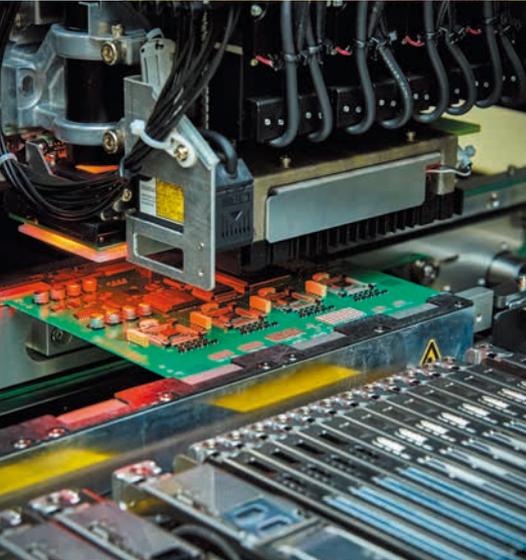


Your solution partner Global & Innovative



JUKI has grown steadily as a supplier of the highest-quality products and services to industries around the world since its founding in 1938. To drive its development, JUKI has always believed that “everything it does, it does for the customer.”

JUKI will create value for the customer as a provider of solutions and innovations that raise the productivity of customer factory lines by leaps and bounds. JUKI will continue to expand its global presence and innovative powers as a provider of JUKI products, services, and ever-evolving technologies to 180 countries.



Business domains

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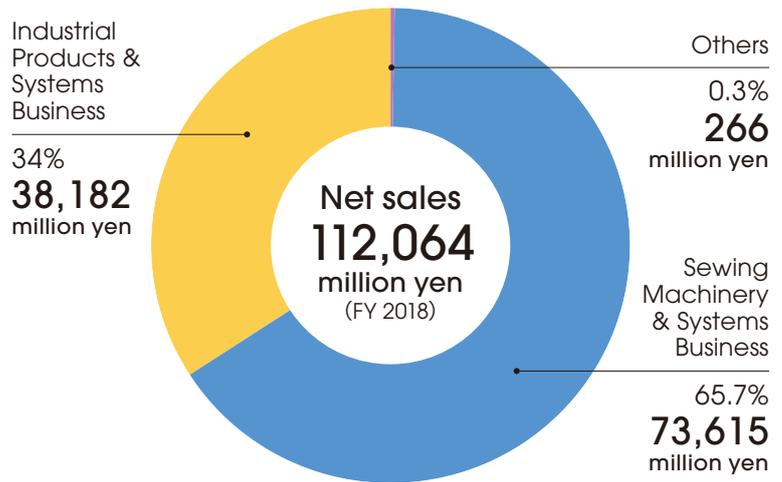
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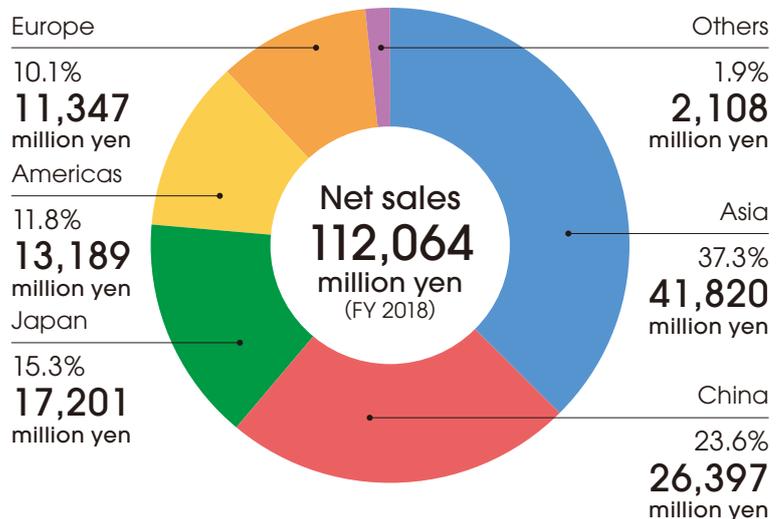
Ratio of net sales by business

JUKI has been supporting the manufacturing (Monodzukuri) sectors in the world with advanced technology and valuable technology for mainly its flagship sewing machinery business.



Ratio of net sales by area

JUKI has won strong support from customers all over the world by operating a sale and service network in about 180 countries.



To spur innovation for customers all over the world, JUKI offers JUKI Smart Solutions

Sewing Machinery & Systems Business

This business supports “stitches” of all types by supplying more than 2,000 sewing machine models and systems for customers at every level, from professionals to hobbyists.

Industrial Sewing Machinery Business



A world-leading business driving the sewing machinery business

This business helps customers build the most suitable sewing factories equipped with the world’s top-selling industrial sewing machines integrated with automation equipment, IT systems, and more. The business also helps customers improve productivity, save manpower, and deskill their production lines by offering optimal line solution proposals.

Household Sewing Machinery Business



A business that provides products to stimulate the creativity of home sewers

This business supports comfortable sewing lives by combining appealing product features with industrial sewing machine performance. The business also holds various workshops to support hobbyists in wide-ranging fields.

Industrial Products & Systems Business

This business supports customers’ production factories by providing products, systems, development capacity and manufacturing capacity while utilizing “manufacturing (Monozukuri) capabilities” developed over many years.

Electronic Assembly Systems Business



A business that provides total solutions to support circuit boards manufacturing factories

This business responds to diversified production needs by proposing line solutions in pursuit of productivity and efficiency focused on SMT (Surface Mounting Technology) equipment for electronic circuit boards production systems or related products such as printing machines and inspection machines.

Customer Support Business



A business that provides support to promise that JUKI products in use all over the world remain in optimal operating status

This business supplies parts and controls machines remotely to ensure that customers in 180 countries use their industrial sewing machines and electronic assembly systems in optimum environments.

Group Business

Group Business (contracted development and manufacturing business)



A business that supports manufacturing companies through the collective strengths of “people, equipment, methods, and materials”

This business makes arrangements to contract with manufacturing companies for the development, manufacturing, machining, etc. of various products using the know-how in development, design, production, and production control that JUKI group companies have.

Sleep Buster



Supporting the driver's safe run

This business promotes conventionalization of safe driving with peace of mind using a device to collect drowsy driving data and alert drivers to drowsy driving dangers. The business also helps reduce traffic accidents by reducing overwork driving by driving professionals.

Data Entry System

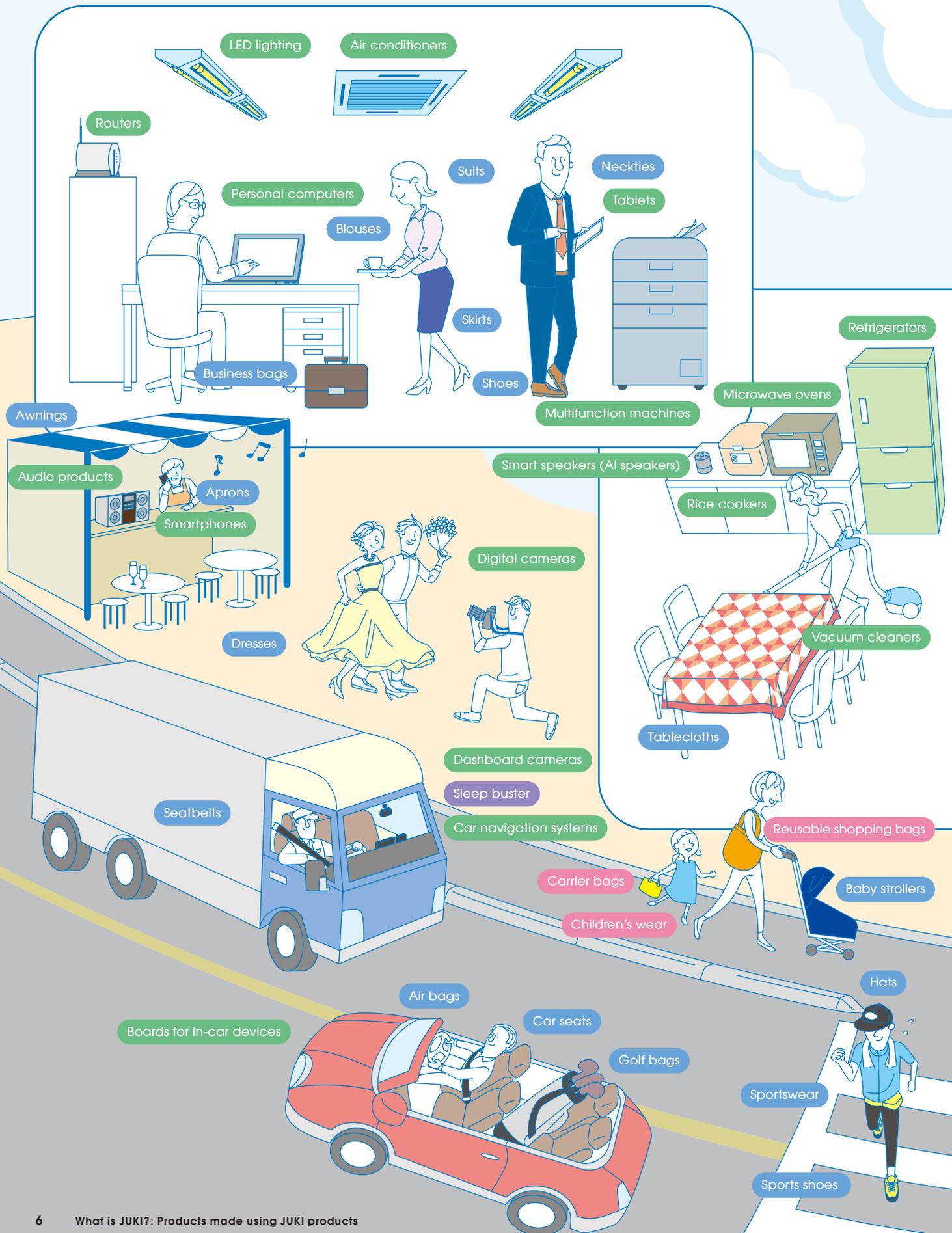


Supporting the data entry professionals

This business provides well-designed data entry systems to support the information processing industry in its work to process voluminous data. The business also responds to the needs of data-intensive industries such as life insurance companies and banks.

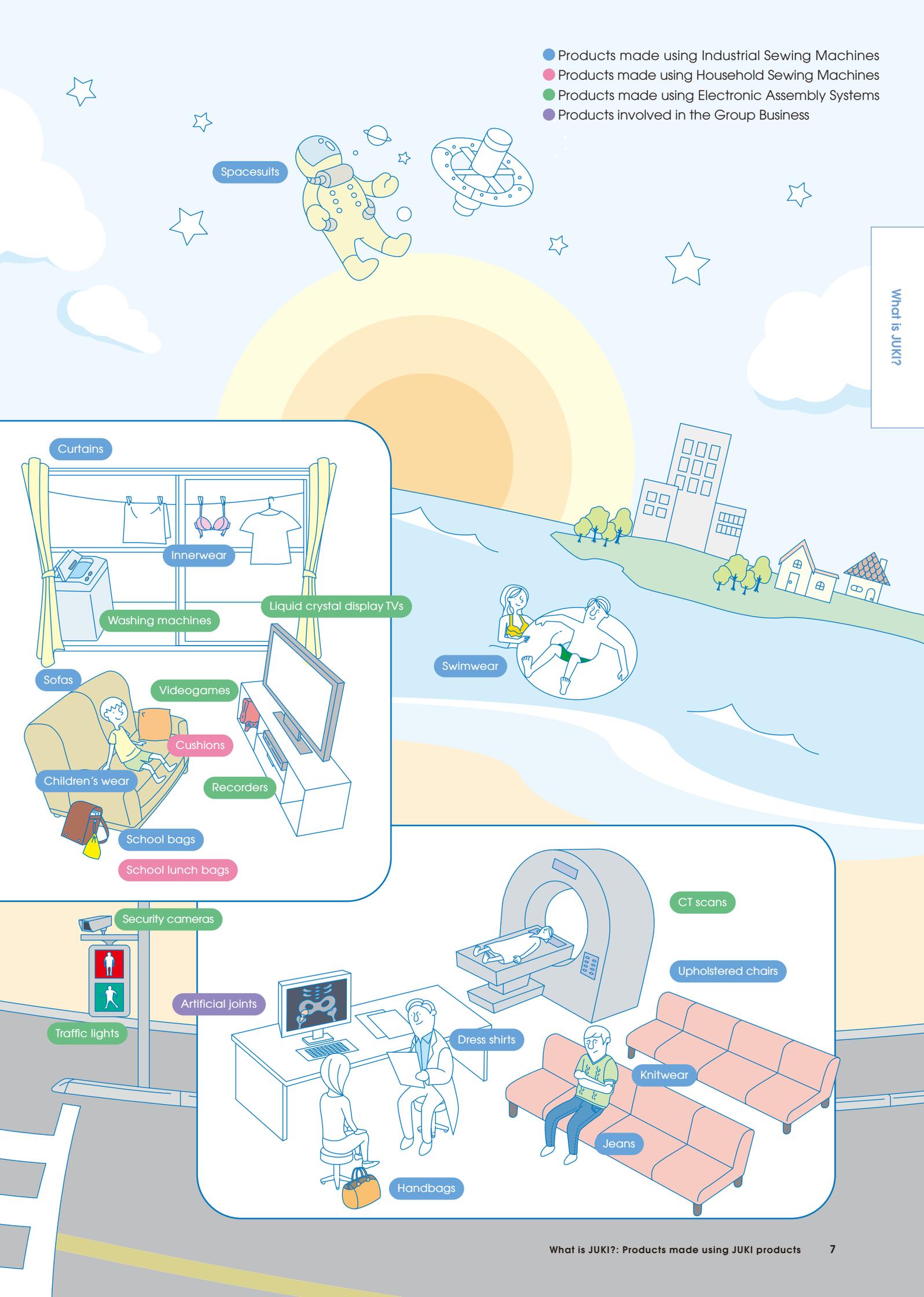
Products made using JUKI products

JUKI machines and systems make everyday products the public knows.

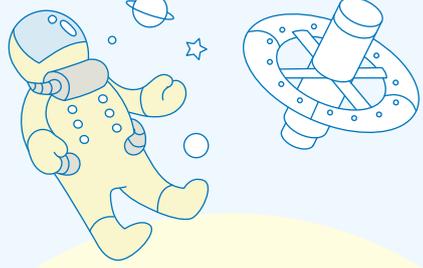


- Products made using Industrial Sewing Machines
- Products made using Household Sewing Machines
- Products made using Electronic Assembly Systems
- Products involved in the Group Business

What is JUKI?



Spacesuits



Curtains

Innerwear

Washing machines

Liquid crystal display TVs

Sofas

Videogames

Cushions

Children's wear

Recorders

School bags

School lunch bags

Swimwear



Security cameras

Artificial joints

Traffic lights

CT scans

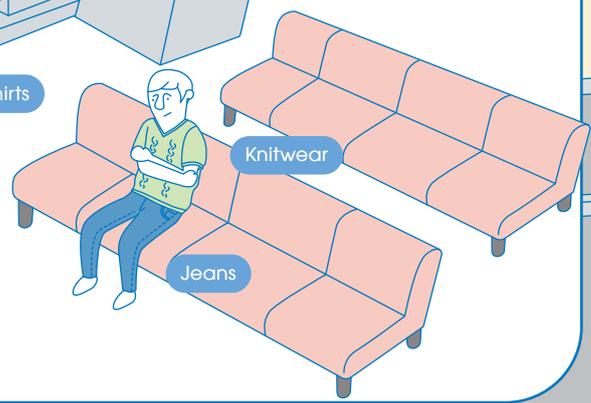
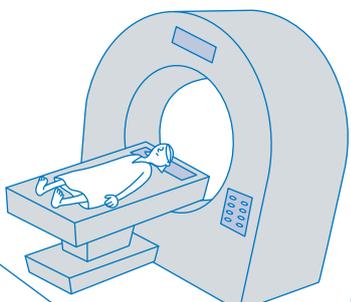
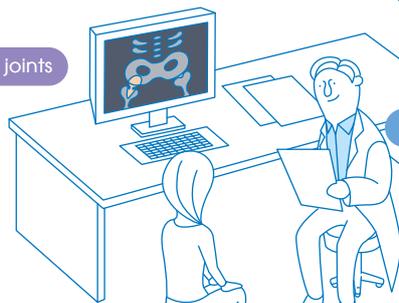
Upholstered chairs

Dress shirts

Knitwear

Jeans

Handbags





Akira Kiyohara
JUKI CORPORATION
President

Interview with our president

JUKI has evolved from “a manufacturing (Monodzukuri) company” to “a value creation (Kotodzukuri) company” using open innovation from a global and innovative viewpoint.

The management environment for businesses continues to shift drastically from day to day as the global economy fluctuates and advanced technologies such as IoT and AI multiply and grow. What kind of growth scenario should JUKI pursue within such a fast-changing environment? Five young employees interviewed President Kiyohara to learn about the approaches and mid- to long-term business strategies of the JUKI Group now that Company has reached the milestone 80th anniversary of its establishment.



● Interviewers

To become “a century-old company” that customers choose and trust by offering line solutions that create new value

— JUKI saw increases in both sales and profits in its consolidated performance in fiscal 2018, compared with the previous year. What were the factors and approaches that brought about the good results?

JUKI reached the 80th anniversary of its establishment on December 15, 2018. I wish to express my sincere appreciation to all of the stakeholders who have supported JUKI up to now. Last year we carried out special activities for our 80th anniversary to share information on JUKI’s corporate history, JUKI’s way of thinking, and JUKI’s future approaches to domestic and overseas customers, suppliers, and shareholders.

Our activities were effective. The information about JUKI we spread through those activities encouraged many young and mid-career employees at JUKI to take part in management.

On a consolidated basis we achieved net sales of 112,000 million yen, ordinary income of 8,300 million, and net income of 6,600 million yen. **The increases we achieved in sales and profits** can be credited to strengthening overseas sales focused on China and other Asian countries, favorable sales of electronic assembly systems, and the growth of our group business on a contract processing basis. With the higher profits coming in, we were able to raise the ordinary dividend by five yen to 30 yen per share.

Market conditions persuaded customers to make the necessary investments into plant and equipment to create smart factories, which provided a boost to our business at JUKI business. Some challenges, however, were left unresolved. We were unable, for example, to ship some of the sewing machines intended for a middle market, as planned. It will

be essential for us to further develop our Sewing Machinery & Systems Business Unit, **making JUKI’s original line solutions and plant business key themes** for the group going forward.

— Our electronic assembly systems business, group business, and household sewing machines business all grew by considerable margins in fiscal 2018. What were the approaches that led to our success in these businesses?

Our electronic assembly system business faced a very tough two years in 2015 and 2016. Then we managed to restore that business through a range of approaches. First, we provided a full range of labor-saving machines such as our automated warehouse, inspection machines, and the MI series. Second, we responded vigorously to our customers’ plans to create smart factories. Third, **we succeeded in putting our line solution proposal business into full swing. In parallel, we expanded the domain for our group business from parts and materials to products and units on a contract basis** and then entered into a contract to install an automated line for an auto-making plant. Our household sewing machine business, meanwhile, continues to connect with customers by transmitting information via SNS throughout the country and holding various events while creating a new and unique business model. Our new business model for household sewing machines has been instrumental in our success overall.



Jiro Obama,
joined in 2007

Emi Takeuchi,
joined in 2014

Akira Kiyohara,
president

— JUKI is working to expand the businesses of its customers as a pillar of its own business. Could you tell us about the headway we are making and the obstacles we will have to overcome?

