

CSR Report 2014

JTEKT

JTEKT CORPORATION



Shaping a Better Future

Society and the world are constantly at work. For JTEKT, who already holds the status of Number One and Only One in many areas, our central mission is to always focus on the movement of society and the world, and act with consideration to our own social responsibility. We deliver this report as a communication tool to work towards shaping a better future together with our stakeholders.

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Editing policy

- This report aims to inform our stakeholders in straightforward language of JTEKT's concept and activities surrounding CSR.
- For FY2014, we have made major changes to the format of the report to make it easier to comprehend, dividing it into a Message (this leaflet) and a full online report combining both the Message and the Details & Data section.

Target period and target organizations/scope

Target period

FY2013 (April 2013 - March 2014)

* Some items include content from other periods.

Target organizations and scope

All JTEKT Corporation activities

Management of the JTEKT group is carried out on a group-wide basis, including elements such as environmental data measurement and control based on a uniform standard. Some items also show the performance of our domestic affiliated companies and overseas local affiliates. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

Reference guidelines

- ◎ GRI (Global Reporting Initiative) "Sustainability Reporting Guidelines 2013 (G4)"
- ◎ Japan's Ministry of the Environment "Environmental Reporting Guidelines (2012 edition)"
- ◎ ISO26000 (International Standard for corporate responsibility)

New! This mark is used to indicate new action begun in FY2013 and information disclosed for the first time in this year's report.

Message from the President



We place great importance in keeping harmony with our stakeholders, and will work united as a group to accomplish our Vision.

JTEKT Corporation Company President

Tetsuo Agata

JTEKT Group efforts in FY2013

Last fiscal year, amidst intensifying competition, JTEKT focused on strengthening product competitiveness and proposal capability as well as production improvement, with the aim of making the leap to becoming a brand which can be trusted and depended upon by customers across the world. In the automotive components business, we engaged in the development of high-

output rack parallel type electric power steering that answers the need for comfortable steering wheel feeling for large size vehicles, targeting the European market. We also exhibited at the Tokyo Motor Show. Concerning the bearing business, we established the Large Size Bearing Engineering Development Center, which is installed with test equipment that accurately recreates the customer's environment of use for wind power and railroads. The center has already begun operation, and new testing machines for evaluating bearings for steel production will be introduced in October 2014 (➡ related article on page 9). Relating to the machine tools business,

JTEKT conducted the first full model change in 20 years on our general purpose cylindrical grinder for the general market, under the concept of "a machine with which anyone can easily achieve high-grade *monozukuri*" (➡ related article on page 10). Regarding production supply, our efforts to raise productivity at the Kariya plant have paid off, achieving vast reduction in product lead-time. We are continuing our efforts for CSR to enforce compliance among all directors, managing officers, and general employees. We will improve the recurrence prevention framework through periodic inspections regarding compliance (➡ related article on page 3).

Message from the President

JTEKT Group shares values and ideals on a global scale

JTEKT practices honest business activities with deep consideration to relations with our stakeholders, in order to fulfill our corporate philosophy of “contributing to the happiness of people and the abundance of society through product manufacturing”. I believe that striving towards continuous improvement of our company value through these activities is the corporate social responsibility (CSR) of the JTEKT group.

To further respond to the trust and expectations of society, we changed the JTEKT VISION 2015 to the JTEKT GROUP VISION in April 2014, specifying the same values and ideals to be shared by

all group companies. As JTEKT continues corporate expansion across the globe, I would like for every employee to be aware that we are all on the same team, learning from one another and manifesting our abilities to support the prompt delivery of Number One and Only One products and services. In FY2014, as we globally promote activities to familiarize employees with JTEKT common values and ideals, we will continue to strengthen the management ability of workplace leaders and enlighten and guide each member, utilizing the “10 things we should keep in mind as employees” established in 2013, so that employees will be able to act while understanding the true essence of things. JTEKT officers will be assigned to each of our 6

major regions to promote CSR activities rooted in the local communities.

Steadily promoting the company plan while constantly perceiving environmental changes

Within the current economic environment, emerging nations continue to experience a general stagnation in demand, and the future remains unclear. Our company group has formulated the Mid-term Management Plan based on our CSR mindset, for the purpose of accomplishing the JTEKT GROUP VISION. This plan outlines our concrete strategy and path for the next 5 years, and will be updated each year to incorporate external environmental

JTEKT GROUP VISION Shaping a Better Future through the Spirit of “No. 1 & Only One”

We will be an invaluable partner with our customers, our suppliers, and our team members.
We will deliver “No. 1, Only One” products and services through “Building Value,” “Building Excellent Products,” and “Building Professionals.”

Building Value

Provide value to customers by delivering products and services that exceed their expectations.

Building Excellent Products

Astonish the world with “*Monozukuri*,” the art of refined craftsmanship and superior quality.

Building Professionals

Develop a team composed of individuals working together, acting with initiative, confidence, pride, and passion as global members of JTEKT.



JTEKT GROUP VISION

Ideals shared by all members of domestic and overseas JTEKT group companies

Mid-term Management Plan

Detailed strategies, measures and target figures for fulfilling the VISION

Annual Global Company Policy

Emphasized policies of initial year based on the Mid-term Management Plan

Our Mindset

Support employees' way of thinking within work progression



changes within the plan's progress as we steadily move forward.

In the automotive components business, JTEKT aims to be the No. 1 supplier in the world within the steering business through unparalleled product competitiveness, by maintaining the top share and by strengthening earning power. In the driveline business, we aim to improve profitability by establishing the top share in the 4WD business and assessing the business areas on which to focus. For the bearing business, JTEKT will work to create a business structure that keeps pace with market expansion through structural reforms of domestic and overseas plants, development of "No.1 & Only One" products, and by strengthening sales capability, production power, and production engineering power. Within the machine tools and mechatronics business, our company will aim to be a genuine total production system supplier by maintaining a global sales and service system, instituting design and production methods that break away from the structure of traditional special purpose machines, and improving product competitiveness in collaboration with other group companies. JTEKT will work towards promoting operational reform, training global personnel, and improving our financial strength. This will be done in order to reliably promote the strategy for each business along with efforts towards safety, quality and environment, which constitute the infrastructure of corporate management.

In this way, through various efforts, we will establish a strong foundation not susceptible to change, and continue to grow as a truly global *monozukuri* company to contribute to the creation of an abundant society. We JTEKT sincerely appreciate your ongoing support.

Actions to reinforce compliance → Related article on page M_05

In March of 2013, the JTEKT group was recognized by the Japan Fair Trade Commission as having violated the Anti-Monopoly Act. We take this very seriously, and have been working day after day to improve awareness within each employee, developing and implementing various measures for enforcing compliance. The operating status of each measure is periodically surveyed, and improvements are made which reflect the overall opinion of each workplace.

Main measures of FY2013

[Statements by members of management]

- Transmission of a "Message concerning Observance of Laws and Regulations" by the president
- Transmission of a message to sales headquarters from the director of sales

[Rule organization and training]

- Revision of reporting rules when making contact with other companies
- Revisions to compliance rules for sales activities, the "Summary of Prohibitions"
- Training workshops for executive officers led by external lawyers (Twice a year)
- Independent study sessions on the Anti-Monopoly Act by each sales division
- Compliance training in all sales locations
- Training by job category, training before overseas assignment
- Distribution of compliance transmissions (Every month)

[Strengthening of systems]

- Periodic inspections of all group companies regarding compliance
- Information gathering and sharing concerning problems within CSR
- Compliance Awareness Month (July)
- Acquisition of a testimony relating to the observance of laws and regulations (All employees)
- Global monitoring of audits (Assignment of coordinators to each region)



[Framework] (Since FY2011)

- Establishment of the Compliance Promotion Department, appointment of Compliance Officers
- Establishment of an Anti-Monopoly consultation desk
- Strengthening the framework of the internal auditing department
- Establishment of regional audit offices (6 major overseas regions)

Verification of results

[Report concerning contact with other companies]

Employees are required to submit a memorandum and report within the regular meeting list before any contact with other companies. In FY2013, meetings at the consultation desk and memorandum submissions confirmed the steady familiarization of rules within the company.

[Workplace compliance awareness survey]

In the workplace management questionnaire (January – February 2014), we surveyed respondents on their compliance awareness within the workplace. The level of awareness has risen 5 points each year since FY2011, and it will be one of our challenges in FY2014 to raise it further.

[Level of satisfaction for compliance training (sales division)]

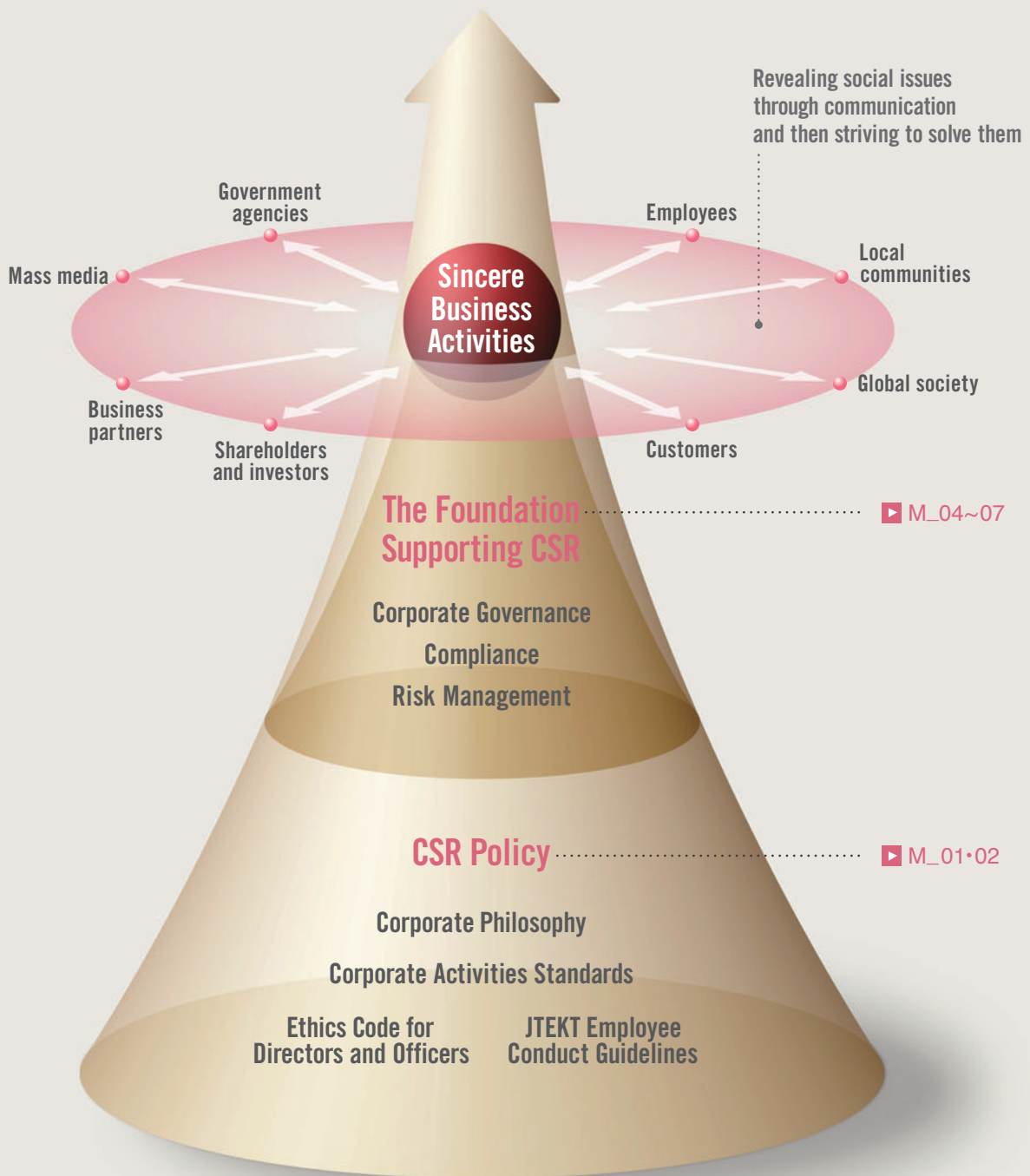
A satisfaction level survey was conducted on the e-learning instruction and group training carried out in FY2013. Over 70% of respondents replied that they found the training and instruction informative in their duties.

In order to raise compliance awareness, JTEKT continually improves the system through periodic checks to allow the consistent spread of awareness among all employees.

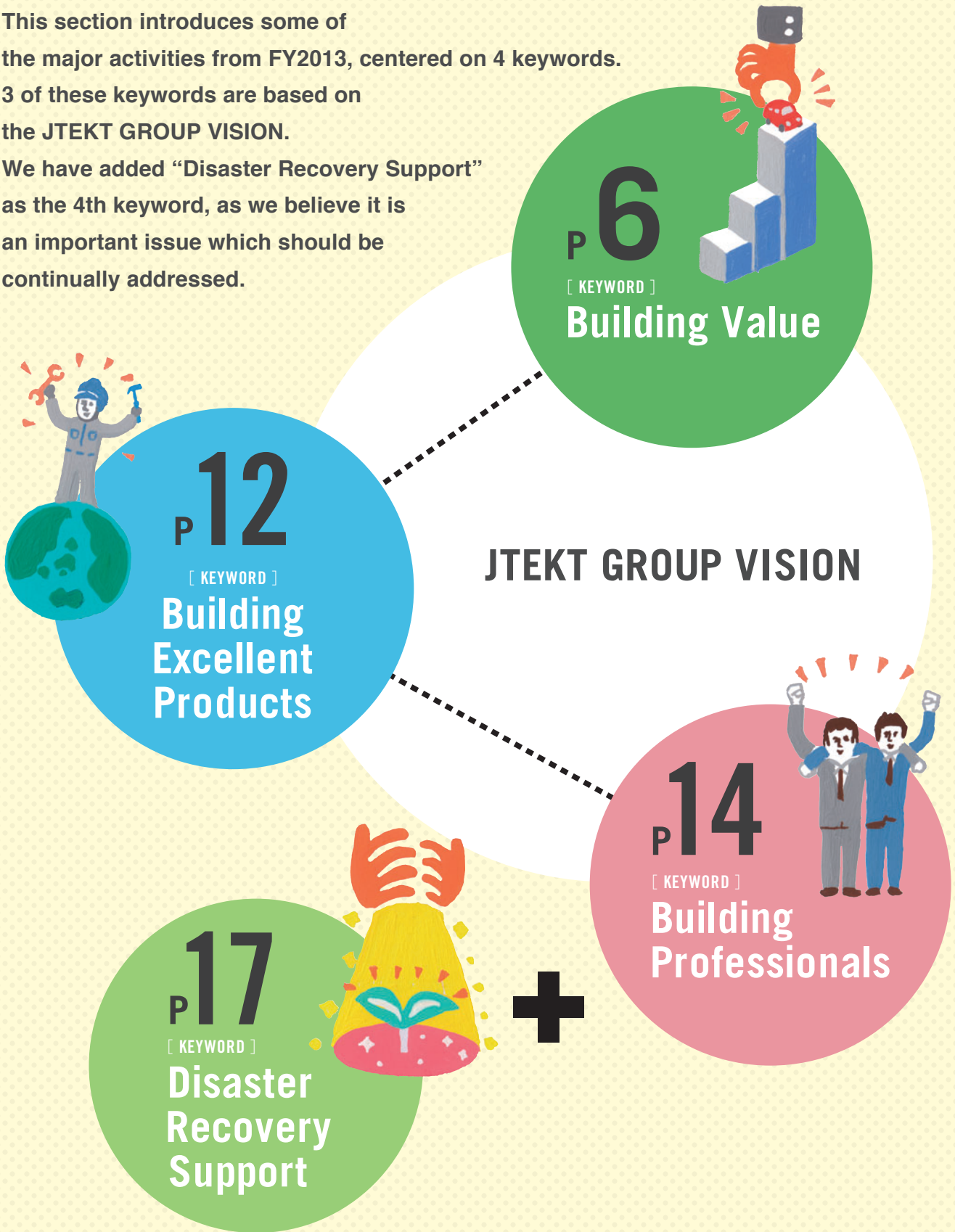
Spreading CSR activities capturing the JTEKT essence further throughout society

JTEKT aims to contribute to the development of a sustainable society and planet through sincere business activities based on our corporate philosophy of "contributing to the happiness of people and the abundance of society through product manufacturing". By valuing communication with each of our stakeholders, we will do our best to uncover social issues. Then, we will create and apply solutions to such issues and spread CSR activities capturing the JTEKT essence further throughout society.

Contribute to the development of a sustainable society and planet



This section introduces some of the major activities from FY2013, centered on 4 keywords. 3 of these keywords are based on the JTEKT GROUP VISION. We have added “Disaster Recovery Support” as the 4th keyword, as we believe it is an important issue which should be continually addressed.



CSR Report 2014

PICK UP 2013

KEYWORD
Building Value

Safer, more convenient and comfortable, and kinder to the planet as well. We will continue to evolve JTEKT technologies and products, with the aim of creating new values that surpass the expectations of society.

Addressing functional safety within electric power steering

1

Automotive Systems Business Headquarters
System Development Dept.
System Development Office 2
Development Group 3
Yasunori Shintani

Securing safety amidst the sophistication of electronic controls for automobiles

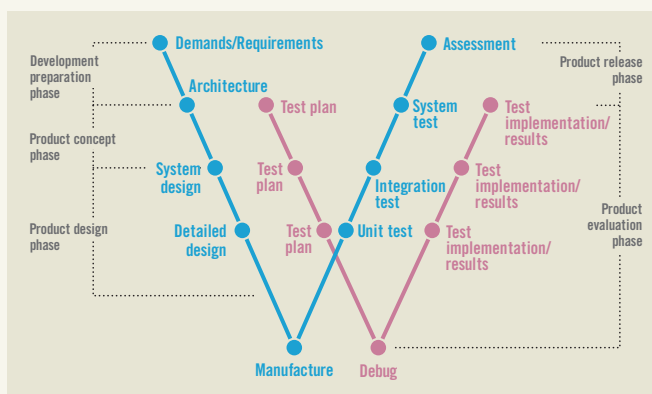


Creating safe products is a social duty of all manufacturers in the automotive field. Recently, interest in the “functional safety” way of thinking has been increasing. The level of safety achieved is defined by the consistent correct operation of the electronic control system; ISO26262 was issued in 2011 as an international functional safety standard for automobiles. Since 2005, JTEKT has worked to reform the development process in order to conform to this standard.

Answering specific demands with a concrete work procedure

ISO26262 standardizes the de-

velopment process of electronic control systems installed in vehicles, so that safety is guaranteed even if components break or malfunction. Conformity with this standard has been a vital issue to JTEKT as a leading company in electric power steering (EPS). “The requirements of ISO26262 are thoroughly stipulated for each phase of development. Our role was to convey each of those requirements into a specific work procedure that can be practiced by every engineer.” Since 2005, we have been reviewing this procedure while conducting information exchange and discussions with every engineer involved in development, includ-



Functional safety development process

ing system design, hardware design, and programming. The procedure was finally completed in 2013.

Giving our all to eliminate every risk

JTEKT is currently moving forward with the introduction of process management tools to ensure more reliable and efficient operational performance within development. “Electronic control systems for automobiles are likely to increase in sophistication and complexity. There will probably come a time

when everybody uses automated driving. I think the development process we have built will be even more important when that era arrives.”

JTEKT will continue to address functional safety.

“Our direct customers are automakers, but in the end, it is people all throughout the world who drive the automobiles into which JTEKT products are installed. I do my best to deliver risk-free products to drivers. That’s my biggest motivation in my work.”



3rd generation ITCC

→ E_09 Related article

Driving performance and fuel efficiency are expected in automobiles. The JTEKT intelligent torque controlled coupling (ITCC) is a device that achieves high-dimensional driving stability, safety and fuel efficiency. In 1998, we pioneered and released a 1st generation ITCC product into the market. In 2004, we developed a 2nd generation ITCC with greatly improved durability that could be applied to large size vehicles as well; this product is utilized by major automobile companies throughout the world. We then drastically improved performance in low temperatures, succeeding in the development and mass production of a 3rd generation ITCC in 2013.

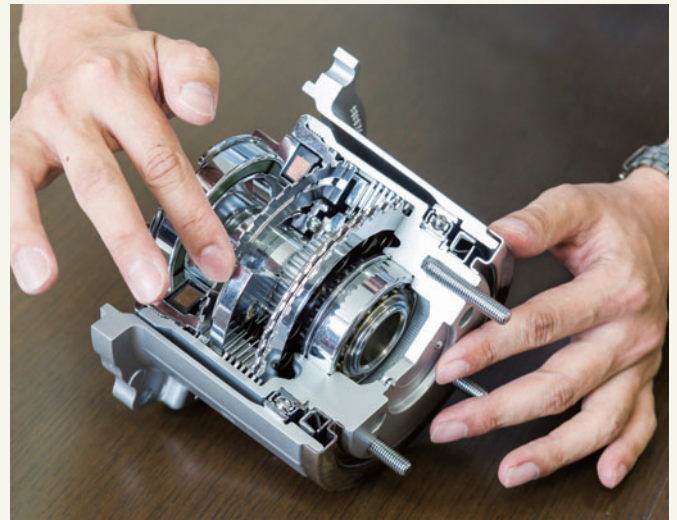
Transmitting a consistently stable driving force

ITCC automatically transmits or stops driving force from the engine to the rear wheels in response to changes in the driving environment. The automobile runs on front wheel drive during normal operation, though driving force is immediately transmitted to all four wheels when necessary, such as when

the front wheels are likely to slip. This produces significant effects within driving stability, safety and fuel efficiency. In 2nd generation and earlier products, however, more driving force than necessary is transmitted to the wheels in low temperatures, reducing fuel efficiency. The development theme of the 3rd generation product concerned how small we could possibly make changes in driving force. Achieving the smallest possible changes will lead to further improved fuel efficiency.

Contributing to safety and energy-saving for automakers throughout the world

Most emphasized for issue resolution is the electromagnetic clutch, comprised of 2 types of metal plates. By adjusting in microns the grooves carved into each plate, performance at low temperature environments has been greatly improved. "We've hit many roadblocks such as deciding how to make the optimal shape and how to ensure stable mass production. However, we were able to



overcome these obstacles by combining our abilities with both internal and external engineers."

JTEKT plans to introduce the 3rd generation ITCC to automakers all over the world.

"It makes me happy to think that the widespread use of the products we develop contributes to energy conservation and driver safety. These aren't products that most people notice just by looking at a vehicle, but that in itself is very rewarding."



Energy loss¹ under 0° C
Compared with conventional Approx. **50% reduction**

Torque temperature dependence²
Compared with conventional Approx. **85% improvement**

* 1 Residual driving force when ITCC is not operating
* 2 Changes in driving force caused by temperatures below the 120° C to -40° C range during ITCC operation

2

Automotive Systems Business Headquarters
Driveline System Engineering Dept.2
Coupling System Engineering Office
Differential Engineering Group

Hiroyuki Ando

The appeal of the 4WD automobile is driving stability. We contribute to its fuel efficiency.



3rd generation tapered roller hub unit

→ E_09 Related article



Bearing Operations Headquarters
West JAPAN Technical Center
Chassis Engineering Office
Masao Takimoto

Integration that balances the durability and environmental performance of large size vehicles

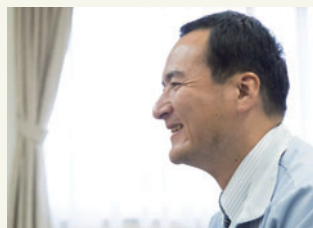
Pickup trucks and large SUVs are used for many years in harsh environments. In addition, because these vehicles are heavy, the hub units supporting the wheels are required to be highly durable. Hub units using tapered roller bearings mounted on such large vehicles traditionally have a separate inner ring and shaft. JTEKT, however, has developed an integrated 3rd generation tapered roller hub unit in order to respond to the needs for higher performance and reliability. We became the first Japanese manufacturer to achieve mass production of such hub units.

Evolution into lightweight 3rd generation with less CO₂ emissions

In order to advance the tapered roller hub units for large vehicles to a lighter and less energy-consuming 3rd generation product, JTEKT started developing prototypes independently in 2003. Our efforts paid off, and in 2009 we began to develop a product for pickup trucks of an American carmaker.

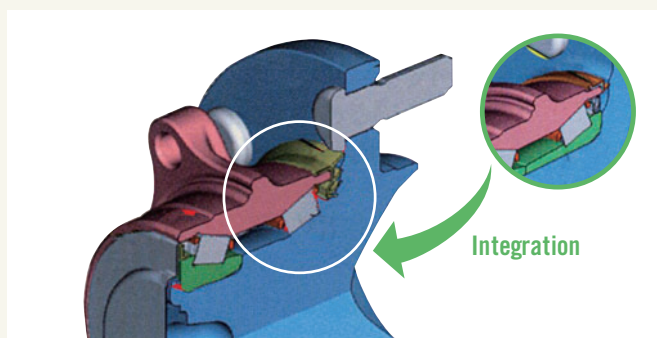
“This is the first product by JTEKT and first mass-produced product by a Japanese manufacturer. We repeated the process

of trial and error, especially on shaft design and assembly methods, and checked more than 1,000 patents. Everyone in related departments worked together to create a high quality product.” To raise design accuracy, we verified the design from various aspects such as forging and heat treatment with the help of the Production Engineering Department, Production Department, and others. As a result, the new product has achieved 20 times the shaft strength and a 600 g. weight reduction compared with conventional products that have a separate inner ring and shaft.



Genuine contribution from a long-lasting product that withstands harsh environments

Seals ^(※1) are important components that withstand harsh climates from extreme cold to heat, and contribute to the long service life of a hub unit. For this

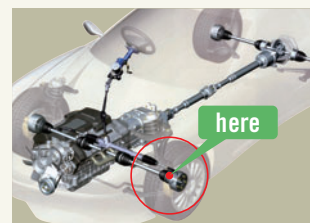


development, to prevent muddy and salty water from entering the inside of bearings, we have achieved twice the sealing performance compared with conventional products. In addition, we have optimized seal design and reduced energy loss by 50% through the adoption of LFT ^(※2), JTEKT's original technology. The new product that launched mass production in December 2013 is used for the pickup trucks of an American carmaker.

“Creating a product that is safe to both drivers and passengers, and is at the same time long-lasting, is the major premise of contribution to the environment. We therefore extensively pursued weight reduction and decrease in energy loss. I, as an engineer, would feel happy if cars using our hub unit are driven comfortably by people

around the world 10 years from now”.

- *1 A sealing device that prevents foreign particles from entering the inside of the bearing and grease from flowing out
- *2 Ultra-low friction torque tapered roller bearing with reduced friction load



Shaft strength Compared with conventional	20 times higher
Weight per unit	600 g lighter
Energy loss Compared with conventional	Approx. 50% reduction
Muddy/salty water resistance Compared with conventional	2 times higher

KEYWORD

Building Value

Large Size Bearing Engineering Development Center

JTEKT's bearings are used in areas other than the automotive field, such as wind power generation, railroads, and iron/steel. In the past, we tested large bearings used in these industrial machine fields utilizing models of reduced size, and asked our customers to evaluate them on actual machines. As such, unexpected problems occurred, resulting in lengthy development times. In order to solve these issues, JTEKT has established the Large Size Bearing Engineering Development Center, where large bearings are evaluated and analyzed in-house. The center is currently in full operation.

Bearings with higher reliability for wind power generation and high-speed railroads

The features of this center allow bearings to be evaluated in environments with not only the bearing itself, but also the surrounding structures included, creating environments similar to actual machines. An evaluation testing machine for ultra-large bearings made for wind power generation, installed in 2012, includes a housing that fixes the bearing for performance evaluation. We are now able to not only verify durability, but also propose optimal housing

design.

A testing machine for bearings made for high-speed railroad vehicles, installed in 2013, can simulate motion up to 500 km an hour. This machine allows us to simulate actual impacts such as curbs and rail joints to check their effects, and develop bearings that suppress temperature rise due to high-speed wheel rotation.

“There is no other bearing manufacturer that possesses this much equipment for actual machine-based evaluation of large bearings. The enthusiasm of our production staff in improving technological capabilities to create higher quality products led to the establishment of the center”.

(Ootsuki)

Accumulating evaluation data for further advancement

In 2014, we plan to install an evaluation testing machine for bearings made for iron and steel production equipment. We will evaluate the durability of bearings that are used in harsh environments such as exposure to high temperatures and water, and develop products with long maintenance intervals to assist high-efficiency production. In addition, we plan to verify the adequacy of materials and utilize the results



Evaluation testing machine for ultra-large bearings



Testing machine for bearings made for high-speed railroad vehicles

for material development. “Accumulating evaluation data at this center improves computer analysis accuracy and leads to the development of products with high added value, such as those with short development periods and sensor bearings (*). Reduction of energy loss and the long service life of industrial machines as a result of improved bearing performance will contribute greatly to achieving a sustainable society. We will use this center to its fullest, accelerate the optimi-

zation of internal design and materials, and strive to advance large bearings even further”.

(Kajihara)

* A bearing with a sensor function that automatically detects bearing condition.

Address	8-11 Kokubuhiganjo-cho, Kashiwara, Osaka
Total investment	Approximately 2 billion yen (including the building)
Evaluation equipment	① Evaluation testing machine for ultra-large bearings (installed in February 2012)
	② Testing machine for bearings made for high-speed railroad vehicles (installed in March 2013)
	Scheduled to install an evaluation testing machine for bearings made for iron and steel production equipment in October 2014.



Bearing Operations Headquarters
Experiment & Analysis Dept.
Kazuhisa Kajihara (left)

Bearing Operations Headquarters
Experiment & Analysis Dept.
Experiment Office 2 Group 1
Masaaki Ootsuki (right)

Evaluating bearings in environments similar to actual machines to provide high added value

4

General purpose cylindrical grinder GE4i

→ E_09 Related article



Responding to the decrease in skilled technicians with the advancement of machines

Machine Tools & Mechatronics Operations Headquarters
Machine Tools Development Dept.
Standard Machine Development Office
Grinding Machine Group

Hisayuki Nagaya

5



General purpose cylindrical grinder GE4i

The environment surrounding *monozukuri* in Japan is changing due to a decrease in the working population, shift to overseas production, and retirement of skilled technicians in the baby boomer generation. To respond to these changes, JTEKT has redesigned the general purpose cylindrical grinder, our main product, for the first time in 20 years. The newly remade GE4i model began sales in March 2014. Since grinding is a process that once heavily depended on the intuition, know-how, and experience of skilled technicians, our aim in the development of this product was to create a grinder that allows less experienced technicians to achieve stable machining accuracy.

Obtaining hints for advancement by asking customers

When developing a new product, we begin by asking our customers for their opinions, which gives us valuable hints.

“We heard from multiple customers that dimensions were inconsistent when they grinded at the start of work or after a lunch break. Our team discussed possible factors and countermeasures, and decided to create a machine insusceptible to heat.”

Various types of heat, such as room temperature, heat generated by machining, and motor/pump heat, build up in and around machines. Machine distortion

caused by such heat affects machining accuracy.

“Skilled technicians intuitively perceive heat-induced changes and slightly adjust the grinding amount, resulting in consistently high accuracy. We can think differently: If machine distortion due to heat is reduced, less-experienced technicians can perform high accuracy machining. This was our key point in development.”

Improving operability and installing many safety and energy-saving measures

A project team that included employees of group companies conducted a series of discussions, experiments, and computer-based analyses to achieve shapes and arrangements insusceptible to heat for various parts. In addition, we have improved accuracy by installing a contact-type sensor. Dimension change when restarting operation has been reduced by approximately 93% compared with conventional machines. We have also adopted beginner-friendly designs such as a function that enables operation through minimum data input, as well as operation but-

tons in multiple languages and with icons. We have also employed many safety and energy-saving measures, as they have become increasingly important at production sites in recent years.

“We continue to contribute to *monozukuri*, improving technologies and assisting our customers in performing high accuracy machining.”



Multistage continuous grinding



User-friendly manual handle

At the start of work, after a lunch break, etc.
Dimension change at the restart of operation
Compared with conventional
93%
Approx. reduction

KEYWORD

Building Value

CNC grinder with a built-in sizing unit TOYOPUC-GC70

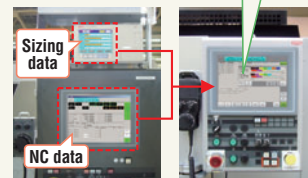


Machine Tools & Mechatronics
Operations Headquarters
Mechatronics Control Engineering Dept.
Control Unit Development Office Group 1

Tatsuya Yogo

Combining two
into one to
conserve energy

Can confirm both NC and sizing data simultaneously on one screen. Unified data management



devices and improved operability as a result of combining two screens into one.

“I am proud to say that this development could be achieved only by JTEKT because we manufacture both sizing and CNC devices in-house. We continue to pursue the status of Only One and establish superior performance control systems based on higher speed and accuracy so that we can better serve our customers.”

Power consumption

Compared with conventional Approx. **68%** less

Steel saved due to the removal of the amplifier holder

46.7kg → **0** kg

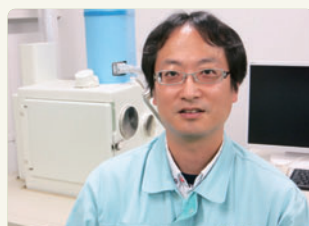
Energy conservation is an important issue at the sites where grinding is performed. JTEKT has developed a product that combines two devices generally installed separately, thereby achieving energy conservation within grinders. We have also succeeded in producing various effects such as resource saving, high speed, and improved operability.

Product that can be developed only by JTEKT

When performing high accuracy grinding, a measuring device called a sizing unit plays an important role. The sizing unit consists of a head that measures the dimensions of a workpiece, and an amplifier that amplifies and computes data received from the head and sends them to a CNC (Computer Numerical Con-

trol) device. JTEKT has developed a product consisting of an amplifier built into a CNC device. Power consumption has been reduced by uniting a device that consisted of two parts into one. In addition, less steel is used since an amplifier holder is no longer necessary. Furthermore, various advantages such as high speed have been obtained due to short transmission time between

CBN wheel Tough Vi-F



Toyoda Van Moppes Ltd. Development Dept.
Basic Development Office

Hiroshi Imaike

Aiming to develop new products that contribute to the happiness of our customers

When developing the new CBN wheel, we had difficulty in balancing the opposing grinding abilities of “sharpness” and “service life”. We were able to complete this development by observing the wheels in detail after trial machining, and repeatedly overcoming the issues found through observation. We continue to develop new products that contribute to the happiness of our customers.

7 Improving sharpness to respond to the needs for high accuracy and energy conservation

Grinding a camshaft, an engine part, requires high accuracy. There are growing needs for productivity improvement and good machining surface quality, and a CBN wheel is a key part in responding to these kinds of expectations. CBN abrasive grains that have diamond-like hardness are used around the edge of a metal

disc. Toyoda Van Moppes Ltd., a JTEKT group company, has developed a new CBN wheel. By improving sharpness, we have reduced grinding power by approximately 10%, resulting in energy conservation, and have also improved grinding efficiency by approximately 1.6 times, compared with conventional products. The

service life of the wheel is about twice as long, contributing to tool cost reduction. This CBN wheel is used for JTEKT CBN camshaft grinders. JTEKT group companies work together to meet the needs of our customers.

Toyoda Van Moppes Ltd.

Head Office & Plant
1-54 Shiroyama, Maigi-cho, Okazaki, Aichi

Date founded April 26, 1975

Number of employees
285 (as of end of May 2014)

Business activities
Manufacture and sale of diamond tools

Energy consumption

Grinding power Compared with conventional Approx. **10%** reduction

Wheel service life

Compared with conventional Approx. **2** times longer

Grinding efficiency

Compared with conventional Approx. **1.6** times higher



CBN wheel Tough Vi-F



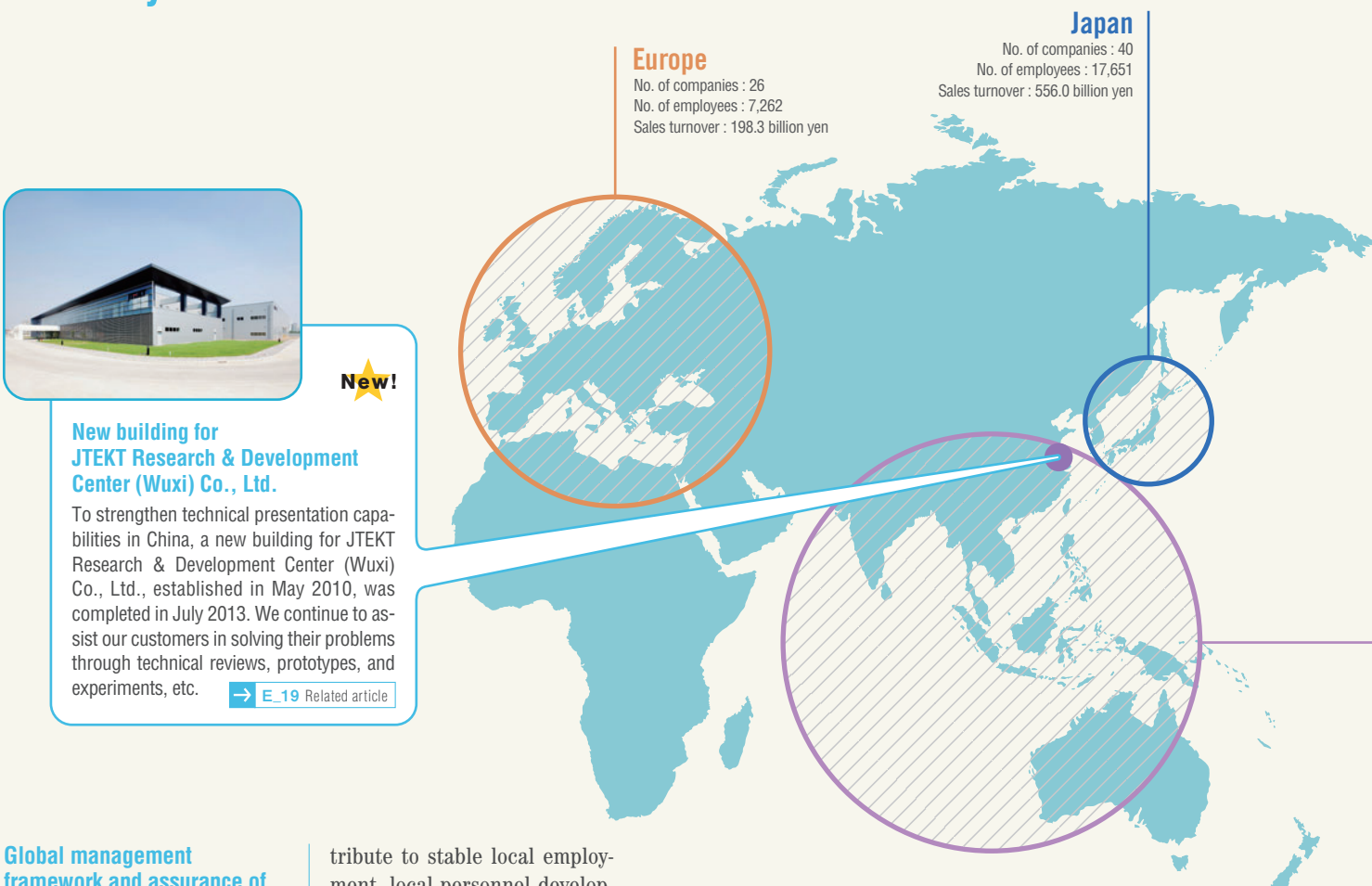
CBN camshaft grinder GC20Mi

* TOYOPUC is a registered trademark of JTEKT Corporation.

