

# Induction Brazing carbide tip

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 carbide tip to a 4140 steel cutting tool

**Material** Carbide Isograde C2 & C5 tips, 4140 circular steel cutter, flux and silver braze shim

**Temperature** 1400 °F (760 °C)

**Frequency** 290 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 split helical coil is used to heat the carbide & circular steel cutter evenly for the brazing application. The circular steel cutter is placed in a vise and the carbide and braze shim are placed onto the tooth. The assembly is heated for 5 seconds to braze the carbide to the circular steel cutter. The circular steel cutter is rotated in the vise & each carbide tip is brazed separately without effecting the previous braze.

**Results/Benefits** Induction heating provides:

- Rapid, localized heat applied only to tip being brazed, will not effect previous brazes on the assembly
- Neat and clean joints
- Produces high quality repeatable parts

[service@uihm.com](mailto:service@uihm.com)

United Induction Heating Machine Limited

