



Infrared system increases capacity and energy efficiency for embossed paper

Water-based coatings are used in the manufacture of a range of embossed papers at James Cropper Paper Products in Kendal. A Noblelight infrared system ensures their efficient and reliable drying.

Established in 1845, James Cropper produces paper, packaging and advanced materials, incorporating pioneering non-woven fabrics and electrochemical coatings. The company is a global leader and specialist provider of niche solutions tailored to unique customer specifications. To meet a growing market demand for high-quality textural effects for luxury packaging and creative papers, the company decided to make a significant investment in a new special-purposed plant. James Cropper contacted Emerson & Renwick (E&R Group) in Accrington. E&R then designed a machine which first embosses the required pattern onto the paper and optimizes it by applying a water-based varnish. Before the paper is rewound, the varnish needs to be fully dried. To solve this drying problem, E&R contacted Excelitas, with whom they have a history of many successful, collaborative projects. Our product experts then supplied a 22.5 kW carbon infrared system so that trials could be carried out on E&R's pilot plant to determine the optimum parameters for complete drying of the coating.

James Cropper finally received a roll-on roll-off machine with a 108 kW carbon medium wave infrared system consisting of 24 emitters, herringboned across the web. The system is PID controlled and switchable in five zones to allow web widths from 750 mm to 1300 mm. In addition, Excelitas supplied a rear reflector/cooling module, which passes a gentle flow of air over the back of the web. In the event of line stoppage, this cooling airflow is ramped up to minimize the risk of fire.

Darren Gibson, Production Manager at James Cropper, explains: "This investment brings significant capacity and capability improvements, allowing us to respond to the demand for bespoke textural effects. The infrared system has also proved to be very reliable and the air cooling system gives us that extra peace of mind."



Features

- Fast, medium wave infrared heat
- Energy efficiency
- Higher capacity and capability

Technical Data

- 108 kW infrared emitter
- Switchable in 5-Zones
- PID control

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