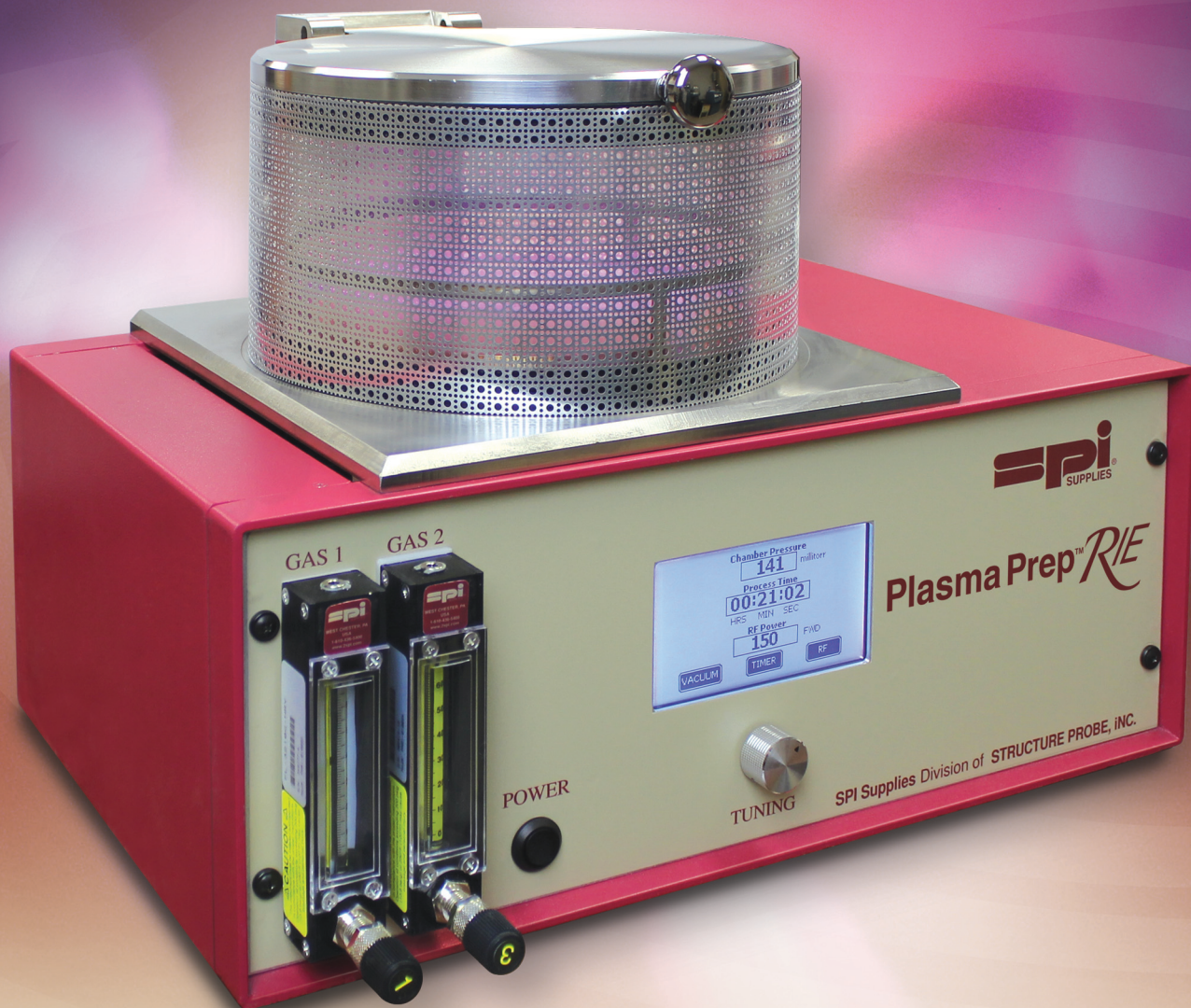


SPI Supplies Plasma Prep™ RIE



A tabletop anisotropic plasma etcher, designed to meet the needs of the solid-state electronics industry.
just a click away...2spi.com/rie



SPI Supplies Division of **STRUCTURE PROBE, Inc.**

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SPI Supplies Plasma Prep™ RIE

The SPI Supplies Plasma Prep Reactive Ion Etcher (RIE) uses a chemically reactive anisotropic plasma to etch and remove materials from package devices, wafers, and other substrates where a directional field is needed. In failure analysis labs, the use of wet etching for these samples is not only dangerous, in many cases it causes undercutting due to the isotropy of the etch. The Plasma Prep Reactive Ion Etcher uses dry etching to create an anisotropic etch—meaning that the etch is uni-directional

An RF Plasma is generated by applying a RF field of 13.56 megahertz in the chamber. The Plasma Prep RIE can operate from 10 to 200 watts continuously. With a large voltage bias between the two plates, the positive ions are driven toward the base plate, where they collide with the samples to be etched. Due to the mostly vertical delivery of reactive ions, etching can produce anisotropic depth profiles.

The Plasma Prep RIE needs cooling of the base plate, which can be accomplished with a simple recirculator system. A mechanical pump is sufficient for the vacuum; however, for those wanting a cleaner high vacuum in their system, the Plasma Prep RIE can be configured with an optional turbo pump.

Typical Applications:

- Final package removal
- Glass passivation layer removal
- Deep etching
- Removal of contaminants

RIE System Specifications:

13.56 MHz RF Plasma
 10 to 200 watts continuous power
 LCD touch-screen interface
 Manual gas control
 Manual pressure control
 Manual RF tuning network
 Bias output
 Dual gas input
 Shielded Quartz chamber
 Chamber size 10" (254mm) diameter,
 7" (178mm) sample stage
 Works with O₂, CF₄, Ar and other gasses
 Size: 19.5" (495.3mm) width,
 15" (381mm) depth, 13.75" (349.25mm) height
 Weight: 71 pounds (25.854 Kg)

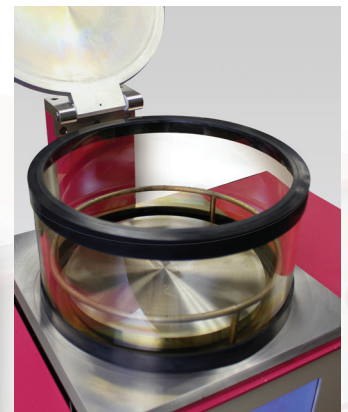
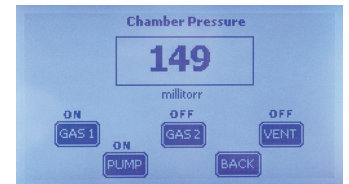
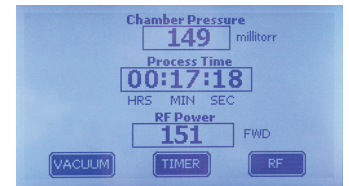
System Includes:

Plasma Prep Reactive Ion Etcher
 Quartz Chamber
 Vacuum hose

System Requirements:

Electrical Power: 110V and 220V models.
 Mechanical pump (57 l/m or better)
 Water re-circulator with flow rate of 2 to 4 l/m
 Process gas(es)

Optional turbo pump available



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