

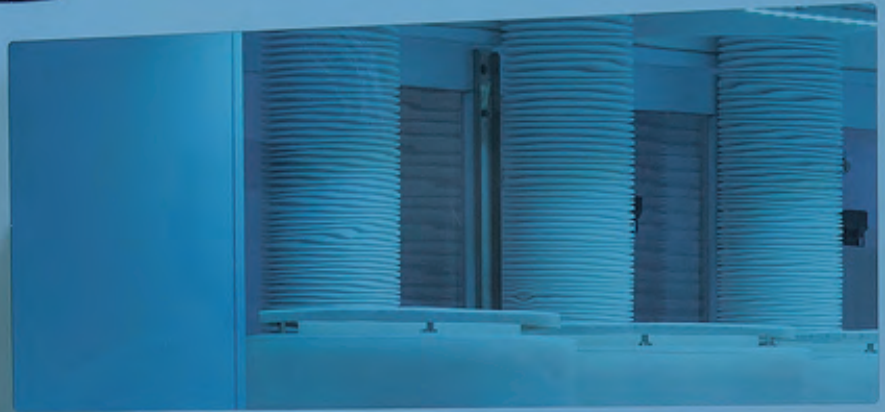
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SOLSTICE™



Solstice Products

Configurable Single-wafer Platform for Advanced Electroplating and Surface Preparation

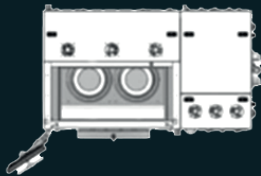
At ClassOne Technology, we specialize in electroplating and wet processing solutions for advanced semiconductor and compound semiconductor manufacturing. We design out complexity in our Solstice single-wafer wet processing platform to deliver consistent and reliable performance at an unmatched price/performance ratio.

Our Solstice single-wafer platform is highly flexible and can be configured to perform a comprehensive range of electroplating and surface preparation solutions for both R&D and high-volume fab environments. Its modular platform simplifies operation and maintenance, supports a range of wafer sizes, and performs electroplating processes as well as critical wafer processes on a single tool including solvent strip, wet etch, metal liftoff (MLO) and single-wafer cleaning.

Solstice systems are available in purpose-built configurations, with up to 3, 4 or 8 process chambers, to meet our customers' manufacturing goals:

- **Solstice GoldPro System**
- **Solstice CopperMax System**
- **Solstice Wet Etch System**
- **Solstice Metal Lift-Off System**
- **Solstice Wet Cleans System**
- **Solstice Packaging System**

Solstice LT



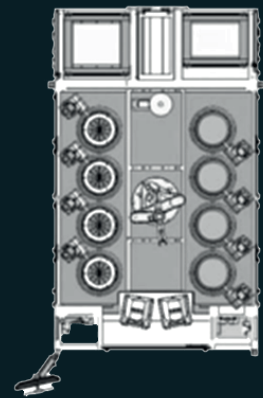
Up to 3 chambers, semi-automated, for process development or lower-level production

Solstice S4



Up to 4 chambers, for fully automated, cassette, high-level production

Solstice S8



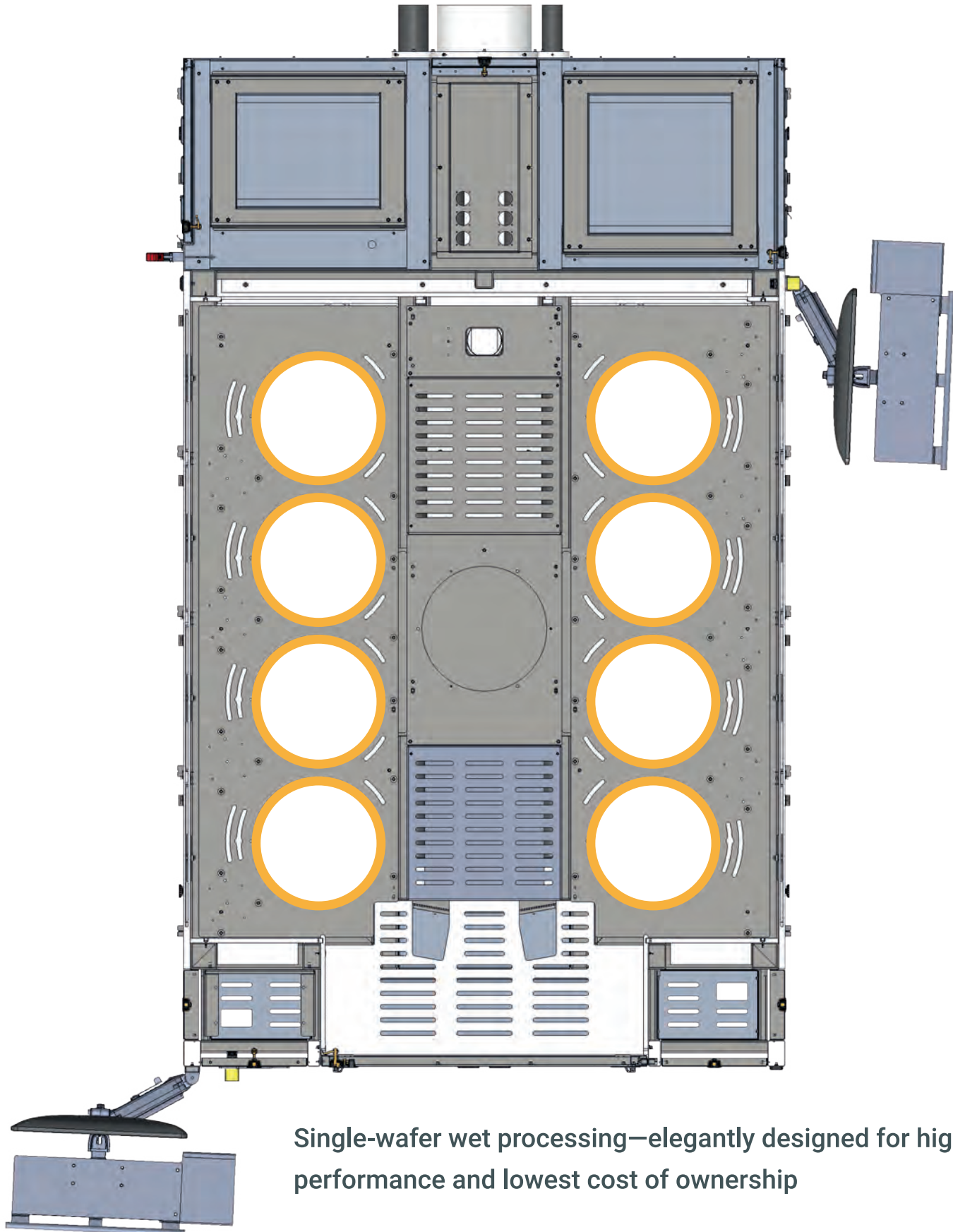
Up to 8 chambers, for fully automated, cassette-to-cassette, high-level production

