

Induction Soldering Fiber Optic

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>

Soldering Fiber Optic Objective To heat a fiber optic housing to 400°F within 10 seconds for av soldering application, to form a hermetic seal

Material Gold-plated aluminum housing, solder preform ring and flux

Temperature 400 °F

Frequency 267 kHz

Equipment Power of 10kW power supply, remote heat station with a specially designed induction coil.

Process A specially designed, two-turn plate concentrator coil was used to provide uniform heat to the joint area. Initial tests were conducted to establish a heating pattern and time-to-temperature.

The goal was to deliver uniform heat to the lid as well as to the housing. One solder preform was applied at the joint and flux was applied to the joint surface. A ceramic fixture was used to maintain uniform pressure on the lid and keep it from buckling during the heat cycle. RF power was applied for 10 seconds, causing the solder to melt and flow.

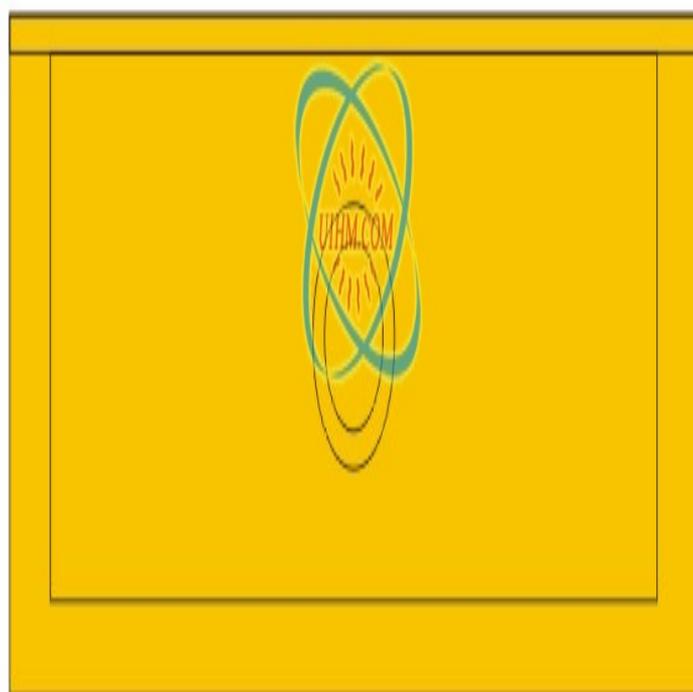
Results Consistent and repeatable results were achieved with the Power of 10kW power supply and an 10-second heat cycle.

The solder flowed evenly and bonded the lid to the housing without any visible voids. Soldering Fiber Optic

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Induction Coil



Gold Plated Aluminum Housing