

Induction Heating Nitinol spring

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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Heating Nitinol spring Objective To heat a nitinol spring assembly to 800°F (426.6°C) for shape setting application

Material 0.018" (.457mm) Nitinol wire wrapped around a 0.08" (2.03mm) Nitinol mandrel 15" (381mm) long

Temperature 800°F (426.6°C)

Frequency 270 kHz

Equipment • Power of 6 kW induction heating system, equipped with a remote workhead containing two 1.5μF capacitors for a total of 0.75μF

• An induction heating coil, designed and developed specifically for this application. Process A six turn split helical coil is used to heat the nitinol wire assembly to 800°F (426.6°C). The assembly is pulled through the coil at a steady rate to evenly heat a 1/2" (12.7mm) section of wire continuously in 4-5 second.

Results/Benefits Induction heating provides:

- Hands-free heating that involves no operator skill for manufacturing
- Even distribution of heating along the wire
- Wire is heat treated on the winding machine, eliminating a secondary process
- Desired heat treating temperature can be adjusted by varying the time the wire assembly spends in the coil.

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