

CSR Report

2010



— Value & Technology

Pursuing dreams through skill to
bring you valuable technology

JTEKT

JTEKT CORPORATION

Nurturing, connecting.

In February of 2009, JTEKT established a CSR Promotion Committee.

A year has passed, and we are still in the stage of asking ourselves

“What kind of CSR would best express JTEKT?”

But the JTEKT CSR sprout is indeed growing bigger.

Internally we are extending the roots of CSR,

while externally we are broadening the branches of communication.

This report is intended as a tool to show our stance

of further making efforts to enrich CSR

as well as a tool to think how to progress toward the future.



About the front cover

The theme of the illustration is [The CSR tree]. The most important issue concerning the promotion of JTEKT's CSR, is how to instill awareness of the CSR internally. The CSR tree incorporates the concept that the connection of individual employees' awareness of the CSR will nurture JTEKT into a company beneficial to society.

JTEKT

CSR Report 2010

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CSR Report 2010 target period and target organizations

■ Target period

FY2009 (April 2009 – March 2010)

*Some items include content from other periods.

■ Target organizations and scope

All JTEKT Corporation independent activities

*Some items show the achievements of affiliated companies.

■ Report structure

Last year's report was 48 pages but this year the total number of pages has increased to 62. This was a result of examining letter size, etc, with an emphasis on making the report easier to read.

Moreover, in order to use this report as a tool for communication with the local communities surrounding each business site, the "environmental data per business site" featured only in the website version last year, has been enriched and included in this report.

Reference guidelines

©GRI (Global Reporting Initiative), "Sustainability Reporting Guidelines 2006" (third edition)

©Japan's Ministry of the Environment, "Environmental Reporting Guidelines" (2007 edition)

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Aiming to become a corporation with the trust and understanding of society

JTEKT Corporation
Company President

Shoji Ikawa



Reflect upon our achievements in FY2009 and aim to become a corporation with the trust and understanding of society

First, please allow me to express my gratitude for your constant support and understanding of JTEKT's business activities.

Looking back upon fiscal year 2009, in order to respond to the rapid worsening of the business environment after the Lehman Shock, we took action to reduce fixed costs in line with production scale, reconstruct our production framework and adjust our workforce. From the latter half of the year, as the result of various countries' economic stimulus measures, many industries including automotive, showed signs of recovering demand, however the willingness of companies to invest in equipment remained low. Due to this external environment, in FY2009, despite being able to secure a sales surplus of 10.2 billion yen in the mechanical components and apparatus business, the machine tool business produced a sales deficit of 10.2 billion yen, a result reflecting the severity of the external environment. The final profit and loss result gave a significant deficit of 19.4 billion yen after setting aside funds for business structure improvement, quality assurance and so forth, and I feel extremely sorry that we were unable to fulfill our responsibility to our stakeholders. Also, I am grateful to the employees of all of our group companies, both within Japan and overseas, for sharing the burden of suppressed employment and salaries and relocation in the form of production support and so on.

We take these outcomes seriously, and look at this as an opportunity to reflect deeply upon why we were unable to respond swiftly to the rapid change in the business environment, and rethink how we should fulfill our responsibility to our stakeholders.

We believe that CSR starts with offering good quality, low-cost products from a "customer comes

first" viewpoint, and winning trust based on safety in the community and the safe work practices of our employees. In order to continue sending products like this out into the world, we need to continue being a company where employees work with vigor and enthusiasm.

We would like to see such efforts bear results and produce adequate profits so that we may make stable contributions through tax payments and shareholder dividends.

Further still, JTEKT take societal issues such as global environmental problems and traffic accidents seriously, and are proactive in finding solutions through *monozukuri* and engineering innovation, managing our company for the forces of good, and aiming to become a corporation with the trust and understanding of society.

Recall our founding spirit, and provide *monozukuri* for the forces of good

In order to realize this goal, we would like to go back to our grass roots, and recall our founding spirit.

JTEKT was created when Koyo Machines and Toyoda Machine Works merged in January of 2006, becoming an unmatched *monozukuri* company with bearings, agglomerations of elemental technology essential to machines, as well as machine tools and automotive components which make up the mechanical element.

The thinking at the time of our founding as JTEKT, essentially our rebirth as a company, was "be a company that holds up the foundation of *monozukuri*, that the world knows about, counts on and trusts" and our ideas on sending out technology and products useful for the people of the world is expressed in our corporate message of "Pursing dreams through skill to bring you valuable technology". This valuable technology is based on the key words of "quality, safety" and "environment" which possess universal value irrespective of the era.



We always go back to our roots when we consider who quality and safety is for. We are keenly aware that quality and safety are for the customer, decided by the customer, and always look from the perspective of the customer to examine whether we are running our business in a fashion that will achieve across-the-board improvements in respect to societal issues.

Meanwhile, in the environmental aspect, developing products and technology that prioritize global warming prevention and resource/energy problems is our imperative.

Global environment conservation movements are accelerating across all industries. For example, the popu-

larization of hybrid cars and acceleration of electric car development in the automotive field, shift to rail transportation in logistics, spread of reusable energies, hybridization of construction equipment and so forth.

JTEKT develop products which contribute to global environment conservation in the general application machinery fields of automotive, wind-power generation, steel, construction equipment, agricultural equipment and so on.

For example, since becoming the first manufacturer in the world to develop and mass produce an electric power steering (EPS) that improves vehicle fuel efficiency by 3% to 5% compared with the conventional

hydraulic type, we have exerted every effort to popularize EPS by enhancing fuel efficiency, shifting to high output to suit large vehicles, creating electronic control to increase safety and so forth. Furthermore, going beyond the bounds of common sense, we have developed an ultra-low torque, tapered roller bearing with 80% reduced torque loss and an electric pump for eco-run. In the future we will commit ourselves to developing electric unit products like wheel hub motors and so on, in order to contribute to the popularization of hybrid cars and electric vehicles. In the industrial machinery field, we were the first in the world to develop a ceramic bearing with insulation specifications preventing electrical corrosion and introduce it as a product for wind-power generators.

In the machine tool field, we established an environmental load assessment index through the entire lifecycle of our products, developing “Eco-Scale” a JTEKT-original index expressing the reduction of environmental load, developing products and technology leading the market in a wide range of fields by conveying the environmental performance of the machine tools JTEKT sells in an easy-to-understand way to our customers.

Presently, technology with value is diversifying, and there is a change from world standardized quality, to optimal specifications matching the characteristics of the market and region. However, quality, safety and environment, key factors at the heart of *monozukuri*, remain universal, and should remain unchanged regardless of the times. We believe that it is JTEKT’s duty and responsibility to deliver products, technology and services which advance quality, safety and environmental technologies and bring joy and inspiration to our customers.

We will continue to solve societal issues, and advance the development of products which contribute to the development of a sustainable planet and society and technologies which support *monozukuri*.

Becoming a company that grows with employees and the community

We want JTEKT to be a company where our employees can grow and express themselves.

Creating an environment where each and every employee can think for themselves and overcome hurdles independently is the duty of management, and if employees can grow in this way, grow together with the company, we believe this will benefit society.

We think that if our employees can feel satisfied with their choice to work at JTEKT, this will lead to the happiness of people on the whole.

We want to be a company that takes care of working men and women. That is the type of company we strive for.

Our CSR activities have only just begun, and in the future we will gather our stakeholders’ opinions through dialogue and reflect them in our business activities.

We will aim to become a corporation which wins society’s trust and understanding of our business activities.

I would like to thank you all in advance for your continued support onwards into the future.

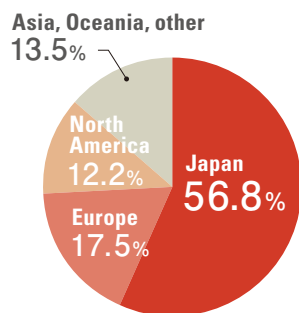


Building futures all around the world.

JTEKT bases spread across the world.

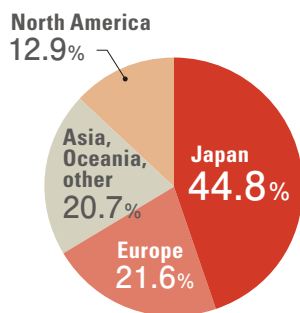
Below shows data by region and topics from FY2009.

Sales turnover share by location

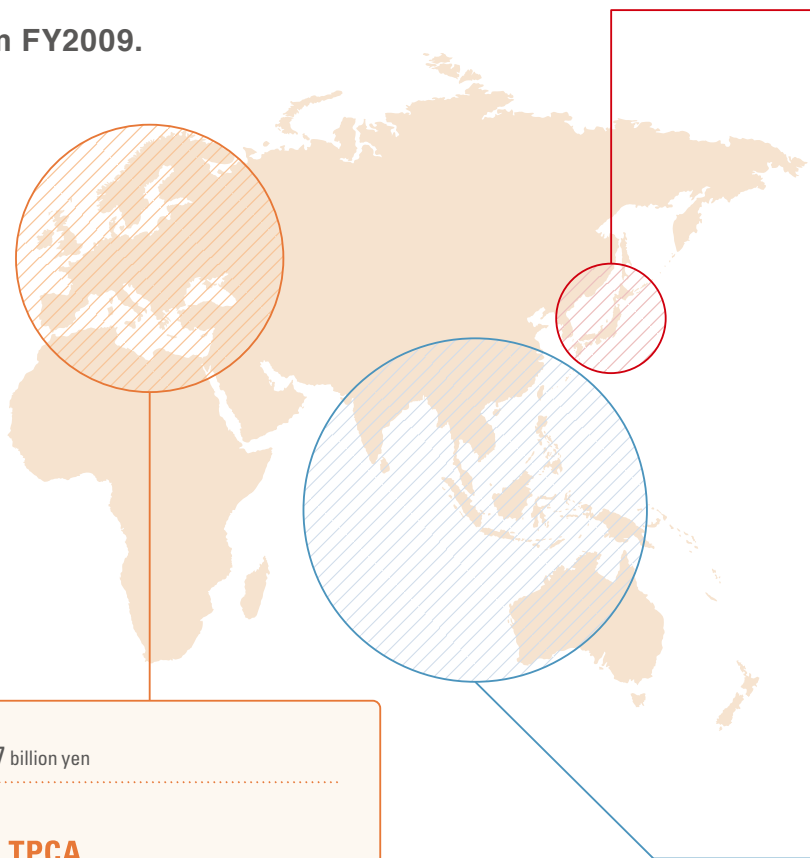


(FY2009 consolidated net sales)

Employee percentage by location



(Consolidated net sales current as of March 31st, 2010)



Europe

Number of companies: 25

Number of employees: 7,682

Sales: 134.7 billion yen

TOPICS

Rewarded 2 years in a row Outstanding performance award from TPCA

At TPCA's (*1) supplier awards ceremony, JTEKT AUTOMOTIVE CZECH PLZEN, S.R.O. (steering production company based in the Czech Republic) was chosen for the top 15 from 200 suppliers and awarded an outstanding performance award. This award evaluates activities from a quality and delivery time perspective and this was the second consecutive year the Czech plant received a prize following the Award for excellence from the previous year. We will continue to liaise with related institutions and work to satisfy our customers.

*1 TPCA Toyota Peugeot Citroen Automobiles Czech, s.r.o. A Czech automotive manufacturing company jointly established by Toyota Motor Corporation and PSA Peugeot Citroen.



Company Profile

Company name	JTEKT Corporation
Headquarter	No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka 542-8502 Japan
Head Offices	[Nagoya Head Office] No. 7-1, Meieki 4-chome, Nakamura-ku, Nagoya, Aichi Pref. 450-8515 Japan [Osaka Head Office] Minamisemba 3-chome, Chuo-ku, Osaka 542-8502 Japan
President	Shoji Ikawa
Capital	36.8 billion yen (as of March 31, 2010)
Number of employees	35,465 [consolidated] / 10,105 [nonconsolidated] (as of March 31, 2010)
Sales	769.6 billion yen [consolidated] / 484.2 billion yen [nonconsolidated] (FY2009)
Ordinary income	▲ 200 million yen [consolidated] / 1 billion yen [nonconsolidated] (FY2009)
Consolidated subsidiaries	117 (33 in Japan, 84 overseas)

Company History

May 2005	Koyo Seiko Co., Ltd. and Toyoda Machine Works, Ltd. concluded merger agreement
January 2006	JTEKT Corporation established
July 2007	Electric power steering system manufacturer JTEKT Sona Automotive India Ltd. established in India jointly with Sona Koyo Steering Systems Ltd.
August 2008	Machine tool sales and service company Toyoda Micromatic Machinery India Limited established in India jointly with Micromatic Grinding Technologies
December 2009	Acquisition of U.S. company The Timken Company's needle bearing business

Japan

Number of companies: 34

Number of employees: 15,878

Sales: 437.1 billion yen

TOPICS

Awarded Nikkan Kogyo Shimbun's Top 10 New Products Award

The CNC combination grinding center (TG4) was awarded the [Monozukuri prize] at the 52nd Nikkan Kogyo Shimbun Top 10 New Products Awards. In recent years, the demands of the production equipment market have included high added-value production, lead-time reduction and so forth. The TG4 which was developed in response to these demands, has integrated the grinding processes conventionally requiring two machines while achieving downsizing and saving space. Moreover, it has been highly evaluated as a combination grinder that can significantly reduce running costs through progress integration.



TG4 grinding center

North America

Number of companies: 17

Number of employees: 4,571

Sales: 94.1 billion yen

TOPICS

Welcoming ceremony for TIMKEN needle bearing business – aiming for world No.1 in the automotive parts field

→ P22-23 Related article

A welcoming ceremony for the needle bearing business inherited from TIMKEN was held at KOYO BEARINGS USA LLC [SALES DIV.] (US bearing production/sales affiliate company). Putting our customer first, making quality our top priority, and having enthusiasm towards creativity and innovation, we aim to become world No.1 in the automotive parts field.



Asia, Oceania, other

Number of companies: 42

Number of employees: 7,334

Sales: 103.6 billion yen

TOPICS

Aiming for No.1 model plant in China Religious ceremony to accompany new plant construction

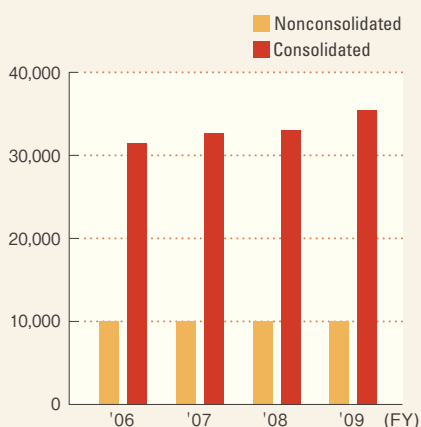
A religious ceremony was performed at YOBEI KOYO STEERING SYSTEM CO., LTD. (Chinese steering affiliate company) to accompany the beginning of construction on a new plant.

With an annual production target of one million units, this plant will aim to become the No. 1 model plant in China through the all-over promotion of the JPS (*2) and the slogans of "stubborn honesty", "steadiness" and "thoroughness".

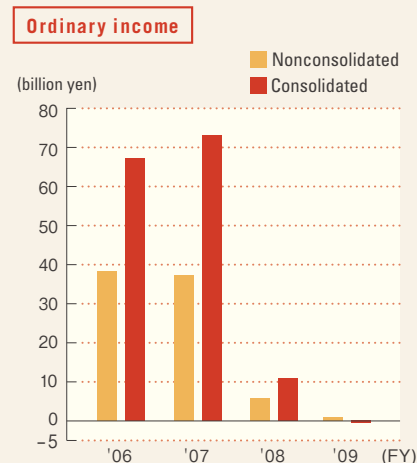
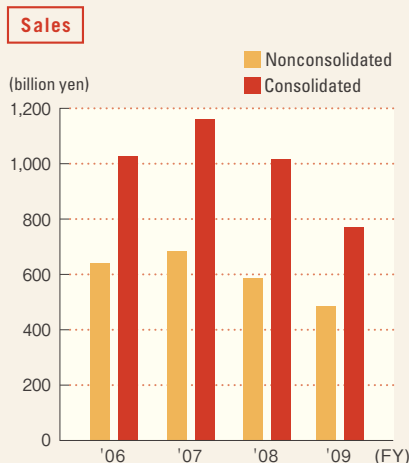
*2 JPS JTEKT Production System. A system that pursues efficient production by the thorough abolishment of waste.



Number of Employees



Financial Highlights



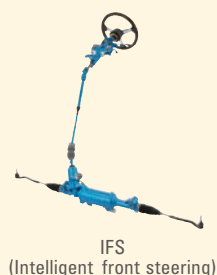
Underpinning society through manufacturing. That is the significance of JTEKT's existence.



Automotive-related

Steering systems

JTEKT



The steering system is the mechanism responsible for turning a vehicle and the sole part that allows the driver to feel at one with the car. JTEKT were the first in the world to develop and mass produce motor-assisted electric power steering. As our pioneering industry, we offer all types of steering systems to major automotive manufacturers across the globe.



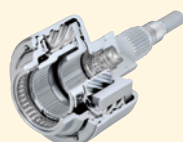
Automotive bearings



Needle bearings

Driveline components

JTEKT



Driveshafts



CVT oil pumps

Driveline components are responsible for moving the car. Including ITCCs (electronically controlled 4WD couplings) already holding an overwhelming world share for 4WD units, TORSENs (torque sensing full time 4WD), drive shafts, propeller shafts and so on, JTEKT are providing major automotive manufacturers around the world with driveline systems connecting the engine to the tires.



Camshaft grinder (GC20M)



Special-purpose machines
(Top Center)

Most people probably don't have the opportunity to see JTEKT's products often. However our products are used widely in general industries like automotive-related industries, steel, railway, aircraft/aerospace, construction and agricultural machinery, wind power generation and so on, supporting society close to you.

JTEKT

"JTEKT" is the brand name used for JTEKT's steering systems and driveline components.

Koyo

"Koyo" is the brand name used for JTEKT's bearings and oil seal products.

TOYODA

"TOYODA" is the brand name used for JTEKT's machine tools.

General industry-related

Bearings

Koyo



Bearings for extreme special environment



Bearings for N700 series bullet trains



Machine tool bearings



Aircraft bearings



Windmill power generator bearings



Steel mill bearings

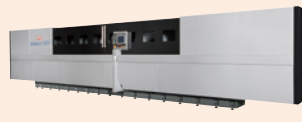
Bearings have the role of supporting the rotating parts of all mechanical devices. Because they are a functional component critical to the industrial domain, they are known as the "backbone of industry". Centered on automotive bearings positioned in the world's top group, JTEKT are contributing to customers around the globe starting with wind power generation and covering a diverse range of fields such as energy, steel, construction machinery, agricultural machinery, and aircraft.

Machine tools & mechatronics

TOYODA



Safety PLC (TOYOPUC)



Large combination grinder (Select G7)



Combination grinder (TG4)



Machining centers

Machine tools are machines made to build machines. They are commonly referred to as "Mother Machines". JTEKT are one of the few companies in the world to possess machine tool technology at the same time as being a component manufacturer ourselves. We provide customers involved in manufacturing all across the globe with products such as grinders that boast the highest sales in the world, ultra precision machines capable of nanometer machining, high speed/high accuracy machining centers and so on.

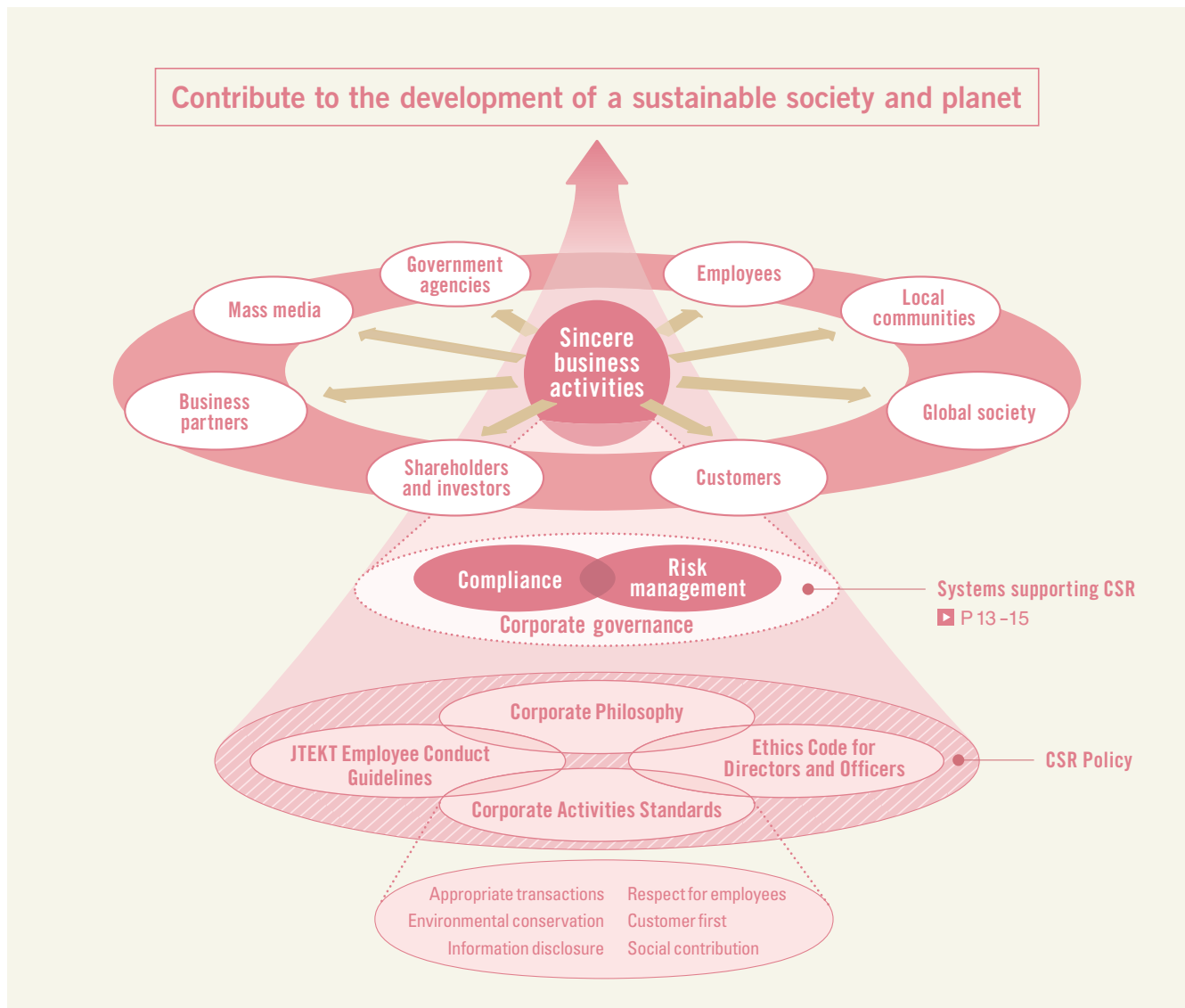
* IFS, ITCC and TORSER are trademarks of JTEKT Corporation.

JTEKT CSR

JTEKT is still a young company.

We aim for the maturity and establishment of our own CSR.

JTEKT's CSR concept



Contributing to the happiness of people and the abundance of society through product manufacturing

In our corporate philosophy, JTEKT uphold the slogan of “contributing to the happiness of people and the abundance of society through product manufacturing”. The first step of JTEKT’s CSR is to be strongly aware of the issues facing society and actively pursue solutions.

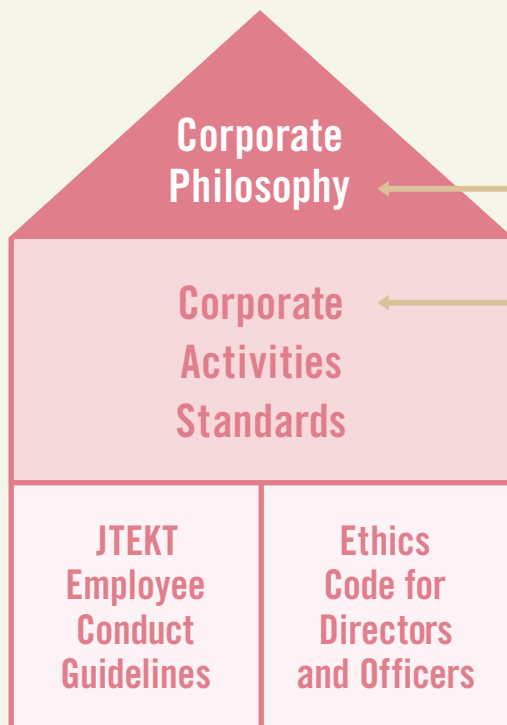
With bearings, referred to as the “backbone of the industry”,

and machine tools, known as “mother machines”, as our primary businesses, we have contributed down through time to industry development and the safe and affluent lives of people. From here forth also, we will aggressively search for solutions to the issues facing society which will continue to grow more serious, such as the global environment, the depletion of resources, traffic accidents and so forth. Furthermore, amidst increasing globalization, we will respect diverse values and fulfill our responsibility as a world citizen, and in doing so contribute to the development of a sustainable society.

