

Induction Melting aluminum for casting

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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Melting aluminum for casting Objective Heating a graphite crucible to 1292°F (700°C) to melt aluminum to liquid form for a casting application

Material 9.8" (250mm) OD, 22.4" (570mm) long, 0.7" (17.5mm) thick Graphite crucible, approx. 92.5lb (42kg) of aluminum

Temperature 1292 °F (700°C)

Frequency 8.3 kHz

Equipment • Power of 90kW induction heating system, equipped with a remote workhead containing two 26.9µF capacitors for a total of 53.8 µF.

• An induction heating coil designed and developed specifically for this application. Process A ten turn helical coil is used to heat the graphite crucible to 1292°F (700°C) for 25 minutes to melt the aluminum to liquid form. Once the aluminum is melted it is then cast. No stirring is involved, molten sinks to bottom of crucible and aids in the melting process.

Benefits/Results Induction heating provides:

- Hands-free heating that involves no operator skill for manufacturing.
- Repeatable, dependable results.
- More efficient and cost effective than gas furnace, does not heat up the manufacturing area.
- Quicker process time which increases production. Melting aluminum in graphite crucible

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