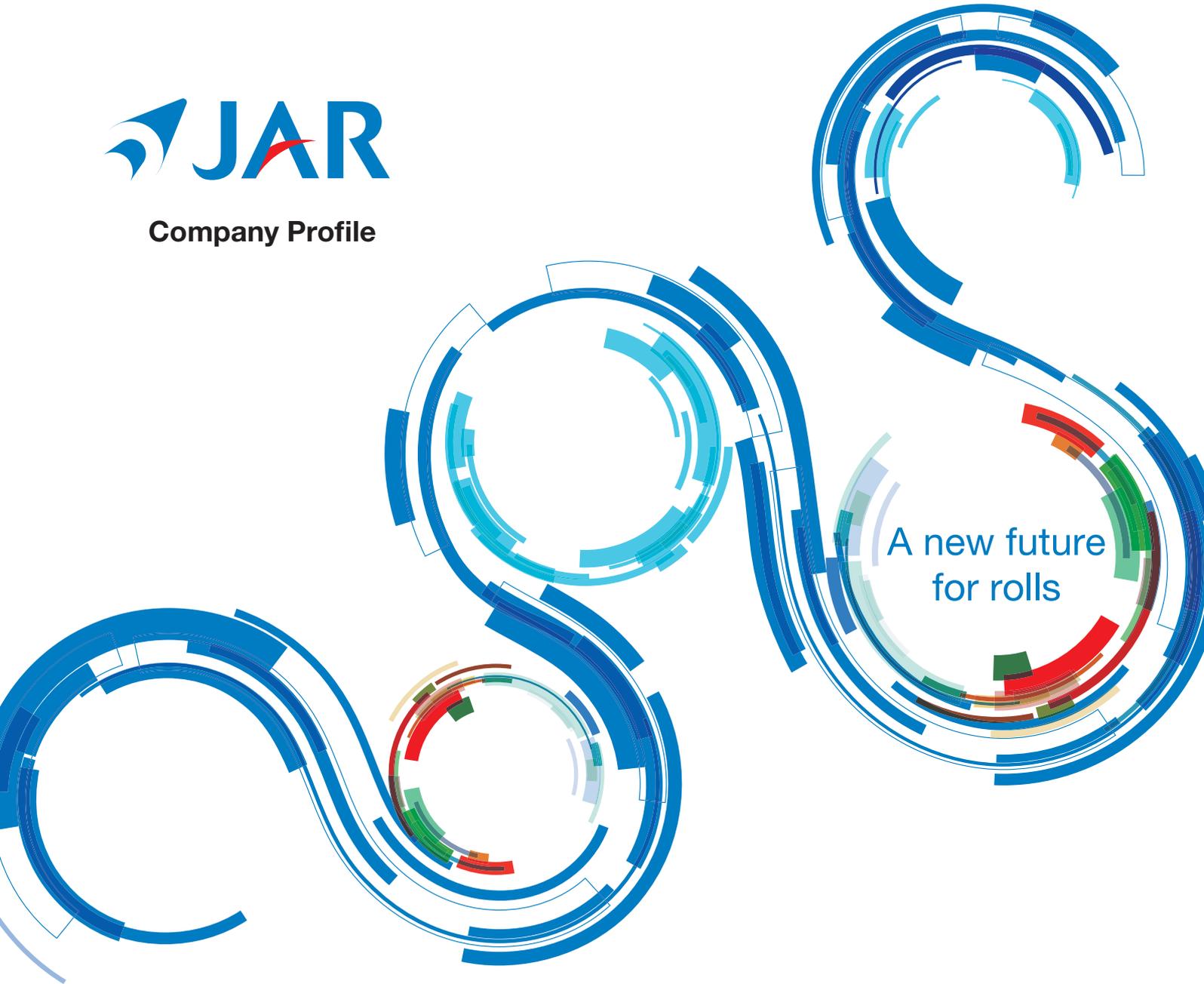




**Company Profile**



A new future  
for rolls

**Japan Advanced Roll Co., Ltd.**

# Forging technology for the future



Japan Advanced Roll Co., Ltd. has commenced operations under its new identity as a specialist supplier since March 2018.

Our daily lives are supported by a multitude of goods and infrastructure such as buildings, roads, vehicles, electrical products, tablets, and smartphones. Moreover, a diverse range of materials are vital to the manufacture of these goods.

