

Series GMX-HP Ultrasonic Metal Welding Equipment

Overview

The GMX-HP series ultrasonic metal welding equipment is a new member of Branson's GMX ultrasonic metal welding product portfolio. Unique and innovative mechanical design and precision manufacturing endow the GMX-HP with superior welding capacity and excellent welding quality.

With over 40 years of experience in metal welding, Branson continues to lead the design of high-end ultrasonic metal welding products. 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, Branson continues to improve technology to provide faster, cleaner and more reliable welding solutions for advanced industrial applications.

Key Features

- Innovative **modular welding machine structure design** with three types of installation provides more convenience and feasibility for automated matching.
- Unique **horn compatibility design** provides greater expansibility and practicability for applications in different industries
- Dedicatedly developed **high-power ultrasonic welding power supply** provides various welding modes and data interfaces to enable effective monitoring and data recording of welding quality, making the equipment applicable for more welding applications
- Innovative **safe quick release device for horn** allows shortening time for replacing the horn and significant improvement in the replacement efficiency, ensuring the safety of maintenance personnel to the greatest extent.



Product Highlights

- Dual precision linear bearing guide ensures smooth equipment operation and better welding precision
- High-precision distance sensor ensures precise height/distance control during welding to ensure welding precision
- Direct pressure welding ensures maximum uniform force on workpieces and stability during welding
- Direct pressure welding ensures maximum uniform force on horns and prolonged service life of horns
- Dynamic pressure trigger and pressure sensors ensure accurate welding control to guarantee welding quality

Application

- High power new energy vehicle battery
- High power energy storage system battery
- Wire termination with big cross section
- Busbar

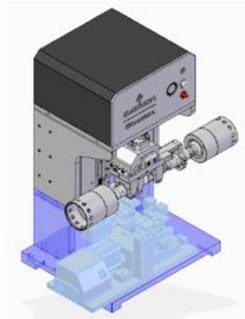
For more information:
www.Emerson.com/Branson

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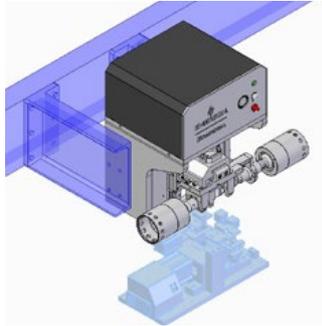

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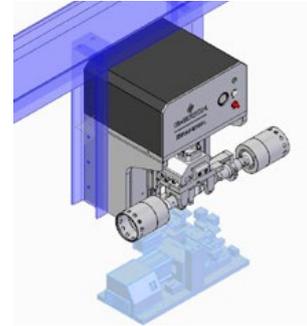
Convenient Automated Installation



1. Base support (default configuration)



2. Rear gantry mount (optional configuration)



3. Top gantry mount (optional configuration)

Horn Compatibility Design

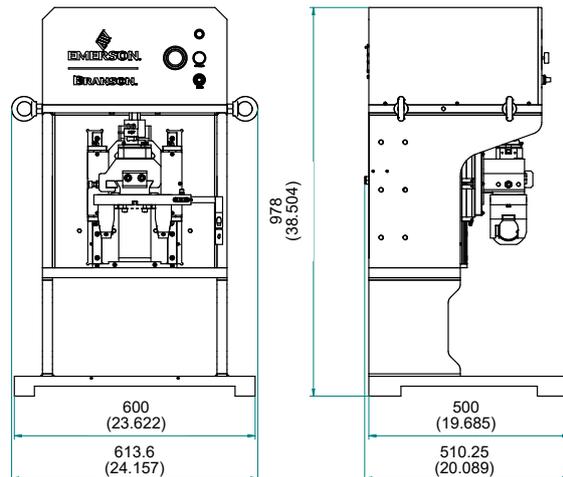
- Double-push stack with full-wave metal welding horn
- Single-push stack with high power full-wave metal welding horn
- Horizontal half-wave horn

Specifications

System Parameter	
Overall dimension (L X W X H)	613.6 x 510.25 x 978 (mm)
Gross weight	270 kg
Function module	178 kg
Base support module	92 kg
Work voltage	400-480 V Maximum 8KW
	3 phase 380 V, Asia
	3 phase 400 V, Europe
	3 phase 480 V, N.America
Air supply requirement	Minimum 0.6 Mpa, 87 Psi
Filter fineness	5 μm
Cylinder diameter	Φ125 mm
Max Stroke	100 mm
Work temperature	5-50°C
Working humidity	30 %~90 %

* CAN/CSA, CE & UL certified

Actuator Performance Parameter	
Valid stroke	20-95 mm
Valid pressure	0.05 Mpa-0.55 Mpa, 7-80 Psi 0.05 Mpa @ Stroke ≤ 60 mm
Down speed	10-110 m/s
Force range	300-6500 N



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