

Induction Shrink fitting wrist pin into connecting rod

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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Shrink fitting wrist pin into connecting rod Objective Assemble connecting rods with a more accurate control of the heat

Material Rod has an OD of .9125" (23.18mm), knuckle has an ID of .9125" (23.18mm) with an interference of .0001" (.0025mm). Knuckle assembly is forged steel

Temperature 400 °F (204 °C)

Frequency 210 kHz

Equipment • Power of 6kW induction heating system, equipped with a remote workhead containing two 1.0µF capacitors for a total of 0.5 µF

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

Process A six turn helical coil is used to heat the connecting rod for 13 seconds. The coil is perpendicular to the axis of the bore to promote even heating around the circumference. The connecting rod is then assembled with the piston for shrink fitting.

Results/Benefits Induction heating provides:

- More accurate control of heat vs a flame burner. Only heats knuckle, not the whole part.
- Lower temperature used to prevent discoloring.
- Increased productivity due to repeatability & ease of operation. A foot pedal & timer is used.
- No product contamination. shrink fitting connecting rods

service@uihm.com

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Coil is perpendicular to the axis of the bore when heating the knuckle



Final assembly of wrist pin & rod