



Banging the drums for Biesse



Mike Plimmer

Speakers, turntables, doors, desks, carcasses... PanelPro makes them all with a little help from a new Biesse duo.

Over the last 30-something years, I've had the privilege of meeting and interviewing many people in this industry but seldom have I enjoyed an interview quite so much as the hour-and-a-half I spent with Mike Plimmer.

Mike is the effervescent managing director of PMK Cabinets Derby Ltd – better known to the furniture industry by its brand name, PanelPro – and at the grand age of 76, he remains a real stalwart of the industry. Over the 50-plus years of his working life, he's been an electrical engineer, worked in the nuclear industry, enjoyed a career as a professional drummer in a successful trio, played in a reunion series on BBC radio and is on first name terms with many of the good and the great in the music business. As we talk, he reels off a client list that reads like the Who's Who of the hi-fi industry – and promptly follows it with another from the furniture sector.

His small but incredibly successful company has made – and still makes – speaker cabinets for big name manufacturers; he's produced the woodwork for top-brand turntable companies and tells me turntables have outsold CD players over the last few years by ten to one (I can quite believe it. PanelPro is still making 3,000 every couple of months); he's designed his own factory, even designed the stunning metal and engineered wood staircase in the atrium; and back in the days when vinyl décor products were still crispy affairs with patterns and names that bore little resemblance to the products they mimicked, he teamed up with an engineering company, designed and made his own press and was one of the first to offer pressed vinyl products. "We machined all the platens and channels for the heating chamber and had the press built so we could make curved doors," he tells me, adding without hint of immodesty, "And we were



Side aligners align the top board in a pack
Below: Biesse's new system for detachment and automatic alignment of boards.



making them before anybody else had even thought of them.

"Alongside our own door range, we now offer any type of cabinet door to order for whoever wants it, a small cabinet-maker or a larger company. Most of the doors we produce – probably 90% of them – are bedroom doors but we've made all sorts. We've made everything from accessory trays to dental surgeries, even the 8,000 desks for NATS [National Air Traffic Services]. People come to us because they know we're engineers so they almost always bring us a problem to solve, or a quality issue to overcome. We can usually help them out."

Mike is a self-confessed perfectionist and has an eye for detail that even saw him noting a scratch on my camera as I snapped away in his factory – then another on the Biesse Rover K FT PanelPro bought a year or so back. In fact, it was the lack of perfection in the finish provided by most of the other machines they tested that saw Mike and his son Andrew, the company's production director, hold off purchasing a

new machine for almost six years after they'd identified a nesting router was what the company needed to supplement its other CNCs.

"When the sheets were loaded and picked up on some of the machines we did trials on they were fine but as the nested panels were pushed off, they sometimes chipped the melamine on the edge. When you're machining single-sided board, as soon as the vacuum is released the board cups and even the slightest damage on the surface of the sacrificial board can catch the front edge and chip the melamine as it moves off the board. We didn't want that. Our customers expect perfection from us and that's what we deliver, so we held off making a purchase."

In Biesse's Rover K FT nesting CNC, one of the first of Biesse's new quick-installation plug-and-play solutions, Mike and Andrew finally found the solution they had been looking for. It was compact, offered flexibility and provided not only all-round access for the operator but also double the production

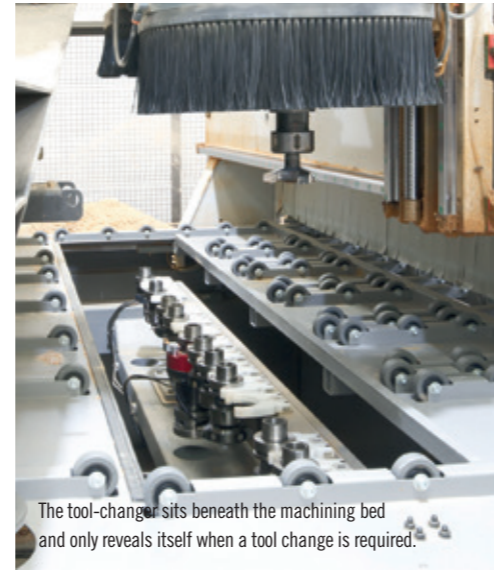
they were getting from their other CNCs. Critically, the transport system on the K FT, which has been designed to work with delicate materials, meant an end to the chipped leading edges Mike and Andrew were keen to avoid.

