

**2012** Environmental  
JUKI CORPORATION Report

*Mind & Technology*

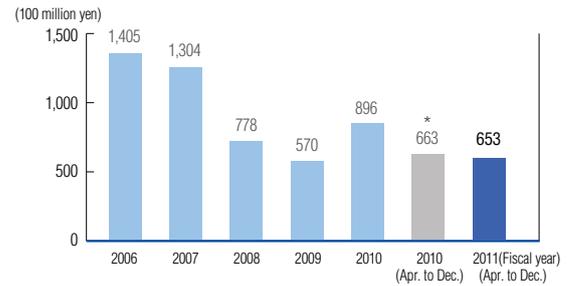
The background features two large, overlapping diagonal stripes. The upper stripe is light blue and the lower stripe is light green. Numerous green leaves of various sizes are scattered across the stripes, appearing to float or be carried by a breeze. The overall aesthetic is clean, modern, and environmentally conscious.

# Outline of the JUKI Group

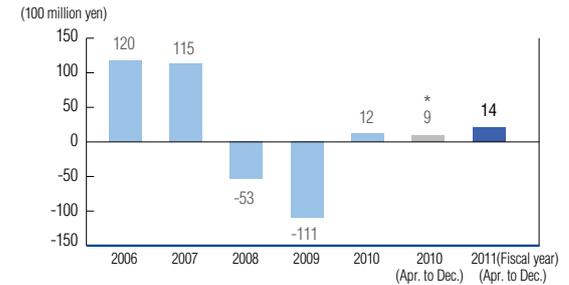
## JUKI CORPORATION Outline

Establishment	December 15, 1938
Paid-in capital	15.95 billion
Shares	Aggregate number of issued shares: 129,371,000 shares Number of shareholders: 14,659 Listed on Tokyo Stock Exchange First Section Fiscal year ending December 31
Net sales	44 billion
Major business sites	Head office 2-11-1, Tsurumaki, Tama-Shi, Tokyo 206-8551  Ohtawara plant 1863, Kita-kanemaru, Ohtawara-shi, Tochigi Prefecture 324-0011
Number of employees	1,210

### ● Net sales (Consolidated)



### ● Ordinary income (Consolidated)



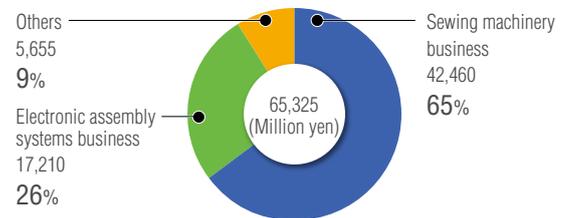
Our company changed the consolidated closing date to December 31 every year beginning in the fiscal year 2011 to attain an increase in efficiency of business operation, such as a budgetary process on a consolidated basis of our group and performance management. In connection with this change, the fiscal year 2011 that is a transition period is nine-month settlement of accounts from April 1, 2011 to December 31, 2011.

\* The track record of the corresponding period of last year (April to December in the fiscal year 2010) is shown as reference.

## The JUKI Group Outline of the JUKI Group

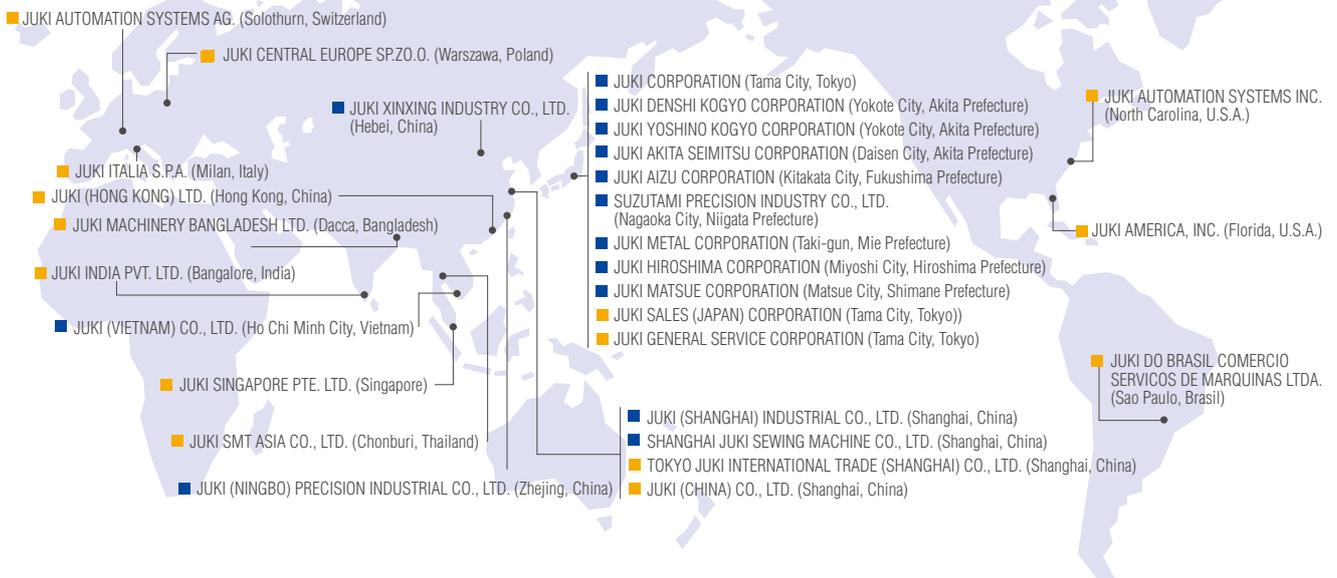
Number of consolidated subsidiaries	32
Net sales	65.3 billion
Number of employees	6,685
Business segments	Sewing machines, Electric assembly systems, Others

### ● Net sales by Business Segment (FY2011)



## Major companies in the Group

■ Manufacturing companies ■ Sales companies etc.



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## Business introduction

### Sewing machines business

#### The industrial sewing machine supporting apparel (garments) production in the world

It is broadly utilized in the manufacturing field of apparel as well as a bag, shoes, furniture, an automobile sheet, etc.

We have won a strong support from the customers around the world through sales and after-sale service network that cover about 170 nations in the world.



LK-1900AN Series

#### The household sewing machine with which high-grade sewing functions achieve a rich sewing life

We have also won a support from a wide range of customers who use the machines that range from a practical machine to a quilt sewing machine, an occupational machine that meets severe demand from a professional and a small lock sewing machine.



HZL-G200

### Electronic assembly systems business

#### The pioneer of a modular mouter

For the first time in the industry, we have proposed the modular system (a system that connects two or more sets of mounters to build a line) prevailing now.

We have also won high support from the customers around the world through a wide range of machines ranging from the high-speed machine "FX-3R" to a low-budget chip mouter and a general-purpose mouter, and through well-developed support of sales and after-sales service.



KE-3010/KE-3020V/KE-3020VR

### Editorial Policy

This report is issued to clarify and tell you plainly the idea of the environmental conservation of the JUKI Group, the measures implemented and their results in fiscal year 2011, and the social responsibility to various stakeholders.

The feature of the "human-friendly and earth-friendly product-making" is introduced in this Environmental Report 2012 as the "Measures implemented by the Sewing Institute" that embody the Juki's corporate slogan, "Mind & Technology." We would like you to read them by all means. Keeping up further communications with stakeholders based on this report to hear various opinions, impressions, and worrying matters, etc, we would like to make the best use of them for an indication for the JUKI Group to become a necessary enterprise for everybody.

#### Disclaimer

This report contains not only a past and present fact of the JUKI Group but also the forecast such as a plan or an estimate that is made at the time of issue. The forecast is an assumption or a judgment based on information that could be acquired when the report was made, and it has the possibility that the result of the business activity or the event in the future will become different from the forecast due to subsequent changes. Moreover, each data herein has the item for which the total is not suitable for the fraction processing. We would ask you to acknowledge the above.

### Period Covered

This report covers the period in fiscal 2011 (from January 1, 2011 through December 31, 2011), but sometimes includes data for other periods.

### Scope of Reporting

The environmental activities of JUKI CORPORATION and the manufacturing companies in the JUKI Group are introduced.

### Reference Guidelines

Environmental Reporting Guidelines (Fiscal 2007 Version) issued by the Ministry of the Environment in Japan

# Corporate Philosophy of the Juki Group

All employees of the JUKI Group worldwide are committed to researching, developing, and manufacturing even better products and providing even better services based on the Group's Corporate Philosophy, Basic Management Policies, and Policies Guiding Employee Activities.

## Corporate Slogan

# Mind & Technology

We create the products which contribute to the society, through "Technology with Heart" and "Customer Creed."

### 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

Promoting Total Quality Management.

Nurturing Strength and Flexibility in our Organization and in our People.

Running Our Company with the Best Management Practices of International Society.

### Policies Guiding Employee Activities

Always think from the customer's point of view and respond swiftly.

Set one's own targets, accomplish the necessary roles, and expand them.

Act always as a trustworthy cosmopolitan.

## Corporate Philosophy of the Juki Group

The "Juki Corporate Code of Conduct" set forth below was established as a guideline for living by the principles of our corporate philosophy. Based on this Corporate Code of Conduct, the men and women of Juki follow all laws, all international rules and regulations, and the principles underlying them in the spirit of responsible corporate citizens with sound social sense.

Juki aligns the pursuit of its own interests through fair competition with the interests of its customers, stockholders, business partners, and society. Benefits for society are benefits for Juki.

- 1 Juki creates and supplies products and services useful for society based on thorough considerations of safety, the protection of personal and customers' information, and the satisfaction and trust of its customers.
- 2 Juki conducts its businesses fairly, transparently, and in keeping with the principle of free competition while maintaining a healthy relationship with national governments.
- 3 Juki discloses its information fairly and consistently through open channels of communication with its shareholders and society as a whole.
- 4 Juki works to ensure safety and ideal working conditions for every employee with full respect for his or her personality and individuality.
- 5 Juki takes good care of the earth environment by using resources effectively, recycling, and saving energy.
- 6 Juki maintains ideal community relations as a good corporate citizen and contributes to society through local activities.
- 7 Juki takes a firm stand against antisocial individuals and organizations that adversely affect social order and sound business activities.
- 8 Juki observes the international rules and local laws as a matter of course, esteems cultures and customs, and endeavours to contribute to the development of countries.

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

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# Top Management Message

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We will put the "Mind & Technology and Customer Creed" philosophy into practice as we strive, as always, to be a company that is trusted and needed by society.

I express my heartfelt sympathy for those who have suffered the devastating damages of the Great East Japan Earthquake. I pray for the earliest possible recovery of the disaster-stricken areas.

In 2011 we lived through momentous changes in the world economy: a financial crisis in Europe, economic and financial instability all over the world, a historically strong yen, a credit squeeze in China and India. The list goes on.

Meanwhile, JUKI started its midterm management plan, the "J number one plan." JUKI also radically reshaped its corporate framework and operational management in a bid to "being a strong company that can survive the 21st century as a global manufacturer."

Under these circumstances, we must adopt environmental practices closely integrated with our management activities. The JUKI head office and the JUKI group's manufacturers have been promoting environmental activities as part of a group-wide effort to construct a management system based on ISO14001, the international standard for environmental management, and to improve this system.

Meanwhile, many of JUKI's customers suffered from serious

damages during the Great East Japan Earthquake last year. It was our mission to support the early restoration and revival of our customers, and we worked on this mission across the board.

Our actions have been guided by our corporate philosophies at JUKI – the "Mind & Technology and Customer Creed." This philosophy empowers us as we continue striving to be a company that is trusted and needed by society.

In 2012 we will work to further strengthen management as a group by enhancing environmental and social activities united with our primary business.

I solicit your ongoing support and guidance in the future.

Akira Kiyohara  
President  
JUKI CORPORATION

清原 晃



# Reconstruction assistance to the customers in the earthquake disaster

The Great East Japan Earthquake that occurred on March 11, 2011 caused serious damages to JUKI's customers, too. JUKI and the JUKI Group formed a single unit to support early restoration and recovery. In particular, for customers of an industrial sewing machine, a chip mounter, and a data entry system, we worked on restoration of a factory and immediate resumption of production in concert with the customers. We have also contributed to revival of the regional society. Here are reports about how we responded to the requests from the customers or how we supported customers who suffered from serious damages.



## "I resume a factory at any cost." – in order to respond to the strong belief

### The sewing machine business's task – Restoration support to Itabashi Knit Co., Ltd. –

Tohoku district is one of the most leading places for apparel manufacturing in Japan. Therefore, there are many sewing plants using JUKI products. After the occurrence of the Great East Japan Earthquake, the employee of our Sales Corporation considered what they can do for customers and what customers want now. They strove best for restoration support especially to six companies which suffered from serious damages together with four bases (seven staff) out of sales offices in Tohoku district.

### Sewing Machines Business's response

Itabashi Knit Co., Ltd. who has been using JUKI's sewing machine for years. Kesenuma business office (factory) that is the main factory that produces 500,000 suits per year left some of roofs and pillars and was almost completely destroyed by tsunami.

President Yoshida, who looked at the figure of the Itabashi Knit's employees who lose hope in the miserable state after the earthquake disaster and weep for it, said to them "We will make a factory resume at any cost." and decided a resume of the factory.

The President's enthusiasm for factory reconstruction moved his or her employee and JUKI's staff.

