



Leading the Way in
Electrostatic Chuck Technology



INVAX Technologies
233 Weddell Drive
Sunnyvale, CA 94089
Tel: 408.745.6240
Fax: 408.745.6067
Email: marketing@invax.com

The INVAX ADVANTAGES

Coating advantage

- **Superior Heat Transfer**
 - Proprietary ceramic coating thin Dielectric
 - Minimum thermal resistance
- **High Dielectric Strength**
 - Suitable for HDP and High Bias applications.
- **Low Voltage operation**
 - Inexpensive easy to integrate power supply
- **Quick release**
 - No de-chucking recipes necessary
- **Coulomb type dielectric**
 - No current through wafer, no device damage
- **Rugged**
 - Tough ceramic coating, not damaged by particles.
 - Surface may be cleaned with in-situ plasma or abrasively to remove polymer and other deposits
- **Wide range of operating temperatures**
 - Unlike doped ceramic dielectrics, performance of INVAX ESC does not degrade due to elevated temperature or number of chucking cycles.

Applications advantage

Wide base of installed applications

- Plasma Etch
 - Oxide
 - Poly
 - Metal
- Plasma CVD
- Copper processes (seed & barrier layers)
- e-beam
 - Lithography
 - Inspection
- EUV Lithography
- Flat Panel Displays
- Magnetic Media

Specifications advantage

Wide range of specifications:

- Flatness to .000005 inch
- Resistivity to 1T ohm
- Temperature to 325 C
- Chucking force to greater than 50 torr

Substrates advantage

Wide variety of substrates chucked:

- Silicon
- GaAs
- AlTiC
- ULE & TFT Glass
- Si w/ thick nitride/oxide
- Sapphire

Total Solutions advantage

Total Solution Options

- Built-in Embedded Heater
- Built-in Design in lifters
- Built-in Wafer temperature measurement
- Power Supply with RF isolation and wafer sense

Guarantee advantage

- Cost of ownership reduced by at least 50% Guaranteed
- Lifetime 150,000 to 300,000 wafers. (depending upon application)

Replacement advantage

Drop in replacements for LRC, AMT & TEL etchers.

- Longer life by a factor of two to 10
- Lower particles
- In-situ cleaning with cleaning plasmas or abrasives
- Improved center to edge temperature uniformity
- Lower cost of ownership
- Local stock
- Reliable repeatable chucking and dechucking

Support advantage

International offices

- Local support
- Local stock

***We don't make process equipment
...we just make them process better.***

