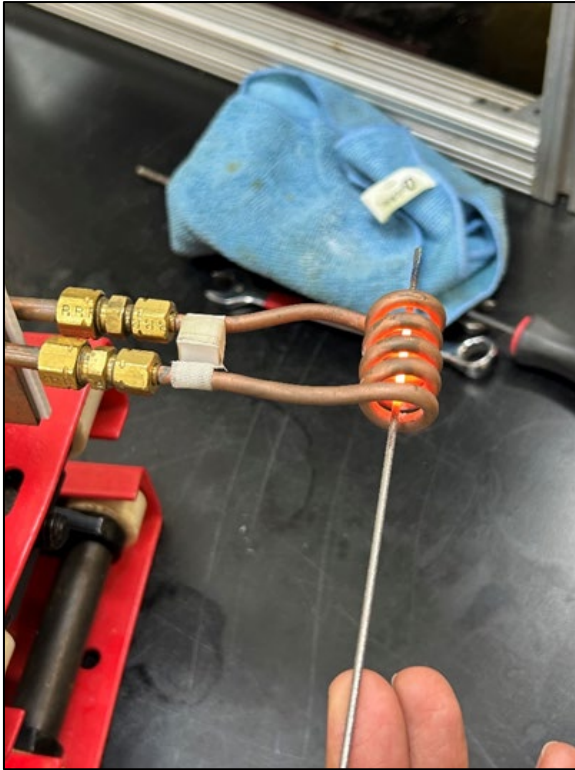


Annealing Stainless Steel Braids

- Objective:** To heat stainless steel braids for an annealing application in the medical device industry.
- Equipment:** Ambrell EASYHEAT 6 kW, 150-400 kHz induction heating power supply with a workhead and coil specifically designed for this application.
- Temperature:** 1,000 °F (538 °C)
- Frequency:** 335 kHz
- Material:** Stainless steel braids
- Testing:** A specially designed multiple-turn helical coil was used to generate the required heating for the application. Initial tests were conducted to optimize the power delivered to the part. Once a satisfactory heat pattern was achieved in the time frame allowed, samples were run at multiple settings. Heating took just 2-5 seconds depending on the sample used, meeting the client's requirements. This application is a new process for a high-volume production environment.
- Benefits:**
- **Speed:** Induction met the client's time requirements.
 - **Space:** Induction is friendly from a space perspective in a production environment as the power supplies are compact and the workhead can be placed away from the power supply.
 - **Repeatability:** Induction delivers the same result every single time when using the same part, making it an ideal heating process for production.
 - **Efficiency:** Induction is highly efficient, only heating where required and it is instant on/off, making it a greener choice.



A stainless-steel sample being annealed.