## Induction Heating Catheter Tipping Die

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

Heating Catheter Tipping Die Objective: To heat an aluminum catheter tipping die to above 2850F within 2 to 5 seconds for the forming of catheter material. Presently, heating is performed in 15 seconds with older induction equipment. The customer would like to use solid state induction equipment to reduce the heating times and develop a more efficient process.

Material: Aluminum catheter tipping die measuring 3/8 OD and 2 long with a nonmagnetic sleeve over the heat zone. The catheter material was described as being similar to polyurethane plastic. Also, a 0.035 diameter steel wire was inserted into the catheter tube to prevent collapsing.

Temperature: 5000F

Application: The Power of 6kW solid state induction power supply was determined to most efficiently produce the following results:

- \* A heating time of 3.3 seconds to reach 5000F and form the catheter was achieved through the use of a two (2) over two (2) turn helical coil.
- \* A quality catheter was formed by pressing 1/2 of the polyurethane tube into the mold while retaining shape through the use of a 0.035 wire to prevent collapsing of the tube.

Laboratory results show that a substantial time decrease was accomplished which will allow for a significant increase in production while not sacrificing quality.

Equipment: Power of 6kW solid state induction power supply including a remote heat station containing one (1) capacitor totalling 1.2  $\mu$ F.

Frequency: 287 kHzHeating Catheter Tipping Die

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To Heat Station