



# Furnace Engineering

*Leaders in Heat Processing Solutions*

## Induction Heating



### Applications:

Brazing, Soldering, Shrink Fitting, Billet Heating, Forging, Strip Heating, Sintering, Cap Sealing, Wire Heating, Bright Annealing, Heat Treating, Research, Melting, Vacuum Melting, Bar Heating, Cartridge Annealing.

Furnace Engineering is in the unique position of being able to offer the latest technology in power supplies manufactured by world leaders in Induction Heating.

Induction heating is a clean, rapid and precise technology with an extremely high efficiency compared to the traditional gas or electric heating methods.

Furnace Engineering's induction heating specialists can model and design the most appropriate heating system for your needs.

Our range of power supplies starts at a small, compact 1.2kW, to units over 4MW with a suitable frequency range dependent on the application.

We offer expert service, spare parts and coil manufacturing facility to meet all your induction heating needs.



**Benchtop Induction Unit**



**Integrated Quench**



**Brazing**



**High Output Induction Unit**



### Melbourne

50 Howleys Road  
Notting Hill VIC 3168 Australia  
Private Bag 11 Mt Waverley VIC 3149  
Tel: +61 3 9544 2922  
Fax: +61 3 9544 2723



[www.furnace.com.au](http://www.furnace.com.au)

Email: [info@furnace.com.au](mailto:info@furnace.com.au)



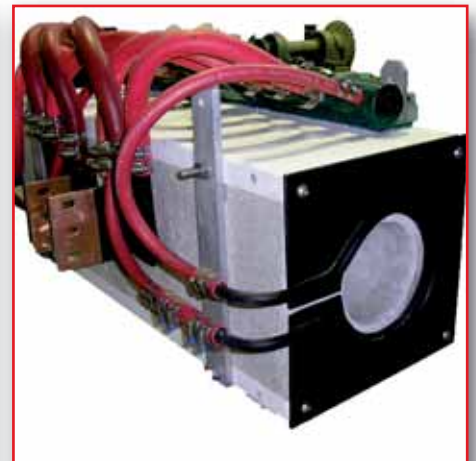
**Inert Gas Melting Furnace**

Our custom melting furnaces are used for specialised applications including precious metals melting. The furnace draws a vacuum before backfilling with an inert gas to remove oxygen contamination during the melt.



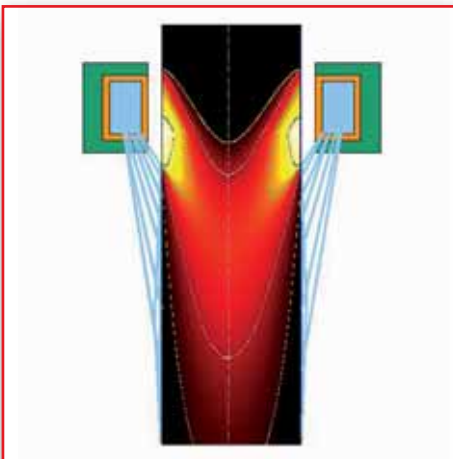
**Integrated Quench**

Induction heating allows for the design of integrated quenching systems. This arrangement results in short quench times for increased hardness. Such design is impractical with other heating technologies.



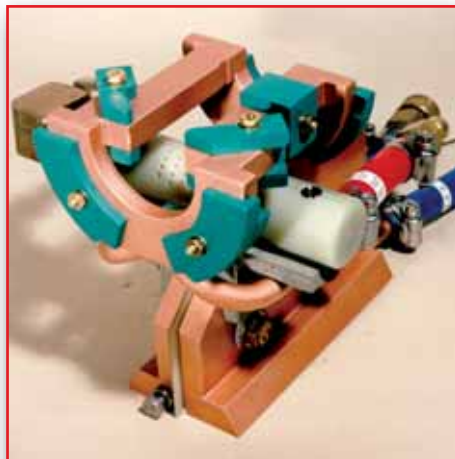
**Continuous Bar Heating**

We are able to supply a variety of induction coil designs to suit a wide range of processes such as inline bar heating used in steel annealing, hardening and forging applications.



**Thermal Simulation**

By using powerful electro-magnetic and thermal computer simulation, the effects of changes to materials, power, frequency and coil design can be made well before manufacturing begins. Both the transient and steady state conditions can be simulated.



**Fluxtrol Field Concentrators**

Fluxtrol concentrators allow for precise control of the induction heating location.

These field concentrators can be integral to initial designs or retrofitted to existing induction coils for significant performance gains.



**Spare Parts and Service**

We offer a wide range of spare parts including: electronic circuit boards, water-cooled leads, semi-conductors, capacitors, induction coils, and melting furnaces.

Our service backup includes refurbishment, repair and breakdown support.

**Furnace Engineering is an Australian company with over 40 years of heat processing experience. For assistance with your application, please contact our experienced sales staff.**



**Furnace Engineering**

[www.furnace.com.au](http://www.furnace.com.au)