

Feature article [Global Warming Prevention]

Measures to control CO₂ emissions are the responsibility of every company and individual on the Earth.



In pursuit of optimal energy efficiency while aiming for further energy conservation and the reduction of CO₂ emissions

Murata Manufacturing Co., Ltd.
Vice President
Yuichi Kojima

We join together hand in hand all the way from design and development to manufacturing. That is our strength

Most of our products are made of ceramics. Ceramics is another word for pottery. Our kind of manufacturing involves processes requiring large amounts of energy such as sintering process. To us, it is essential that each one of our employees is aware of energy conservation and the reduction of CO₂ emissions as a natural part of living, and of each individual's responsibility to do his or her part. Murata is continuously involved in production innovation activities. We try to stress the fact to those who take up development and manufacturing responsibilities that these activities include energy conservation and reduction of CO₂ emissions. However, if we don't have good teamwork among the production facility departments that design and maintain facilities, the manufacturing departments that incorporate these facilities in work, and the environment departments that take charge of air-conditioning and infrastructure of plants, it would be impossible to achieve significant results no matter how hard each department works on conserving energy. I believe the role of Global Warming Prevention Special Committee,

on which I serve as vice chairman, is to join together hand in hand with these departments, and the material and product development departments to maximize energy conservation, and greatly reduce CO₂ emissions, and I will do my best to see that we continue our efforts into the future. We have already seen examples of joint technological innovations among associated departments to reduce energy consumption and lean energy usage, exemplified by efficient utilization of heat exhaust from air-conditioning for production. Our experience in the recent earthquake has reminded many of us of the fact that energy is an essential part of modern society. Because the planet's resources are limited, however, we need to use them as efficiently as possible. This is the ongoing challenge we face, and we will respond by continuously striving to conserve energy and pursue optimal energy efficiency in manufacturing. We regard this goal as our corporate responsibility, and will continue to move toward it in all of our corporate activities.

Heat from air-conditioning exhaust is used for production Together hand in hand, we overcome difficult challenges

The secret to successful activities is to boldly accept challenges and to never give up

Azumi Murata Manufacturing produces EMI Suppression Filters to remove noise generated from electronic equipment such as mobile phones and notebook PCs. We command a 35% share of the global market, and have a strong technological edge in manufacturing for printing and drying process during production. Further reductions in energy consumption and CO₂ emissions are being pushed forward at our plant through company-wide initiatives for the prevention of global warming. We, for example, took up the challenge of providing warm airflow during the drying process using heat pumps to make even more efficient use of air-conditioning energy through the introduction of an exhaust heat collecting turbo water heating/cooling system. Specifically, we elevate water temperature efficiently with a heat pump utilizing exhaust heat to create warm airflow. However, making such a change in this process was quite

risky since the drying process control is very delicate. This was our first attempt to combine the dryer and the heat pump, and there were several challenges such as stabilizing airflow temperature and airflow intensity. We had faith, however, that we would surely gain from this experience even if we did not succeed totally. We formed a team that included the engineering section, production engineering section, production section, environment section of the plant and the Head Office environment department, and pursued optimization without adhering to the existing system. Our efforts allowed us to achieve success in the end. This activity was very effective in reducing CO₂ emissions by 2,600 tons over FY2007 (over 20% of the total emissions from the plant) or tens of millions of yen. This activity also gave birth to ideas for new challenges, and we will continue our ceaseless efforts to reduce CO₂ emissions and cost.

Photo, from left to right
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