Our overall company policy of supporting the growth of our customers' businesses, a policy rooted in the selling and servicing of consumable equipment and parts, has now permeated our customers' businesses, as well. Our Customer Business Company takes the initiative in converting the process of parts supply from one performed by a distributor to one for us to perform as the maker of the parts. It is also building a system for providing information about key parts. Note, however, that we are sticking to a "push" style of business to sell our parts. If the person in charge has abundant accumulated information and knowledge about a customer's business and how a sewing machine is used, the person will have the knowledge it takes to offer optimal maintenance services, exchange parts, and **expand JUKI's business for factory examinations and equipment diagnosis**. We will continue working to change the way that person thinks and promote the further growth of a business beyond the sale of parts.

— What were the most remarkable approaches implemented by JUKI in fiscal 2018?

I would like to highlight two approaches. One was to create innovation throughout the company. This April, we released the "SL700-EX BLACK" household sewing machine on a limited-quantity basis of 500 units to commemorate the 80th anniversary of JUKI's establishment. As the model name indicates, the "SL700-EX BLACK" has a black body matching the color of JUKI's very first household sewing machine early in the last century. The limited-edition release was planned out by a cross-sectoral project team centered on young employees who wanted to once more see the starting point of JUKI by creating a commemorative model representative of the company.

Their passion for the product bore fruit. All 500 units released were sold in the first one month on the market.

The second approach was to advance our management system. **We strengthened a comprehensive system for quality assurance, auditing, and operations management in our head office, domestic factories, and domestic and overseas Group companies**. This firmer management system now in place in the JUKI Group helps us realize the "Five Articles of Quality" common to the group.

— Our production systems are an essential part of JUKI as a manufacturing company. What are the tasks ahead of us in our work on production systems?

A tightening of the supply of electronics parts in 2018 delayed the production of electronic assembly systems in our factories. From that experience, I realized that **we need to review the supply chain management (SCM) controlling all the processes** from procurement and production to the distribution of parts. This is a big challenge for a manufacturing company. We also clearly need to establish a system responsive to customer's various requests all over the world. That system has to be both fast and flexible in the range and quantities of products produced. Another challenge will be to smarten our factories. We have steadily renewed our production equipment individually, unit by unit, and are still on the way to building a comprehensive system that raises the productivity of the whole manufacturing department. The goal we envision in this direction still isn't reached. **We will be further smartening and advance our production system following the trends of robotization and digitalization as a company that offers smart factories to customers**.



Nanami Hokazono,
joined in 2016

Kazuhiro Mitani,
joined in 2012

Atsushi Tanaka,
joined in 2011

FY2019 Corporate vision

A company that continues to
provide high-quality products and services
that customers select

- Let's deliver "good impressions and peace
of mind" to customers all over the world! -

Conversion from a "MONODZUKURI
(manufacturing)" company to a
"KOTODZUKURI (value creation)" company

Added

— JUKI is now promoting a Mid-term Business Plan covering the three years from fiscal 2019 to 2021. Could you give us a background and objectives of the numerical targets in the plan?

JUKI adopts a rolling method to draw up and execute its Mid-term Management Plan. We review and adjust the plan every year on a rolling basis to respond properly to the ever-changing business environment.

We have been developing various business strategies and system strategies based on "Value up 2022," our Mid-term Management Plan ending in fiscal 2022. Through the plan, we sharing our corporate vision of **"becoming a company that provides an ongoing supply of high-quality products and services that customers select."** We expect to achieve net sales of 150,000 million, growing sales by 9% year-on-year (40% growth rate cumulatively over the last three years) and achieving an ordinary income rate of 9.2% or higher in fiscal 2021. **It will be essential for us to advance our solution-proposal type business as well as to develop and produce high value-added products to achieve our targets.**

— We created a corporate vision in our Mid-term Management Plan to accelerate our conversion from "a Monodzukuri (manufacturing) company" to "a Kotodzukuri (value creation) company." Could you tell us more about the concept Kotodzukuri and its objectives?

As a manufacturer, JUKI maintains a basic policy of becoming a global and innovative company that survives in the 21st century. **We will need to provide new values that help us to both find solutions to the management problems of our customers and produce and sell "tangible goods" to continue sustainably growing into the future.** To cite an example, we can offer a whole chain of solutions to enhance the productivity of customers throughout the steps from adopting an automatic machine in a sewing factory to repositioning personnel in the factory using a system that grasps the operating statuses of all of the sewing machines running on the production line. **"Kotodzukuri (value creation)" means adding a value that brings true utility to the customer above and beyond the value offered by the "tangible goods" already in place at the production site.** The word "conversion" is key when we describe the "conversion of a customer's corporate value from one of possessing materials to one of using services." We consider competing with our rivals by providing "tangible goods" while differentiating from them by providing "intangible goods." "Kotodzukuri" is all about creating additional value. Our approach to this concept is significant from the viewpoints of both management and performance.

— You emphasized in your new year's message that we at JUKI must work swiftly to implement our plans for "using open innovation through alliances." Could you tell us about the concrete approaches we are taking?

It will be essential for us to depart from all-by-ourselves-ism and achieve innovations using outside resources like business partner companies. We must also compete with our rivals fiercely, while making the most of our management resources to supplying new products and services to customers at just the right time. We are held back only by the limitations in our own capacity to develop. We used a word "open innovation" this time to convey the importance of timely innovation to all of our employees. Some of our business partner companies possess excellent technologies yet lack the market information they need to make the best use of them.

On the other hand, JUKI has accumulated rich experience

and information on the trends of the market and customer needs by maintaining close relationships with its group customers for many years. A true innovation that solves a customer's problem is created by linking the strengths of a business partner company with JUKI's strength organically. JUKI sets out to develop a product **from an open innovation approach by accepting a customer request with a "say yes" mindset** and then carefully managing the next steps forward.

— **One of the core system strategies in JUKI's Mid-term Management Plan is to "review supply chain management (SCM)" in the group. Do you see any problems with our SCM at JUKI as of now?**

JUKI's businesses evolve through a process of cooperation with different of business partners and the various departments in JUKI itself. Apart from the distributors for JUKI businesses, we involve the suppliers who provide parts and materials, our factories, our sales companies, and of course our customers. We can only truly meet a customer's needs by working with all of these organizations and implementing the supply chain management system with just the right timing after accepting the customer's order. We realize, however, that supply chain management sometimes fails to work as well as it should. At JUKI **we need to optimize our SCM through systematization using smart information tools.** Systematization starts when our sales departments, production departments, manufacturing factories, and suppliers establish a rule. We would like to create a system for new business operation by drastically reviewing our SCM in this way. A project team is already on task reviewing our SCM and how it can be optimized.

— **How do you see the business environment in fiscal 2019?**

When speaking of the present business environment, there are three points that we cannot afford to ignore.

First, companies are reluctant to invest in plant and equipment when the uncertainty of the global economy is on the rise. Many countries nowadays are dissuaded from plant and equipment investment by factors such as the China-U.S. trade friction, anxiety over the deceleration of emerging economies, the pending exit of Britain from the European Union, and rising geopolitical risk all over the world. The second point is the accelerating pace of technical innovation. Equipment suppliers are building optimum production structures on a full scale using advanced technologies for IoT and AI to respond to the rising customer demand for smart factories. The third point the entry of newcomers from different business categories into our category. We are competing more fiercely than ever with rivals from far-flung industries in the field of "automatization." The high barriers to entry into the sewing machine business have not been stopping newcomers from other business categories from stepping in. **We must carefully consider these three points as we plot out our path ahead: the uncertainty of the global economy, evolving technical and structural innovation, and our competition with newcomers from different business categories.**

— **Could you tell us about the growth strategy of our Sewing Machinery & Systems Business Unit?**

When it came to the **industrial sewing machinery business**, we upheld the theme "develop a middle market" as a top priority approach. JUKI has established its number one

Code of conduct set in the Mid-term Management Plan for fiscal 2019-2021

<p>1</p> <p>Never halt a customer's production line anywhere in the world.</p> <p>Added → Strengthening the system for maintaining Quality and Delivery Times! Reconstructing JUKI's SCM and Establishing the Five Articles of Quality</p>	<p>2</p> <p>Stick to the target achievement (Never Give up).</p>
<p>3</p> <p>Comply with the "5S's of management" and the 10 Articles of the "Standard of Conduct for JUKI Group Employees."</p>	<p>4</p> <p>Practice health management and environmental management.</p>

position in the world by supplying JUKI products to small-to-medium-sized sewing factories and growing together with them. We will continue to offer optimum solutions to customers, focusing closely on the markets in Asia and Africa.

JUKI will make it a primary mission to support customers who use JUKI sewing machines, growing together with those customers, and helping to build them into high-end customers. In addition to practicing the Code of Conduct, it is also important to offer comprehensive optimum solutions to high-end customers by allying with them and seeing their factories holistically by introducing the JaNets (JUKI Advanced Network system) production management system. In developing our product lineups in JUKI's **household sewing machinery business**, we will continue adjusting them to fit the market, enhancing their brand value, and expanding them through alliances. Our target consumers for these product lineup enhancements are mainly heavy users in Europe, America, and Japan.

— What have we been doing at JUKI to grow our Electronic Assembly Systems Business Unit?

In running our **electronic assembly systems business**, we have upheld the basic policy of "expanding our solution proposal activities in the non-mounter business domain." The solutions we propose for saving labor in the previous process and next process on the surface mounting line are useful for customers throughout their whole factories. They also enable JUKI to expand its business domain and raise additional value. Customers may use our machines in completely unexpected ways in their factories. The new uses they discover serendipitously may also provide us with clues to success in our business strategies. We also have a policy focusing on breaking into a new market for "JaNets," our SMT integration system software. Our **group business** would like to find new customers and expand the scope of business with important customers using the JUKI network to connect more Group manufacturing companies with their business partners com-



What is JUKI?

panies and ultimately establish an engineering business. Our **customer support business** will focus on expanding the sales of parts by providing system support and remote maintenance, and expanding our after-sales service business.

— If JUKI is to continue bringing in stable profits, we believe that it will be essential to advance both our production system and development system. Could you tell us how we should approach these advancements?

To advance our **production system**, we would like to strengthen the system we have established for maintaining Quality and Delivery Times. We are also trying to visualizing a smart manufacturing factory and then managing the manufacturing and inspection processes in the factory systematically to reduce production costs. To advance our **development system**, we need to raise development efficiency by modularizing parts and units. Before pushing forward in the development of distinct products and value creation, we need to differentiate JUKI's black-box-oriented technologies and mobilize the core know-how from others.

— Before wrapping up this interview, could you tell us what you expect of JUKI employees?

I expect JUKI Group employees, especially the young employees like you, to spearhead the job reforms and workstyle reforms ahead of us. JUKI has enjoyed many successes and lived through many difficult times. Complacency is the biggest obstacle of all: as soon as a person feels satisfied that a job is done or an invention is complete, progress will cease. A company must perpetually change its working styles and domains of business to respond flexibly to the business environment and customer needs. Change is best led by the young, the people who are least ingrained with the corporate culture and working routines. The young are the best equipped to survive in the coming age when uncertainty rises, as they are the ones with the flexibility change their working environments and themselves. I expect the young employees at JUKI to **promote workstyle reforms that embody our corporate vision focused on "Global & Innovative" and "Smart & Connected."** Our young employees will be able to remake today's JUKI into a company flexibly responsive to changes in the business environment as JUKI fast approaches its 100th anniversary. Let's do our utmost to achieve the targets we have set.

Flow for the creation of JUKI's corporate value (a business model)

JUKI is working to create corporate value for stakeholders such as customers, suppliers, shareholders, investors, society and employees by putting its Mid-term Management Plan, "JUKI Value up 2022," into practice. We are also working to realize our goal of becoming an innovative and vibrant (active) company and to reinforce our power to create JUKI corporate value through our growth cycle.

Fiscal 2019-2021 Mid-term Management Plan

FY 2019 Corporate vision

A company that continues to provide high-quality products and services that customers select
- Let's deliver "good impressions and peace of mind" to customers all over the world! -

Code of Conduct

Details: ▶ p.12

Business strategies

- ① Reinforce the value creation ability in solutions businesses.
- ② Create a future customer base through market development.
- ③ Create and reinforce far-sighted business categories.

System strategies

- ④ Foster and utilize global and innovative human resources who can achieve the vision.
- ⑤ Build smart business foundations. (Making the process "Smart" and "Connected")

JUKI's businesses

Industrial Sewing Machinery Business ▶ p.16



Household Sewing Machinery Business ▶ p.20



Electronic Assembly Systems Business ▶ p.22



Group Business ▶ p.26



Customer Support Business ▶ p.28



Production

▶ p.34

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▶ p.30



Creating corporate value for stakeholders

Environment ▶p.37

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- Environmental Vision
- JUKI ECO PRODUCTS
- Management of environmental goals
- Examples of our approach to the environment

Society ▶p.42

S

Society ▶p.42

- Donating sewing machines to elementary schools
- Organizing and participating in various activities to contribute to the local community

Employees ▶p.43

- Promoting diversity
- Promoting health management, etc.

A group company ▶p.44

- Formulating our approach to quality-oriented management

Suppliers ▶p.45

- A "Workshop" and "Awards Ceremony" for suppliers (JUKI Cooperation Club)

Shareholders and investors ▶p.45

- General meeting of shareholders
- Briefing on IR results

Customers ▶p.46

- An introduction to JUKI customers in the business segments

Governance ▶p.48

G

- Corporate governance
- Compliance
- Risk assessment
- An introduction to JUKI's Directors and Officers

INDUSTRIAL SEWING MACHINERY BUSINESS



Products



Direct-drive, high-speed, lockstitch sewing system with automatic thread trimmer
DDL-9000C



Semi-dry-head, Cylinder-bed, Bottom Coverstitch Machine
MF-7900D



Semi-Dry head, Digital Zigzag Stitch Sewing System
LZ-2290C



Computer-controlled Cycle Machine with Input Function
AMS-221F



A “No. 1 world share” business that supports a sewing industry with a network covering customers in 180 countries

JUKI’s industrial sewing machines widely support the global sewing industry by “stitching” products in all sewing fields, from maison brand products that propose the most advanced trends to casual apparel products, sporting goods, and car seats.

The sewing line can be set up with a wide range of lineups under a single brand focused on sewing machines designed to provide exclusive stitches such as a straight stitches, zigzag stitches, and button sewing. JUKI’s digital sewing machines can respond actively to changes in sewing items and materials. JUKI’s automatic machine sewing machines handle two or more processes with a single switch. An IoT based system capable of performing high-level factory management connects all of the machines in a network.

JUKI meets customer demands by proposing line solutions to overcome production challenges using innovative, high-precision technologies under the “Smart Solutions” slogan.



Customer Solutions

1. Setting up a production line under one brand

JUKI’s lineup of industrial sewing machines consists of about 2,000 models. A wide variety of sewing machines—machines for cloth, knitwear, and non-apparel and automatic machines capable of handling two or more processes—are available to suit the sewing material and purpose. JUKI makes line solution proposals that achieve maximum performance with a wide range of lineups in pursuit of sewing quality, deskilling, and productivity.



2. Making a factory smart by digitalizing sewing machine information and visualizing the factory holistically

We adjust sewing machines digitally instead of mechanically. Sharing digitalized information among sewing machines and factories drastically shortens changeover time. In addition, we acquire sewing sewing machine operation data and maintenance information by digitalizing sewing machine information and analyzing and processing the data to visualize the factory holistically. JUKI helps realize a smart factory by solving problems through the robotization of sewing processes.



3. Offering peace of mind through stable quality and support

Using rich experience backed by active results for more than 60 years, JUKI arranges a professional group to accurately solve miscellaneous problems at customer factories in different parts of the world. JUKI also supports its customers with unparalleled customer services such as technical guidance, seminars, consultations on productivity improvement, and real-time responses to production troubles at factories where stable quality and productivity are required.

TOPICS

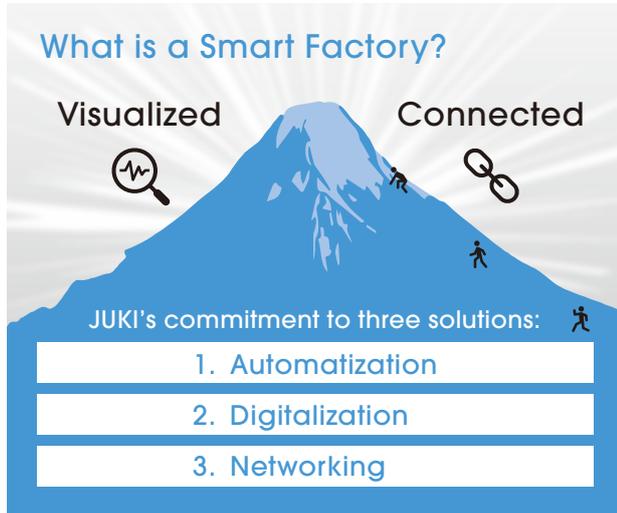
Participation in Texprocess 2019 (Frankfurt, Germany)

On May 29, 2019 JUKI took part in Texprocess 2019, a leading trade fair for processing textiles and flexible materials. About 47,000 visitors from around the world came to attend the fair at the international trade fair venue Frankfurt am Main. JUKI demonstrated forward-thinking total line solutions based on the “JUKI Smart Solutions” concept focused on “Innovation with our Best Global Support – (JUKI will provide support for smartening your factory globally).” JUKI prepared solutions for automatic machines to improve productivity and quality, state-of-the-art sewing machines incorporating high-level automatization and digitalization technology to supplement the work of humans, and non-sewing peripheral devices.



Industrial Sewing Machinery Business

The Smart Factory that JUKI offers

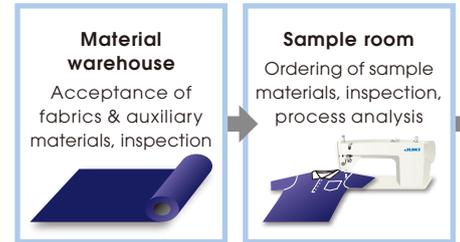


JUKI believes that “Visualization” and “Connected” are essential ingredients for the smart factory of the future. To introduce those ingredients, JUKI has evolved automatization, digitalization, and networking technologies that make customer factories smarter.

JUKI has a proven 60-year history of successes in plant engineering to improve the production processes and productivity of customer factories.

JUKI uses this advantage to offer an optimum method to adopt forefront automatization, digitalization, and systematization strategies and make the most of their effects.

Flow of a sewing process



1. Automatization

Automatic machines

A wide range of JUKI sewing machines fully automatize two or more processes that are conventionally handled with human hands: cutting work with scissors, the folding of fabrics, shirring, etc.



Automatic machines and picking robots

The automatic machine sews sewing parts automatically on fabric conveyed from a cutting process by an AGV. The fabric is picked by a robot.



AGVs (Automated Guided Vehicles)

Sewing parts in the factory are transported automatically with AGVs. The AGVs transport the parts according to the production plan with perfect time efficiency.



2. Digitalization

Digitalization of a sewing process

The sewing operation is performed according to a digitalized specification. We summarize the operating status of the sewing machines and check the production progress or variations in production by operators.

Digital sewing machines

These sewing machines are capable of digitalizing “seam” adjustment functions and memorizing them numerically. The data after adjustment can be memorized in tablets running a dedicated app (application program) and transferred to other sewing machines. The sharing and management of stitch data become easy enough to stabilize quality on a global basis.



JUKI's businesses

3. Networking

Visualization of the control room in a factory

We can confirm problems with the performance of the production plan, the line balance (a key factor for productivity), and bottleneck processes at first sight. We also connect factories to factories in order to smoothly advance the supply chain on a company-wide basis. Analyzing and processing these data enable us to visualize a problem and its effects throughout the whole factory.



Sewing management system software



Equipment data such as operation information on individual sewing machines is visualized in real time, analyzed by networking the sewing machines, and used to plot out production improvements. Digital sewing machines in a lineup can realize two-way communication and download control information on stitches to a sewing machine. Support content using "information" on presage management, traceability, etc. Will increase in the future.



