Branson[™] Series GMX-MICRO 5500W | 4000W

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.



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.
- **Option to choose normal** or direct press stack for different application purpose.
- 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.
- **Nodal support design** precisely balances the Horn and Anvil during the welding process. This ensures effective transfer of Ultrasonic energy for improved weld quality and consistency.
- **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





GMX-MICRO Series

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	

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



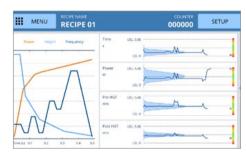
5.5kW



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	
	7" Polychrome, capacitive LCD	
Display	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	ncoder Digital encoder, 5µm resolution, covers full cylinder stroke	
Height Calibration	Simplified process with accuracy correction	

Examples of HMI Screens & Recipes



MENU RECIPE NAME New Recip				0 SETUP	
	Time (s)	Power (W) 👂	Pre-Height (mm) 🚨	Post Height (mm) 🔳	
10.4	0.000	0	0.00	0.00	
en 1	5.000	6600	15.00	15.00	
den -	0.000 🛨	0 ++++	0.00	0.00	
	Energy (I) 🤣	Amplitude (um) 🗱	T-Pressure (PSI) 🗵	W-Pressure (PSI) 🙎	
Actual	0.0	0	0.0	0.0	
	100.0	36	30.0	30.0	

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