



Our Precision, Your Advantage

# Environmental and Social Activity Report

# 2014



Our Precision, Your Advantage

<http://www.kyb.co.jp/english/>

Contact

**KYB Corporation**

Environment & Safety Control Dept.

World Trade Center Bldg. 4-1, Hamamatsu-cho 2-chome Minato-ku,

Tokyo 105-6111 Japan

TEL.+81-3-3435-6465 FAX.+81-3-3436-6759

Considerations made for paper use



**Forest Neighborhood Association**

Paper used for this printing is useful for the effective use of thinning and timber from forest thinning that revive forests.



**Use of FSC certified paper®**

We used paper made of timber from adequately managed forests.

Considerations made for printing



**Use of Non-VOC ink**

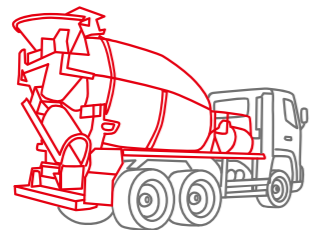
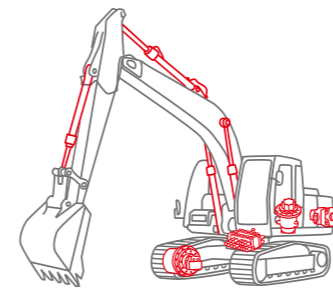
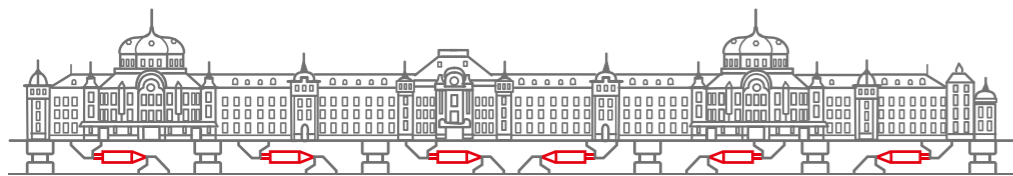
We used environmentally friendly 100% vegetable oil ink free from VOC (volatile organic compound).



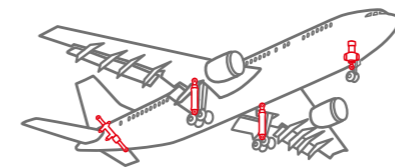
**Waterless printing**

We adopted waterless printing with organic materials that generate less waste.

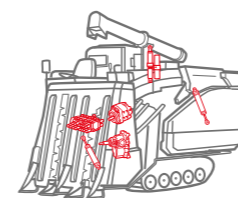
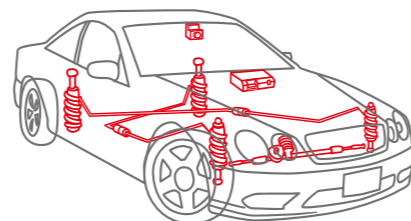
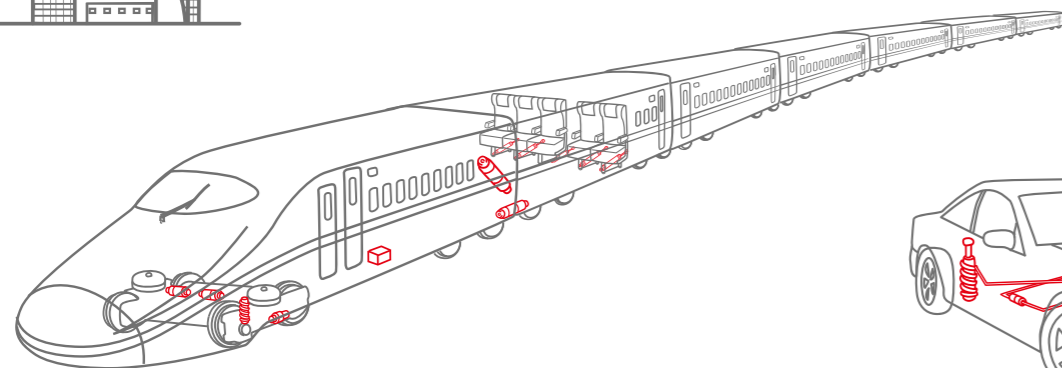
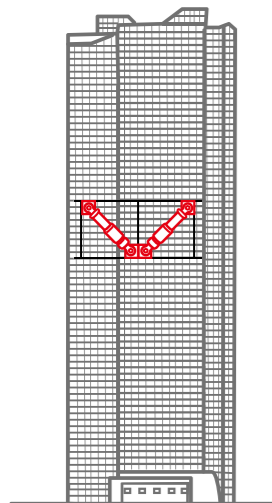
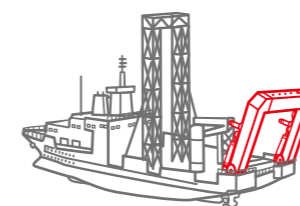
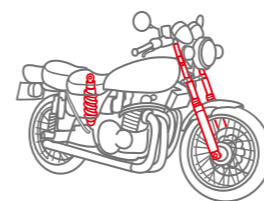




**KYB**  
Our Precision, Your Advantage



KYB Group has provided technologies and products that contribute to society by making people's lives safe and comfortable.



#### Editorial Policy

This report is issued with the purpose of illustrating our business activities in a way that is easy to understand for our information stakeholders engaged in the environment and society. In the fiscal 2014 report, we have included many of our specific activity examples such as our new environmentally friendly technologies, energy saving activities, and collaboration with local communities. Also, we have introduced our activities overseas as KYB Group, who has branches all over the world, on many occasions.

We will try to edit our reports to make them easier to understand. Therefore, our stakeholders' candid opinions will be much appreciated. The content of this report has been posted on our website, so please take a look at it.

[http://www.kyb.co.jp/english/category/env\\_and\\_wel/social\\_cat](http://www.kyb.co.jp/english/category/env_and_wel/social_cat)

#### Period covered

From April, 2013 to March, 2014  
(A part of our activities and reports outside of the period are also posted.)

#### Scope

KYB Corporation and the affiliated companies inside and outside of Japan are an object.

Regarding each environmental data, it shows the data of KYB Corporation (Sagami plant, Kumagaya Plant, Gifu North plant, Gifu South plant and Gifu East plant) unless otherwise annotated.

#### Time of publication

June, 2014 (Next one is scheduled to be published in June, 2015, previous one published in June 2013.)

#### Referenced guidelines

- This report was drafted and edited using the Ministry of the Environment "Environmental Reporting Guidelines 2012"
- GRI "Sustainability Reporting Guidelines 3.1" as a reference.

#### Notes related to future prospects

This report includes our plans and prospects as of the issued date, and future prospects based on our business plans and business policies. We judge these future prospects based on information obtained when the report is drafted and thus the prospects may differ depending on changes in various conditions. We appreciate your understanding of the statement above.

## Contents

- 02 Editorial Policy/ Contents
- 04 Top Message
- 06 Outline of KYB Group
- 08 What KYB Aims to Be

## 10 2013 Action Highlights

- 14 Reliable, Safe and People-friendly Products

### Management Report

- 16 **Corporate Management**  
Corporate Governance
- 17 Internal Control/ Compliance

### Environmental Report

- 18 **Environmental Management**  
Basic environmental policy  
Achievement of environmental conservation goals/ environmental accounting
- 20 **Initiatives to Reduce Environmental Burden**  
Influence to Environment Associated with Business Activities  
Prevention of preventing Global warming  
Activities at plants  
Control and reduction of chemicals  
Initiatives to Reduce Waste

### Social Report

- 26 **For Our Customers**  
Activities for Customer Satisfaction Improvement
- 27 **With business partners**  
Establishment of partnership
- 28 **For the Community**  
Social Support Activities
- 31 **With employees**  
Human resource utilization and work environment improvement in cooperation  
Human resource development and technical capability improvement  
Employee communications  
Creation of Safe and Comfortable Workplaces

## We will engage in further improvement of “product making” and “human resource development” that can contribute to society.

### Looking back at the 2013 fiscal year

With appreciation of the yen through the Abe administrations economic policy (the three arrows), the KYB Group's consolidated sales amount for the 2013 fiscal year resulted in 352.7 billion yen which exceeds the beginning-of-the-year target of 336 billion yen. The Ordinary profit resulted in 20.3 billion yen which exceeds the beginning-of-the-year target of 16.6 billion yen.

The 2013 fiscal year was the last year of our three-year midterm corporate plan, which started in 2011. We considered the period to be a time for planting the seeds of growth after the 2014 fiscal year, foundation strengthening, and advanced our activities accordingly. Globally, we have built a pump plant for CVT that plays a part in making energy saving automobiles in Mexico, a suspension plant for two-wheeled vehicles and a special purpose vehicles plant in India, a spring manufacturing plant for automobiles in Czech Republic, a cylinder plant for



Masao Usui  
KYB Corporation  
Representative Director, President Executive Officer

Masao Usui

construction machinery in Indonesia and a shock absorber plant for automobiles in Brazil. In addition, we have recently established sales companies in Russia and Brazil. In Japan, five companies: Kayaba System Machinery Co., Ltd. (Mie), KYB Trondule Co., Ltd. (Niigata), KYB-YS (Nagano), KYB-CADAC (Nagano), and KYB Kanayama Co., Ltd. (Gifu), have built new plants. Also, a test course and an electronic experiment building were built in the Gifu region. We think that investment in these businesses is an up-front investment for us to respond to future requests from our customers all over the world and will build a base for KYB.

### New midterm corporate plans

A new midterm corporate plan will begin in the 2014 fiscal year.

When we look at the environment surrounding the KYB Group, there are bright spots for Japan's economic prospects such as government-led economic policies and the hosting of the Tokyo Olympics and Paralympics. On the other hand, there are also causes to worry such as backlash of last minute demand before the sales tax increase in April. As for the world economy, there are bright signs in the European and American economy, which have remained stagnant, but there are risks such as concerns about the continuance of Chinese economy's consistent growth, emerging countries' economy deceleration and their currency depreciation, and political instability in Thailand and the Ukraine. Therefore, we still cannot be optimistic about the environment surrounding the KYB Group.

Under our new midterm plan, we will shift our corporate strategy from “base strengthening” to “growth strategy” and will advance our activities accordingly. In order to acquire the customers' trust and orders, we will further develop the quality and price levels, and will develop and propose dynamically differentiated products so as not to miss the customers' development timing.

KYB will commemorate the 80th anniversary in March, 2015.

One of the KYB's management principles is “Maintain grace and good faith, and pay attention to nature and the environment.” a phrase in which harmony with the global environment and environmental preservation are considered to be the most significant theme. As a milestone of the 80th anniversary, we will put more effort into the environment and safety issues. We will promote “production of products and plants aiming at minimization of energy and waste” in the environment aspect, and “creating a base with zero work-related injury” in the safety aspect. Also, we will advance activities, through which the KYB Group can contribute to society. In this manner, we will continue to steadily improve to make a leap in the future and carry over our work to the next generation.

### KYB Group's activities for the environment

As a company that provides safety and comfort to people's lives, the KYB Group manufactures people and earth-friendly products. For example, by providing seismic isolation and base isolation products that feature functions of “seismic isolation” which buffers vibrations caused by a strong wind and earthquake and “base isolation” which does not convey vibrations from the ground, the KYB Group will provide safety to protect people's lives and property.

Also, shock absorbers for automobiles, which are the KYB Group's main product, control automobile vibrations under variable road surface conditions not only to improve steering stabilities and ensure safety but also to provide a comfortable ride and a sense of security.

We have incorporated our ideas of environmental burden reduction into plant making. For a new KYB-CADAC plant, we built a clean plant free from smoke, bad odor, iron scraps and sand on the floor. Also, we introduced a natural ventilation system to control a rise in temperature in the plant and established a recycling system of scraps and chips within the KYB Group. When building a new KYB-YS plant, we gave importance to measures

for zero work accidents, safety and comfort, and energy saving, established a closed system of plating waste solution, took measures against mist, odor and noise and applied LED lighting and solar power generation. We have also been implementing environmental burden reduction activities overseas such as using water-soluble paint for VOC (volatile organic compound) reduction at a new plant in Indonesia.

### Human resource development, small group activities and compliance education

In order to become a sustainable corporation and continue to contribute to society, active “human resource” is indispensable. The KYB Group has been putting effort into creating a pleasant working environment regardless of gender, nationality or disability. In the 2012 fiscal year, in order to implement continuous human resource development, we changed the conventional activity system from QC circle activities, which had been a place for voluntary activities to “small group activities” based on the company and divisions' policies. In the small group activities, the role of the supervisor was changed from supporting the group to comprehensively leading and supporting the group. In this manner, we have been continuing to work on human resource development and creation of a strong organization.

However, even a strong organization cannot contribute to society as a corporation if their compliance measures are not followed. The KYB Group periodically holds compliance training courses to continue to develop human resources who can contribute to society.

I sincerely hope that this report has provided a clear understanding of the initiatives the KYB Group is adopting with regard to the environment and society, and I hope that all stakeholders will continue to provide us with their support. I also look forward to receiving not only your comments with regard to this report but also your frank opinions on the KYB group.