HOUSEHOLD SEWING MACHINERY BUSINESS



To create new pleasure together with a pro-hobbyist customer (Home Sewer) using a sewing machine that supports creativity, JUKI does the following:

JUKI household sewing machines are used by a customer base spanning the gamut from sewing hobbyists (personal use) to tailors (professional use). We adopt technologies developed for JUKI industrial sewing machines to supply high-quality, sophisticated, high-grade products. We organize extensive and numerous “workshop activities” to provide JUKI products while sharing the joys of using sewing machine functions and producing superb sewing works. We also provide deep knowledge about sewing with sewing machines by finely classifying home sewing genres for hobbyists and collaborating with handicraft artists. In the online space, we use SNS to create more JUKI fans while communicating with customers.



Products



Computerized Long Arm High-performance Sewing Machine
<Kirei> HZL-DX7



2-Needle, 4-Thread Overlock Machine with Differential feed
MO-114D



Straight line Sewing Machine for Professional Use
TL-2200QVP Mini



Long arm Quilting Machine
TL-2200QVP

Customer Solutions

1. Providing reliable products and technologies

Sticking to a “seam” as the essence of a sewing machine, a “stitch” one notch above is offered. The machines not only stitch heavy-weight materials and multi-layered sections of materials, but also change small needle baselines and adjust seam lengths and stitch swing width smoothly and easily along the way. “Quilt” work with designed seams is also finished beautifully.



2. Providing sewing machine functions and sewing knowledge at the workshop

We hold workshops periodically with customers to deepen their knowledge about sewing and their experience with sewing machine functions by dividing the sewing hobby genres into “dressmaking,” “small articles and bags,” “doll costumes,” and “quilts.” The workshops are directed by artists who excel at producing the articles with the best machines for the task.



3. Providing sales and technical support covering the world

Our customers are supported by a global sales and technical network for industrial sewing machines. JUKI holds various workshops on sewing machine mechanisms, techniques to achieve beautiful seams, and methods to use and maintain products to offer “peace of mind.”



TOPICS

Participation in the 18th “Tokyo International Great Quilt Festival 2019”

JUKI took part in the 18th “Tokyo International Great Quilt Festival 2019,” Japan’s largest quilt exhibition, an extravagant event attracting more than 210,000 visitors each year. To showcase how “JUKI excels in quilting,” we asked the popular quilt artist Ferisa Nakazawa to demonstrate her quilt-making skills on JUKI’s long arm quilting sewing machine. JUKI showcased an unparalleled range of quilting products in a JUKI workshop on quilted shoulder pouches and snap leather pouches.



JUKI booth (January 2019)

Launch of a tailor-use sewing machine to commemorate the 80th anniversary of JUKI’s establishment

In commemoration of the 80th anniversary of our establishment, we sold 500 units of a tailor-use straight stitch sewing machine reproduced in a luxurious piano black resembling the conventional black used for the body of JUKI’s first household sewing machine. Labels inscribed with serial numbers 1 to 500 were packed with the commemorative units to evince the limited-edition status. We extended the service warranty period to three years and threw in fourteen sewing machine accessories worth 30,000 yen in total with each unit sold. The 500 machines sold out in their first month on the market.



“SL-700EX BLACK,” a commemorative model released to mark the 80th anniversary of JUKI’s establishment

ELECTRONIC ASSEMBLY SYSTEMS BUSINESS



Products



Fast smart modular mounter
RS-1R



High-speed compact modular mounter
RX-7R



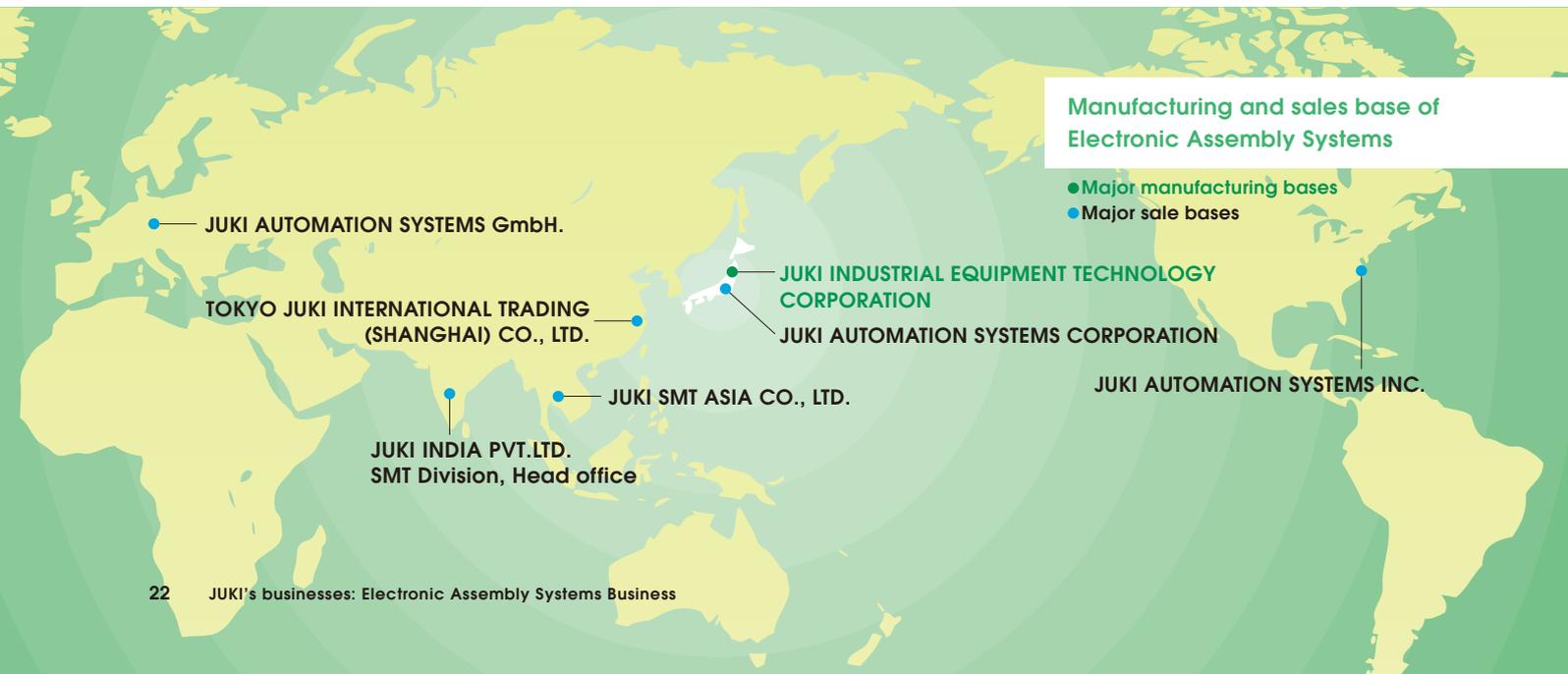
3D PWB Visual Inspection Machine (AOI)
RV-2-3DH



Multi task platform
JM-100



Intelligent storage management system
ISM3600



Manufacturing and sales base of Electronic Assembly Systems

- Major manufacturing bases
- Major sale bases

JUKI AUTOMATION SYSTEMS GmbH.

TOKYO JUKI INTERNATIONAL TRADING (SHANGHAI) CO., LTD.

JUKI INDIA PVT.LTD. SMT Division, Head office

JUKI SMT ASIA CO., LTD.

JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION

JUKI AUTOMATION SYSTEMS CORPORATION

JUKI AUTOMATION SYSTEMS INC.

To support circuit boards production plants through a total solution, JUKI does the following:

The “electronic printed circuit board,” an artificial brain of sorts, is built into many thousands of “devices” we rely on in day-to-day living, from smartphones and home appliances to vehicles such as cars and trains, to the machines operating in offices, hospitals, and factories.

JUKI manufactures and sells a comprehensive range of PWB production equipment using state-of-the-art technologies responsive to customer needs, along with an automated warehouse that stores and supplies electronic components in conjunction with the equipment, an unattended transport device, and a robot insertion system.

JUKI’s total solutions aim to help customers improve the productivity of their manufacturing lines and factory floors holistically. JUKI’s “visualization” system displays the progress of production and the operating status of interconnected production equipment in real time and evolves the factory to a higher level. JUKI will be using forefront technologies such as IoT, M2M (Machine to Machine), and AI to help customers create smart factories.



Customer Solutions

1. Providing a full line of products to build flexible production lines

We offer a full line of equipment to produce printed circuit boards. We build flexible lines to perform high-mix, low-volume production and multiproduct, variable-quantity production using a mounter that runs at high production speed with high versatility, a high-speed 3D inspection machine that prevents the outflow of defective printed circuit boards, and a screen printer that applies solder to printed circuit boards with high-quality results at high speeds.



2. Providing support for managing and improving the whole factory

We provide total solutions to improve a whole factory, heighten productivity, and save labor using the necessary equipment and systems in a chain of processes from parts acceptance for PWB production to the shipment of finished goods. We provide support to manage a whole factory using system software to automatize human work, automatize component management, and achieve the production plan.



Automated warehouse safekeeping and management of electronic components

3. Providing remote control support

This support system monitors a whole production line remotely and rapidly finds obstacles in the line to correct. The system analyzes accumulated information to maintain a stable operating status, improve the productivity of the whole line, and maintain the quality of the results. We make the customer’s factory smarter by providing support for remote control.



TOPICS

Participation in the 21st “JISSO PROTEC”

JUKI participated in a gathering of SMT (Surface Mount Technology) equipment manufacturers at a major SMT show. The leading-edge solutions exhibited by JUKI use robots, image recognition techniques, and systems incorporating the latest iterations of IoT and M2M technology to make customer factories smarter. Apart from the SMT process itself, JUKI’s solutions are produced for the processes that come before and after the surface mounting, as well as overall factory management and inspection. JUKI also showcased its system for visualizing production by displaying the progress of production and operating status of the production equipment in real time.

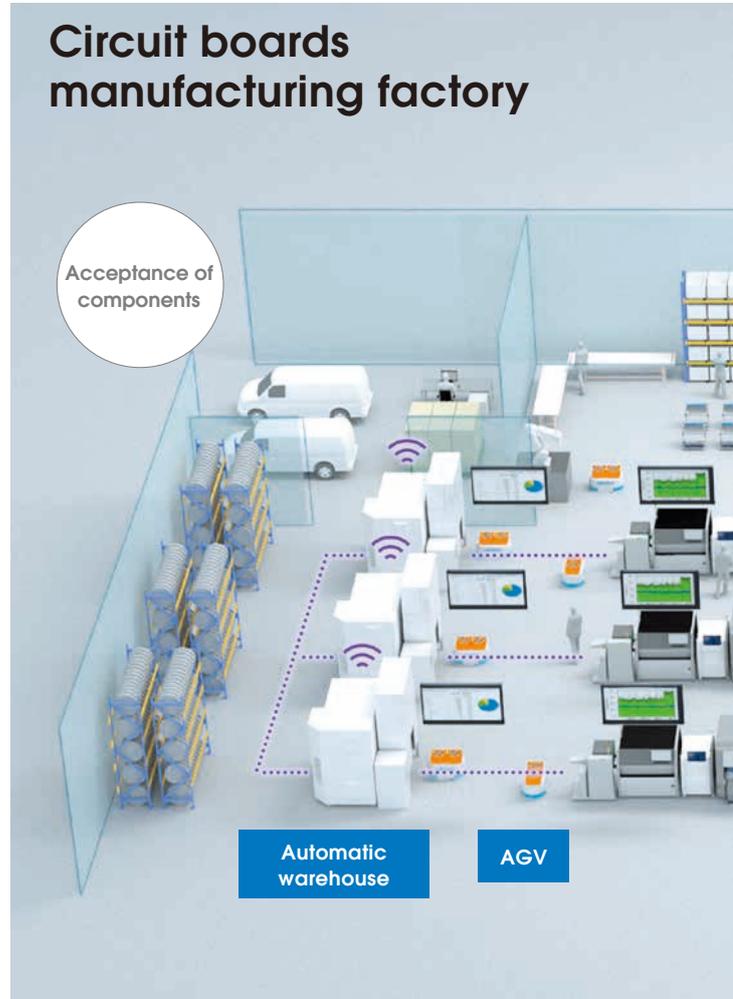
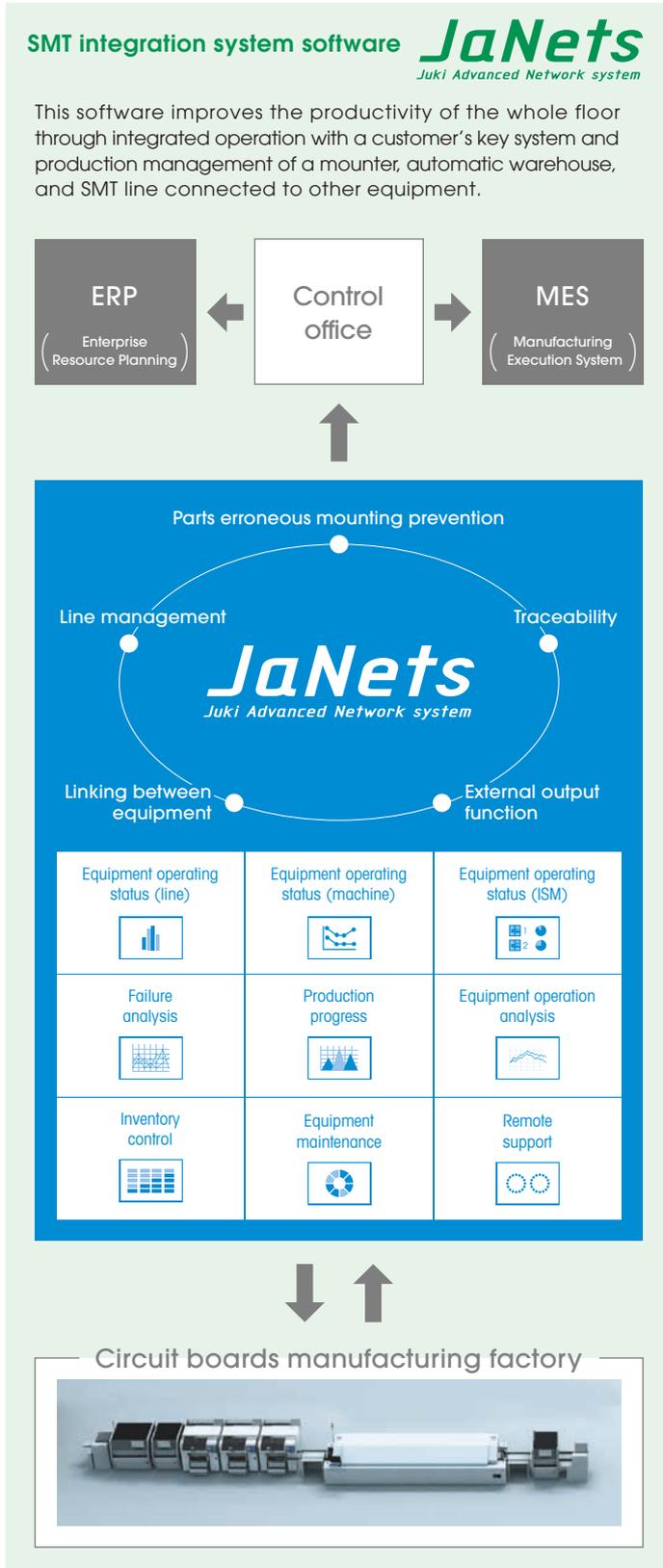


At the Tokyo International Exhibition Center (Tokyo Big Site) from June 5 to 7, 2019

Electronic Assembly Systems Business

JUKI's total solution integrating the whole factory by linking the equipment to the systems of a circuit boards manufacturing factory

JUKI's proposal for a Smart Factory



Solution for an SMT system

JUKI offers a full lineup consisting of a printing machine, inspection machine, chip mounter and general-purpose mounter equipped with JUKI's original mechanisms. (A reflow oven is excluded.) This equipment improves the productivity of an SMT line geared for various kinds and various volumes production by providing a wide range of lineup with a mounter requiring no head replacement and setting the component-recognition sensor attached to the head at a variable height according to the height of the electronics components to be placed.



IoT innovation using *JaNets*

Juki Advanced Network system



JUKI's businesses

Solution for a system to automate the post-process

This device automates the component insertion process that has always been performed by hand. The device centers the component lead tip with extreme accuracy, never failing to achieve flawless parts insertion.

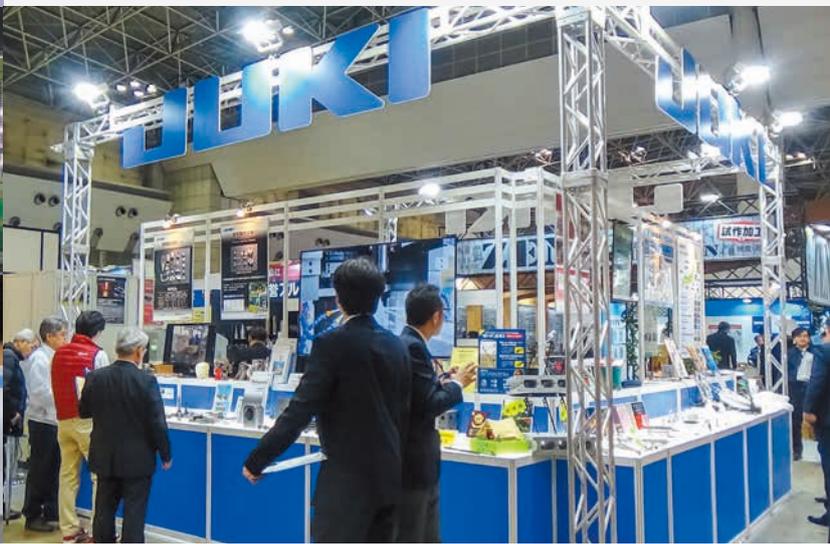


Solution for a storage system (Streamlining component supply management)

This system interlocks with the SMT line to automate the manual task of SMT component supply management. The system significantly enhances work efficiency and productivity using an automatic warehouse that automatically supplies and stores components, AGVs that automatically transport components from the automatic warehouse, robots that pick up reel components in collaboration with humans, and much more.



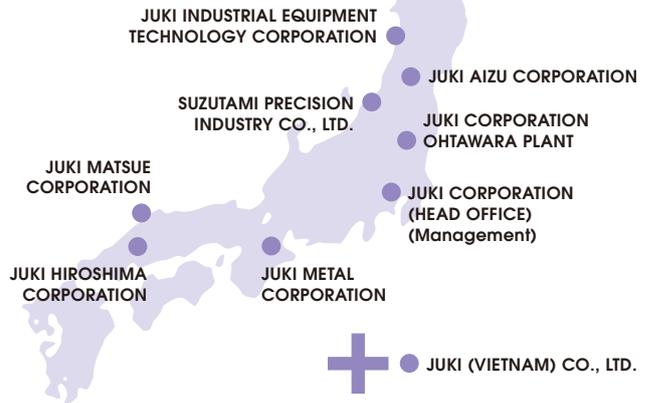
GROUP BUSINESS



Contracted development and manufacturing business

To support customers who engage in manufacturing through four collective strengths: “technician,” “development and manufacturing equipment,” “development and production know-how,” and “materials,” JUKI does the following:

This business combines the manufacturing (Monozukuri) capabilities of manufacturing companies. The business is endowed with development capacity cultivated through the design and development of major products, the manufacturing of parts, and assembly of products, as well as a wide range of high manufacturing (Monozukuri) capabilities, etc. focused on precision work, press and sheet-metal working, pig iron casting, precision casting, and mold manufacturing. JUKI's group business produces parts or unit products customers want by deepening and combining their manufacturing technologies.