JTEKT was formed in 2006 when Koyo Machines and Toyoda Machine Works merged. Both companies have a long history but only 4 years have passed since JTEKT was born. “What is our CSR?” — that is the answer we are still in pursuit of.

CSR Policy

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



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.

CSR Promotion Structure

Centered on the CSR Promotion Committee established in February, 2009, we are involved in various activities and raising employee awareness.

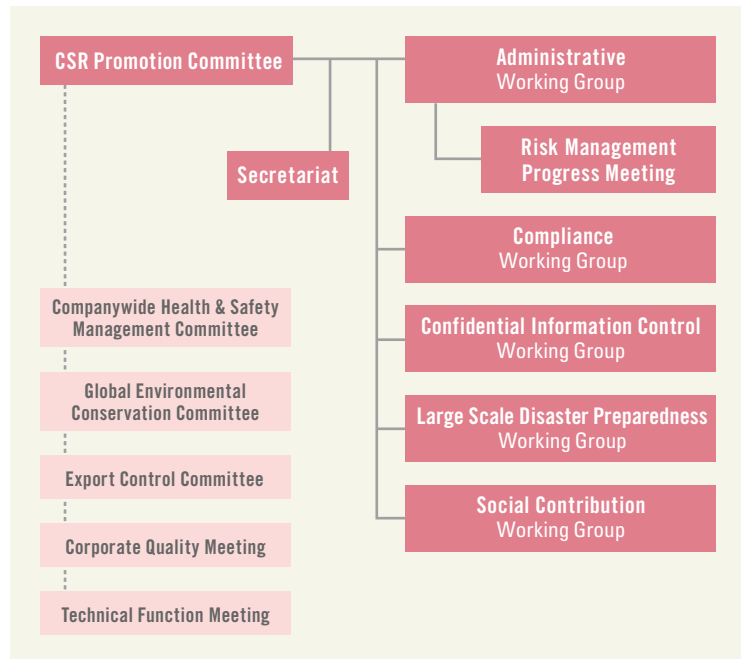
Systematic promotion of CSR activities

In February 2009, JTEKT established a CSR Promotion Committee chaired by the company president in order to systematically promote CSR activities on a companywide and group-wide basis. This organization discusses how best to accomplish the missions of fulfilling the Corporate Philosophy and controlling risk through CSR activities from many angles.

Establishment of specialized working groups

Specialized working groups have been established to form and carry out action plans regarding important topics such as compliance, confidential information control, and disaster preparation and response.

Outline of the structure



Overview of each organization

• Administrative Working Group

Plan and monitor the progress of CSR activities and expand them to group companies. Identify risks, prepare countermeasure plans, and monitor plan progress.

• Compliance Working Group

Raise awareness of the need for compliance with laws, internal rules, and business ethics.

• Confidential Information Control Working Group

Devise and implement a structure and systems for ensuring information security.

• Disaster Preparedness Working Group

Strengthen buildings and equipment to withstand disasters, prepare a manual for early recovery, etc.

• Social Contribution Working Group

Promote social contribution and volunteer activities.

CSR activities in each department

At JTEKT, CSR activities are promoted by the specialized committees and working groups operating under the CSR Promotion Committee. Individual departments such as General Administration and Personnel each include CSR targets in their annual policies and pursue these targets in a planned manner using the PDCA cycle (*1). Each working group's lead department compiles achievement results and reports to the CSR Promotion Committee. By this structure, JTEKT aims to promote the energetic, consistent carrying out of CSR activities throughout JTEKT and the JTEKT Group.

→ P 16-17 Related article

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

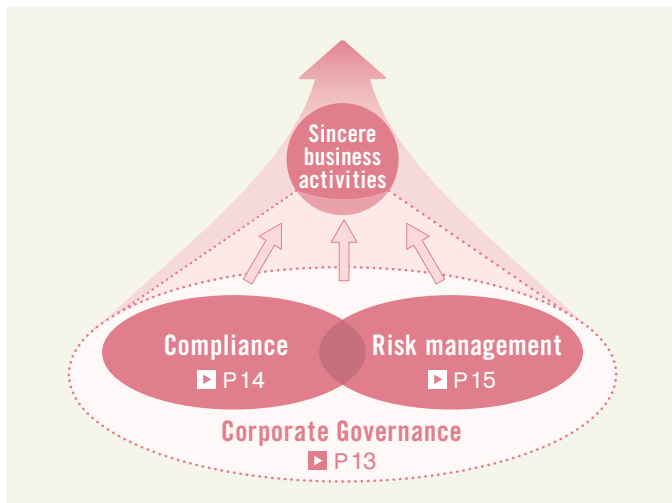


Systems supporting CSR

“Corporate governance”, “Compliance” and “Risk management”
— the three pillars supporting sincere business activities and promoting CSR.

The 3 pillars of sincere business activities

At JTEKT, we believe that the continual implementation of sincere business activities is connected to 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. At JTEKT, we have many ideas on how to effectively function each of these mechanisms.



Corporate Governance

[Basic concept]

Improving management transparency

JTEKT aim to build good relationships with all stakeholders and continuously enhance corporate value. We believe that increasing the transparency of management is vital to achieve this and strive to strengthen corporate governance.

[Promotion structure]

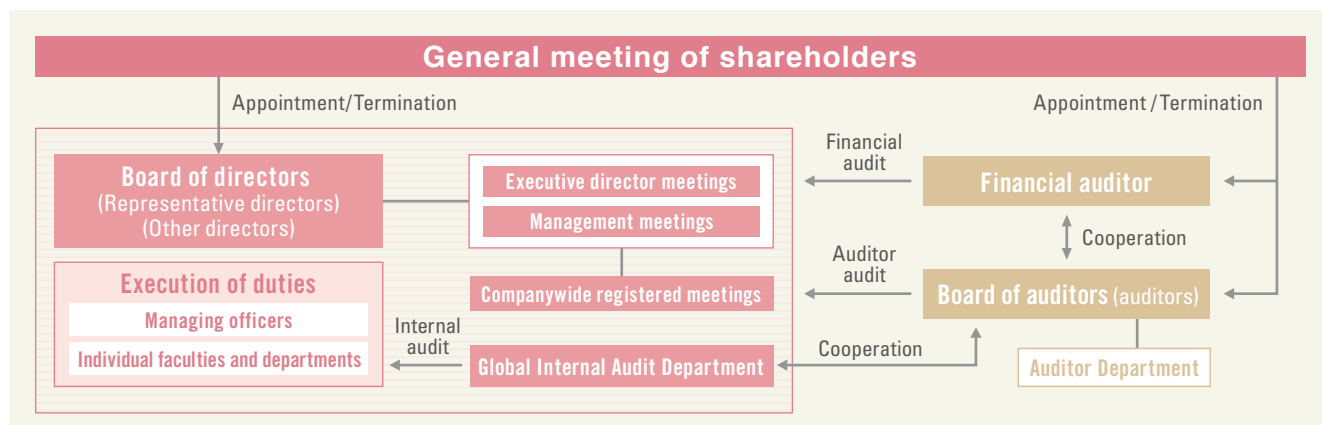
Audits by a “Global Internal Audit Department”

As a means of monitoring management, we have adopted an auditor system consisting of five auditors, three of

whom are external, who audit the directors’ execution of duties. We have also established an independent Global Internal Audit Department to audit overall operations including the adequacy and lawfulness of operational management and procedures. (See below figure)

Moreover, JTEKT is striving to construct an appropriate internal control system based on the internal control reporting system (commonly called J-SOX) (*2) by strengthening its internal control structure, expanding this throughout the JTEKT Group, and reviewing work process controls and IT controls.

*2 The internal control reporting system (common name – J-SOX) refers to the “internal control reporting system” relating to financial reporting based on the Financial Instruments and Exchange Act. It has been applied to listed companies since April, 2008.



Compliance

[Basic concept]

Compliance is the foundation that supports CSR

JTEKT believe that realizing the corporate philosophy is an essential condition for compliance as the premise and foundation supporting CSR. Not stopping at mere law observance, in order to fulfill corporate philosophy and social responsibilities we have established a "Compliance Standard", "Ethics Code for Directors and Officers", "Employee Conduct Guidelines" and so on.

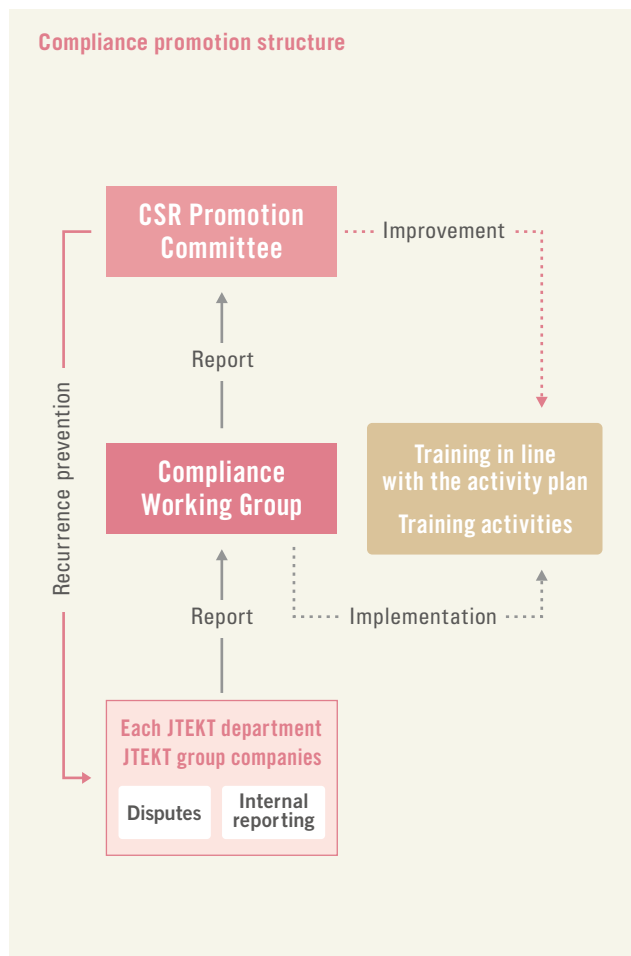
[Promotion structure]

Establish specialist working groups

A "Compliance Working Group" has been established as the compliance promotion organization. This group is in charge of activity planning, training, educational activities and so on. Disputes and internal reporting are also gathered by this group and reported to the CSR Promotion Committee. Analysis and evaluation helps to prevent reoccurrence.

Group company promotion structure

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



Training and educational activities

To deepen awareness-sharing

Through various training opportunities, we share and deepen awareness of compliance.

Periodic compliance workshops at each workplace

The Legal department circulates around individual workplaces and implements training mainly targeting leadership positions. As of March, 2010, 30 workplaces and approximately 1,300 people had completed training.

Compliance training by category

Training is carried out separately for new employees, employees who have been promoted to leadership positions, newly appointed executives and so forth.

E-learning

E-learning regarding the Anti-Monopoly Act has been developed.

Internal reporting system

Handled 22 cases in FY 2009

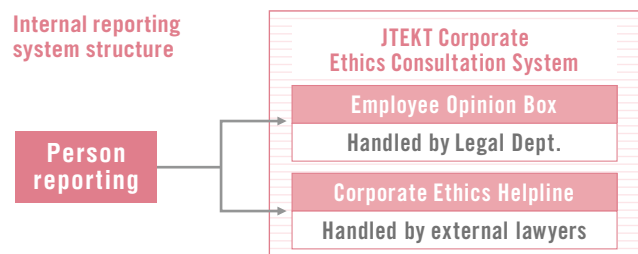
The JTEKT corporate ethics consultation system was established so that employees can report problems or

doubts related to compliance. The helpline consists of an Employees Opinion Box and a Corporate Ethics Helpline. In FY2009, 22 cases were handled.

Internal reporting system

FY 2007	19 cases
FY 2008	31 cases
FY 2009	22 cases

Internal reporting system structure



Actively informing employees

On top of the company newsletter and homepage, from 2009, the Consultation Window has been using desk-top pop-ups and vending machine paper cups to raise awareness of their presence. By doing this, they have created an environment which makes them easier to approach.

Risk management

[Basic concept]

Reinforcing business activity foundation through risk management

The foundation of business activities is reinforced by not only the prevention of various kinds of risk, but also the maintaining of a structure which keeps damage to a minimum if risk should arise.

FY 2009 activities	Categorization of business risk into 15 items and improvement of the management system.
FY 2010 plan	Selection of 54 items of risk. Reinforcement of the risk management system through the establishment of a countermeasure promoting department for each item.

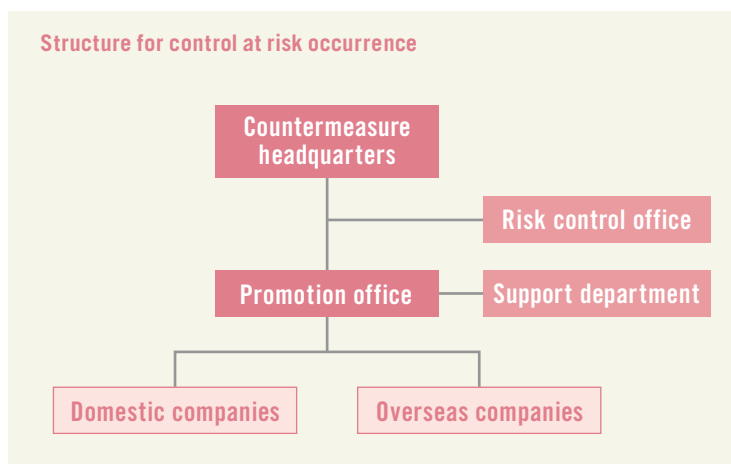
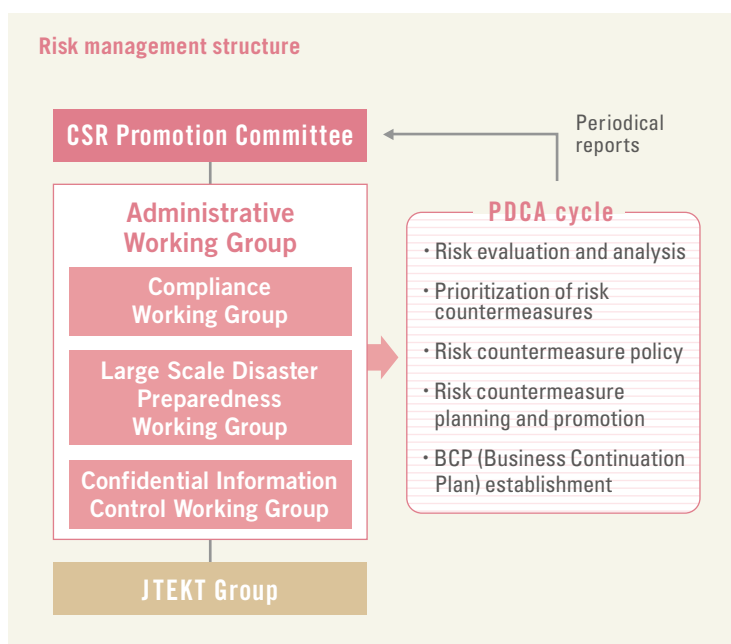
[Promotion structure]

Establish a company-wide organization

The Administrative Working Group was set up to promote risk management. For major risks such as compliance, large scale disaster preparedness and confidentiality leaks, expert working groups have been established and risk is being countermeasured by means including a BCP (Business Continuation Plan).

Structure for handling risk occurrence

Countermeasure headquarters are set up in response to the estimated damage in the event that risks such as major earthquakes, illnesses and so forth arise, helping to minimize damage and recover quickly.



Examples of activities

01 | Major earthquake countermeasure

Hard countermeasures

- Diagnose earthquake resistance of all buildings and reinforce
- Measures to prevent equipment rolling over and falling
- Measures to prevent fires and explosions
- Establishment /renewal of emergency lighting and evacuation guidance lights

Soft countermeasures

- Employee safety confirmation system
- Emergency earthquake announcements
- Incident-prevention training
- Preparing manuals for incident recovery procedures
- Maintenance of incident-prevention manuals
- Maintenance of emergency supplies (food/water)

02 | Influenza A (H1N1) countermeasures

- Establishment of an action plan team, and countermeasure headquarters in the event of break-out
- Enforce washing of hands, gargling, wearing of masks
- Establish a business continuation plan to manage personnel if illness spreads, etc.

03 | Confidential information leak countermeasures

- Guard against confidential information leaks from a systems aspect
- Education activities for confidentiality control
- Roll out to group companies
- Caution business partners

FY2009 CSR activity results and issues

We have self-evaluated each item

for every theme included in FY2009 CSR activities.

From this, we will extract issues to be addressed in future activities.

Themes		FY2009 activity content and issues		Evaluation	Featured page	
Management	Corporate governance	Maintenance and improvement of the internal control system	•Thorough implementation and establishment of a global internal control system	○	13	
	Compliance	Familiarize employees group-wide with compliance	•Introduction and establishment of E-learning •Expand deployment of compliance programs group-wide	○	14	
	Risk management	Reconstruction of risk management	•Improvement of the management system, expansion of deployment group-wide •Reconstruction of risk management •Continuation of large-scale earthquakes and confidentiality countermeasures •H1N1 virus countermeasures	○	15	
Action aimed at the community	Customers	Action for quality improvement	Improvement of product quality	•Implementation of milestones to control quality in development and production preparation stages •Continued promotion of TQM activities	△	26,27
			Improvement of work quality	•Enhancement of activities for improving work quality in staff departments	○	27
	Business partners	CSR activities promotion	Deployment in the supply chain	•Thorough promotion of CSR activities at domestic purchasing policy meeting	○	28
		Proper business practices	Enforce business partners' observance of laws and regulations	•Requested safety be secured, quality be improved and so forth in a purchasing policy meeting with our Chinese local affiliate	○	28
	Employees	Labor-management relations	Building mutual trust	•Continuation of discussions between management level and employee representatives	○	29
		Respect for equal opportunity and diversity	Supporting female employees	•Continuation of childcare leave and short-time working systems •Issues such as determination and development of professional-track jobs for female employees	△	30
			Reemployment of retired employees	•Reemployed approx. 98% of retired employees	○	31
			Employment of people with disabilities	•1.89% employment (Observe the percentage of employees required by legislation [1.8%]) •Issue of responding to legislation amendments	○	31
		Health and safety	Securing the healthy mind and body of employees	•Continuation of special health guidance •Revised the reinstatement support system aimed at employees absent for mental reasons	○	31,33,34
			Workplace incident prevention and environmental improvement	•Action to improve equipment safety (maintenance and deployment of rules [standards]) •Improvement of the workplace through equipment noise countermeasures	○	31~33

FY2009 CSR activity results and issues

○ Target achieved △ Target partially achieved × Not achieved

Themes		FY2009 activity content and issues		Evaluation	Featured page
Action aimed at the community	Local communities	Discussion with the local community	Holding events <ul style="list-style-type: none"> • Held community discussions at all plants • Held “View a manufacturing site” events • Held festivals at 10 plants 	○	35
		Social contribution activities	Contribution towards local communities <ul style="list-style-type: none"> • Continuation of local beautification activities and activities to nurture youth clubs 	○	35, 36
			Fire prevention and traffic safety activities <ul style="list-style-type: none"> • Tokyo Plant participated in joint fire prevention training • Set up a traffic safety booth at the Hanazono plant 	○	36
	Shareholders and investors	Information disclosure	Timely, appropriate and fair disclosure of information pertaining to company activities <ul style="list-style-type: none"> • Held an IR results briefing, etc. 	○	37
Environmental action (excerpt) *	Environmental management	Action in cooperation with group companies	<ul style="list-style-type: none"> • Held group environmental meetings 	○	40, 41
		Targets and results	<ul style="list-style-type: none"> • All targets for the following year (FY2010) achieved ahead of schedule 	○	43
		Reduction of environmental risk	<ul style="list-style-type: none"> • Zero environmental accidents • Implementation of environmental patrols 	○	45
		Environmental audits	<ul style="list-style-type: none"> • Continued implementation of external and internal environmental audits (annually) 	○	46
		Environmental education	<ul style="list-style-type: none"> • Implementing environmental awareness education for employees as a monthly environmental event 	○	46
	Business activities taking the environment into consideration	Global warming prevention	<ul style="list-style-type: none"> • Product development to restrain CO₂ emissions output • Reduction of CO₂ emissions output in production and logistics 	○	48~51
		Efficient use of resources	<ul style="list-style-type: none"> • Efficient use of resources (develop products with long service life) • Reduce the amount of main materials and sub-materials • Reduce waste • Reduce packaging 	○	52~54
		Control and reduce environmentally burdensome substances	<ul style="list-style-type: none"> • Reduce output/transfer of PRTR applicable substances • Continuation of soil and groundwater measures 	○	55

* Please see page 43 for details on environmental action

JTEKT technology, helping to build a society where people can lead secure lives.

Advancements in various industry technologies such as cars, energy and so on, have brought convenience and luxuriance to people's lives.

On the other hand, securing safety against accidents on the road and in the workplace is becoming a major issue of concern.

The first step of JTEKT's CSR is to be strongly aware of this issue facing society and actively pursue a solution.

This special report singles out but a few products from the many examples available and introduces how JTEKT is contributing to the building of a safe society.



A new technology reducing work at heights in wind power generation

The difficulty of performing maintenance work on high-up wind power generators is an issue of concern.

JTEKT have used ceramics to prevent electrical corrosion (*) and develop a highly reliable, long-lasting bearing for wind power generators. Reducing the amount of maintenance (work at heights) through longer service life has improved safety on wind power generation farms.

*The phenomenon where an electrical current passes through the inside of a rotating bearing and the surface of the contact portion of the rollers partially melts.

Wind power generation

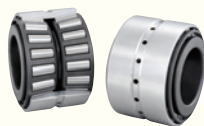
Large diameter ceramic ball insulated bearings



JTEKT bearings are used in wind power generators.



Bullet train | Axle bearings



Reliability and durability supporting a high speed travel of 300 km/h

The N700 is a state-of-the-art bullet train capable of speeds up to 300 kilometers per hour. In the center of this train's wheels, supporting a stable, smooth ride, are JTEKT bearings.

Our bearings have the role of transmitting torque from the drive motor to the wheels without loss. High reliability and durability is expected of bearings used in the severe environment that is high speed transportation. With cutting-edge technology, JTEKT are contributing to the safe operation of bullet trains.

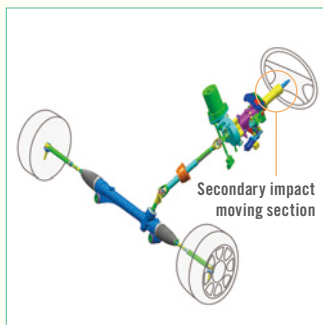
Performance data (N700 class)

Maximum speed
300 km/h

Bearing type
Double-row tapered roller bearing

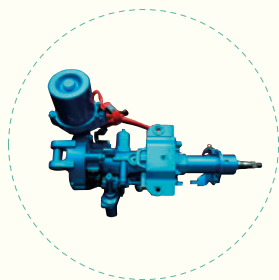
Lubrication method
Immersion lubrication





Featuring an electric tilt & telescopic mechanism and impact energy absorption mechanism with the same overall length as the conventional C-EPS.

