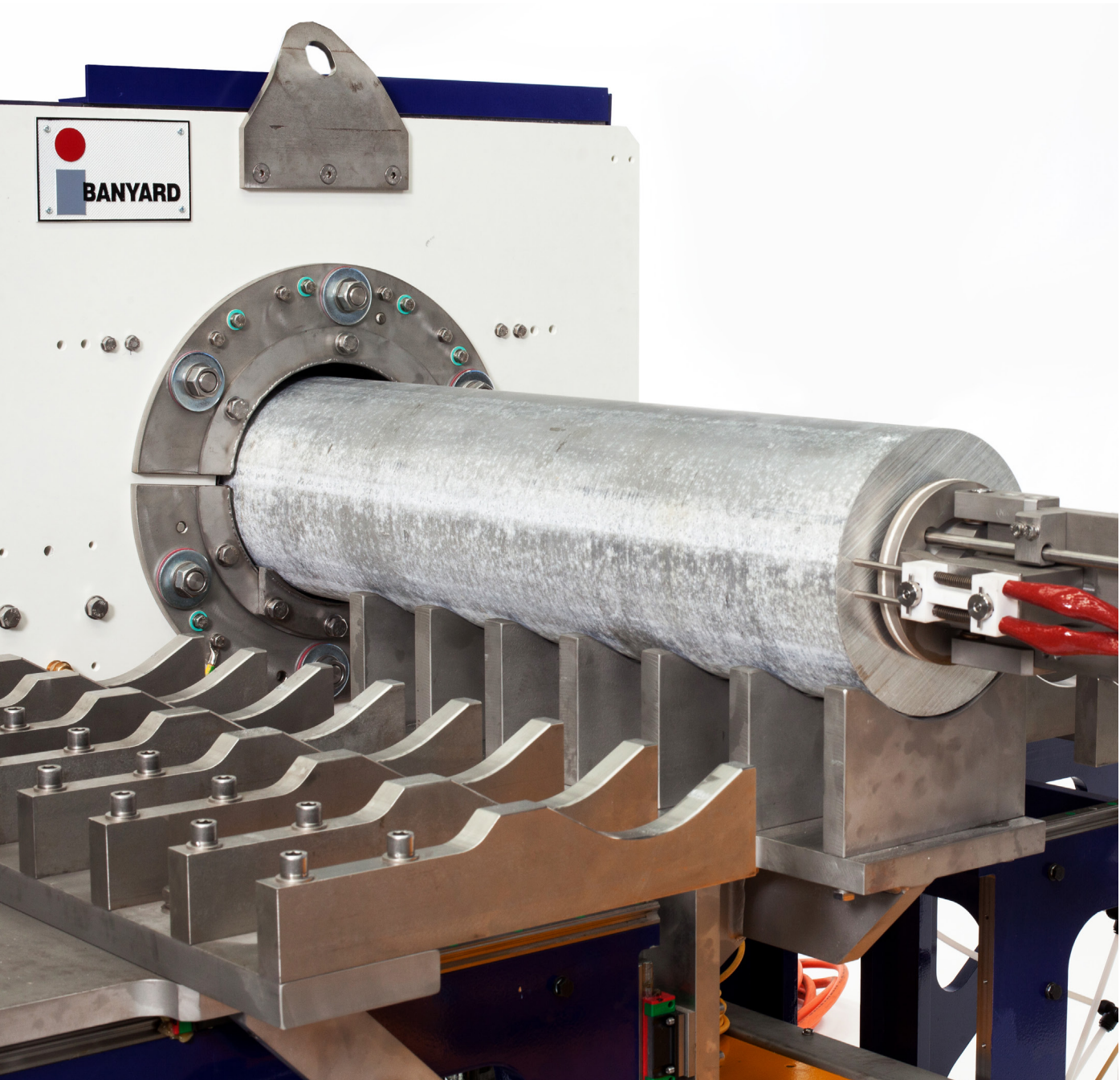


# Induction Billet Heaters

Precision Heating for the Extrusion Industry





The image shows a Banyard industrial induction heating machine. A large, cylindrical metal billet is positioned horizontally within the machine's heating chamber. The machine has a white and blue frame. On the left side, there are various cables (red, blue, orange) and a red warning label. The Banyard logo, featuring a red circle and the word "BANYARD", is visible on the front panel. The heating chamber is open, revealing the internal components and the billet. The machine is mounted on a base with several support legs.

# Efficient Rapid Heating

Banyard billet heaters employ multi-layer induction heating coils that offer improved heating efficiencies and high power density keeping equipment footprint compact.

Rapid heating rates achievable by induction also reduce oxide formation and surface burnout of alloying elements ensuring improved product quality. Reduced time at temperature results in reduced grain growth and precipitation of  $\text{Mg}_2\text{Si}$  in aluminium alloys, improves product quality and anodising finish.



# Induction Heating

## Why Banyard?

Banyard are the world leaders in the design and manufacture of high-quality, induction heating equipment for non-ferrous applications. We have developed our products and our knowledge over 50 years of serving the extrusion industry.

The accuracy, efficiency and controllability of induction heating makes us the ideal choice for pre-heating non-ferrous billets prior to extrusion.

A fast response service is provided by our dedicated team of Banyard specialists from all over the global. Inductotherm Group companies along side our professional agents provide a global yet local response for induction coil repairs, spare parts and general technical support.

## Precision, Accuracy and Quality

Today's extruders demand billets with an accurate thermal profile at the extrusion press. Banyard multi zone taper heating allow for the application of a thermal linear gradient or 'taper' to aluminium billets allowing for isothermal extrusion and maximum ram speed.

Banyard induction heaters can provide a range of applications for billet heating. When installed within existing lines they can provide increased temperature accuracy and repeatability both increasing output and producing a higher quality product.

## Product Range

Banyard has developed highly reliable designs and methods to serve its non-ferrous industry customers for heating systems and mechanical handling equipment.

We provide billet heating solutions for non-ferrous alloys including aluminium, magnesium, copper, brass and titanium. Our product range includes stand alone taper heating, integrated boost heating which can both be combined with gas pre-heaters and/or shear/saw combinations.

Systems come with a range of billet handling options including 'zero friction' servo handling developed for the aluminium micro-tubing industry to eliminate billet surface damage.

Banyard is able to offer a wide range of complimentary equipment including hot and cold billet handling and high speed tube annealing systems, continuous cast rod boost heating and other heating applications.



## Smart Power

Precision taper heating is achieved by using the Banyard multiple control zone induction coil technology powered by the Inductotherm LFi series low frequency IGBT convertor.

### Multi Zone IGBT Inverters

Up To 6 Control Zones

### Selectable Frequency Control

20 – 200 Hz

### Zone Phase Synchronisation

No Inter-Zone Losses

### Constant Input Power Factor

>0.95 Cos Phi

### Compact Footprint

800 kW in 2.0m x 2.4m

# We can help you do great things with metal.

Give us a call or send us a note.

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