

# Drying Water-Based Ink on Plastic with a Model 4185 Infrared Strip Heater

## Application

A manufacturer of plastic injection parts for intravenous kits drying water-based ink graduation markings on the parts.

## Problem

**Poor Quality** - The existing method of drying the water-based ink with a convection heater did not consistently produce quality markings on the parts.

**Excessive Scrap** - An excessive number of parts were being scrapped due to the inconsistent quality.

**Slow Line Speed** - The existing line speed of 7 feet (2 meters) was not fast enough to meet production output requirements.

**Unfocused Heat** - The surrounding area was being heated with the existing convection heater, resulting in employee discomfort.

## Solution

**Heat** - A Model 4185-10 Infrared Strip Heater provided heat to dry the water-based ink.

**Power Control** - A Model 5620 Phase Angle SCR Power Controller controlled the power to the Infrared Strip Heater.

**Instant On/Off** - The Infrared Strip Heater responded instantly to changes in line speed.

## Benefits

**Improved Quality** - Drying the water-based ink with the Infrared Strip Heater consistently produced quality markings on the parts.

**Reduced Scrap** - The need to scrap parts due to poor quality on the inked markings was virtually eliminated.

**Faster Line Speed** - Using the Infrared Strip Heater allowed the manufacturer to increase line speed to 20-25 feet (6-7.6 meters) per minute.

**Focused Heat** - The Infrared Strip Heater focused heat on the parts only, increasing employee comfort and eliminated the need to provide additional room air conditioning.

**Responsive Heat Source** - The instant on/off capabilities of the Infrared Strip Heater prevented product burns when the line stopped.