



**Leading the Way in
Electrostatic Chuck Technology**

Electrostatic Chucks

INVAX Profile

- **25+ years ESC Development and Manufacturing**
- **E-chucks for all Applications**
- **Manufacture over 150 different e-chucks**
- **E-chucks is only business**
- **Provide Process, Applications and Integration Support**
- **Proprietary Technologies in ESC Designs, materials and manufacturing**
- **All manufacturing in USA**

INVAX History

- ❑ First developed ESC in 1980
- ❑ Founded INVAX in 1985
- ❑ ESC Supplier to OEMs since 1991
- ❑ ESC Supplier to End User fabs since 1997
- ❑ Supply to 14 of top 20 fabs worldwide
- ❑ Joint Development Projects(JDP) with major fabs

INVAX ESC Products

◆ Plasma Etch –Oxide ,poly &Metal

- AMAT, LAM , TEL& Hitachi Etchers

◆ PVD

- AMAT Endura & Novellus INOVA

◆ HDP CVD

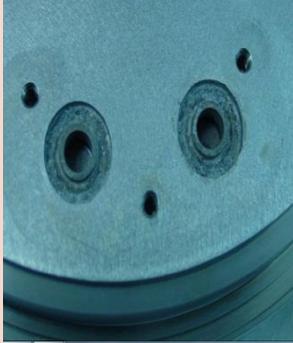
- AMAT Ultima & Novellus SPEED

◆ Substrate Sizes

- 150mm ,200mm ,300mm

INVAX ESC Refurbish

Failure Mode

Dielectric breakdown	Arcing-Helium Hole	Edge cracking	Delamination	Corrosion
				

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Failure Mode

