



Becoming a company that customers select as a solution partner

GLOBAL & INNOVATIVE

Since its establishment in 1938, JUKI has maintained its focus on building a business based on manufacturing (Monodzukuri) and striving to generate new value by creating and evaluating technology. Today, we are advancing powerful growth strategies and business reforms based on our long-term vision of being a global and innovative `manufacturing and value-creation' company that survives the 21st century.

By delivering good impressions and peace of mind to customers, JUKI remains a company that customers select as a solution partner in countries and regions around the world. And by practicing SDG management, we also aim to be a company that society needs and trusts.

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Representative Director, Chairman and CEO Ákira Kiyohara Representative Director, President and COO Shinsuke Uchinashi

Corporate Philosophy

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

Basic Management Policies

- Quality for Brand Value
- Innovative and Active
- Global Management Approach

Corporate Slogan

Mind & Technology

System diagram of the JUKI Group corporate philosophy



Corporate Conduct Code

JUKI hereby establishes a "Corporate Code of Conduct" to provide a set of principles for realizing its corporate philosophy.

In accordance with this Code of Conduct, the men and women of JUKI will comply with all laws and international rules, respect the spirit of the laws and rules, and act with social common sense.

JUKI will not only pursue its corporate interests through fair competition, but also aim to remain a company with a worthy reason for being for its customers, shareholders, business partners, employees, and society overall.

If actions or events in contravention to the JUKI Code of Conduct take place, top management at JUKI takes immediate and thorough steps to remedy both the causes and outcomes.

*The specific details of principles 1 to 8 in the Corporate Code have been omitted.

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Products made using JUKI products

JUKI machines and systems make everyday products the public knows.





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

JUKI products are used by customers in 185 countries around the world. Our mission as a global company is to solve social issues and enrich the lives of people around the world by creating corporate value. Our corporate value creation flow is a sustainable cycle that drives business growth while enhancing social value.



ogies are constantly evolving and creating new value.

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achieve the seventeen

SUSTAINABLE GOALS

JUKI's Growth Engine



Achieving the Medium-term Management Plan (2022)

Net sales: 119,000 million yen

Ordinary profit: 9,800 million yen

Business mix: 50% or more of the JUKI's businesses are outside the industrial sewing machine segment.

Improving social values

- 1. Creating job opportunities
- 2. Promoting the social participation of various human resources
- 3. Ensuring occupational health and safety
- 4. Contributing to the reduction of clothing waste from a producer's perspective
- 5. Supporting technological innovations in the electronics industry
- 6. Reduction of environmental load



Enriching the lives of people around the world!

Achieving a rich living environment where people around the world can enjoy quality clothing and fashion

Making a comfortable and convenient life with help from IT and AI

Creating a carbon-neutral world to prevent climate change

Stakeholders

- Users
- Distributors
- Shareholders
- Employees
- Subcontractors
- Local communities



JUKI CORPORATION Representative Director, President and COO

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Shinsuke Uchinashi

Interview with our president

Under the new Medium-term Management Plan, JUKI aims to quickly return to a growth track through two structural reforms and six transformations (6Xs).

Fiscal 2020 was a challenging year, with the global spread of the novel coronavirus causing tremendous damage to the world economy and societies. Beyond the usual challenges companies now face, the JUKI Group must also take on the urgent tasks of recovering its business performance and making steady headway in its new Medium-term Management Plan. FIVE young JUKI employees interviewed President Uchinashi about the company's various initiatives, recent structural reforms, and medium- to long-term outlook.



Interviewers

Speedy management to adapt to the paradigm shift from an era of living with the coronavirus to a post-coronavirus world

— The global economy faltered in fiscal 2020, weighed down by the impacts of the coronavirus (COVID-19) pandemic. The consolidated business results of the JUKI Group showed decreases in both sales and profits. Can you tell us about the business environment and business results for fiscal 2020?

The worldwide spread of the novel coronavirus constrained socioeconomic activities in fiscal 2020. States of emergency were declared in many countries and lockdowns were imposed in major cities. While the JUKI Group also faced a downturn in business performance, we managed to overcome the crisis with help from the JUKI workforce. With great forbearance and understanding, our employees supported a series of crucial measures to see us through the crisis: salary cuts for managers, temporary leaves of absence, changes in work arrangements, and structural reforms such as personnel adjustments. I would like to express my gratitude once again to all of JUKI's stakeholders, from our customers and business partners to our Group employees and their families.

Consolidated net sales for fiscal 2020 fell 29% year on year to 70.4 billion yen, and ordinary profit was a loss of 4.0 billion yen. While sales of household sewing machines grew thanks to stay-at-home demand, sales of industrial sewing machines reached only 60% of the previous year's level, resulting in a significant decrease in sales overall. Growth in the electronic assembly systems was also sluggish. Our performance in industrial sewing machines and electronic assembly systems was held back by our inability to move quickly enough into growing fields of business in the New Normal environment. If JUKI is to quickly recover its business performance and return to a growth track, we must transform our business model through value-added structure reforms focused on the expansion of our existing business domains and the creation of new businesses. Going forward, we will concentrate our management resources on new and growing fields, respond quickly to social changes, and do all that we can to strengthen JUKI's profitability.

— In fiscal 2020, Group employees around the world continued to focus concerted efforts on the development of JUKI. Which of JUKI's initiatives and achievements in the last year have been most noteworthy?

JUKI's biggest achievement has been our entry into the inspection and measurement business. Up to fiscal 2020, our electronic assembly systems business provided products and services mainly to SMT (electronic component mounting-related) customers. In fiscal 2020 we expanded the scope of the markets we serve and launched a series of products and services targeting car plants and many other manufacturing plants. In February 2020 we invested in XTIA Co., Ltd., a company with unique inspection and measurement technologies, to begin the joint development of inspection machines for car manufacturers. Our work with XTIA Co. marks an important step forward in the diversification of our business lines.

JUKI also made noteworthy progress in developing the young employees on whose shoulders the future of JUKI rests. In the One JUKI Project 2020 and the JGQMF (JUKI Global Quality Management Forum) held last year, young and mid-level employees took the lead in making meaningful proposals and suggestions on a variety of themes, including the promotion of work style reforms and new business developments based on the SDGs, and initiatives for business reforms and improvements based



A.K, Joined in 2014 M.W, Joined in 2017 Shinsuke Uchinashi, President

on management policies. I believe that our group will be able to leap to a new stage as our young and mid-level employees train themselves further and grow.

— JUKI is now entering Phase II of its Medium-term Management Plan (2021-2022). How do you perceive our business and competitive environment, the premise for the formulation of the plan?

In fiscal 2017, JUKI launched its Medium-term Management Plan, "Value up 2022," looking ahead six years to fiscal 2022. Each year we revise the management plan prescribed under Value Up 2022 on a rolling three-year basis to respond to changes in the business environment. Though we launched our three-year Medium-term Management Plan for fiscal 2022 last year, we decided to suspend the plan for the duration of fiscal 2020 in light of the significant changes in the business environment brought by the coronavirus pandemic. This year we have re-established the measures and action plans to be implemented and formulated a two-year Medium-term Management Plan for fiscal 2021 to 2022.

The first thing that our management team did in redefining the Medium-term Management Plan (2021-2022) was to reassess the business and competitive environment that JUKI is facing. First of all, on the business environment front, the recent coronavirus pandemic has caused a massive paradigm shift in the way we work and live. The establishment of telework and the shift to online consumption have changed the market structure and created new needs. On the technological innovation front, the introduction of 5G, IoT, and AI-based products and services is accelerating, and the decarbonization (carbon neutral) movement is spurring technological innovation. In the industrial sewing machines business, material demand is shifting from woven fabrics to knitted fabrics in response to the trend toward casual wear.

The competitive environment surrounding the JUKI Group has entered an unprecedentedly severe phase. In the industrial sewing machines business, Chinese manufacturers have grown into comprehensive companies through M&As (mergers and acquisitions) and the like. As they scale up, they are rapidly expanding their business domains into high-end markets while strengthening the retention of their existing customers in the middle market. German manufacturers are also expanding their businesses in China to increase sales in non-apparel fields. While JUKI still holds the top position in industrial sewing machines, we cannot afford to rest on our laurels. Our electronic assembly systems business will have to come up with effective differentiation strategies to stand its ground against competitors as they break into surrounding areas through M&As. In the Group business, our key aim is to break away from the contract business and make the overall business high-value added by establishing an engineering business, strengthening our approach to growing industries, and responding to the relocation of production sites.

To make our Medium-term Management Plan (2021-2022) effective, we will have to accurately recognize the current situation and build a business model that responds to the New Normal, the new styles of living, working, and doing business it entails.

2021-2022 Medium Term Management Plan

What we aim for in 2022 as Phase II (goal)

Vision for 2022

A "mono-koto" creating company that enables customers and JUKI to improve corporate value through products and services Becoming a Win-Win Partner for Smart Factories

	—
Continuous growth	In addition to the expansion of existing businesses, securing continuous earnings by expanding business domains and creating new businesses
Profitability	Strengthening profitability by expanding high-value-added business fields Sewing machinery : non-apparel / non sewing Electronic assembly systems : non mounter segments Group business : engineering business Customer support business : service business
Productivity	Building a Smart and Slim management foundation
Stability	Building a stable financial base



K.I, Joined in 2014 T.K, Joined in 2017

— We now understand that the Medium-term Management Plan (2021-2022) is based on a precise analysis of the external environment and a deep understanding of management issues in the JUKI Group. Could you please outline the Medium-term Management Plan (2021-2022) and the basic strategies under the plan?

The framework for our Medium-term Management Plan (2021-2022) is based on two structural reforms and six transformations (6Xs). In the first of our two structural reforms, a cost structure reform, we will introduce new work arrangements and other measures to reduce fixed costs from about 37 billion yen in fiscal 2019 to about 32 billion yen in fiscal 2020. Costs will then be maintained at that level going forward. We will have to meet two key conditions if we are to firmly maintain the 32 billion yen

2021-2022 Medium Term Management Plan 6 Transformations (6X)

6 Transformations (6X*) = JUKI's Growth Engine *X=Transformation Accelerating the pace of structural reform by focusing on these 6 reform initiatives



cost level as economic activity revitalizes after the end of the coronavirus pandemic. The first will be to comply with the departmental quota (capacity) system introduced in fiscal 2020. The second will be to advance our new work arrangements. We will also have to expand the scope of work for employees by consolidating operations and making our employees multi-skilled, while at the same time improving labor productivity by upgrading their skills. In the second of our structural reforms, a valueadded structure reform, we plan to expand the sales composition ratio of non-industrial sewing machines from 41% in fiscal 2018 to 50% in fiscal 2022 by creating new businesses while strengthening and expanding our existing business domains.

To bring about our six transformations (6Xs), we aim to evolve a profitable business model that will keep us

SDGs Initiatives

SUSTAINABLE GOALS

We will work through our business to solve social issues that are important for both our company and our stakeholders

Social issues to be tackled	Efforts to solve problems	Related SDGs
Creation of employment opportunities	Creation of new jobs and realization of growth of workers	1 Les 4 mile 8 million Article 10 Million
Promotion of social participation by various human resources	working conditions through support for vocational education in emerging countries	State and A
Ensuring occupational health and safety	Improvement to insufficient supply of non-woven fabric masks and protective clothing in the market	3 minute →M√r
Contributing to the reduction of clothing waste from a producer's perspective	Realizing a factory that manufactures high-quality products in a short time at low cost	American 19 (191)
Support for technological innovation through improvement to productivity in the electronics industry	Improvement to back-and-forth process infrastructure in implementation plants	<u> </u>
Reduction of environmental load	Promoting and strengthening efforts to reduce environmental impact through business activities	² ■ 8 = 8 = 8 = 8 = 8 = 1 = 1 = 1 = 1 = 1 =

on a growth track by generating change in six areas: "borderless," "business model," "SDGs management," "R&D model," "work style reform," and "financial structure." Among these 6Xs, SDGs management will contribute to the resolution of social issues through business activities. The structure and mission of JUKI's industrial sewing machine business, a business that helps to secure employment in emerging countries, are closely based on SDG management principles. We conduct wide-ranging initiatives to contribute to the establishment of a healthier and more affluent society. Key among them are the development of products with low environmental impact and the reduction of clothing waste using our "JaNets" sewing management system.

