

## Addressing Environmental Preservation through Our Business Activities

### Conservation of Resources and Reduction of Waste

Murata is working to reduce - to as close to zero as possible - the environmental impacts accruing from waste produced as a result of our business activities. Our goal is to contribute to the development of a "recycling society" by reviewing production processes, minimizing the disposal of waste matter, and promoting recycling and reuse.

#### Elimination of Incinerators

By 1998, we had eliminated incinerators from all 18 domestic plants and subsidiaries that had maintained incinerators. Although most were small-scale units outside the scope of laws and regulations, we voluntarily abolished them to reflect our commitment to preventing the release of dioxins. In parallel with this effort, we sought the cooperation of paper manufacturers to promote the recycling of paper, which represented most of what was burned in the incinerators.

#### Recycling of Films Attaching Ceramics

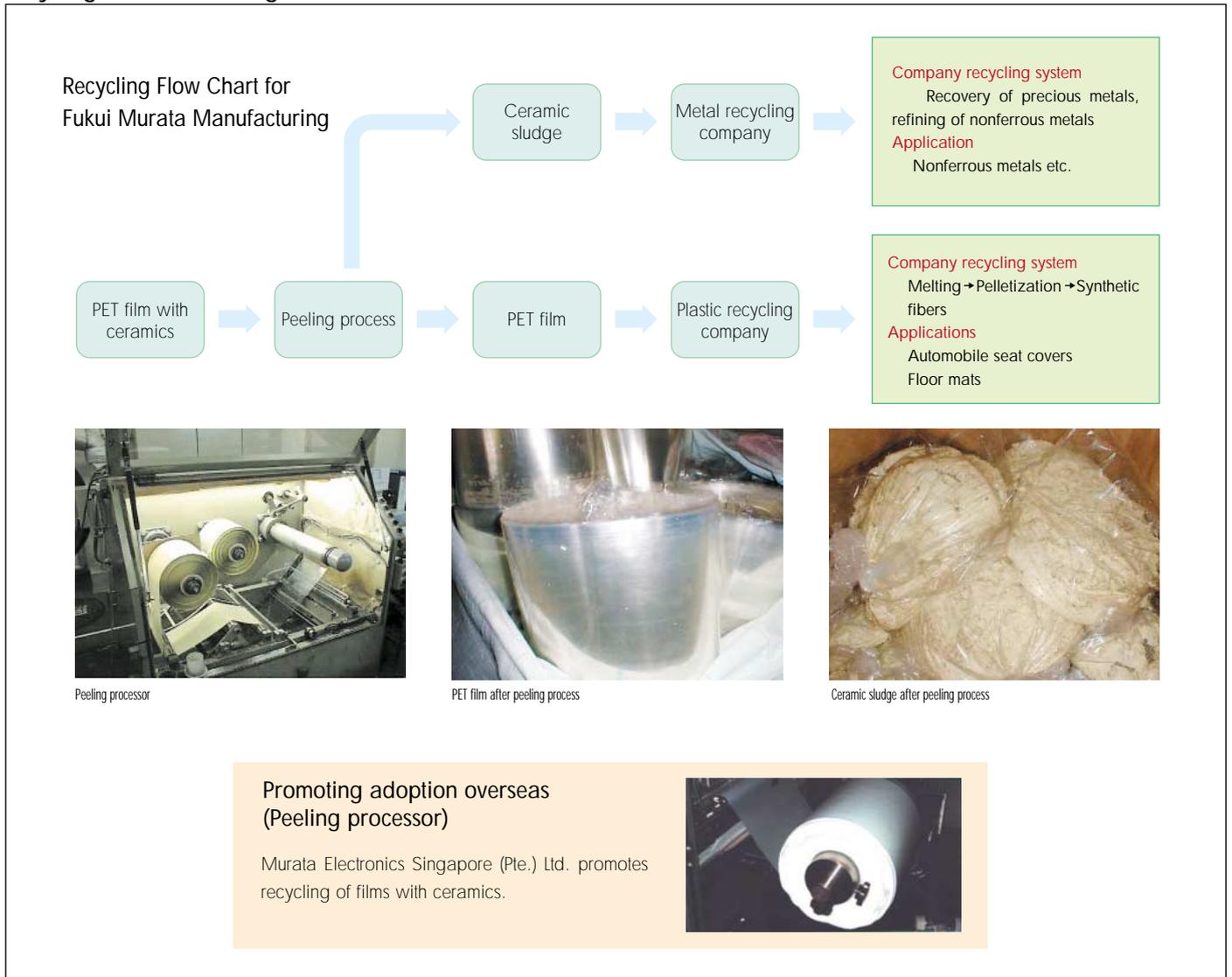
Initially, we disposed of soiled ceramic PET film in landfills, but in 1997 Fukui Murata introduced a peeling process targeting ceramics containing mainly precious metals. We then promoted recycling of the plastic after all dirt had been removed. Beginning in 2000, we instituted the same practice in our Singapore plant.

