



NobleLight®

Infrared Helps Blind Manufacturer Increase Production Speed

Infrared pre-heating increases production line 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.

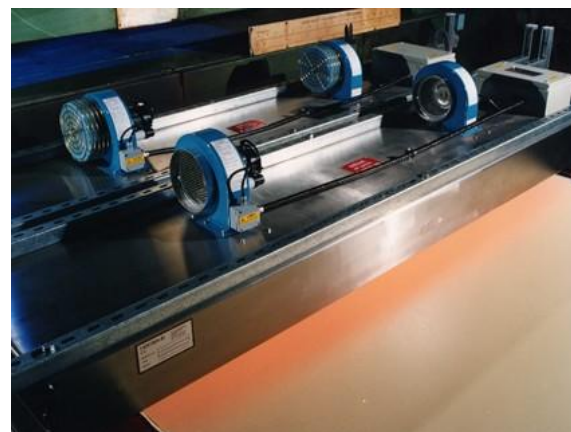
Blind manufacturing involves multiple processes, including textile printing, coating, laminating and pleating, metal fabrication and presswork and plastic injection molding and extrusion. Textile color coating for some blinds is achieved by applying a resin dye to one side of the fabric by means of a doctor blade and then passing the web of fabric through a gas-fired stenter for curing at 160°C. (A Stenter 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 and curing process is then repeated on the other side of the fabric.

However, the line speed of the Stenter was limited to 12 m/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 determined that the issue could be resolved by pre-heating the fabric with infrared. Consequently, a 30 kW medium-wave infrared cassette, from Excelitas, was upstream of the stenter. The six, 5 kW elements each have a heated length of 2 m, allowing it to accommodate different fabric widths.

It has been found that the pre-heating system has allowed web speeds to be increased to 18 m/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 activated quickly to meet future increases in demand.



FEATURES

- Medium-wave infrared emitters
- 30 kW
- Six 5kW elements, each 2 m in length
- Precise control using a pyrometer with remote operator display

TECHNICAL DATA

- Preheating eliminates bottlenecks
- Medium wave infrared heat dries resin dye on textile blinds
- Increased production line speeds

