

# ION PUMPS

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## *Ion Pump Building/Rebuilding Overview*

**Duniway Stockroom Corporation** builds and rebuilds sputter-ion pumps and pump elements from all original manufacturers as a service to our customers. For new ion pumps, all new parts of the highest quality and cleanliness are used. For rebuilding, all deposits are removed, material is outgassed and electrical leakage is minimized. The rebuilt pumps have the same performance and warranty as our new pumps. Below is a list of what we will do with your pump:

### **New Ion Pump Build Process**

- 1) Acquire New Parts to Specifications
- 2) Clean Parts for Surface Contamination
- 3) Bake Ceramic Parts
- 4) Vacuum Degas all Metal Element Parts
- 5) Heli-Arc Weld Body and Feedthrough
- 6) Leak Check Welded Body
- 7) Assemble Elements
- 8) Install the Elements in the Clean Body
- 9) Leak Check
- 10) Bake-Out on Vacuum Manifold
- 11) Check for leakage current
- 12) Pinch off Seal
- 13) Clean Exterior
- 14) Check for Leakage Current

### **Ion Pump Rebuilding Process**

- 1) Open Pump & Remove Elements
- 2) Disassemble Elements Completely
- 3) Clean Stainless Steel Parts
- 4) Replace Titanium and Tantalum Parts
- 5) Clean and/or Replace Ceramic Parts
- 6) Vacuum Degas all Metal Element Parts
- 7) Reassemble Elements
- 8) Install the Elements in the Clean Body
- 9) Leak Check
- 10) Bake-Out on Vacuum Manifold
- 11) Check for leakage current
- 12) Pinch off Seal
- 13) Clean Exterior
- 14) Check for Leakage Current