



Ultrasonic Splicing System

The 2032S is a full-range ergonomic wire splicing system to produce high-quality splices at the lowest cost operation.

For application requirements demanding a full-range ultrasonic splicing system, Branson offers the Ultrasplice® system, capable of splicing from 0.7 to 40mm² (for 4.0 kW) CSA (cross sectional area). 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 ultrasonic horn and actuator housing design provides the operator with optimum ergonomic conditions allowing for ease of use.

Features

The units are easy to maintain and access:

- Special 'keyed connector' (single point) air and electrical disconnect permit instant replacement of a production

actuator at the workstation in under two minutes for off-line maintenance and maximum production.

- Critical tooling clearances and alignment do not change with use.

Automatic Parameter Change

Production of a wide range of splices as found on a harness board or in today's 'just-in-time' manufacturing require equipment to automatically adjust. The 2032S automatically and instantly adjusts splice parameters, including splice width, pressure, amplitude, and energy.

Other Features

- Precise, programmable adjustment of splice width
- Electronic pressure regulator to accurately control splice force
- Electronic amplitude control for precise one-micron adjustment
- Quality limits stored in system memory for instant recall and automatic setup

Ultrasonic Welding

- Programmable sequencing of splices for automatic switching after a pre-set number for optimum production efficiency

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

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. Branson's patented anti-side splice feature enables the operator to verti-

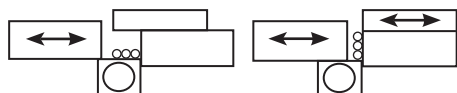


Figure 1.
Side splicing

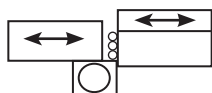


Figure 2.
Patented anti-side
splicing feature

cally stack the cables (Figure 2). This vertical stacking of the cables prevents side splicing and provides the highest quality splice possible.

Proportioned Cooling Air

Cooling air directed at the application tooling increases tool life in high-production environments. Branson's proportional cooling air automatically applies the correct amount of cooling, based upon the wire size, for optimum tool life at minimum cost.

Tooling

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

- 4-lobe keyed tip and 4-lobe anvil
- 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

- Four levels of quality monitoring
- Weld power
- Weld time
- Wire pre-sonic height
- Wire final height



- Auto line voltage compensation $\pm 15\%$
- Lowest maintenance cost in the industry
- 4.0 kW generator
- Multiple languages
- Branson worldwide technical support
- Data capture capable
- Adjustable maintenance counters
- Tri-level controller password protection
- Automation or robotic operation capable
- Branson's over 35 years of industry experience

Operating Specifications

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

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

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