— What are the key points of the value-added structure reform, and what are the priority themes by Unit and Center?

In industrial sewing machines, the key points are to find potential customers in the middle market in emerging countries, and to expand the non-apparel and knitwear businesses. We will strengthen our efforts to develop the non-apparel market, especially in China, and to deploy a knitwear strategy in response to the trend toward casual wear. In household sewing machines, our focus in the first half of fiscal 2021 will be to capture stay-at-home demand. Then, from the second half onward, we will be expanding sales of new high-end class products such as the HZL-UX8 and strengthening our sales area measures.

In electronic assembly systems, demand for new systems continues to expand as the technologies used in 5G and IoT evolve. We plan to grow sales by selling more inspection machines and automated warehouses, acquiring new non-SMT customers, and accurately capturing the rising demand mainly in the high-speed machine market.

The Customer Support Business will be strengthening new business fields for JUKI's industrial sewing machines and electronic assembly systems. We plan to establish new business methods using an inspection support system and e-learning for industrial sewing machines, and to expand parts sales to customers who manufacture without mounters, provide customer service support using a remote support system for electronic assembly systems. We expect that the growth of our customer business, a process closely linked to the trend from "products" to "services," will drive the transformation of our business model in the JUKI Group.

In the Group Business there is an urgent need to expand business in high value-added areas such as engineering and development and assembly. Meanwhile, our customers are trying to decentralize their production and procurement sites in response to the supply chain fragmentation caused by the current coronavirus pandemic. We need to establish a new system for collecting information and acquiring business not only in Vietnam but also in the entire ASEAN region.

The Production Center will strive to provide a timely and stable supply of mainly sewing machinery and electronic assembly systems. The Development Center will work to create solutions using AI and other advanced technologies to meet the automation and digitalization needs of the customers who use our industrial sewing machines and electronic assembly systems. — Numerical targets are a huge motivator for us as we go about our daily work. Would you please tell us again about the company-wide numerical targets under the Medium-term Management Plan (2021-2022)?

By returning our businesses to a growth track and making a qualitative shift, we aim to achieve consolidated net sales of 119 billion yen and consolidated ordinary profit of 9.8 billion yen in fiscal 2022. Consolidated net sales were 70.4 billion yen in fiscal 2020. From that starting point, we aim to grow the figure by another 48.6 billion yen by adding the value-added structure reforms in our Mediumterm Management Plan (2021-2022), strengthening sales in existing areas, and reaping the gains from the market recovery expected with the end of the coronavirus pandemic. By doing so, as mentioned earlier, the ratio of sales by non-industrial sewing machine businesses will grow from 41% to 50%. We see the further optimization of our business portfolio as another essential theme to address for the future of the JUKI Group.

The promotion of work style reforms is now an urgent management issue for Japanese companies. What policies and plans do you have in place for the JUKI Group's work style reforms?

Our policy is to respond to the work style reforms based on changes in personnel treatment. In fiscal 2020 we clarified the roles of line and staff positions by introducing a mandatory retirement age for managers. We also established a system to circulate human resources, based on discussions at our Global Human Resources Enhancement Committee. We have also been working to build a system for job-based employment by introducing new work arrangements and establishing a system that allows employees to choose a variety of work styles through a trial career challenge system. We also started making performancebased bonus payments in the summer of 2020.

In the first half of fiscal 2021 we will institutionalize new work arrangements based on a quota (capacity) system and develop new operations to more fully consolidate and redistribute the work our employees do. We will also press ahead with the design of our new personnel system based on job-based employment. We plan to use



job descriptions to manage and evaluate work, and to optimize the balance between job value and treatment. By implementing these personnel policies, we will be creating a system that justly rewards deserving employees who achieve the prescribed results in difficult tasks.

— Fiscal 2021 will be an important year. In the coming months, the true value of JUKI will be tested toward the goal of fiscal 2022. Tell us about JUKI's management policy and business plan for fiscal 2021.

Though the impacts of the coronavirus pandemic will remain in the first half of fiscal 2021, we expect the world economy and societies to gradually normalize as the infection subsides in the second half of the year. For the time being, our most important mission in corporate management will be to strike an effective balance between protecting lives and restoring the economy.

In the first year of its Medium-term Management Plan (2021-2022), JUKI expects to achieve consolidated net sales of 100 billion yen (a 42% increase over the previous year) and consolidated ordinary profit of 2.8 billion yen (a 6.8 billion yen increase over the previous year). While these figures surpass our business results for fiscal 2019, when sales and profits both dropped in the aftermath of the U.S.-China trade friction, they still fall short of our performance in fiscal 2018. We place great importance on fiscal 2021 as the year we get back on a growth track in the lead up to fiscal 2022, the final year of our Medium-term Management Plan.

Looking at the business plan by segment, we aim to increase sales of industrial sewing machines by 51%, home sewing machines by 22%, electronic assembly systems by 42%, group business by 25%, and customer support business by 42%, compared to the previous year. In the industrial sewing machine business, demand for nonapparel related products, such as cars, has started to increase. We are seeing positive signs, such as successful cases of line solution sales in the middle market in Africa. In the electronic assembly systems business, capital investment demand from semiconductor manufacturers in Japan and overseas has been strong, backed by the booming 5G and wearable-related industries. It is essential that we make the most of this positive trend by turning it into a commercial opportunity.

In fiscal 2021, we are determined to regain the lost trust of our stakeholders by promptly recovering our business performance and making a fresh start toward our next stage of growth.

In January 2021, the JUKI Group embarked on a new era under the leadership of Chairperson Kiyohara and President Uchinashi. JUKI stakeholders all over the world, from Group employees to customers, business partners, shareholders, and local communities, are closely watching what the future holds for JUKI. To finish up, could you tell us about your upcoming decisions and what you expect from the JUKI's employees?

From fiscal 2021, the JUKI Group will be managed under a new governance structure consisting of a Chairperson and CEO (Chief Executive Officer) and a President and COO



(Chief Operating Officer). Akio Kiyohara, the Chairperson and CEO, will chair the Board of Directors, strengthen the supervisory function over the management team from within the company with external help from the outside directors, and take charge of medium- to long-term management strategies, human resource strategies, SDGs strategies, and the like to achieve sustainable growth. As the President and COO, I will chair important meetings, maintain close cooperation with the members of the board with titles and corporate officers, and firmly lead the implementation of the PDCA cycle for business execution.

In the management of the JUKI Group, I pay close attention to the three principles (sangen shugi) of "on-site," "actual products," and "reality." Following these principles is the most direct way to solve problems. We will also pursue agile business deployment through speedy decisionmaking and flat organizational management.

The business environment surrounding the JUKI Group will become more severe in the future with the resurgence of the coronavirus pandemic, rapid technological innovation, and intensifying competition with other companies. JUKI's management and employees will work together to make it through these difficult times and aim to make JUKI a corporate group that all of its stakeholders trust. I expect you to work swiftly, to focus on both your own growth and the growth of organization from a comprehensive, equitable perspective, and to work hard at your jobs while maintaining good communications with your colleagues, supervisors, business partners, and customers. Let's work together for the further development of the JUKI Group. (January 2021)



14 JUKI's businesses: Bus

Business domains

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 185 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 (Monodzukuri) capabilities" developed over many years.

Electronic Assembly Systems Business

SMT-related system business



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

This business supports the smartization of whole factories by providing equipment and systems for the production of electronic circuit boards. We help our customers improve productivity and quality by operating automated warehouses and linking them with mission-critical systems.

Automated warehouse system and Inspection & Measurement system



A business that uses IoT and image processing technology to automate technical tasks conventionally done by hand

The technologies from this business support automation in other industries by making printed circuit board factories smarter. The business also supports automation of a parts shelf and a visual inspection, with equipment and a system.

Customer Support Business



products in use all over the world remain in optimal operating status This business supplies parts and controls

A business that

provides support to promise that JUKI

machines remotely to ensure that customers in 185 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.

JUKI's businesses

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



AVY / MATERIAL

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Pa C H3 mm

Pattern seamer

PS-800



LUKI

JUKI Smart Solutions

Computer-controlled Cycle Machine with Input Function

AMS-221F

Manufacturing and sales bases for **Industrial Sewing Machines** JUKI CENTRAL EUROPE SP.ZO.O. Major manufacturing bases JUKI ITALIA S.P.A. Major sale bases JUKI (LANGFANG) INDUSTRIAL CO., LTD. JUKI (CHINA) CO., LTD. JUKI CORPORATION OHTAWARA PLANT JUKI (SHANGHAI) INDUSTRIAL CO., LTD. JUKI SALES (JAPAN) CORPORATION JUKI MATSUE CORPORATION JUKI MACHINERY BANGLADESH LTD. JUKI (HONG KONG) LTD. JUKI AMERICA, INC. JUKI INDIA PVT.LTD. JUKI MACHINERY VIETNAM CO., LTD. JUKI SINGAPORE PTE. LTD. JUKI (VIETNAM) CO., LTD. JUKI (THAILAND)CO.,LTD.

A "No. 1 world share" business that supports a sewing industry with a network covering customers in 185 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 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 realtime responses to production troubles at factories where stable quality and productivity are required.

-TOPICS-

JUKI forms a business partnership with Pegasus Sewing Machine Mfg. Co., Ltd., a leading manufacturer of chainstitch machines.

On April 26, 2021 we entered a business partnership with Pegasus Sewing Machine Mfg Co., Ltd. (Pegasus), a leading global manufacturer of chainstitch machines for the sewing of knit products. JUKI and Pegasus will be joining forces mainly in the industrial sewing machine field.

JUKI and Pegasus will be jointly promoting the digitalization and networking of chainstitch machines and moving faster toward the realization of a smart factory that visualizes production through the full use of IoT.

The market for chainstitch machines is growing with the increased use of casual wear, expansion of knitwear applications, and diversification of new materials in response to the market demands of the New Normal era after the coronavirus pandemic. We will be meeting these market needs not only by developing products, but also promoting cooperation in the sales domain with a focus on the establishment of mutually complementary sales and service networks in emerging markets.



Chainstitch machines manufactured by Pegasus Sewing Machine Mfg. Co., Ltd.

Industrial Sewing Machinery Business

JUKI proposes a "Smart Factory" for sewing factories.

What is Smart Factory?



As consumer behavior changes and needs diversify, sewing factories are compelled to shift from mass production of a small number of products to small lot production of a variety of different products, while also achieving further efficiency improvements and creating factory-wide production management systems.

The smart factory proposed by JUKI further improves production efficiency by automating and digitizing not only the sewing process, but also the pre- and post-processes, and visualizes the progress of production by connecting the entire factory to a network.

JUKI listens to the challenges of its customers and builds Smart Factories tailored to their individual production conditions.

Automated warehouse for materials

Receipt of fabrics and sub-materials, and

fabric inspection

1. Automatization

Automatic machines

We offer a wide range of sewing machines that fully automate the sewing processes formerly performed by hand, from the cutting of the fabrics with scissors to the folding of the fabrics and shirring.

Automatic machines and picking robots

Fabrics transported from the cutting process by AGVs (Automated Guided Vehicles) are finished into sewn parts by automatic machines. Robots pick up the fabrics.





AGV (Automated Guided Vehicle)

Cutting Pattern marking, grading, spreading, cutting, and sorting

The AGVs automate the transportation of sewn parts in the factory. These vehicles eliminate wasted transfer time and ensure that the sewn parts are transferred according to the production plan.

Automating post-process

JUKI has introduced folding machines, packing machines, and carton formers / sealing machines to automate the post-sewing processes from the time the product is finished to the time it is shipped. Many of these post-sewing processes used to be performed by hand.



Parts sewing

Parts

storage



2. Digitalization

Digitizing sewing processes

Operators sew the fabrics while viewing the digitized specifications. The operation status of the sewing machines can be consolidated, and the progress of production and variations among operators can be quickly checked.



Digital sewing machines

The "seam" adjustment function can be digitized and stored as numerical data. The adjusted data can be stored on a tablet with a special app and transferred to other sewing machines. With this fast data storage and transfer



capability, operators can perform rapid seam adjustments and share and manage sewing data easily for stabilized quality on a global scale. Seam adjustment used to depend on intuition and experience.



