



# As your technology partner, we will contribute to the development of the world's energy society.

– For a prosperous future of society and energy –

We, TB Global Technologies (TBG), integrally handle the development, manufacture, sale, and after-sales service of equipment that supports the logistics and storage of energy, from crude oil, liquefied natural gas (LNG), and chemicals to new forms of energy. Based on the technology and track record we have cultivated over many years, we have continued to respond to our customers' challenges by offering the value chain as an integrated service, covering marketing, development, design, manufacturing, sales, and after-sales service.

The environment surrounding energy is currently undergoing major changes. While efforts toward decarbonization are advancing, the importance of stable energy supply is higher than ever, and we are entering an era in which a variety of energy sources coexist.

In this environment, our mission is to support the safe and stable transfer of all forms of energy with-

out favoring any particular type of energy.

The loading arm, which is the final connection point for energy, plays a crucial role that determines the overall safety and operational stability of the facility. In this field, we confront our customers' challenges through technical expertise and remain a company they can trust to solve their issues.

For that reason, we will further refine the knowledge we have built up over 70 years in the field, enhance our technical capabilities across all processes—from marketing to development, design, manufacturing, sales, and after-sales service—and continue to accumulate real value.

We will continue to leverage technology as our core to help solve our customers' problems and contribute to the stable supply of energy.



TB Global Technologies is working to achieve the SDGs.



Representative Director, President and CEO

*Masaki Takahashi*



## Management Philosophy

### Striving for employee satisfaction while making the world a better place

Working with our staff to create employee's happiness  
Working with communities to create a better world for all

## Management Vision

### Realizing “Company of Business Imagination & Creation”

– Imagining and creating the future energy society for all humankind –

## Action Guidelines

### Pioneer

We aspire to drive growth for ourselves and for our customers, through embracing trends and challenging opportunities for the future.

### Co-create

We aspire to shape new value, through co-creating beyond traditional boundaries.

### Breakthrough

We aspire to achieve unprecedented success and accomplishments, through grit and acting with self-determination.

### Integrity

We aspire to contribute to a more sustainable society, through building trust and by tackling challenges with integrity for our customers and society.

### Open-hearted

We aspire to create an open-hearted work environment through dialogue where everyone respects each individual's values and expresses opinions.

## “Company of Business Imagination & Creation” TB Global Technologies explore new forms of alternative energy for the future.

Our product portfolio consists of energy-related machinery and equipment, including loading arms and swivel joints, which are fluid handling devices indispensable for the distribution of energy resources.

We have supplied our “loading arm” which boasts top share in the Japanese market and have an extensive track record in global sales, along with other energy related products to our valuable customers by integrating their needs with our vast technological experiences.

In recent years where global environmental awareness has increased, the energy demands have also changed drastically, and there is an increasing need for greener energy. In order to adapt to these changes and meet new demands, we have launched “Differential Pressure Power Generation System Development Project” with a goal of “Growing with partners to develop greener businesses through renewable energy use, for a brighter tomorrow”.

Through the project, TB Global Technologies is working to promote the utilization of “unused energy” which has been wasted despite its potential for effective utilization.

TB Global Technologies, “Company of Business Imagination & Creation”, will continue to contribute to the stable supply of energy in Japan and abroad by creating products and services worthy of the new energy era by connecting various needs around the world with technologies Tokyo Boeki Group has cultivated over the years.



# Loading arms support the safe distribution of energy resources around the world.

Our main product, loading arm, is a rigid pipe fluid handling equipment used for cargo transfer from/to ships and trucks tanker. For more than half a century, our products have been used by customers in Japan and worldwide under the brand name of "NIIGATA".

Our products are not only for marine transportation, which can be used for barges of several hundred tons to large tankers of 500,000 tons, but also for land transportation, where they are used to load and unload tank containers for tank lorries and rail tankers. We can also handle oil, gas, petrochemicals, and all kinds of fluids from high to cryogenic temperature.