#### Introduction of Liquid Waste Evaporation Equipment

In 1999, we introduced a liquid waste evaporation equipment at our Yasu Plant that makes use of the waste heat from our co-generation system. This innovation has enabled us to concentrate liquid waste and reduce the amount discarded externally by about 85% (23,600 cubic meters).

By 2001, we had introduced liquid waste condensers at our Fukui Murata and Izumo Murata plants, thereby reducing the output of liquid waste to one-twentieth of these plants' outputs before the condensers were introduced. In addition, Toyama Murata Manufacturing has introduced a sludge dryer that has succeeded in reducing sludge output by about one-half.

### Recycling of Films Attaching Ceramics



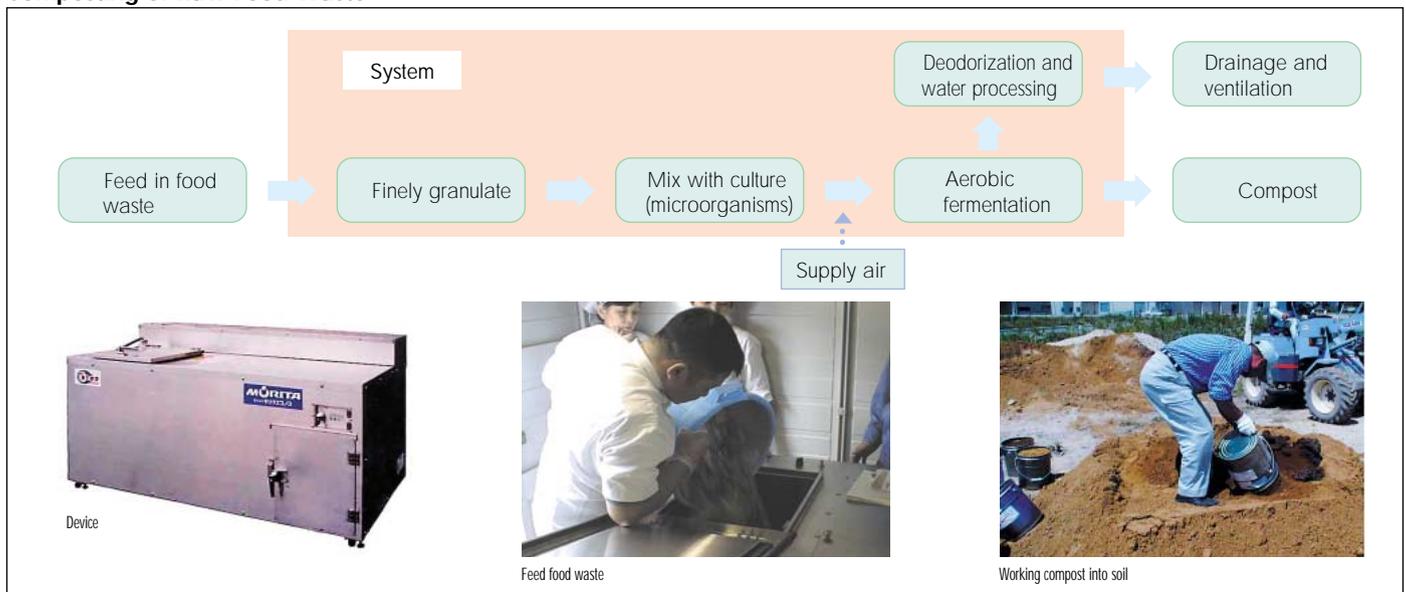
### Towards Zero Disposal of Raw Food Waste from Dining Halls

Our Japanese plants with employee dining halls and kitchens generate appreciable amounts of raw food waste. To address this issue, we began introducing facilities for composting this raw waste in 1996, and by January 2001 we had completed introducing such facilities in all 18 plants and subsidiaries (representing a total investment of ¥69 million).

The raw kitchen waste generated within Murata's domestic operations totals about 200 metric tons annually. As a result of this initiative, however, we have succeeded in reducing this volume to a mere 20 to 40 metric tons. Furthermore, because we compost the

remainder, we have been able to discontinue all external disposal of food waste; we now use the resulting compost on company grounds as part of our green landscaping efforts.

### Composting of Raw Food Waste



### Toward Zero Emissions

In fiscal 2001, Murata's monthly average total emission\*1 of domestic waste amounted to 2,193 metric tons, which represents a 7% reduction compared with the amount per basic unit of net sales for fiscal 2000.

The domestic recycling rate totaled 53.3% in fiscal 2001, an improvement of 15 points compared with the results for fiscal 2000 (38.3%). This result was largely attributable to distillation recycling of waste oil (waste organic solvents) and increased recycling of waste plastics in the form of refuse derived fuel. As a future objective, we are targeting complete recycling and zero landfill waste\*2 by the end of fiscal 2003.

\*1 Represents all waste (include salvage) discharged from plants. We plan to reduce this amount.

\*2 Represents zero direct landfilling of waste as well as zero landfilling of residual waste and sludge remaining after waste processing (such as incineration and neutralization).

### Total emissions of waste per basic unit of net sales compared with results for fiscal 2000 (domestic total)

