

Entering a New Stage Developing New Business and Bolstering Existing Business

To remain innovative in the ever-advancing semiconductor production equipment sector, Tokyo Electron is enhancing its business development in frontline areas. Through corporate acquisition, we have added four new companies to the Group.

TEL Magnetic Solutions Ltd.

Establishing production technology for promising next-generation memory, MRAM

Tokyo Electron has been working on equipment development in order to establish production technology for Magnetoresistive Random Access Memory (MRAM), a next-generation memory technology that is attracting attention. In December 2012, we acquired Magnetic Solutions Ltd., which possesses high-level technology for the important MRAM production process of thermal processing in a magnetic field, and established TEL Magnetic Solutions Ltd.

As MRAM allows for high-speed writing with low power consumption, it is expected to replace current mainstream technology DRAM to become a key memory technology.



Activities: Development, manufacturing and sales of Magnetic Annealing System

Location: County Dublin, Ireland



Magnetic Annealing System



TEL Solar AG

Contributing to the global environment



Activities: Development, manufacturing and sales of photovoltaic panel production equipment

Location: Trübbach, Switzerland

In November 2012, Tokyo Electron established TEL Solar AG after acquiring Oerlikon Solar, which has world-leading technology in thin-film silicon photovoltaic panel production. Among the many types of photovoltaic panels, thin-film silicon photovoltaic panels generate more power than crystal photovoltaic panels, even in high-temperature regions right on the equator and in mostly cloudy regions. By combining Oerlikon Solar's technologies with the technologies that we have nurtured in our semiconductor production equipment business, we will be able to dramatically improve conversion efficiency and productivity.

As there is growing need for eco-friendly power generation systems, we will use our technologies for the development of an environmentally sustainable society.



KAI™ MT
PECVD
System

TEL FSI, Inc.

Developing cleaning system business

The ongoing miniaturization of chips has increased the importance of cleaning processes that remove particles*, photoresist, nitride film and contaminants.

In October 2012, Tokyo Electron established TEL FSI, Inc. after acquiring FSI International, Inc., a global supplier of innovative cleaning solutions and advanced technologies with a broad customer base. As FSI's processing technology and our technologies complement each other, this combination will increase our capabilities and strengthen our product portfolio.



Activities: Development, manufacturing and sales of cleaning systems

Location: Minnesota, United States

ORION™
Single wafer
cleaning system



Stratus
Electrochemical deposition system

TEL NEXX, Inc.

Ever-evolving semiconductors—Working on smaller packaging and lower power consumption

The increased demand for smartphones, tablets and other mobile devices is driving the growth of the advanced packaging market. Advanced packaging technologies reduce form factors, enabling smaller devices that manage power more effectively, while delivering increased functionality.

In May 2012, Tokyo Electron acquired NEXX Systems, Inc., a market leader in plating and sputtering equipment supplier, to serve this high growth 3D wafer level packaging market. The wholly owned, US subsidiary was established as TEL NEXX, Inc., broadening TEL's equipment solutions to include high volume advanced packaging tools.



Activities: Development, manufacturing and sales of ECD system, PVD system and sputter deposition

Location: Massachusetts, United States

Glossary

*Particles: Very small impurities on wafers