

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.

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

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