3. Networking

Sewing management system software Jan Advanced Network system

By connecting sewing machines to a network, equipment data such as machine operating status can be visualized in real time and analyzed to make improvements. Meanwhile, the digital sewing machines communicate bi-directionally with the system and



download sewing control information during setup changes. In the future we plan to increase the content using information on predictive management, traceability, etc. to support customers.

Visualizing the factory control room

The current output against the production plan, the line balance conditions that influence productivity, and the bottleneck process can all be checked at a glance. Factories can be connected with each other to promote the smooth operation of a companywide supply chain. And factory-wide issues can be visualized by analyzing and processing these production data.



JUKI's businesses

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.



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Products



Computer-controlled Household Sewing Machine DX-4000QVP



Overlock Sewing Machine

MO-2000QVP



Semi Professional Sewing Machine TL-2020 PE (120V)



Industrial Technology

Long arm Quilting Machine J-350QVP

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-

The 19th "Tokyo International Great Quilt Festival 2020"

JUKI once again showcased its products at the world's largest quilt festival, Tokyo International Great Quilt Festival 2020 (attended by more than 200,000 visitors annually). The core theme for the show was: "Spreading my world with JUKI." Our demonstration team introduced JUKI's state-of-theart sewing machines and attachments to increase sewing variety by showing visitors how to sew small quilt bags and genuine leather tote bags in a hands-on workshop.



January 2020, Tokyo Dome







JUKI Web Sewing Festival 2021

JUKI staged its first online festival in a five-day live stream on Instagram in May. The event was held to make up for the 2021 Japan Hobby Show (normally held at the end of April each year), which had to be cancelled to combat the spread of the novel coronavirus. In total, 2,500 people took part in 12 special lecture courses, including sewing workshops and courses on sewing machine care. Questions and comments from participants were encouraged in every course to match the satisfaction levels of an in-person event.



Two-way bag workshop conducted by Ms. Yuki Inomata, a handicraft artist

JUKI's businesses

ELECTRON ASSEMBLY SYSTEMS BUSINESS

Products



Fast smart modular mounter **RS-1R**



High-speed compact modular mounter **RX-8**



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1.

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



Multi task platform

JM-100



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Intelligent storage management system ISM3600

Manufacturing and sales base of Electronic Assembly Systems

JUKI AUTOMATION SYSTEMS INC.

Major manufacturing bases

Major sale bases

- JUKI AUTOMATION SYSTEMS GmbH. - ESSEGI AUTOMATION S.r.I.

 JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION JUKI AUTOMATION SYSTEMS CORPORATION

— JUKI SMT ASIA CO., LTD.

JUKI INDIA PVT.LTD. SMT Division, Head office

JUKI's businesses: Electronic Assembly Systems Business

22

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

NEPCON CHINA 2021

JUKI exhibited at NEPCON CHINA 2021, the largest specialized exhibition for Surface Mount Technology and Manufacturing Equipment in China. Touting JUKI Smart Solutions theme for factory innovation and business growth through automation, JUKI's exhibits highlighted a range of appealing new solutions such as JUKI's high-speed, high-quality lines strongly demanded for the mounting of LED indicator lights, automated odd-shaped mounting machines for the post-process, and automated management solutions for electronic components. These solutions are expected to sell well in China, where the demand for labor-saving and smart technologies (for smart factories) continues to rise.



April 2021, Shenzhen in China

Electronic Assembly Systems Business

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

JUKI's proposal for a Smart Factory



<section-header>

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



Solution for a system to automate the post-process

This device automatizes 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.



Electronic Assembly Systems Business

Expanding the automated warehouse system to many industries



Automating the warehousing and shipping of parts and products from many industries Improving the efficiency of parts and product management operations by linking to the core systems

JUKI continues to expand the applications of its automated warehouses for storage and management. Customers in a growing number of industries now use JUKI's automated warehouse systems for the storage and management of not just electronic components, but also spare parts in factories, consumable equipment and medicines in hospitals, and a range of high-value materials and products.

Our system to streamline the management of parts and products supports the manpower shortages and efficiency needs many industries now face.



Products



Intelligent storage management system

TOPICS-

Investing in ESSEGI AUTOMATION S.r.I. and strengthening collaboration

We invested in ESSEGI AUTOMATION S.r.l. (investment ratio of 49%), a company we have been collaborating with in automated warehouses for some time now, to strengthen our collaboration in every stage of the automated warehouse business, from the integration of technological capabilities through the stages of planning, development, manufacturing, sales, and after-sales services.

We will also be exploring the wide-ranging applications of automated warehouses beyond electronic components in our ongoing collaboration with ESSEGI AUTOMATION S.r.I.

Customer Solutions

1. Featuring a function optimally suited for parts and product management

The system maintains the quality of parts and products and ensures security in a dust-free, humiditycontrolled space. The system also saves space by applying a gapless storage approach.



2. Storing a variety of parts and products

Parts and products of various sizes can be stored by changing the trays. Barcode management can pinpoint the product or part needed from a large inventory.



3. Improving the efficiency of inventory management through system integration

System integration with ERP and MES is possible using IoT, and parts and product inventories can be checked in real time through timely warehousing and shipping in conjunction with the field. The AGVs and picking robots can be used to automate transport operations.



Head office building of ESSEGI AUTOMATION S.r.I. in Italy

Deploying inspection and measurement systems to machine shops



Shifting from visual random inspection to automated in-line full inspection in the manufacturing industry

Our equipment for the inspection of car engine parts and mechanical parts has been commercialized by combining JUKI technologies for the automatic inspection of printed circuit boards with sensors built by XTIA based on a Nobel-Prize-winning "optical comb" technology. The equipment fully automates visual inspection procedures that formerly required professional skills and experience aided by the human eye.

JUKI helps customers meet increased efficiency needs and overcome shortages of skilled human resources by providing inspection machines with no blind spots.







External dimension measurement

Roundness Height measurement measurement t

Height Clearance asurement measurement



TOPICS

Commercializing a hybrid visual inspection machine through cooperation with XTIA Co., Ltd. (XTIA)

In April, we released an automatic car parts inspection machine we have been developing collaboratively with XTIA Co., Ltd. since February 2020.

This product combines a high-speed automatic inspection machine equipped with JUKI's 2D image-recognition technology with XTIA's optical comb measurement laser to automate the in-line inspection of parts with complex shapes, a task previously performed through visual inspection alone. The machine can also measure the positions, lengths, areas, and depths of flaw defects to ensure extreme inspection accuracy.

Customer Solutions

1. Automating visual inspections by engineers The equipment inspects the

angles and dimensions of critical parts that require reliable quality in a short time. The equipment



eliminates variations in inspection quality and inspection times among inspectors and greatly reduces the burden of manhour management. The shortened inspection time also makes it possible to seamlessly switch from random inspections to full inspections. Inspection traceability can be achieved using the detailed inspection results stored as data.

2. Conducting in-line inspections on the manufacturing line

The equipment automates in-line visual inspection processes on the manufacturing line. The quality control data and operational status acquired by the inspection machine can be used to visualize the process or linked to an existing system to improve the quality of a factory.





A hybrid visual inspection machine for inspecting car engine parts and mechanical parts



Products (Contracted development and manufacturing business)



Examples of contractmanufactured parts



The AY555, a spectrophotometer



A casting loudspeaker (sample production)



Label attachment robot



Small machining center



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 segment organically combines and coordinates the manufacturing capabilities of JUKI's manufacturing companies. JUKI has a wide range of advanced manufacturing capabilities, from development capabilities nurtured through the design and development of mainstay products such as industrial and household sewing machines and chip mounters, parts manufacturing, and product assembly, to capabilities in precision processing, press and sheetmetal processing, pig iron casting, precision casting, and mold manufacturing. The Group Business uses, evolves, and applies manufacturing technologies in which JUKI's manufacturing factories excel to produce parts and unit products that meet customer needs in wide-ranging fields, from optical, OA-, and FA-related equipment to medical equipment and aircraft parts.



One Stop Solution



Customer Solutions

1. One-stop production system

The one-stop manufacturing process covers every stage from planning, development, and design to material procurement, processing, assembly, and inspection. By making the most of the people, equipment, methods, and materials from the JUKI Group, we provide high valueadded products through multi-select (multiple selection) manufacturing suited to the needs of our customers. Our production capabilities range from large and small items in high-mix, low-volume production (manufacturing in part) to whole items (manufacturing in whole) integrating every part of the manufacturing process.

2. Building of the automated devices and lines for manufacturing (Engineering)

We at JUKI have moved ahead with the smartification of our own factories using technologies such as IoT and robots, in addition to the technologies we have nurtured through the development and design of sewing machines and mounters. By making full use of our knowledge and experience and bringing various element technologies together, we will support our customers in solving the challenges they face from both hardware and software perspectives. To this end, we will use robots for heavy work or simple iteration work, upgrade to highly productive lines, and visualize production status.

3. Total support for the manufacturing process

JUKI centrally manages the manufacturing process based on the customer's order. Freed from cumbersome supplier management, the customer can concentrate on other important tasks. We have established a system that shortens delivery times and lowers costs by reducing manhours and labor costs while lowering the risk of coordination errors and lost time.

-TOPICS-

Forming a business alliance with CASTEM Co., Ltd. mainly in the precision casting business.

On April 1, 2021 we entered into a business alliance agreement with CASTEM Co., Ltd. (CASTEM), Japan's top precision casting company, to engage in collaborative works to create and expand our businesses. JUKI AIZU CORPORATION, the Group Business's collaboration site, specializes in precision casting (lost wax) and metal injection molding (MIM). JUKI and CASTEM can respond to the needs of more customers by combining CASTEM's strengths in ceramic processing with JUKI's strengths in the processing of titanium alloys, etc.



Joint press conference by JUKI and CASTEM (JUKI President Shinsuke Uchinashi, second from the left; CASTEM Representative Director Toda, third from the left)

Group Business

Capitalizing on our facilities and technologies to create products and services (Monodzukuri and Kotodzukuri)

Backed by the technologies, facilities, and personnel from the JUKI Group, we handle the product development and manufacturing processes holistically, covering every phase from mold-making and material procurement to development, assembly, and inspection. We also provide the whole most suitable processes for our customers from the wide-ranging solution options available.



Contracted products example fusing the development and manufacturing technology at each base



Group Business/Safety and hygiene products

Coping in today's "with coronavirus society" and the "post-coronavirus society" to come.

Our Group Business deals in safety and hygiene products that are useful in offices and factories. We help create safe and healthy working environments for employees by providing a wide range of products, from products that prevent coronavirus infection to products that assist in heavy-duty work.

Save the factory and operators

Examples of purchased products



Hypochlorous acid solution generator PH-600 (Manufactured and distributed by VEETA Inc.)



Air circulation type ultraviolet (UV) cleaning system Airlia Compact (Manufactured and distributed by: IWASAKI ELECTRIC CO., LTD.)

Group Business/Sleep Buster

software called "Human Tachometer."

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



Unmanned security and disinfection robot PATORO (Manufactured and distributed by ZMP Inc.)



Muscle suit Every (Manufactured and distributed by: INNOPHYS CO., LTD.)

Examples of products manufactured by JUKI



(Ohtawara plant)



(Ohtawara plant)



Foot-operated disinfectant stands (JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY)



Kuma-San partitions (Ohtawara plant)



Face guards (Ohtawara plant)



Mask bands (JUKI AIZU CORPORATION)

Group Business/Data Entry System JUKI's original informationprocessing 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."





Delivering peace of mind to customers around the world with the best customer support and parts supply

This business provides the users of JUKI's mainstay industrial sewing machines and electronics assembly systems with comprehensive after-sales services, such as rapid parts provision and preventive and predictive equipment maintenance, to ensure that their JUKI products remain in optimal condition.

For the customers of JUKI's industrial sewing machines, we stock about 100,000 types of parts and have a system in place to deliver them as swiftly as the customers need them. We have also opened a parts website and inspection support system that customers can use to immediately order the parts they need from the vast assortment of parts we provide.

Meanwhile, we recommend replacement parts, overhauls, and other maintenance services to the customers of JUKI's electronic assembly systems and conduct proactive maintenance activities to ensure the longevity of our products.