Car C-EPS Column-type electric power steering



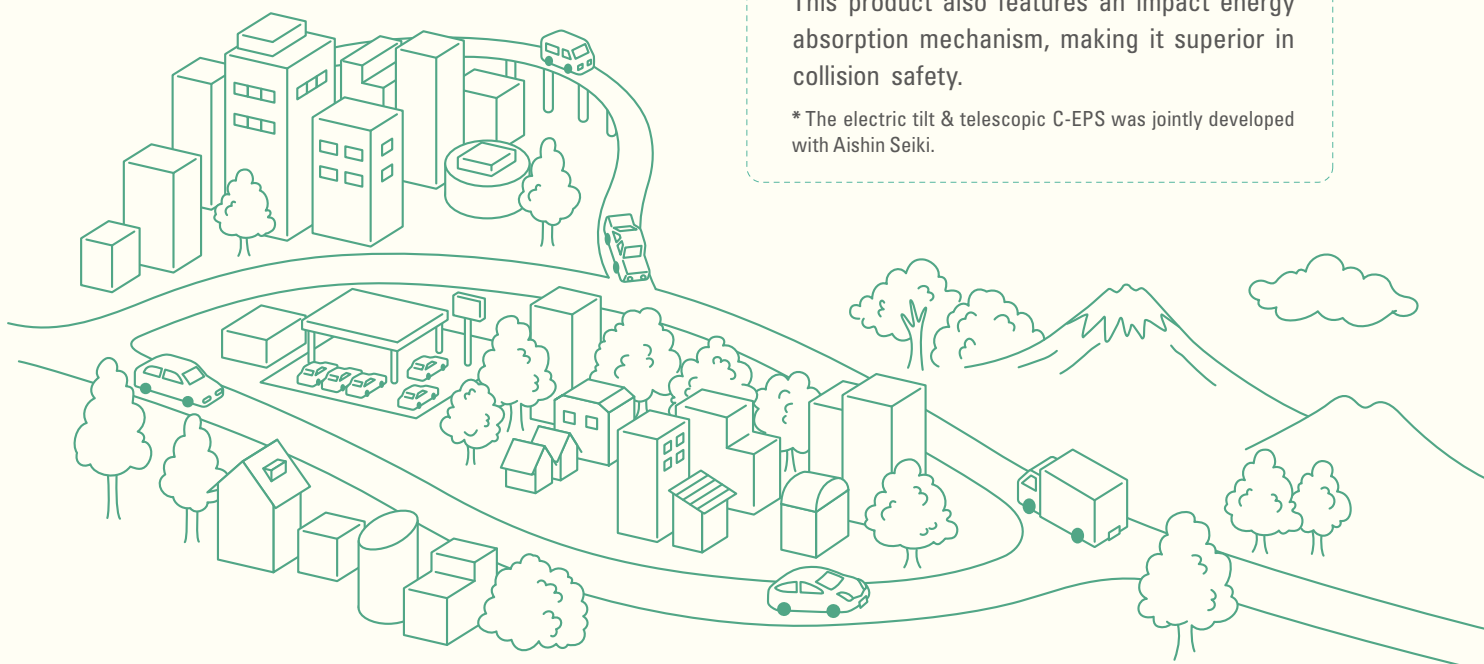
Improving driving safety and collision safety

Correct driving posture is the first step to safe driving. Being able to adjust the steering wheel forward, backwards and height-wise into a suitable position leads to improved driving safety. The electric tilt and telescopic feature makes this kind of adjustment possible at the simple operation of a switch.

In 2009, JTEKT were the first in the world to develop and mass produce a C-EPS (column-type electric power steering) that combined both the electric tilt & telescopic mechanism and high output.

This product also features an impact energy absorption mechanism, making it superior in collision safety.

* The electric tilt & telescopic C-EPS was jointly developed with Aishin Seiki.



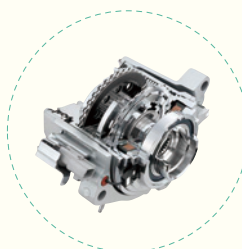
Detecting slip, preventing spin

A car travels by transmitting engine power to the tires. JTEKT's ITCC (electronically controlled 4WD coupling) and TORSSEN (torque sensing differential for fulltime 4WD) respond to changes in the driving environment, and distribute engine power optimally to the front and back wheels.

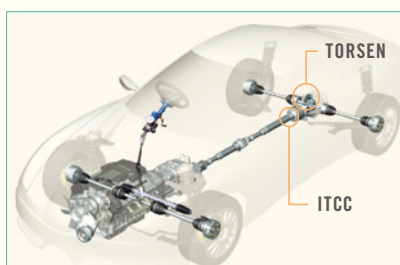
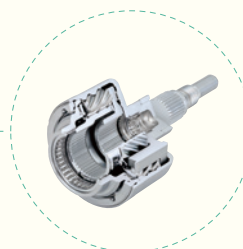
These devices are used in many 4WD vehicles around the world.

In particular, the ITCC transmits engine power to the front wheels during normal driving, and transfers power to the back wheels when the front ones are about to slip, hence avoiding spin. This device achieves both fuel efficiency and driving performance of a higher order.

Car ITCC Electronically controlled 4WD coupling



Car TORSSEN Torque sensing differential for fulltime 4WD



Helping to build an environment where workers can feel safe

JTEKT are also involved in improving safety on the production shop floor. In 2004, we developed and commoditized the first safety PLC “TOYOPUC – PCS” in Japan.

PLC is the abbreviation for “programming logic controller”, and is a type of computer that controls production equipment operations.

Until that time, safety standards prohibited the use of PLCs in safety

control.

However, JTEKT made this possible by developing a safety PLC with the world’s fastest processing speed and high reliability, for which we received international safety standard certification.

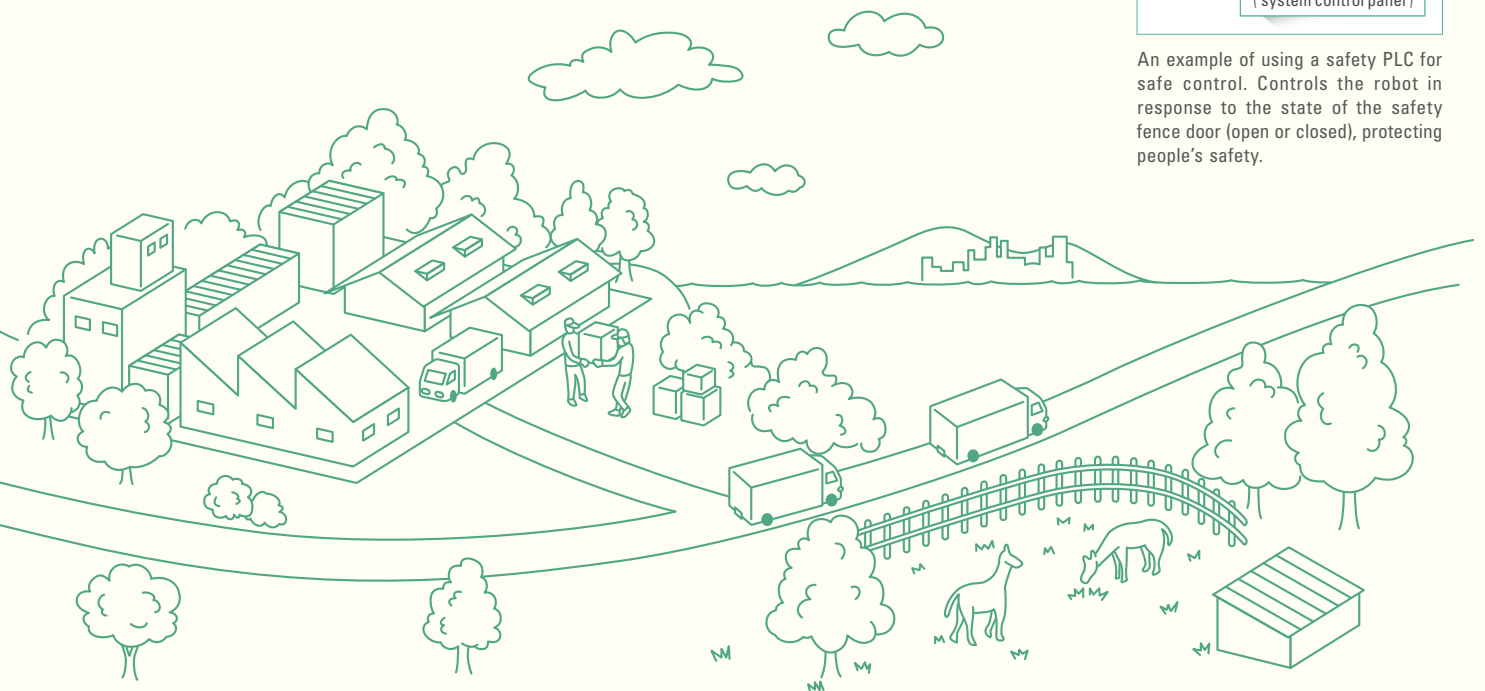
The popularity of safety PLCs is increasing due to the fact that they offer a low-cost, space-saving form of control that protects worker safety.

Production
equipment

TOYOPUC
Safety PLC



An example of using a safety PLC for safe control. Controls the robot in response to the state of the safety fence door (open or closed), protecting people’s safety.



We will continue to exert our efforts in product and technology development, and fulfill our social responsibility as a manufacturer

JTEKT, as a manufacturer of mechanical parts and machine tools, believe that the social responsibilities we should fulfill through our operations involves both environmental and safety aspects.

This special report has focused on safety.

Neither mechanical parts nor machine tools often get the chance to be seen by the consumer however they are deeply entwined with people’s lives.

JTEKT, hand-in-hand with our customers, will continue efforts to offer a higher level of safety to society as a whole.

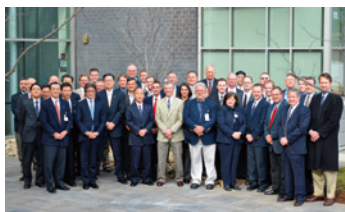
Needle bearing business of US company, TIMKEN, becomes part of a new team

Achieving world top class in automotive bearings

From January of 2010, US company's needle bearing business became part of the JTEKT Group under the new brand [Koyo Torrington Needle Roller Bearings]. As a result, JTEKT's world-wide share of the needle bearing market now stands at approximately 26%, and our position as a world top-class supplier of bearings for the automotive industry is steady-fast.

Koyo
Torrington. Needle Roller Bearings

New brand logo mark (*1)



TIMKEN's needle bearing business welcome ceremony

Contributing to the development of a car-orientated society through the creation of synergism.

In response to an increased demand for low fuel costs and low emission vehicles, the importance placed on high quality needle bearings in the automotive industry is increasing. With the acquisition of TIMKEN's needle bearing business, the JTEKT Group has gained significant strength in the automotive bearing field from a production, technical and sales point of view.

From now on also, through the development, manufacture and sale of products high in added-value, we will continue to respond to the requests of our customers across the globe and contribute to the development of a car-orientated society.

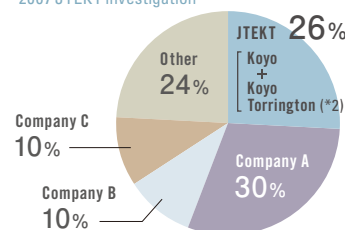
● Former TIMKEN needle bearing business overview

- Sales turnover : USD 408 mill (2009)
- No. of employees : 3,242 (Current at Dec, 2009)
- Development/production locations

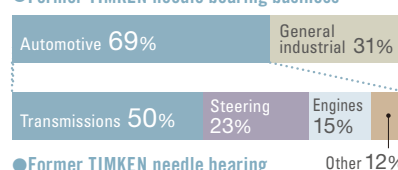
North America	US: Development (1) • Production (4) / Canada: Production (1)
Europe	Germany: Development (1) • Production (1) / Czech: Development (1) • Production (1) / France: Production (3) / Spain: Production (1)
Asia	China: Production (1)
Total	Development : 3 locations / Production : 12 locations

Figures shown in parenthesis are the no. of locations

● Global share of the needle bearing market * 2007 JTEKT investigation



● Former TIMKEN needle bearing business



● Former TIMKEN needle bearing business sales structure by automotive part

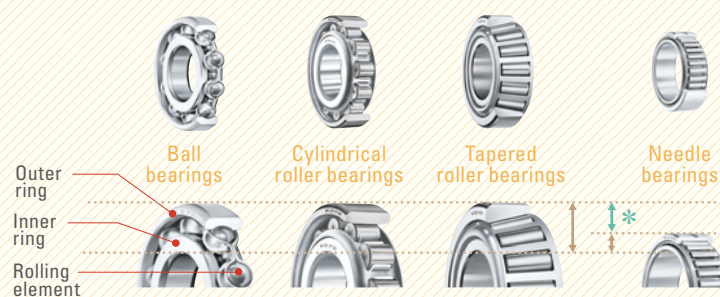
*1 Former TIMKEN needle bearing business sales structure by automotive part

*2 Koyo Torrington Needle Roller Bearings abbreviation

What are needle bearings?

Bearings are a type of mechanical part which come in many variations including antifriction bearings, slide bearings and so forth. Needle bearings are a type of antifriction bearing. A thin, needle-shaped roller is used on a rolling element, making parts and the overall product smaller and more light-weight, while reducing friction thereby contributing to vehicle fuel efficiency.

(Main types of antifriction bearings)

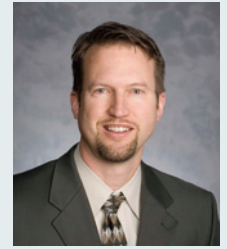


* Needle bearings are generally thinner than other bearings, thereby contributing to the downsizing of mechanical parts.

Backed by a new structure, we will continue responding to needs to a more thorough extent

KOYO BEARINGS USA LLC
Company President

Kenneth Hopkins



Message to Employees (Koyo Torrington)

We have taken on a new challenge. In order to succeed, I ask that you draw on your strong experience and creativity you have cultivated until now. Only with your personal commitment to teamwork can we realize our full potential.

Message to JTEKT

On behalf of the Needle Bearing Business (Koyo Torrington), I wish to express my appreciation and enthusiasm for the future.

As a part of this global acquisition, it is our sincere desire to exceed the expectations that JTEKT have for us.

Message to our Customers

We endeavor to be your partner of choice, increasing our development capabilities based on this new structure, as we strive to meet your needs and exceed your expectations. Furthermore, it is our intent to focus on continuing to improve our products and services, and provide you with world-class needle bearings.

[CSR-related activities]

Helping to reduce the environmental burden through developing higher performance products.

Creating a workplace rich in motivation

We respect the individuality of our employees, and endeavor to create a workplace that is motivating to each and every individual. One example of this is our commitment to communication within the company. In April of 2010 we held a conference call connecting all of our bases. More than 400 employees from across the globe participated. Moreover, we are creating activities that encourage communication and interaction of our employees in every region.

Aiming for improved fuel efficiency of vehicles

We will continue to contribute to reducing the burden on the environment through the development of higher efficiency, higher quality needle bearings. One example of this is our current research into utilizing needle bearings to reduce friction and increase efficiency in engines. By putting this research to practical use, our goal is to increase the fuel efficiency of vehicles and other transportation devices by 5% in the future.

Characteristics of needle bearings

- Contributing to the downsizing and lightening of the overall product through downsizing parts
- Reducing energy loss caused by friction

**Contributing to improved
vehicle fuel efficiency!**

Koyo Torrington's (*2) technology answering a wide-range of needs

● Main products

Formed needle roller bearings



Examples of applications

- Automatic transmissions
- Alternators
- ABS motors

Solid type needle roller bearings



Examples of applications

- Automatic transmissions
- Air compressors
- Pumps

Needle roller and cage assemblies



Examples of applications

- Automatic transmissions
- Manual transmissions
- Planetary gears

Thrust needle roller bearings



Examples of applications

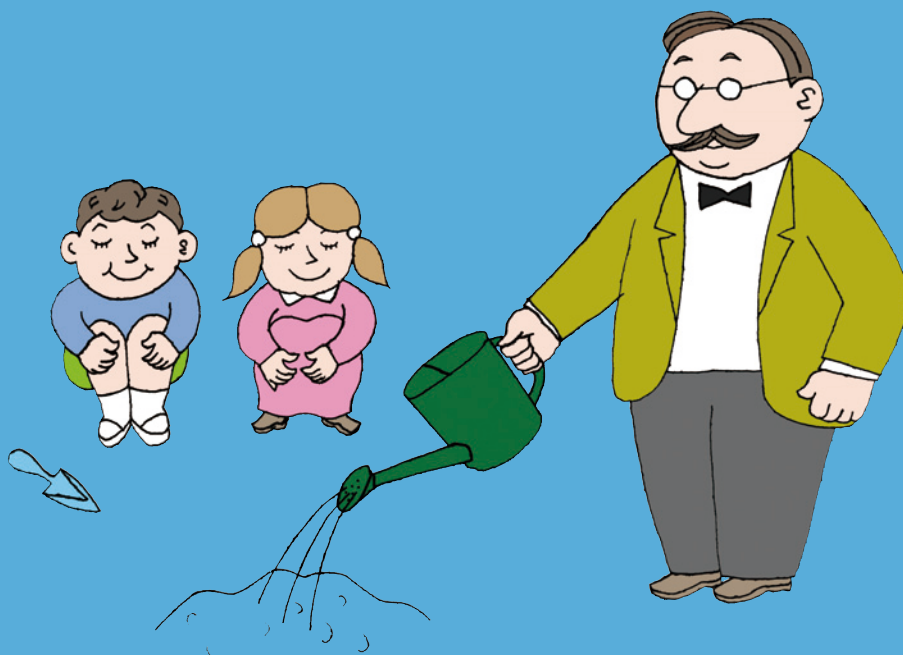
- Air compressors
- Automatic transmissions
- Torque converters

Social Report

Strengthening connections to further enhance the CSR.

JTEKT's activities are made possible through relationships with various stakeholders such as the customer, business partners, employees, local communities, shareholders, investors and so on.

A year has passed since the establishment of the CSR Promotion Committee, and at JTEKT, awareness on CSR is beginning to become entrenched. What is important to us now is, while strengthening our communication with each and every stakeholder, is also to ask ourselves the questions "What is CSR?", "What can we do for society?". We must then take action and aim to contribute to societal development. This report introduces how JTEKT are making efforts to promote CSR while conscientiously holding dialogue with stakeholders.



Social Report

Summary of FY2009 activities

→ P27

Promoted own-process completion and improvement of work quality.

→ P27

Received the "inspiration award" at a national QC circle competition.



→ P30-31

Promoted the creation of a better workplace environment for women and the elderly.

→ P34

Revised the reinstatement support system aimed at employees absent for mental reasons.

→ P27

Promoted detailed IR activities to increase management transparency.



→ P28

Held a purchasing policy meeting with Chinese local affiliate.



→ P28

Held training workshop with 210 business partners.

Together with customers

P26-27

Together with business partners

P28

Together with local communities

P35-36

Together with employees

P29-34

Together with shareholders and investors

P37

→ P35

Kokubu plant participated in a government-run festival.



→ P36

Participated in the "Asuka River Firefly Regeneration Project" in Nara Prefecture.



Together with customers

Basic concept

Considering the entire society as customers

JTEKT products are not very familiar to most people but in reality they are used in a diverse range of industries from cars, steel, railway, aerospace and so on.

For example, our EPS (electric power steering) accounts for 50% of the world share. Moreover, JTEKT bearings are widely used in windmill power generators. These are but two examples of how JTEKT products are deeply involved in social and environmental issues.

At JTEKT we have a strong awareness of our social responsibility, and constantly strive to improve technology and quality, regarding our customers to be not only those who we directly do business with, but also society at large.

Quality control

Quality policy and quality assurance system

Establishing a quality policy with the motto of “Customer First”, JTEKT are involved in a variety of quality improvement activities. We also maintain a quality assurance system based on this policy.

Figure-01

Quality policy

Adhering to the theme of “Quality First”, to offer products which earn the trust and satisfaction of our customers

- Making decisions and taking action from the standpoint of our customers
- Manufacturing with quality, safety and environmental-friendliness based on the highest technology and skill
- The instilment of own-process quality through the ingenuity of all employees

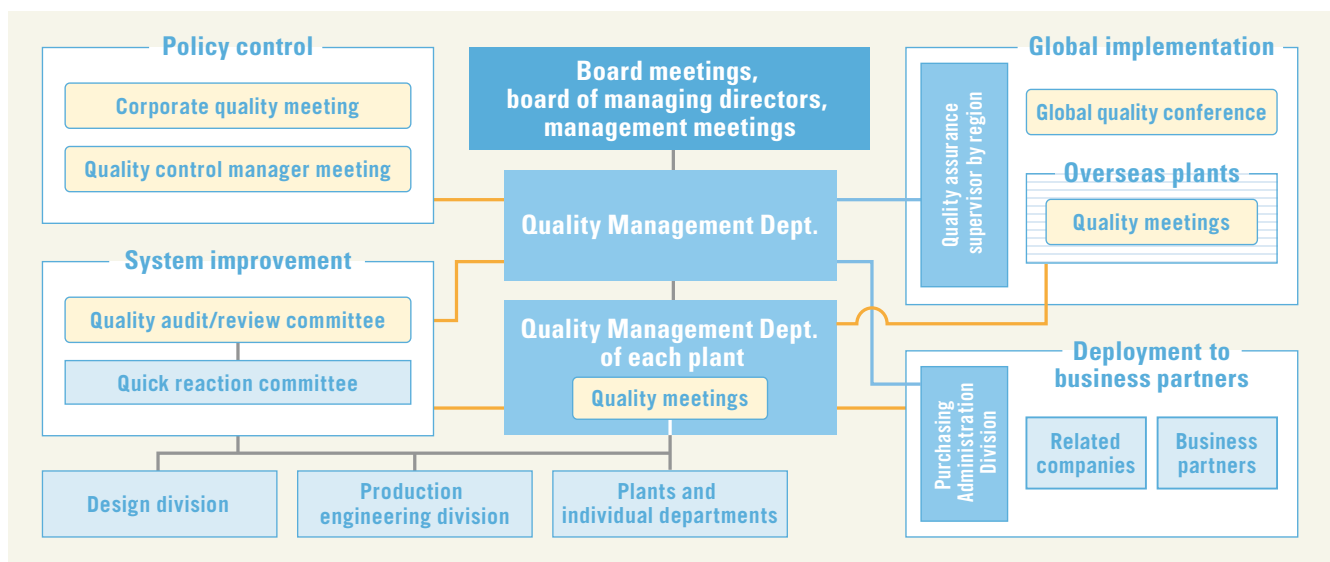
Quality milestones in development and production preparation

In response to customers’ requests, JTEKT have implemented a control system using milestones in all stages, from planning, design, development and production preparation to full-scale production. By advancing to the next stage only after conducting audits and ensuring milestone outputs meet standards, the required quality is properly reflected in the product.

Improvement through 3rd party audits

JTEKT actively pursued the obtainment of certification through third parties and as a result acquired certification in the ISO 9001 international standard, ISO/TS 16949 automotive industry standard, AS 9100 aerospace industry standard and other quality management standards. JTEKT continues to receive periodical inspections twice yearly and uses the results to further revise and improve its quality control system.

Figure-01 Quality assurance system



○ Promoting TQM activities

At workplaces, we strive to foster mutual instruction and the handing-down of unique techniques through small group activities (QC Circle activities), in which workplace members work together to improve visible workplace problems.


○ Own-process completion in staff departments

"Own-process completion" is the concept of "building quality into a process" and "not letting defects go on to the downstream process". At JTEKT, not only the Production Division, but all staff departments (management/indirect divisions) promote own-process completion activities. Quality is judged to be good or bad in each workplace, and procedures and environment are maintained so that each job can be done smoothly. Activities are also undertaken to improve work and enhance quality.

Activities in FY2009

Activities were promoted and enhanced by holding example exhibitions in each location and introducing outstanding actions.

○ Conducting customer satisfaction surveys

JTEKT conducts customer satisfaction surveys for its main customers. Any problem found through a survey is shared companywide so the problem can be solved quickly and appropriately. Moreover, as a result of various activities, we have received awards from our customers.  **Figure-02**

TOPICS

Lexus QC Circle received an "inspiration award" at a QC Circle National Competition

On July 3rd, 2009, the Lexus QC Circle received an "inspiration award" at the 5100th QC Circle National Competition (Kyoto) run by the Union of Japanese Scientists and Engineers.

This award is given to the team in which all participants work together for a common goal. A young employee who had only been with the company for 3 years was handpicked as theme leader to communicate with those around him and gain knowledge regarding quality, and this was judged as having led to a great achievement.



