

Activating a Thermal Transfer on Plastic with Model 4554 High Density Pyropanels

Application

An electronics manufacturer applying computer keyboard characters with a thermal transfer.

Problem

Poor Quality - The existing method of activating the thermal transfer in a gas-fired convection heat tunnel did not consistently make a complete transfer of the characters to the keyboards.

Excessive Scrap - The incomplete transfer of the characters to the keyboards resulted in an excessive number of keyboards being scrapped.

Slow Line Speed - The existing line speed of 15 feet (4.6 meters) did not produce enough finished keyboards to satisfy customer demands.

Solution

Heat - Two Model 4554-A-25-12 High Density Pyropanels were used to provide a precise amount of heat to the thermal transfer.

Instant On/Off - The High Density Pyropanels heated up and cooled down instantly in response to keyboard placement on the line.

Benefits

Improved Quality - The precise heat provided by the High Density Pyropanels consistently made a complete transfer of the characters to the keyboards.

Reduced Scrap - The consistent transfer of the characters to the keyboards virtually eliminated the need for the manufacturer to scrap keyboards due to poor character quality.

Increased Line Speed - The manufacturer increased line speed by 133% to 35 feet (10.7 meters) per minute and was able to produce enough finished keyboards to satisfy customer demands.

Energy Savings - The ability of the High Density Pyropanels to heat up and cool down instantly enabled the manufacturer to operate them at 5% power when keyboards were not present on the line, reducing the amount of energy consumed by the activating process.