Sleep Buster

Supporting the driver's safe run



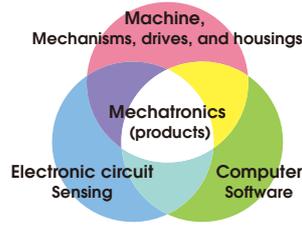
The Sleep Buster is a device developed to reduce traffic accidents and to prevent overwork driving.

Sensor pads attached to the driver's seat monitors physiological signals in driver's upper body second by second. Built-in algorithms assess the degree of driver fatigue and issue warning displays or sounds whenever the driver's concentration or physical condition decreases or suddenly changes (e.g., when the driver drifts toward sleep). The driver's stress, concentration, arousal, and fatigue can all be analyzed in more detail by downloading the sensor data to a personal computer using JUKI's exclusive software called “Human Tachometer.”

Customer Solutions

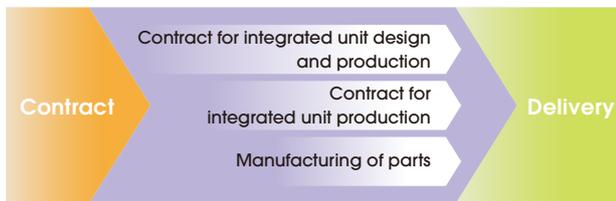
1. Enabling development and design of equipment control

These customer solutions enable the development and design of equipment control based on technologies developed in the mounter design and development process. Diverse human resources gathered from the fields of mechanical engineering, electronics engineering, and software combine flexible ideas to create new products.



2. Gathering JUKI's and the JUKI Group's manufacturing (Monodzukuri) capabilities (development capacity and manufacturing capacity) together

All of the companies at JUKI's manufacturing bases have acquired ISO9001 certification. They adopt scientific analytical methods based on JUKI's more than 50 years of manufacturing (Monodzukuri) experience and adhere to highly efficient practices with a commitment to eliminating waste. They also deliver high value-added production, good-quality manufacturing (Monodzukuri), and high-quality products.



3. Supplying high value-added products through full utilization of "people, equipment, method and materials" (Material → machining → assembly → finished goods)

Technicians who have acquired various national qualifications complete products by means of multi-selection manufacturing suitable for customer's needs using a wide variety of technologies such as MC (Machining Center), casting, grinding, and painting. They also perform all of the processes from material procurement to manufacturing and assembly by means of a one-stop service.



Contracted products fusing the development and manufacturing technology at each base

- Receiving a contract to robotize a customer's factory using the same technology used to smarten JUKI's own factory (the JUKI Ohtawara plant)



Utilizing JUKI's long-cultivated development and manufacturing capacities to contract product development and manufacturing (JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION)

Comprehensive development capacity

+

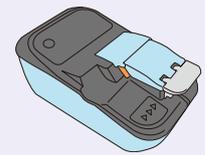
Manufacturing capacity developed through JUKI's experience in manufacturing chip mounters

+

Acquisition of ISO13485 certification in the medical field

+

Maintenance system



Developing and manufacturing medical equipment

JUKI's businesses

Receiving a contract to manufacture parts using the combined technical capabilities of two companies

Casting technology (JUKI METAL)

+

Processing technology (Yoshino factory operated by JUKI Industrial Equipment Technology Corporation)



Parts manufacturing for a railcar

Data Entry System

JUKI's original information-processing system



A data entry system is a system for rapidly inputting large volumes of alphanumeric data.

Insurance companies, banks, and other organizations that process great deals of information are members of the information processing industry. JUKI is now developing equipment to enhance processing capabilities and reduce human error for these organizations. Foremost among their needs are the "protection of confidential and personal information," "more efficient image entry with help from OCR processing," and "deliveryless system using high-speed communications infrastructure."

CUSTOMER SUPPORT BUSINESS

Parts center for industrial sewing machines
JUKI (NINGBO) PRECISION CO., LTD.

Parts center for electronics assembly systems
JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION

Parts center for industrial sewing machines
(OHTAWARA PLANT)

Parts center for electronics assembly systems
(Warehouse in Hong Kong)



Optimizing the operating status of machines in manufacturing lines all over the world to promise customers peace of mind one step ahead

This business provides information on timely preventive maintenance and parts supply and controls machines remotely for customers who purchase JUKI's core products, industrial sewing machines, and electronic assembly systems. Our information and remote monitoring services ensure that customers can use our machines and systems in optimum operating environments.

To support customers who use JUKI industrial sewing machines, we have prepared a tool that gives them easy access to information on preventive maintenance and alerts them when their machines need to be checked and consumable parts need to be replaced.

For customers who use JUKI electronic assembly systems, we remotely monitor the operational status of machines that operate around the clock.

We will deliver peace of mind one step ahead in addition to well-established parts supply and maintenance.



Customer Solutions

1. Providing a support system for checking sewing machinery

To avert operating rate slowdowns caused by sudden machine stoppages, JUKI released a system for providing customers with information on consumable sewing machine parts and a smartphone application for inputting inspection information on sewing machines one by one. The scheduling for the next maintenance inspection and the replacement times for consumable parts are displayed by the smartphone app on screen. Summarizing those data ensures that the customer will always be informed of the preventive maintenance schedule. JUKI is working to enrich its customer support tools to ensure that the customers who purchase JUKI sewing machines can use them stably over many years.



2. Realizing a customer support remotely

A tool for grasping the operating status of a production line and equipment and finding the most effective strategies for improvement

This tool remotely monitors the operational status of the production lines for electronic assembly systems that have been operating for customers over long periods. We can maintain a stable operating status and improve the productivity and quality of a whole factory by analyzing the accumulated information gathered each time the operational status is monitored and by rapidly finding product line errors and restoring production. JUKI achieves a high-level smart factory through extensive supports aided by remote control.



TOPICS

Improving the prompt delivery rate of parts using a new stock and order management system

The efficiency of parts inventory must be near perfect if we are to uphold our pledge of never keeping the customer waiting. JUKI heightened its prompt delivery rate to 90% after adopting a new stock and order management system and optimizing its stock efficiency. JUKI will make further efforts to improve its prompt delivery rates and operate a members-only "technical support website" to provide technical information along with "Club-J," a site with information on parts for industrial sewing machines.



(Top) information site for engineers
(Bottom) Parts website for industrial sewing machines

Technological development capacity



High-level technological development capacity dedicated to the “Customer Creed”



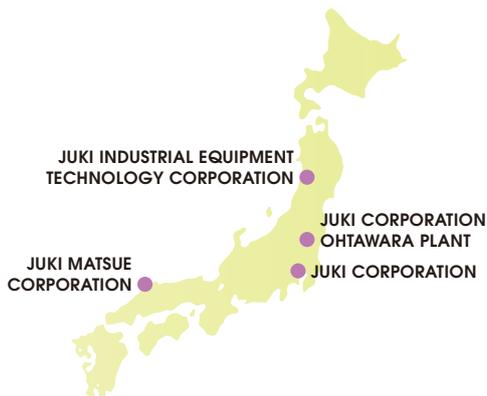
JUKI has applied its technology development capacity to the development of a single unit product and the creation of an automatic machine and automation system to meet customers’ challenges focused on productivity improvement, manpower saving, deskilling, and improvement of quality. JUKI has invented many “first in the world” mechanisms as a world leader in manufacturing.

Environmental considerations such as user-friendliness and electric power saving become bases for development and the pursuit of the latest technologies. JUKI strives to make products customers can use without any form of stress all through the day. JUKI sewing machines have the overwhelming support of both on-site users and factory administrators.

JUKI has also set up development bases in China, Vietnam, United States, and Poland to respond speedily and carefully to the needs and high-level requests of overseas customers.

TECHNOLOGY & DEVELOPMENT

Domestic development bases



Overseas development bases



JUKI's technology development

Customers require the production goods provided by JUKI to operate stably in different environments all over the world. JUKI repeats quality and specification tests (evaluation experiments) by exposing products virtually to various physical phenomena to ensure that no problems with strength, safety, durability, etc. occur.



Material research with an electron microscope



Elemental analysis using an EPMA



Hardness test using a Vickers hardness tester



Test using an electrostatics tester



Vibration test using a vibration exciter



Product package drop test



Durability test for a chip mounter



Stitch test for an industrial sewing machine



Noise rating in a semi-anechoic chamber

TOPICS

Joint development of a zipper sewing machine by JUKI and YKK Corporation

JUKI teamed up with YKK Corporation, the world's leading manufacturer of zippers, to develop a new tapeless zipper called "AiryString™," along with a dedicated sewing machine to sew the zipper to garments, bags, etc. Unlike a conventional zipper, which is attached to a garment by sewing on the zipper tape, AiryString™ sews onto a garment directly without tape. The technology enabling the creation of this next-generation zipper and machine was achieved by JUKI and YKK Corporation.



Upper left: a standard VISLON zipper
Lower right: "AiryString™"
A sewing machine dedicated to sewing "AiryString™" (Released in July 2019)

Collaboration between JUKI and Hitachi, Ltd. to optimize production lines for printed circuit boards

In October 2018, JUKI began collaborating with Hitachi, Ltd. (hereinafter, Hitachi), a customer of JUKI electronic assembly systems, to jointly develop a solution system for optimizing the production of printed circuit boards. This system optimizes multiproduct variable-quantity production by incorporating JUKI SMT line equipment into Hitachi's highly efficient production model using Hitachi equipment data. When installed and tested in a printed circuit board production line at JUKI Industrial Equipment Technology Corporation, a group subsidiary, this solution system improved productivity improved by 30% by "visualizing" the operating status.



Optimum solution lines at JUKI Industrial Equipment Technology Corporation

Technological development capacity

JUKI's core technology

JUKI's core technology connects directly to products by stabilizing quality, enhancing user friendliness, improving workability, and reducing power consumption. The technology also meets the diversified and sophisticated market needs accurately and creates functions full of attractions that meet customer demands all over the world.

Core technologies for industrial sewing machines

Digital control

Digitalizing seam adjustments and transferring the data using IoT

This technology digitalizes adjustment functions for five "seams": the feed dog height, feed pitch, track, presser foot pressure, and needle thread tension and memorizes them numerically. The adjustment function settings depended formerly on experiences and intuitions of people. Data after adjustment can be memorized in a tablet running a dedicated app and transferred to other sewing machines wirelessly via the NFC function by simply holding it over the panel to transmit. This technology simplifies the settings for sewing machines in a sewing line to stabilize quality on a global basis.



Digital control for the DDL-9000C

Image recognition technology (for a sewing machine)

Image processing to correct the gap between the actual fabric shrinkage and the amount specified in the program data

This technology sews seams at the exact target coordinates on a fabric to achieve high-quality, stable seams. When shrinkage-prone fabrics such as soft, elastic, and perforated fabrics are sewn, the shrinkage is measured at a marked position on the fabric with a camera and then corrected by reconciling the amount sidetracked during the sewing process with the amount specified in the basic program data.

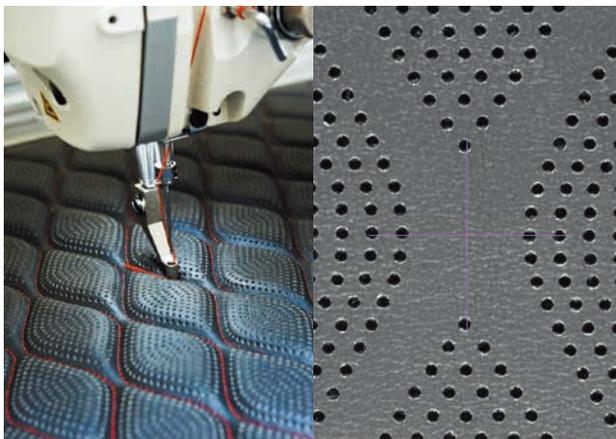


Image recognition technology of the AMS-251

Active tension

Dynamic control of thread tension to achieve stable "sewing"

This technology maintains optimal tension for the needle thread and bobbin thread to achieve beautiful stable sewing. It also opens and closes the thread tension disc by finely controlling a special solenoid with an electric current and achieves the best thread tension for balanced stitches.



Solenoid control in AMS

Technology to prevent loose thread

Knot-tying to prevent loose thread at the finish of sewing

This technology ties knots at the finish of sewing. Many JUKI products apply similar mechanisms for tying knots. The covering stitch machine pulls the needle threads aslant with dedicated hooks, forms loops, and finally forms pseudo knots by dropping the needles into the loops.



Knot-tying technology for the MF-7900

Technology for preventing bird's nests and shortening leftover thread

Improving stitch quality for linings without picking threads

This technology prevents thread from tangling into bird's nests at the start of sewing and then cuts the leftover thread to as short a length as possible at the end of sewing. A thread nipper device captures the needle thread at the start of sewing and holds it until the sewing is complete. A blade cuts the needle thread short at the start of sewing and cuts both the needle thread and bobbin thread at the finish of sewing.



Mechanism for shortening leftover thread in the LK-1903BB

Other core technologies

Vertical drive during feeding operation

Dry technology

Energy-saving technology

Perfect stitches

Core technologies for household sewing machines

Built-in upper feed mechanism

Technology to ensure "fabric feed" from thin fabric to thick fabric

This technology prevents stitch slipping and stitch clogging using a built-in, pull-type upper feed mechanism (a JUKI smart feed). The technology allows customers to handle wide-ranging stitch conditions by digitally adjusting the upper feed amount in 0.1 mm steps according to the fabric type, number of fabrics sewn, and stitch design.



HZL-NX7

Automatic stitch balancing thread tension mechanism

Achieving balanced needle thread tension according to pattern types

The technology adopted in this mechanism allows customers to adjust the needle thread tension according to stitch patterns automatically. A stepping motor built into the mechanism also ensures optimum thread tension by applying a pressure to the needle thread according to the 351 pre-programmed stitch patterns and letter sewing styles.



HZL-NX7

Other core technologies

Box feed

Fully automatic threading (Easy threader)

Automatic presser foot lifter

Slide throat plate

Float mode

Pivot functions

Core technologies for electronic assembly systems

Takumi head (for a mounter)

A head with both high-speed performance and versatility

In this head-mounting technology, only a laser recognition device moves up and down while the head itself stays at a fixed position according to the height of the components to be placed. The head achieves high-speed placement by recognizing and placing components at the optimum heights. The technology thus achieves high-speed performance and versatility by applying only one type of head in the specification.



Takumi head for the RS-1R and JM-100

A high-speed image processing system for inspection machines

Clearly imaging components with a DLP (Digital Light Processing) system projection device

The 3D head unit in this system checks if components are placed accurately on a printed circuit board and properly joined with solder. DLP (Digital Light Processing) projectors set in four positions on the 3D head unit project 32 patterns of striped light onto components to improve inspection accuracy. Clear, high-speed inspection is achieved by speeding up the projection velocity, importing the necessary calculations in less time.



Image recognition for the RV-2-3D

A planet head (for a mounter)

Achieving high-speed placement of small-sized components using JUKI's proprietary rotary type head

JUKI's proprietary rotary-type planet head picks, places, and positions small-sized components simultaneously at high speed. The original mechanism built into the head rotates sixteen nozzles separately in conjunction with the rotation of the whole head.

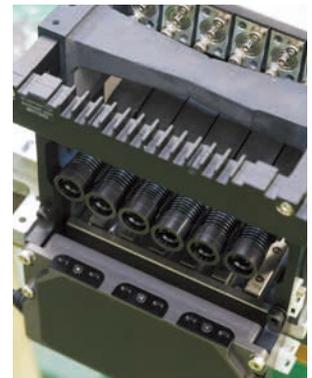


A planet head mounted on the RX-7R

Laser recognition technology (for a mounter)

Enabling the recognition of differently shaped components using JUKI's originally designed technology

The positions and angles of the components are recognized by a high-resolution unit that applies light to the components and detects the shadows cast. This technology enables the stable and high-accuracy placement of a wider range of components. When a component is so small that its presence and pick-up posture become difficult to detect, the technology prevents inaccurate placement by detecting the pick-up status just before placement.



Laser recognition technology for the RS-1R

Other core technologies

Image recognition technology

Component Verification System (CVS)

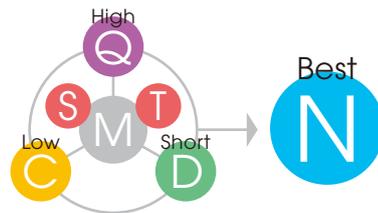
Production capacity



“Made by JUKI” manufacturing (Monodzukuri) with a commitment to “produce 100% good-quality items”



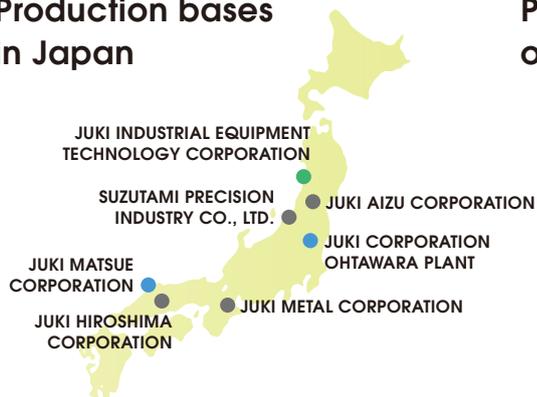
JUKI’s manufacturing factories are defenders of “JUKI Quality” and pioneers of further-evolved manufacturing (Monodzukuri). The “six elements of production” form the base of JUKI Quality: <Q> for quality, <C> for cost, <D> for delivery time, <S> for safety, <T> for human resources development, and <N> for new products. The cycle of management centering around the <M> for manpower drives continuous improvement activities based on these six elements.



All of JUKI’s industrial sewing machines are “produced near the customer” at five factories in three countries: Japan, China, and Vietnam. The group companies producing “made by JUKI” products share manufacturing techniques, construction methods, know-how, etc. invented at the “OHTAWARA PLANT,” the mother factory.

JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION plays a role in producing JUKI’s electronic assembly systems. This company puts products of firm quality out into the world while working on flexible development methods and improvements.

Production bases in Japan



Production bases overseas



JUKI's production capacity

1. Adopting a digital production system

The OHTAWARA PLANT (for production of industrial sewing machines) and JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION (for production of electronic assembly systems) introduced a digital production system that displays assembly procedures on a tablet screen for every cell. This system enables work proficiency in short time frames, the prevention of erroneous assembly, reduced loss due to inefficient line balance, and a stable production system overall.



2. Fostering quality technicians and education

The starting point of manufacturing (Monozukuri) remains "human resources creation." We continuously work to maintain and improve our QCD program (quality, cost and delivery time) by promoting the acquisition of skills and qualifications, quality-control education, and in-house tests for certification, etc. We also perform periodical education for the human resources who will be running JUKI's overseas factories in the future. Human resources educated in management support JUKI Quality at a deep level.



3. Making an approach toward making a factory more attractive

We advance an approach toward a smart factory through robotization and digitalization based on "5S, safe, and QCD." We also advance transformation to a highly-productive factory using IT for robotizing the processes of frame machining, air-blowing to remove the residual chips and shavings, and painting, in addition to automatic transportation system between processes as well as digital production.



TOPICS

Adopting cooperative assembly by humans and robots together in industrial sewing machine production

Robots at our Ohtawara plant attach "caution and warning seals" to an assembly line for an LK series engaged in takt production with an AGV, achieving cooperative assembly together with humans. The industrial sewing machine assembly is divided into simple mechanical work and human work (sensory work and adjustment work). Assigning the robots to the simple work saves space and raises the flexibility of the product line.



Robot attaching caution and warning labels to machines (at our Ohtawara plant)

Visualization of line balance in moulder production

We are preparing to synchronize the moulder production operations at three factories run by JUKI Industrial Equipment Technology Corporation to realize a dispersed production strategy. The head office factory introduces takt control production using an AGV into a generalized overall assembly line synchronized with the production progress. Units assembled in the previous process and parts fabricated by the Daisen factory and Yoshino factory are supplied to the head office factory. Visualizing the progress and results of production helps to maintain line balance and improve the processes overall.

