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FOR IMMEDIATE RELEASE

Surfx Technologies Presents Breakthrough in Plasma Processing at SEMICON West

REDONDO BEACH, CA — June 2023— Surfx Technologies, LLC, in collaboration with Mycronic and Axxon Automation, has announced a breakthrough in plasma processing. The company's innovative atmospheric argon plasma provides ten thousand times more reactive gas species, i.e., oxygen atoms or hydrogen atoms, than are generated in vacuum plasmas. Automated processing of 300 mm wafers, dies on tape frame, substrates, and complex packages is accomplished in seconds rather than minutes. Materials are cleaned and activated for wetting, bonding, and adhesion without the addition of particles, ESD, or sputter damage. "If you are sick of dealing with slow, dirty, and unreliable vacuum plasmas, then we have a solution for you," said Dr. Robert F. Hicks, President and Chief Executive Officer of Surfx Technologies. The Surfx engineering team will be available to discuss its cleaning process in Booth #264 at the SEMICON West exhibition, July 11-13, 2023, at the Moscone Center in San Francisco, CA.

Surfx's wafer processing tool, the STW-10, comes standard with automated handling of 300 mm wafers in FOUPs and 300 mm die on tape frame in cassettes. The tool is qualified for use in Class 10 cleanrooms and meets all SEMI standards for environmental, health, and safety (EHS). Alternatively, Surfx's Atomflo-INT is designed to integrate plasma treatment into other processing tools, such as thermocompression bonders, inkjet printers, and thin film deposition tools.

Surfx's 1.0% hydrogen in argon plasma is unique in its ability to quickly remove oxides from copper, tin and indium solders. The only reaction product is water vapor. High volume micro-bump bonding is now possible without flux or formic acid, thereby eliminating organic residues, and enabling flip chip packages to be manufactured at pitch dimensions down to 10 microns. The hydrogen plasma can also be used to remove fluorine contamination after plasma dicing on tape (PDOT). The plasma does not substantially heat the wafer and is safe for processing dies on tape frame.

Surfx's 1.0% oxygen in argon plasma removes organic contamination from 300 mm wafers in as little as 15 seconds. Treated glass surfaces can be fused together for hybrid bonding in 3D integrated circuits. Any process in the front- or back-end that requires a clean and active surface can be processed "just-in-time" by integrating the Atomflo-INT into the tool. Surfx engineers have many success stories to share with visitors who come to booth #264 at SEMICON West.

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About Surfx Technologies, LLC
Surfx Technologies offers atmospheric argon plasma systems that are specifically design for high-volume semiconductor manufacturing. Move your process technology into the 21st century with our in-line, automated tools. For more information, visit www.surfxtechnologies.com.