Wire stripping (varnish removal)

**Objective**  Heat wires to burn off the varnish coating

**Material**  Flat copper wire bundle of wires with a rectangular cross-section of .025 square inches (.0635 square centimeters)

**Temperature**  1300°F (704°C) for 5 seconds

**Frequency**  204 kHz

**Equipment**  Ameritherm 7.5 kW induction heating system equipped with a remote heat station, containing (1) 1.00 µf capacitor.

An induction heating coil designed and developed specifically for this application.

**Process**  An eight turn helical coil is used to generate the desired heat pattern. The coil has a 0.62” ID. An individual wire is inserted and heated to burn off the varnish for 5 seconds. Larger cross sectional areas require a longer heat time or higher power.

After the heat cycle, each wire is removed from the coil and allowed to cool at a natural rate.

**Results/Benefits**  Compared to mechanical scraping, induction heating is:

- Faster
- Highly repeatable for consistent results
Individual strips are inserted into the coil to be heated.