Heating Lighting Tubes for Getter Firing

Objective: To heat lighting tubes for a getter firing application in the lighting industry; getter heating is done to remove residual gas from the bulb during manufacturing

Equipment: Ambrell EASYHEAT™ 4.2 kW 150-400 kHz induction heating system with a workhead and coil specifically designed for this application

Temperature: 850 °C (1562 °F)

Frequency: 375 kHz

Material: Barium/copper

Testing: Initial tests were conducted to optimize the power delivered to the part. The bulb was heated until the getter was glowing and the coating vaporized and condensed on the inside of the bulb. It took 10 seconds to heat the sample to temperature, meeting the client’s process requirement.

Benefits:
- **Speed:** The getter firing application was complete within just 10 seconds
- **Repeatability:** Induction delivers the same result time after time, making it ideal for their high-volume manufacturing process
- **Footprint:** The space-efficient EASYHEAT worked perfectly in their manufacturing process
The bulb samples after heating.