

Bonding Plastic Lamination with Model 5194 Infrared Line Heaters

Application

A manufacturer of envelopes used for employee badges, drivers licenses, identification cards, etc. bonding two edges of plastic lamination.

Problem/Requirement

Limited Production Output - Existing resistive heat source could not produce enough bonded plastic lamination to keep up with production demands.

Poor Quality - The bonded edge of the plastic lamination was uneven and wavy when produced with the existing resistive heat source.

Excessive Scrap - When the line stopped, the existing resistive heat source scorched the plastic lamination, producing an unacceptable amount of scrapped product.

Solution

Heat - Four Model 5194-25 Infrared Line Heaters focused heat on the top and bottom of both outer edges of the plastic lamination strips.

Heat Shields - Stainless steel heat shields were installed over the center of the plastic lamination.

Instant On/Off - The Infrared Line Heaters heated up and cooled down instantly in response to changes in line speed.

Benefits

Increased Production Output - By using Model 5194 Infrared Line Heaters, the manufacturer increased production output from 350 to 1,100 pieces per hour.

Efficient Heat Source - The time the plastic lamination was exposed to heat decreased from 20 to 3.3 seconds per piece using the Infrared Line Heaters, enabling the manufacture to increase line speed.

Improved Quality - The focused heat and heat shields increased line speed. The decreased dwell time eliminated the uneven, wavy bonded edge on the plastic lamination and consistently produced a high quality product.

Reduced Scrap - The instant on/off capabilities of the Infrared Line Heaters enabled the line to stop without the plastic lamination being scorched.