Lexus QC Circle who received the "inspiration award" at the 5100th QC Circle National Competition

 **Figure-02 Main awards in FY2009**

Customer	Award	Company receiving award
Toyota Motor Corporation	Appreciation for Quality Control Activities	JTEKT Corporation
	Quality Lost Cost Reduction Proposal Award	JTEKT Corporation
Toyota Motor Corporation, Takaoka plant	Appreciation for Repair Cost Reduction Activities	JTEKT Corporation
Toyota Motor Corporation, Hirose plant	Quality Award	JTEKT Corporation
Mazda Motor Corporation	Excellent Business Results Award	JTEKT Corporation
Guangzhou Toyota Motor Co., Ltd. (GTMC)	Quality Award	JSSX (Chinese steering manufacturing affiliate)
Guangzhou Toyota Engine Co., Ltd. (GTE)	Quality Cooperation Award	JAFS (Chinese steering manufacturing affiliate)
		KLF (Chinese bearing manufacturing affiliate)
Toyota Peugeot Citroen Automobiles Czech, s.r.o. (TPCA)	Good Supplier Award	JAPL (European bearing manufacturing affiliate)

Together with business partners

Basic 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 new business partners to start 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.

Activities with business partners

○ Communicating purchasing policies and activities to business partners within Japan

In order to communicate purchasing policies and activities, each year JTEKT holds a purchasing policy meeting for business partners. On the 23rd of March, 2010, 380 people from 310 companies attended, at which time we promoted the working of business partners hand-in-hand with JTEKT towards “Production Foundation Reinforcement Activities” and “Cost Reduction Activities”, and explained



Purchasing policy meetings (March, 2010)

about points for strengthening CSR and risk management. We also presented awards that achieved superior results in 2008 in various categories such as quality, cost, and technology development.

○ Chinese affiliates also hold purchasing policy meetings

From FY2010, our Chinese affiliates will also hold purchasing policy meetings aimed at business partners. Explanations will include important matters such as securing safety, improving quality, promoting cost reduction, responding to globalization and the enforcement of risk control, and understanding and cooperation will be sought.



Purchasing policy meeting in China (April, 2010)

○ Green Purchasing activities

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



Green Purchasing guidelines

○ Promoting quality improvement through collaboration

The JTEKT Supplier Association (*), holds a Quality Management Convention every year. We will continue sharing information and issues with our business partners and conduct activities in order to pursue mutual quality improvement.

01 | FY2009 Quality Management Convention

Around 320 people from 210 companies part of the JTEKT Supplier Association participated in this convention in 2009. There were presentations on improvements by six companies and a message on the promotion of QC activities from a JTEKT Kariya Plant QC Circle, as well as a lecture from sport journalist, Yasuhiro Nozaki.

02 | Holding workshops for the Supplier Association

In January of 2010, a workshop was held for 210 companies part of the Supplier Association. The 3 themes of “Corporate CO₂ reduction activities”, “Risk control (H1N1 influenza countermeasures)” and “Labor compliance” were addressed.

* The JTEKT Supplier Association comprises of 210 companies. 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 employees

Basic concept

○ Creating a friendly work environment for all

JTEKT fosters workplaces where human rights and diversity are respected and there is no discrimination, and where employees can strive to achieve high goals. We will continue striving to create workplace environments excelling in respect for people and enabling all employees to work comfortably.

Labor-management relations

○ Focusing on discussion and building mutual trust

JTEKT place importance on labor-management discussion and create several opportunities for direct dialogue between labor and management, holding lectures and discussions on a companywide and individual plant and business division basis. Labor and management exchange opinions with the objective of company development, enhancing employees' lives and making employees more secure, and in doing so steadily build mutual trust and understanding.

Labor-management discussion opportunities (held in FY2009)

- Central Production Subcommittee Meetings (semiannual)
- Central Labor-Management Meetings (annual)
- Labor-Management Meetings (6 times)
- Labor-Management Committee Meetings (5 times)
- Plant Production Section Meetings
- Business Facility Labor-Management Discussions
- Workplace Discussions

Human resource development

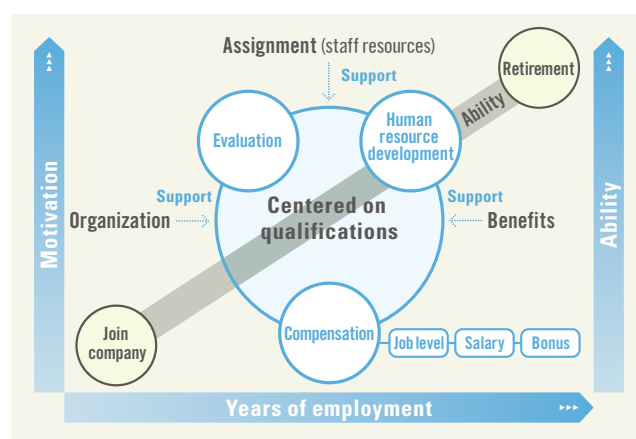
○ Concept of human resource development

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 are continually motivated to improve themselves and able to realize their true potential through self-driven, disciplined effort.
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.



VOICE



[Left] **Keisuke Hasegawa**
(Technical Training Center)

[Right] **Kiyoshi Nakagawa**
(Technical Training Center)

Received the fighting-spirit award in the mechatronics job category at the [Skill Olympics-Ibaraki Contest] where young people who have won at prefectural competitions compete to be No.1 in Japan.

Further polish skills and contribute to the development of the company

We received the fighting-spirit award as a result of a year's worth of strict training from our instructor. We will continue to challenge ourselves to acquire more skills. Our objective is not just to receive awards, but to use the strengths we have cultivated in the workplace to improve productivity, and contribute to the development of the company as technical specialists.



Together with employees

○ Training system supporting growth

01 | Human resource development for office & engineering staff

The JTEKT training system is composed of three pillars. Rank-based training, teaching the knowledge and skills necessary for each rank, function-based training, teaching advanced knowledge and skills and workplace-based training, teaching employees specific skills related to their job. In addition, we support the acquirement of qualifications and self-study efforts.

02 | Human resource development for production staff

Based on the training at the JTEKT Technical Training Center (*1), we incorporate systematic guidance through OJT (*2) and strive to foster highly skilled production staff. Apart from this, we maintain a support system for certification acquisition, various examination systems and so forth.

Rank-based training types and main content

	Training	Main content
Managers	R3 training for new managers	Policy, daily, workplace management and CSR
Office & engineering staff	R4 training for new office & engineering staff	Leadership, and preparation of business practice schedule
	R5 training for office & engineering staff	Business communication skills
	R6 training for office & engineering staff	Problem solution methods and concepts
	Training for office & engineering new employees	JTEKT employee basic knowledge and mindset
Production staff	Training for new Chief Leaders	Management basics and work schedule preparation
	Training for new Group Leaders	Problem solutions based on QC concept
	Training for new production employees	JTEKT employee basic knowledge and mindset

→ Related article on page 44

*1 JTEKT Technical Training Center JTEKT has a Technical Training Center whose purpose is to cultivate superior production-related employees.

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

Respect for human rights, equal opportunity and diversity

○ Utilization of diverse human resources

Included in JTEKT's Corporate Activities Standards 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."

Various action is taken in order to utilize diverse human resources.

Main measures

- Hiring foreign employees
- Assisting female employees' career development
- Changing fixed-term employees to permanent employees
- Employing handicapped persons
- Providing assistance for those engaged in child-care or nursing-care
- Providing post-retirement employment opportunities
- Various education concerning human rights, etc.

○ Maintain employment

Amongst the ongoing harsh management environment in FY2009 we carried out measures such as job transfers and work sharing to strive to maintain employment. We follow compliance in the handling of fixed-term employees.

Composition of employees as at end of March, 2010

	Male	Female	Total
Permanent employees	9,510	595	10,105
Fixed-term employees (*1)	587	121	708
Total	10,097	716	10,813

	Male	Female	Average
Years of employment	17.1	16.0	17.0

Job turnover rate (*2)	0.8%
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*1 Total fixed-term, part-time, reemployed, and temporary employees

*2 Voluntary early retirement rate

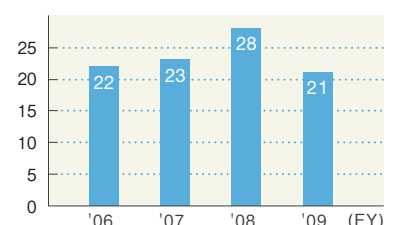
○ Assisting female employees in developing their careers

We provide equal opportunities based on motivation and qualifications regardless of gender. Specifically, we hire women for management-track positions, assign them based on aptitude, and promote them to management positions.

Supporting the work/child-raising balance

With the adoption of our childcare leave and short-time working systems, we actively assist those who wish to balance their careers with child-raising and work free from anxiety. Previously these systems applied only to those with children up to 3 years old, but in January 2009, we expanded the range to apply to those with children up to the point of entering elementary school to meet the needs of employees.

Number of employees who took childcare leave



○ Reemployment of retired employees

So that retired employees with high motivation and abundant knowledge and experience could continue working, JTEKT established a Senior Partner System in April 2006. As of the end of March 2009, 496 such senior partners reemployed by JTEKT and related companies were working at various workplaces and training younger employees who will become leaders of JTEKT.

Number of senior partners in FY2009

Number of those who are applicable	337
Number of applicants [a]	245
Number of reemployed [b]	241
Rate of employment [b/a]	Approx. 98%

○ Employment of people with disabilities

JTEKT actively participate in joint-employment seminars aimed at disabled persons and strive to provide as many people as possible with interviews and opportunities to apply. Currently we have disabled employees working mainly

Number of disabled persons employed (End of March, 2010)

No. of disabled employees	209
No. of employees according to legislation	199
No. of over and short	+10
Employment rate	1.89%

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

as workplace support and general administrative staff. We are making efforts to further expand the occupational fields in which disabled employees can work vigorously and enthusiastically.

Safety, hygiene and health

○ Making the workplace safe and protecting employee health

Maintaining the health of all employees is indispensable to an enthused and vital work environment and to protect the mind and body. Under 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

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

▣ Figure-01

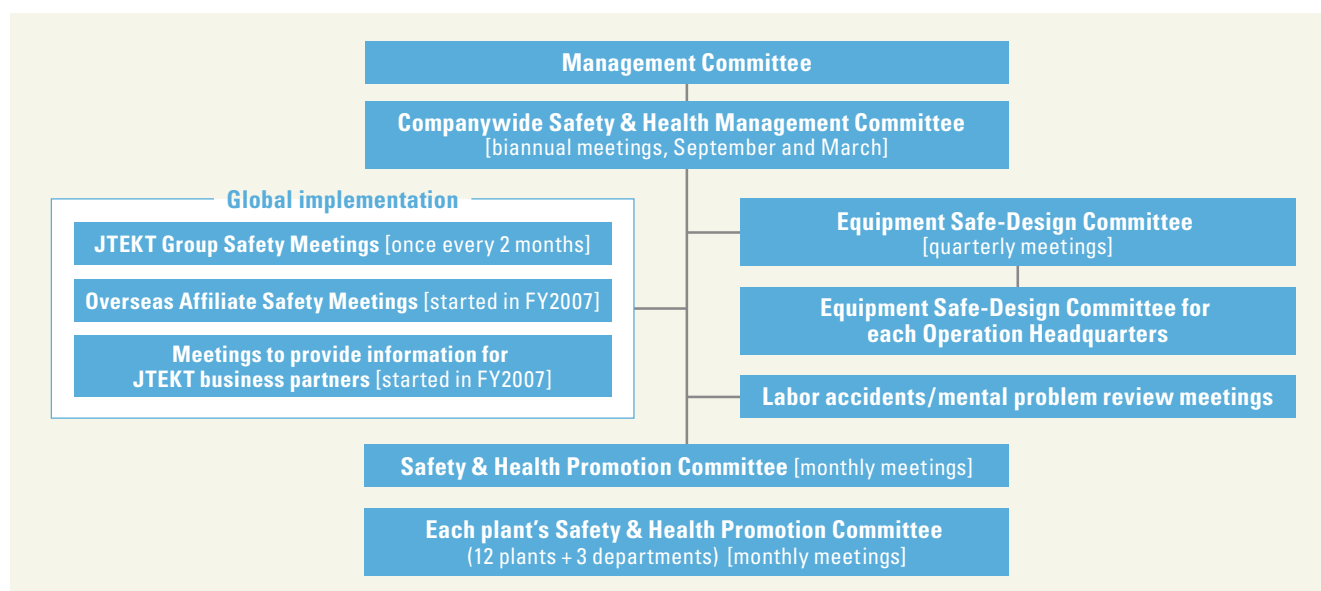
○ Activities to achieve zero accidents

We have long promoted safety & health activities based on OSHMS (*3) centered on risk assessment (*4).

*3 OSHMS Abbreviation for Occupational Safety & Health Management System, a system to responsibly, systematically and continuously promote safety & health management and improve safety & health standards at business facilities.

*4 Risk assessment Method to investigate potential workplace risks and implement proper risk-reduction measures.

▣ Figure-01 Safety, hygiene and health control system

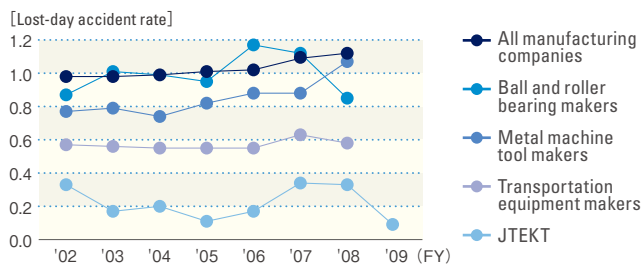


Together with employees

Activities in FY2009

Past incidents were analyzed to pinpoint equipment or tasks where the accident occurrence rate was comparatively higher, then countermeasures were promoted and work standardized focusing on these. As a result, the number of lost-day accidents (*1) decreased significantly from the 9 cases in 2008 to 2. We will continue safety activities aiming for zero accidents.

Change of industrial accident frequency rate



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

* The 2009 section of the graph only shows the lost-day accident rate for JTEKT.

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

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, special training based on job type, while our main forms of training are basic KYT 4R training (*2), sensing-danger training, and skill training.

Main training types (number of attendees in 2009)

Rank-based training	Safety management training	108
	Group Leader training	58
	New employee training	78
	Training Center student training	53
Special training	Grinding wheel replacement	71
	Arc welding	78
	Robots	0
	Low-voltage handling	58
	Vibrating tool handling	0
Others	Organic solvents	0
	All-Toyota training for those overseeing outside workers	267
	All-Toyota training for those overseeing construction	156
	Elevated-work training	308
	Electric shock prevention training	285
	Risk assessment training	102
Total		1,622

*2 **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.

Safety & health activities in FY2009

Addressed the below items as the main activities in FY2009.

01 | Activities based on the safety & health management system

By 2007, all 12 plants had acquired certification concerning work safety from external organizations. Since then, activities have been ongoing in accordance with the management system.

Certification by outside organizations

FY2009 Renewed certification in Tokyo, Okazaki and Kariya plants.

FY2010 Plan on renewing certification at Nara, Hanazono, Toyohashi, Tokushima, Tadamisaki and Higashikariya plants.

02 | Enhancement of work environments and employee safety awareness

We have thoroughly reflected daily safety activities [commitment-to-safety time (*3), near-misses (*4), etc] in risk assessments, and systematically promoted improvement. Furthermore, by accurately appraising problems that have arisen in the past, countermeasures and work standardization has progressed.

*3 **Commitment-to-safety time** Time where activities specific to safety such as checking the status of point & call routine, observance of pedestrian rules, observance of delivery vehicle driving rules and work rules are checked, etc.

*4 **Near-misses** A safety and health activity where examples of incidents on the brink of happening are collected, shared and their reoccurrence is prevented.

Promoting efforts to improve equipment safety

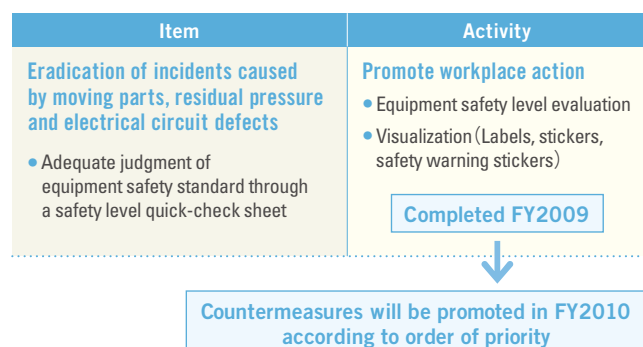
In order to prevent labor accidents and increase job safety, we have equipment rules (standards) and expanded this to all of our domestic plants and overseas affiliates. Furthermore, we completed countermeasures on similar machines in order to prevent accidents and evaluated equipment safety level.

Creation of equipment safety rules (standards)

Item	Activity
Mounting position of residual pressure release valve (make it easier to release residual pressure)	Make standards, roll out
Heat treatment gas pipe color (prevent erroneous operation in gas piping work)	Make standards, roll out
Added an entry regarding fall prevention measures for the vertical loader in the fall prevention device standard	Make standards, roll out
Emergency stop circuit (standardization of emergency stop basic circuits and devices)	Model line complete

Together with employees

Equipment safety level evaluation



Improving workplace environments

We reduced noise in 2 class III areas (workplaces requiring improvement by law) in FY2009 (11 machines). We will strive to achieve zero noise by FY2012.

In order to create work environments where older workers and women can work comfortably we completed work evaluations based on an upper limb evaluation method (*5) at the Nara, Hanazono, Toyohashi, Tokyo, Tadamisaki, Okazaki and Higashikariya plants. Evaluation results did not indicate any workplaces required improvement.

Improvement of workplaces with class III noise
 (Target : Zero in FY2010)

FY	2006	2007	2008	2009	2010	2011	2012
Number of improved workplaces (number of improved machines)	2 (2)	8 (58)	5 (15)	2 (11)	6 (53)	5 (59)	7 (59)
Number of workplaces (number of remaining machines)	26 (263)	19 (205)	18 (190)	16 (170)	12 (108)	8 (59)	0 (0)

* When the 2009 CSR Report was issued, we made 2013 our target for accomplishing zero however, the Companywide Safety & Health Promotion Committee decided to change this to 2012, having decided to try to improve things earlier.

*5 **Upper limb evaluation** Evaluation of the burden on the body for work requiring the use of arms and hands.

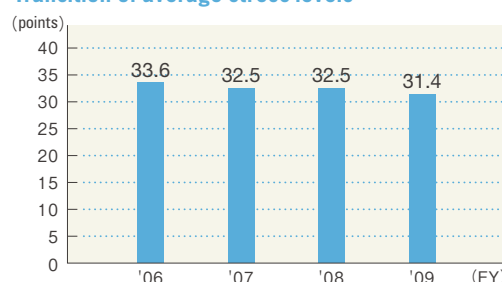
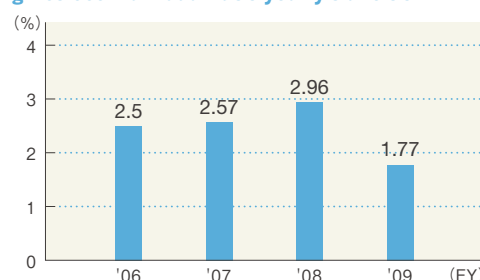
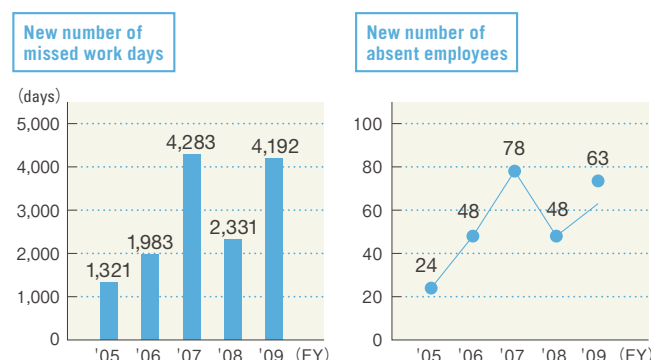
○ Achieving mental and physical health

At JTEKT, in order to support the health of all employees from both a mental and physical perspective, we promote various programs such as lifestyle-related disease prevention activities, mental health activities, etc. In 2009 the reinstatement support system for employees on leave due to mental disorders was revised and reinforced.

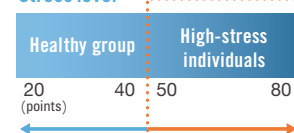
01 | Achieving mental health

JTEKT proactively promotes mental health measures focused on preventing depression.

Consequently there has been a reduction in the average stress level of employees (*6) and the high-stress individual ratio (*7). However, the number of employees absent from work due to mental disorders has increased upon the previous year. It is thought that the reasons for this are stress and daily anxiety due to an increased work load. We will continue to actively countermeasure this.

Transition of average stress levels

High-stress individual ratio yearly transition

Number of work absences due to mental disorders


*6 **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.

Stress level


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

Together with employees

[Activities in FY2009]

Implementation of mental health education II for managers

JTEKT implemented mental health education via video conference with all business sites. The objective of this was to prevent and respond to new types of depression that have increased rapidly in recent years as well as learn about the reinstatement support method. 950 managers participated.

Early detection of mentally-compromised individuals and response

We offer mental care at an early stage by implementing counseling upon consultation from the individual themselves or their workplace, and doing the rounds of the workplaces and offering consultations when necessary.

Revision of the reinstatement support system

Based on the indicators established by Japan's Ministry of Health, Labor and Welfare for the healthy mental state of workers in the workplace, JTEKT implement reinstatement support for employees absent from work due to mental health problems. The post-reinstatement reoccurrence rate of individuals absent from work due to depression was 49% and in consideration of the internal investigation result that 76% of these cases reoccur within 3 months, we revised the reinstatement support system. There have been no reoccurrences seen in individuals who have been reinstated since the revision was made.

Revised points of the reinstatement support system

Determined reinstatement criteria, report-for-work judgment

By eliminating the pre-conditioning period, prevented the deterioration of the individual's condition caused by reporting to work in an unstable condition.

Close interaction between concerned parties

Handle interaction with the primary physician, submittal of behavior and physical condition records by the individual, communication with the workplace and so on in a conscientious and elaborate manner.

Added response method in case of reoccurrence

Company to instruct absence from work based on industrial physician's judgment.

Reinstatement criteria

* Reinstatement possible if all of the below requirements are met

- The individual has the desire to be reinstated
- Reinstatement permission document (Certificate of Capacity) has been issued by the primary physician
- The workplace is prepared for the individual to be reinstated
- Sleep pattern and daily rhythm is in order
- Anxiety and depressed state has improved (illness has been cured and there is no risk of deterioration due to steady labor)
- Individual is alert and has the ability to concentrate to the level required to complete their tasks
- Individual can commute alone
- Individual can work 5 days a week, 8 hours a day (can arrive and leave work at set starting/finishing times)
- Individual is going to medical institution and taking medicine correctly

02 | Measures against overworking

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

Transition of number of employees receiving checkup for working long hours

By setting absolute withdrawal days and entrenching awareness that improves task efficiency, the amount of overtime hours decreased. Compared to FY2008, we were able to significantly reduce the number of employees diagnosed to be working long hours.

Managers		Staff	
FY2008	Approx. 2,640 (Average:220/month)	FY2008	Approx. 1,290 (Average:107/month)
FY2009	2,092 (Average:174/month)	FY2009	316 (Average:26/month)

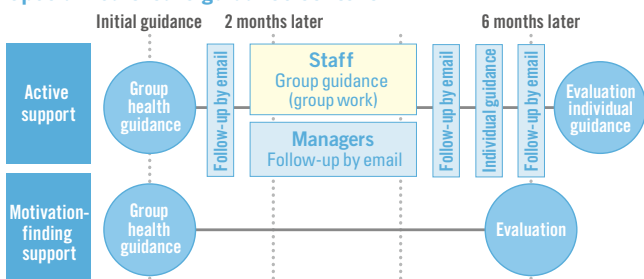
03 | Achieving physical health

Beginning with lifestyle-related diseases, we place importance 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 of special health checkups and healthcare guidance is gradually taking hold. We are taking assertive action towards our objective of "Eradicating metabolic syndrome".

Special healthcare guidance content



FY2009 healthcare guidance implementation

All targets were achieved.

