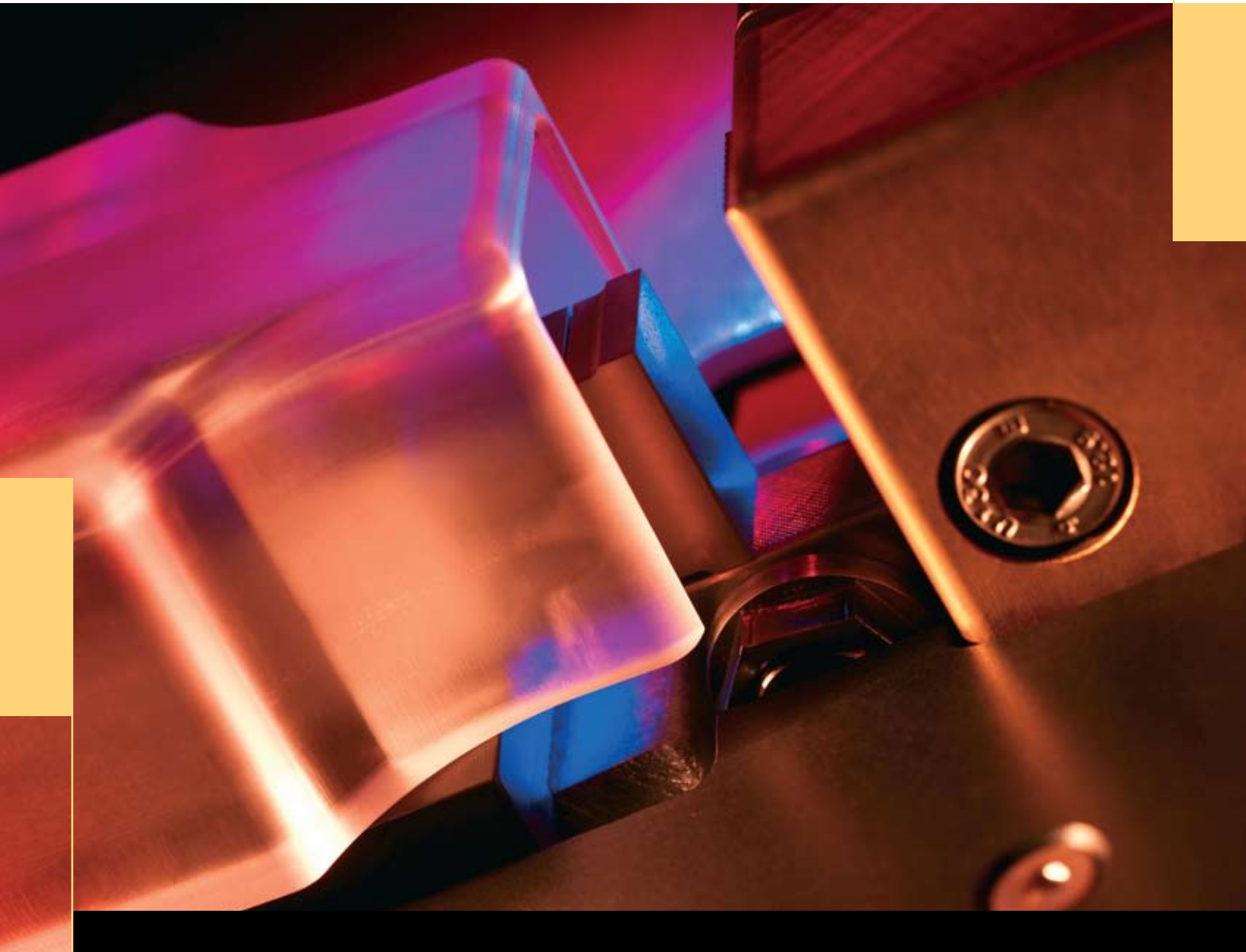


BRANSON

Ultrasonic Metal Welding Assembly Systems

A full-range, fully programmable, and remarkably economical wire splicing system

Instantly adjustable parameters. More precise and reliable splices. And a whole lot more!