Parts supply

- Supplying parts promptly using an inventory optimization management system
- Operating a parts website where customers can quickly find the parts they want



Repairs and maintenance

- Providing prompt repair support
- Operating preventive and predictive maintenance management for equipment
- Providing an inspection support system
- Providing a membership-based
 technical support site



Educational support

- Conducting various training sessions
- Providing training
- Operating e-learning



Customer Solutions

1. Promptly providing industrial sewing machine parts and releasing a free inspection support system

We have established a parts inventory system for managing parts for 2,000 models of industrial sewing machines and have introduced an inventory optimization management system to improve the immediate delivery rate.

In addition, information on daily inspections to be performed by customers are available for free on the app. Performing daily maintenance correctly maintains sewing quality, reduces sewing machine downtime and breakdowns, and increases durability. In addition, a simple diagnosis function automatically estimates parts replacement times based on operation and maintenance data stored in the app. The required number of parts can be ordered in advance via instant inventory checks.

2. Providing optimal, highly reliable customer support, and remote support for electronics assembly systems

JUKI conducts periodic surveys on the skills of its repair technicians and assigns specialized maintenance and repair engineers to sales and service sites around the world. We have introduced a system that links skilled technicians at the head office to local maintenance staff to provide support on difficult-to-solve problems. We share information in real time between the office and site to swiftly restore a halted production line using smartphones and smart glasses.





-TOPICS

Launching e-learning for the apparel sewing industry

JUKI brought together the sewing and machine maintenance know-how it has cultivated over the years to launch JUKI e-Learning, an online learning site for the apparel sewing industry.

Since its entry into the industrial sewing machine business, JUKI has been conducting seminars and group training programs for more than 60 years to improve productivity and sewing quality at sewing factories and to equip customers with maintenance techniques. The following courses have been added to our e-learning menu. Our Sewing Operator Training Course was launched in November 2020 as a first step.



The Sewing Operator Training Course is designed to deepen the student's knowledge of a wide range of topics, from sewing machine types and the principle of sewing machine operation to the relationship between needle and thread and the sewing processes performed to complete a garment.

Customer Introduction

JUKI is working to solve the problems customers may encounter when using JUKI products or services. JUKI continues to support its customers as a reliable and powerful partner by proposing solutions that are one step ahead of the competition.



Industrial Sewing Machines

DaiLi Garment Co., Ltd. http://www.daililingerie.com/ President Weng Gengkai

Our company, an employer of 3,000 people in the local economy, produces fashionable foundations and delivers (exports) them to customers in various countries and regions such as Southeast Asia, South Africa, Australia, and Canada.

As a manufacturer with a history dating back more than four decades, we aim to grow perpetually by pursuing new technologies, developing new equipment, and steadily honing our management capabilities. To this end, we constantly engage in daily improvement activities and provide process and technology-related education to our workforce.

We have been doing business with JUKI since 2018. JUKI's sewing machine mechanisms and digitalization technology provide the high sewing quality required for our high-end foundations. We are delighted by their innovative performance.

JUKI shares our stance on factory reform and has kindly helped us adopt and renovate equipment, systems, and methods to make our factories smarter. We are still receiving a steady stream of proposals from JUKI on new ways to improve.

We count on JUKI to continue developing products, systems, and services that meet our needs. JUKI's support is vital to our ongoing quest to achieve even more productive factories.

Household Sewing Machines



Handicraft artist

https://yunyuns.exblog.jp/

Yuki Inomata

Several of the sewing creations I posted online in my hobbyist blog were well-received. Since leaving my position as an instructor at a handicraft store, I have worked mostly as an instructor at a clothing school. I also collaborate with various organizations to teach people how to hand-craft their own creations.

I mainly make and teach about the things I love to sew: bags and small items made of cloth. I try to create practical designs that are durable, easy to use, and can be used for a long time.

I bought my first JUKI sewing machine while hunting for a machine to satisfy my sewing needs. A salesperson recommended JUKI's "box feed" mechanism. I now have four different types of sewing machines, including a professional-use model. I can use them to sew any kind of material --heavy-weight, lightweight, or multi-layered--comfortably and without stress.

JUKI is helping me promote my mainstay activity of continuously sending out information through a social networking service (SNS). When the coronavirus quashed my plans for in-person workshops in 2020, I held a virtual (online) workshop in collaboration with JUKI instead. Though we had to test the process at first to see what worked, it was very rewarding and meaningful for me to experience the participants' reactions in real-time.

I believe that we are already entering an era where people can participate online regardless of where they are on the planet. Let's work together to increase the number of sewing machines and sewing machine enthusiasts through friendly competition while proactively sending out information.

GUKI's support is essential to the achievement of our smart sewing factory



Introducing a new lineup of digital sewing machines, including the DDL-9000C, into our production lines. We can steadily improve our productivity and performance by checking our operation information in real time.

661 resonate with SNS activities that convey the appeal of sewing machines and sewing 99



I have authored a series of "handmade" books. I'm careful to use easyto-understand expressions in my books. When my instructions are easy, the crafters gain more freedom to arrange their creations to their liking.

Electronic Assembly Systems



MSI Computer (Shenzhen) Co.,Ltd. http://www.msi.com Vice General Manager Evan Fu

Our factory in China is operated by a Taiwan-based electronics manufacturer called MSI (Micro-Star International Co., Ltd.). Our factory was established in 2000 and employs about 4,200 people. We mainly produce various types of motherboards, PCs, and servers. Our products are used all over the world, especially in Taiwan.

MSI's motherboards are one of the top brands in the world. Our factory plays an important role in supporting their products. We also focus on employee training under the management philosophy of "superior products, outstanding quality, perfect service, and customer satisfaction." In 2009 we were recognized as an advanced excellent company in China.

In 2016, we evaluated JUKI's odd-shaped parts inserters with a view to automating a post-process in which components were inserted manually into the boards. We went into business with JUKI in the same year. We have so far introduced 80 or more of JUKI machines into our production lines. We chose JUKI products for their shorter tact times, stable operation, and quality improvement. These features were ideal for the type of automation we aimed for. JUKI products have significantly improved the productivity of not only our post-process, but also our entire line. We hope that JUKI will stay on our team and continue providing generous support to us while further improving their technical capabilities in-house.

GUKI is an essential partner to us in our work to achieve more highly automated factories



Production site at MSI Computer (Shenzhen) Co., Ltd.

Group Business



A&T Corporation https://www.aandt.co.jp/ Group leader, Shonan Purchasing Group, Purchasing Department Goichi Tanaka

Our company is a comprehensive technology manufacturer that handles everything from the development, manufacturing, and sale of products and systems for clinical laboratory tests to consulting services for laboratory improvement. We are proud of our industry-leading achievements in clinical laboratory information systems. We are now expanding into overseas markets such as China, Europe, and the United States with new lineups of laboratory testing reagents and modules that incorporate into large-scale testing equipment.

We strive to provide high-value products and services by considering the four elements of quality (Q), price (C), delivery (D), and environment (E) holistically, based on our corporate philosophy of "Supporting medical care and contributing to the health of people around the world."

In 2017 we entrusted JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION with a major project to develop and manufacture a refrigerated stocker module (RS). That was our first transaction with a JUKI Group company. Our company has strong confidence in the technical capabilities JUKI INDUSTRIAL EQUIPMENT TECHNOLOGY has accrued in the development and manufacture of SMT equipment over the years. On my first visit to their factory, I was instantly impressed by the enthusiasm and genial greetings of their workforce. I was convinced that I could trust them. Another reason for our choice was their location just next to our mother factory (Esashi factory) in Oshu City, Iwate Prefecture. From the design stage, the engineers from both of our companies came and went, shared information and technology, and built a solid relationship of trust and cooperation. JUKI's support has been key to our success in creating products that satisfy our customers.

We look forward to making further improvements based on the QCDE requirements our company sets. We are driven by the belief that quality can always get better.

GUKI is a strong ally we can trust from development to manufacturing based on QCDE 99





Example of a laboratory testing automation system connected to a refrigerated stocker module (RS)

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 INDUSTRIAL EQUIPMENT TECHNOLOGY CORPORATION

JUKI MATSUE

CORPORATION

JUKI CORPORATION OHTAWARA PLANT ULKI CENTRAL EUROPE SP.ZO.O. ESSEGI AUTOMATION S.r.I. JUKI (SHANGHAI) INDUSTRIAL CO.,LTD.

JUKI AMERICA, INC.

JUKI (VIETNAM) CO., LTD.

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



Test using an electrostatics tester



Durability test for a chip mounter



Elemental analysis using an EPMA



Vibration test using a vibration exciter



Stitch test for an industrial sewing machine



Hardness test using a Vickers hardness tester



Product package drop test



Noise rating in a semi-anechoic chamber

-TOPICS-

Winning the OPEN INNOVATION AWARD 2019, a high honor for innovators working in open innovation

JUKI received the OPEN INNOVATION AWARD 2019, an honor bestowed upon active innovators by elicon company, the operator of AUBA, Japan's largest open innovation platform. This award is given to the most outstanding company based on a comprehensive evaluation of its activeness, commitment, transparency in PR, and partnering activities. JUKI was recognized for its collaboration with a robotics startup company (to take on the challenge of automating a sewing process) and its internal promotion activities for open innovation.



"Fashion World Tokyo 2020 Autumn".

JUKI exhibited jointly with Mindhive Limited, a New Zealand-based provider of AI solutions for leather grade inspection, at Fashion World Tokyo, Japan's largest fashion exhibition. About 500 companies from around the world visit Fashion World Tokyo each year. The JUKI-Mindhive joint exhibition was set up to survey the market need for an automatic visual inspection system for leathers and fabrics. Customers dealing with not only leather products, but also apparel fabrics, showed strong interest in the system. We will press ahead with our efforts to commercialize this product.



Automatic visual inspection system for leathers and fabrics

Tokyo Big Sight in October 2020

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.

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.

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

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

Other core technologies

Vertical drive during feeding operation

Dry technology) (Energy-so

) (Energy-saving technology



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

Perfect stitches

38 JUKI's value creation: Technological development capacity

Core technologies for household sewing machines

JUKI Sewing Net

This technology allows users to browse the Internet with a wireless LAN installed in their main units.

Specifically, the technology allows users to update the software installed on their sewing machines, view audio and visual guidance (YouTube, Instagram, etc.) on their touch panel screens, and read instruction manuals online. The touch panel can be tapped or swiped by the capacitive method, just like a smartphone.



Fully automatic threading (Easy threader)

HZL-UX8

Automatic stitch balancing thread tension mechanism

Achieving balanced needle thread tension according to pattern types

The technology automatically adjusts the needle thread tension to suit the sewing pattern. An optimal needle thread tension is programmed for each of the 351 built-in sewing patterns and letter patterns based on the pressure determined by the swing width and thread feed amount. The rotation angle of the thread tension cam is controlled digitally by the exclusive stepping motor.

Pivot functions

Float mode



HZL-NX7

Core technologies for electronic assembly systems

Box feed

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 highspeed 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 imaging data, and performing the necessary calculations in less time.



Image recognition for the RV-2-3D

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 RX-7R

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.

Other core technologies



A planet head mounted on the RX-7R

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 overseas

Production of industrial sewing machinery
 Production of household sewing machinery
 Production of electronics assembly systems
 Production of group business

UNDUSTRIAL CO., LTD. SHANGHAI JUKI JUKI (SHANGHAI) SHANGHAI JUKI SEWING MACHIN

SEWING MACHINE

JUKI (VIETNAM) CO., LTD.

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 (Monodzukuri) 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 "55, 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

Changing the company name of JUKI XINXING INDUSTRY CO., LTD. and starting operations at a new factory

JUKI XINXING INDUSTRY CO., LTD., a company founded in 1995 as JUKI's first overseas production plant for industrial sewing machines, became a wholly owned subsidiary of JUKI (CHINA) CO., LTD. The company's name was changed to JUKI (LANGFANG) INDUSTRIAL CO., LTD. The new factory was relocated to the economic and technological development zone in Langfang, Hebei Province, the place of the company's founding, and started operations in November 2020.