	Special health checkups	Special healthcare guidance	Improved people
No. of those applicable [a]	5,902	1,945	1,701
People screened, people participated [b]	5,902	1,701	510
% of total	Result [b/a]	87%	30%
	Target	80%	10%

Together with local communities

Basic concept

○ Aiming to win the trust of communities

Recognizing its responsibility as a member of local communities, JTEKT promote various activities aiming for further development after winning the trust and respect of the community and government bodies. The Social Contribution Working Group under the CSR Promotion Committee enrich activities based on the policy of “actively promoting social contribution activities as a good corporate citizen, indicated in “Corporate Activities Standards”.

Communication

○ Holding community discussions at all plants

We periodically invite local residents to participate in community discussions at each plant. At these meetings, we report the results of environmental conservation activities, exchange opinions and provide plant tours to build good relationships with local communities. A total of 230 residents attended such discussions at plants in FY2009.

→ Related article on [page 55](#)



Community discussions
(Higashikariya Plant)



Environment tour
(Tokushima Plant)

○ Interaction through “View a manufacturing site” events

“View a manufacturing site” events to allow local residents to understand plant workplaces better and exchange information were started by seven Toyota Group companies in 2000. This event has been ongoing since then and in FY2009 38 people visited Hanazono Plant. Comments from visitors included, “It was great to see parts of the car that I wouldn’t normally see even though I ride in one all the time”.



“View a manufacturing site” event
(Hanazono Plant)

○ Deepening friendships through plant festivals

In order to deepen friendships between employees, their families and local residents, individual JTEKT plants plan and hold festivals every year, featuring stage shows, games, booths to sell goods and so on. In FY2009, ten plants held festivals that were attended by a total of 20,000 people. Kariya Plant donated all profit to community welfare activities.

Kokubu Plant participates in government-run festival

Kokubu Plant participated in the government-run Kashiwabara Citizens Festival. Members interacted with approximately 12,000 visitors through taking part in a sports carnival and exhibiting solar cars, giving volleyball lessons, loaning out a complimentary shuttle bus, etc.



Kashiwabara Citizens Festival
(Kokubu Plant)



Volleyball lesson
(Kokubu Plant)

Activities to contribute to local communities

○ Implementing community beautification activities at all plants

JTEKT conducts community beautification activities annually with the aim of raising the environmental awareness of employees. Employees proactively engage in cleanup activities around plants, achieving coexistence with the local community. In FY2009, 12 plants implemented local cleanup activities.

○ Voluntary participation in activities to contribute to local communities

JTEKT employees participate in various activities to contribute to local communities. Through the provision of information and introduction of case examples, etc., we will continue efforts to create a corporate culture wherein all employees are encouraged to voluntarily participate in activities.

Together with local communities

01 | Participated in the “Asuka River Firefly Regeneration Project”

In Asukamura, Nara prefecture, an NPO was at the center of efforts to regenerate fireflies, taking part in various activities aimed at creating a town with a balance of historical areas and native ecosystem.

An event was held as part of these activities on the 8th of November, 2009 in which Nara Plant employees participated and cooperated in conducting a firefly ecosystem survey.



Volunteers (Nara Plant)



Taking part in activities (Nara Plant)

02 | 13th JTEKT Challenge Cup

Every year the JTEKT Challenge Cup, a soccer tournament for youths, is held. This time the tournament was held on the 13th and 20th of February, and 27 teams comprising approximately 300 players participated from elementary schools in Kariya city. JTEKT soccer team members acted as referees and deepened interaction with the school children.



Opening ceremony



Match scene

Fire prevention and traffic safety activities

○ Promoting fire prevention activities

Fire prevention activities are important to a company aiming to win the continual trust of communities. We conduct fire



Fire prevention training (Kameyama Plant)



Fire prevention training (Tadamisaki Plant)

prevention activities at each workplace under a motto of “protecting one’s own workplace.” Furthermore, on top of autonomous activities, JTEKT promote fire prevention management under the supervision of local firefighting authorities.

Tokyo Plant participate in joint fire prevention training

On the 5th of June, 2009, Tokyo Plant took part in joint fire prevention training based on the Large-Scale Hazardous Material & Facility Mutual Support Agreement (*).



Joint fire prevention training (Tokyo Plant)



Joint fire prevention training (Tokyo Plant)

*** Large-Scale Hazardous Material & Facility Mutual Support Agreement** This agreement was made under the Fussa Police Station of the Metropolitan Police Department by six companies running large-scale hazardous material facilities as specified by Japan’s Fire Prevention Law regarding the mutual provision of firefighting equipment, etc. in the case of a fire.

○ Creating workplaces where fires do not occur

As a company involved in the auto industry, JTEKT considers promoting traffic safety to be one of its important social responsibilities. We cooperate with local residents, community groups, the police, etc., to actively carry out traffic safety patrols and various other traffic safety activities.

Traffic safety booth at plant festival

Hanazono plant set up a traffic safety booth at their plant festival. In order to simulate a drink driving experience, they gave visitors special goggles to wear and demonstrated the dangers involved.



Drink driving experience (Hanazono Plant)

Together with shareholders and investors

Basic 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.

Information disclosure and IR activities

○ Detailed IR activities

JTEKT not only observe rules on legislated disclosures and timely disclosures but also actively disclose information that is both well-timed and appropriate voluntarily and in a fair manner. Furthermore, we deploy detailed IR activities. At the General Shareholders Meeting in June, easy to understand information was provided using a visual medium, etc.



109th General Shareholders Meeting

Main IR activities

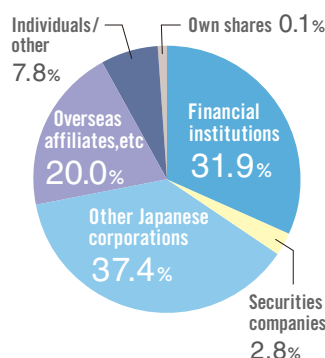
- Hold IR briefings and small meetings
- Carry out individual visits
- Issue annual reports
- Conduct plant tours
- Disclose information on HP

Shareholder situation and return of profits

○ Shareholder status

Current at end of March, 2010, the number of shares issued were 321,406,000 and the breakdown of shareholders is as follows.

Shareholder distribution status



Financial institutions	102,421	thousand shares
Securities companies	9,149	thousand shares
Other Japanese corporations	120,181	thousand shares
Overseas affiliates, etc.	64,322	thousand shares
Individuals/other	25,087	thousand shares
Own shares	244	thousand shares
Total	321,406	thousand shares

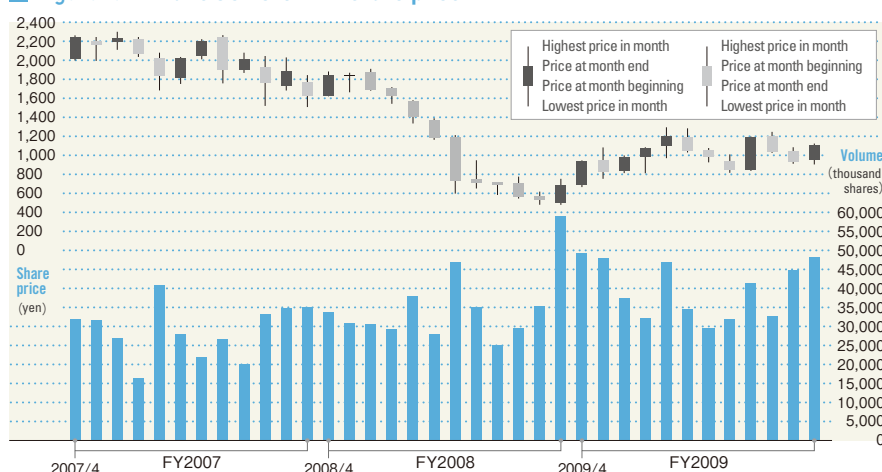
As at end of March, 2010
(anything less than 1000 rounded down)

○ Business performance and return of profits

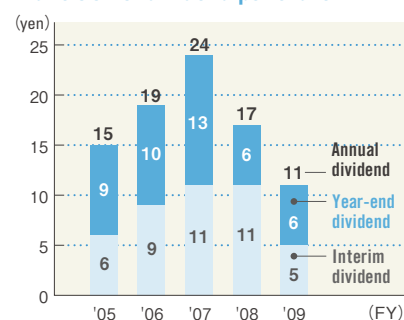
Impacted by the financial crisis of Autumn, 2008, FY2009 consolidated sales were 769.6 billion yen, down 24.3% from the previous year. Consolidated ordinary income was 400 million yen (22.3 billion yen the previous year), combined consolidated loss was 200 million yen, and consolidated net loss was 19.4 billion yen due to business division structural improvement expenses and so forth. Based on these results, we issued an annual dividend to shareholders of 11 yen per share, a decrease of 6 yen per share from the previous term. In FY2010 we will combine the strengths of the group and exert every effort to rapidly and flexibly respond to changes in the management climate.

▶ Figure-01

▶ Figure-01 Transition of JTEKT share price



Transition of dividend per share



Environmental Report

Turning an eye toward the earth's future is our mission as an organization connected to a wide-range of industries.

This year's environmental report is divided into individual activity content.

We have endeavored to compile a report that is easy to read and follow so that more people will understand the activities JTEKT are undertaking.

Amidst society's rising awareness of global environmental conservation, JTEKT are implementing countermeasures from multiple aspects.

As a provider of products to a wide-range of industries, we believe the development of environmentally friendly products is a mission of particular importance.



Summary of FY2009 activities

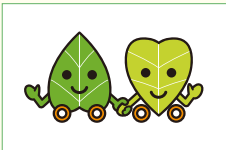
→ P50

Carry out energy conservation inspections companywide and make improvements to reduce energy waste and loss.



→ P51

By improving long-distance transport, CO₂ emissions have been reduced by 300t per annum, and we have been certified as a green logistics partnership business.



→ P52

Developed a high speed rotating ball bearing for hybrid transmissions with suppressed distortion during high speed rotation.

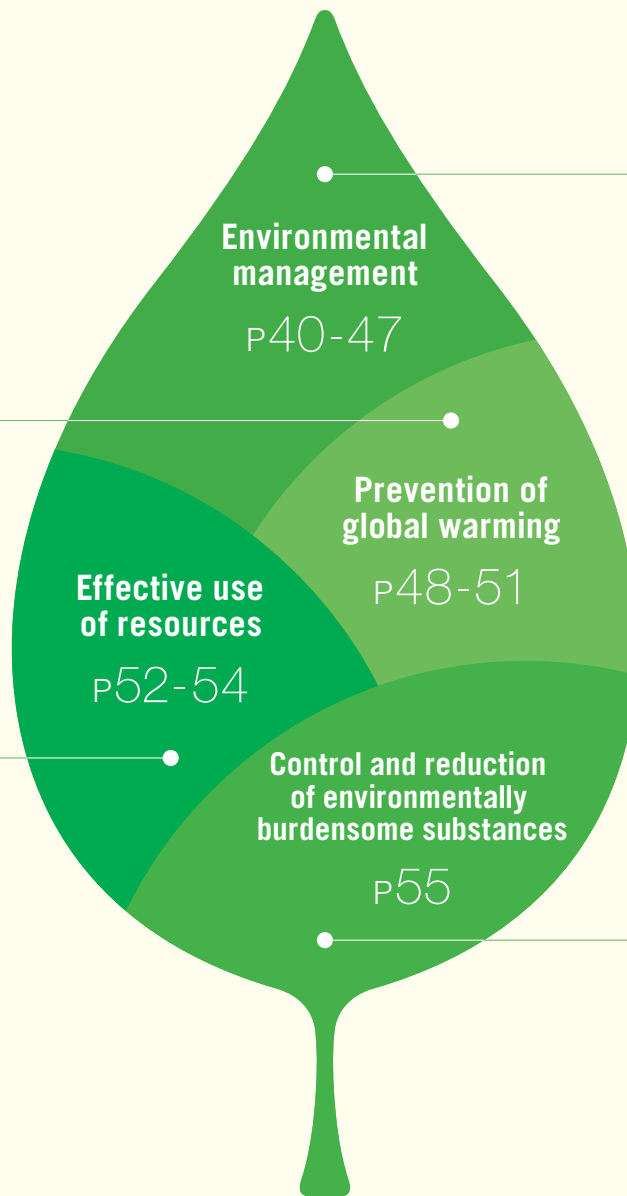


→ P54

Recycled landfill waste and achieved zero waste.

→ P54

Promoted the shift to simple and returnable packaging with the aim of reducing wood and paper packing materials.



→ P41

Held a JTEKT Group environmental meeting in Japan, in which all group companies participated.



→ P41

Implemented on-site confirmation and education at a Chinese manufacturing affiliate with the aim to minimize environmental risk.



→ P45

Began conducting on-site checks at valuable resource processors to confirm that valuable resources were being used appropriately and effectively.

→ P55

Promoted the reinvestigation and appraisal of the amount of chemical substances handled, in response to the revised PRTR regulation.

→ P55

As well as properly storing PCB devices in accordance with legislation, will complete the processing of high concentration PCB devices by 2016.

Environmental management

Basic concept

○ Aiming to create a sustainable society

JTEKT, with the aim of becoming an environmentally friendly manufacturer, considers the implementation of activities for the sake of environmental conservation as being an important corporate responsibility. Environmental conservation activities are pursued in all business fields on a group-wide basis and we will continue to contribute to the creation of a sustainable society.

Promotion structure

○ Centered around the Global Environmental Conservation Committee

JTEKT have established a Global Environmental Conservation Committee chaired by the company president to act as a deliberative organ for environment management.

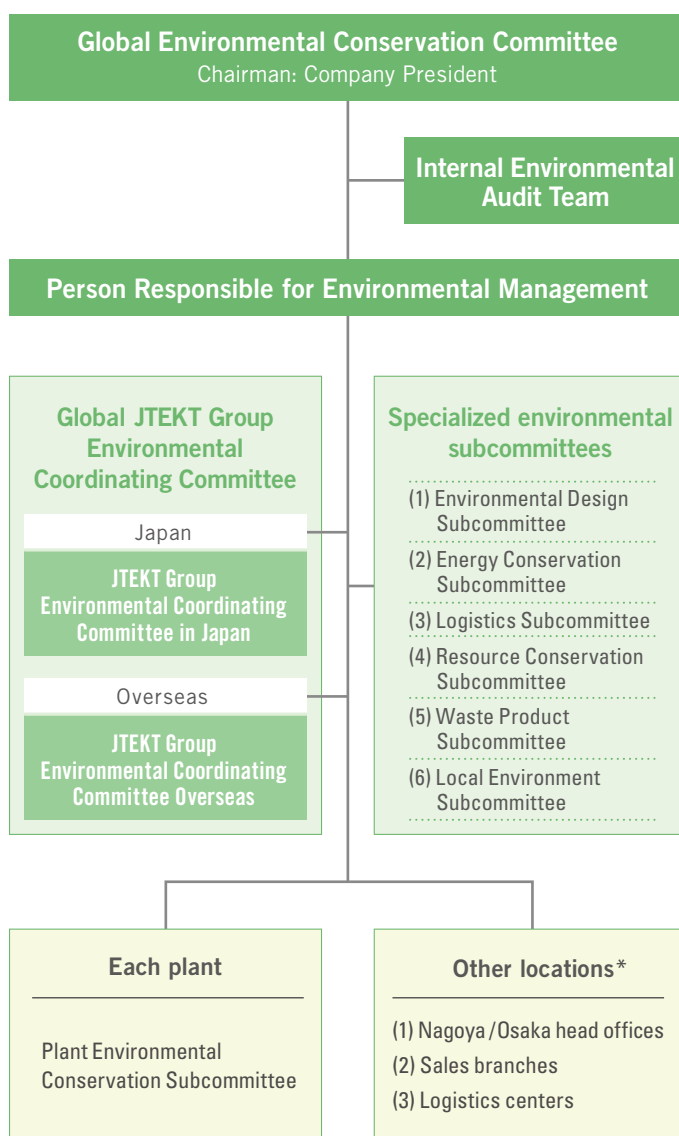
Furthermore, in order to deal with societal issues deeply intertwined with our business activities, six specialized environmental subcommittees have been established within the committee, and perform the tasks of forming company policy, monitoring activity progress, studying problems and determining countermeasures. ▶ Figure-01

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.

- 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.
- 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.
- 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:
 - Develop and design environmentally friendly products
 - Reduce CO₂ emissions through effective energy utilization
 - Reduce waste
 - Thoroughly control chemical substances and reduce environmentally burdensome substances
 - Reduce primary materials and secondary materials
 - Reduce CO₂ emissions in logistics
 - Maintain and improve community environments
- 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.
- 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-01 The centralized control system for global environmental conservation



* Outside the scope of ISO14001 certification

Environmental management

Global environmental management

○ Promotion of global environmental management

To promote group-wide efforts which span the globe, we established a Global JTEKT Group Environmental Coordinating Committee to carry out environmental conservation activities in cooperation with affiliated companies in Japan and overseas. In FY2009, JTEKT Group Environmental Coordinating Committee meetings were held with manufacturing affiliates in Japan and activities to reduce CO₂ emissions and waste were promoted.

Moreover, in order to prevent environmental accidents, as well as distributing examples of incidents at other companies, we promoted response to environmental laws and regulations. The overseas group made on-site confirmations of the environmental management status of two Chinese manufacturing affiliates and an environmental workshop was held targeting the personal in charge of the environment.

01 | JTEKT Group Environmental Coordinating Committee in Japan

In June, 2009, 18 group companies participated in a Group Environmental Coordinating Committee meeting held in Japan, making decisions on how to achieve targets and responding to/discussing environmental laws and regulations. In December of 2009, a Coordinating Committee meeting was held at a group company, activity progress status was confirmed and, at the same time, the environmental facilities of the company hosting the meeting were inspected, in an effort to achieve mutual improvement.



JTEKT Group Environmental Coordinating Committee in Japan

02 | Overseas manufacturing affiliates on-site confirmation and education

With the aim of minimizing environmental risks such as environmental accidents and law violations, JTEKT conducted an on-site confirmation of two Chinese manufacturing affiliates (KLF, JAFS) in FY2009. The control status of environmental facilities, legal compliance of environmental measurement data, implementation of emergency response training and so forth was verified. We will continue to perform on-site confirmations of manufacturing affiliates and pursue activities to prevent environmental accidents.



On-site confirmation of waste storage area (China/KLF)



Environmental workshop (China/KLF)

03 | Group companies environmental management system certification acquisition status

As well as promoting environmental management, we are creating an effective system conforming to ISO14001. In FY2009, another two business sites in China acquired ISO14001 certification. Consequently, 43 out of the 51 corporations subject to the JTEKT Group Environmental Coordinating Committee (14 companies within Japan, 29 overseas) have acquired ISO14001 certification and completed their environmental systems.

ISO14001 certification in FY2009

Overseas group companies	Date of certification
JATJ (China)	August 2009
JDI (China)	February 2010

Environmental management

Environmental impact of business activities

○ Reduction of environmental load in all business activity stages

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

○ Resource and energy input versus environmentally burdensome substance output


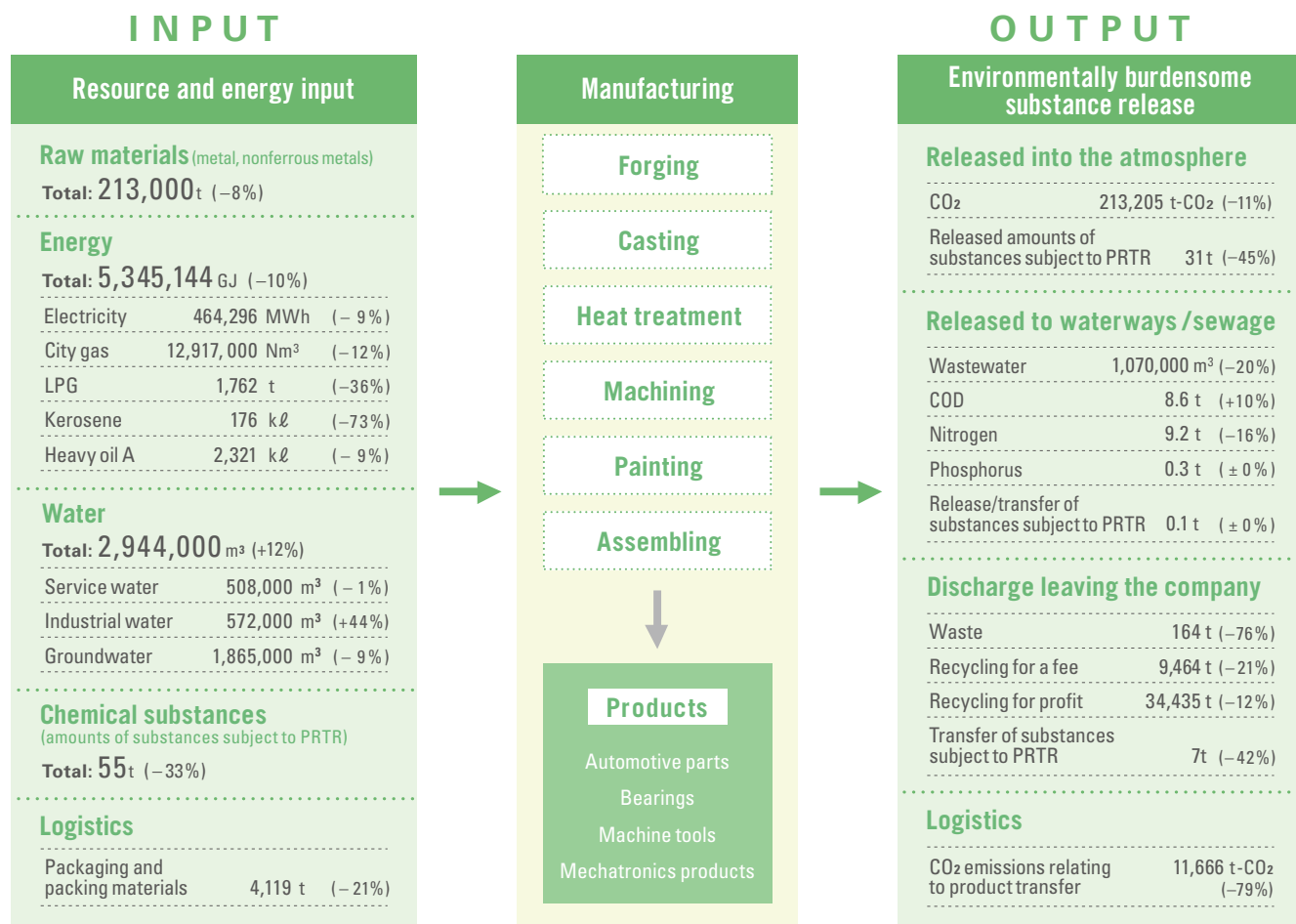
The table below shows resource and energy input versus environmentally burdensome substance output for FY2009. In order to minimize the impact of business activities on global warming, JTEKT strives to reduce energy usage in all production processes such as forging, casting, heat treatment and machining and to switch to more efficient energy sources such as electricity and city gas. In FY2009, 97% of JTEKT's total energy consumption was electricity and city gas by thermal conversion, 2% higher than FY2008.  Figure-01

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



* Values in parenthesis are comparisons with the previous year

* Notes on the [Resource and energy input versus environmentally burdensome substance output]

CO₂ conversion coefficients to calculate CO₂ emissions volume

Electricity	0.3817 kg-CO ₂ /kWh
Heavy oil A	2.7000 kg-CO ₂ /ℓ
Kerosene	2.5308 kg-CO ₂ /ℓ
Propane gas	3.0094 kg-CO ₂ /kg
City gas	2.3576 kg-CO ₂ /Nm³

The CO₂ conversion coefficients in the table to the left are used both in Japan and overseas. Regarding the conversions in this report, so that the results of our improvements could be evaluated, we fixed electrical conversion coefficients, and we converted cogeneration CO₂ reduction results using a thermal energy average and used this result to indicate emissions volume.

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

Targets and results

○ JTEKT Environmental Action Plan

To contribute to the creation of a recycling-based society, JTEKT has issued an Environmental Action Plan stipulating our activities policy and targets to be achieved by FY2010. Based on this plan, JTEKT, along with our affiliated companies, is carrying out environmental conservation activities. In FY2009, all nine FY2010 targets were achieved.

Consequently we have set even higher targets for these nine items and are striving to achieve them.

