



## Brazing a Cutting Tool Assembly

**Objective** To braze cone and shaft for a cutting tool

**Material** Customer supplied parts  
Temperature indicating paint  
Braze preforms

**Temperature** 1300 - 1400 °F (704 – 760 °C)

**Frequency** 235 kHz

**Equipment** Ameritherm 2.4 kW, 150-400 kHz induction heating system, including remote heat station using two 0.66  $\mu$ F capacitors (total 1.32  $\mu$ F)  
A two-position, two-turn induction heating coil designed and developed specifically for this application.

**Process** Two sets of parts are placed in the individual coils. Braze preforms are placed on the cone at the joint. The assembled part is placed inside the induction heating coil and heated until the braze melts.

**Results/Benefits**

- efficient coil design enables simultaneous heating of two parts on the single 2kW system
- dual braze is accomplished within required process time, increasing process throughput