With "Safety," "Reliability," and "Promptness" as our keywords, we will contribute to improving the business value of our customers.



LNG facility at Naoetsu (Inpex Corporation)



LNG importing facility (Sakaide LNG Company)



Okinawa Electric Power



## Emergency Release System (ERS unit)

The Emergency Release System is a safeguard system that separates the loading arm from a vessel in very short period of time (a few seconds) without spillage of the fluid in the loading arm in the event of a sudden drifting of the tanker due to wind gusts or currents, or in the event of an unforeseen event such as a tsunami due to an earthquake or fire.



## Quick Coupler (QCDC)

The QCDC is attached to the end of the marine loading arm and is hydraulically driven for quick, safe, and reliable connection and disconnection to the tanker flange. The QCDC provides in conjunction with a radio control system enabling single operator control, which will greatly contribute to labor savings.



## Related Products

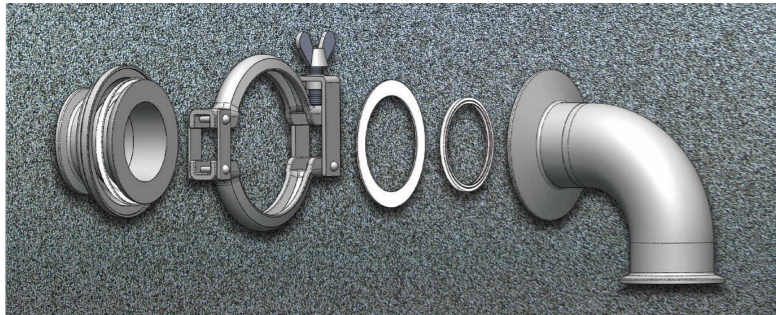
### Swivel Joint

The swivel joint is a 360-degree rotating joint that enables flexible rotation and oscillation of piping. Our swivel joints are used in various industries such as construction and food industries. We also have a wide range of joints that can be used under severe operating conditions with high temperature and high pressure fluids, such as joints for boiler burners built into heavy oil-fired boilers in thermal power plants and joints for hydraulic drive units in steel companies.



### Sanitary Swivel Joint

Unlike other swivel joints, sanitary swivel joints do not use lubricants and are designed specifically for sanitary piping used in food, beverage, and pharmaceutical plants. Sanitary swivel joint is designed to prevent foreign substances and liquid accumulation which possibly cause bacterial growth, and is easy to disassemble, clean, and assemble.



### Wing Union

Wing union is a pipe joint that can be used at ultra-high pressure of 400K class. By using swivel joints and pipes in alternate combinations, it solves the problems of complicated movement and twisting that occur in long high-pressure piping. It is mainly used for drilling pipes and geothermal pipes.



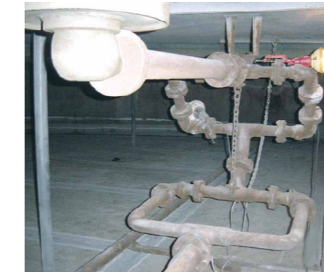
### Swivel Joint Applications (Willow, Drainage Systems, etc.)

Swivel joint applications, which combine multiple swivel joints and pipes, are used to solve problems around pipes in various fields, including the energy industry.

Willow" is a seismic isolation piping system incorporating swivel joints, which protects important fire extinguishing gas and water supply piping systems in buildings and other structures by following the shaking of an earthquake. The Drain System is a device used for rainwater drainage lines for floating roof tanks that store petroleum products. It incorporates a swivel joint, which follows the floating roof as it moves up and down in accordance with the liquid level, and safely and reliably drains rainwater accumulated on the floating roof over a long period of time.