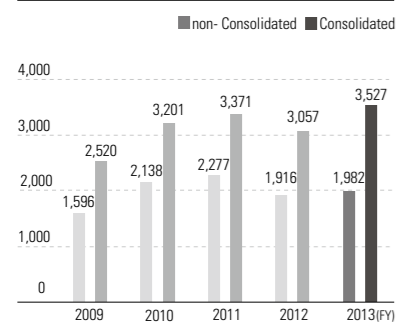
## Outline of KYB Group

### Company Overview

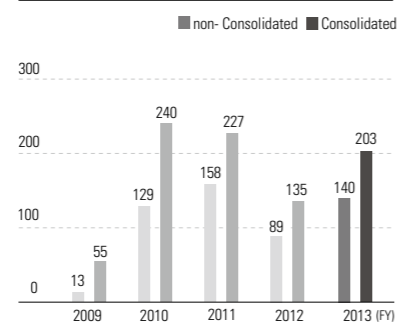
<b>Company Name</b>	KYB Corporation (Official corporate name: Kayaba Industry Co., Ltd.)
<b>Founded</b>	Kayaba Research Center, November 19, 1919
<b>Established</b>	Kayaba Manufacturing Co., Ltd. March 10, 1935
<b>Incorporated</b>	November 25, 1948 (KYB Corporation)
<b>Head Office</b>	World Trade Center Bldg., 2-4-1, Hamamatsu-cho, Minato-ku, Tokyo 105-6111, Japan
<b>Chief Representative</b>	Representative Director, President Masao Usui
<b>Capital</b>	27,647,600,000 yen (As of January 1, 2014)

<b>Plants</b>	Sagami, Kumagaya, Gifu North, Gifu South, Gifu East
<b>Laboratories</b>	Basic Technology R&D Center, Production Technology R&D Center Developmental Experiment Center Machine Tools Center Electronics Technology Center
<b>Number of Employees</b>	13,033 persons (As of the end of March, 2014, consolidated) 3,601 persons (As of the end of March, 2014, non-consolidated)

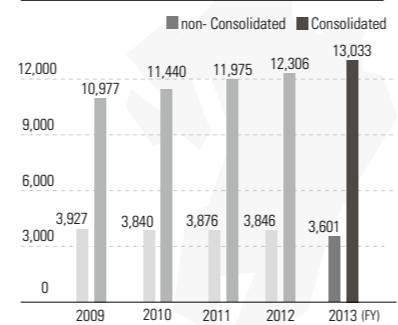
**Net Sales** (hundred million yen)



**Ordinary Profit** (hundred million yen)



**Number of Employees** (person)



### Major Products

#### AC (automotive components) operations

Shock absorbers, suspension systems, power steering systems, vane pumps, front forks, oil-cushion units, stay dampers, free locks

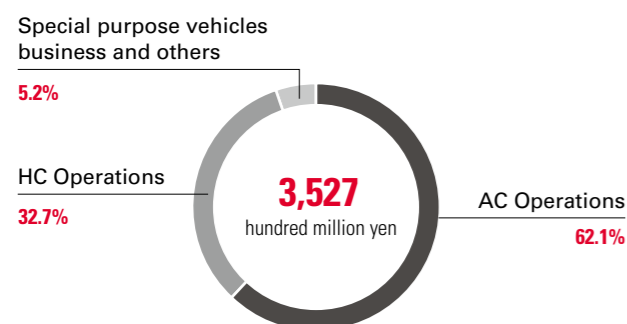
#### HC (hydraulic components) operations

Cylinders, valves, oil dampers for railroad, collision bumpers, pumps, motors, aircraft landing systems, aircraft pilot systems, aircraft control systems, aircraft emergency systems

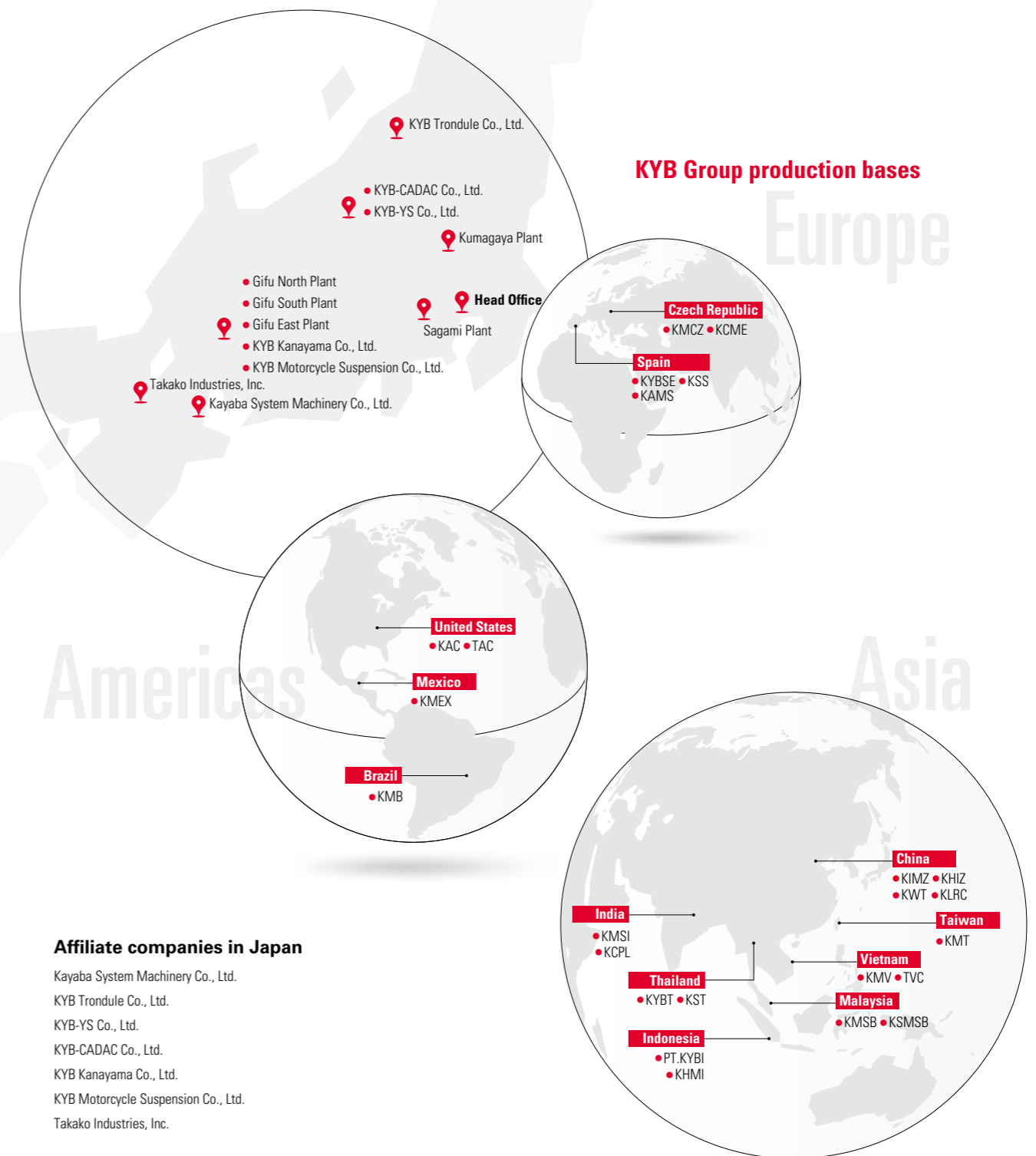
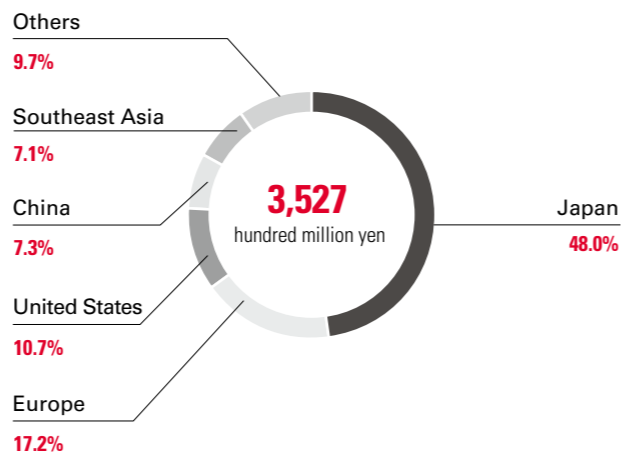
#### Special purpose vehicles, System Products and Electronic Equipment

Concrete mixer trucks, granule carriers, special-purpose vehicles, motion simulators, hydraulic systems, auditorium and stage control systems, naval ships equipment, tunnel boring machines, environmental devices, earthquake-resistant and vibration insulation dampers, seismic isolation systems and vibration control dampers, electronic application

### Net sales by Business Segment in fiscal 2013 (Consolidated)



### Net Sales by Geographic Regions in fiscal 2013 (Consolidated)



What KYB Aims to Be

# Our Precision, Your Advantage

The KYB Group aims to satisfy its stakeholders at a time of increasing focus on corporate social responsibility. Based on KYB's management philosophy, each employee will maintain an awareness of our responsibility as a business, and manifest that awareness through actions that will always comply with the law. We will moreover work to enhance our corporate value so that our company continues to be a trusted.

### Management principles

The KYB Group contributes to society providing technologies and products make life safe and comfortable.

1. Challenge higher objectives and construct livelier corporate cultural climate.
2. Maintain grace and good faith, and pay attention to nature and the environment.
3. Always seek creative ideas and contribute to the progress of customers, shareholders, suppliers and society.

### Management Vision

**Human Resources Development**

To cultivate the talent to achieve the objectives with a thorough understanding of the principles and the strategy.

**Technology and Product Development**

To provide products that are impressive, comfortable and reliable to customers throughout the world.

**Monozukuri (Japanese manufacturing expertise)**

To make our plants enjoyable, dynamic places to work, and at the same time full of discipline based on the field priority doctrine, in order to produce products satisfactory to the customer.

**Management**

Always keep social responsibilities of the corporation in mind and provide efficient group management.

### Relationship between the KYB Group and stakeholders



### Social Responsibility in the KYB Group

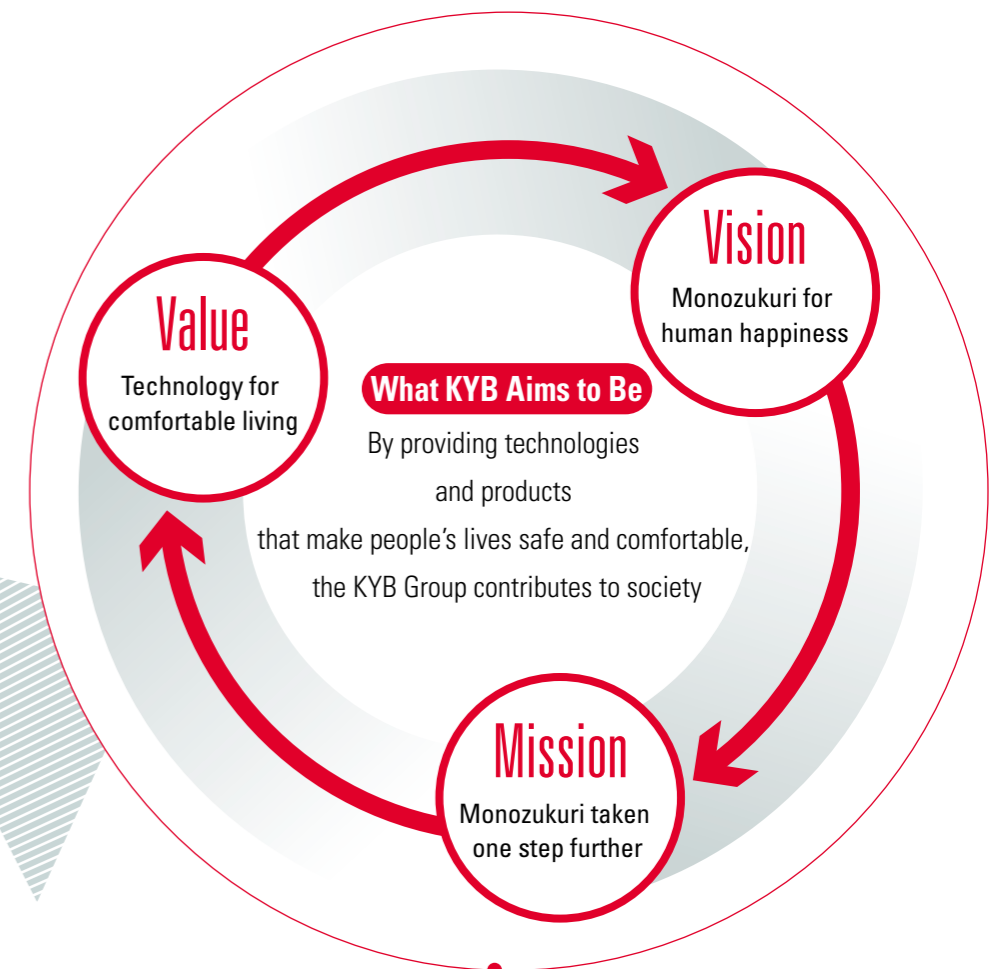
Through our business activities, the KYB Group aims to contribute to the development of our customers, shareholders, suppliers and society through the constant pursuit of creativity.

Following our Corporate management philosophy and vision, units of the KYB Group incorporate CSR initiatives into their yearly action plans and put them into practice. They then follow up on these actions as part of an ongoing cycle of improvement and reform.

Employees carry the KYB Group's Action Guidelines with them to deepen their awareness of the importance of CSR (Corporate social responsibilities).

### Guiding Principles

- |  |  |  |  |
|--|--|--|--|
| ( 1 ) Establishment and its practice of the corporate ethics | ( 8 ) Dealing with our suppliers   | (14) Retention of trade secret                   | (20) Safety and health   |
| ( 2 ) Thorough implementation of slogan of "Customers First" | ( 9 ) Prompt dealing with customers' complains                                       | (15) Protection of personal information and data | (21) Education and Training and career development                         |
| ( 3 ) Pursuit of product safety                              | (10) Participation in activities of industry circles and other related organization. | (16) Protection of other company property        | (22) Prohibition of discriminatory actions                                 |
| ( 4 ) Appropriate accounting and account settlement          | (11) Breaking connection with anti-social power or groups                            | (17) Coexistence with local communities          | (23) Prohibition of harassment actions                                     |
| ( 5 ) Disclosure of corporate information                    | (12) Prohibition of insider trading  | (18) Preservation of natural environment         | (24) Prohibition of child labor and forced labor                           |
| ( 6 ) Compliance with laws and order                         | (13) Protection of intellectual property rights                                      | (19) Labor - management cooperation              | (25) Maintenance and improvement of good and healthy workplace environment |
| ( 7 ) Dealing with our customers                             |  |  |  |



### Vision

**What the KYB brand can do for the world**  
Monozukuri for human happiness

KYB's aim is to support the development of society through the joy of Monozukuri, and make people happier as a result.