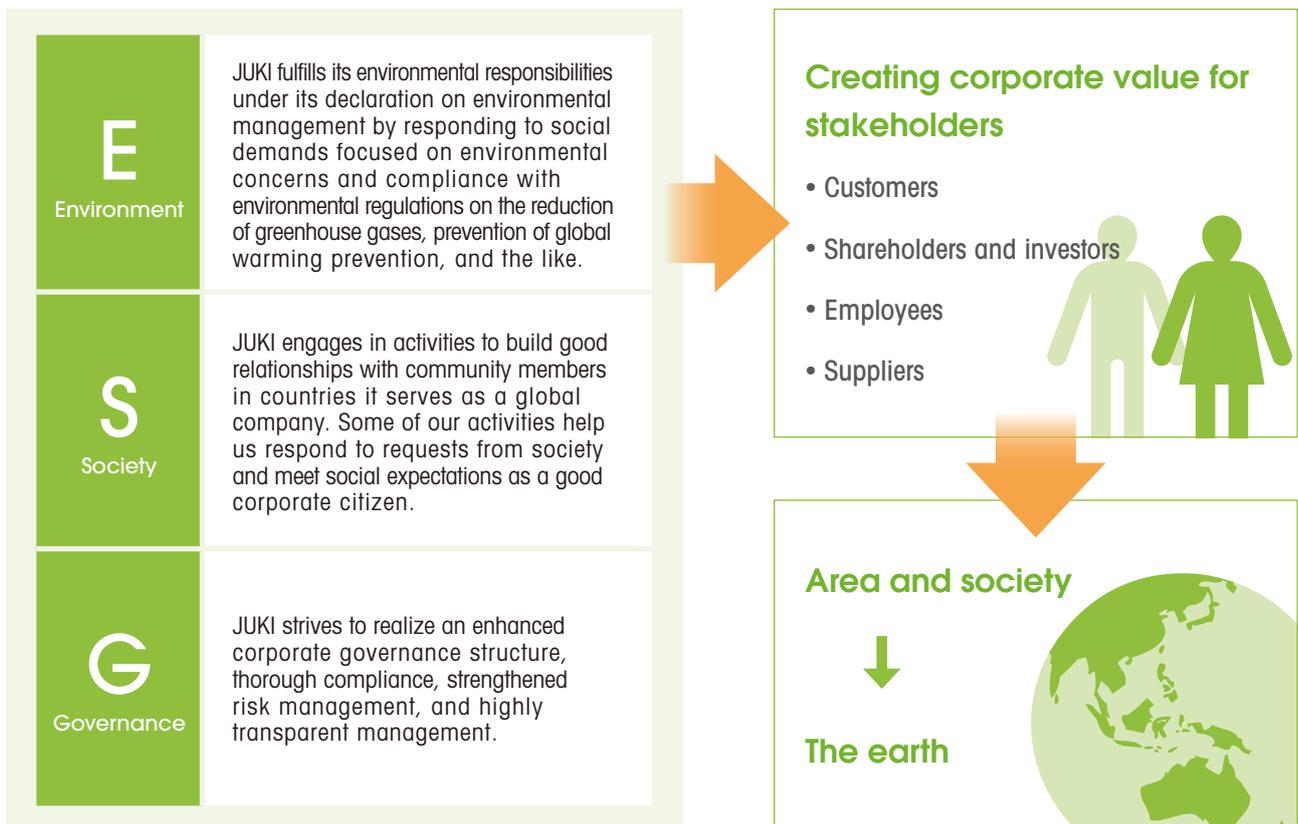


Takt-controlled production using the AGV (at JUKI Industrial Equipment Technology Corporation)



Approach to ESG – toward a sustainable society

JUKI is appropriately taking on ESG (Environment, Social, and Governance) challenges by considering the environment, JUKI's contributions to local communities, and governance while contributing however it can to the achievement of the SDGs (Sustainable Development Goals). JUKI builds good relationships with communities in every country it serves as a global company, provides safe products with minimized environmental loads, and aims to continue to contribute as a responsible company that creates value for society.



Approach to “E” (the Environment)

Environmental Vision

JUKI fulfills its environmental responsibilities under its declaration on environmental management by responding to social demands focused on environmental concerns and compliance with environmental regulations on greenhouse gas emission reduction, global warming prevention, and the like. The Group also provides safe products that place less environmental load on customers, and aims to keep being a company with an existence value for society.

All of the companies in the JUKI Group engage in activities to promote environmental protection.



ECO MIND Declaration

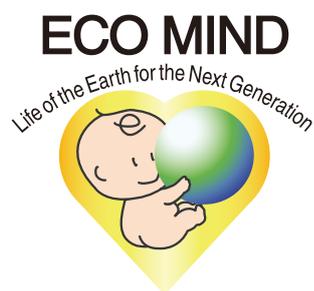
Environmental Philosophy

The JUKI Group recognizes that activities of enterprises are closely related to the global environment, and is making efforts to:

1. Contribute to the local community and society by environment-conscious activities.
2. Provide people around the world with environmentally friendly products.
3. Play an active role to hand down a better global environment to future generations through continuous activities.

Environmental Action Policy

1. Prevent global warming by promoting energy-saving in all business activities and use resource efficiently by implementing the 3Rs (Reduce, Reuse, and Recycle).
2. Provide products with less environmental load by planning, researching, developing, procuring, and manufacturing with environmental influences in mind.
3. Contribute to countries and regions by modifying environmental conservation activities to suit local conditions wherever JUKI does business as a global company.
4. Observe environmental laws and other agreed requirements, and prevent environmental pollution.
5. Actively disclose environmental information.
6. Raise “awareness of ecological problems” among employees through educational campaigns.



JUKI's ESG

Approach to “E” (the Environment)

JUKI ECO PRODUCTS

Approach to (JUKI green procurement)



ECO PRODUCTS(2018)

JUKI makes products that behave in eco-friendly ways throughout their whole life cycles. The company evaluates 38 environmental criteria in the development phase with a view to improving the operability and maintenance of its products, heightening product performance, saving electric power or energy, and more. A product that achieves eco-friendliness at a high level is recognized as a “JUKI ECO PRODUCT.”

Industrial Sewing Machines



MS-1261A/DWS

High-speed, Feed-off-the-arm, 3-needle double chain stitch sewing system



Reduced noise and vibration



AMS-221F

Computer-controlled Cycle Machine with Input Function



A 12.2% reduction in power consumption *per basic performance



PLC-2700V-7 series

Semi-dry Direct-drive, Post bed, Unison Feed, Lockstitch sewing system



A 24.72% reduction in power consumption *per basic performance

Household Sewing Machines



HZL-NX7

Computerized Long Arm High-performance Sewing Machine



A reduction of about 7% in the numbers of parts

Electronic Assembly Systems



JM-100

Multi task platform



A 32.5% reduction in power consumption *per basic performance



RV-2-3DH

3D PWB Visual Inspection Machine

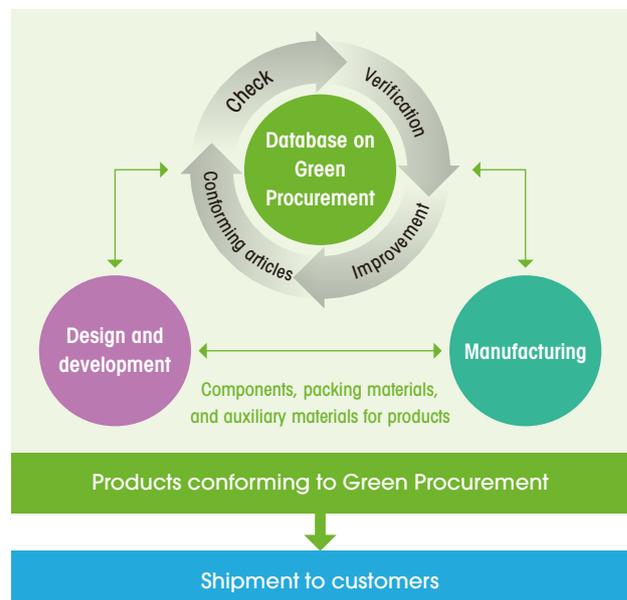


Parts sharing ratio

Green procurement

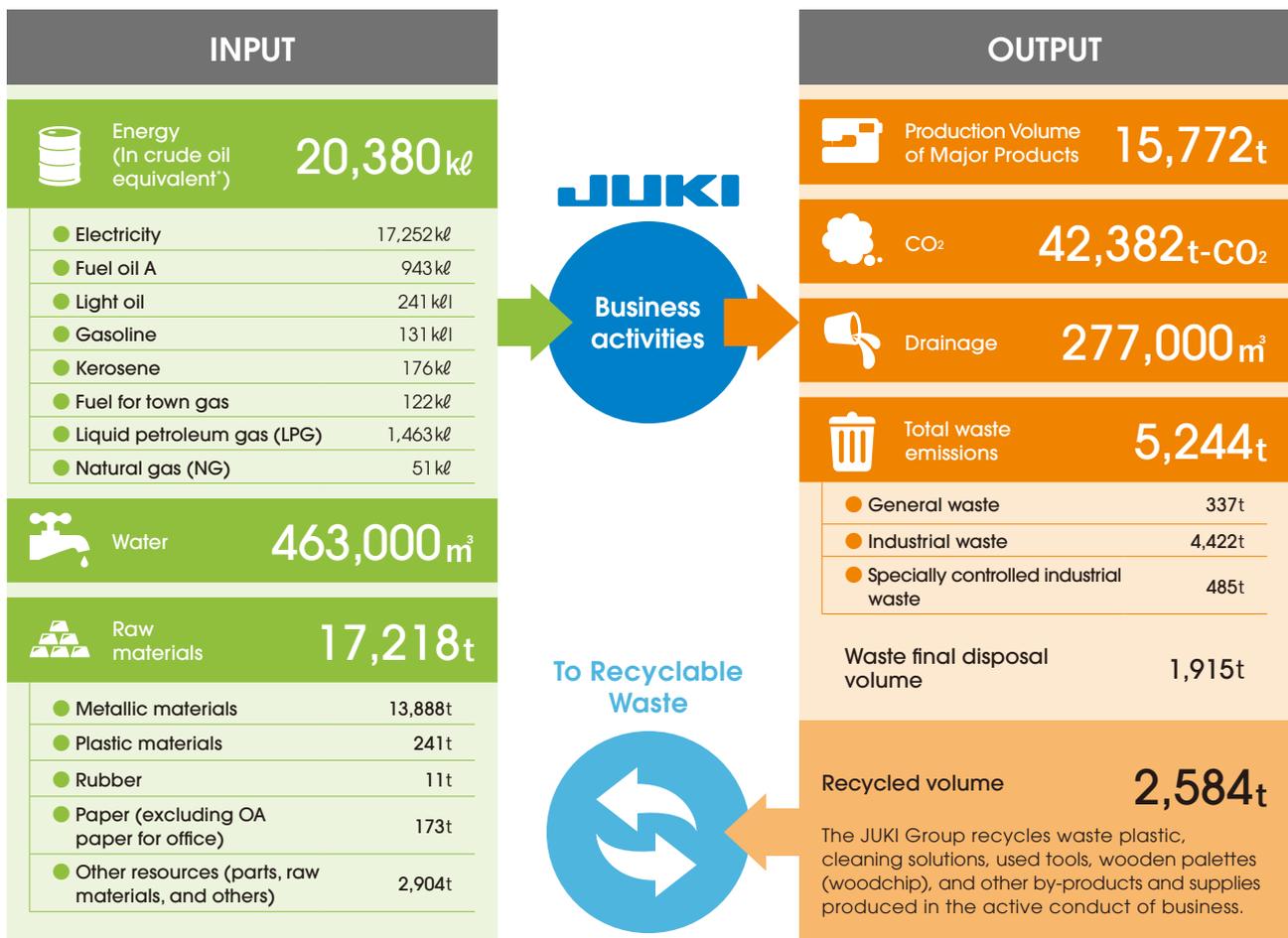
JUKI Group has been working on the earth-conscious environmental preservation activities based on the “ECO MIND Declaration” together with its suppliers. Since 2011, the Group has adopted the industry standard JAMP AIS investigation tool for material management in its supply chain and has been developing environmental preservation activities in its bases in Japan and overseas. The Group is preventing the unexpected contamination by analyzing hazardous chemical substances when parts and materials are delivered to its manufacturing bases. We enacted the first edition of the “JUKI Group Green Procurement Activity Guideline” in August 2004 and issued a revised 8th edition of the Guideline with various legal revisions, etc. in 2016. The revisions in the 8th edition reviews control criteria adapted to the spread of substances with growing influences on the environment worldwide and clarifies the evaluation criteria for the building and practical use of suppliers’ environmental management systems.

* “Green procurement guideline” is being introduced on the JUKI Website.



Management of environmental goals in business activities

JUKI products are still manufactured using abundant energy and resources, including precious resources for parts and materials. As an energy and resource consumer, the JUKI Group is determined to clarify the environmental load of its business activities and improve its environmental performance.



- **Electricity:** the electric power used in the factories and offices.
- **Fuel oil A:** used for operating equipment such as drying furnaces at painting facilities.
- **Light oil:** the fuel for trucks.
- **Gasoline:** the fuel for company-owned cars.
- **Kerosene:** the fuel for warm-air heating.
- **Fuel for town gas:** hot-water supply, cooking, heating, and air-conditioning
- **Liquid petroleum gas:** the fuel for regular-use electricity generators.
- **Natural gas:** fuel for cooking in kitchens or supplying hot water.
- **Metallic materials, plastic materials, and rubber:** materials for parts.
- **Paper:** cardboard for transporting and packing products and preventing the collapse of cargo and denting of products in the manufacturing processes.

- **CO₂:** generated by the use of electricity and fuel.
- **General waste:** all waste discharged from homes and enterprises except industrial waste. Includes garbage from kitchens and other garbage discharged in business activities.
- **Industrial waste:** twenty kinds of waste set up by laws, rules, and regulations, among the wastes generated by business activities by entities such as factories. Includes abolished sand used for molds, pallets (made from wood pellets), cutting oil, and prototype machines for experiments and research.
- **Specially controlled industrial waste:** highly explosive, toxic, and infectious waste that may cause suffering to human health and the living environment. Especially strict management is crucial. The waste includes PCBs and the like contained in old condensers and other components.
- **Final disposal:** disposal of garbage at reclaimed disposal sites.
- **Recycle:** effective use of resources by recycling.

These figures summarize Fiscal Year 2018 data gathered from JUKI and its manufacturing group companies in Japan and overseas.

* Crude oil equivalent: Conversion volume to crude oil using the heating value, for comparisons among different energy volumes using a common measure

Approach to “E” (the Environment)

Examples of group company approaches to the environment

Reduced CO₂ emission from production activities at the Ohtawara plant

JUKI Corporation Ohtawara plant has been pursuing reductions in gross CO₂ gross emissions using a green certificate system since November, 2018. Under this system, the plant is able to receive electricity generated by natural wind energy in exchange for “green certificates.” Our Ohtawara plant received 840,000 kWh of wind power in 2018. Through the use of this wind power, the plant reduced its CO₂ emissions by 398 t, or about 10% of its gross CO₂ emissions for the year.



Reduced CO₂ emission from production activities by JUKI (Shanghai) Industrial CO., LTD.

To reduce CO₂ emissions associated with increased production volume, JUKI (Shanghai) Industrial CO., LTD. used an EPC service in October 2018 and replaced five of its compressors in the plant. A new inverter compressor (200kW) installed as replacement of five compressors (295kW total) reduced CO₂ emissions by 383t. The company reduces CO₂ emissions by another 16t for the year by using residual heat from one of the compressors to warm the shower water for employees.

* EPC stands for Energy Performance Contracting.
A contract for receiving services with a view to saving energy

Before improvement



Five fixed-frequency compressors (295kW total)



After improvement

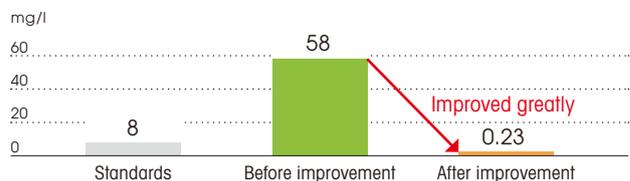


An inverter compressor (200kW) 1 unit for recovering residual heat → 2 units of tanks for keeping warm

Management of harmful chemical substances by JUKI (Vietnam) CO., LTD.

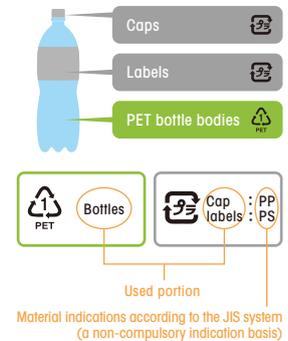
JUKI (Vietnam) CO., LTD. creates standard operating procedures for an analyzer to improve its ability to manage harmful chemical substances and build a structure for educating the members of all of the related departments on chemical substance management. The company concludes contracts with vendors for the delivery of parts free of harmful chemical substances with a view to strengthening chemical substance management capability. As one approach, the company improved a method for processing the phosphorus component (P) in drainage water generated by a parts processing process before painting. This method reduced the phosphorus component from 58 (mg/l), a level far in excess of the standard, to only 0.23 (mg/l), a level well within the standard.

Phosphorus component (P) (mg/l)



Resource-saving by JUKI Aizu Corporation

JUKI Aizu Corporation takes in JUKI employees from group companies in countries such as Vietnam to educate them about the waste separation practices in Japan. Overseas workers who come to Japan often find it difficult to separate waste by the complicated Japanese rules. The different components of a PET bottle, for example, must be separated and discarded separately, as shown in the figure. Similarly, a laundry detergent container composed of a material resembling PET is in fact classified as other wastes and discarded separately. The company instills a resource-saving mindset in overseas workers through education.



Emissions reduction campaign by JUKI XINXING Industry CO., LTD.

JUKI XINXING Industrial CO., LTD. outsources the removal and discharge of polluted water and mud from its plants to an outside professional while reviewing the discharge methods the professional employs. The heavy weight of the polluted water and mud pushes the disposal charges to very high levels. As a measure for improvement, the company decided to spread the polluted mud over shelf boards and let them dry naturally in fan-circulated air when the temperature is low. This proposed method for improvement reduced the average monthly mud emissions by 10%, from 3,654kg before drying to 3,289kg after drying. The total mud emissions for the whole year were reduced by 3,987kg, leading to a 24,000 RMB reduction in disposal charges.

Before improvement



After improvement



Campaign to streamline electricity use at the JUKI Head Office building

The JUKI Head Office building received a top award for its achievement in effectively using electric power and promoting energy-saving in fiscal year 2018. The award was bestowed by the Kanto branch office of the Japan Electric Association, an organization affiliated with the Ministry of Economy, Trade and Industry. Seven companies were chosen as top achievers in electricity rationalization, including the JUKI Head Office building. Seven companies including the Head Office building were nominated for the award by the Tama branch office, an energy partner of Tokyo Electric Power Co., Ltd., based on a screening of 12,000 factory and business office candidates for the award in the Tama district. We reduced CO2 emissions in JUKI Head Office building by 15% on a year-to-year basis.

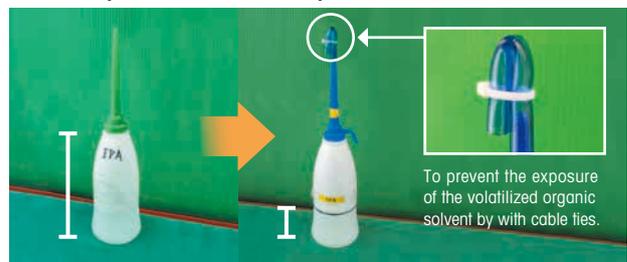


Employees who have contributed to energy saving

Improvement of chemical substance management by JUKI Industrial Equipment Technology Corporation

JUKI Industrial Equipment Technology Corporation periodically receives safety and health guidance from the Labor Standards Supervision Office and finds ways to reduce the amounts of organic solvents brought into and consumed by its facilities and prevent human exposure to solvents resulting from volatilization. When bringing organic solvent into a process, the company marks the half-full position (200ml) of a 400ml-capacity dedicated solvent container to reduce the amount by half. The company also seals the containers with cable ties to prevent volatilization on the container and has devised a method to protect humans against exposure to the volatilized organic solvent.