KEYWORD
Building Excellent Products

JTEKT's *monozukuri*. Ahead lay the world, with global environment as the background. With a firm eye on both, JTEKT engages in *monozukuri* towards shaping a better future.

1 Global production framework
Enabling competitive *monozukuri* anywhere in the world



New!

New building for JTEKT Research & Development Center (Wuxi) Co., Ltd.
 To strengthen technical presentation capabilities in China, a new building for JTEKT Research & Development Center (Wuxi) Co., Ltd., established in May 2010, was completed in July 2013. We continue to assist our customers in solving their problems through technical reviews, prototypes, and experiments, etc. [→ E_19 Related article](#)

Global management framework and assurance of quality for customers

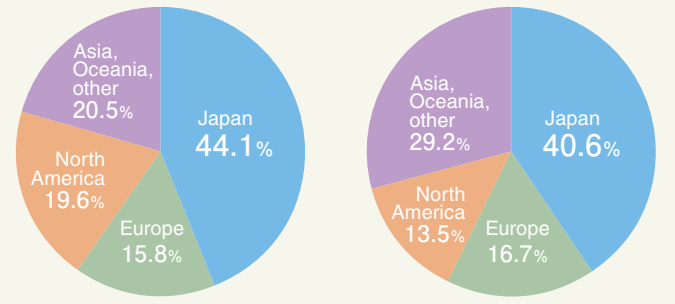
The JTEKT group assigns directors to six major regions in the world to streamline its global management framework: North America, Europe, China, ASEAN, India, and Central/South America. The "establishment of a global standard line" that we have been working toward since FY2010 aims to share management systems developed in Japan, including standardization of lines and personnel development, with our overseas Group companies so that we can conduct *monozukuri* around the world, maintaining the quality and cost that our customers expect. We hope to contribute to stable local employment, local personnel development, and community revitalization by establishing regional management, assuring quality for customers, and strengthening the production framework.

tribute to stable local employment, local personnel development, and community revitalization by establishing regional management, assuring quality for customers, and strengthening the production framework.

Enhancement of the supply framework

JTEKT believes that laying out a framework that can provide customers with products quickly and reliably is an important responsibility of all manufactures. In FY2013, we started local production of electric power steering in Brazil and established a production base in Mexico. Starting in FY2014, we have been promoting group and global management centered on our three operations of automotive components, bearings, and machine tools and mechatronics, based on the new Mid-term Management Plan.

○ Sales turnover share by location (FY2013 consolidated net sales) ○ Employee percentage by location (Current as of end of March, 2014)



promoting group and global management centered on our three operations of automotive components, bearings, and machine tools and mechatronics, based on the new Mid-term Management Plan.

For automotive operations in particular, we continue to enhance product appeal and our supply framework in the world market in order to maintain the No. 1 share in steering.

KEYWORD

Building Excellent Products

Establishment of a production base in Mexico

New!

JTEKT has established its first production base in Mexico. We have streamlined a system that can respond quickly and appropriately to the needs of our customers in Mexico, a country into which many car-makers are expanding these days. We aim to contribute to the development of the automobile industry in Mexico.



North America

No. of companies : 17
No. of employees : 5,881
Sales turnover : 247.5 billion yen

Asia Oceania Other

No. of companies : 57
No. of employees : 12,662
Sales turnover : 258.1 billion yen

Start of local production of electric power steering in South America

New!

To respond to increasing demands in the growing market of the South American region, JTEKT began local production of electric power steering (EPS) in Brazil in February 2014. In addition to the technical center and test course established in 2012, we have strengthened the framework that can quickly respond to local customer needs.



2 Energy conservation in production facilities

Measures focusing on heat treatment furnaces with high energy consumption

Installing in-house power generation facilities at five plants

JTEKT requires a lot of energy in the process of *monozukuri*, and considers energy conservation within production facilities an important issue. With the aim to save energy, contribute to peak shaving, and establish a structure that allows continued production in an emergency, we promote the installation of in-house power generation facilities, including co-generation. Taking measures in response to planned power outages and power restrictions has become an important issue after the Great East Japan Earthquake. We are installing such facilities within JTEKT plants, particularly those with heat treatment furnaces, which require continuous operation. Six facilities are operating at five plants in Japan, and our overall in-house power generation percentage ^(*) has risen steadily to 16.2%.

Making improvements based on data gained through "visualization"

Heat treatment furnaces require a lot of power and currently account for approximately 30% of JTEKT's overall power usage. This means that reducing energy consumed by the furnaces will lead to significant results, and we are therefore focusing on the furnaces.

To achieve "visualization" of energy used, we have already installed eco-power meters, which automatically measure power, to major lines at all plants. Starting in 2013, we systematically modify and repair heat treatment furnaces requiring attention, which are selected based on the collected data. Furthermore, each plant devises ways to save energy, and successful cases are shared with other plants.

* The ratio of in-house power generation capacity to peak power in FY2010.

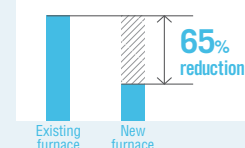
Installing a new furnace that balances energy conservation and quality improvement

New!

In 2013, the Kokubu plant installed a new type of heat treatment furnace called the "straight through furnace". While developing this furnace, we incorporated the technology of Koyo Thermo Systems Co., Ltd., a group company. This new furnace, developed through the cooperation of the JTEKT group, greatly conserves energy and improves product quality. We have strengthened our production framework to fit the age of "emphasis on quality" and "high variety, low volume".



Comparison of base units of energy consumption



CO₂ per month **6 ton reduction**

KEYWORD
Building Professionals

About CSR. About the next generation of JTEKT.
About workplace environment. We feel it will be important in the coming future to promote the development of professionals who think from multiple perspectives and act on their own.

A sense of responsibility allows me to boast of my work and my workplace to my family and to society.



Koyo Machine Industries Co., Ltd.

Naohiko Itani | Tadanobu Ishibashi

I honestly, repeatedly, and insistently say what I want to convey so that the meaning will be fully understood!



Koyometaltec Co., Ltd.

Katsutoshi Komatsubara | Akiyoshi Furuta

We will enforce honest business!



CNK Co., Ltd.

Ryugo Kato | Koichi Furube

A MESSAGE FROM JTE

I act in a way that I can be proud of!



Koyo Sealing Techno Co., Ltd.

Junji Sugimoto | Takeshi Minami

I feel that a daily sense of awareness is important, and pay special attention to the handling of confidential information within my work.



Daibea Co., Ltd.

Toshihiro Kimura | Rika Hayashi

I put my heart into explaining our CSR as plainly as possible in order to spread the idea throughout the company.

Spreading CSR throughout group companies

Under the JTEKT GROUP VISION, We will further promote CSR within all our group companies

1

Activities for familiarizing CSR within our group companies began in 2008. We have continued to hold periodic meetings since the establishment of the CSR committee in FY2012. Starting in FY2014, we have been strongly promoting CSR within all our group companies, under the ideas of the JTEKT GROUP VISION and the Mid-term Management Plan. On this page, we introduce comments reported from domestic and overseas JTEKT group companies and employees about activities, enthusiasm, and feedback related to CSR.

We will continue implementing company training through actions such as the issuance of compliance reports.



Koyo Electronics Industries Co., Ltd.

Kenji Murohashi | Akihiro Okuyama

KEYWORD

Building Professionals

I want all JTEKT members to be able to discuss CSR activities passionately.



Koyo Thermo Systems Co., Ltd.

Masao Sanai

The TFT healthy menus* are awesome!



Kimiko Ota

* A system for helping to deliver school lunches to children in developing countries and also helping to provide health-enhancing menus to donors at the company cafeteria.

I want to change the corporate culture to one where employees can be open about their problems.



NIPPON NEEDLE ROLLER MFG. Co., Ltd.

Akitoh Masumoto

Takahiro Nakao

KT GROUP COMPANIES

My focus is on "Face to Face, Heart to Heart".



Utsunomiya Kiki Co., Ltd.

Yuta Numanyu

Tatsuya Innami

I have come to feel responsibility towards society for our unintentional actions



Toyota Van Moppes Ltd.

Kyohei Inden

Yoshiyuki Matsuda

I will enforce a culture of "always follow the rules"!



HOUKO Co., Ltd.

Naoya Imaizumi

Kazunari Uchida

I have noticed that things important to CSR exist within casual actions.



Toyooki Kogyo Co., Ltd.

Mineo Kondo

Kanami Sugita

I will implement CSR activities for promoting the common understanding of the JTEKT GROUP VISION.



JTEKT Corporation

Yukio Kano

We are implementing activities in North America to enhance compliance through audits and supportive activities.



JNA(America)

David LeHoty

Eddie Byrd

Kevin Quist

KEYWORD

Building Professionals

2 Global HR Organizing HR development and assignment beyond countries and regions

→ P12 Related article → S_07 Related article

New!

HR development and assignment on a global basis

Global expansion of JTEKT is progressing as the ratio of the sales structure and employees now exceeds 50%. We will put a stronger emphasis on the optimization of human resource (HR) development and assignment throughout all countries and regions.

As one of the pillars of our policies, we will introduce the Global Succession Plan in order to proactively develop and appoint personnel who will assume key roles in the next generation JTEKT group at overseas locations.

In Japan, by predicting future challenges in addition to the existing training programs, we have introduced problem solving programs aimed at developing HR

who can think and act on their own, and introduced a technical career development program to enhance the development of *monozukuri* personnel. We are putting great efforts into organizing the training and education system, and plan to expand our programs worldwide in the future.

Global HR meeting Sharing policies for the coming five years

On December 3rd and 4th, employees in charge of HR at the six main overseas regions and Japan gathered to hold the first ever global HR meeting in Kariya, Aichi. After speeches from our President Tetsuo Agata and Executive Vice-President Takaaki Suzuki, discussions on HR management and development were held over the course of two days, in which policies were shared. We will be holding the meeting once a year to promote HR management on a global basis.



1st Global HR Meeting

3 Intra-company CSR familiarization Creating opportunities for every employee to think about the connection between work and CSR

→ S_09 Related article

Distributing a new tool for spreading CSR to all employees

Since FY2011, a CSR report has been distributed to all employees and study sessions held at each workplace. In FY2013, a leaflet "CSR+YOU: Notes about your social responsibilities" was newly created and distributed to all employees along with the CSR report. The leaflet is organized so that employees can think and write about the connection between their work and CSR. Results reports about the study session include comments such as "it was a good opportunity to think back about the rela-

tionship with our stakeholders", and "it is important to continue having discussions".

Continuing inspections concerning the comprehension of CSR policy

The results of the CSR policy comprehension survey in the workplace management questionnaire showed that in FY2013, 82% of employees in administrative positions and 38% of general employees understand the CSR policy. We feel it is necessary to implement further familiarization activities.

Percentage of people who "understood CSR satisfactorily" and "understood really well" (Top 2 answers out of 6 options)

	FY2011	FY2012	FY2013
Managers or above	64%	79%	82%
General employees	26%	36%	38%
All employees	35%	43%	45%



4 Safety training and education Install a safety dojo within all plants and continue implementing steady activities

→ S_10-11 Related article

New!

A place to experience the importance of obeying work rules

In recent years, JTEKT has been putting efforts into completely eliminating workplace accidents, especially "Failure-to-Stop" Accidents (*1). In FY2013, JTEKT proceeded to install a "safety dojo" in each plant. A safety dojo is an educational facility where participants can experience simulated accidents on actual machines and feel the importance of obeying work rules. Installation of a dojo was completed in all plants as planned, and training was con-

ducted for all employees who may possibly enter plants, including administrative personnel.



Safety dojo in Hanazono plant

Analyze accident cause and further enhance countermeasures

Workplace accident countermeasures were enhanced in FY2013, but very unfortunately, one near-fatal accident occurred, and the

Trend of workplace accident rate

	FY2011	FY2012	FY2013
Number of all accidents	17	17	30
Near-fatal accidents (accidents corresponding to disability grades 1 through 7)	0	0	1
Lost worktime accidents (accident requiring one or more days of lost worktime)	7	4	6
No lost worktime accidents (accident requiring less than one day of lost worktime)	10	13	23
6 Major Accidents (+3)	6	7	14
Failure-to-Stop accidents	4	6	13

number of Failure-to-Stop accidents greatly increased compared to FY2012. We take these results very seriously and will steadily analyze causes and enhance countermeasures to achieve zero accidents. We have already started improvements for the near miss (*2) proposals that we have been promoting. Not only have we been accepting proposals and imple-

menting improvements, but we have also started creating opportunities to proactively hear suggestions and conduct improvements.

* 1 Accidents which occur when troubleshooting work or repairs are conducted without first stopping the machine.
* 2 A safety and health activity involving the gathering and sharing of information on close calls and the devising of reoccurrence prevention measures.
* 3 Accidents arising through pinching/entanglement, heavy objects, vehicles, falling, electric shock and hot surfaces.

KEYWORD

Disaster Recovery Support

JTEKT places the remembrance of the 2011 Great East Japan Earthquake and the continuation of support for the disaster areas as one of the pillars for social contribution activity. We will continue support activities for the devastated areas.

Support for disaster areas of the Great East Japan Earthquake → S_19 Related article

All plants and branch offices conducted support activities that can be performed outside of disaster areas

Support within everyday life

In FY2013, JTEKT introduced a fundraising system utilizing company cafeteria menus and vending machines. For example, at the cafeteria, 10 yen from an employee eating a specific menu during the fundraising period is donated in addition to another 10 yen from the company via a matching gift system (*), and contributing a total of 20 yen. This employee-wide support activity was named the “charity caravan supporting disaster areas” and held monthly in every plant and branch office, starting in May. This activity was carried out within all plants and branch offices for approximately one year, and collected a total of 2,314,976 yen.

* A donation system in which a donation from the company is added to the donation from an employee



Cafeteria of Toyohashi plant during the charity caravan

Special menu

From employee 10 yen + From company 10 yen = 20 yen donation

Drink from a specific vending machine

From employee 5 yen + From company 5 yen = 10 yen donation

Bond between Kesennuma city and “STINGS”

Before the earthquake, JTEKT’s volleyball team “STINGS” held an exchange with the Kesennuma Girls’ High School volleyball

team in Miyagi prefecture, through a TV program. The bond we established led us to hold a volleyball class in 2011 for the people around Kesennuma Girls’ High School, to hearten and encourage the people of the disaster area. Then in July 2013, we once again visited Kesennuma City and taught approximately 100 high school students from 10 teams of 6 high schools in Kesennuma city and Minamisanriku Town.



Volleyball class for high school students from Kesennuma City



Letters from the students

Presentation ceremony in March

To value the bond cultivated between Kesennuma City and STINGS, we chose the city as the location to be supported by donations from the “charity caravan supporting disaster areas.” On March 3rd, we held a presentation ceremony at Kesennuma Kouyo High School, donating money and desired items to 10 volleyball teams of 6 high schools. We will continue the “charity caravan” in FY2014 as well, to lending a helping hand to those in devastated areas.



Commemorative photo with the donated gifts

Third
July 1st – 12th
Hanazono Plant
Toyohashi Plant

Fourth
July 22nd – August 2nd
Tadomisaki Plant
Nakanihon Branch Office
Okazaki Business Office



Sixth
September 16th – 27th
Nara Plant
Kansai Branch Office
Kobe Business Office



Eighth
November 11th – 22nd
Sayama Plant
Kitakanto Branch Office



Also carried out again at the Kariya and Okazaki plants and the Higashi-kariya operations center

Tenth
January 13th – 17th
Tokushima Plant
Kagawa Plant
Nishinihon Kyushuu Branch office

5 **Disaster area support Charity Caravan**
First
May 13th – 24th
Kariya Plant
Okazaki Plant
Nagoya Head Office

6 **Second**
June 10th – 21st
Higashi-kariya operations center
Toyota Branch Office
Nagoya Branch Office
Hokuriku Business Office

8 July 12th, 13th **STINGS visited Kesennuma City**

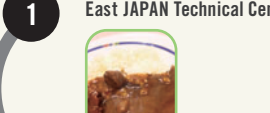
9 **Fifth**
August 26th – September 6th
Kameyama Plant
Iga Proving Ground



10 **Seventh**
October 15th – 28th
Kokubu Plant
Osaka Head Office
Kansai Distribution Center



11 **Ninth**
December 9th – 20th
Tokyo Plant
Tokyo Branch Office
Higashinoh Branch Office
East JAPAN Technical Center



12 **Goal**

Disaster area support Charity Caravan
Combined with the original projects of the Tokyo branch office and Kariya and Toyohashi plants
Sum total of donations **2,314,976 yen**

3 **At Kesennuma city, Miyagi prefecture Donation presentation ceremony**

[Donations in FY2013]

JTEKT and overseas group companies in the Philippines donated a total of 2 million pesos (4.6 million yen) towards rebuilding the damage caused by the typhoon in the Philippines.

* The branch office names on this page are as of FY2013.

CSR Report 2014

Company Performance

We have listed the performance data from the CSR activities of the past three years.

Section	Item		Unit	FY2011	FY2012	FY2013		
Contributing through <i>monozukuri</i>	Products [Independent]	Reduction of CO ₂ as a result of building eco-friendliness into the design of each product	Total		330.9	415.5	457.1	
		Example product groups	Steering	C-EPS Electrically Assisted Power Steering System	10,000 tons	115.9	176.0	184.0
			Bearings	Taper roller bearings for automobiles		72.3	79.9	92.2
	Environment [Independent]	Prevention of global warming	Amount of CO ₂ emissions in production	Basic unit	tons	234,173	230,896	240,024
					t/100,000,000 yen	156.3	147.7	148.1
			CO ₂ emissions in logistics	Basic unit	tons	13,396	13,994	14,330
					t/100,000,000 yen	2.28	2.25	2.24
		Effective use of resources	Basic unit of waste		t/100,000,000 yen	6.8	6.9	6.7
		Reduction and management of environmental burdensome materials	Release/transfer of substances subject to PRTR		tons	34.9	42.1	37.3
			Number of environmental regulation violations		Incidents	0	0	2
		Number of environmental near-incidents*		Incidents	3	5	2	
	Regional contributions [Independent]	Number of plant festival goers			People	7,267	7,045	8,475
		Number of regional conferences			Place	12	12	13
Number of participants in region cleanup activities			People	3,030 (*1)	3,676 (*1)	4,879		
Number of people attending plant tours			People	1,088	1,189	1,051		
Establishment of a firm management foundation	Employees [Independent]	Percentage of women in administrative positions	Managerial positions		%	0.76	0.80	0.82
			Assistant managers		%	1.61	1.78	2.36
		Percentage of employees with disabilities			%	1.86	1.94	2.11
		Number of employees with disabilities			People	220	247	278
		Female employees who took childcare leave	Number		People	19	25	24
			Percentage**		%	89	100	100
		Percentage of lost-day accidents			%	0.26	0.14	0.24
		Lost worktime due to a new category for mental illness	Days		Day	3,683	4,398	4,022
			Number		People	61	65	50
		Percentage of employees with a BMI above normal			%	25.1	24.9	25.0
		Percentage of smokers			%	39.2	36.2	39.3
		Number of employees (Total permanent, fixed-term, part-time, reemployed, and temporary employees)	Total			13,526 (3,272)	14,232 (3,688)	14,696 (3,803)
			Men		People	12,393 (2,867)	12,952 (3,148)	13,322 (3,203)
			Women			1,133 (405)	1,280 (540)	1,374 (600)
		Average age				39.4	38.9	38.9
Men				Age	39.5	39.0	38.9	
Women					38.2	38.1	37.9	
	Years of employment				16.5	15.5	15.3	
		Men		Years	16.8	15.8	15.6	
		Women			12.6	12.2	11.7	
	Number of employees who quit within 3 years of entering the company [permanent employees, seasonal recruits, quitting due to personal reasons]			%	3.93	2.03	3.01	

* Incidents that had only a slight impact on the environment and were handled within the area they occurred in

** Percentage of female employees who gave birth and also took childcare leave

Section	Item		Unit	FY2011	FY2012	FY2013
Employees [Independent]	Persons hired [Seasonal recruitment]	Total	People	289	326	316
		Men	People	269	306	289
		Women		20	20	27
		Administrative	People	43	38	44
		Men		29	26	27
		Women		14	12	17
		Engineering	People	95	85	94
		Men		94	81	90
		Women		1	4	4
		Technical	People	151	203	178
	Men	146		199	172	
	Women	5		4	6	
	Percentage of post-retirement reemployment		%	Approximately 99	100	100
	Percentage of employees who say they feel fairly or completely satisfied with their personal growth (*2)		%	25	29	32
Percentage of employees who say they feel their work is worthwhile or mostly worthwhile (*2)		%	27	32	34	
Percentage of employees who say they feel fairly satisfied or completely satisfied with the company (*2)		%	18	21	24	
Financial	Sales	Total		10,526	10,675	12,601
		Japan		5,220	5,419	5,560
		Europe	Hundred million yen	1,698	1,393	1,983
		North America		1,820	1,836	2,475
		Asia/Oceania/Other		1,786	2,025	2,581
	Operating profit/loss (% of increase or decrease in sales profits)	Total		356 (△10.7)	291 (△18.2)	582 (99.6)
		Japan		169	179	333
		Europe	Hundred million yen	△32	△53	△20
		North America		18	17	68
		Asia/Oceania/Other		187	177	229
	Current term net income		Hundred million yen	133	138	233
	Common equity		Hundred million yen	3,542	3,626	3,807
	Total assets		Hundred million yen	9,596	10,269	10,664
Net assets		Hundred million yen	3,423	3,842	4,188	
Self-owned current term net margin [ROE]		%	4.1	4.0	6.2	
Dividend per share		yen	16	16	18	
Equipment investment		Hundred million yen	658	1,096	764	
Global development	Number of companies (including JTEKT)	Total		141	139	140
		Japan		43	41	40
		Europe		26	26	26
		North America		17	17	17
		Asia/Oceania/Other		55	55	57
	Number of employees (external, average temporary employed personnel)	Total		39,834 (4,677)	41,714 (4,971)	43,456 (5,412)
		Japan		16,771	17,215	17,651
		Europe	People	7,515	7,150	7,262
		North America		4,935	5,503	5,881
		Asia/Oceania/Other		10,613	11,846	12,662
Governance	Number of incidents reported within the company [Independent]		Incidents	21	28	33

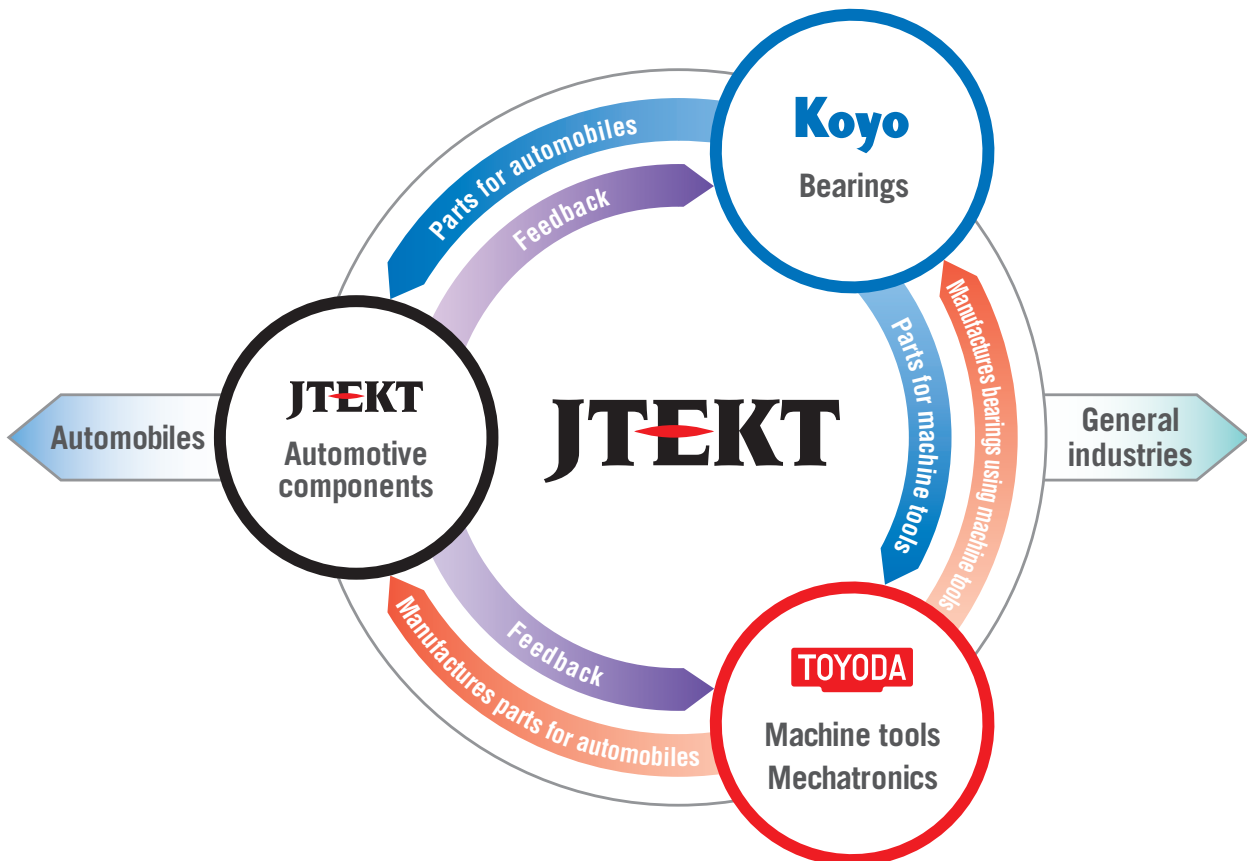
*1 Due to the discovery of calculation errors, the numbers for FY2011 and FY2012 have been revised. *2 From the workplace management questionnaire (6 options)

Shaping a Better Future

We will be an invaluable partner with our customers, our suppliers, and our team members. We will deliver “No. 1, Only One” products and services through “Building Value,” “Building Excellent Products,” and “Building Professionals.”



Three brands harmoniously creating new values as a driving force for people, products and society



JTEKT, Koyo and TOYODA:
 Three brands combined to create synergistic strengths for supporting society in diverse industries such as automotive components, steel production, railways, aviation and outer space, construction, agricultural machinery and wind power generation.

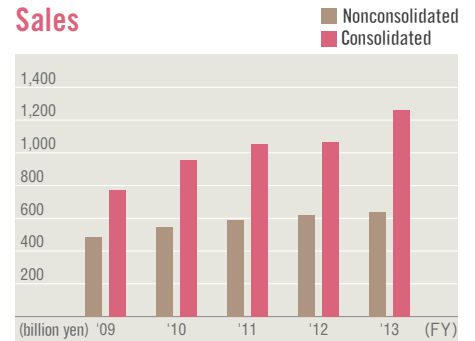
Company Profile

Company name	JTEKT Corporation	
Headquarters	No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka Japan	
Head Offices	[Nagoya Head Office] 15th Floor, Midland Square, No. 7-1, Meieki 4-chome, Nakamura-ku, Nagoya, Aichi Pref. Japan <hr/> [Osaka Head Office] No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka Japan	
President	Tetsuo Agata	
Capital	45.5 billion yen (As of end of March 2014)	
Number of employees (external, average temporary employed personnel)	43,456 (5,412)	[consolidated] (As of end of March 2014)
	11,015 (2,502)	[nonconsolidated] (As of end of March 2014)
Sales	1,260.1 billion yen	[consolidated] (FY2013)
	642.3 billion yen	[nonconsolidated] (FY2013)
Ordinary income	61.8 billion yen	[consolidated] (FY2013)
	32.6 billion yen	[nonconsolidated] (FY2013)
Consolidated subsidiaries	139 (39 in Japan, 100 overseas)	

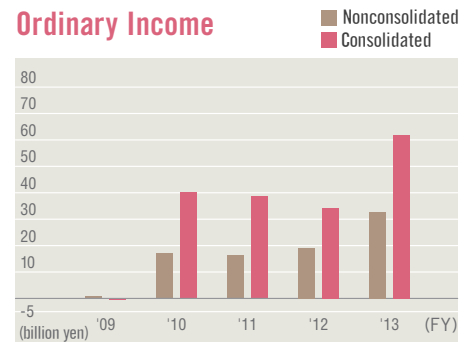
Company History

2005	Koyo Seiko Co., Ltd. and Toyoda Machine Works, Ltd. signed a merger agreement
2006	JTEKT Corporation established
2007	Development and mass production of large-size insulated ceramic bearings for wind power generation
2008	Development of lightweight, low-torque hub unit bearings
2009	Acquired the needle bearing business of the Timken Company, USA Developed torque-sensitive (TORSEN) limited-slip differential for luxury sports cars Launched high-precision combination grinder
2010	Began manufacturing electric power steering systems in India Launched five-axis horizontal machining center
2011	Started manufacturing electric power steering systems in Indonesia
2012	Opened the Iga Proving Ground

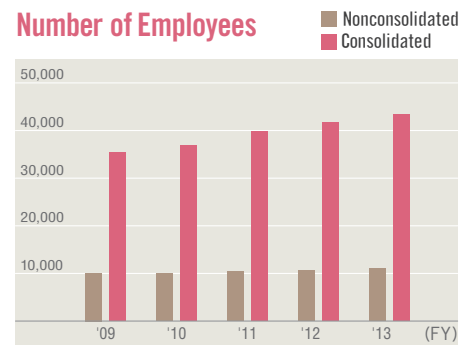
Sales



Ordinary Income



Number of Employees



Dear Readers

Thank you for
reading.
We welcome
your feedback
regarding this report.

We received much praise as a result of the major format changes to last year's report. Readers stated that the report was "easier to read", that they were "able to feel and understand CSR", and that "the website feels like it has volume". We have maintained last year's format and made changes to the title of the leaflet. We will continue to improve our CSR report by collecting and referring to readers' opinions. Please share your comments about the full report on our website.

CSR Report 2014 Message

Issued by: Corporate Planning Dept.
Enquiries: TEL +81-52-527-1905
FAX +81-52-527-1912
Date of issue: September 2014
Next issue: September 2015

<http://www.jtekt.co.jp/e/csr/>

CSR Management

→ [Message] P4 Related article

- This report aims to inform our stakeholders in straightforward language of JTEKT’s concept and activities surrounding CSR.
- For FY2014, we have made major changes to the format of the report to make it easier to comprehend, dividing it into a Message (leaflet) and a full online report combining both the Message and the Details & Data section.
- The Details & Data section emphasizes objectiveness, completeness and continuity.
- In this section, “CSR Management”, we have organized the JTEKT CSR concept and the important points of corporate governance, beginning with “CSR Policy”.

New! This mark is used to indicate new action begun in FY2013 and information disclosed for the first time in this year’s report.

CSR Policy M_01

Corporate Philosophy

Corporate Activities Standards

Ethics Code for Directors and Officers

JTEKT Employee Conduct Guidelines

CSR Promotion Structure M_03

The foundation supporting CSR M_04

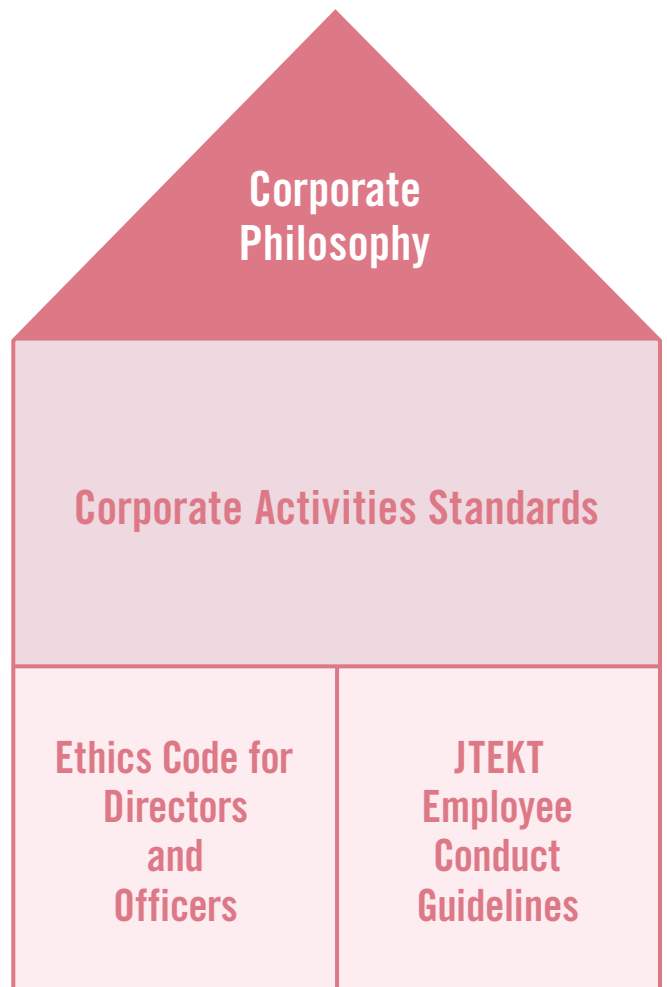
Corporate Governance

Compliance

Risk management

CSR Policy

JTEKT’s CSR Policy comprises of the Corporate Philosophy, Corporate Activities Standards, Ethics Code for Directors and Officers, and Employee Conduct Guidelines.



CSR Policy

CSR Policy

The JTEKT group, in order to fulfill its mission of “contributing to the happiness of people and the abundance of society through product manufacturing,” seeks to carry out business activities in harmony with the economy, society, and the environment. As a good corporate citizen, we will continue activities to obtain the further trust of stakeholders and contribute to the sustainable development of society and the environment. We also share this idea with our business partners in the anticipation they will follow our lead.

Corporate Philosophy

Corporate Purpose

Seeks to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society.

Management Stance

1. Create new value and provide society with joy and inspiration on a broad scale.
2. Aim for growth in harmony with society through innovative operations on a global basis.
3. Create a bright, energetic corporate atmosphere based on respect for people.
4. Strive toward the realization of safer, more abundant living circumstances.

Corporate Activities Standards

1. Follow proper business practices and engage in fair, transparent and free competition based on a respect for the law.
2. Derive concepts from the market, provide the best in quality, technology and service, and obtain the satisfaction and trust of customers.
3. Carry out global environmental improvement activities proactively and aggressively with deep awareness of their being an important corporate mission.
4. Respect the individuality of employees, create workplaces that are motivating to employees and enable them to fulfill their potential, and strive to provide each with abundant living circumstances.
5. Maintain close communication not only with shareholders but also with society at large and disclose corporate information properly.
6. As a good corporate citizen, aggressively pursue activities that contribute to society.
7. Follow international rules, observe the laws, cultures and customs of countries and regions where we have operations, and seek to contribute to their growth.

Ethics Code for Directors and Officers

The Ethics Code for Directors and Officers was established in April, 2008. It is the equivalent to conduct guidelines for directors and corporate officers. This ethics code comprises of 11 clauses including “Ethical conduct in good faith”, “Compliance with laws and regulations” and so on to insure that laws are complied with. Moreover, another objective of this ethics code is to encourage employees to observe laws by directors setting examples.

Configuration of the Ethics Code for Directors and Officers (excerpt)

- | | |
|-----------|--|
| Article 5 | Ethical conduct in good faith |
| Article 6 | Compliance with laws and regulations |
| Article 8 | Reporting of illegal and unethical actions |
| Article 9 | Responsibility to comply with the Code |

JTEKT Employee Conduct Guidelines

This report is organized to make basic mental attitudes and guidelines for work easy to understand for employees, focusing on putting the JTEKT corporate philosophy into practice and making our goal status into a reality. It was created in April 2006, and revised in June 2008.

The guidelines appear in the inner-company intranet and the CSR Handbook (revised November 2012). A portable “pocket edition” has been distributed as well to help the thorough permeation of CSR throughout all employees.

Configuration of the JTEKT Employee Conduct Guidelines

- | | |
|-----------|--|
| Section 1 | Employee's relationship with the company |
| Section 2 | Employee's work in the company |
| Section 3 | Employee's relationship with society |
| Section 4 | Employee's personal activities |

CSR Promotion Structure

Systematic promotion of CSR activities ★ **New!**

Regular inspections of CSR activity status are conducted by the CSR Promotion Committee. The CSR Promotion Committee is chaired by the company president and was established to systematically promote CSR activities on a companywide and group-wide basis. This organization also discusses how best to accomplish the missions of fulfilling the corporate philosophy and controlling risk through CSR activities from many angles.

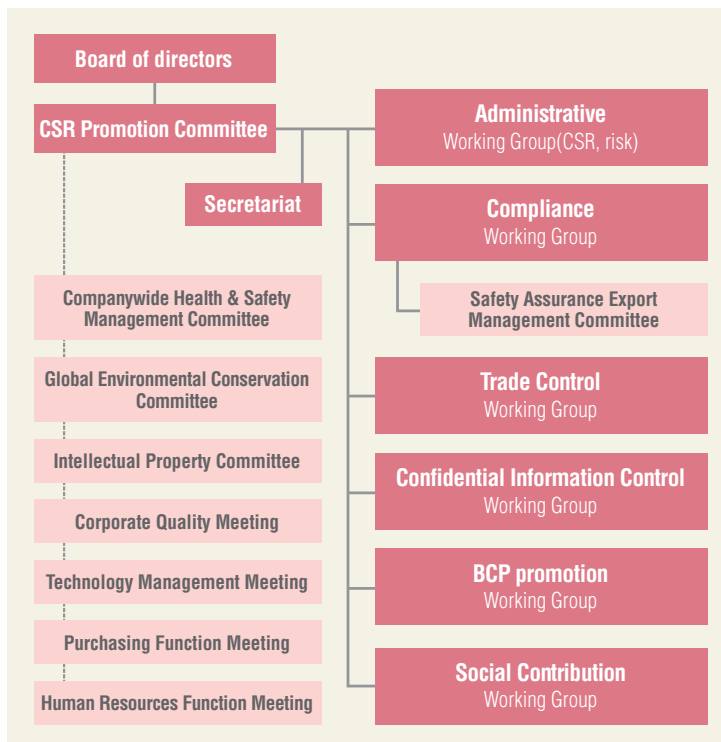
The JTEKT group also formulated the JTEKT GROUP VISION and the Mid-term Management Plan in April 2014, and defined CSR as one of our business foundations.