### Value

**Value made possible by the KYB brand**  
Technology for comfortable living

Sensory value : comfortable living, the joy of Monozukuri  
Functional value : reliable quality  
The value KYB promises its end users is a higher level of "comfortable living" that comes from creative technology and sincere product development.  
The value KYB promises its clients is the "reliable quality" that comes from thinking of the end user as "our client".  
The value KYB promises each employee is "the joy of Monozukuri" that comes from knowing he or she is changing the world.

### Mission

**The mission of KYB brand**  
Monozukuri taken one step further

KYB will remain an enterprise able to bring value to our clients and markets thanks to the reliable technical expertise we have built up over the years.  
Through our own efforts, we take Monozukuri one step further to provide our clients with new value and greater satisfaction than they have ever known.

# 2013 Action Highlights

The KYB group provides technology development and product combining electronic, control, etc. using hydraulic technologies as a core and meets wide range of needs for customers in various fields.

In this highlight, we would like to introduce our safety-related products and a new plant that has reduced environmental burdens.

Seismic isolation oil damper

Highlight 01

01



Appearance of Toranomon Hills

## 516 units of seismic isolation oil dampers were installed in Toranomon Hills.

— Buffer that protects human lives and properties from earthquake

Toranomon Hills, which has 5 basement floors and is a 52 story skyscraper, has opened in the Shinbashi Toranomon area in June of 2014. Toranomon Hills is a complex of a commercial facility, offices, a hotel, and residential areas and is proud of its high seismic capacity and environmentally-friendliness, in which natural energy is used and energy and resource saving are implemented in lighting and air conditioners.

What supports Toranomon Hills is KYB's seismic isolation oil dampers. In this building, 516 units of BDH2000 model oil dampers have been installed, which has the largest capacity among our oil dampers. This type of damper works effectively for controlling quakes from small to large ones and for restraining building shaking when it is blown by a wind or shaken by middle-size to large earthquakes. KYB's buffer technologies have been useful for protecting buildings and facilities like this and ensure the security, safety and comfort of its users.



Oil damper

## Energy saving and environmentally friendly electronic experiment building

— Consolidation of electronic and electric experiment facilities and personnel

When introducing large radio wave test facilities for the first time for KYB, in order to consolidate electronic and electric experiment facilities and personnel of our company, construction of the electronic and electric experiment building began in August of 2013, was completed at the end of February of 2014 and started to be fully used since early April. The electronic experiment building is in the KYB Developmental Experiment Center located in the mountainous and nature rich area in Gifu, and thus we pay special attention to environmental preservation. First, in the main radio wave test facilities, we use a dark room with the world's top level radio wave shutoff characteristics and are trying to save energy of used power during a test by sharing an amplifier and adopting an equipment layout

Highlight 02



Appearance of the electronic experiment building

Electronic experiment building

that minimizes losses between an amplifier and antenna. In the office, we are positively implementing energy saving such as applying a thermal insulation sheet to the ceiling, using a skylight tube, and taking natural light in by using a blind with highly reflective panels + punching holes. We are planning to develop environmentally-friendly KYB electronic products through product evaluations in the electronic experiment building.

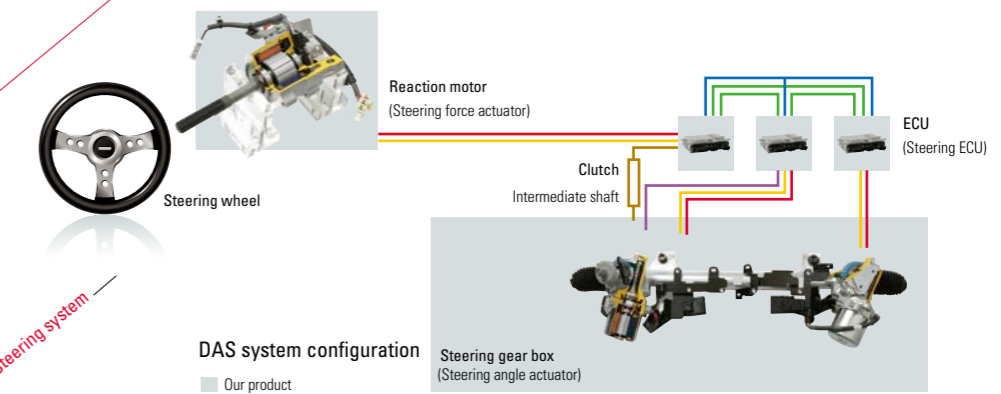


**Use natural light for lighting by daylight** with a skylight tube instead of using electric power is

- energy saving and environmentally-friendly
- disaster-resistant, and
- color rendering property is high. (The color is shown as it is.)

## Newly developed steering product with high output and assured safety

System for direct adaptive steering



Steering system



Mounted in production vehicles for the first time in the world  
New Model Skyline (infiniti Q50)  
(Nissan Motor Co., Ltd.)

Highlight 03

This is a newly developed steering product mounted in the latest model skyline (Infiniti Q50) of Nissan Motor Co., Ltd. In this steering system, a by-wire technology is applied, in which steering and wheels are not mechanically connected but operate by electric signals, and this product was mounted in production vehicles for the first time in the world. We assured high output and safety by using two motors in the assist structure of the steering gear box. In addition, because uncontrollable steering due to grooves and kickbacks from the road surface are not conveyed to the steering, the driver's fatigue is reduced. In the future, we would like to develop a product that can be applied to automatic driving and eliminate human errors by automatic driving and thus contribute to creating a society without car accidents.



**Outline of KYB-CADAC Co., Ltd.**

Founded October, 1962  
 Capital 490 million yen  
 Number of employees 148 (as of April 1, 2014)  
 Address 5473-5, Shiokawa, Ueda City, Nagano, Japan  
 Business type Casting and processing of hydraulic valves for hydraulic shovel, manufacturing of casting molds  
 History Founded as Honjo Industrial Co., Ltd. in 1962. Started manufacturing hydraulic valves in 1978, and became a subsidiary wholly owned by KYB in 1999. Changed name to KYB CADAC in 2006, and to KYB-CADAC in 2013.

Appearance of the plant

KYB-CADAC

**Establishment of a new, bright, clean and employee-friendly plant that reduces environmental burdens**

— KYB-CADAC's new plant that aims to be the world's best valve foundry

KYB-CADAC manufactures castings of hydraulic valves used for large hydraulic shovels. As the hydraulic shovel market has been growing in the global environment, in order to strengthen its production capabilities, KYB-CADAC moved its plant to Kaminokura Industrial Complex in Ueda city, Nagano, in January of 2014. In the new plant, a quality data management system focusing on product traceability was introduced, production lead time was minimized, and a self-hardening mass production line was materialized that meets the demand of high-mix low-volume production.

In a foundry, the temperature inside the plant rises due to heat generated in the melting process, and sand used in the molding process scatters. We solved these problems in our new plan and aimed to build a bright and clean plant with a pleasant working environment.

For example, in order to control the temperature rise in the plant, we introduced a natural ventilation system so that heat is ejected outside. For protection against sand scattering, we introduced a dust collector with deodorization equipment. Moreover, we eliminated the duct on the ceiling that had caused an oppressive feeling, and introduced skylighting from the ceiling and LED lighting, and thus we significantly reduced the energy consumption amount.

**Outline of new plant**

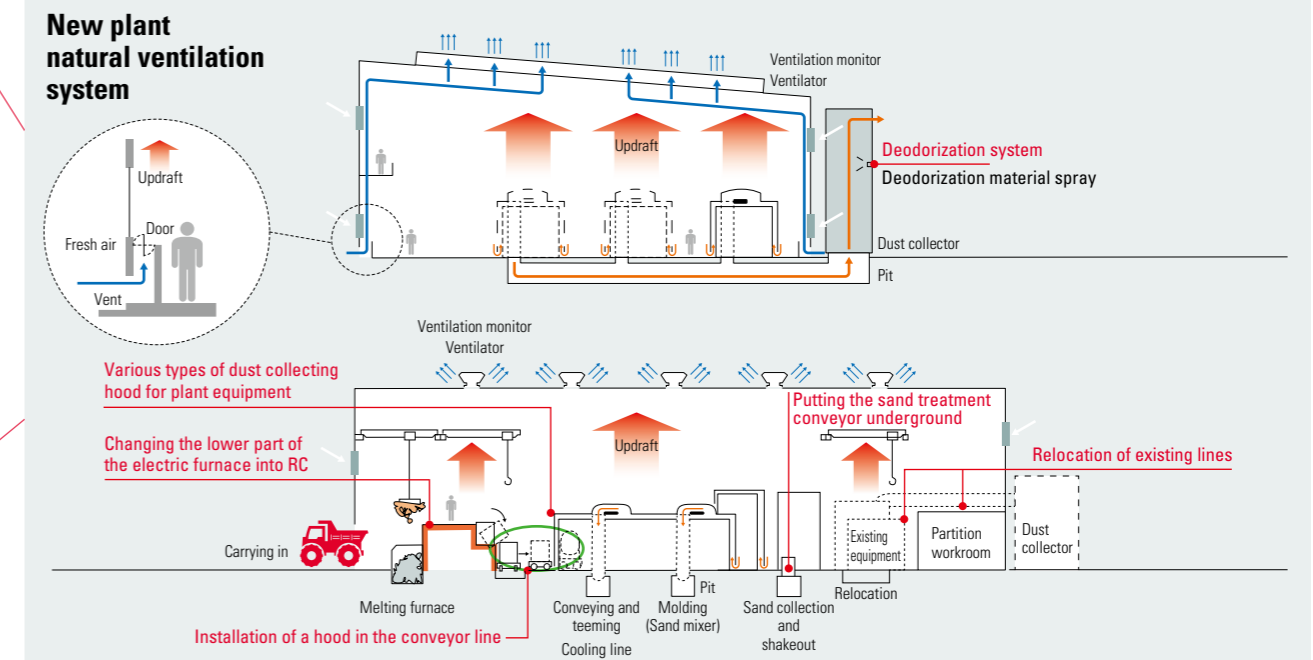
Place : Kaminokura Industrial Complex,  
Ueda City, Nagano  
 Site area : 65,600m<sup>2</sup>  
 Building area : 24,500m<sup>2</sup>  
 Completion : February, 2013

**Production capability**

FY 2013 : 1,200t/month

**People and earth-friendly plant that reduces environmental burden.**

- Introduction of a natural ventilation system > Controls a temperature rise in the plant.
- Introduction of a dust collector with a deodorization device > Eliminates odor and prevents sand from scattering
- Using energy saving electric furnace > Reduces energy consumption amount.
- Skylighting from the ceiling and using LED lighting > Reduces energy consumption amount.



**KYB-CADAC products**

**Proving products that support hydraulic shovels**

By making the most use of its accumulated skills for years, KYB-CADAC specializes in large hydraulic valves for hydraulic shovels, conducts integrated manufacturing from creating molds to casting and machine processing and offers stable quality products.



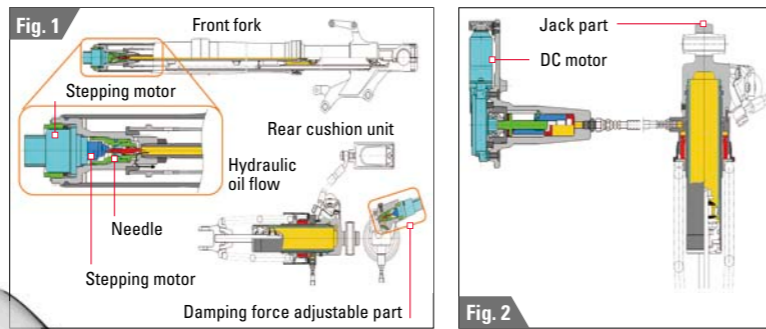
Valve cut sample

Appearance of production line

Refilling of melted metal

Reliable, safe and people-friendly products

FJR1300AS  
(YAMAHA Motor Co., Ltd.)



### Electric adjustable FF&RCU for two-wheeled vehicles

In the motorcycle industry of recent years, existing comfortable equipment has been motorized. Among such equipment, we have developed an electric adjustable front fork (FF) and a rear cushion unit (RCU) that easily switch suspension damping force and adjustment of spring road with the hand switch, which had previously been manually performed. (Fig. 1 and 2)

The main feature is that instead of developing an electric motor from scratch, we used parts that had been already distributed in the market and tried to shorten the development period for product commercialization.



Rear cushion unit

Front fork

## MOTORCYCLE

### Drive recorder DRE-401

We developed the drive recorder (DRE-401) as a machine to succeed the existing DRE-400 with improved quality. This product can be connected to a maximum of 4 camera units and record an event back and forth and from side to side with sound. In the insurance market in recent years, introduction of drive recorders has advanced amid rising public awareness of accident prevention, and drive recorders have been widely used for business vehicles such as buses, trucks and taxis. These products are expected to contribute to safety.



## DRE-401

### Load sensitive shock absorber

We have developed a load sensitive absorber that detects a change of passenger and load weight by the length change of a shock absorber (LSS) and switch the damping force to a mechanical one so that a comfortable ride and control stability can be consistently obtained. This shock absorber with KYB's original and new function was designed to be mounted in an automobile type, whose rear wheel weight significantly changes, such as minivans and vans that have been expanding the market.

KYB will develop new products, through which people can fully enjoy and feel comfortable driving, and contribute to society.



