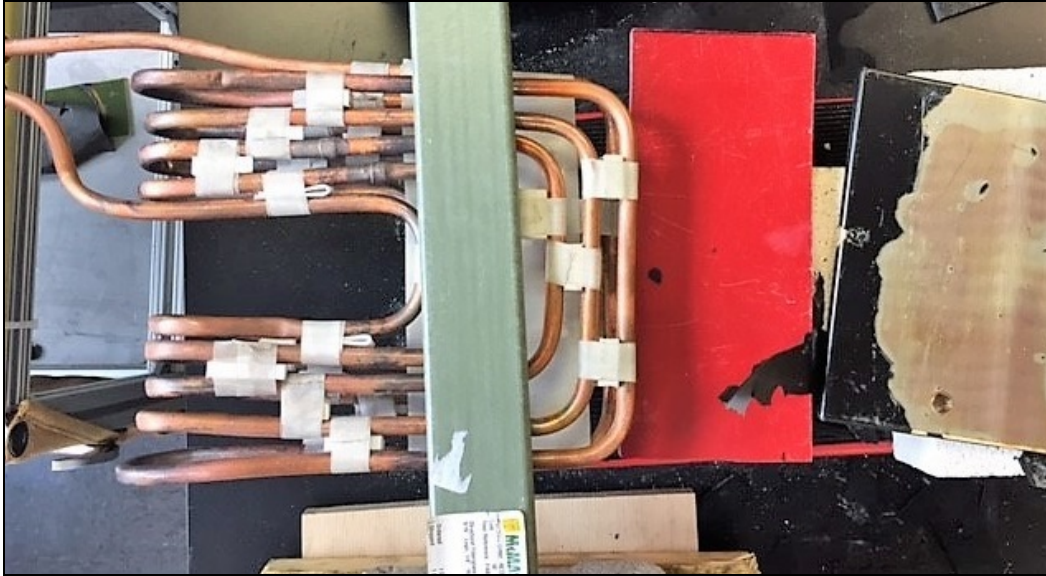


Heating Busbars for Coating Release

- Objective:** To heat tin-coated copper bus bars for a coating release application for an engineering firm
- Equipment:** Ambrell EKOHEAT® 50 kW, 15-45 kHz induction heating system with a workhead and coil specifically designed for this application
- Temperature:** 177 °C (350 °F)
- Frequency:** 33 kHz
- Material:** Tin-coated copper busbar
- Testing:** THE LAB designed a single position multiple-turn channel coil for this application. A 7.5" x 4.5" (191 mm x 114 mm) area of the busbar required heating. After applying temperature indicating paint to the part, it took 35 seconds to heat the sample to temperature. The coating was then removed from the tin-coated copper plate. Heating longer length bars would increase the heating time by 10-15 seconds due to conduction losses.
- Benefits:**
- **Speed:** The part heated to temperature in just 35 seconds, meeting the client's objectives
 - **Precision:** Induction's precision heating enable the part to heat to the exact targeted temperature, which prevented melting of the tin-coated copper part
 - **Repeatability:** Induction delivers the same result time after time, making it ideal for high-volume manufacturing process
 - **Footprint:** The space-efficient EKOHEAT worked perfectly in their workflow



The channel coil and plate after heating and coating removal.