



## Applied Materials Introduces New Sym3® Etch System for Advanced Memory and Logic Chips

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- *Sym3® Y tailored to critical conductor etch applications in 3D NAND, DRAM and foundry-logic nodes*
- *Newest offering broadens adoption of the fastest-ramping product in company history*
- *Milestone reached: 5,000<sup>th</sup> Sym3 chamber has now shipped*

SANTA CLARA, Calif., Aug. 07, 2020 (GLOBE NEWSWIRE) -- Applied Materials, Inc. today announced a new addition to its highly successful Centris® Sym3® etch product family that now enables chipmakers to precisely pattern and shape ever-smaller features in leading-edge memory and logic chips.



The Applied Materials Centris® Sym3® Y etch system enables chipmakers to precisely pattern and shape ever-smaller features in leading-edge memory and logic chips.

The new Centris Sym3® Y is Applied's most advanced conductor etch system. It uses innovative RF pulsing technology to provide the extremely high materials selectivity, depth control and profile control needed by customers to create densely packed, high-aspect-ratio structures in 3D NAND, DRAM and logic, including FinFETs and emerging gate-all-around architectures.

A unique technical feature of the Sym3 family is a high-conductance chamber architecture that provides exceptional etch profile control by quickly and efficiently exhausting the etch byproducts that can accumulate with each wafer pass. The Sym3 Y system extends the benefits of this successful architecture with a proprietary new coating material that protects critical chamber components, thereby further reducing defects and enhancing yields.

First introduced in 2015, the Sym3 etch system has become Applied's fastest ramping product in company history, and the company has just shipped the 5,000<sup>th</sup> chamber.

The Sym3 family is key to Applied's strategy of giving customers new ways to shape and pattern materials, enabling novel 3D structures and new ways to continue 2D shrinking. Applied is co-optimizing the Sym3 system with unique CVD patterning films, enabling customers to increase the layers in 3D NAND memory devices and reduce the number of steps needed in the quadruple patterning of DRAM layers. These are being deployed along with Applied's e-beam inspection and review technologies to accelerate R&D and high-volume ramps of the industry's most advanced nodes, helping customers improve chip power, performance, area-cost and time to market (PPACT).

"Applied took a clean-sheet approach to conductor etch with the Sym3 system launch in 2015 and solved some of the most difficult etch challenges in 3D NAND and DRAM," said Dr. Mukund Srinivasan, vice president and general manager, Semiconductor Products Group at Applied Materials. "Today, we are seeing strong momentum and growth in critical etch and EUV patterning applications in the most advanced memory and foundry-logic nodes, and we will continue raising the bar and enabling next-generation chip designs."

Each Sym3 Y system consists of multiple etch and plasma clean wafer processing chambers governed by system intelligence that ensures every process chamber is precisely matched, enabling repeatable results and high productivity. The new system is already being used by multiple leading NAND, DRAM and foundry-logic customers worldwide.

**About Applied Materials**

Applied Materials, Inc. (Nasdaq: AMAT) is the leader in materials engineering solutions used to produce virtually every new chip and advanced display in the world. Our expertise in modifying materials at atomic levels and on an industrial scale enables customers to transform possibilities into reality. At Applied Materials, our innovations make possible the technology shaping the future. Learn more at [www.appliedmaterials.com](http://www.appliedmaterials.com).

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A photo accompanying this announcement is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/31fdd33e-dedd-4933-8850-526a6d8a8bb5>



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