\*LSS: Load Sensing Shockabsorber

### Smoke exhaustion damper with improved heat resistance

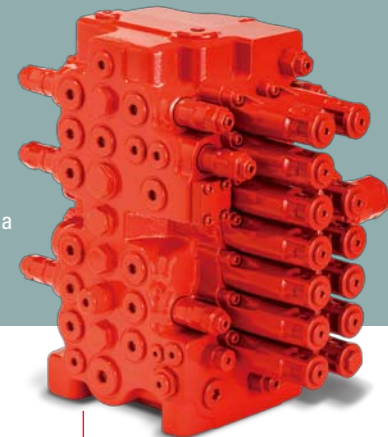
Based on the KYB-YS development, design and production system, we have been providing smoke exhaustion damper products to our customers. Smoke exhaustion dampers are used to assist opening and closing a smoke exhaustion window attached to commercial facilities, with the aim of protecting people's lives by releasing toxic gas and heat generated by fire outside. We developed exhaustion dampers that are expected to reduce fire spreading to the facilities by using flame-retardant hydraulic oil that does not catch fire easily even when hydraulic oil leaks from the exhaustion damper in the case of a fire.



## Products

# Reliable, safe and people-friendly products

KYB has been pursuing manufacturing technologies in order to create happy people and a comfortable living. We will introduce reliable, safe and people-friendly products that make up this KYB vision.



### Control valve for small hydraulic shovel KVMM-80-D

Control valve is equipment that controls oil ejected from a pump to move an actuator freely.

In order to respond to market demand for energy saving amid rising crude oil prices and emission controls in recent years, we brought out a new model.

By optimizing the oil passage shape and increasing the spool diameter, we reduced a pressure loss that had been an energy loss by a maximum of 18%, and this measure contributes to improving the fuel efficiency of hydraulic shovels. Moreover, we reduced the product weight by a maximum of 19% and thus reduced the environmental burden during manufacturing.



## KVMM-80-D

## Electromagnetic valve

### Development and application of water pressure electromagnetic proportional valve

Through a new fluid control technology using water as working fluid, we have been engaged in development and research of highly safe and hygienic water pressure electromagnetic proportional valves that materializes high output density and controllability like hydraulic oil.

We have solved problems related to low water lubricity by our own technologies and have made its performance and durability to a practical level. Water pressure electromagnetic proportional valve is equipment that controls flow directions and flow rate. We have applied this equipment to meat processing machinery and developed a machine that contributes to safety and security of food with the same function as the conventional one. We are thinking about applying this technology to fields where cleanliness is required such as medical and semiconductor fields.



\*ADS: Aqua Drive System



# Corporate Management

## Corporate governance

### Fundamental idea

The KYB Group, in order to enhance its corporate value under the ongoing globalization of market, puts a great emphasis on the strengthening of the corporate governance. Also, we implement continuous measures to realize management philosophy and regard the contribution to society including the development of all stakeholders as our mission.

### Corporate governance system

Our company has adopted the setup form of the board of auditors and has established the following structure so that the corporate governance functions effectively.

"The Board of Directors" that consists of seven people is held once a month in principle. This Board of Directors is regarded as a body for decision-making about critical matters related to corporate management such as company policies and monitoring to management practices, in addition to the functions defined by laws and regulations.

Accompanied with the introduction of the executive officers system, The Board of Executive Officers in charge of deliberating important matters concerning management backbone, "Management Conference by Affiliated Companies in Japan" in charge of deliberating important matters concerning management practices of Japanese affiliated companies and "Global Strategy Committee" in charge of deliberating important matters concerning management practices of overseas affiliated companies, have been established.

There are also other committees for the enhancement of the monitoring system for KYB Group management, such as "Operations Review with President Usui" where the president himself grasps business challenges including the quality problems of each product on site in the plants and the worksites and follows up on them.

The Board of Auditors consists of four standing auditors including two outside company auditors. We recognize that the audit by those outside company auditors secures workable management monitoring and effective governance system.

Moreover, from the view of external check, one of the outside company auditors is set as an independent officer, so that the management monitoring can be more objective.

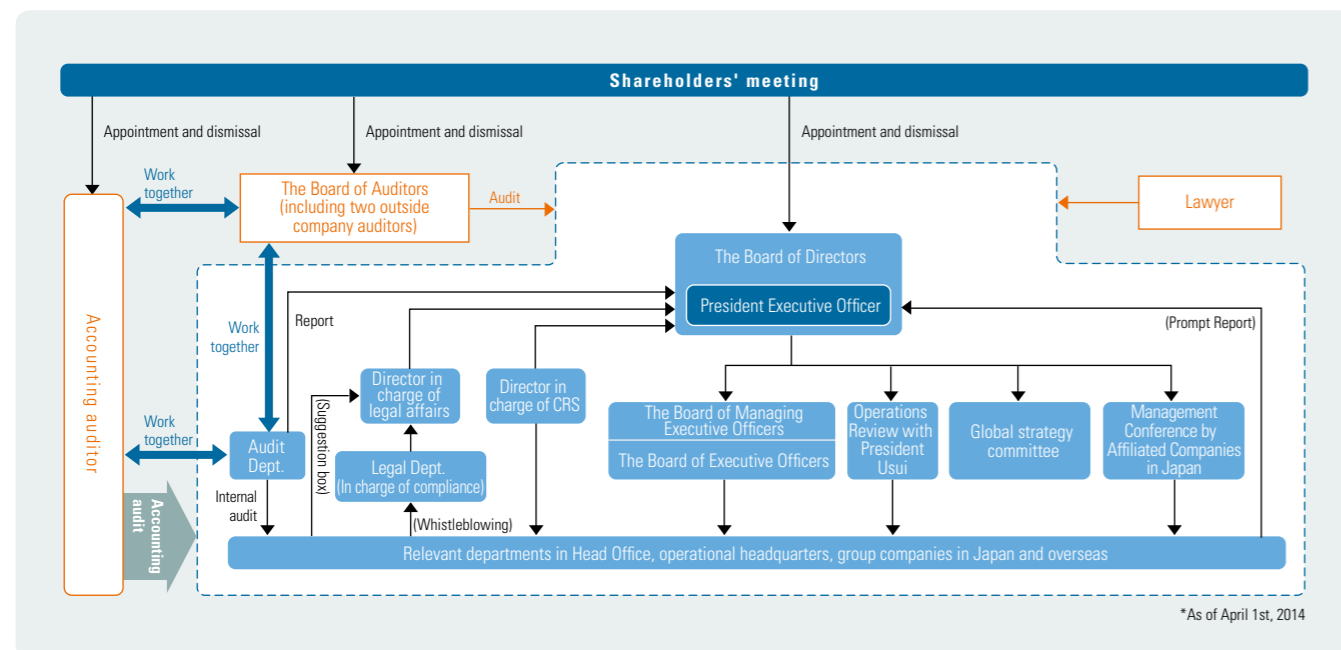
### Corporate social responsibility

Through our business activities, the KYB Group aims to contribute to the development of our customers, shareholders, suppliers and society through the constant pursuit of creativity. And, good relationship with our stakeholders is vital to the survival of our business activities.

Following our corporate management philosophy and vision, units of the KYB Group incorporate CSR initiatives into their yearly action plans and put them into practice. They then follow up on these actions as part of an ongoing cycle of improvement and reform.

Employees carry the KYB Group's Action Guidelines with them to deepen their awareness of the importance of CSR.

### Corporate governance organization



## Internal control

Corporate governance functions effectively on the premise of ensuring the reliability of financial reports, increase of work efficiency and compliance. In order to promote them, we consider that it is absolutely essential to focus on the development of an internal control system and the enhancement of internal control capability.

For example, we have resolved the fundamental policy of internal control system at the board of directors in accordance with the Companies Act, and are promoting several measures such as the development of risk control system, group management system, internal compliance system, etc.

Also under the Financial Instruments and Exchange Act, we operate the development and the management assessment of "Internal Control Over Financial Reporting" by following the procedure specified in the act to secure the reliability of the financial reports, as well as ensuring appropriate information disclosure.

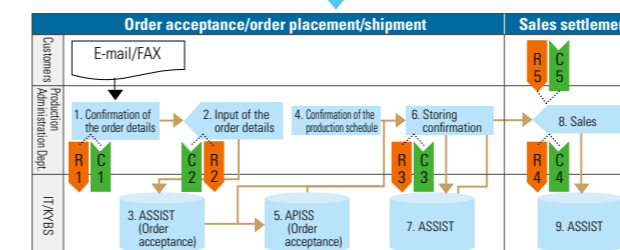
### Self-managing by "visualization"

Our business rules and procedures, which are defined in the company rules, regulations and instructions, are schematized to be a flowchart to document the workflow. This helps to visualize a work that used to be only visible to a person in charge of it. Thus, employees other than the person in charge are also able to understand the work contents and so the check function to detect risk works well, which enables us to confirm and share the work control situations.

Pursuant to the internal control reporting system due to Financial Instruments and Exchange Act issued in April of 2008, Audit Dept. of KYB is promoting the schematization for the processes that may affect the KYB Group's account closing, and conducting the assessment on it.

### Flow chart of work operation

No.	Title	Description
1	Confirmation of the order details	The person in charge checks up if there is any error with item number, delivery time and quantity.
2	Input of the order details	Input the order details according to its contents already confirmed
3	ASSIST (Order acceptance)	* Handle with the sales management system
4	Confirmation of the production schedule	The person in charge confirms the production schedule required by customers
5	APISS (Product)	* Handle with the production information control system
6	Storing confirmation	Confirm the storing contents after the part arrives from supplier
7	ASSIST	* Receive the shipment data
8	Sales	The person in charge accesses the system and records the sales
9	ASSIST	* Tally the sales results



## Compliance

We regard "the compliance" not only as "the adherence to laws, orders and rules", but also as "company contracts, company rules and agreements, etc", associated with our business activities, furthermore, to "the corporate ethics" for the promotion of healthy business activities.

1. As the rule for the execution of business activities by directors and employees, we have developed Corporate Guiding Principle and are focusing on the establishment of legal compliance and corporate ethics.
2. We are implementing the compliance education through training sessions by job titles and sections, including directors.
3. We have prepared the whistle-blowing system (Instant Report and suggestion box) covering all companies of the KYB Group. Besides, we have exclusive contact points to accept whistle-blowing and consultation in accordance with the Whistle-Blower Protection Act.
4. We have set the policy of protection of personal information and data the company rules, developed the company rules and established the internal committee. We also have the contact desk to respond inquiries from outside of the company.
5. There has been a high demand for company's initiatives for elimination of anti-social power or groups. The KYB Group is working on this matter by confirming in writing that our suppliers have no relationship with anti-social power or groups, in case we need to terminate a contract as we know they do.

### TOPICS

We have been globally developing compliance training.

As a part of compliance training, we have issued the "Global compliance information publication" (GCI). In order for all group companies globally developing their business to minimize risk and take measures to deal with problems in an appropriate manner, we organize and periodically distribute law information that should be known in an easy-to-understand way on the business side.

# Environmental Management

## Basic environmental policy

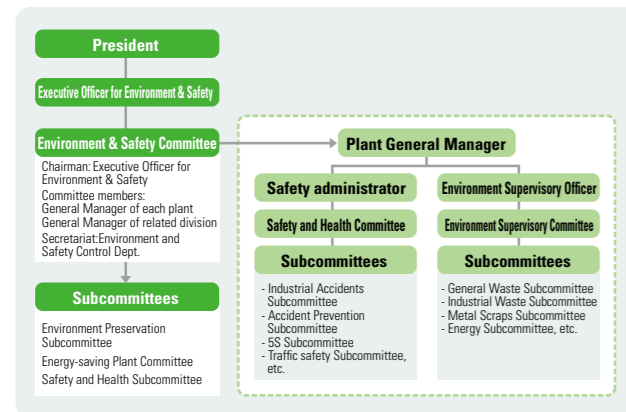
### Slogan

**Protect the Green Earth and Create Products Gentle to the Environment**

### Environment & Safety Management system

The "Environment & Safety Committee" was organized with directors responsible for environment & safety as leaders to harmonize our intentions regarding environment and safety related approaches. The Committee has three working groups respectively specialized in the Environmental Conservation, Energy Saving Plant and Safety and Health to promote activities from a professional point of view. In addition, it regularly makes an internal environment & safety audit and confirms the situation.

### KYB's Environmental management organization



### From directors responsible for environment & safety

## Approaches will be promoted to realize environment-friendly plants and communities.



Executive Officer  
**Shigeo Kidokoro**

In fiscal 2013, a special effort was made to reduce the peak power consumption and hereby stabilize the power supply and reduce industrial waste. In fiscal 2014, conventional activities will be globally extended and ecological activities developed to realize a sustainable society. A mid-term plan from fiscal 2014 to 2016 includes renewal of outdated, inefficient air conditioners, etc., bioenergy generation from waste paints and recycling of waste plastics.

In addition, opportunities for communication with the local community via volunteers, etc. will be increased to help create such towns that are loved by everyone and easy to live. As for the safety, injuries requiring hospitalization were decreased while the total number of industrial accident remained unchanged from the previous year. To cope with this situation, preventive activities against industrial accidents will be promoted and risk assessments of chemical substances made to create a working environment where we can work without anxiety.

At last, we appreciate your interest in this report. We will further substantiate and upgrade the contents of the report and appreciate your continuous support and advice.

### Basic Environmental Policies

The KYB Group creates products gentle to both people and the earth. We are dedicated to the promotion of environmental activities as an important tool for evaluating management.

1. Coordinates and builds up productive and corporate activities based on the recycling to reduce impacts on the environment.
2. Strive to ensure long-term and sustainable operations throughout the entire KYB Group.
3. Work to promote harmony with society and contribute to the global community as a good corporate citizen.
4. Clarify every employee's role so that all employees can participate fully.

### Mid-term policy regarding the environment and safety

A mid-term policy was established in fiscal 2011 to define basic directions regarding the environment and safety and promote our approaches. In fiscal 2014, a new mid-term policy was established to start activities.

### Environmental/Safety Mid-term Policy (2011 to 2013) Abstract below

- 1. Creation of energy-saving plants:**  
Reduce CO<sub>2</sub> basic unit by 1% each year and reduce CO<sub>2</sub> emissions by 25% compared to 1990 by 2020
- 2. Creation of waste-free plants:**  
Reduce final disposal amount of industrial wastes by 65% compared to fiscal 2000 by 2015
- 3. Creation of industrial accident-free plants:**  
Prevention of industrial accidents through risk assessments, development of a safety simulation DOJO, etc.

