

The “perfect” sawmill

A visit to the van Roje sawmill in Germany proved an eye-opening experience for a group of its UK customers. Mike Jeffree reports

Urich van Roje doesn't strike you as someone prone to hype or exaggeration. So when he says the family-owned van Roje sawmill near Koblenz, Germany, has reached a state of “perfection” you're tempted to take a closer look. That's just what 15 of the company's growing band of UK customers did recently – and they came away from a visit to the plant generally agreeing with Mr van Roje's verdict.

Precisely what he means by “perfection” is a mill that operates at the peak of production, commercial, logistical and environmental efficiency. The company is especially proud of its record on utilisation of raw material, which is primarily Douglas fir and spruce from nearby forests.

“We use 500,000m³ of logs a year and 100% of what comes in through the gate is processed and sold in the form of one product or another,” said Mr van Roje. “It means we have no by-product to transport for further processing or disposal.”

What particularly impressed the UK visitors was the fact that this capacity to use every last bit of wood fibre combines with huge flexibility. All output is to order.

“Everything you see here is sold to a specific customer,” said Mr van Roje, leading the UK buyers around the 140,000m² site in the relentless Rhineland rain.

Proving his point, just at that moment the party walked past several large stacks of prime construction grade timber emblazoned with the names of their UK buyers, David Cover & Son and Donaldson Timber.

Van Roje is two years off its 80th birthday, but the cur-

rent plant in Oberhonnefeld-Gierend was not set up until 1996. Before that it operated across several sites.

“It made sense economically and to meet demand to concentrate operations in one area,” said Mr van Roje. Starting from the ground up, he added, the company was able to plan the mill for maximum efficiency and future development – and investment in the site to date (all privately funded) adds up to €40m.

Van Roje offers around 5,000 dimensions and central to the mill's ability to supply such a diverse range of end products is the log yard operation where a 95m-wide, 10-tonne capacity gantry crane drops timber into a Holtec sorting line with 110 bins for different lengths and grades. The computerised sorting system was devised in-house and is run from a ‘control tower’ by a single operator sitting in front of a bank of monitors. The line works two eight-hour shifts Monday to Friday and one on Saturday, each handling 1,000m³.

“The log sorting operators are perhaps the most important guys in the mill,” said Mr van Roje. “We depend on them to achieve the variety of our production and, of course, our timber yield.” The latter, he added, is currently 60% (of which a quarter comprises side cuts).

Besides being sorted for length, dimension and condition, the logs at this point are also scanned for old military ordnance. “We're still having to look out for metal contamination from World War II,” said Mr van Roje.

The main 150m sawmill itself was set up by EWD and comprises four in-line processing stations: an initial chipper canter, followed by a chipper canter with circu-

SUMMARY

- Van Roje processes 500,000m³ of logs a year.
- All timber is produced to order and the mill supplies 5,000 different dimensions.
- The facility processes 100% of its raw material, producing fuel pellets and bark garden products.
- The site also includes a bio-fuelled power plant.





Above: the mill is highly automated

Far right: kiln-dried long lengths are attracting UK customers

Right: packs are wrapped and branded and include both the German Timber and PEFC logos

Below left: the van Roje sawmill occupies a 140,000m² site; Inset: Ulrich van Roje



lar saw, further circular saws and, finally, a combination of horizontal and circular saws. The plant also includes a 400m/min Catech optimising edger, turning out 30,000 boards per shift, plus Rosens and Kalfass sorting lines for sidings and the main production.

A speciality of the mill is large dimension construction material, up to 14m and 350mm square. The bulk of output is still unseasoned, but van Roje put in its first Mühlböck kiln in 1999 and has added one a year since, giving it current capacity to dry 120,000m³ a year.

"This is what attracted us to van Roje – kiln-dried long lengths," commented one of the UK visitors, Ann Miles of David Cover & Son. "It's the sort of material we just don't seem to be able to get elsewhere."

Van Roje's focus on producing to order extends to supplying mixed packs for specific end-uses. Mr Van Roje pointed out packs comprising all the components for individual packing cases for a steel company. Similarly, it will package up all the items required for a single house or other building.

"You get precisely what you pay for instead of having dead stock lying around," said Ian Robinson, of van Roje UK agent Gill & Robinson. "It's the sort of service I believe many UK buyers would pay a premium for."

The visitors also remarked on the presentation of the finished timber. Packs are strapped and wrapped, and van Roje has just started end marking, using red stars and the VR motif. Besides the company's brand and the logo of the German Timber marketing campaign, the packaging also prominently features the PEFC brand.

"We're 100% PEFC, which is logical as the scheme covers 80% of German forestry," said Mr van Roje. "FSC certification has not got the same presence here as it's not so well suited to the fragmented ownership of our forests. But this is not a problem for us in export markets as we feel the FSC and PEFC are the same standard."

In the latest investment to boost the plant's competi-

tive and environmental edge, this year van Roje launched its own biofuel power plant. The €8m facility burns 30,000 litres of plant oil a day and generates 5.8mW/hr. The electricity goes into the public grid system and is offset against the the mill's power bill.

Underlining van Roje's strategy of integrating all its various facilities and minimising waste, heat from the power plant is also used to dry sawdust and chips for its wood-fuel pellet facility, EPO. The latter also started up this year and was built at a cost of €6m.

"EPO is a growing business producing 40,000 tonnes of pellets annually, enough to fuel 8,000 houses for a year," said Mr van Roje. "The plant uses only our own by-product material but, to meet demand, we may start bringing it in from elsewhere."

Completing the environmentally virtuous circle, and enabling van Roje to boast that it uses 100% of its log intake, it also has a bark chip garden products operation.

In the core timber business, van Roje is currently exporting between 70-80% of output, compared with a German industry average of 25%, and the UK is now among its leading markets.

Some concern was voiced by the company's British visitors that the recent influx of timber from Germany into the UK might be a shortlived phenomenon (*TtJ June 23/30*). They asked if German mills were only targeting the market as conditions in others, notably the US and Japan, were tough and because they needed to offload the surfeit of timber from the 30 million m³ of windblow in Germany created by storms at the start of 2007.

Mr van Roje acknowledged that some of the bigger German suppliers might be temporary visitors to the UK and may revert to their default export markets when these recover. He also predicted that timber prices would rise when the last of the useable windblow was processed. But he insisted that the smaller to medium-sized enterprises, notably van Roje, would stick with their British customers, appreciating the value of having a spread of export markets and the "reliability and consistency of demand in the UK".

The question for the future of the business overall is, where does it go now that it's achieved the perfect sawmill? Mr van Roje wouldn't give too much away, but said the company had plans. It has recently acquired another 10ha next to its current premises and has lined the site up for a "new investment". So clearly he believes you can improve on perfection. ■