Induction De-bonding Stainless Steel

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 To separate bonded stainless steel / carbon fiber assemblies by heating tang, softening the adhesive bond

Material Stainless steel and carbon fiber inserts

Temperature 300 °F (149°C)

Frequency 200 kHz

Equipment • Power of 6kW induction heating system, equipped with a remote workhead containing two 0.33μ F capacitors for a total of 0.66μ F).

• A helical induction heating coil designed and developed specifically for this application.

Process The bonded part is placed within the helical coil and RF power is applied. Once the metal tang has been warmed, the adhesive bond with the carbon-fiber insert is weakened enough to separate the two sections.

Results/Benefits • process is more environmentally-friendly without the use of noxious chemicals

- process times reduced through direct application of heat
- process efficiency, only the tang is heated

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