Japan Advanced Roll's forged roll technology underpins a key component in the rolling mills that transform these materials into a useful form.

As a specialist manufacturer of forged rolls, Japan Advanced Roll will draw on the experience and past activities of the forged roll division of Hitachi, Ltd., and As a member of Tokyo Boeki Group, all of the staff will enhance our work further utilizing the group synergy for the requirements of customers and society, making the company into a "best partner" that serves as a one-stop shop for everything from development, manufacturing, and sales through to maintenance and services.

Please look forward to doing business with us at Japan Advanced Roll as we take up the challenge of working toward a future of boundless possibilities.

**Hideki Nagano**, President



## Environmental Policy (Action for the SDGs)

Japan Advanced Roll Co., Ltd. recognizes "global environmental protection" as one of the most important issues common to all of humanity, and strives to realize a sustainable society and provide society with product development, production, sales, maintenance and services through environmentally-friendly Monozukuri (manufacturing).

1. We will establish and operate an environmental management system and continuously improve environmental management activities in consideration of the environmental impact of our business activities.
2. We will comply with environmental laws and regulations and other requirements agreed to by environmental organizations, and strive to prevent pollution.
3. We promote the following environmental management activities.
  - (1) In order to provide environmentally friendly products, we will strive to reduce the environmental impact of our products in the stage of development and design, expanding our superior environmental technologies and value.
  - (2) In order to prevent climate change, we will promote energy saving and especially the efficient use of fuel oil.
  - (3) We will promote recycling of resources and reduce waste.
  - (4) To prevent environmental pollution, we will strive to properly manage chemical substances and reduce CO<sub>2</sub> emissions.
4. We aim to prosper with the local communities and contribute to the preservation of the local environment.
5. We will educate employees in order to raise their consciousness of environmental issues.

This environmental policy will be reviewed regularly, and we will make it known to all people who work at and for this company.



April 22, 2021  
Japan Advanced Roll Co., Ltd.

代表取締役社長 長野 秀樹  
Hideki Nagano, President & Representative Director

Established: April 18, 2019  
Revised: April 22, 2021

## Corporate Profile

<b>Company Name</b>	Japan Advanced Roll Co., Ltd.	<b>Number of Employees</b>	170 (as of September 2021)
<b>Site of Plant and Headquarters</b>	832-2, Horiguchi, Hitachinaka-shi, Ibaraki, 312-0034 Tel: +81-29-271-1115	<b>Scope of Business</b>	Design, development, manufacturing, sales, and maintenance of work rolls, intermediate rolls, backup rolls, cluster mill rolls, and other forged rolls for hot and cold rolling mills
<b>Established</b>	March 1, 2018	<b>Certifications</b>	ISO9001 certification No.: C20J0008 ISO14001 certification No.: EC18J0016
<b>Capital</b>	310 million yen		
<b>Representative</b>	Hideki Nagano, President		

## History

<b>1940</b>	Hitachi, Ltd. established Mito Works	<b>April 2004</b>	Shaped industrial materials business of Hitachi, Ltd. spun off to Hitachi Kyowa Engineering Co., Ltd.
<b>1941</b>	Construction of forging plant	<b>April 2013</b>	Hitachi Kyowa Engineering Co., Ltd., Hitachi Engineering & Services Co., Ltd., Hitachi Setsubi Engineering Co., Ltd., and Hitachi Electric Systems Co., Ltd. merged and renamed Hitachi Power Solutions Co., Ltd.
<b>1944</b>	Completion of 5,000-ton hydraulic forging press		
<b>1951</b>	Development of forged rolls commenced		
<b>1953</b>	Production and sale of forged rolls commenced	<b>March 2018</b>	Japan Advanced Roll Co., Ltd. commenced operations, taking over the forged rolls operations spun off from Hitachi Power Solutions Co., Ltd.
<b>1961</b>	Hitachi, Ltd. established Katsuta Works (operations of Mito Works split between old and new sites)	<b>September 2023</b>	Formed capital alliance with TOKYO BOEKI MATERIALS LTD., and became a subsidiary of Tokyo Boeki Group
<b>1970</b>	Completion of 6,000-ton hydraulic forging press		
<b>1987</b>	Production and sales of composite high-speed-steel rolls commenced		
<b>1998</b>	Completion of 2,000-ton oil hydraulic forging press		

# Business Profile

Japan Advanced Roll can deliver the technology, quality, and responsiveness that come from being a specialist roll manufacturer supplying products for a variety of rolling and other forming machinery.



