Brazing Copper 'T' Assemblies

Objective To heat copper 'T' assemblies to 1400(760) ºF(ºC) for brazing

Material
Copper 'T' assemblies
Silver-copper eutectic braze
White flux

Temperature 1400(760) ºF(ºC)

Frequency 250 kHz

Equipment Ameritherm 20 kW, 50-450 kHz solid state induction power supply with a remote heat station containing two 1.32 µF capacitors (total capacitance 0.66 µF). A custom-designed induction heating coil.

Process A custom double-wound pancake-helical coil combination is used to efficiently transfer RF power. Tests were conducted using temperature indicating paint to establish heating profiles and time-to-temperature. After the optimum time-to-temperature of 3-5 minutes is established, a braze ring is placed at the joint and white flux applied to the joint area.

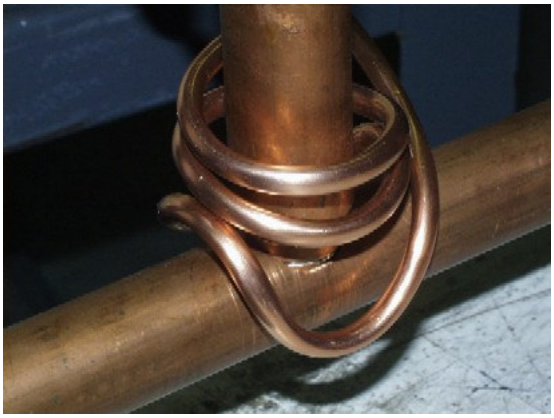
The first joint on each piece takes 5 minutes with subsequent joints on the same copper piece taking much less time (~3 minutes).

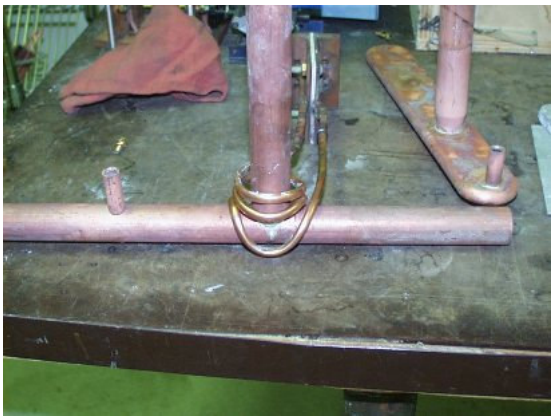
Results/Benefits

- Semi-automatic process reduces amount of operator labor involved
- Easy and effective completion of braze joints

Download and print our Applications Lab Process Sheet (http://www.ameritherm.com/PDFs/4110038b.pdf). Answer the questions on the form to help us understand your process and performance requirements. Call with the info on the form to see if you should send us your parts for a free evaluation. If you have questions, call or e-mail us (info@ameritherm.com). We'll be in touch!

 | 39 Main Street, Scottsville, NY 14546 USA | www.ameritherm.com
Tel: 585.889.9000 | Fax: 585.889.4030 | brazing_5.doc | All information subject to change without notice


Coil placement on part


Different part assemblies


Coil design

Download and print our Applications Lab Process Sheet (http://www.ameritherm.com/PDFs/4110038b.pdf). Answer the questions on the form to help us understand your process and performance requirements. Call with the info on the form to see if you should send us your parts for a free evaluation. If you have questions, call or e-mail us (info@ameritherm.com). We'll be in touch!