

Induction Brazing stainless steel dental assembly

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 To heat a steel dental assembly to 1400°F (760°C) for brazing
Material Stainless steel plates 0.118" (3mm) square and 0.078" (2mm) high, stainless steel hook, mesh, two pieces of graphite 0.375" (9.5mm) square cross section, 4" (101.6mm) long and white flux for brazing

Temperature 1400°F (760°C)

Frequency 216 kHz

Equipment • Power of 6 kW induction heating system, equipped with a remote workhead containing two 0.33µF capacitors for a total of 0.66 µF

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

Process A two turn oblong helical coil is designed to heat the steel brackets which are sandwiched between the two pieces of graphite. The heat will be transferred from the graphite to the steel bracket assemblies to reach 1400°F (760°C) in 120 seconds. There is a cool down time of 30-50 seconds before the steel can be removed from the graphite sandwich.

Results/Benefits Induction heating provides:

- Braze flow is consistent and controllable by using braze pieces
- Hands-free heating that involves no operator skill for manufacturing
- Even distribution of heating

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