

MODEL G-501

The MGS Electric Brazer Model G-501 is the first brazing unit to successfully join copper wire with tooled precision. The ability to join wires from No. 16 to No. 6 AWG, solid and stranded, is made possible by use of the variable transformer voltage control.

The unit requires no flux, using silver solder pellets to join wires without loss of tensile strength at the brazed joint. Two wire clamping tools and a drill jig to drill wire grooves in the electrodes, are used along with the "sliding wire tool attachment". The "attachment" holds the wire tools and jig in two brass clamped members, which slide in a grooved guide. This provides precise alignment of the wire ends.

A wire tool set complete with drill jig is required for each wire size that is to be brazed. The set is manufactured according to the Customer's decimal diameter specifications.

Ruggedly constructed from high quality materials, the Electric Brazer is specially designed to withstand the daily handling and use in the non-ferrous wire fabricating plant.



MODEL M-102



This model was developed to meet the small brazer needs. The M-102 Electric Brazer has the capacity from No. 30 to No. 14 AWG copper solid and stranded wire. The M-102 is equipped with a variable transformer, adding the ability to select a wide range of brazing heats.

CHARACTERISTICS

- Ease and simplicity of operation.
- No flux required.
- Perfect alignment of the wire ends.
- Minimal annealing and discoloration of the braze.
- Minimum stiffened length (in stranded wire).
- Exceptionally high tensile strength.
- Close conformity of brazed joint to wire shape and diameter.
- Minimum disarrangement of stranded wire near the brazed joint and no loose strands.
- Manual control of wires and freedom from handling hot wires.

MICRO-SWAGE BRAZE REDUCING TOOL

The MGS Micro-Swage Tool is a superior hand tool for easily, quickly, and accurately reducing brazed joints in the wire to conductor diameter or smaller, if desired. This ensures the brazed joint will pass easily through extruder tips or dies without breakage. Our Micro-Swage Tool eliminates outdated methods for reducing brazed joints without damage to the wire.

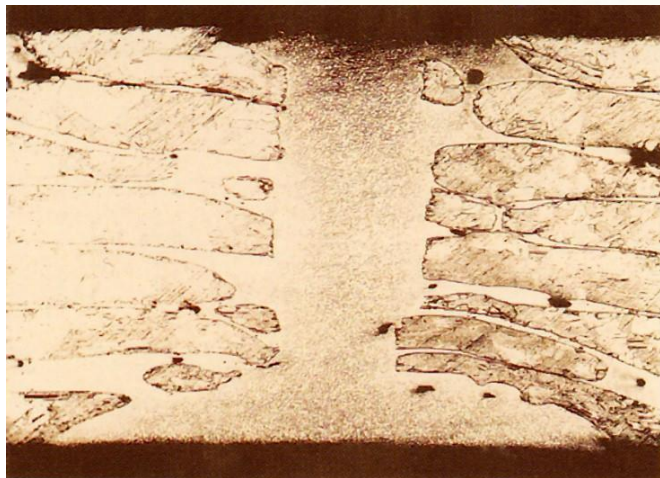
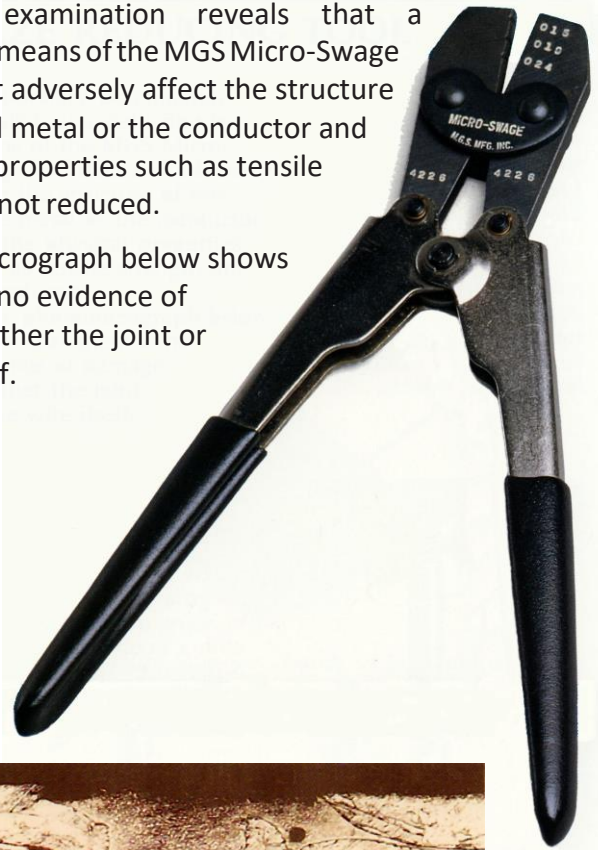
The high pressure on the toggle joint, up to 1½ tons, reduces the brazed joint to the diameter of the wire.

Each Micro-Swage Tool is grooved for up to three selected wire diameters, made to the Customer's specifications for the diameter of wire that will be brazed.

Moderate pressure on the plastic covered steel handles, with hardened grooved jaws, reduces the brazed joint to the manufacturer's wire dimension. It is necessary that the exact diameter measurements for the jaw grooves be specified in thousandths of an inch (mils).

Laboratory examination reveals that a reduction by means of the MGS Micro-Swage Tool does not adversely affect the structure of the brazed metal or the conductor and the physical properties such as tensile strength are not reduced.

The photomicrograph below shows that there is no evidence of damage to either the joint or the wire itself.



Photomicrograph of braze section in stranded copper wire, (magnified 50 times).

MGS / HALL designs and manufactures product handling solutions which include Payoffs, Takeups, Dancers, Accumulators, Measuring Machines, and Capstans to handle most any product from sensitive optical fiber to 1000MCM (507-mm²) power cable. We also can handle odd shapes, tubing, ribbon, and tape.

Our Automatic and Semiautomatic Takeups are extremely reliable for on-line packaging of a wide range of products and reels at high speeds, resulting in significant cost savings.

Machines that are built to meet the specifications of the individual customer is a characteristic of MGS/HALL systems. Comprehensive design and engineering capabilities together with meticulous manufacturing techniques and careful testing assure customer satisfaction. Some say we design machines with the user in mind. We like to think we're in the business of solving problems for other business –like yours!

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