RIE

Reactive Ion Etching system

ADVANCED Technologies

Our Reactive Ion Etching system (Ion Etch 150) is a compact system for use in nanofabrication applications. RIE combines both physical sputtering, and chemical activity of the reacting species to ensure high etch anisotropy as well as greater material selectivity. This technique can be used to etch silicon based materials such as Polysilicon, Amorphous Silicon, Silicon Oxide, Nitrides, etc., III-V materials, various dielectrics, sputtered metal films, photoresists and polymers. The small footprint, low cost, ease of use and superior performance makes the tool ideal for a wide range of applications for R&D and low volume production.

CHAMBER CONFIGURATIONS

System configuration with external gas manifold and pumping

System configuration with integrated gas manifold

Electrode with gas showerhead

Gas Manifold

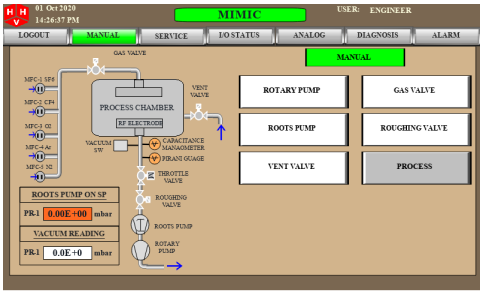
SPECIFICATIONS

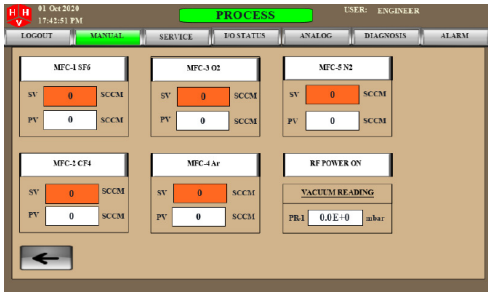
CHAMBER SIZE	400 mm (ø) x 350 mm (h)
SUBSTRATE SIZE	6" diameter circular wafer
SUBSTRATE TEMPERATURE	Up to 300° C. Substrate cooling option available
POWER SUPPLY	RF - 13.56 MHz for plasma generation
PUMPING	Rotary and Roots. Turbo molecular pump option
MFC CONTROLLED GAS LINES	4 to 8 lines
ADDITIONAL OPTIONS	Wet/Dry Scrubber and process gas lines from gas bank to chamber

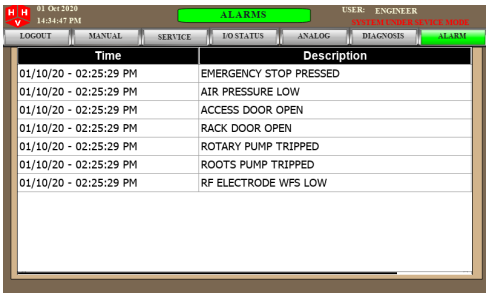
CONTROL OPTIONS

Manual operation

Auto operation







Auto mode screens

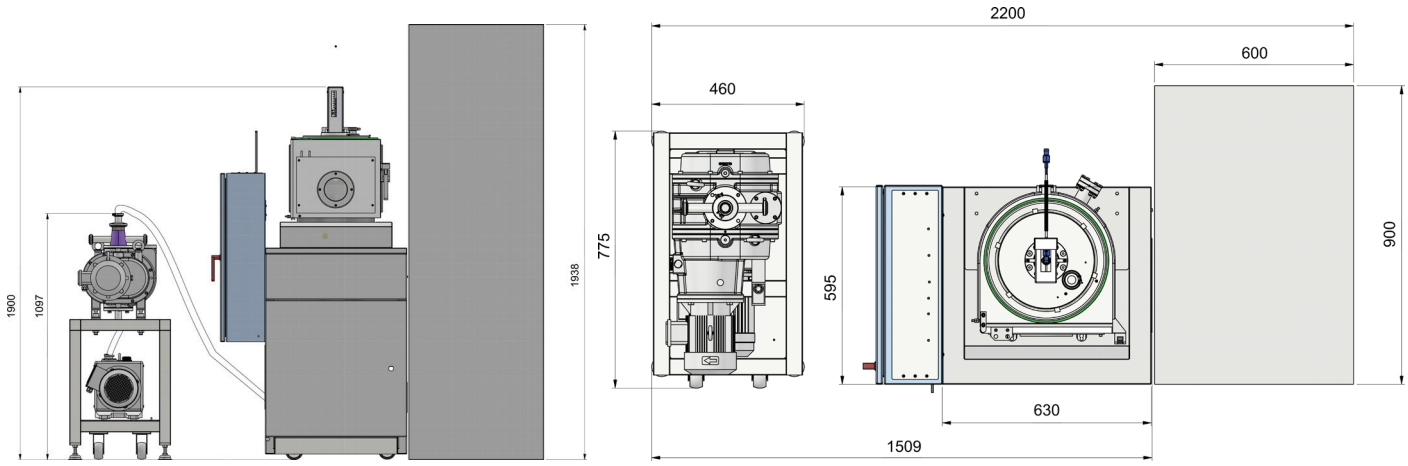
FEATURES

- Low cost of ownership
- Optimized showerhead design for uniform gas distribution
- Adjustable source to shower head distance
- Fluorine and Chlorine based chemistry offered
- User friendly interface
- Fully interlocked for operator and machine safety

APPLICATIONS

- Semiconductor devices
- Micro and Nano fabrication
- MEMS and NEMS
- Sensors
- Solar cells
- Energy devices

LAYOUT



All dimensions in mm

ADVANCED Technologies

Registered Office:

Site No. 17, Phase 1, Peenya Industrial Area, Bengaluru 560058, Karnataka, India. Phone: +91-80-41931000
Email: infotfed@hhvadvancedtech.com
Website: www.hhvadvancedtech.com

Manufacturing Unit:

Site No. 31-34 & 37, Phase1,
KIADB Industrial Area, Dabaspet, Bengaluru Rural 562 111,
Karnataka, India, Phone: +91-80-66703700