"The Rover we bought is about as comprehensive as you can make a K FT," Mike told me. "We specified a fully-automatic loading and machining package with a floating aggregate from HSD, Biesse's mechatronics division, that deals with any irregularity in the board thickness. The machine loads automatically from a stack but the conveyor waits at the off-feed before loading the next board. When the nested products come to the end of the off-feed table, we have a screen that shows the nest and touching each panel on the diagram generates the right label for each component, one at a time. It loads one board as it pushes the other off so the whole sequence becomes a one-person operation."

Managing porous and thin materials can sometimes be difficult but equipped with



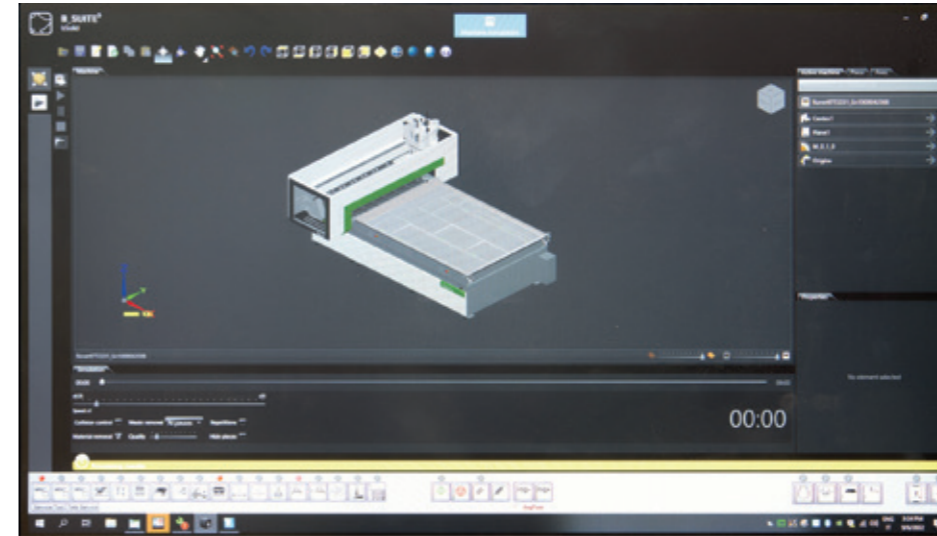
The vacuum is so strong that it's enough to suck through two boards.



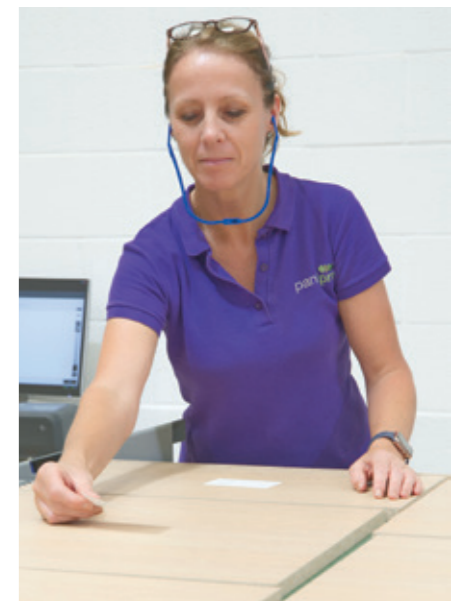
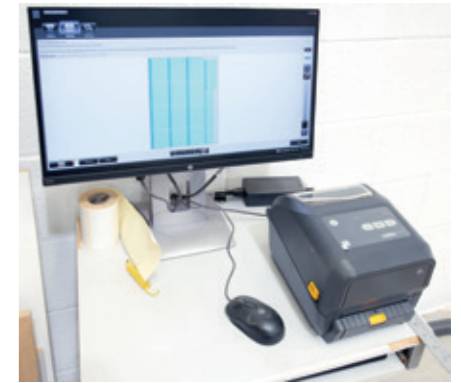
The tool-changer sits beneath the machining bed and only reveals itself when a tool change is required.



