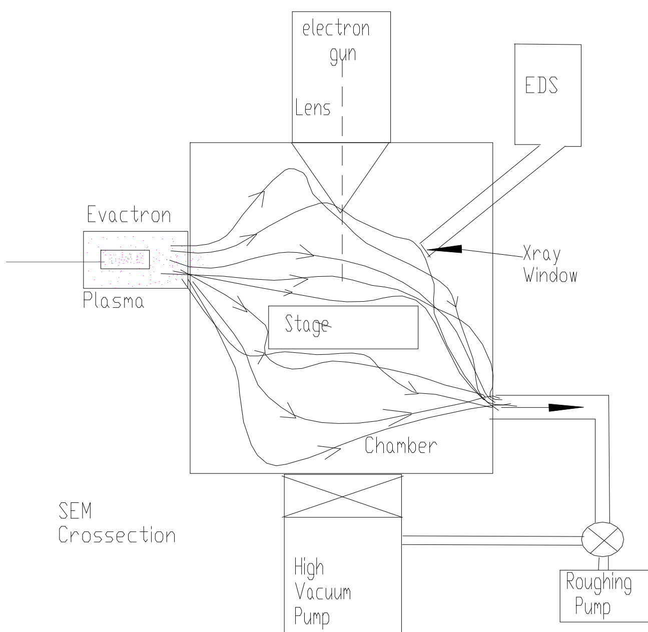
Evactron® Anti-Contaminators

RF Plasma ashing and cleaning made easy.

Removes Organics from Electron Microscopes and Vacuum Systems

- **Actively Cleans Hydrocarbons and Organics from SEMs, TEMs and FIBs**
- **Removes organics from any source! Specimen born, pump oils, finger prints, GIS gases, instrument assembly, and vacuum accidents.**
- **Stops scan deposits and black squares** - **removes** contamination caused by ionization of organics.
- **Maximizes** **low energy** **X-ray sensitivity** - **removes oil** on X-ray windows
- **Gentle cleaning action is proven safe for EDS and other sensitive windows.**
- **Increases precision** – proven to stop CD SEM metrology drift
- **Cleans** specimens and performs oxidation studies **in-situ**.



The Evactron® Anti-Contaminator brings fast, efficient plasma ashing to inside the SEM for *in-situ* cleaning by oxygen radicals (free oxygen atoms).

Mounted on a chamber port the compact Evactron Anti-Contaminator uses a low power RF plasma to generate oxygen radicals from admitted air. Hydrocarbons are oxidized in low vacuum to H_2O, CO, and CO_2. These molecules viscously flow to the roughing pump where they are exhausted from the chamber. The Evactron system safely cleans the chamber, stage, samples, and x-ray detector windows regardless of the source of contamination. Faster than any other method for system clean up.

The Evactron **Anti-Contaminator** quickly removes persistent contamination artifacts so details and deflects in nano-structures can be examined at high resolution. It allows multiple imaging of the same detail without burying it under a contamination veil. Manufacturers find the Evactron Anti-Contaminator helpful to improve instrument performance on the manufacturing floor and in the field.

The Evactron **Anti-Contamination system** consists of a controller with RF generator and compact RF Oxygen Radical Source (US patent 6,452,315) on a KF 40 mounting flange. No part extends into the analytical instrument chamber. The Evactron electrode (US Patent 6,610,259) makes O radicals from admitted air at low RF power levels by a patented (US 6,105,589) process. *No special gas supply is needed!* A variable leak valve, pirani vacuum gauge, RF power supply (13.56 MHz), plasma ignition indicator, and RF matching network are included with the system. The vacuum gauge provides a SEM vacuum level interlock. Simple installation consists of mounting the Evactron Anti-Contaminator and connecting cables to the controller.

XEI SCIENTIFIC

1735 East Bayshore Rd. Suite 29A, Redwood City, CA 94063
(650) 369-0133, FAX (650) 363-1659
email: sales@Evactron.com
www.EVACTRON.COM