### Environmental/Safety Mid-term Policy (2014 to 2016) Abstract below

- 1. Creation of factories aiming to minimize the energy consumption and waste**  
The energy consumption and amount of industrial waste per unit will be reduced by 1% and 3% respectively from the levels in fiscal 2013.
- 2. Creation and expansion of industrial accident free production bases**  
The employees' awareness about the safety will be improved and critical hazards eliminated.

## Achievement of environmental conservation goals

An "environment management plan" was made at each production site according to corporate policies regarding the environment to carry out various activities aiming to achieve the goals. However, CO<sub>2</sub> emissions and the energy consumption per unit could not be reduced to target levels in fiscal 2013.

### Activity results of 2013

Theme		Fiscal 2013 goals	Results of 2013	Evaluation	Publication page
Prevention of global warming	CO <sub>2</sub> emission volume	74,417t-CO <sub>2</sub> or less	81,048t-CO <sub>2</sub>	×	P21
	CO <sub>2</sub> basic unit	0.364t-CO <sub>2</sub> /million yen or less	0.404t-CO <sub>2</sub> /million yen	×	
Energy saving	Energy usage volume (basic unit)	0.206kL/million yen or less	0.234kL/million yen	×	
Improvement of resource recovery and recycling rate	Recycle rate	88% or higher	88.2%	○	P25
	Zero emission	4% or less	3.6%	○	
Reduction of waste	General waste	500t or less	492t	○	P25
	Metal scraps	17,515t or less	15,785t	○	
	Industrial waste	3,160t or less	3,386t	×	

(Note) Basic unit is calculated based on the production shipment.  
For energy, crude oil equivalent is calculated for electricity and fuel and the total value is displayed as total energy.

### Overview of major approaches in the fiscal year of 2014

**CO<sub>2</sub> energy**  
Replacement with efficient lightings, reduction of standby power consumption, renewal of outdated equipment, etc.

**Waste**  
Conversion of polluted sludge into valuable substance, reduction of waste paints, promotion of recycling of waste plastics, etc.

## Environmental accounting

In order to quantitatively assess the involvements regarding environmental preservation, environmental costs have been calculated since 2000.

### Environmental preservation cost

The amounts of investment and cost were separately calculated with reference to the Environmental Accounting Guidelines, 2005 presented by the Ministry of Environment.

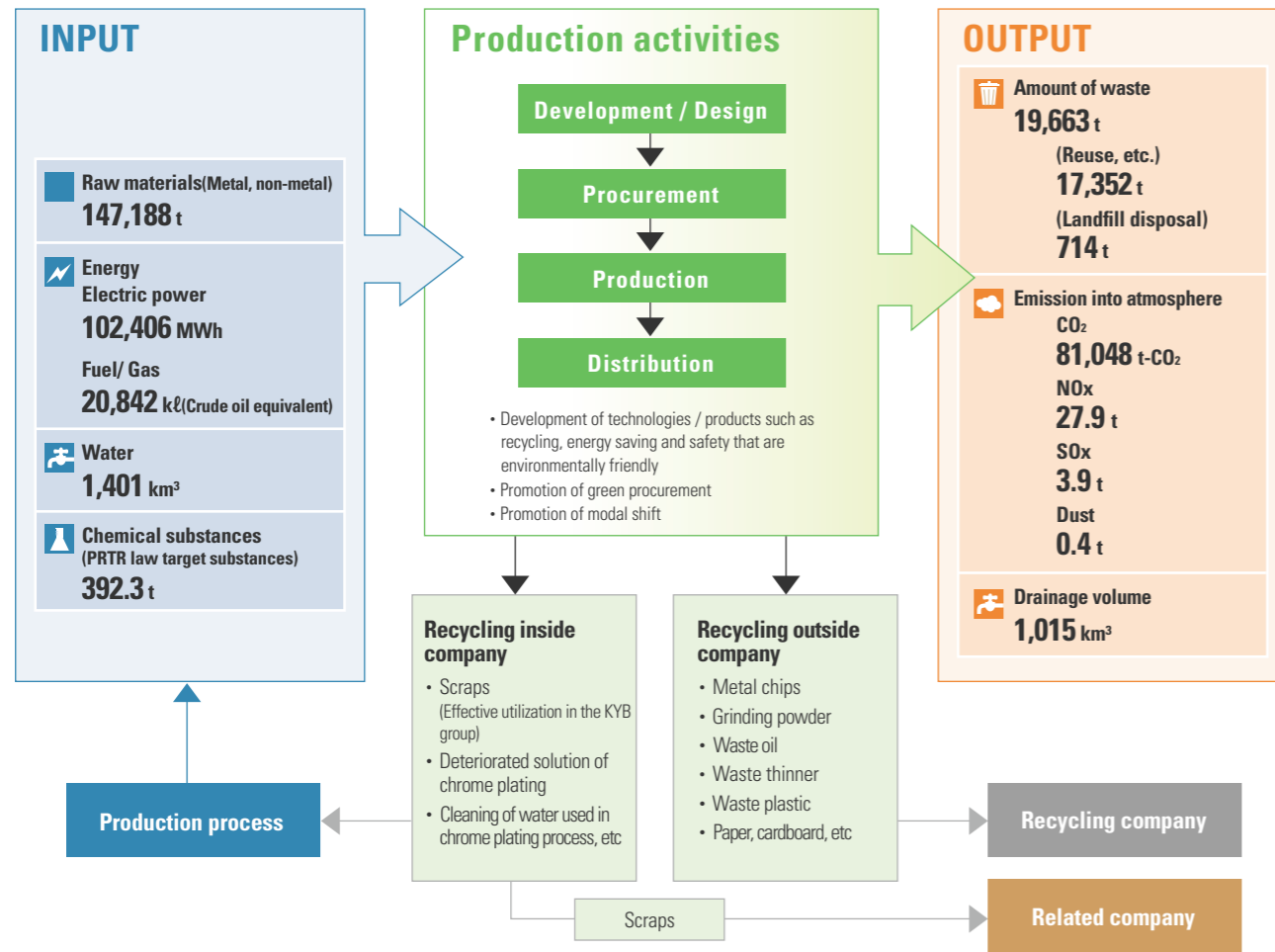
Cost type	Major contents	Invested amount	Cost
(1) Cost within business area	(1)-1 Pollution prevention cost	51.1	136.8
	(1)-2 Earth's environment preservation cost	201.7	28.3
	(1)-3 Resource circulation cost	36.9	124.7
(2) Upstream/ downstream cost		0	0
(3) Management activity cost	- Maintenance and periodic/ renewal screening of ISO14001 - Surveillance of impacts on environment	2.2	80.1
(4) R&D cost	- Environment-friendly product development - Light-weight products and products containing less hazardous chemical substances	122.4	92.0
(5) Social activity cost	- Support of non-profit environmental protection - Afforestation and maintenance of scenery surrounding plant	0.1	7.0
(6) Environmental remediation cost		0	0
(7) Other cost	- Internal environmental conservation - Welfare conservation	0	80.2
<b>Total</b>		<b>414.4</b>	<b>549.1</b>
<b>Grand total</b>		<b>963.5</b>	

Categories and definitions of environmental preservation cost  
[ Invested amount ] Expense for the purpose of environmental preservation during the target period with effect that continues for a number of terms and cost running for those periods. (Amount acquired during the current term of the depreciable asset)  
[ Cost ] Cost or loss generated from expenditure of finance/service for the purpose of environmental preservation.

# Initiatives to Reduce Environmental Burden

## Influence to environment associated with business activities

In the KYB group, we implement production activities by using various resources such as energy and water. We work on recycling of resources inside and outside the company in order to manufacture products efficiently with the lowest possible resources and energy.



### State of ISO14001 certification acquisition

In order to develop our actions for environment preservation systematically, we are carrying out the introduction and the promotion of ISO14001 environmental management system.

#### Japan

KYB	Certification registered year
Sagami plant (Including the Basic Technology R&D Center, the Electronic Engineering Center)	2000.12
Kumagaya Plant	2000.12
Gifu North Plant (Including KYB Kanayama)	2001.12
Gifu South Plant (Gifu East plant, Production Technology R&D Center, Machining Tool Center, KMS)	2000.2
Company concerned in Japan	Certification registered year
KSM Mie Plant	2000.12
Takako Industries, Inc. (Shiga Plant)	2003.2
KYB-YS	2004.4
KYB Trondule Co., Ltd.	2008.11

#### Overseas

Company name	Certification registered year	Company name	Certification registered year
KWT(China)	2013.11	KMV(Vietnam)	2013.5
KLRC(China)	2010.1	TVC(Vietnam)	2007.1
KIMZ(China)	2009.4	KMT(Taiwan)	2001.6
KHIZ(China)	2013.11	KYBSE(Spain)	2001.12
KST (Thailand)	2003.8	KSSI(Spain)	2001.6
KYBT (Thailand)	2003.7	KMCZ (Czech Republic)	2009.8
PT.KYBI (Indonesia)	2004.11	KAC (United States)	2002.5
KMSB(Malaysia)	2005.5	TAC (United States)	2013.2
KSMSB(Malaysia)	2005.5	KMB(Brazil)	2007.3

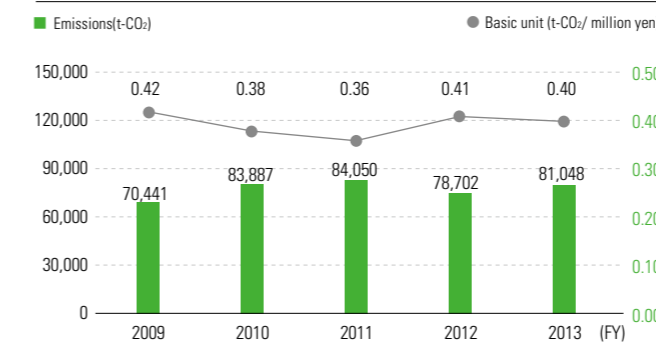
## Prevention of preventing Global warming

As a production center for a business combining hydraulic technologies to provide society with "comfort and strength", the KYB group works to protect the environment by developing and manufacturing products that are eco-friendly and people-friendly. We also work to coexist harmoniously with the local and international community and maintain a better natural environment.

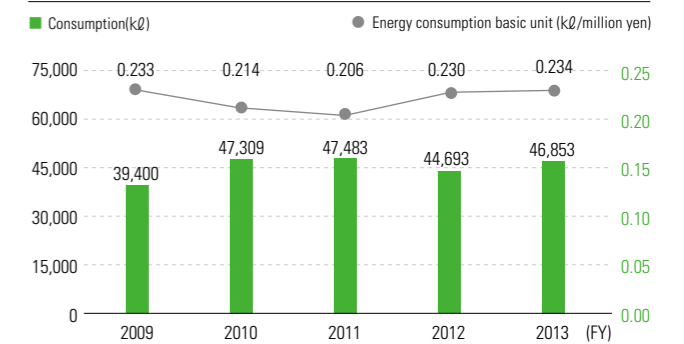
### CO<sub>2</sub> emissions and energy consumption in fiscal 2013

Our target in fiscal 2013 was to reduce CO<sub>2</sub> emissions per unit by 3% from the level in fiscal 2010. CO<sub>2</sub> emissions could be reduced by changing fuels but our target not achieved due to installation of in-house

#### CO<sub>2</sub> emissions



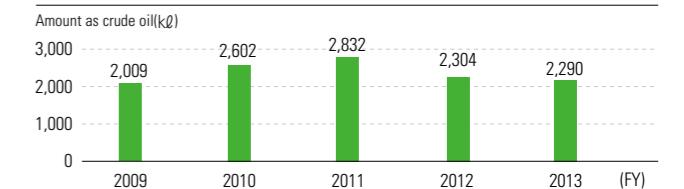
#### Energy consumption



### Reduction of energy consumption for transportation

Since we were designated as a known shipper as defined by the Energy Conservation Act in 2007, we have submitted periodical reports and plans to public agencies every year. We are also making an effort to reduce the energy consumption for transportation by changing transportation routes and improving the cargo loading efficiency, for example.

#### Energy consumption for transportation



#### Improvement cases

##### Case Arrangement of main transportation routes in the Mikawa district

We transported goods from the Gifu North Plant to the Mikawa district, which is about 60 km apart from the plant, via two routes everyday (4 nonstop trips and 6 trips through relay points). We changed the routes to a one passing new relay points closer to customers according to the cargo increase/ decrease and improved the cargo loading efficiency to reduce the number of trips by two. The improved transportation efficiency reduced the standby times and provided more time to spare at relay points, resulting in maintained or reduced lead times.

## VOICE

### Environment-Friendly Works (E Works) Observation in Gifu

On September 25, 2013, An "Environment-Friendly Works (E Works)" observation was made at the Gifu East Plant under the auspices of the Environmental Protection Promoting Association of Gifu.

This observation was intended to "deepen the understanding about environmental protection by visiting excellent companies in Gifu and help reduce impacts on the environment and promote corporate environmental protection activities." 70 people in total, including those from enterprises certified as E Works and those living in Kani City, Mitake Town, Sakahogi Town and other nearby self-governing bodies, participated in the observation at the Gifu East Plant.



A scene of the observation



## Initiatives to Reduce Environmental Burden

### Activities at plants

An effort has been made to reduce greenhouse gases as part of activities to reduce impacts on the environment. Various activities are promoted to reduce the energy consumption by eliminating the wasteful use of energies, changing fuels and improving the distribution efficiency.

#### Reduction of standby power consumption by intermittent operation of hydraulic motors

In the Sagami Plant, an effort has been made as part of energy saving activities to eliminate the “wasteful use of standby power” by automatically stopping hydraulic motors at the end of assembly work, not leaving them running. This is expected to reduce the daily power consumption at the assembly line from about 21 kWh to about 14 kWh and save 1,500 kWh per year.

#### Relocation of the boiler system at the Gifu South Plant

Boilers were immersed in water to suspend the vapor supply at the Gifu South Plant when the Kani River flooded due to heavy rain in 2010. As preventive action against this, boilers were distributed throughout a workshop apart from the Kani River to reduce the risk of immersion and reduce the vapor transportation distance and consequently the energy loss through piping by 70%. In addition, the fuel was changed from heavy oil to city gas to reduce CO<sub>2</sub> emissions from boilers by 30%.



