

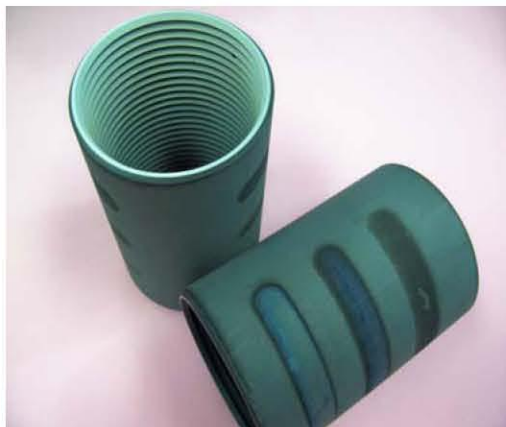


## ThermaGas® Dry Cleaning Process Graphite



ThermaGas® “Dry” Cleaning Process for contaminated parts used in the manufacture of semiconductors.

The ThermaGas® Process is a new cleaning technique that utilizes High Temperatures, Reactive Gases and High Vacuum to remove the contaminated residue from parts used in the manufacture of semiconductors. This process is especially useful on parts made from ceramic or graphite materials. It is much more cost effective and environmentally friendly than traditional methods using media blasting and wet chemical etchants.



Typical contaminated parts



Cleaned using ThermaGas® process

### Features

- Process produces significantly less waste to be treated than either media blasting or wet etching techniques.
- Eliminates the potential interaction between cleaning materials and base material as seen with liquids or abrasives
- Eliminates the potential for reaction chemicals to be absorbed into base material
- Non-abrasive process which results in better maintaining of tight tolerances
- Allows the parts to be reused more times than when processed with wet chemical or harsh beads

### Benefits

- Much lower impact on environment and much lower waste treatment cost.
- No damage or removal of base material
- No issues with out-gassing once the cleaned part is reintroduced back into the tool.
- Dimensionally better parts.
- Longer parts wear rates, higher level of performance and ultimately, less cost to our customers.