

Branson Series GMX-MICRO (D type) 4000W 5500W 8000W

Overview

Branson GMX-MICRO Ultrasonic Metal Welder is designed and built to assure you the highest degree of reliability and weld quality. Ultrasonic metal welding provides our customers with a superior solution, superior performance, improved throughput, and reduced maintenance.

With over 40 years of experience in metal welding, Emerson continues to lead the design of high-end ultrasonic metal welding solutions. With the growing demand for welding products with larger size, more layer thickness and larger wire diameter, such as welding of large cross-section wires in new energy vehicles or charging stations, as well as thicker materials such as busbars or foils and joints used in battery modules and electrodes, Emerson continues to improve technology to provide faster, cleaner, and more reliable welding solutions for advanced industrial applications.



GMX-Micro D type

Key features

- **Dual linear bearings** ensure a smooth, precise welding process.
- **Rigid polar mount support** to hold the stack completely, enhance stability & repeatability.
- **Compact actuator design** with spacious underneath, suitable for automation layout.
- **Direct Press stack** with less amplitude but more force to weld.
- **New designed electronic & pneumatic** circuit support higher PPM applications (welding cycle faster) .
- **Effective & efficient force** output with air cylinder closer to or directly positioned on top of the welding area.
- **Precise linear encoder** enables precise height and distance control during welding to ensure welding accuracy.
- **Upgraded control & power** supply provides multiple real time welding data quality monitoring.

Advantages of ultrasonic welding

Process control	Ultrasonic welding monitored through time, energy, power and height limits
Cost and environmental savings	Elimination of consumables such as solder, flux, crimp connectors and braze materials
Speed	Typical weld cycles under 0.5 seconds
Low operating costs	Less than 1/30 of the energy of resistance welding

For more information:
www.Emerson.com/Branson

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GMX-MICRO Series

Advantages of ultrasonic welding

Tool life	Precision machined, multi-lobe tools manufactured with high-quality tool steel provide long life, simple setup and precise weld accuracy
Insulation dispersal	In most cases, high frequency scrubbing action eliminates the need to pre-clean parts or strip insulation from magnet wire
Low operating temperature	Minimal heat generation, therefore metal parts will not anneal and there is no need for cooling water
Automation potential	Efficient size, minimal maintenance and orientation flexibility make Branson ultrasonic equipment the best choice for automatic assembly

Technical Specifications

Specifications

Frequency	20kHz
Compressed air	80 psi (5.5 bar) clean, dry air

Power	Nominal AC Input	Current Rating
5.5kW	360-528V, 50-60 Hz, Three Phase	15 Amp Max.@200V / 20 Amp fuse
4kW	200-230V, 50-60 Hz, Single Phase	25 Amp Max.@200V / 25 Amp fuse



5.5kW & 8kW



4kW

Features

Attribute	GMX-MICRO
Connectivity	Ethernet 1000/100/10 Mbps for direct Branson Insights connection with MES
	Recipe remote recall via Ethernet
OS System	Industry Leading real-time OS
UI App	Modern & Smart design user-friendly
Time to start	Fast cycle start up
Display	7" Polychrome, capacitive LCD
	Optional for extended display (additional monitor)
Result Display	3 Graphs by Power, Height, Frequency
Language	Multiple Languages
Actuator	Optimized pneumatics for better safety
Height Encoder	Digital encoder, 5µm resolution, covers full cylinder stroke
Height Calibration	Simplified process with accuracy correction

Examples of HMI Screens & Recipes



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