

# Induction Brazing steel tube

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  
<http://www.uihm.com>

**Objective** To braze a steel tube to a steel "T" fitting

**Material** 1" (25.4mm) diameter steel tubing, steel fitting, braze slug and black flux

**Temperature** 1400°F (760°C)

**Frequency** 198 kHz

**Equipment** • Power of 15kW induction heating system, equipped with remote workhead containing two 1.0µF capacitors for a total of 0.5 µF

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

**Process** A four turn split helical coil is used to heat the steel assembly to 1400°F (760°C) for 85 seconds. The coil design allows for the steel fitting to expand away from the steel tube which allows braze to flow through the joint. The amount of braze alloy is controlled by the braze slug allowing for an aesthetically pleasing joint.

**Results/Benefits** Induction heating provides:

- Hands-free heating that involves no operator skill for manufacturing
- Precise and uniform distribution of heating
- The collection of flux on the coil is reduced due to efficient coil design.

[service@uihm.com](mailto:service@uihm.com)

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