Induction Brazing Turbine Blades

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 heat an inconel turbine blade in a vacuum to 2000°F and hold temperature for five minutes for a nickel brazing application.

Material Inconel turbine blades, nickel metering plates, nickel braze Temperature 2050°F

Frequency 20 kHz

Equipment ABS Mark 2 with high vacuum option and optical pyrometer for temperature measurement, Power of 120kW Machine with a remote heat station containing three (3) 0.75 μ F capacitors (for a cumulative capacitance of 0.25 μ F) and a specially-designed induction coil.

Process The UIHM ABS Mark 2 with a vacuum level of Results The metering plates were successfully brazed to the turbine blades with nickel within five minutes at 2000°F. The nickel braze flowed well and the joints were clean. Since only the braze joint area was heated, an additional braze stop-off step was not necessary



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