



Brazing carbide teeth to steel pipe jaw section

Objective Brazing carbide teeth to a steel jaw in less than 5 minutes

Material Steel pipe jaw, 0.5" (12.7mm) dia, 1.25" (31.75mm) long, 0.25" (6.35mm) thick carbide teeth, black flux and silver copper braze shims

Temperature 1292°F (700°C)

Frequency 257kHz

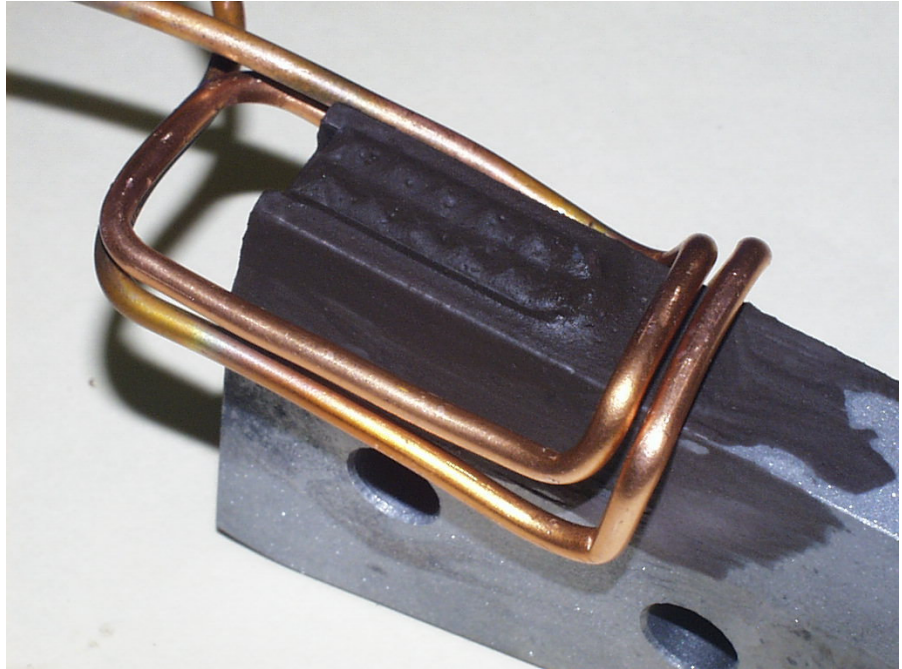
Equipment

- Ambrell 1.0 kW induction heating system, equipped with a remote workhead containing one 0.66µF capacitor
- An induction heating coil designed and developed specifically for this application.

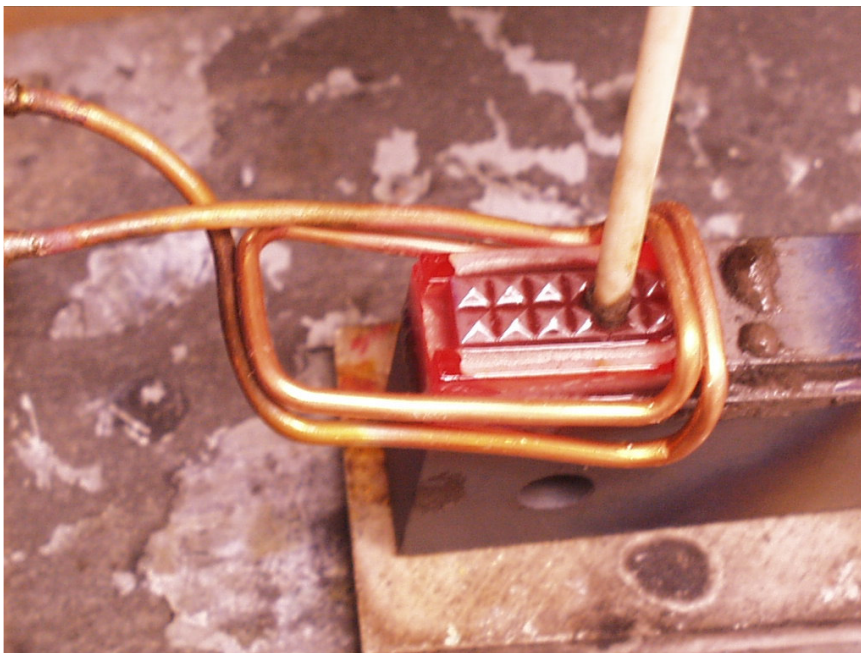
Process A two turn rectangular helical coil is used to heat the carbide and steel to 1292°F (700°C) for 4 to 5 minutes. Three braze shims control the amount of braze and the even heat allows for a good flow of braze creating an aesthetically pleasing bond.

Results/Benefits Induction heating provides:

- Hands-free heating that involves no operator skill for manufacturing
- Consistent, repeatable aesthetically pleasing brazes
- Even distribution of heating



Black flux is applied to the joint



Carbide teeth are brazed to steel shank