



# 2011/2012 THK CSR Report



# THK CSR Report 2011/2012

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## Introduction

From the time it was founded, the THK Group (hereinafter THK) has conducted its operations faithfully and conscientiously, with the aim of contributing to society through its core business activities. This year marks the 40th anniversary of THK's founding.

This year's *CSR Report* includes a feature section illustrating ways in which THK's business operations are commensurate with its corporate social responsibilities. The two-part section focuses on THK's approach to providing clean energy through wind-power generation and on THK's seismic isolation systems, which provide a sense of safety and security to those who use them, even in the midst of the Great East Japan Earthquake.

The section entitled "Management system" discusses risk management measures and other matters, while the "Involvement in society" section highlights THK's relationship with its various stakeholders. The section entitled "Harmony with the environment" examines THK's environmental initiatives in fiscal 2010, including quantitative results.

THK regards its *CSR Report* as an important tool for communicating with all its stakeholders. Your comments and feedback will be greatly appreciated—please take the time to fill out the enclosed questionnaire.

### Reporting period

This report focuses mainly on activities from April 1, 2010, through March 31, 2011, although activities occurring shortly before and after this period are also discussed.

### Scope

This report is based on information provided by THK CO., LTD., and its consolidated subsidiaries and affiliated companies. The full scope of the data reported in the environmental section comprises THK's five manufacturing plants in Japan (YAMAGATA, KOFU, GIFU, MIE, and YAMAGUCHI), THK NIIGATA CO., LTD., and two manufacturing plants owned by THK INTECHS CO., LTD. (SENDAI and MISHIMA).

### Target readership

This report is addressed to a broad range of stakeholders, including THK's customers, shareholders, investors, partner businesses (cooperating companies and suppliers), and employees, as well as government administrators and people in local communities.

### Guidelines cited

This report includes references to the Global Reporting Initiative's *Sustainability Reporting Guidelines 2006 (G3)* and the Ministry of the Environment's *Environmental Reporting Guidelines 2007*.

### Please direct inquiries to:

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FAX: +81-3-5434-0315

# Coping with the Great East Japan Earthquake

## The immediate aftermath

- Day of the earthquake** >> Immediately after the earthquake strikes, THK starts contacting its plants, sales offices, and partner businesses to ascertain their status, check on damage, and pass along vital information.  
Friday, March 11, 2011 >> THK closes down its operations early, enabling some employees to depart for home on foot, and invites the rest to spend the night on the company premises.
- 
- Day 2** >> A task force headed by THK's president is convened, and crisis-control meetings are held twice a day. Earthquake damage and other conditions are tracked on a matrix diagram.  
Saturday, March 12 >> Plants not affected by the disaster begin delivering emergency supplies to employees of the YAMAGATA and THK INTECHS SENDAI Plants and their families.  
>> THK once again contacts all its plants, sales offices, and partner businesses to check on damage and assess the situation.  
>> A Japanese-language report on the earthquake's impact on production facilities is published on the THK website.
- 
- Day 3** >> An English-language version of THK's report on the earthquake's impact on production facilities is published on the company website; the report is eventually published in other languages as well.  
Sunday, March 13 >> In the wake of an accident at a Fukushima nuclear power station, orders are issued to evacuate all personnel, including employees of affiliated companies and their families, from THK sites in the affected area. SENDAI Branch employees are relocated to the YAMAGATA Plant, while HITACHI Branch employees are relocated to the UENO Branch, to ensure continuity of operations.  
>> THK issues a communiqué on measures to protect against adverse health effects arising from radiation leakage.  
>> THK pledges to donate ¥100 million to support relief efforts coordinated by the Japanese Red Cross Society.  
>> THK issues advance notifications to business sites that will be affected by scheduled electric-power outages, followed by daily updates to business sites connected to the Tokyo and Tohoku electric-power grids.
- 
- Day 4** >> THK instructs all affected business sites to curtail the use of fluorescent lighting, try to rely on natural light in the daytime, and restrict the use of air conditioning, in order to conserve electricity.  
Monday, March 14 >> THK issues a communiqué on safety measures for protection against radiation.  
>> As part of a decentralization effort, some THK Headquarters functions are relocated to the GIFU Plant, and 80 employees from THK Headquarters and the Technology Center are dispatched to Gifu.  
>> Recovery efforts get underway at the YAMAGATA, KOFU, and THK INTECHS SENDAI Plants, which all incurred earthquake damage. THK production engineers from plants all over Japan are mobilized to assist the recovery efforts at the affected sites.
- 
- Day 5** >> THK begins equipping all its plants with portable radiation detection and measuring devices.  
Tuesday, March 15
- 
- Afterward** >> Random samples of products from all THK plants are tested for radioactivity, using portable detection equipment.  
>> Radiation levels are measured at all company facilities, including THK Headquarters, and the results are shared throughout the company.

### Headquarters backup system

In the aftermath of the Great East Japan Earthquake and aftershocks, and amid the increasing danger of radioactive contamination from the Fukushima nuclear power plant, THK's Earthquake Task Force decided to relocate some functions of the company's Tokyo headquarters to the GIFU Plant. The move began on the fourth day after the earthquake and continued for about one month. By April 16, 55 employees from THK Headquarters and 25 from the Technology Center were performing their duties at the GIFU Plant. In addition, to address the worst-case scenario, space was created at the NAGOYA Branch to accommodate more personnel from THK Headquarters and the Technology Center. In this way, THK instituted a backup system that would enable roughly 80% of headquarters employees to be relocated to other locations if necessary. A list of critical documents, files, and other materials to be rescued was also prepared, to

enable the remaining headquarters and Technology Center employees to remove essential materials in the event that they have to be relocated in an emergency.

Although THK was implementing these measures for the first time, all the employees involved performed their respective roles calmly and effectively, and the company successfully demonstrated that its operations will be able to continue despite any possible future disaster.

Post-quake: The GIFU branch office



### To all who have lent a helping hand

In the aftermath of the Great East Japan Earthquake, THK's customers and partner businesses in Japan and all over the world were quick to offer assistance to THK's disaster-stricken business sites and to support THK employees by donating relief funds and everyday goods. We want all of you know that your donations were put to the best possible use, having been shared by THK employees and the residents of disaster-stricken prefectures in the Tohoku region. We are profoundly grateful to all who offered their support.

THK has donated ¥100 million to the Japanese Red Cross Society to help provide relief for victims of the Great East Japan Earthquake. Further details on our own relief activities are included in this report.

If circumstances permitted, I would identify each company that has offered assistance by name here and thank you each individually. Due to a lack of space, however, I hope you will forgive me if I simply express my sincere gratitude to all of you at once.

Akihiro Teramachi  
President and CEO, THK CO., LTD.

## Message from the top

# Rebuilding Japan and THK's contribution

## Our hopes in rebuilding after the Great East Japan Earthquake

A tragic event befell Japan on the March 11, 2011. Many people lost their lives and many went missing in the earthquake and the ensuing tsunami. My heartfelt sympathy and condolences go to all the victims of this disaster.

When I saw the dire situation in the devastated areas, I again appreciated the admirable character of the Japanese people. Under these severe circumstances, many victims of the disaster placed priority on keeping order and helping the weak. I was deeply impressed and even awed seeing how they tried not to complain and acted in a level-headed manner.

Witnessing these heroic, proud-spirited people, I am of the firm conviction that the disaster-stricken areas will recover quickly and Japan will soon overcome this national crisis. It will embark on a road toward continued growth.

## THK's disaster response

Although THK was affected by the earthquake and tsunami, it was lucky to suffer only minor damage given the unprecedented severity of the disaster. Thanks to the information gathering activities of our Earthquake Task Force and support from plants and business sites that were not affected, we were able to act quickly and effectively under my leadership immediately after the disaster struck and implement our recovery plans. While all of our employees were safe, homes were destroyed and loved ones were lost. Yet, despite all this misfortune, they devoted themselves to restoring plant operations so we could fulfill our responsibilities to our customers. The employees in our sales offices including their families also responded quickly to the earthquake disaster

and were able to maintain the company's operations without interruption. I am deeply impressed by THK's concerted offensive to press ahead with recovery work and would like to thank everyone for their efforts.

## Preparing to rebuild Japan

Damage from the Great East Japan Earthquake was enormous in all affected prefectures, and recovery from this disaster will require time and a huge amount of public funds. In addition, problems in handling the accident at the nuclear power plant and finding solutions to radioactive contamination in the surrounding areas will weigh heavily on Japan. As a citizen of this nation and a businessman, I am highly motivated to contribute to the best of my ability toward an early recovery for Japan.

To this end, THK as a whole will urgently review ways of dealing with power shortages, improving supply chains, and implementing our BCP (Business Continuity Plan), so that we can contribute to reviving the Japanese economy throughout our production activities. I am acutely aware of the need for THK to accelerate its production so that, no matter what kind of disaster we face, the company can maintain a stable supply of products. This, in turn, will enable its many customers to supply their clients with products, machines, etc., and by extension, contribute significantly to economic and social development.

This disaster may lead to Japanese companies shifting production to overseas locations and customers switching to overseas manufacturers rather than buying from Japanese companies. Even if this trend should materialize, THK has already optimized its local production in line with demand and is able to meet its delivery responsibilities by drawing on plants in Japan and in various parts of the world. As

far as demand is concerned, I take pride in knowing that THK and all its production sites, both in Japan and overseas, are making a significant contribution to revival of the Japanese economy by continuing to meet its delivery deadlines.

### 40th anniversary

On April 10 of this year, THK marked its 40th anniversary. I would like to extend my warmest thanks to our customers for their loyalty, to our partner businesses for their support, to all our shareholders and to our tireless employees for having made this possible.

This 40th anniversary is a turning point for us. THK has set “Global 10 21” as a major goal. As a pioneer in linear motion systems, we must continue to develop and supply products to satisfy the needs of customers worldwide. We fully realize from the recent earthquake and tsunami disaster how seriously we would be impacted by an interruption in the supply of THK’s key products. Luckily our company has pursued full-scale globalization and operates production facilities throughout the world. If disaster should strike anywhere in the world, our product supply would not be interrupted and would be capable of meeting the demands of our customers. Let us all pitch in and unite with the employees of our group companies in implementing “Global 10 21,” understanding the meaning of corporate social responsibility and feeling proud of being a part of “THK — Always at the service of our customers.”

**Akihiro Teramachi**

President and CEO  
THK CO., LTD.

寺町 彰 博



# The THK Group

## Profile

On April 10, 2011, THK celebrated its 40th year in business. As a creative, development-oriented company, THK has developed a broad range of products since its establishment in 1971, in keeping with its corporate philosophy: providing innovative products to the world and generating new trends to contribute to the creation of an affluent society. THK's LM Guides and other products are used in machine tools, industrial robots, and semiconductor production equipment. THK products are essential components in these devices, enhancing precision, increasing speed, and reducing labor, and have contributed to developments in many industries. In recent years, applications for THK products have expanded to include CT scanners, MRI devices, and other advanced medical instruments; high-durability, environmentally friendly automobiles and railway cars; and seismic

isolation and vibration-damping devices that protect human life and property.

As a milestone for continuous growth, THK has set a goal of achieving consolidated sales of ¥300 billion. To achieve this target, the company is expanding its business activities in two vital strategic domains: full-scale globalization and the development of new business areas. Full-scale globalization, based on the idea that the site of demand is the optimal site for production, represents an effort to further strengthen the unified producer-retailer system in THK's four territories: Japan, the Americas, Europe, and the rest of Asia. The initiative devoted to developing new business areas is an effort to expand the range of THK product applications into consumer fields by establishing specialized new departments.

Corporate name	THK CO., LTD.
Date established	April 10, 1971
Address	3-11-6 Nishi-Gotanda, Shinagawa-ku, Tokyo, Japan 141-8503
Capital	¥34,606 million*

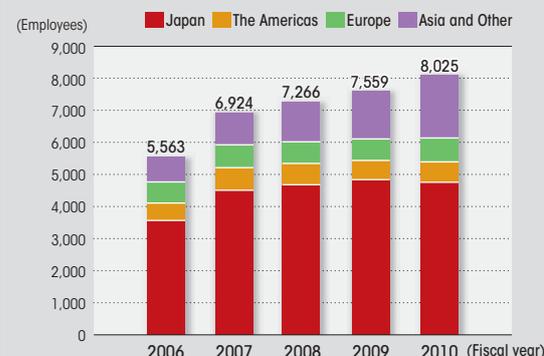
End of fiscal year	March
Employees, consolidated	8,025*
Employees, non-consolidated	3,332*
Consolidated subsidiaries	9 in Japan, 19 overseas*

\*As of March 31, 2011

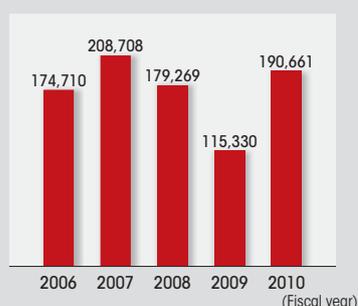
### THK employees, non-consolidated (as of March 31, 2011)

Employment status	Number of employees	Average age	Average years of service
Employees (male)	2,825	38.0	15.1
Employees (female)	507	31.5	10.2
Employees (total)	3,332	37.0	14.4
Board members	20		
Advisers	3		
Part-time workers	6		
Dispatched from affiliates	136		
Temporary staff	272		

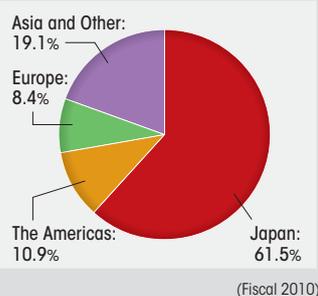
### Consolidated employees



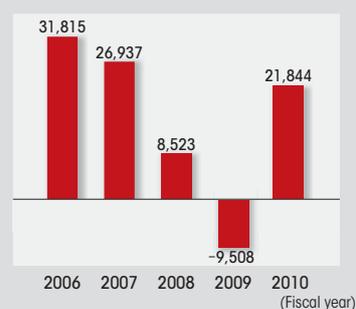
### Consolidated net sales (¥ million)



### Net sales by region



### Consolidated operating income (¥ million)



## The THK Group: Major locations

THK is pursuing full-scale globalization to strengthen its unified producer-retailer system in four territories: Japan, the Americas, Europe, and the rest of Asia.

### China



Sales offices ..... 26  
Plants ..... 4

#### Group companies

THK (CHINA) CO., LTD.  
THK (SHANGHAI) CO., LTD.  
DALIAN THK CO., LTD.  
THK MANUFACTURING OF CHINA (WUXI) CO., LTD.  
THK MANUFACTURING OF CHINA (LIAONING) CO., LTD.  
THK RHYTHM GUANGZHOU CO., LTD.

### Japan



Sales offices ..... 48  
Plants ..... 15  
Distribution centers ..... 3

#### Group companies

THK INTECHS CO., LTD.  
THK NIIGATA CO., LTD.  
TALK SYSTEM CORPORATION  
THK RHYTHM CO., LTD.  
THK RHYTHM KYUSHU CO., LTD.  
Rhythm L Co., Ltd.  
L Tool Co., Ltd.  
L Trading Co., Ltd.  
L Engineering Co., Ltd.

