

Fast drying of Colour-Stain on Wooden Panels

Medium wave infrared emitters for wood industry

Saunderson's Furniture Ltd, has installed an infrared dryer to assist in the colour staining and lacquering of wooden panels used in the manufacture of its wide range of high quality furniture. The Kilbirnie factory produces finished items such as hi-fi cabinets, directly from bare timber. This timber, in panel form, must be colour-stained and UV lacquered before assembly. Since the introduction of the Environmental Protection Act in 1992, there has been a trend in the woodworking industry away from solvent-based coatings and towards water-based coatings.

Initial problems were caused at the point where the UV lacquer was applied over the colour staining. With solvent-based paints, the solvent would "flash off". However, with water-based paints the stain coat is still wet when it reaches the lacquer stage, with the result that the lacquer does not key properly and the correct finish is not achieved.

Consequently, it is important that the colour stain is dried before lacquering. Gas convection ovens were discounted because they required a footprint of some 20m and would have required a residence time of around 30 minutes for the drying to be complete.

They finally decided on two medium wave infrared heaters which have proved to be extremely energy-efficient. They warm up to the required temperature in less than two minutes, so they can be switched off at lunchtime and during long breaks, unlike gas ovens which must be run at temperature throughout the working day.

Medium wave infrared has a great affinity for water and offers a very energy efficient method of drying. In addition, the simplicity and compactness of infrared equipment allow retrofitting be carried out with the minimum disruption.



Features

- medium wave emitters dry water highly efficient
- energy saving, as they unlike to convection ovens, do not need long pre-heating
- modular heating processes
- quick and easy emitter change possible

Technical Data

- medium wave emitters
- 2 m in length
- 12kW each
- line speeds of 10 m/min

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