



IR System Reduces Both Energy and Cycle Times For Automotive Interior Trim Supplier

A Noblelight infrared system by Excelitas fitted to a purpose-built machine designed by P&D Engineering is significantly reducing energy costs and cycle times in the production of soft-trimmed automotive interior products at the Coventry factory of KJ Ryan. The new system has also proved more cost-effective than earlier systems which relied on ceramic heaters.

KJ Ryan specializes in automotive interior trim for both the bespoke market and Tier 1 automotive customers. Its capabilities range from individual components to complete car interiors, using a combination of modern technology and flexible manufacturing techniques, with the most traditional of skills and materials. Typical trim materials are in PVC, soft fabrics and leather for components including arm rests, seat back panels, gear gaiters and door panel inserts.

A recent project was for a soft trimmed seat back component. To produce these, KJ Ryan called on the proven expertise of P&D Engineering, a company with many years' experience, working with many companies in the automotive supply chain, who designed and built a special purpose wrapping press. In operation, the adhesive coated, cut-to size cover stock and substrate, are loaded into the bottom and top of the press respectively. A heater assembly is then shuttled into the machine and heats both the components, whose adhesive coating is then activated. The heater assembly is withdrawn and the substrate and cover stock, which is also made more pliable by the heat, are pressed together and the cover stock is wrapped and laminated around the former to create the finished product, which is then removed from the press.

In previous machines, the heater assembly used ceramic heaters. However, these were energy intensive and needed to be replaced at regular intervals. Consequently, for this new press, P&D Engineering replaced the ceramic heaters with twelve fast response medium wave infrared emitters from Excelitas. These have reduced energy consumption by 73% and their fast response allows quicker ramp-up times, which has meant that cycle times for the operation are now much faster. In addition, overall costs have also been reduced, as the new infrared system has a much longer working life, which also means less maintenance. "We are very pleased with the performance of the new presses," comments James Billingham, Project Engineer at KJ Ryan, "In fact, we have now asked P&D to provide two more presses equipped with the infrared heating system."



Features

- Fast response medium wave infrared emitters

Technical Data

- Reduced energy consumption
- Quicker ramp-up time

Excelitas

Infrared Process Technology
www.excelitas.com

