

UV lights the way

A new UV lacquer spray-applied finishing line is increasing production capacity and opening up expansion possibilities at RJB Coatings. Stephen Powney reports

SUMMARY

- RJB has added a Makor UV spray line.
- The UV line can run at 50m/min.
- Production capacity has greatly increased.
- UV coatings mean reduced VOCs.



The Makor UV spray coating line at RJB Coatings

The introduction of a new UV spray coating line at RJB Coatings is being billed by the company as a unique development with the potential to boost its business and help timber trade customers in the current economic climate.

The Italian-made Makor automatic UV spraying machine is being put through its paces on a range of solid timber products at RJB's Hartlepool factory and is already exciting managing director Richard Brackstone with its performance compared to solvent-based coating.

Mr Brackstone said he knows of only one other similar UV spray line in the UK, with most UV coating systems using roller coaters.

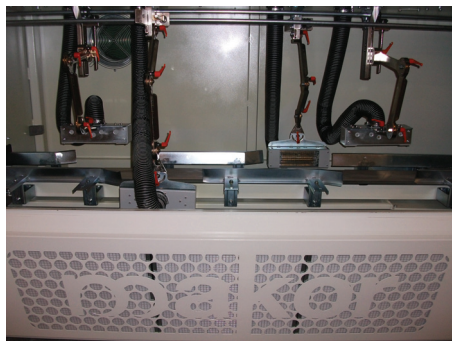
The Makor, supplied in the UK by Schuberts, is now running at full speed and several timber industry customers have visited RJB to see what opportunities the technology offers them.

For RJB, the Makor represents a £130,000 investment, while total capital spending in the last 12 months has been about £200,000. It already had an existing Makor line, with automatic spraying for all acrylic priming.

An existing sanding machine has been relocated into the new UV line, while new steel storage trolleys and conveyors complete the additional investment.

The Makor has four spray guns which coat the top and both sides of workpieces up to a width of 255mm, to accommodate large floorboard sizes, using a UV 100% solids clear lacquer.

The whole coating process – sanding, coating and drying takes 15-20 seconds, with a top coating application speed of 50m/min, compared to 35m/min for RJB's existing solvent-based spraying system.



The line has 24-hour working capability

"Everyone wants everything yesterday, so if you can speed up the process it goes a long way with customers," said Mr Brackstone.

The maximum height of timber product to be sprayed is 80mm, minimum length is 280mm and minimum height is 5mm.

RJB's daily production capacity is now 25,000-35,000 linear metres, compared to about 8,000 linear metres previously.

Mr Brackstone said the high workloads at RJB had meant it had been difficult to keep pace with solvent coatings because of the drying time involved. Drying racks sometimes filled up by mid-afternoon, meaning coating could only recommence in the morning, resulting in the loss of valuable production time.

"We found it hard to keep everyone happy, we needed a machine that was adaptable," said Mr Brackstone. "Going over to UV, the product is instantly dry."

Another big factor is the increased prices of solvent, with costs rising by about 15% several months ago.

"By using UV we can be more competitive by keeping our prices low. Otherwise I would be thinking about an 8% price increase with solvent coatings at the moment."

The environmental argument for using the UV 100% solids product over solvent-based lacquers is also a factor.

"Customers were using a lot of VOCs with the solvent product, so it's a big selling point for us using UV," added Mr Brackstone. "One of the first questions customers ask me is what is the VOC content of the coating."

Morrells Wood Finishes has developed a lacquer capable for spraying at high speed for one big contract which RJB is doing every week for the next two to three years. The company is also testing UV coatings from Intercoat and ISF.

Other benefits of the UV line cited by RJB include product durability, which Mr Brackstone says is far superior to two-pack acid catalyst (AC) lacquers and even polyurethane coatings.

And RJB also envisages an expansion of the range of products that can be coated to a clear finish – including timber, flooring, door frames, skirting, architraves, picture mouldings and glazing beads.

The new line is currently running at 8-12,000 linear metres daily.

"If we get more interest we could split shifts and work during the night," Mr Brackstone added. "It has got 24-hour working capability."

The UV machine completes RJB's range of coatings, offering water-based priming, staining, pigmented finishing, clear lacquering and Euro Class B fire treatments and external cladding coatings.

Customers of RJB include International Timber, MH Southern and Brooks Bros. ■