● THK CO., LTD., the THK Group's flagship company  
● Sales offices  
● Plants



### Europe

#### Sales offices

Germany ..... 4      France ..... 1  
United Kingdom ... 1      The Netherlands ... 1  
Italy ..... 2      Turkey ..... 1  
Sweden ..... 1      Russia ..... 1  
Austria ..... 1      Czech Republic ... 1  
Spain ..... 1

#### Plants

Ireland ..... 1      France ..... 1

#### Group companies

THK Europe B.V.  
THK GmbH  
THK France S.A.S.  
THK Manufacturing of Europe S.A.S.  
THK Manufacturing of Ireland Ltd.\*

### Asia

#### Sales offices

Taiwan ..... 3      India ..... 1  
Singapore ..... 1      South Korea ... 14  
**Plants**  
South Korea ... 3      Vietnam ..... 1  
Thailand ..... 1

#### Group companies

THK TAIWAN CO., LTD.  
THK LM SYSTEM Pte. Ltd.  
Beldex KOREA Corporation  
THK RHYTHM (THAILAND) CO., LTD.  
SAMICK THK CO., LTD.  
THK MANUFACTURING OF VIETNAM CO., LTD.

### The Americas

#### Sales offices

United States ..... 8  
Canada ..... 1  
Mexico ..... 1  
Brazil ..... 1

#### Plants

United States ... 2

#### Group companies

THK Holdings of America, L.L.C.  
THK America, Inc.  
THK Manufacturing of America, Inc.  
THK RHYTHM NORTH AMERICA CO., LTD.  
THK Brasil LTDA

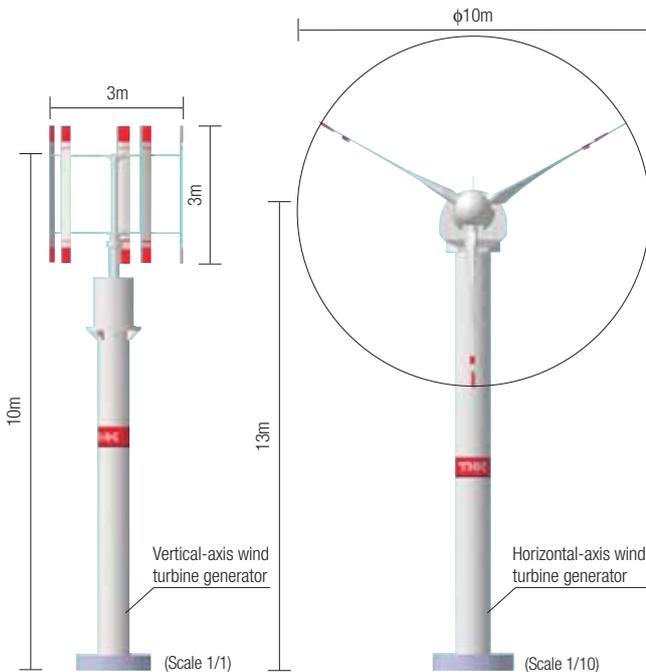
\* The corporate name was changed its current one in April 2011.

# Seeking a clean source of electric power

THK has installed two vertical-axis wind turbines and one horizontal-axis wind turbine on the grounds of the THK INTECHS SENDAI Plant to serve as experimental equipment for research on and development of basic parts for wind turbine generators. Many applications are envisioned for small-scale vertical-axis wind turbine generators. In natural disasters such as the Great East Japan Earthquake of March 2011, they can be used to generate power in affected areas and supply power for mobile-phone base stations located in the mountains. Apart from emer-

gencies, small-scale wind turbine generators can also be used to power LED lighting in parking lots and parks and to light public spaces in and around large residential buildings. Large-scale horizontal-axis wind turbine generators, meanwhile, represent a pure domestic energy source that does not rely on fossil fuels. As a clean, environmentally friendly source of electric power, they are expected to become a primary energy resource in the future.

## A safe source of electricity: The wind



There are currently around 1,800 wind turbine generators installed throughout Japan, with a total capacity of 2.44 million kilowatts. Generally speaking, there are two types: vertical-axis wind turbine generators and horizontal-axis wind turbine generators. While the vertical-axis type has a comparatively low capacity, its construction is simpler because operation is not dependent on the direction of the wind. Horizontal wind turbine generators, which are mostly high-capacity generators, have to be pointed into the wind, which requires a more complex structure incorporating advanced technology.



Vertical-axis wind turbine generator



Horizontal-axis wind turbine generator

### Vertical-axis wind turbine

	Inner rotor	Outer rotor
Rated power (kW)	3.2	3.2
Rotor diameter (m)	3	3
Swept area (m <sup>2</sup> )	9	9
Number of blades	5	5
Rated wind speed (m/sec)	12.5	12.5
Cut-in wind speed (m/sec)	2	2
Cut-out wind speed (m/sec)	15	15
Survival wind speed (m/sec)	40	40
Emergency brake	Disk brake	Disk brake
Maintenance brake	Disk brake	Disk brake

### Horizontal-axis wind turbine

Rated power (kW)	30
Rotor diameter (m)	10
Swept area (m <sup>2</sup> )	78.5
Number of blades	3
Rated wind speed (m/sec)	12.5
Cut-in wind speed (m/sec)	2
Cut-out wind speed (m/sec)	15
Survival wind speed (m/sec)	40
Emergency brake	Brade feathering/yawing
Maintenance brake	Disk brake
Yaw control	Active yaw

## Focal points

A look at the internal structure reveals the following about the vertical-axis wind turbine:

- (1) Commercial bearings do not fit the shaft diameter, so excessive power is required to turn the wind turbine. (There are no rolling-element bearings specifically designed for wind turbines.)
- (2) The wind turbine is equipped with a generator that converts wind energy to electric energy, but the wind turbine's output and that of the generator are based on different rates of rotation, so wind power can be utilized effectively only at certain rotation rates.

For the horizontal-axis wind turbine:

- (1) The part of the wind turbine that senses the wind direction and

swings the blades in that direction requires a large swivel ring equipped with gears. If the gears are damaged by wind vibration, it is difficult to replace them.

- (2) The mechanism incorporated in the blades that angles them in accordance with the wind intensity is controlled either by a hydraulic actuator or an electric gear. These can be damaged by the impact at certain wind intensities if the positioning is inaccurate or if there is too much clearance between gears.

Focusing on these and other problems, THK has theorized that they can be resolved by developing optimized parts and units using THK products. THK has therefore built vertical-axis and horizontal-axis wind turbines for experimental use.

## THK ingenuity

THK will try to solve the problems described above by pursuing the following aims in its development efforts. For vertical-axis wind turbines:

- (1) Design the blades to turn easily even at low wind speeds, thereby increasing power-generating efficiency to accommodate any wind speed.
- (2) Provide customers with units equipped with built-in rolling-element bearings specifically designed for wind turbines, thereby reducing labor time devoted to assembly and adjustments.

For horizontal-axis wind turbines:

- (1) Replace some bearings with THK's removable R Guides, which enable replacement of the damaged section alone in the event that trouble develops at the pivot, thereby reducing replacement work.

- (2) Shift to a structure that combines various THK products to help minimize the clearance between gears and incorporate high-power output, energy-saving operation, and highly responsive electric actuators.



## Future efforts and challenges

THK's trial efforts revealed the need for improvements in a number of areas:

- (1) Running vertical-axis wind turbines at a lower torque requires a shaft unit that is optimized for wind turbines.
- (2) It is known that a wind turbine will not rotate when its starting torque is greater than the wind-generated running torque at low wind speeds. Power generation at low wind speeds will therefore require a separate generator to help power the start-up phase.

- (3) It is necessary to reduce the risk of potential failure by providing a gearless yaw axis mechanism (for pointing the blades into the wind) on horizontal-axis wind turbines and to increase the gearless mechanism's capacity.

The above improvements will be reflected in future trial efforts, and development will continue with the expectation of eventual practical applications.

## Protecting important assets during earthquakes

THK markets seismic isolation systems incorporating “LM Guides,” a flagship THK product, to minimize the shocks of earthquakes. After introducing the social value of these systems in detail in last year’s *CSR Report*, these systems proved highly effective in protecting buildings, servers and other important assets of our customers in the Great East Japan Earthquake that struck on March 11, 2011 and which was followed by the earthquakes with epicenters located in northern Nagano Prefecture and eastern Shizuoka Prefecture with a maximum seis-

mic intensity of 6.

To illustrate how THK’s seismic isolation systems contributed to protecting peoples’ lives and property and helped to ensure the continuity and reliability of social infrastructure and industrial activity, we will present the voices and opinions of some of those who decided to have them installed.

(Photo, left and center: House of Mr. Hiroshi Soutome and Mrs. Keiko Soutome, right: SHIZUOKA DAIICHI TELEVISION)

### Seismic isolation systems ensure safe flights



Seismically isolated JAL servers

Some people may think that making a building earthquake-proof will protect important data from being destroyed. However, the hard disk of a server or other device that is inside of a building can be destroyed in an earthquake even if the building does not suffer damage or the hard disk itself is not hit and damaged by a falling object. Furthermore, think of the opportunity loss if a server were to topple over causing the system to go down. We felt a need to introduce the most effective method possible in order to avert this type of risk.

Japan Airlines manages large amounts of information on the servers of its data center including a system to support flight safety, its check-in system at airports and websites for booking flights. When the greatest earthquake on record struck on March 11, 2011, these systems remained completely unaffected by the earthquake because they were secured by THK’s seismic isolation system.

On the day of the earthquake, the Haneda and Narita Airports were shut down, grounding numerous flights. If the servers had broken down due to the earthquake, this would have seriously affected all

flights and the resumption of operations even to non-affected areas. The fact that the data center remained intact was a major feat for our company.

The idea of installing a seismic isolation system at the data center arose immediately after the Kobe Earthquake. There were a number of choices including decentralization of the data center. In the end, the decision was made to go with a seismic isolation system which promised a stabilizing effect with the lowest investment. At first, seismic isolators of another manufacturer were installed, but hearing reports that their isolation effect was insufficient, the decision was made to switch to THK’s seismic isolation system with top and bottom plates that stay in place.

Having now experienced the Great East Japan Earthquake, we are satisfied that our decision to install a seismic isolation system was a most prudent measure both in terms of cost and risk aversion.

**Yuichi Osada**

Manager, Corporate Support Systems, IT Planning,  
Japan Airlines Co., Ltd.

## Seismic isolation system for servers offers security



**Osamu Matsuda**

Manager  
Engineering Department,  
Corporate Planning Office  
SHIZUOKA DAIICHI TELEVISION  
CORPORATION

SHIZUOKA DAIICHI TELEVISION broadcasts TV programs to roughly 3.8 million citizens of Japan's Shizuoka Prefecture.

In the August 2009 Shizuoka Earthquake, the server running our important enterprise system was twisted out of shape and suffered other damage. It was then that I realized that broadcasting would face serious difficulties in a major disaster such as the yet to be experienced Tokai Earthquake, and so I took the plunge and ordered a seismic isolation system for our servers.

At the discussion stage, we were also considering the seismic isolations systems of other manufacturers, but:

- (1) THK holds the top share worldwide in linear motion systems, and its basic technology a high level of reliability,
- (2) Their seismic isolation systems utilize a unique rolling technology, and

(3) The THK sales people are very convincing with their very sophisticated sales approach and strong confidence in their products.

In view of the above considerations, we decided in September 2010 to have THK products installed.

The Great East Japan Earthquake that struck on March 11, 2011 registered a seismic intensity of 4 in Shizuoka City. At the time, rolling motions that I have never before experienced continued for some time. All that happened was that the server racks moved gently in a horizontal direction, and the seismic isolation table shifted by about 5 cm. The seismic isolation systems had done their job right after being introduced. The servers did not suffer any damage, and we could sense the stability that was provided by the seismic isolation system.

## Creating a new business combining house moving and seismic isolation work



**Mr. Hiroshi Soutome  
and  
Mrs. Keiko Soutome**

Soutome Construction Ltd.

Two years ago, we had to move our house because the municipal road next to it was about to be widened. This gave me the idea to be the first in our prefecture to combine house moving with seismic isolation technology. I then submitted a business innovation plan to the authorities, and became eligible for a Business Activities Promotion approved by the governor of Tochigi Prefecture.

We have been in business for 109 years, and I represent the fourth generation of house movers.\* In college, I learned about the Urban Earthquake Disaster Prevention Plan, and I developed a strong interest in seismic isolation. Besides being engaged in house moving, I was attending regular meetings of the Seismic Isolation Society, and this is where I came in contact with the people of THK. When I heard that seismic isolators were installed at THK's UTSUNOMIYA Branch, I went there to have a look. I had also been exposed to the marketing campaigns for seismic isolators of other manufacturers, but when I saw the isolators that incorporated rolling technology, I was really impressed. I was so taken by the frequent visits and enthusiasm of the sales person that I decided to use THK's seismic isolators.

I was not in my house on the day of the Great East Japan Earthquake. At home, my wife, who gives lessons on how to

wear a kimono, was busy teaching her students. At my office, framed pictures apparently fell off the wall and scattered all over the floor. At home, however, not a single glass had broken, and it seems that my wife continued with her lesson. When our daughter-in-law, who had joined the lesson, returned to her home, some of her furniture had fallen over and household goods were strewn all over the floor. This made her realize for the first time the impact of the earthquake. Because of the frequent aftershocks, she stayed at our home that night where she felt relaxed enough to sleep. After that, aftershocks continued for a while and we could feel the ground trembling below us. Luckily our house was not at all affected and we have been able to continue our lives without incident. I realize that this is because of THK's seismic isolators that we installed in our home, and I am deeply impressed.

We are keeping our house open for anyone interested in taking a look at our seismic isolators. Please drop by and see for yourself. Going forward, I hope to be increasingly involved in construction work dealing with seismic isolation and the moving of shrines, temples and other important cultural assets. Doing this in cooperation with THK would be a real pleasure for me.

\* House moving : A construction method used to comply with land readjustment measures for preservation and protection of historical buildings or moving structures to another location so they need not be knocked down.

### In their own words >>> A local employee



**Masami Kimura**

Team Leader  
Sales Section, UENO Branch  
Sales Department, East Japan Region I

When I recommend a seismic isolation system to a customer, I provide a detailed explanation of the benefits and effects of installing such a system and the risks of neglecting to address the danger of earthquakes. My priority is to offer resolutions to a variety of potential problems that will not be easily overcome physically and financially.

For example, I think it is very important to convince customers that seismic isolation systems offer protection against actual losses due to damaged servers and the like, but I stress that they also need to think about the repercussions on society when servers fail. Seismic isolation systems not only contribute to physical and financial risk prevention, but also help to protect assets that cannot be expressed in numbers such as the trust of customers and society at large.

Recently, many of my customers reassure me, saying "It is a good product, so sell it with confidence and you will do just fine."

# Management system

As the world continues to grapple with economic uncertainty, and as we, in Japan, grapple with the aftermath of the Great East Japan Earthquake, corporations are being called upon more than ever to manage risk and contribute to society in times of emergency. THK will continue to reinforce its governance and compliance systems as we strive to build a rock-solid management system that is capable of handling any type of societal risk.



## Topics in 2010

### ■ Implementation of Information Security

Internal audits of THK's information security were conducted by the Information Security Committee Office at the YAMAGUCHI Plant, FUKUOKA Branch, UENO Branch, Engineering and Development Department, THK CHINA (Engineering Department) and THK INTECHS Headquarters so as to establish a company-wide information security system at THK.



