

Brush Wellman Electrofusion Products / Vacuum Furnace Brazing Services

Brush Wellman-Electrofusion Products has an extensive offering of on-demand shop services. With more than 25-years of experience in the field of vacuum furnace brazing, Brush Wellman-Electrofusion's in-house brazing services are ideally suited for even the most demanding of scientific and industrial braze applications. Over this period, we've refined and perfected our ability to work with many materials types and vacuum furnace processes.

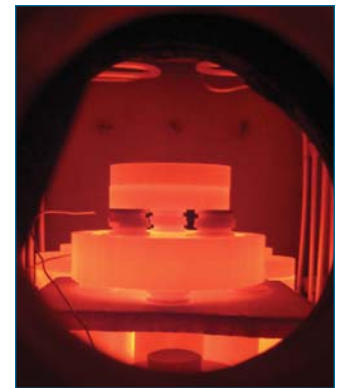
Our vacuum brazing services offer the following features and benefits:

- In-house design / engineering assistance
- 10^{-5} Vacuum levels help reduce metals reactions
- Partial pressure inert atmospheres like dry hydrogen, argon and nitrogen
- Programmable controls ensure repeatability with steady temperature ramp-up and cool-down
- Rapid cool-down using inert gas circulated through sealed heat exchanger
- Heat treating and outgassing
- 1,400°C High temperature capability
- 14x14x36 inch furnace for rapid pump-down, heat-up and cool-down
- 24x24x47 inch furnace for large parts or large batches

A variety of materials including ferrous and nonferrous metals, nickel and nickel-based alloys, titanium and ceramics are routinely joined at our facility. We're also uniquely equipped to handle the brazing of exotic materials—including those labeled as difficult by most other service providers—such as tantalum, tungsten, molybdenum, and beryllium.

Our vacuum furnace brazing processes offer an ultra clean atmosphere, superior temperature control and partial pressure operation as well as banks of vacuum and temperature sensors to monitor all critical vacuum processes. Our furnaces are equipped with fast heating and cooling mechanisms for maximum efficiency, and have uniform inert gas quenching capabilities. With our large capacity furnace chambers, we're able to run high volume quantities of small scale components or larger scale assemblies in lesser quantities.

Quick turnaround vacuum furnace brazing services are offered for small part quantities and for larger quantities or on-going orders, we can schedule specific furnace time or batch sizes to fit your needs. For more information,



please contact BW-Electrofusion Products to discuss your specific product and lead-time requirements.

Health & Safety Note:

Handling solid beryllium material poses no significant health risks. However, as with many other industrial materials—materials containing beryllium may pose a health risk, if and when recommended safe handling practices are not followed and adhered to. Inhalation of airborne beryllium may cause a serious lung disorder in susceptible individuals. The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational respiratory exposures. Read and follow the guidance set forth in the Material Safety Data Sheet (MSDS) before working with beryllium. For additional information on safe handling practices or technical data on beryllium, contact Brush Wellman Electrofusion Products.

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