Induction Brazing piston valve

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 Brazing a steel piston valve assembly

Material Steel piston valve 4.5" dia (11.43cm), tungsten carbide plate and braze Temperature 1350 $^{\circ}$ F

Frequency 91 kHz

Equipment • Power of 90kW induction heating system, equipped with a remote workhead containing six 1.0µF capacitors for a total of 1.5µF

• An induction heating coil designed and developed specifically for this application. Process A five turn pancake coil is used to braze the piston valve and tungsten carbide plate. The assembly was heated for 10 minutes to flow the braze and join the two pieces.

Results/Benefits Induction heating provides:

- Rapid localized heat, which can minimize oxidation and reduce cleaning after joining
- Hands-free heating that involves no operator skill for manufacturing
- Clean and controllable joints
- Produces high quality repeatable parts

Brazing-steel-piston-valve

Brazed-assembly





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