When rushing into the factory, we saw female workers getting rid of the sewing machine that weighs tens of kilograms and turned into rubble. We also helped decomposition and withdrawal of a large-sized cutter and floor cleaning, etc.

The Itabashi knit's demand was to "reconstruct a factory" within May two months after the disaster and to arrange equipment such as a sewing machine within April. It was short delivery time that is not usually anticipated. Being moved by the zeal of President Yoshida who was able to call direct to JUKI head office, JUKI proceeded with reservation of equipment.

The whole supply of equipment such as not only a sewing machine but an iron and an

inspection machine which are required for production was commissioned to JUKI to resume the factory in May. JUKI also took charge of arrangements of the sewing machine to suit the Itabashi Knit's production system and the move of a cutting machine which was idle on the third floor of the Kumagaya factory of the said company. Despite inexperience of taking down the cutting machine which has about 2 tons from a window using a crane truck, the JUKI SALES staff finished moving it dripping with sweat.

The factory construction rushed because the necessary materials could not be procured owing to the confusion immediately after the earthquake disaster. In the environment where the floor was disordered and the window was covered with a blue sheet, the JUKI SALES staff also stayed there all day to support the machine operation on May 16 when the factory resumed.

One year passed but the restoration of the Itabashi Knit's original manufacturing system still has room for improvement, and a long road to full restoration remains. However, for Imaizumi, a manager of the Kesenuma factory who has regained vitality, as well as other employees, JUKI SALES staff will continue supporting the said company so that it can return to the original state as soon as possible.

(As of the end of February 2012)



The appearance of Itabashi Knit Co., Ltd. before the earthquake disaster



The present Itabashi Knit Co., Ltd. (Shot in February 2012)



The Itabashi Knit Co. Ltd. immediately after the earthquake disaster

## Electronic Assembly Systems Business's response

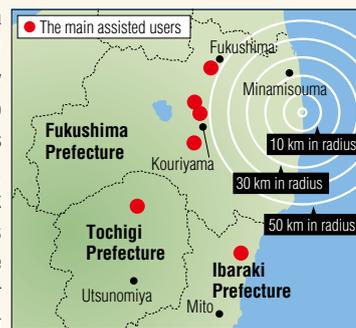
JUKI organized a countermeasure team after the occurrence of the Great East Japan Earthquake and created a customer list. JUKI responded to the request for equipment restoration that the customers make.

By March 14, three days after the occurrence of the earthquake disaster, JUKI finished almost all visitors' assessment of the situation, and started taking measures one by one on March 17. For Toshiba Medical Systems Corp. located in Tochigi Prefecture, JUKI began restoration support first and strove for equipment restoration in a very uneasy future situation in which "aftershock does not stop", "restoration of a highway is imperfect", "nobody knows whether there is any food", and "no one tells whether gasoline can be supplied", etc.

Moreover, for YDK Communications Company located in Iwate Prefecture, JUKI responded to their request of equipment restoration by finding out a means of moving via the Itami airport in Osaka in a situation that there seems to be no transportation device.

Especially for Fukushima Prefecture, after carrying out a worker's safety control by

measuring the radiation using a survey meter and the external exposure radiation dosimetry using a film badge according to the guideline of the JUKI Crisis Countermeasure Headquarters, JUKI was engaged in the work in a situation in which there is the danger subject to the influence by a nuclear power plant disaster and carried out the restoration assistance to the customer.



Visited users: 18 companies  
(Out of 18 companies, the equipment restoration support was performed for 9 companies and 58 sets.)



Inside of the Itabashi Knit factory before the earthquake disaster



Inside of the factory immediately after the earthquake disaster



The clock in a factory. The clock has stopped at the time when tsunami hit.



The factory under restoration. The plan to begin a production for a sewing here after a restoration of this building. This factory was used when work was resumed in May 2011 after the earthquake disaster. Production was resumed in a situation in which the windowpanes were not contained and the windows were covered with the blue sheet though the muddy sewing machines etc. were moved out and the floor was stretched.



The sewing factory built next to the left side photograph. All are the standing sewing machines. This factory is too small to recover the Itabashi Knit's original manufacturing system, so a left side building is under restoration.

## "There is a place to work." It becomes at least a great hope for an employee.

The desks, lockers, personal computers, sewing machines, cutting machines, and manufacturing system (a hanger system) were all swept away by "Tsunami," and the factory became a mountain of rubble. Some employees have been forced into an evacuation life. And, most regrettably one employee who went to meet his or her child lost his or her life.

In such a situation, receiving President Yoshida's "factory restoration declaration," about fifty employees came to an office every day from March 21 for factory resumption, and they got rid of rubbles by their muddy hands. Since we were not able to obtain the gasoline of a round trip while water service, electricity, and gas stopped, we took a walk or rode a bicycle on the road of two or more kilometers. Although

warmth in the spring was far and rubbles were removed in the freezing temperature, we blew out a cold and muscular pain with adrenaline fully charged.

Despite of the temporary factory, we were able to resume a factory on May 16 two months after the earthquake disaster. It is all thanks to the visitor who longed for factory resumption, local carpenters who exerted themselves for house construction, and JUKI who responded to anything not only to help us with hardware such as supply and delivery of equipment and physical support.

One year has passed since the earthquake disaster, but we have been able to restore 50% of what had existed before the earthquake disaster until now. I think that our company's early restoration to an original state can contribute to the

Itabashi Knit Co., Ltd., Kesenuma branch office  
Shigeki Imaizumi, General Manager

VOICE

local community. I would like to have future supports from JUKI for ever as a business partner.



Mr. Imaizumi, a manager of Itabashi Knit Kesenuma factory (left), and Yukio Sato, a deputy-chief of a south Tohoku branch office of JUKI SALES CORPORATION

# Human-friendly and earth-friendly product making

JUKI always thinks about "Easier to use," "More efficient," and "More eco-friendly" as an enterprise engaged in a product making, and has developed the products. The JUKI products themselves are fruits of Mind & Technology of JUKI.



## Embodiment of JUKI's "Ambition" that boasts functionality and takes price in top share



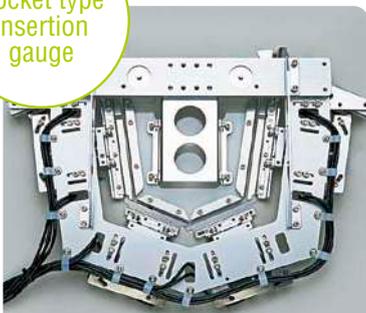
Industrial sewing machines

### AP-876 pocket center

(Jeans specification for overseas)

AP-876 is the automatic machine that formed the process of a series of pocket attachment process into full automation, and has achieved high productivity and stable quality. Back pockets attached to jeans etc. can be told as the face of merchandise goods. They are sewed in the important process that influences worth of merchandise depending on the sewing performance. AP-876 contributes to a De-Skillization (Reduction of Dependence upon Skilled Workers) with easy operation, and realizes stable quality pocket attachment.

Pocket type insertion gauge



The pocket type has reduced the number of component more than that of the former machines to lower the price. Moreover, a sharp pocket chip box without gap or a swelling is obtained by bending prevention of a model.

### Environmental consideration matter

AP-876 performs a series of a pocket attachment process at 9.9 second per pocket. To output production volume that is equivalent to AP-876 using a general-purpose machine, a total of eight machines (eight operators) that consist of five sewing machines with one-needle lock stitch automatic thread cutting function, one sewing machine with bar tacking function, and two irons (including a vacuum board) are needed. AP-876 can be operated with single unit (one operator), and substantial reduction of equipment and staffs can be attained. As a result, it greatly contributes to labor-saving and power-saving. Moreover, encoder control and so on are introduced to send a pattern, and power consumption is reduced by 12% compared with the conventional machine types of our company.



Person in charge of development

Thirteenth Design Group  
Sewing Machinery  
Development Dept.  
**Hiroaki Suga**

In order to stabilize a folding quality of a pocket regardless of the pattern shape and size, we had difficulty examining a folding cutter blade shape of a folding gauge and adjusting a folding timing. Adjustment by a user has realized a sewing of various pocket shapes with one folding gauge.



Household sewing machines

## HZL-G series

G series is a household sewing machine that incorporated many functions inheriting from the previous series, thinking basic performance as important and responding to all materials such as thin and thick materials widely.

### Environmental consideration matter

G series have put emphasis on an improvement in a sewing quality. A function of feeding a box that has inherited the technology for industrial sewing machines is also a function from the former series has prevented sewing shrinkage or cloth gap, and stabilized a straight sewing or a sewing operation at the time of a startup by feeding cloth, keeping a feed dog horizontal. The improvement in a sewing quality contributes to energy saving by eliminating waste of cloth and textile thread and shortening a sewing time, and serves as the big function to give a user pleasure.

In addition, adoption of an LED lamp, improvement in the commoditized rate of parts, and reduction of a manufacturing man-hour are also realizable.

Person in charge of sales

In addition to the strength of cloth feeding, G series responds to the shoulder of cloth preeminently. Since it has user-friendly sewing patterns for practical sewing and buttonhole sewing, and the large bosom, it is broadly utilizable for dressmaking, patchwork quilt, etc. G series was exhibited at the Tokyo International Great Quilt Festival 2012 in January 2012. I would like to attend an overseas quilt show to expand a customer base and tell the merit of a sewing machine from now on.

Sales Promotion Group,  
Sales Promotion Dept.  
Sewing Machinery Business Unit  
**Kanako Yokota**



Auto Thread Trimming Function

Since upper and lower threads can be simultaneously cut in necessary minimum length when an automatic thread cutting button is pressed, it leads to an increase in efficiency of working hours and a reduction of useless thread. (It is called G200 for a domestic market and G210 for an overseas market.)

Electronic assembly systems

## KE-3010/KE-3020V/KE-3020VR

Image recognition performance using a camera was improved. The new technology to continuously pick up the image of each component that has been picked with the nozzle and perform the image recognition at the same time has been adopted. Compared with the conventional machine, productivity was improved no less than 63% (at the time of placing vision recognition components).



It can be equipped with the parts of a maximum of 160 kinds at one set of a mounter.



The lane width of EF08HD, an electric double-lane feeder, is 17 mm that are the same size as EF08HS, but EF08HD is able to handle twice as many as 8 mm tapes. It becomes possible to sharply reduce the number of times of a changeover in various kinds of production because the number of components to handle is doubled.

### Environmental consideration matter

The matter was introduced to both a mechanical feeder and an electric feeder. The capability to respond to the placement of minute electronic components and the various kinds of production has been strengthened by using an electric double-lane feeder etc. harnessing the customer's existing property.

### Power consumption reduction

As compared with the conventional machine types, the power consumption per basic performance was reduced by about 30%, and the power consumption at the time of standby was reduced by about 40%.

### General-purpose vision teaching

Through operation in accordance with the guidance for creating a data of odd-shaped components that have been difficult until now, anyone can create vision data easily. This eases the customer's burden at the time of data creation sharply.

Person in charge of development



The 12th Design Group  
Electronic Assembly  
Systems Development  
**Ryo Sasaki**

Very severe lighting technologies were required to pick up the image of components moving in non-stop recognition. We suffered from the problems with the unevenness of the light volume due to a gap between shutter timing and the peak time of the lighting, and the insufficient light volume at the time of first time recognition.

# Changes in JUKI ECO PRODUCTS

The JUKI eco-friendly product reaches 30 machine types (as of December 2011), and has permeated almost all developed machine types. A product making that considers environment is performed in the product life cycle of parts procurement, manufacturing, transportation, use, recycling and disposal. The "JUKI ECO PRODUCTS RECOGNITION SYSTEM" started in March 2009, evaluation of 38 items about environment is performed at a development phase. As a result, a product that has achieved an environmental consideration at an especially high level is recognized as the "JUKI ECO PRODUCTS."

## Major assessment items

	Material and a procurement-of-supplies-and-equipment stage	Manufacture and distribution stage	Use stage	Recycling/disposal stage
Environmental safety and preservation nature	Exclusion and reduction of hazardous substances		Reduction of noise and vibration	Separation ease of an environmentally harmful substance
Resource saving	Streamlining of raw material		Long-term usability	
	Practical use of recycling material			
Energy saving		Improvement in transport efficiency	Reduction of power consumption Reduction of consumable item's consumption	
Recycling efficiency				Recycling
				Separation/segregation ease

## DDL-9000B

When a sewing machine operating ratio is assumed to be 25%, DDL-9000B has achieved no less than 70% reduction of power consumption over the conventional V belt type electromotor machines and no less than 20% reduction of that over the conventional V belt type servomotor machines.

## Feature

### Adoption of the newest small servomotor

The newest small servomotor is adopted as a driving source. Operation at high torque and a wide range speed is possible, and it is an energy saving and efficient motor. This motor is driven with the direct drive system that delivers a power to a sewing machine without loss of power, and it excels in a response, a startup, stopping accuracy, and needle penetration power in addition to a reduction of power consumption.



### Advanced dry technology prevents oil dirt

The semi dry head type that has dried the surface forming the main factors of oil dirt and the full dry head type that has dried the rotating hook evolved the dried sewing machines further.



20% reduction of power consumption (compared with the conventional machine types)



This new style control box is operated in the first energy-saving mode in a sewing machine, and the power consumption at the standby time when the motor is not rotating is reduced by about 20%.

