

Curing Silicone Adhesive and Sealant on Glass and Ceramic with Model 5306 Infrared Strip Heaters

Application

A manufacturer curing silicone adhesive and sealant in glass medical vials containing a ceramic disc.

Problem

Slow Speed - The existing gas convection oven took too long to cure the silicone adhesive and sealant.

Wasted Floor Space - The existing gas convection oven wasted valuable floor space.

Excessive Energy Costs - Operating the existing gas convection oven consumed excessive amounts of energy.

Poor Quality - The existing curing process created an excessive amount of scrapped product. Results were inconsistent primarily because the gas convection oven did not cool down when the line stopped, causing the product to overheat.

Solution

Heat - Ten Model 5306-25 Infrared Strip Heaters were installed underneath the conveyor line to heat the silicone adhesive and sealant through the glass.

System Integration - The heater output was controlled with a PLC that switched to an idle setting when the conveyor stopped.

Instant On/Off - The Infrared Strip Heaters heated up and cooled down instantly.

Benefits

Increased Speed - By curing the silicone adhesive and sealant with Model 5306 Infrared Strip Heaters, line speeds increased and required production rates were met.

Regained Floor Space - The efficient heating provided by the Infrared Strip Heaters enabled the manufacturer to reclaim valuable floor space for other processes.

Decreased Energy Costs - The instant on/off feature of the Infrared Strip Heaters resulted in a significant energy savings for the manufacturer.

Improved Quality - The system integration controlled heat output so that the product did not overheat when the line stopped.