

# Induction bonding Metal to plastic

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  
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**Objective:** Bond an aluminium mesh to a plastic beer keg

**Material :** Aluminium mesh

. Plastic keg 320 mm (12.5") ID

Temperature 250 C (482 F)

Frequency 200 kHz

Equipment UM-10AB-UHF, induction heating system, equipped with a remote workhead containing two .33 $\mu$ F capacitors (for a total of .66  $\mu$ F).

An induction heating coil designed and developed specifically for this application.

**Process/Narrative** A single-turn solenoid coil is placed around the assembled beer keg and heated for 35 seconds as the keg is rotated.

Pressure is applied with a press on the top rim whilst the keg is

rotating, forming a seal between the aluminium mesh and the two halves of the beer keg.

**Results/Benefits** Induction heating provides:

- . Quick, reliable, repeatable heat
- . Localized, precision heat to the mesh area

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