

Heating Lead on Metal with Model 5194 Infrared Line Heaters

Application

A manufacturer reflowing lead on electronic metal pin connectors.

Problem

New Process - The manufacturer's customers presented a new requirement for the electronic pin connectors to be coated with lead.

Narrow Temperature Band - The lead had to be heated within a narrow temperature band to cause it to reflow.

Line Speed - The manufacturer would be increasing line speed from 30 to 80 feet (9 to 24.4 meters) per minute at some time after incorporating the new requirement into the process.

Solution

Heat - Two Model 5194-10 Infrared Line Heaters were used to heat the lead to reflow it on the connectors.

Power Control - A Model 5620 Phase Angle SCR Power Controller controlled the power to each of the heaters.

Instant On/Off - The quartz lamp in the Infrared Line Heaters heated up and cooled down instantly in response to power changes.

Benefits

Precise Heating System - The Infrared Line Heaters, combined with the SCR Power Controllers, provided the manufacturer with a precise heating system that was able to consistently produce heat within the narrow band required to cause the lead to reflow.

Increased Line Speed - The Infrared Line Heaters provide enough heat output to enable the manufacturer to increase line speed to 80 feet (24.4 meters) per minute in the future.

Responsive Heat Source - The instant on/off capability of the Infrared Line Heaters made it easy for the manufacturer to handle line stoppages, and set up and troubleshoot the process.