ULVAC's Value Creation: <Business Value>

Here & There, Near Your Side

As a manufacturer of production equipment, ULVAC's products are rarely seen by the general public. However, the products created using vacuum technology and equipment are deeply connected to people's daily lives. The applications of vacuum technology will continue to expand further in the future. ULVAC remains committed to collaborating with customers across a wide range of industries, promoting the creation and co-creation of innovation with vacuum technology as the core, and continuing to be a company indispensable to society.

ULVAC's Vacuum Technology

Semiconductor: Semiconductor production equipment
Electronic Devices: Electronic device production equipment
Displays: Display production equipment
Energy: Energy-related production equipment
Industrial Equipment: Industrial equipment
Components: Components
Material: Materials

AI

Artificial intelligence (AI), powered by advanced and high-speed information processing technologies, is expected to address labor shortages, enhance operational efficiency, and improve value delivery to customers. Vacuum technology plays a crucial role in supporting this technological innovation by enabling the manufacturing of key components such as:

Semiconductor
Electronic Devices
Components
Materials

Hospitals

Advances in **IoT** technology and high-resolution displays have made it possible to deliver high-quality **telemedicine**, expanding access to medical care that was previously limited. Additionally, vacuum technology plays a vital role in meeting the growing needs of the medical field, such as in **vaccine** production and the research and development of **sterile pharmaceutical formulations**.

Semiconductor
Electronic Devices
FPD
Industrial Equipment
Components
Materials

Data Centers

With the widespread adoption of telework and the increasing need for big data storage, **data centers** are rapidly expanding, driving a surge in demand. Vacuum technology is integral to the manufacturing of key components used in these data centers.

Semiconductor
Electronic Devices
Components
Materials

Electric Vehicles

In the pursuit of carbon neutrality, efforts to reduce CO_2 emissions during driving have accelerated the shift away from gasoline-powered vehicles. Vacuum technology is extensively utilized in the manufacturing of components essential for **electric vehicles (EVs)**, including **power devices**, **electronic components**, **high-performance batteries**, and **high-performance magnets**.

Semiconductor
Electronic Devices
Energy
Components
Materials

Vacuum Circuit Breakers

Aging infrastructure in developed countries and the need for industrial infrastructure development in emerging nations have become pressing issues. Vacuum technology is utilized to enhance the performance of **vacuum circuit** breakers in power distribution systems, as well as **heat exchangers** in air conditioning systems, contributing to safer, more reliable, and comfortable infrastructure development.

Industrial Equipment
Components

Wind Power Generation

Wind power, a renewable energy source that places minimal burden on the global environment and is inexhaustible, serves as a symbol of sustainable energy. Vacuum technology is utilized in the production of **power devices** and **high-performance magnets** used for power generation in wind turbines.

Semiconductor
Electronic Devices
Industrial Equipment
Components
Materials

Smart Homes

Smart homes, enhanced by IoT and AI technologies to create more comfortable living environments, are expected to see significant growth in the coming years. Vacuum technology is essential in the manufacturing of the **semiconductors**, **electronic components**, and **displays** that form the backbone of these systems.

Semiconductor
Electronic Devices
Displays
Components
Materials

Freeze-Dried Supplements

While food waste and loss are critical challenges, the world also faces severe food security issues. Vacuum technology is used in the food sector for processes such as **freeze-drying** food and manufacturing nutritional **supplement** products.

Industrial Equipment
Components

Drones

In today's world, where labor shortages in agriculture are a growing concern, "**smart agriculture**" utilizing **drones** has garnered significant attention. Vacuum technology is essential in manufacturing the **semiconductors**, **electronic components**, and batteries that make up **drones**.

Semiconductors
Electronic Devices
Components
Materials

Solar Cells

Solar power generation systems, a key focus of renewable energy and growing in adoption, rely on control power devices in their operation. Vacuum technology plays a vital role in the manufacturing of these devices.

Electronic Devices
Energy
Components
Materials