Aiming for a Sustainable Society and a Sustainable World

The JTEKT Group has positioned the environment as one of its main management issues.
In order to realize a sustainable society through "No. 1 & Only One" business activities, in June 2020, we formulated an "environmental philosophy" consisting of the environmental slogan "All for One Earth" and the JTEKT Environmental Action Guidelines. We have been promoting measures that contribute toward the realization of a sustainable society and earth through a promotional framework in which JTEKT Corporation and the JTEKT Group as a whole work together as one.

Environmental Philosophy

JTEKT

Environmental Philosophy

JTEKT and the JTEKT Group companies aim to realize a sustainable society through "No. 1 & Only One" business activities.

All for One Earth

— For our irreplaceable Earth —

[JTEKT Environmental Action Guidelines]

Based on the JTEKT Medium to Long-term Plan, we will make continuous improvement to our environmental management system and strive to achieve environmental targets and performance.

1. Comply with environmental laws and regulations, and address pollution prevention
2. Reduce substances with environmental impact, such as CO_2 and chemical substances, toward low-carbon and recycling-oriented societies
3. Work to protect biodiversity and ecosystems in harmony with local communities

June 25, 2020
JTEKT CORPORATION
Senior Executive Director
Makoto Sano

Promotional structure

Council for Enhancement of Corporate Value

JTEKT has established the Council for Enhancement of Corporate Value, which is chaired by the president, to promote environmental management. Under the guidance of this council, individual environmental subcommittees roll out activities based on ambitious goals.

Global environmental management

We are working to further strengthen our environmental management, not only at JTEKT but also at our 20 Group companies in Japan and 38 Group companies overseas (as of March 31, 2020).

Organizational chart

Environmental Challenge 2050: Philosophy and guidelines

With the goal of realizing a sustainable society in line with the vision of "For the children of the future," JTEKT formulated the Environmental Challenge 2050 guidelines for measures aimed at minimizing JTEKT's environmental footprint by 2050. The JTEKT Group's Environmental Challenge 2050 is based around five key pillars—Products / Technologies, Creation of a low-carbon society, Creation of a recycling-based society, Harmony with nature / Biodiversity, and Environmental management—and the JTEKT Group is working together as one to take up the challenge of minimizing its environmental footprint and maximizing environmental value.

Environmental Challenge 2050 Formulated and announced in May 2016

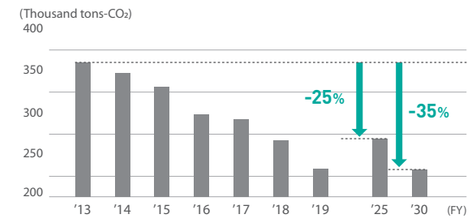
Category	Guideline
1. Products / Technologies	Contribute to the building of an environmentally friendly society using our capabilities in the development of products and technologies • Actively promote the development of products that are expected to contribute toward reducing the burden on the environment, including components for fuel cell vehicles (FCVs), etc.
2. Creation of a low-carbon society	Work to minimize CO_2 emissions throughout the product lifecycle, from materials and component procurement through to design, manufacturing, and eventual disposal Work to minimize CO_2 emissions from factories engaged in the manufacturing of products by 2050 • Expand the development and adoption of innovative new processes and production equipment • Implement day-to-day improvements and enhance the efficiency of production equipment at our factories • Shift over to the use of renewable energy, hydrogen energy, etc.
3. Creation of a recycling-based society	Work to minimize emissions and expand recycling at the production stage • Implement source control measures (including yield enhancement, etc.) and use strengthened separation measures, etc., to enhance the value of waste materials (generation of valuable resources) • Effectively utilize recycled materials and expand internal recycling Work to minimize water usage through the cyclical utilization of water used in our factories, etc., and ensure that wastewater discharged from our factories is discharged in a cleaner state
4. Harmony with nature / Biodiversity	Promote activities aimed at fostering harmony with nature and protecting ecosystems, not only on a JTEKT-wide basis but also in collaboration with the Toyota Group and with government agencies and NPOs
5. Environmental management	Build a corporate culture and cultivate professionals oriented toward actively conserving the earth's environment • Strengthen employees' environmental awareness and cultivate people who can make a positive contribution to the environment, both within and outside the company • Expand the implementation of global-scale environmental activities

Formulating the next medium-term targets

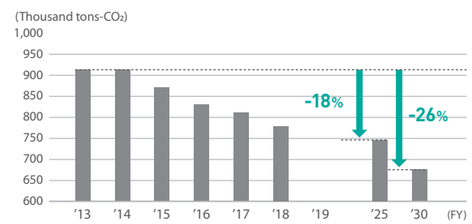
Setting CO_2 Emissions Target for 2030

To achieve the "minimal" CO_2 emissions as stated in "Environmental Challenge 2050," we have set medium- and long-term targets for 2030 as milestones. Overall emissions targets are in line with the 2°C (the goal of staying within a 2°C increase from pre-industrial levels) agreed upon in the 2016 Paris Agreement. Overall global CO_2 targets call for a reduction of 26% compared to fiscal 2013, while nonconsolidated JTEKT targets call for a reduction in CO_2 emissions by at least 35% compared to fiscal 2013. We aim to achieve this through production technology innovations, day-to-day improvements and the introduction of sustainable energy initiatives.