Before improvement After improvement



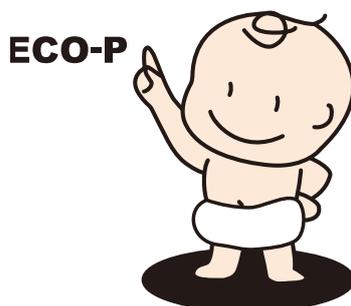
A container almost filled up to the 400ml level

Reducing the amount brought into a process by marking the half-full position on the container (200 ml)

To prevent the exposure of the volatilized organic solvent by with cable ties.

In-house call for entries to the "Environment Slogan" contest

JUKI held an in-house call for entries to its "Environment Slogan" contest in June, the Environment Month, to enhance the environmental awareness of its employees. As part of our environmental practice, workers at our head office, our Ohtawara plant, and our domestic group companies submitted a total of 1,693 slogans on environmental themes. Many themes focused on operational efficiency through workstyle reforms and reductions in environmental loads and workstyle reforms. The number of entries submitted for the year was significantly higher than the 1,215 slogans submitted the year before. The authors of the most excellent of the 1,693 entries were awarded prizes. The winning slogans were posted on the walls of our head office and domestic group companies. Our activities will be expanded to overseas group companies in the future.



最優秀賞

『技術』で攻めて『環境』守る
JUKIの『未来』は地球と共に

JUKI産機テクノロジー(株) スマートソリューション部 佐藤 祐太

優秀賞

小さな改善積み重ね 地球と企業に繋げる未来 一人ひとりが責任者

JUKI(株) 大田原工場品質保証課 菊池 高弘

好奇心こそ技術の源、エコを見つめて イノベーション

JUKI(株) 総務部 柳堂 雄秀

お客様・地球に優しく効率化 世界に増やそう JUKIファン

JUKI(株) 総務部 加藤 恵子

いつも心に ECOMIND 地球に選ばれるソリューションパートナー

JUKI 広島(株) 総務部 森島 まゆみ



Approach to “S” (Society)

Relationship with society

JUKI undertakes activities to build good relationships with community members in every country we serve as a global company. Some of the activities we undertake help us answer requests from society and meet social expectations as a good corporate citizen.

Donating sewing machines to elementary schools in Niigata-ken

In commemoration of the 100th anniversary of the founding of Suzutami Precision Industry Co., Ltd. (a group company), and as a gesture of thanks to the locals living around that company, we donated five “HZL-G100B” JUKI household sewing machines to each of three public schools in the neighborhood (Okouzu elementary school, Teradomari elementary school, and Teradomari junior high school). Each of the schools received a full explanation of the operation and functions of the machines to convey to their students in class.



Donating five sewing machines to Nagaoka municipal Teradomari elementary school on June 27, 2018

Cleanup campaign around our head office

Starting from 8:00 a.m. on May 30, a designated “zero trash day,” 38 staff volunteers participated in a 30-minute cleanup activity around the Kotta river and our head office. This campaign has lasted for 10 years in cooperation with five companies in the neighborhood. We will continue this activity and others to create a beautiful environment around our workplace.



Collecting an abundance of cigarette butts, empty cans, plastic bottles, and other forms of trash

Participating in a local disaster prevention campaign

To preemptively minimize damage caused by fires and earthquakes, our company organizes a “self-defense firefighter” team of mainly young employees and sends them out to engage in safety activities in cooperation with the locals. Our company’s firefighters take part in a contest operating firefighting equipment with other companies in Tama City every year to test the skills they have developed through everyday training. Our team of female firefighters won first prize in the contest in fiscal year 2018. Our male team came in third place.



Self-defense firefighters in fiscal 2018

Supporting elementary school field trips

In 2018, students from two schools in Tama-shi visited our head office at Tama-shi, and two schools in Yokote-shi visited JUKI Industrial Equipment Technology Corporation in Akita-ken on field trips to “see, experience, and learn.” The students learned about work styles and manufacturing processes through tours to various types of facilities in companies and machinery in industry, and hands-on sewing.



A tour to our head office at Tama-shi A tour to JUKI Industrial Equipment Technology Corporation in Akita-ken

Contributing to locals through “parent-and-child sewing classes”

We held our 12th annual parent-and-child sewing classes on two days, July 27 (Friday) and August 18 (Saturday). A total of 120 people (60 pairs) took part, about double the number last year.

To act on our desire to give back to our community, we celebrated the 80th anniversary of JUKI’s establishment by recruiting more class participants compared to earlier years and offering incentives such as waivers of class fees, the presentation of gifts, and scheduling of the class on Saturdays. The class sessions were fully booked in less than a week after the invitations were sent out.



Participants in the morning session on July 27

Supporting the class using expert knowledge and facilities

We opened up our showroom at the request of vocational schools offering classes in dressmaking and ornamental sewing. In total, 310 students from seven schools came to our office in 2018. We introduced our sewing machines dedicated to different sewing processes, the craft of stitching, and information about the global sewing industry while giving demonstrations with our industrial and household sewing machines.



A tour by Tokyo Kasei Gakuin University

Relationship with employees

The JUKI Group aims to become a global company that gives "employment and growth" opportunities to individuals regardless of their nationality, race, gender, or age. We make efforts toward business development and the improvement of employee satisfaction through an education system that enables various human resources to play active roles and create pleasant working environments both in Japan and overseas.

Holding the workshop intended for young employees at extended workplaces

Last year we changed the workshop's name from "a workshop for paper presentations by technically oriented employees in their third year after joining the company" to "a workshop for presentations by young employees" to expand the scope by accepting presentations in non-technical areas such as administration, sales, and manufacturing. Thirty-seven employees, including young technically oriented employees in China and Vietnam, gave presentations.



Presentation by young employees working at the "administration workplace" added this year (held on May 9-10 in 2019)

We will bring up employees who forge the future JUKI by having them report on what they have learned through education and training in their first three years at JUKI.

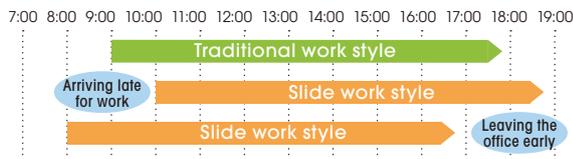
Adopting a new work system

We adopted a sliding work system in January 2019 as a new diversified workstyle employees are free to select.

Under this system, an employee can shift the starting and finishing times of his or her workday forward or back without adjusting the total number of hours worked. The system was introduced as a means of maintaining work-life balance, eliminating work processes dependent on the skills of any one individual, and reducing overtime work. The system was implemented after it was proposed in a workstyle reform campaign centered on young employees.

Slide work system

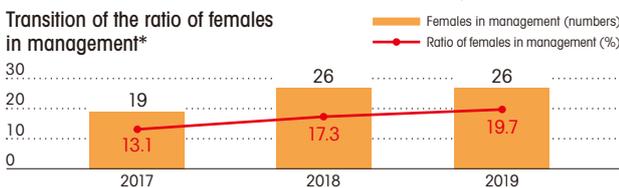
A system enabling an employee to shift his or her starting and finishing times forward or back by submitting an application in advance
The prescribed working hours (7 hours and 45 minutes at our head office) remains unchanged.



Promoting diversity

We capitalize on the individual differences of employees and accept various human resources to promote diversity management regardless of an employee's gender, age, nationality, etc. We aim to maximize organizational performance through a three-pillared approach: "promote the success of female employees," "arrange human resources globally," and "promote outstanding performance by hired and contract employees."

Female manager ratio 2016 **4.3%** → 2020 (target) **10%**



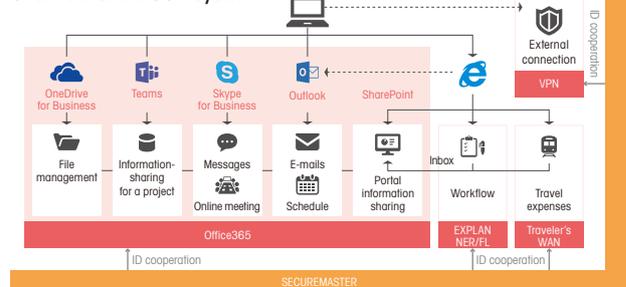
* Female in management: Assistant/Chief (assistant manager), sub-chief, senior staff member

Adopting an information system to promote information-sharing globally throughout the group

The information system previously used by our head office and group companies, a system that achieved only partially optimized information management, is now replaced by the "JUKI Global Platform (JGP)," an information tool common to all JUKI group companies.

We will adopt the latest IT technology to promote seamless cooperation in streamlining operations and reinforcing information security.

Overview of the JGP system



Deploying the information system to the whole of JUKI Group after adopting it to our head office in September 2018

Declaring "Healthy Management" in September 2017 Acquiring certification as a "Corporation with Outstanding Performance in Health Management 2019" (White 500)

We have been certified as "a corporation that addresses the healthcare of its employees from a managerial viewpoint" for three consecutive years since 2017, the year the certification system was introduced. We have developed a vegefirst campaign, commended workplaces and employees by awarding merit points based on health indicators, and commended workplaces for their work in promoting healthy and vibrant practices.

Holding the JGQMF

The JUKI "JGQMF2018" forum was held in November with a view to educating our employees about quality-oriented management and workstyle reforms.

In the first session, participants attended a lecture entitled "Quality-oriented Management in our Approach to Becoming a Century-old Company." In the second session, selected group company employees gave presentations on five top-down themes and four QC circle themes expected to be helpful in expanding the presenters' outstanding activities horizontally throughout the whole company. About 500 employees attended.



Presentation delivered at the JGQMF in November 2018

* JGQMF stands for the JUKI GLOBAL QUALITY MANAGEMENT FORUM.

Approach to “S” (Society)

Relationship with a group company

(Approach to quality-oriented management)

JUKI will be taking steps to refine and sophisticate its management system throughout the group. The company will be extensively reinforcing its management structure by strengthening its practices in quality assurance, auditing, and operations management at JUKI’s head office, domestic factories, and domestic and overseas group companies while establishing the “Five Articles of Quality” as a common theme. As part of the effort, JUKI has renamed the Quality Assurance Department of JUKI Corporation to the “Group Quality Assurance Department” and begun to deploy its quality assurance system in close cooperation with the companies of the Group.

JUKI will be making the following improvements to promote quality assurance activities by eliminating weaknesses in group company cooperation and solving other problems that block customer-first quality assurance.

Points to inspect

1. Confirm the actual goods without taking for granted.
2. Treasure new findings.
3. Narrow down quality problems after fact-checking in the assumed worst-case scenario.

Contents to address

JUKI will create a system that mobilizes group companies into action to clear quality defects quickly and completely.

- Holding a meeting in which all group manufacturing companies take part
- Making sure that JUKI’s quality management improvement activities are performed by people who have been stationed in group manufacturing companies for a long time

Supervising manufacturing processes handled by two or more group manufacturing companies cooperatively

- Auditing a quality control campaign based on ISO9001 and the QMS (Quality Management System) operated by a group company

Establishing the “Five Articles of Quality”

Many of the quality problems arising in Japanese companies nowadays are rooted in poor quality awareness. If we allow quality awareness to weaken in key departments such as the quality assurance and manufacturing departments, we run the risk of causing trouble and anxiety for customers. To minimize this risk and raise quality awareness, JUKI has established a set of “Five Articles of Quality.” The Five Articles spread the awareness of “quality,” an essential condition in any manufacturing company, to all of the JUKI group companies once more.

Five-Article Quality Declaration for Safety and Peace of Mind

1. We **comply with laws, rules, and the commitments we make to our customers** when providing our products and services.
2. We **give the highest priority to the customer’s safety and peace of mind** in our work on the quality of our products and services.
3. We rely deeply on **the customer’s voice** to guide **our unceasing efforts towards quality improvement**.
4. We raise quality based on the five-Gen principles* to earn **the customer’s trust** and grow our business.
5. We contribute to **the sustainable development of society** by improving the quality of our products and services.

*The five-Gen principles:
Genba, Genbutsu, Genjitsu,
+ Genri, Gensoku

March 8, 2019
Group Quality Assurance Department
Corporate Planning Department



TOPICS

Holding a regular “group quality meeting”

The Group Quality Assurance Department holds a group quality meeting at one of its sites (one of the group manufacturing companies) periodically. As a theme, the department takes up the horizontal deployment of cases demonstrating the rapid solving of a quality problem or avoidance of a quality problem altogether. The department initiates discussion on prevention activities, case presentations, recent quality troubles, and remaining problems to be addressed in problem-solving plans, and promotes the sharing of outstanding prevention activities for deployment horizontally throughout the Group. Through these actions, the department helps group companies address quality problems that cannot be resolved by the actions of any single operational base.



Relationship with suppliers

The JUKI Group strives to improve technological capacities together with suppliers in a bid to achieve mutual harmony and benefit. The Group also strengthens communication with suppliers through briefings and workshops.

Holding a new-year's party for JUKI Cooperation Club members

JUKI held a New Year's party for members of the JUKI Cooperation Club. One hundred and fifty people from 123 companies participated, including club members, ordinary suppliers, and the customers of JUKI group businesses. The New Year's party was held as "A Meeting of Thanks" for customers in commemoration of the 80th anniversary of JUKI's establishment. Our President Kiyohara, executives, and employees expressed deep gratitude to JUKI's suppliers and celebrated with them to form further friendships and bonds.



(Center) JUKI Corporation, President Kiyohara

A "Workshop" and "Awards Ceremony" for the JUKI Cooperation Club

JUKI held a workshop for the materials suppliers in the JUKI Cooperation Club. Ninety-one member companies (96 people) participated. The workshop began with a factory tour of the Ohtawara Plant and JUKI History Museum on the plant grounds. Satoshi Hama, an executive officer, presented a video and talk on "Proposing JUKI Smart Factory Solutions to SMT Factories." Workshop participants praised the Ohtawara plant's concrete approach to smart factories and updated case examples of smart factories from the work done by our Electronic Assembly Systems Business Unit. Two award ceremonies were held after the workshop. In the first, President Kiyohara presented six companies with award plaques for their distinguished contributions to QCD. In the second, Senior Managing Director Uchinashi presented Quality Guaranteed Delivery Certificates to 53 companies.



Relationship with shareholders and investors

The JUKI Group will improve its management transparency through correct and timely information disclosure to shareholders and investors. The JUKI Group also endeavors to respond to shareholder and investor expectations by keeping track of their opinions.

General Meeting of Shareholders

JUKI holds an Ordinary Shareholders' Meeting every March. To ensure that more people attend, it schedules the event on days when few other companies hold shareholders' meetings of their own. On March 27, 2019, JUKI held the "104th Ordinary Shareholders' meeting" at its head office. A large gathering of shareholders attended. The company also organized a customary tour for attending shareholders after the meeting to show them JUKI's core products. The shareholders asked questions with keen interest. The General Meeting of Shareholders was fruitful. JUKI is making an ongoing effort to reflect its shareholders' opinions on JUKI's future approaches and respond to shareholder expectations.



Briefing on IR results

JUKI has worked actively to develop appropriate information disclosure practices and promote understanding through communications with shareholders and investors. As one activity, briefings on JUKI's performance are held twice a year for institutional investors. JUKI held a briefing at Japan Investor Relations and Investor Support, Inc. (Nihonbashi, Chuo-ku) on February 14, 2019 to present an "outline of achievements for the fiscal year ended December 31, 2018 and business forecast ending December 31, 2019" and JUKI's "approach toward the Medium-Term Management Plan - Value up 2022 - (fiscal 2019 to 2021) and priority policies." JUKI tries to engage in proactive dialogue by responding to inquiries from individual shareholders and specific questions from securities analysts, fund managers, and the like.

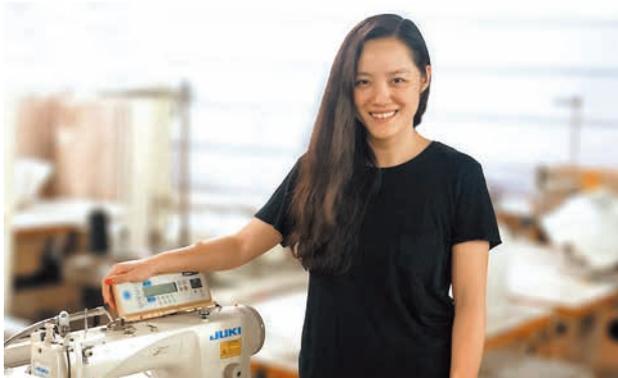


Approach to “S” (Society)

Relationship with customers

JUKI is working to enhance its support system for listening directly to the voice of the customer. JUKI continues to provide products and services that satisfy customers by increasing contact points with customers.

Industrial Sewing Machines



Hempel International Group Co., Ltd.

<http://www.hempelgroup.com/>

President
Nancy Gaomin

The approximately 6,000 employees in our company sew luxury ladies' wear for customers in markets all over the world.

Our keywords are (1) Quality first, (2) Quick Response, (3) Innovation, and (4) Social Responsibility. All of our employees engage in high-quality manufacturing by giving “quality” first priority. To achieve high-quality manufacturing, we define confident leadership, a complete understanding of the specifications and standards in every process, and prompt supply of materials as the core preconditions for factory management. We devote ourselves to following processes and supervise them with strict attention.

We have maintained a steady relationship with JUKI since we were established in 1992. So far we have purchased more than 10,000 JUKI sewing machines, or about 98% of the machines we own. JUKI products satisfy our high technical requirements and policy of pursuing high quality. We are also satisfied with JUKI's timely technical service and high production efficiency.

We expect that JUKI will cooperate in a smart factory and a platform we are building. We would like to succeed in growing up together with JUKI and further deepening our win-win relationship.

“Our “high-quality-first” philosophy is also applied to JUKI sewing machines.”



All of the employees in our company strive to achieve a higher awareness of quality, intoning a mantra we describe as “The Three Nevers”: “Never accept a defective product,” “Never manufacture a defective product, and “Never ship out a defective product.”

Household Sewing Machines



Pattern label

<http://www.pattern-label.com/>

Yuki Katagai

I had an interest in fashion and got a job in an apparel company. My experiences as a patternmaker and designer began by watching my mother work as dressmaker when I was a child. I began home sewing after I left the company, had a son, and decided to sew him a pair of denim pants. Now I sell patterns online, hold workshops, and write how-to books on sewing children's clothing.

I produce ladies' wear, menswear, children's wear, and bags. I now specialize in ready-made clothing and carefully finish all of the portions that can be seen from the outside. I also strive to bring out the “functional beauty” and “user-friendliness” of a sewing machine and cultivate production techniques I can share in my workshop.

I have always used sewing machines as a robust tool to produce garments in a short time. Now I work extensively with tailor-use sewing machines capable of sewing light to heavy-weight materials beautifully, with the same high quality and user-friendliness of all JUKI products. I think of my JUKI machines as irreplaceable partners.

I am now running workshops together with my husband and staff at my atelier. The joy I can share with our many workshop participants is endlessly rewarding. I would like to continue staging exciting events that we cannot put together alone, in collaboration with JUKI.

“My favorite JUKI sewing machines are the models designed to sew light to heavy-weight materials.”



“Pattern Label,” a book of original patterns sold online with support from Yuki-san is very popular in sewing circles all over Japan. Yuki-san also published a popular how-to book on producing children's wear. About 200,000 copies have been sold so far.

Electronic Assembly Systems



Nidec Appliance Controls (Qingdao) Co., Ltd.

