



## Brazing Copper J Tube into Fittings

**Objective** To braze a copper tube ( 3/8" OD by 2-4" long) into a 3/8" fitting in less than 10 seconds. Heating must take place in a channel type coil to allow for easy loading of parts.

**Material** Copper Tubing and Fitting with Braze and Stay Silv White Flux

**Temperature** 1300 °F

**Frequency** 105 kHz

**Equipment** Ameritherm NovaStar 10 kW output solid state induction power supply equipped with a standard heat station containing eight 0.33  $\mu$ F capacitors for a total of 0.66 $\mu$ F, a step down transformer, and a specifically designed induction heating coil.

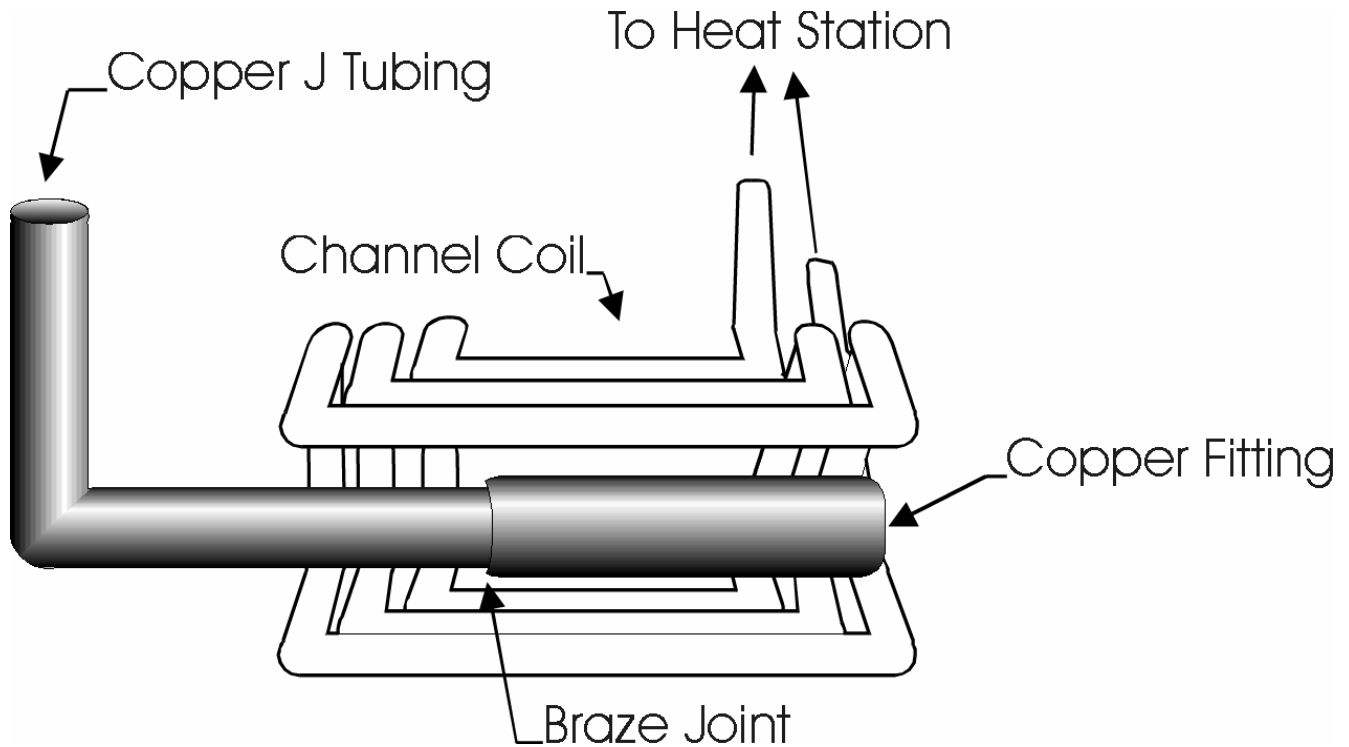
**Process** Ameritherm NovaStar 10 kW solid state induction power supply was setup to achieve the following results:

- 2.0 kW of power was directly loaded into the copper tube resulting in a heating time of 7.2 seconds to reach the necessary 1300°F for brazing.

**Results** Processing ease was achieved through the design of a unique channel type coil comprised of three turns of 1/8" copper.

Application illustration on next page

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