

Induction Crucible melting

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>

Crucible melting Objective Heat to melting point various materials in a nitrogen atmosphere in a graphite or molybdenum crucible.

Material Magnesium fluoride, tantalum pentoxide, aluminum, yttrium fluoride, germanium, hafnium or titanium dioxide and a Pyrex bell jar

Temperature Melting temperatures varies

Frequency 160 kHz

Equipment • Power of 45kW induction heating system, equipped with a remote workhead containing two 1.0 μ F capacitors for a total of 0.5 μ F

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

Process The crucible is heated using a coil with a four turn pancake at the base that extends upward into a three turn helical coil.

Times and melting temperatures vary due to the properties of the different materials.

Results/Benefits Induction heating provides:

- Faster process time than electron beam heating.
- Repeatable, consistent results.
- Even distribution of heating. various materials in the crucibles



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