<http://www.embraco.com.cn/>

**Project manager
Zhu Xiaotuan**

Our company is a manufacturing compressors for freezing systems. We produce up to 37 million product units a year for sale and use in more than 80 countries.

Our Qingdao factory was established in 2007 and now employs a workforce of about 400. We make products every day with a firm dedication to high-efficiency production, high-level quality control, and strict adherence to delivery times as a factory manufacturing printed circuit boards, a linchpin component of EMBRACO products.

Four to five years ago our factory suffered a labor shortage just when other companies in our group were requesting that we further improve productivity. We then decided to adopt JUKI's odd-shaped component insertion machine to automate an insertion process formerly performed by hand.

This new equipment marked a major turning point for our production, reducing manpower by 70% in the insertion process and reducing the quality variation caused by humans.

We also improved the takt-time on the product line by 15% and saved 10% of the space in our factory. JUKI has provided us with various other useful services and supports since we adopted the equipment.

We expect JUKI to develop faster and more flexible equipment going forward. We would like JUKI to continue deepening its cooperative relationship with our company and supporting our production.

“All we need is generous support added to versatile and stable equipment.”



Our building

Our production site

Group Business



AIMECHATEC, Ltd.

https://www.ai-mech.com/wp_en/

**Senior Engineer, Manufacturing Department,
Manufacturing and Quality Division
Daisuke Hotta**

Our company develops and manufactures equipment to produce “flat-panel displays” used in wide-ranging products. Massive equipment weighing upwards of 60 tons, one of our product line-ups, processes parts with a micron-level of precision. Our company was split off from Hitachi, Ltd. in July 2016 as the newly born AIMECHATEC, Ltd.

The “AI” in our company name stands for Advanced and Innovative Technology. “Ai” in Japanese also means “love.” When written out in English in lower case, “ai,” these letters remind us of the love we have for both to our customers and products. We established a Process Development Center in July 2018 and continue to pursue further technical innovations and an expanded business domain.

Our outsourcing to the JUKI Ohtawara plant started with frame processing and has since expanded to the assembly of units. After training for about a month at our company, engineers from the JUKI Ohtawara plant built a jig and created a standard operation manual to improve the processes and ensure that everyone would perform high-quality assembly. I think that the certainty of JUKI's manufacturing capacity, together with JUKI's stoic determination to constantly find ways to improve no matter how well things are already working, enables JUKI to respond to the QCD we pursue. We expect that the collective strength of JUKI's production technology and quality assurance at the Ohtawara plant will help drive our next big leap to become a global company that pursues “Monozukuri” as uncompromisingly as JUKI does.

“We have the utmost confidence in JUKI's ability as a manufacturing company dedicated to the pursuit of “the world's best performance and quality.””



Process Development Center

High-precision Inkjet equipment

Approach to “G” (Governance)

JUKI Group’s corporate governance operation system

The Group continuously endeavors to reinforce its governance system, strengthen compliance, and achieve highly transparent management.

Corporate governance

To secure the health and efficiency of management and respond to the trust of a stakeholder, JUKI regards the suitable maintenance and operation of its corporate governance system as one of the highest priority issues and strives to improve and enrich the corporate governance system.

JUKI also enhances management transparency through the disclosure of timely and accurate information.

JUKI’s board of directors make decisions on statutory matters or important matters of management and successively supervise the status of business execution. JUKI has also introduced a Corporate Officer system to try to facilitate business execution and clarify responsibility.

The number of outside directors was changed to two persons out of six directors in total, in order to boost the management monitoring function for directors and the board of directors and strengthen the company’s system to actively incorporate external voices in management.

A Corporate Strategy Committee has also been organized under the Board of Directors. The Directors, Corporate Officers and general managers of the departments in charge attend the meetings of the Committee and discuss basic management policies, strategies, etc. of the business group consisting of our company and group companies from various angles to enable more appropriate decision-making and operations.

A Risk Management Conference and Crisis Management Task Force have been set up as core parts of the risk management system.

An Internal Auditing Department has been set up as an organization for internal audits and has audited the business operations of all of JUKI’s departments and each group company. The members of the Audit & Supervisory Board perform audits in accordance with the audit policy and work divisions set by the board, in cooperation with the Group Internal Auditing Department and accounting auditors. A Corporate Auditors Section has been established as an organization to assist the Audit & Supervisory Board Members.

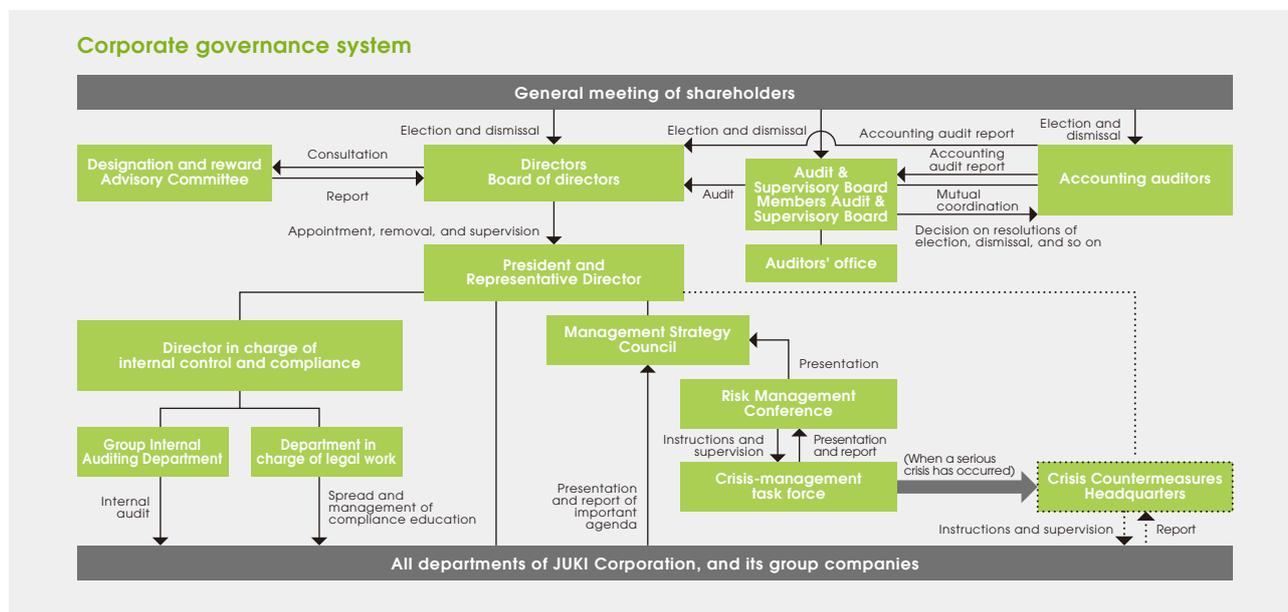
Compliance

The JUKI Group positions compliance as a management foundation important for maintaining the Group’s status as a business group that is widely trusted by customers and all of society and offers enough value to society to merit its existence. Corporate officers and employees of the group are asked to thoroughly behave in compliance with “The JUKI Group Employees’ Standards of Conduct - 10 Articles” and to understand its explanations on legal compliance and common-sense behavior. JUKI and its group companies have a system for consulting with employees or answering their questions quickly at Compliance Helpline. The companies of the Group also manage important risks related to compliance at the Risk Management Conference.

Risk management

The JUKI Group has set up a Risk Management Conference as a core part of its risk management system. The Risk Management Conference manages company-wide risks and important risks and directs the parties concerned to take remediation measures for risk reduction. The Group also sets up crisis-management task forces before and after crises (exteriorization of the risk) such as natural disasters, fires, explosions, and PL (product liability) incidents, and has a system to examine and execute its response measures.

When a serious crisis has occurred, a “Crisis Countermeasures Headquarters” is set up to take quick countermeasures.



Directors, Audit & Supervisory Board Members and Corporate officers

(as of April 1, 2019)

Directors



Akira Kiyohara

President and Representative Director and President and Representative Director of JUKI Automation Systems Corporation



Shinsuke Uchinashi

Director and Senior Managing Officer "in charge of the Global Cooperate Center (Finance & Accounting Department)" and "in charge of the Business Center (Group Business Company)" and "in charge of the Production Center"



Toshimasa Miura

Director and Managing Officer "in charge of the Global Cooperate Center (Human Resources Department, General Affairs Department)"; "in charge of the Secretary's office"; "in charge of the Group Internal Auditing Department"; "in charge of the Group Quality Assurance Department"; "in charge of Internal Control & Compliance"



Takeshige Hamasoto

Director and Managing Officer "in charge of the Business Center (Sewing Machinery & Systems Business Unit); General Manager of the Sewing Machinery & Systems Business Unit; "in charge of the Business Center (Customer Support Business Company)"



Kazumi Nagasaki

Director (Outside) (Independent Director)



Yutaka Hori

Director (Outside) (Independent Director)

Audit & Supervisory Board Members



Masahiko Suzuki

Audit & Supervisory Board Member (Full-time)



Masato Tanaka

Audit & Supervisory Board Member (Outside)



Yasuaki Isobe

Audit & Supervisory Board Member (Outside) (Independent Director)

Managing Officers



Hirofumi Gotoh
Managing Officer



Yutaka Abe
Managing Officer



Jirou Ishibashi
Managing Officer



Katsumi Nihei
Corporate Officer



Satohiro Hama
Corporate Officer



Hiroki Konishi
Corporate Officer



Minoru Nitta
Corporate Officer



Kiyoshi Matsumoto
Corporate Officer



Kunio Nukui
Corporate Officer



Kenji Nakao
Corporate Officer



Takashi Nittou
Corporate Officer



Hiroshi Anzai
Corporate Officer

Corporate Officers

Financial data

Major financial data for two years (Consolidated)

(million yen)

	FY2017 FY ended December 31, 2017	FY2018 FY ended December 31, 2018
Profit or loss situation (Fiscal year)		
Net sales	103,659	112,064
(Ratio of overseas sales to net sales)	83.3%	84.7%
Gross profit	31,911	34,143
Operating income	8,156	9,148
Ordinary income	7,839	8,385
Profit attributable to owners of parent	5,642	6,640
Capital expenditure	2,312	2,721
Depreciation	2,343	2,525
R&D expenses	4,781	5,675
Financial position (End of the fiscal year)		
Total assets	110,554	119,121
Net assets	33,343	37,241
Shareholders' equity	32,726	36,529
Financial index		
Equity ratio	29.6%	30.7%
Return on equity (ROE)	18.9%	19.2%
Cash flow situation (Fiscal year)		
Cash flows from operating activities	10,488	2,682
Cash flows from investing activities	△ 1,756	△ 2,390
Free cash flows	8,732	292
Cash flows from financing activities	△ 10,373	967
Per share information		
Earnings per share (EPS)	192.61 yen	226.68 yen
Dividend per share (DPS)	35 yen	30 yen
Book-value per share (BPS)	1,117.07 yen	1,246.93 yen
Non-financial data		
Number of employees	5,899	5,891
Ratio of overseas employees to total employees	58.2%	57.8%

Consolidated balance sheet

(million yen)

	FY2017 FY ended December 31, 2017	FY2018 FY ended December 31, 2018
Assets		
Current assets		
Cash and deposits	6,407	7,324
Notes and accounts receivable - trade	32,398	33,465
Merchandise and finished goods	25,542	28,885
Work in process	4,062	4,796
Raw materials and supplies	7,048	9,835
Deferred tax assets	1,116	1,314
Other	2,925	2,825
Allowance for doubtful accounts	△ 397	△ 387
Total current assets	79,102	88,059
Non-current assets		
Property, plant and equipment		
Buildings and structures, net	12,452	11,890
Machinery, equipment and vehicles, net	3,211	3,411
Tools, furniture and fixtures, net	1,044	1,053
Land	6,459	6,362
Lease assets, net	338	315
Construction in progress	38	107
Total property, plant and equipment	23,545	23,141
Intangible assets	1,672	1,992
Investments and other assets		
Investment securities	3,225	2,563
Long-term loans receivable	2	0
Long-term prepaid expenses	248	260
Deferred tax assets	887	1,195
Net defined benefit asset	1,171	1,303
Other	2,311	2,007
Allowance for doubtful accounts	△ 1,612	△ 1,402
Total investments and other assets	6,234	5,928
Total non-current assets	31,451	31,062
Total assets	110,554	119,121

(million yen)

	FY2017 FY ended December 31, 2017	FY2018 FY ended December 31, 2018
Liabilities		
Current liabilities		
Notes and accounts payable - trade	10,028	11,145
Electronically recorded obligations-operating	4,020	5,140
Short-term loans payable	34,548	35,901
Lease obligations	98	101
Account payable - other	1,132	740
Accrued expenses	3,537	3,557
Income taxes payable	666	1,115
Provision for bonuses	16	38
Notes payable - facilities	164	191
Forward exchange contract	242	—
Other	1,132	1,336
Total current liabilities	55,589	59,267
Non-current liabilities		
Long-term loans payable	15,668	16,153
Lease obligations	237	223
Provision for directors' retirement benefits	61	68
Net defined benefit liability	5,207	5,582
Other	446	584
Total non-current liabilities	21,621	22,612
Total liabilities	77,211	81,880
Net assets		
Shareholders' equity		
Capital stock	18,044	18,044
Capital surplus	2,035	2,035
Retained earnings	13,994	19,610
Treasury shares	△ 606	△ 607
Total shareholders' equity	33,468	39,082
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	1,016	458
Foreign currency translation adjustment	△ 1,966	△ 2,973
Remeasurements of defined benefit plans	208	△ 38
Total accumulated other comprehensive income	△ 742	△ 2,552
Non-controlling interests	617	711
Total net assets	33,343	37,241
Total liabilities and net assets	110,554	119,121

Financial data

Consolidated statements of income

	(million yen)	
	FY2017 FY ended December 31, 2017	FY2018 FY ended December 31, 2018
Net sales	103,659	112,064
Cost of sales	71,748	77,921
Gross profit	31,911	34,143
Selling, general and administrative expenses	23,755	24,995
Operating income	8,156	9,148
Non-operating income		
Interest income	62	44
Dividend income	154	157
Commission fee	223	202
Reversal of doubtful allowance for receivables	8	228
Other	392	473
Total non-operating income	840	1,106
Non-operating expenses		
Interest expenses	944	805
Foreign exchange losses	93	980
Other	118	82
Total non-operating expenses	1,157	1,868
Ordinary income	7,839	8,385
Extraordinary income		
Gain on sales of non-current assets	39	17
Total extraordinary income	39	17
Extraordinary losses		
Loss on sales and retirement of non-current assets	47	50
Business reorganization loss	102	—
Other	0	—
Total extraordinary losses	151	50
Income before income taxes and minority interests	7,727	8,353
Income tax - current	1,319	1,749
Income tax - deferred	709	△ 175
Total income taxes	2,029	1,573
Net income	5,697	6,780
Profit attributable to non-controlling interests or loss attributable to non-controlling interests	54	139
Profit attributable to owners of parent	5,642	6,640

Consolidated statements of comprehensive income

	(million yen)	
	FY2017 FY ended December 31, 2017	FY2018 FY ended December 31, 2018
Net income	5,697	6,780
Other comprehensive income		
Valuation difference on available-for-sale securities	177	△ 559
Foreign currency translation adjustment	318	△ 1,028
Re-measurements of defined benefit plans	180	△ 247
Total other comprehensive income	675	△ 1,834
Comprehensive income	6,373	4,945
(Comprehensive income attributable to)		
Comprehensive income attributable to owners of parent	6,307	4,829
Comprehensive income attributable to non-controlling interests	66	115

Consolidated statements of cash flows

(million yen)

	FY2017 FY ended December 31, 2017	FY2018 FY ended December 31, 2018
Cash flows from operating activities		
Income before income taxes and minority interests	7,727	8,353
Depreciation	2,343	2,525
Business reorganization loss	102	—
Increase (Decrease) in allowance for doubtful accounts	△ 13	△ 199
Increase (Decrease) of provision for bonuses	0	21
Increase (Decrease) of net defined benefit liability	44	367
Increase (Decrease) of net defined benefit assets (△ : increase)	△ 19	△ 193
Interest and dividends income	△ 216	△ 201
Interest expenses	944	805
Foreign exchange losses (gains)	△ 199	△ 28
Loss (gain) on sales and retirement of property, plant and equipment and intangible assets	8	32
Decreased (increase) in notes and accounts receivable-trade	△ 1,520	△ 2,153
Decrease (increase) in inventories	1,157	△ 8,035
Increase (Decrease) in notes and accounts payable	3,989	2,515
Increase (Decrease) in notes discounted	△ 50	—
Other, net	△ 1,952	747
Subtotal	12,348	4,557
Interest and dividends income received	211	201
Interest expenses paid	△ 944	△ 805
Income taxes (paid) refund	△ 1,125	△ 1,271
Net cash provided by (used in) operating activities	10,488	2,682
Cash flows from investing activities		
Purchase of property, plant and equipment and intangible assets	△ 2,141	△ 2,633
Proceeds from sales of property, plant and equipment and intangible assets	202	148
Purchases of investment securities	△ 0	△ 1
Collection of loans receivable	78	1
Other, net	105	94
Cash flows from investing activities	△ 1,756	△ 2,390
Cash flows from financing activities		
Net increase (decrease) in short-time loans payable	△ 7,288	2,377
Proceeds from long-term loans payable	8,611	6,754
Repayments of long-term loans payable	△ 10,633	△ 6,928
Purchase of treasury stock	△ 0	△ 0
Cash dividends paid	△ 584	△ 1,022
Repayments of sale and installment back payables	△ 173	△ 32
Others, net	△ 303	△ 179
Net cash provided by (used in) financing activities	△ 10,373	967
Effect of exchange rate change on cash and cash equivalents	83	△ 293
Net increase (decrease) in cash and cash equivalents	△ 1,557	965
Cash and cash equivalents at beginning of period	7,892	6,335
Cash and cash equivalents at end of period	6,335	7,301

Corporate history

We together step toward our globalization “from Japan to 180 countries all over the world.”
We have the backing of a history of innovative products and responding to the needs of customers as a “technology development company” since our establishment in 1938.

1940s

1950s

1960s

1970s

1980s

TOKYO JUKI INDUSTRIAL CO., LTD.

1938
Machinery manufactures in Tokyo invest to form “Tokyo Juki Manufacturers Association.”

1947
The first machine of the Household Sewing Machines is completed. (HA-1)

1953
The company enters the Industrial Sewing Machines market and releases the first machine. (DDW-II)

1957
The company wins the Imperial Invention Award for the invention of a single-axis rotational thread take-up lever.

1961
Manufacture and sale of electronic computer peripherals start.

1964
The company's stock is listed on the First Section of the Tokyo Stock Exchange.

1970
JUKI's first overseas sales company (present JUKI (HONG KONG) LTD.) is founded in Hong Kong.

1972
A sales company (called JUKI (EUROPE) GMBH), a stronghold in Europe is founded in West Germany.

1981
The headquarters of the Industrial Sewing Machines Business wins the Deming Prize (Deming Application Prize for Division).

1987
The company enters a field of SMT (Surface Mount Technology) for an Industrial Equipment Business. The manufacturing and sales of the first machine starts. (KP-350)



1945
The manufacturing of sewing machines is permitted.

1971
The “OHTAWARA PLANT,” a manufacturing plant for the Industrial Sewing Machines is completed in Ohtawara-shi, Tochigi Prefecture.