# Corporate governance

**Q** How are corporate governance and internal controls being maintained at THK?

**A** → **Efforts are ongoing to secure management transparency and reinforce internal controls for the entire THK inclusive of all subsidiaries and group companies so as to secure a rock-solid audit system.**

## Governance system

The organizations that oversee THK's operations are its Board of Directors, Board of Auditors which includes outside auditors, and Accounting Auditor. In order to continue to raise the company's corporate value, THK strives to improve the transparency of its operations and to reinforce its management monitoring function aimed at achieving its business goals. An Internal Audit Office has been established as an independent entity under the direct jurisdiction of the CEO to evaluate the faithful performance of business duties, management efficiency, and adequacy of internal controls.

## Internal controls

THK is implementing measures to reinforce internal controls for the purpose of further solidifying its management infrastructure and ensuring full compliance with legal requirements.

In 2008, THK established the "Rules for Internal Control of Financial Reporting" to govern internal controls, and efforts are ongoing to put in place a system for ensuring the reliability of financial reporting based on Japan's Financial Instruments and Exchange Law throughout the entire group including subsidiaries and affiliated companies.

Evaluations of the operational status of internal controls are conducted by the Internal Control Audit Department established as part of the Internal Audit Office, and the Internal Control Department of the Risk Management Division, in its capacity as secretariat, is in charge of implementing opera-

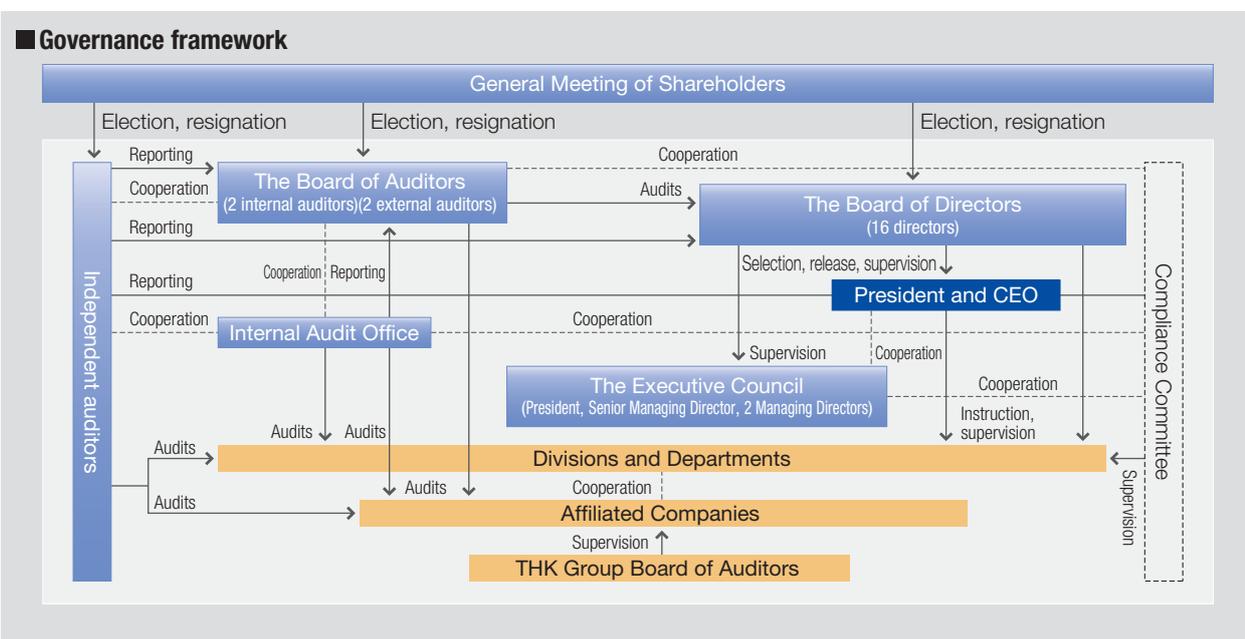
tional improvements annually based on the evaluations.

The internal evaluations conducted in fiscal 2010 revealed no significant deficiencies.

The results of the final evaluation were submitted to the Prime Minister of Japan (via the Kanto Finance Bureau of the Ministry of Finance) in June 2011 and have been publicly disclosed.

## Security-related trade controls

To handle requests for parameter sheets which arise when THK directly exports products, machinery or technology, as well as when THK products are exported by its customers, the company has developed an intranet-based parameter sheet management system designed to ensure thorough and accurate descriptions of parameters and timely preparation of parameter sheets, and rules for approval procedures have been established in order to manage the provision of technology. In addition, as overseas demand and product uses become increasingly diverse as the overseas markets expand, efforts are also being made to improve export controls and information management at THK's overseas locations by providing educational tools and seminars for employees of overseas affiliate sales companies so as to avoid inadvertent violations of the Foreign Exchange and Foreign Trade Control Law or self-imposed restraint by local sales divisions due to excessive concern over compliance matters. Measures such as these are enabling THK to appropriately comply with the requirements of security-related trade controls and contribute to Japan's security and future progress.



# Compliance

**Q** What does THK do to ensure that compliance is observed throughout the company?



**In order to ensure that compliance is observed throughout the company, the Compliance Panel which is comprised of members from each of the business departments holds regular study sessions, the content of which are then reported to and shared with the employees at each workplace.**

## Compliance system

Since 2005, THK has had a permanent Compliance Committee with the CEO as committee chairman. The Compliance Committee discusses and authorizes all compliance-related policies, rules, regulations, and training and educational programs, and handles violations of laws, regulations or internal rules as well as matters that have been reported internally. In addressing specific violations, THK consults closely with legal advisers who take part in Compliance Committee meetings as observers to ensure that appropriate legal action is taken.

Each THK business division has established its own Compliance Panel which operates under the Compliance Committee's jurisdiction. One Compliance Panel member is assigned to each business location or area to promote observance of the compliance system and to serve as a consultant and liaison.

In addition, an internal "THK helpline" system has been set up to help deter potential compliance violations by executives or employees, and to ensure that appropriate actions are taken quickly if a violation occurs. Violations can be reported by telephone or e-mail or by contacting the company's legal advisers who provide an external channel for such communications.

In fiscal 2010, the helpline received seven reports, all of which were resolved in coordination with the departments involved and properly reported to the Compliance Committee.

## Training and education

In December 2010, Compliance Panel members held a scheduled workshop led by a visiting lecturer (a corporate lawyer) to improve their understanding of legal matters as well as their knowledge of and capacity for dealing with compliance matters. In the first half of the session, the participants studied the essence of compliance management based on actual corporate cases. The latter half was devoted to case studies and group discussions dealing with the pitfalls of misconduct companies must avoid, and ways of dealing with employees and managers who try to justify their violation of laws and regulations.

After the study session, the panel members immediately put their newly acquired knowledge from the workshop to use and set about improving the compliance system at their respective workplaces by holding voluntary workshops and discussions of their own.



Compliance Panel members take part in a workshop

Each business location is also providing compliance training for general employees in an effort to educate them and develop their awareness of compliance. In fiscal 2010, a total of 792 employees including new employees received such training.

THK has also introduced various educational materials concerning compliance into its e-learning program, an in-house educational tool, to promote self-development and help employees become more aware of compliance in their daily work. In February 2011, 7 new case studies were added, bringing the total to 30 (in addition to 69 drill-type study questions). Going forward, additional case studies of legal violations that can happen in the daily course of business will continue to be added in our effort to foster the legal minds of our employees.



Compliance materials are included in the e-learning program



# Risk management and information security

**Q** Is THK adequately prepared for risks such as natural catastrophes or information security breaches?

**A** **THK has formulated a Business Continuity Plan (BCP) to prepare its production sites for the possibility of a major disaster. We are also continuing disaster drills and educational programs on information security.**

## BCP

In order to prepare for a major earthquake or other disaster, THK facilitated the development of a BCP (Business Continuity Plan) on a company-wide basis, and in 2009, the KOFU Plant completed work on its BCP, followed by 10 more major plants in 2010.

Since then, THK Headquarters and the sales offices have gone ahead with preparations for formulating their BCPs which are expected to be completed in the first half of 2011.

But formulating a BCP is not sufficient in itself. It is important to follow this with on-site and desktop training, and by implementing improvements and educating employees. In other words, the BCP must be refined in a Plan-Do-Check-Act problem-solving process. Regrettably, the THK business locations also suffered damage in the Great East Japan Earthquake. It is our hope that the experience gathered from the occurrence of the disaster and through the process of reconstruction (for details see page 3) will be utilized effectively and reflected in future improvements to the BCPs company-wide.

## Disaster drills

The GIFU Plant holds regular annual disaster drills to prepare for earthquakes and fires. As last year's event was not meant to be merely an evacuation drill but an important opportunity to test the effectiveness of the recently formulated BCP, planners and participants alike participated in the event in earnest.

The drills took place in mid-October with a total of 226 participants in attendance including not only the employees from the CHUBU Distribution Center located on the plant premises but also employees from other cooperating companies.

After the evacuation drill, selected members demonstrated the use of fire hydrants while new employees were shown how to use a fire extinguisher by local firefighters.

While only a drill, the total evacuation time is recorded every year because having things run smoothly and according to the rules in extreme situations is a very important aspect of the exercise. Two years ago, the process took 5 to 6 minutes, but this year it took only 4 minutes and a few seconds. Nevertheless, since the result fell short of the targeted 3 minutes, both the drill and the awareness training of employees will have to be improved further. Based on the shortcomings observed in this year's drill, the Plan-Do-Check-Act problem-solving process will need to be employed more effectively in preparation for the next drill or for a natural catastrophe that could hit us at any time.

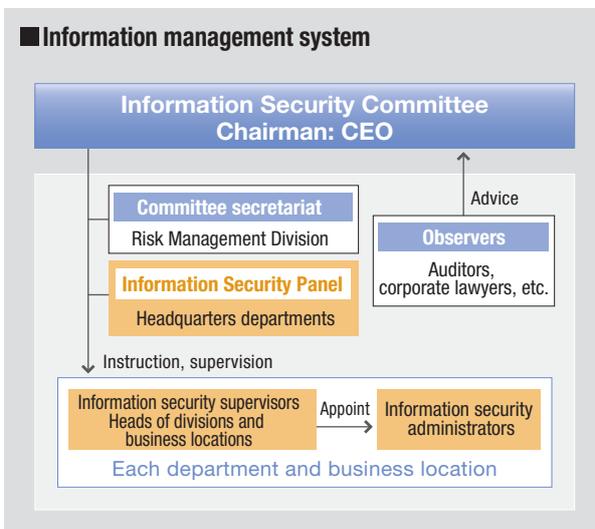
## Information security

Internal audits of the THK information security system were conducted by the Information Security Committee Office at the YAMAGUCHI Plant, FUKUOKA Branch, UENO Branch, Engineering and Development Department, THK CHINA (Engineering Department) and THK INTECHS Headquarters so as to establish a THK company-wide information security system.

Additionally, workshops were held at 18 branches in 2010 to educate employees about information security. THK also implemented a company-wide self-inspection utilizing the intranet in an effort to promote an understanding of the actual state of information security within the company, and where problems were observed, improvements were made.

While use of the internet has become necessary and unavoidable in carrying out business activities, it also comes with the risk of third parties with malicious intent attacking company websites. This kind of harm not only affects THK itself but can also cause immense damage to those who access our site and to our customers whose personal data we store, making it critical that companies implement information security measures.

Under these circumstances, THK has introduced a system that allows it to diagnose its website at any time so as to spot vulnerabilities at an early stage and develop solutions as they are necessitated. By repeating the cycle of vulnerability diagnosis solution verification as needed, the THK website is maintained in a state that allows everyone to visit without any concerns for information security.

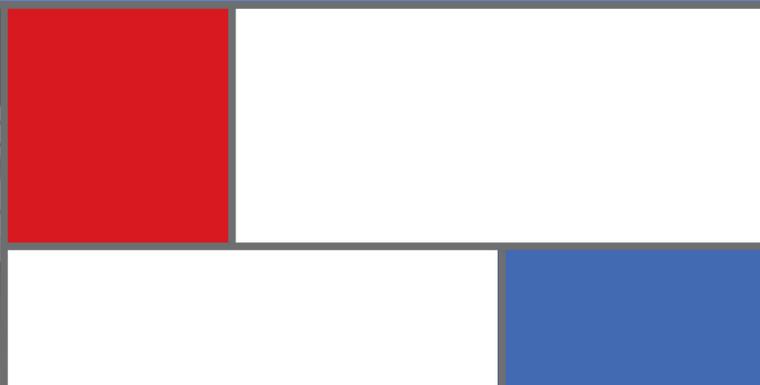


# Involvement in society

THK strives to play a vital role in the world through its products that are its core business, and stands ready to meet customer needs and social challenges by adding value to these products.

THK considers being a corporation that responds to the needs of society an indispensable prerequisite.

To this end, THK communicates effectively with society, listening to what customers and partner businesses have to say, and never ceases to strive for improvements.



## Topics in 2010

### ■ OHSAS18001 certification

In an effort to systematically promote occupational health and safety activities and ensure sound management, THK has obtained Occupational Health & Safety Management System (OHSAS18001\*) certification for its five major plants in Japan (YAMAGATA, KOFU, GIFU, MIE, and YAMAGUCHI).

\* OHSAS18001: International specification for Occupational Health & Safety Management Systems (a strategic management tool for systematically incorporating into corporate management controls over the safety, sanitation and health of an organization, its employees and other interested parties)

### ■ Adoption of the CP employment system

THK has adopted the CP (Creative Producer) system as its new personnel management system approach. The Creative Producer employment system is designed to provide employees, who are deemed to have potential in planning and implementing new projects leading to new business opportunities, with a chance to challenge themselves and think freely of new business ideas and to grant them results-oriented remuneration.



# Together with our customers (for higher product quality)

**Q** What efforts has THK made to improve the quality and safety of its products?



**THK is working ceaselessly to improve its quality control and safety standards by pursuing global procurement of superior materials and superior components and by efficiently implementing quality management systems like ISO 9001.**

## Commitment to quality improvement

### President's Policy for 2010 Creative and Development

**Continuing policy** "Diligent Pursuit of The Best Quality"

To put the President's policies of "Creative and Development" and "Diligent Pursuit of The Best Quality" into practice, THK is not only striving to deliver products offering superior performance in the industries where they have long been used, but is pursuing the measures outlined below in order to comply with the increasingly exacting specifications of its newer markets.

1. All production sites will deploy a Quality Function Development (QFD) system in order to achieve even more reliable product quality.
2. All production sites, in collaboration with the procurement divisions, will carry out fair and equitable testing and evaluation to ensure procurement of superior materials and components for THK products on a global scale.
3. The company will establish a method for calculating an optimum product lifespan for each market in an effort to bring the product lifespan in line with the required lifespan in order to ensure that THK products deliver superior performance and complete functionality to the end user.
4. THK is working through its Quality Improvement Committee to strengthen the quality control systems at its production sites throughout the world in order to improve quality around the globe.

## Quality management

THK has obtained ISO 9001 certification for the quality management systems employed at all production sites in Japan, the Americas, Europe, and the rest of Asia. In order to be able to supply products to the automobile industry which has highly demanding quality control requirements, THK has also obtained ISO/TS 16949 (Automobile Production Quality Management System) certification for the quality management systems employed in its Future Automotive Industry Division and at THK Manufacturing of Europe and THK Manufacturing of America plants. In addition, THK NIIGATA obtained JIS Q 9100 certification for its quality management system for aerospace-related products and subsequently began supplying products to the

aerospace industry last year. THK will continue to employ appropriate quality management systems at all its production sites in an effort to ensure ongoing improvements in product quality.

While THK products already deliver high performance in existing markets, the company seeks to improve product quality in order to meet the strict demands of its newly developed markets.

