East Japan Works and the Fukuyama District of the West Japan Works

June 2013

- Received the Grand Prize from the Japan Society for Technology of Plasticity for the development of high-speed rolling technology for a tandem cold mill using hybrid lubricants
- Decided to construct Indonesia's first hot-dip galvanizing line for automobiles in Bekasi District, West Java Province
- Held the 21st J1 Activity JFE Steel Family Meeting

July 2013

- Confirmed through verification testing the effectiveness of thermal power generation technology employing waste heat emitted from steelworks
- JFE West Japan baseball team participated in an intercity tournament

August 2013

- Commercialized JBCR295, a square steel tube for construction use made using a roll forming method that boasts the greatest wall thickness in its product class in Japan
- Expanded the range of products made of HBI®440, a 590N/mm² high-performance TMCP steel for construction materials, to offer a wider variety of thicknesses

September 2013

- Received the Monozukuri Nippon Grand Award from the Minister of Economy, Trade and Industry for the development of a high-tensile-strength steel plate for large input welding that contributes to the safety and cost-efficient construction of ultra-high-rise buildings



Expanding Our Automotive Steel Sheet Supply Network Overseas

JFE Steel has been developing its overseas supply network to accommodate rising demand, particularly in Asia, for automotive steel sheet as well as in response to heightening customer requests for local procurement options.

In Thailand, an opening ceremony was held in November 2013 to celebrate JFE Steel Galvanizing (Thailand) Ltd.'s launch of a hot-dip galvanizing line.

In India, JSW Steel Ltd. launched a second cold-rolling mill at its Vijayanagar Works. JFE Steel has assisted with the construction and launch of this steelworks while licensing its automotive steel sheet production technologies to JSW Steel.

In Indonesia, PT. JFE Steel Galvanizing Indonesia decided to construct Indonesia's first hot-dip galvanizing line for automobiles. Construction is now under way to launch this facility in March 2016.



Fukuyama District Achieves Cumulative Global Record of 400 Million Tons

In May 2013, the Fukuyama District of JFE Steel West Japan Works became the first in the world to achieve a cumulative crude steel output of 400 million tons, all produced at the same site. This record attests to the works' longstanding track record, which extends back 46 years and 10 months to the launch of first blooming mill in July 1966.



JFE Steel Group Integrates Bar and Wire Rod Businesses

In April 2014, JFE Steel and JFE Bars & Shapes Corporation integrated their bar and wire rod businesses, with the latter company transferring business units that handle sales, technical services and R&D to JFE Steel's bar and wire rod business units. As a result, the JFE Steel brand now includes JFE Group-brand bar and wire rod. Drawing on this business integration, JFE Steel will boost its marketing capabilities to capture a greater share of the domestic market while expanding sales in burgeoning overseas high-end steel markets for automobiles and construction machinery.



Outstanding Performances by Company Sports Teams

The JFE West Japan baseball team participated in an intercity tournament and both the JFE East Japan and West Japan baseball teams took part in the Japan National Championship. A group of enthusiastic company-related people joined local residents in rooting for their teams. Thanks to this support, the JFE East Japan baseball team placed in the top eight in the Japan National Championship.

Also, the Group's running team participated in Japan's New Year *ekiden* (road relay race) for the 38th consecutive year and performed well, buoyed by loud cheering from the roadside.



First Order Received for Newly Developed HFW Steel Pipe with One-Inch Thick Wall

JFE has developed the world's first X-80 grade (American Petroleum Institute standard) high-frequency welded (HFW) steel pipe with a one-inch thick wall. Orders for this pipe were placed by Dril-Quip Inc. and GE Oil & Gas, two of the world's leading manufacturers of oil and natural gas drilling equipment, for use as conductor casing. With superior strength due to the thickness of its wall, this newly developed pipe is expected to apply for not only conductor casing but also high-quality line pipes for offshore pipelines and other purposes.



JFE Steel Receives METI Minister's Prize in Fifth Monozukuri Nippon Grand Award

JFE Steel was awarded the Minister's Prize in the fifth Monozukuri Nippon Grand Award for the development of high-tensile-strength steel plate for ultra-large-input welding. Organized by Japan's Ministry of Economy, Trade and Industry (METI), this award program commends excellence, bestowing prizes to mid-level manufacturing leaders and promising young operators who are bolstering production sites, with the aim of facilitating the preservation and further development of Japan's manufacturing traditions. JFE Steel received the Minister's Prize for the third consecutive year.

October 2013

- Delivered tubular goods totaling 1,900 tons for an ultra-deep gas field development project in the Gulf of Mexico Deep Shelf
- Launched a joint research project with the Yokohama municipal government with the aim of employing steel slag products to improve water quality and wildlife habitats
- JFE East Japan and JFE West Japan baseball teams participated in the Japan National Championship
- Held an autumn festival at the Chiba District of the East Japan Works

November 2013

- Earthquake-resistant line pipe HIPER® was selected as a prize-winning product in the 2013 R&D 100 Awards
- Held an opening ceremony for JFE Steel Galvanizing (Thailand) Ltd.
- Held the 22nd J1 Activity JFE Steel Family Meeting
- Held autumn festivals at the Kurashiki District of the West Japan Works and the Chita Works

December 2013

- Developed "SUPERHOT®-G," a high-carbon, hot-rolled steel sheet with excellent formability

January 2014

- JFE Steel running team participated in the New Year *ekiden*, recording a solid result
- Decided to integrate the JFE Steel Group's bar and wire rod businesses

February 2014

- The Chiba District of the East Japan Works achieved a cumulative output of 200 million tons produced at its hot strip mill
- Received the Chairman's Prize from the Japan Society for the Promotion of Machine Industry for the development of an online welding-quality inspection system for high-toughness electric resistance welded tubes

- Developed the world's first X80-grade electric resistance welded steel pipe with one-inch thickness and received the first two orders

March 2014

- Won the Iwatani Naoji Memorial Award for APR used-plastic pulverization technology
- Developed JIP Clean Mix JFM®X, an iron powder for sintered machine parts boasting superior turning and drilling machinability
- Won the 60th Okochi Memorial Technology Prize for HIPER® earthquake-resistant line pipe from the Okochi Memorial Foundation