

Initiatives for the Global Environment

Environmental management

The ULVAC Group provides products that allow customers to feel that they have made environmental contributions based on our environmental policy of "Develop products that contribute to energy saving, resource saving and environmental conservation." Furthermore, we are ensuring thorough management and saving of energy consumption and waste emissions and conducting activities with the purpose of minimizing environmental impact.

The ULVAC Group possesses a global production system that is focused on the Asian region, yet has expanded broadly to regions such as Europe and America. It is essential that we share information within the group and swiftly carry out instruction from top management etc. We are working to unify the ISO14001 certification currently held by each company, and strengthen group governance.

The ULVAC Group will continuously reduce the environmental impact through its products.



Environmental Philosophy

ULVAC Group takes on one of major issues for everyone around the world, which is to conserve and protect the global environment. We will consider environmental conservation in all aspects of our business activities and will contribute to develop a better place to live and an enriched society.

Environmental Policy

Develop products with a goal to save energy, reduce the use of natural resources and contribute to the conservation of our environment.

- 1 ULVAC Group products/Final products
- 2 ULVAC Group manufacturing process

Initiatives to reduce the cost of energy consumed

Hideto Sasao

General Administration Department



Activities for the reduction of electricity purchasing costs and "visualization of electricity" usage through group integration

Until now, ULVAC has reduced contract demand through steady electricity usage reduction activities. Specifically, we have promoted improved awareness in each employee, in addition to conducting initiatives, such as increasing the spaces between lights, changing lighting in clean rooms to LED, fixing increased temperatures for air conditioners, operating clean room air conditioners at intervals, and shifting the operation of large-scale equipment to nights and holidays, while giving thorough consideration to the effects on corporate activities and employees.

Since the electricity deregulation for general households in April 2016, it has become possible to reduce energy costs through comprehensive electricity contracts with Chiba, Kanagawa, and Shizuoka. For the second phase, we held a Joint Electricity Consideration Meeting, which was attended by the electrical chief engineers and managers in order to promote the Group's integration efforts. As a result of this meeting, it was decided to adopt a policy of expanding the scope of the comprehensive contract by including the Aomori site. We are promoting activities to purchase electricity in a manner that is advantageous to each locality. We began our activities in factories that use a large amount of electricity; however, going forward, we will integrate small- and medium-scale factories.

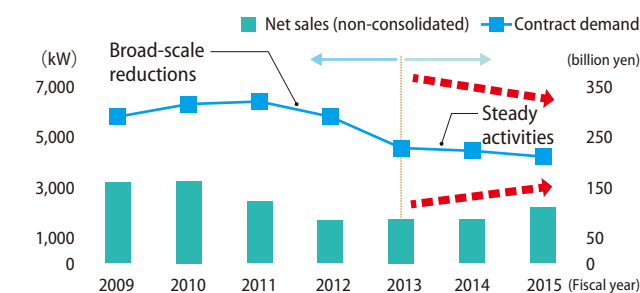
Furthermore, by monitoring the operation of factory equipment in

real time and through visualization of electricity, and providing this information to customers, we hope to be able to correctly understand the electricity usage of the equipment to be installed by our customers. We will promote further group integration and further increase employee awareness of reducing electricity usage.



Joint Electricity Consideration Meeting
Attended by representatives of 3 companies from 5 locations

Contract demand and net sales (Chigasaki Headquarters and Factory)



*Sales increased in Fiscal 2015; however, contract demand reduced.

Product energy-saving initiatives

Norihiro Suzuki

Development Division, Development Section No. 1, ULVAC KIKO, Inc.



ULVAC KIKO, Inc. manufactures and sells small vacuum pumps.

At this point, we have developed three types of energy-saving diaphragm vacuum pumps.