1974
A sales company (present JUKI AMERICA, INC.) is founded in the U.S.

1982
A branch office of JUKI (HONG KONG) LTD. is founded in Singapore.

1988
The company name is changed to JUKI CORPORATION.



History of household sewing machines

1947
HA-1

1953
rotalix
HW-62B

1959
rotalix
HZ-25

1965
rotalix
HZD-731

1968
Knitting machine with simultaneous two-color knitting device
K-811

1977
Frou Frou
HZL-11

1978
FLORA
HZL-550

1985
The Misin
HZL-7000

1988
The Misin Sewing
HZL-8800



History of industrial sewing machines

1953
Lockstitch sewing machine
DDW-II

1958
Big bartacking sewing machine
LK-23

1964
Safety stitch machine
MO-357
Overlock sewing machine
MO-352

1969
Lockstitch, automatic thread trimmer sewing machine
DDL-555-II

1979
Lockstitch button sewing machine
LK-982

Automatic welt stitching machine
APW-116

1986
Juki Hanger System
JHS-201

1987
Quick Response Sewing System
QRS



History of electronics and electronic assembly systems

1964
Card puncher
H-163

1973
Card puncher
H-1592

1976
Line printer
5240

1982
Data entry device, Chinese character key-to-floppy
1860

1988
Entry-level machine (introduction to machine learning)
KP-350

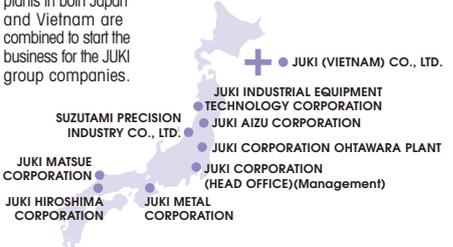


1990s

2000s

2010s

JUKI CORPORATION

<p>1990 JUKI's first overseas factory is founded in Shanghai, China jointly with another company. (SHANGHAI JUKI SEWING MACHINE CO., LTD., a manufacturing plant for the household sewing machines)</p> 	<p>1995 A company controlling the sales in Asia is founded in Singapore. (Present JUKI SINGAPORE PTE. LTD.)</p> 	<p>1995 A company manufacturing and procuring the parts for the industrial sewing machines is founded in China (present JUKI (NINGBO) PRECISION Co., Ltd.)</p> 	<p>2000 A wholly owned manufacturing plant for the Industrial Sewing Machines is founded in Shanghai, China. (JUKI (SHANGHAI) INDUSTRIAL CO., LTD.)</p> 	<p>2001 A fully owned subsidiary controlling a Chinese area is founded. (JUKI (CHINA) CO., LTD.)</p> 	<p>2005 An office controlling the sales in Europe is founded in Poland. (JUKI CENTRAL EUROPE SP.ZO.O)</p> 	<p>2009 The company moves to the new company building built in Tsurumaki, Tama-shi, Tokyo. (December)</p> 	<p>2013 The company makes the department for Industrial Equipment independent and founds JUKI AUTOMATION SYSTEMS CORPORATION.</p> 	<p>2017 Three companies in Akita Prefecture are integrated into a company called "JUKI INDUSTRIAL EQUIPMENT CORPORATION TECHNOLOGY CORPORATION"</p> 		
<p>1994 A sales company is founded in China. (TOKYO JUKI INTERNATIONAL TRADE (SHANGHAI) CO., LTD.)</p>	<p>1995 A manufacturing plant for the industrial sewing machines is founded in Langfang, China jointly with another company. (JUKI XINXING INDUSTRIAL CO., LTD.)</p> 	<p>1997 The company wins an award from the Japan Society for the Promotion of Machine Industry for the development of a "bobbin thread automatic feeder" used for the Industrial Sewing Machines.</p> 							<p>2014 JUKI AUTOMATION SYSTEMS CORPORATION merges with the business department for SMT Equipment of SONY EMCS.</p>	
<p>1995 A parts factory for the industrial sewing machines is founded in Vietnam. (Present JUKI (VIETNAM) CO., LTD.)</p> 							<p>2015 Manufacturing capabilities of manufacturing plants in both Japan and Vietnam are combined to start the business for the JUKI group companies.</p> 			

<p>1990 SPUR 90 TL-90</p> 	<p>1993 ALLOWNE HZL-008</p> 	<p>1997 jupre HZL-009</p> 	<p>2001 jureve HZL-010</p> 	<p>2003 Computer Sewing Machine HZL-E60</p> 	<p>Overlock with Chainstitch & Coverstitch MO-735</p> 	<p>2009 Exceed Quilt & Pro Special HZL-F600</p> 	<p>2013 Easy Threader MO-1000</p> 	<p>2015 LONG ARM QUILTING MACHINE frame type TL-2200QVP</p> 	<p>2017 Computer Sewing Machine HZL-DX7</p> 
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<p>1995 Automatic welt sewing machine APW-296</p> 	<p>1996 Single-thread, chainstitch, button sewing machine with a fraying prevention function MB-377</p> 	<p>Dry-head, lockstitch, automatic thread trimmer sewing machine DDL-5700N-7</p> 	<p>2000 Dry-head, electronic, single-thread, chainstitch button sewing machine MB-1800S</p> 	<p>2003 Dry-head overlock sewing machine MO-6100D</p> 	<p>2004 Single-thread, chainstitch, button-neck-wrapping sewing machine AMB-289</p> 	<p>2007 Automatic welt setting sewing machine (a diagonal pocket type) APW-896</p> 	<p>2010 1-needle, belt loop setting sewing machine AB-1351</p> 	<p>2016 Digital, lockstitch, automatic thread trimmer sewing machine DDL-9000C</p> 	<p>2017 1-needle, CNC sewing machine AMS-251</p> 
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<p>1992 Large-size general-purpose machine KC-810</p> 	<p>1994 Semi-automatic screen printer KS-180</p> 	<p>1997 High-speed chip moulder KE-750 High-speed general-purpose moulder KE-760</p> 	<p>2000 High-speed chip moulder KE-2010 High-speed general-purpose moulder KE-2020</p> 	<p>2008 High-speed modular moulder FX-3</p> 	<p>2011 Post-process moulder multi-task platform JM-10</p> 	<p>2013 High-speed compact modular moulder RX-7</p> 	<p>2014 Automated warehouse intelligent storage management system ISM2000</p> 	<p>2017 High-speed smart modular moulder RS-1</p> 	<p>2018 3D PWB Visual Inspection Machine (AOI) RV-2-3DH</p> 
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JUKI's global bases

(as of June 1, 2019)



1 4 1 2 1 2
 JUKI CORPORATION
 JUKI AUTOMATION SYSTEMS CORPORATION
 JUKI SALES (JAPAN) CORPORATION
 JUKI GENERAL SERVICE CORPORATION
 JUKI Household Product Customer Center Corporation

4 3
 JUKI CORPORATION OHTAWARA PLANT

1 2
 JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION

7 5
 JUKI MATSUE CORPORATION

8 6
 JUKI (SHANGHAI) INDUSTRIAL CO., LTD.

9
 JUKI XINXING INDUSTRY CO., LTD.

PRODUCTION BASES

Japan

1	JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION	Yokote-shi, Akita	Manufacturing of chip mounter etc. Manufacturing of units and parts related to the group business
2	JUKI AIZU CORPORATION	Kitakata-shi, Fukushima	Manufacturing of parts with lost-wax and MIM process. Manufacturing of parts related to the group business
3	SUZUTAMI PRECISION INDUSTRY CO., LTD.	Nagaoka-shi, Niigata	Manufacturing of parts for industrial sewing machines, etc. Manufacturing of parts related to the group business
4	JUKI CORPORATION OHTAWARA PLANT	Ohtawara-shi, Tochigi	Manufacturing of industrial sewing machines Manufacturing of parts related to the group business
5	JUKI METAL CORPORATION	Odaicho, Mie	Manufacturing of pig-iron mold casting etc. Manufacturing of parts related to the group business
6	JUKI HIROSHIMA CORPORATION	Miyoshi-shi, Hiroshima	Manufacturing of die, press processing parts, etc., Manufacturing of parts related to the group business
7	JUKI MATSUE CORPORATION	Matsue-shi, Shimane	Manufacturing of industrial sewing machines etc. Manufacturing of products and parts related to the group business

Global

8	JUKI (SHANGHAI) INDUSTRIAL CO., LTD.	Shanghai, China	Manufacturing of industrial sewing machines etc. Manufacturing of feeders for chip mounters
9	JUKI XINXING INDUSTRY CO., LTD.	Hebei, China	Manufacturing of industrial sewing machines etc.
10	SHANGHAI JUKI SEWING MACHINE CO., LTD.	Shanghai, China	Manufacturing of household sewing machines etc.

11	JUKI (NINGBO) PRECISION CO., LTD.	Zhejiang, China	Manufacturing and procurement of parts, etc. for industrial sewing machines etc.
12	JUKI (VIETNAM) CO., LTD.	Ho Chi Minh, Vietnam	Manufacturing of industrial sewing machines etc. Manufacturing of parts with lost-wax production Manufacturing of parts related to the group business

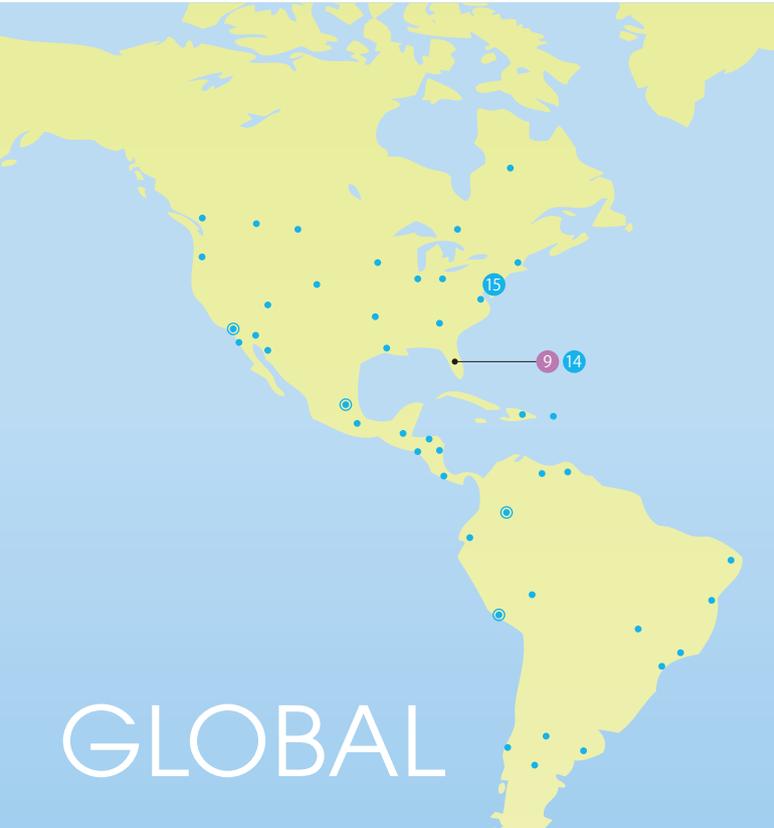
DEVELOPMENT BASES

Japan

1	JUKI CORPORATION	Tama-shi, Tokyo	Product development and system development of industrial sewing machines, household sewing machines, chip mounters, etc.
2	JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION	Yokote-shi, Akita	Development of Chip mounters, Electronic equipment, etc., and development of products related to the Group Business.
3	JUKI CORPORATION OHTAWARA PLANT	Ohtawara-shi, Tochigi	Development of industrial sewing machines.
4	JUKI AUTOMATION SYSTEMS CORPORATION	Tama-shi, Tokyo	Development of Chip mounters, etc.
5	JUKI MATSUE CORPORATION	Matsue-shi, Shimane	Development of industrial sewing machines.

Global

6	JUKI (SHANGHAI) INDUSTRIAL CO., LTD.	Shanghai, China	Development of industrial sewing machines.
7	JUKI (VIETNAM) CO., LTD.	Ho Chi Minh, Vietnam	Development of industrial sewing machines.
8	JUKI CENTRAL EUROPE SP.ZO.O.	Warsaw, Poland	Development of industrial sewing machines.
9	JUKI AMERICA, INC.	FL, U.S.A.	Development of industrial sewing machines.



GLOBAL



JAPAN



10 SHANGHAI JUKI SEWING MACHINE CO., LTD.
 12 7 JUKI (VIETNAM) CO., LTD.
 3 4 JUKI (CHINA) CO., LTD. TOKYO JUKI INTERNATIONAL TRADING (SHANGHAI) CO., LTD.
 6 JUKI SINGAPORE PTE. LTD.
 8 12 JUKI CENTRAL EUROPE SP.ZO.O.
 9 14 JUKI AMERICA, INC.
 15 JUKI AUTOMATION SYSTEMS INC.

MAIN SALES BASES

Japan			
1	JUKI AUTOMATION SYSTEMS CORPORATION	Tama-shi, Tokyo	Sales of Chip mounters, etc.
2	JUKI SALES (JAPAN) CORPORATION	Tama-shi, Tokyo	Sales of industrial sewing machines, household sewing machines, etc.
3	JBranch Sales Offices, Service Centers, and others		

Global			
3	JUKI (CHINA) CO., LTD.	Shanghai, China	Sales of industrial sewing machines, household sewing machines, etc., Holding company, Comprehensive administration of holding company and Chinese bases.
4	TOKYO JUKI INTERNATIONAL TRADING (SHANGHAI) CO., LTD.	Shanghai, China	Sales of chip mounters, etc.
5	JUKI (HONG KONG) LTD.	Hong Kong, China	Sales of industrial sewing machines, etc.
6	JUKI SINGAPORE PTE. LTD.	Bendemeer, Singapore	Sales of industrial sewing machines, household sewing machines, etc. (Major bases: 8 countries, including Indonesia, Cambodia, and Myanmar)
7	JUKI (THAILAND)CO.,LTD.	THAI, Bangkok	Sales of industrial sewing machines, etc.
8	JUKI MACHINERY BANGLADESH LTD.	Dhaka, Bangladesh	Sales of industrial sewing machines, etc.
9	JUKI MACHINERY VIETNAM CO., LTD.	Ho Chi Minh, Vietnam	Sales of industrial sewing machines, household sewing machines, etc.
10	JUKI INDIA PVT.LTD.	Bangalore, India	Sales of industrial sewing machines, chip mounters, etc.
11	JUKI SMT ASIA CO., LTD.	Chan Buri, Thailand	Sales of chip mounters, etc.
12	JUKI CENTRAL EUROPE SP.ZO.O.	Warsaw, Poland	Sales of industrial sewing machines, household sewing machines, etc. (Other bases: Turkey, Russia, and Belarus)

13	JUKI ITALIA S.P.A.	Milan, Italy	Sales of industrial sewing machines, household sewing machines, etc.
14	JUKI AMERICA, INC.	FL, U.S.A.	Sales of industrial sewing machines, household sewing machines, etc.
	(Other bases: Peru and Mexico)		
15	JUKI AUTOMATION SYSTEMS INC.	NC, U.S.A.	Sales of chip mounters, etc.
16	JUKI AUTOMATION SYSTEMS GmbH.	Nuremberg, Germany	Sales of chip mounters, etc.
3	JUKI's own Branch Offices, Sales Offices, Service Centers, and others		
4	Major distributors		

OTHER BASES

Japan			
1	JUKI GENERAL SERVICE CORPORATION	Tama-shi, Tokyo	Service of facility management, renovation and printing, etc.
2	JUKI Household Product Customer Center Corporation	Tama-shi, Tokyo	Maintenance services for Household Sewing Machines

Number of Major bases

	Japan	Global	Total
● PRODUCTION	7	5	12
● DEVELOPMENT	5	4	9
● SALES	2	14	16
● OTHER	2	0	2

Data sections

Company outline and stock information

(as of December 31, 2018)

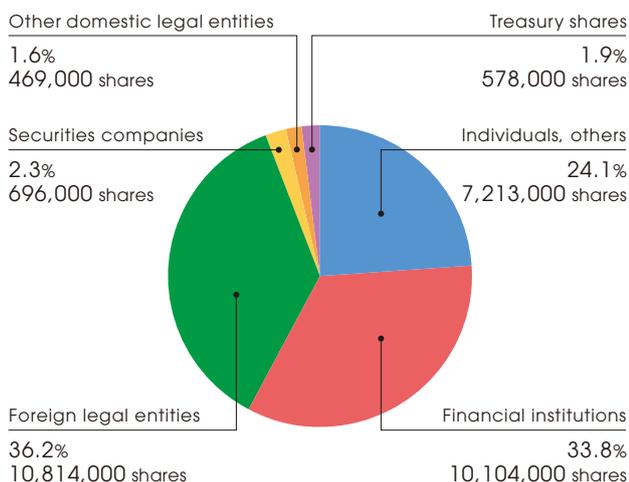
CORPORATE SUMMARY

Trade name	JUKI CORPORATION
Established	December 15, 1938
Directors	Representative Director Akira Kiyohara
Paid-in capital	¥18,044 million
Major business office	Head office : 2-11-1 Tsurumaki, Tama-shi, Tokyo 206-8551 Japan Tel: 81-42-357-2211 Ohtawara plant : 1863 Kitakanemaru, Ohtawara-shi, Tochigi 324-0011 Japan Tel: 81-287-23-5111
Fiscal year ending	December 31
Ordinary general meeting of shareholders	March
Number of employees	5,891 (on a consolidated basis), 878 (on a non-consolidated basis)
Number of affiliated companies	26

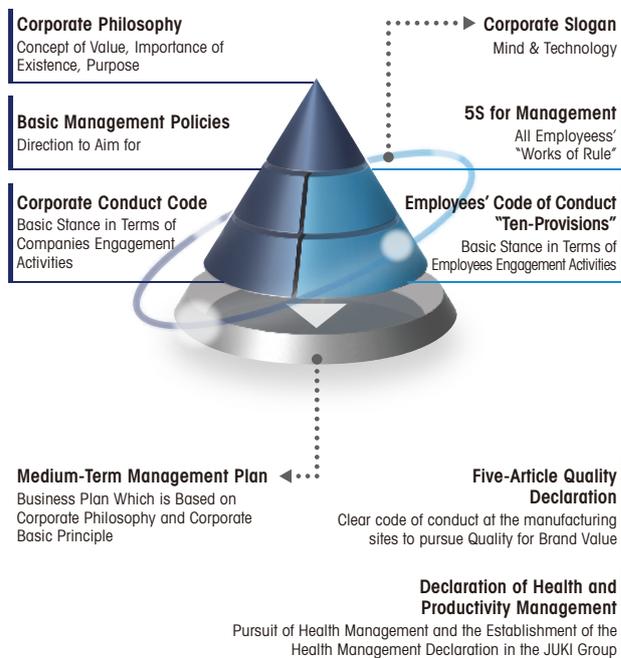
STOCK INFORMATION

Total number of authorized shares	80,000,000 shares
Total number of issued shares	29,874,179 shares
Total number of shareholders	9,938
Listed on	The first section of the Tokyo Stock Exchange (margin trading issue)
Securities code	6440
Shareholder registry administrator	Mizuho Trust & Banking Co., Ltd.

STOCK DISTRIBUTION STATUS BY OWNER TYPE



SYSTEM DIAGRAM OF THE JUKI GROUP CORPORATE PHILOSOPHY



CORPORATE PHILOSOPHY

Corporate Philosophy

1. The men and women of Juki work hand in hand to spread happiness and enrich society.
1. Juki technologies are constantly evolving and creating new value.

Basic Management Policies

1. Quality for Brand Value
1. Innovative and Active
1. Global Management Approach

Corporate Slogan

Mind & Technology

Edit policy

This JUKI CORPORATE REPORT 2019 integrates elements from a CORPORATE PROFILE and an ENVIRONMENTAL REPORT. The report you have received contains rich content to help all of JUKI's customers, shareholders, investors, and other stakeholders understand the business and value creation of the JUKI Group.

Disclaimer regarding forward-looking statements

This material contains forward-looking statements concerning future plans, target, strategies and assumptions of JUKI CORPORATION and its consolidated subsidiaries in light of the economic, financial and other data currently available when the material was prepared. Furthermore, they are subject to a number of risks and uncertainties. JUKI therefore wishes to caution readers that actual results may differ materially from those projected in such forward-looking statements.

Mind & Technology



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