Amidst decreasing production volumes, CO₂ emissions and discharge per sales unit amounts (*) are worse than the previous year and we are improving this through the enhancement of productivity.

***Per sales unit amounts** JTEKT use per sales unit amounts calculated by dividing CO₂ emission and discharge amounts by sales volume as our CO₂ emission reduction index.

[1] Enhance environmental conservation activities through further efforts to reduce environmental load

Target and results percentages in parentheses are in comparison with the base year.

Action items	Details	FY2009 targets	Results	Evaluation	Challenges	Related pages
Promote measures to prevent global warming	● CO ₂ emissions: 5% reduction from FY2003 by the end of FY2010 [241,373 t-CO ₂]	243,100 t-CO ₂ (-4.3%)	213,205 t-CO ₂ (-16%)	○	156,200 t-CO ₂	49
	● CO ₂ emissions per sales unit (*): 7% reduction from FY1990 by the end of FY2010 [55.4 t/100 million yen]	55.6 t/100 million yen (-6.7%)	44.0 t/100 million yen (-26%)	○	35.9 t/100 million yen	50
	● CO ₂ emissions per sales unit (global): 8% reduction from FY2003 by the end of FY2010 [54.1 t/100 million yen]	54.7 t/100 million yen (-6.9%)	496 t/100 million yen (-16%)	○	43.7 t/100 million yen	
Strengthen control of environmentally burdensome substances and reduce usage	● Substances subject to PRTR: 60% reduction from FY1998 by the end of FY2010 [77 t]	86 t (-55%)	38 t (-80%)	○	52 t	55
Reduce waste and promote resource conversation	● Zero landfill waste: 99% reduction from FY1995 by the end of FY2010 [154 t]	155 t (-99%)	0 t (-100%)	○	0 t	54
	● Incineration waste: 1/6 th or less of the FY1990 level by the end of FY2010 (-84%) [3,170 t]	3,840 t (-80%)	164 t (-99%)	○	415 t	
	● Wastes per sales unit: 5% reduction from FY2003 by the end of FY2010 [11.5 t/100 million yen]	11.6 t/100 million yen (-4.3%)	9.1 t/100 million yen (-25%)	○	8.7 t/100 million yen	
Promote logistics streamlining	● CO ₂ emissions in logistics: FY1990 level or lower by the end of FY2010 [15,865 t-CO ₂]	15,865 t-CO ₂	11,666 t-CO ₂	○	15,600 t-CO ₂	50
	● CO ₂ emissions per sales unit in logistics: 10% reduction from FY1990 by the end of FY2010 [3.26 t/100 million yen]	3.28 t/100 million yen (-9.5%)	2.40 t/100 million yen (-34%)	○	2.40 t/100 million yen	51

[2] Develop and design environmentally friendly products

Action items	Details	Results	Evaluation	Related pages
Promote efforts in the development and design stages	● Reduce environmental load	<ul style="list-style-type: none"> • Development of an H-EPS responding to idle stop • Development of a long life highly anticorrosive bearing for rolling machine roll necks • Development of a long life electrical corrosion resistant bearing for fan motors • Reduction of environmental load through the development of combination machines 	○	48 49 52
Strengthen cooperation with business partners	<ul style="list-style-type: none"> ● Further promote green purchasing ● Formulate environmentally friendly purchasing guidelines to share with business partners 	Expansion of Green Purchasing Guidelines	○	28

* H-EPS is a registered trademark of JTEKT Corporation

[3] Strengthen environmental management system responding to consolidated management

Action items	Details	Results	Evaluation	Related pages
Develop structures and enhance activities	● Share basic policy and conduct guidelines	Continuing activities with group companies in Japan and overseas	○	40, 41 44

[4] Actively participate in social activities as a corporate citizen

Action items	Details	Results	Evaluation	Related pages
Promote social contribution activities	● Participate in environmental conservation activities	Implemented clean-up activities around the plant	○	35, 36
Maintain close communications with local communities	● Cooperate with and support local community groups	Ongoing discussions with local residents regarding environmental issues	○	35
Promote public relations activities and information disclosure	<ul style="list-style-type: none"> ● Provide more environmental information via our website ● Enhance and continue issuance of our environmental reports ● Promote volunteer activities in local communities 	Issued CSR report 2009	○	35

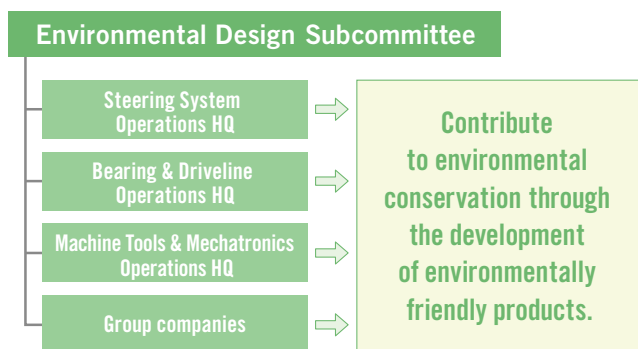
Environmental management

Develop and design environmentally friendly products

○ Promotion by the Environmental Design Subcommittee

At JTEKT, under the direction of the Global Environmental Conservation Committee, which oversees company environmental conservation activities, the Environmental Design Subcommittee, including members from group companies, works to promote the development of environmentally friendly products. Building products which are compact, lightweight, low in environmental load, etc., through engineering innovation in the development and design stages, environment conservation through our products is being expanded on a world scale.

Environmental design promotion framework



○ 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.

■ Figure-01

○ Machine Tools & Mechatronics Operations HQ
Close cooperation with group companies

The Machine Tools & Mechatronics Operations HQ works in close cooperation with group companies to develop and design environmental products. Because machine tools are an industrial product used for a relatively long time, we use an independent index called the "JTEKT Eco-Scale" (*1) which matches individual product characteristics, making it easy to understand how environmental activities are progressing.



JTEKT Eco-Scale mark (example)

***1 JTEKT Eco-Scale** JTEKT have set 12 items including power capacity, standby mode power consumption, footprint, machine mass and so on, and created an internal standard assessment point system using indexes (the smaller the value in the top of the displayed mark is, the better). The amount reduced from the 2002 product assessment point is expressed as the environmental load reduction ratio (% value at the bottom of the displayed mark).

Production and logistics considering the environment

○ 4 subcommittees promoting activities

At JTEKT, under the direction of the Global Environmental Conservation Committee, the Energy Conservation, Resource Conservation, Waste Product and Logistics Subcommittees take the lead in promoting environmental conservation activities in the production and logistics stages. With the belief that achieving efficient, non-wasteful production and logistics will reduce environmental load and lead to the creation of a sustainable society, we strive to enhance productivity and improving the logistic system.

■ Figure-02

■ Figure-01

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.

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

W: Mass T: Loss E: Energy

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

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 were 1.25, that product's environmental load reduction benefit would be 20%.

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

A reduced environmental load is sought as the reverse of the environmental efficiency value.

Environmental management

▶ Figure-02 Environmental Conservation Activities Framework



Reducing environmental risk

○ Deploying preventive activities

JTEKT, led by the Local Environment Subcommittee, are involved in preventive measures and risk reduction assuming environmental risk such as environmental accidents, legal violations, etc.

In order to prevent environmental accidents such as wastewater, exhaust gas, oils and chemical leakages, etc., that exceed our internal standard, we carry out daily inspections and monitor conditions based on our self-imposed standards. Moreover, while pinpointing cases which could have lead to accidents and violations and devising countermeasures for them, we collect examples of other companies' accidents and circulate this information internally. We also carry out emergency response training annually to be prepared for the off-chance an accident occurs.

○ Legal compliance with environmental laws and regulations

In FY2009, JTEKT did not receive any fines or penalties and was not the subject of any lawsuits related to environmental matters.

○ Environmental complaints and accidents

JTEKT has established internal standards (*2) regarding amounts of plant wastewater discharge and substances released into the atmosphere that are stricter than regulatory amounts and strives to prevent environmental accidents and complaints. JTEKT had no accidents and received no complaints regarding environmental matters in FY2009.

*2 Internal standards JTEKT has set its internal standards at 80% of the regulatory requirements.

○ Environmental patrols by the plant manager

As part of our "Environment Month" every June, with the objective of preventing environmental abnormalities, plant managers conduct a patrol of environmental facilities at each respective plant. In FY2009, checks were made to ensure that daily management was being carried out properly on wastewater processing facilities, cleaning tanks, centralized oil supply equipment, etc., on which wastewater abnormalities may occur.



Environmental patrol (Tokushima plant)

○ Emergency response training

In order to be prepared for the worst, as well as preparing emergency procedures for individual equipment, we carry out regular emergency response training to keep damage to a minimum. After this training, procedures are revised where necessary.



Environmental emergency response training (Okazaki plant)

○ On-site confirmations of industrial waste processing and collection/transportation companies

JTEKT conduct annual on-site checks of all waste processing and collection/transportation companies to ensure that the consigned waste is being appropriately processed.

○ On-site checks of valuable resource processors

In order to confirm that valuable resources such as cutting chips, etc., discharged from plants are being utilized effectively and appropriately like industrial waste, JTEKT began conducting on-site checks of valuable resource processors from FY2009. We plan to complete on-site checks of all valuable resource processors by the end of FY2010.



On-site check of valuable resource processors (February, 2010)

Environmental management

Environmental audits

○ Action for continuous improvement

Once a year, JTEKT both conducts an internal audit and receives an external audit to ensure that its management system is continuously being improved. Audit results are reported to JTEKT's top management through the Global Environmental Conservation Committee.

01 | Internal audits

Every year, an internal environmental audit is conducted to make sure the environmental management system is being properly managed. Prior to conducting the audit, the internal environmental auditor is made aware of items which require particular attention and the latest information regarding environmental management, improving the quality of the auditor.

02 | External audits (ISO14001)

JTEKT received a regular audit in April, 2010. The result of which was zero nonconforming items and three proposals to improve environmental management even further. We were evaluated as running an efficient environmental management system and continuously maintaining and improving through the participation of all employees.



External audit at Kariya plant (April, 2010)

Environmental education

○ Providing education based on needs

At JTEKT, based on the needs of the individual employee, various types of education such as environmental awareness education and internal environmental auditor education is carried out to raise environmental consciousness and skills.

01 | Environmental awareness education

JTEKT carries out environmental awareness education for employees as part of our "Environment Month" every June. The slogan for the FY2009 awareness education was "Let's

each think of activities we can do to conserve energy and prevent environmental problems!"



Environmental awareness education
(attended by 495 employees)

02 | Internal auditor education

JTEKT carries out education on internal auditing skills for our own employees and affiliated companies once a year. In FY2009, 34 people attended this course and were newly registered as internal environmental auditors.

03 | Environmental education by rank

Every year, within the overall company education curriculum, environmental education concerning ISO14001, JTEKT's environmental management system, and environmental action is held for newly enrolled students at JTEKT's Technical Training Center, newly hired employees, newly appointed managers and staff in professional-track careers (general/technical).

→ Related article on [page 30](#)

Number of employees obtaining main environmental qualifications (FY2009)

Pollution control manager	Air	26
	Water	35
	Noise	47
	Vibration	2
Energy manager		29
Energy management staff		7
Internal environmental auditor		283
Specially controlled industrial waste manager		33
Hazardous material handler (first-class)		3
Hazardous material handler (second-class)		363
Hazardous material handler (third-class)		54
Chief electrical technician (first-class)		1
Chief electrical technician (second-class)		13
Chief electrical technician (third-class)		22

Environmental management

Environmental accounting

Cost and results appraisal

JTEKT utilizes environmental accounting in order to quantitatively ascertain the costs and benefits of environmental conservation activities and to effectively and efficiently promote continuous improvements. At the same time, we utilize environmental accounting as information to stakeholders so that our environmental conservation activities can be better understood. Our calculations observe the guidelines stipulated by the Ministry of Environment.

▶ Figure-01

Environmental accounting results for FY2009

The total environmental conservation cost for FY2009 was 4.03 billion yen, comprising of 1.08 billion yen in investments and 2.95 billion yen in expenditures. This marked a decrease of 0.78 billion yen, or 16.3%, from the previous fiscal year. Most of the investment was for the global warming counter-measures of fuel conversion to a metamorphic furnace and renewal to a cooling tower style of air drying. The economic benefit of environmental conservation measures was 1.37 billion yen, with a reduction in business income from recycling due to lower production, resulting in a decrease of 0.64 billion yen, or 32%, from the previous year.

▶ Figure-01 Environmental conservation costs and economic benefit of environmental conservation measures

Environmental conservation costs

(Millions of yen)

Type	Details	Investment	Cost
① Business on-site costs			
① Pollution prevention costs	<ul style="list-style-type: none"> ● Maintenance of drainage ● Maintenance and repair of wastewater treatment facilities ● Maintenance and repair of dust collectors, etc. 	74	208
② Environmental conservation costs	<ul style="list-style-type: none"> ● Measures for energy conservation 	206	58
③ Resource recycling costs	<ul style="list-style-type: none"> ● Investment and management related to waste reduction, etc. ● Waste disposal and recycling 	7	320
② Upstream and downstream costs	<ul style="list-style-type: none"> ● Green purchasing ● Amount paid to industrial organizations 	—	460
③ Management activity costs	<ul style="list-style-type: none"> ● Training activities ● Maintenance of ISO 14001 certification ● Environmental monitoring, measurements, etc. 	—	151
④ R & D costs	<ul style="list-style-type: none"> ● R&D for eco-friendly products 	792	1,706
⑤ Social activities costs	<ul style="list-style-type: none"> ● Disclosure of environmental information ● Tree-planting, etc. 	—	39
⑥ Environmental damage costs	<ul style="list-style-type: none"> ● Local tax on pollutant amounts (Tokyo and Tokushima) ● Soil and groundwater restoration 	—	4
Total		1,079	2,946
Gross amount			4,025

Economic benefit of environmental conservation measures

(Millions of yen)

	Details of benefits	Economic benefit
Income	Business income from recycling waste generated by main business activities, used products, etc.	611
Expenditure reduction	Energy-cost reduction from promoting energy conservation	468
	Reduction of waste treatment costs resulting from resource conservation and recycling	289
Total		1,368

Items such as contribution to products' added-value, environmental risk avoidance, and corporate image improvement are not included in the calculation. The scope is limited to items regarding which economic benefit can be quantitatively calculated. Depreciation costs are not included. Expenditures with multiple outlay purposes are calculated pro-rata.

Covered range :

JTEKT (nonconsolidated) (head offices, branch offices, logistics centers, R&D departments, and all plants)

Period covered :

FY2009 (April 2009 to March 2010)

Prevention of global warming

Basic concept

○ Reducing CO₂ emissions across all processes

At JTEKT, to reduce the emission of CO₂ which is the main greenhouse effect gas, we are involved in energy conservation, etc., and aim to contribute to the prevention of global warming which is the environmental problem of top priority. This activity is promoted throughout all group companies both with Japan and overseas and covers all processes from the design phase to production and logistics.

Product-related countermeasures

○ Environmentally-friendly designs improving fuel efficiency

From an environmental design perspective, activities such as reducing steering system size and torque loss were pursued, resulting in the reduction of mass, torque loss and energy consumption of more steering systems than in FY2008.

This contributed to improved environmental efficiency and fuel efficiency compared with conventional products.

○ Reduction of product transport mileage (*1)

Promotion of local purchasing and production with the goal of reducing CO₂ emissions created during product transport.

***1 Product transport mileage** The concept of reducing CO₂ emissions by reducing the resources and energy consumed by product transport. The figure obtained by multiplying product transport quantities by transport distance is assessed.






FY2009 development achievements 01

Various steering systems

From EPS (electric power steering), which contributes significantly to the environment, to conventional hydraulic power steering, we seek high performance in response to the vehicle's application and purpose at the same time as improving environmental efficiency.

▶ Figure-01

▶ Figure-01 FY2009 development achievements

	System	Development points	Results	Environmental efficiency value
Electric power steering	C-EPS (Column assist type) 	● Reducer efficiency improvement (torque loss reduction)	Mass 29% reduction Torque loss 25% reduction Energy consumption 83% reduction	1.66
	P-EPS (Pinion assist type) 	● Reducer efficiency improvement (torque loss reduction)	Mass 27% reduction Torque loss 30% reduction Energy consumption 83% reduction	1.69
	R-EPS (Rack assist type) 	● Motor efficiency improvement (torque loss reduction)	Mass 27% reduction Torque loss 42% reduction Energy consumption 83% reduction	1.83
Electric-hydraulic power steering	H-EPS 	● Control characteristics improvement (Idle stop/torque loss reduction)	Mass 19% reduction Torque loss 14% reduction Energy consumption 67% reduction	1.41
Hydraulic power steering	HPS 	● Housing design optimization (lightweight) ● Normal sliding intermediate shaft (torque loss reduction)	Mass 14% reduction Torque loss 18% reduction Energy consumption 17% reduction	1.19

*E-VGR, C-EPS, P-EPS, R-EPS and H-EPS are registered trademarks of JTEKT Corporation.

Steering types and applicable vehicles

	Applicable vehicles					Installed location
	Passenger cars				Heavy vehicles	
	Mini	Small	Medium	Large		
EPS (electric power steering)						
● C-EPS (column assist type)	○	○	○			Passenger compartment
● P-EPS (pinion assist type)		○	○			Engine room
● R-EPS (rack assist type)			○	○		Engine room
H-EPS (electric-hydraulic power steering)		○	○	○		Engine room
HPS (hydraulic power steering)	○	○	○	○	○	Engine room

Prevention of global warming

○ Reducing energy consumption with high efficiency

By integrating the processes that were conventionally carried out on multiple machines into one, JTEKT are advancing making high efficiency machining possible and developing products which reduce energy consumption amounts.

FY2009 development achievements 02

TG4 grinding center

A grinder equipped with two types of wheels and continuously machines multiple processes. With this machine we have achieved reduced running costs, a compact design and smaller footprint.



CO ₂ emissions	35% reduction
Eco-Scale	31% reduction

FY2009 development achievements 03

Combination machining center – FH1250SW

The large dia. deep drilling and boring of large parts is now possible.



CO ₂ emissions	38% reduction
Eco-Scale	34% reduction

TOPICS

TG4 grinding center receives “the Ten New Products Award”

The TG4 grinding center, a highly accurate, highly efficient CNC combination grinder with the smallest footprint in its class, received the 2009 Nikkan Kogyo Shimben Top 10 New Products Award. As well as being a machine with a high speed and high accuracy wheelhead swiveling unit, by integrating processes, initial investment costs and running costs (i.e. energy consumption) have been reduced, resulting in the TG4 as being evaluated as an economical machine.



Award ceremony (January, 27th, 2010)

Reducing CO₂ emissions in production

○ Aiming high as a company on the whole

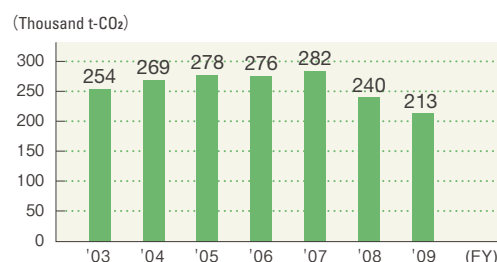
JTEKT promotes energy conservation and reduction of CO₂ emissions at production sites by working to raise the energy efficiency of current equipment, switching to more efficient devices, etc. In FY2009, we reached the FY2010 environmental action plan target for CO₂ emissions and set a “challenge” target of 146,200t-CO₂, however were unable to reach it. In the future we will promote the reduction of CO₂ emissions on a per sales unit basis as well as narrow down items necessary to meet targets and strengthen activities companywide.

Main activities

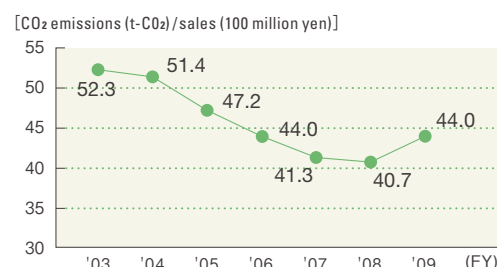
- Improve heat treatment processes
- Improve production machinery and ancillary equipment
- Pursue energy savings by combining low-load lines
- Reduce CO₂ through energy conversion
- Vitalize energy-saving activities at all workplaces
- Energy-saving patrols by company offices

Transition of total and per sales unit CO₂ emissions in production

Total CO₂ emissions



Per sales unit CO₂ emissions



Prevention of global warming

Status of main activities

01 | Improvement of productivity and introduction of high efficiency equipment

At JTEKT, we consider improving productivity in the machining and assembly processes which use 33% of overall energy, and improving efficiency of heat treatment, forging and casting processes which use up 28%, effective steps in promoting energy conservation. We strive to enhance productivity and introduce high efficiency equipment. In FY2009, production equipment was integrated, CO₂ emissions were reduced by 12,000t through production enhancement countermeasures and a further 6,400t of CO₂ was reduced by implementing countermeasures for heat treatment equipment and enhancing the efficiency of the forging and casting processes.

02 | Energy conservation inspections

In order to eliminate wasteful usage of energy, we conducted an energy conservation inspection companywide. Stopping energy supply in non-operational times and to non-operation, pointing out matters for improvement on-site, digging up improvement items and making countermeasures, we worked to reduce waste and loss through the visualization of per sales unit transition



Energy conservation briefing session

and circulated improvement methods companywide, confirming the current status of activities.

Reduction of global CO₂ emissions

Aiming to minimize the contribution of our global production operations to global warming, JTEKT is working to reduce CO₂ emissions not only within JTEKT but also at its group companies in Japan and overseas. JTEKT set a target of reducing CO₂ per sales unit emissions by 8% by FY2010 in comparison with FY2003 levels at all group production sites in Japan and overseas and as a result, the FY2009 per sales unit CO₂ was 16% less than FY2003. However, amidst decreasing production volumes, the situation is worse than last year, and we will continue enhancing production efficiency and promoting reduction activities from into the future.

Figure-01

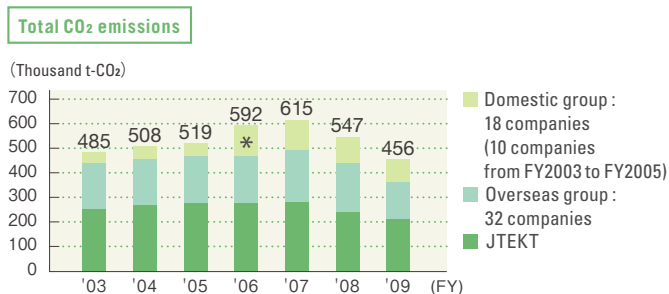
Reducing CO₂ emissions in logistics

Reaching total emission and per sales unit targets

FY2009 saw drastic fluctuations in demand however, we were able to achieve targets for both total and per sales unit CO₂ emissions in logistics. Because we have already achieved the FY2010 target of reducing emissions to the FY1990 level, we have set a new "challenge" target of reducing a further 10%.

Figure-02

Figure-01 CO₂ emissions (global and per sales unit)



Per sales unit CO₂ emissions

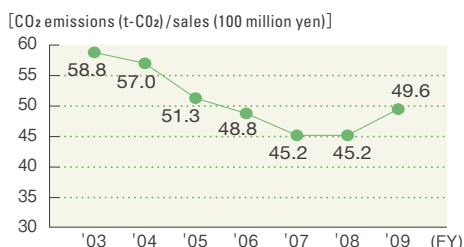
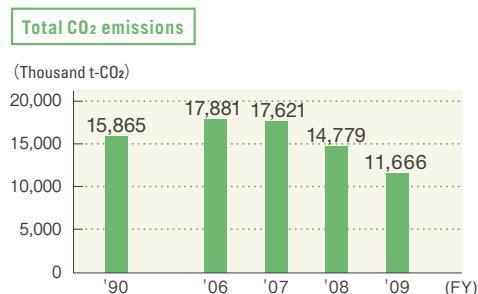
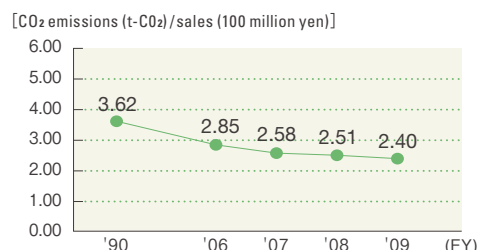


Figure-02 Transition of total and per sales unit CO₂ emissions in logistics



Per sales unit CO₂ emissions



Prevention of global warming

Main activities


- Expand long-distance transport improvements to other routes (Improving packing style through on-site assembly and switching to rail transportation)
- Switch to trailer-type trucks

Status of main individual activities

Expand long-distance transport improvements to other routes

By switching from truck to rail as a means of transporting cargo, CO₂ emissions can be suppressed by approximately 1/8th. At JTEKT, as part of a modal shift to plant-friendly transportation means we have worked to change long-distance transport to Iwate in Kyushu to rail.

