

Nested based manufacturing stacks up for small shop

Hopkins Joinery in Putaruru shows how the small joinery shop can benefit from utilising nested based manufacturing.

Three years ago Ron Hopkins of Hopkins Joinery in Putaruru read an article about nested based manufacturing in *Joiners* magazine and was inspired to research the idea further. He was surprised at the time to find that all the machinery suppliers selling European woodworking machinery really weren't too enthusiastic about nesting, much preferring to offer a point to point system.

Having seen New Zealand manufacturer iCAM Mechatronics' advertisement in the same magazine, Hopkins rang and spoke to Managing Director Troy Cundy and found him not only to be welcoming to the idea of nesting based manufacturing, but also actively promoting the concept.

"I spent a lot of time researching the nested based manufacturing concept and the equipment available for nested based manufacturing" says Hopkins "because as a small joinery business we simply cannot afford to make a mistake when purchasing equipment".

Today, a year down the track from installing their iCAM Machine and implementing nested based manufacturing, the work-flow at Hopkins Joinery has changed dramatically. Previously labour intensive tasks such as processing shaped components no longer require any extra labour than a basic part. The time consuming task of setting up the drilling machine is also a thing of the past.

Hopkins sees many additional benefits to the nested based manufacturing workflow. Improved edge quality means edgbanding is more successful and greater part accuracy means easier assembly. "Another benefit is the reduction in mistakes, human error is greatly reduced with the nested based manufacturing process, all these things definitely save time and money for our business". Employing nesting has also reduced waste "we have very little scrap from our whiteboard, our left over coloured board tends to be one large piece rather than lots of little scraps, we utilise this where we can by selling ready-made cupboard units from our showroom."



Hopkins Joinery are using 3D Kitchen design software in conjunction with AlphaCAM manufacturing software to run their machine. They have found 3D Kitchen very versatile. They also enjoy the benefits to their workflow that AlphaCAM offers with its nesting ability and the tool library and macro functionality. "Before introducing nested based manufacturing to our business we had very little experience with computers" says Hopkins "we found the software user friendly and it took very little time for us to become confident with it, however you probably want to allow a couple of months to figure out the way to use the software to best suit your specific workflow before you can expect to be running at full production capabilities. As for machine operation – that is simple, very little training required"

Before implementing nested based manufacturing Hopkins Joinery would mass produce and hold stock of common components, this no longer being the case it is much easier to offer customised kitchens "if someone wants a taller or shorter bench height we no longer have to reset up all our machines to

manufacture special parts, we simply adjust the dimensions in the software and the kitchen is processed in the usual way. I guess you could say it has allowed us to produce custom kitchens at mass produced prices" says Hopkins.

Hopkins Joinery have enjoyed a 40% increase in production in 2005, Ron Hopkins is a man who doesn't need any further convincing that nested based manufacturing is the way forward, in his words "it all stacks, more efficiency, less mistakes, less waste it all adds up to increased profitability" and Ron tells us despite production being up - they can have a few more days off now that they are so efficient.

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