

The WSX-Ergo is a full-range ergonomic wire splicing system to produce high-quality splices at the lowest cost.

Branson Ultrasonics Corporation, through our AmTech brand, is the world leader in ultrasonic metal joining. 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.

Ultrasonic metal welding provides our customers with a sound solution, superior performance, improved throughput, and reduced maintenance.

Branson welding systems are designed and built to ensure the highest degree of reliability and weld quality.

For applications that require a full-range of ultrasonic splicing system, AmTech offers the *WSX-Ergo*. The system utilizes a retractable anvil and will automatically sequence to produce the full range of splices required. All critical splice parameters are monitored to ensure the highest quality splice.

The enhanced actuator housing provides the operator with optimum ergonomic conditions for loading of wires being spliced.

The standard controller features a built-in touch screen, or choose the new *VersaGraphix* controller and separate touch screen for additional setup and operation features.

Features

The *WSX-Ergo* is easy to maintain and access:

- Four levels of quality control
 - Weld power
 - Weld time
 - Wire pre-sonic height
 - Wire final height
- Critical tooling clearances and alignment do not change with use.
- Patented anti-side splice feature
- Precise, programmable adjustment of splice width
- Electronic pressure regulator to accurately control splice force
- Electronic amplitude control for precise one-micron adjustment
- Programmable sequencing of splices for automatic switching after a preset number for optimum production efficiency
- Keyed connector

Automatic Parameter Change

The *WSX-Ergo* automatically adjusts splice parameters including: width, pressure, amplitude, and energy. These parameters may be sequenced; the *WSX-Ergo* will adjust between welds

Ease of Operation

Easy loading and unloading of splices provided by:

- Fully-retractable anvil providing maximum wire load area
- Retractable gather tool for easy splice removal



AmTech WSX-Ergo

Production Flexible Design

- Bench-top unit
- Mount in a workstation table
- Use with a barcode wand for instant 'non-programmable' 'just-in-time' production
- Connect to a computer or network

Patented Anti-Side Splice Feature

One of most common causes for field failures is side splicing (Figure 1). If the operator is allowed to place the wires flat on the tip, only the tangent point of each cable is welded together; this results in an extremely weak splice. AmTech's patented anti-side splice feature enables the operator to vertically stack the cables (Figure 2). This vertical stacking of the cables prevents side splicing and provides the highest quality splice possible.

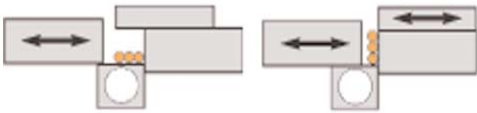


Figure 1. Slide splicing Figure 2. Patented anti-side splicing feature

WSX-Ergo Tooling

Aside from labor, consumable tool cost is the largest expense in producing splices. AmTech's replaceable tip technology provides high tool life at low cost.

- Four welding surfaces on both the anvil and tip offer low cost operation and quick change tooling
- Ultrasplice® tips are more economical than solid horn (sonotrode) technology, producing up to one

million cycles depending upon splice size and parameters

- Tip rotation/replacement in less than two minutes for more system up time.

Additional Benefits

- Auto line voltage compensation $\pm 15\%$
- Lowest maintenance cost in the industry
- 4.0 kW generator
- Available in 14 languages
- Maintenance counters available on tip, anvil, horn, and convertor
- Three levels of password protection
- Easily intergrated into automation
- Prestes and parameters can be downloaded to the USB port
- Barcode scanner
- AmTech worldwide technical support and over 40 years of welding experience



Options for single board computer VersaGraphix controller

- 15" touch screen monitor
- Three USB ports
- RS 232
- Ethernet capabilities
- Daily history log

Operating Specifications

Electrical: 245V AC, 50/60 Hz, 1Ø, 20 amp

Pneumatic: 5.5 bar (80 psig) clean, dry (0.5µ coalescing filter) air

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