[→ \[Message\] P2 Related article](#)

Specialized working groups ★ **New!**

Specialized working groups are established to create and promote activity plans for compliance, trade control, confidential information control, BCP (business continuity planning) promotion, and social contribution, all of which are important themes. In March 2014, the Large Scale Disaster Preparedness Working Group was renamed the BCP Promotion Working Group, which is promoting the establishment of a disaster prevention promotion system that enables each of the eastern, central, and western Japan blocks to independently conduct activities.

Outline of the structure



● Administrative Working Group	Plan and monitor the progress of CSR activities, regularly assess risk countermeasures and evaluate risks.
● Compliance Working Group	Raise awareness and reinforce the need for compliance with laws, internal rules and business ethics.
● Trade Control Working Group	Propose and promote measures for securing compliance with foreign rules concerning imports and exports.
● Confidential Information Control Working Group	Assess and improve in accordance with guidelines and strengthen structures and systems concerning information security.
● BCP Promotion Working Group	Protect human lives and lifelines, reinforce buildings and equipment in preparation for disasters, and prepare and review an early recovery manual.
● Social Contribution Working Group	Promote social contribution and volunteer activities.

Companywide CSR activities in each department

JTEKT promotes CSR activities through an expert committee belonging to the “CSR Promotion Committee” and specialized working groups. For our fiscal year goal, we plan to incorporate our CSR objectives into each company department, and promote CSR activities consistently by implementing the PDCA cycle(*). Through the construction of this type of system, we aim to jumpstart and enhance CSR activities throughout JTEKT and JTEKT group companies.

In FY2013, activities placing emphasis on CSR were incorporated into the global company policies and performed by each department as part of their annual action plan.

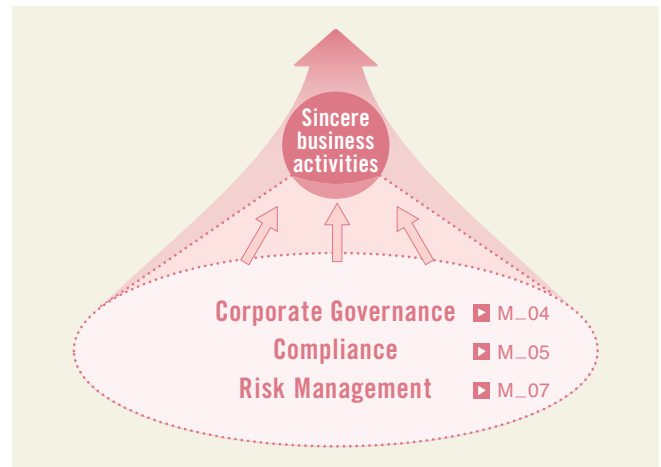
* **PDCA cycle** PDCA is a management tool for continuously improving work by repeating a Plan-Do-Check-Action cycle.



The foundation supporting CSR

The 3 pillars of sincere business activities

At JTEKT, we believe that the continual implementation of sincere business activities is important for the promotion of CSR. One thing that is essential to sincere business activities is a highly transparent, healthy management style that observes statutory and social norms. The three pillars, “Corporate governance”, “Compliance” and “Risk management”, are positioned as important mechanisms to achieve this. All of these three have been emphasized in recent years in all corporations however the important thing is whether they are actually being implemented or not. In order to use these 3 pillars effectively, JTEKT makes numerous improvements such as ongoing revisions to the CSR Promotion Structure, etc.



Corporate Governance

Basic concept

Management transparency improves corporate value

In order to fulfill our social responsibility and continuously improve our corporate value, we have established an internal control system. We strive to improve our management transparency and secure ample accountability for all our stakeholders.

Promotion structure

Towards Governance on a Global scale

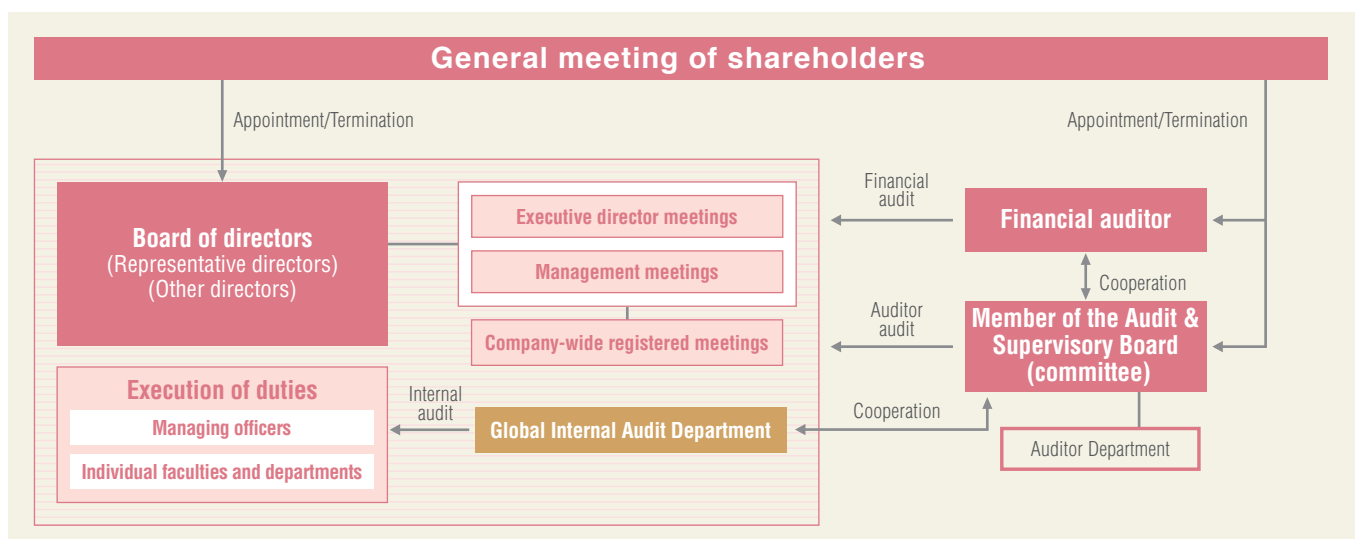
At JTEKT, the board of directors meets every month to make management decisions and monitor directors’ performance of duties. Also, sub-mechanisms of board meetings, such as executive director meetings, management meetings and company-wide registered meetings^(*), are held to fulfill individually deliberated issues and monitor the duty performance of managing officers. As a way of monitoring management, we have adopted an

auditory system to inspect the directors’ duty performance, consisting of five Members of the Audit & Supervisory Board, three of whom are external.

Internal audits are conducted by an independent Global Audit Department, who inspects the validity and lawfulness of overall operations and procedures. The Members of the Audit & Supervisory Board, financial auditors and Global Audit Department liaise together and hold conference periodically (See the below figure). Also, JTEKT maintains and operates an internal control system in line with both the Financial Instruments and Exchange Act and the Companies Act.

In FY2013, JTEKT promoted guidance and assistance in both business and functions for domestic and overseas subsidiaries. The auditory departments responsible for each region, including North America, Europe, ASEAN, India, China, and Central and South America, conducted audits on a global scale to augment the Group’s internal control.

*** Company-wide registered meeting** Meeting authorized by officers’ meetings (board of directors, executive director meeting, management meeting) to deliberate and approve matters in order to ensure specialized and in-depth deliberation and proper and more efficient decision-making.



The foundation supporting CSR

Compliance

→ [Message] P3 Related article

Basic concept

Every individual behaves and makes correct decisions according to Corporate Ethics

JTEKT believes that implementing corporate philosophy is essential to compliance as the premise and foundation supporting CSR. Without stopping at mere law observation, we have established an “Ethics Code for Directors and Officers”, “Employee Conduct Guidelines” and “Compliance Standard” in order to fulfill corporate ethics and societal obligations.

Promotion structure

Regular reporting to the top management

Compliance violations that occurred within the JTEKT group, including near misses, are regularly reported at management meetings with the participation of the top management. The entire group is endeavoring to take optimal measures and prevent recurrence by “visualizing” compliance-related issues.

Progress control by the CSR Promotion Committee

In the CSR Promotion Committee, which takes place twice a year, the progress of compliance promotion activities and the results of semiannual activity plans and compliance checks are reported to grasp how deep these activities are instilled and to clarify the direction of promotion.

Education and inquiry by compliance officers

Compliance officers have been newly appointed, mainly from among managing officers. Their role is to promote business activities in line with compliance in every department, facility and overseas region, and perform periodic compliance checks on the departments and facilities they supervise. Compliance officers also must understand compliance familiarity, risks and issues, and engage in efforts towards compliance improvement.

Group company promotion structure

This same promotion structure is adopted by our group companies, both in Japan and around the world, and activities are promoted in response to the characteristics of each country, region and company.

Training and educational activities

Promoting and reinforcing awareness among employees

We engage every day in activities which aim to raise awareness among all employees, so that they may reflect compliance within their daily conduct.

◎Compliance Letter

The Compliance Letter is a monthly report of compliance-related topics common to all JTEKT members and published by the Legal Department. The 20th of each month is defined as the “Day of Compliance Communication,” and on this day, each workplace discusses compliance-related matters based on the Compliance Letter to raise awareness of compliance.

◎Compliance Strengthening Month

Every July is defined as the “Compliance Strengthening Month,” in which educational activities are provided for all employees. The entire JTEKT group, including domestic and overseas subsidiaries, will work on the activities of the Strengthening Month.

- Displaying internal reports and compliance messages when personal computers are turned on
- Providing e-learning education for personnel to whom a personal computer is lent
- Displaying educational posters

◎Continuing education for each critical target department

Multiple departments are designated as critical target departments for compliance education every year and receive education through e-learning and group training. In group training, members of the Legal Department visit each workplace and interview workers about problems confronting them and requests.

◎Rank-based compliance education

Training programs for officers, new managers, personnel promoted to key positions, and the employment of superintendents, etc. are held in the form of group discussions. Thinking approach training is conducted, which is designed to make trainees think about example cases and discuss “what the person concerned will do to deal with them.”

The foundation supporting CSR

Internal reporting system

Establishment of three consultation desks specialized in different fields of problems ★ New!

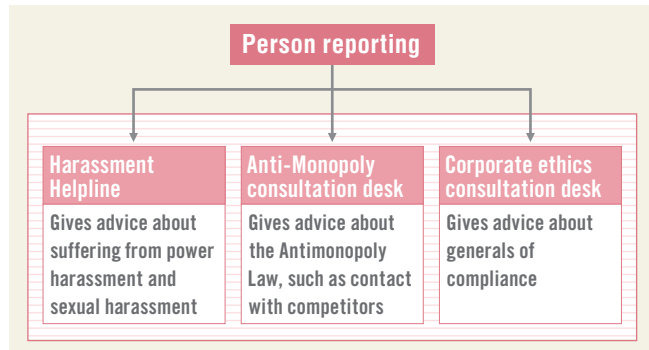
Until FY2012, reports and counseling about compliance-related problems and questions were dealt with by JTEKT's "Corporate ethics consultation desk" and "Anti-Monopoly consultation desk," both of which consisted of an employee opinion box (operated by the Legal Department) and a corporate ethics helpline (operated by external lawyers).

In FY2013, a "Sexual Harassment Helpline" was additionally established with the aim of providing more elaborate response to each case consulted and detecting and correcting frauds and other compliance violations as early as possible.

Creating an environment in which all employees can easily seek consultation

At each of the consultation desks, specialized advisers and internal lawyers meet directly with personnel in trouble and can give them more proper advice and support for their troubles and worries. JTEKT has arranged an environment that can help resolve problems with security.

Structure of the internal reporting system



* The internal reporting system has expanded to include group companies overseas.

FY2013 breakdown

Harassment Helpline		Anti-Monopoly consultation desk		Corporate ethics consultation desk	
Sexual harassment	3	Contact with competitors	13	Violation of laws and rules	3
Power harassment	11	Collection and handling of information	9	Personnel system	11
Personnel system	2			Workplace communication	5
Workplace communication	1			Power harassment	7
Total	17	Total	22	Health and safety	4
				Other	3
				Total	33

* No events corresponding to those that must be reported

Number of problems reported to the corporate ethics consultation desk for the last five years

FY2009	FY2010	FY2011	FY2012	FY2013
22 cases	29 cases	21 cases	28 cases	33 cases



Supporting the sound development of JTEKT's global business

We of the Overseas Legal Affairs Group support the sound development of JTEKT's global business from the standpoint of law, through examinations of business transaction agreements with overseas companies, participation in overseas projects, the construction of global law systems, business alignments, and dispute settlement. We are committed to accumulating and improving skills required for us to make the group a legal department of the head office that each department and business office of the head office, subsidiaries and affiliated companies operating in each region can rely on.

The foundation supporting CSR

Risk management

Basic concept

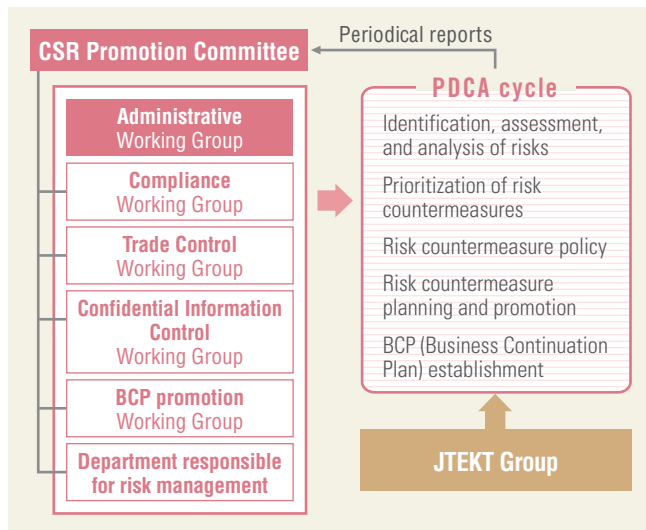
To continue business activities under any circumstances

In order to continue business activities uninterrupted, JTEKT constantly engages in accident prevention and countermeasures to minimize damage in the unlikely event of an emergency. Taking into consideration the effect of large-scale disasters and the influenza epidemic on business activities, we have further strengthened our risk management framework.

Promotion structure

Promote countermeasures based on a companywide organization

The CSR Promotion Committee, which is a companywide cross-departmental organization, selects risks expected to affect business activities, society, and the environment, and each working group and the department responsible for risk management formulate activities to prevent the occurrence of risks, measures against them, and recovery plans. In addition, they constantly review and improve them by keeping track of changes in the external environment. Each company of the JTEKT group is also promoting these activities.



Ongoing revision of risk management

Implemented in FY2012

- Expand risk management to group companies overseas, aiming to minimize risk across the whole of the JTEKT group

Implemented in FY2013

- Review risk management framework and operations
- Regularly report to the management meeting CSR-related problems and measures against them
- Establish a dedicated organization toward the reconstruction of the disaster prevention promotion system

FY2014 plan

- Step up the JTEKT group's risk management
- Promote measures against large-scale disasters

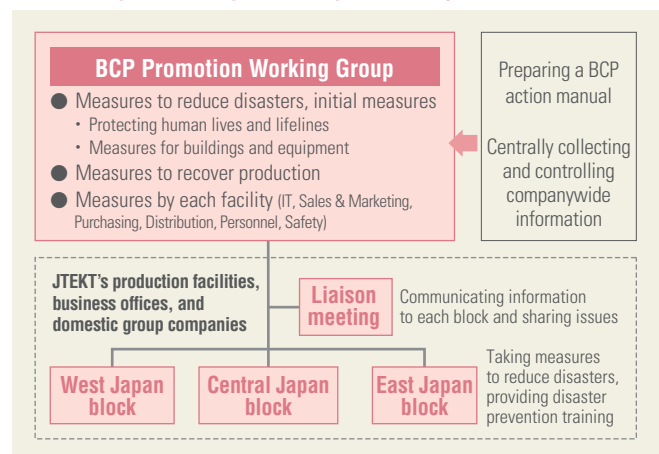
Stepping up approaches to risks at each department

At JTEKT, each department and headquarters formulate an annual action plan based on the Global Company Policies and adopt a policy control system for regularly checking the progress of achievement. In FY2013, individual departments and headquarters described in their annual action plans factors that would hinder the plans as risks, and began activities to consider measures at the planning stage in case of risk occurrence.

Promoting measures against large-scale disasters

JTEKT divides Japan into three blocks and promotes measures to prevent and reduce disasters so that each block will be able to autonomously take action.

JTEKT Group's disaster prevention promotion system



My CSR

Hirohito Minoshima
Management TOP Direct Control
Export Control Dept.

JTEKT is making all possible efforts every day to strictly observe export-related laws and regulations.

The Export Control Department is making all possible efforts to observe laws and regulations so that cargo and technologies of JTEKT and JTEKT group companies will not be used for military purposes, such as the diversion thereof to the development and production of weapons of mass destruction. The department strictly examines whether cargo and technologies to be exported to overseas countries are items controlled by laws and regulations and whether customers will use them for proper purposes. JTEKT is determined to further reinforce the export control system and, at the same time, communicate the latest information to all JTEKT group companies through position/department-specific training, audits, etc.

Social Report

- This report aims to inform our stakeholders in straightforward language of JTEKT's concept and activities surrounding CSR.
- For FY2014, we have made major changes to the format of the report to make it easier to comprehend, dividing it into a Message (leaflet) and a full online report combining both the Message and the Details & Data section.
- The Details & Data section emphasizes objectiveness, completeness and continuity.
- In this "Social Report" section, we have summarized the overall activities for FY2013 by stakeholder. This report has been consistently configured in the same way since the 2008 CSR Report, in order to make it easy to read on a continuous basis.

Target period and target organizations/scope

Target period

FY2013 (April 2013 - March 2014)

* Some items include content from other periods.

Target organizations and scope

All JTEKT Corporation activities

Management of the JTEKT group is carried out on a group-wide basis, including elements such as environmental data measurement and control based on a uniform standard. Some items also show the performance of our domestic affiliated companies and overseas local affiliates. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

Reference guidelines

- ◎ GRI (Global Reporting Initiative) "Sustainability Reporting Guidelines 2013 (G4)"
- ◎ Japan's Ministry of the Environment "Environmental Reporting Guidelines (2012 edition)"
- ◎ ISO26000 (International Standard for corporate responsibility)

New! This mark is used to indicate new action begun in FY2013 and information disclosed for the first time in this year's report.

Together with customers	S_01
Together with business partners	S_04
Together with employees	S_06
Together with local communities	S_15
Together with shareholders and investors	S_20

Together with customers

Social background

Awareness of consumers' rights is rising on a global scale, represented such as the ISO26000, which positions consumer issues as one of its central themes, etc. Following the 3.1 version of the GRI Guidelines, the 4th version (G4) also has a section on "product responsibility". Thorough quality control is being demanded of manufacturers and system suppliers in order to provide safe and secure products.

JTEKT's concept

Considering the entire society as customers

In order to provide customers with the highest quality products, JTEKT naturally searches for value as a supplier but at the same time aims to be considered as having value as a partner that can be relied upon. Moreover, JTEKT's products are used in various industries, such as automotive, railway, steel, aviation and space and are deeply and widely involved with society and environmental issues. JTEKT has a strong awareness of our social responsibility, and constantly strives to improve technology and quality, regarding our customers to be not only those who we directly do business with, but also the society at large.

In the JTEKT GROUP VISION formulated in April 2014, "building value" that exceeds customers' expectations is one of our three pillars.

[→ \[Message\] P6~11 Related article](#)

Quality policy and quality assurance system **New!**

[▶ Figure-01](#)

Establishing a quality policy with the motto of "Customer First", JTEKT is involved in a variety of quality improvement activities. We also maintain and constantly improve a quality assurance system based on this policy.

In 2013, the wording of the quality policy was partially changed. The phrase "product quality" was changed to a more specific expression, "design quality and manufacturing quality". We believe that seeking quality at each stage of design and manufacturing allows us to improve overall product quality and gain our customers' trust.

Quality policy Adhering to the theme of "Quality First", we offer products which earn the trust and satisfaction of our customers.

- Making decisions and taking swift action from the standpoint of our customers
- Improving design and manufacturing quality through the ingenuity of all members

Together with customers

Major activities in FY2013

[Quality]

Implemented QG (*)-20 activities (milestone control)

JTEKT has begun a control meeting using 20 milestones for all stages, from planning, design, development and production preparation to full-scale production. The required quality is properly reflected in the product. * QG is the abbreviation for Quality Gates.

Improvement through regular inspections

JTEKT actively pursues the obtainment of reviewed quality management system certification through third parties. JTEKT continues to receive periodical inspections once or twice a year and uses the results to further revise and improve its quality control system.

Major obtained certifications

- ISO9001 (International quality management system standard)
- TS16949 (Quality management system for the automotive industry)
- AS9100 (Quality management system for the aviation/aerospace industries)

Raising awareness through quality months ★New!

For the purpose of raising quality awareness, JTEKT has set May and November as “quality months”. During these months, we engage in various activities such as calling for and displaying posters and quality slogans, and discuss improvements for each department.



16th quality month poster in November 2013

Establishment of a new organization ★New! overseeing environmentally burdensome substances

Each development and design department at JTEKT is working on environmental problems concerning products. To further advance these efforts, an organization that oversees environmentally burdensome substances on a companywide level was newly established in April 2014.

TOPICS

CMMI3 Certification obtained ★New!

JAST (China), an overseas group company, obtained the CMMI Level 3 Certification in March 2013. CMMI certifies quality processes of software development, and having this certification means that compliance with global standards has been certified by an American certification organization. JAST became the first company to be certified among JTEKT group companies.



Top: CMMI3 certificate
Bottom: Photo taken after obtaining CMMI3 certification

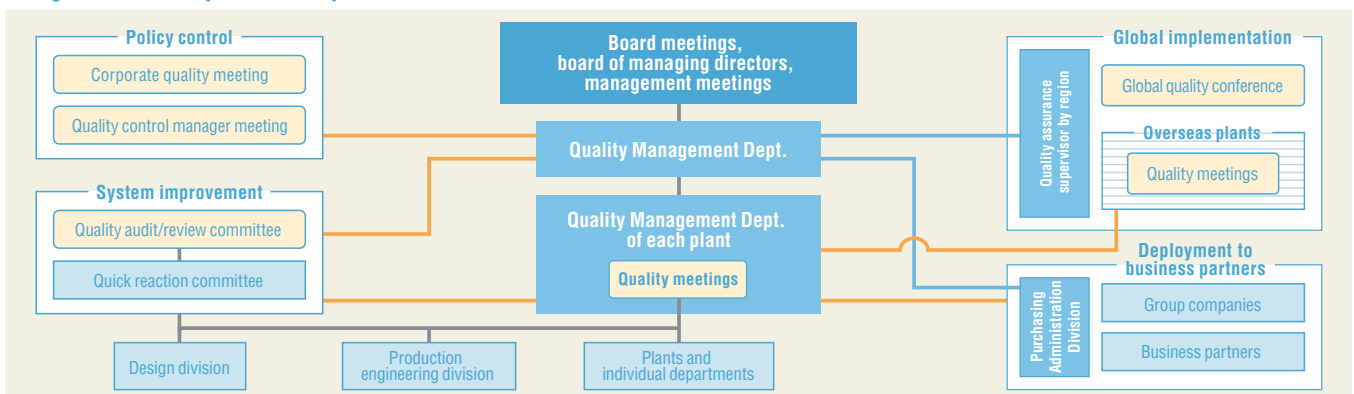
[Training]

Strengthening the ability to foresee needs ★New!

JTEKT sales representatives, who oversee contact with customers, strive to enhance customer trust. In November 2013, training was provided for third-year sales staff to strengthen sales skills at the Kokubu Training Center. The training included “demand creation strategy building training”, which develops skills to make proposals by foreseeing customer needs.



▶ Figure-01 Quality assurance system



Together with customers

1st Global Marketing Meeting ★ **New!**

A global meeting on sales activities for standard bearing products was held in Osaka in March 2014, and 22 employees from 12 overseas group companies attended the meeting. In order to better respond to market needs in each country, attendees engaged in intense discussions such as exchanging information and sharing problems concerning sales tools.



Activities to improve engineering and quality at each workplace

Each workplace is working to improve engineering and quality by promoting TQM activities and implementing the SQC method.

[→ S_08 Related article](#)

[Communication] Conducting a customer satisfaction survey

As in previous years, in FY2013 JTEKT conducted customer satisfaction surveys targeting our main customers. We share the issues revealed through such surveys companywide and strive to resolve them swiftly and effectively.

Exhibitions in Japan and abroad ★ **New!**

Every year, JTEKT participates in multiple exhibitions in Japan and abroad, providing an opportunity to communicate with not only our regular customers, but also a broader range of clientele. We aim to introduce more of our technologies and products, and work to better understand market needs.

43rd Tokyo Motor Show 2013

JTEKT introduced its past, present, and future technological innovations at the Tokyo Motor Show, held from November 20th through December 1st at Tokyo Big Sight.



JTEKT Technical Fair 2013

The JTEKT Technical Fair was held for three days, from November 20th through 22nd, at the JTEKT Customer Center (Kariya city, Aichi). Products of the JTEKT group companies were exhibited, including new products from our Machine Tools and Mechatronics business. Our booth saw over 2,000 visitors.



Corporate campaign ★ **New!**

JTEKT has established a brand message of “Creating the next value” as a symbol of our ideals. We ran corporate and product advertisements in various media, particularly newspapers, so that our brand message would reach customers in many places. We put a lot of effort into conveying JTEKT’s passion for *monozukuri* and confidence in our technical capabilities to a broader range of people.



Redesigned website ★ **New!**

The JTEKT website was redesigned in April 2013. This user-friendly website allows not only customers in the industry, but also the general public and students to easily access necessary information.



Awards from customer companies

JTEKT received awards from customer companies in recognition of various quality improvement activities.

Major awards in FY2013

Customer name	Award	Awarded company
Aichi Machine Industry Co., Ltd.	Award of Excellence for Quality	JTEKT Corporation
JATCO Ltd.	Global Special Award	JTEKT Corporation
General Motors	Supplier Quality Excellence Award	KBNA(U.S.A.) KRA(Romania) JTEKT Corporation
Caterpillar	Quality Award	KBNA(U.S.A.)

Together with business partners

Social background

As CSR continues to gather interest throughout the world, the implementation of procurement activities in addition to the conventional QCD (quality/cost/delivery) has come to be expected of companies. These include global compliance to laws and regulations, labor conditions, environmental and safety concerns of purchased materials and parts, and activities concerning BCP (business continuity planning).

JTEKT's concept

Promoting fair business

JTEKT regards business partners as equals and aims for mutual development and growth based on strong relationships of trust. JTEKT has stipulated policies for open and fair business practices in its Corporate Activities Standards and its Purchasing Philosophy regardless of country or company size and including companies with no experience supplying to JTEKT. We have outlined procedures in our website for starting business with JTEKT as a means of providing fair, equal opportunities for all.

“Follow proper business practices and engage in fair, transparent and free competition based on a respect for the law.”

(from JTEKT Corporate Activities Standards)

Purchasing Philosophy

Fair and transparent business transactions We provide open, fair and equal opportunities to all regardless of nationality or company size, including companies with no experience doing business with JTEKT.

Purchasing Basic Policy

Mutual trust	Build mutual trust through close communication with business partners.
Coexistence and co-prosperity	Achieve harmonious relationships with business partners based on mutual trust.
Long-term, stable business relationships	Achieve stable procurement meeting JTEKT's quality, cost, volume, and delivery requirements through continuous business.
Global purchasing	Achieve optimal purchasing from a global viewpoint and improve international competitiveness by a strong supplier chain.

Green Purchasing activities

JTEKT promotes companywide Green Purchasing activities in order to contribute to the creation of a sustainable recycling-based society. For this purpose we have issued Green Purchasing guidelines and have requested the cooperation of business partners.

Requests to our business partners

We make the following requests to our business partners under the Green Purchasing Guideline.

- Construction of an environmental management system based on obtainment of external certification such as ISO14001.
- Observation and reinforcement of environmental laws and regulations
- Prohibit or restrict use of environmentally burdensome substances
- Improve environmental performance by reducing CO₂ emissions, etc.
- Promote actions to conserve biodiversity

Major activities in FY2013

Purchasing Policy Briefing

On April 14th, 2014, the Purchasing Policy Briefing was held at the Hotel New Otani Osaka, attended by 299 companies and 347 people. As FY2014's purchasing policy, JTEKT requested the strengthening of CSR and thorough safety, which are major assumptions of doing business. At the same time, we explained our major implemented items for the fiscal year. We also awarded our business partners who had demonstrated outstanding performance in regards to quality, technology and cost price improvement for the year overall.

Major Implemented Items for FY2014

- Strengthen efforts to solve significant quality problems
- Achieve superior international cost competitiveness
- Respond to global optimal production

Quality Management Convention

The Quality Management Convention was held on November 12th, 2013 at Osaka Matsushita IMP Hall, and was participated in by around 390 people from all 211 member companies of the JTEKT Supplier Association (*). Six companies presented improvement case studies and Nara plant's QC circle supporters also gave a presentation. In addition, there was a lecture relating to QC circles and a talk from a JTEKT retired senior.

*The JTEKT Supplier Association

The JTEKT Supplier Association is comprised of 211 companies (as of FY2013). It is intended to foster mutual trust among members and raise their capabilities through activities such as quality management conventions, workshops, and lectures.

Together with business partners

JTEKT Supplier Association Workshop

The JTEKT Supplier Association participated at the Toyota Commemorative Museum of Industry and Technology in Nagoya on January 30th, 2014. A workshop was held, focusing on the four themes of labor compliance, confidential information control, the safety and health management system, and trade control.

[CSR Activity Item Guidelines]

JTEKT issued the CSR Activity Item Guidelines in 2012 for our business partners, in order to share with them the purpose of the JTEKT CSR policy. These guidelines clarify items relating to management, sociality, and environment that we would like our business partners to observe. Since 2013, our business partners have also been cooperating with our survey concerning conflict minerals.

Katsutoshi Suzuki
Purchasing Headquarters
Purchasing Planning Dept.
Global Purchasing Planning Office
Administration Group

My
CSR



**Working to build business rules
while constantly aware of
laws and regulations**

Even the ordinary everyday business of the Purchasing Department must be executed within the limits prescribed by law. Each employee who is involved with the business of the Purchasing Department on a regular basis will work to raise their awareness and build rules to avoid making improper correspondence with business partners.

Together with employees

Personnel-related actions

Social background

In the 2011 revision of the OECD Guidelines for Multinational Enterprises, a chapter relating to human rights was newly established. In addition, the 4th version (G4) of the GRI Guidelines has more sections on human rights, compared with the 3.1 version. As can be seen by the increasing number of international guidelines relating to human rights which are being established and revised recently, there are strong demands for companies to conduct business activities which place importance on human rights.

JTEKT's concept

Creating a friendly work environment for all

JTEKT fosters discrimination-free workplaces where human rights and diversity are respected and where employees can strive to achieve high goals. We promote the creation of a workplace in which all of our employees find it easy to work, considering various aspects such as human development, respect for diversity and safety and hygiene. JTEKT believes that, as we expand globally, it will become even more important to deepen understanding towards human rights and share this with group companies both domestically and overseas.

Respect for human rights and utilization of diverse human resources

Included in JTEKT's Corporate Activities Standards and Employee Conduct Guidelines is the following: "Respect the individuality of employees, create workplaces that motivate employees and enable them to fulfill their potential, and strive to provide each with abundant living circumstances." We give explicit instructions regarding the prohibition of discrimination based on race, gender, age, nationality, etc., and share and enforce this thinking with our group companies both in Japan and overseas. Additionally, we engage in various actions to utilize diverse human resources.

Main actions

- Hiring foreign employees
- Assisting female employees' career development
- Employing persons with disabilities
- Changing fixed-term employees to permanent employees
- Providing assistance for those engaged in child-care or nursing-care
- Reduction of work outside regular hours and encouragement of paid leave usage
- Providing post-retirement employment opportunities
- Various education concerning human rights, etc.

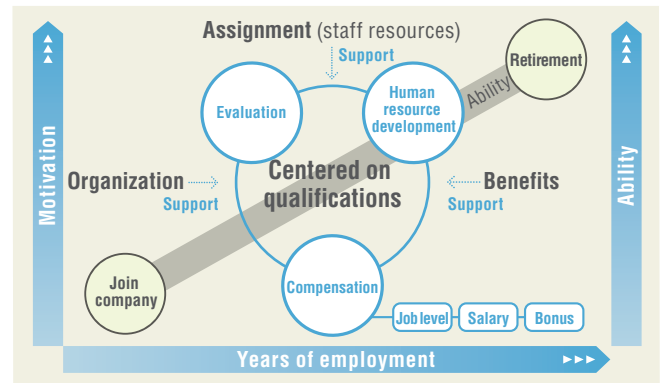
Direction of human resource development

Based on the following 3 points, JTEKT constructed a systematic human resource development system to enable all employees to grow while achieving a sense of accomplishment.

1. Develop employees who understand the Corporate Philosophy and are professional, creative, highly skilled, and able to achieve management goals.
2. Develop employees who have confidence, pride, and passion, think for themselves, and act as a member of the JTEKT group.
3. Develop employees who respect human rights, live in harmony with the environment, observe social rules, are sensible, and have an international perspective.

Maintaining high motivation and enhancing abilities

Our human resource development system, consisting of training, evaluation and compensation, enables employees to continually improve their skills and provides them with a motivating working environment during their years in the company.



Major activities in FY2013

[Labor-management relations and employment] Emphasizing labor-management communication

JTEKT places importance on labor-management communication and facilitates numerous opportunities for direct dialogue between workers and management on a companywide and individual plant basis. These include various social gatherings and discussion sessions. Workers and management exchange opinions on company development and improving employee quality of life, and strive to deepen mutual trust and understanding by building even firmer relationships.

Labor-management discussion opportunities (held in FY2013)

- Central Production Subcommittee Meetings (annual)
- Central Labor-Management Meetings (annual)
- Labor-Management Meetings (4 times)
- Labor-Management Committee Meetings (14 times)
- Labor-Management training (annual)
- Plant Production Section Meetings (monthly at each plant)
- Business Facility Labor-Management Discussions (monthly at each business facility)
- Workplace Discussions (as required at each workplace)

Together with employees

Actions to improve the paid leave usage rate ★ **New!**

JTEKT aims to create a workplace in which employees find it easy to use paid leave. Labor and management cooperate together to periodically check the usage status of paid leave in order to improve the usage rate.

Labor condition transition (Average per each workers union member)

	2009	2010	2011	2012	2013
Total work hours (hours)	1,934.8	2,170.6	2,077.2	2,074.7	2,115.3
Work outside of regular hours (hours)	220.9	306.1	321.8	316.0	351.7
Percentage of paid leave consumption (%)	55.0	58.6	62.1	63.2	65.6

Maintain employment

In FY2013 as well, JTEKT exerted an effort to maintain employment through taking various measures such as reassignment. JTEKT observed the relevant laws and internal regulations for managing the employment of fixed-term workers. In FY2013, 184 fixed-term workers were appointed as permanent employees.

Transition from fixed term workers to permanent employees

	2011	2012	2013
Number of transitions made (people)	205	167	184

Composition of employees as of end of March, 2014

	Male	Female	Total
Permanent employees	10,119	774	10,893
Fixed-term employees (*1)	3,203	600	3,803
Total	13,322	1,374	14,696

	Male	Female	Average
Years of employment	15.6	11.7	15.3

Job turnover rate(*2)	0.6%
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Job turnover rate within the first 3 years(*3)	3.0%
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- *1 Total fixed-term, part-time, reemployed, and temporary employees
- *2 Voluntary early retirement rate
- *3 Permanent employees, seasonal recruits, voluntary early retirement



My CSR

Ryou Katou
Personnel and General Administration Division
Technical Training Center

Feeling the weight of responsibility as an instructor

As a vocational training instructor, I provide technical, skill, and lifestyle guidance to young students. I cannot help feeling the weight of responsibility when teaching each and every student, visualizing them playing active roles in the workplace. I devote myself to my work, with the belief that this is also my training ground.



[Human resource development] Training held by job type and rank

We are working on further enhancing the training programs for office and engineering staff as well as production staff.

Human resource development for office and engineering staff ★ **New!**

The JTEKT training system is composed of three pillars: rank-based, function-based, and workplace-based training. We are also focusing on supporting the acquisition of qualifications and self-study efforts.

Starting from FY2014, a training program that aims to enhance problem-solving skills is included in the rank-based training. For the first few years, this program will be led by an external instructor while we develop in-house trainers. Later on, we will establish our own trainers for conducting training. We plan to expand this training program to our bases in each region of the world.

[→ \[Message\] P16 Related article](#)

Human resource development for production staff ★ **New!**

Based on the training at the JTEKT Technical Training Center (*1), we strive to foster highly skilled production staff through OJT (*2) at each plant.

Starting from FY2014, a companywide systematic career development program for production staff will be implemented. A trial of this program was carried out for a number of production staff at the Hanazono and Tokushima plants in FY2012, and all plants in FY2013. The program will be officially implemented at all plants starting in FY2014 and is scheduled to be expanded in the future to bases in each region of the world.

*1 **JTEKT Technical Training Center** Provides vocational training approved by the prefectural governor of Aichi. Focuses on developing excellent production personnel.

*2 **OJT** Abbreviation for "On the Job Training," or training carried out during actual work.

Rank-based training types and main content

	Training	Main content	Attendees
Managers	Training for new department managers and manufacturing assistant managers	CSR, workplace management	65
	R3 training for new managers	CSR, policy management, daily task control	129
Office & engineering staff	R4 training for new office & engineering staff	CSR, leadership, planned fulfillment of tasks	163
	R5 training for office & engineering staff	Business communication skills	321
	R6 training for office & engineering staff	Problem solution methods and concepts	287
	Training for mid-career new employees	CSR, JTEKT employee basic knowledge and mindset	130
	Training for office & engineering new employees	CSR, JTEKT employee basic knowledge and mindset	138
Production staff	Training for new Chief Leaders	CSR, Management basics and planned fulfillment of tasks	50
	Training for new Group Leaders	Problem solutions based on QC concept	117
	Training for new production employees	CSR, JTEKT employee basic knowledge and mindset	113

Together with employees

Promoting TQM activities

JTEKT promotes TQM (Total Quality Management) activities based on the three pillars of “Customer First”, “Endless Improvements” and “Participation by All”. At workplaces, which are the frontline, we strive to foster mutual instruction and the handing-down of unique techniques through small group activities (QC Circle activities). On November 15th, “Boar Circle” of the Kokubu plant participated in the 43rd Nationwide QC Circle Contest held at Tokyo Big Sight.