Overall JTEKT nonconsolidated CO_2 reductions



Overall global CO_2 reduction



[Conversion coefficient used to calculate CO_2 emissions]
With regard to the management of CO_2 emissions per unit of production output in the period up until 2020, we have adopted a conversion coefficient that facilitates assessment of the results achieved in the company's improvement efforts.
For overall emissions management in the period from 2021 onward, to ensure that CO_2 emissions data more closely reflects the actual situation, calculation is performed using the market-based conversion coefficient specified by the individual electric power company for the year in question.

Environmental Action Plan 2025

In order to achieve 2030 targets, we formulated the Environmental Action Plan 2025 as a midway point.

Working backwards from Environmental Challenge 2050, we set specific numerical targets for the JTEKT Group to work toward as we approach 2025.

Category	Implementation	Item	Base year	FY2025 targets
Products and technologies	Global	Contribution to CO_2 emissions reduction through products	—	1,650,000 t
Building a low-carbon society	JTEKT non-consolidated	CO_2 emissions	FY2013	25% reduction
		CO_2 emissions from logistics	FY2013	25% reduction
		Renewable energy introduction rate	—	More than 15%
	Global	CO_2 emissions	FY2013	18% reduction
		Renewable energy introduction rate	—	More than 10%
Building a recycling society	JTEKT non-consolidated	Recycling rate	—	More than 99%
		Basic unit of waste	FY2018	7% reduction
		Basic unit of water usage	FY2018	7% reduction
		Basic unit of packaging material	FY2018	7% reduction
	Global	Recycling rate	—	More than 90%
		Basic unit of waste	FY2018	7% reduction
		Basic unit of water usage	FY2018	7% reduction
Coexistence with nature and biodiversity	Global	Number of biodiversity conservation effort participants	—	More than 3,000 persons/year

For more information: https://www.jtekt.co.jp/e/sustainability/environment/topics/

Participation in TCFD

The identification of medium- to long-term climate-related risks and opportunities and the disclosure of information to stakeholders that assesses the resilience of Company initiatives is required for corporations that are able to grow sustainably. Accordingly, in 2018, we endorsed and announced our support for the final report recommendations by the Task Force on Climate-related Financial Disclosures (TCFD), which was established by Japan's G20 Financial Stability Board (FSB). This year, we will disclose our approach to climate change in accordance with the TCFD framework. Going forward, we will select multiple scenarios for analysis, including the International Energy Agency 2°C scenario, establish our "social image" and evaluate the adaptability (resilience) of our initiatives. In addition, we will consider assessing and disclosing the financial impact of climate-related risks and opportunities.

For more information: https://www.jtekt.co.jp/e/sustainability/environment/topics/

Concrete measures adopted in fiscal 2019

Resource inputs and outputs

JTEKT quantitatively understands resources and energy use as inputs and emissions to the environment as outputs. To minimize the impact of global warming associated with business activities, we work to reduce energy focused on processes requiring high energy consumption such as casting, forging, heat treatment and machining. We will also promote the effective use of resources to realize further yield improvements.

Resource / energy inputs and environmentally hazardous substance emissions

INPUT		Manufacturing	OUTPUT	
Resource and energy inputs			Environmentally hazardous substance emissions	
Raw materials		Casting	Emissions into the atmosphere	
Total	335 thousand t			
Steel	318 thousand t		CO_2	751 thousand t-CO_2
Aluminum ingots	8 thousand t		SO_x	0.6 t
Resin pellets	1 thousand t		NO_x	47 t
Fuel oil and processing oil	6,507 kl		Toluene and xylene	41 t
Grease	2 thousand t		Emissions of other substances subject to PRTR	14 t
Paint	0 thousand t		Discharge to bodies of water and sewers	
Resource circulation amount	23 thousand t	Forging	Total amount of wastewater	3,332 thousand m³
Energy			(By release destination)	
Total	16,570,397 GJ[1]	Heat treatment	Surface water	2,157 thousand m³
Electricity	1,424,519 MWh	Machining	Groundwater	76 thousand m³
Renewable energy power generation	13,921 MWh		Seawater	62 thousand m³
City gas	50,429 thousand Nm³		Others (sewer, etc.)	1,037 thousand m³
LPG	4,866 t		COD[*4]	25 t
Kerosene	601 kl	Painting	Nitrogen	8 t
Heavy oil A[*2]	196 kl		Phosphorus	0.3 t
Water		Assembly	Release or transfer amount of substances subject to PRTR	0 t
Total	5,435 thousand m³			
(By water source)		Finished product	External waste	
Surface water	1,249 thousand m³	Automotive parts Bearings Machine tools Mechatronic products	Waste	24 thousand t
Groundwater	1,772 thousand m³		Reverse payment recycling[*5]	23 thousand t
Others (city water, industrial water, etc.)	2,414 thousand m³		Sales recycling	143 thousand t
Amount of water recycled	894 thousand m³		Hazardous waste[*6]	16 thousand t
Chemical substances (amount of substances handled subject to PRTR[*3])			Transfer amount of substances subject to PRTR	14 t
Total	79 t			
Logistics			Logistics	
Packaging	129 thousand t		CO_2 related to product transportation	15 thousand t-CO_2

