



NobleLight®

Fast drying of Color Stain on Wooden Panels

Saunderson's Furniture Ltd, has installed an infrared drying system to support the color 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 untreated timber. This timber, in panel form, must be color-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 color staining. With solvent-based paints, the solvent would evaporate ("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 poor adhesion and the correct finish is not achieved.

Consequently, it is important that the color stain is dried before lacquering. Gas convection ovens were discounted because they required a footprint of approximately 20 m 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 highly energy efficient. They reach operating temperature in less than two minutes, so they can be switched off during breaks, unlike gas ovens that must remain 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 compact and modular design of infrared systems allows them to be retrofitted with minimal disruption to existing production processes.



FEATURES

- Medium-wave emitters dry water very efficiently
- Energy savings, as they do not require long preheating compared with convection ovens
- 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

