Product-related Initiatives for the Environment

Basic Approach

Since its products are utilized in many different kinds of end-products, the Minebea Group believes that it has an especially important role in providing parts that contribute to environmental consciousness throughout the product life cycle. This responsibility extends from ensuring that its parts are free of materials hazardous to the environment, to energy-efficiency, resource-efficiency, and long-life.

Group's Environmentally Conscious Products

The products that the Minebea Group produces and sells are environmentally conscious. This means that they satisfy various countries' environmental laws and customers' environmental requirements from the development and design stage as well as undergoing voluntary product chemical substance evaluations and product assessments.

Launching Mass Production and Sales of New Lighting Product, "SALIOT"

The Minebea Group has developed the world's first* LED lighting enabling users to adjust the light distribution angle. "SALIOT" (Smart Adjustable Light for the Internet of Things) harnesses light guiding panels and plastic injection molding technologies developed for LED backlights. We began mass production and sales of this innovative product in July 2015.

SALIOT can adjust its light distribution angles from 10° to 30° by using a motor to control the distance between the light emitting diode and the lens. Leveraging wireless technologies, we added proprietary software enabling users to easily control the light distribution angle, brightness, and illumination position with a smartphone or tablet.

SALIOT can provide multiple light sources from a single illumination, making it ideal for such commercial complexes as large-scale shopping centers with high ceilings, car dealer showrooms, art and other types of museums, educational facilities, event spaces, hotels, and a wide variety of other venues. SALIOT helps to solve a number of issues posed by the lighting of large spaces, including the elimination of dangerous work involved with adjusting lights in high places, as well as improving energy efficiency through the use of LED lighting.

External view of SALIOT

*Based on company's research as of July 2015

Development of High Heat-resistant Ball Bearing Unit for Turbochargers

The Minebea Group has developed and begun manufacturing and selling a high heat-resistant ball bearing unit for turbochargers (air supply device to force air into the engine) which prevents burning of the unit's components. The balls are made of ceramics and the casings used to hold the balls are made of high heat-resistant materials to prevent the shaft bearing from expanding and burning.

Currently, automakers around the world are striving to improve the fuel efficiency of engines to make them more environmentally conscious. As one measure, automakers have been adopting smaller displacement engines and fitting them with air supply devices to boost output and thereby raise fuel efficiency.

We expect these trends to gain further momentum in Japan and Europe, where fuel efficiency regulations are tightening, and in North America, where large-sized gasoline cars are common.

High heat-resistant ball bearing units for turbochargers

Management of Environmental Impact Materials Included in Products

The Minebea Group has issued the Minebea Group Green Procurement Standard requiring suppliers to supply products (raw materials and parts) free of hazardous substances along with data and documentation verifying their products' safety. We also conduct our own verification tests of suppliers' products using XRF (X-ray fluorescence spectrometers) to ensure the products are free of hazardous materials subject to RoHS regulations.

Future Issues and Goals

The Minebea Group will continue to accurately grasp the detailed needs of society in order to develop products that can contribute to safety, energy-efficiency and resource-efficiency.