

# Induction hardening belt retraction 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>

Objective Heat the teeth of a soft steel seatbelt retraction gear to 1700°F (926.7°C) within two seconds for hardening.

Material #4130 steel seatbelt retraction gears, water vortex quenching tank, electronically controlled air valves, adjustable timers

Temperature 1700 °F(926.7°C)

Frequency 165 kHz

Equipment • Power of 25kW induction heating system equipped with a remote workhead with 1.0 μF capacitance

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

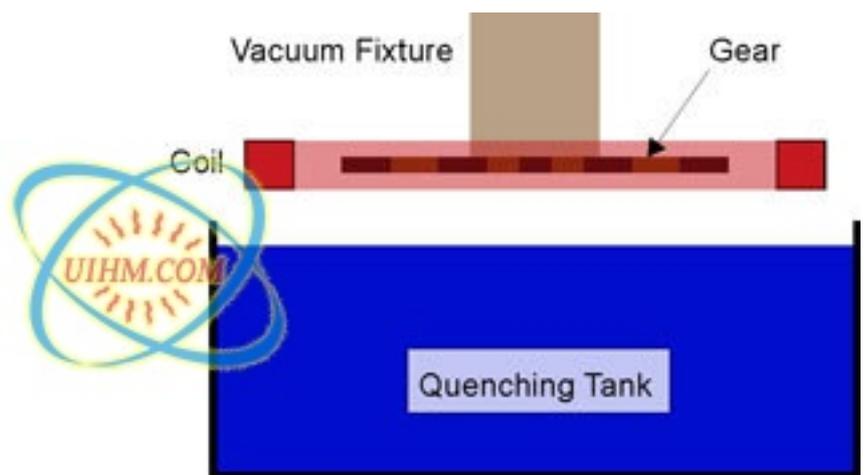
Process A four-turn helical concentrating coil is specially designed to deliver uniform heat to the steel seatbelt retraction gear. The parts are positioned in the coil above the quenching tank and held in place with a vacuum rosette fixture. Power is applied for two seconds to heat the part. The parts are then expelled into the quench tank for cooling.

Results/Benefits Induction heating provides:

- Uniform and repeatable results
- Energy efficient
- Non-contact heating



Seat Belt Retraction Gear



[service@uihm.com](mailto:service@uihm.com)

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