

TRUMPF makes semiconductor manufacturing more efficient and precise

Less waste: TRUMPF ensures more precise plasma processes in chip manufacturing // Web-based control and real-time monitoring for greater efficiency in chip manufacturing // Users can upgrade their existing production facilities // TruPlasma RF Series G3 delivers high-frequency energy with a pulse frequency of up to 400 kHz

Freiburg, 12 November 2025 – TRUMPF ensures greater precision and efficiency in semiconductor manufacturing. To this end, the high-tech company has developed a new generation of its high-frequency power supplies with the TruPlasma RF Series G3. “The system enables microchip manufacturers to achieve more stable plasma processes, thereby reducing production costs and increasing chip quality,” says Michael Ehinger, responsible for sales of electronics solutions for the semiconductor industry at TRUMPF. The company is presenting the new TruPlasma RF Series G3 at the Semicon Taiwan trade fair.

Energy-efficient chip manufacturing

The modular platform offers power levels from 2.5 to 10 kW and can be flexibly integrated into existing tools. Users can also easily upgrade older tools with it. At the same time, they benefit from improved energy efficiency. The new generation of the TruPlasma RF Series G3 consumes 20 percent less power and generates less waste heat. This reduces operating costs and protects the environment.

Real-time monitoring increases quality

Users can manufacture chips more efficiently with the TruPlasma RF Series G3, thereby reducing their production costs. During plasma etching, for example, the system continuously measures the reaction of the plasma and adjusts the energy in real time. This ensures stable manufacturing processes and consistent layer quality across the entire wafer. The integrated, browser-based user interface



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allows all process parameters to be monitored and modified easily and efficiently during system qualification without having to install additional software.

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TruPlasma RF Series G3 (Image: TRUMPF)



About TRUMPF

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. It drives digital connectivity in manufacturing through consulting, platform products and software. TRUMPF is one of the technology and market leaders in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.

In 2024/25, TRUMPF employed 18,303 people and generated sales of 4.3 billion euros. With about 90 companies, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China. Find out more about TRUMPF at www.trumpf.com

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