## Participation in the improvement presentation meeting

The TPM\* Improvement Presentation Meeting, sponsored by the Hoyukai Society established by cooperating companies of the HI-LEX CORPORATION, is held each year with the aim of raising the overall quality of the manufacturing industry by examining the quality improvements made by other companies. The emphasis in these meetings is on the "Q" in QDC (Quality, Distribution, Cost) as the most important factor in *monozukuri*.

Every year, five companies from among the participating companies each make presentations. At the meeting held in May, the GIFU Plant's improvements were presented on behalf of the THK Group.

The presentation dealt with raising productivity by improving the accuracy in assembling LM Guides, reducing unstable or erratic operations, and creating a viable work environment through standardization of tasks.

Other companies also made concrete proposals supported by graphic illustrations and amounts saved thanks to quality improvements that translated into cost reductions.

A meeting that provides an opportunity to hear opinions directly from other companies is certain to motivate the participants to improve quality. THK will continue to participate in a proactive manner in hopes of further improving its own product quality.

\* TPM : Total Productive Maintenance, a series of company-wide activities to introduce innovations in production processes in order to maximize productivity.

## Outstanding supplier award

THK Taiwan received the 1st Outstanding Supplier Award from Tong-tai Machine & Tool Co., Ltd., a major machine tool manufacturer in Taiwan. This was in appreciation of THK's product quality and adherence to delivery deadlines in the course of the company's longtime relations with THK Taiwan. The prize was awarded at Tong-tai's booth at the Taipei International Machine Tool Show, with Board Chairman Yan handing over a citation of commendation to President Teramachi.

Rather than rest on its laurels, THK will continue to strive to improve the services it provides in order to ensure customer satisfaction.

# Together with our customers (for greater customer satisfaction)

**Q** What efforts has THK made to earn its high reputation with its customers and society at large?

**A** → **THK anticipates the needs of the times and boldly challenges new business areas while capitalizing on its technology to deliver ever higher added value.**

## Taking on the challenge of new markets

The Engineering and Development Department was established to propose and develop new value-added products in areas such as humanoid robots, wind power generation, aircraft, medicine and human services, and amusement facilities, taking advantage of THK's linear motion technology and know-how accumulated over decades.

With aircraft, for instance, in response to pilots' calls for more space in the cockpit, the department suggested that control sticks originally located at the pilots' feet be accommodated on the console panel, and this suggestion was implemented.

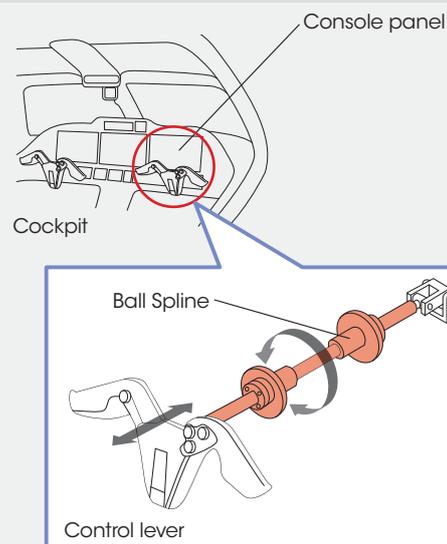


Cockpit

THK's Ball Splines are used in the control sticks of business jets.

The use of Ball Splines has made operation of control sticks smoother and more reliable, and frees up more space in the cockpit. This is just one example of how THK contributes to the development of the aviation industry.

### Control sticks of a business jet



## In their own words >>> Salesman



**Yoshito Shimotsu**  
Assistant Manager  
Sales Section, MATSUJYAMA Branch  
Sales Department,  
West Japan Region II

When I was looking for my first job, Japan's manufacturing industry had momentum both at home and overseas, and THK's linear motion technology was greatly contributing to the manufacturing equipment that was the foundation of its success. I was also taken with the image of a company that even then had set itself the ambitious goal of "Global 10 21" and decided to join THK.

My wish to work in sales was fulfilled, but there were times when I was reprimanded for not anticipating what the customer envisions. Based on this experience, I now make every effort to do more than the customer expects and fill my business talks with surprises and inspiration.

It makes me really happy to think that the linear motion systems I have been selling are now important components of the machinery that manufactures today's popular digital appliances.

I will continue to design my sales talks around THK's technological and development capabilities as powerful tools to reach my customers, and will do my best dreaming of a future full of things that incorporate THK's linear motion technology, from manufacturing machinery to appliances in our immediate surroundings.

# Customer interview

## SYSMEX CORPORATION

SYSMEX CORPORATION was established in 1968. Founded under the name of Toa Medical Electronics Co. Ltd., the company has been working on the development and marketing of diagnostics testing instruments and reagents under the SYSMEX brand name since 1978. In 1998, the brand name was adopted as the company name, and SYSMEX CORPORATION was born. Currently they are supplying more than 170 countries in all parts of the world with products and services for clinical laboratory instruments and reagents for blood, urine, immunology, biochemical and other analyses.



**Kazuya Fukuda**

Director, HIC Product Development Dept.  
Product Development Div. 2

**Hironori Katsumi**

Manager, HIC Product Development Dept.  
Product Development Div. 2

## Seeking a new partnership for a new era of business development

### — How did you come to start using THK products

The rotating mechanical parts of an automated blood coagulation analyzer we put on the market recently are equipped with large-diameter bearings made by THK. It is a new product, so we were after the sort of high precision and high processing speeds we expect of the latest model. Because the space for accommodating bearings was very small in view of the unit's layout while requiring a large diameter, we wanted to keep the bearings compact, but we were unable to find any bearing on the market with the kind of performance and size that would satisfy these specific requirements.

At this point I learned that THK has a development department that handles specialty and customized products, so I got in touch with them right away. After having contacted component manufacturers around the world and having been unable to locate products that matched our requirements, THK made a sincere and thorough effort to customize bearings for us, even advising us in areas where we had encountered problems. Thanks to their efforts, we were able to complete the project successfully, and at the same time established a very good relationship with THK.

### — What do you require from your suppliers?

SYSMEX is a manufacturer of medical equipment and diagnostic reagents, and supplies our customers with a wide variety of medical devices and reagents. It is our responsibility to provide our customers with the necessary data in the fastest and most accurate manner. That is why we ask our partner businesses to supply us with products of the highest reliability, including long product lifespans.

Another point to remember is that the medical devices and similar equipment we handle are not produced in huge lots of tens of thousands at a time, like cars, for example. Consequently, we may have to ask THK to cooperate in matters

such as maintaining the cost balance and making production adjustments.

For our most recent project, we requested that THK provide a trial product first, but they submitted a product of such high integrity from the beginning that we got a very real sense of the high level of THK's technological capabilities. When we encountered problems in the course of continuous stress tests, THK was very quick in proposing ways to eliminate these problems. I think that the fact that they dealt with the matter in face-to-face talks instead of trying to get by with phone calls or e-mails also contributed to our forming a strong partnership built on mutual trust.

### — What do you expect from THK in the future?

Many manufacturers approach us with new products, but we have not had many opportunities to discuss special needs such as customized products. This applies not only to new products but to any kind of suggestions in today's business climate in which business areas and deployments have changed or new initiatives are required. I may be wrong on this point, but I think the bigger a company gets, the less flexible it tends to be.

Another important requirement is a system to ensure prompt delivery of products even in contingencies, and I am sure many manufacturers share this concern after the Great East Japan Earthquake. SYSMEX must avoid any situation in which patients cannot receive treatment because the medical device is not available. We expect much of THK's ability to deal with such emergencies.



Automated Blood Coagulation Analyzer CS-5100

# Together with our shareholders, investors, and overseas customers

**Q** What do you do to gain the understanding of your shareholders, investors, and overseas customers?

**A** → **We pursue appropriate and fair disclosure of information through various investor relations tools and events, and use exhibitions and similar occasions to convey information to our overseas customers.**

## Investor relations events

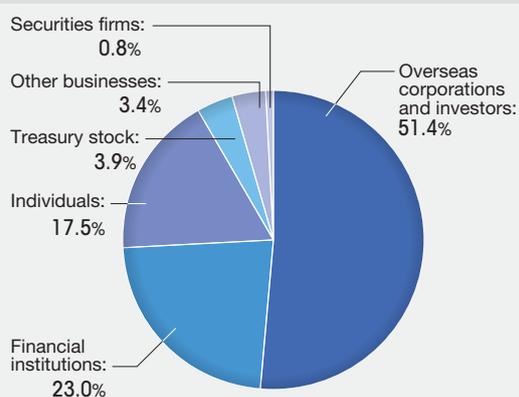
At THK's semiannual investor meetings, the CEO provides a detailed explanation of THK's business performance and business strategies. Ample time is provided for answering questions and listening to candid opinions directed at company management. THK also tries to expand its dialogue with all of its investors through small-scale meetings and individual interviews. In addition, THK has been working to expand opportunities for communication with U.S. and European institutional investors through regular annual visits and other opportunities.

Since 1998 THK has held its annual General Meeting of Shareholders on a Saturday, avoiding the days when most general shareholder meetings are held, to enable more THK shareholders to attend. To permit more stakeholders to learn about THK's management, seats for observers are provided at the meeting venue, and attendance by all THK's stakeholder groups, particularly partner businesses, has been encouraging. An exhibition of newly developed products is held in an adjoining venue at the juxtaposition hall, enabling visitors to obtain a better understanding of THK products rarely seen up close in daily life.



The 41st General Meeting of Shareholders (in the venue)

## Shareholdings by investor type (as of March 31, 2011)



## Investor relations tools

In addition to its annual report, THK publishes a fact book for investors, which is updated each quarter, for use as an informational tool. Legally required disclosures, along with related information and materials presented at investor meetings, are posted in Japanese and English on the Investor Relations page of THK's website. Video coverage of investor meetings and other events is also provided, in both Japanese and English. In these and other ways, THK strives for appropriate and impartial information disclosure to all shareholders and other investors, regardless of affiliation or location.



## JIMTOF

THK considers exhibitions to be opportunities for visitors to come into direct contact with the products on display and to present a broad range of products in response to the diverse problems customers have to solve. One of THK's exhibits at the Japan International Machine Tool Fair (JIMTOF), held in October 2010, was a demonstration machine with LM Guide the single rail length in 7m. This exhibit was presented to illustrate the merits of LM Guides, such as improving the precision of machine tools and facilitating design and assembly work, and earned high marks from visitors. THK will continue to take part in more exhibition activities designed to present customers with solutions.



JIMTOF



Demonstration machine with LM Guide the single rail length in 7m

# Together with our partner businesses

**Q** Please tell us what you do to conduct fair and equitable business transactions and build collaborative relationships with partner businesses.

**A** **THK emphasizes communication with its partner businesses to build good, healthy partnerships. We are also working on building up a mutual support system for emergency situations such as disasters.**

## THK Association

The THK Association, consisting of THK's cooperating companies, suppliers, and other partner businesses, is designed to promote mutual progress for THK and the association's member companies. More than thirty years after its establishment, as of March 2011, the association now has 196 member companies. THK acts as the secretariat, and the THK Association's board of governors provides voluntary assistance with planning and operations. Every year, the company chapter and the plant chapters hold general meetings, regular meetings, and social gatherings to keep in close contact and exchange information. These meetings are not only used to explain THK's management and purchasing policies, but also serve as an important venue for communicating information from and the wishes of member companies. THK will continue to build strong partnerships through the THK Association.



THK Association

## Aiming for mutually beneficial relationships

THK in its production activities is sustained by cooperation with its cooperating companies and suppliers. To cite an example, when the THK YAMAGUCHI Plant suffered flood damage in a localized torrential downpour that hit Yamaguchi Prefecture in July 2010, the plant received assistance from its suppliers in the form of materials and deliveries of clean water delivered in tank trucks when the water supply was disrupted, and was able to promptly resume production. When our partner businesses suffered flood damage in the downpour, THK rendered assistance by restoring their electrical systems and draining the flood waters. In this way, THK cooperates in every way possible when partner businesses face difficulties. Conducting business in a fair and equitable manner is essential for building this kind of strong relationship. THK will continue to conduct business transactions that are fair and in accordance with procurement related

laws as well as equitable from a comprehensive standpoint, including QCD (Quality, Cost, Delivery) and the like.

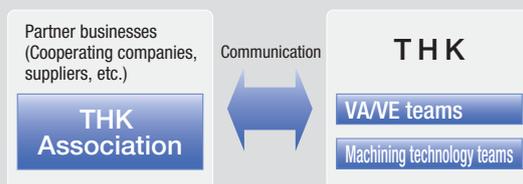
## Machining technology teams

THK believes that the relationship with partner businesses must be one of cooperation and mutual growth. To achieve this, it must also strive for improvements in customer service and pursue various cost-cutting initiatives. In recent years, a large number of proposals have been forthcoming, especially from partner businesses. These are vetted and brought to realization by the Value Analysis/Value Engineering\* (VA/VE) team in each plant. Outstanding VA proposals are awarded citations by THK's CEO at the general meeting of the THK Association. Subsequent to the VA/VE teams, Machining Technology teams were set up and started operation. The purpose of setting up these teams was to have them visit partner businesses and jointly try to make improvements in machining technology based on THK's in-company expertise in fields such as machining and assembly. The teams are composed not only of people in charge of materials, but also include leading members of the respective production engineering division and the manufacturing floor, who participate in the activities at the partner business site. These two types of teams work out proposals in close collaboration with the staff of the partner business and bring these improvements to fruition.

\* Value Analysis/Value Engineering :

A management method for increasing component and product functionality by reducing overall costs.

## Collaboration with partner businesses In pursuit of mutual development



Receiving a citation for a VA proposal at the THK Association's regular general meeting

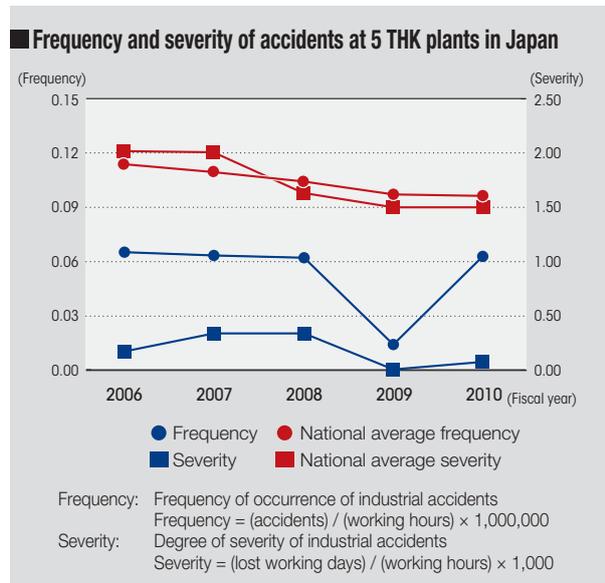
# Together with our employees (for a healthy and safe working environment)

**Q** What measures does THK have in place to ensure the health and safety of its employees?

**A** → **Measures taken to safeguard the health of THK employees include obtaining occupational health and safety management certification to reinforce the company's safety system, and holding regular meetings of occupational health experts and healthcare staff.**

## Occupational health and safety

THK has various measures in place that are aimed at creating a safe working environment for its employees. For example, Plant Health and Safety Committees hold monthly meetings and organize Occupational Health and Safety Patrols to tour the plants, point out potential hazards, and ensure that any needed improvements are continuously implemented. Both the frequency and severity of industrial accidents increased in fiscal 2010, but THK will step up efforts to implement thoroughgoing occupational health and safety management to achieve "zero industrial accidents" in the future.