The new factory has been designed to improve work efficiency with a lean layout that conforms with the process flow, eliminating transport between processes and shortening the distances for parts supply. We have introduced facilities to reduce environmental loads by using natural gas, modifying the existing facilities, adopting low-NOx boilers, installing a new VOCs system to concentrate and collect exhaust air during production, and significantly increasing the factory's sewage treatment capacity (quality). We will continue to improve our productivity by making our facilities ever smarter while striving to become more eco-friendly.



New factory run by JUKI (LANGFANG) INDUSTRIAL CO., LTD



Inside an aspiring smart factory







JUKI's SDGs

JUKI'S SUSTAINABLE DEVELOPMENT GOALS

To create a prosperous society and hand it down to the future

JUK

Developing business based on an SDGs perspective focused on solving important social challenges

JUKI will further evolve its SDGs initiatives and aim to achieve carbon neutrality by 2050.

I am praying for the souls of those who have lost their lives to the coronavirus disease (COVID-19). I would also like to voice my respect once more for the daily efforts of the medical professionals who are treating the people affected by the disease. Although preventive vaccinations are making headway in Japan, they are still far from being fully adopted worldwide. It will clearly take more time before the disease is under control. I believe we must prepare ourselves for a tense period of up to several years as we try to balance the need to protect lives with the need to restore social and economic activities.

As a manufacturing company, JUKI has aimed to achieve its corporate philosophy of spreading happiness and enriching society, and of evolving JUKI technologies and creating new value. We have continued to provide products and services from the customer's perspective, learning from our customers and creating new value together with them. We are confident that all of the corporate activities we conduct are effectively planned out to realize the society targeted by the SDGs.

We have set SDGs Management X as one of the 6Xs (six transformations) to address under our current Medium-term Management Plan for 20212022." As a global company that owns one of the world's most valuable brands, we will work to realize a prosperous and sustainable society through our business activities. From a standpoint of environmental consideration in particular, we will aim to achieve carbon neutrality by 2050, in addition to the existing "2 degree target" set under the Paris Agreement (a multilateral international agreement on climate change control). We look forward to your on-going support.



Akira Kiyohara

Representative Director, Chairman and CEO In charge of the SDGs

JUKI's SDGs cycle



Medium-term Management Plan

Based on our corporate philosophy and basic management policies
Focused on SDGs management X", one of the "Six transformations" (6Xs)

The JUKI Group will ramp up its efforts to solve the social challenges targeted under the SDGs. We are committed to realizing the prosperous and sustainable society the SDGs aim to create by ensuring that all of our employees steadily carry out their activities based on the Corporate Philosophy and Medium-term Management Plan. Most urgently, we will aim to achieve carbon neutrality in order to cope with the ever-more serious crises brought by climate change and other trends in the global environment.

JUKI's efforts to date and SDGs initiatives for the future

Based on our founding philosophy, we have contributed to the creation of industries and economic development in emerging countries through our business activities for more than 80 years. JUKI, a company involved in the apparel, electrical, and electronics industries, aims to address social challenges head on and remain a company with a worthy reason for being in society that partners with people around the world to realize affluent, rewarding lives.

Corporate Philosophy

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

Business experience spanning more than 80 years



Contributing to the economic development of emerging countries through our sewing machine business

JUKI's efforts to date

JUKI has long been providing support in cooperation with governmental organizations in various countries to launch and grow the sewing industry, a nation-building industry that can be started with relatively little capital investment.

Various measures are taken to prevent injuries and ensure safe operation, as sewing machines are products operated by human beings.

> We support the operation of training centers in emerging countries in order to develop human resources to work in sewing factories. We also conduct factory diagnosis and improvement proposals to improve factory productivity.





Drying technology

Contributing to the digitalization of the world through our electronics assembly systems business

Creating eco-friendly technologies We keep pace with the evolution of printed circuit boards (PCBs) for electronic and electrical products as a comprehensive manufacturer of PCB assembly equipment.

We have declared a commitment to environmental management and have been working to prevent global warming through JUKI eco-friendly business activities focused on targets such as reduced greenhouse gas emissions, green procurement in compliance with environmental laws and regulations, and the adoption of systems to recognize safe and eco-friendly products as "JUKI ECO PRODUCTS."

SUSTAINABLE GOALS

Creating employment opportunities Promoting the social participation of various human resources



Ensuring occupational health and safety



Contributing to the reduction of clothing waste from a producer's perspective



Supporting technological innovation by improving productivity in the electronics industry



Reduction of environmental load

Enriching the lives



of people around the world!



Making a comfortable and convenient life with help from IT and AI



Creating a carbon-neutral world to prevent climate change

JUKI's initiatives for the future

We will contribute to GDP growth and job creation in emerging countries by partnering with sewing factories to support their growth.

> We will move forward with the creation of a factory-wide system to protect the health and safety of workers in sewing factories. We will also support our customers by providing products and systems that meet their needs amid the spread of the coronavirus disease (COVID-19).

A large volume of clothing waste is a global challenge we must address head on as one of the main players involved in the sewing industry. We will work to solve this challenge as a supporter of the production of sewn products.

We will also support the industries that are designing the society of the future by innovating technologies such as IoT and AI.

We will mount an effort to reduce CO2 emissions in the overall supply chain to achieve the "2 degree target" set under the Paris Agreement (a multilateral international agreement on climate change control).



Recognition of the external environment, and risks and opportunities

The external environment surrounding JUKI's business is constantly changing. We have analyzed the risks and opportunities that come with those changes and have incorporated them into JUKI's priority issues. We will address the priority issues to be reflected in our business measures for achieving the Medium-term Management Plan by the date scheduled for completion of the targeted goals in fiscal 2022.

Recognition of the external environment

Growing population in emerging countries

 Increased demand for work opportunities

Increased gap between the rich and the poor

Cycle of poverty

Issues faced in mass production and mass disposal

 Increased awareness of sustainability in society

Declining birthrates and aging populations in developed countries

 Declining consumer confidence and changing consumer behavior

Increased awareness of sustainability

Reduction of environmental load

Intensified trade frictions

Fragmentation of supply chains

Accelerated technological innovation

 Evolution of new technologies such as IoT and AI

Spread of the novel coronavirus

 Restructuring of businesses and organizations with social and economic changes

Promoting diversity

Use of diverse human resources

Establishing a stable foundation for growth

Enhancement of social trust and corporate value

JUKI's perspective (on risks and opportunities)



- Delaying responses to various customer needs in emerging countries
- Providing products and differentiated services to support job creation and expansion in emerging countries
- Providing automation, digitalization, and other processes that compensate for labor shortages



- Increased risks that threaten our business activities
- Increasing sophistication of JUKI's business continuity plan (BCP)



- Obsolescence of existing business models with rising new technologies
- Providing innovative products and services using new technologies





- Losing business opportunities by delaying strategies to reduce environmental load
- The end of the era of mass production and mass consumption
- Manifestation of production/procurement risks in specific countries
- Creating new businesses and developing new products by strengthening sustainability initiatives
- Compounding business risks by responding slowly to social needs
- Enhancing corporate value by promoting diversity
- Avoiding various business risks through legal compliance

SUSTAINABLE GALS

JUKI's measures

	JUKI's initiatives	Solving social challenges	
	 Creating new jobs in emerging countries 	Creating employment opportunities	1 mm 4 mm 1 mm 1 mm 1 mm 1 mm 2 mm 1 mm 2 mm 1 mm
	 Increasing the working population and improving the working conditions for workers through vocational education support 	Promoting the social participation of various human resources	1 mm 4 mm 1 mm 1 mm 1 mm 1 mm 2 mm 1 mm 2 mm 1 mm
Customer	 Supporting the building of safe and secure sewing factories 	Ensuring occupational health and safety	3 termania _∕∕√∕❤
initiatives	 Making sewing and mounting factories smarter and supporting technological innovation Realizing a factory that produces high-quality products in a short time at low cost Providing a system to achieve moderate-volume production Improvement to back-and- forth process infrastructure in implementation plants 	Contributing to the reduction of clothing waste from a producer's perspective Supporting technological innovation by improving productivity in the electronics industry	
	 Reduction of environmental load through business activities Environmental consideration in product life cycles 	Reduction of environmental load	12 south 2 south 13 str 2 south 14 str 2 south 2 so
Initiatives conducted within JUKI	 Revitalizing the organization by promoting diversity Reforming work style, facilitating job satisfaction, and educating human resources 	Realizing ideal working conditions	3 meaner W 5 mean S
	 Enhancing JUKI's corporate governance system Providing thorough compliance and strengthening risk management 	Strengthening corporate governance	5 cma 16 ms.ms prime 2 cma 2 cm

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JUKI's SDGs: Risks and Opportunities

Reduction of environmental load

We are working to reduce our environmental load through business activities focused on reducing greenhouse gas emissions, complying with environmental regulations, and developing safe and eco-friendly products.

History of JUKI's activities to reduce environmental load

We at JUKI have declared a total commitment to environmental management and have been working to reduce CO₂ emissions toward the achievement of the "2 degree target" set under the Paris Agreement (a multilateral international agreement on climate change control). We have been intensively reviewing our environmental impacts and complying with environmental regulations on greenhouse gas reduction, global warming prevention, and the like to meet the demands of society and provide safer and eco-friendly products to customers.



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.



This is an original mark created based on JUKI's Environmental Philosophy.

The mark expresses our determination to pass on a better global environment to future generations. Inside JUKI we call the logo character "Eco-chan." Eco-chan comes in various versions.



Relation to the SDGs



Carbon-neutral reduction targets

Climate change and other global environmental issues are becoming more severe. JUKI will continue to reinforce its efforts to achieve carbon neutrality by 2050.

We hope to remain a company with a worthy reason for being in society by addressing global social challenges and contributing to the realization of a prosperous and sustainable society.



Carbon-neutral initiatives in product supply chains and lifecycles

Procurement/ Logistics	 Strengthening green procurement Improving the use of recycled materials Improving logistics methods for procurement
Development	 Further promoting the planning and development of energy-saving products Using eco-friendly materials Downsizing product weights and sizes
Production	 Switching to lower-carbon fuels, hydrogen, biomass, and synthetic fuels, etc. Switching used fuels to non-petrochemical fuels Establishing smarter and more efficient production methods
Building environment / work styles	 Replacing equipment used in buildings with energy-saving products Promoting the introduction of solar panels Improving efficiency by reforming work styles and operations (promoting RPA, etc.)
Commuting/ Business trip	 Reducing commuting and business trips through remote meetings and telework Upgrading services using smart glasses, etc. (reduction of business trips)
Products/ Services	 Providing support and consulting services to make customer factories smarter and more energy-efficient Deepening the used equipment business Establishing a recycling system for after-sales products and parts

JUKI's SDGs initiatives

Reduction of environmental load

The JUKI Group is working to improve its environmental performance by clarifying the environmental load associated with its businesses. Here are some of our environmental performance metrics and initiatives in FY2020.

Environmental performance in FY2020



- 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.
- Liquefied natural gas: fuel for boilers
- 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.

- 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 2020 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.



Developing eco-friendly products

JUKI is committed to manufacturing products that remain eco-friendly throughout their entire life cycle, from design, manufacturing, transportation, and use to recycling and disposal. JUKI conducts assessments on 38 environmental items, including noise and vibration reduction, longterm usability, reduced power consumption, and use of recycled materials. Products that meet the standards are recognized as JUKI ECO PRODUCTS.

JUKI ECO PRODUCTS recognized in FY2020

Industrial sewing machines

ousehold sewing

mach





Pattern Seamer PS-800 Series

This product, the HZL-UX8, meets the Green Procurement Guidelines, a set of standards even stricter than the RoHS Directive and regulations on other hazardous chemical substance.

Computer-controlled Cycle Machine with Input Function (Full-Rotation Hook Specification) AMS-221F3020R Series

This product reduces the amounts of consumable materials used, such as oil and grease, by 15.7% compared to conventional products.

Semi-dry head, 2-needle Lockstitch Sewing System LH-4500C (S type) series

This product reduces power consumption in standby mode by 50.8% compared to conventional products.

Semi Professional Sewing Machine TL-2020PE

PLATINUM EDITION

This product reduces power consumption in standby mode by 2.7% compared to previous models.

