

Induction Shrink Fit Camshaft Gear

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>

Shrink Fit Camshaft Gear Objective: Heating a camshaft gear with a bore size of 1.630 to shrink fit over a steel shaft that has a diameter of 1.632. A temperature of 5000F is required for the gear to expand 0.002 in order to slip over the shaft. Production is presently done at a rate of 15-20 gears per 24 hour shift by heating the gear on a hot plate. The hot plate heating cycle lasts for approximately 45 minutes. The customer would like to explore the options available in terms of heating times and machine size.

Material: Steel Camshaft Gear measuring 7 in diameter, 1 thick, with a bore size of 1.630.

Temperature: 5000F

Application: A unique three (3) turn helical coil along with the various UIHM solid state induction power supplies were used to achieve the following results:

*5000F was reached in three (3) minutes while using the Power of 25KW, 25 kW output solid state induction power supply.

* 5000F was reached in five (5), eight (8), and ten (10) minutes using the Power of 25KW, 25 kW output solid state induction power supply.

*Even heating was observed as a result of the unique three (3) turn helical induction coil.

Equipment: Power of 25KW, 25 kW output solid state induction power supplies respectively, including remote heat stations and a unique three turn helical coil made from 3/16 copper tubing and having a 4.4 inside diameter.

Frequency: 50 kHz shrink fit Camshaft Gear

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