

**Distribution practices have a significant impact on the environment. Corporate entities can thus be said to play a crucial role in efforts to reduce that impact.**

**The Minebea Group is taking various steps, including implementing modal shifts, aimed at reducing emissions of CO<sub>2</sub> and atmospheric pollutants.**

## ◎ Low-energy transportation using ships and shortening of lead time

Minebea uses high-speed ferries between Shanghai and Hakata for exporting or importing products, machinery and equipment, materials or the like between China and Japan and uses JR freight trains or domestic vessel between Hakata and Tokyo. This transportation route shortens lead time greatly compared with transportation using only common freight ships between Shanghai and Tokyo and reduces energy consumption (CO<sub>2</sub> emission) substantially compared with air transportation. High-speed ferries (RORO ships) allow loading and unloading containers using trailers without using large-sized harbor cranes to contribute substantially to reduction of lead time while saving energy.



**RORO ship  
(Roll On & Roll off ship)**

High-speed ferry that allows loading and unloading truck containers as they are without using large-sized harbor cranes to save time.



Loading and unloading marine containers as they are.



How containers are unloaded from a RORO ship

## ◎ Use of reusable bands to prevent collapse of cargo instead of stretch films

Stretch films have traditionally been wound around cardboard or plastic cases on pallets to prevent collapse of cargo during transportation. Stretch films are used only once and then thrown away. Minebea uses reusable bands to prevent collapse of cargo during transportation between Minebea plants and warehouses instead of using disposable films. The bands can be used approximately 1,000 times.



Reusable bands to prevent collapse of cargo

## ◎ Promotion of recycling used packaging materials

Minebea promotes recycle of cardboard, cushioning materials and wrapping materials in packing materials for products delivered to customers in Japan after they were manufactured in overseas factories. Cardboard, cushioning materials and wrapping materials used for packing materials are collected when products unloaded at an airport in Japan are delivered directly to our customers by truck. The truck returns to the airport with the used packing materials, which are sorted in the airport, compressed with machines and are sold to recycling companies as recycle materials according to their types.



1) Styrofoam package waste



2) Compression



3) Recycled material