

# Induction Brazing Plumbing

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 A copper-brass fluids union is brazed under constrained conditions (onboard a submarine), where access is limited and flame is not allowed.

Material copper and brass plumbing components

Temperature 750°C (1380 °F)

Frequency 245 kHz

Equipment Power of 20KW induction heating system including:

- Coil: custom-designed multi-turn helical
- Workhead: two 1.5μF capacitors, (Total 0.75μF)

Process The coil is designed to maximize heating efficiency to reduce the cycle time and to reduce the heat conducted along the brass tubes.

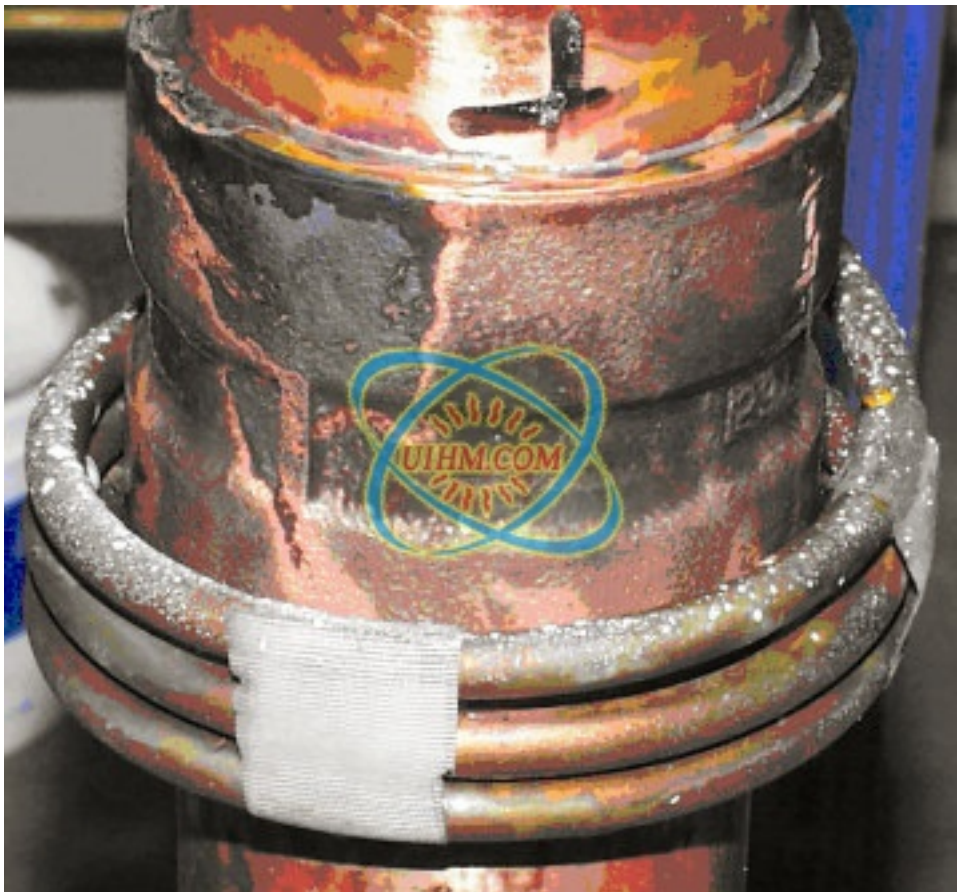
The assemblies are first cleaned and braze flux is applied to the entire surface of the assembly. The induction coil is slipped over the tube and the brass coupling is placed over the brass tubes. The flux is allowed to dry.

The assembly is heated until the braze flows.

Results/Benefits Ergonomics: Induction provides a reliable braze joint obtained under limited-access conditions

Economy: energy is applied only to the joint; little energy is lost to surrounding parts, air

Safety: flame is not used; no bottled gasses required



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