Semsysco GmbH @ Semicon Taiwan 2019/
Booth i2816

COMPANY VISION

SEMSYSCO is a global company, specialized in providing innovative wet process solutions for the semiconductor and related industries. Long-term experience of qualified engineers enables us to provide cutting edge, reliable and sustainable quality on a continuous basis.

Our aim is to satisfy by outstanding engagement, excellent service performance and spare part support. To understand the ever-changing needs of our customers, we listen to their requirements and monitor industry trends. With SEMSYSCOs innovative processing platforms, it is possible to scale processes to different substrate sizes, even from horizontal wafer processes to vertical panel processing.

SEMSYSCO Sales and Service organization expands around the globe, while its manufacturing and engineering expertise is kept strictly in Austria.

OUR TECHNOLOGY

With its innovative processing platforms, SEMSYSCO enables its customers to quickly scale their processes to different substrate sizes, even from horizontal wafer processes to vertical panel processing.

All our products are based on three platforms, Triton for horizontal single wafer processing, VHS-P for vertical panel processing and Galaxy for batch processes.

OUR PRODUCTS

These platforms offer our customers standardized, robust functionality for all their wet processing requirements.

We are offering a high degree of customization to our established standards in order to tailor our products to our customer’s needs.
SEMSYSOC is ready for the **Industry 4.0** transformation, enabling the capture and use of all relevant process data and smart process controlling with e.g. endpoint detection systems.

**GALAXY BATCH WAFER PLATFORM**

With the Galaxy batch wafer processing, we combined **years of experience** with batch wafer processing with the cutting edge of process control typically only found on single wafer tools.

Additionally, this platform is suited to **grow with your process** needs and both enables you to start prototype application as well as run mass production processes.

**MODULAR DESIGN**

The modular approach to the batch tool gives you all the potential configurations that satisfy your processing requirements. From a single chamber manual tool, to a two, four, or even eight chamber fully automated tool, with a mix of solvent or acid processing chambers, the basic tool remains the same, and layers of functionality are added on.

Best of all, within the same tool you can use carriers for **manual cassette loading**, and change over to guardian carriers for full automation. By changing the carrier you can also easily run different substrate sizes.

**ADDITIONAL FEATURES**

An additional feature is the adding on of **immersion tanks** to allow the electro-less deposition of metals. Our Galaxy-EL features pre-treatment, rinse-dry batch
chambers as well as the tanks necessary to deposit metals very thin and very homogeneously, while offering superior bath life, minimal drag out and excellent uniformity.

**TRITON SINGLE WAFER PLATFORM**

From its inception to the first delivery in 2013, the Triton platform was designed to be a stable but modular workhorse for all single-wafer wet-processes.

The modular build of our tools enables our customer to configure the tool for a mass-production single-process tool as well as a swiss-army knife R&D or prototyping tool – without affecting performance or reliability.

**FRAMEWORKS**

Within the modular frame-work, we keep innovating the platform. Our customers can choose to equip their tool with the High-Speed Plating System in favor of a traditional fountain plater, or with an upper chamber that allows pre-wetting as well as a final rinse/dry above the plating chamber without needing a robot move.

**FLEXIBILITY**

We provide our customers with the most flexibility. Tools can be made ready to support additional chambers and/or tanks, so it will grow with your process needs. Our modular thinking makes it possible that newly developed chambers can be added to existing tools with space for expansion, future-proofing our customer’s investment.
VHS-P VERTICAL PANEL PROCESSING

Our newest platform was introduced in 2016 to process panels larger than 300x300mm² in vertical chambers. Where the high-speed plating system allowed us to achieve already superior uniformity and plating speeds on single wafer substrate in a horizontal configuration, the vertical chamber is where this system truly shines.

PLATING ELECTROLYTE

Through careful and uniform injection of the plating electrolyte near the surface and the linearization of the electric field at the same time, it is the only system that makes fine line plating feasible on large / very large substrates.

PHOTORESIST STRIP/DEVELOP AND UBM ETCH

Knowing that plating is just one step in the whole wet process of the panel, we also offer a complete photoresist strip / developer and seed and barrier layer etch program to enable all kinds of RDL (redistribution layer) processes for your packaging needs.

APPLICATION MARKET

- Advanced Packaging
- PCB Fine Line
- E- WLP DIE First & Die Last
- EMIB Embedded Multi-Die I Bridge
- Automotive
- Power IC
- MEMs
- BEOL
- LED
- III-V

Semsyso GmbH looks forward to meeting you @ Booth i2816 during Semicon Taiwan 2019!