

Rethinking CNC's

Start with the hardware then choose the machinery



KDT Drill Tech 6 sided CNC drilling machine.

For most joinery workshops, CNC investment has traditionally focused on the ideal bed size for material optimisation, and improving cutting & drilling speeds. While these factors will always be important, perhaps the area with the biggest potential saving today isn't at the CNC - but at assembly. This from Jacks sales & marketing specialist, Simon Hornby.

Assembly is often the most labour intensive and skill dependent stage of cabinet production. With the industry facing ongoing skill shortages and pressure to increase throughput, more workshops are re-evaluating their choice of cabinet connecting hardware and how this influences the machining required upstream.

Hardware First: The Key to Faster, Simpler Assembly

Modern cabinet connectors have evolved far beyond basic dowel and screw construction. This is particularly relevant in New Zealand, where screw construction and simple mortice and tenon joints remain widely used. Although familiar and flexible, these methods:

- Add significant assembly time
- Rely heavily on skilled labour
- Often require more clamping, measuring and adjustments
- Make flat pack transport more difficult
- Introduce cumulative errors across large batches

They work — but they aren't optimised for modern labour realities.

In contrast, today's connector systems provide:

- Faster, more intuitive assembly
- Reliable alignment without jigs

- Tool less / semi tool less joining
- Better consistency across batches
- Ease of flat pack and onsite assembly

Selecting the right connector can significantly reduce assembly time - often more than any improvement in CNC machining speed alone.

Let Hardware Choice Guide CNC Requirements

Once a workshop chooses a connector system built for efficient assembly, the next step is ensuring the machining process supports it. Many modern connectors require:

- Edge drilling
- Shallow face routing
- Accuracy so connectors align effortlessly

A nesting CNC remains ideal for optimising sheet usage and cutting shapes. However, drilling is slow and edge operations aren't practical. This is why some workshops pair their nesting CNC with additional edge drilling & routing capability - through aggregates, drilling centres, or multi face 6-sided CNC machines.

The aim is not to replace nesting, but to ensure the machine mix supports the chosen hardware system without compromising throughput.

The Payoff: Faster Assembly with Less Skill Pressure

When the machining aligns with the chosen hardware system, assembly becomes:

- Faster and more consistent
- Easier for less experienced staff
- Less prone to rework and alignment issues
- More predictable in scheduling

Most importantly, it reduces dependence on skilled assemblers - a significant benefit in an expensive labour market. In many cases, switching from screw construction or traditional mortice and tenon assembly to a modern connector system (properly machined) results in smoother workflows and fewer bottlenecks than any investment in a faster nesting CNC.

Onsite Assembly Advantages

Modern connector systems also enable new, flexible workflows:

- Large cabinets can be broken down for easier delivery
- Installers can assemble units reliably without advanced cabinetry skills
- Flat pack transport reduces shipping cost and damage

Some workshops overseas now cut and drill everything in house, but assemble onsite, freeing-up floor space and reducing labour costs.

Conclusion

The most effective production gains often start by rethinking the assembly strategy, not the cutting strategy. Choosing hardware that speeds up assembly and reduces labour provides a clear direction for what CNC's are best suited - whether that's nesting alone or adding dedicated 6-sided drilling & routing.

By starting with the desired assembly outcome and working backward, workshops can create a balanced, efficient production system that delivers more output with less labour pressure.



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