In FY2009, we expanded improvements regarding transportation to Kyushu. We changed the logistics route between Nara and Kyushu, Toyohashi and Kyushu and enhanced

storage capacity through improving packaging style, reducing CO₂ emissions by 300t per annum.  Figure-03

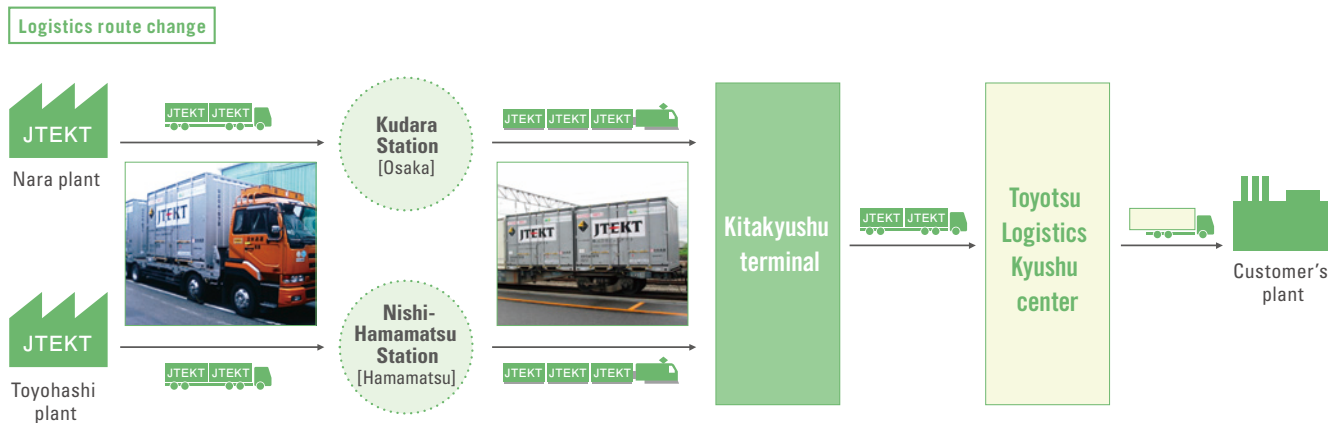
TOPICS

Certified as a green logistics partnership business

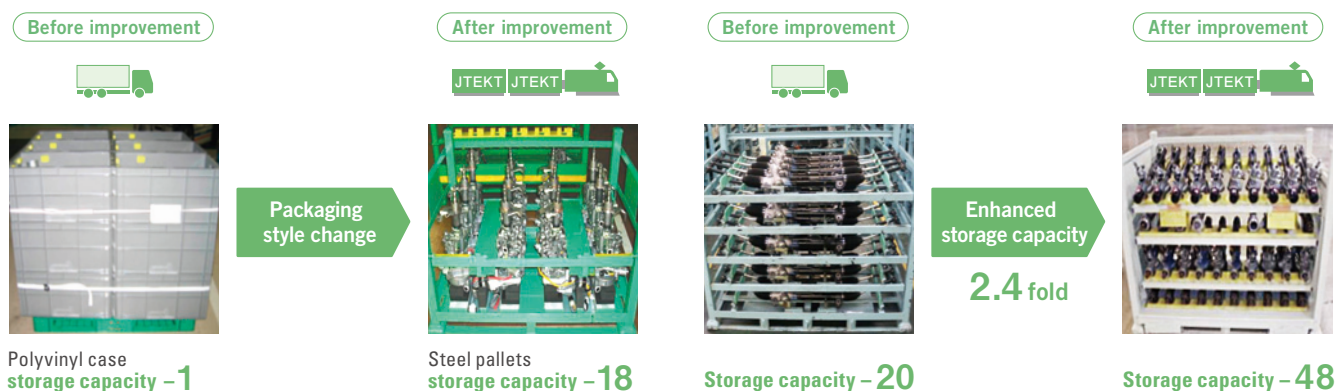
In FY2009, JTEKT were certified by the Ministry of Land, Infrastructure and Transport as a green logistics partnership business. This involves the cargo owner and logistics company clearly forecasting high energy results such as CO₂ emission reductions, etc and passing a rigorous audit by the MLIT, therefore in FY2009, only 12 companies nationwide, including JTEKT, were certified.



みんなで地球にやさしい物流を
グリーン物流パートナーシップ

 Figure-03


Enhancing storage capacity through improving packaging style



Effective use of resources

Basic concept

○ Responsibility as a manufacturer

At JTEKT, we consider the effective use of resources as one of the responsibilities of an environmentally friendly manufacturer. We are involved in activities throughout the entire life-cycle of our products. Such activities include developing products with high durability and long life, reducing material usage through downsizing and lightening equipment, and reducing waste and recycling.

Product-related countermeasures

○ Promoting long service life

Through the development of new technology and materials, we strive to improve durability performance and extend the life of each of our bearing products.

FY2009 development achievements 01

Development of a long life highly anti-corrosive bearing for rolling machine roll necks

We are developing long life, highly durable bearings for steel equipment and JHS (JTEKT hyper strong) bearings into a series. The improvement of rolling contact fatigue and anti-corrosiveness is essential for rolling machine roller neck bearings and, through the adoption of newly developed bearing material and special heat treatment, life has been significantly extended.

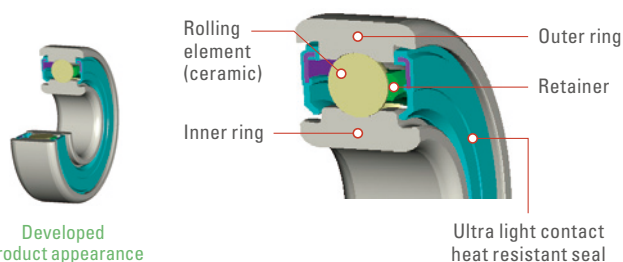
Life	4 fold (premium specifications)
Environmental efficiency value	1.21



Developed product appearance

over 100,000 hours at an ambient temperature of 60 degrees Celsius.

Life	Approx. 3 fold
Reduction in weight	7% lighter
Environmental efficiency value	1.23



Developed product appearance

Ultra light contact heat resistant seal

TOPICS

Development of a high speed rotating ball bearing for hybrid transmissions

In order to make the hybrid transmission motor smaller, high speed rotation is necessary to compensate the drop in output. Distortion of conventional retainers was largely due to centrifugal force at high speed rotation and there was a risk of this leading to sticking due to heavy contact with the ball. Consequently, we have elastic fit together two pairs low-cost resin retainers from both sides of the ball, suppressing distortion caused by centrifugal force and achieving high speed rotation.



Ball bearing appearance
(Left: With retainers assembled)

FY2009 development achievements 02

Long life, electrical corrosion preventive bearings for fan motors

By 24 hour operation of a fan motor which serves both as a chiller and ventilator, grease deterioration and electrical corrosion progresses, and bearings reaching audio life are increasing.

Furthermore, damage to bearings does not only shorten fan motor life, but could damage the product itself. As a solution, we have developed a long life, electrical corrosion preventive bearing and achieved a fan motor life of

Saving resources in production

○ Reduction of primary material usage amounts

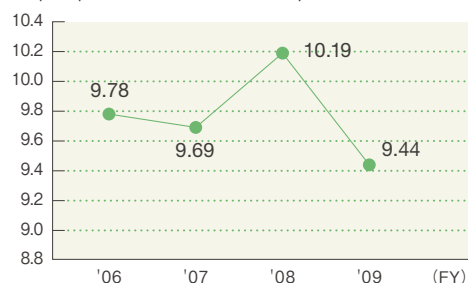
We have reduced material usage by changing product designs, changing manufacturing methods, and reducing stock removal. Also, while making efforts to reduce waste material, we also strive to reuse waste material, by using surplus material removed during die cutting in smaller products.

▶ Figure-01

Effective use of resources

▶ Figure-01 Primary materials usage per sales unit

[Primary material usage amount (million yen)
/plant production amount (100 million yen)]



Reducing waste created when forging hub unit bearing outer rings

As the flange is shaped abnormally, burr generating hot forging is the main processing method used. However, the material wasted as burrs after die cutting was an issue. We have improved the process and developed a type of hot forging that doesn't generate burrs, improving material yield.

▶ Figure-02

Material usage 10% reduction

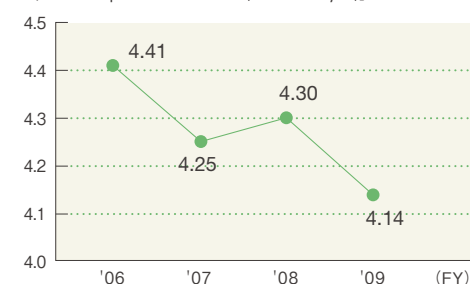
○ Reduction of secondary material usage amounts

We succeeded in reducing usage 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.

Secondary materials usage per sales unit

[Secondary material usage amount (million yen)
/in-house production amount (100 million yen)]



Reduction of cutting tool usage by raising re-polishing frequency

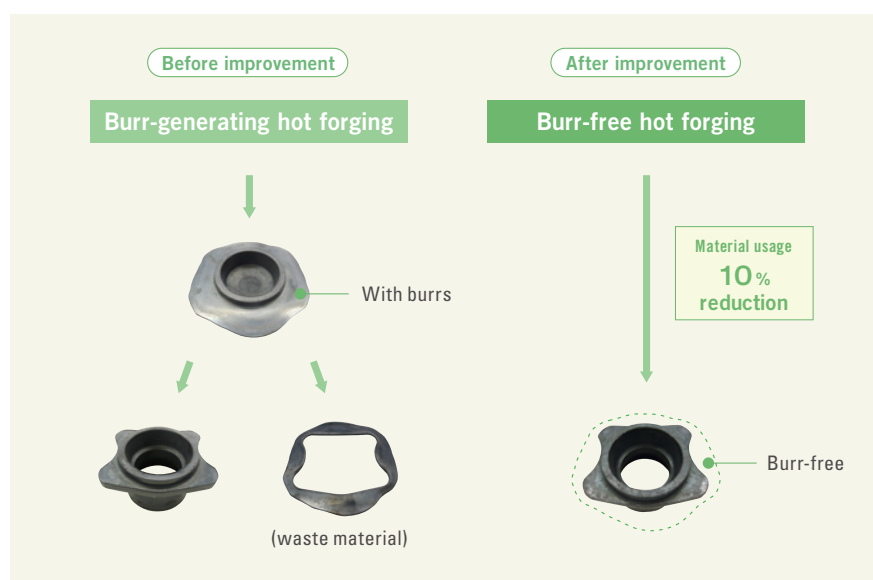
Side cutters are used for the machining of center bearing caulk grooves. With the conventional cutting tool, the outer diameter face was re-polished to secure groove shape. This caused the O.D to grow smaller, and it was only possible to re-polish with the same cutting tool twice.

However, by improving cutting tool shape and only re-polishing the rake face, it is now possible to re-polish up to 15 times with the same tool. As a result of cutting tool life being extended, these improvements resulted in reducing usage.

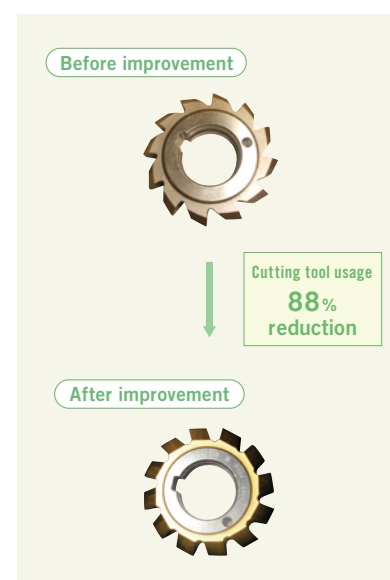
▶ Figure-03

Cutting tool usage 88% reduction

▶ Figure-02



▶ Figure-03



Effective use of resources

Waste reduction

Achieved zero landfill waste

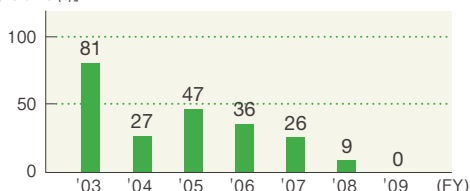
In order to utilize resources effectively and in view of limited landfill space, JTEKT has worked to reduce targets for waste, including waste disposed of for free and at a charge. In FY2009, we succeeded in converting all landfill waste to recycled waste. A large amount of incineration waste was also converted to recycling, and significantly reduced the amount created by improving internal processing methods. We will continue efforts to reduce overall waste leaving our plants, including activities to sell certain waste for profit.

Processing of industrial waste and recycled materials



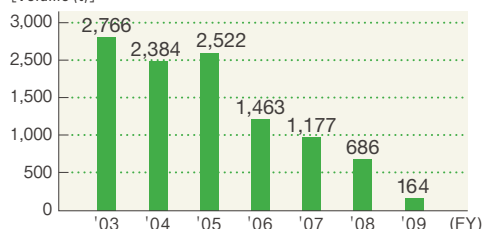
Yearly transition of landfill waste output

[Volume (t)]



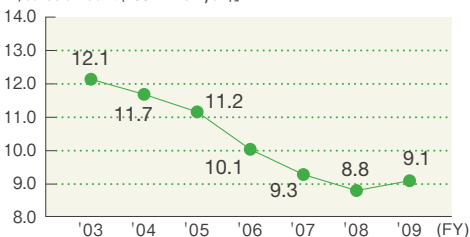
Yearly transition of incineration waste

[Volume (t)]



Yearly transition of waste per sales unit

[Total volume (t) / sales amount (100 million yen)]



Status of main individual activities

Reduce waste fluid discharge

In FY2009, we used the drop in production as an opportunity to make improvements, and promoted making countermeasures at the source of waste generation in order to restrain it by reviewing management methods.

For example, coolant and washing agent used in production processes causes deterioration, necessitating periodical replacement. In line with the drop in production, by switching from periodical replacement to quantitative replacement which suits the number of workpieces machined, waste fluid discharge has been reduced by 150t per annum.

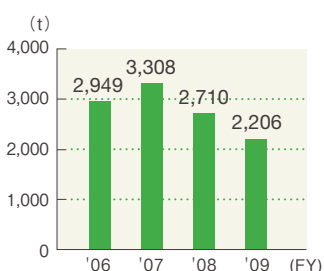
Reduction of packaging material

Reducing packaging and packing material

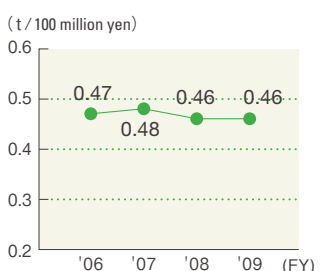
At JTEKT, in order to effectively utilize resources, we have established targets for both wood and paper packaging material and promote simple and returnable packaging. By changing from cardboard to plastic polyvinyl cases we have created returnable packaging.

Transition of wood packaging usage and per sales unit

Usage

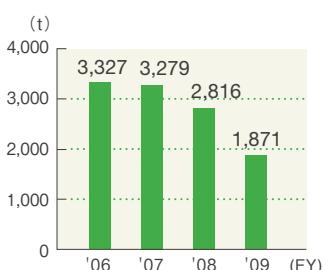


Per sales unit

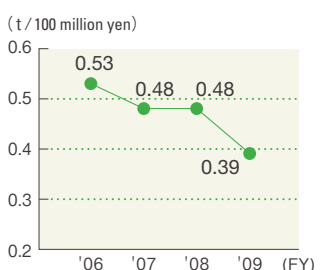


Transition of paper packaging usage and per sales unit

Usage



Per sales unit



Control and reduction of environmentally burdensome substances

Basic concept

○ For the reduction of environmentally burdensome substances

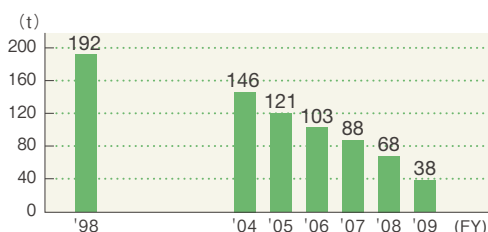
At JTEKT, as well as observing laws and regulations regarding the control of chemical substances that impact upon the environment, we have established an independent standard to make control even more thorough. We appraise the current conditions regarding handling, secure safety, and then work to reduce the output of environmentally burdensome substances in order to reduce the impact on the environment as much as possible.

Control and reduction of chemical substances

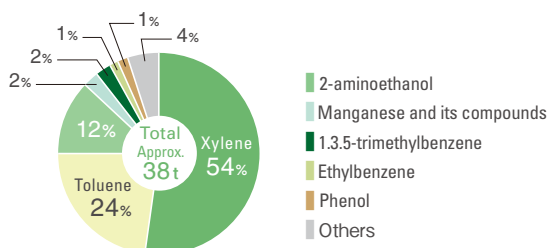
○ Reduction of substances subject to PRTR

JTEKT has established a Chemical Substance Control Standard regarding the control of chemical substances incorporated in our products, and in order to reduce the impact of chemical substances on health and the environment, we are continuing efforts to reduce the output and transfer of substances subject to PRTR (*1).

Yearly transition output and transfer breakdown of substances subject to PRTR



Discharge and transfer breakdown of substances subject to PRTR for FY2009



*1 PRTR regulation 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.

○ Response to the revised PRTR regulation

The PRTR regulation was revised in November of 2008, and after specified substances were deleted and added, substances subject to this regulation increased from 435 to

562. The revised regulation will go into effect from 2011, and JTEKT are cooperating with business partners to reinvestigate the chemical substances included in the paint, coolant, etc., used internally. Furthermore, we have re-registered MSDSs (*2) in the control system for secondary materials used in production and are continuing efforts to appraise the amount of chemical substances handled, and respond to the regulation.

*2 MSDS MSDS stands for "Material Safety Data Sheet". These contain information related to the nature of chemical substances and handling methods.

○ Soil and groundwater measures (continued report)

Regarding the groundwater contamination previously caused by the Kariya and Okazaki plants by the trichloroethylene used as a cleaning agent, etc., from 1998 a pumping and aeration system (*3) has been implemented at these plants as a sewage leakage prevention and purification measure. Furthermore, in FY2004, the Okazaki Plant adopted a microbial purification system (*4) that utilizes microbes stimulated by nutrients. As a result, the soil and groundwater quality of these plants had satisfied the regulatory standards in all designated places as of the end of 2009. Measurement results are reported to the local government agency and to local residents at community discussions.

→ Related article on page 35

Trichloroethylene measurement values

Plants	Maximum measurement value in groundwater	
	FY2008	FY2009
Kariya	0.472mg/ℓ	0.933mg/ℓ
Okazaki	0.040mg/ℓ	Less than 0.001mg/ℓ

* Environmental standard: 0.03mg/ℓ

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

*3 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.

*4 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.

○ Proper storage and control of PCM devices

The handling and reporting of devices with insulating oil containing the widely used PCB (polychlorinated biphenyl) is obligatory under the PCB Waste Special Measures Act. At JTEKT, as well as properly handling such waste and reporting to governmental agencies in accordance with this Act, we detoxified 31 high pressure condensers, which contain highly concentrated amounts of PCB, at PCB processing facilities run by the Japan Environmental Safety Corporation by FY2009. We plan to process the 215 units we currently have in storage by 2016.

Environmental data per business site

Kokubu Plant



No. of employees
1,808

Produced products

- Various ball bearings, roller bearings
- Ultra large bearings
- Hub units
- High precision bearings

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	971,510
		Water usage (m³)	408,263
		Amount of chemicals handled (t)	17,429
Output	Atmosphere	Greenhouse gas (t-CO ₂)	39,510
		Release of chemicals into atmosphere (t)	2,536
	Sewage	Wastewater (m³)	192,263
		BOD (kg)	4,800
		Nitrogen (kg)	—
		Phosphorus (kg)	—
	Discharge	Amount of chemicals transferred to sewage (t)	0.068
		Recycling for profit (t)	3,100
		Recycling at a charge (t)	1,482
		Waste (t)	0
		Chemical transfer amount (t)	4,842

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.0	7.5	6.9
COD	—	—	—
BOD	480	61	21
SS	480	19	4.6
Oil	4	3.4	1.7
Zinc	—	—	—

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	—	—	—
Soluble manganese	—	—	—
Fluorine	—	—	—
Nitrogen	—	—	—
Phosphate	—	—	—

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boilers (for forging)	Dust	0.20	0.003
	NO _x	144	54
	SO _x	1.4	—

Unit: Dust = g/m³N, NO_x = ppm, SO_x = K value

Noise/vibration data

Unit: dB

Item		Regulation	Actual	
			Max.	Avg.
Noise	Morning	59	58	52
	Day	64	62	54
	Evening	59	55	51
	Night	54	53	50
Vibration	Morning	63	40	26
	Day	58	27	23

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Ammonia	0.8	0.18

* Measured foul odor substances (22)
* Items not listed were lower than the determination limit

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge			Transferred amount		Recycled	Removed	Consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
1	Water-soluble zinc compound	9,610	—	—	—	19	942	—	—	8,649
16	2-aminoethanol	3,148	—	—	—	9	3,139	—	—	—
63	Xylene	2,238	—	—	—	—	—	—	—	—
311	Manganese and its compounds	1,618	—	—	—	30	585	—	—	1,003

Kariya Plant



No. of employees
1,102

Produced products

- Machine tools
- Damper pulleys
- Machined parts

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	212,822
		Water usage (m³)	151,842
		Amount of chemicals handled (t)	4,095
Output	Atmosphere	Greenhouse gas (t-CO ₂)	8,580
		Release of chemicals into atmosphere (t)	3,488
	Waterways	Wastewater (m³)	176,983
		COD (kg)	601
		Nitrogen (kg)	815
		Phosphorus (kg)	5
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	1,127
		Recycling at a charge (t)	208
		Waste (t)	35
		Chemical transfer amount (t)	0

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.4	7.2	6.8
COD	(11.2)	5.3	3.7
BOD	(20)	12	5.8
SS	(20)	5.8	2.2
Oil	4	1.2	0.37
Zinc	1.6	0.05	0.03

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	4	ND	ND
Soluble manganese	1.6	ND	ND
Fluorine	4	0.14	0.07
Nitrogen	(13.8)	12	6.5
Phosphate	(1.4)	0.10	0.07
Boron	10	0.02	0.015

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boilers (for canteen)	Dust	0.1	0.003
	NO _x	104	64
	SO _x	1.2	—
Boilers (cold/hot water generator)	Dust	0.1	—
	NO _x	104	41
	SO _x	1.2	—

Unit: Dust = g/m³N, NO_x = ppm, SO_x = m³N/hr

Noise/vibration data

Unit: dB

Item		Regulation	Actual	
			Max.	Avg.
Noise	Morning	64	56	48
	Day	69	63	56
	Evening	64	60	48
	Night	59	57	49
Vibration	Morning	68	48	32
	Day	63	37	27

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Foul odor index	12	Less than 10

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge			Transferred amount		Recycled	Removed	Consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
63	Xylene	1,263	1,210	—	—	—	—	—	—	53
227	Toluene	2,615	2,100	—	—	—	—	—	—	515

[Chemical substances] Substances subject to PRTR
 [Atmosphere] Measured values are maximum values
 [Water quality] pH:Hydrogen-ion concentration / COD:Chemical Oxygen Demand / BOD:Biochemical oxygen demand / SS:Suspended solids / Oil:N-hexane extract content / ND:Lower than determination limit / Values in parenthesis show the avg. no. of days
 [Regulated value] JTEKT internal standards (some more stricter than regulatory amounts)

[Substances subject to PRTR] Shows substances for which 1,000 kg/year or more are handled. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulation. 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.

