



AmTech Ultraweld® systems are designed and built to assure you the highest degree of reliability and weld quality. All AmTech Ultraweld® systems offer the following features:

- A precision roller bearing slide to assure smooth operation and extreme accuracy.
- A dynamic spring with preload adjustment to permit ramping of ultrasonic power for optimum welds.
- Precise adjustments for accurate setting of both upper and lower positive stops.
- Conveniently located flow controls offering easy adjustment of head speed in both directions.
- A polar mounted ultrasonic stack to facilitate linear and axial setup and efficient transmission of ultrasonic energy to the horn.
- Titanium horns with low cost replaceable tips or solid tool steel horns for fast setup and minimum tooling cost.
- Fixturing which is changed quickly and easily for various applications by means of a dovetail mounting.
- Optional vortex cooling to allow high-speed operation without heat buildup.

Ultraweld®-L20

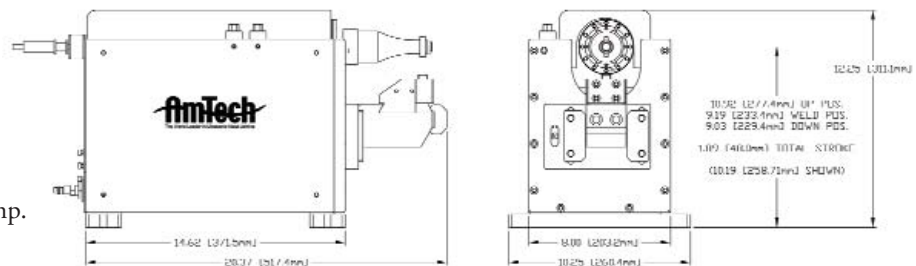
20 kHz Welding System

rugged and easily tooled for a wide range of nonferrous welding applications.

Welding Power: 3.3 kW

Electrical: 220VAC, 50/60 Hz, 20 Amp.

Compressed Air: clean, dry 80 psig (5.5 bar)



Ultraweld®-40

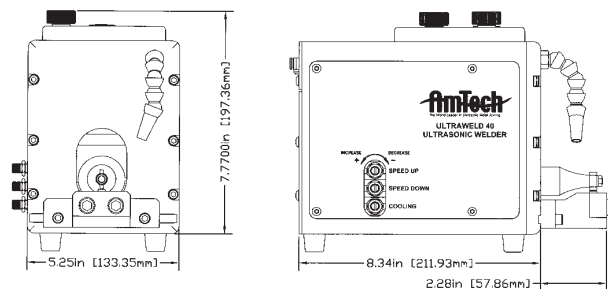
40 kHz Welding System

ideal for precise welding of smaller gauge nonferrous metals and delicate assemblies.

Welding Power: 0.8 kW

Electrical: 110/220 V AC, 50/60 Hz, 10 Amp.

Compressed Air: clean, dry, 80 psig (5.5 bar)



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Make the AmTech Connection

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- **Highest reliability**
- **Lowest cost per connection**
- **Comprehensive Process Controls**
- **Maximum productivity**
- **Simple operation**
- **Environmentally friendly**

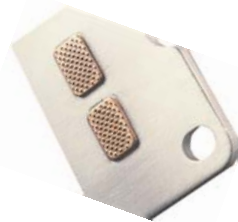
Ultrasonic metal welding is the most technologically advanced method of bonding conductive metals such as aluminum, copper, and brass.

For nearly three decades, AmTech has pioneered the development of high quality welders that produce a variety of products ranging from wire terminations to solar panels.

AmTech's ergonomically designed systems offer manufacturers the fastest and cleanest method of reliably assembling components.

With cycle times of under one second and AmTech's Intelligent Process Controls productivity and quality are maximized.

Unending commitments to process improvement, application advancement, engineering excellence and customer service are the attributes which have made AmTech the world leader in ultrasonic metal welding technology.



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: Multi-lobe 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 AmTech ultrasonic equipment the best choice for automatic assembly.

Low operating temperature: Since ultrasonic welding does not generate appreciable heat, it will not anneal metal parts or require cooling water.

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 pre-clean parts.