## Evolution of the eco-products reflecting the times

2009

A total of 12 machine types

Birth of the JUKI ECO PRODUCTS RECOGNITION SYSTEM in 2009

17% reduction of power consumption (compared with the conventional machine types)

## HZL-F series

The "sewing" which is the essence of a sewing machine has been improved for EXCEED series from the bottom up to continue the stable sewing without choosing a cloth for a pattern sewing. Achieving the sewing quality and sewing capability that have been established with the technology of the industrial sewing machine. It is a definite edition of the household sewing machine with which those who aim at the product making of a work with higher level by one rank can be satisfied.



To prevent a sewing shrinkage or a cloth gap, the balance among the rotating hook, the needle thread take up, the needle bar, and the feeding cloth that serve as the core of sewing unlike the conventional feeding mechanism is improved, and a cloth is fed keeping a feed dog horizontally.

## Feature

### Loading of a LED lamp

Loading the machine with an eco-friendly LED lamp has enabled a reduction of power consumption. The lamp life has been also prolonged.



### Large improvement of the feeding power

Comfortable sewing is offered to users in the straight sewing and at the time of a start of cloth sewing.



2000-2008

Enactment of the product environmental assessment regulation in 2008  
Preparation for the EU REACH preliminary registry in 2008  
Compliance with the EU RoHS Directive in 2006  
Enactment of the EU Abandonment Conformity Design Regulation in 2005  
Enactment of the Green Procurement Guideline in 2004  
Enactment of the Environmental Preservation Guideline in 2003  
Acquisition of the ISO 14001 Certification in 2001  
Enactment of the Environmental Management Manual in 2000



## AMS-224EN

45% reduction of standby power requirement (compared with AMS-224C, a conventional machine type)

A surface portion (portion of a needle bar and portion of a needle thread take up) is lubricated with grease and a rotating hook portion is lubricated with a slight amount of oil supply from an oil tank. Thus, sewn products are protected from oil dirt with the advanced oil-free technology of JUKI that is already applied to many machine types.

A total of 30 machine types

at the end of

# 2011

39% reduction of standby power requirement (compared with the conventional machine types)

### Feature

#### ■ Adoption of an active tension to tune a needle thread

The tension in the middle of sewing can be changed at pinpoint, and the input to correct the stitch balancing thread tension is easily possible per stitch from a panel. There is reproducibility of tuning a needle thread, so the down time at the time of a process change can be reduced.



A total of 24 machine types

# 2010



LH-3500A series has used the semi dry head in all the machine types, and has prevented the oil dirt coming out of surface (portion of a needle bar).

## LH-3500A series

21% reduction of power consumption (compared with the conventional machine types) (\* Numerical value of LH-3528A-7)

### Feature

#### ■ A controller with an automatic thread cutting function

The specification of EXCEED has been inherited and moved to a common architecture.



#### ■ Adoption of a LED lamp

A lamp was changed into the LED lamp from the halogen lamp. As a result, it was gentle to eyes and did not get hot even when it was used for a long time, and the life of the lamp was also prolonged dramatically.



#### ① ECO oil system (circulation type)

The oil that fell from the periphery of rotating hook under a cover returns to an oil tank after its dirt and dust are filtered with the filter for circulation. The labor hour of oil supply and the amount of oil used are reduced with this system.

#### ② Clean oil system

The oil that fell from the periphery of rotating hook under a cover is not returned to an oil tank, and only clean oil is always supplied to a rotating hook.

### Feature

#### ■ Large rotating hook specification

The "large rotating hook specification" (on a photograph) adopts a rotating hook that is 1.7 times as big as a standard rotating hook. The bobbin thread exchange frequency at the time of sewing coarse yarn is reduced.



### Comment by a developer

JUKI has developed the products while reflecting the times, asking itself what are nuts and bolts that a customer is asking for, and nailing down the environmental needs in every market. Along with solution of various environmental problems, the new product incorporating attractive quality will be developed.

The 1st Design Group  
Sewing Machinery Development  
**Hirotsugu Yamamoto**



# Environmental Vision

The JUKI Group conducts environmental activities on a daily basis according to its "Environmental Philosophy" and "Environmental Action Policy." We have done our ECO-MIND Declaration to promote our environmental conservation activities across the Group, including those to reduce our environmental load, conserve resources and energy, and foster recycling.

## The attitude towards the JUKI Group Environmental Conservation Activities

In the JUKI Group, the environmental impact accompanying each enterprise was reduced and the "environmental idea" and the "ambient behavior indicator" are defined aiming at construction of the society that can continue. It has decided upon the "environmental preservation guideline" based on this. Moreover, information exchange and horizontal development are performed and improvement in the whole group is aimed at.



## 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 (Revised in April, 2010)

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.

### Pick Up

#### Aiming at substantial environmental activities through a day job

VOICE

We have striven for natural resources saving, energy saving, and pollution prevention in the whole active conduct of business. We have been aiming at reducing an environmental load continuously in a day job. For example, we have been offering the product and service with less environmental load and eliminating a waste in a production process, etc. The environmental activities through a day job to do for realization of the sustainable society that satisfies both preservation of global environment and economic development are the most efficient. In order to put this idea into practice and to raise consciousness, it is one of the most important tasks in the current fiscal year to conduct an environmental education to many sections including the managers and internal audit members.

General Manager  
General Affairs Department  
Senior Executive Operating Officer  
JUKI CORPORATION  
**Hiroshi Nakamura**



# Environmental Targets and Results for FY2011

We have been setting common environmental targets that are suitable for the realities of each business for JUKI CORPORATION and the manufacturing companies in the JUKI Group. We are promoting our environmental conservation activities while monitoring our progress in achieving the targets. We have set specific environmental targets to reduce our CO<sub>2</sub> emissions and decrease total waste emissions.

## Environmental Targets and Results for FY2011

Environmental Target	Coverage	Numerical Target	Results	Review in FY2011 and Future Activities
Reduction in CO <sub>2</sub> emissions	Domestic manufacturing companies	Increase by 7% in sales amount at basic unit from FY2005	Achievement rate: 104%	[CO <sub>2</sub> ] The target was achieved owing to some power consumption restrictions within the jurisdiction of the Tohoku and Tokyo Electric Power in Japan. [Waste] The head office got good results in the promotion of reducing waste through the activity to change to sale of valuable resource of the high-quality paper that has been treated as waste. The domestic manufacturing companies were not able to achieve the target mainly due to an increase in the waste material that resulted from a change to the insourcing (internal manufacturing) of the items ordered from outside suppliers based on a production policy, etc. The whole manufacturing group companies will reduce unreasonableness and needlessness in 2012 like in the last fiscal year by holding up a basic unit target and advancing the whole group's optimization in which the Production Center plays a leading role.
	Overseas manufacturing companies	Decrease by 40% in sales amount at basic unit from FY2005	Achievement rate: 93%	
	Head office	Increase by 4% in total amount from FY2005	Achievement rate: 113%	
Reduction in total waste emissions	Domestic manufacturing companies	Increase by 46% in sales amount at basic unit from FY2005	Achievement rate: 86%	The number of nonconformity with the green procurement was also zero in the fiscal year 2011 following the fiscal year 2010. We will also tackle it continuously in the fiscal year 2012.
	Overseas manufacturing companies	Decrease by 22% in sales amount at basic unit from FY2005	Achievement rate: 107%	
	Head office	Reduction by 16% in total amount from FY2005	Achievement rate: 106%	
Promotion of green procurement	Common to the JUKI Group	The number of violation of restrictions of shipments of Green Procuring Conforming Articles and Hazardous Chemicals Substances: 0	The number of violation: 0	
Observance of environmental law		The number of violation: 0	The number of violation: 0	

## Environmental Target of the JUKI Head office

Environmental Target	Coverage	Numerical Target	Results	Review in FY2011 and Future Activities
Approaches to eco-friendly products	① "JUKI ECO PRODUCTS" recognition of new product	Development dept. New machine types introduced to market Design planning target achievement 100%	Achievement rate: 100%	We will tackle it continuously in the fiscal year 2012. "ECO PRODUCTS" recognition was attained. One machine type was not able to achieve the target "reduction of power consumption," but the power consumption per unit operation has been able to be reduced, so it can be said that it has been achieved in general.
	② Reduction in power consumption of new product	Development dept. New machine types introduced to market Reduction target achievement 100% compared with the existing machine types	Achievement: 12 machine types Non-achievement: 1 machine type	
	③ Development of PR activities for "JUKI ECO PRODUCTS" and environment	Sewing Machinery Business Unit	Implementation plan progress rate 100%	
Electronic Assembly Systems Business Unit		Implementation plan progress rate 100%	Achievement rate: 100%	
	General Affairs Dept.	Implementation plan progress rate 100%	Achievement rate: 100%	We will tackle it like in the fiscal year 2012.
Reduction in OA papers purchase volume	Head office	66% reduction compared with FY 2005	Achievement rate: 88%	We have tackled a 66% reduction ratio compared with the fiscal year 2005 as the ambitious target. Based on this, we will aim at a further reduction in the fiscal year 2012, too.
Improvement of environment awareness and environmental knowledge	Head office	Plan implementation 100% of environmental education	Achievement rate: 67%	We will tackle it continuously.

\* This data shows the targets and the results for fiscal year 2011 of JUKI CORPORATION and other domestic and overseas manufacturing companies in the Group shown on page 2.

\* The numerical values in the entire JUKI Group companies stand for those in JUKI OHTAWARA PLANT and the manufacturing companies in the Group.

## Receiving the Results of in the fiscal year 2011

When looking back upon the fiscal year 2011, we were able to respond to power consumption restrictions and achieve domestic CO<sub>2</sub> emissions target. On the other hand, we will draw up a plan for education in order to reflect the

ideas of the president and secretariat who promote the environmental activities through a day job in an environmental education whose target we were not able to achieve, and we will tackle the task to achieve a target surely.

# Environmental Management

The JUKI Group is committed to contributing to the creation of a "sustainable society" by reducing the environmental load of its business operations. To this end, we have managers in charge of the environment at each of our Group companies under the Group's environment promotion system and are implementing environmental measures for continuous improvement.

## Promoting Environmental Management

The JUKI Group transferred the department that performs the company-wide deployment of environmental target including the measures for global warming etc. from the Corporate Planning Department that has been considered as the supervisor until then to the General Affairs Department in June 2011. As a result, JUKI Group has been promoting the activity through a slimmer organization.

The environmental target of the JUKI Group including the head office is discussed and determined at the "Management Strategy Council" which is the supreme decision-making body of the company. Moreover, in order to raise the ability to put target deployment, policy enforcement, and environmental conservation activities into practice, an environmental conservation promotion team was set up and has been working on them.

## ISO14001 Acquisition Situation

The JUKI Group has received the ISO14001 certification acquisition in all the manufacturing group companies including the head office.

At the momentum of the ISO14001 certification acquisition in April of last year, SHANGHAI JUKI SEWING MACHINE CO., LTD. started the basic education to the new employees (a view, power saving, resource segregation, etc.), and performed the education for an internal audit member that gets deeply into global environment problems and into the laws related to environment in China. Moreover, as an event, the company performed a cleanup in a site with all the employees aiming at improvement in consciousness.



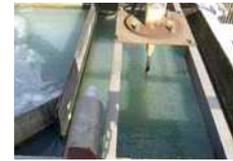
A cleanup activity in a site of SHANGHAI JUKI SEWING MACHINE CO., LTD.

## Regulatory Compliance

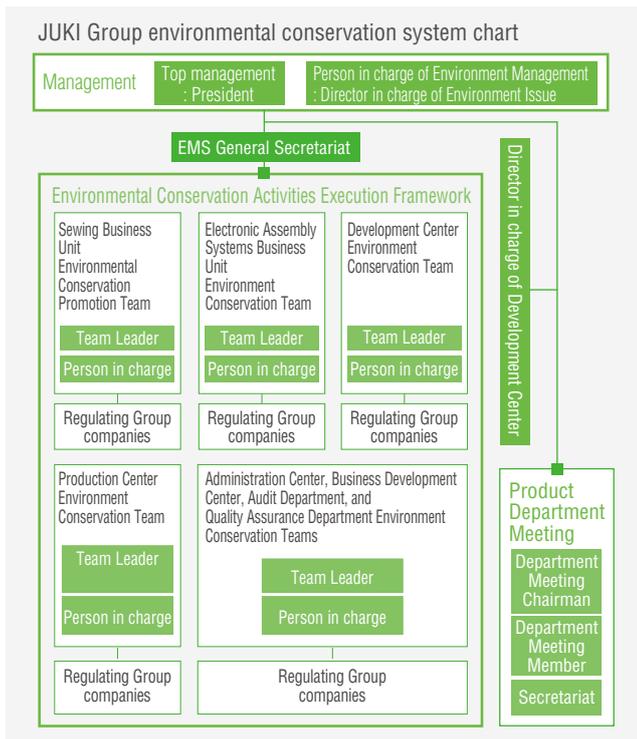
As group-wide measures, the staff at the head office checked the observation basis of the laws related to environment such as the Law Concerning Waste Disposal and Scavenging (Waste Disposal Law) that was revised in April 2011 with five domestic group companies. Improvement in the quality of legal compliance is aimed at checking the observance situation and suggesting the matters to improve at a practical level. They were performed at five places of business in the fiscal year 2011, and will be deployed to the overseas group companies from now on.



