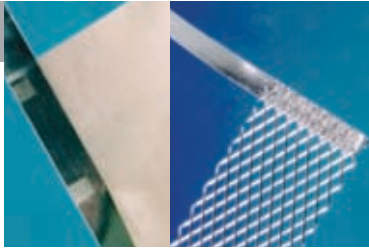


Metal Welding Applications



View of Finished Weld Joining tabs to both Foil and Expanded Metal

Joining Tab Material to Expanded Metal or Foil

END USE: Electrode termination in small cells and batteries.

MATERIALS: Aluminum, nickel or stainless steel tab material to aluminum, copper, stainless steel and other expanded metals and foils.

EQUIPMENT: Branson Ultraweld L20 or 40 ultrasonic metal welder suitably tooled for the specific material combination.

PROCEDURE: Foil or expanded metal is placed into a fixture. Tab material is placed into position. The weld cycle is initiated making a large area, high conductivity weld in a single operation.

ADVANTAGES: Ultrasonic welding is a mechanical process.

No electrical current passes through the workpiece and no melting occurs. The process, therefore, is ideal for welding very thin similar or dissimilar electrical grade alloys. The electrical and thermal properties of an ultrasonic weld are unrivaled by any other process. Compared to fusion methods for joining metals, ultrasonic metal welding provides the lowest cost per weld. This is achieved through lower power consumption – 1/30th that of a comparable resistance welder, superior tool life, and lower labor cost. Finally, the welding variables can be precisely monitored and controlled providing consistent results and SPC capabilities.

Metal Welding Applications

Global Technologies. Local Solutions.

Branson Ultrasonics Corporation is the world leader in the development and application of ultrasonic metal welding equipment and processes. Our unmatched global resources ensure optimal solutions for the most challenging applications. With 1600+ employees in over 70 sites worldwide, we can rapidly respond to our customers' needs, wherever they are located. We partner with companies of every size and scope to help resolve critical issues ranging from

market changes, product quality/life cycles and production costs, to employee safety and environmental compliance.

Branson is a leading innovator in the Industrial Automation division of Emerson, a diversified global manufacturing and technology company. Emerson is a progressive company working to develop products and processes to resolve global issues, including energy supply and distribution, informa-

tion and networking, climate and environment, manufacturing efficiency, and product performance. Emerson is dedicated to the pursuit of breakthrough technology developments never before envisioned.

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