## Occupational healthcare staff meetings

THK has assigned occupational health experts and healthcare staff to headquarters and its five major plants (YAMAGATA, KOFU, GIFU, MIE, and YAMAGUCHI) that look after the health of employees by analyzing the results of health checkups and regularly providing health and hygiene related information. In this way, THK is making every effort to manage the health of all employees, prevent industrial accidents, and create a better working environment.

To expand these measures in fiscal 2010 to all companies of the THK Group, THK has put in place a system to ensure a safer and more comfortable working environment. Under this system, the occupational health experts from headquarters and the occupational healthcare staff from the plants hold regular occupational healthcare staff meetings in an effort to share information on and establish rules for measures that were previously independently carried out by the separate business locations.

Future initiatives include the establishment of a system for managing the results of company-wide health checkups, stepped-up efforts to safeguard the mental health of employees, and close

cooperation with all parties concerned in creating a safe working environment for THK employees.

## OHSAS18001 certification

In an effort to promote occupational health and safety activities in a more organized way and ensure sound management, THK's five major plants in Japan (YAMAGATA, KOFU, GIFU, MIE, and YAMAGUCHI) obtained Occupational Safety & Health Management System (OHSAS18001\*) certification. Once certified, the company set about formulating an Occupational Health & Safety Policy.

The above five plants started to prepare for certification in February 2010, underwent the 1st stage audit in October, the 2nd stage audit in November, and obtained their final certification in December of the same year.

### Basic policy

1. Improving occupational health and safety is one of the most important issues of the Production Division. To this end, the Division will establish appropriate occupational health and safety targets for implementation by all plants in their business activities with the aim of creating a comfortable and safe working environment for their employees.
2. Plants will adhere to the Occupational Health and Safety Law, other applicable laws, as well as the occupational health and safety rules of the company and work sites to improve occupational health and safety.
3. Plants will clearly identify the main causes of hazards at the workplace by conducting risk assessments and work to achieve a "zero hazards" situation by initiating activities in which all employees actively participate.
4. Plants will eliminate any harmful working environment that is known to cause disease and will promote the creation of comfortable and pleasant workplaces.
5. By recognizing that a potential disaster or accident is directly linked to the nature of the workplace or the locality and that underlying unsafe behavior is the result of an unknowingly acquired bad habit, plants will develop activities through occupational health and safety management to correct these habits.
6. This Occupational Health and Safety Policy shall be disseminated to all plant employees through education, training, and activities designed to improve awareness. The company will disclose information concerning occupational health and safety to parties within and outside the Production Division in a timely manner.



OHSAS

\* OHSAS18001 : International specification for Occupational Health & Safety Management Systems (a strategic management tool for systematically incorporating into corporate management controls over the safety, sanitation and health of an organization, its employees and other interested parties)

# Together with our employees (supporting growth)

**Q** What does THK do to help employees grow and maintain a healthy work-life balance?

**A** **THK is working on formulating and implementing an Action Plan in Support of Raising the Next Generation. This action plan is aimed at helping employees achieve a balance between work and family by providing better educational programs that enable them to harness their capabilities to bring out the best in themselves.**

## e-learning

THK has introduced an e-learning system to help facilitate employee education, enabling employees to engage in self-development activities whenever they have access to the Internet. The e-learning system comprises a diverse range of training courses: Business Skills, which is devoted to improving practical abilities in areas such as critical thinking and business accounting; Product Knowledge, which covers a wide range of THK products; and Compliance, currently a topic of great interest. As of March 2011 the system included a total of 41 e-learning courses.

By taking advantage of opportunities for distance learning provided by this system, sales employees, for example, can study for and take a qualifying exam to acquire internal accreditation in electrical engineering. Use of the e-learning system is steadily increasing.

### ■ Educating employees via e-learning

	Enrollment			Completion
	Eligible employees	Employees enrolled	Percentage of eligible employees	Percentage of enrolled who completed course
September 2007	1,777	581	32.7	46.9
September 2008	1,963	893	45.5	73.9
September 2009	2,057	1,059	51.5	74.4
September 2010	2,103	1,142	54.3	72.7

## Measures in Support of Raising the Next Generation

THK is working on formulating an Action Plan in Support of Raising the Next Generation based on the Act on Advancement of Measures to Support Raising Next-Generation Children, in an effort to help employees to achieve a good balance between work and family, provide all of them with a comfortable and pleasant working environment, and help them harness and make the best use of their capabilities.

In doing so, THK has set itself the following three targets:

- (1) Establishing an atmosphere conducive to balancing work and private life
- (2) Encouraging employees to take and enjoy their accumulated paid leave\*, etc. by ensuring equitable application of the system and creating a system that goes beyond the scope of the law
- (3) Ensuring that employees can spend more time with their families and look after their health by fostering an awareness of balancing work and private life through optimization of working hours

Implementation of specific measures to achieve these targets is planned.

#### \* Accumulated paid leave :

A system that allows employees to accumulate their annual paid leave designated by law and apply it toward sick leave, for example, when they have to be absent from work for an extended period due to illness or injury. A maximum of 20 days can be accumulated.

## In their own words >>> An e-learning student



**Naoko Hashimoto**

Sales Support Section, KEJJI Branch  
Sales Department, West Japan Region I

\* TAS : Stands for THK Agent Support, an e-commerce system set up to improve user satisfaction and increase business efficiency.

I began with familiar course materials such as business etiquette, compliance, Excel, and Word, and then gradually started to get involved in materials providing merchandising information.

If you try to cram merchandising information in your head all at once, you will forget it right away. Therefore, I decided to make my classes short and more frequent instead. Even now there are times when I am confronted with a technical term at work and I am stuck for an answer, but I am mostly able to handle customer inquiries using the merchandising information I absorbed through e-learning.

Our company's e-learning materials are very useful. When you have finished studying them and you come across something that you don't understand, you can always retake the class or search the material to find a specific answer. The e-learning material on merchandising information, TAS\*, and operating Excel and Word has been very helpful. More than anything else, the main point, I think, is that you can study at your own pace from a rich selection of materials.

Next I would like to look at materials on mechanical terminology and seismic isolation.

After making positive use of these e-learning materials, I started to feel more confident about my work. I strongly recommend this to anyone who has not taken up e-learning yet and wants to enhance his/her capabilities.

# Together with our employees (supporting diverse ways of working)

**Q** Are you working to provide a working environment that respects the individual needs of a diverse array of employees?



**THK is making further improvements in its hiring system and employee benefits programs in an effort to create an amenable environment where employees can utilize their individual capabilities.**

## Hiring people with disabilities

THK plants are meeting their social responsibilities by supporting people with disabilities. They accept students from special support schools for apprentice work, teach them how to communicate within the workplace and how to behave in business situations, and provide them with opportunities to gain working experience.

At the same time, facilitating long-term employment for people with disabilities remains a pressing issue, and the YAMAGUCHI Plant has assigned officers to be in charge of promoting the employment of people with disabilities.

These officers took the initiative to obtain the professional qualification of a job coach (official certification) to have the knowledge required for engaging in more professional activities, such as informing the workplace of the skills of disabled employees, and to create a hospitable environment where the disabled can work with fewer impediments.

In part due to these measures, on April 2011, THK was able to meet the legal requirement for hiring people with disabilities of at least 1.8% of its workforce.

While firmly maintaining this goal, THK is leading the way by initiating group-wide activities centering mainly on the officers in charge of promoting the employment of people with disabilities in an effort to prepare business sites for accommodating people with disabilities and trying even harder than before to facilitate their employment.

It goes without saying that in order to ensure that conditions

in the workplace are hospitable for employees with or without disabilities, group-wide efforts are underway to create an atmosphere where employees with widely differing personalities accept, respect, and learn from each other.

## Percentage of disabled employees (%)

December 2008	December 2009	December 2010	April 2011
1.57	1.64	1.70	1.80

## CP (Creative Producer) employment system

THK has adopted the CP (Creative Producer) system as its new personnel management system approach.

To pave the way for THK's future, the Creative Producer employment system is designed to provide employees, who are deemed to have potential in planning and implementing new projects leading to new business opportunities, with a chance to challenge themselves and think freely of new business ideas and to grant them results-oriented remuneration. As part of this nontraditional approach, a number of employees have been selected for CPs and are already pushing ahead with realization of the mission.

This system will promote an endeavor of the greatest importance to THK, that is, the development of and prospecting for new business areas, and will contribute to our future society by proposing new values to the world in the spirit of creative development.

## In their own words



## Challenge: Overcoming a handicap



Center: Yukihiro Fujimoto  
Order Management Section  
Left: Shunsuke Yoshinaga\*  
Senior Assistant Manager, Order Management Section  
Right: Yoshinobu Hattori  
Career Counseling Division, Yamaguchi Minami Sogo  
Special Needs School, Yamaguchi Prefecture

\* : Mr. Yoshinaga obtained his qualification as an assistant (job coach) to help persons with disabilities to adjust themselves smoothly to the workplace and is responsible for giving total support to people with disabilities within THK, from hiring to long-term employment.

"Work with confidence and don't give up" is the message to all disabled employees at THK from Mr. Fujimoto, who manages receiving and placement of orders for wrapping and packing materials in the YAMAGUCHI Plant's Order Management Section. Right after joining THK, at first, the work did not seem worthwhile to him, but in the course of drastic streamlining after the Lehman Brothers collapse, orders for wrapping and packing materials were placed solely in the care of Mr. Fujimoto. Under these circumstances, Mr. Fujimoto told himself: "I'll just have to do it by myself", and that is exactly what he did.

At the Abilitylympics (32nd National Skill Competition for People with Disabilities) held in Kanagawa Prefecture in October 2010 he received the gold prize in the "Product Packing Division", making him the Number One packer in Japan. Now he is training younger employees to follow in his footsteps.

Mr. Hattori, who taught Mr. Fujimoto at his alma mater, the Yamaguchi Minami Sogo Special Needs School, was barely able to hide his surprise and commented: "To be frank, I never thought he would get that far." He also had words of admiration for THK's goal-oriented support of people with disabilities, saying: "The company addresses the matter proactively with the sense of a mission."

## Length-of-service awards

THK presents length-of-service awards to its employees after every five years of continuous service during the first 35 years of employment to show appreciation for their many contributions. In fiscal 2010, 783 employees received commendations and commemorative gifts to honor their service.

### Length-of-service awards

	2006	2007	2008	2009	2010
35 years of continuous service	10	7	6	10	11
30 years of continuous service	15	20	16	25	23
25 years of continuous service	74	133	91	139	129
20 years of continuous service	54	87	107	143	163
15 years of continuous service	136	99	43	146	177
10 years of continuous service	100	179	74	77	113
5 years of continuous service	77	91	104	84	167
<b>Total</b>	<b>466</b>	<b>616</b>	<b>441</b>	<b>624</b>	<b>783</b>

## Introduction of the meister system

In August 2009, the YAMAGUCHI Plant launched the meister system to be applied to (1) work that is difficult to standardize, (2) work requiring skills that can be acquired only with time, and (3) work that can be done only by certain people, in order to pass on the company's intellectual property in the form of technology, skills and expertise to the next generation. After drawing up a skills map, people were selected to teach (meisters) and learn (successors) the 8-step LM Guide manufacturing process. Once the meisters were instructed on how to teach their specialty by vocational training instructors, they were required to undergo proficiency tests and a written examination for level 2 National Trade Skill Testing. In August 2010, the system produced its first eight meisters. Successors receive practical on-the-job training by meisters and, after passed a final exam, are awarded a Traditional Skills Diploma and given a certification pin.



Certification pin  
(Left: meister, right: successor)

## Best employer award

DALIAN THK was elected "Best Employer of the Year" and awarded a citation at the "Best Employer of the Year in Dalian for 2009 (3rd)" event sponsored by the Dalian Municipal Human Resources and Social Security Bureau and the Dalian Daily, which included activities such as interviews with the president of DALIAN THK, employee satisfaction surveys, and Internet voting.

While orders declined across the board at DALIAN THK in 2009, the company implemented numerous measures under its policy of "Retaining our employees." Concrete measures included overall improvements such as aggressive reductions in costs, raising business efficiency, and reskilling education and training, as well as staging various contests on how to improve daily operations.

Thanks to these measures, the company avoided an outflow of valuable human resources, the number of enthusiastic and energetic employees increased, and all employees were self-motivated to act on the immediate tasks at hand. The fact that the company was able to overcome its difficulties may very well have been a factor in earning this commendation.

## Reskilling and multi-skill development

The THK GIFU Plant is proactively offering various multi-skill development courses to provide individual employees with new and improved skills. One of these measures aims to even out differences in working time between individual employees. To this end, the work performed by standard workers and new workers is recorded in a video and shown to the employee concerned in order to illustrate the differences in an easily understandable manner.

For example, shortening an inspection process by 5 seconds was set as a task.

Standard worker



New worker



The new worker learns the standard work procedure by watching a video on a laptop and realizing the difference in the way the standard worker works, resulting in a shortening of working time.

# Together with local communities

**Q** What activities does THK engage in to fulfill its role as a member of the local community?

**A** → In addition to sponsoring and taking part in community activities, THK applies its technology and expertise to activities designed to let people experience firsthand the wonders of *monozukuri*.

## Charitable contributions

As part of its contribution to society, THK provides monetary assistance when disasters strike, as was the case in March 2011 when the Great East Japan Earthquake devastated wide areas. THK also donates money to help fund organizations devoted to the advancement of science and the future development of *monozukuri* in Japan. In addition, THK sponsors a variety of events in communities where it has business locations.

### Disaster relief funds

April 2010	• 2010 Qinghai earthquake, China
July 2010	• Relief money to the victims of the Yamaguchi flooding and mudslides
March 2011	• 2011 Christchurch earthquake
March 2011	• Great East Japan Earthquake

Note: With the Great East Japan Earthquake, the employees at THK headquarters, YAMAGATA, KOFU and GIFU Plants, THK RHYTHM, THK CHINA, and THK BRAZIL voluntarily collected contributions and sent them through the Red Cross organization of their respective country.

### Contributions

October 2010	• 66th National Sports Festival in Yamaguchi & 11th National Sports Festival for the Disabled in Yamaguchi
November 2010	• Japan Science Foundation

## Cleanup activities

People at the THK Headquarters mowed the lawn and cleaned up in the area around the building three times during the year, in May, July, and November 2010. Each time about 40 employees took part in the cleanup, which took an hour and a half. People passing by often cheered them on and expressed appreciation for their efforts. THK will continue to schedule regular cleanups in the future.



Walkway near THK Headquarters

## Providing practical work experience

THK RHYTHM's GOKYU Plant agreed in 2001 to provide students from nearby schools with a chance to get practical work experience. To date, a total of 34 students have benefited from the program. In January 2011, two students from Toyo Junior High School worked for three days (24<sup>th</sup> to 26<sup>th</sup>) at the plant's steering and suspension assembly shop.

Afterwards the students commented that before the training they had mixed feelings of both anticipation and uneasiness, but when they had completed their stint, they realized the importance of work and understood from experience that one has to feel responsible for each single step in the process.



Student getting practical experience in steering linkage assembly

## Monozukuri Experience Stadium 2010 Exhibition

The *Monozukuri* Experience Stadium 2010 exhibition was held in August to extol the wonders and the significance of *monozukuri*.

The THK booth, organized around the concept of rolling technology, offered kids a chance to challenge themselves in three practical games: "Curling," "Playing paper-rock-scissors with a helper robot," and "Experiencing seismic isolation." The booth recorded a total of 1,000 visitors in the course of three days and gave everyone a real-life experience of the fun and depth of *monozukuri*.