Computer-controlled Sewing Machine HZL-UX8

This product, the HZL-UX8, meets the Green Procurement Guidelines, a set of standards even stricter than the RoHS Directive and regulations on other hazardous chemical substance.

Reducing VOCs at JUKI (LANGFANG) INDUSTRIAL CO., Ltd.

The company worked to eliminate the use of organic solvents in primer coats and to switch from organic solvent sealers to water-soluble sealers in order to comply with environmental regulations in China.

Emissions of VOCs contained in organic solvents were reduced by 12.5 g per unit, resulting in an overall reduction of 40%. The above activities led to a reduction in the use of LNG gas, increased productivity, and reduced energy use.

Installing a solar power generation system in JUKI (VIETNAM) CO., LTD.

Twenty-two hundred solar power generation panels were installed at the fourth plant of JUKI (VIETNAM) CO., LTD. in December 2020. The panels have reduced CO₂ emissions by 8% overall. JUKI (VIETNAM) CO., LTD. operates the first plant in the TTC industrial park to install solar power generation systems. HBA (the Ho Chi Minh City Export Processing Zone and Industrial Park Authority Business Association) has awarded the plant as an eco-conscious production facility that puts the global environment first.



Award ceremony at HBA

Solar power generation panels at the fourth plant

Installing high-efficiency boilers in JUKI (SHANGHAI) INDUSTRIAL CO., LTD.

In accordance with the new Boiler Air Pollutant Emission Standards in Shanghai, JUKI (SHANGHAI) INDUSTRIAL CO., LTD. renovated an LNG gasification station by installing a low-nitrogen-oxide-emission boiler. Nitrogen oxide emissions were reduced to 30 mg/m3 or less (standard value: 50 mg/m3) after the renovation. 2 emission coefficient of LNG is now lower than that of LPG, resulting in a reduction of CO₂ emission coefficient of LNG is now lower than that of LPG, resulting in a reduction of CO₂ emissions by 77.5 tons per year.



Inside the LNG gasification station



JUKI's SDGs initiatives

Creating employment opportunities

The sewing industry is a labor-intensive industry in developing countries. We support the growth of those countries through our industrial sewing machine business. We will raise the working environment from a simple labor-intensive level to a human-friendly level by installing equipment and systems to make the factories smarter.

Creating employment opportunities in developing countries

In 1959 we established a Sewing Efficiency Laboratory and started support activities. With help from production control and IE technologies, we set out to maximize the strengths of "materials, equipment, and people" in order to achieve optimal performance levels.

Based on the laboratory's activities, we have been participating in ODA (Official Development Assistance) projects that foster export industries in developing countries and spur the creation of wealth and employment. We have collaborated with government agencies in Cambodia, Myanmar, Ghana, Madagascar, and many other countries to provide equipment for apparel training centers and conduct educational training sessions.

Our goals are to nurture self-directed trainees who will grow into managers and other key personnel, and to create a cycle of employment in developing countries.

Toward a safe and clean sewing factory demanded by society

We continue to realize clean, fatigue-free working environments by developing safe, easy-to-operate, dust-free sewing machine products that operate at reduced noise and operation levels. We are also realizing human-friendly working environments by deploying automated equipment that reduces heavy labor and other burdens in the working environments and simplifying skilled labor (de-skilling).

JUKI shares the SDGs perspectives now guiding the apparel companies that place orders for JUKI products. JUKI provides factory consultations on productivity, quality, working environment improvements, and environmental measures to support its customers as they evolve their sewing factories into production facilities that meet the latest social demands.



Contributing to the reduction of clothing waste from a producer's perspective

Mass production and large inventories result in the generation of clothing waste. We will work to solve this challenge as a supporter of the production of sewn products.

Relation to the SDGs 9 NOUSINY INNOVIDIN 12 RESPONSIBLE CONSUMPTION CONSUMPTION



Achieving moderate-volume production through automatization, digitalization, and networking strategies, as well as consulting capabilities

JUKI is working to achieve moderate-volume production by building a highly productive, compact line that optimizes inventory levels through short-cycle production based on automatization, digitalization, and networking strategies. A digital sewing machine operator can change seam adjustment values with a few taps of the finger, for easier changeovers of sewn items. Automated processes save labor, while the networked JaNets system manages the progress of production and production output. We are also leveraging our 60 years of experience in consulting to build a production system that reduces or eliminates clothing waste generated at our customer's production sites.



as well as consulting capabilities



Relation to the SDGs

Promoting the social participation of various human resources

There are still many illiterate persons in the world, especially in developing countries. Illiterate persons are often unable to find work. Far too many are trapped in a spiral of poverty. JUKI will continue providing vocational support to increase working populations and improve working conditions for workers.

Providing an inspection support system that leads to employee development

For operators in developing countries who lack literacy skills, JUKI equips its industrial sewing machines with voice guidance functions and prepares product manuals with instructions presented in illustrations and symbols.

A system to support the daily sewing machine inspections at sewing factories is also available free of charge via a smartphone app or a PC browser. The software guides the operator through 10 to 20 inspection steps with pictures. Whoever performs the guided inspection learns about all of the important parts of a sewing machine. JUKI continues to promote employment in developing countries through efforts like these.

Worker development through the development and provision of e-learning menus

We continue to conduct seminars and group training to provide useful tips on machine maintenance techniques and good practices to improve productivity and sewing quality at sewing factories. We launched e-learning activities to provide these menus in 2020. We will be further expanding our e-learning menus and promoting educational activities to give our customers more opportunities to acquire technical knowledge.

Training technical trainees from Vietnam at the Ohtawara plant and supporting their employment in their home country

We have accepted approximately 30 technical interns from Vietnam since 2019. We help them acquire and master the skills of processing, painting, and assembly at the Ohtawara plant, JUKI's mother factory for industrial sewing machines. The knowledge and experience they acquire through the course will open doors for them as strong candidates for employment at JUKI VIETNAM CO., LTD., another manufacturer of industrial sewing machines in the JUKI Group. JUKI will continue to promote activities that contribute to the development of human resources who will support the economic development of their countries. Human resource development is the core mission of Japan's Technical Intern Training Program for Foreigners.





Visual explanation of inspection and daily maintenance



JUKI created its first sewing operator training course.



Trainees working as technical interns from Vietnam

Relation to the SDGs



Supporting technological innovation by improving productivity in the electronics industry

As a comprehensive manufacturer of printed circuit board production equipment, we support the evolution of printed circuit boards for electronic and electrical products by handling the growing constellation of miniaturized chip components and complex, odd-shaped components. We will also support the industries that are designing the society of the future by innovating technologies such as IoT and AI.

Improvement to back-and-forth process infrastructure in implementation plants

We are realizing smart factories that incorporate the IoT, AI, and other forefront technologies to eliminate manpower requirements as much as possible. To save labor in the labor-intensive processes before and after the mounting line, we not only use an "automated warehouse" that stores and manages electronic components and automation of the post-processes but also develop a system for linking with the core system. Eliminating manpower requirements and making factories smarter can further reduce product costs and increase our capacity to distribute inexpensive, high-quality products around the world, including in developing countries. The gains in efficiency will make our lives more convenient and comfortable.



JUKI's SDGs initiatives

Ensuring occupational health and safety

As a supporter of communities, we have launched production activities to make up for the shortages of the non-woven masks and protective clothing needed to prevent the spread of the novel coronavirus.

Producing protective clothing to meet the needs of society

The Ministry of Economy, Trade and Industry (METI) has entrusted JUKI with the production of various types of protective clothing whose inventories have been depleted by the spread of the novel coronavirus.

A new Sewing Department was established for the production of protective clothing at the Ohtawara plant, a facility normally dedicated to the production of industrial sewing machines. Lacking experience in the sewing of protective clothing, we received guidance on the sewing process from a JUKI customer (a sewing factory) and built a quality check system in-house to visualize the production process using the know-how of one of JUKI's assembly factories.

We have also invested in equipment for future commercialization and have built a smarter production system. JUKI is moving forward with various initiatives to use its in-house infrastructure to meet the today's society in crisis mode.



Production of protective clothing at the Ohtawara plant

Providing safety and hygiene products for offices and factories

We provide safety and hygiene products that are useful in offices and factories

We introduce a variety of products to create safe and healthy working environments for employees, including unmanned security and disinfection robots that prevent various infections, muscle suits that assist in heavy-duty work, and disinfectant stands and partitions produced at JUKI production plants.

We can protect our employees from occupational accidents and create a safe and secure work environment where every employee can maximize his or her potential.





Disinfectant stands (made by JUKI)



Muscle suit Every Manufactured and distributed by: INNOPHYS CO., LTD

Donating the handmade masks to elementary and junior high schools in eight regions across Japan

To prevent the spread of the novel coronavirus, the Ohtawara plant produced a total of 32,700 cloth masks for children and donated them to elementary and junior high schools in Tama City, the home base of our head office, and in the other areas where our seven domestic plants are based. We launched a project to produce masks for children, an item high in demand but seriously short in supply. About 50 employees were diverted from their usual work in assembling sewing machines to produce masks for elementary and junior high school students. Masks of three sizes (S, M, and L) were sewn using JUKI industrial sewing machines and household sewing machines. All of the children enrolled in the schools received the masks. Messages of thanks streamed into the head office and other sites.



Quick response to the needs for handmade masks

Though badly needed, masks to prevent the spread of the novel coronavirus were hard to obtain at the beginning of the pandemic. In February 2020, JUKI posted two video tutorials on mask-making by hand on YouTube: one to make a three-dimensional mask (shaped mask) and one to make a pleated mask. They have attracted 230,000 views so far. The mask patterns are also now available on the JUKI website.

In addition, we held an online workshop on maskmaking in June of 2020. We tried to make the maskmaking processes easier to understand in the online workshop by zooming the camera in to show difficultto-understand processes, providing the level of detail compatible to a real workshop.



Handmade mask-making workshop held online

Realizing ideal working conditions



As a company that operates globally, we provide opportunities for employment and growth for candidates regardless of nationality, race, gender, or age. We continue to create employee-friendly environments that meet the changing needs of the times.

Establishing the JUKI Group Employees' Code of Conduct

Deregulation and economic recovery measures are being implemented around the world to cope with the coronavirus pandemic. On June 1, 2020, JUKI established a Code of Conduct to prevent the outbreak of cluster inspections that could potentially spread throughout the whole of the JUKI organization and force closures of the JUKI offices. Striking a balance between protecting lives and conducting economic activities has been also our aim of the Code of Conduct. We are thoroughly committed to working on ways to protect the lives and health of our employees, including strategies for telework and staggered working hours.

JUKI Group Employees' Code of Conduct ~New Normal principle~

I Principles of social life (as an individual)

- Every JUKI employee must adopt a new way of life and practice thorough infection prevention measures to prevent the spread of infection from person to person. (1) Thoroughly manage hygiene (by gargling, washing your hands, and wearing a mask).
- (2) Thoroughly avoid the three C's: closed spaces with poor ventilation, crowded places packed with people, and close-contact settings and activities such as close-range conversations. (Staying away from such environments to prevent cluster infections is requested.) Gatherings and get-togethers are prohibited in places where no measures are taken to avoid the three C's.
- (3) Strictly maintain physical distance from others (both in and outside of the home).

I Principles of corporate activity (as a professional) (1) Thoroughly manage hygiene.

ignry manage nygiene.

reh vour hands, and wear a mask

Smooth implementation of telework

At the end of 2019 we completed the development of an IT infrastructure called the JUKI Global Platform (JGP) to accelerate diverse work styles throughout the JUKI Group. Telework has become an urgent priority with the advent of the global pandemic. JUKI has been implementing full-fledged telework and remote meetings since April of 2020. Remote collaborations have progressed seamlessly with help from Microsoft Teams and other tools in a secure IT infrastructure environment.



Remote meetings

Promoting diversity

JUKI's diversity management system accepts diverse work styles and makes the most of every person's diverse qualities regardless of gender, nationality, or age. We aim to maximize organizational performance by leveraging the diversity of persons of all ages, gender identities, and nationalities based on the three pillars of diversity management: "promoting the advancement of female employees," "assigning global human resources," and "promoting the advancement of specialized employees."

We have set a new goal of increasing the percentage of female managers to 10% of the total managers by fiscal 2026. We are finding ways to give female employees more opportunities to play active roles, gain work experience, and expand their job portfolios.