Willow



Drainage Systems



### LNG feed pump for on-shore use

Tokyo Boeki Group and Shinko Ind. Ltd. Jointly developed cryogenic submerged pump for LNG service and succeeded in producing it for the first time in 1979 in Japanese market. The pump functions completely shut off from the atmosphere in cryogenic liquefied gas, making it safe in terms of explosion protection and eliminating the risk of gas leakage. There are two types of pumps: the SMB type (pit barrel type), which is used as a pressurizing and circulating pump at LNG terminals, and the SMR type (in-tank type), which is used in LNG storage tanks, and is widely used at LNG and LPG storage terminals and cryogenic power plants in Japan and overseas.

### Quick-Release Hook

This is a device used to moor large tankers to the pier, enabling quick and safe handling of mooring lines when the tanker arrives at or leaves the pier. Some types can be retrofitted to existing bollards (mooring posts). Various types of Quick Release Hooks are available, including those integrated with capstans and free-standing types with tension meters. We also offer the mooring load monitoring systems which can achieve higher operability and economy.



### Gangway

The gangway is a movable bridge for transferring from the pier structure to the various vessel. It is able to cope with the movement of ships swinging up and down, left and right, ensuring a high level of safety. Various types of gangways are available, from regular types to auto-release function types, depending on the pier layout.

## Integrated structure from design, manufacturing, sales through After-sales service.

Our company provides offering solutions, design, manufacturing, factory testing, field installation, and after-sales service for system and equipment essential to the stable supply of energy, including our mainstay loading arms, swivel joints, and butterfly valves. We are committed to meeting customer demands through our integrated manufacturing and customer support system, which consists of a factory with technical capabilities cultivated over a long history and a sales and after-sales service network.



## Quality Assurance

In order to enhance our quality control system, we have acquired and maintain the international standard "ISO9001" applicable for Marine loading arms and other major products. We continue to manufacture products of excellent quality and reliability in compliance the established quality management system to assure and improve the customer satisfaction.



## After-sales service

We provide a full range of after-sales services to ensure that our loading arms, which are important and critical equipment, can be used in safe and reliable manner with confidence. We will support the customer to identify any issues and problems in operation and maintenance.



### Support for preventive maintenance inspections and maintenance service

We offer technical advice and recommendation for preventive maintenance inspection and maintenance planning to ensure safe and reliable operation of loading arm.

### Technical advisory service

We dispatch our qualified and experienced expert staff to provide technical advisory service for installation, periodic inspection, and maintenance work done by customers. We also provide training course on loading arm operation and maintenance either at the site or our factory.



### Spare parts sales & supply

We provide a stable and speedy supply of genuine parts from our parts center, which is directly connected to our factory under thorough quality control. We are able to respond quickly when parts are urgently needed due to problems during loading or unloading. We will determine and select the necessary parts based on the event and make appropriate advice on the countermeasure.

# Tokyo Boeki Group speedily responds to the diverse values sought by the customers and provide higher valued functions and services.

Tokyo Boeki Group is an independent corporate group consisting of both domestic and international companies with diverse business lines. While each company develops its business autonomously, we promote management that brings together the collective strength of the group under the “Spirit of Management Participated by All” at its core.



## Tokyo Boeki Holdings Corporation

- tb innovations LTD.
- TOKYO BOEKI EURASIA LLC
- TOKYO BOEKI INDIA PRIVATE LIMITED



### Energy Infrastructure

Japan

- TB Global Technologies Ltd.
- TOKYO BOEKI MECHANICS LTD.

Overseas

- TB GLOBAL TECHNOLOGIES (M) SDN. BHD.



### Image Solution

- TB-eye Ltd.
- AI Link Ltd.



### Material Supply

Japan

- TOKYO BOEKI MATERIALS LTD.
- TB Banshu Electric Equipment Co., Ltd.
- Japan Advanced Roll Co., Ltd.

Overseas

- TOKYO BOEKI (CHINA) LTD.
  - PT. BANSHU ELECTRIC INDONESIA
- Affiliates accounted for by the equity method  
- JINAN LUDONG REFRACTORY CO., LTD.



### Smart Manufacturing

Japan

- TOKYO BOEKI TECHNO-SYSTEM LTD.