Distributed boiler rooms

#### Renewal of boilers for the coating system Kumagaya Plant

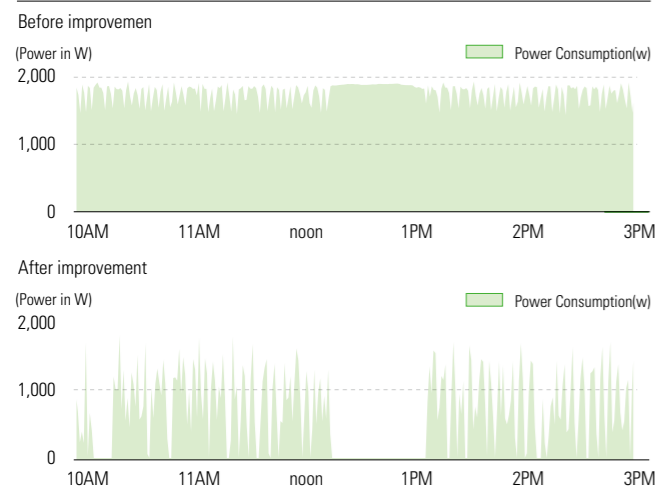
About 60% of mixer cars are undercoated using the coating system at the Kumagaya Plant. The coating system consists of two degreasing tanks, a passivation tank and a paint tank, four tanks in total, which are heated with LP gas vapor boilers. Because the boilers were about 90 meters apart from tanks, outdated and inefficient, they were relocated and renewed.

The boilers are now about 70 meters apart from tanks and more efficient, which has reduced the LP gas consumption by 30%.



Efficient boilers for the coating system

#### Reduction of standby power consumption



#### Adoption of “domed, ceiling-mounted” LEDs

In the Gifu North Plant, lightings in the Engineering Department’s office were changed to LEDs. No harmonized standards have been established for straight tube LEDs. If an LED is installed to a fluorescent lamp system, it may be overheated to catch fire. Then, “domed, ceiling-mounted” ones were adopted to prevent disasters. LEDs equivalent to fluorescent lamps in illumination have also been developed. Afterwards, this type of LEDs will be installed in phases.

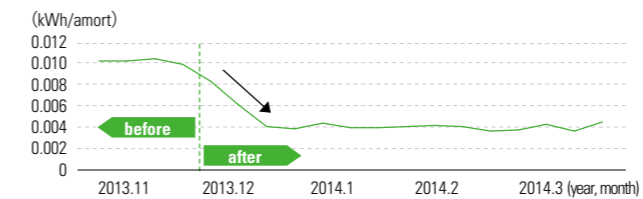


Domed LEDs

#### Improvements with collected data on power consumption by the area KAMS(Spain)

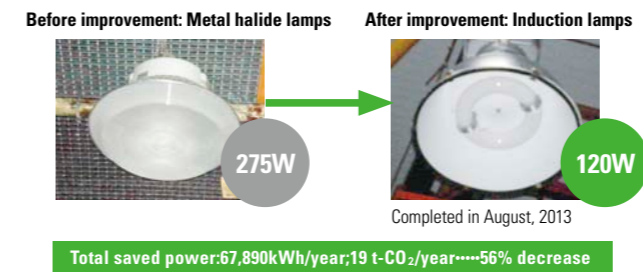
An effort was made at KAMS in fiscal 2013 to reduce the power and gas consumption by each piece of equipment. The consumption is analyzed and evaluated using a power consumption monitor installed at each line. By extending this effort to all plants, the energy consumption per product has been reduced by about 10%. In the fiscal year of 2014, we will especially review steam temperature settings for the coat baking process and gas boilers and replace exterior lightings with LEDs.

#### Changes in power consumption by compressors



#### Energy saving lightings KYBSE(Spain)

As part of energy saving activities in fiscal 2013, 100 metal halide lamps at plants were replaced with induction ones to save the power.



#### Transportation energy and cost reduction with a Milk run system KYBSE (Spain)

KYBSE has significantly reduced the transportation energy in cooperation with suppliers by collecting part deliveries from different suppliers using a Milk run system and thus reducing lead times to 60%. This reduced the transportation cost to 75% and also reduced the warehousing man-hours, part cost and part acceptance frequency. We will extend this method afterwards.



Inside of a loaded truck

#### Reduction of power consumption by interior air conditioners and lightings KST (Thailand)

KST was relocated to a new plant in July, 2013 where it added and started an integrated production line for CVT vane pumps to manufacture all goods from raw materials to finished products. A separate workshop for aluminum die casting was built with the minimum exterior walls at four sides and longer eaves to make the workshop open to the constant tropical weather and reduce the power consumption by air conditioners and interior lightings. In addition, inexpensive natural gases supplied through pipelines are used for melting furnaces.



A side view of the new building

#### Distribution of young plants on the World Environment Day KCPL (India)

KCPL is positively involved in CSR activities to advance the local community, improve the environment, etc. For an ecological project “Plant-a-thon,” their employees talked to citizens in the early morning at nine parks in Vadodara and distributed young broad leaf trees to them on the World Environment Day (June 5) in and after 2009. In addition, KCPL sponsored a composition contest regarding environmental conservation on a local paper and was commended by a municipal ecology party in 2013. We will continue to protect the environment and local traditional arts and help advance the local community with educational supports in the farming area, etc.



Distribution of young plants in parks



KCPL's office surrounded by greens

## Initiatives to Reduce Environmental Burden

### Control and Reduction of Chemicals

Chemicals are absolutely necessary for the modern society. On the other hand, we need to take immediate action against chemicals that give a significant impact on the environment to comply with increasingly strict international regulations. We are making an effort to reduce their consumption and replace them with appropriate alternatives.

#### Compliance with environmental regulations on products

The KYB Group is promoting activities for our products to comply with various European ecological regulations such as ELV, RoHS and REACH directives.

The ELV directive prohibits the use of restricted substances (mercury, cadmium, hexavalent chromium and lead) for most automotive products.

Its scope of application has been extended to other products including construction machines to phase out such substances while making quality evaluations by the product model.

In 2011, to comply with the REACH, we constructed a database for chemical substances contained in our products so that we can determine whether each restricted or regulated substance is used or not. By accumulating and occasionally reviewing data, we can quickly respond to the customers' (final assemblers of products exported mainly to Europe) request for information.

#### Reporting occupational exposures to hazardous substances

Under an obligation, we have been notifying the Ministry of Welfare when we use 500 kg or more of any specified substance per year so that the Ministry can assess the risk of occupational injuries from chemical substances. Different from the PRTR, specified substances change every year and we also need to report how they are used.

The Gifu South and Gifu East Plants have constructed a new database for chemical substances and visualized the substances contained in all chemical products used (paints, chemicals, greases, etc.), their manufacturers, using workshops, and hazardousness to support the investigation by public agencies and ecological and safety/health protection activities at the Factories. In fiscal 2014, we will extend this effort to other plants to immediately cope with hazards from chemical substances.

#### Measures for PCB problem

PCB was used for electric devices because of its excellent insulating properties and incombustibility before designated as a restricted substance. We have been keeping 436 capacitors with enough care according to laws and reporting their states every year. Whole five ones kept by our affiliates KYB-YS and KYB-CADAC were completely disposed of by a subcontractor in fiscal 2013.

Remaining ones will also be disposed of at other plants in phases.

#### Investigation on the substances subject to PRTR Law

The amounts of PRTR regulated substances released or relocated by each business unit have been determined. We will make an effort to reduce those amounts and amounts of other chemical substances.

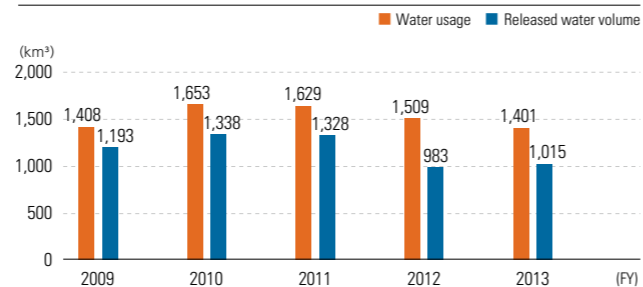
	Reference number	List of chemical substances	Usage Unit (t / year)
Specific Class 1	88	Chromium trioxide	49.5
	309	Nickel compounds	0.7
	400	Benzene	0.9
	1	Zinc compounds(water-soluble)	4.2
Class 1	53	Ethylbenzene	70.0
	57	Ethylene glycol monoethyl ether	1.9
	80	Xylene	105.7
	83	Cumene	1.5
	133	Ethylene glycol monoethyl ether acetate	2.6
	188	N, N-Dicyclohexylamine	1.8
	239	Dibutyltin oxide	0.5
	296	1,2,4-Trimethylbenzene	8.4
	297	1,3,5-Trimethylbenzene	3.3
	300	Toluene	112.8
	304	Lead	4.5
	308	Nickel	1.5
	384	1-Bromopropane	3.5
	392	Normal hexane	0.5
	410	Poly(oxyethylene) nonylphenyl ether	0.54
	412	Manganese	3.7
	438	Methylnaphthalene	1.7
	460	Trityl phosphate	10.0

\* The Environmental and Social Activity Report shows the substances whose total usage at all business units exceeds 0.5 ton.

#### Recirculation and reutilization of water

The water consumption and released water volume at plants in fiscal 2013 decreased by 35% and 28% respectively from the levels in the previous year. The water released by each plant satisfies requirements for BOD, etc. provided by the Water Pollution Control Act. An effort has been made to reduce the water consumption, regularly check the water quality and prevent environmental pollution.

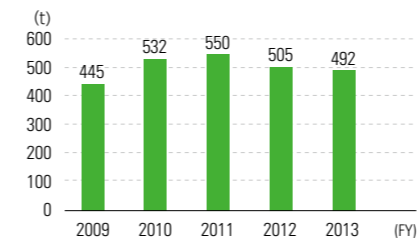
#### Water usage/ Released water volume



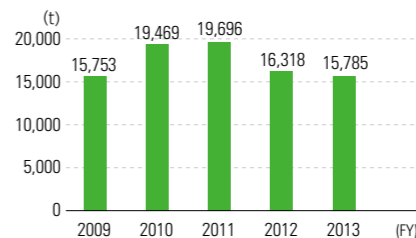
### Initiatives to Reduce Waste

KYB practices resource savings (reduce, reuse, recycle) during product design, production, sale and logistics in order to cut waste. In our offices, we are introducing ID authentication type multifunction printers and greatly reducing paper waste. We will take further steps including sludge recycle, efficient use of metal scraps and volume reduction of waste fluid in the future.

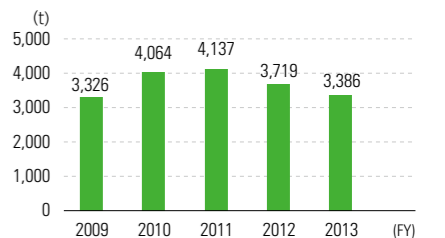
#### General waste emissions



#### Metal scrap emissions



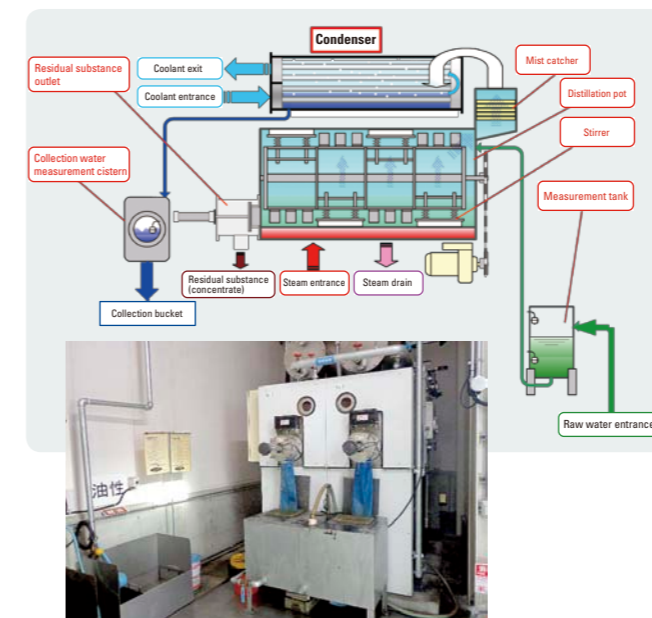
#### Industrial waste emissions



#### Alkali waste water KYB Kanayama Introduction of vacuum distillation volume reducing systems

KYB Kanayama entrusted an industrial waste disposal service with the treatment of as much as 800 kl of alkali waste water per year. As a result of observation of various factory equipment in an effort to reduce the released water volume, they could introduce an environment-friendly, efficient system. Directly after introduction, the waste water volume reduction efficiency could not be raised because of an insufficient tank capacity per building. Then, collecting tanks were concentrated to maximize the capacity and reduce the waste water volume to 1/8.

Afterwards, an effort will be made to reduce sources of waste water by reducing the cleaning fluid replacement frequency, for example, and ultimately reduce the release volume to zero.



#### The Environment Committee, the Cooperative Union of the Kanagawa Inland Industrial Park Participation in the Zero Emissions Promotion Team

We have joined the Zero Emissions Promotion Team, which comprises 37 members of the Cooperative Union of the Kanagawa Inland Industrial Park, to exchange information and present accomplishments regarding "Zero Waste Emissions," "Zero Energy Emissions" and "Protection of Biodiversity" and hold mutual observation meetings. A mutual observation meeting was held at the Sagami Plant on January 15 to explain the waste oil/water treatment system introduced to reduce wastewater and our ecological activities.



#### New undercoating paint Kumagaya Plan

Phthalic resin paints were used for undercoating about 40% of parts for conventional mixer cars. As they contained xylene, which has been regulated since 2013, they were likely to catch fire and difficult to control the coating quality. Therefore, immediate action was needed.