JUKI METAL CORPORATION, a casting process



The OHTAWARA PLANT of JUKI CORPORATION, an effluent treatment center



## Conducting Internal and External Audits

The JUKI Group has checked with both an internal audit and an external audit whether the environmental management system of each company functions effectively in the Group companies that acquired the certification of the ISO14001.

The audited department (auditee) itself performs the "examination to notice = self-examination." It was introduced two years ago as the technique of an internal audit, and has been taken in the internal audit team as the method of looking for a judgment. Before receiving a suggestion to improve in this audit, an environmental activity of each section was able to spiral up.

### Pick Up

#### The measures overseas

JUKI XINXING INDUSTRY CO., LTD. received the ISO 14001 certification acquisition in 2003. The company specifies a legal claim applicable every year, aims at observance of the laws related to environment in China, and develops the production management activity. In a site, management of the surveillance and measuring method and equipment maintenance that have been decided based on the internal rule is put into practice.

Audit of the environmental impact was received from the Langfang City Environmental Protection Agency in September 2011. It has been proved in an audit report that the management of the sewage, the noise, the smoke discharged to the atmosphere, and the industrial waste that were caused by a production management activity conforms to the requirements of the laws related to environment in China. In the pile of the measures for environmental preservation, the number of violation to the environmental law has been zero since 2003.



## Promotion and strengthening of environmental education

### ● JUKI AIZU CORPORATION

The company performed a recommendation to study 3R that all the members including a new employee and a temporary employee can do per an individual and a company, and an environmental education of the measures against a global warming problem.

### ● JUKI XINXING INDUSTRY CO., LTD.

The company utilizes an entrance educational program, and performs an environmental basic education continuously about an environmental philosophy of JUKI, an environmental action policy of JUKI, energy saving, garbage segregation and others. In order to nurture human resources personnel having high environmental knowledge and consciousness, the company has also participated in the symposium related to environment that is held periodically by a standard Certificate Authority. When each of four persons participated in the theme lecture of the "employment to energy saving, emissions reduction, and EMS," and of the "the scoop of RoHS-REACH Directive revision information" in June 2011, an outline was grasped, and employment to in-house EMS and response to the EU Directive have been aimed at positively.

### ● JUKI (SHANGHAI) INDUSTRIAL CO., LTD.

The company inaugurated an environment committee in 2007, and has performed environmental activities while making concerted efforts together to advance improvement in environmental awareness.

#### \* Major activities

Tree planting/Tour to the exhibition related to environment/Environmental knowledge contest/The office paper exchange activities with the Tetra Pak collected/The visit to a waste treatment maker/Environmental education to the excellent factory of environmental protection through a tour

The basic knowledge education of environmental protection, and the "Garbage segregation" education are performed at the time of entrance into a company, and the company has been tackling them so that all the employees can act habitually.



The group photo at the time of an environmental knowledge contest sponsored in the fiscal year 2011 by the environment committee

## Environmental communication example

### ● JUKI AIZU CORPORATION

The company participated in the "eco-driving classes" sponsored by the government for the first time. The low-fuel-consumption driving technology was lectured for about one hour in a driving school. After that, an eco drive was actually practiced on the public road under the instructor's coaching of the driving school, and fuel consumption measurement was performed. Moreover, an applicant test-drove an electric vehicle that does not discharge greenhouse gas, and was able to experience the test drive in the driving school.

### ● JUKI METAL CORPORATION

The company held the briefing session in July 2011 to explain the contents of measures against dust, odor, and noise in which local residents are interested and to get further understanding and cooperation about the general conditions of environmental improvement activities

hereafter. Top priority in respect of environment around a foundry is to live symbiotically with local residents. The company will give priority to the measures against neighboring residents' complaint, prepare a budget, and hold the briefing session of an enforcement situation from now on.



The briefing session to local residents

### ● JUKI HIROSHIMA CORPORATION

As part of promotion of communication with local residents, their employees pick up litter in the industrial park once a year. The company will continue it.

## The measures of biodiversity

The JUKI head office building is located in the Tama hill where development has progressed. The wild raccoon dog lives in little nature left behind even now. The small copse in a head office site is also one of the territories of a raccoon dog. From the viewpoint of preservation of the species of wildlife, we have been watching it in nature without adding a hand.



The existence of a raccoon dog was confirmed through a security camera near the copse in July 2011.

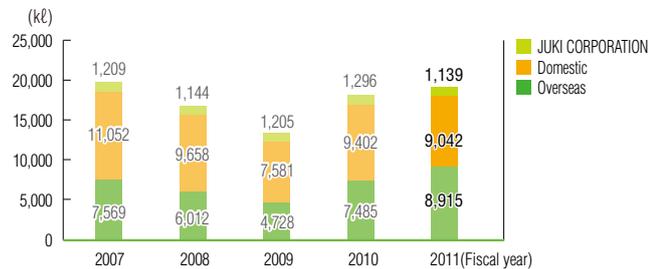
# Environmental Performance

The following table shows our environmental performance data for the past five years. We will further expand the scope of our environmental performance data to include more items and will strive to improve our environmental performance.

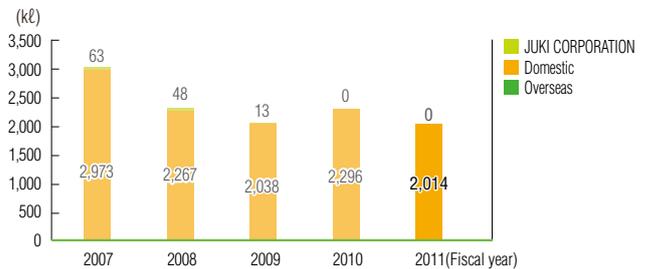
	Item	FY2007	FY2008	FY2009	FY2010	FY2011
JUKI	CO <sub>2</sub>	2,938 t-CO <sub>2</sub>	2,724 t-CO <sub>2</sub>	2,953 t-CO <sub>2</sub>	3,309 t-CO <sub>2</sub>	2,849 t-CO <sub>2</sub>
	Electricity	4,699 MWh	4,448 MWh	4,685 MWh	5,039 MWh	4,427 MWh
	Kerosene	0 kℓ	0 kℓ	0 kℓ	0.3 kℓ	0.3 kℓ
	Fuel oil A	62 kℓ	48 kℓ	13 kℓ	0 kℓ	0 kℓ
	Gas	12 thousand m <sup>3</sup>	9 thousand m <sup>3</sup>	102 thousand m <sup>3</sup>	192 thousand m <sup>3</sup>	134 thousand m <sup>3</sup>
	Gasoline	59 kℓ	46 kℓ	45 kℓ	48 kℓ	44 kℓ
	Water	17 thousand m <sup>3</sup>	16 thousand m <sup>3</sup>	14 thousand m <sup>3</sup>	13 thousand m <sup>3</sup>	11 thousand m <sup>3</sup>
	Drainage	14 thousand m <sup>3</sup>	13 thousand m <sup>3</sup>	13 thousand m <sup>3</sup>	22 thousand m <sup>3</sup>	21 thousand m <sup>3</sup>
	Final waste disposal	0.03 t	0.05 t	0 t	0 t	0 t
	Total waste emissions	114 t	103 t	181 t	105 t	57 t
Domestic manufacturing companies in the Group	CO <sub>2</sub>	37,461 t-CO <sub>2</sub>	29,313 t-CO <sub>2</sub>	23,299 t-CO <sub>2</sub>	28,402 t-CO <sub>2</sub>	26,737 t-CO <sub>2</sub>
	Electricity	42,966 MWh	37,547 MWh	29,474 MWh	36,550 MWh	35,153 MWh
	Kerosene	306 kℓ	138 kℓ	177 kℓ	202 kℓ	193 kℓ
	Fuel oil A	2,947 kℓ	2,247 kℓ	2,020 kℓ	2,276 kℓ	1,996 kℓ
	Liquid petroleum gas (LPG)	438 t	344 t	276 t	386 t	368 t
	Gasoline	92 kℓ	76 kℓ	45 kℓ	64 kℓ	59 kℓ
	Light oil	113 kℓ	76 kℓ	35 kℓ	49 kℓ	42 kℓ
	Acetylene	127 kg	135 kg	36 kg	65 kg	86 kg
	Coke	934,960 kg	192,660 kg	0 kg	0 kg	0 kg
	Methanol	5,760 kg	2,880 kg	0 kg	0 kg	0 kg
	Water	387 thousand m <sup>3</sup>	321 thousand m <sup>3</sup>	262 thousand m <sup>3</sup>	333 thousand m <sup>3</sup>	260 thousand m <sup>3</sup>
	Drainage	339 thousand m <sup>3</sup>	279 thousand m <sup>3</sup>	242 thousand m <sup>3</sup>	276 thousand m <sup>3</sup>	234 thousand m <sup>3</sup>
	Final waste disposal	612 t	618 t	620 t	604 t	485 t
	Total waste emissions	7,094 t	5,814 t	3,473 t	5,103 t	5,521 t
Overseas manufacturing companies in the Group	CO <sub>2</sub>	20,074 t-CO <sub>2</sub>	15,601 t-CO <sub>2</sub>	12,146 t-CO <sub>2</sub>	19,887 t-CO <sub>2</sub>	23,743 t-CO <sub>2</sub>
	Electricity	29,426 MWh	23,373 MWh	18,379 MWh	29,098 MWh	34,660 MWh
	Kerosene	1.4 kℓ	0 kℓ	0 kℓ	0 kℓ	2 kℓ
	Gas	90 thousand m <sup>3</sup>	53 thousand m <sup>3</sup>	0 thousand m <sup>3</sup>	0 thousand m <sup>3</sup>	0 thousand m <sup>3</sup>
	Liquid petroleum gas (LPG)	839 t	581 t	445 t	839 t	1,054 t
	Gasoline	111 kℓ	99 kℓ	77 kℓ	111 kℓ	120 kℓ
	Light oil	296 kℓ	204 kℓ	166 kℓ	325 kℓ	361 kℓ
	Acetylene	900 kg	609 kg	24 kg	24 kg	24 kg
	Natural gas (NG)	0 Nm <sup>3</sup>	4,078 Nm <sup>3</sup>	23,552 Nm <sup>3</sup>	49,598 Nm <sup>3</sup>	69,505 Nm <sup>3</sup>
	Water	408 thousand m <sup>3</sup>	346 thousand m <sup>3</sup>	248 thousand m <sup>3</sup>	347 thousand m <sup>3</sup>	320 thousand m <sup>3</sup>
	Drainage	366 thousand m <sup>3</sup>	313 thousand m <sup>3</sup>	213 thousand m <sup>3</sup>	312 thousand m <sup>3</sup>	281 thousand m <sup>3</sup>
	Final waste disposal	1,780 t	1,090 t	1,226 t	1,557 t	1,486 t
	Total waste emissions	4,074 t	2,646 t	2,415 t	4,192 t	4,582 t

\* This table shows environmental performance data for JUKI CORPORATION and other domestic and overseas manufacturing companies in the JUKI Group shown on page 2.  
 \* A data for JUKI Ohtawara plant is included in other domestic manufacturing companies in the Group.  
 \* The data of the fiscal year 2011 covers January to December.

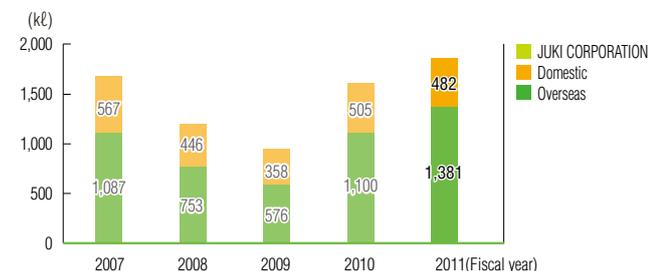
Electricity (in crude oil equivalent)



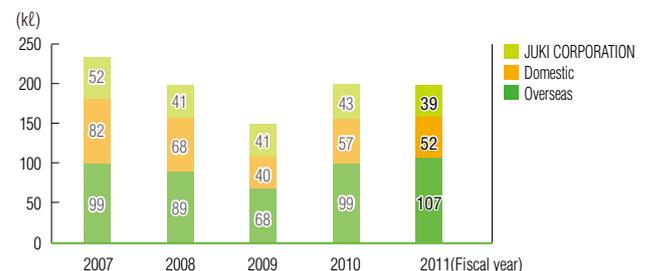
Fuel oil A (in crude oil equivalent)



Liquid petroleum gas (LPG) (in crude oil equivalent)

