Infrared helps blind manufacturer speed up production

Infrared pre-heating increases running-speed

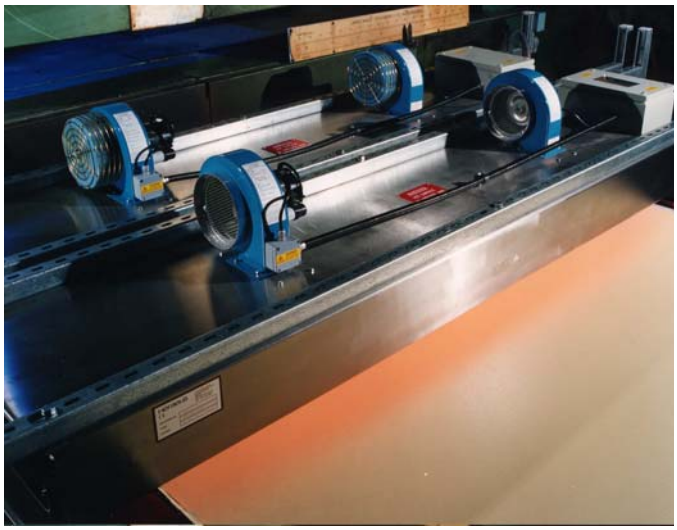
An infrared pre-heating system has solved a production bottleneck problem, by allowing production line speeds to be significantly increased at the Chesham plant of Living Connections, one of the leading manufacturers of window blinds in the UK. The blinds of Living Connections are supplied to major retail store groups, DIY stores and mail order houses throughout the UK and Europe. The extensive product range includes roller, vertical, Roman, skylight, pleated and conservatory blinds.

Blind production involves a variety of processes, including textile printing, coating, laminating and pleating, metal fabrication and presswork and plastic injection moulding and extrusion. Textile colour coating for some blinds is achieved by applying a resin dye to one side of the fabric by means of a doctor blade and then passing the web of fabric though a gas-fired Stentor for curing at 160°C. (A Stentor is a drying and curing oven which is widely used in the textiles industry. It applies tension to the web passing through it while drying/curing it by means of warm air.) With thicker fabrics used for vertical blinds, the coating/curing procedure is then repeated on the other side of the fabric.

However, the line speed of the Stentor was restricted to 12m/min, which limited production output. With increasing demand for its products, Living Connections decided to investigate ways of speeding up the coating line operations.

After proving trials, it was established that the problem could be solved by pre-heating the fabric with infrared. Consequently, a 30kW medium wave infrared cassette, from Heraeus, was installed immediately before the Stentor. The six, 5kW elements each have a heated length of 2m to cater for all web widths.

It has been found that the pre-heating system has allowed web speeds to be increased to 18m/min, solving the bottleneck problem. In fact, such has been the success of the installation, that a second cassette, without elements, has also been fitted and this can be quickly activated to meet any future increases in demand.



Technical Data

- Medium wave emitters
- 30kW
- Six 5kW elements of 2m length each
- Precise control by pyrometer, linked by remote indicator to the operator

Features

- Pre-heating solves bottleneck problem
- Medium wave infrared heat dries resin dye on textile blinds
- Line running speeds could be increased

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