A single-component epoxy resin paint was selected as an alternative because it had a smaller risk of ignition and less problems in use. It replaced conventional paints after physical and quality tests. This paint produces thinner coats and eliminates the necessity of intermediate coating to prove that it is environment-friendly.



# For Our Customers

## Activities for customer satisfaction improvement

### Basic quality policy

We consider, "Good quality is our company's life", at KYB, and incorporate our management philosophy into our action plans and policies for Monozukuri and service sites, and strive to contribute to the development of customers and society.

### Quality Assurance System

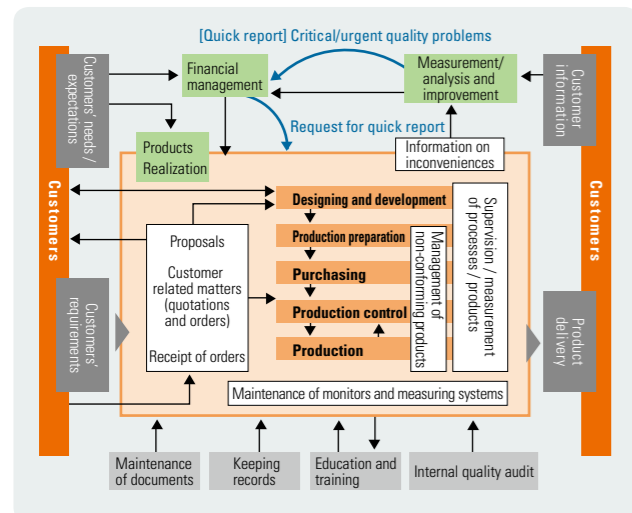
At KYB, we believe that "work process quality" is important as well as "product" and "service quality". We are trying to improve the institutional quality assurance system, including obtaining international quality management ISO9001.

Also, we are working to stabilize management and reduce environmental burdens by eradicating product defects.

On-site checks are made by the general manager and directors of each plant to identify not only inconveniences but also good approaches that solved problems or resulted in an improved motivation, for example, and globally applied and developed to also raise human resources positively through improvement activities.

## Development ~ mass production steps

### Quality management process and quality assurance system

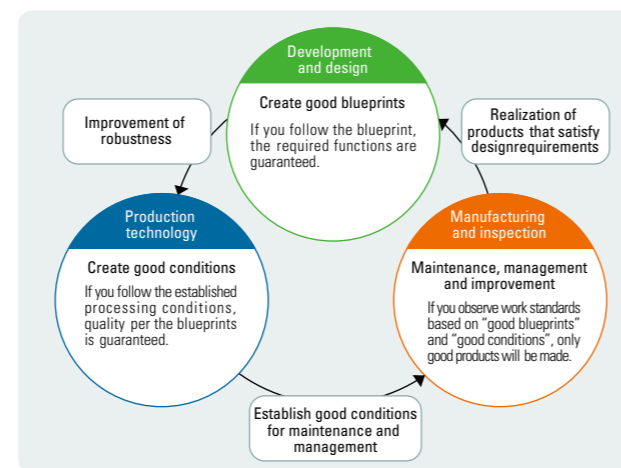


We have been involved in the "product and technical development with 3-level rating scale" with three steps from planning to mass production in order to "deliver products timely that meet performance and quality requirements from customers and market." We will proceed with the development without repeatedly starting over or making futile efforts.

### Development of products and technology through a 3-step evaluation process and the Declaration of Quality and Safety

Step	Goal of the 3 steps	Quality assurance steps
Prior / Model development	Proof of possibility (Description / evaluation of developed quality)	Development quality
DR0 evaluation meeting	Proof of mass production (Actual proof / evaluation of developed quality)	Start quality
Order development		
DR1 evaluation meeting	Proof and serialization of applicability (Actual proof / evaluation of start evaluation)	Mass production quality
Mass production development / Production preparations		
DR2 evaluation meeting	<b>Declaration of Quality and Safety</b> There will be confirmation before the start of regular production that the mass product quality has been built into the design.	

### What KYB Aims to Be: Quality problem prevention cycle



### Information supply to customers

We think that exhibitions are precious opportunities to directly hear customers' opinions. We will continue to positively participate in exhibitions.

### (Some) exhibitions where we displayed our products

Shanghai auto show 2013	Shanghai, China
Paris Air Show 2013	Paris, France
2013 Internal agricultural machine exhibitions in China	Qingdao, China
The 3rd Railroad Technology Exhibition	Makuhari Messe, Japan
Inter Aqua2014	Tokyo Big Sight, Japan
The 5th Vibration Technology Exhibition	PACIFICO YOKOHAMA, Japan
Enetech Japan	Tokyo Big Sight, Japan
IFPE2014 (International Fluid Power Exposition)	Las Vegas, United States

# With Business Partners

## Establishment of partnership

### Basic policy for procurement

KYB is making an effort to take the corporate social responsibility (CSR) and continue to be a company relied upon by the society. Suppliers are important partners for us to continuously develop through craftsmanship and help realize a wealthy society.

Our basic policy for procurement is described below: For detail, see our website.

<http://www.kyb.co.jp/company/csr.html> (Japanese only)

1. Procurement activities aiming at the coexistence and mutual prosperity of KYB and our suppliers
2. Legal compliance
3. Quality First
4. Safety and health, human rights and labor
5. Continuous cost reduction activities
6. Timely delivery
7. Protection of natural environment
8. Construction of global procurement system
9. Risk management
10. Classified information management
11. Prevention of corrosion

### Relationship with suppliers

#### Explanation meeting for the 2013 fiscal year procurement policy

An "explanation meeting for KYB's procurement policy" was held in the 2013 fiscal year (at the Tokyo Kaikan, Chiyoda, Tokyo) to strengthen the cooperation between KYB and our suppliers. We invited 196 suppliers on that day, explained our corporate and procurement policies, commended some of them for their excellence, effective QCD activities and, after that, held a party to cultivate friendships with them.

#### Supplier theme working group

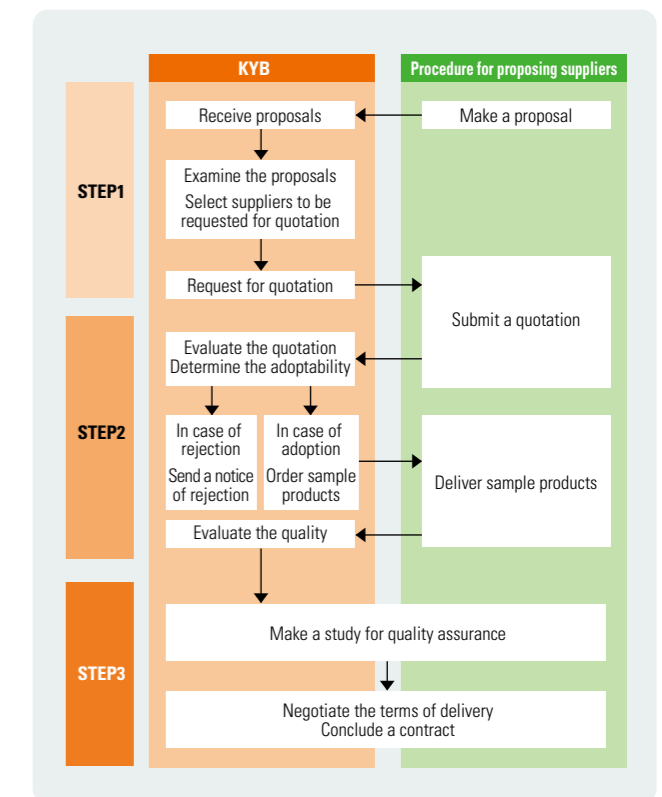
The supplier theme working group started activities in 2007 and marked the 7th anniversary in 2013. It is doing voluntary teamwork improvement activities aiming to "identify with joint study problems encountered by suppliers with difficulty to solve issues by themselves for those that they commonly have." Increasing suppliers agree with the intent of the working group and participate in its activities. Only 2 teams consisting of 15 suppliers participated at the beginning but have increased to 7 teams consisting of 48 suppliers.



Presentation of accomplishments

### Business starting procedure

The following procedure shall be followed to open a deal.



### Action against conflict minerals

Four kinds of minerals produced in the conflict area including the Democratic Republic of Congo and its neighboring counties in Africa (tantalum, tungsten, tin and gold) are defined as conflict minerals. We have been required to confirm that purchasing or using the minerals extracted from there will not fund armed conflicts or contribute to the infringement of human rights in the conflict area.

The KYB Group member companies are making an effort to eliminate the use of unfairly extracted conflict minerals in cooperation with our customers and suppliers from the CSR's point of view and according to the intent of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

# For the Community

## Social Support Activities

### Joint evacuation drill with a Long-Term Care Health Facility

Gifu South Plant has concluded the "Agreement of Disaster Support" with a neighbor Long-Term Care Health Facility. We have been entrusted with lifesaving and fire fighting activities and a fire brigade at the Headquarters of the Gifu South Plant participates in the joint disaster drill conducted every year at a nursing home for the elderly. They are trained to save the handicapped people on the second or higher using "evacuation chairs" and spray water using "wheeled pumps."



A water spray drill with wheeled pumps

### Holding "SC Sagamihara" KYB Special Support Match

Aiming at local revitalization and sports promotion, the KYB officially sponsors a football club "SC Sagamihara", belong to J3 league, based in Sagamihara City, Kanagawa. In 2013, we held "KYB Special Support Match" as a home game. On that day, lunch boxes and drinks were sold to supporters and a big lottery was held to win pair tickets for theme parks, etc. to make the place very lively. We will continue to develop activities in cooperation with the community with the "SC Sagamihara's" support.



The pitch before the game

### Environmental conservation organization in Sagamihara

The "Environmental Improvement Society of Sagamihara" is holding events such as "wild bird observation," "nature observation," "investigation of river creatures" and "ecological class in summer vacation" in order to prevent public hazards and create a comfortable environment while protecting the beautiful nature.



Nature observation

### With appreciation to daily support ~Supporting a festival at the Dota Public Hall~

We support the "Festival at the Dota Public Hall" held every year at Dota in Kani City where the Gifu East Plant is located. A show with street entertainers was planned in the 2013 fiscal year. We handed-out balloon art that changed into various shapes and watched an entertainer juggling while balancing on a big ball to amuse many neighbors from small children to the elderly. We will continue to positively participate in local events to further deepen the communication.



A scene of the festival at the Dota Public Hall

### Demonstration at the Ecology Festival in Kani City

In February of 2014, we participated in "the 14th Ecology Festival held in Kani City" with the slogan "Let's Create an Ecological Town for the Future." We gave a demonstration of pruning trees and crushing twigs with Chipping Vehicle for Pruned Branches and distributed crushed chips free of charge, which were favorably received. In addition, we introduced our ecological approaches by displaying panels showing various ecological products.



A demonstration of crushing work

### Supporting the Dakar Rally

We supported the Toyota Auto Body's Team Land Cruiser (hereinafter, referred to as TLC) in the Dakar Rally in 2014. The Dakar Rally is a severe endurance race also called Paris Dakar and has been held in South America since 2009. A 15 days' battle was opened on January 4 of 2014 and TCL won the first prize in the commercial car section for the 14th time after a 3 years' interval. The KYB's shock absorbers had no trouble during the rally and could prove its performance.



### KYB Stadium/Tennis Court

We started to exercise our naming rights at the stadium and tennis court in the Athletic Park in Kani City, Gifu in April of 2014.

The "KYB Stadium" is the first artificial turf covered stadium in Gifu and can be used for various sports such as baseball, softball and soccer. The "KYB Tennis Court" can be used at night throughout the year. We have been supported by the local community for more than 70 years since we built a plant in Gifu in 1943. We will continue to contribute to the local community advancement, sports promotion, etc.



The front gate of the KYB Stadium

### Supporting snow mobile races in North America

The KYB's vibration control technology is made much of by snow mobile races, which are very popular in North America. We have concluded sponsorship contracts with top racers and offered products for many team machines. Johan Lidman and Travis Muller, riders of the team supported by KYB, won the first prize in the first round of a snocross championship game in Canada in February of 2014.



## For the community

### Social Support Activities

#### Donation of winter clothes to Indonesian trainees

Japanese and Indonesian candidates for nurses and care workers are receiving training in Japan to obtain certification. We were requested by the Japan Indonesia Association, an incorporated foundation, to donate winter clothes for them to comfortably spend cold winter days in Japan. Members of KYB were asked to donate winter clothes they no longer wore or thought unnecessary and many winter clothes such as coats, jackets, sweaters and mufflers were donated. Many clothes donated especially by female members made the Indonesian trainees' life in Japan warm.



Trainees holding winter clothes in their hands

#### Repaying the Malaysian people for their kindness. KMSB (Malaysia)

KMSB marked the 30th anniversary of foundation and conducted a campaign to donate 0.10 RM (Malaysian Ringgit) to charities per commercial shock absorber sold in Malaysia as part of a memorial project. With the cooperation of dealers and retailers, we could finally donate 100,000 RM (about 3,100,000 yen) to an orphanage named Budimas Charity Fund.

In addition, we donated similar amounts to eight charities in total and concluded this charity project.

We are very glad that we can express our gratitude over 30 years in this way. We will continue to support the Malaysian people in various ways.



Donation to charities in the Middle of Malaysia

#### Social contribution activities at Chinese production sites (in the Zhenjiang district) KCI, KIMZ and KHIZ (China)

Three companies in the Zhenjiang district received the following commendations for (1) employment security, (2) having paid a corporate income tax in the 2013 fiscal year, and (3) introduction of KYB's craftsmanship and on-site management.

From the Zhenjiang Science and Technology Management Committee "2013 Top 10 Contributing Industrial Enterprises" (KCI (representative)) "2013 Safe Production Activity Excellent Enterprises" (KIMZ and KHIZ) From the Bureau of Work Safety, the Zhenjiang Industries Association "2013 Safety and Health Excellent Enterprises" (KIMZ and KHIZ)

In addition to the above, they participated in a fundraising project carried out by Shanghai Huazhong to "build schools in farming areas."

