

We Provide Solutions....

AN ISO 9001:2015 COMPANY







VACUUM INDUCTION BRAZING



GROW CONTROL has developed special purpose Vacuum Induction Brazing is a highprecision metal joining process that uses induction heating in a vacuum environment to melt filler material and bond metal parts. The vacuum atmosphere reduces oxidation and contamination, ensuring clean and strong joints.

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.

Features

- **Controlled Atmosphere:** The vacuum eliminates oxygen and other contaminants, ensuring clean, high-quality joints.
- **Precise Heating:** Induction heating allows localized and controlled heating of parts, minimizing heat impact on surrounding areas.
- *Flux-Free:* The vacuum environment eliminates the need for flux, preventing residues and contamination.
- *High-Quality Joints:* Smooth, strong, and reliable brazed joints with minimal distortion.

Key Advantages

1. Indigenous Technology:

Completely designed and manufactured in India, Vacuum Induction Brazing deliver solutions optimized for domestic industrial, research, and defense needs.

2. Precision and Stability:

The power supplies deliver precise voltage and current with low ripple and noise, essential for high-accuracy applications like battery testing, electroplating, and electrochemical processing.

3. Advanced Protection:

Built-in safety mechanisms, including over-voltage, over-current, and thermal protection, ensure reliable performance in demanding applications.

4. High accuracy and repeatability:

The high-frequency magnetic field generated by the induction coil allows for precise control over the heating process, resulting in consistent and repeatable brazing results.

5. Customizable Configurations:

GROW CONTROL offers flexible options in terms of voltage, current range, and form factor, ensuring that each unit meets the unique requirements of its intended application.



Applications

- Aerospace components
- High-performance automotive parts
- Specialty alloys production
- HVAC Systems
- Refrigeration

Customization Options

GROW CONTROL offers a range of customization options to meet the unique power requirements of diverse industrial and defense applications:

- Output Voltage & Current Range Adjustments
- Cooling System Customization
- Advanced Monitoring and Control Interfaces
- Extended Protection Features

Our engineering team collaborates with clients to deliver tailored solutions suited to their operational, environmental, and performance needs.

Why Choose GROW CONTROL?

- **Indigenous Design**: Backed by over three decades of power electronics expertise, *GROW CONTROL* VIB meet high standards of reliability and performance.
- Efficiency & Stability: High efficiency and low ripple output ensure stable power delivery, critical for sensitive and precision applications in industrial, defense, and research sectors.
- **Safety and Reliability**: Designed with comprehensive protection mechanisms, these power supplies offer safe and dependable performance under demanding conditions.
- Ruggedized for Harsh Environments: Compliant with military standards, GROW CONTROL VIB are built to operate reliably in extreme environmental conditions.
- **Customer Support**: From customization and installation to support and maintenance, *GROW CONTROL* ensures seamless integration and optimal performance for all clients.



Technical Specification

Model no	GCPT1003VIB
Input Voltage	415 V± 10%, 3 Phase, 50 Hz± 3%
Power	Up to 100kW
Operating range	40(±5) kHz to 320 (±20) kHz
Cooling Water	60LPM at 24°C
Maximum temperature	1200°C



OUR CLIENTS



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