

Induction Brazing thin walled 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 Braze a NI-SPAN-C alloy tube to a steel cap in a hydrogen atmosphere
Material NI-SPAN-C alloy tube (5mm) dia, steel cap (7mm) dia, (7mm) long, nickel
braze, quartz tube and hydrogen

Temperature 1875 °F (1024 °C)

Frequency 313 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 single turn helical coil is used to heat the tube assembly directly. The tube assembly is held in place inside the quartz tube by a copper fixture and hydrogen is fed into the quartz tube. Braze preforms are placed at the braze area and heat is applied for 60 seconds to flow the braze.

Results/Benefits Induction heating provides:

- Rapid localized heat to joint area only
- Minimized oxidation reduces cleaning time
- Improved part quality
- Hands-free heating that involves no operator skill for manufacturing brazing-thin-walled-tube

service@uihm.com

United Induction Heating Machine Limited

