

# Initiatives for Preventing Global Warming



## Basic Approach

The Minebea Group recognizes that the international issue of global warming, along with the related issues of soaring energy prices and abnormal climatic conditions, pose a significant threat to the sustainability of its business activities.

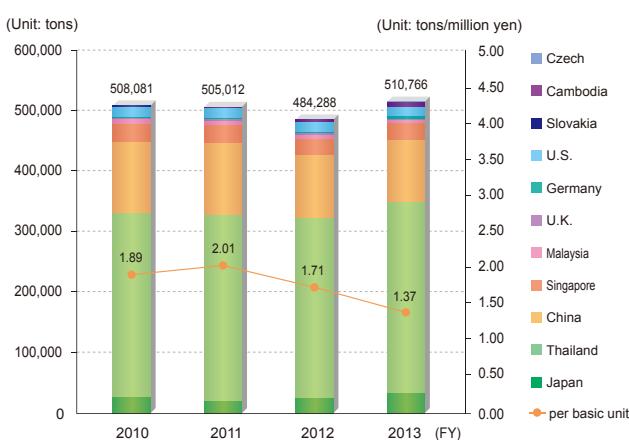
In response, each office and plant in the Minebea Group is proactively promoting energy efficiency initiatives in order to combat global warming after having completed formulating the main measures for their sites. Additionally, our Energy Conservation Promotion Committee, which is made up of representatives of all our business units, promotes the sharing of knowledge and technologies accumulated from past activities along with case studies on exemplary energy-efficient initiatives. The sharing of this wisdom among the Group's business units is bolstering the entire Group's approach to global warming prevention.

## Results of FY2013 Initiatives

The Minebea Group's emissions of CO<sub>2</sub> in FY2013 totaled 510,766 tons, 5% more than in FY2012. In terms of basic units of production, CO<sub>2</sub> emissions declined 20% over FY2012 to 1.37 tons per million yen of production. The cause of this decrease was highly energy-efficient manufacturing activities amid strong business growth, as well as efforts taken by plants around the world to reduce CO<sub>2</sub> emissions.

In FY2013, the Group's CO<sub>2</sub> emissions generated from logistics operations totaled 71,148 tons, an increase of 19% compared with FY2012.

### CO<sub>2</sub> Emissions (Total and Per Basic Unit)



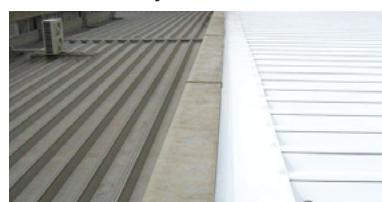
\*Emissions generated by product shipment are not included.

## Initiatives in Office Spaces

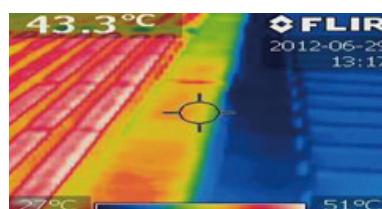
In our office spaces, we strove to reduce CO<sub>2</sub> emissions by thoroughly promoting casual cool business attire in the summer, minimizing lighting usage, and implementing "no-overtime days." In January 2013, we relocated the Tokyo Head Office to a new building purchased in Tokyo. At the new building and office spaces within, we are taking global-warming countermeasures and striving to raise the level of environmental consciousness.

## Initiatives at Offices

**Plant roof coated with heat shield paint (Hamamatsu Plant)**  
The roof of the Hamamatsu Plant is gradually being coated with heat shield paint in order to prevent temperatures from rising inside the plant during summer. A comparison of uncoated and coated areas of the roof found the uncoated surface temperature to reach 43.3°C compared with a coated surface temperature of 27.0°C, reflecting the effectiveness of the paint at restraining temperature. In FY2013, 2,662m<sup>2</sup> of the roof was coated, reducing the generation of heat by 158,964 kcal/h, for an estimated annual cost savings of 1.3 million yen.



Portion of roof uncoated (black area on left)  
Portion of roof coated with heat shield paint (white area on right)



Left: Uncoated area (43.3°C)  
Right: Coated area (27.0°C)

## Future Issues and Goals

The Minebea Group will continue to advance its measures to prevent global warming. As a medium-term goal, by FY2015 we plan to reduce CO<sub>2</sub> emissions per basic unit of production by 5% compared with FY2010, or 1% annually.

In terms of long-term goals for 2030 and 2050, we will monitor the Intergovernmental Panel on Climate Change (IPCC) and policies in countries around the world in formulating our initiatives.