[→ S_03 Related article](#)

SQC (*) Improvement Case Study Companywide Presentation

In R&D, design, production activities and so on, JTEKT proactively incorporates the SQC method to be able to make scientific judgments based on data and consider the variation of materials, parts and properties.

In order to share case studies which utilize SQC throughout the company and learn from one another to improve skills, JTEKT holds a SQC Improvement Case Study Companywide Presentation every year. In FY2013, there was an attendance of about 580.

* SQC SQC is the abbreviation for Statistical Quality Control.

[→ S_03 Related article](#)

TOPICS

1st QC Circle Kaizen Activity Global Convention

On September 12th, the 1st QC Circle Kaizen Activity Global Convention was held at the JTEKT Corporate Pension Fund Hall [Wiz] in Kariya city, Aichi. Daily activity results were presented by six selected circles from overseas group companies in six regions: North America, Europe, China, ASEAN, India, and Central/South America.



Presenter : Sumit Kumar Ror



Most outstanding : India region representative (SKSS) GAURAV Circle

[Respect for diversity] Promoting diversity

In the midst of an ever-changing management environment and on top of globalization, securing and developing personnel with diverse values and personalities is essential for a company to grow. JTEKT is strengthening efforts to promote diversity, one of the pillars of our personnel policy.

Assisting female employees in developing their careers

JTEKT has adopted childcare leave and short-time working systems and is creating a work environment that encourages employees to use such systems, so that each and every employee can maximize their talents and abilities regardless of gender. The rate of employees returning from childcare leave was 100% for women from FY2009 to FY2012 (*). For men, one person took childcare leave in FY2013 and returned to work. In addition, we are actively engaging in recruitment PR activities to hire women for each employment type based on fairness and equality.

* The rate of employees returning from childcare leave has not been calculated for FY2013 because there are employees currently on childcare leave.

Hiring women and promoting women to managerial positions

JTEKT hires women, assigns them based on aptitude, and promotes them to managerial positions.

Hiring of women and promotion of women to managerial positions

	2009	2010	2011	2012	2013
Total no. of women hired through seasonal recruitment	15	6	20	20	27
(Total no. of employees hired through seasonal recruitment)	(355)	(175)	(289)	(326)	(316)
No. of women managers	6	8	11	12	13
(Total no. of managers)	(1,384)	(1,386)	(1,446)	(1,491)	(1,577)
No. of women assistant managers	18	20	20	21	29
(Total no. of assistant managers)	(1,226)	(1,204)	(1,240)	(1,183)	(1,228)

Number and percentage of employees who took childcare leave (*)

	2009	2010	2011	2012	2013
Number of employees who took childcare leave	21	26	19	25	24
Percentage of employees who took childcare leave (%)	88	93	89	100	100

* Percentage of female employees who took childcare leave of all female employees who gave birth

Together with employees

Reemployment of retired employees

To allow highly motivated retired employees with abundant knowledge and experience to continue working, JTEKT established a post-retirement reemployment system in April 2006. As of the end of March 2014, 770 persons reemployed by JTEKT and related companies were working at various workplaces and training younger employees who will one day become leaders of JTEKT.

Status of the post-retirement reemployment system in FY2013

Number of those who are applicable			179
Number of applications [a]			147
Number of reemployed [b]	JTEKT	131	147
	Group companies	16	
Rate of employment [b/a]			100%

Continuation of the “Iki-iki 60 Committee”

In FY2011 an “Iki-iki 60 Committee” was formed for employees and management to jointly investigate various measures enabling employees 60 years and above to work positively and with vigor. In FY2013, the committee set qualifications and compensation based on expectations and roles, incorporated them into the re-employment system, and began the system in April 2014.

Expansion of life career plan training scope

Previously, life career plan training was only held for those employees who had turned 55. However, starting in FY2012, the scope was increased to cover those who were turning 50. We provide an opportunity for employees to think about their career and life design after retirement.

Life career plan training participants (FY2013)

50 years old Career 50 training participants	140
55 years old Career/life 55 training participants	219
Total	359

Employment of people with disabilities

JTEKT actively participates in joint-employment seminars aimed at people with disabilities and strives to provide as many people as possible with interviews and opportunities to apply. Currently we have employees with disabilities working mainly as shop floor support and general administration staff. On April 1st, 2013 the percentage of disabled employees required by the law was raised from 1.8% to 2%, and as such we have further enhanced our actions such as expanding the areas in which people with disabilities can work.

Number of disabled persons employed (Average for 2013)

No. of employees with disabilities	278
No. of employees according to legislation	263
No. of over and short	+15
Employment rate	2.11%

* In accordance with legislation, employees with severe disabilities are counted twice (as 2 people) in the above table.

[Employee satisfaction improvement] Workplace management questionnaires

Each year, JTEKT conducts a workplace management questionnaire for all employees, from January through February. In FY2013, we collected comments from employees in both managerial and non-managerial positions at each workplace through questions regarding the “understanding of the workplace mission”, “common perception of the upper management policies”, and “understanding of the connection between the upper management policies and personal themes”, etc. This allowed us to understand management status, such as whether the progress of daily operations is properly controlled and whether company policies are steadily communicated. We aim to create a better workplace by incorporating issues found through this questionnaire into the plan for the following fiscal year.

→ [\[Message\] P16 Related article](#)

Confirming the level of satisfaction through morale surveys

JTEKT conducts a morale survey from January through February every year, along with a workplace management questionnaire, in order to confirm the level of employee satisfaction/dissatisfaction towards the organization and policies, and their associated reasons. Incorporating the results into the plan for the following fiscal year will lead to improvement in employee satisfaction.

→ [\[Message\] P19 Related article](#)

Adoption of Cafeteria Plan for benefits **New!**

JTEKT has adopted a selection-based benefit program (Cafeteria Plan). Employees can freely select from the benefit menu, including food, travel, and nursing care, according to points received. In FY2013, the point usage rate was 96%. We support our employees in having a fulfilling life through various programs and facilities such as the employee savings scheme, employee shareholder association, dormitories, and gym.

Together with employees

Safety, hygiene and health related actions

Social background

According to the Health, Labor and Welfare Ministry, every year approximately 110,000 people are injured or fall ill during work and take at least four days off to rest. Furthermore, the percentage of people who feel stress or anxiety due to work is increasing and mental health countermeasures are becoming more important in the workplace. In June 2014, the Industrial Safety and Health Act was partially revised, and employers are now obliged to provide stress checkups for their employees.

JTEKT's concept

Making the workplace safe and protecting employee health

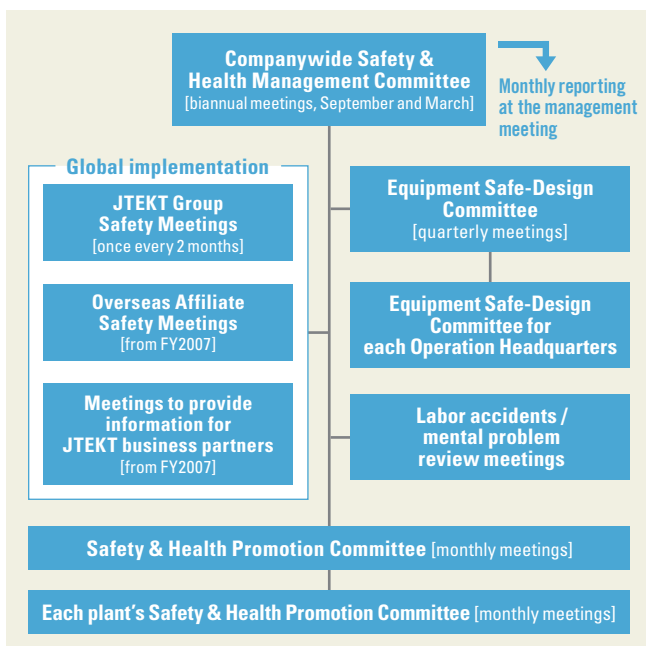
Maintaining the health of all employees is indispensable to a lively work environment and to protect the mind and body. In our "Safety & Health Policy", we at JTEKT clarify that "safety and health activities are promoted by the company as a whole".

Promoting activities under a centralized control system

▶ Figure-01

Under the "Companywide Safety & Health Policy," in order to strategically and systematically promote the creation of safer and healthier workplaces, JTEKT has constructed a centralized control system.

▶ Figure-01 Safety, hygiene and health control system



Major activities in FY2013

[Safety and health]

Activities based on the safety & health management system

By FY2007, 11 plants and the Higashi-kariya operations center had acquired certification concerning occupational safety and health management systems, "JISHA OSHMS Standards Certification", from the Japan Industrial Safety & Health Association. Since then, activities have been ongoing in accordance with the management system. In FY2014, the Sayama plant plans to newly acquire certification.

JISHA OSHMS Standards Certification

FY2013 Renewals at Nara plant, Hanazono plant, Toyohashi plant, Tadomisaki plant, Tokushima plant, and Higashi-kariya operations center, as planned

FY2014 Renewals are planned for Kokubu plant, Kagawa plant, and Kameyama plant. New acquisition is planned for Sayama plant.

Aiming for zero work-related accidents

JTEKT is continuously promoting various safety & health activities aiming for zero work-related accidents. Amongst these, accidents which can easily lead to death and impairment have been established as the 6 Major Accidents (*1), and efforts are being made to prevent these through work and equipment improvements.

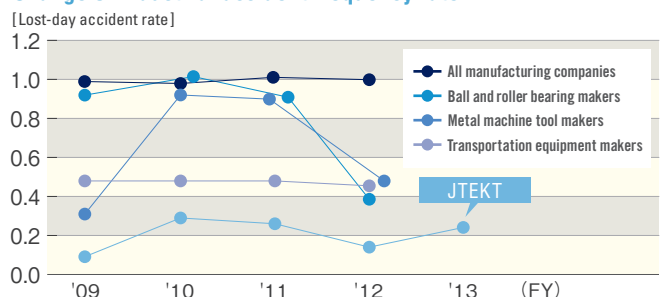
From FY2011 have been onwards, countermeasures for Failure-to-Stop Accidents (*2) have been of the highest importance and the eradication of these has been heavily focused upon. Regrettably, there were 13 Failure-to-Stop Accidents in FY2013, a significant increase from 6 accidents in FY2012. Consequently, the number of all accidents and lost-day accidents both increased from the previous year. We are analyzing the causes in detail and making renewed efforts to continue safety activities, aiming for zero work-related accidents.

→ [Message] P16 Related article

*1 **6 Major Accidents** Accidents arising through pinching/entanglement, heavy objects, vehicles, falling, electric shock and hot surfaces.

*2 **2 Failure-to-Stop Accidents** Accidents which occur when troubleshooting work or repairs are conducted without first stopping the machine.

Change of industrial accident frequency rate



* The FY2013 section of the graph only shows the lost-day accident rate for JTEKT.

$$\text{Lost-day accident rate} = \frac{\text{Number of lost-day accidents}_{(+3)}}{\text{Total work hours}} \times 1 \text{ million}$$

*3 **Lost-day accidents** : JTEKT defines lost-day accidents as work-related accidents resulting in work absence of 1 day or more.

Together with employees

Standardization of difficult-to-do work

- Assessed and implemented countermeasures for troubleshooting work on frequently-stopping equipment.
→ Countermeasures and standardization of work were conducted for all 127 pieces of equipment that were registered.
- Assessed and implemented countermeasures for time consuming, high frequency repair/maintenance work.
→ Countermeasures and standardization of work were conducted for all 117 pieces of equipment that were registered.

Created workplaces where safety awareness is shared and workers warn each other about unsafe behavior

- Reinforced safety checks using the pointing and calling method, targeting 100% execution.
- Promoting proposals for near misses (*1).
→ Countermeasures were completed for all 98,750 proposals.
- Actions during safety reinforcement months.
→ Held a safety talk for all 1,965 young employees in light of the frequency of accidents involving young employees.
- Conducted a safety awareness survey.
→ Conducted a questionnaire twice during the year for half of the employees at a time. Analyzed the questionnaire results and shared the contents with other plants.
- Established Safety Dojos and shop-based Safety Dojos (*2).
- Instituted a zero accident pledge day (memorial day).

***1 Near misses** A safety and health activity involving gathering and sharing of information on near misses and the devising of reoccurrence prevention measures.
***2 Shop-based Safety Dojo** A safety dojo targeting risk sources and equipment specific to a certain workplace or production line.

Creating an environment of friendly competition in plants

- Exposing hazardous places through safety cross-checks and countermeasures.
→ Of the total 265 extracted, countermeasures have been completed for all.

Global roll out

- Rolled out domestically deployed items to our overseas group companies.
→ Rolled out the latest equipment safety standards. Held investigations when accidents occurred and promoted countermeasures. Promoted safety activities.

Workplace noise countermeasures

JTEKT is engaging in improvements to eliminate all Noise Level 3 Classification areas (workplaces requiring improvement by law) by FY2014. In FY2013, 2 workplaces (27 pieces of equipment) were improved, but 5 additional workplaces now require improvement. We have therefore extended our target completion year to FY2016.

Creating a workplace environment considerate of senior and female workers

To promote the creation of a workplace environment considerate of senior and female workers, we conducted a posture-weight assessment on newly installed lines. Posture-weight assessments allocate a score for posture determined by the work posture, and a score for weight, determined by the weight of the object(s) handled. It is a method to quantitatively assess the risk of lower back pain. The assessment gave satisfactory results and no workplaces required improvement.

Improving high temperature workplaces

From the perspective of worker protection, JTEKT revised our

work environment measurement standards and began WBGT-based (*3) assessments in FY2010. JTEKT's index is WBGT 30°C. A FY2012 investigation showed that improvements were necessary in 6 plants, and therefore we established pressure air fans and coolers in FY2013 as countermeasures for hot workplaces. We will continue implementing countermeasures in FY2014.

***3 WBGT (Wet-Bulb Globe Temperature)** An indicator incorporating humidity, radiation heat and temperature, which significantly impact a person's heat balance. Calculated using dry-bulb temperature, wet-bulb temperature and globe temperature.

WBGT (Wet-Bulb Globe Temperature) calculation method

Outdoors: WBGT = 0.7 × wet-bulb temp. + 0.2 × globe temp. + 0.1 × dry-bulb temp.
Indoors : WBGT = 0.7 × wet-bulb temp. + 0.3 × globe temp.

Safety & health education and training

One of the key requirements of safety & health activities is the planned implementation of education and training. Our main forms of education are rank-based training based on job level and special training based on job type, while our main forms of training are basic KYT 4R training (*4), sensing-danger training, and skill training.

***4 Basic KYT 4R training** KYT stands for Kiken (hazard), Yochi (prediction), and Training. 4R means "4 rounds." This is hazard-prediction training through 4 phases.

Main training types (number of attendees in FY2013)

Rank-based training	Safety management training	111
	Group Leader training	95
	New employee training	142
	Training Center student training	79
Special training	Grinding wheel replacement	76
	Low-voltage handling	76
Others	All-Toyota training for those overseeing outside workers	518
	All-Toyota training for those overseeing construction	104
	Elevated-work training	738
	Electric shock prevention training	636
	Risk assessment training	104
		2,679

Hiroyuki Niimi
Management TOP Direct Control
Safety & Health Control Dept.

My
CSR



Safety & health education for new supervisors

I am in charge of safety and health education for new supervisors. What is important in this education is to have supervisors understand that operations do not stand without abiding by laws, as all operations are tied to the Industrial Safety and Health Act. When supervisors do not understand laws, machine equipment will be in an unsafe state and operators will engage in unsafe behavior. This creates dangerous conditions under which accidents may occur at any time. If fatal accidents occur, society may even question the reason for our existence as a company. I continue to put my efforts into training supervisors who can correctly understand and comply with laws so that potential risks existent at workplaces will not lead to accidents.

Together with employees

[Health]

Achieving mental health

▶ Figure-01

JTEKT is aggressively promoting mental health measures with a focus on preventing depression. As a result, the number of people and days taken off work due to mental disorders decreased in FY2013. We were also able to reduce the average stress level and the number of high stress individuals.

Implementation of a mental health workplace diagnosis

From August to September, a questionnaire relating to mental health was held on an individual level to all employees (excluding fixed-term employees and temporary staff). The return rate was 75%. Results of the mental health workplace diagnosis and stress surveys were analyzed and reported to division managers, to be utilized for workplace management.

Results of the mental health workplace diagnosis

Improvement necessary

- Allocation of work
- Clarification of work policies
- Support from superiors and colleagues

Good

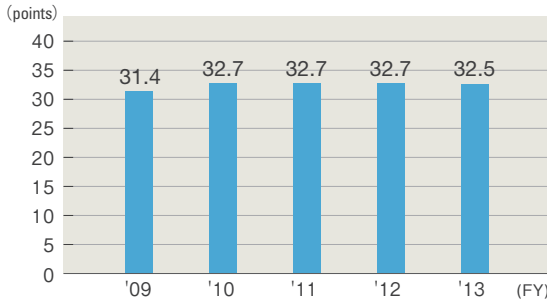
- Good interpersonal relationships
- Appropriate work hours, easy to take breaks
- Good workplace environments

Implementation of a stress survey

JTEKT conducts a stress survey as part of a health checkup so that employees may be aware of their own stress and know their level of psychological burden. This survey is in accordance with the Industrial Safety and Health Act revised in June 2014 (commonly referred to as the mandatory Stress Check Test).

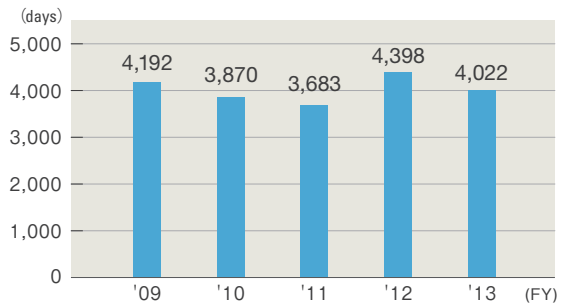
▶ Figure-01

Transition of average stress levels (*1)

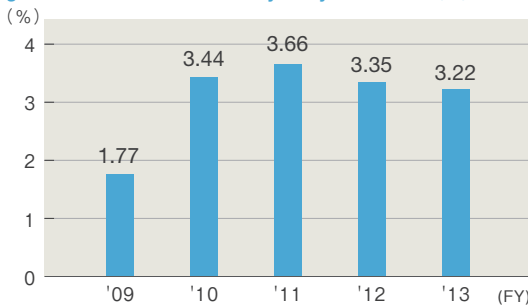


Number of work absences due to mental disorders

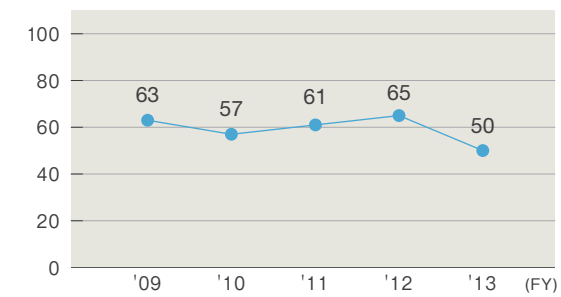
New number of missed work days



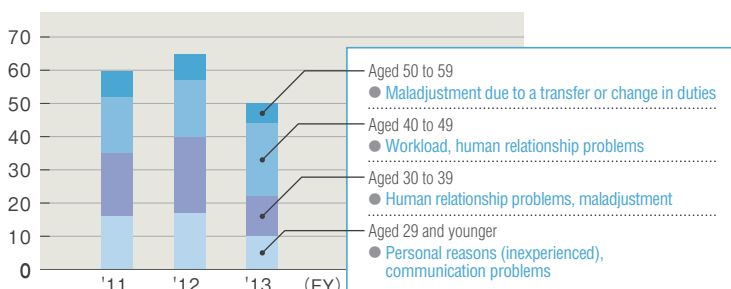
High-stress individual ratio yearly transition (*2)



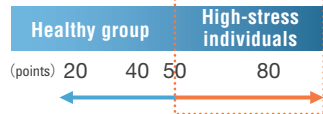
Number of newly absent employees



No. of new people taking time off work and reason by age



Stress level



*1 **Stress level** Stress level = depression scale. Indicates the mental state and stress at the time the survey was conducted. Individuals with a stress level of 50 points or over are classed as "high-stress". Individuals with 60 points or over are suspected of suffering from depression.

*2 **High-stress individual ratio** Number of high-stress individuals against the total number of employees who submitted stress surveys.

Together with employees

Implementation of mental health training

Mental health training was held for each rank, and lectures were provided on how to respond to individuals in need within their workplace. As a result, appropriate actions taken by management and supervisors prevented the increase in the incidence of depression among young employees.

Level 4 mental health training for management

Theme: "Response to employees who disturb the workplace"

- Held in a lecture style (via video conference)
- 1,500 attendees

Content

1. Status of mental health today
2. Who are the employees who disturb the workplace?
3. Response to employees who disturb the workplace

R4 mental health training

Theme: "Preventing and responding to maladjustment in the workplace"

- Held in a lecture style (via video conference)
- 2,407 attendees

Content

1. Report of results of mental health workplace diagnosis
2. Response to young employees (twenties)
3. Preventing workplace maladjustment and responding to sufferers of maladjustment
4. Peer counseling, coaching (practical skills)

Support for employees taking off work due to mental disorders in returning to work

JTEKT supports the return of employees taking off work due to mental disorders, based on the Guidelines for Maintaining and Improving Workers' Mental Health established by the Ministry of Health, Labor and Welfare.

Our return to work support program focuses on recurrence prevention and cooperates with external organizations such as vocational centers for persons with disabilities. The recurrence rate dropped from 0.34% in FY2009 to 0.22% in FY2013.

Implementation of a "one word from each person" activity

We have been promoting an activity where everyone gives a few remarks according to a monthly theme during morning or afternoon assembly in the workplace. It turned out that workplaces regularly conducting the activity tended to have less employees taking off work due to mental disorders or to seek consultation.

Purpose of a "one word from each person" activity

- Work to raise workplace morale by understanding and helping each other.
- Convey feelings and ideas to each other to improve communication skills.
- Share feelings and ideas to create an opportunity to support each other.

Transition of excessive work measures

It is a company's obligation to have employees working long hours interviewed by a doctor to ensure health maintenance. During the interview, an industrial physician checks the employee's degree of fatigue and work situation. Employees diagnosed to have accumulated fatigue are given guidance on overtime work restrictions for the next month and on lifestyle.

Awareness activities

There is a high possibility that excessive work may lead to cerebral vascular disturbance and ischemic heart disease. As such, JTEKT considers the health risks related to working long hours and engages in awareness activities which raise the points to observe concerning "correction of frequent overtime, working weekends, and non-stop working stretches" and "assessing and controlling work time".

Transition of number of employees receiving checkup for working long hours

Managers		Staff	
FY2010	Approx. 2,558 (Average: 213/month)	FY2010	Approx. 1,898 (Average: 158/month)
FY2011	Approx. 2,511 (Average: 210/month)	FY2011	Approx. 2,231 (Average: 186/month)
FY2012	Approx. 2,523 (Average: 210/month)	FY2012	Approx. 1,563 (Average: 130/month)
FY2013	Approx. 2,767 (Average: 230/month)	FY2013	Approx. 1,753 (Average: 146/month)

* Health checks for employees who work long hours apply to employees who have worked over 45 hours a week for 3 months consecutively, including management and general employees as well as employees who have worked over 70 hours in a single month.

Achieving physical health

Beginning with lifestyle-related diseases, we focus on the prevention, early detection and early treatment of illnesses, and actively support the health management of our employees.

Special health guidance

The program that JTEKT began in April 2008 for special health checkups and healthcare guidance is gradually taking hold. We are taking assertive action towards our objective of eradicating metabolic syndrome.

We interviewed and educated individuals with high health risks (employees under 40 years of age with metabolic syndrome and employees receiving treatment for diabetes).

FY2013 healthcare guidance implementation

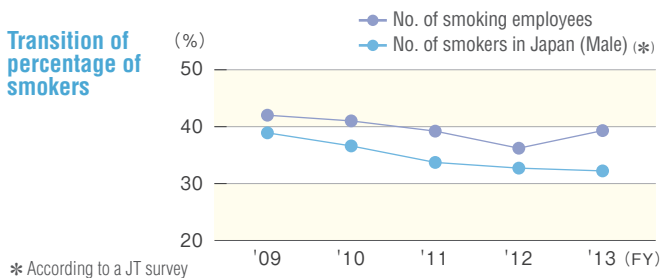
	Special health checkups	Education for employees with high health risks
No. of those applicable [a]	1,096	145
People screened/people participating [b]	1,033	145
% of total	Result [b/a]	100%
	Target	70%

Together with employees

Quit Smoking campaign

The Quit Smoking campaign is an activity that supports people who want to quit smoking, with detailed assistance from an industrial doctor and a nurse. We ran the campaign once a year in the past, but conducted it twice in FY2013. A total of 49 employees participated, and 49% of them successfully quit.

The overall number of smokers among employees showed a decreasing trend year by year, but it unfortunately increased in FY2013. We will continue to support employees in quitting smoking.



Yukiko Oda
 Management TOP Direct Control
 Safety & Health Control Dept.



Nourished by the voices of employees

I feel most rewarded when people at JTEKT talk to me and tell me, “I was able to quit smoking thanks to you”, or “I’ve been walking every day since I received your advice.” I can interact with many people working at JTEKT through companywide health management activities, which is one of the appeals of my work. I want to be a public health nurse to whom everyone can talk to— this is my determination, which has not changed since I joined this company. I continue to put my all into caring for JTEKT employees’ health.

Together with local communities

Social background

The importance of participating in and contributing to the local community is one of the seven core themes of ISO26000. The 4th version (G4) of the GRI Guidelines published in May of 2013 touches on local community development programs based on the needs of the local community. As “corporate citizens”, companies are expected to contribute to the local society in a variety of ways.

JTEKT’s concept

“Social contribution activities” as one of the Corporate Activities Standards

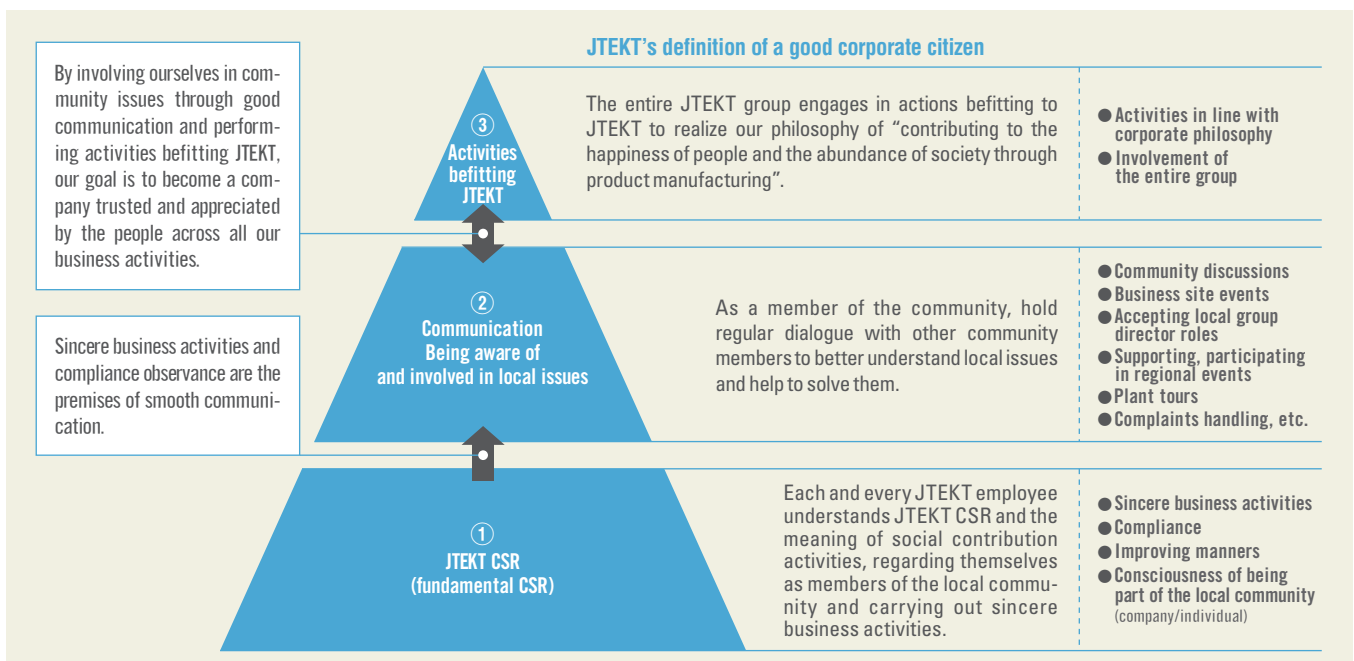
JTEKT has established “actively promoting social contribution activities as a good corporate citizen” as one of its seven Corporate Activity Standards. The Social Contribution Working Group under the CSR Promotion Committee leads in expanding a variety of social contribution activities, supported by activities rooted in the local community, proactive individual activity towards building nature and culture, and activities to support the affected areas of the Great East Japan Earthquake.

What we want to achieve

▶ Figure-01

JTEKT promotes activities for social contribution as a good corporate citizen, with the aim of developing alongside the local community. For activities befitting JTEKT, each plant and operations center actively interacts with their local communities, uncovers local needs, and engages in actions rooted in the local community.

▶ Figure-01



Major activities in FY2013

Activities rooted in the local community

JTEKT is immersed in social contribution activities at each plant and branch office throughout Japan. In FY2013, there were a total of 607 (101 new) activity reports from 466 plants and 141 branch offices.

[Communication]

JTEKT believes that ascertaining the needs of the surrounding people through interaction is the first step in locally rooted activities. Community discussions and plant festivals are held at each plant to further communication with the local community.

Holding community discussions at all plants

We periodically invite local government officials to participate in community discussions at each plant. At these discussion sessions, we report achievements and exchange opinions concerning environmental conservation activities, and conduct plant tours, etc., to build a good relationship with the local community. In FY2013, a total of 324 people participated at all 12 plants and the Higashi-kariya operations center. [→ E_17 Related article](#)

Deepening friendships through plant festivals

Each of JTEKT’s plants hold festivals every year, with stage shows, games, employee-run stalls and more. The aim is to promote friendship between employees, families and the local community. Festivals were held at 12 plants and at the Higashi-kariya operations center in FY2013, counting a total of 8,475 visitors.

Together with local communities

Introduction of activities

Briefing for the local residents with the 6 companies of the local coordinating committee Hanazono plant (Okazaki city, Aichi)

On November 21st, six companies including the Hanazono plant (from the industrial park where the Hanazono plant is located) invited nine representatives and officials from the surrounding local region to participate in a company briefing. JTEKT took the role of lead company, and conducted a plant tour. At the ending survey, we received many compliments such as, "I feel reassured with the local contribution activities and periodic environmental surveys that are being conducted."



Introduction of activities

Conducting an environment observation tour at the plant festival Tokushima plant (Itano ward, Tokushima)

An environment observation tour was conducted at the Tokushima plant festival held on October 5th, as part of the festival events. Presentation meetings were held on the Tokushima Cooperation forest-building project and on the reuse of cooking oil from JTEKT cafeterias, and a production site tour was given. These events illustrated JTEKT's production and endeavors towards the environment for visitors to the festival.



Introduction of activities

Overseeing security volunteers at the Summer Festival Tokyo plant (Hamura city, Tokyo)

New!

At the largest event held in Hamura, the Hamura Summer Festival held on July 27th and 28th, 39 employees from the Tokyo plant participated as volunteers to oversee the security of the event. The volunteers contributed to preserving the safety of citizens amidst the enthusiastic venue.



[Nurturing of young community members]

Through activities such as *monozukuri* classes and sporting events, JTEKT contributes to the nurturing of young community members.

Introduction of activities

Beach cleanup and presentation on sea turtles Toyohashi plant (Toyohashi city, Aichi)

New!

The Toyohashi plant collaborated with the non-profit organization Niji no Tobira to hold the Aichi Forest and Greenery Environment Activity/Learning Promotion Project's "friendly walk on the beach" on October 27th, where participants walked along the shoreline and cleaned it. Employees from the Kariya plant and Tadamisaki plant and their families gathered together, with a total of 119 participants. A beach seining experience and a presentation on sea turtles were held after the cleaning event.

→ E_18 Related article



Introduction of activities

Cooperation with an elementary school social studies class Nara plant (Kashihara city, Nara)

New!

JTEKT received consultation from Tawaramoto Elementary School, located close to the Nara plant, that the school would like to introduce the automobile industry of Japan to their 5th grade in social studies class. The teachers were given a tour of the plant, upon which they based learning materials for their class. The class was acknowledged as a "model case" class of Nara Prefecture, and a public class was held for educators. JTEKT later received a handmade newspaper from the students, and feedback stating that they "learned for the first time what kind of company JTEKT is", and some even said that they want to work at JTEKT in the future.



My CSR

Yasumasa Fujikawa
Machine Tools & Mechatronics
Operations Headquarters Kariya Plant
Administration Dept. General Affairs Sect.

I want to widen the circle by having fun

I always try to have fun when engaging in various social contribution activities. I feel that by greeting people emphatically and never losing my smile, I can convey the enthusiasm I feel to the people with whom I interact. I hope to widen the circle of our social contribution activities by doing so.

Together with local communities

[Welfare support]

JTEKT supports the socially vulnerable, such as sick persons and those with disabilities, in many ways.

Introduction of activities

Bread and cookie sale by a social welfare service corporation

Kokubu plant (Kashiwara city, Osaka)

New!

Once a month in the lobby of one of the Kokubu plant buildings, social welfare corporation You tone holds a bread and cookie sale. The goods are baked by people with disabilities, who are also in charge of sales and customer service. These sales are a chance for employees to purchase delicious bread and cookies, while simultaneously benefitting the participation of people with disabilities in society.



Introduction of activities

Use of canned bread from the vocational aid center as emergency food provisions

Tadomisaki plant (Takahama city, Aichi)

New!

The Tadomisaki plant purchased 300 tins of canned bread, to be used as emergency provisions, from Coffee & Bakery FURUFURU, a café where people with disabilities work. The cans were given an original label bearing the Tadomisaki plant slogan.



My CSR

Takao Kawamoto
Bearing Operations Headquarters
Kameyama Plant
General Affairs Section

Aspiring to be a plant based in local society

The Kameyama plant is participating in the planning of the woodland preservation activity “Kameyama Eco Forest”, held by the local government, civilians, and nearby companies. We also run a popular refreshment booth each year at the local summer festival. I would like to continue these activities, which are based in the local society.

[Road safety and fire prevention]

JTEKT actively promotes a number of road safety activities, including “risho” (*). We also believe that fire prevention is very important to maintaining a trusting relationship with the community and as such implement thorough fire prevention measures.

* **Risho** A practice unique to Japan where, on the morning of a set day every month, employees of automotive-related companies promote road safety awareness amongst drivers. This activity aims to reduce the number of road accidents.

Introduction of activities

Implementing road safety “risho” four times

Kagawa plant (Higashikagawa city, Kagawa)

In FY2013, the Kagawa plant implemented road safety “risho” four times. A total of 36 employees participated in road safety “risho” conducted on April 10th. The main job of those participating was teaching and giving support to elementary and middle school students about safely crossing the road, along with conducting traffic with the cooperation of the local civilians.



[Community clean-up, beautification]

Every year JTEKT holds community beautification activities to raise company environmental awareness. Employees proactively participate in cleaning up around plants and co-exist with the community. In FY2013, all 12 plants and the Higashi-Kariya operations center implemented such activities.

Introduction of activities

Cleaning the road to the train station and the surrounding area

Higashi-kariya operations center (Kariya city, Aichi)

Cleaning of the road to the Noda-shinmachi JR station and the surrounding area is conducted by the Higashi-kariya operations center each year, in May and November. On November 2nd, 35 employees participated in the cleaning, picking up empty cans and trash.



Together with local communities

[Environmental preservation]

JTEKT considers environmentally-orientated social contribution to be of particular importance. Each workplace engages in a diversity of environmental preservation activities with community members.

Introduction of activities

Participating in begonia planting

Sayama plant (Sayama city, Saitama)

On June 8th, eight people from the Sayama plant joined in the Begonia Planting Circle volunteer activity held by the local municipality. The volunteers weeded and planted flowers along roughly one kilometer of railway track. People passing through the area stated that the flowers make them feel relaxed and refreshed along their way.



Introduction of activities

Continuing woodland conservation activities

Okazaki plant (Okazaki city, Aichi)

New!

Employees from the Okazaki plant have been volunteering in woodland conservation activities at the "Okazaki Eco-Education Forest", which include maintaining bamboo groves, repairing walking paths, and creating biotopes. Beginning with the participation of 5 employees in February of 2014, the plant will continue periodic activities within the forest once every 2 months. [→ E_19 Related article](#)



Building nature and culture through each person's active participation

Each year, JTEKT conducts a questionnaire survey concerning individual volunteer activities for all employees, geared towards building an environment where volunteering is easier. The results of the questionnaire will be used to build a framework which encourages volunteer activities. In FY2013, 4,644 volunteer activity participations were logged.

[Collection activities]

▶ Figure-01

JTEKT is devoting efforts to the collection of PET bottle caps, erroneous postcards, used ink cartridges, and other items, as an activity that anyone can easily participate in. The earnings from these recycling activities are used in medical and educational assistance for developing nations, via an NPO.

Introduction of activities

"Cap art" at the Family Festival

Nara plant (Kashihara city, Nara)

New!

Visitors to the Family Festival in Nara brought approximately 5,000 PET bottle caps with them to the festival. "Cap art" was made from the bottle caps and displayed within the plant. Afterwards, a non-profit organization used the bottle caps to send polio vaccines to children in developing countries.