WSX-20 Ultrasonic Splicing System

- Capable of splicing from 0.48 to 40 mm² CSA (cross sectional area)
- Flexibly designed bench top unit can be mounted in a workstation table
- Automatically adjustable splice parameters and parameter sequencing
- Uniquely designed 4-lobe keyed tip and 4-surface anvil provides longer tool life – and the lowest maintenance cost in the industry!
- Replaceable tip technology provides high tool life at low cost
- Patented vertical stacking design prevents side splicing, a major cause of field failures
- Patented closed-loop amplitude control helps ensure weld consistency



Patented Anti-Side-Splice Feature

- **Prevents Side Splicing** – One of the most common causes of poor splices and field failure. When operators place the wires flat on the tip (as shown in Figure 1a), only the tangent point of each cable can be welded together.
- **Vertical Stacking Fixes the Problem** – By allowing operators to vertically stack the wires (as shown in Figure 1b), a consistently high-quality splice is ensured. The WSX-20 is the only ultrasonic splicing system to offer this critical feature.

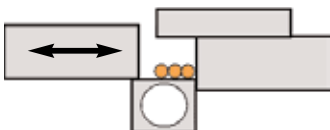


Figure 1a

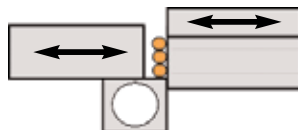


Figure 1b

VersaGraphix Controller

- **20 kHz Ultrasonic Generator with Three Teach Modes** – Automatically calculates your weld quality windows for Time, Power, Pre-Height and Height.
- **Four Weld Modes** – Weld by Energy, Time, Height (compaction), and Energy with Height Compensation.
- **Extensive Preset Library** – Stores configuration data for up to 1,000 parts for sequential welding capability.
- **Weld History** – Weld results and graph are stored on the hard drive in a date-stamped folder and can be sent as needed via Ethernet.



- **Patented Amplitude Stepping** – Built-in digital amplitude control for optimization of weld strength and aluminum welding. See Figure 2.

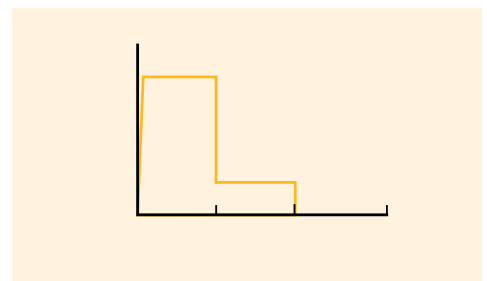


Figure 2

- **Proportioned Cooling Air** – Automatically applies the correct amount of cooling air, based upon wire size, for optimum tool life at minimum cost.

User Interface

- **15" (381 mm) LCD Touch Monitor** – Enables intuitively easy system navigation with fingertip control. See Figure 3.
- **Embedded Windows XP Operating System** – Minimizes the learning curve, so you can be up and running sooner.
- **Ethernet-Ready** – For quick and easy dissemination of welding data.
- **USB Connectivity** – 4 USB ports and printer interface allow peripheral devices to be easily connected and facilitate file transfer.
- **RS232 Connection** – For easy interfacing with Raychem shrink tube machine.

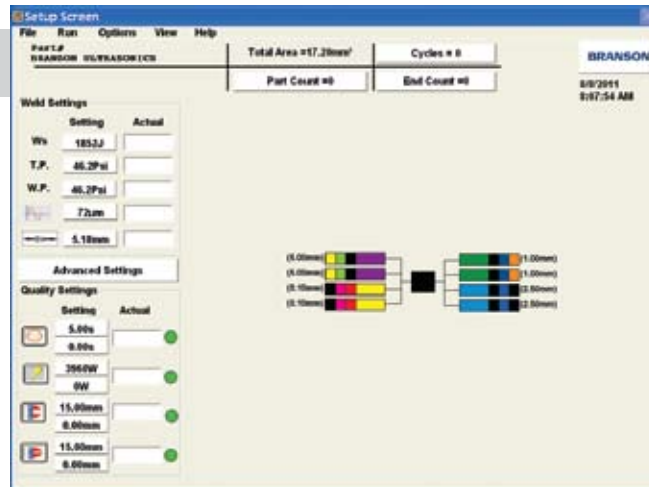


Figure 3

- **Supports Multiple Languages** – Including English, French, German, Italian, Spanish, Japanese, Korean, traditional and simplified Chinese.
- **Bar Code Readable** – Automatically recalls presets or sequences as specified on the bar code label. Helps reduce welding errors.