**We listen carefully to the needs and requirements of our customers to ensure that we manufacture and deliver the right rolls to suit their circumstances. This includes inspecting the rolling plant on site. We draw on our extensive experience to offer ways of rapidly resolving the challenges that customers face.**



**Roll specifications are determined from consideration of a variety of factors, including operating conditions and the materials to be rolled. Once finalized, we produce a detailed set of manufacturing instructions. On the basis of these specifications and instructions, we then apply our technology and know-how to the production of high-quality rolls through all of the steps from casting to roll finishing.**



**Our engineers conduct in-depth investigations to propose maintenance practices or other improvements for preventing rolling mill cobbles and roll damage. We are available for consulting on issues such as roll grinding practices.**



**We see our mission when developing technology as being to provide new forms of value to society through our business activities. To fulfill this mission, we are working on the development of technologies that anticipate of future needs, placing top priority on improving quality so that customers will continue to find our products easy to use, safely and with confidence.**

# Products

As a specialist manufacturer of forged rolls, we supply a wide variety of high-quality rolls, including work rolls, intermediate rolls, and backup rolls.

## Main Products

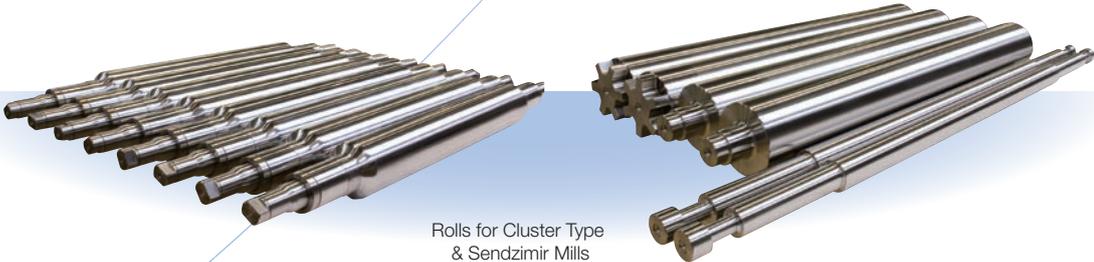
- Cold Rolling Mill (steel, copper, aluminum) Work Roll, Intermediate Roll, Back Up Roll
- Hot Rolling Mill (steel, copper, aluminum) Work Roll, Intermediate Roll, Back Up Roll



Work Rolls for Electric Steel Sheet Rolling Mill



Back Up Rolls for Hot Strip Mill



Rolls for Cluster Type & Sendzimir Mills

# Quality Assurance

Japan Advanced Roll operates a quality management system that includes workplace accreditation and certification to ensure that customers can be confident of using the products, services, and technologies we supply and to better satisfy their requirements.



Middle-size Automatic Ultrasonic Flaw Detection Machine



Optical Emission Spectrometer

# Key Plant and Production Processes

Various kinds of equipment and facilities for roll manufacturing as an integrated roll manufacturer.  
Manufacturing process of Hitachi high-quality, high-performance rolls.

