

# 40MA Ultrasonic Spot Welder

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

Branson is committed to providing faster, cleaner and more stable welding through continuous improvement of processes, development of new applications, continuous innovation and excellent customer service.

Branson's 40MA is a newly developed ultrasonic spot welder with upgraded mechanical design and reliable manufacturing technology that's provides high quality repeatable welds.

## Key features

- The **precise linear bearing** ensures welding with precision and accuracy
- **High definition linear encoder** enables precise height and distance control for welding accuracy
- **Pressure trig mechanism** enables welding quality and stability
- **Various welding modes** enable wide range of applications
- Monitor welding quality by **collecting real time welding data**
- **Quick welding parameter setting** enable efficient energy transmission
- A lot of space under the actuator and horn for material loading and unloading

## 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. This makes ultrasonic welding cost effective and environmentally safe.
- **Tool Life:** Ultrasonic tools are precisely 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.



For more information:  
[www.Emerson.com/Branson](http://www.Emerson.com/Branson)

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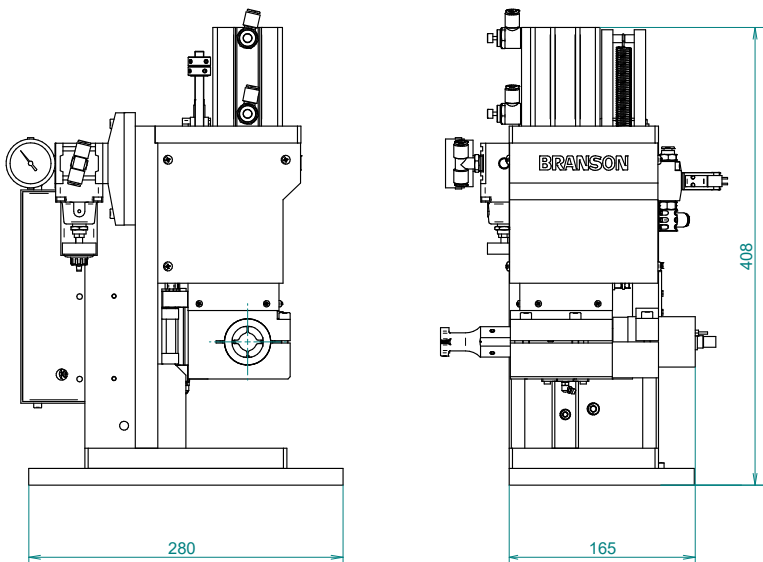
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## Key Applications

- EV/ESS battery cell
- Cell phone antenna
- Electronic components
- RFID card
- Air bag sensor
- Electro magnetic coil
- Capacitors
- Lighting device
- Heat exchange system
- Wire termination
- Transformer
- Heat sensor
- Electrical contact
- Switch
- Motor relay
- Heat sink

## Technical Specifications

System Parameter	
Overall dimension (actuator only)	280mm (W)×165mm (D)×408mm (H)
Gross weight	22kg
Work voltage	200-240VAC, 50/60Hz, 5A
Welding frequency & power	40kHz, 800W
Air supply requirement	minimum 0.7Mpa, clean and dry air
Cylinder diameter	ø50mm
Maximum stroke	50mm
Filter precision	5µm



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