Solstice Unique Advantages

- Flexible, scalable platform for multiple applications on a single, compact system
- Advanced performance with maximum throughput and wafer uniformity
- Elegant and simple design, easier to use, operate and maintain
- Engineered for reliability and uptime
- Unparalleled cost-efficiency and ROI

SOLSTICE

A Powerful and Flexible Platform



Single-wafer wet processing—elegantly designed for highest performance and lowest cost of ownership

Electroplating

Proven process technology with high-quality results

GoldPro

We've optimized the design of our gold plating technology to optimize your gold plating process and lower your cost of ownership. It provides exceptional electroplating uniformity and processing speed resulting in overall increased wafer throughput. Advanced fluid motion profile, developed using computational fluid dynamic (CFD) modeling, ensures extremely uniform feature formation while enabling the highest plating rates.



CopperMax

Our advanced technology for electroplating copper makes processing more efficient and cost effective. By using an anionic exchange membrane, we extend bath life and reduce additive consumption. You get high electroplating rates, improved performance, maximized uptime, and dramatically reduced operating costs.



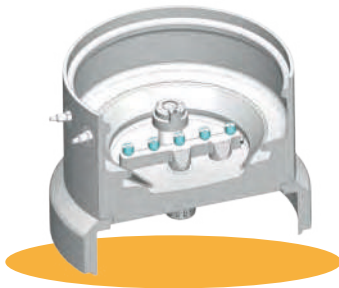
Gen4 ECD

Our electroplating process technology brings you several key requirements including wide-range power supply, precision electric field profile tuning, rapid transfer times, and more. The Gen4 reactor delivers excellent cross-wafer uniformity and wafer-to-wafer repeatability, as well as provides robust in situ rinse and fast transfer times to ensure excellent intra-layer adhesion for packaging applications and other needs.



Surface Preparation

Advanced wet-processing solutions for ultimate wafer uniformity and process control



Wet Etch

Our wet etch process technology gives you highly uniform etching with low undercut for under-bump metallization (UBM) and other patterned etch applications. The high flow rates drive etch kinetics toward rate-limited regime, ensuring a wide process window for exceptional cross-wafer uniformity. The optional end point detection system allows for the minimization of over etch while ensuring complete removal of UBM layers.



FaceUp SRD

The spray chamber can be equipped with an overhead FaceUp SRD module to provide fast, particle-neutral performance for wafer clean applications. The FaceUp SRD performs final wafer rinse and dry in an entirely chemistry-free module, and the high-speed dry step draws clean air directly from the filtered cabinet air.



Metal Lift-Off and Photoresist Strip

Our metal lift-off process delivers the broadest process flexibility. Our combination high-flow direct impingement spray, together with high pressure swing arm delivery, provide broad flexibility for a wide range of metal lift-off patterns. Additionally, our photoresist strip process supports all common solvent chemistries, works for positive and negative resists, and offers high-pressure spray capability when you need it.

Our Work

ClassOne Technology provides a full-range of world-class customer service and support to our worldwide customer base from pre-sale consultation all the way through system installation and applications/process development.

With an installed base in major fabs and R&D organizations throughout North America, Europe, China, Taiwan, Southeast Asia, Korea and Japan, We've expanded our presence our presence via our industry-leading distribution partner and customer service network.



Our Technology

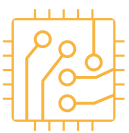
Founded in 2013, ClassOne Technology pioneered its advanced electroplating and wet processing IP portfolio organically to deliver top performance and solutions to challenges our customers need solved.

Together with our advanced chemistry and materials expertise, and deep partnerships with our chemistry vendors

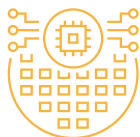
and analysis partners, our systems are scalable to meet both R&D and high-volume manufacturing requirements delivering the industry's top performance, uptime and ROI.

Tested, fab-proven and currently installed across the globe serving key microelectronics markets.

Our Markets



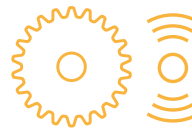
Semiconductor



3D Wafer-Level Packaging



Displays



MEMS and Sensors



RF and Power Devices

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