Board cleaning is continuous during the machining operation



"In terms of functionality, tooling-wise, bNest is absolutely brilliant. It's powerful and flexible. They've really thought about it."



The outfeed table pauses when the nest is complete to facilitate labelling

Biesse's new system for detachment and automatic alignment of boards at the infeed, PanelPro's new machine can handle 3mm panels, thin materials and even glued panels with ease and without operator intervention. The new full bumper solution means the operator can access the worktable safely at all times from any side of the machine – ideal if he or she has been tasked with working another machine while the Biesse K FT is working through the nesting operation.

When PanelPro's Biesse K FT arrived, it was supplied with a jumbo-jumbo-size sacrificial board over the phenolic worktable. "We couldn't get a sacrificial board as big as the one on the machine so we left the one on that arrived and made a new board to go over the top," Mike told me. "The vacuum is so strong that it's enough to suck through two boards, each

15-18mm thick and providing there's no dust left on the top board that could create a microscopic air gap when the panel to be machined is pulled across it, there's no movement of workpieces during machining."

"With our other machines, we had to physically lean over the table, pick the panels off and Hoover the table," Andrew continued. "The cleaning and loading took longer than the machining operation. Cleaning was our Achilles heel but the loading, unloading and cleaning is where the Biesse really scores. It takes less than one minute to change, clean and unload the bed ready for the next cycle and that's given us double the production. Depending on the material, we've now got throughput of 60-75 parts per hour instead of 35-40 and the machine cleans the bed automatically ready for the next board as part of the

cycle. It pushes the sheets off, cleans and loads all at the same time."

When it comes to programming, Mike is happy to leave that to Andrew – and he has become something of an expert at it. Schooled on Alphacam for 26 years, moving to bNest meant adopting a new mindset: "Because I'd got used to Alphacam, I found the transition to bNest a bit more difficult than Steven, who operates the machine," Andrew told me. "He started with bNest and jumped straight into it.

"The differences are subtle: with bNest I need to select an object before I can work with it; in Alphacam I do something and then select the object. The CAD side is a bit different, too, because I'm used to creating construction lines first but in terms of functionality, tooling-wise, bNest is absolutely brilliant. It's powerful and flexible. They've really thought about it."

Before deciding on Biesse, Mike and Andrew spoke to several manufacturers about their after-sales experience with different machinery suppliers. "We found Biesse came out very well," confirmed Mike. "And they have looked after us pretty well since the machine arrived. Multiple station machines will always have teething problems – we are engineers ourselves, so we appreciate that – and for the most part we can repair and maintain out-of-warranty machines without calling for engineers but it's always reassuring to know Biesse is pretty fast at supplying parts." Nevertheless, taking delivery of the K FT did give them a problem I get the impression neither Mike nor Andrew entirely anticipated:

"The K FT was so efficient that it left us with a bottleneck," says Andrew. "The nesting line had increased our throughput so much that we were nearly 50% up on

panels coming off the edgebander because the Biesse mostly worked unsupervised, which meant the operator was free to work the edgebander. We only had one machine that was doing the secondary operation so we needed a second machine to prevent a bottleneck. We always liked Brema so we decided to buy a Biesse Brema Eko 2.1 as well."

Compact, vertical and industry 4.0 ready, the Brema Eko 2.1 is providing all the just-in-time boring PanelPro needs – and that means Mike and Andrew have a harmonious duet in the workshop that really gets Mike banging the drums for Biesse.

For more information on the Biesse K FT processing centre, or the Brema Eko 2.1 call Biesse on 01 327 300366 or touch the image marked with a link sign to watch a video on your smartphone or tablet using the free Furniture Journal app.



Andrew Plimmer