In autumn of 2013, KIMZ opened the "Open House" for its employees and their families. We will continue to support the society and community through corporate activities.



\*KCI is a company managing businesses in China.

They received a trophy for the "2013 Top 10 Contributing Industrial Enterprises."



KIMZ's open house

#### Donation to a Japanese school in Indiana, America KAC(United States)

14 resident employees of KYB are working for KAC, in Indiana, USA. Their children are attending "local schools" from Monday to Friday and learning Japanese and arithmetic (mathematics) at a "Japanese school" on Sundays. The Japanese school has a kindergarten, elementary, junior high and senior high sections and has an enrollment of about 330 students. KAC has been donating to the Japanese school every year.

## With Employees

### Human resource utilization and work environment improvement in cooperation

#### Basic concept

In order to use human resources more effectively in line with lifestyle changes and diversified working forms, we have been developing employee-friendly personnel affairs, benefits and work environment. For these problems, we have established a human affairs and benefits system review committee by labor and management with the aim of creating a pleasant work environment that meets the employees' various needs. We have been reviewing themes such as "advancement of work life balance," "support system for valuing both work and family," "effective use of company-owned bachelor housing" and "selective benefit package (cafeteria plan)."

#### Health management workshop

At each business office, a health workshop is held simultaneously with the autumn national industrial health week every year and thus we support health promotion for our employees. In the 2013 fiscal year, we encouraged our employees to do exercises as a prevention measure against metabolic syndrome. Participants spent a relaxing time by using muscles that they don't usually use and flexing stiff muscles around their necks and shoulders.

We have been holding mental workshops as needed. Regarding mental health activities, KYB's approach has been introduced on the website of Ministry of Health, Labor and Welfare, so please look at their website for details.

<http://kokoro.mhlw.go.jp/case/hukki/009.html> (Japanese only)



#### Join in National Skills Competition

The National Skills Competition is held with the purpose to let young skilled workers under the age of 23 in Japan know about the importance and fun of "Monozukuri". The 51st National Skills Competition was held at 14 venues including Makuhari Messe, and 1,127 people participated in 40 types of competitions. Yuji Watanabe of the human affairs headquarters, human resource development center participated in the lathe competition. As a form of training for highly skilled people, the National Skills Competition is meaningful for improving young workers' skill level and we will continue to participate in this event.



Human resource development center Yuji Watanabe

#### Training for new employees

We hold training for new employees together with the group companies with the aim of sharing "vigorous corporate culture" and achievement.

##### 1. Group education

All new employees of the KYB Group gather and learn the "management principles," "being conscious of being a member of society" and "safety education" with group discussions. In the 2013 fiscal year, 118 employees participated in total, 79 from KYB and 39 from the group companies.



##### 2. Hands-on training

This training is for "cooperating with each other and thinking in a group for solving problems as a team" and "sharing a satisfying sense of achievement and a sense of unity." This training is held every year in a quiet environment surrounded by greenery in Ashigara.



### VOICE

#### After taking training for new employees

Throughout the six-month training period, what impressed me the most is the training in Ashigara. In the Ashigara training, I was able to experience the difficulty of solving a problem with my teammate within a limited amount of time and feel a sense of achievement when the problem was solved. This training was the most impressive because I was able to learn how pleasant and difficult it is not to act by myself but within a group.



HC business headquarters Tomoka Nakano



AC business headquarters Sho Tanaka



## With employees

### Human resource development and technical capability improvement

#### LT50 Activity

“LT50 Activity” is an activity to reduce manufacturing lead time by 50%. This activity features not only manufacturing methods but also part procurement, shipping to our customers and improvement work efficiency. This activity leads to cost reduction, quality improvement, environmental preservation and safety.

#### Improvement example 1

##### ● Reduction of old model supply product stock and visualization

###### Before improvement

A large automated warehouse was located on the line side and approximately 180 units of old model supply products were in stock.

We reviewed necessary stocks and created a production system that requires standard quantity.



###### After improvement

By removing two large automated warehouses and reducing space by creating paper pipe shelves, we were able to reduce power consumption and a stock of finished products to 80 units.



#### Improvement example 2

##### ● Stock reduction of individual welding process

###### Before improvement

The temporary storage shelf carried a 1,210 unit stock of welding parts.

We changed the system and removed the storage shelf.



###### After improvement

By creating a supply lane of individual welding parts using pick-up Kanban, we realized zero intermediate stock and secured a space of 1.08m<sup>2</sup>. We were able to reduce the weight for part suppliers to handle.



#### KYB global production meeting

From November 13th to 15th of 2013, a KYB global production meeting was held in the Gifu North plant. Focusing on environment, safety, production and quality, 45 people participated from 19 overseas business bases, including affiliate companies. Participants actively exchanged opinions and asked questions about examples of improvement by setting up a power consumption monitor for CO<sub>2</sub> emission reduction activities from the environment perspective, and about examples of activities for making facilities intrinsically safe and raising employees' safety awareness from the perspective of safety. In this manner, we were able to gain a better understanding of environment and safety.

#### Global engineer training

With the aim to improve the technological level of the overseas manufacturing bases, we have held global engineering training since 2006. In the 2013 fiscal year, 36 engineers participated from 12 bases of 7 countries, and 268 engineers in total have been playing a key part in their plants.

This training focuses on “dialogical lecturing,” “experience practice” and “advanced plant tour,” during which participants acquire basic skills for a month, draft improvement ideas for their own base and implement them after returning to their countries. All participants exchange their ideas and share know-how to improve a group capability. We will continue to hold this training and strengthen manufacturing capabilities of the overseas bases.



#### Holding an automobile damper exchange skill competition

##### KTS(China)

At KTS, a sales company in China, we held an automobile damper exchange skill competition for technical improvement of car mechanics in March, 2013. Two employees each participated from 8 repair plants and the participants competed for accuracy of shock absorber exchanging. We invited professional mechanics from Japan as instructors and have them judge the competition. After the competition, when the instructors demonstrated the operation, the participating mechanics' serious looks were impressive. We would like to continue activities like this and hope that shock absorber exchange skills in China will improve and be stable.



Mechanic participants intensively watch an instructor's demonstration

### Employee communications

#### Sports and Culture Interaction Event

A sport and culture exchange event was held in Kumagaya and approximately 700 people participated. The storm that hit the area until the day before stopped as though by magic, so we could enjoy a refreshing autumn day. Four overseas teams representing Thailand, Vietnam, Indonesia and the Germany-England joint team participated in futsal games and competed with 12 Japanese teams.

We promoted friendship with the KYB Group.



Futsal finals

#### Holding the 6th KYB Robot Contest

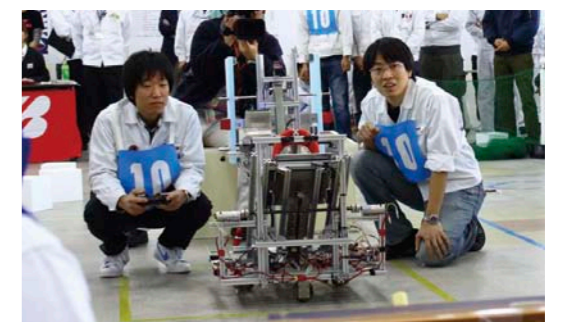
On November 16th of 2013, the 6th “KYB Robot Contest” was held at the Gifu North plant. That year's challenge was to compete for points by playing quoit after holding boxes placed on the course and piling them up in a designated place. Because each team had improved last year's problem of not throwing rings accurately, they engaged in a high-level competition. Nineteen teams in total participated from each of the Japanese and overseas group companies and KAC (United States) held the championship for two years running. The spectators included everyone from top managements to employees and their families, totaling 430 people, and the atmosphere was full of excitement.



Quoit competition



Box piling up competition



## With employees

### Creation of Safe and Comfortable Workplaces

#### Activities under the slogan of "Safety has precedence before everything else"

Since the 2012 fiscal year, under the slogan of "Safety has precedence before everything else," our company has implemented activities in an integrated manner. By centering on the company-wide "environment safety committee," whose chairperson is the director in charge of safety, each business office's "safety and health committee" plays a key part in implementing specific activities.

Among such activities, focusing on the establishment of OSHMS, we implement activities such as risk assessment (evaluation of operation risk degree), safety patrol by each office organization, and mutual safety inspection between business offices and departments. As a result, we were able to decrease accidents that require time off from work by approximately 90% in the 2013 fiscal year compared to the 2012 fiscal year. In addition, we appointed a safety staff from each business office, organized the safety and health expert committee to review company-wide policies and maintain rules and standards. We will continue to rotate the PDCA cycle and conduct activities aiming for zero industrial accidents.



Safety and health committee of the Sagami Plant Company-wide safety and health expert committee

#### Safety experience education KYBT(Thailand)

Through education in the safety experience program, which is a crucial factor for improvement of all employees' risk sensitivities, participants experience a simulated industrial accident by using a safety experience simulator made up of 29 safety experience machines and devices. Through this experience education, we were able to teach the points of caution for handling machines and hazardous parts effectively.

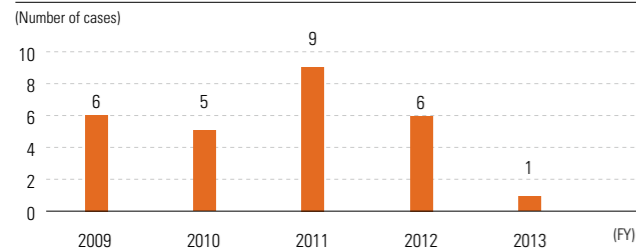
We have been trying various measures to have our employees feel a sense of danger, to realize "what is dangerous" and think for themselves. In addition, we have been actively conducting education for improvement of knowledge and awareness of energy saving and environmental preservation.



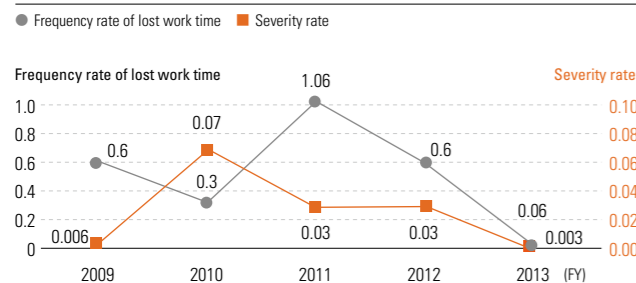
Training participants taking a confirmation test after the education program

"Safety door" located at the training hall entrance

#### Number of lost work time cases



#### Frequency rate of lost work time and severity rate



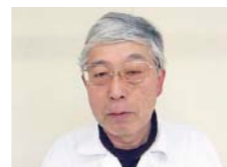
\*Frequency rate of lost work time: Represents accident frequency (number of victims of industrial accidents per total 1,000,000 working hours).  
\*Severity rate: Represents degree of accident (number of lost work days per total 1,000 working hours).

#### VOICE

##### As an instructor of the safety experience training program

I have been engaged in this program as an instructor since establishment of the safety experience training program in April of 2011. I always conduct the experience education with the aim of having new employees cultivate their sensitivity toward danger, mid-career employees remember their forgotten sensitivity, and management level employees develop an eye for seeking out a source of danger. I have tried many different measures including adding new items such as "Spot the difference" for raising their safety awareness. I am currently instructing the 3rd experience training that all employees take repeatedly.

Also, we open the training hall to neighboring companies and schools and thus have been supporting the local safety activities.



KYB-YS Tokuo Aoki

#### Aiming to advance activities to make facilities intrinsically safe and to raise employees' safety awareness

From October 30 to November 1, 2013 (for 3 days), the 72nd National Industry and Health Convention was held in Osaka and approximately 12,000 people related to industrial safety and health participated across the nation.

At this convention, 3 KYB employees made a presentation about their research and introduced safety and health activities conducted at their business offices to participants from all over the country.



Presentation theme  
"Aiming to advance activities to make facilities intrinsically safe and to raise employees' safety awareness"  
Sagami plant, Tetsuo Sato

Presentation theme  
"Making rules that can be obeyed"  
Japan Auto Parts Industries Association  
Safety and health sectional committee  
Research study W.G-D representative  
Gifu South plant, Naoki Takagi

#### Comprehensive earthquake and fire drill at the headquarters

In September, 2013, we conducted a comprehensive earthquake and fire drill at the KYB headquarters. We conducted this training in cooperation with joint training at the World Trade Center Building, where KYB has an office. We learned body protection, evacuation through the fire escape, firefighting training using a fire extinguisher and how to use AED using a training doll, and thus we have prepared for an emergency.

Through such training, we will try to raise employees' awareness of fire and accident prevention.

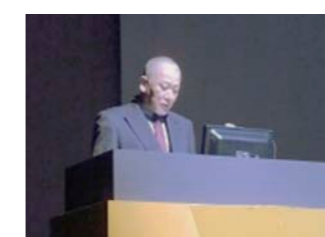


Image of AED and firefighting training

#### VOICE

##### Production activities by coexisting with risk

On the convention day, in front of 800 attendees, and as a representative of the critical management office, I made a presentation about our safety and health activities in the Gifu South area. I firmly explained that "risks always exist in production activities by people and equipment and that it is important to understand the meaning of its importance and to co-exist with risk" and my statement was enormously well received by the audience. Since then, I have received inquiries from many companies. In the future, we would like to continue



to develop our activities with the aim of becoming a model safety workplace.

Presentation theme  
"Safety and health activities based on risk assessment review"  
Gifu South plant, Takashi Kojima

#### VOICE

##### Receiving the "Minister of Health, Labour and Welfare award for excellent safety foreman"

"Zero industrial accidents" is wish of KYB and the employees' families. As a person engaged in manufacturing, I have implemented our activities as a crucially important and permanent issue. It is a human instinct to "protect yourself by yourself" but I believe that the basic thing that I need to do is "to make rules, obey them and instruct others to continue them." Through the OSHMS activities, I will try to improve safety and share awareness by clarifying risks lurking at work and discussing it with other operators.



KYB Motorcycle Suspension  
Kazuo Niwa