Children playing paper-rock-scissors with a helper robot

## The Kyoto Institute of Technology's "Grandelfino"

At the request of the Kyoto Institute of Technology's "Grandelfino" team, which takes part in the Student Formula SAE Competition of Japan every year, THK supplied the components for connecting the vehicle body to the tires. Wanting to do well at the competition and following the motto "Learn what you can't learn in a classroom setting by designing and building cars," the team had made inquiries with a number of manufacturers in search of lighter, more durable and more reliable components. In the end, the team chose the products offered by THK.

The team is considering using more THK products in order to further improve their chance of winning.



Members of the Grandelfino team

## JAVADA\* commendation

Since 1978, in response to a request from the Yamanashi Vocational Ability Development Association, the KOFU Plant has been helping to develop and spread proficiency testing. It has also cooperated in establishing a system to help employees, including those of cooperating companies, prepare for proficiency tests by conducting skill tests for machining work and dispatching employees to serve on certification committees. In recognition of this effort, the plant was awarded a commendation and a gold cup by the Minister of Health, Labor and Welfare in November 2010.

The KOFU Plant will continue to work to improve skills both inside and outside the company and, in new initiatives, will promote occupational training in a joint effort between industry, government, and academia (high schools).



\* JAVADA : Japan Vocational Ability Development Association

## Helping flood damaged areas

The Asa River overflowed its banks due to heavy rains that hit Sanyo Onoda City in July 2010 causing widespread damage, with water reaching the first floor and higher in 680 homes and up to the first floor in 250 homes. When requested by the Sanyo Onoda City Council of Social Welfare, the YAMAGUCHI Plant dispatched 10 volunteers per day for 10 weekdays to assist the flood victims. The community later expressed its appreciation to the plant for being such a big help in dispatching 10 volunteers each day, more than any other group, which made their assignment of the volunteers that much easier.

The volunteers had prepared themselves to deal with the overflowing waters of a river, but the actual situation at the flood site was more serious than expected. Trying to be of some help, they picked up tatami mats and removed the mud that had collected in the crawl spaces under the floor, and did other clean-up work. The volunteers received words of thanks from the local people, making them feel that their effort had been worthwhile.



Volunteers at work in Sanyo Onoda City

## Handcrafting toys

Mr. Ozaki at the YAMAGUCHI Plant has been engaged in volunteer work for about ten years, teaching balloon art at a local children's home and at local festivals. Sometimes he deals with as many as 60 children, teaching them how to handcraft items, such as rubber-band pistols and paper airplanes, in addition to balloons.

"Teaching kids who always play with ready-made toys how to make their own toys is a very satisfying thing. It makes me feel good and gives me a chance to see the starry eyed children as they are totally absorbed in their work. If the opportunity should come up, I would like to do this kind of work in the area hit by the Great East Japan Earthquake."

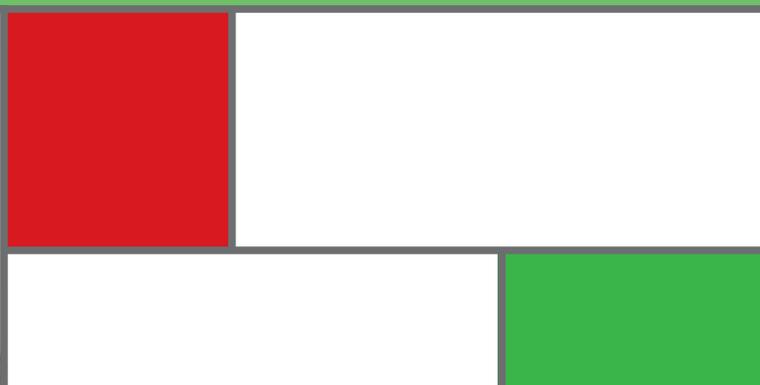


Toshiro Ozaki, Manufacturing Section III, Manufacturing Department, YAMAGUCHI Plant  
Before you know it, a balloon becomes a poodle.

# Harmony with the environment

Amid mounting calls for global-scale efforts to address environmental challenges, businesses are now expected to pursue constructive initiatives to help protect the environment.

THK practices energy conservation to the maximum extent possible in its business activities. While striving to conserve energy and resources, THK also focuses on making environment-friendly products, in order to help preserve the natural environment for the benefit of the community at large.



## Topics in 2010

### ■ Integrated ISO 14001 Certification

Having been individually certified in the past, THK's five major plants in Japan (YAMAGATA, KOFU, MIE, GIFU, and YAMAGUCHI) acquired integrated ISO 14001 certification for their environmental management systems in 2010.

### ■ Wastewater treatment at DALIAN THK Plant

In December 2010 a wastewater treatment facility was installed at the DALIAN Plant to prevent sewage from being discharged into rivers, lakes, and the sea.



## Promoting energy conservation



A message  
from managing director

### Boosting efficiency is an important prerequisite for saving resources and energy.

Amid calls for measures against the depletion of resources and global warming, our nation, industry, households, and the global community are applying themselves in various ways. THK is focused on:

- (1) Energy conservation and preventing global warming,
- (2) Material conservation and zero emissions, and
- (3) Harmful substance controls,

as the most pressing issues for environmental preservation.

THK has devoted itself to developing a broad range of linear motion systems, such as LM Guides and Ball Screws, and supplying these to various industries, in keeping with its corporate philosophy: “providing innovative products to the world and generating new trends to contribute to the creation of an affluent society.” These products, as basic machine components, significantly contribute to the energy-saving operation of various machines.

Production of these linear motion systems requires the use of raw materials like steel and plastic resin and the consumption of large amounts of energy in the form of electricity and heavy fuel oil. We manufacturers, therefore, must not only consider the contribution a product makes to society, but also exert every effort to conserve resources and energy when designing a product and in the production processes.

It is important when using natural resources, therefore, to introduce a system for minimizing mill ends and processing loss, and achieving 100% recycling of any generated waste. Another vital issue involving the manufacturing process is the development of energy-saving

production equipment and conversion to the use of energy-saving air conditioning and lighting equipment.

Furthermore, in order for these practices to become firmly established, not only the company but each single employee must be keenly aware at all times of the necessity for achieving utmost efficiency. Concern for the environment, therefore, means our generation must not deplete our finite resources; rather, we must conserve them for future generations. With this in mind, we have established a Committee for the Promotion of Energy Conservation at THK Headquarters and have held energy conservation meetings at our plants in an effort to reduce greenhouse gas emissions. The Committee for the Promotion of Energy Conservation is composed of management, with the CEO as its chairman. It makes decisions on company-wide issues, determines the course of action for solving problems, and issues instructions to all Group companies. Energy conservation meetings are conducted by the plant head and plant management, who are charged with promoting energy conservation in the production divisions of their respective plants, which account for 95% of total energy use.

I was asked by the Committee for the Promotion of Energy Conservation to serve as Energy Management Control Officer for the entire company. In this capacity, I will be striving to raise energy efficiency as instructed by the committee and request the cooperation of all of you in this endeavor.

**Toshihiro Teramachi**  
Managing Director  
THK CO., LTD.

# Promoting environmental management

**Q** Please describe the basic philosophy underlying THK's promotion of environmental activities.



**The THK's philosophy is set forth in its basic environmental policy. THK sets targets and identifies specific areas where efforts are needed on the basis of this policy.**

## Basic environment policy

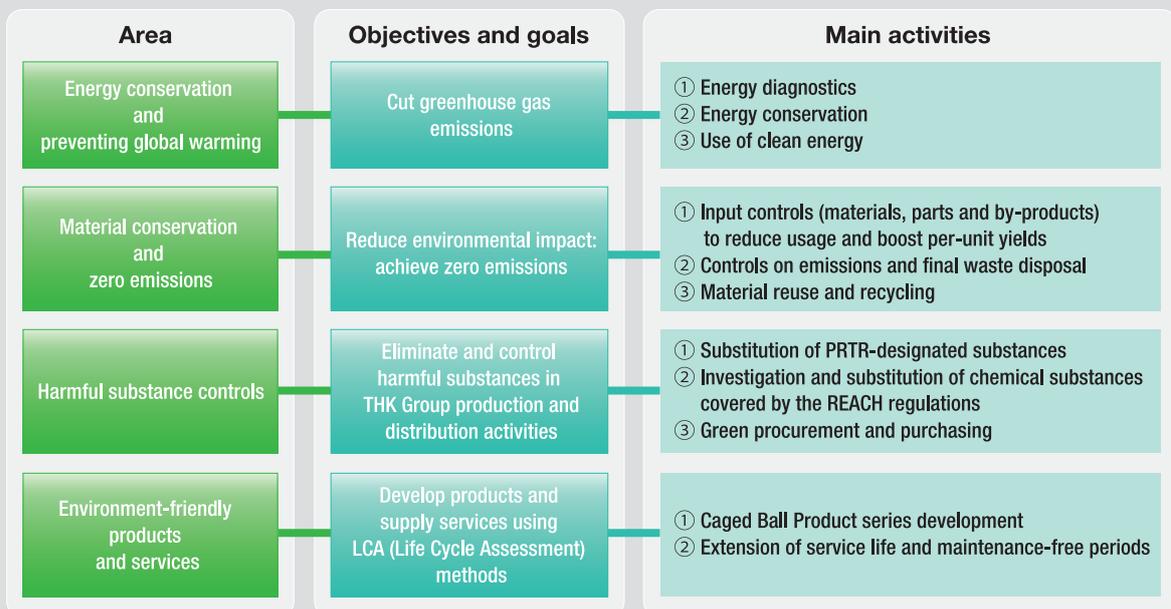
Since the development of the LM Guide, the THK has contributed to both society and the economy through its pioneering role as a manufacturer of linear motion systems and machine components. THK believes that it is a company's social responsibility to leave the global environment

in good condition for the next generation, which is why THK is undertaking the following initiatives to continually decrease environmental burdens and maintain and improve the natural environment.

### THK's basic policy regarding the environment

1. Conservation of the environment is considered a major management concern, and we are striving to accurately grasp the impact on the environment produced by the Group's business activities, products, and services. Every division participates by setting relevant environmental goals.
2. In addition to following environmental laws, we set self-imposed standards for Group companies and regularly review them to improve the efficiency and effectiveness of our environmental management.
3. We will continually promote the development of products that help reduce environmental burdens.
4. We will continually promote conservation and recycling of resources, with particular attention to reducing and recycling waste from our manufacturing divisions.
5. To promote greater unity in our environmental activities, we will provide guidance and support to our affiliates and business partners, and strive to work in cooperation and harmony with local communities.
6. This basic policy regarding the environment shall be disseminated to all divisions in the Group through education, training, and activities designed to improve awareness. We will disclose information concerning the environment to parties within and outside the Group in a timely manner.

### Environmental activities and targets



# Environmental management system

**Q** What progress have you made in achieving your targets and in acquiring ISO 14001 certification?



**In fiscal 2010, we reached our targets for reduction of CO<sub>2</sub> emissions and achieving zero emissions. We also obtained integrated ISO 14001 certification for THK's five major plants in Japan.**

## Environmental management system

THK is actively working to acquire environmental management (ISO 14001) certification for all its production sites in Japan and overseas. After having obtained individual certification, THK's five major plants in Japan (YAMAGATA, KOFU, MIE, GIFU, and YAMAGUCHI) obtained integrated certification in fiscal 2010. Faced with ever stricter policies against global warming, depletion of resources, and harmful chemical substances, the company opted for this integrated approach to be able to initiate the systematic collection of data that previously had been managed by each plant, consolidate it and use it to build up a system that allows taking prompt company-wide measures. Integration will also enable THK to go about environmental improvements in an organized and swift manner.

Environmental activities are carried out by all THK Group companies. The Risk Management Division's Environmental Management Department, located at THK Headquarters, coordinates activities carried out by THK's administrative, production, and distribution divisions.

In fiscal 2010, THK met its targets for energy conservation, preventing global warming (CO<sub>2</sub> basic unit emissions), material conservation, and zero emissions (final waste disposal volume), but failed to meet its targets for harmful substance controls (use of PRTR-designated substances) due to the addition of another chemical (methyl naphthalene) as a result of a sudden revision of the law during that period.

### ISO 14001 certified business locations

Location	(Individual certification)	Date of certification	Certifying body
YAMAGATA Plant	Sept. 10, 1999	Dec. 17, 2010 (Registration renewal date)	JQA
KOFU Plant	Dec. 28, 2000		
YAMAGUCHI Plant	Feb. 2, 2001		
MIE Plant	Sept. 6, 2002		
GIFU Plant	Dec. 24, 2004		
TRNA* (America)		Jun. 13, 2001	SQA
THK RHYTHM, Headquarters/GOKYU Plant		Dec. 20, 2001	JIA
THK RHYTHM KYUSHU		Dec. 20, 2002	JIA
TMA (America)		Jul. 14, 2003	QMI
TME (Europe)		Feb. 3, 2004	AFAQ
THK NIIGATA		Oct. 21, 2005	JQA
THK RHYTHM INASA Plant		Dec. 20, 2006	JIA
THK WUXI (China)		Jan. 7, 2008	CQC
DALIAN THK (China)		Dec. 18, 2008	TUV
THK LIAONING (China)		Jan. 12, 2010	TUV

\* TRNA : THK RHYTHM NORTH AMERICA CO., LTD.

