



Siemens implements ECS into new reticle mask stocker/sorter tool

Stack and sort

Founded in 1979 as an engineering consulting company, Fortrend specialized in innovative automation system design for the medical and semiconductor industries. Since 1989 Fortrend has supplied automation equipment for semiconductor device manufacturers, photo mask suppliers and original equipment manufacturers (OEM).

Fortrend provides the crucial connections between process equipment and the factory delivery system and between different process equipment. Based upon modular designs Fortrend provides stand-alone equipment, modular components, as well as equipment that can be integrated into processing tools reliably and cost effectively.

Joint technical partnership

Siemens and Fortrend have set up a joint technical partnership in early 2004 to automate the next generation of SMIF reticle mask stocker/sorter tool to meet the increasing storage needs of the semiconductor manufacturing industry. Storage of several thousand reticle masks takes space which is at a huge premium in fabs and manual reticle stockers require at least 3 personnel per shift to manage.

Fully automated stocker/sorter

This fully automated stocker/sorter is the first of its kind on the market. Fortrend's

new storage contains up to 8 reticle masks into the space normally occupied by a 3 reticle storage units. Space savings, improved reticles quality control and reduction of fab staff are the result. The current Fortrend customer base is driving demand for an automated reticle mask stocker/sorter solution.

A new tool for Korea

Fortrend has completed this new tool and it is currently being installed at a 300 mm fab in Korea.

Siemens implemented its latest Equipment Control System (ECS) to automate the operation of Fortrend's reticle stocker/sorter which includes the Simatic S7-300 PLC, remote intelligent I/O on Profibus & device interfaces via the Actuator Sensor Interface (ASI) open bus. The tool will be operated with a Siemens Industrial PC loaded with WinCC GUI and WinCC ToolLink for fab host IT MES interface via SECS/GEM.



Picture: Fortrend

Over the next few months the technical partnership will extend into supplying Fortrend with customized automation solutions for atmospheric wafer transport systems, wafer sorters and many other new advanced wafer & reticle transport solutions. "The partnership with Siemens allows us to automate our next generation reticle & wafer handling solutions with the most advanced, reliable and innovative control hardware & software in the semiconductor industry. We are confident that Siemens global presence will allow us to support our growing customer base and maintain our high standards for control innovation," says Dr. Chris Wu, president & CEO of Fortrend. ■

Richard Schuler, Siemens San Francisco
E-mail: schuler.richard@siemens.com