



We encourage employees to make suggestions for improvement. Many of the ideas received are related to environmental protection. They include suggestions for conserving resources

and energy in the product development and manufacturing stages, reducing the volume of waste produced, and reducing environmental impact. These suggestions are put to good use in improving

our resource productivity. Employees who make exceptional suggestions for improvements receive awards, and their ideas are introduced in our in-house magazine.



Improvement Activity System

The following are some of the suggestions made by employees that are related to environmental protection.

Energy Conservation

● Improving the Drying Process for Shell Elements

The drying process for shell elements in the foundry formerly used heated air, and it was necessary to use an air preheater for the process. The new process suggested, and now in use, employs a microwave dryer. When the elements are ready to be dried, the microwave dryer is ready instantly, and the quality of the elements can be maintained more easily. Moreover, the microwave dryer method reduces the amount of gas and electric power needed.



▲ Microwave drying furnace

Waste Reduction

● Reduction in the Waste Processing of Oil Absorbing Mats

Formerly, oil absorbing mats that were used when equipment was repaired were thrown away after a single use. Following a suggestion, we built a machine from waste materials to squeeze the oil from the used mats and make it possible to reuse them, thus leading to a reduction in the volume of waste from this source.



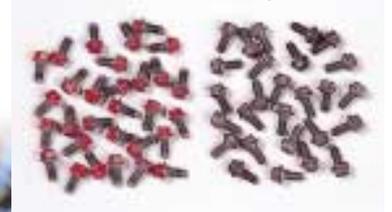
▲ Device for squeezing oil from absorbing mats

Improving Recyclability

● Reuse of Temporary Front Door Bolts

In the production process for automobile bodies, bolts are used to temporarily secure the front doors during the painting process. Thereafter, they were removed and, previously, were thrown away because they became coated with paint. Following an employee suggestion, the paint is now removed from the used bolts and they can be employed repeatedly until worn out.

▼ Bolts before (left) and after (right) paint removal



Resource Conservation

● Improved Equipment Using Waste Materials

In the automobile production process, when the frames for the front doors are removed from the storage area, they are now sent to the assembly line on a hanger actuated by a pedal—an employee suggestion. This represents an improvement over the previous method that involved hand-carrying the frames. The hanger used in the new process incorporates a substantial amount of material that was formerly thrown away as waste, so the new method involves recycling and represents an improvement in the workplace environment. This improvement received a gold medal from the Japan Industrial Safety and Health Association in 1998 in recognition of its creativity and process improvement.



▲ Hangers, nicknamed "Easy-Easy Hangers," for transporting automobile front doors automatically to the assembly line