▶ Figure-01

Campaign	Time period	Collection items	Collection results	Conversion	Beneficiary
Nihokai Collection of goods for East Japan recovery support	August–October	Erroneous postcards, bell marks (cards for funding education for poor children), unused stamps, all types of coupons		Equivalent to 462,343 yen	Nihokai
Collection at year-end and New Year	December–January	Used ink cartridges	1,891	Equivalent to 9,000 yen	EDF-Japan
		Erroneous/unused postcards	800	Equivalent to 30,000 yen	
Collection of New Year's lottery postcards	January–February	Election postcards/stamp sheets	47 stamp sheets 15 other stamps	Equivalent to 7,360 yen	Under consideration
Collection of PET bottle caps	All FY2013	PET bottle caps	719,874	Polio vaccinations for 900 people	NPO Cabinet Office Certified Ecocap Movement

Together with local communities

Great East Japan Earthquake disaster area support activities

It has been three years since the Great East Japan Earthquake, yet devastated areas are still in the midst of recovery and reconstruction. JTEKT has designated the support for disaster areas as a pillar of our societal contribution activities, and our employees continue to participate in support activities.

Charity caravan supporting disaster areas ★ New!

We have developed a system for fundraising utilizing cafeteria menus and vending machines, and conducted fundraising at every domestic plant. This has yielded a total of 2,314,976 yen in donations, which has been sent in the form of cash and desired articles to 10 volleyball club teams of 6 high schools in Minamisanriku and Kesenuma, Miyagi prefecture.

[→ \[Message\] P17 Related article](#)

Participation in the Toyota group's recovery support volunteer activities

Toyota group is conducting recovery support volunteer activities, which are participated in by its employees. In FY2013, two employees from JTEKT also participated.

Voices from participating employees

It's important to work steadily, bit by bit

Youko Inoue

Sales & Marketing Headquarters Corporate Sales Management Dept.
Management Office 1 Business Management Group

Searches, etc. were organized in Furukawanuma to look for relics and remains. Even now, there are still over 200 people declared missing in Rikuzentakata City, Iwate, into which entry was previously prohibited. We joined the bereaved families of those missing as they searched the places where they hoped they might find their loved ones. Our task was to sift dirt through a sieve to discern any objects that might be hidden. There was a vast amount of ground to cover, and it seemed as though the task would take a long time. I felt how important it was that we work diligently, bit by bit, towards reconstruction. (Period: October 9th–13th)



Voices from participating employees

I once again realized what's important

Yosuke Nishimura

Automotive Systems Business Headquarters Driveline System Engineering Dept.2
Coupling System Engineering Office Coupling Engineering Group

I visited Rikuzentakata City, Iwate, to help the local fishermen. Seeing the condition of the disaster area with my own eyes made me truly understand how vast the damage was. When I asked the local people about the disaster, their replies really made me feel that they never wanted anyone else to go through the same things that they had. Participating in recovery support activities has made me realize the important things in life, like how I want to be a person who shares with others, and be thankful for what I have. (Period: November 7th–10th)



My CSR

Kazuto Takahashi

Personnel and General Administration Division
Personnel Dept.
Personnel Office
Shared Service Group

Cooperating with JTEKT regional contributing activities



We received much support and cooperation from local people at the Kariya Tournament of the "V Premier League", the highest league for adults. We hope to convey courage, passion, and vitality to everyone in the local community through our playing. We will also cooperate more actively with the surrounding region through JTEKT regional contributing activities such as the plant festival. I hope to hold more of the volleyball classes that we began in 2013 in regions throughout Japan.

Together with shareholders and investors

Social background

The transparency of company management is scrutinized, making it increasingly important to disclose information in an accurate and timely manner, and establish accountability. Moreover, in the financial sector as well, it is becoming more commonplace to emphasize ESG (*) information when assessing a company's value. Not only is a company's earning power important, but also the balance with business sustainability.

* ESG Abbreviation for Environment, Social and Governance; the matters a company is expected to consider as their responsibility when conducting business activities.

JTEKT's concept

Aiming for highly transparent management

At JTEKT, we make "communication with not only shareholders but also the community at large and the fair disclosure of corporate information" part of our Corporate Activities Standards. Based on this concept, we make management transparent, and strive to construct a long-term relationship of trust with shareholders and investors.

Major activities in FY2013

Information disclosure and IR activities

JTEKT not only observes rules on legislated disclosures and timely disclosures. We also strive to increase transparency of our management and, in order to deepen understanding of JTEKT and the JTEKT group by our shareholders and investors, we also actively disclose information that is both well-timed and appropriate voluntarily and in a fair manner, through various IR activities.

Presenting the JTEKT GROUP VISION and Mid-term Management Plan at the year-end IR results briefing

At the year-end IR results briefing held for analysts and corporate investors in May 2014, JTEKT group presented the JTEKT GROUP VISION as our newly formulated guidelines, and the 5-

year Mid-term Management Plan ending in FY2018. A lively Q&A session followed, furthering attendees' understanding about the future of the JTEKT group.

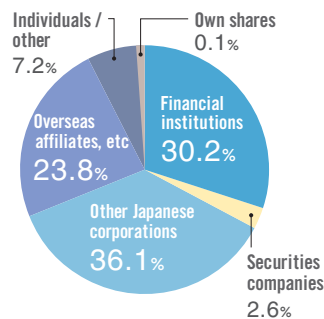
Main IR activities

- Hold IR results briefing and small meetings
- Individual interviews
- Company information sessions for individual shareholders and investors
- Conduct plant tours
- Issue annual reports
- Disclose information on HP

Shareholder status

Current at end of March, 2014, the number of shares issued was 342,186,000 and the breakdown of shareholders is as follows.

Shareholder distribution status



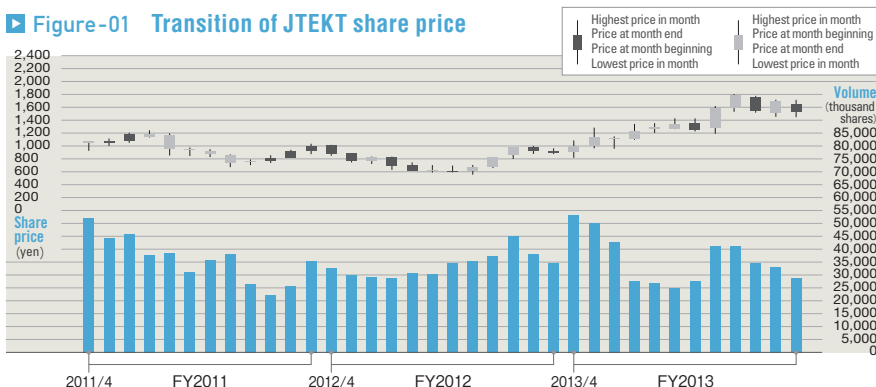
Shareholder Type	Number of Shares (thousand shares)
Financial institutions	103,315
Securities companies	9,006
Other Japanese corporations	123,409
Overseas affiliates, etc	81,546
Individuals/other	24,648
Own shares	259
Total	342,186

As of end of March, 2014
(anything less than 1,000 rounded down)

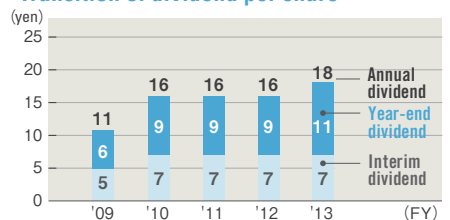
Business performance and return of profits ▶ Figure-01

Our consolidated sales for FY2013 were 1 trillion 206.1 billion yen, 18.0% higher than the previous year. Our consolidated operating profit was 58.2 billion yen (29.1 billion yen for the previous year), while our combined ordinary income was 61.8 billion yen and combined current net earnings were 23.3 billion yen. As a result, the annual dividend per share is 18 yen, an increase of 2 yen from last year. Now in FY2014, it is still difficult to predict what lies in store, but we will strive towards the achievement of "Shaping a Better Future Through the Spirit of 'No.1 & Only One'" as part of the JTEKT GROUP VISION, for which activities were begun in April 2014. We will further strengthen cooperation between group companies and work to establish a strong management foundation and revenue base not susceptible to change.

▶ Figure-01 Transition of JTEKT share price



Transition of dividend per share



JTEKT bond ratings

Rating institution	Long-term rating	Short-term rating
Japan Rating Agency	A+	J-1
Rating & Investment Information, Inc	A	

Details & Data

Environmental Report

- This report aims to inform our stakeholders in straightforward language of JTEKT's concept and activities surrounding CSR.
- For FY2014, we have made major changes to the format of the report to make it easier to comprehend, dividing it into a Message (leaflet) and a full online report combining both the Message and the Details & Data section.
- The Details & Data section emphasizes objectiveness, completeness and continuity.
- This section, the Environmental Report, summarizes environmental aspects of FY2013 based on the JTEKT 2015 Environmental Action Plan.

Target period and target organizations/scope

Target period

FY2013 (April 2013 - March 2014)

* Some items include content from other periods.

Target organizations and scope

All JTEKT Corporation activities

Management of the JTEKT group is carried out on a group-wide basis and includes elements such as environmental data measurement and control based on a uniform standard. Some items also show the performance of our domestic affiliated companies and overseas local affiliates. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

Reference guidelines

- ◎ GRI (Global Reporting Initiative)
"Sustainability Reporting Guidelines 2013 (G4)"
- ◎ Japan's Ministry of the Environment
"Environmental Reporting Guidelines" (2012 edition)
- ◎ ISO26000 (International Standard for corporate responsibility)
- ◎ A calculation standard stipulated by GHG Protocol Initiative
- ◎ Ministry of the Environment and Ministry of Economy, Trade and Industry
"Basic Guidelines relating to Calculation of Greenhouse Gas Emissions in Supply Chains"

New! This mark is used to indicate new action begun in FY2013 and information disclosed for the first time in this year's report.

Environmental management	E_01
Environmentally considerate development and design	E_09
Prevention of global warming	E_10
Effective use of resources	E_13
Control and reduction of environmentally burdensome substances	E_17
Biodiversity conservation	E_18
Appendix	E_20

Environmental data for each operation base of the JTEKT group can be viewed on the JTEKT website.

http://www.jtekt.co.jp/e/csr/env_data.html

Environmental management

Social background

Corporate activities influence the world environment on a wide scale. An increasing number of destructive storms due to climate change are some of the various risks and chances companies themselves must face. A level of environmental consideration, from a comprehensive perspective, is demanded of companies that wish to expand their business worldwide.

JTEKT's concept

For sustainable development of the planet

To realize our corporate philosophy of "contributing to the happiness of people and the abundance of society through product manufacturing, the JTEKT group has positioned the environment as one of the main management issues and is involved in action which contributes to the sustainable development of society and the planet. We are greatly aware of the impact corporate activities have on the environment, and are working proactively to tackle matters of high importance.

JTEKT Group Environmental Vision

▶ Figure-01

Based on the CSR policy, JTEKT established the JTEKT Group Environmental Vision comprised of an environmental philosophy and policy defining global environmental conservation action. We aim to achieve a sustainable society, establishing an action plan and promoting activities to achieve this goal.



Promotion structure

Under the Global Environmental Conservation Committee

▶ Figure-02

JTEKT engages in environmental management led by the Global Environmental Conservation Committee chaired by our company president. The committee is divided into five specialized environmental subcommittees to be able to flexibly address issues relating to business activities. The subcommittees set targets based on company-wide policies as well as discuss and decide upon measures and control progress.

Reorganized structure for specialized environmental subcommittees

In FY2013 we changed the organizational structure of the specialized environmental subcommittees. The activities by the "Pollution Subcommittee" on biodiversity conservation and management of PCB disposal have been fused with the activities of the "Environmental Risk Social Contribution Subcommittee" as a part of activities for compliance with laws and regulations and for societal contribution.

Environmental management

▶ Figure-01 JTEKT Group Environmental Vision

Environmental Philosophy

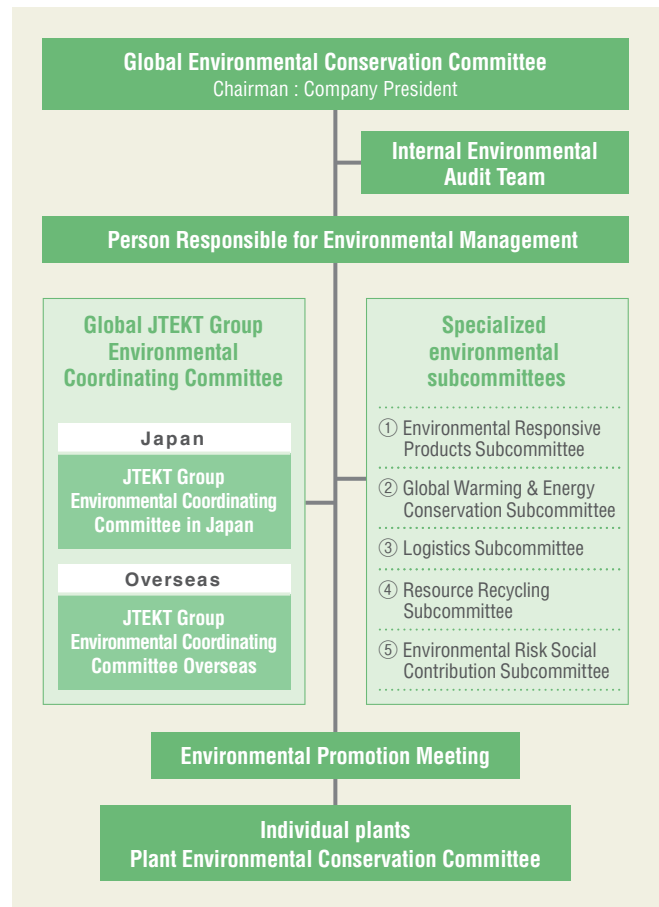
The JTEKT group is aiming to reduce the environmental load of our business activities and products throughout their life-cycle in order to conserve the global environment for future generations and realize a sustainable society.

Environmental Policy

JTEKT, based on a deep awareness of the importance of global environmental conservation, will proactively pursue environmental conservation in all business activities in the fields of bearings, driveline components, steering systems, and machine tools & mechatronics at all plants, head offices and sales offices with the active participation of all employees.

1. Continuously improve our environmental management system to harmonize our business activities with the environment and promote the cooperation of all suppliers of raw materials, etc.
2. Comply with all requirements of environmental laws, regulations, treaties, agreements, etc., related to our business activities and strive to prevent environmental pollution. Also, contribute to society by accurately grasping technical needs related to global environmental conservation and developing products to meet such needs.
3. Raise the environmental awareness of all employees and pursue the following as important environmental management objectives in relation to all our business activities, products and services
 - (1) Develop and design environmentally friendly products
 - (2) Reduce CO₂ emissions through effective energy utilization
 - (3) Reduce waste
 - (4) Thoroughly control chemical substances and reduce environmentally burdensome substances
 - (5) Reduce primary materials and secondary materials
 - (6) Reduce CO₂ emissions in logistics
 - (7) Maintain and improve community environments
4. Maintain an environmental conservation promotion structure, clarify the purposes and targets of environment conservation activities, conduct periodic reviews, and pursue environmental conservation activities with the participation of all employees.
5. Maintain an awareness of the community surrounding each business site, maintain good communication with concerned government agencies and local residents, and publicly disclose information on our environmental management activities as necessary.

▶ Figure-02 Organizational chart



Promotion of global environmental management

The target companies of the JTEKT group was reviewed in FY2013 and expanded to include the 21 Group companies in Japan, and 40 Group companies overseas. We are currently working to further strengthen our environmental management.

→ E_20 Appendix-01

Environmental management

Targets and results

JTEKT Environmental Action Plan 2015 Environmental Action Plan

▶ Figure-01

JTEKT has formulated a 2015 Environmental Action Plan stating initiatives and concrete objectives to promote the environmental preservation activities of JTEKT, JTEKT group companies, and JTEKT suppliers.

In FY2013, the first year for step 2, we conducted activities to be achieved in 2015. Regarding CO₂ emissions, we have improved our CO₂ emission base units by 5% compared with FY2008, achieving our target for FY2013. We are currently promoting ac-

tivities for achieving the government target of 2020, and continue to contribute to the realization of international society's goal of cutting greenhouse gases to half of what they were in 2000 by the year 2050.

▶ Figure-01 2015 Environmental Action Plan

Area	Action items	Targets and initiatives	FY2013 results of activities	Evaluation	Related pages
Environmental management	(1) Strengthen and promote consolidated environment management	(1) Share the JTEKT Group Environmental Vision	(1) Continued activities with group companies in Japan and overseas (2) Held Environmental Coordinating Committee sessions	○	E_01 E_02 E_07
	(2) Promote environmental activities in cooperation with business partners	(1) Further promote green purchasing (2) Roll out environmentally friendly purchasing guidelines to business partners	(1) Expanded Green Purchasing Guidelines		S_04
	(3) Promote sustainable plant activities	(1) Introduced of reusable energy (2) Promoted plant greenification	(1) Introduced 50 kW of solar power generation to our Tokushima plant (2) Introduced 5 kW of solar power generation to our Iga Proving Ground		E_12
	(4) Promote environmental education activities	(1) Promote education with the objective of improving environmental awareness	(1) Environmental education in Environmental Month (2) Rank-specific education		E_08
Develop and design environmentally friendly products	(1) Develop new technology and new products leading to environmental burden reduction	(1) Reduce the environmental burden of new products through an environmental efficiency basic formula (2) Promote recycle design (3) Promote life cycle assessment (LCA) activities	(1) Developed a general purpose cylindrical grinder (GE4i)	○	Message P6~11 E_09
	(2) Reduce resource consumption		(2) Developed a 3rd generation ITCC utilizing a new high performance electromagnetic clutch		
	(3) Promote recycle design considering effective resource use		(3) Developed a 3rd generation tapered roller hub unit		
	(4) Roll out environmental assessments in the design and development phases				
	(5) Control and reduce environmentally burdensome substances contained in products		(1) Promote response to chemical substance regulations		

Environmental management

* Values in square brackets are comparisons with the base year

Area	Action items	Targets and initiatives	FY2013 results of activities	Evaluation	Related pages																
Reduce CO ₂ emissions	(1) Reduce CO ₂ in production and logistics ● Global reduction of CO ₂ ● Reduction of CO ₂ in logistics	Production (1)Promote CO ₂ reduction activities through the development and introduction of low CO ₂ production technologies and daily improvements (2)Horizontal deployment of energy-saving improvement cases (3)Visualization of energy	<table border="1"> <thead> <tr> <th>Item</th> <th>FY2015 target</th> <th>FY2013 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>CO₂ emissions</td> <td>FY2015 basic unit target × production volume</td> <td>240,223 t-CO₂</td> <td>240,024 t-CO₂ [-]</td> </tr> <tr> <td>Emissions by in-house production volume</td> <td>145.0 t/100 mill yen</td> <td>Down 7% from FY2008 148.1 t/100 mill yen</td> <td>148.1 t/100 mill yen [Down 5.0%]</td> </tr> <tr> <td>Globally Emissions by in-house production volume</td> <td>166.4 t/100 mill yen</td> <td>Down 3% from FY2012 169.9 t/100 mill yen</td> <td>169.0 t/100 mill yen [Down 1.5%]</td> </tr> </tbody> </table>	Item	FY2015 target	FY2013 target value	Results	CO ₂ emissions	FY2015 basic unit target × production volume	240,223 t-CO ₂	240,024 t-CO ₂ [-]	Emissions by in-house production volume	145.0 t/100 mill yen	Down 7% from FY2008 148.1 t/100 mill yen	148.1 t/100 mill yen [Down 5.0%]	Globally Emissions by in-house production volume	166.4 t/100 mill yen	Down 3% from FY2012 169.9 t/100 mill yen	169.0 t/100 mill yen [Down 1.5%]	○	E_10 E_11
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		Logistics (1) Reduce CO ₂ through transportation improvements	<table border="1"> <thead> <tr> <th>Item</th> <th>FY2015 target</th> <th>FY2013 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>CO₂ emissions</td> <td>13,300 t-CO₂</td> <td>Down 16% from FY1990 13,430 t-CO₂</td> <td>14,330 t-CO₂ [Down 10%]</td> </tr> <tr> <td>Emissions by sales</td> <td>2.39 t/100 mill yen</td> <td>Down 15% from FY2006 2.45 t/100 mill yen</td> <td>2.24 t/100 mill yen [Down 21%]</td> </tr> </tbody> </table>	Item	FY2015 target	FY2013 target value	Results	CO ₂ emissions	13,300 t-CO ₂	Down 16% from FY1990 13,430 t-CO ₂	14,330 t-CO ₂ [Down 10%]	Emissions by sales	2.39 t/100 mill yen	Down 15% from FY2006 2.45 t/100 mill yen	2.24 t/100 mill yen [Down 21%]	△	E_12				
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Reduce waste	(1) Promote thorough reduction of waste through countermeasures focusing on the source of the waste (2) Achieve zero emissions in all JTEKT group plants (JTEKT itself achieved zero direct landfill waste in FY2009 and is continuing to aim for zero waste production in other areas)	Production (1) Reduction of emissions through countermeasures focusing on the source (2) Promotion of a shift to valuable resources (3) Reduction of emissions through using less and reusing	<table border="1"> <thead> <tr> <th>Item</th> <th>FY2015 target</th> <th>FY2013 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Emissions by in-house production volume</td> <td>7.1 t/100 mill yen</td> <td>Down 15% from FY2008 7.45 t/100 mill yen</td> <td>6.7 t/100 mill yen [Down 20%]</td> </tr> <tr> <td>Direct land-fill waste</td> <td colspan="2">Zero</td> <td>Zero</td> </tr> </tbody> </table>	Item	FY2015 target	FY2013 target value	Results	Emissions by in-house production volume	7.1 t/100 mill yen	Down 15% from FY2008 7.45 t/100 mill yen	6.7 t/100 mill yen [Down 20%]	Direct land-fill waste	Zero		Zero	○	E_14				
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Effective use of resources	(1) Reduce waste in production/ water usage and effectively use resources	Waste (1) Reduce stock removal and improve yield through design and technique changes (2) Countermeasures targeting point of origin, reduction	Waste by in-house production volume Results 37.4 t/100 mill yen Waste by water usage Results 1.62 t/100 mill yen	-	E_13 E_16																
		Water usage (1) Promote recycling, water conservation and waste reduction																			
Reduce primary materials and secondary materials	(1) Reduce environmentally burdensome substances in production activities	(1) Substitution with products that don't contain substances subject to PRTR	(1) Release and transfer of substances subject to the PRTR: 37.3 t	○	E_17																
Preserve and improve the global environment, forge communication	(1) Enforce preventative measures for environmental problems and observe regulations	(1) Ongoing efforts for zero environmental regulation violations and claims from residents through the strengthening of daily control tasks	Environmental accidents: 1 Late reports of accidents: 1		E_08 E_17																
	(2) Build good relationships with local residents	(1) Promote environmental conservation activities around plants (2) Build good relationships with local residents and councils	(1) Clean-up activities around plant (2) Held environmentally-related discussions with local community		E_17 S_15 S_16 S_18																
	(3) Proactive disclosure of environmental information and enhancement of communication activities	(1) Enhance and continue issuance of CSR reports (2) Provide more environmental information	(1) Issued CSR report 2013	△	S_15																
	(4) Action for biodiversity	(1) Promote activities based on our Biodiversity Conservation Action Guidelines	(1) Conservation of sea turtles (2) Activities for preservation of woodland areas (3) Installation of a biotope		E_18 E_19 S_16 S_18																

Environmental management

Environmental impact on business activities

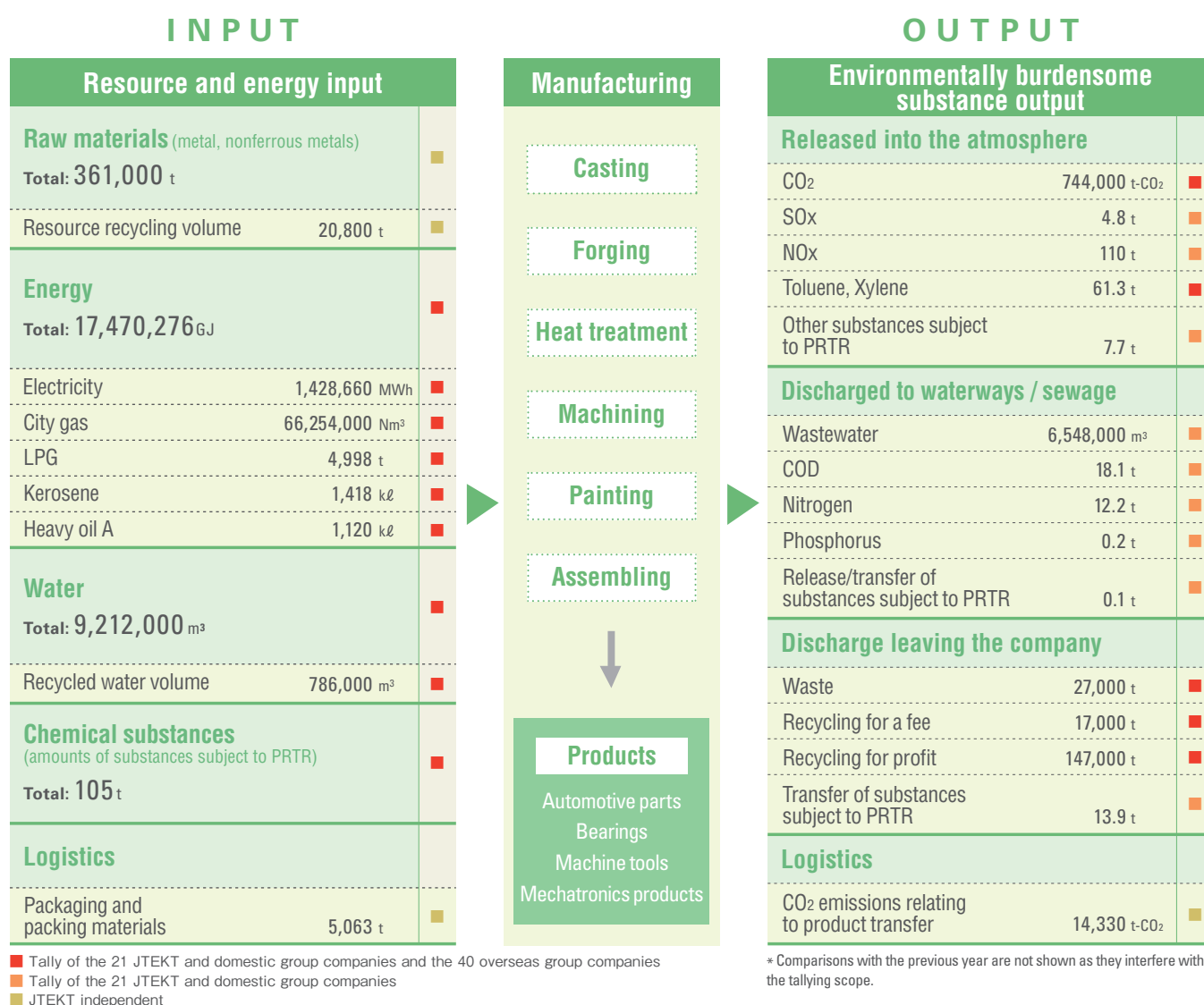
Reduction of environmental burden in all stages

JTEKT strives to quantitatively grasp resource and energy amounts used (input) and amounts discharged into the environment (output) and reduce environmental burden in all business activity stages.

Resource and energy input versus environmentally burdensome substance output ▶ Figure-01

The table below shows the resource and energy input versus environmentally burdensome substance output for FY2013. To minimize the impact our business activities have on global warming, JTEKT is working to reduce the amount of energy used in all our processes, including casting, forging, heat treatment, machining processes and so forth. We also make efforts to convert to more efficient energy such as electricity and city gas.

▶ Figure-01 Resource and energy input versus environmentally burdensome substance output



Heavy oil A: Among the three classes (A, B, C) of heavy oil, heavy oil A is the closest to kerosene and is used as fuel for boilers or heating.

GJ: Giga-joule (heat quantity unit), G=10⁹

PRTR regulation: "PRTR" is an abbreviation for Pollutant Release and Transfer Register, which is a system announced by the government for reporting the amount of chemical substances released or transferred.

COD: Chemical Oxygen Demand (water quality index)

Charged recycling: Pay a processing fee to recycle.

Environmental management

CO₂ emissions for the overall supply chain ▶ Figure-02

JTEKT has calculated the amount of CO₂ emissions based on guidelines established by the Ministry of the Environment and Ministry of Economy, Trade and Industry (*1). We are currently working to reduce CO₂ emissions from the supply chain, JTEKT business activities, and the use and disposal of products sold. The below table shows the results of FY2013.

→ E_20 Appendix-02

*1 Guidelines established by the Ministry of the Environment and Ministry of Economy, Trade and Industry Basic guidelines relating to calculation of greenhouse gas emissions produced in the supply chain.

▶ Figure-02

CO₂ emissions for the overall supply chain

Scope(*2)	Emissions(t-CO ₂)	Remarks
Scope 1 (Self-produced direct emissions)	47,700	Self-produced emissions through using city gas and other fuels
Scope 2 (Indirect emissions produced by own energy source)	192,300	Emissions produced due to using electricity purchased by JTEKT
Scope 3 (Other indirect emissions)	1,011,300	Emissions produced by related activities such as raw material purchasing, disposal and distribution

*2 Scope The calculation scope for greenhouse gas emissions stipulated by the GHG Protocol Initiative which prepares the global guidelines for calculating and reporting greenhouse gas emissions.

Environmental accounting

Cost and results appraisal

▶ Figure-03

By quantitatively appraising the cost and results of environmental conservation activities, JTEKT is constantly making improvements effectively and efficiently. We use environmental accounting to provide information to our stakeholders on JTEKT's environmental conservation activities. The tally system is in accordance with the Ministry for Environment's Environmental Accounting Guideline.

Environmental accounting results for FY2013

Environmental conservation costs for FY2013 were 1.52 billion yen in investments and 3.41 billion yen in management costs, adding up to a total of 4.93 billion yen. This was an increase of 240 million yen (5%) from the previous year. The main investments were in measures to prevent underground seepage of oils and establish energy-saving countermeasures.

▶ Figure-03

Environmental conservation costs

(Million yen)

Type	Details	Investment	Cost
[1] Business on-site costs	● Service & upkeep of environmental equipment	237	251
① Pollution prevention costs			
② Environmental conservation costs	● Measures for energy conservation	204	71
③ Resource recycling costs	● Waste processing, recycling	77	398
[2] Upstream and downstream costs	● Green purchasing	—	38
[3] Management activity costs	● Environmental monitoring, measurements, etc.	4	151
[4] R&D costs	● R&D of environmentally friendly products	1,002	2,428
[5] Social activities costs	● Disclosure of environmental information, greenification, etc.	—	63
[6] Environmental damage costs	● Soil and groundwater restoration	—	5
Total		1,524	3,405
Gross amount		4,929	

Economic benefit of environmental conservation measures

(Million yen)

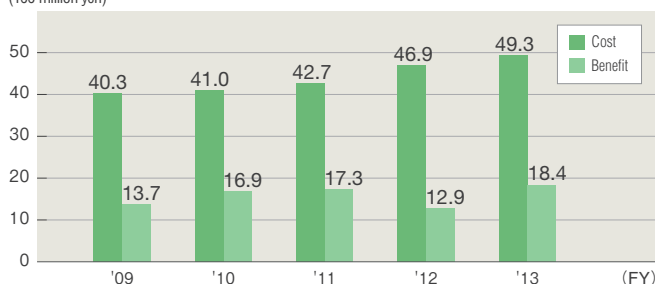
Details of benefits	Economic benefit
Profit from recycled material sales	1,282
Energy-cost reduction from promoting energy conservation	508
Reduction of waste processing costs	46
Total	1,836

Benefits towards material amount reduction from environmental conservation measures

Details of benefits	Benefits towards material amount reduction
Energy consumption (t-CO ₂)	18,800
Waste output (t)	2,310

Cost and benefits of environmental conservation measures

(100 million yen)



It is not possible to calculate the economic benefits brought about by environmental conservation measures such as increased product value, avoiding environmental risk and improving corporate image. We have only calculated items which can be accurately appraised such as energy-savings benefits, etc.

Calculated area : JTEKT Corporation (including some group companies within workplaces)

Calculated period : FY2013 (April 2013 to March 2014)

Environmental management

Major activities in FY2013

JTEKT Group Environmental Coordinating Committees

In FY2013 we hosted the JTEKT Group Environmental Coordinating Committee at domestic and overseas Group companies. Each year, policies for the overall Group and targets are shared in order to strengthen our efforts.

Domestic JTEKT Group Environmental Coordinating Committee

As JTEKT expanded the number of domestic Group companies to 21 in FY2013, we have increased the holding of the JTEKT Group Environmental Coordinating Committee from 2 times to 3 times a year. We are advancing activities for CO₂ reduction, waste reduction, and environmental disturbance prevention.

In April 2013, a committee session was held for the executives in charge of the environment at domestic Group companies, and action policies for achieving the 2015 targets of the 2015 Environmental Action Plan were shared. In July and December of 2013, in addition to reporting and discussing our performance up until now and future efforts, on the plant tour, risk countermeasures such as environmental equipment were confirmed in an effort to improve environmental conservation countermeasures.



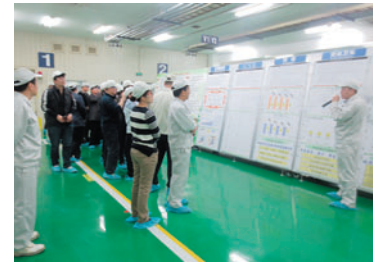
Domestic JTEKT Group Environmental Coordinating Committee held on July 17th

Overseas JTEKT Group Environmental Coordinating Committee in Japan

In February 2014, an Environmental Coordinating Committee was held in which the representatives of JTEKT overseas Group companies participated. As with the domestic committee gathering, participants shared action policies aimed at achieving 2015 goals, and furthered activities for improvement. We will build a consolidated environmental audit system to bring the enforcement of compliance to a new level.

China Safety and Health Environment (EHS) Section Meeting

JTEKT held a meeting in China concerning safety, health and the environment during September 2013 and March 2014. Environmental activities and issues at each Group company in China were reported, and mutual environmental awareness was improved through the implementation of inspection tours both inside and outside of plants. Meetings will be held at each Group company in turn for brainstorming based on the idea of “genchi genbutsu” and to proactively engage in furthering environmental activities.



China EHS Section Meeting held on March 21st

Zhang Xian
JCC (China)

My
CSR

Aiming for zero work-related accidents and zero environmental accidents!



Safety and health environment (EHS) activities were begun at JCC in 2013, targeting Group companies within China. As it is my job to coordinate EHS, I work to gather personnel in charge of EHS at each company to host the EHS Section Meeting twice a year. I do my best to promote themed activities and exhibitions on disaster and accident information, for the purpose of achieving “zero work-related accidents” and “zero environmental accidents”. I also conduct exchanges between Group companies.

I strongly believe that to accomplish zero work-related accidents and zero environmental accidents, it is most important that we improve awareness among the 5,200 JTEKT employees in China. I am engaged in EHS activities to ensure that all employees “come to work happy, and leave work without incident” each day, as is written on the safety gate.

Environmental management

Reducing environmental risk

Environmental accident prevention activities **New!**

To prevent environmental accidents, we share countermeasures implemented in response to incidents occurring both internally and externally for similar equipment. Moreover, we have set internal standards (*1) more stringent than regulations in order to observe environmental legislation, treaties and convention levels and manage these standards thoroughly.

In addition, to prevent exceeding internal standards, we have set "action standards" as management values to implement measures whenever it is confirmed that measurement values are in an upward trend. The point in time to take action has conventionally been the discretion of the person in charge at the actual site; however, we aim to achieve zero environmental accidents by newly establishing judgment standards.

***1 Internal standards** JTEKT's final affluent internal standards are 80% of regulatory requirements.

Legal compliance with environmental legislation

In FY2013, heavy rains from a typhoon caused an external leak of sewage at JTEKT and Group companies. This incident was reported to the proper authorities and corrective actions were completed. In addition to identifying the cause and implementing countermeasures, we will share information with other plants and Group companies, and continue our efforts towards accident prevention through the deployment of countermeasures.

Other than the environmental accident just described, in FY2013 there were 2 instances of environmental near-miss incidents (*2), 2 reports concerning noise, and 1 delay regarding legal notification. A companywide countermeasure meeting will be held and compliance enforced in order to prevent reoccurrence of any of these incidents. Excluding the matters written above, there were no cases exceeding environmental regulation values or internal standards, nor were there any environmentally-related lawsuits, penalties, or fines.

***2 Environmental near-miss incidents** Incidents that had only a slight impact on the environment and were handled within the area they occurred in.

Environmental patrols by the plant manager

As part of our Environmental Month every June, managers of each plant conduct environmental patrols. In FY2013, we confirmed the appropriate management of hazardous material storage locations, implementation of daily inspections of environmental facilities, and recurrence prevention countermeasures for environmental accidents/close calls that occurred at JTEKT plants in the past.



Environmental patrol (Nara plant)

Emergency drills

In preparation for various environmental accidents, emergency training is carried out regularly at each plant. Following on from FY2012, in FY2013 also, emergency training assuming abnormal occurrences such as tank oil leaks, etc. was carried out. Emergency training was also carried out for nightshift workers assuming that emergency situations could also occur at night.



Emergency drills (Sayama plant)

Environmental audits

Internal audits

JTEKT conducts internal audits annually to confirm the operational status of our environmental management system and observance of legislation. We correct all issues identified in this audit.

External audits (ISO14001)

JTEKT was subjected to an ISO14001 surveillance inspection in April of 2014. As a result, there were 0 cases of non-conformity, and our environmental management system conformed to standard requirements and was deemed as being carried out effectively. However, 4 cases were identified as having room for improvement, therefore the departments which should handle these were specified and corrections are being made.



Specialized environmental subcommittee inspection

Environmental education

Environmental awareness education

During Environment Month in June of 2013, environmental awareness training was held for all employees utilizing e-learning. The theme for this month's training was "Eco-change! Learn on your own and practice on your own (Environmental compliance strengthening)", and approximately 6,100 employees participated in the course.

VOICE

Activities for obtaining ISO14001 certification

Along with the completion of a new plant, JAAR (Argentina) has formed an ISO team and begun actions towards the obtainment of ISO14001 certification in March of 2015. These actions focus on quality control and general affairs, though the human resources, casting, production administration, and finance and accounting departments will also participate, working together as one plant to advance towards their goal. JAAR has scheduled the production of hydraulic power steering gears for the next world car planned for the latter half of 2015, and will continue to proactively promote energy-saving by improving production efficiency, and reduce waste.

The JAAR ISO team



Environmentally considerate development and design

Social background

The influence of product usage on the environment is deeply related to the development and design phases of the product. To reduce the environmental burden, companies must be the first in society to develop technology which alleviates the environmental burden, and work to create product design which makes reusing and recycling easy.

