

ULVAC GROUP'S HISTORY

The spirit of the ULVAC Group, passed down over more than 60 years

Vacuum technology is now an indispensable part of a range of manufacturing processes.

As the world's only comprehensive vacuum products manufacturer, ULVAC provides products to industry and research institutions etc.

The DNA of young researchers with the ambition to "contribute to Japanese industry through vacuum technology" has been passed down to this day. ULVAC has been providing the latest technology to the world for more than 60 years.

The story of ULVAC's establishment - the 6 angels* and ULVAC -

* Referring to the individual investors who invest in, advise, and guide a venture business.

ULVAC was established in 1952, which was a year in which Japan was attempting post-war recovery and it was unimaginable that vacuum technology could form the basis for a business, let alone contribute to manufacturing.

ULVAC was established in that time period with the blessing of 6 angels, led by Konosuke Matsushita, who is known as the god of management and is the founder of Matsushita Electric Industrial Co., Ltd. (now Panasonic).

The 6 angels were moved by the devoted passion of young researchers such as Jin Imachi, Chikara Hayashi, and Hideo Shibata, who came together with the aim of "establishing vacuum technology in Japan and contributing to Japanese industry" and invested accordingly. These investments resulted in ULVAC (then Japan Vacuum Engineering Co., Ltd.).



Yoshijiyo Ishikawa
President of Keifuku Electric
Railroad Co., Ltd. and
ULVAC's first president



Gen Hirose
President of Nippon
Life Insurance Co.



Konosuke Matsushita
President of
Matsushita Electric
Industrial Co., Ltd.



Yoshio Osawa
Chairman of the board of
J.Osawa Group Co., Ltd.



Aiichiro Fujiyama
Chairman of the Japan
Chamber of Commerce
and Industry



Tamesaburo Yamamoto
President of Asahi
Breweries, Ltd.

1952

1952~

- 1952 • Established Japan Vacuum Engineering Co., Ltd.
- Received first order for vacuum evaporation equipment to plate automotive parts from Hakkosha (now Ichiko Industries, Ltd.)
- 1955 • Opened Omori Plant and commenced domestic equipment production
- 1956 • Merged with Toyo Seiki Vacuum Research Corporation (1956) and expanded operations to become a comprehensive vacuum products manufacturer through the transfer of engineers from the Tokuda Manufacturing Co., Ltd. (1959)
- 1959 • Opened the Yokohama Plant

1960~

- 1960 • Developed successive large-scale vacuum devices for heavy industries, such as vacuum melting furnaces and vacuum distillation equipment
- 1964 • Established ULVAC's first overseas subsidiary in Hong Kong
- 1968 • Completed Chigasaki Head Office and Plant



1970~

- 1972 • Opened the Institute for Super Materials as ULVAC's first dedicated research facility
- 1975 • Received order from IBM for System 731, which was the world's first fully automated vacuum evaporation equipment



1980~

- 1986 • The MCH Series, which was the world's first multi-chamber sputtering equipment, received positive reviews from many semiconductor manufacturers



- 1988 • The SHD Series of hard disk manufacturing equipment was a global hit

Origin of the "ULVAC" trademark: Striving for the ultimate

1963

Executive Director Chikara Hayashi unveils the "ULVAC" trademark when it is first introduced



In the 1960s, as products developed by ULVAC began to contribute to Japanese industry bit by bit, more and more advanced vacuum technology became sought after.

The Company unveiled the "ULVAC" trademark in 1963, in order to clearly demonstrate the critical nature of the demands placed on vacuum technology. The name "ULVAC" is an abbreviation of "ULTimate in VACuum" (striving to be the ultimate in vacuums).

In 1969, the corporate name "Japan Vacuum Engineering Co., Ltd." was changed to "ULVAC Corporation" (currently "ULVAC, Inc.") and the Japanese corporate name was adapted in 2001, when the brand name "ULVAC" had become well-known by many users.

1990~

2000~

- 1990 • Opened the Fuji Susono Plant as a specialist semiconductor manufacturing equipment plant
- 1992 • Released the SMD series of single substrate film deposition equipment, which became the basis for ULVAC's FPD (flat panel display) business



- 1995 • Established a vacuum pump production center in China and a sales and service center in South Korea

2000~

- 2001 • Opened the Institute of Semiconductor and Electronics Technologies
- Changed company name to ULVAC, Inc.
- 2004 • Completed the new Chigasaki Head Office and Plant building aimed at development and trial manufacture of large liquid crystal display manufacturing equipment

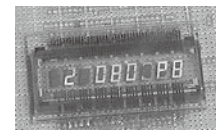


- Joined first section of the Tokyo Stock Exchange
- Established a dedicated production center for vacuum equipment in Suzhou, China

The world's first liquid crystal display and ULVAC

1973

The world's first LCD calculator display



Transparent conductive film deposition equipment that contributed to the development of the liquid crystal display



Electrical tabletop calculating device (calculator) is one of the great global hit products created by Japanese companies, and they made a tremendous contribution to Japan by allowing cutting-edge semiconductor and liquid crystal display manufacturing technology to take hold domestically.

In 1973, ULVAC perfected the transparent conductive film trial manufacture and production equipment, which was a key to the manufacturing process for the Sharp hit product ELSI MATE EL-805 LCD calculator. Leveraging this experience, ULVAC gained the top global share of display device manufacturing equipment for LCD flat-screen TVs.

2005~

- 2005 • Established a large-scale production center for large liquid crystal display manufacturing equipment in South Korea
- 2006 • Established a production subsidiary for large liquid crystal display manufacturing equipment in Taiwan
- 2007 • Opened the Chiba Tomisato Plant to handle development and production of materials
- Received order for a thin-film photovoltaic modules production turnkey line
- 2008 • Developed the Magrise mass-production system for rare-earth magnets and thin-film lithium rechargeable battery integrated mass-production technology as post-FPD businesses

2010~

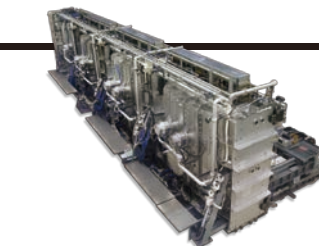
- 2011 • Established the South Korea Institute for Super Materials in South Korea
- 2012 • Celebrated the Company's 60th anniversary
- 2014 • Established ULVAC VACUUM EQUIPMENT (SHANGHAI) CO., LTD. in China
- 2015 • Established the Future Technology Research Laboratory
- 2016 • ULVAC (SUZHOU) CO., LTD. began manufacturing production equipment for large displays



De-facto standard for sputtering equipment for flat panel displays (FPD)

The continually evolving SMD Series

Since they first went on sale in 1992, ULVAC has boasted a market share of over 80% of the world's sputtering equipment for FPDs, and "SMD Series", which is a favorite of many customers, has continued to evolve along with the expansion of substrate glass sizes. In 2012, we exceeded 1,000 total units



Latest model "SMD-3400"

delivered. The latest model can accommodate super-large substrates, known as G10.5, which exceed 3 m in length. Going forward, we aim to do an even better job of meeting the needs of our customers.