



300mm Proven

# ESSENTIAL Elements

EBARA TECHNOLOGIES INC.

News & Views • July 2005



## See EBARA Technologies at SEMICON West 2005 South Hall – booth 1540.

EBARA Technologies is pleased to announce that we will be exhibiting at SEMICON West July 12th-14th at the Moscone Center in San Francisco. In addition to Ebara's product line we will also be displaying products and services from Pure Air Systems, Airgard, Inc. and Advanced Semiconductor Cleaning / Coating Technology. Ebara Technologies is the exclusive North American Sales and Service representative for these products.

## EBARA Technologies Expands Product and Service Offerings

This year EBARA Technologies, Inc. expanded its Product and Service Offerings to provide more "Value Added" products and services to our customers.

Ebara's Point-of-Use Abatement product line is now augmented by the addition of Pure Air Systems and Airgard, Inc. products. Ebara exclusively represents these product lines in North America and with these product additions, Ebara now can provide a complete abatement solution for any semiconductor process.

New technology developed by Advanced Semiconductor Cleaning and Coating Technologies, (ASC<sup>2</sup>T) provides a patented thermal cleaning process to restore graphite and carbon parts to "like new" condition. This results in improved yields and reduced Cost Of Ownership (COO).

- Vacuum line and gas delivery line heaters designed for EBARA Technologies, Inc. by Watlow.
- Complete line of vacuum valves, fittings and foreline traps.
- Decontamination and Rebuild Services for all makes and models of vacuum pumps...wet and dry.
- On-site services that include site reviews, installations, audits, preventative maintenance, pump exchanges, packaging & shipping that complies with DOT guidelines.
- Printed and CD versions of the new Vacuum Products and Services Catalog will be available at the EBARA booth at SEMICON West. Catalog requests can also be made on our website at [www.ebaratech.com](http://www.ebaratech.com).

**EBARA Vacuum Products and Services North American Catalog**

ABATEMENT (WET / COMBUSTION / DRY / CATALYST)

DEGAS

REGAS

OZONE

FOUP / SIMIF

EPIX FILTER

DRY VACUUM PUMP

TURBO MOLECULAR PUMP

HEATERS

VACUUM HARDWARE

SERVICE

Global Innovators, Local Providers Since 1912 • 1-800-535-5376 • [www.ebaratech.com](http://www.ebaratech.com)

300mm proven, EBARA has one of the largest service and support organizations in the industry.

## Point-of-Use Abatement

Airgard, Inc. – Sold and Serviced by EBARA TECHNOLOGIES

ZERO DOWNTIME

### Cyclone Features

- Zero Scrubber Related Process Tool Downtime
- Field Proven (>750 units)
- Higher Wafer Yields
- Max. Flow Rate of Input Gas is 600SLM
- 99.999% Removal of Water Soluble Gases
- Patented Gas Inlet Minimizes Clogging
- Automatic Inlet Plunger Eliminates Downtime
- High Flow Spray Chambers
- Unique Packed Column Design
- PLC Based Scrubber Control Box
- Dry Contact Tool Interface / Interlock
- "Standby Mode" Reduces Water Consumption to <1% of Standard Usage [-2GPM to ~1GPH]
- Footprint: 24.5" x 32.5"

### Target Applications / Gases

- EPI**
- Hydrogen
  - Chlorosilanes
  - Hydrogen Chloride
- Poly Etch / CVD**
- Fluorosilanes
  - Silicone Nitride
  - TEOS
  - Ammonia
  - Hydrogen Bromide
- Metal Etch**
- Chlorine
  - Hydrogen Chloride
  - Boron Trichloride



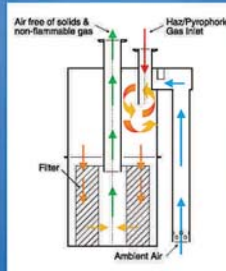
Pure Air Systems – Sold and Serviced by EBARA TECHNOLOGIES

### S.DOC Features

- Silane, Dynamic Oxidation Chamber
- Process Flows up to 100slm
- Up to 4 Process Inlets
- >99% Silane Destruction
- >99% Solids Collection
- Low Airflow Interlock to Shut Off or Bypass Gas Inlet(s)
- Cabinet Exhaust for Secondary Containment
- No Cooling Water, No Fuel gas
- Smallest Footprint
- Simple Design, No Moving Parts in Oxidation Chamber
- Semi S2 Assessed, CE Compliant

### Target Applications / Gases

- PECVD, Dielectric, Metallization**
- Silane
  - TEOS
  - Tungsten
- LPCVD, Nitride, Poly**
- Silane
  - Dichlorosilane
  - Ammonia
  - Phosphine



EBARA Technologies, Inc.

Service and Sales presence:

### Headquarters

51 Main Ave  
Sacramento, CA 95838  
916-920-5451

- |                    |                    |
|--------------------|--------------------|
| San Jose, CA       | Eugene OR          |
| Portland, OR       | Austin, TX         |
| South Portland, ME | Essex Junction, VT |
| East Fishkill, NY  | Yorktown, NY       |
| Manassas, VA       | Wake Forest, NC    |
| Richmond, VA       | Orlando, FL        |
| Newburyport, MA    |                    |

# Solutions...

- Cost of ownership reductions (up to 75%) by Thermagas® processing
- Improve your operation efficiency and yield
- Increase tool component longevity
- Elimination of hazardous waste handling
  - QC—ISO 9002, CMM of critical dimensions, complete traceability, 24/7 service with 3-7 day shipping
  - Purity reporting—GDMS (Glow Discharge Mass Spectroscopy) of key elements
  - State and Federal approvals for the handling of hazardous wastes
  - All operations performed in class 10,000 and final packaging in class 1000 clean room environments

Thermagas® processing has been used to clean tool components in applications such as Ion Implant, MOVCD, MBE, SMT, Epi, Etch or any other contaminated component.



For more information, visit our web site or call:

[www.ebaratech.com](http://www.ebaratech.com)

1-800-535-5376



300mm Proven