



## Braze an end plug on a stainless steel car grill

**Objective** Braze an end plug on a stainless steel car grill before powder coating application

**Material** Stainless steel car grill 0.5" x 0.19" (12.7mm x 4.8mm), end plugs and braze ring

**Temperature** 1350 °F (732°C)

**Frequency** 267 kHz

**Equipment**

- Ambrell 1 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 three turn square shaped helical coil is used to heat the end of the grill. End plugs are inserted into the grill and the assembly is inserted into the coil for 30 seconds. The braze flows to create a neat and clean leak-proof joint.

**Results/Benefits** Induction heating provides:

- Rapid localized heat to joint area only
- Minimized oxidation reduces cleaning time
- Hands-free heating that involves no operator skill for manufacturing
- Even distribution of heating



End plug and grill in place for brazing application



After 30 seconds the braze flows to create joint