

OMEGA VANZETTI®
The Leader in Infrared
Temperature Measurement
and Control

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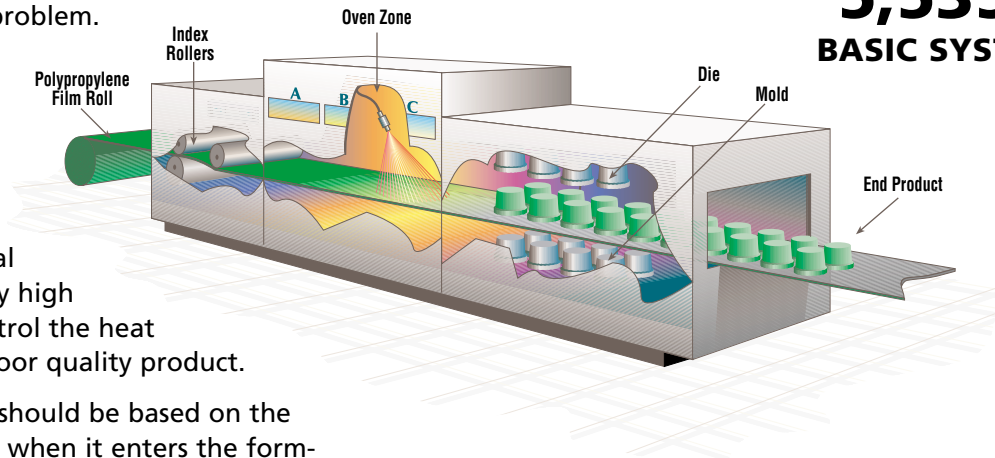
CONTROLLING OF THERMOFORMING POLYMER FILMS

Some plastics exhibit properties that make thermoforming a major problem. One such polymer, polypropylene, has many advantages, i.e. low cost and low specific gravity. However, it exhibits poor heat transmission, high thermal expansion and a relatively high melt cure. Failure to control the heat adequately, results in a poor quality product.

Ideal control of the heat should be based on the temperature of the sheet when it enters the forming operation. Non-contact temperature measurement using infrared detectors has the advantages of speed of measurement, material temperature tolerance. Together with a thermal monitor and microprocessor control, the infrared equipment can control multiple zones of heating to achieve the correct time-temperature relationship resulting in the maximum production rate.

OMEGA VANZETTI® has designed equipment with hi-low logic and/or proportional control options which are capable of controlling multiple zones of heating. For "batch" type operations, relay closures can control indexing so that the plastic enters the molding operations if, and only if, the sheet has reached the correct temperature.

Thermal monitors are modularly constructed to allow for several options to suit the customer's particular application.



\$5,535.00
BASIC SYSTEM

Advantages of the fiber optic infrared approach as illustrated are:

- Fast response time to 5 mSec
- Line of sight detection at 3.43 microns
- Temperatures from 150 to 1000°F (65 to 550°C)
- Non-contact measurement
- Ability to control temperature with both hi-low logic and/or proportional control options
- Compact, rugged stainless steel and aluminum construction
- Multi-application capability
- Optional outputs include: 4-20 md, 0-10 vdc, thermocouple types "J" or "K"
- Adjustable emissivity control
- Multichannel option



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