

# Promoting Eco-Friendly Physical Distribution and Packaging

Murata is reducing its environmental impact during not only production stages but also the product distribution stage. We are reducing CO<sub>2</sub> by making transport more efficient, and we are reducing waste by cutting down on packaging materials.

## Reduction of Environmental Impact Arising from Distribution

### Promoting New Measures such as Modal Shifts and Joint Shipping

Each year, Murata sets a target for reducing CO<sub>2</sub> emissions during distribution and strives vigorously to achieve it. For fiscal 2008, we planned ① to reduce total travel distance by reorganizing our distribution network in the Kansai and Hokuriku areas, ② to install Eco-drive Management System (EMS) devices in trucks to support drivers' fuel-efficient and safe driving, and ③ to introduce energy-efficient hybrid vehicles. The installation of EMS devices and introduction of hybrid vehicles were completed as planned. Currently, a plan for reorganization of distribution network is under development. In fiscal 2008, although we worked hard to achieve the target

of reducing CO<sub>2</sub> emissions per unit of net production from domestic physical distribution by at least 36% from the fiscal 2000 level, the target was not achieved (the result was a 29% reduction). This is attributable to a rapid decrease in cargo volume in the second half of fiscal 2008; although we could reduce the total amount of CO<sub>2</sub> emissions, we failed to achieve the unit reduction target. In fiscal 2009, we will step up our efforts to reduce CO<sub>2</sub> emissions during distribution; as part of such efforts, we plan to introduce systems that provide accurate and real-time information regarding the amount of load being carried by trucks, to increase their average loading ratio.

We continue to study the possibility of a modal shift from truck transport to relatively low CO<sub>2</sub> emission railroad or ocean transport.



Truck loaded with freight

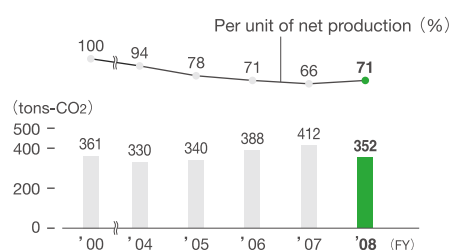


EMS device



Hybrid truck

### ■ Reductions of CO<sub>2</sub> Emissions during Domestic Distribution

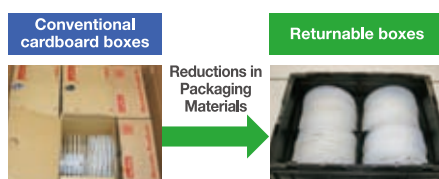


### Reduction in Packaging

Our approach to reducing packaging materials is to use technological innovations to make our products smaller. In addition, in recent years we have promoted the use of returnable boxes for exterior packaging to reduce the use of cardboard boxes. In fiscal 2006, we adopted this practice for the shipment of all products between operating sites within Japan. In fiscal 2007, we began using returnable boxes for some customers, and we plan to continue to expand their use.

As a result of these activities, in fiscal 2008 we attained our goal of reducing the use of packaging materials per unit of tape used for major product packaging at domestic sites by at least 45% from the fiscal 2000 level (the result was a 49% reduction). We will strive to promote further reduction of packaging material consumption through the increased use of returnable boxes and simplified packaging.

### ■ the use of returnable boxes for exterior packaging



### ■ Reductions in Packaging Materials