Tokushima Plant



No. of employees
1,014

Produced products

- Ball bearings
- Water pump bearings
- Cylindrical roller bearings
- Special environment bearings

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	946,229
		Water usage (m³)	1,168,974
		Amount of chemicals handled (t)	7,463
Output	Atmosphere	Greenhouse gas (t-CO₂)	38,912
		Release of chemicals into atmosphere (t)	3,644
	Waterways	Wastewater (m³)	193,850
		COD (kg)	3,427
		Nitrogen (kg)	3,403
		Phosphorus (kg)	8
		Amount of chemicals released in waterways (t)	0.001
	Discharge	Recycling for profit (t)	5,490
		Recycling at a charge (t)	1,268
		Waste (t)	52
		Chemical transfer amount (t)	0.240

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.2	7.1	6.8
COD	16	14	11
BOD	—	—	—
SS	20	7.0	2
Oil	2.4	2.1	1.0
Zinc	—	—	—

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	—	—	—
Soluble manganese	—	—	—
Fluorine	—	—	—
Nitrogen	48	6.1	4.5
Phosphate	6.4	0.08	0.05

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boilers (for heaters)	Dust	0.3	0.030
	NOx	250	140
	SOx	13	0.12
Boilers (suction-type cold/hot water generator)	Dust	0.3	0.002
	NOx	180	24
	SOx	13	0.03
Diesel engines	Dust	0.1	0.019
	NOx	903	900
	SOx	21	0.1

Unit: Dust=g/m³N, NOx=ppm, Sox=K value

Noise/vibration data

Unit: dB

Item		Regulation	Actual	
			Max.	Avg.
Noise	Morning	59	58	56
	Day	64	62	58
	Evening	59	56	52
	Night	55	55	52
Vibration	Morning	63	54	45
	Day	58	46	41

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Ammonia	1.2	0.23

* Measured foul odor substances (22)
 * Items not listed were lower than the determination limit

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge			Transferred amount		
			Atmosphere	Waterways	Soil	Sewage	Waste	Recycled
16	2-aminoethanol	3,819	—	1	—	—	240	—
63	Xylene	3,250	3,250	—	—	—	—	—

Okazaki Plant



No. of employees
623

Produced products

- Produced products
- Power steering gears
- AT/CVT proportional control valves
- Propeller shafts
- ITCCs
- Forged parts

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	515,095
		Water usage (m³)	393,733
		Amount of chemicals handled (t)	0.762
Output	Atmosphere	Greenhouse gas (t-CO₂)	17,772
		Release of chemicals into atmosphere (t)	0.658
	Waterways	Wastewater (m³)	59,202
		COD (kg)	185
		Nitrogen (kg)	340
		Phosphorus (kg)	1
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	3,115
		Recycling at a charge (t)	2,734
		Waste (t)	2
		Chemical transfer amount (t)	0

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.4	7.4	7.0
COD	16	3.9	2.5
BOD	16	7.5	2.3
SS	16	2.0	1.1
Oil	1.6	0.60	0.37
Zinc	0.8	0.05	0.05

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	2.4	0.50	0.48
Soluble manganese	2.4	0.25	0.24
Fluorine	0.8	0.10	0.08
Nitrogen	(12)	8.4	2.5
Phosphate	(1.6)	0.05	0.01
Boron	8	0.01	0.01

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boilers (for enrichment apparatus)	Dust	0.1	—
	NOx	104	—
	SOx	6.1	—
Boilers (for air conditioning)	Dust	0.1	0.003
	NOx	104	47
	SOx	6.1	—
Melting furnace	Dust	0.1	0.005
	NOx	80	10
	SOx	6.1	—
Gas engines (cogeneration)	Dust	0.04	0.005
	NOx	160	90
	SOx	6.1	—

Unit: Dust=g/m³N, NOx=ppm, Sox= m³N/hr

Noise/vibration data

Unit: dB

Item		Regulation	Actual	
			Max.	Avg.
Noise	Morning	64	57	52
	Day	69	59	54
	Evening	64	59	51
	Night	59	58	51
Vibration	Morning	68	39	33
	Day	63	35	31

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Foul odor index	12	Less than 10

Substances subject to PRTR

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

Environmental data per business site

Tokyo Plant



No. of employees
373

Produced products

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

Overall environmental data

	Classification	Amount
Input	Energy usage (GJ)	273,167
	Water usage (m³)	68,985
	Amount of chemicals handled (t)	7.877
Output	Greenhouse gas (t-CO ₂)	10,796
	Release of chemicals into atmosphere (t)	5.253
	Wastewater (m³)	49,640
	BOD (kg)	227
	Nitrogen (kg)	668
	Phosphorus (kg)	24
	Amount of chemicals transferred to sewage (t)	0.007
	Recycling for profit (t)	2,088
	Recycling at a charge (t)	504
	Waste (t)	0
	Chemical transfer amount (t)	1.283

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.8~8.0	7.9	7.5
COD	—	—	—
BOD	150	31	4.3
SS	200	21	7.7
Oil	20	2.0	0.33
Zinc	—	—	—

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	—	—	—
Soluble manganese	—	—	—
Fluorine	—	—	—
Nitrogen	96	18	10
Phosphate	12.8	0.48	0.23

Atmospheric measurements

Equipment	Item	Regulation	Max.
Gas suction-type boiler	Dust	0.1	0.001
	NO _x	44	35
	SO _x	0.3	0.01

Unit: Dust = g/m³N, NO_x = ppm, SO_x = K value

Noise/vibration data

Unit: dB

Item		Regulation	Actual	
			Max.	Avg.
Noise	Morning	59	58	56
	Day	69	68	64
	Evening	59	58	57
	Night	54	53	52
Vibration	Morning	58	48	38
	Day	48	46	36

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Acetaldehyde	0.5	0.005

* Measured foul odor substances (22)
* Items not listed were lower than the determination limit

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge			Transferred amount		Recycled	Removed	Consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
1	Water-soluble zinc compound	1,025	—	—	—	2	100	—	—	923
16	2-aminoethonyl	1,086	—	—	—	3	1,083	—	—	—
63	Xylene	1,438	1,438	—	—	—	—	—	—	—
227	Toluene	3,716	3,716	—	—	—	—	—	—	—

Kagawa Plant



No. of employees
558

Produced products

- Tapered roller bearings

Overall environmental data

	Classification	Amount
Input	Energy usage (GJ)	780,692
	Water usage (m³)	315,948
	Amount of chemicals handled (t)	1.952
Output	Greenhouse gas (t-CO ₂)	31,864
	Release of chemicals into atmosphere (t)	1.881
	Wastewater (m³)	211,227
	COD (kg)	3,533
	Nitrogen (kg)	1,294
	Phosphorus (kg)	50
	Amount of chemicals released in waterways (t)	0.003
	Recycling for profit (t)	6,280
	Recycling at a charge (t)	683
	Waste (t)	44
	Chemical transfer amount (t)	0.061

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.8~8.6	6.7	6.4
COD	50	30	15
BOD	50	37	27
SS	50	10	6.8
Oil	3	2.6	1.5
Zinc	—	—	—

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	—	—	—
Soluble manganese	—	—	—
Fluorine	—	—	—
Nitrogen	60	13.5	7.4
Phosphate	8	1.85	0.37

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boiler no. 1	Dust	0.3	0.05
	NO _x	260	75
	SO _x	5.0	2.2
Boiler no. 2	Dust	0.3	0.01
	NO _x	250	86
	SO _x	5.0	0.13
Self-generated electricity	Dust	0.1	0.03
	NO _x	950	870
	SO _x	5.0	0.79

Unit: Dust = g/m³N, NO_x = ppm, SO_x = K value

Noise/vibration data

Unit: dB

Item		Regulation	Actual	
			Max.	Avg.
Noise	Morning	64	59	56
	Day	69	64	58
	Evening	64	60	56
	Night	59	58	55
Vibration	Morning	49	33	27
	Day	46	31	27

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Ammonia	5	0.21
Acetaldehyde	0.5	0.0044

* Measured foul odor substances (22)
* Items not listed were lower than the determination limit

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge			Transferred amount		Recycled	Removed	Consumed
			Atmosphere	Waterways	Soil	Sewage	Waste			
63	Xylene	1,881	1,881	—	—	—	—	—	—	—

Nara Plant



No. of employees
1,481

Produced products

- Electric power steering
- Hydraulic power steering
- Manual steering

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	228,577
		Water usage (m³)	74,825
		Amount of chemicals handled (t)	11,570
Output	Atmosphere	Greenhouse gas (t-CO ₂)	8,955
		Release of chemicals into atmosphere (t)	11,320
	Waterways	Wastewater (m³)	23,180
		COD (kg)	250
		Nitrogen (kg)	782
		Phosphorus (kg)	87
		Amount of chemicals released in waterways (t)	0.001
	Discharge	Recycling for profit (t)	1,045
		Recycling at a charge (t)	760
		Waste (t)	0
		Chemical transfer amount (t)	0.245

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.5	7.3	7.0
COD	13.5	9.6	7.6
BOD	13.5	1.2	0.79
SS	20	1.2	0.56
Oil	2.7	1.4	0.58
Zinc	—	—	—

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	0.9	0.07	0.03
Soluble manganese	0.9	0.08	0.04
Fluorine	—	—	—
Nitrogen	40	37	23
Phosphate	15	3.3	2.7

Atmospheric measurements

Equipment	Item	Regulation	Max.
No. 1 Plant, No. 1 (boiler)	Dust	0.3	0.013
	NOx	180	73
	SOx	1.9	0.01
No. 1 Plant, No. 2 (boiler)	Dust	0.3	0.01
	NOx	180	51
	SOx	1.9	0.016
No. 2 Plant (cool water generator)	Dust	0.3	0.004
	NOx	180	64
	SOx	0.7	0.014
No. 4 Plant (cool water generator)		Operation stop	

Unit: Dust=g/m³N, NOx=ppm, SOx=K value

Noise/vibration data

Unit: dB

Item		Regulation	Max.	Avg.
Noise	Morning	64	61	55
	Day	67	63	58
	Evening	64	59	54
	Night	55	53	51
Vibration	Morning	60	35	33
	Day	55	33	32

Foul odor

* Measured foul odor substances (22), and all items were lower than the determination limit

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge		Transferred amount		Recycled	Removed	Consumed
			Atmosphere	Waterways	Soil	Sewage	Waste		
63	Xylene	8,663	8,663	—	—	—	—	—	—
227	Toluene	2,495	2,495	—	—	—	—	—	—

Higashi-Kariya Plant



No. of employees
150

Produced products

- Mechatronics products
- Propeller shafts
- Machined parts

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	62,561
		Water usage (m³)	12,771
		Amount of chemicals handled (t)	0.014
Output	Atmosphere	Greenhouse gas (t-CO ₂)	2,525
		Release of chemicals into atmosphere (t)	0.001
	Waterways	Wastewater (m³)	8,985
		COD (kg)	39
		Nitrogen (kg)	28
		Phosphorus (kg)	0
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	1,419
		Recycling at a charge (t)	42
		Waste (t)	0
		Chemical transfer amount (t)	0

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	6.1~8.3	8.1	7.6
COD	(23.2)	4.6	3.3
BOD	(20)	5.8	2.3
SS	20	2.8	1.3
Oil	4	1.8	0.45
Zinc	1.6	0.05	0.04

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	4	0.50	0.48
Soluble manganese	1.6	0.25	0.18
Fluorine	5	0.20	0.09
Nitrogen	(26.9)	3.5	2.5
Phosphate	(2.6)	0.27	0.11
Boron	10	0.04	0.02

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boiler (cool water generator)	Dust	0.15	ND
	NOx	130	77
	SOx	0.57	ND

Unit: Dust=g/m³N, NOx=ppm, SOx= m³N/hr

Noise/vibration data

Unit: dB

Item		Regulation	Max.	Avg.
Noise	Morning	64	61	56
	Day	69	62	57
	Evening	64	61	54
	Night	59	58	50
Vibration	Morning	68	37	35
	Day	63	30	26

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Foul odor index	12	Less than 10

Substances subject to PRTR

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

Environmental data per business site

Toyohashi Plant



No. of employees
593

Produced products

- Hydraulic power steering
- Hoses for hydraulic power steering
- Manual steering
- Safety handle columns

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	296,825
		Water usage (m³)	47,821
		Amount of chemicals handled (t)	1.331
Output	Atmosphere	Greenhouse gas (t-CO ₂)	11,965
		Release of chemicals into atmosphere (t)	1.185
	Waterways	Wastewater (m³)	20,391
		COD (kg)	171
		Nitrogen (kg)	583
		Phosphorus (kg)	83
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	2,575
		Recycling at a charge (t)	521
		Waste (t)	0
		Chemical transfer amount (t)	0.106

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	6.1~8.0	7.2	6.7
COD	16	15	9.8
BOD	16	5.3	2.3
SS	24	18	6.4
Oil	4	ND	ND
Zinc	—	—	—

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	—	—	—
Soluble manganese	—	—	—
Fluorine	—	—	—
Nitrogen	48	37	29
Phosphate	6.4	5.1	4.1

Atmospheric measurements

Equipment	Item	Regulation	Max.
No. 1 Plant (boiler)	Dust	0.03	0.002
	NO _x	120	22
	SO _x	1.0	0.03
No. 2 Plant (cool water generator)	Dust	0.03	0.003
	NO _x	120	24
	SO _x	1.0	0.03
No. 3 Plant (cool water generator)	Dust	0.10	0.027
	NO _x	140	62
	SO _x	1.0	0.12

Unit: Dust = g/m³N, NO_x = ppm, SO_x = K value

Noise/vibration data

Unit: dB

Item		Regulation	Max.	Avg.
Noise	Morning	65	58	55
	Day	70	61	57
	Evening	65	57	54
	Night	60	59	52
Vibration	Morning	55	36	31
	Day	50	28	24

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Foul odor index	18	Less than 10

Substances subject to PRTR

Unit: kg/year

Substance No.	Chemical Substance	Handled amount	Discharge		Transferred amount		Recycled	Removed	Consumed
			Atmosphere	Waterways	Soil	Sewage	Waste		
63	Xylene	1,076	1,076	—	—	—	—	—	—

Tadomisaki Plant



No. of employees
762

Produced products

- Drive shafts
- 4WD couplings

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	631,171
		Water usage (m³)	161,678
		Amount of chemicals handled (t)	0.530
Output	Atmosphere	Greenhouse gas (t-CO ₂)	24,891
		Release of chemicals into atmosphere (t)	0.063
	Waterways	Wastewater (m³)	50,238
		COD (kg)	87
		Nitrogen (kg)	388
		Phosphorus (kg)	1
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	7,130
		Recycling at a charge (t)	622
		Waste (t)	0
		Chemical transfer amount (t)	0.037

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	6.0~8.5	7.7	7.2
COD	(15)	10.3	5.6
BOD	(10)	2.7	0.96
SS	(20)	2.8	1.2
Oil	2	0.50	0.50
Zinc	2	0.06	0.05

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	1	0.50	0.30
Soluble manganese	2	0.25	0.16
Fluorine	5	0.20	0.20
Nitrogen	(34.8)	13	8.8
Phosphate	(3.6)	0.02	0.01
Boron	10	0.1	0.1

Atmospheric measurements

Equipment	Item	Regulation	Max.
Boiler (cool water generator)	Dust	0.1	0.001
	NO _x	120	52
	SO _x	2	0.5

Unit: Dust = g/m³N, NO_x = ppm, SO_x = m³N/hr

Noise/vibration data

Unit: dB

Item		Regulation	Max.	Avg.
Noise	Morning	64	58	55
	Day	69	59	57
	Evening	64	58	56
	Night	59	58	56
Vibration	Morning	55	45	41
	Day	50	45	41

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Foul odor index	16	14

Substances subject to PRTR

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

Hanazono Plant



No. of employees
1,001

Produced products

- Electric power steering
- Hydraulic power steering pumps
- Control computers

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	286,620
		Water usage (m³)	114,630
		Amount of chemicals handled (t)	1.646
Output	Atmosphere	Greenhouse gas (t-CO₂)	11,815
		Release of chemicals into atmosphere (t)	0.825
	Waterways	Wastewater (m³)	68,753
		COD (kg)	261
		Nitrogen (kg)	668
		Phosphorus (kg)	1
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	708
		Recycling at a charge (t)	362
		Waste (t)	31
		Chemical transfer amount (t)	0.157

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.3	7.9	7.4
COD	8	5.9	3.4
BOD	8	5.1	1.5
SS	8	2.3	1.2
Oil	1.6	1.0	1.0
Zinc	0.8	0.05	0.05

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	2.4	0.50	0.47
Soluble manganese	2.4	0.32	0.24
Fluorine	0.8	0.1	0.1
Nitrogen	(24)	20	14
Phosphate	(2.4)	0.04	0.03
Boron	8	1.0	1.0

Atmospheric measurements

Equipment	Item	Regulation	Max.
Small through flow boiler	Dust	0.08	0.002
	NOx	100	37
	SOx	6.07	0.01
Boilers (cool water generator)	Dust	0.08	0.002
	NOx	100	53
	SOx	6.07	0.01

Unit: Dust = g/m³N, NOx = ppm, Sox = m³N/hr

Noise/vibration data

Unit: dB

Item		Regulation	Max.	Avg.
Noise	Morning	60	47	45
	Day	60	59	50
	Evening	60	51	47
	Night	56	48	45
Vibration	Morning	60	38	33
	Day	56	41	37

Foul odor

Unit: ppm

Measured item	Regulated value	Measurement
Foul odor index	14	Less than 10

Substances subject to PRTR

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

Kameyama Plant



No. of employees
232

Produced products

- Ball bearings
- Clutch bearings

Overall environmental data

		Classification	Amount
Input		Energy usage (GJ)	139,873
		Water usage (m³)	24,482
		Amount of chemicals handled (t)	0.660
Output	Atmosphere	Greenhouse gas (t-CO₂)	5,620
		Release of chemicals into atmosphere (t)	0.430
	Waterways	Wastewater (m³)	15,170
		COD (kg)	32
		Nitrogen (kg)	237
		Phosphorus (kg)	1
		Amount of chemicals released in waterways (t)	0
	Discharge	Recycling for profit (t)	360
		Recycling at a charge (t)	275
		Waste (t)	0
		Chemical transfer amount (t)	0.130

Water quality measurements

Item	Regulated value	Actual	
		Max.	Avg.
pH	5.9~8.0	7.4	7.0
COD	8	7.9	4.7
BOD	8	3.0	0.25
SS	20	ND	ND
Oil	1	ND	ND
Zinc	4	0.09	0.02

Unit: mg/ℓ (excluding pH)

Item	Regulated value	Actual	
		Max.	Avg.
Soluble iron	8	ND	ND
Soluble manganese	1.6	ND	ND
Fluorine	—	—	—
Nitrogen	50	25	16
Phosphate	1	0.20	0.07
Boron	8	0.04	0.04

Atmospheric measurements

Equipment	Item	Regulation	Max.
Plant 1 (boiler)	Dust	0.1	0.005
	NOx	144	73
	SOx	1.65	0.1

Unit: Dust = g/m³N, NOx = ppm, Sox = m³N/hr

Noise/vibration data

Unit: dB

Item		Regulation	Max.	Avg.
Noise	Morning	64	55	51
	Day	69	58	54
	Evening	64	50	49
	Night	54	50	50
Vibration	Morning	63	52	48
	Day	58	50	44

Foul odor

*Measured foul odor substances (22), and all items were lower than the determination limit

Substances subject to PRTR

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

Third-party opinion on JTEKT CSR Report 2010

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

Tamio Yamaguchi

Profile

After 25 years at a newspaper company, Mr. Yamaguchi worked in an environment venture company's public relations section, edited 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 300 companies CSR reports.

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.

<http://www.nord-ise.com/junkan>



This is the third year I have given the third-party opinion for this report. In preparation for writing this column, I held two meetings with JTEKT, one at a kick-off meeting and one when the first draft was complete, in which we exchanged opinions. In the beginning, I recall thinking that their response towards my suggested future issues for investigation had weakened, but this time JTEKT investigated into matters more assertively than in the past and this can be seen in a number of places throughout this report. I believe that this is evidence that the section of President Ikawa's message reading "through dialogue with our stakeholders, listening to their opinions, and reflecting them in our business activities." has materialized.

One of the methods I use to evaluate this report is to look for the existence of organic links between top management's message and the body of the report itself. In an organic report, both the message and the body of the report are more convincing. This is the point of view from which I examined this report.

The President's message contains the following statements: "Reflect upon our achievements and aim to become a corporation with the trust and understanding of society", and in regards to CSR he begins by saying "Offering good quality, low-cost products" and goes on to say "Taking societal issues seriously...taking action to find solutions". Also, regarding employees, President Ikawa clearly states "We want to be a company that takes care of working men and women."

In this report, expressions such as "still in the stage of asking" and "even now in pursuit of the answer" appear, indicating that JTEKT have not just hurriedly thrown together set phrases but are advancing steadily forward, and their sincere stance of having a desire to share CSR knowledge with all employees is apparent. Regarding social issues as well, this report looks at "creating a safe and reassuring society" which is an issue of great importance

in Japan, detailing how JTEKT are contributing to the creation of a safe society through their activities. How JTEKT value their employees is reported in detail in over three and a half pages, discussing safety, hygiene and health. Here I can only take up a few lines, but in short, there were indeed a great deal of organic links between the President's message and the main body of the report, making it extremely convincing. The social report is becoming more enriched with information, for example the addition of the status of employment of people with disabilities.

The best parts of this report by far were the above-mentioned "safety, hygiene and health" and the "achieving mental and physical health" sections. Last year's report was highly regarded for giving cases of good practice regarding sustainability, communication and networks however this year's report is even more enriched, and it is safe to say it is at a level that other companies should aim for. By continuing this type of quantitative report, even more effective measures and policies will be born, and I think it will lead to a decrease in the serious social issue of mental health illnesses. I hope that JTEKT's stance on this matter will ripple out to other societal issues.

The environmental report went from being divided up into processes, to being divided up into activity items. I think that in today's world, with global warming a pressing issue, this makes the report easier to understand. The section on the prevention of global warming introduces the "reduction of product transport mileage". This is a topic of particular interest to me, so I am looking forward to seeing a quantitative report in the future. Environmental action is a high-level area. In particular, companies that not just reach their initial targets but establish "challenge" targets are highly regarded. JTEKT have already achieved some of their targets and I anticipate them setting even higher ones.

Response to the third-party opinion

General Administration Department, JTEKT Corporation

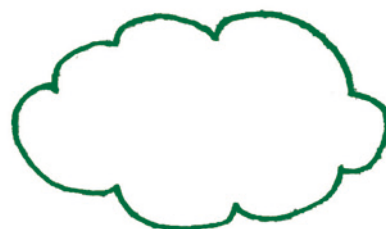
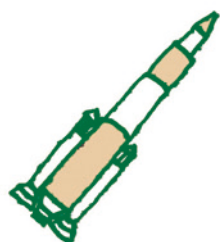
We are very grateful to Mr. Tamio Yamaguchi, Representative of the Workers Club for Eco-harmonic Renewable Society, for providing us with his valuable opinion in the kick-off meeting before work on this report began, and after the first draft was made.

This time, as a third-party, we received praise from Mr. Yamaguchi, but we at JTEKT consider ourselves to still be testing the water when it comes to CSR and this praise has in fact had a sobering effect on us, as far as thinking about what we can do to advance steadily forward.

As Mr. Yamaguchi wrote, in efforts to steadily advance forward and share knowledge with all employees, we believe

that the instilment of awareness towards CSR will continue to be a major issue in the upcoming year. The concept of JTEKT CSR is based in each individual's behavior, and, as President Ikawa stated, we would like to see employees gain a sense of self-fulfillment at the company, watch employees and the company grow together, and see it result in people's happiness and benefits to society.

In the editing phase, we tried to include information that our stakeholders would be interested in knowing in an easy-to-read format. We would be happy if this report was useful in understanding JTEKT. We will continue aiming to become a company which gains the respect of all.



Dear readers

We welcome your opinions and comments regarding this report

Thank you for reading our CSR Report 2010. JTEKT has just begun a variety of new CSR activities, and we found many new issues requiring attention in compiling this report. However, we hope this report has conveyed JTEKT's desire to continue pursuing change in its quest to achieve the ideal situation. We aim to further improve our CSR activities and report preparation techniques and would welcome any feedback from readers.

CSR Report 2010

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This report can also be viewed on JTEKT's website.

➡ <http://www.jtekt.co.jp/>

JTEKT CORPORATION

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



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