

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.

## Implementation of Environmentally Sound Distribution Practices

### Use of recyclable, reusable strapping bands instead of stretch film

When transporting automotive products for shipment by truck or rail from the Fujisawa Plant to Minebea's Tokyo metropolitan area depot warehouse, located in the Tokyo Bay area, the Logistics Division previously used polyethylene stretch film to prevent load collapse. Because this film is not reusable, however, once it has been removed from a crate it must be incinerated.

Recently, Minebea has launched a program to abolish stretch film in favor of strapping bands. These strapping bands can be reused approximately 1,000 times. Once they have reached the end of their useful lives, these strapping bands can be recycled into fiberboard. This move has enabled Minebea to reduce CO<sub>2</sub> emissions, as explained here.

Incinerating one pallet's worth of stretch film releases approximately 0.045 kg of CO<sub>2</sub> into the atmosphere.<sup>1</sup> Approximately 300 pallets of freight are shipped each month, so the use of strapping bands has enabled Minebea to reduce monthly CO<sub>2</sub> emissions by approximately 13.5 kg.

Minebea also plans to introduce these recyclable, reusable strapping bands for transporting fan motor products from the Xicen Plant in Shanghai, to the Futian District in Shenzhen. Minebea will continue promoting measures such as this aimed at improving the environmental soundness of its distribution practices.



Polyethylene stretch film used to prevent load collapse

One pallet is wrapped five or six times, requiring approximately 25 m of film.

To date



Polyester stretch film from pallets is discarded after opening.

In the future



Result of improvement: Recyclable, reusable polyester strapping bands used to prevent load collapse. The bands can be reused approximately 1,000 times and at the end of their useful life they are recycled into fiberboard.

Note: 1. Reuse and recycle estimates are from the manufacturer's catalogue. (Assuming the incineration of 1 kg waste emits 3.67 kg of CO<sub>2</sub>, the complete incineration of one 50 cm x 25 m sheet of stretch film emits 0.045 kg.)