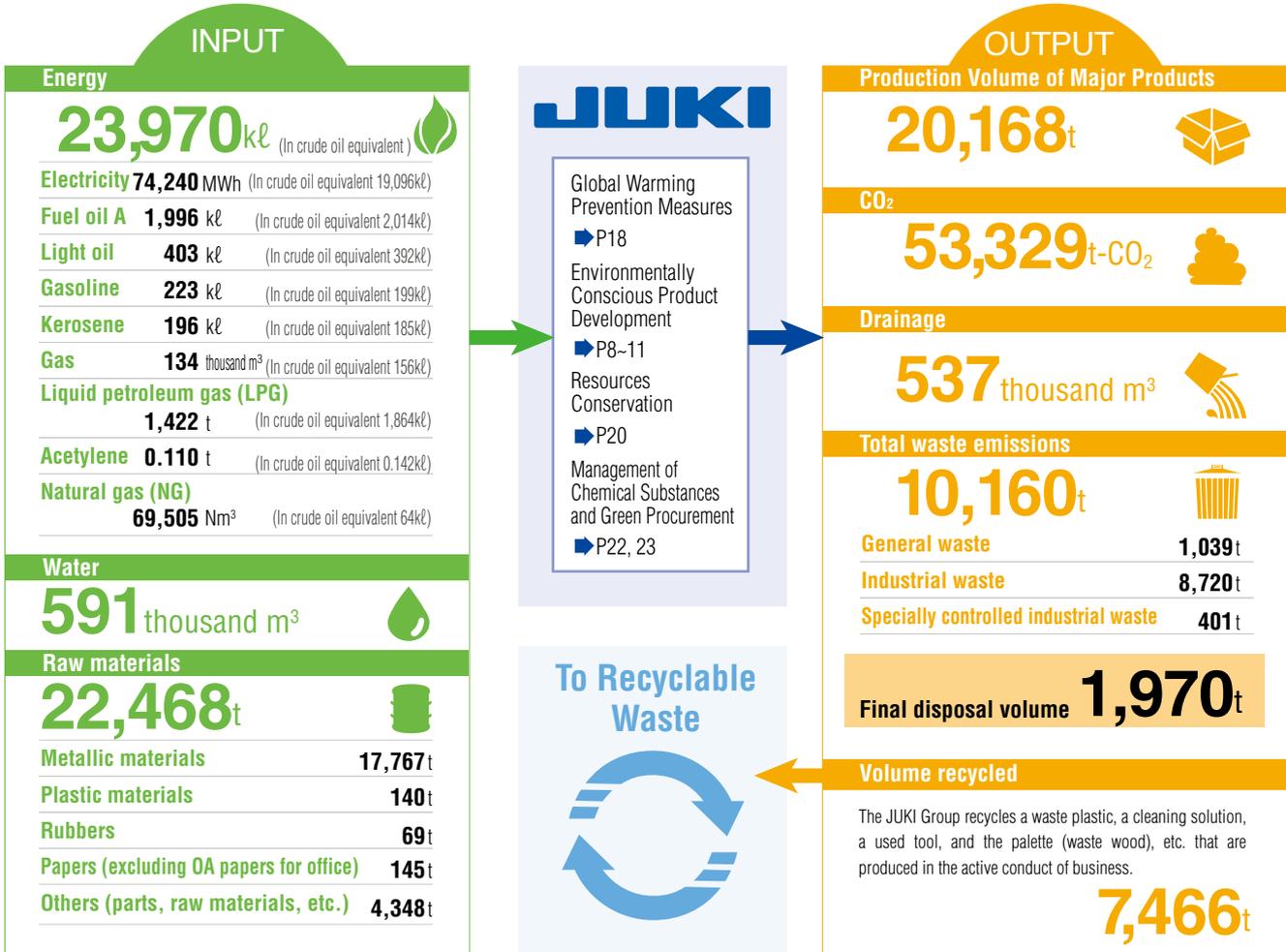


Gasoline (in crude oil equivalent)



# Environmental Load by the JUKI Group's Business Activities

The JUKI Group uses a lot of energy and resources in manufacturing its products, including precious minerals used for parts and materials. In light of this fact, we are endeavouring to make effective use of resources and energy, and to identify the environmental load of our business activities.



\* This table shows environmental performance data for JUKI CORPORATION and other domestic and overseas manufacturing companies in the Group shown on page 2.  
 \* There are some group companies that do not have enough information on the raw materials.  
 \* A data for JUKI Ohtawara plant is included in other domestic manufacturing companies in the Group  
 \* The data of the fiscal year 2011 covers January to December.

## INPUT

**Crude oil equivalent:** means the conversion volume to crude oil by using the heating value for comparing the different energy volume in common measures.

**Electricity:** means the electric power used in the factories and offices.

**Fuel oil A:** means the fuel for regular-use electricity generator, boiler, and heater.

**Light oil:** means the fuel for trucks.

**Gasoline:** means the fuel for company-owned cars.

**Kerosene:** means the fuel for warm-air heating.

**Liquid petroleum gas:** means the fuel to heat drying furnace in paint facility.

**Acetylene:** means the fuel for gas welding at repairing the equipment, cutting and soldering the sheet steel.

**Natural gas:** means fuels for cooking in a dining room or for supplying hot water to a bathroom.

**Metallic materials, plastic materials, and rubber:** means material for parts.

**Paper:** means the cardboard for transportation, packing and packing of products, and for preventing collapse of cargo, dent of products at manufacturing processes.

## OUTPUT

**CO<sub>2</sub>:** is caused by use of electricity and fuel.

**General waste:** means all wastes discharged from homes and enterprises except industrial wastes. Garbage such as kitchen and left over garbage discharged in the business activities is included.

**Industrial waste:** means 20 kinds of waste set up by laws, rules and regulations within the wastes caused by the business activities such as factories. Included are the abolished sand used at moulds, pallets (made of pellets of wood), cutting oil, prototype machines used at experiments and research.

**Specially controlled industrial waste:** means high explosibility, toxicity and pestiferousness which may cause the suffering to the human health and life environment. Especially severe management is indispensable. They include old condensers.

**Final disposal:** means to be filled with garbage as reclaimed disposal sites.

**Recycle:** means the effective use by recycling as resources.

# Reduction in Greenhouse Gas Measures

Carbon dioxide (CO<sub>2</sub>) is the largest contributor to global warming. The JUKI Group is actively acting to reduce its CO<sub>2</sub> emissions by reducing a consumption of electricity and fossil fuels at its manufacturing bases and also to promote a modal shift by changing to transportation by rail that has less environmental load during the transportation of its products.

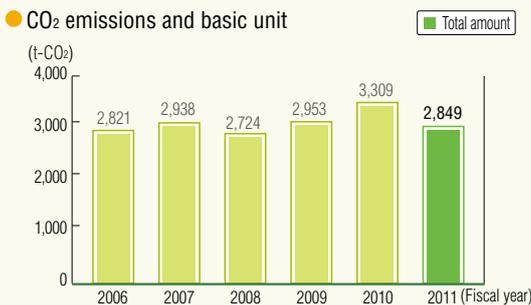
## Pick Up

**About 36% of the amount of CO<sub>2</sub> emissions was reduced at basic unit compared with the fiscal year 2009.**



## Pick Up

**14% of the energy consumed in the whole head office building reduced (compared with the previous year).**



**By bending a casing in a press metallic mold, the loads in a vendor and a welding process were able to be reduced and the process for burring the mold has also been removed.**



**The productivity drive was tackled, and used energies have been reduced.**



## ● Reduction in CO<sub>2</sub> emissions

The JUKI Group has made various efforts to reconsider the production method and the equipment operating time to reduce the used amount of electric power that accounts for 70 percent or more of the cause of CO<sub>2</sub> emissions.

In the JUKI head office building, the general-affairs section and the facilities management section examined the energy-saving implementation proposal in carrying out the "energy saving in the summer and winter," decided a opening and closing time of blinds, and reduced the number of operating water heaters at washstands, etc., focusing on air-conditioning which occupies more than half of energy consumption.

Moreover, energy-saving consciousness has increased by installing the thermo-hygrometers in each room and releasing an indoor temperature and humidity management value simultaneously to perform the "visualization of warmer environment." In the energy-saving inspection tour, the visible and understandable energy-saving check (wasteful lighting of lights) and the temperature check of an excessive air conditioning were performed. As a result, about 14% of the energy consumed in the whole head office building in the fiscal year 2011 was reduced in CO<sub>2</sub> equivalent compared with the previous year.

## ● The measures of CO<sub>2</sub> reduction in a stage of production

The JUKI Group has been advancing the measures to contribute to cost reduction and the improvement in manufacturing efficiency by reducing CO<sub>2</sub> emissions at a stage of production.

### ● JUKI MATSUE CORPORATION

The company tackled the amount reduction of LPG used in the painting process. Paint baking temperature was lowered by introducing a low-temperature paint, and the amount of LPG used was reduced. Moreover, intensive operation of the paint line was performed as planned according to the quantity of production, and LPG burning time was shortened. As a result, a 23.6% reduction of the amount of LPG used was able to be achieved in the fiscal year 2011 compared with the previous year.

### ● JUKI AKITA PRECISION CORPORATION

The man-hours in a vendor and a welding process are reduced by bending a casing, and a process for burring the mold is removed. The composition of two parts before an improvement had required load in the vendor and welding process, but the load has been reduced by bending a casing in a press metallic mold. The process for burring the mold has been also removed because the convex of joint had melted at the time of a welding process by moving the processing joint of laser to the angle part of welding.

### ● JUKI Ohtawara plant

The company took the measures to complete a product consuming little energy by eliminating a waste thanks to improvement in the configuration of assembly line and raising production efficiency. The company worked on eliminating a waste in the processing operation (NC program) by reconsidering a method and order of a process in a frame process, and worked on ending the process quickly by devising a cutting edged tool. As a result of the above-mentioned measures, greenhouse gas was reduced in the production that raised the capacity utilization rate.

## Pick Up

The rail transportation is also used for a cross-industrial joint physical distribution, and green logistics are promoted vigorously.

● Reduction in CO<sub>2</sub> emissions at the time of transportation

■ Reduction from transporting containers in an inland ■ Reduction from transporting the industrial sewing machines  
■ Reduction from transporting the electronic assembly systems by rail ● Total reduction in CO<sub>2</sub> emissions



\* The "Basic unit of CO<sub>2</sub> emissions per transportation ton kilometer according to means of transportation" was changed in the fiscal year 2009 in conformity with the "Common guideline in the calculating method of the CO<sub>2</sub> emissions in the logistics field," and the former numerical values were retroactively corrected

We have been tackling the joint physical distribution with a home appliance manufacturer.



The efficient modal shift was achieved through the joint physical distribution between Toshiba Medical Systems Corporation and JUKI Ohtawara plant.

Air-conditioning temperature is managed by intensive control in a central supervision room.



The peak of power demand in the summer of the fiscal year 2011 was cut by 24% compared with the previous year.

Fans (Uchiwa) were distributed to employees.



● The measures of a CO<sub>2</sub> reduction in a physical distribution stage

The JUKI Group changed truck transportation to rail transportation in an inland transportation of marine containers from the shipping bases of electronic assembly systems (Yokote City, Akita Prefecture) and industrial sewing machines (Ohtawara City, Tochigi Prefecture), and is carrying out a CO<sub>2</sub> reduction in a physical distribution stage. Moreover, the SSE (Shanghai Super Express) is used at the time of an import of the parts from Shanghai, and green logistics is being promoted vigorously by carrying out the modal shift to marine transportation + rail transportation from the air transportation which used to be used.

These days, the shared physical distribution by rail transportation with the consumer-electronics maker beyond the industry, etc. is tackled, and practice of the pioneering physical distribution improvement appears frequently in the physical distribution trade paper.

● JUKI DENSHI KOGYO CORPORATION

In order to reduce the packing materials and the man-hour that is needed for packing and unpacking as part of an environmental improvement, the company is tackling saving resources and energy-saving activities in the whole group by carrying out a continuous use of [DAY CARRY\*] and using returnable boxes between three companies in Akita. Thereby, cooperation between group companies has also been deepening.

\*DAY CARRY... it is the system of performing optimal parts supply between three companies in Akita using an empty truck.

● JUKI MATSUE CORPORATION

The company has been using the return facilities (an empty container was formerly used.) after taking down the load for Kansai for the company located in Tochigi Prefecture (Toshiba Medical Systems Corp.) since 2011 when transporting the industrial sewing machines to JUKI Ohtawara plant (Tochigi). The efficient modal shift was realized through the shared physical distribution. The company also has a concept of carrying out a rail traffic in the future that is applicable to the consignment from JUKI HIROSHIMA CORPORATION and the parts procured overseas in combination with this modal shift.

● Activities in Office

15% reduction at the time of peak in the summer was a high-priority issue of the JUKI head office in the fiscal year 2011.

Setting the air-conditioning standard temperature to 28°C in the summer, and carrying out intensive control in a central supervision room, the JUKI head office spared no pains not to put an individual adjustment in an office into practice. While keeping the Cool Biz thoroughly and lowering an illumination in the sitting room to 1000 or less lx, the JUKI head office took the measures which do not impress energy saving in a burden by distributing to employees the fan (Uchiwa) in which environmental senryu was put.

# Resource Saving Measures

We have continued the activities to conserve resources with our 3Rs (Reduce, Reuse, and Recycle), including reduction of the volume of paper used for copying and printing, more effective use of resources, and reductions in the waste emitted by our offices and factories in the daily active conduct of business.

**Pick Up**

**A heat insulation painting on some roofs of SUZUTAMI PRECISION INDUSTRY CO., LTD.**



Some roofs of the factory aged by corrosion were changed to those that had been painted with heat insulators.

**Pick Up**

**A recycling of metal waste and waste oil and a valuable sale of papers were performed.**

**Reduction of the amount of wastes**



**The air conditioner scarf was distributed, and heatstroke was prevented.**



**The measures for saving resources**

**SUZUTAMI PECISION**

In the summer of 2011, the civil power consumption restriction code was issued for a period from July 1 to September 9 within the Tohoku Electric Power pipe by the influence of the Great East Japan Earthquake (to September 2 in the disaster area). With the reduction activities of CO<sub>2</sub> which has worked conventionally in our company, we have powerfully promoted the measures for energy saving and power saving. A total of 160 fluorescent lights in a factory were thinned out based on the illuminometer, 50 PCs were all changed to energy-saving mode, and some roofs of the factory aged by corrosion were changed to those that had been painted with heat insulators. As a result, in hot days, thinned-out operation of two units of the air-conditioner (150 kWh x two sets) was attained, and it was connected with the big energy-saving result.

