GROW CONTROL
POWER TECH PVT. LTD.
We Provide Solutions....

AN ISO 9001:2015 COMPANY

INDUCTION BRAZING MACHINE

GROW CONTROL has developed special purpose Induction Brazing Machines for Brazing applications for Automotive Aerospace, Defense sector and general industry.

IGBT based resonant inverter delivers precise heating power to the location where subsystems are to be brazed. Semi automated system facilitate faster and accurate brazing of subsystems. These Systems are customized for specific application.

We have successfully developed Brazing solutions for various applications for Industrial components, Automotive, Aerospace and other components. Brazing can be performed on various metals such as Aluminum, Brass, Copper, Copper Alloys, Iron and Steel etc.

Induction Brazing process offers major advantage of heating the brazing location precisely, the heating of the brazing components are uniform, and it facilitates uniform flow of brazing filler material. The heat input can be controlled, timer can be provided for better repeatability. This can reduce the risk of overheating, which can lead to higher porosity and weaker joints.

Features

- **High-Frequency Induction Heating:** Provides rapid heating of the workpiece, allowing for precise control of the brazing process and minimizing thermal distortion.
- **Programmable Heating Profiles:** Allows users to set specific heating profiles and parameters for different materials and applications, enhancing versatility and efficiency.
- **Compact and Ergonomic Design:** Designed for easy integration into existing production lines with a compact footprint and user-friendly interface.
- **Automated Control System:** Features advanced automation capabilities for precise control of heating cycles, ensuring consistent and repeatable results.
- **Safety Features:** Integrated over-temperature, over-current, and fault detection mechanisms to ensure safe operation.
- **Energy Efficient:** High efficiency in energy consumption with minimal waste, leading to lower operational costs.

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Key Advantages

1. **Indigenous Technology:**
   Developed and manufactured in India, ensuring compatibility with local industry standards and accessible technical support.
2. **Versatile Applications:**
   Suitable for a wide range of brazing applications, including HVAC, automotive components, and precision manufacturing.
3. **High Reliability:**
   Engineered for stability and accuracy, ensuring consistent performance in demanding operational environments.
4. **Environmentally Friendly:**
   Produces minimal emissions compared to traditional brazing methods, making it a greener choice for manufacturing.
5. **Comprehensive Customization:**
   GROW CONTROL offers tailored solutions to meet specific operational requirements, ensuring optimal functionality for every application.

Applications

1. **Aerospace Components:**
   Ideal for brazing high-strength materials used in aircraft structures and components.
2. **Automotive Industry:**
   Supports the production of critical automotive components requiring strong and reliable joints.
3. **HVAC Systems:**
   Perfect for brazing pipes and fittings in heating, ventilation, and air conditioning systems.
4. **Electrical Components:**
   Used in the assembly of electrical and electronic devices, ensuring reliable connections.

Customization Options

GROW CONTROL provides a variety of customization options for the Induction Brazing Machine to accommodate specific application requirements:

- **Custom Power Ratings** to suit specific application needs
- **Enhanced Control Features** for specific brazing materials
- **Integrated Monitoring Systems** for real-time performance feedback
- **Modular Configurations for Increased Capacity**
- **Communication Interfaces** for enhanced integration with production systems

Our engineering team collaborates with clients to deliver tailored solutions that precisely fit their operational needs, ensuring optimal performance and compatibility.

Why Choose *GROW CONTROL*?

- **Indigenous Expertise**: Tailored to meet Indian industry standards with local support for customization and maintenance.
- **Reliable and Consistent Performance**: Ensures precise and repeatable brazing essential for critical applications.
- **Low Maintenance Requirements**: Durable design reduces wear and tear, minimizing downtime and maintenance costs.
- **Energy Efficient and Cost-Effective**: Low energy losses lead to cost savings and enhanced operational efficiency.
- **Comprehensive Customer Support**: From initial design consultation to installation and ongoing support, ***GROW CONTROL*** offers a full range of services.

Certifications

- **ISO 9001:2015** – Quality Management Systems

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Technical Specification

Model no.	GC153IBM	GC213IBM	GC403IBM	GC453IBM	GC1003IBM
Input	415V±10%, 3-ph, 50Hz				
Output (KW)	15	21	40	45	100
Scheme	IGBT	IGBT	MOSFET	IGBT	IGBT
Power Factor	0.9				
Power Control	Manual & Auto				
Frequency (kHz)	10 to 30	10 to 25	450	10 to 30	
Output power factor	Near unity with PLL frequency tuning				

OUR CLIENTS

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