

advanced coatings

cleaning and refurbishment

original parts manufacturing

quality assurance

### Integrated Capabilities

NxEdge in-house operations and processes enable us to perform multiple steps to deliver high-quality, completed parts with rapid turn-around time and lower overall cost. We offer end-to-end component design, plasma and other advanced coatings, precision manufacturing, and testing all under one roof, providing you with the convenience and assurance of one point contact.

### Refurbishment Capabilities

NxEdge offers one-stop cleaning and refurbishment service solutions to extend component life and improve equipment performance.

- Total refurbishment of power source drive blocks for vacuum sputtering chambers
- Coating and parts refurbishment of major brand OEM etch, poly and other chambers
- Total re-coating and re-coiling of Novellus ceramic Speed™ domes
- Internal integrated remote plasma source cleaning without disassembly
- Online parts data tracking system for all orders

### Substrates Cleaned

- **Metals:** Aluminum (*anodized and bare*), Nickel, Stainless and Titanium
- **Ceramics:** Alumina, Yttria, Silicon Carbide, Quartz and Silicon
- **Plastics:** PVC, PTFE, Halars and Peek
- **Other:** Fluoropolymers

Substrate	Deposit Material / Process
Titanium	W, TiW, Al, TiN, MoSi, WSi
Stainless Steel (SS)	Al, W, TiW, Ti, TiN, MoSi, WSi, Ni
Aluminum	W, TiW, Ti, TiN
Kovar	W, TiW, Ti, TiN
Quartz	Si, SiO <sub>2</sub> , Metals, Al <sub>2</sub> O <sub>3</sub>



Pre-refurbishment



Post-refurbishment

### Cleaning Capabilities

- Etch polymers
- CVD coatings (*TEOS, BPSG, PSG, Poly, Nitride and Oxide*)
- PVD coatings (*Aluminum / Silicon, Titanium, Nickel, Tungsten*)
- Lithography resist coatings
- Vacuum components and chambers
- Vacuum testing and certification

### Equipment

- CO<sub>2</sub> ice blasting
- Media blasting (*aluminum oxide and glass beads*)
- Acid / base tanks (*3' x 4' x 3'*)
- DI H<sub>2</sub>O rinse (*cold and hot*)
- DI H<sub>2</sub>O spray rinse
- Dedicated and segregated solvent baths

### Chemicals Used

- Potassium Hydroxide
- Hydrogen Peroxide
- Ammonium Hydroxide
- Hydrochloric Acid
- Acetone, Ethyl Lactate
- Hydrofluoric Acid
- Isopropyl Alcohol
- Nitric Acid
- Sulfuric Acid
- Acetic Acid
- EBR Solvent

# Cleaning and Refurbishment

