## Thermco A1 Furnace Tube

## **Tool Overview**

Annealing, in metallurgy and materials science, is a heat treatment wherein a material is altered, causing changes in its properties such as strength and hardness. It is a process that produces conditions by heating and maintaining a suitable temperature, and then cooling. Annealing is used to induce softness, relieve internal stresses, refine the structure and improve cold working properties.

The tool consists of a quartz process tube, surrounded by heating coils with three zone spike/profile temperature control, gas injection system, load and unload station, and MUX computer and tube control computers.

## **Tool Capabilities**

- Sintering (annealing) Metals
- Hydrogen drive-in gas
- Post CMOS Tube
- Configured for 4" wafers
- Can process any number of wafers from 1 to 25 at a time
- **Allowed Metals:** aluminum, nickel, tantalum, chrome, iridium, molybdenum, tungsten and titanium
- Metals Not Allowed: Gold, copper, lead, tin, and platinum
- Organics (example polyimide) are never allowed in this tube.
- You cannot go into any other furnace tube except C2 after you have been in A1.