Overseas

- TTS (GUANGZHOU) CO., LTD.
- TOKYO BOEKI NORTH AMERICA, INC.
- TBTS (THAILAND) CO.,LTD.
- TOKYO BOEKI TECHNO-SYSTEM DE MEXICO, S.A. DE C.V.
- TOKYO BOEKITECHNO·SYSTEM UK LTD.



## About Us

<b>Corporate Name</b>	TB Global Technologies Ltd.
<b>Head Office</b>	28F KYOBASHI EDOGRAND, 2-2-1 Kyobashi, Chuo-ku, Tokyo, 104-0031, Japan TEL : +81-3-6633-6680 FAX : +81-3-6841-8440
<b>Established</b>	October 1, 2006
<b>Representative</b>	President and Representative Director Laurent Poidevin
<b>Capital</b>	JPY400 million
<b>Main Bank</b>	MUFG Bank, Ltd., Head Office
<b>Shareholder</b>	Tokyo Boeki Holdings Corporation (100% equity holding)

## Business Network

<b>Head Office</b>	28F KYOBASHI EDOGRAND, 2-2-1 Kyobashi, Chuo-ku, Tokyo, 104-0031, Japan TEL : +81-3-6633-6680 FAX : +81-3-6841-8440
<b>Nagaoka Works</b>	2-5-1 Jooka, Nagaoka City, Niigata, 940-0021, Japan TEL : +81-258-24-1650 FAX : +81-258-24-0000
<b>Tohoku Service Center</b>	13th Floor, Aobadori PLAZA, 3-2-1, chuou, Aoba-ku, Sendai, Miyagi, 980-0021, Japan TEL : +81-22-221-1431 FAX : +81-3-6841-8450
<b>Tohoku Service Center Sapporo Office</b>	6th Floor, Miyamura Bldg, 3-1-1 Kita 8-jo Higashi, Higashi-ku, Sapporo City, Hokkaido, 060-0908, Japan TEL : +81-11-751-6470 FAX : +81-3-6841-8450
<b>Tohoku Service Center Tomakomai Office</b>	1F-B Hime Prio, 3-16-13 Kasugacho, Tomakomai City, Hokkaido, 053-0031, Japan
<b>Nagaoka Service Center</b>	2-5-1 Jooka, Nagaoka City, Niigata, 940-0021, Japan TEL : +81-258-24-1660 FAX : +81-258-24-1653
<b>Kanto Service Center</b>	2-15-5 Goichuo-nishi, Ichihara City, Chiba, 290-0081, Japan TEL : +81-436-25-1216 FAX : +81-436-25-1208
<b>Nagoya Service Center</b>	12th Floor, Sumitomo Seimei Nagoya Bldg, 2-14-19 Meieki-Minami, Nakamura-ku, Nagoya City, Aichi, 450-0003, Japan TEL : +81-52-582-9811 FAX : +81-52-565-1244
<b>Osaka Service Center</b>	6F OCAT, 1-4-1, Minatomachi, Naniwa-ku, Osaka, 556-0017, Japan TEL : +81-6-6645-7520 FAX : +81-3-6841-8450
<b>Hiroshima Service Center</b>	Hiroshima High Building21 3-1, Kanayamacho, Naka-ku, Hiroshima, 730-0022, Japan TEL : +81-82-246-1512 FAX : +81-3-6841-8450
<b>Fukuoka Service Center</b>	8th Floor, NMF Hakataekimae Bldg, 1-15-20 Hakata-ku, Fukuoka City, Fukuoka, 812-0011, Japan TEL : +81-92-471-6055 FAX : +81-3-6841-8450
<b>Yokohama Office</b>	14F Yokohama ST Building, Kita-saiwai, Nishi-ku, Yokohama City, Kanagawa, 220-0004, Japan TEL : +81-45-412-3588
<b>Singapore Branch</b>	2 Venture Drive #16-12, Vision Exchange, Singapore, 608526 TEL : +65-6909-2333 FAX : +65-6909-3474
<b>QFZ Branch</b>	Business Innovation Park, Building 1, Street 504, Zone 49, Unit 1402, Wing 1, Level 4, Doha, Qatar TEL : Refer to WebSite
<b>Beijing Office</b>	No.3 Dong San Huan Bei Lu, Chaoyang Discrit, Beijing, China 100027 Room 1014, Lucky Tower B TEL : +86-10-65516609 FAX : +86-10-65518229