### THK's environmental targets

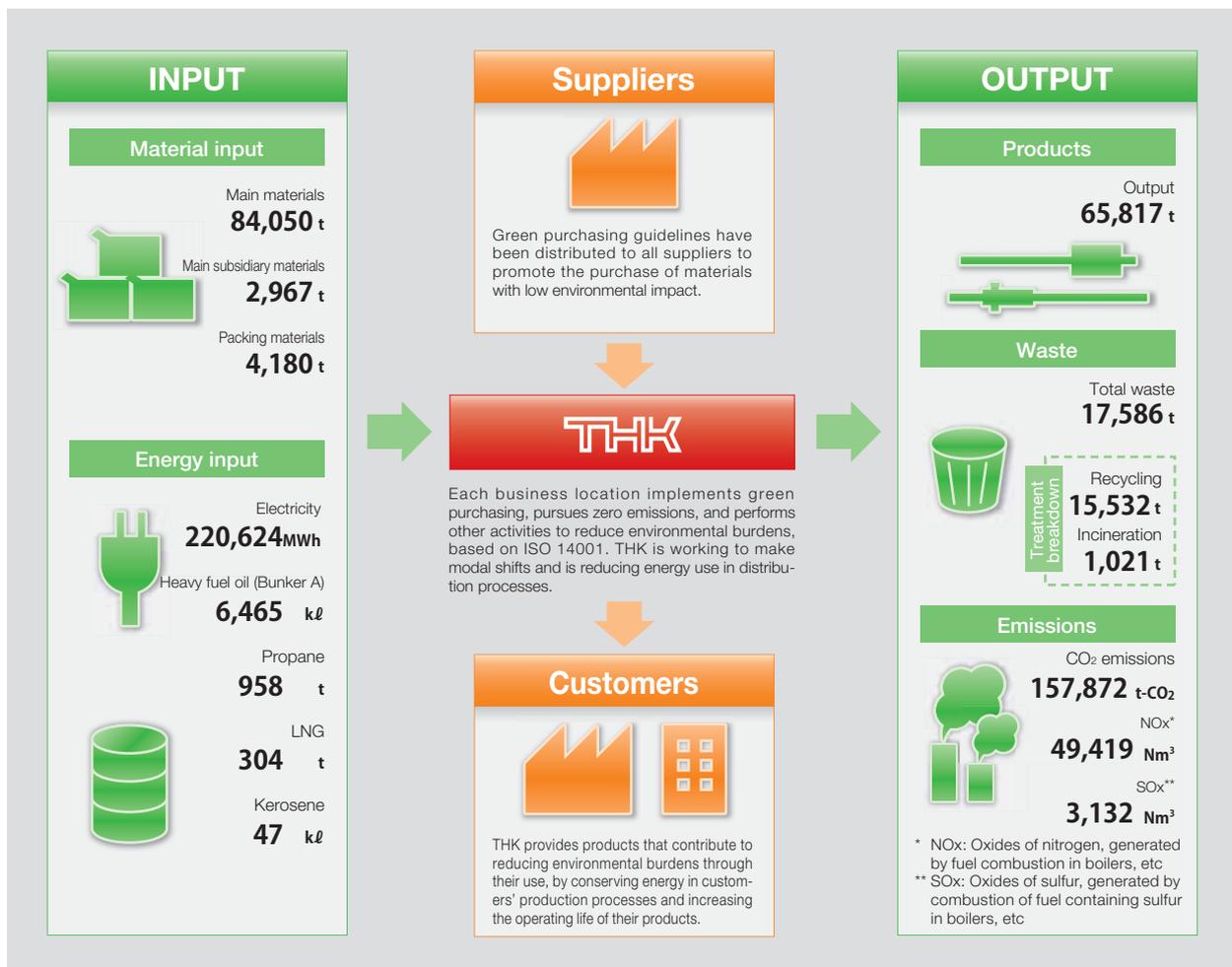
No.	Field	Fiscal 2011 targets	Midterm targets (by fiscal 2014)
1	Energy conservation and preventing global warming	<p><b>Reduce CO<sub>2</sub> basic unit emissions to 1.12 kg-CO<sub>2</sub> per ¥1,000</b> (1% reduction relative to the 2010 level) Fiscal 2010 target was 1.48; 1.13 actual (target met)</p> <p><b>Major efforts in fiscal 2011</b> (1) Updating and controlled usage of air-conditioners (2) Switching to ecological lighting (3) Updating of power distribution equipment</p>	<p><b>Reduce CO<sub>2</sub> basic unit emissions by 5%</b> Standard value: 1.13 kg-CO<sub>2</sub> per ¥1,000 (relative to fiscal 2010)</p> <p><b>CO<sub>2</sub> basic unit emissions (kg-CO<sub>2</sub> per ¥1,000)</b></p>
2	Material conservation and zero emissions	<p><b>Reduce emissions rate to less than 0.5%</b> Fiscal 2010 target was 1%; 0.6% actual (target met)</p> <p><b>Major efforts in fiscal 2011</b> (1) Breaking down composite materials for recycling (2) Reducing the use of grindstones (3) Reducing the use of packing material</p>	<p><b>Achieve and maintain zero emissions (less than 0.5% of final waste disposal)</b> Standard value: 1.5% (relative to fiscal 2009)</p> <p><b>Final waste disposal (%)</b></p>
3	Harmful substance controls	<p><b>Reduced the use of PRTR-designated substances to 66,871 kg or less</b> Fiscal 2010 target was 14,709 kg; 68,939kg actual (target not met) * Due to the addition of another chemical (methyl naphthalene) as a result of a sudden revision of the law during that period.</p> <p><b>Major efforts in fiscal 2011</b> (1) Controlled usage of equipment running on heavy fuel oil (2) Updating and controlled usage of forklifts (3) Cutting back on the use of solvents, use of alternative solvents</p>	<p><b>Reduce use of materials subject to PRTR Law (3% per year)</b> Standard value: 68,939 kg (Fiscal 2010 target)</p> <p><b>Materials subject to PRTR Law (kg)</b></p>

# Environmental impact: The big picture

**Q** What is the status of THK's management of environmental burdens?



**Every year THK collects detailed numerical data on its energy consumption and emissions of environmental pollutants and is working hard to reduce both.**



## Cost of environmental protection

(¥ million/year)

Category	Investment	Expenditures	Main measures
1) Business areas			
Pollution control	1.7	40.3	Air and water quality measurements, inspection and maintenance of septic tanks, etc.
Environmental protection	40.1	90.4	Introduction of energy-saving incidental equipment, related construction work
Resource recycling	1.8	121.3	Disposal and recycling of industrial waste
2) Upstream/downstream costs			
	0.0	1.2	Green purchasing
3) Control activities			
	4.0	217.0	Acquisition of ISO certification, research of environmental laws
4) R&D (including Development Dept.)			
	140.9	227.2	
5) Social activities			
	0.0	3.4	Tree planting and beautification
6) Environmental cleanup			
	0.0	1.8	Soil restoration
<b>Total</b>	<b>188.5</b>	<b>702.7</b>	

Notes: 1) Figures on overall environmental burdens and other environmental accounting data represent an aggregate based on data from the following production facilities: THK's five Plants in Japan (YAMAGATA, KOFU, GIFU, MIE, and YAMAGUCHI) : other THK Group Plants in Japan; THK NIIGATA, two THK INTECHS Plants, Nippon Slide, THK RHYTHM CO.,LTD., and THK RHYTHM KYUSHU CO.,LTD.; and five overseas THK Plants; TMA (America), TME (France), DALIAN THK (China), THK WUXI (China), THK LIAONING (China)  
 2) Figures on NO<sub>x</sub> and SO<sub>x</sub> emissions are for THK's five Plants in Japan only.

# Material conservation and zero emissions

**Q** What is the current status of waste reduction and your future vision?



**In fiscal 2010, we reached our zero-emission target of less than 1%. In fiscal 2011, we will aim for our final target of less than 0.5%.**

## Fiscal 2010 status of material conservation and zero emissions

THK sets its waste-reduction targets based on its emission rate—the volume of waste designated for final disposal, expressed as a percentage of the total volume of waste generated. The waste-reduction target for fiscal 2010 had been set at less than 1%, and THK reached this target; the actual figure was 0.6%. This occurred mainly because recycling of grinding sludge and other materials went according to plan and the component yield was improved.

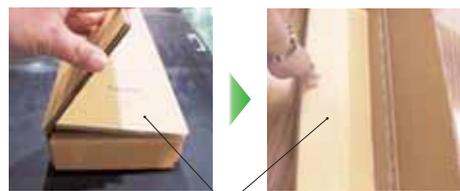
The total amount of waste generated in fiscal 2010 was 7,683 tons, which was 2,681 tons, or approximately 53%, more than in fiscal 2009. Some 44 tons of waste was designated for final disposal (in landfills or by incineration), which was 31 tons, or 41%, less than in fiscal 2009. The total amount of waste reflects an increase in production, and the amount of waste sent to final disposal is an indication of more thorough recycling of grinding sludge, scrap metal, grindstones, plastic waste, and waste oil and fluid.

In fiscal 2011, THK will be forging ahead to achieve its final target of zero emissions of 0.5% by (1) breaking down composite materials (materials made from two or more constituent materials) for recycling, (2) reducing the use of grindstones, and (3) reducing the use of packing materials.

## Packing materials

The GIFU and YAMAGUCHI Plants worked on making shipping boxes returnable, changing the shape of packing cartons, and reducing the amount of packing materials and packing film used. Changing the shape of shipping boxes involved cutting off excess portions of carton, without compromising the original strength of the boxes. By these measures, the plants reduced the amount of cardboard used by approximately 41 tons/year, and the amount of packaging film by approximately 6 tons/year.

The next steps designed to achieve further reductions in packing materials will be to encourage the sales offices to use returnable shipping boxes and making improvements to the packing materials.



These portions were reduced by half

## Water conservation in plants

DALIAN THK has taken water conservation measures that include: (1) Posting signs at water taps, showers and wash basins advising people to save water, (2) Collecting the runoff from air-conditioners for use as an emergency water supply (for flushing toilets), (3) Installing pressure control devices on showers in the company dormitory, (4) Providing periodic instruction on water conservation, and (5) Posting notices on the plant bulletin boards.

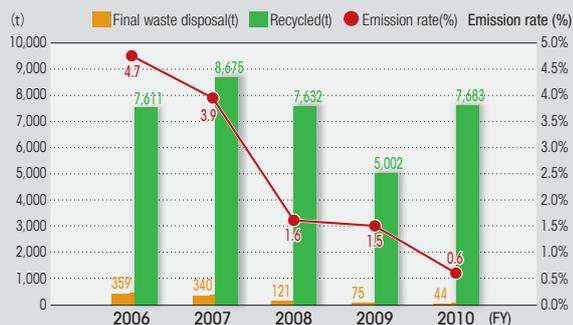
Water use at the DALIAN THK dormitory, which depends on the level of activity but roughly accounts for 80% of water used (including water used in the cafeteria) at DALIAN THK, was 25.4 tons per person in 2009 in the three-month period from July to September, but declined to 23.4 tons in 2010, which represents an 8% reduction.

The plant plans to maintain these measures in the future, and at the same time change the negative connotation of “not being able to use water” to a positive one of “conserving water for future use.” The entire workforce is devising to be innovative and take positive action to ensure that the precious water resources passed down from their forefathers will be there to be enjoyed by future generations.

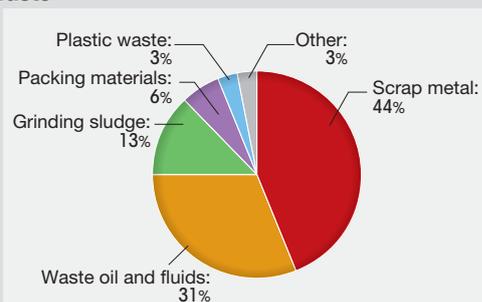


Sign advising people to save water

### Trends in waste generation



### Waste



# Energy conservation and preventing global warming

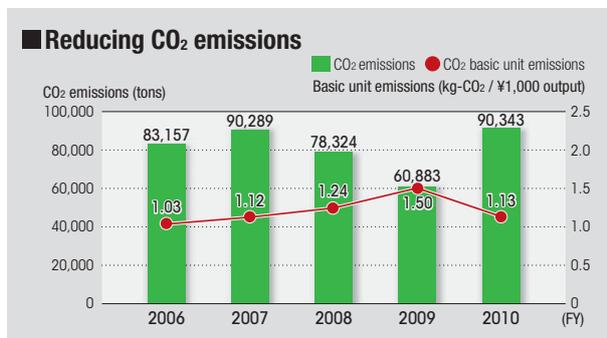
**Q** What efforts has THK made to reduce CO<sub>2</sub> emissions and curtail energy use?

**A** **Besides replacing various equipment with more environment-friendly types, we are analyzing our power consumption, and are engaged in all-out energy-saving activities.**

## CO<sub>2</sub> emissions in fiscal 2010

THK sets targets for reducing CO<sub>2</sub> emissions, using basic units (CO<sub>2</sub> emissions divided by production value). In fiscal 2010 the target basic unit was set at 1.48, and the actual result was 1.13, reflecting an across-the-board improvement of roughly 24%. But as a result of a drastic increase in production, CO<sub>2</sub> emissions increased in absolute terms by approximately 29,460 tons, from 60,883 tons of CO<sub>2</sub> in fiscal 2009 to 90,343 tons in 2010, for a roughly 48% increase compared to the previous year.

Energy-saving initiatives carried out by THK in fiscal 2010 included conversion to energy-saving lighting, air-conditioning and compressors, and in fiscal 2011, it is planned to extend these measures to other incidental equipment. THK also plans to re-analyze energy usage to be able to pinpoint how much energy is used where, and how much of this is fixed consumption. The result will then be tied in with all-out energy conservation activities, introduction or development of energy-saving equipment, and similar measures.



## Initiatives aimed at light fixtures

In fiscal 2009, TMA started a gradual conversion of light fixtures inside the plant from mercury lights to fluorescent lights. By now, roughly 40% of lights have been converted. These measures helped the plant to control its power consumption and at the same time reduced its CO<sub>2</sub> emissions.

**Reductions achieved**

Reduction in power consumption: 17,676 kWh/month  
 Reduction in CO<sub>2</sub> emissions: 13,870 kg/month  
 (AFP standard\*: 0.78 kg/1 kWh)

In the U.S. one automobile is said to emit approximately 5,440 kg of CO<sub>2</sub> per year. Using this measure, the switch to fluorescent lights will bring about a reduction in CO<sub>2</sub> emissions equivalent to the emissions of roughly 30 automobiles per year. Fluorescent lights also provided better lighting in the

rooms than mercury lights.

In fiscal 2011, the plan is to convert 60 to 70% of all lighting inside the plant to fluorescent lights.

\* AFP standard : Carbon emission coefficient used by U.S. power companies

## Use of window film

In order to improve indoor cooling efficiency, THK NIIGATA installed window film on the outside of windows on the west and south sides of the office building's first and second floors, which are exposed to intense sunlight. This prevents a rise in power consumption due to increased air-conditioning use every year as summer temperatures rise. The window temperature was as much as 5 degrees lower after applying the film than before, and the power savings is estimated at 1,600 kWh per year.

Next, an appropriate type of film will also be applied to the windows of the external wall of the production plants in an effort to further reduce power consumption.

## Introduction of LED lighting

In April, Plant 1 at the KOFU Plant replaced the ordinary fluorescent lights used up to now (40W) where an external cylindrical grinding machine is installed with 118 LED fluorescent lights (20W). As a result, power consumption was reduced by 50% and CO<sub>2</sub> emissions by 2 tons. The new light fixtures have also improved lighting conditions in the workplace and boosted working efficiency and safety management. Plans are to convert more of the plant's lighting to LED lamps.

In May, DALIAN THK installed an LED lighting system equipped with solar panels for outdoor lighting on the plant premises. This system converts sunlight to electric energy that is stored in a battery. When the battery is charged, optical sensors automatically turn the LED lights on and off as needed. The system is maintenance-free and is good for approximately 9 years of continuous use.

The plant also installed 50 sets of LED units for indoor lighting, and hopes to introduce more LED lighting inside and outside the plant buildings to reduce its power consumption and CO<sub>2</sub> emissions.



## Air-condition systems

The KOFU Plant replaced its water-cooled air-conditioning system package (integrated air conditioner with built-in chiller and blower) with an air-cooled system.

This system consumes 57% less electricity than the previous one, and helps reduce CO<sub>2</sub> emissions by 17,084 kg/year. This system saves 600 m<sup>3</sup>/year of water since it is a non-water-cooled system.

The system also helps to save man-hours as it can be changed over between cooling and heating by simply pushing a button instead of having to open and close valves and drain coolant, and its simple maintenance translates to power savings. It also maintains a constant room temperature, creating a more agreeable atmosphere in the workplace.



An air-cooled air conditioner

In an effort to reduce energy consumption, the air-conditioning inside the THK LIAONING Plant was changed over from mechanical control (constant rate operation) to inverter operation (thermo sensor control). The shift to inverter control has also made the change-over between summer and winter mode easier and prevented operational errors.

The next step that is planned for achieving still greater energy savings is to remodel the temperature and humidity controlled areas within the plant.

## Effective utilization of boilers

The YAMAGUCHI Plant has taken measures to reduce its use of heavy fuel oil. The plant's air conditioners were run on waste heat produced by cogeneration, but the operating hours of the private power generator, which uses heavy fuel oil, were shortened in line with the above measures. To make up for the power deficit, the decision was made to harness waste heat from boilers that generate less CO<sub>2</sub>. This brought about a 25% reduction in CO<sub>2</sub> emissions and contributed significantly to energy conservation, while



Periodic boiler inspection

keeping the air conditioners running at the same rate.