Diversity o	f attributes	Work styl	e diversity
Gender	Age	Work location	Job type
Natio	nality	Workin	ig hours

Creating an environment where diverse human resources with diverse work styles are accepted and encouraged to demonstrate their abilities

Targets from FY2021 onwards



Global human resource development

Recognizing that people are the key to business growth, we provide educational support to strengthen on-site capabilities and promote domestic and overseas human resource exchanges geared to globalization.

On the educational front, we develop human resources by offering education organized by job level, function, and specialized field. We also hold remote training sessions and educate young employees in e-learning sessions at an expanded scope even during the coronavirus pandemic.



Screenshot from Schoo, an online employee training program for young employees

JUKI's SDGs initiatives

Strengthening corporate governance

JUKI aims to achieve highly transparent management by communicating with our business partners, investors, and shareholders, improving our corporate governance system, ensuring compliance, and strengthening risk management.

Corporate governance

JUKI has positioned the appropriate maintenance and operation of its corporate governance system as one of its most important issues and has been working to improve and enhance the system to ensure the soundness and efficiency of management and respond to the trust of its stakeholders. JUKI also enhances the transparency of its management by making timely and accurate information disclosures.

In the current fiscal year we established a new management structure under a Chairperson and CEO (Chief Executive Officer) and President and COO (Chief Operating Officer). The Chairperson and CEO chairs the board of directors to strengthen the supervision and monitoring of management and business execution by the board of directors, thereby reinforcing the corporate governance system.

Two of the five directors are appointed as outside directors to enhance the management monitoring function of the directors and the board of directors, and to strengthen the system for incorporating their opinions into management. A woman is appointed as one of the three corporate auditors to ensure diversity and strengthen auditing from multiple perspectives.

The board of directors of JUKI CORPORATION makes decisions on matters stipulated by laws and regulations and on important matters related to management, and supervises the status of the execution of businesses one by one. We have also introduced a corporate officer system and an executive position system (corporate officer*) to facilitate business execution and clarify responsibilities.

We have established a system that enables more appropriate decision-making and business execution by setting up a Management Strategy Council under the board of directors. The Council is attended by directors, corporate officers with titles in charge, corporate officers in charge, and department heads in charge to deliberate on basic management policies and strategies from various perspectives.

We have established the Group Auditing Department as an in-house auditing organization responsible for auditing our internal departments and group companies on operation. Audits by corporate auditors are performed in cooperation with the Group Auditing Department and accounting auditors in accordance with our auditing policy and task assignment determined by the board of corporate auditors.

 * Corporate officer: an executive who is equivalent to an executive officer and distinct from a corporate officer with a title

Compliance

The JUKI Group positions compliance as an important management base to earn the trust of customers and society and remain a corporate group with a worthy reason for being in society.

The employees of JUKI and its group companies are thoroughly encouraged to act in accordance with the 10-article JUKI Group Employees Standards of Conduct describing legal compliance and sensible behavior. JUKI and its group companies have established consultation counters to respond promptly to consultations and questions from employees. In addition, important risks related to compliance are managed by the Risk Management Committee.

Risk management

JUKI operates a risk management system centered on a Management Strategy Council that handles strategic risks, a Crisis Management Task Force responsible for business continuity, and a Risk Management Conference consisting of corporate officers and the heads of the business divisions and group companies, to respond appropriately to overall risks in the JUKI Group. We conduct annual policy reviews and quarterly risk assessments and monitoring surveys to cope with the changing risk environments in political and economic conditions, quality assurance, environmental regulations, information security, security trade, compliance, occupational health and safety, etc. We also report to the board of directors and deliberate on the content of our riskmanagement measures to minimize the occurrence of major risks, etc. and continuously improve corporate governance.



* Further details are available in the Corporate Governance Report. https://www2.tse.or.jp/disc/64400/140120210209459014.pdf

56 JUKI's SDGs: JUKI's SDGs initiatives

Directors, Audit & Supervisory Board Members and Corporate Officers

Relation to the SDGs



(as of April 1, 2021)

Directors



Akira Kiyohara Representative Director Chairman and CEO and Representative Director Chairman and CEO of JUKI Automation Systems Corporation



Shinsuke Uchinashi Representative Director President and COO in charge of the Global Cooperate Center (Corporate Planning Department, Finance & Accounting Department, Human Resources & General Affairs Department, Business Process Innovation Department) and in charge of the Secretary's office and Director of JUKI Automation Systems Corporation



Hirokazu Nagashima Director and Senior Managing Officer Company President of Electronics Assembly & Systems Company and Representative Director President and COO of JUKI Automation Systems Corporation



Kazumi Nagasaki Director (Outside) (Independent Directors)



Yutaka Hori Director (Outside) (Independent Directors)

Masato Tanaka

Audit & Supervisory Board Member (Outside)



Junko Watanabe Audit & Supervisory Board Member (Outside) (Independent Directors)



Managing Corporate Officer

Masanori Suzuki

Corporate Officer





Yasuyuki Suzuki Corporate Officer

JUKI's SDGs: JUKI's SDGs initiatives



Masahiko Suzuki Audit & Supervisory Board Member (Full-time)

Managing Corporate Officer





Yutaka Abe Managing Corporate Officer

Corporate Officer



Minoru Nitta Corporate Officer



Toshiyuki Yamanaka Corporate Officer



Kunio Nukui Corporate Officer



Daizo Minami Corporate Officer



Jirou Ishibashi

Managing Corporate Officer

Kenji Nakao Corporate Officer



Shuichi Nozaki Corporate Officer



Katsumi Nihei

Managing Corporate Officer

Keiichi Uekusa Corporate Officer



Akira Tsukano Corporate Officer





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Financial data

Major financial data for two years (Consolidated)

		(million yen)
	FY2019 FY ended December, 2019	FY2020 FY ended December, 2020
Profit or loss situation (Fiscal year)		
Net sales	99,169	70,401
(Ratio of overseas sales to net sales)	82.9%	79.1%
Gross profit	28,869	15,310
Operating income	3,838	△ 4,469
Ordinary income	2,941	△ 3,957
Profit attributable to owners of parent	1,763	△ 4,688
Capital expenditure	2,907	2,176
Depreciation	3,063	3,162
R&D expenses	5,398	4,608
Financial position (End of the fiscal year)		
Total assets	114,715	110,230
Net assets	37,752	31,368
Shareholders' equity	37,037	31,033
Financial index		
Equity ratio	32.3%	28.2%
Return on equity (ROE)	4.8%	△ 13.8%
Cash flow situation (Fiscal year)		
Cash flows from operating activities	3,054	8,509
Cash flows from investing activities	△ 3,430	△ 2,698
Free cash flows	△ 376	5,811
Cash flows from financing activities	△ 810	2,034
Per share information		
Earnings per share (EPS)	60.20 yen	△ 160.04 yen
Dividend per share (DPS)	25 yen	20 yen
Book-value per share (BPS)	1,264.28 yen	1,059.32 yen
Non-financial data		
Number of employees	5,762 people	5,287 people
Ratio of overseas employees to total employees	57.1%	54.7%

Consolidated balance sheet

		(million yen)
	FY2019 FY ended December, 2019	FY2020 FY ended December, 2020
Assets		
Current assets		
Cash and deposits	5,987	13,831
Notes and accounts receivable - trade	30,461	23,326
Merchandise and finished goods	29,299	26,365
Work in process	3,798	3,115
Raw materials and supplies	8,363	7,228
Forward exchange contract	-	67
Other	2,684	2,585
Allowance for doubtful accounts	△ 383	△ 530
Total current assets	80,210	75,990
Non-current assets		
Property, plant and equipment		
Buildings and structures, net	11,514	11,213
Machinery, equipment and vehicles, net	3,610	3,367
Tools, furniture and fixtures, net	1,079	982
Land	6,362	6,322
Lease assets, net	381	332
Construction in progress	329	202
Other	878	1,063
Total property, plant and equipment	24,154	23,484
Intangible assets	2,096	1,922
Investments and other assets		
Investment securities	3,888	3,921
Long-term loans receivable	0	110
Long-term prepaid expenses	226	295
Deferred tax assets	2,356	2,439
Net defined benefit asset	1,133	1,333
Other	2,006	2,070
Allowance for doubtful accounts	△ 1,357	△ 1,338
Total investments and other assets	8,254	8,833
Total non-current assets	34,505	34,240
Total assets	114,715	110,230

		(million yen)
	FY2019	FY2020
	FY ended December, 2019	FY ended December, 2020
Liabilities		
Current liabilities		
Notes and accounts	7,120	7,124
Electronically recorded	2.877	3.004
Short-term loans payable	37.211	34.053
	123	108
Account payable - other	1 230	811
	3 270	2 755
	0,279	2,700
Desidilar factoria	402	00
Provision for bonuses	28	29
Notes payable - facilities	527	76
Forward exchange contract	240	-
Other	1,667	1,651
Total current liabilities	54,769	49,952
No-current liabilities		
Long-term loans payable	15,400	21,989
Lease obligations	264	227
Provision for directors' retirement benefits	61	63
Net defined benefit liability	5,251	5,253
Other	1,216	1,375
Total non-current liabilities	22,194	28,909
Total liabilities	76,963	78,861
Net assets		
Shareholders' equity		
Capital stock	18,044	18,044
Capital surplus	2,035	1,990
Retained earnings	20,494	15,073
Treasury shares	△ 607	△ 607
Total shareholders' equity	39,966	34,501
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	468	478
Foreign currency translation	△ 3,437	△ 4,063
Remeasurements of defined benefit plans	40	116
Total accumulated other comprehensive income	△ 2,929	△ 3,468
Non-controlling interests	714	335
Total net assets	37,752	31,368
Total liabilities and net assets	114,715	110,230

Financial data

Consolidated statements of income

		(million yen)
	FY2019	FY2020
	FY ended December, 2019	FY ended December, 2020
Net sales	99,169	70,401
Cost of sales	70,300	55,090
Gross profit	28,869	15,310
Selling, general and administrative expenses	25,030	19,780
Operating profit (loss)	3,838	△ 4,469
Non-operating income		
Interest income	45	40
Dividend income	154	127
Commission fee	195	158
Reversal of doubtful allowance for receivables	79	60
Subsidy income	44	1,301
Other	331	288
Total non-operating income	852	1,976
Non-operating expenses		
Interest expenses	796	837
Share of loss of entities accounted for using equity metho	-	77
Foreign exchange losses	874	453
Other	77	94
Total non-operating expenses	1,749	1,464
Ordinary profit (loss)	2,941	△ 3,957
Extraordinary income		
Gain on sales of non-current assets	11	34
Gain on sales of investment securities	-	23
Total extraordinary income	11	57
Extraordinary losses		
Loss on sales and retirement of non-current assets	16	176
Loss on valuation of i nvestments in capital	5	-
Loss on valuation of investment securities	-	147
Extra retirement payments	_	243
Total extraordinary losses	22	567
Profit (loss) before income taxes	2,930	△ 4,466
Income tax - current	977	571
Income tax - deferred	164	△ 257
Total income taxes	1,141	313
Profit (loss)	1,789	△ 4,780
Profit (loss) attributable to non-controlling interests	25	△ 91
Profit (loss) attributable to owners of parent	1,763	△ 4,688

Consolidated statements of comprehensive income

		(million yen)
	FY2019 FY ended December, 2019	FY2020 FY ended December, 2020
Profit (loss)	1,789	△ 4,780
Other comprehensive income		
Valuation difference on available-for-sale securities	9	10
Foreign currency translation adjustment	△ 474	△ 628
Re-measurements of defined benefit plans	79	77
Total other comprehensive income	△ 385	△ 541
Comprehensive income	1,403	△ 5,321
(Comprehensive income attributable to)		
Comprehensive income attributable to owners of parent	1,386	△ 5,227
Comprehensible income attributable to non-controlling interests	17	△ 93