We have achieved a 70-72% reduction in energy usage compared to conventional models by changing the motor specifications to a brushless DC motor and reducing shaft seals through the use of magnet coupling. (DAU-20DC)

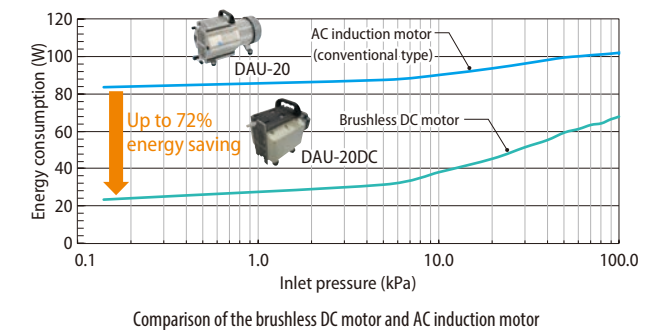
Furthermore, we have achieved energy savings of up to 50% for regions of 1 kPa or under in pressure, compared to conventional models, by reducing internal residual gas. (RDA-500H)

Going forward, we will promote improvements and enhancements in order to continue to satisfy the demands of our customers.



DAU-20DC

Saving energy through the adoption of DC motors



Environmental Activities in Fiscal 2015

The ULVAC Group is conducting energy-saving activities with the target of reducing energy costs by 10% in the 5 years from Fiscal 2013. This fiscal year, we achieved a reduction in energy (electricity) consumption of 0.8% over last fiscal year. We believe that the total reduction of 1.1% that we have achieved since the year before last indicates that an awareness of energy conservation is gradually taking hold at ULVAC Group companies.

However, waste emissions increased by approximately 6.5% over the previous fiscal year. The cause of this increase is thought to be the

increase in production volume, etc., during this period. We achieved our target landfill percentage, which was the ULVAC Group standard of 3% or below with the final disposal rate falling to 2.9% from 3.7% in the previous fiscal year. We are seeing the effects of limiting the amount of landfill disposal of international group companies. Furthermore, our rate of recovery of valuable materials was 26%, which continues the level trend of recent years. Recovery of valuable materials is also important from the perspective of material recycling, which is a valuable resource, and we will continue to promote it throughout the group.

Performance data

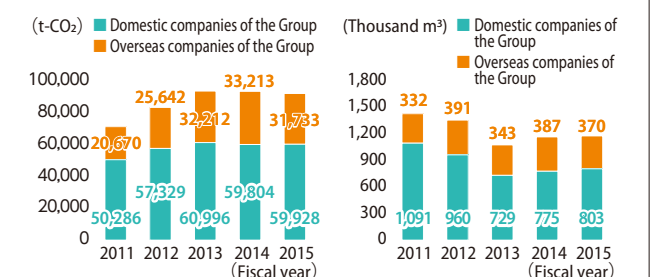
Material Balance

INPUT		OUTPUT	
Electricity use	157,819 thousand kWh	CO ₂ emissions	91,661 t-CO ₂ (Emitted by use of electricity, gas and fuel)
Gas usage	LPG: 70 t LNG: 632 t City gas: 1,513 thousand m ³		
Fuel use volume	Heavy oil: 304 kL Kerosene: 20 kL Diesel oil: 193 kL	Total volume of waste emissions	The total recycled amount accounted for 7,072 t of the 7,286 t of waste emissions. The landfill amount was 214 t.
Water use volume	1,172 thousand m ³		
Packaging materials	1,295 t	Final disposal rate	2.9%

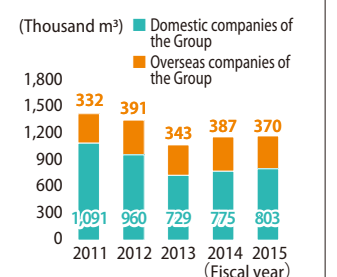
* The above data is based on the data from 34 Group companies in Japan and overseas.

* The volume of packaging materials is based on the data from 26 Group companies in Japan and overseas.

Transition of CO₂ emissions



Transition of water use volume



Waste