1 50 tons Electric Furnace



4 20 tons of ESR Equipment Made of ALD

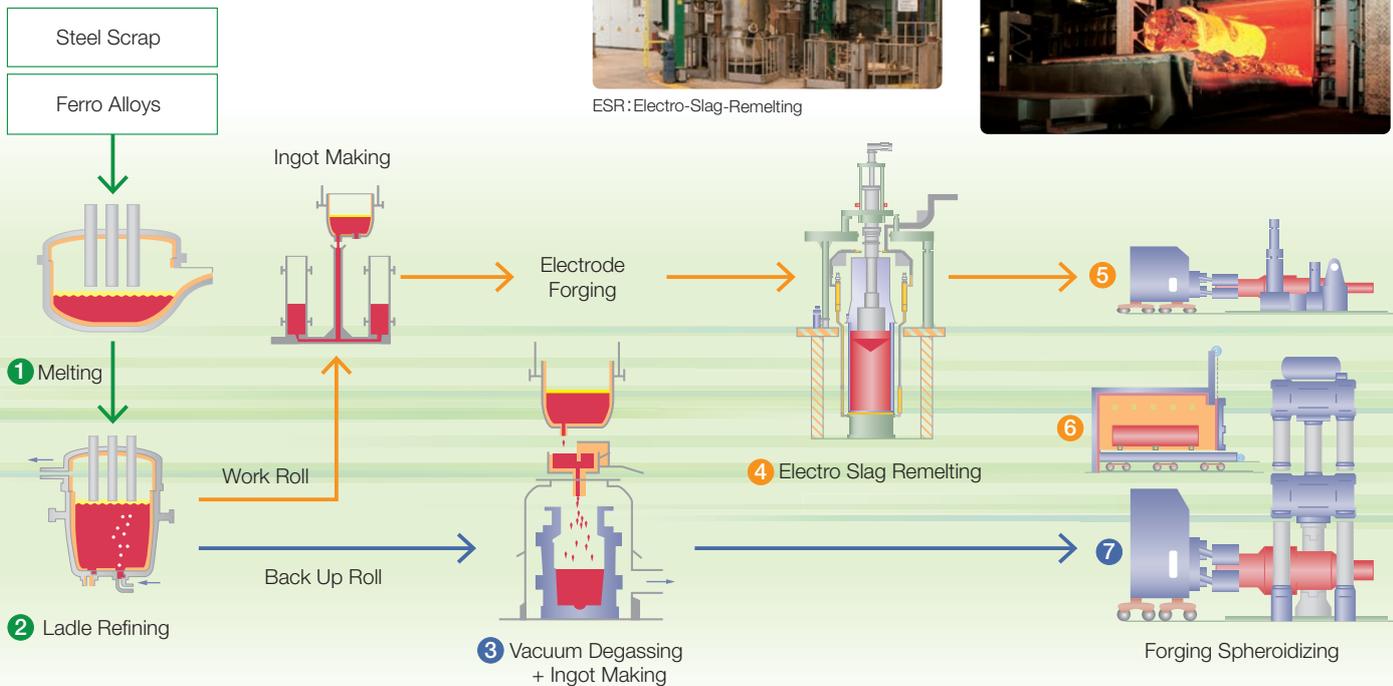


ESR: Electro-Slag-Remelting

5 2,000 tons Oil Hydraulic Forging Press



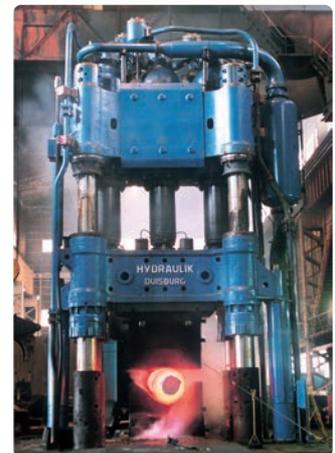
6 80 tons Regenerative Heating Furnace



2 50 tons Ladle Refining Furnace



3 Vacuum Degassed Casting



7 6,000 tons Hydraulic Forging Press

8 Rough Machining Lathe



10 Low Frequency Progressive Induction Hardening Equipment



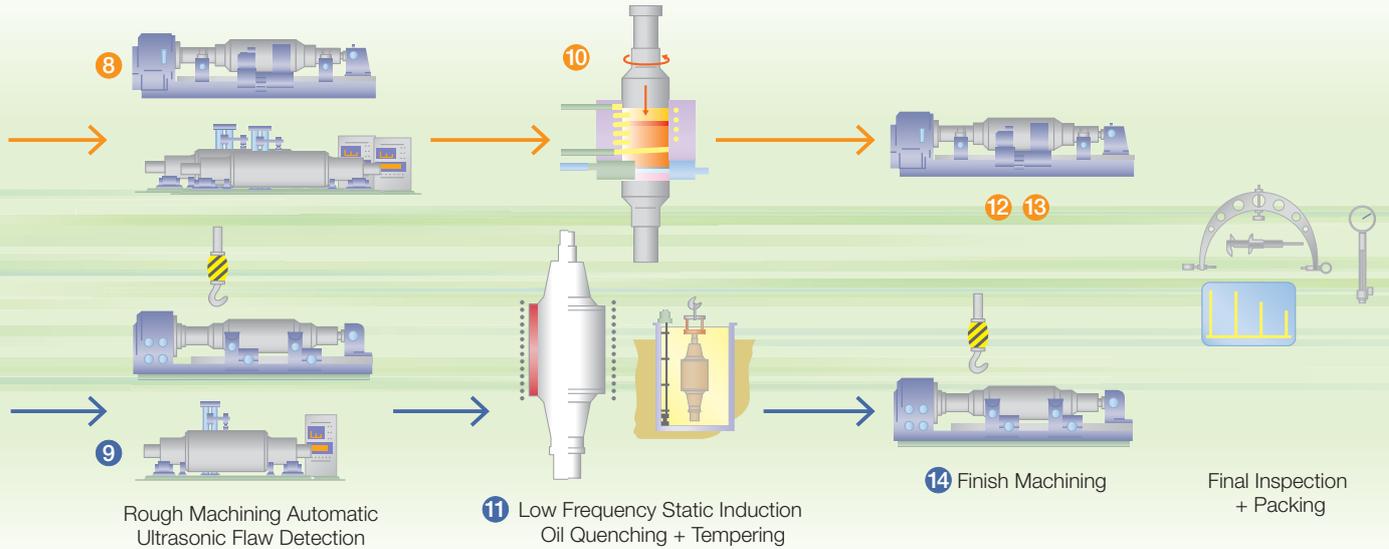
12 High Efficiency Twin Carriages Turning Lathe



