

Message from the top

## THK's efforts to protect the environment

### ■ The importance of environmental issues

Global environmental issues have become an urgent and highly important topic in a variety of fields. From the standpoint of industry there are two sides to this topic. On the positive side, environmental initiatives will open up new markets. The Green New Deal proposed by U.S. President Obama is a good example. It calls for the U.S. government to provide about 15 trillion yen in funding over 10 years to support a wholesale conversion to renewable energy sources. On the negative side, though, industry will be confronted with strict controls on the use of electricity and gas to produce goods and provide services. Businesses will have to invest in new equipment to reduce CO<sub>2</sub> emissions and will also have to purchase emission credits, leading to substantially increased costs.

It may seem as though these two aspects of the situation are mutually contradictory. The preservation of the global environment is a critical issue, however, one that all businesses must address as a matter of self-preservation. Environmental CSR activities should not be considered in terms of the cost but must be regarded as an investment in the effort to protect our planet. It's an investment that will bring us, as a corporation and as individuals, great benefits.



## ■ Helping to protect the environment through our core business

Ever since THK was established in 1971 our corporate philosophy has been “providing innovative products to the world and generating new trends to contribute to the creation of an affluent society”. Based on this philosophy, THK has created many energy-saving products that convert the linear-motion components of machine tools from conventional sliding motion to rolling motion. These products are used not only in machinery but in a wide variety of mechanisms commonly encountered in daily life, and they help protect the environment in many ways.

Energy conservation is the underlying concept for the development of all THK products. The ability to minimize frictional resistance makes it possible to reduce the size of electric motors and of machines themselves, resulting in dramatically lower power consumption. Using LM Guides in the sliding section of a large grinding machine to move the machining table back and forth, for example, reduces power consumption by 90% compared to conventional grinding machines using sliding guides. Replacing an air cylinder with an LM Guide actuator combined with a servo motor reduces CO<sub>2</sub> emissions by a factor of 150. THK’s Link Ball products meet the needs of automobile makers seeking to incorporate lightweight components in order to maximize fuel performance and reduce CO<sub>2</sub> emissions. These products have found favor as components in hybrid cars.

We will continue to help our customers achieve significant energy savings in the future.

## ■ Protecting the environment during the production process

As a manufacturer, THK strives to protect the environment in its manufacturing and distribution activities. Equipment is being updated and lighting systems are being revised at all of our production plants to enable the plants to achieve their respective annual targets for reducing CO<sub>2</sub> emissions. We have also implemented zero emissions programs aimed at reducing, reusing, and recycling waste materials.

In our distribution activities we constantly work to improve loading ratios and promote a modal shift to rail-based transport. These efforts, however, are just the start.

In the future we need to develop more energy-efficient production machines and actively incorporate natural energy sources. Our office employees must become more environmentally aware and practice energy conservation.

## ■ Keeping the planet green for future generations

Planet Earth is said to be a miraculous place, for in the vast cosmos here alone do we find the conditions required to sustain life. We have a solemn duty to leave this wonderful planet in good shape for the benefit of those who will be here after us. We hope our customers will appreciate the energy-saving benefits of THK products. Meanwhile, we will keep striving to use less energy in our own production processes, in the hope that, many years from now, our descendants will look upon our efforts with gratitude.

Akihiro Teramachi

President and CEO

THK Co., Ltd.