JTEKT's concept

Improve each product from every angle

JTEKT, in line with our corporate philosophy of "contributing to the happiness of people and the abundance of society through product manufacturing", develops and designs environmentally-friendly products. We believe that JTEKT's products and technologies provide environmental countermeasures for our customer's products and manufacturing processes and as such, greatly contribute to the environment. Therefore, we strive to improve the environmental performance of each product throughout the entire product life cycle, and are producing results which will contribute to the prevention of global warming and the effective use of resources.

Promotion structure

Promotion by the Environmental Responsive Products Subcommittee

Under the guidance of the Global Environment Conservation Committee, which unites companywide environmental conservation activities, the Environmental Responsive Products Subcommittee is promoting the development of environmentally-friendly products together with domestic Group companies. Innovative technology is used in the de-



My CSR

Kiyotaka Kinoshita
Automotive Systems Business Headquarters
Engineering Planning Dept. Engineering Planning Office

Take it easy Spreading environmental improvement awareness

My place of work mainly supports the development and design of drive unit parts for cars. Those in charge of development and design are engaged in fierce price competition with rival companies, competing ruthlessly for high performance and compactness. At the same time, they must work to promote environmental design which cuts CO₂ throughout the entire product life cycle. Through 3R (*) activities, we will make people understand that it is a product's high performance and small size that truly lightens the environmental burden. We will help ease environmental concerns as well through the environmental preservation improvements we propagate.

*3R Originating from the first letters of Reduce, Reuse and Recycle, 3R is a concept expressing the order of priority for waste handling.

velopment and design stages to make products smaller, lighter, and more efficient, and reduce the amount of environmentally burdensome substances and raw material usage. In this way, JTEKT is engaging in environmental conservation on a global scale.

Assessment method

JTEKT has established an original environmental efficiency basic equation to serve as an index in quantitatively assessing environmental load reduction benefit. The larger the value, the greater the environmental load reduction benefit is. Each year JTEKT sets higher environmental efficiency targets and works to reach them while monitoring progress.

Environmental efficiency basic equation and environmental efficiency value calculation

Environmental efficiency is a value calculated based on the degree of lightness, compactness, energy-savings, etc. The environmental efficiency value is calculated by dividing the environmental efficiency of the assessed product by that of the standard product.

Environmental efficiency

$$\frac{\text{Product performance}}{\text{Product environmental load}} = \frac{1}{\sqrt{W^2 + T^2 + E^2}}$$

W : Mass T : Loss E : Energy

Calculation of environmental load reduction effect

As the environmental load reduction effect, it is possible to seek environmental load reduction ratio more than the environmental efficiency value. For example, if the environmental efficiency value was 1.25, that product's environmental load reduction benefit would be 20%. A reduced environmental load is sought as the reverse of the environmental efficiency value.

Environmental efficiency value

$$\frac{\text{Environmental efficiency of assessed product}}{\text{Environmental efficiency of standard product}}$$

Environmental load reduction ratio

$$\left(1 - \frac{1}{\text{Environmental efficiency value}} \right) \times 100$$

Evaluation of the 3 products shown in "Message"

→ [Message] P7・8・10 Related article

Developed product name	Environmental burden reduction percentage
General purpose cylindrical grinder GE4i	10.0%
3rd generation ITCC	32.0%
3rd generation tapered roller hub unit	5.0%

Group company activities

JTEKT conducts environmental design activities with intimate interaction between each operations headquarters and Group companies. Through creative ideas from the design stage, products of the JTEKT group are contributing to the world environment.

Main measures

Domestic Group companies Toyooki Kogyo Co., Ltd.

Power reduction for hydraulic units

A hydraulic pump is utilized within the hydraulic units used in workpiece clamps, etc. of machine tools. At Toyooki Kogyo Co., Ltd., efforts to improve this hydraulic pump have thoroughly decreased the size of internal parts, leading to the reduction of energy loss due to friction, and reduced internal leaks through pressure balance optimization. By improving machine efficiency, power usage was reduced by 18% percent.



Prevention of global warming

Social background

In 2013, the latest report by the UN Intergovernmental Panel on Climate Change (IPCC) stated that there is a 95% chance that global warming is caused by human activity. While the world aims to reduce greenhouse gas emissions, it is important that companies redouble their efforts to curb indirect emissions as well as direct emissions.

[→ E_06 Related article](#)

JTEKT's concept

Reducing CO₂ emissions across all processes

In order to help prevent global warming, JTEKT engages in activities to reduce CO₂ emissions in the production and transportation of products. All Group companies, both in Japan and overseas, promote energy-saving methods and the use of reusable energy throughout all processes from product design to delivery.

Stabilization of power supply and demand

In order to continuously counter power shortages, JTEKT proactively engages in energy-saving activities such as introducing even better energy-saving equipment in addition to introducing our own power generation based on a plan up until 2015. By supplying our own power, we can continue stable business activities, suppress demand for purchased power, as well as contribute to the stabilization of supply and demand.

[→ \[Message\] P13 Related article](#)

Reducing CO₂ emissions in production

Reducing domestic CO₂ emissions

[▶ Figure-01](#)

JTEKT is working to reduce the base units of CO₂ emissions by 7% compared with FY2008, the target we have set for FY2015. The base units of CO₂ emissions in FY2013 were 148.1 tons/100 million yen, achieving our goal. We have reduced our CO₂ emission amount by 18,800 tons through energy-saving reforms; however, emissions have actually risen by 4.2% (9,800 tons) due to a 4.5% rise in production.

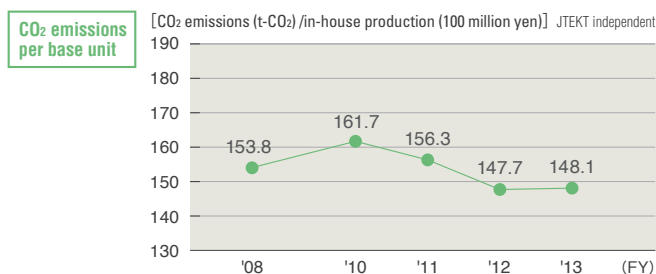
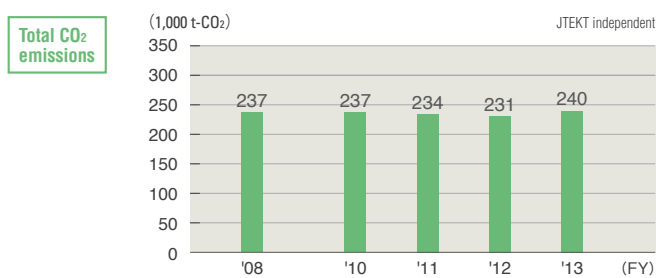
Reduction of global CO₂ emissions

[▶ Figure-02](#)

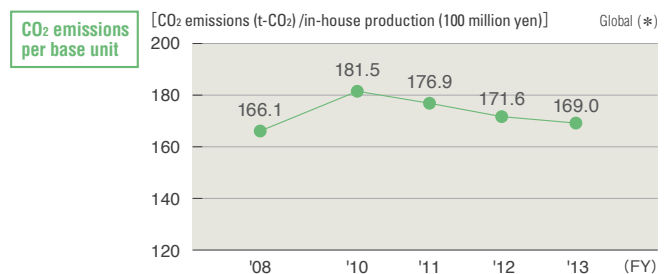
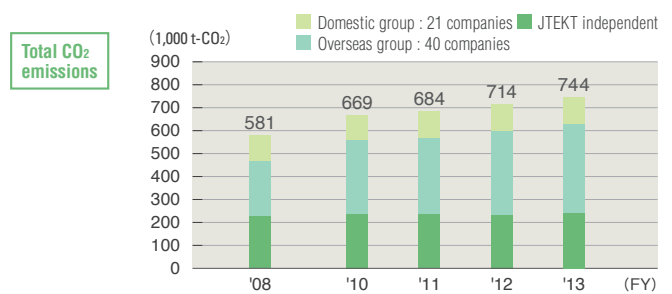
With an aim to minimize the impact of our global production operations on global warming, JTEKT is working to reduce CO₂ emissions not only within JTEKT but also at its Group companies in Japan and overseas.

In FY2013, we achieved a 1.5% base unit reduction. We will continue to improve productivity in order to prevent global warming and improve production efficiency as a group on the whole.

[▶ Figure-01](#) Transition of total and per base unit CO₂ emissions in production



[▶ Figure-02](#) CO₂ emissions (global and base unit)



*JTEKT + 21 domestic group companies + 40 overseas group companies

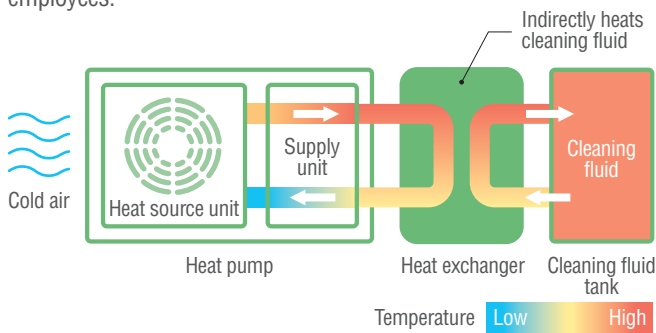
* There were 17 domestic Group companies before FY2011 and 32 overseas Group companies before FY2009.

Prevention of global warming

Main measures

Heat pump for the washing machine heater

At the Okazaki plant, there is a process for washing parts before product assembly. To dry the washed parts quickly, the cleaning fluid is warmed with a heater. An indirect method for heating the cleaning fluid was introduced after studying the application of the technology within heat pump water heaters used in general households. As a result, the fluid could be heated using approximately 30% the power consumption of conventional heaters. This reduced annual power consumption by 34,000 kWh, and cut annual CO₂ emissions by approximately 13 tons. Also, the workplace is cooled by utilizing the air exhaust from the endothermic side, with favorable opinions from employees.

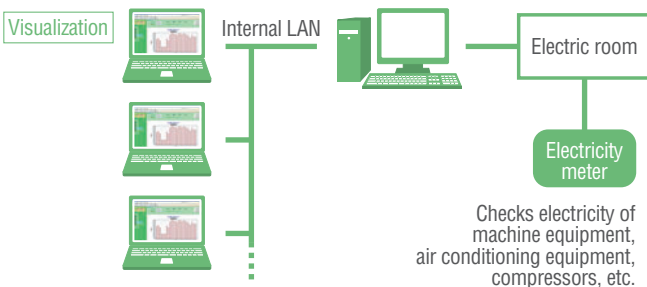


Domestic group company **Koyo Sealing Techno Co., Ltd**

Wasted energy discovered through introduction of energy monitoring system

Employees at Koyo Sealing Techno Co., Ltd. have been continuing energy-saving activities for a while, and measures have recently peaked. Because energy usage was confirmed each month by reading the meter, energy-saving measures were slowed, and issues were difficult to spot.

Therefore, electricity meters that measure automatically were installed at each production area, and an energy monitoring system was introduced where the amount of electricity could be viewed on the Web. Through this visualization of energy usage, wasted energy was discovered within the press machines, compressors, groundwater pumps, and other devices. Reforms have reduced CO₂ emissions by an annual 7.3 tons.



- [Functions]
- ① Data collection function ▶ Automatically collects data.
 - ② Database function ▶ Builds with collected data.
 - ③ Visualization function ▶ Important data can be seen by personnel through the Web function.
 - ④ Analysis and ledger function ▶ Can be used on on-site computers.

In-house power generation activities

JTEKT has introduced in-house power generation focused on cogeneration in order to stabilize the supply and demand of power and provide an off-grid power source for emergencies. In FY2013, the Kokubu plant installed its 2nd cogeneration system of 1,000 kW, and the Tokyo plant utilized subsidies from the Ministry of the Environment and Ministry of Economy, Trade and Industry to fund an installation of a 930 kW cogeneration system. This brings our power generation capacity for all plants to 16,995 kW, and our in-house power generation percentage (*) to 16.2%. The installation of cogeneration into other plants that have heat treatment processes will be reviewed.



Tokyo Plant

→ [Message] P13 Related article

*In-house power generation percentage Internal power generation capacity/FY2010 peak power

TOPICS

Cogeneration award in 2013 Winner of the Outstanding Performance Award in the Industrial Division



The cogeneration system introductory example of the Kokubu plant was given the Outstanding Performance Award in the industrial division of the Cogeneration Award on February 12th, 2014. With the combination



of an absorption type refrigerating machine, the system was able to achieve a low temperature waste heat down to 60° C, and was given high evaluations.

Kokubu recognition
Process Engineering Dept. Masaru Gotou (middle)
Process Engineering Dept. Atsushi Miyazaki (back left)

Kenji Yoshida
Automotive Systems Business Headquarters
Okazaki Plant
Manufacturing Engineering Dept.
Process Engineering Section

My
CSR



Promoting energy-saving with ingenuity, starting with visualization

Various activities are being conducted to reduce energy usage at the Okazaki plant, such as productivity improvement and the introduction of high efficiency devices. An energy monitor has been installed in each area, and the plant's electricity usage and air pressure are visualized in real time so that motor power equipment can be operated in the optimum state, cutting wasted electricity. Cogeneration output is adjusted in coordination with the cast iron melting process, which consumes a high amount of power, and this enables operation at the best balance of gas and electricity.

All employees are participating together and using their ingenuity to further energy-saving activities.

Prevention of global warming

Main measures

Efforts towards renewable energy

JTEKT is proactively introducing renewable energy with small environmental burden. In FY2013, 50 kW of solar power generation was introduced at the Tokushima plant, anticipating an annual CO₂ reduction of approximately 19.3 tons. The power generated is used in the waste water treatment site and in other areas, and acts as an autonomous power source to supply electricity to the police/safety and administration buildings in case of an emergency or crisis. A 5 kW vertical shaft wind turbine has been installed at the Iga Proving Ground. Analysis of the actual usage conditions for the bearings used in wind power will help us to understand issues that occur, and will aid in new product development and design for wind power bearings. We will continue to contribute to the expansion of renewable energy as a bearing maker, and aim to have a total of over 500 kW of renewable energy at our company by 2020, as part of our determination to promote the creation of a plant in harmony with nature.

→ [Message] P9 Related article



Solar power generation (Tokushima plant)



Wind power generation (Iga Proving Ground)

VOICE Obtainment of ISO50001 certification

New!

In November of 2013, KBDE (Germany) obtained the Energy Management System international standard ISO50001 certification. ISO50001 evaluates CO₂ emission reduction results obtained from actual activities, in addition to the efforts required by Environmental Management System ISO14001 towards continual improvements.

Throughout 2013, an improvement team consisting of plant employees conducted energy-saving activities, achieving a 47% reduction in gas and electricity usage for air conditioning, compared with the previous year. These results will be shared with all employees in the monthly report to improve employee awareness. We will promote energy-saving through actions such as production line integration, and continually raise our energy use efficiency under the guidance of the Energy Management System.



KBDE improvement team



ISO50001 registration certificate

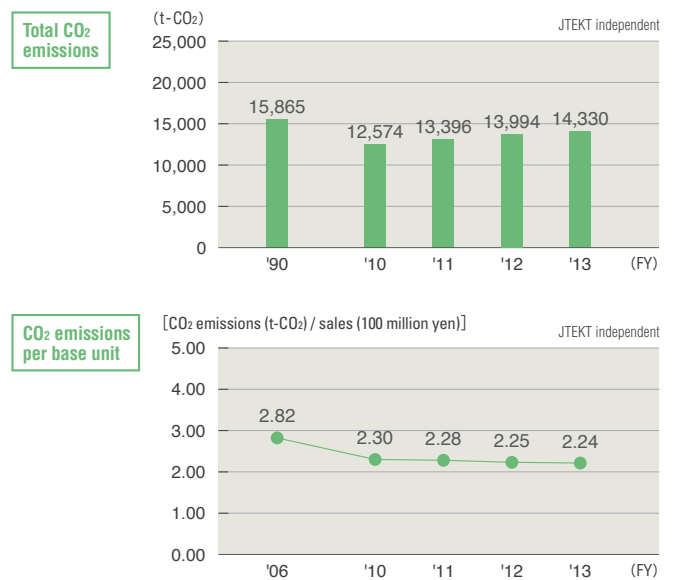
Reducing CO₂ emissions in logistics

Reduction of CO₂ through integrating product delivery shipments

In FY2013, the CO₂ emission base unit was approximately 0.5% less than the previous year at 2.24 tons/100 million yen. By integrating product delivery shipments, JTEKT reduced annual CO₂ by 70 tons. We will continue to reduce CO₂ in the future through further integration.

▶ Figure -03

Transition of total and per base unit CO₂ emissions in logistics



Effective use of resources

Social background

In pursuit of the sustainable development of the world, resource conservation is gaining in importance. Since environmental problems are worsening due to the disposal of products and packaging material after use, companies are required to increase efforts such as the reduction of raw materials consumption, recycling of parts, and suppression of waste generation.

JTEKT's concept

Responsibility as a manufacturer

At JTEKT, we consider the effective use of resources as one of the responsibilities of an environmentally-friendly manufacturer. Through making improvements and devising ideas for the production processes of each product, we strive to reduce material usage and waste output, as well as reuse and save resources.

Saving resources in production

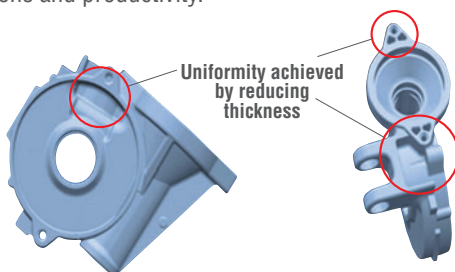
Reduction of primary material consumption

The Design Dept. and Production Engineering Dept. work together from the product design stage to improve design quality, utilizing a computer simulation. By thinning the designs straight down to the details, we manage to balance both the reduction of material consumption and the stabilization of product quality.

Main measures

Reduction of casting product materials

In developing a worm housing (a device protection part) for column-type electric power steering, product weight and material consumption have been reduced by making the housing thin and even, and decreasing allowances while maintaining product functions and productivity.



Material consumption 9% reduction

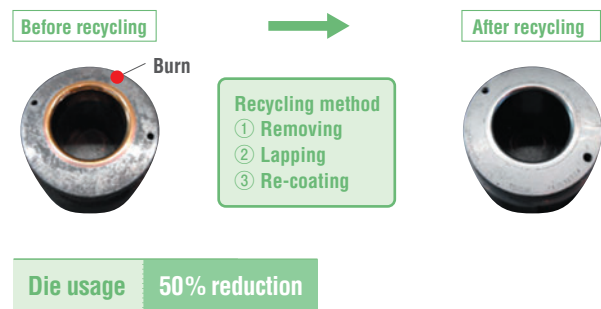
Reduction of secondary material consumption

We succeeded in reducing consumption by revising the material, shape, hardness and other specs of secondary material such as grinding wheels, cutting tools and dies and further increasing their durability. Also, we strove to promote recycling by reusing oil, grinding wheels, cutting tools and jigs.

Main measures

Reduction of usage through recycling of dies and jigs

Dies are used for the forging press. Traditionally, dies that have reached the end of their service life due to burns, damages, etc. are disposed. Usage has been reduced, however, since dies are now able to be replaced at an appropriate time, by polishing damages, removing burns, and lapping and re-coating the dies.



Effective use of resources

Waste reduction

100% recycling rate achieved

▶ Figure-01

In order to effectively utilize all industrially discharged materials, including waste, as resources, JTEKT has committed to the goal of a 100% recycling rate. As a result, we succeeded in recycling all discharged materials in November 2012 and achieved a 100% recycling rate in FY2013. We will continue to further promote 3R and engage in activities to reduce our overall waste output, including those products recycled for profit.

Main measures

Domestic group company	Koyo Heat Treatment Co., Ltd.
------------------------	-------------------------------

Zero discharge of concentrated liquid waste

Koyo Heat Treatment Co., Ltd. has actively committed to reducing industrial waste since FY2007 and succeeded in decreasing the total industrial waste output to 49 tons in FY2012, a 77% reduction compared with FY2007.

Analyzing the total industrial waste output in FY2012 revealed that the largest output came from concentrated liquid waste, with the total amounting to 20 tons, accounting for 41% of the total output. To further promote reduction, we aimed to decrease concentrated liquid waste by employing a new method that utilized the environmentally-friendly heat generated by bacteria, starting from October 2013. Although test results showed that a 3.6 ton reduction was achieved in six months, we did not officially implement it since more man-hours and space were required. We will continue to try new technologies and promote measures for continuous improvement.

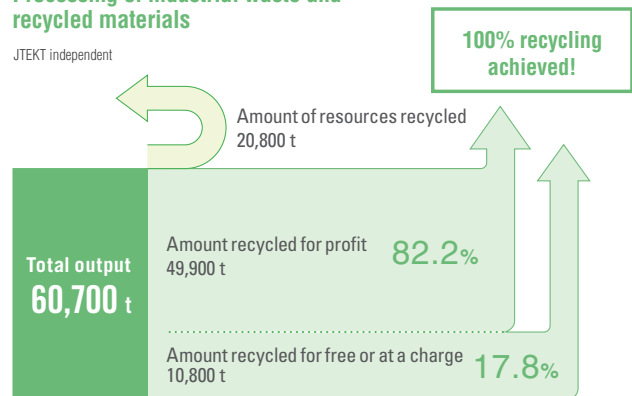


Bacteria treatment tank

▶ Figure-01

Processing of industrial waste and recycled materials

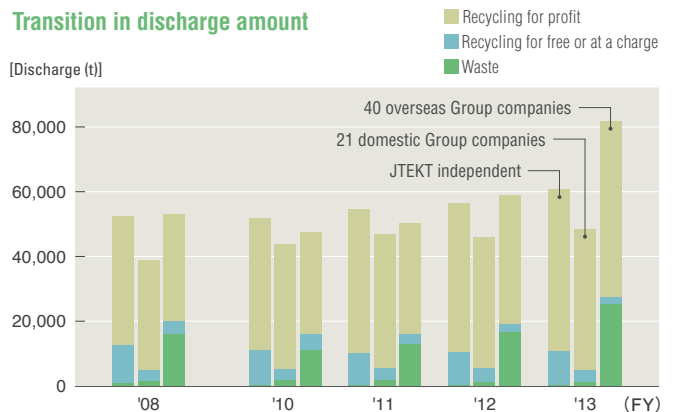
JTEKT independent



* Amount handled externally (incineration waste)
* Zero direct landfill waste

Transition in discharge amount

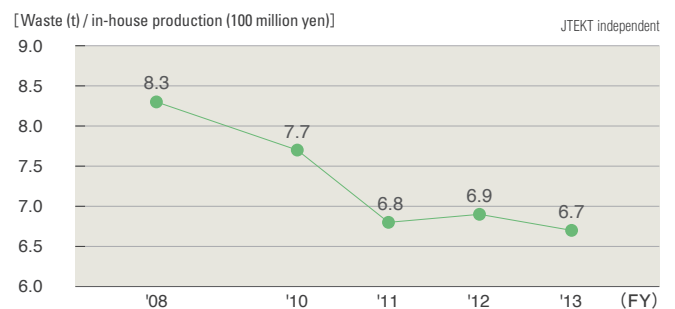
[Discharge (t)]



* There were 17 domestic Group companies before FY2011 and 32 overseas Group companies before FY2009.

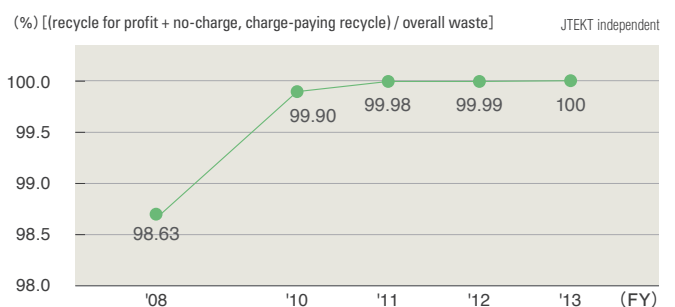
Yearly transition of waste base unit

[Waste (t) / in-house production (100 million yen)]



Transition of recycle percentage

(%) [(recycle for profit + no-charge, charge-paying recycle) / overall waste]



Eiichi Nakamori
Koyo Heat Treatment Co., Ltd.
Administration Dept.

My
CSR



Introducing a new technology to promote waste reduction

Koyo Heat Treatment, Co., Ltd. is a company specializing in heat treatment, established in 1938. We obtained ISO14001 in 2007, and all employees are working together for energy conservation and waste reduction. In particular, the waste output in FY2012 was decreased by a quarter compared with FY2007, by separating and recycling waste. Aiming for further improvement in FY2013, we attempted to implement a new technology using bacteria. We will continue to try new technologies to utilize resources effectively.

Effective use of resources

Reduction of packaging material

Reducing packaging and packing material

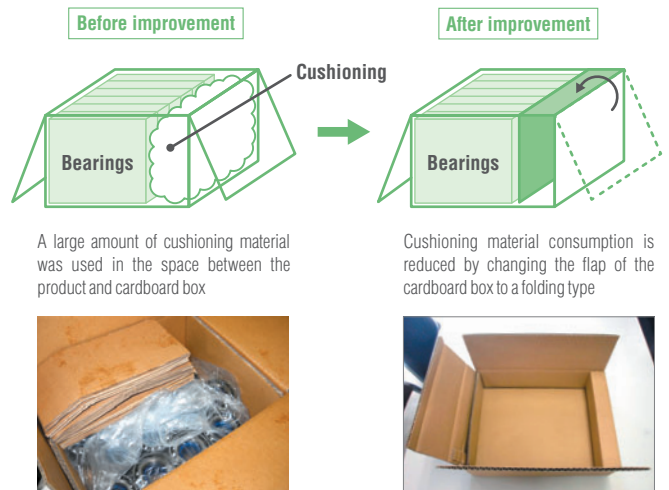
▶ Figure-01

In order to effectively use resources, JTEKT has established targets for packaging and packing material individually for wood and paper, and promotes simpler, returnable and reusable packaging. In wooden packaging, we have increased our use of returnable pallets and are promoting use of simpler wooden boxes. For paper packaging, we are engaging in various action such as shifting from disposable cardboard to returnable plastic containers, revising excessive packaging, and reducing the amount of cushioning material used by adopting cardboard boxes appropriate for the product size.

Main measures

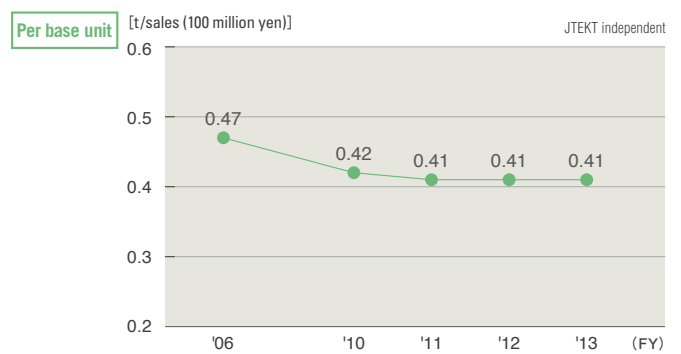
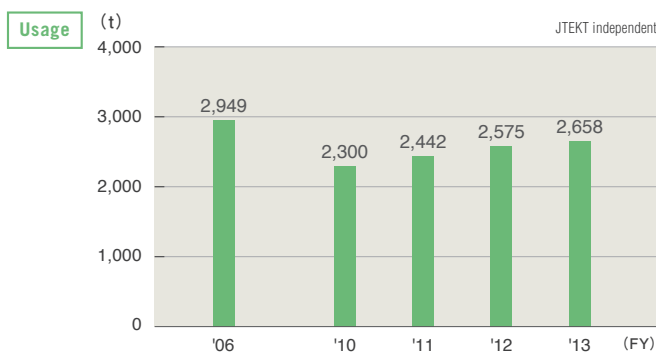
Revising excessive packaging of bearing products

By changing the cushioning material in cardboard boxes, we have reduced cushioning material consumption for bearing products by 3 tons per annum.

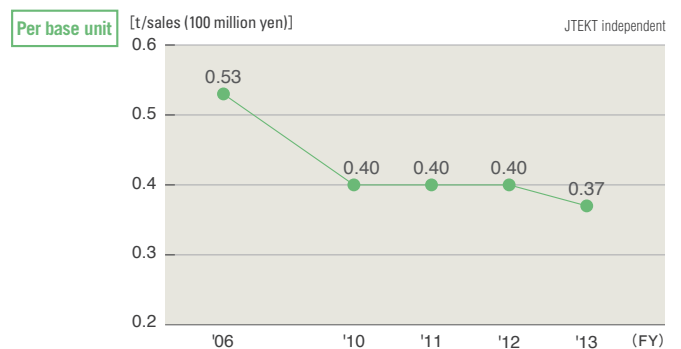
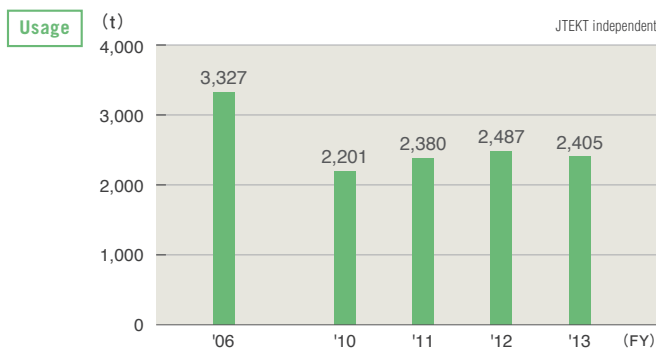


▶ Figure-01

Transition of wood packaging usage and per base unit



Transition of paper packaging usage and per base unit



Effective use of resources

Reduction of water usage

Promoting effective water usage

▶ Figure-01

To reduce the usage of water, a precious resource, JTEKT engages in activities to decrease wasteful usage and recycle water. In FY2013, we engaged in activities to improve the water usage base unit and water usage by more than 1% compared with FY2012, resulting in a 9.5% improvement in the base unit (170 m³/100 million yen) and a 6.3% reduction in usage (176,000 m³), including the increase in recycling to 786,000 m³.

We have already achieved our planned target for FY2014, an improvement 2% higher than FY2012. We will therefore continue activities toward a target of 0.5% or higher improvement compared with FY2013 results.

▶ Figure-01

Yearly transition of overall and base unit water usage



* There were 17 domestic Group companies before FY2011 and 32 overseas Group companies before FY2009.

Control and reduction of environmentally burdensome substances

Social background

More and more action is being taken to reduce the usage and discharge of environmentally burdensome substances which can negatively impact the planet's ecosystems and people's health. Society demands that corporations take autonomous action that goes beyond abiding by regulations, in order to protect the health of their employees and the community, and to maintain and expand their operations.

JTEKT's concept

For the reduction of environmentally burdensome substances

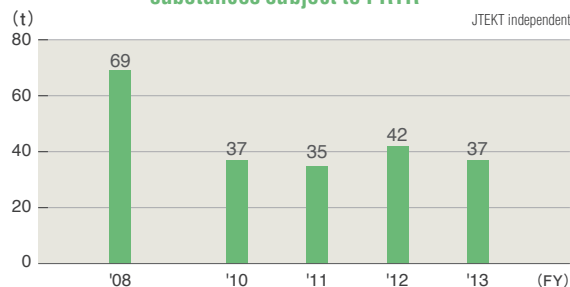
For JTEKT, who aims to be a "monozukuri company gentle on the planet", reduction of environmentally burdensome substances in production activities is one of our greatest social commitments. It goes without saying that we will observe laws and regulations, but we are also actively working to reduce output of environmentally burdensome substances to alleviate our impact on the environment as much as possible.

Control and reduction of chemical substances

Reduction of substances subject to PRTR ▶ Figure-01

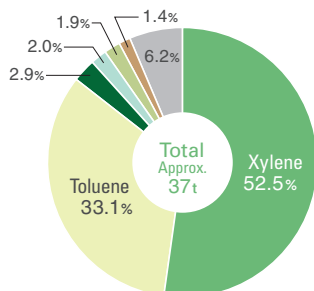
JTEKT is taking action to reduce the impact of chemical substances released into the environment from production activities on people's health and the environment. By reducing equipment through the consolidation and effective utilization of production lines, taking measures to prevent oil leakage, decreasing models that require coating through design change, and implementing powder coating,

▶ Figure-01 Yearly transition release and transfer breakdown of substances subject to PRTR



Release and transfer breakdown of substances subject to PRTR for FY2013

- 2-Amino-Ethanol
- Manganese and its compounds
- 1,3,5-trimethylbenzene
- Boron and its compounds
- Others



JTEKT is promoting reduction of the release and transfer of PRTR (*1) recognized substances.

*1 PRTR Pollutant Release and Transfer Register is a system to collect and disseminate information on environmental releases and transfer of toxic chemicals from industrial and other facilities.

Soil and groundwater measures (continued report)

Since 1998, JTEKT's Kariya and Okazaki plants have implemented ongoing measures to prevent external leaks and to purify groundwater of trichloroethylene, a substance previously used in detergent, etc. They do this using a pumping and aeration system (*2). In addition, since FY2004, the Okazaki plant has used a microbial purification system (*3) which injects nutritional supplements as part of their purification measures. JTEKT reports our groundwater measurement results to government agencies and provides local residents with explanations in community discussions. [→ S_15 Related article](#)

*2 Pumping and aeration system Groundwater is pumped up and sprayed and air is blown on it from below to aerate and separate organic solvents, which are made to adhere to activated carbon for removal.

*3 Microbial purification system This is a method of restoring contaminated environments by utilizing microbial function. The purification capability of microbes living in the environment is raised by injection of nutrients, etc.

Trichloroethylene measurement values

Environmental standard: 0.03 mg / ℓ (mg / ℓ)

Plants	Maximum measurement value in groundwater		
	FY2012	FY2013	Status
Kariya	0.552	0.772	Purifying
Okazaki	Less than 0.001	0.032	Purifying

* For plants other than the above, no trichloroethylene was detected in measurements taken in wells around the plant borders.

Proper storage and control of PCB devices



Status of PCB device treatment (Kokubu plant)

The Act on Special Measures concerning the Proper Treatment of Polychlorinated Biphenyl Waste requires the storage and notification of devices containing PCB (polychlorinated biphenyl), widely used as an insulating oil. JTEKT appropriately stores such devices and notifies government agencies in accordance with this Act. In addition, by FY2013 we rendered 199 high pressure condensers with highly concentrated PCB levels harmless through PCB treatment at JESCO (Japan Environmental Safety Corporation). We plan to complete this on the remaining high pressure condensers by the end of FY2014. JTEKT will continue to properly store 5,200 stable devices since the nation's treatment framework has not been clarified. In FY2014, we plan to treat 126 stable devices in the Tokushima plant, whose treatment framework has been clarified.

Response to devices with minute amounts of PCB

JTEKT properly stores electrical devices in which minute amounts of PCB were detected as well as devices with highly concentrated PCB. Electrical devices were previously judged not to contain PCB. Currently, the number of certified facilities for detoxifying treatment of minute amounts of PCB waste is increasing. We will promote systematic treatment after completing treatment on devices with highly concentrated PCB.

Biodiversity conservation

Social background

The diversity of living creatures on this planet is rapidly depleting, for reasons such as habitat loss resulting from the spreading destruction of nature. Corporate activities are possible thanks to the blessings of nature, but at the same time impact biodiversity greatly. That is why it is important that corporations are proactively involved in biodiversity conservation activities such as protecting the natural habitat.

JTEKT's concept

Aiming for harmony with biodiversity

JTEKT believes biodiversity conservation to be a critical social issue supporting life and lifestyle. As such, each and every employee participates in environmental conservation activities based on the JTEKT Group Environmental Vision, to achieve harmony between our business activities and biodiversity.

Actions for Biodiversity Conservation

Under the Biodiversity Conservation Action Guideline ▶ Figure-01

In order to reduce the environmental burden created by our business activities and consider biodiversity, JTEKT established a Biodiversity Conservation Action Guideline in March of 2011 based on the 2015 Environmental Action Plan of the JTEKT Group Environmental Vision. This guideline was established with reference to the Ministry of the Environment's Guidelines for Private Sector Engagement in Biodiversity and we will continue to investigate making quantifiable evaluations relating to biodiversity conservation in the future.

▶ Figure-01 Biodiversity Conservation Action Guideline

Relationship with business activities	
Raw material procurement	● Liaise with business partners to protect biodiversity.
Soil usage	● Through greenifying our plants, etc., we are engaging in activities to protect ecosystems which contribute to biodiversity.
Production activities	● With activities such as preventing global warming by developing innovative techniques and equipment, effective resource usage, reduction of environmentally burdensome substances and so on, we aim to succeed at both biodiversity and corporate activities. ● We work hard to quantitatively appraise the impact our business activities have on biodiversity.
Product development	● Based on life-cycle assessment approach, JTEKT develops and designs top-class environmentally-friendly products and reduces impact on biodiversity.
Promotion of socially contributing activities benefiting biodiversity conservation	
● Proactively participate in socially contributing activities through cooperation with councils and affiliated companies.	
Training, awareness activities and information-sharing	
● Raise employee awareness of biodiversity conservation through environmental training.	
● Use the CSR report as a tool to communicate our activities towards biodiversity conservation with our stakeholders and communities.	

Major activities in FY2013

Friendly walk on the beach (Toyohashi plant) ★ **New!**

It is often said that the number of sea turtles landing on the beach and laying eggs is decreasing year by year. One of the reasons for the decrease is spawning habitat degradation due to large amounts of garbage drifting to the beach. On October 27th, with the goal of protecting sea turtles and beautifying the community, the Toyohashi plant co-hosted a "friendly walk on the beach" with an NPO, and more than 100 participants cleaned the coast. A lecture on sea turtles was given by the NPO, providing a valuable opportunity to learn the importance of biodiversity conservation.



→ [S_16](#) Related article



Friendly walk on the beach (Toyohashi)

Biodiversity conservation

Woodland conservation activities (Okazaki plant) **New!**

In an effort to conserve biodiversity, since February 2014, the Okazaki plant has been engaging in the “Okazaki Eco-Education Forest”, woodland conservation activities such as maintaining bamboo groves, repairing walking paths, and creating biotopes.

The first activity for wooded area conservation was held on February 12th, in which we cut (thinned) bamboo trees with the Okazaki City Hall staff. Trees cut as a result of bamboo grove maintenance will be used for children’s craft making at a nature experience workshop and bamboo charcoal making, and used as materials in creating bamboo brooms. We will continue these seasonal woodland conservation activities to contribute to forest preservation in Okazaki city.