13 Roll Grinding Machine



Low Frequency Progressive Induction Hardening + Sub-zero Treatment + Tempering



9 Large-size Automatic Ultrasonic Flow Detection Machine

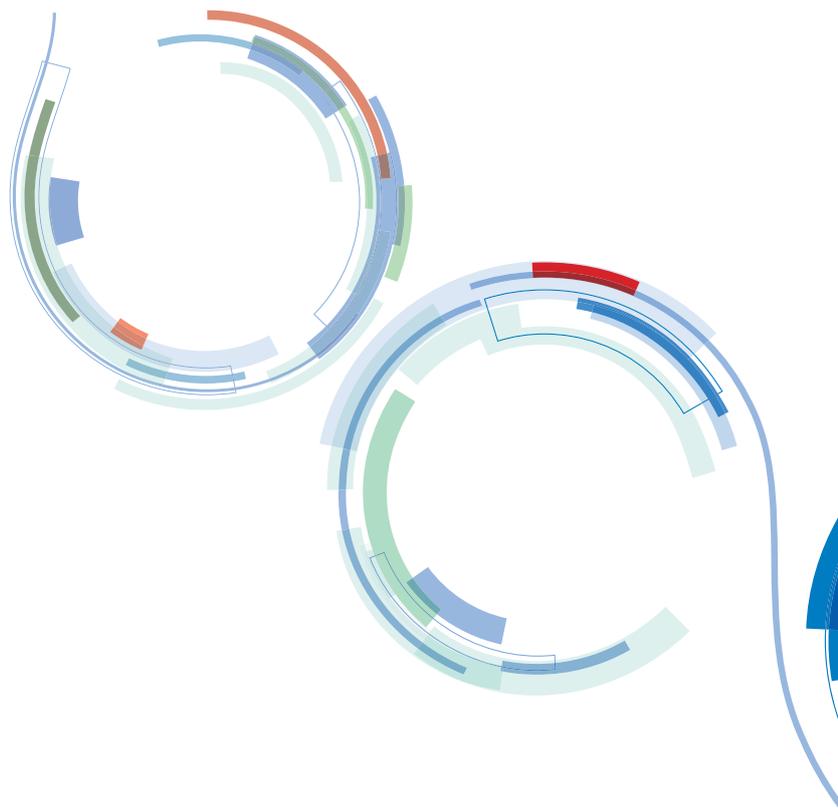


11 Low Frequency Static Induction Heating Equipment



14 CNC Large Scale Finishing Lathe

CNC: Computer Numerical Control



## Japan Advanced Roll Co., Ltd.

<https://www.advanced-roll.com/en/>

Site of Plant and Headquarters 832-2, Horiguchi, Hitachinaka-shi, Ibaraki, 312-0034

Tel: +81-29-271-1115

Tokyo Sales Office 19-3, Kanda-Matsunaga-cho, Chiyoda-ku, Tokyo, 101-0023

Tel: +81-3-6262-9083

Chugoku Sales Office 4-21, Fukuro-machi, Naka-ku, Hiroshima-shi, Hiroshima, 730-0036

Tel: +81-82-243-3103