Prevention of Global Warming

The greenhouse gases emitted as a result of Murata's business activities are primarily CO_2 generated from the energy consumed during production. To help reduce global warming, we are aggressively implementing initiatives to reduce the amount of energy we consume.

CO_2 Emissions

With the goal of reducing CO_2 emissions per unit of net sales by 10% in fiscal 2003 compared to fiscal 1990 levels, Murata has been implementing initiatives intended to conserve energy.
As a result of the initiatives instituted in fiscal 2003, we reduced CO_2 emissions by 24,609 metric tons for the fiscal year (estimated); however, this still represents a 43% deterioration in CO_2 emissions compared to fiscal 1990 levels, which we attribute to fluctuations such as lower product prices and increased production quantities. As a result, we were unable to achieve our goal.

Initiatives for 2003

Implementation of Energy Audits

In order to promote energy conservation, we set out to improve our energy efficiency by assigning a specialist group within the company to undertake an energy audit.

Introduction of Flow Control Mechanism in the Cool Water Pump of the Air Conditioning System

Okayama Murata Manufacturing has introduced a flow control* mechanism for the hot/cold water generator used in its air conditioning system. This directly controls the flow according to the load on the primary cold water pump. This innovation has reduced CO_2 emissions by 205 metric tons per year.
Komatsu Murata Manufacturing has introduced a similar flow control mechanism for the warm water pump of its air conditioning system. As a result, CO_2 emissions have been reduced by 41 metric tons per year.

*Controls the flow by sensing the direct flow of the previous inverter pump control. Provides a significant energy savings.

Improving Operational Efficiency by Linking Piping of Air Conditioning Heat Sources

The Miyazaki Plant of Fukui Murata Manufacturing has linked the piping of its air conditioning heat sources located in separate buildings. This has improved the efficiency of the heating system, resulting in a reduction in CO_2 emissions of 1,150 metric tons per year.

Installation of High-efficiency Lighting Fixtures

Komatsu Murata Manufacturing, Toyama Murata Manufacturing, and Izumo Murata Manufacturing have completely replaced their lighting fixtures with high-efficiency fixtures, thereby reducing CO_2 emissions by 57 metric tons per year. In fiscal 2004, we plan to update the lighting fixtures throughout the Murata Group in Japan with high-efficiency devices. We anticipate that this initiative will reduce CO_2 emissions by 2,000 metric tons annually.

Reducing the Consumption of Compressed Air

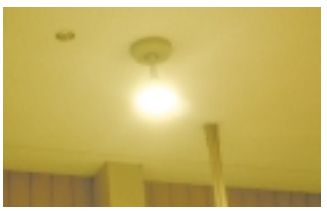
By reducing leaks and improving the ways in which compressed air is used in production, we have reduced CO_2 emissions by 1,970 metric tons annually.

Increasing the Efficiency of the Heat Treatment Furnace

By improving the operating conditions of the heat treatment furnace, we have reduced CO_2 emissions by 462 metric tons annually.


Flow control


Interlinked air conditioning piping


High-efficiency lighting fixtures


Reduced consumption of compressed air

Future Issues to Be Addressed

In fiscal 2004, we will introduce our goals of reducing CO_2 emissions per unit of net sales during the period from fiscal 2008 to 2010 by 10% compared to those for the period fiscal 1998 to 2000; moreover, we will promote the following initiatives:
introduction of additional cogeneration systems;
switch to innovative high-efficiency air conditioning equipment; and
introduction of various types of inverters.

Trends in CO_2 Emissions per Basic Unit of Net Sales (Total for Japan)