

# Advantages of Induction Heating

United Induction Heating Machine Limited

UIHM is experienced in Induction Heating Machine and Induction Heating Power Supply, induction heating equipments can be 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>

Why choose induction heating over convection, radiant, open flame or another heating method? Here's a short summary of the major advantages that modern solid state induction heating offers for lean manufacturing: Induction heating eliminates the inconsistencies and quality issues associated with open flame, torch heating and other methods. Once the system is properly calibrated and set up, there is no guess work or variation; the heating pattern is repeatable and consistent. With modern solid state systems, precise temperature control provides uniform results; power can be instantly turned on or shut off. With closed loop temperature control, advanced induction heating systems have the capability to measure the temperature of each individual part. Specific ramp up, hold and ramp down rates can be established & data can be recorded for each part that is run. Maximized Productivity

Production rates can be maximized because induction works so quickly; heat is developed directly and instantly (>2000° F. in Improved Product Quality

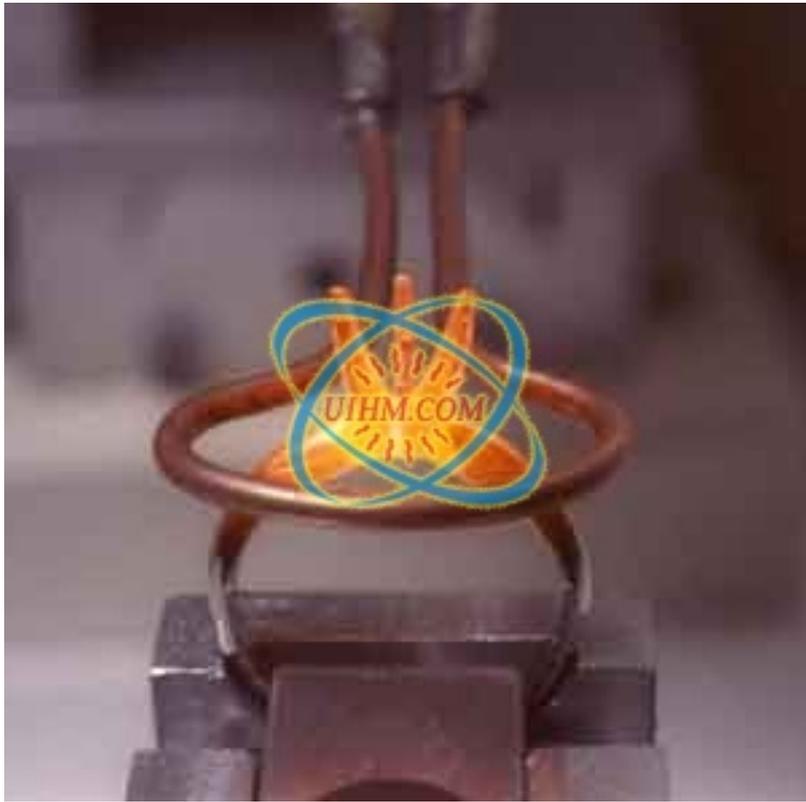
With induction, the part to be heated never comes into direct contact with a flame or other heating element; the heat is induced within the part itself by alternating electrical current. As a result, product warpage, distortion and reject rates are minimized. For maximum product quality, the part can be isolated in an enclosed chamber with a vacuum, inert or reducing atmosphere to eliminate the effects of oxidation. PROTECTIVE ATMOSPHERES Extended Fixture Life

Induction heating rapidly delivers site-specific heat to very small areas of your part, without heating any surrounding parts. This extends the life of the fixturing and mechanical setup. Environmentally Sound

Induction heating systems do not burn traditional fossil fuels; induction is a clean, non-polluting process which will help protect the environment. An induction system improves working conditions for your employees by eliminating smoke, waste heat, noxious emissions and loud noise. Heating is safe and efficient with no open flame to endanger the operator or obscure the process. Non-conductive materials are not affected and can be located in close proximity to the heating zone without damage.

## Reduced Energy Consumption

Tired of increasing utility bills? This uniquely energy-efficient process converts up to 90% of the energy expended energy into useful heat; batch furnaces are generally only 45% energy-efficient. And since induction requires no warm-up or cool-down cycle, stand-by heat losses are reduced to a bare minimum. The repeatability and consistency of the induction process make it highly compatible with energy-efficient automated systems.



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