**JUKI AIZU CORPORATION**

Wasters (Defective products) decreased by improving the quality of a mold, and it led to reduction of wastes as a result. The data of pH value of the coating liquid which forms a mold for one year, viscosity, and the amount of adhesion of sand was collected and analyzed, and the optimal management method was established. In addition, the oil filter (filtration) was attached to the vacuum pump apparatus, and the life of oil was prolonged.

**Activities to save resources, and measures after the earthquake disaster**

**JUKI AIZU CORPORATION**

In order to cope with the energy scarcity immediately after the earthquake disaster, two or more employees performed the "car sharing" in which they go to and leave the office by one car regardless of a place of work, a post, age, and sex. Moreover, in the office, we refrained from use of heating and enforced strictly the "super warm biz" in which we warmly wore coats such as a down jacket indoors as well. We highly thank SUZUTAMI PRECISION INDUSTRY CO., LTD. that is a group company for providing us with gasoline etc. as disaster support goods during complete stop of a highway.

**JUKI Ohtawara plant**

The plant responded to the civil power consumption restriction code under the influence of the first nuclear power plant disaster of Fukushima. For electric power reduction in the time zones at the peak of electric power demand load, we shifted service of the manufacturing site and aimed at its distribution, or we made efforts for all workers to cooperate in not exceeding regulated electric power while grasping and supervising the amount of the electric power used on time. Moreover, we took into consideration the distribution of an air conditioner scarf to all workers not to get them unhealthy as heatstroke preventive measures against thinned-out operation of air conditioning, etc. and overcame the summer.

## Waste oil recycling place



## Sales of valuable resource by segregation of industrial wastes



- From the left-hand side
- Only for a cardboard box waste
  - Only for other recycled products
  - Only for a metal waste
  - Only for an oil impregnation dustcloth
  - Only for a kitchen garbage

## The disposable rag was changed to the recyclable one



## Reduction of packing materials has been tackled



Using a returnable box as a packing material of quenched parts and surface treatment parts.

Plastic bags are reduced through practical use of the tray of a plastic.

### Pick Up

About 12% was reduced at basic unit by adopting a paperless job, introducing a compound machine, etc. compared with the fiscal year 2010



## ● Reduction of wastes

JUKI head office performed the recycling processing of the sewing machine oil discarded at the development stage which is years of subject. JUKI has ever recycled what had been processed by distillation by reusing it as plant fuel.

### ● JUKI (NINGPO) PRECISION INDUSTRIAL CO., LTD.

The company has sold valuable resource of waste metal, corrugated paper, and paper which are generated in processing, and achieved 100% of the recycling rate of them. By commissioning the licensed processors to dispose of the worn-out cotton work gloves and dustcloths that had been ever incinerated, emissions of harmful gas have been reduced sharply. Moreover, the backing papers are reused for printing and a memo pad, and they are sold off to the processors at the time of disposal.

### ● JUKI (SHANGHAI) INDUSTRIAL CO., LTD.

The company has tried to reuse the cotton wastes that had been used in the assembly section until now, but the company called them the “disposable cotton waste” because they have starch adhered to its surface, have a low water absorption rate, and have large contraction after wash. However, the company was able to change the said cotton wastes to the cotton wastes for the circulation in the latter half of 2011 that have a high water absorption rate, are durable, and are easy to be washed, and the company has reduced the amount of the cotton wastes used to 150 kg per month from 700 kg per month up to now.

## ● Reduction of packing materials

### ● JUKI YOSHINO KOGYO CORPORATION

The company has been tackling environmental load reduction activities positively. For example, the company was able to reduce the amount of corrugated paper and cushioning materials by using returnable boxes for the packing materials used for dispatch of the quenched and surface-engineered parts generated in the electronic assembly systems that are supplied to JUKI Denshi Kogyo Corporation and in a station. By promoting the returnable boxes continuously and readjusting a packing size, the company aims at reduction of packing materials.

### ● JUKI AKITA SEIMITSU CORPORATION

The company has reduced the used amount of the plastic bags through a packing with a tray. The company has packed the products one by one with plastic bags since the products are easily scratched due to glass hubbles paint. However, packing with a plastic tray enabled a reduction of the used amount of the plastic bags. The company has improved the packing method continuously and tackled environmental contribution activities.

## ● Reduction of paper resources

The JUKI Group has been encouraging the conference using PC, the digitization of sales promotional materials, the use of both sides of copied and printed sheets or the thoroughness in using a condensed print, and the paperless business operations using email. JUKI head office has been promoting a further reduction of the purchased amount of paper by changing the conventional copy machine to the compound machine which serves as both a copy and a facsimile with one machine and enhancing the way of thinking by recognizing the number of sheets used by each section and individual person. The whole JUKI Group also reduced 12% at basic unit compared with the fiscal year 2010.

# Chemical Substances Measures

The JUKI Group has made efforts to reduce the environment load by decreasing the chemical substances used in the production process and others in addition to measures against the green procurement.

## Pick Up

### The used amount data of the chemical substance at a head office building of JUKI CORPORATION

All chemical substances			
Whole company total	The amount of supply track records (kg)	The amount of use track records (kg)	The amount of possession (kg)
		2,476	2,048
Chemical substance applicable to *PRTR law			
Whole company total	The amount of supply track records (kg)	The amount of use track records (kg)	The amount of possession (kg)
	37	20	62
Regulation judging	Inapplicable		
*Pollutant Release and Transfer Register			
Properly managed chemical substance			
Whole company total	The amount of supply track records (kg)	The amount of use track records (kg)	The amount of possession (kg)
	71	65	81
Regulation judging	Inapplicable		



The measurement report of a solvent without benzene

### In order to prevent the environmental pollution at the time of emergency's occurrence, training supposing all risks is performed.



Gas absorption type cooling and heating machine



Simulated training against emergency



The result of smoke concentration measurement (JUKI CORPORATION, a head office building)

Nitrogen oxide	
Standard value on the Clean Air Act	150vol PPM
Tokyo ordinance	45vol PPM
Measurement value	25vol PPM

Dust concentration	
Standard value on the Clean Air Act	0.05g/Nm <sup>3</sup>
Tokyo ordinance	
Measurement value	0.005g/Nm <sup>3</sup>

## Management of a chemical substance

Detergent and medicament occupy 80 percent of the amount of the chemical substance used at the whole head office building. Together with proper management of the PRTR method relevance substance and a chemical substance that are used in an engineering development section, we have been taking the eco-friendly measures for detergent, too.

### • JUKI (SHANGHAI) INDUSTRIAL CO., LTC.

In order to build healthy work environment and to reduce an environmental load by promoting a reduction of the amount of the chemical substance used and a reduction of the amount of emissions of waste containing a chemical substance, the company has been performing improvement activities from the selection stage of raw materials and ancillary materials.

The company changed the solvent that contains benzene for a surface washing to the green product through activities of a painting section, an assembly section, and ancillary materials purchase section.

Moreover, being enlightened by the technical improvement of a painting section of JUKI Ohtawara plant, the painting section of the company can stand the prospect of the "Sheeler work discontinuation" through a little more than one year of trial and error, and hopes the good effect.

### • JUKI XINXING INDUSTRY CO., LTD.

The company has been using chemical substances such as an organic solvent, a solvent, and a powdered paint in the pretreatment and painting processes of a sewing machine frame. In order to minimize an environmental load while maintaining a coating quality, the company has been managing the optimization of the amount of the paint used, and minimization of the amount of paint disposal as a matter of policy. The company checks the in-and-out store and amount of the chemical goods used periodically to minimize the amount of stock suitable for the quantity of production. The company has four employees who are eligible to handle chemical goods in order to prepare for state of emergency such as a fire and an environmental pollution accident.

## Prevention of environmental pollution

### • JUKI YOSHINO KOGYO CORPORATION

Supposing the case where the piping from the outdoor tank (small-quantity hazardous substance storage tank) of kerosene is damaged by an earthquake, a typhoon, and a flood, and kerosene is revealed from it, the company has been conducting an imitation training against state of emergency once every year.

The company has been conducting the imitation training in accordance with the "procedures for state of emergency" that has been standardized.

The company has been making the "imitation training record against state of emergency" as a training record after the said training, and has been evaluating the effectiveness.

### • JUKI CORPORATION, a head office

JUKI has been performing a smoke concentration measurement of a gas absorption type cooling and heating machine twice per year to strive for air pollution prevention.

Before a measurement, JUKI obtains the license and the proofreading of measuring instrument from a commissioned company to raise reliability.

The analysis of hazardous substances is performed in the production basis of China (JUKI (SHANGHAI) INDUSTRIAL CO., LTD., JUKI XINXING INDUSTRY CO., LTD., SHANGHAI JUKI SEWING MACHINE CO., LTD., JUKI (NINGPO) PRECISION INDUSTRIAL CO., LTD.)



The in-and-out store and the amount of the chemical goods used are checked periodically.



Minimization of the amount of stock suitable for the quantity of production is striven for.

## Reduction of hazardous chemical substances

In order to adopt the materials and the method which do not contain the controlled substance from a design phase based on the green procurement guideline revised in 2011, JUKI reformed the tool for conformity judgment at the adoption stage and adopted compliant materials.

JUKI also collects the survey sheet on a hazardous substance in a supply chain from a customer, and promotes the conformity with green procurement. In addition, JUKI introduced a fluorescence X line analysis machine into all the bases, and has been advancing reduction of continuous hazardous chemical substances through an adoption of compliant materials and a check with analysis so that a hazardous substance may not be built into a product.

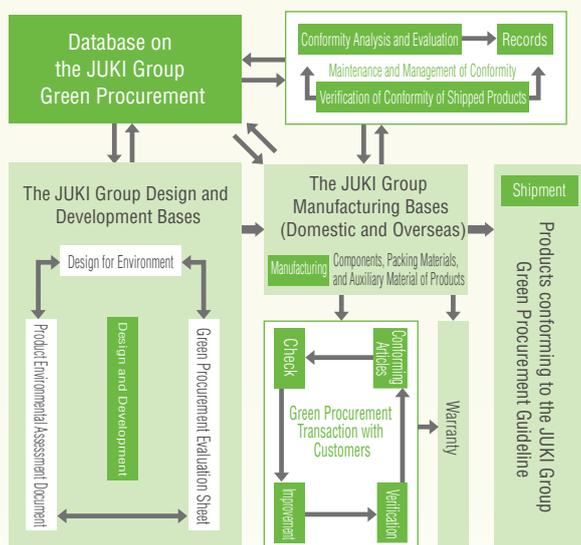
### • SUZUTAMI PRECISION INDUSTRY CO., LTD.

In order to check amendment of laws or ordinances periodically and save time for management, the company has been trying to change the conventional chemicals to the chemicals having less handling regulations from which the company acquires the most equivalent possible effect.

# Green Procurement Measures

In order to provide customers with environmentally conscious products, the JUKI Group formulated the "JUKI Group Green Procurement Activity Guideline" in August 2004 and has since been conducting green procurement activities. We update the "Guideline" from time to time to respond to new environmental regulations in a proactive manner.

## Green Procurement Flow



## Green procurement

JUKI revised the "JUKI Group Green Procurement Guideline" to respond to a new chemical substance regulation of each country in 2011, newly adopted the JAMP survey tool (AIS, MSDSplus) that is industry-standard in a hazardous substance survey, and started the further conformity activities.

Before a start, JUKI held the briefing sessions to the customers within and outside the country, and has deepened their understanding.

And in the fiscal year 2011, JUKI advanced the concrete measures in a green procurement guideline or a survey tool. There was puzzlement of a customer and the persons concerned while advancing them, but a practical use of a new survey tool has also got off the ground through the activity for which even one deepens an understanding.

Moreover, JUKI has taken the measures for the increase in newly managed substances and the revisions of the China RoHS and EU RoHS Directive.

Especially, JUKI will perform activities to conform with the RoHS Directive that has been revised by the EU as a major matter to take measures in the fiscal year 2012.

# Responsibilities to Stakeholders

The JUKI Group believes that conducting business activities fully oriented towards its stakeholders will increase its corporate value and generates mutual profits. We are implementing this to make ourselves into a corporate group that fulfills the needs of all of our stakeholders.