→ [S_18](#) Related article

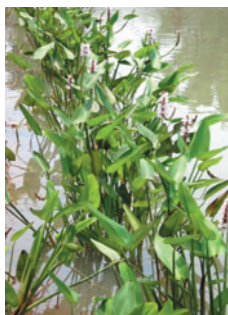


Woodland conservation activities (Okazaki)

Creating a workplace conscious of the natural environment (JRDC: China) **New!**

In July 2013, a new office building of JRDC (China) in Wuxi, Kiangsu China was completed. This environmentally-friendly building has solar and small wind power generation facilities, effectively utilizes geothermal energy, and recycles rainwater. The building also has a biotope, providing an opportunity for employees to have contact with nature. Just after the building was completed, dragonflies were observed flying in the biotope. As a result of planting aquatic plants typical of the region, we now see frogs, water striders, and other creatures inhabiting the biotope. Employees feel the importance of nature by hearing the sound of frogs and seeing dragonflies at lunchtime or when coming to and leaving work. We will continue to raise environmental awareness within the employees and contribute to the global environment.

→ [\[Message\] P12](#) Related article



Biotope established in the new office building (JRDC: China)

Appendix

Appendix-01 The scope of consolidated environmental management

Europe

- 14 production companies
- JTEKT AUTOMOTIVE UK LTD. (England)
- KOYO BEARINGS (EUROPE) LTD. (England)
- JTEKT TORSEN EUROPE S.A. (Belgium)
- KOYO BEARINGS DEUTSCHLAND GMBH (Germany)
- JTEKT HPI S.A.S. (France)
- JTEKT AUTOMOTIVE LYON S.A.S. (France)
- JTEKT AUTOMOTIVE DIJON SAINT-ETIENNE S.A.S. (France)
- KOYO BEARINGS MOULT SAS (France)
- KOYO BEARINGS VIERZON MAROMME SAS (France)
- JTEKT AUTOMOTIVE CZECH PLZEN, S.R.O. (Czech Republic)
- JTEKT AUTOMOTIVE CZECH PARDUBICE, S.R.O. (Czech Republic)
- KOYO BEARINGS CESKA REPUBLIKA S.R.O. (Czech Republic)
- KOYO ROMANIA S.A. (Romania)
- KOYO BEARINGS ESPANA S.A. (Spain)

Asia / Oceania

- 6 production companies
- JTEKT (THAILAND) CO., LTD. (Thailand)
- JTEKT AUTOMOTIVE (THAILAND) CO., LTD. (Thailand)
- KOYO MANUFACTURING (PHILIPPINES) CORPORATION (Philippines)
- JTEKT AUTOMOTIVE (MALAYSIA) SDN. BHD. (Malaysia)
- JTEKT SONA AUTOMOTIVE INDIA LTD. (India)
- KOYO JICO KOREA CO., LTD. (Korea)

China

- 11 production companies
- JTEKT AUTOMOTIVE (TIANJIN) CO., LTD.
- JTEKT AUTOMOTIVE (FOSHAN) CO., LTD.
- JTEKT STEERING SYSTEMS (XIAMEN) CO., LTD.
- JTEKT DALIAN INNOVATION AUTOMOTIVE CO., LTD.
- WUXI KOYO BEARING CO., LTD.
- DALIAN KOYO WAZHOU AUTOMOBILE BEARING CO., LTD.
- KOYO BEARING DALIAN CO., LTD.
- KOYO LIOHO (FOSHAN) AUTOMOTIVE PARTS CO., LTD.
- KOYO AUTOMOTIVE PARTS (WUXI) CO., LTD.
- YUBEI KOYO STEERING SYSTEMS CO., LTD.
- KOYO NEEDLE BEARINGS (WUXI) CO., LTD.

Japan

- 13 JTEKT bases
- 21 domestic group production companies
- Koyo Machine Industries Co., Ltd. (Osaka)
- Toyooki Kogyo Co., Ltd. (Aichi)
- Koyo Sealing Techno Co., Ltd. (Tokushima)
- CNK Co., Ltd. (Aichi)
- Koyo Thermo Systems Co., Ltd. (Nara)
- Koyo Electronics Industries Co., Ltd. (Tokyo)
- Daibea Co., Ltd. (Osaka)
- Utsunomiya Kiki Co., Ltd. (Tochigi)
- HOUKO Co., Ltd. (Aichi)
- Toyoda Van Moppes Ltd. (Aichi)
- Koyometaltec Co., Ltd. (Mie)
- KJK Co., Ltd. (Tokushima)
- NIPPON NEEDLE ROLLER MFG. Co., Ltd. (Mie)
- Koyo Heat Treatment Co., Ltd. (Osaka)
- FORMICS Co., Ltd. (Aichi)
- Taiho Co., Ltd. (Kagawa)
- NAKATETSU Co., Ltd. (Osaka)
- Eiko Seimistu Co., Ltd. (Kagawa Prefecture)
- Tokio Seiko Corporation (Tokyo Prefecture)
- Yamato Seiko Co., Ltd. (Nara Prefecture)
- JTEKT YAMAGATA Corporation (Yamagata Prefecture)

North America / South America

- 9 production companies
- JTEKT AUTOMOTIVE TENNESSEE-VONORE LLC (America)
- JTEKT AUTOMOTIVE TENNESSEE-MORRISTOWN, INC. (America)
- JTEKT AUTOMOTIVE TEXAS, L.P. (America)
- JTEKT AUTOMOTIVE SOUTH CAROLINA, INC. (America)
- KOYO BEARINGS NORTH AMERICA LLC (America)
- KOYO BEARINGS CANADA INC. (Canada)
- JTEKT AUTOMOTIVA BRASIL LTDA. (Brazil)
- TOYODA KOKI DO BRASIL INDUSTRIA E COMERCIO DE MAQUINAS, LTDA. (Brazil)
- JTEKT AUTOMOTIVE ARGENTINA S.A. (Argentina)

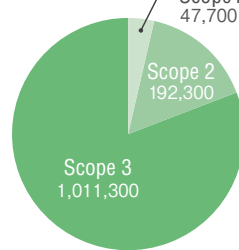
Appendix-02

CO2 conversion coefficients to calculate CO2 emissions volume

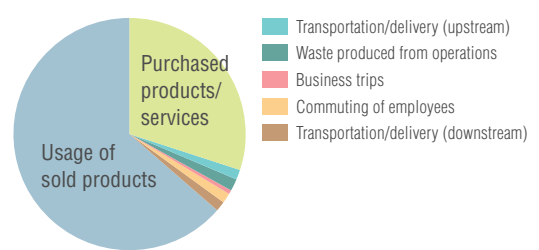
Electricity	0.3707	kg-CO ₂ /kWh
Heavy oil A	2.6958	kg-CO ₂ /ℓ
Kerosene	2.5316	kg-CO ₂ /ℓ
Propane gas	3.0040	kg-CO ₂ /kg
City gas	2.1570	kg-CO ₂ /Nm ³

The CO₂ conversion coefficients were set by the Japan Federation of Economic Organizations (1990) and are used in Japan. Regions outside of Japan use 2001 published values. We fixed electrical conversion coefficients so that the results of our improvements could be evaluated.

CO₂ emissions by scope (t-CO₂)



Scope 3 CO₂ emissions (percentage) by category



Scope 3 CO₂ emissions by category

*1 Calculated based on the amount of steel material purchased *2 Calculated based on steering, drive parts and machine tools

Classification	Category	Emissions	Remarks	Calculation criteria	JTEKT action
Upstream	Purchased products/services *1	305,500	Only some raw materials covered	CO ₂ due to the purchased raw materials, parts manufacture, etc.	Making products smaller/lighter and improving yield
	Capital goods	—	Calculation method under investigation	CO ₂ due to the construction and manufacturing of capital goods	—
	Fuel and energy-related activities not included in Scope 1 and 2	—	Out of scope	CO ₂ due to usage of fuel necessary for heat, etc., purchased by other parties	—
	Transportation/delivery (upstream) *1	12,600	Only some raw materials covered	CO ₂ due to purchasing/logistics of raw materials, parts, etc.	Making products smaller/lighter and improving yield
	Waste produced from operations	18,000		CO ₂ due to transportation/processing of waste	Reducing waste
	Business trips	4,900		CO ₂ due to employee business trips	Utilizing TV/Web conference systems
	Commuting of employees	15,000		CO ₂ due to employees commuting to operation bases	Utilizing the Eco-Commuting System
	Leased assets (upstream)	—	Calculated in Scope 1 and 2	CO ₂ due to operation of leased assets	
Downstream	Transportation/delivery (downstream)	14,300		CO ₂ due to transportation/storage and retail of products	Improving the shape in which products are transported in, combining transportation routes, model shift
	Fabrication of sold products	—	Calculation method under investigation	CO ₂ due to processing of products by the customer	
	Usage of sold products *2	641,000		CO ₂ due to usage of products	Developing environmentally-friendly products
	Disposal of sold products	—	Calculation method under investigation	CO ₂ due to transportation/processing upon disposal of products	Making products smaller/lighter
	Leased assets (downstream)	—	Calculation method under investigation	CO ₂ due to operation of leased assets	
	Franchise	—	N/A	CO ₂ produced by franchise members	—
	Investment	—	N/A	CO ₂ relating to investment operation	—
Total		1,011,300 (t-CO₂)			

Third-party opinion on the JTEKT CSR Report 2014

Representative of the Workers Club for Eco-harmonic Renewable Society (NPO) **Tamio Yamaguchi**

Tamio Yamaguchi's profile

After 25 years at a newspaper company, Mr. Yamaguchi held a position as the manager of public relations at an environment venture company, chief editor of a publishing company's environmental magazine, and then freelanced. Now a part-time university lecturer he also works as a corporate trainer on CSR topics. Since 2005, Yamaguchi-san has analyzed and reported on over 350 companies CSR reports. (<http://csr-project.jp/>)

Workers Club for Eco-harmonic Renewable Society

A citizen's organization that considers from a global point of view how society and the natural ecosystem that should be passed on to future generations can live in harmony. The organization researches, supports and implements activities so that citizens, companies and government agencies will form a recycling-based society. Learning about true CSR and getting advice in CSR workshops. (<http://junkanken.com/>)



Since 2008, I have had the honor of overseeing the third-party opinion section of the JTEKT CSR report, and this time I truly felt that the theme of "CSR Familiarization" has progressed throughout JTEKT and its group companies. This can be seen in the CSR policy comprehension survey and the "My CSR" column, as well as in the comments and remarks from group companies. JTEKT has a sufficient internal reporting system, which I think can be largely attributed to CSR reinforcement throughout the company. I ask that JTEKT continues efforts for familiarization, and also that JTEKT be aware of the sharing of various global soft laws (*) such as ISO26000 and the United Nations' "Guiding Principles on Business and Human Rights", in order to ensure smooth progression into a truly global company.

There are 3 points in this report that can be used as models for other reports. The first is "verification of results" regarding the enforcement of compliance. Although companies that violate compliance may take various recurrence prevention measures, they retain the structural issues within the organizational climate that caused the problems in the first place. Consequently, cases of recurrence arise because these companies do not verify the efficacy of their preventative measures. Regarding this, I stated in last year's third-party opinion that "important points from the perspective of reoccurrence prevention (violation of the Anti-Monopoly Act in this year's case) are awareness-raising, strengthening systems and frameworks, and verification reports that rules, training and so forth are functioning adequately in workplaces." The "verification of results" I mentioned corresponds to this opinion, so I ask that JTEKT periodically confirm the status of its systems in order to continuously improve them. Please report about the same verification implementation concerning the enhancement of countermeasures related to work accidents in next year's report.

The second point is the pattern started in the 2012 report of including the details of efforts and their results, after stating the social background and JTEKT's concept. JTEKT is committed to "revealing social issues through communication and then striving to solve them", and the report layout meets this assertion. This is important in raising the appeal power of the report. I believe that using this layout in the "PICKUP 2013" would have made it more persuasive.

The third point is the reporting on mental health. Mental health ailments have become a large social issue on not only a company level, but on a national level as well. A revised Industrial Safety and Health Law was established in June

2014, making stress checks for every employee mandatory. JTEKT had been working proactively to combat mental health issues prior to the revised law, the details of which have been noted in this report. The "No. of people taking time off work and reason by age" section in particular is something that is not seen in the CSR reports of other companies. I believe that by reporting actual conditions, verifying the efficacy of measures taken, and improving actions, the situation will inevitably change for the better. This is because these actions are a demonstration of the important function of communication. JTEKT has been working on improvements since FY2012; a trend I expect will be continued. However, the main factor in mental health illnesses, work time, has been getting longer; the increasing number of employees working long hours who are receiving checkups is concerning.

JTEKT is a global company, from the perspective of its employee structure, sales structure, and technological prowess. To take the next step in becoming further renowned throughout the world, I expect JTEKT to undertake the following 3 points. The first point is something I have previously highlighted in last year's report, the disclosure of the "importance (materiality)" selection process. This is included along the lines of a "keyword" within the report (leaflet), but is not specified as anything more than a "keyword" selected through the corporate perspective. I feel that a focus on the importance of stakeholders' perspectives will, in quoting the preface of the GRI G4 Guidelines, "make reports more relevant, more credible and more user-friendly. This will, in turn, enable organizations to better inform markets and society on sustainability matters."

The second point is the section on efforts within the value chain. The value chain is expanding throughout the world due to globalization. As JTEKT issued the "CSR Activity Item Guidelines" in 2012, I surmise that efforts are currently underway, however the details of the guidelines are unclear. The status of value chain CSR is also unknown.

Within ISO26000 as well, "promoting social responsibility in the value chain" is specified as a major theme within issues relating to fair established corporate practices.

The third point is the strengthening of efforts for global warming prevention. Last year's report states the goal of "cutting greenhouse gasses to half of what they were in 2000 by the year 2050". I ask that JTEKT backcast from this objective when setting medium and short term goals.

* **Soft laws** Social norms without legal binding.

Response to the third-party opinion

Corporate Planning Dept.

We would like to extend our sincere thanks to Mr. Yamaguchi for providing us with his valuable opinion at the kick-off meeting when creation of this report began, at the intermediate conferral and upon completion of the report.

To establish JTEKT as a truly global company, we have promoted the formulation of the JTEKT GROUP VISION and the Mid-term Management Plan in FY2013. In FY2014, we will continue to take the lead to steadily promote the Mid-term Management Plan to achieve the VISION, together with the whole JTEKT group. We will also continue promoting the familiarization of CSR within JTEKT employees by providing support through face-to-face communication and *genchi genbutsu* spirit to establish the CSR mindset in all workplaces, including those of other JTEKT group companies, and to help employees

become self-reliant in their activities. We will further enhance the activities that Mr. Yamaguchi has emphasized concerning "importance (materiality)", "value chain", and "prevention of global warming", which are all what we consider will one day be important for global JTEKT activities.

Moreover, we will contribute to local revitalization from the perspective of CSR through efforts such as job development, while promoting locally rooted activities.

We have edited this report while keeping in mind our broad range of readers, and have written the presidential message and remarks from product developers in the "Message" column as was done last year, as a communication tool to make readers feel closer to JTEKT. We have put efforts into disclosing sufficient information and improving the chapter structure within the "Details & Data" section. Our goal is for our company's activities to be understood by our stakeholders and to remain a company trusted and appreciated by all.

Environmental Data by Operations Base ①

This page includes the environmental data for 2 locations, Kokubu and Kariya, out of our 13 locations; 12 domestic plants and 1 operations center.

[Chemicals] Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2013 to March 2014

Kokubu Plant

No. of Employees 2,110



Production items

- All types of ball bearings
- Roller bearings
- Ultra-large bearings
- Hub units
- High-accuracy bearings

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.2~8.8	7.6	7.1
BOD	480	250	52
SS	480	18	6.7
Oil content	4	3.2	1.4

Unit : mg/l (Excluding pH)

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Annealing furnace)	Dust	0.08	0.003
	NOx	144	42
	SOx	—	—
Boiler (Hot and cold water generator)	Dust	0.08	0
	NOx	120	42
	SOx	—	—

Unit : Dust= g/Nm³ NOx= ppm SOx= Value K

Noise / Vibration data

Index	Regulation value	Maximum	Average	
			Daytime	Nighttime
Noise	Morning	59	58	51
	Afternoon	64	61	57
	Evening	59	57	52
	Night	54	54	48
Vibration	Daytime	63	50	47
	Nighttime	58	47	45

Unit : dB

Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	1,163,688
		Water consumed (m ³)	488,781
		Chemical substances handled (kg)	6,243
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	46,099
		NOx (kg)	1,693
		SOx (kg)	0
		Chemical substances released (kg)	1,090
	Sewage	Wastewater (m ³)	202,332
		COD (kg)	5,205
		Nitrogen (kg)	0
		Phosphorus (kg)	0
		Chemical substances transferred (kg)	62
	Materials discarded	Recycled for profit (t)	5,530
		Recycled at a charge (t)	1,892
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	1,575

* Due to sewage disposal, there are no regulation values for COD, nitrogen, or phosphorus

Foul odor

Measurement item	Regulation value	Measurement
Ammonia	0.8	0.47
Methanethiol	0.0016	0.0005
Trimethylamine	0.0040	0.0001

* Malodorous substances (22 substances) were measured.

* All items not listed were below minimum determination limit.

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released			Amount transferred Sewage ; Waste	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways ; Soil	Soil				
1	Water-soluble zinc compounds	2,323	0	0	0	232	0	0	2,090
80	Xylene	2,615	2,615	0	0	0	0	0	0
412	Manganese and its compounds	1,367	27	0	0	492	0	0	848

Unit : kg/year

Kariya Plant

No. of Employees 1,251



Production items

- Machine tools
- Damper pulleys
- Machined parts

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.0	6.6
COD	19	3.9	2.8
BOD	20	6.4	3.7
SS	20	2.5	1.5
Oil content	4	0.4	0.2
Zinc	1.6	0.1	0.04

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	4	0.5	0.5
Soluble manganese	1.6	0.3	0.2
Fluorine	4	0.4	0.1
Nitrogen	16.1	11.0	8.1
Phosphorus	1.5	0.04	0.03
Boron	8	0.03	0.02

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (for cafeteria use)	Dust	0.08	0.004
	NOx	104	68
	SOx	1.2	—
Boiler (Hot and cold water generator)	Dust	0.08	0.003
	NOx	104	52
	SOx	1.2	—

Unit : Dust= g/Nm³ NOx= ppm SOx=Nm³/hr

Noise / Vibration data

Index	Regulation value	Maximum	Average	
			Daytime	Nighttime
Noise	Morning	64	54	49
	Afternoon	69	62	55
	Evening	64	59	51
	Night	59	57	49
Vibration	Daytime	68	48	32
	Nighttime	63	32	25

Unit : dB

Foul odor

Measurement item	Regulation value	Measurement
Odor index	12	Less than 10

Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	195,521
		Water consumed (m ³)	138,800
		Chemical substances handled (kg)	3,409
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	7,518
		NOx (kg)	613
		SOx (kg)	0
		Chemical substances released (kg)	2,867
	Waterways	Wastewater (m ³)	184,242
		COD (kg)	668
		Nitrogen (kg)	1,013
		Phosphorus (kg)	6
		Chemical substances transferred (kg)	0
	Materials discarded	Recycled for profit (t)	509
		Recycled at a charge (t)	256
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	0

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released			Amount transferred Sewage ; Waste	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways ; Soil	Soil				
300	Toluene	2,418	1,942	0	0	0	0	0	476

Unit : kg/year

Environmental Data by Operations Base ②

This page includes the environmental data for 2 locations, Tokushima and Okazaki, out of our 13 locations; 12 domestic plants and 1 operations center.

[Chemicals] Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period] April 2013 to March 2014**

Tokushima Plant

No. of Employees 1,342

Production items

- Ball bearings
- Water pump bearings
- Cylindrical roller bearings
- Special environment bearings
- Double row angular contact ball bearings
- Hub units
- Tensioner pulleys



Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.2	7.6	6.8
COD	16	9.3	7.2
SS	24	8.3	3.4
Oil content	2.4	2.0	1.5
Nitrogen	25	6.9	5.0
Phosphorus	2.5	0.06	0.05

Unit : mg/l (Excluding pH)

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Absorption type cold and hot water generator)	Dust	0.24	0.01
	NOx	144	51
	SOx	16.8	0.03
Diesel engine	Dust	0.08	0.0312
	NOx	902.5	763
	SOx	16.8	0.139

Unit : Dust= g/Nm³ NOx= ppm SOx= Value K

Noise / Vibration data

Index	Regulation value	Maximum	Average	
			Daytime	Nighttime
Noise	Morning	59	54	49
	Afternoon	64	57	55
	Evening	59	51	49
	Night	55	49	48
Vibration	Daytime	63	56	48
	Nighttime	58	55	47

Unit : dB

Overall environmental data

INPUT		Classification	Volume
Energy consumption		(GJ)	985,762
Water consumed		(m ³)	1,002,288
Chemical substances handled		(kg)	9,861
OUTPUT	Atmosphere	Greenhouse gases	(t-CO ₂) 38,171
		NOx	(kg) 42,611
		SOx	(kg) 2,681
		Chemical substances released	(kg) 3,404
	Waterways	Wastewater	(m ³) 228,845
		COD	(kg) 4,927
		Nitrogen	(kg) 4,756
		Phosphorus	(kg) 14
		Chemical substances transferred	(kg) 0
	Materials discarded	Recycled for profit	(t) 7,570
		Recycled at a charge	(t) 1,437
		Waste (incineration+landfill)	(t) 0
		Chemical substances transferred	(kg) 0

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released			Amount transferred		Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
80	Xylene	3,365	3,365	0	0	0	0	0	0	0
438	Methylnaphthalene	6,445	0	0	0	0	0	0	0	6,445

Unit : kg/year

Foul odor

- Malodorous substances (22 substances) were measured.
- All items were below minimum determination limit.

Okazaki Plant

No. of Employees 806

Production items

- 4WD coupling
- Linear solenoid valves for AT and CVT
- Oil pumps for AT and CVT
- Propeller shafts
- Cast parts



Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.6~8.4	8.1	7.6
COD	16	3.7	2.6
BOD	16	6.2	1.7
SS	16	1.3	1.0
Oil content	1.6	0.9	0.5
Zinc	2.4	0.05	0.05

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	4	0.5	0.5
Soluble manganese	2.4	0.3	0.3
Fluorine	0.8	0.10	0.10
Nitrogen	12	6.7	5.8
Phosphorus	1.6	0.06	0.04
Boron	8	0.03	0.02

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Electric furnace	Dust	0.12	0.002
	NOx	80	10
	SOx	6.072	—
Boiler (for air conditioning)	Dust	0.08	0.002
	NOx	104	83.2
	SOx	—	—
Heating furnace	Dust	0.12	0.002
	NOx	80	10
	SOx	6.072	—
Gas engine (cogeneration)	Dust	0.04	0.002
	NOx	160	128
	SOx	6.072	—

Unit : Dust= g/Nm³ NOx= ppm SOx=Nm³/hr

Noise / Vibration data

Index	Regulation value	Maximum	Average	
			Daytime	Nighttime
Noise	Morning	64	61	53
	Afternoon	69	66	56
	Evening	64	60	54
	Night	59	54	51
Vibration	Daytime	69	38	31
	Nighttime	64	40	32

Unit : dB

Foul odor

Measurement item	Regulation value	Measurement
Odor index	12	Less than 10

Overall environmental data

INPUT		Classification	Volume
Energy consumption		(GJ)	645,476
Water consumed		(m ³)	108,114
Chemical substances handled		(kg)	4,292
OUTPUT	Atmosphere	Greenhouse gases	(t-CO ₂) 26,270
		NOx	(kg) 26,741
		SOx	(kg) 0
		Chemical substances released	(kg) 2,730
	Waterways	Wastewater	(m ³) 56,645
		COD	(kg) 150
		Nitrogen	(kg) 348
		Phosphorus	(kg) 1.1
		Chemical substances transferred	(kg) 0
	Materials discarded	Recycled for profit	(t) 8,194
		Recycled at a charge	(t) 2,607
		Waste (incineration+landfill)	(t) 0
		Chemical substances transferred	(kg) 0

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released			Amount transferred		Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
300	Toluene	2,479	1,991	—	—	—	—	—	—	488

Unit : kg/year

Environmental Data by Operations Base ③

This page includes the environmental data for 2 locations, Tokyo and Kagawa, out of our 13 locations; 12 domestic plants and 1 operations center.

[Chemicals] Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period] April 2013 to March 2014**

Tokyo Plant

No. of Employees 558



Production items

- Needle roller bearings
- Constant velocity joints
- Drive shafts
- Propeller shafts

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.6	7.8	7.5
BOD	240	34	6
SS	200	25	10
Oil content	24	5.0	1.3
Nitrogen	96	20	8.9
Phosphorus	13	0.6	0.3

Unit : mg/l (Excluding pH)

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Gas suction type boiler	Dust	0.08	0.002
	NOx	44	40
	SOx	0.33	0.01

Unit : Dust= g/Nm³ NOx= ppm SOx= Value K

Noise / Vibration data

Index	Regulation value	Maximum	Average	Unit : dB
			Average	
Noise	Morning	59	59	57
	Afternoon	69	65	59
	Evening	59	58	57
	Night	54	54	53
Vibration	Daytime	58	57	38
	Nighttime	48	32	21

Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	358,562
		Water consumed (m ³)	120,099
		Chemical substances handled (kg)	9,937
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	13,554
		NOx (kg)	1
		SOx (kg)	2
		Chemical substances released (kg)	6,646
	Sewage	Wastewater (m ³)	82,586
		BOD (kg)	516
		Nitrogen (kg)	742
		Phosphorus (kg)	24
		Chemical substances transferred (kg)	67
	Materials discarded	Recycled for profit (t)	1,625
		Recycled at a charge (t)	787
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	1,472

* Due to sewage disposal, there are no regulation values for COD

Foul odor

- * Malodorous substances (22 substances) were measured.
- * All items were below minimum determination limit.

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released			Amount transferred Sewage : Waste	Amount recycled	Amount Removed and treated	Amount consumed	Unit : kg/year
			Atmosphere	Waterways	Soil					
1	Water-soluble zinc compounds	1,324	0	0	0	132	0	0	1,192	
80	Xylene	1,696	1,696	0	0	0	0	0	0	
300	Toluene	4,872	4,872	0	0	0	0	0	0	

Kagawa Plant

No. of Employees 907



Production items

- Tapered roller bearings

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.1	6.6
COD	40	33	24
BOD	40	37	34
SS	40	6.0	2.3

Unit : mg/l (Excluding pH)

Index	Regulation value	Maximum	Average	Unit : mg/l (Excluding pH)
			Average	
Oil content	2.4	2.3	2.1	
Nitrogen	48	22	13	
Phosphorus	6.4	3.4	1.0	

Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	979,779
		Water consumed (m ³)	362,880
		Chemical substances handled (kg)	5,941
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	37,788
		NOx (kg)	19,149
		SOx (kg)	949
		Chemical substances released (kg)	3,116
	Waterways	Wastewater (m ³)	251,175
		COD (kg)	5,016
		Nitrogen (kg)	2,686
		Phosphorus (kg)	55
		Chemical substances transferred (kg)	0
	Materials discarded	Recycled for profit (t)	9,756
		Recycled at a charge (t)	1,122
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	0

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler	Dust	0.24	0.01
	NOx	208	66
	SOx	4	1.3
Private power generator	Dust	0.08	0.03
	NOx	902.5	800
	SOx	4	0.63

Unit : Dust= g/Nm³ NOx= ppm SOx= Value K

* Less than regulatory amounts (950)

Noise / Vibration data

Index	Regulation value	Maximum	Average	Unit : dB
			Average	
Noise	Morning	64	61	56
	Afternoon	64	60	55
	Evening	64	61	57
	Night	59	57	54
Vibration	Daytime	49	28	27
	Nighttime	46	28	26

Foul odor

Measurement item	Regulation value	Measurement	Unit : ppm
Ammonia	1.2	0.32	

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released			Amount transferred Sewage : Waste	Amount recycled	Amount Removed and treated	Amount consumed	Unit : kg/year
			Atmosphere	Waterways	Soil					
80	Xylene	3,092	3,092	0	0	0	0	0	0	
438	Methylnaphthalene	2,722	14	0	0	0	0	0	2,708	

Environmental Data by Operations Base ④

This page includes the environmental data for 2 locations, Nara and Higashi-kariya, out of our 13 locations; 12 domestic plants and 1 operations center.

[Chemicals] Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2013 to March 2014

Nara Plant

No. of Employees 2,060



Production items

- Electric power steering
- Electric pumps for hydraulic-electric type power steering
- Hydraulic power steering
- Manual steering

Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	225,136
		Water consumed (m ³)	57,799
		Chemical substances handled (kg)	13,141
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	8,446
		NOx (kg)	97
		SOx (kg)	50
		Chemical substances released (kg)	11,893
	Waterways	Wastewater (m ³)	35,380
		COD (kg)	267
		Nitrogen (kg)	481
		Phosphorus (kg)	97
		Chemical substances transferred (kg)	0
	Materials discarded	Recycled for profit (t)	1,168
		Recycled at a charge (t)	504
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	129

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.4	7.2
COD	12	9.9	7.9
BOD	12	2.2	0.8
SS	20	0.6	0.1
Oil content	2	0.9	0.1

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	1	0.06	0.05
Soluble manganese	1	0.05	0.04
Nitrogen	40	27	16
Phosphorus	15	4.7	3.1

* Less than regulatory amounts

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No. 1 Plant, No. 1 (Boiler)	Dust	0.24	0.01
	NOx	144	59
	SOx	1.60	0.03
No. 1 Plant, No. 2 (Boiler)	Dust	0.24	0.01
	NOx	144	56
	SOx	1.60	0.03
South No. 2 Plant (Boiler)	Dust	0.24	0.002
	NOx	144	52
	SOx	1.6	0.01

Unit : Dust= g/Nm³ NOx= ppm SOx= Value K

Noise / Vibration data

Index	Regulation value	Results		
		Maximum	Average	
Noise	Morning	64	62	54
	Afternoon	67	61	56
	Evening	64	59	53
	Night	54	52	49
Vibration	Daytime	59	45	39
	Nighttime	54	43	38

Unit : dB

Foul odor

- * Malodorous substances (22 substances) were measured.
- * All items were below minimum determination limit.

Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released				Amount recycled	Amount removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Waste			
80	Xylene	8,889	8,889	0	0	0	0	0	0
300	Toluene	2,993	2,993	0	0	0	0	0	0

Unit : kg/year

Higashi-kariya operations center

No. of Employees 118



Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	41,699
		Water consumed (m ³)	5,333
		Chemical substances handled (kg)	0
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	1,656
		NOx (kg)	236
		SOx (kg)	102
		Chemical substances released (kg)	0
	Waterways	Wastewater (m ³)	3,799
		COD (kg)	15
		Nitrogen (kg)	15
		Phosphorus (kg)	0.09
		Chemical substances transferred (kg)	0
	Materials discarded	Recycled for profit (t)	156
		Recycled at a charge (t)	99
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	0

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.0~8.3	7.5	7.2
COD	16	4.5	3.8
BOD	16	4.2	1.5
SS	16	1.5	1.1
Oil content	4	0.5	0.1
Zinc	2	0.2	0.1

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	4	0.5	0.5
Soluble manganese	4	0.25	0.18
Fluorine	5	0.14	0.11
Nitrogen	48	4.8	3.8
Phosphorus	6	0.04	0.02
Boron	8	0.03	0.02

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Hot and cold water generator)	Dust	0.12	0.003
	NOx	104	73
	SOx	0.46	0.01

Unit : Dust= g/Nm³ NOx= ppm SOx=Nm³/hr

Noise / Vibration data

Index	Regulation value	Results		
		Maximum	Average	
Noise	Morning	64	54	49
	Afternoon	69	54	48
	Evening	64	56	49
	Night	59	53	48
Vibration	Daytime	68	29	26
	Nighttime	63	28	24

Unit : dB

Foul odor

Measurement item	Regulation value	Measurement
Odor index	12	Less than 10

Substances subject to PRTR

* No substances had handling amounts of over 1,000 kg/year

Environmental Data by Operations Base ⑤

This page includes the environmental data for 2 locations, Toyohashi and Tadomisaki, out of our 13 locations; 12 domestic plants and 1 operations center.

[Chemicals] Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2013 to March 2014

Toyohashi Plant

No. of Employees 791



Production items

- Hydraulic power steering
- Manual steering
- Safety handle column

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.1~8.4	7.6	7.2
COD	16	5.5	4.2
BOD	16	1.8	1.1
SS	24	1.0	1.0

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Oil content	4	1.0	1.0
Nitrogen	48	13	6.7
Phosphorus	6	0.6	0.4

Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	335,217
		Water consumed (m ³)	50,842
		Chemical substances handled (kg)	2,306
	OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)
NOx (kg)			1,659
SOx (kg)			74
Chemical substances released (kg)			572
Waterways		Wastewater (m ³)	5,808
		COD (kg)	22
		Nitrogen (kg)	33
		Phosphorus (kg)	1.4
		Chemical substances transferred (kg)	0
Materials discarded		Recycled for profit (t)	2,664
		Recycled at a charge (t)	472
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	123

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No. 1 Plant (Boiler)	Dust	0.03	0.002
	NOx	120	34
	SOx	1	0.002
No. 2 Plant (Hot and cold water generator)	Dust	0.03	0.001
	NOx	120	29
	SOx	1	0.003
No. 3 Plant (Hot and cold water generator)	Dust	0.03	0.001
	NOx	120	18
	SOx	1	0.001

Unit : Dust= g/Nm³ NOx= ppm SOx= Value K

Noise / Vibration data

Unit : dB

Index		Regulation value	Results	
			Maximum	Average
Noise	Morning	60	55	53
	Afternoon	65	59	53
	Evening	64	53	50
	Night	59	51	49
Vibration	Daytime	55	43	35
	Nighttime	50	36	30

Foul odor

Measurement item	Regulation value	Measurement
Odor index	14	10

Substances subject to PRTR

Unit : kg/year

Substance number	Chemical name	Amount handled	Amount released			Amount transferred		Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
453	Molybdenum and its compounds	1,589	0	0	0	0	0	0	0	1,589

Tadomisaki Plant

No. of Employees 1,203



Production items

- Drive shafts
- 4WD coupling

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.0~8.8	7.6	7.3
COD	18	8.0	5.5
BOD	18	5.7	2.6
SS	24	1.0	1.0
Oil content	1.6	0.50	0.50
Zinc	0.8	0.01	0.01

Unit : mg/l (Excluding pH)

Index		Regulation value	Results	
			Maximum	Average
Soluble iron		2.4	0.1	0.1
Soluble manganese		4	0.1	0.1
Fluorine		12	0.1	0.1
Nitrogen		24	15	6.25
Phosphorus		3.2	0.4	0.12
Boron		184	0.2	0.125

Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	721,695
		Water consumed (m ³)	148,433
		Chemical substances handled (kg)	565
	OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)
NOx (kg)			1,252
SOx (kg)			75
Chemical substances released (kg)			16
Waterways		Wastewater (m ³)	64,672
		COD (kg)	794
		Nitrogen (kg)	566
		Phosphorus (kg)	13
		Chemical substances transferred (kg)	0
Materials discarded		Recycled for profit (t)	10,484
		Recycled at a charge (t)	769
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (kg)	54

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Hot and cold water generator)	Dust	0.1	0.001
	NOx	104	91
	SOx	0.6	0
Continuous carburizing furnace	Dust	0.1	0.001
	NOx	104	32
	SOx	0.6	0.001

Unit : Dust= g/Nm³ NOx= ppm SOx=Nm³/hr

Noise / Vibration data

Unit : dB

Index		Regulation value	Results	
			Maximum	Average
Noise	Morning	64	60	57
	Afternoon	69	60	57
	Evening	64	60	57
	Night	59	57	56
Vibration	Daytime	55	44	41
	Nighttime	50	44	41

Foul odor

Measurement item	Regulation value	Measurement
Odor index	16	10

Substances subject to PRTR

* No substances had handling amounts of over 1,000 kg/year

Environmental Data by Operations Base ⑦

This page includes the environmental data for Sayama Plant out of our 13 locations; 12 domestic plants and 1 operations center.

