Soldering fabric to kovar tip assembly

**Objective**  
Soldering fabric to kovar tip assembly

**Material**  
Kovar cone, base 3/8” (9.5mm) dia, cone 3/8” (9.5mm) high, solder

**Temperature**  
300 ºF (149 ºC)

**Frequency**  
242 kHz

**Equipment**
- Ambrell 1.0 kW induction heating system, equipped with a remote workhead containing one 1.2µF capacitor.
- An induction heating coil designed and developed specifically for this application.

**Process**  
A three turn pancake coil is used to heat the tip of the cone to 300 ºF (149 ºC) in 2-3 seconds. The coil design allows for easy placement of the fiber across the tip of the cone and reduces the heat flow to the bottom of the assembly for the manufacturing process.

**Results/Benefits**  
Induction heating provides:
- Hands-free heating that involves minimal operator skill for manufacturing.
- Precise, even heating.
- Repeatable, non-contact clean heat.
Part with temperature indicating paint showing reduced heat flow to bottom of cone

Placement of cone in coil