## ● Involvement in Stakeholders



Shareholders	Customers	Business Partners	Employees	Society
<p>We are improving our financial position and shareholder value and are committed to distributing dividends in a stable manner. Also, in order to promote communication with shareholders and investors, we are actively disclosing our corporate information in a fair manner.</p>	<p>The JUKI Group will ensure that the products and the services that can be used for a long time will help customers maximize their value. We aim to continue to build and deepen the bond of trust we have with our customers.</p>	<p>To ensure coexistence and co-prosperity with suppliers, we give explanations and provide education to them regarding (1) fair and unbiased competition, (2) compliance with contracts, (3) regular briefings on the market situation, and (4) the "JUKI Group Green Procurement Activity Guideline." Through these measures, we want to become friendly rivals with our suppliers.</p>	<p>The JUKI Group aims to become a global corporate entity that provides people with great employment and growth opportunities regardless of their nationality, race or gender. In each of the countries where we do business, we will establish an organization and corporate culture where employees can work with higher motivation and higher job satisfaction.</p>	<p>As a good corporate citizen, we are making deeper exchanges with local communities. Also, in our international business operations we comply with internal and local laws, respect the local culture and customs, and endeavor to contribute to the development of the local area. At the same time, we aim to become a valuable and attractive entity in the society by addressing the environmental issue seriously.</p>

# Management System

The JUKI Group is committed to enhancing its governance system, improving the speed, efficiency and quality of its management, and strengthening its compliance system to gain the complete trust of society. We also prepare ourselves to manage any risks across the Group.

## Corporate governance

From a viewpoint of securing the soundness and efficiency of management, JUKI regards suitable operation and maintenance of corporate governance organization as one of the utmost important problems, and has been striving for the improvement and fullness. Moreover, JUKI will disclose timely and exact information, and improve management transparency. The directors, executive operating officers, and section heads attend the Management Strategy Council, and have been deliberating on the basic policy about management and others from various angles. The Auditing Department that has been established as an organization for an internal audit in our company has been performing the business audit of each of our sections and subsidiary companies. Moreover, audit by Corporate Auditors is performed in cooperation with the Auditing Department and an Accounting Auditor and in accordance with an audit policy, a work responsibility and others that have been defined in the corporate auditor's meeting. The Corporate Auditor's Dept. is set up as an organization which assists a corporate auditor.

## Response to the Financial Instruments and Exchange Law

Under the internal control report system based on the Financial Instruments and Exchange Law, the internal control in connection with financial reporting was evaluated effective in the 2011 fiscal year, too. Since this system started in the fiscal year 2008, the internal control has been evaluated effective for four consecutive years. This means that it has been now well established as a system. Moreover, the evaluation level of an internal auditor has been improving much more by appointing the internal auditor in overseas group companies and re-fixing the internal audit organization. Although the evaluation period was sharply compressed in the irregular settlement of accounts for nine months along with a change of closing date in the fiscal year 2011. We were able to complete the evaluation before due date by implementing the efficient evaluation reflecting the reexamination result of the practice standard set by the Financial Services Agency in cooperation with the auditees. In the following fiscal year, we will perform evaluation that is more efficient without omission while inheriting the fiscal year 2011.

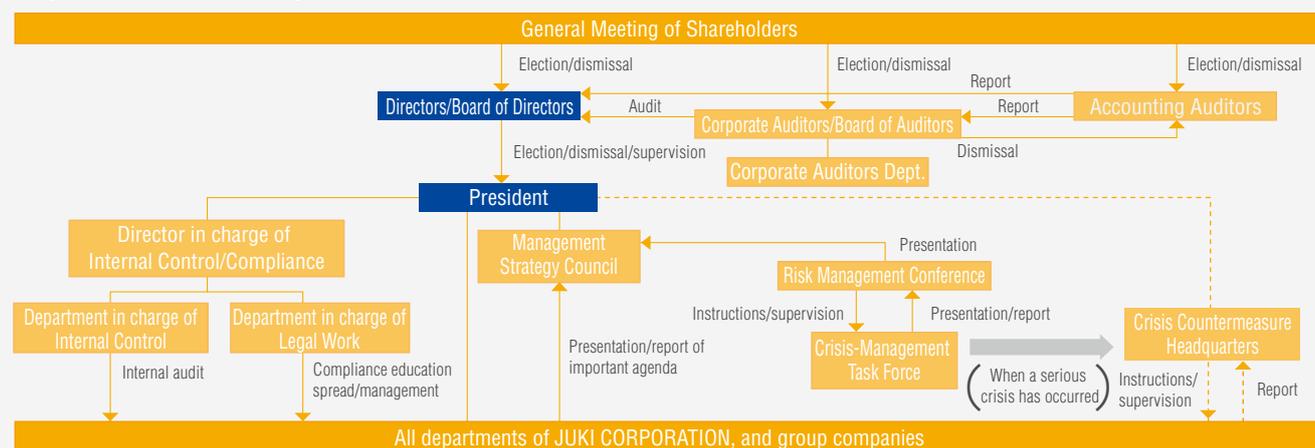
## Compliance

The JUKI Group is focusing on a matter of compliance as an important management base, which aims at keeping a business group that has been widely trusted by everybody in the society including the customer, and worthy of the existence value for the society. Not only the employees of JUKI CORPORATION but also the directors and employees of the companies in the Group are well educated to act in accordance with the "JUKI Corporate Code of Conduct" that explains about the conducts with the observance of the law and the good sense, and to promptly respond to consultations, doubts, etc from the employees in the counseling counters set up by JUKI CORPORATION and the companies in the Group. Moreover, important risks related to compliance are managed at the Risk Management Conference.

## Risk Management

The JUKI Group, as a risk management system, sets up the Risk Management Conference, where company-wide risks and important risks are managed, and directs it to take the remediation measures for the risk decrease. Moreover, we set up the Crisis-Management Task Force for the crisis in preparation for the occurrence of disasters (Exteriorization of the risk) such as natural disaster, fire, explosion, the PL (Product Liability), the environmental problem due to the industrial effluent to maintain the system to examine and execute the countermeasures. Furthermore, we set up the "Crisis Countermeasure Headquarters" headed by president immediately after the Great East Japan Earthquake occurred in March 2011, and conducted the crisis management quickly by giving instruction to the group companies concerning the countermeasures against the aforementioned earthquake.

### Corporate Governance System



# Relationship with Customers

We are working to provide safe products and increase Customer Satisfaction (CS), in addition to responding to inquiries and requests from customers. We are committed to building and maintaining a deep bond of trust with our customers.

## The measures for the CS of the Sewing Machinery Business Unit

Industrial and household sewing machines are exhibited permanently at a showroom of the head office, a visitor or a customer is guided, and various seminars are also held there.

At the sewing center that is a showroom of a sewing machine, about 50 kinds of industrial sewing machines and about 15 kinds of domestic sewing machines are exhibited permanently, a visitor or a customer is guided, and a sewing sample is prepared. A customer is able to have the sewing consultation and sew on trial using a sewing machine actually before a purchase.

Moreover, in order to fully utilize the product that the customer has purchased, the technical supports such as a response to technical inquiry, repair, maintenance, and technical guidance are offered, and the efforts go into after-sales service or before-sales service.

For an education and training to the customer who wants to utilize a sewing machine more effectively, the courses such as the "a technical training of a sewing machine" and "a seminar of a sewing machine and sewing" are prepared. In addition, the seminar is held for any purpose of acquiring the basic knowledge and further technical knowledge.



Technical training of a sewing machine



Tour to a sewing machine showroom

## The measures for the CS of the Electronic Assembly Systems Business Unit

A CS questionnaire was conducted, and the improvement activities reflecting the customer's voice were performed in Japan and China.

The Electronic Assembly Systems Business Unit has performs the planning, sales, and maintenance of a chip mouter that places electronic components on a PWB. In CS questionnaire survey that they have been tackling since the fiscal year 2004, customer satisfaction is analyzed through the comprehensive evaluation of six items such as "quality and functions" and "after-sales service," and improvement in a quality of service is aimed at continuously.

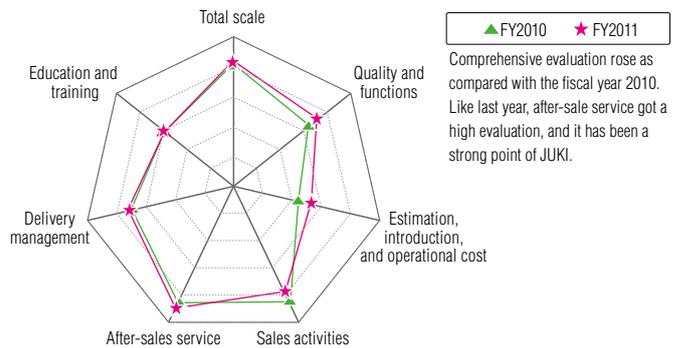


Tour to chip mouter showroom

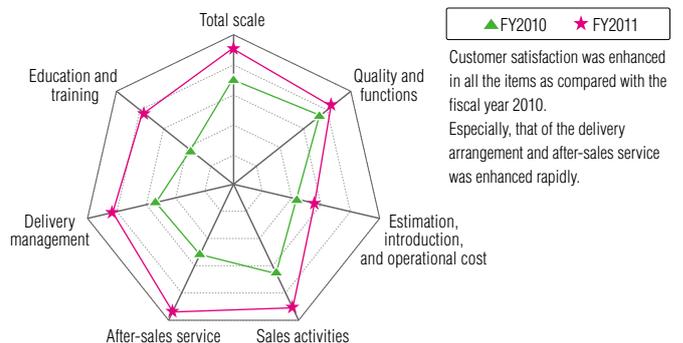
The main activities in the fiscal year 2011:

1. They responded to a customer's demand and offered immediate support service as the measures for earthquake disaster.
  2. As the measures for flood in Thailand, they supported local users by checking the flooded machines and activating them.
  3. They performed improvement activities with the customer as part of activities to offer the stable operation of machine (mouter) and the use of efficient machine.
  4. To respond to customer's voice, they unified a reception desk of a customer's call and improved the curriculum.
- They will also continue providing the services that suit the customer's needs in the current fiscal year.

### Results of the Customer Satisfaction Measurement in Japan



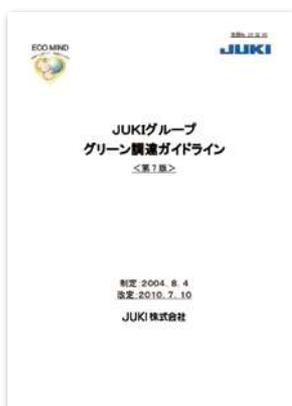
### Results of the Customer Satisfaction Measurement in China



## Quality Assurance

The "re-improvement of a manufacturing rule common to the group companies" and others are continued.

Our wish is to have a relationship with a customer through strong bonds by continuing providing a product and service that are delighted and satisfied by a customer. In order to make this wish come true, the comprehensive quality management has been promoted continuously. The activities for the "re-improvement of a manufacturing rule common to the group companies" which aims to share accumulation of know-how/knowledge of a product making, the "management of a liaison meeting between persons in charge of a quality" which aims to share quality information/task and cooperate with each other horizontally, the "implementation of in-house quality education" which aims to enhance quality awareness and improve ability, and the "promotion to undergo a test for a QC certification," and so on have been performed in the fiscal year 2011 as well.



Japanese version of the "JUKI Group Green Procurement Guideline"

## Product safety

It has been declared that both new and existing products are safe.

In addition to environmental consideration, by acquiring the safety information and catching the leading-edge technology trend in each country, the safety product is offered to a customer so that a customer may use a safety product. Since in accordance with establishment of the safe regulation newly added in the Euro block especially in 2011, the new product was reexamined including the products that were developed in the past and the safety of those products was declared publicly, a customer can use them with a sense of security.

## Measures at the time of an occurrence of quality problem

When there is a problem with the product quality, the cause of the problem is investigated and a speedy solution is propelled to find.

A product is shipped out while improving the mechanism that makes a 100% non-defective product, but when there is a problem with the product quality, its solution is offered to a customer through sales companies of JUKI. The information on the quality problem is acquired speedily along with the investigation of the cause of the problem, but a customer voice from the area in which the feedback system has not yet been well established in association with a global deployment is received through various networks.

### Pick Up

#### Continuing the maintenance of quality and structure and offering the good products

VOICE

The influence on the human body and environment by radiation that was made in the accident at the Fukushima Daiichi Nuclear Power Station due to the Great East Japan Earthquake poses a big problem in 2011 or later. There are various kinds of substances that constitute a product. If some substances that influence a human body are used, the product may be manufactured at a low cost. For example, the lead used to be mostly used in an electronic PWB. While the green procurement guideline was published in 2004 to assure the product quality that has considered the influence on a human body or environment, the fulfilling guidance to all the business partners and incoming inspection are aimed at so that the hazardous substances may not be included in the product. Moreover, the customer is able to use the product with a sense of security because the mechanism is maintained even in a place that is invisible to the customer and the safe product is offered.



Product Audit Group  
Quality Assurance Dept.  
**Takahisa Sonoda**

# Relationship with Employees

The JUKI Group is building a business rotation system to make better use of human resources and is improving its workplace and system to help employees make their work and home lives more compatible. The JUKI Group also believes it important to give psychological support to employees for their overall health.

## Attitudes towards of Human Resources Development

Human resources who sympathize with the idea and sense of value of JUKI are asked for, and fair evaluation and treatment of an employee are valued.

JUKI globally asks for the human resources who sympathize with its idea and sense of value in the social responsibility and customer-oriented management as a manufacturing company, and wishes that the human resources will cooperate beyond the difference between nationality and culture to expand its business operation.

And the arrangement of the right person in the right post, exchange of human resources, localization of business operation, and local employee's appointment to become a manager are positively advanced so that every employee in the group companies may be evaluated with justice according to ability and a track record and the career which can harness an individual character can be realized.

## Employing Disabled Persons

The JUKI Group is keeping in mind the maintenance and expansion of a working opportunity, and the making of environment that is easy to work.