[Chemicals] Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period] April 2013 to March 2014**

Sayama Plant

No. of Employees 68

Production items

- TORSEN



Overall environmental data

INPUT		
Classification		Volume
Energy consumption (GJ)		33,472
Water consumed (m ³)		5,085
Chemical substances handled (kg)		884
OUTPUT		
Atmosphere	Greenhouse gases (t-CO ₂)	1,299
	NOx (kg)	153
	SOx (kg)	21
	Chemical substances released (kg)	884
Waterways	Wastewater (m ³)	2,767
	COD (kg)	1
	Nitrogen (kg)	4
	Phosphorus (kg)	0
Chemical substances transferred (kg)	0	
Materials discarded	Recycled for profit (t)	652
	Recycled at a charge (t)	89
	Waste (incineration+landfill) (t)	0
	Chemical substances transferred (kg)	0

Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.2~8.8	7.2	7.2
Oil content	4	ND	ND
Nitrogen	192	20	20
Phosphorus	25.6	ND	ND

Unit : mg/l (Excluding pH)

Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No.1 Plant (Boiler)	Dust	0.08	0.002
	NOx	120	79
	SOx	0.52	0.004

Unit : Dust= g/Nm³ NOx= ppm SOx=Nm³/hr

Noise / Vibration data

Noise / Vibration data				Unit : dB
Index		Regulation value	Maximum	Average
Noise	Morning	64	60	59
	Afternoon	69	61	58
	Evening	64	59	55
	Night	59	58	52
Vibration	Daytime	Unmeasured		
	Nighttime	Unmeasured		

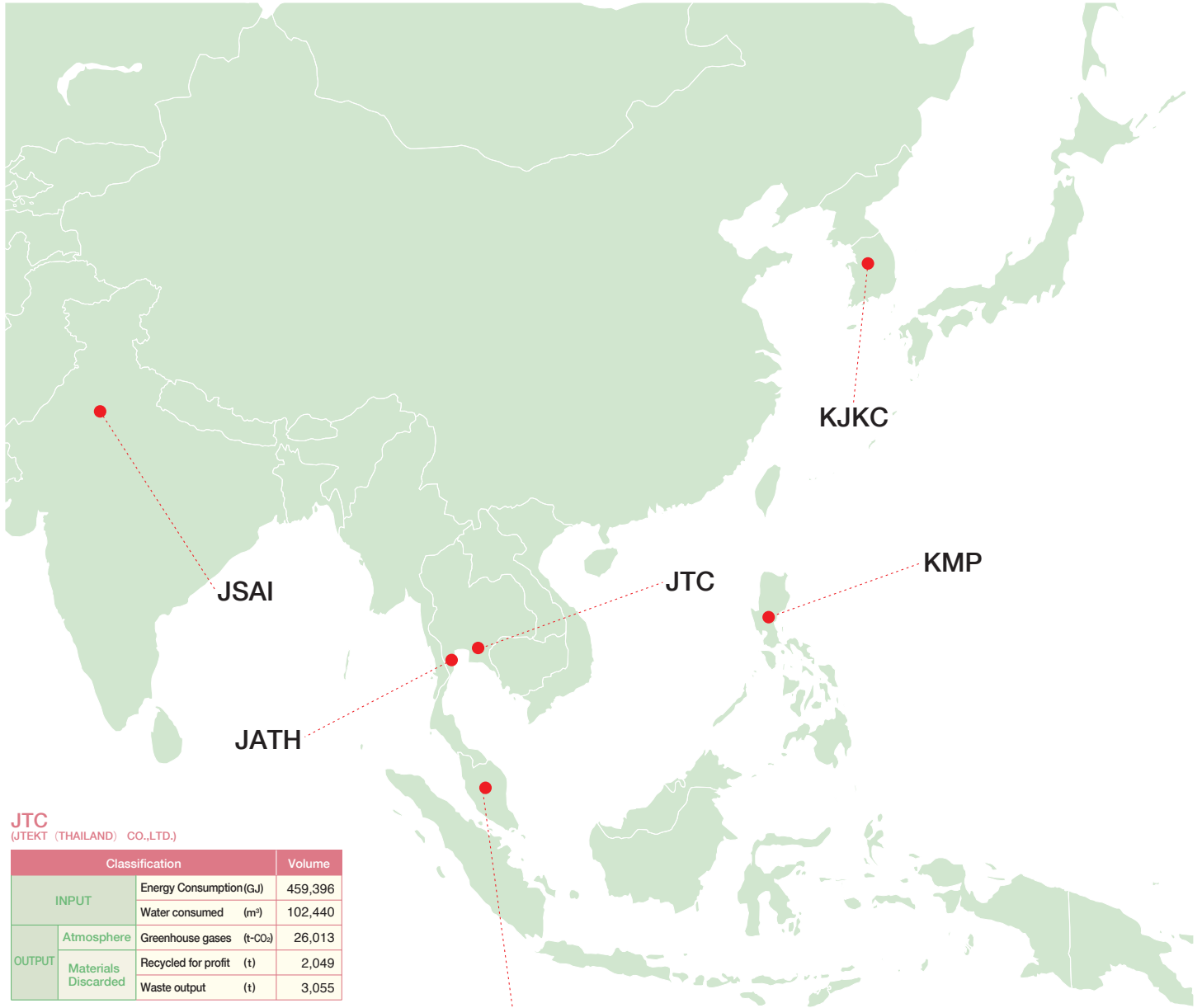
Foul odor

* Unmeasured

Substances subject to PRTR

* No substances had handling amounts of over 1,000 kg /year

Global business sites [Asia/Oceania]



JTKC
(JTEKT (THAILAND) CO.,LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	459,396	
	Water consumed (m ³)	102,440	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 26,013	
	Materials Discarded	Recycled for profit (t)	2,049
		Waste output (t)	3,055

JATH
(JTEKT AUTOMOTIVE (THAILAND) CO.,LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	266,646	
	Water consumed (m ³)	81,259	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 15,043	
	Materials Discarded	Recycled for profit (t)	5,633
		Waste output (t)	1,555

JAMY
(JTEKT AUTOMOTIVE (MALAYSIA) SDN. BHD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	80,618	
	Water consumed (m ³)	13,687	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 4,374	
	Materials Discarded	Recycled for profit (t)	0
		Waste output (t)	1,091

JSAI
(JTEKT SONA AUTOMOTIVE INDIA LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	36,956	
	Water consumed (m ³)	20,291	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 3,279	
	Materials Discarded	Recycled for profit (t)	3
		Waste output (t)	13

KMP
(KOYO MANUFACTURING (PHILIPPINES) CORPORATION)

Classification		Volume	
INPUT	Energy Consumption(GJ)	95,885	
	Water consumed (m ³)	22,926	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 5,134	
	Materials Discarded	Recycled for profit (t)	73
		Waste output (t)	206

KJKC
(KOYO JICO KOREA CO., LTD.)

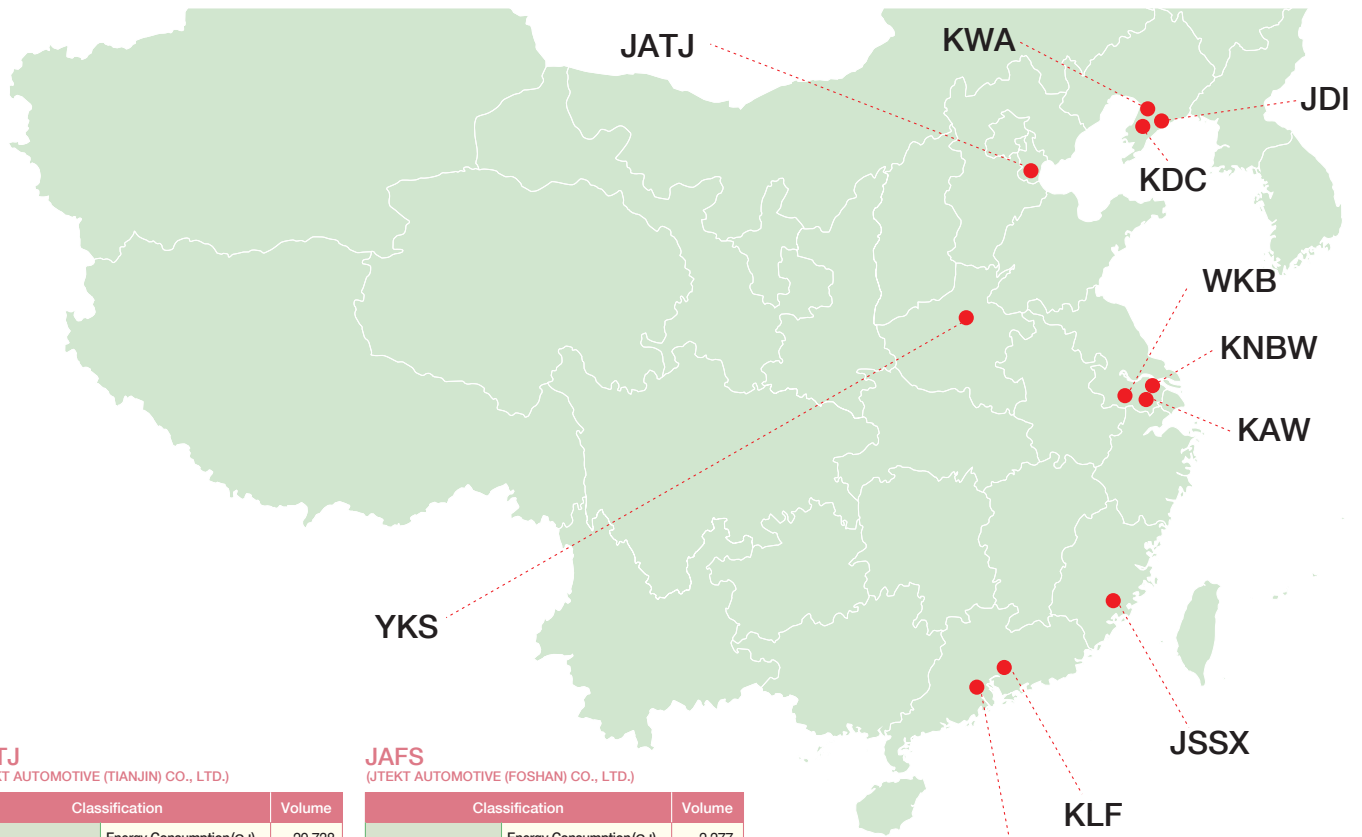
Classification		Volume	
INPUT	Energy Consumption(GJ)	18,143	
	Water consumed (m ³)	2,334	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 919	
	Materials Discarded	Recycled for profit (t)	0
		Waste output (t)	21

Asia/Oceania group Total

Classification		Volume	
INPUT	Energy Consumption (GJ)	957,644	
	Water consumed (km ³)	243	
	Per base unit (km ³ /100 million yen)	0.25	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	54,761
		Per base unit (t-CO ₂ /100 million yen)	56.8
	Materials Discarded	Recycled for profit (t)	7,758
		Waste output (t)	5,940
		Basic emissions unit (t/100 million yen)	14.2

* Emissions = Amount of recyclables sold + amount of waste disposed

Global business sites [China]



JATJ
(JTEKT AUTOMOTIVE (TIANJIN) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	29,738
	Water consumed (m³)	8,941
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	2,165
	Materials Recycled for profit (t)	483
	Discarded Waste output (t)	75

JAFS
(JTEKT AUTOMOTIVE (FOSHAN) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	2,277
	Water consumed (m³)	1,972
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	169
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	0

JSSX
(JTEKT STEERING SYSTEMS (XIAMEN) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	55,659
	Water consumed (m³)	19,939
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	4,131
	Materials Recycled for profit (t)	224
	Discarded Waste output (t)	10

WKB
(WUXI KOYO BEARING CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	57,259
	Water consumed (m³)	15,590
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	4,198
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	133

KNBW
(KOYO NEEDLE BEARINGS (WUXI) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption (GJ)	68,524
	Water consumed (m³)	18,935
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	5,079
	Materials Recycled for profit (t)	61
	Discarded Waste output (t)	123

KWA
(DALIAN KOYO WAZHOU AUTOMOBILE BEARING CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	46,375
	Water consumed (m³)	8,792
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	3,365
	Materials Recycled for profit (t)	773
	Discarded Waste output (t)	181

KDC
(KOYO BEARING DALIAN CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	78,566
	Water consumed (m³)	19,759
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	5,816
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	130

KLF
(KOYO LIHO (FOSHAN) AUTOMOTIVE PARTS CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	117,635
	Water consumed (m³)	36,990
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	8,705
	Materials Recycled for profit (t)	2,285
	Discarded Waste output (t)	2,605

KAW
(KOYO AUTOMOTIVE PARTS (WUXI) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	172,553
	Water consumed (m³)	26,104
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	12,602
	Materials Recycled for profit (t)	147
	Discarded Waste output (t)	117

JDI
(JTEKT DALIAN INNOVATION AUTOMOTIVE CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	16,851
	Water consumed (m³)	11,388
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	1,251
	Materials Recycled for profit (t)	980
	Discarded Waste output (t)	14

YKS
(YUBEI KOYO STEERING SYSTEMS CO., LTD.)

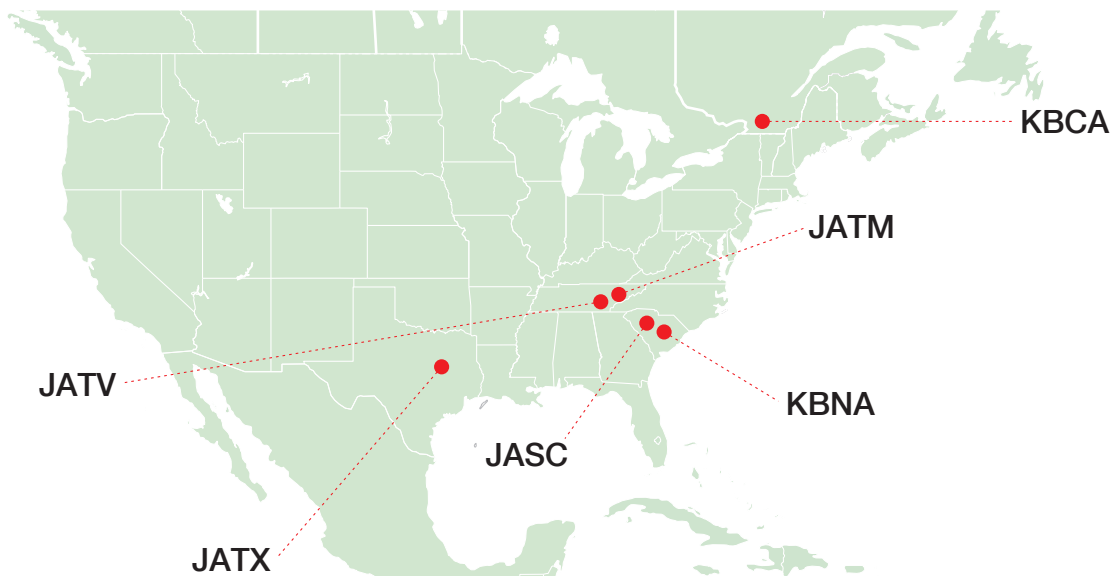
Classification		Volume
INPUT	Energy Consumption(GJ)	63,578
	Water consumed (m³)	36,298
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	4,702
	Materials Recycled for profit (t)	243
	Discarded Waste output (t)	79

China group Total

Classification		Volume
INPUT	Energy Consumption (GJ)	709,016
	Water consumed (km³)	205
	Per base unit (km³/100 million yen)	0.33
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	52,181
	Per base unit (t-CO ₂ /100 million yen)	84.1
	Materials Recycled for profit (t)	5,196
	Discarded Waste output (t)	3,467
	Basic emissions unit (t/100 million yen)	14.0

* Emissions = Amount of recyclables sold + amount of waste disposed

Global business sites [North America/South America]



JATV
(JTEKT AUTOMOTIVE TENNESSEE-VONORE LLC)

Classification		Volume
INPUT	Energy Consumption (GJ)	339,125
	Water consumed (m ³)	49,017
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	20,157
	Materials Recycled for profit (t)	3,610
	Discarded Waste output (t)	2,145

JATM
(JTEKT AUTOMOTIVE TENNESSEE-MORRISTOWN, INC.)

Classification		Volume
INPUT	Energy Consumption (GJ)	645,419
	Water consumed (m ³)	92,624
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	36,218
	Materials Recycled for profit (t)	178
	Discarded Waste output (t)	144

JATX
(JTEKT AUTOMOTIVE TEXAS, L.P.)

Classification		Volume
INPUT	Energy Consumption (GJ)	99,100
	Water consumed (m ³)	9,512
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	5,988
	Materials Recycled for profit (t)	1,131
	Discarded Waste output (t)	554

KBNA
(KOYO BEARINGS NORTH AMERICA LLC)

Classification		Volume
INPUT	Energy Consumption (GJ)	1,968,239
	Water consumed (m ³)	2,957,217
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	125,728
	Materials Recycled for profit (t)	11,789
	Discarded Waste output (t)	5,696

* In April 2013, KCU and KBUS integrated, changing the company name to KBNA. The data is that of former KCU.

JASC
(JTEKT AUTOMOTIVE SOUTH CAROLINA, INC.)

Classification		Volume
INPUT	Energy Consumption (GJ)	113,333
	Water consumed (m ³)	6,249
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	6,847
	Materials Recycled for profit (t)	2,499
	Discarded Waste output (t)	190

KBCA
(KOYO BEARINGS CANADA INC.)

Classification		Volume
INPUT	Energy Consumption (GJ)	208,714
	Water consumed (m ³)	14,955
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	5,580
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	1,398

JABR
(JTEKT AUTOMOTIVA BRASIL LTDA.)

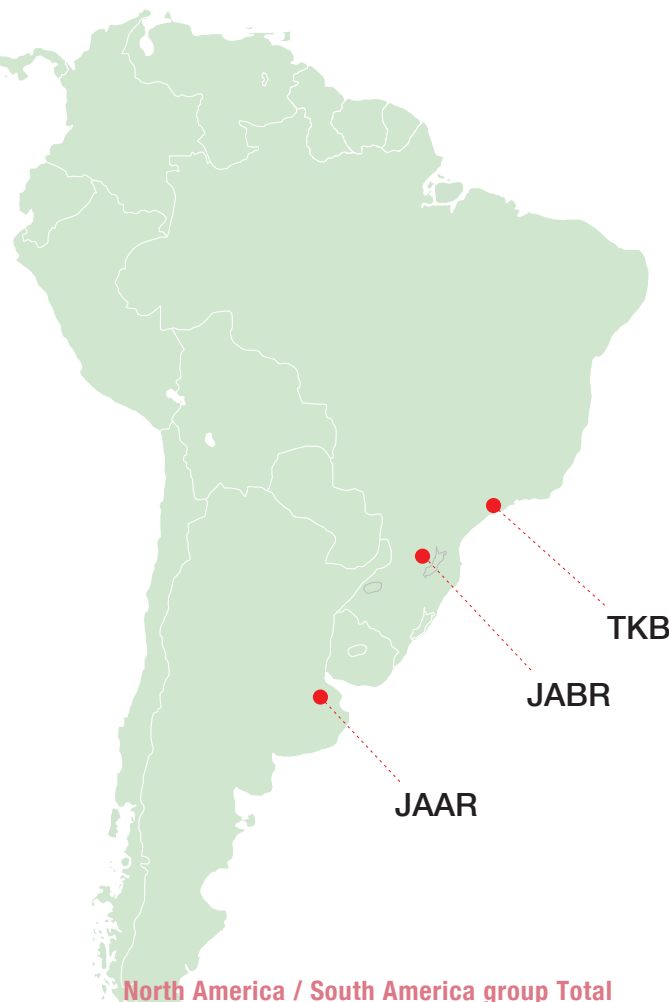
Classification		Volume
INPUT	Energy Consumption (GJ)	109,475
	Water consumed (m ³)	12,358
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	1,167
	Materials Recycled for profit (t)	926
	Discarded Waste output (t)	368

TKB
(TOYODA-KOKI DO BRASIL INDUSTRIA E COMERCIO DE MAQUINAS, LTDA.)

Classification		Volume
INPUT	Energy Consumption (GJ)	1,588
	Water consumed (m ³)	775
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	51
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	14

JAAR
(JTEKT AUTOMOTIVE ARGENTINA S.A.)

Classification		Volume
INPUT	Energy Consumption (GJ)	27,194
	Water consumed (m ³)	800
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	769
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	54

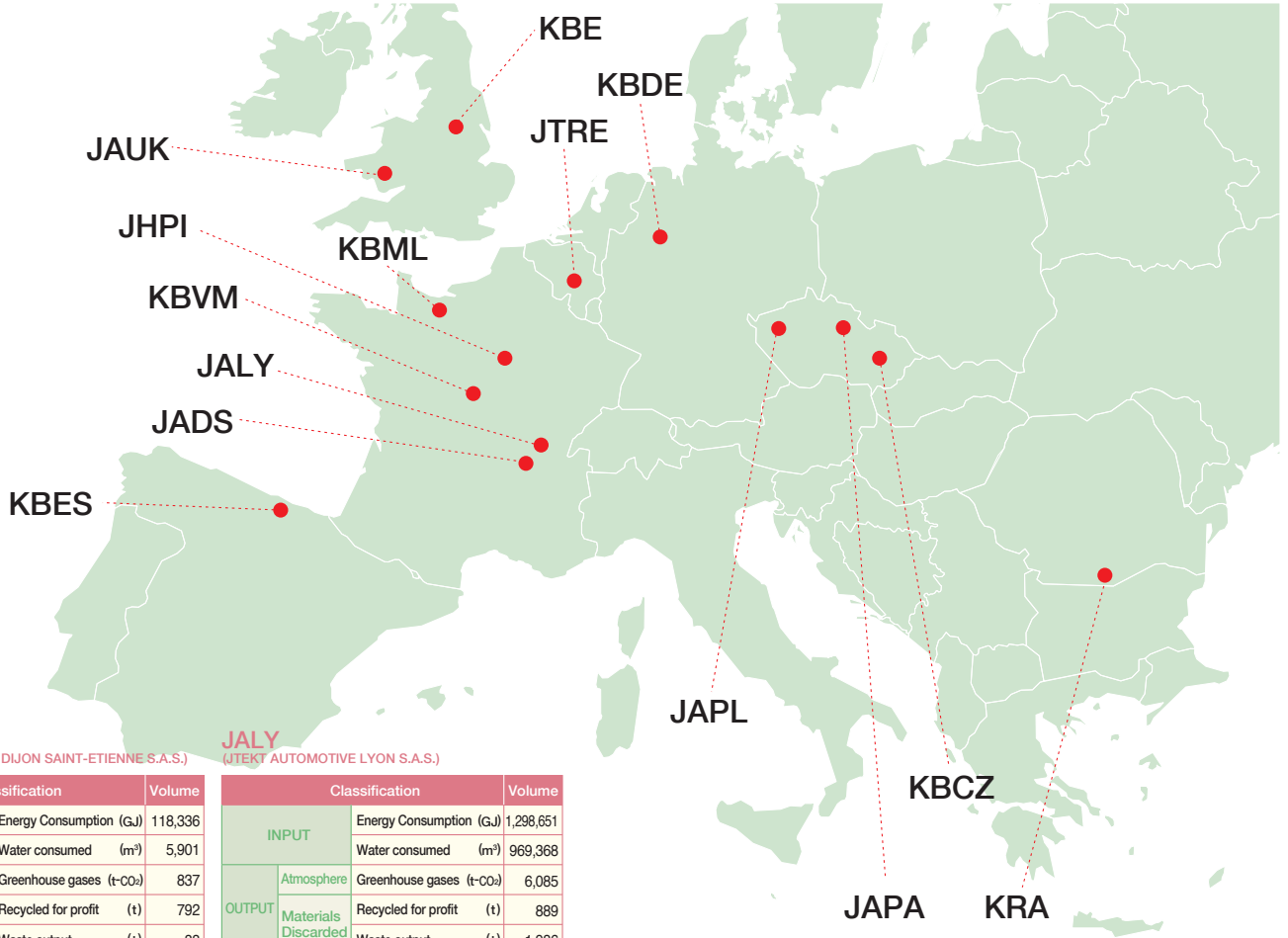


North America / South America group Total

Classification		Volume
INPUT	Energy Consumption (GJ)	3,512,187
	Water consumed (km ³)	3,144
	Per base unit (km ³ /100 million yen)	1.7
OUTPUT	Atmosphere Greenhouse gases (t-CO ₂)	202,505
	Per base unit (t-CO ₂ /100 million yen)	109.0
	Materials Recycled for profit (t)	20,132
	Discarded Waste output (t)	10,565
	Basic emissions unit (t/100 million yen)	16.5

* Emissions = Amount of recyclables sold + amount of waste disposed

Global business sites [Europe]



JADS
(JTEKT AUTOMOTIVE DIJON SAINT-ETIENNE S.A.S.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	118,336	
	Water consumed (m³)	5,901	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 837	
	Materials Discarded	Recycled for profit (t)	792
		Waste output (t)	88

JALY
(JTEKT AUTOMOTIVE LYON S.A.S.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	1,298,651	
	Water consumed (m³)	969,368	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 6,085	
	Materials Discarded	Recycled for profit (t)	889
		Waste output (t)	1,986

JHPI
(JTEKT HPI S.A.S.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	81,079	
	Water consumed (m³)	3,952	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 465	
	Materials Discarded	Recycled for profit (t)	178
		Waste output (t)	241

JAUUK
(JTEKT AUTOMOTIVE UK LTD.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	51,775	
	Water consumed (m³)	2,417	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 1,520	
	Materials Discarded	Recycled for profit (t)	505
		Waste output (t)	28

KBML
(KOYO BEARINGS MOULT SAS)

Classification		Volume	
INPUT	Energy Consumption (GJ)	17,520	
	Water consumed (m³)	739	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 227	
	Materials Discarded	Recycled for profit (t)	0
		Waste output (t)	126

KBVM
(KOYO BEARINGS VIERZON MAROMME SAS)

Classification		Volume	
INPUT	Energy Consumption (GJ)	149,463	
	Water consumed (m³)	18,800	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 3,321	
	Materials Discarded	Recycled for profit (t)	1,429
		Waste output (t)	1,545

KBE
(KOYO BEARINGS (EUROPE) LTD.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	200,815	
	Water consumed (m³)	1,101,226	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 10,687	
	Materials Discarded	Recycled for profit (t)	2,081
		Waste output (t)	767

JAPL
(JTEKT AUTOMOTIVE CZECH PLZEN, S.R.O.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	69,061	
	Water consumed (m³)	9,148	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 3,889	
	Materials Discarded	Recycled for profit (t)	405
		Waste output (t)	197

KBCZ
(KOYO BEARINGS CESKA REPUBLIKA S.R.O.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	77,477	
	Water consumed (m³)	5,992	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 4,391	
	Materials Discarded	Recycled for profit (t)	233
		Waste output (t)	835

KBES
(KOYO BEARINGS ESPANA S.A.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	13,442	
	Water consumed (m³)	1,719	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 517	
	Materials Discarded	Recycled for profit (t)	49
		Waste output (t)	18

JAPA
(JTEKT AUTOMOTIVE CZECH PARDUBICE, S.R.O.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	171,465	
	Water consumed (m³)	11,084	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 8,958	
	Materials Discarded	Recycled for profit (t)	336
		Waste output (t)	520

JTRE
(JTEKT TORSSEN EUROPE S.A.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	55,138	
	Water consumed (m³)	3,230	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 1,504	
	Materials Discarded	Recycled for profit (t)	1,432
		Waste output (t)	378

KRA
(KOYO ROMANIA S.A.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	659,958	
	Water consumed (m³)	161,531	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 25,754	
	Materials Discarded	Recycled for profit (t)	11,119
		Waste output (t)	427

KBDE
(KOYO BEARINGS DEUTSCHLAND GMBH)

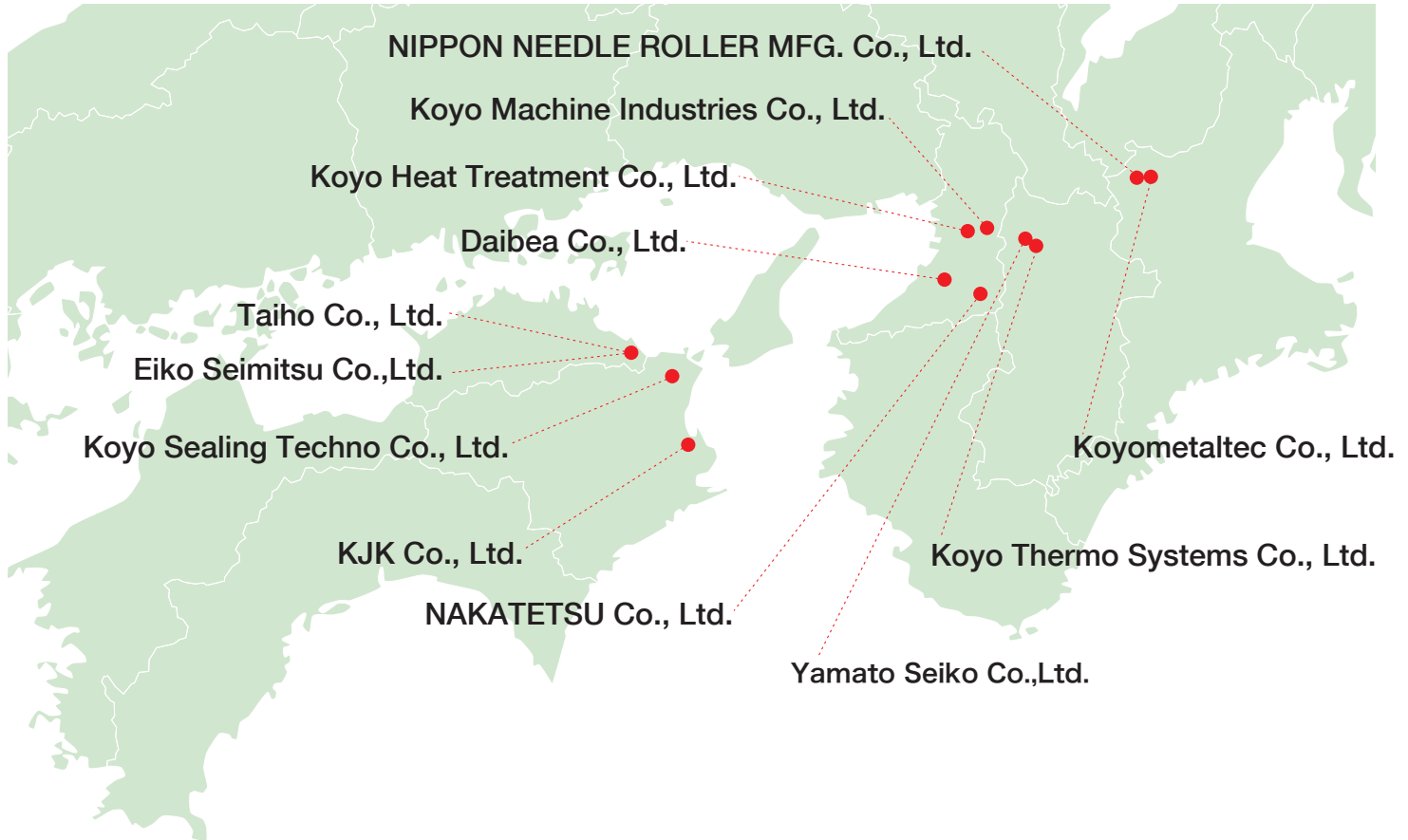
Classification		Volume	
INPUT	Energy Consumption (GJ)	147,196	
	Water consumed (m³)	59,738	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 8,260	
	Materials Discarded	Recycled for profit (t)	1,738
		Waste output (t)	422

Europe group Total

Classification		Volume
INPUT	Energy Consumption (GJ)	3,111,376
	Water consumed (km³)	2,355
	Per base unit (km³/100 million yen)	1.3
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂) 76,414
	Per base unit (t-CO ₂ /100 million yen)	42.6
		Materials Discarded
	Waste output (t)	7,577
	Basic emissions unit (t/100 million yen)	16.1

* Emissions = Amount of recyclables sold + amount of waste disposed

Global business sites [Domestic group production companies]



Koyo Machine Industries Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	230,254	
	Water consumed (km ³)	41.9	
	Chemical substances handled (t)	8.6	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	8,953
		Chemical substances released (t)	5.2
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	2,536
	Materials Discarded	Waste output (t)	803
		Chemical substances transferred (t)	3.4

Koyo Sealing Techno Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	164,439	
	Water consumed (km ³)	142.4	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	7,050
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	647
	Materials Discarded	Waste output (t)	15
		Chemical substances transferred (t)	0

Koyo Thermo Systems Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	62,373	
	Water consumed (km ³)	13.5	
	Chemical substances handled (t)	0.5	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	2,482
		Chemical substances released (t)	0.5
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	86
	Materials Discarded	Waste output (t)	157
		Chemical substances transferred (t)	0

Daibea Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	336,050	
	Water consumed (km ³)	87.5	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	12,800
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	609
	Materials Discarded	Waste output (t)	1,180
		Chemical substances transferred (t)	0

Koyometaltec Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	549,210	
	Water consumed (km ³)	60.5	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	21,418
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	12,570
	Materials Discarded	Waste output (t)	544
		Chemical substances transferred (t)	0

KJK Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	49,374	
	Water consumed (km ³)	1.5	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	1,840
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	3,510
	Materials Discarded	Waste output (t)	4
		Chemical substances transferred (t)	0

NIPPON NEEDLE ROLLER MFG. Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	76,103	
	Water consumed (km ³)	36.6	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	3,004
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	133
	Materials Discarded	Waste output (t)	668
		Chemical substances transferred (t)	0

Koyo Heat Treatment Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	378,764	
	Water consumed (km ³)	36.2	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	16,207
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	300
	Materials Discarded	Waste output (t)	40
		Chemical substances transferred (t)	0

Taiho Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	106,593	
	Water consumed (km ³)	5.3	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	4,032
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	5,475
	Materials Discarded	Waste output (t)	26
		Chemical substances transferred (t)	0

NAKATETSU Co., Ltd.

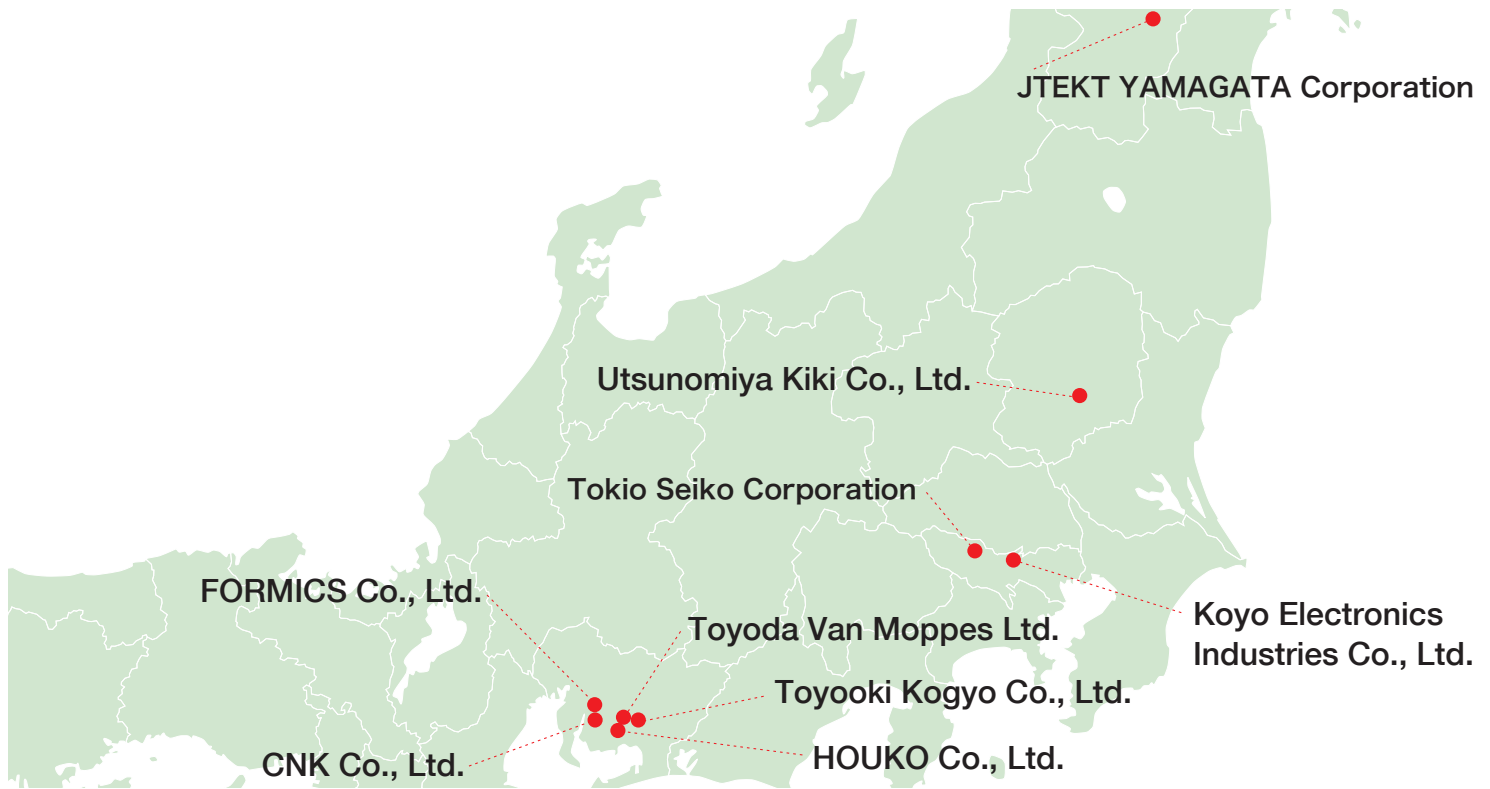
Classification		Volume	
INPUT	Energy Consumption (GJ)	328,187	
	Water consumed (km ³)	8.2	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	12,985
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	12,008
	Materials Discarded	Waste output (t)	351
		Chemical substances transferred (t)	0

Yamato Seiko Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	49,870	
	Water consumed (km ³)	3.1	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	2,080
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	13.1
	Materials Discarded	Waste output (t)	204
		Chemical substances transferred (t)	0

Eiko Seimitsu Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	28,580	
	Water consumed (km ³)	2.6	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	1,189
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	0
	Materials Discarded	Waste output (t)	4
		Chemical substances transferred (t)	0



Toyooki Kogyo Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	92,728	
	Water consumed (km ³)	28.9	
	Chemical substances handled (t)	5.8	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	3,496
		Chemical substances released (t)	5.8
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	552
	Materials Discarded	Waste output (t)	219
		Chemical substances transferred (t)	0

CNK Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	266,979	
	Water consumed (km ³)	81.6	
	Chemical substances handled (t)	18.8	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	10,547
		Chemical substances released (t)	12.1
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	91
	Materials Discarded	Waste output (t)	538
		Chemical substances transferred (t)	6.6

Koyo Electronics Industries Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	31,970	
	Water consumed (km ³)	9.6	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	1,245
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	46
	Materials Discarded	Waste output (t)	9
		Chemical substances transferred (t)	0

Utsunomiya Kiki Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	144,337	
	Water consumed (km ³)	68.6	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	5,409
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	3,048
	Materials Discarded	Waste output (t)	186
		Chemical substances transferred (t)	0

HOUKO Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	32,858	
	Water consumed (km ³)	3.6	
	Chemical substances handled (t)	6.4	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	1,330
		Chemical substances released (t)	6.4
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	174
	Materials Discarded	Waste output (t)	69
		Chemical substances transferred (t)	0

Toyoda Van Moppes Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	24,987	
	Water consumed (km ³)	6.8	
	Chemical substances handled (t)	3.0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	933
		Chemical substances released (t)	2.7
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	133
	Materials Discarded	Waste output (t)	81
		Chemical substances transferred (t)	0.3

FORMICS Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	11,912	
	Water consumed (km ³)	1.4	
	Chemical substances handled (t)	2.5	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	473
		Chemical substances released (t)	2.5
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	515
	Materials Discarded	Waste output (t)	35
		Chemical substances transferred (t)	0

Tokio Seiko Corporation

Classification		Volume	
INPUT	Energy Consumption (GJ)	22,362	
	Water consumed (km ³)	1.5	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	862
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	722
	Materials Discarded	Waste output (t)	4.5
		Chemical substances transferred (t)	0

JTEKT YAMAGATA Corporation

Classification		Volume	
INPUT	Energy Consumption (GJ)	6,207	
	Water consumed (km ³)	0.4	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	243
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	13
	Materials Discarded	Waste output (t)	0
		Chemical substances transferred (t)	0

Domestic group Total

Classification		Volume	
INPUT	Energy Consumption (GJ)	2,994,131	
	Water consumed (km ³)	642	
	Per base unit (km ³ /100 million yen)	0.67	
	Chemical substances handled (t)	45.6	
OUTPUT	Atmosphere	Greenhouse gases (t-CO ₂)	118,578
		Per base unit (t-CO ₂ /100 million yen)	123.9
		Chemical substances released (t)	35.2
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	43,181
	Materials Discarded	Waste output (t)	5,136
		Basic emissions unit (t/100 million yen)	50.3
		Chemical substances transferred (t)	10.4

* Emissions = Amount of recyclables sold + amount of waste disposed
 * Includes chemical substances subject to PRTR which have a handling amount of 1000 kg/year or more.

JTEKT CORPORATION

<http://www.jtekt.co.jp/e/>



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