## Corporate History

<b>1947</b>	Tokyo Boeki Shokai, the predecessor of Tokyo Boeki was established by late Mr. Yasuo Matsumiya
<b>1955</b>	Acquired an exclusive distributorship of swivel joint and loading arms of Chiksan Corp. of USA and started sales to petroleum, electric power and gas industries
<b>1959</b>	Successfully led negotiations between Chiksan Corp of USA and Niigata Engineering Co. to a technical tie-up and started production of swivel joints and loading arms in Japan
<b>1968</b>	Delivered the first LNG loading arm for marine use in Japan
<b>1973</b>	Delivered a cumulative total of 1,000 loading arms in Japan and overseas
<b>1987</b>	Supplied the world's largest Loading Arm for LNG service to Woodside Energy (Australia)
<b>1988</b>	Completing the 16" LNG loading arm ERS retrofit
<b>1989</b>	NIIGATA original NT-DBV ERS with double ball valves was developed and supplied to Tokyo Gas Co., Ltd.
<b>1995</b>	Delivered the world's largest (at that time) LNG loading arm to Korea GAS
<b>1998</b>	Delivered a cumulative total of 5,000 loading arms in Japan and overseas Acquired ISO9001 certification (Lloyd's Register QA)
<b>2003</b>	Acquired loading system business from Niigata Engineering and established Niigata Loading Systems Ltd. to develop, manufacture, sell and provide after-sale service in-house for fluid loading and unloading machines for the energy industry
<b>2004</b>	Sale of Shinko LNG terminal pumps exceeded 300 pumps, firmly maintaining the top market share in Japan
<b>2005</b>	Delivered 4sets of DCMA type marine loading arm with NIIGATA original ERS (emergency release system) and H-QCDC (quick coupler with hydraulic operation)
<b>2006</b>	Tokyo Boeki Ltd. became a holding company and the business of Tokyo Boeki was split into Tokyo Boeki Machinery Ltd. and Tokyo Boeki Steel & Materials Ltd.
<b>2007</b>	Sale of LNG loading arms is increasing, installed at LNG bases in 64 places throughout the world (total 260 units), continuing to further solidify its position as a leading company of loading arms in the world market
<b>2008</b>	Opening of a resident office in Beijing, China First company in Japan to deliver marine loading arms with an Emergency Release System to national oil storage terminals Developed 16" ERS (emergency release system) with single cylinder for LNG service
<b>2012</b>	Opened a resident office of Energy Machineries Business in Malaysia
<b>2015</b>	Tokyo Boeki Machinery (Tokyo Boeki KIKAI) Ltd. changed its name to Tokyo Boeki Machinery Ltd. Niigata Loading Systems Ltd. changed its name to Tokyo Boeki Engineering Ltd. Delivered a cumulative total of 6,000 loading arms in Japan and overseas
<b>2018</b>	Closed the Malaysia office and opened the Singapore branch
<b>2019</b>	Developed World's First Loading Arm for Ship-to-Shore Transfer of Liquefied Hydrogen
<b>2020</b>	Appointed as a "Companies Taking on the Zero-Emission Challenge" by the Ministry of Economy, Trade and Industry in Japan
<b>2021</b>	Tokyo Boeki Machinery Ltd. and Tokyo Boeki Engineering Ltd. merged to form TB Global Technologies Ltd.
<b>2023</b>	Opened an office for hydrogen business development in Yokohama
<b>2024</b>	Opened QFZ Branch for Energy Machineries Business in Qatar

