

## Ultrasonic Metal Welder



### ***GMX-20MA Ultrasonic Metal Welder***

#### OVERVIEW

Branson GMX-20MA is a newly developed ultrasonic spot welder with robust mechanical design and precise welding process monitoring. The GMX-20MA ensures high welding quality and consistency.

Emerson is the world leader in ultrasonic metal joining through our portfolio of Branson products. We have partnered with many different market segments including photovoltaic, medical, automotive, battery, refrigeration, electrical and appliance. Our many years of experience have given us a broad base of applications knowledge.

Ultrasonic metal welding provides our customers with a complete solution by superior products to improve productivity and reduce maintenance cost.

With continuous improvements on technology innovation, advanced application development and customer service, Branson welding systems are designed and built to ensure a highly efficient, reliable and clean welding.

#### KEY FEATURES

- Dual linear bearings ensure a smooth, precise welding process.
- 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.
- Increased weld modes options make it applicable for more welding applications.
- Upgraded control & power supply provides multiple real time welding data quality monitoring.
- Pressure trigger mechanism & load cell ensure accurate welding control & welding quality.

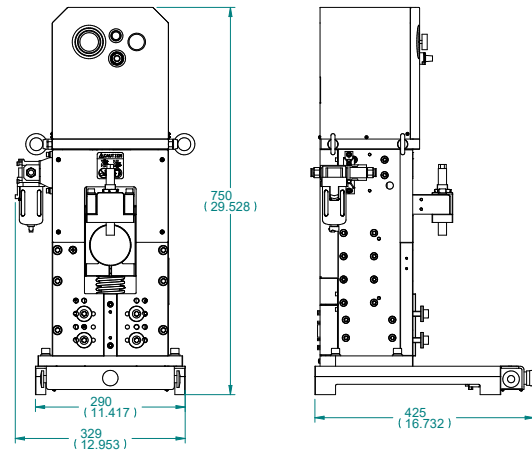
# Ultrasonic Metal Welder

## ADVANTAGES OF ULTRASONICS

- **Reliability:** Ultrasonic welding can be monitored through time, energy, power, and height limits, assuring excellent process control.
- **Cost Savings:** Elimination of consumables such as solder, flux, crimp connectors and braze materials make ultrasonic welding the most cost effective and environmentally safe process available for welding.
- **Tool Life:** Ultrasonic tools are precision machined from high quality tool steel providing long life, ease of setup, and weld accuracy.
- **Speed:** Typical weld cycles are under 0.5 seconds.
- **Low operating costs:** Ultrasonics require less than 1/30 of the energy of resistance welding.
- **Automation potential:** Efficient size, minimal maintenance and orientation flexibility make Branson ultrasonic equipment the best choice for automatic assembly.
- **Insulation dispersal:** In most cases, the high frequency scrubbing action of the ultrasonic process eliminates the need to strip insulation from magnet wire or to preclean parts.

## KEY APPLICATIONS

- Battery cell
- Bus bar
- Battery pack
- Magnetic coil
- Capacitors
- Lighting device
- Heat exchange system
- Wire termination
- Transformer
- Heat sensor
- Electrical contact
- Switch
- Relay
- Heat Sink



## SPECIFICATIONS

### System Parameter

Overall dimension (actuator only)(mm)	425 x 329 x 750
Gross weight	90kg, 198lbs
Work voltage	220V (4KW) 3 phase 380V (5.5KW, Asia) 3 phase 400V (5.5KW, Europe) 3 phase 480V (5.5KW, N. America)
Air supply requirement	minimum 0.6Mpa, 87Psi
Filter precision	5μm
Cylinder diameter	ø100mm
Maximum stroke	50mm
Work temperature	5~50°C
Working humidity	30%~90%

### Actuator performance parameter

Valid stroke	11~45mm
Valid pressure	0.05MPa-0.6Mpa, 7-87psi
Down speed	8-100mm/s
Force range	400-4200N

\*CE & FCC certification

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