Plans are to review the contract with the power company and to further shorten the operating hours of the private power generators while safeguarding a stable power supply to the plant, and concurrently, to raise the operating ratio of the boilers to reduce CO<sub>2</sub> emissions by another 20%.

## Energy conservation patrols

The GIFU Plant carries out the following energy conservation patrols: (1) Air-conditioning patrols (to check the temperature settings of air conditioners, cleanliness of filters, etc.), (2) Lighting patrols (to check for unnecessary fluorescent lights, turn off lighting in unmanned areas, etc.), and (3) Oil/air/machinery patrols (to check for oil and air contamination, main power supply of unused or rarely used machinery, etc.). The results of the patrol are checked against those of the previous patrol, and if there are unresolved or new problems, improvements will be initiated through a member of the energy conservation patrol or the department manager. Starting in fiscal 2011, the checks will be intensified, and members of energy conservation patrols will not only conduct inspections, but will also be involved in promoting the actual remedial measures.



Inspecting air conditioner filters in the assembly bay

## Raising compressor efficiency

The THK LIAONING Plant succeeded in raising the operating efficiency of its compressors by taking a number of measures, including:

- (1) Regular inspections of air hoses and compressors and correcting air leakages,
- (2) Reduction in the pressure setting of compressors from 0.63 MPa to 0.59 MPa to save energy, and
- (3) Regular cleanings of the inside of cylinders to improve the lubrication effect.

These measures brought energy savings of approximately 50% compared to prior usage.



Periodic compressor inspection

# Harmful substance controls

**Q** What measures has THK taken to reduce the use of chemical substances impacting the environment?



**THK is both reducing its use of harmful substances in products through green purchasing and by decreasing the use of PRTR-designated substances in production processes.**

## Reduced use of PRTR-designated substances

As part of its framework for controlling harmful substances—substances that could adversely affect human health and damage ecosystems—THK is working to reduce its Production Division’s use of chemical substances that are subject to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., also known as the PRTR Law,\* and has set an annual target of reducing such use by 3% in comparison to the previous year. Due to the addition of methyl naphthalene contained in heavy fuel oil as a result of a sudden mid-term revision of the PRTR law, total harmful substances handled in fiscal 2010 amounted to 68,939 kg, 6.4 times the figure for fiscal 2009 (10,627 kg). Without methyl naphthalene, however, the total volume handled added up to 13,599 kg, which was less than the targeted 14,709 kg.

\* PRTR : Pollutant Release and Transfer Register. The PRTR Law was enacted to facilitate better control over and reporting of emissions of designated chemical substances.

## Substances subject to the PRTR Law (kg)

Type	Amount handled	Amount emitted into the atmosphere
Xylene	2,208	34
Toluene	3,592	107
Ethyl benzene	606	17
Benzene	234	38
Methyl naphthalene	55,788	-
Other	6,510	-
<b>Total</b>	<b>68,939</b>	<b>197</b>

## Reduction in a PRTR-designated substance

As a result of revisions to the PRTR Law, three new chemical substances at THK RHYTHM were subject to the law. The plant handled 2 tons of one of these, N,N-dicyclohexylamine, on a regular basis and learned that a notice had to be filed with the authorities. N,N-dicyclohexylamine is contained in four types of water-soluble cutting oils used in the plant, but efforts began to find replacements that do not contain PRTR-designated harmful substances. The plant discussed the matter with several manufacturers under the condition that the products have an equal or longer life span than the currently used types and are capable of maintaining the life of cutting tools. After conducting trials, the plant was able to replace 3 out of the 4 water-soluble cutting oils currently used.

In this way, the plant succeeded in reducing its use of N,N-dicyclohexylamine from 2,000 kg to 200 kg.

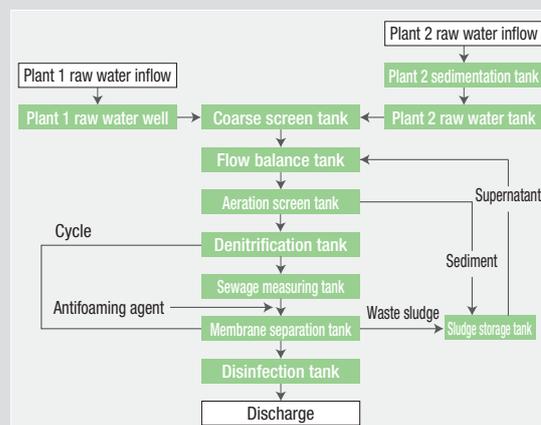
## Adoption of wastewater treatment equipment

In December, DALIAN THK installed a wastewater treatment unit to fulfill its commitment to manufacturing products that contribute to reduce the burden of the environment, to reduce waste, to recycle, and to abide by environmental protection laws.

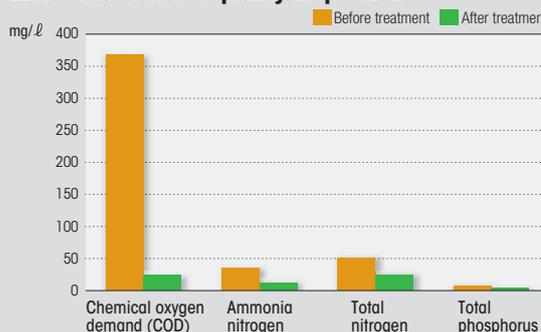
DALIAN THK was previously classified as a Class 3 wastewater emitter according to the national standard of the People’s Republic of China, but was able to advance to a Class 1 emitter with installation of the wastewater treatment unit. By preventing its sewage from being discharged into rivers, lakes and the sea, the plant has reduced environmental hazards and improved the surrounding environment.

DALIAN THK will continue to remain strongly aware of the motto “共建生态文明，共享绿色未来 (Let’s join in building an ecology-oriented culture, and enjoy a green future together)” based on China’s theme for World Environment Day on June 5, 2011 announced by the Chinese Environment Ministry, and to adhere to the standards of the People’s Republic of China in protecting the environment.

## Water treatment at DALIAN THK



## Results of water quality inspection



# Green distribution

**Q** What measures does THK have in place to reduce CO<sub>2</sub> emissions in its transport of products?



**THK is working to integrate transports, improve load ratios, and effect a modal shift to means of transportation that place less of a burden on the environment.**

## Green distribution

THK's Distribution Center, operating through Distribution Centers, is engaged in green distribution activities aimed at reducing environmental burdens throughout the entire distribution process. THK is pursuing a variety of initiatives, such as promoting a modal shift and integrating truck routes, based on two key principles of green distribution: reducing CO<sub>2</sub> emissions and improving transport efficiency.

Green Distribution Committee members from THK's seven Distribution Centers throughout Japan have met regularly to promote green distribution by measures such as reviewing regular chartered shipping routes, improving load ratios, and promoting modal shift, integration of truck transport routes, and sharing of pallets between different Distribution Centers to do away with the need to recovering pallets. As a result of these efforts, the overall load ratio on chartered shipping routes increased by roughly 10% at the end of the fiscal year over the first of the year. In August, THK also started to review the stacking method inside containers for shipments from plants in China to Japan.

While 12 containers had been previously used, this number was reduced to 8, cutting the number of containers used per year by 32.



Shared post pallets used on chartered shipping routes between group companies (CHUBU Distribution Center)



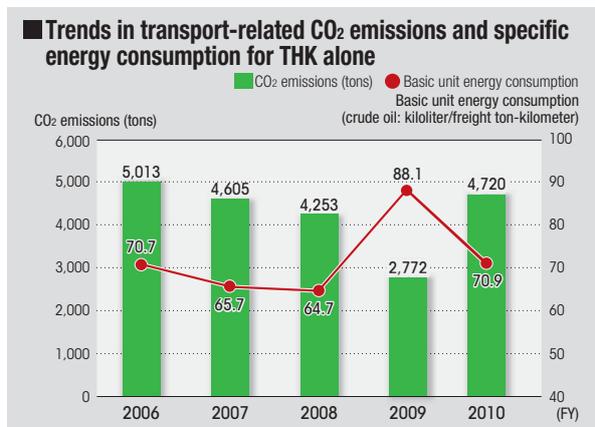
Shipping container

## Transport-related CO<sub>2</sub> emissions

In fiscal 2010, due to an increase in transport volume, CO<sub>2</sub> emissions increased by 1,948 tons (approximately 70%) as compared to the previous year, totaling 4,720 tons. Basic unit energy consumption, on the other hand, improved approximately 20% from 88.1 the previous year to 70.9 this fiscal year. This was made possible by a large increase in the modal shift rate for shipments from the Distribution Centers of THK's seven major plants in Japan to customers from 1% in fiscal 2009 to 9% in fiscal 2010.

New initiatives took off in fiscal 2010, including shifting from

trucks to ships some of the shipments destined for overseas locations from the YAMAGUCHI Distribution Center to Narita Airport. In fiscal 2011, the plan is to improve transport efficiency further by integrating chartered truck operations, improving load ratios, and intensifying modal shift.



## Modal shift

While THK is pursuing modal shift\* in its efforts to reduce transport-related CO<sub>2</sub> emissions, the company's focus in fiscal 2010 was on revising domestic distribution of shipments destined for Europe. More precisely, transport between the YAMAGUCHI Plant and Narita Airport was shifted from trucks to rail and maritime transport. Given the large size of shipments to Europe and the long transport distance of approximately 1,000 km from the YAMAGUCHI Plant to Narita Airport, this modal shift brought about a drastic decrease in CO<sub>2</sub> emissions from 7.5 tons of CO<sub>2</sub>/week for truck transport to 2.6 tons of CO<sub>2</sub>/week, which is a reduction of 226 tons of CO<sub>2</sub> per year after the modal shift.

\* **Modal shift** : A transition from transportation by truck to shipment by rail and sea, to permit shipping in bulk and reduce CO<sub>2</sub> emissions.



Transfer in special containers from a ship to the airport

## Third-party opinion

The EMO in Europe, IMTS in the U.S. and JIMTOF in Japan are well known for being the world's three largest machine tool fairs, and visiting these fairs is considered one of the most effective ways to catch up on trends in machine tool technology. I visited the EMO (Hanover) for the first time in 1989, and since 1995 have been visiting the EMO and IMTS (except in 2004 and 2006) every year. In other words, I have been watching global trends in machine tool technology for over fifteen years. At the fairs, I always make a point of dropping by the THK booth to study the latest trends in technology, and after all these years, it is one of those things to which I look forward. This is because, every time I go, I inevitably find a creative new product on display. I have always wondered what the source is that has given rise to such innovative products all these years. Having been asked to contribute this Third-party opinion, I read the four preceding *CSR Reports* together with this fifth report and realized that the source of this ingenuity is the capable management system that the company has established and maintains, and the many endeavors made to contribute to society and protect the environment. These efforts further convey the image of a steadfast company that fulfills its corporate social responsibility and enjoys the trust of the world, of society, and of its own employees.

The response of the THK Group immediately following the Great East Japan Earthquake is described in vivid detail on page 3, and I was greatly impressed by this remarkable response. As to efforts put into risk management, as already reported in previous editions of this report including the first issue, these concerted efforts paid off to their fullest extent in this year's earthquake disaster, and gives one a vivid sense that they went a long way toward meeting corporate social responsibility. In his Message from the top, President Teramachi declares one of THK's future objectives to be to contribute to the rebuilding of Japan after the Great East Japan Earthquake, and the 40th anniversary marked in April of

this year to be merely a turning point for the company. THK's focus on meeting its corporate social responsibility, not sitting back and resting on its laurels after marking its 40th anniversary, and other intentions expressed in this message impart a bold image of the company as it faces the future.

Another impression I derived from this report is that the human factor always takes central stage at THK. It's all about caring for people and nurturing employees. It is the value THK places on the contributions of all stakeholders, including employees, shareholders, customers, users, Group companies and cooperating companies, I believe, that has built up the company. I also think that the report is highly successful in painting a picture of the company as a whole, showing how each member, commensurate with his or her own position, strives to create an environment that facilitates the company's operations.

I believe that a company is precisely built on the effective interaction of a chain made up of all of its stakeholders, including its employees. It must be noted though that this chain is not a "cumulative" chain of lightly joined hands but a strong chain of linked arms, that is, a "multiplicative" chain. Why is this? In a cumulative chain, if the output of one stakeholder is zero, others can step in so that the company as a whole will still manage to achieve an output of sorts. In fact, however, the chain is a multiplicative one. In the event that only one stakeholder records zero output (i.e., the chain is short one stakeholder), the output of the company as a whole will become zero. Conversely, if the individual's output doubles, the overall company output has the potential of doubling as well. I believe that the effects of the multiplicative chain will be increasingly manifest in corporate activities. From now on, I believe, it will be important to show appreciation to all stakeholders involved in corporate activities and create an environment that allows each one of them to consistently maintain an output of at least 1.

### Shinji Shimizu, D. Eng.

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Born in June 1948. Professor Shimizu completed his master's course at the Division of Mechanical Engineering, Graduate School of Science and Technology, Sophia University in March 1973. He joined OKUMA Machinery Works Ltd. (present OKUMA Corporation) and worked in R&D of Cylindrical grinding machines from 1973 to 1978. In 1981, after he completed his doctorate course (Doctor of Engineering) at the Graduate School of Science and Technology, Sophia University, he joined the same university as an Assistant. Then he was promoted to his current position as a Professor in 1994. His current research topics mainly focus on the study of Machine tool structure, Design technology of joint in machine tools, Evaluation of performance of machine tools, and Tooling technology.

He also serves as a Member of the Science Council of Japan; Fellow of the Japan Society of Mechanical Engineers; Fellow of the Japan Society for Precision Engineering; Chairman of the Organizing Committee for International Machine Tool Engineers' Conference (IMEC), Japan Machine Tool Builders' Association; Board of Trustees of the Japan Society for Precision Engineering; Board of Trustees of the Japan Society for Abrasive Technology; Chairman of the Sophia Association for Promoting Science and Technology (SAPST). His previous academic appointments include Chairman of the Committee for Manufacturing and Machine Tool Division, the Japan Society of Mechanical Engineers; Project manager for the RC229 Research Subcommittee on "Advanced technologies in multi-axis machine tools"; Member of board directors of the Japan Society for Precision Engineering; Member of board directors of the Japan Society for Abrasive Technology; Director of the Tokyo Chapter of the Society of Manufacturing Engineers (SME); and many other posts in both academic and industry societies.



## Postscript

It has been our pleasure to present this fifth *THK CSR Report* in the year THK marks its 40th anniversary. In line with THK's management philosophy, the first part of this year's feature section looks at how THK products play an effective role in people's immediate surroundings by introducing the wind turbine generators developed, manufactured, and tested by THK that will enable us to supply the next generation with clean energy. The second part presents comments by people who were tremendously reassured having installed THK's seismic isolation devices prior to the Great East Japan Earthquake.

Other sections offer explanations of the corporate governance and compliance systems covered every year. We have also tried to give as much voice as possible in the Report to those involved in various actions THK has taken to nurture the capabilities of its employees, contribute to the welfare of local communities, and

help to alleviate global warming.

The company will continue to make a concerted effort in promoting CSR activities and take pride in presenting the results in its *CSR reports*. We are interested in hearing your views and impressions after reading this report, so that we can use this valuable feedback as a resource for THK's future CSR activities, and when preparing our next report. We would greatly appreciate your using the enclosed questionnaire form to let us know your candid thoughts and opinions.

### **CSR Report Project Secretariat**

(Next scheduled report: December 2012)

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