

Induction Brazing carbide tool

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 Braze carbide rotary file assemblies with uniform concentricity in an aerospace application

Material • Carbide blank

- High speed steel shank
- Temperature indicating paint
- Braze shim and black flux

Temperature 1400°F (760°C)

Frequency 252 kHz

Equipment Power of 6KW induction heating system, equipped with a remote heat station containing two 0.33 μF capacitors (total 0.66 μF)

An induction heating coil designed and developed specifically for this application.

Process A multi-turn helical coil is used. The part is heated to determine the time required to reach the desired temperature and required heat pattern. It takes approximately 30 – 45 seconds to reach 1400°F (760°C) depending on the various part sizes.

Flux is applied to the entire part. A braze shim is sandwiched between the steel shank and carbide. Induction heating power is applied until the braze flows. With proper fixturing, concentricity of the part can be achieved.

Results/Benefits • Repeatable, consistent precise heat.

brazing-carbide-file

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