

Induction Brazing copper joints

United Induction Heating Machine Limited

We are experienced in Induction Heating, induction heating machine, Induction Heating equipment. They are widely used in induction heating service, induction heat treatment, induction brazing, induction hardening, induction welding, induction forging, induction quenching, induction soldering induction melting and induction surface treatment applications
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Objective Brazing a joint between a copper lug and nickel plated copper pins on a pressurized heater connector.

Material 1.5" (38.1mm) dia heater connector in a ceramic insulator with L shaped copper lugs and nickel plated copper pins, silver solder and braze

Temperature 1175-1375 °F (635-746 °C)

Frequency 270 kHz

Equipment • Power of 20kW induction heating system, equipped with a remote workhead containing two 1.5µF capacitors for a total of 0.75µF

• An induction heating coil designed and developed specifically for this application. Process A two turn helical coil is used to heat the copper lugs and nickel plated copper pins for 1 minute. A clamp is used in production to hold the copper lugs in place for brazing.

Results/Benefits Induction heating provides:

- Minimal transfer of heat to adjacent ceramic insulator.
- Hands-free heating that involves minimal operator skill for manufacturing.
- Flameless processing.
- Heat very small precise areas within production tolerances.
- Even distribution of heating

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