JTEKT and 19 domestic Group companies, 38 overseas Group companies
JTEKT and 19 domestic Group companies
JTEKT nonconsolidated

Third-party verification

In order to increase the reliability of data disclosure, JTEKT has undergone a third-party verification by SGS Japan Inc., with regard to results for fiscal 2019. The scope of this verification includes JTEKT's manufacturing sites, domestic Group companies and some overseas affiliates covered by Scope 1, Scope 2 emissions, water usage and waste emissions, Scope 3 Category 6 (business trips), Category 7 (employee commuting) and Category 11 (use of products sold).

For more information: https://www.jtekt.co.jp/sustainability/environment/img/efforts/management/img26.jpg

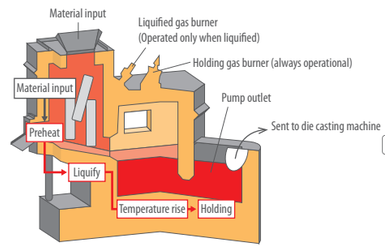
Energy saving, high-precision casting method development

Hybrid liquification and holding furnace

Production Support Division: Materials Innovation Department

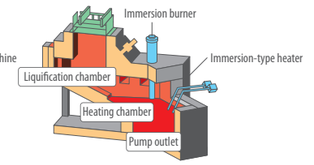
We have developed a hybrid melting and holding furnace with the aim of improving fuel efficiency, reducing CO_2 emissions and downsizing.

Current liquification and holding furnace



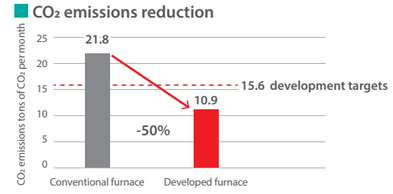
Newly developed hybrid melting and liquification furnace

- Reduction of furnace heat radiation by miniaturization of furnace and improved heat insulation
- Elimination of exhaust gas by changing holding and heating from gas to electric heater



Furnace size: 6.0 m²×1.8 m (H)

CO_2 emissions reduction



Energy visualization initiatives

Overseas affiliate company: JTC (Thailand)

JTEKT (THAILAND) CO., LTD. (JTC), has been promoting initiatives aimed at lowering CO_2 emissions to 35% of current levels by fiscal 2030 through efforts to achieve an annual reduction target of 6% that include the reduction of 2,715 t-CO_2 annually through the introduction of a photovoltaic power generation system in July 2018. At present, to achieve further reductions, JTC is engaged in the visualization of energy consumption, using a remote monitoring system to perform detailed energy usage analysis and waste detection, which had been difficult to achieve using conventional manual meter checking. JTC plans to continue managing and improving its energy consumption going forward.

Introduction of solar power generation equipment

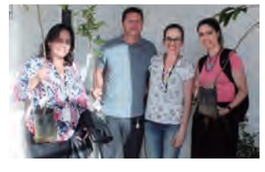
Overseas affiliate company: JALY (France)

JTEKT AUTOMOTIVE LYON S.A.S. (JALY) has installed a 1,710 kW solar power generation system.

JALY will continue to engage in initiatives toward the introduction of renewable energy, which has a low environmental impact, while promoting the construction of plants in harmony with nature.

Environmental campaign "Tree seedling distribution"

Overseas affiliate company: JABR (Brazil)



Since 2014, JTEKT AUTOMOTIVA BRASIL LTDA. (JABR) has been distributing tree seedlings to employees as part of its environmental efforts during Environmental Week.

In fiscal 2019, JABR distributed 200 tree seedlings that were planted at employees' homes. JABR plans to pass this initiative on to the next generation as part of its environmental education for employees.

1. Gigajoule (unit showing heat quantity) G=109
2. Of the heavy oils classified into three types (A, B, and C), the consistency is closest to light oil and is used as fuel for boilers and heating.
3. Abbreviation for Pollutant Release and Transfer Register, which is a system for reporting and announcing the amount of chemical substances released into the environment to the authorities.
4. Chemical oxygen demand (index showing the degree of water pollution).
5. Recycling involving the payment of disposal fees.
6. Extracted (amount of waste and reverse payment recycling) from the amount of waste regulated as specially controlled industrial waste in Japan and dangerous waste in accordance with the laws in countries other than Japan from the amount of waste discharged.