Consolidated statements of cash flows

		(million yen)
	FY2019 FY ended December, 2019	FY2020 FY ended December, 2020
Cash flows from operating activities		
Profit (loss) before income taxes	2,930	△ 4,466
Depreciation	3,063	3162
Increase (Decrease) in allowance for doubtful accounts	△ 38	143
Increase (Decrease) of provision for bonuses	△ 9	2
Increase (Decrease) of net defined benefit liability	△ 54	108
Increase (Decrease) of net defined benefit assets ($ riangle$: increase)	4	△ 195
Interest and dividends income	riangle 200	△ 167
Interest expenses	796	837
Foreign exchange losses (gains)	3	4
Loss (gain) on sales and retirement of property, plant and equipment and intangible assets	5	141
Decreased (increase) in notes and accounts receivable-trade	2,578	6,334
Decrease (increase) in inventories	1,361	3,762
Increase (Decrease) in notes and accounts payable	△ 6,159	162
Increase (Decrease) in notes discounted	12	△ 12
Other, net	1,097	△ 7
Subtotal	5,392	9,810
Interest and dividends income received	201	167
Interest expenses paid	△ 799	△ 839
Income taxes (paid) refund	△ 1,740	△ 629
Net cash provided by (used in) operating activities	3,054	8,509
Cash flows from investing activities		
Purchase of property, plant and equipment and intangible assets	△ 2,262	△ 2,586
Proceeds from sales of property, plant and equipment and intangible assets	48	158
Purchases of investment securities	△ 1,234	△ 200
Collection of loans receivable	0	8
Other, net	17	△ 78
Cash flows from investing activities	△ 3,430	△ 2,698
Cash flows from financing activities		
Net increase (decrease) in short-time loans payable	838	△ 3,020
Proceeds from long-term loans payable	8,690	15,849
Repayments of long-term loans payable	△ 8,845	△ 9,028
Purchase of treasury stock	riangle 0	riangle 0
Cash dividends paid	△ 877	△ 730
Repayments of sale and installment back payables	riangle 1	-
Others, net	△ 614	△ 1,036
Cash flows from financing activities	△ 810	2,034
Effect of exchange rate change on cash and cash equivalents	△ 138	riangle 1
Net increase (decrease) in cash and cash equivalents	△ 1,324	7,844
Cash and cash equivalents at beginning of period	7,301	5,976
Cash and cash equivalents at end of period	5,976	13,820

Corporate history

We together step toward our globalization "from Japan to 185 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

1945

of sewina

permitted

machines is

The manufacturing

Tokyo invest to form "Tokyo Juki Manufacturers Association.*

1953 The company enters the first machine.

1957 The company wins the Imperial Invention Award for the invention rotational thread

1961 1964 Manufacture and sale of electronic computer peripherals start.

1970 The company's

1981

1982

A branch office

of JUKI (HONG

KONG) LTD.

is founded in

starts.(KP-350)



(Surface Mount

Technology) for an Industrial Equipment

Business. The man-

1988 The company name is changed to JUKI CORPORATION







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

Industrial Sewing Machines market and releases the (DDW-II)

of a single-axis take-up lever.

stock is listed on the First Section of the Tokyo Stock Exchange.

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

1971 The "OHTAWARA PLANT," a manu-

facturing plant for the Industrial

Sewing Machines

is completed in Ohtawara-shi, Tochiai Prefecture

1972

1974

U.S.

A sales company

ÀMERICA, INC.)

is founded in the

(present JUKI

A sales company (called .IUKI (FU ROPE) GMBH), a stronghold in Europe is founded in West Germany.

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

ufacturing and sales of the first machine

1987 The company enters a field of SMT

Singapore.



62 Data sections: Corporate history

1990s

2000s

2010s

2020s

JUKI CORPORATION 1990 1995 1995 2000 2005 2009 2013 2017 2019 2020 JUKI (SHANGHAI) INDUSTRIAL CO., JUKI's first overseas A company A company A wholly owned An office controlling The company The company Three companies Investment controlling the sales in Asia is founded manufacturing and procuring the parts manufacturing plant for the Industrial factory is founded in the sales in Europe moves to the new makes the in Akita Prefecture in ESSEGI Shanghai, China jointly AUTOMATION S.r.I. LTD. merged with is founded in company building department are integrated into (SHANGHAI JUKI in Singapore. (Present JUKI for the industrial sewing machines Sewing Machines is founded in Poland. (JUKI CENTRAL EUROPE built in Tsurumaki, Tama-shi, Tokyo. for Industrial Equip-ment independent a company called *JUKI INDUSTRIAL JUKI (NINGBO) PRECISION CO., LTD. Shanghai, China. (JUKI (SHANGHAI) SEWING MACHINE CO... **SINGAPORE PTE** is founded in China SP.ZO.0) (December) and founds JUKI EQUIPMENT (JUKI (SHANGHAI) LTD., a manufacturing LTD.) (present JUKI (NINGBO) AUTOMATION TECHNOLOGY INDUSTRIAL CO., plant for the household CORPORATION INDUSTRIAL CO. SYSTEMS LTD. remains PRECISION Co., Ltd.) CORPORATION as the surviving sewing machines) LTD.) company.) 2014 JUKI AUTOMATION 2020 Renaming JUKI XINXING INDUSTRY CO., LTD. to JUKI SYSTEMS CORPO-**RATION** merges with the business department for SMT Equipment of (LANGFANG) INDUSTRIAL CO., LTD 1994 1995 1997 2001 A sales company is A manufacturing The company wins A fully owned SONY EMCS. Building a new factory in the economic and technological founded in China. plant for the an award from the subsidiary (TOKYO JUKI INTERNATIONAL Japan Society for the Promotion of industrial sewing controlling 2015 a Chinese area is machines is founded Manufacturing in Langfang, China jointly with another company. (JUKI XINXING founded. (JUKI (CHINA) CO., LTD.) TRADE (SHANGHAI) CO., LTD.) development zone in Langfang, Machine Industry capabilities of manufacturing for the development of a "bobbin Hebei Province plants in both Japan thread automatic 1995 and Vietnam are feeder" used for the Industrial Sewing INDUSTRIAL CO., LTD.) A parts factory combined to start the for the industrial business for the JUKI JUKI (VIETNAM) CO., LTD. Machines sewing machines is group companies. founded in Vietnam JUKI INDUSTRIAL EQUIPMENT (Present JUKI (METNAM) CO., LTD.) SUZUTAMI PRECISION INDUSTRY CO., LTD. JUKI AIZU CORPORATION JUKI CORPORATION OHTAWARA PLANT JUKI MATSUE JUKI CORPORATION (HEAD OFFICE)(Management) JUKI HIROSHIMA CORPORATION JUKI METAL CORPORATION 2015 2018 2019 2021 2003 2005 2009 2013 2017 2018 Long-arm Sewing Machine Computer Sewing Overlock Sewing Exceed Quilt & Pro Overlock Sewing LONG ARM HY-SPEC SL-700EX Overlock Sewing Computer Sewing Computer-controlled QUILTING MACHINE Machine Machine Special Machine Household Sewing Machine Machine Easy Threader MO-1000 Machine Kirei HZL-NX7 HZL-E60 RS-10 HZL-F600 frame type TL-2200QVP J-350QVP MO-114DN Kirei HZL-UX8 6.1 4 - (27233) Print 2000 2003 2004 2007 2016 2017 2018 2019 2019 2020 Dry-head, electron-ic, single-thread, chainstitch button Dry-head overlock Single-thread, Automatic welt Digital, lockstitch, 1-needle, CNC Lockstitch Pattern seamer 2-needle Sewing sewing machine MO-6100D stitching machine (a diagonal sewing machine AMS-251 Sewing Machine with Automatic Management System Software Lockstitch Needle PS-800 series chainstitch, butautomatic thread ton-neck-wrapping trimmer sewing Feed Sewing sewing machine MB-1800S sewing machine AMB-289 pocket type) APW-896 machine DDL-9000C Thread Trimming (Voice guidance) JaNets System LH-4500C DDL-8000A 生き JaNets 8 to 2008 2011 2013 2014 2017 2018 2018 2018 2019 2020 3D PWB Visual SMT Integration 3D PWB Visual Post-process Automated High-speed smart Multi-task platform High-Speed Smarl High-speed High-speed modular mounter FX-3 compact modular mounter warehouse intelligent storage modular mounter RS-1 Inspection Machine (AOI) System JaNets Modular Mounter RS-1R Inspection Machine (AOI) mounter multi-task JM-100 platform JM-10 RX-7 management RV-2-3DH RV-2-3DHL system ISM2000 JaNets C .

JUKI's global bases

(as of Jan 1, 2021)



PRODUCTION BASES

	Japan		
0	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
6	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 (LANGFANG) INDUSTRIAL CO., LTD	Hebei, China	Manufacturing of industrial sewing machines etc.
10	SHANGHAI JUKI SEWING MACHINE	Shanghai, China	Manufacturing of household sewing

1	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
l	ESSEGI AUTOMATION S.r.I.	Vicenza, Italy	Manufacture of automated warehouses
C	DEVELOPMENT BAS	SES	
I	Japan		
0	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.
1	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.

Vicenza, Italy

FL, U.S.A.

Development of industrial sewing machines.

Development of automated warehouses

JUKI AMERICA, INC.

9 ESSEGI AUTOMATION S.r.I.

GLOBAL



10 Shanghai Juki Sewing Machine Co., Ltd. 1) 7 JUKI (VIETNAM) CO., LID. • JUKI (• IOKYC



9 14

JUKI (CHINA) CO., LTD.
 JUKI SINGAPORE PTE. LTD.
 TOKYO JUKI INTERNATIONAL
 TRADING (SHANGHAI) CO., LTD.

8 12 JUKI CENTRAL EUROPE SP.ZO.O.

7 6

9 14 15 JUKI AMERICA, INC. JUKI AUT

APAN

JUKI AUTOMATION SYSTEMS INC.

LILIKI

MAIN SALES BASES

Japan			
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.	
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 Ind	(Major bases: 8 countries, including Indonesia, Cambodia, and Myanmar)		
🥑 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.	
🕕 juki india pvt.ltd.	Bangalore, India	Sales of industrial sewing machines, chip mounters, etc.	
🕕 JUKI SMT ASIA CO., LTD.	Chan Buri, Tha land	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 Belar	us)		

B	JUKI ITALIA S.P.A.	Milan, Italy	Sales of industrial sewing machines, household sewing machines, etc.
4	JUKI AMERICA, INC.	FL, U.S.A.	Sales of industrial sewing machines, household sewing machines, etc.
	(Other bases: Peru and Mexico)		Ŭ
5	JUKI AUTOMATION SYSTEMS INC.	NC, U.S.A.	Sales of chip mounters, etc.
6	JUKI AUTOMATION SYSTEMS GmbH.	Nuremberg, Germany	Sales of chip mounters, etc.
0	ESSEGI AUTOMATION S.r.I.	Vicenza, Italy	Sale of automated warehouses
JUKI's own Branch Offices, Sales Offices, Service Centers, and others			

12

JUKI's own Branch Offices, Sales Offices, Service Centers, and othe
 Major distributors

OTHER BASES

	Japan		
0	JUKI PROSERVE 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	5	10
SALES	2	15	17
OTHER	2	0	2

Company outline and stock information

(as of Jan 1, 2021)

CORPORATE SUMMARY

Trade name JUKI CORPORATION Established December 15, 1938 Directors Representative Director, Chairman and CEO Akira Kiyohara Representative Director, President and COO Shinsuke Uchinashi Paid-in capital ¥18,044 million Major business Head office : 2-11-1 Tsurumaki, Tama-shi, Tokyo office 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 March shareholders Number of 5,287 (on a consolidated basis), 909 (on a non-consolidated basis) employees Number of affiliated 25

STOCK INFORMATION

80,000,000 shares
29,874,179 shares
12,548
The first section of the Tokyo Stock Exchange (margin trading issue)
6440
Mizuho Trust & Banking Co., Ltd.

STOCK DISTRIBUTION STATUS BY OWNER TYPE

Other domestic legal entities	Treasury shares
1.84%	1.94%
551,000 shares	578,000 shares
Securities companies	Individuals, others
3.59%	39.43%
1,072,000 shares	11,779,000 shares
Foreign legal entities	Financial institutions
20.37%	32.83%
6,085,000 shares	9,809,000 shares

companies

Edit policy The JUKI Corporate Report 2021 is the combination of a company brochure and a report describing JUKI's approach to the SDGs. 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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