The JUKI Group is striving to offer the place of work for disabled persons to be able to work having a purpose of life. About 40 persons are working in domestic JUKI Group companies as of December in 2011, and the occupational description spreads to engineering, office work, and craftsmanship.

And in order to realize ideal working conditions, the arrangement to a place of work taking into consideration of vocational aptitude, the ingenuity of work contents, an offer of a training opportunity, a change of office layout, and servicing of equipment servicing and others are planned.

## Human resources development system

Talented people are promoting training in various forms as an important management base.

The human resources are positioned as an important management base, and the nurturing of human resources who work with the strong aspiration and passion is aimed at. Most of human resources are those who play an important role in a manufacturing company, are core personnel of the group companies, and are global personnel of the head office.

The nurturing of human resources is advanced in various forms. The opportunity of an on-site experience in overseas country and a factory is increased on the basis of OJT, and training of management and a special field of study are conducted for acquisition of fundamental knowledge and skill. In addition, a personnel evaluation system, the commendation and incentive systems such as an annual special commendation and a world QC convention, and the support to self-enlightenment for acquisition of public qualification and attendance at correspondence course are tackled.

## Mental health and Physical health

The blood vessel age measurement meeting was held.

The JUKI head office held a wellness fair in collaboration with a trustee of the company cafeteria.

Exhibition of health food diet, tasting of nutritional drink, and blood vessel age measurement were performed. That day was also the distribution day of the results of a medical checkup, so many employees participated in the fair.



Blood vessel age measurement that was held in the company cafeteria at the head office



Exhibition of health food diet

## Human resources development in China

The group companies in China have been performing the human resources development in unison with the operating form of each company.

The group companies of JUKI in China have drawn up an employee's plan for education and have been tackling it positively.

It is intended for employees of all the group companies in China including those who are engaged in the manufacturing, sales, and administration. Most of all the managers, supervisors, regular employees, and new employee are targeted.

The contents are divided into fields such as management, administration, and specialization. They widely cover the management, QC, safety, environment, language study, personal computer, business manners, company regulations, etc. Moreover, manufacturing companies have performed the human resources development for every section in unison with the operating forms of companies such as the machining, paint, production engineering, technical drawing, CAD, and have been exerting themselves for the global human resources development which is available to the world.



The scene of a world QC convention

# Relationship with Shareholders and Investors

The JUKI Group will enhance the management transparency through accurate information disclosure to stockholders and investors at the right time. We have received many opinions and comments from shareholders and investors, and we are striving to meet their requirements.

## IR briefing session

Promoting an understanding of the JUKI business operations to institutional investors

While helping investors to deepen an understanding to JUKI, we have been holding the results briefing twice a year and responding to the individual interview from a financial analyst fund manager in order to increase the strong stockholder who will be able to hold stocks for a long period of time. Moreover, we have been putting various information in our website positively so that investors may deepen a understanding of management policy and a business activity in addition to an settlement-of-accounts related data such as a statement of accounts, a financial report, a business report (to shareholders).



The results briefing in May 2011

## General Meeting of Shareholders

Promoting an understanding of the JUKI business operations to individual shareholders

In order for shareholders to further deepen an understanding of the business operations of JUKI, we make it a rule to send a business report "To shareholders" that summarizes the overall condition of business operations and the contents of settlement of accounts to all the shareholders twice a year. Moreover, since we unified the information desk that deals with inquiries from the institutional and individual investors this year, we became able to perform speedy response with unification of the answer. Furthermore, we carry out a tour of inspection of core products after the end of a general meeting of shareholders. We will exercise our ingenuity so that shareholders can continue to understand the business operations of JUKI more deeply.



The ordinary general meeting of shareholders that was held in June 2011

# Relationship with Business Partners

As a global corporate entity, the JUKI Group is promoting green procurement in corporation with its business partners. We are committed to fair and unbiased trading with suppliers and improving our technological capabilities for coexistence and co-prosperity with our business partners. We are also enhancing communication with them through briefings and training sessions.

## Procurement policy

Practical use of the JAMP survey tool that is industry-standard has also got off the ground.

We have selected business partners under a fair evaluation using a "customer examination table." In addition to fulfilling the conditions of quality, cost, and delivery time to demand, we have evaluated candidates for business partners from a viewpoint of the compliance with laws and ordinances or social norms, the respect for fundamental human rights, the adaptation to the "JUKI Group Green Procurement Guideline", the measures for occupational health and safety, and the measures for intellectual property protection, etc. to determine business partners both domestic and overseas.



The scene of customer study session

## The exchange with a cooperation company

The "JUKI customer study session" was held.

At the JUKI Ohtawara plant, the "JUKI customer study session in the fiscal year 2011" was held in November inviting 89 companies (95 guests). For the purpose of the improvement in quality of dealings and the coexistence and co-prosperity with JUKI, this study session is held in the Quality Month every year.

This time, we held a lecture entitling the "direction of manufacturing in Japan in a global age" that was given by Mr. Ryoza Yoshikawa, a special-appointment researcher of the University of Tokyo graduate school economics graduate course manufacturing management research center. In addition, we granted the "letter of thanks" to seven companies that achieved the excellent results especially, and delivered the "guaranteed delivery certification" to 49 companies that suit the quality assurance screening criterion of delivery.



The lecture in study session



The scene of commendation at study session

# Relationship with Communities

The JUKI Group has been dealing with customers in about 170 countries through the sales network that extends to the world. We all have made efforts to build a good relationship with customers in each region.

## Philanthropy activity case

The JUKI Group has exerted themselves for restoration and revival activities after an occurrence of the Great East Japan Earthquake.

The JUKI head office offered the "free repair" support of JUKI products to contribute to a revival in the disaster area of the Great East Japan Earthquake. 241 sets in all that consisted of the industrial and household sewing machines, chip mounters, and data entry systems were restored. Moreover, the monetary donation of a total of 10 million yen including the group companies was contributed to the afflicted people through the Japanese Red Cross Society.

Since SUZUTAMI PRECISION INDUSTRY CO., LTD. experienced the earthquake disaster of the Chuetsu region in 2004 and 2007 and received quick and powerful support from the head office and the group companies at that time, they offered support in the range possible as soon as possible at the time of the last year's Great East Japan Earthquake.

## Communication activity case

The JUKI Group performed social studies field trips and internships, and participated in local community events.

SUZUTAMI PRECISION INDUSTRY CO., LTD. offers the opportunity of the employment experience to local young men, and accepts a local college student's internship as part of the company's PR and recruiting activities every year.

JUKI DENSHI KOGYO CORPORATION accepts a field trip from primary schools, junior high schools, and senior high schools in a region. They accepted 112 visitors in the last fiscal year. They also take the measures which raise the work values titling the "job course that a person learns from a senior" according to the needs of a school.

JUKI AIZU CORPORATION has participated in the community-based event "exciting commerce and industry fair in Kitakata" every year since 2007. The pendant-making corner where the visitors draw a favorite illustration on the plate using metal injection mold technology and they send it to the visitor after sintering it is very popular.

The OHTAWARA PLANT gives an opportunity to neighboring high school students who study the importance of works as a member of society through work, and accepts inspections of a manufacturing process and a showroom as a social-studies lesson from elementary schools.

Moreover, they participate in the "Dondo-yaki" which is a local neighborhood community association's event, and exchange the information with the authorities concerned such as the Labor Standards Inspection Office, the Chamber of Commerce and Industry, and a police station.

A study tour to the showroom is positively promoted by the head



The summer vacation handmade workshop in the head office

office as well. Since the head office was introduced at an ad on trains of the Keio Line last year, the numbers of visitors increased 15% (compared with the previous year) including the neighboring elementary students, and the students who study a garment, and the participants in the summer vacation handmade workshop.

## Pick Up

### An award at the 20th anniversary of the HEPZA

• JUKI (VIETNAM) CO., LTD.

The 20th anniversary event of the Vietnam Ho Chi Minh City export processing Zone industrial complex administration committee (HEPZA) was held at the HCM city people committee hall in July, and the company was commended by the HEPZA as "a company which contributed to construction and development of the HCM city export processing Zone industrial complex."

There were 11 Japanese companies out of 56 companies who have been commended. Moreover, Mr. Hang, a leader of a manufacturing section 2 of the company, was also individually commended by the HEPZA as an excellent worker. The company makes concerted efforts together to be also commended at the next 30th anniversary of the HEPZA, and the 50th anniversary.



The commendation ceremony at the HEPZA 20th anniversary event



The testimonial received from the HEPZA

## The community and philanthropy activities in the fiscal year 2011

The Mie governor highest award has been won by a casting production engineering contest

JUKI METAL CORPORATION won the Mie governor highest award at the casting production engineering contest. This prize was awarded by the merit of performance quality. The company's employees are always keeping the production of an eco-friendly casting in mind. Challenge has been being continued to reduce useless materials through improvement in the rate of the yield and reduce electricity and CO<sub>2</sub> through activities to lower defective goods, and the improvement of 2% was made in the fiscal year 2011 compared with the previous year. The company contributes also to activation of a town as a community-based company.

The head office additionally gave an opportunity to participate in the "handmade experience: pocket tissue production" to visitors at the time of their tour to the showroom. They are able to put favorite embroidery in materials using a sewing machine, make it up by themselves, and bring it home. The visitors' satisfaction level improved greatly because they were able to learn the sewing machine, touch it, and experience an art of product making.

# Third-Party Opinion

Recently we asked Ms. Yuko Sakita to provide a third party opinion on the content of the "JUKI Environmental Report 2012." We will make the best use of her opinions and suggestions as we plan out improved activities for the next fiscal year.



Journalist, Environmental Counselor  
**Yuko Sakita**

Ms. Sakita is an Environmental Counselor registered with Japan's Ministry of the Environment. Through her wide engagements in environmental education, she views society from a consumer's perspective and lectures and writes on environmental problems, especially on the challenges to creating an environment-conscious society

## Comprehensive opinion

The Great East Japan Earthquake of March 11, 2011 left vestiges of tragedy in its wake in many areas. But there has also been great cause of optimism. In witnessing "the reconstruction assistance extended to customers in disaster-stricken areas," I was impressed by the united efforts of local employees, volunteers, JUKI support staff, and others. Through these efforts, many of the factories where industrial sewing machines were used have been restored.

Your efforts to grasp the disaster scenarios at business partners just after the earthquake disaster and to take prompt actions have further strengthened the important ties we have as a global company with manufacturing and sales networks in 170 nations in the world.

Taking advantage of this experience, I would like you to build an effective disaster-prevention and restoration organization that stands ready to respond to serious disasters. Success in such an endeavor will improve the reliability of JUKI as a company.

In this regard, a number of positive measures for eco-friendly products are described in features 2 and 3 of this report. The "Eco-products Recognition System," a mechanism to encourage thorough environmental consideration throughout the whole product life cycle, was founded in 2009 to crystallize our corporate philosophy, the "Mind & Technology and Customer Creed." As of the end of 2011, this system extended to almost all 30 machine types we produce. This is a wonderful achievement.

The environmental contributions of our products locally, in the destination countries where we sell them, is a topic of growing importance, particularly for the rapidly developing countries of Asia.

The realization of green economies was taken up as the most important theme at the UN Conference on Environment and Development "RIO+20" held in Rio de Janeiro, Brazil in June 2012.

"The contributions of a green economy toward sustainable development and poverty eradication" are considered especially important, with bearings not only environmental load reduction by technology but also the lives of the people, and the histories and cultures, of the countries

and areas where our business partners are based. I encourage all of you to take pride in being members of a company that has forged strong ties with business partner countries, has built industries with industrial sewing machines, and has supported employee education for years. Stand tall, with postures erect.

## Environmental report

Looking at our environmental targets and results, the nuclear power plant catastrophe caused by the East Japan Great Earthquake forced regions of the country into power-saving mode. Thanks to the restrictions on energy consumption, an observable CO<sub>2</sub> reduction effect showed up. Admittedly this was a side effect of emergency measures, but it reminds us of what we can achieve by acquiring independent power supplies and maintaining large organizations for power-saving, etc. from now on. The benefits will not be exclusively environmental. This will ultimately translate into cost reductions.

We have built a management system good enough to acquire the ISO 14001 certification in all our manufacturing group companies, including the head office, and now manage our environmental performance with great quantitative precision. This is another splendid achievement. But from now I suggest that we rethink our planning methods going forward. Let me make one suggestion. Why not form ambient behaviors, deeply ingrained habits with substantive environmental benefits, by educating employees more profoundly on environmental practices? We can do this by implementing a remedial measure: if the success rate for any environmental challenge falls as low as 67%, plan out an environmental education session focused on that challenge.

Moreover, to systematically tackle biodiversity, an issue of growing importance, I expect JUKI employees to protect the species at its premises and to take part in nature conservation activities in areas around our factories and other facilities.

## Social report

I recognize your deep sense of responsibility to stakeholders and your efforts to build a substantial governance organization. But we must also show the public how we are serving every type of stakeholder—the customer, society, and you, the employees yourselves. The customer is a business partner, society is vital to all of us, and the source of any company's vitality is the smiling faces of its employees. In this regard, I urge you to collect as much quantitative information on our female employment practices, child-rearing system, labor safety, etc. and show it to the public.

In 2011 we also renewed our awareness of the importance of social bonds. Last but not least, I encourage you to continue your progress toward the realization of a sustainable society as a global company.

**JUKI**

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