

Curing Epoxy on Aluminum with Model 4185 Infrared Strip Heaters

Application

A manufacturer curing epoxy on aluminum stators for starter motors.

Problem

Batch Processing - The existing gas oven being used to cure the epoxy required the manufacturer to process parts in batches rather than in-line as desired.

Excessive Cost -

Processing the stators in batches to cure the epoxy required human intervention which increased the manufacturer's costs.

Unacceptable Scrap

Rate - The gas oven did not provide a cure that was completely acceptable to the manufacturer, elevating scrap rates beyond an acceptable level.

Solution

Heat - Twenty Model 4185-25 Infrared Strip Heaters were used to apply heat to cure the epoxy.

System Configuration - The Infrared Strip Heaters were used to construct two ovens. Ten Heaters were used in each oven and the ovens were placed end-to-end to create a 50 inch (1720 mm), in-line heating tunnel.

Benefits

In-Line Processing - The Infrared Strip Heater heating tunnels were installed in-line as desired by the manufacturer.

Shorter Curing Time - With the Infrared Strip Heaters, the manufacturer was able to cure the epoxy 29 percent faster than had been possible with the gas oven.

Reduced Cost - By

reducing the amount of human interaction required to complete the curing process, the manufacturer was able to produce the stators for a lower cost.

Reduced Scrap - The new heating process reduced the manufacturer's scrap rate by nine percent.