Power Supply

- **True Auto-Tune with Memory (AT/M)** – Provides fully-automatic tuning and stores horn frequency at the end of each weld.
- **Total Amplitude Control** – Utilizing Branson's power supply technology, you have complete control of amplitude throughout the weld cycle: programmable starting ramp, digital setting of weld amplitude and patented amplitude stepping. See Figure 2.
- **Programmable Starting Ramp** – Adjustable starting ramps from 10 milliseconds to 1.0 second to accommodate starting characteristics of a wide range of horns. This feature makes it easier to start smaller horns.

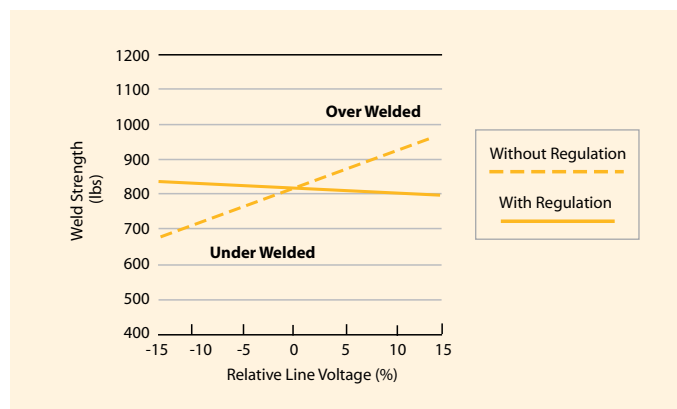


Figure 4

- **Line/Load Regulation** – Patented closed-loop amplitude control corrects for variations due to power line fluctuations and varying load conditions. Output amplitude will vary by only $\pm 2\%$ with line voltage variations of $\pm 10\%$, to ensure weld consistency. See Figure 4.

The Branson Advantage

Branson Ultrasonics is the world leader in materials joining and precision cleaning, with more than 1,800 employees and 70 sales and service offices. We are committed to leading the industry in service and support excellence, too. That means fast delivery, troubleshooting, parts replacement, samples testing, preventative maintenance and repair services. We are certainly proud of our ISO 9001 (since 1994) and ISO 14001 (since 1998) certifications – but we are equally proud to have the opportunity to serve you.

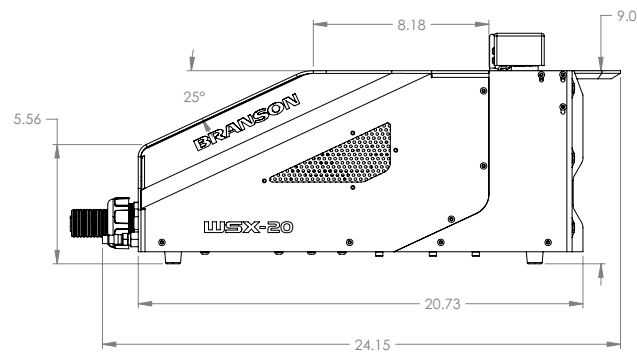
WSX-20 Specifications

Electrical

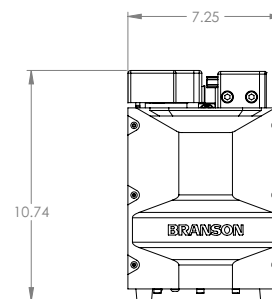
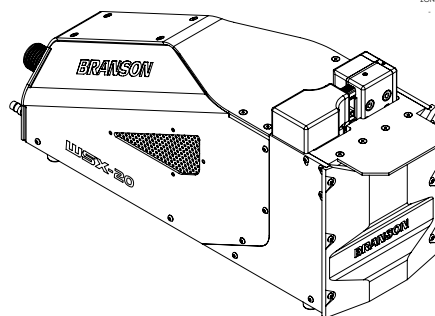
245 VAC, 15/60 Hz 1Ø 300 mp

Pneumatic

5.5 bar (80 psi) clean, dry air (0.5 µ coalescing filter)



ZONE ECN REV.



BRANSON

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www.bransonultrasonics.com

All specifications subject to change without notice. All dimensions are nominal. All units are CE compliant and comply with FCC rules and regulations governing radio frequency interference.

Note: All sales shall be subject to the Supplier's terms and conditions of sale as described in Branson's quotations and sales contracts.

WARRANTY: The Branson WSX-20 ultrasonic assembly systems carry a three-year warranty on materials or workmanship.

Note: This warranty applies to equipment purchased and operated in North America. For warranty information on units purchased and/or operated outside the U.S. contact your local representative.