



Martin Damböck uses Palette CAD to bring complex, customised requests to life, like this living room wall unit with an integrated fireplace.

TACKLING STAFF SHORTAGES THROUGH AUTOMATED PRODUCTION

A seamless CAM workflow has been in place at Martin Damböck’s carpentry workshop in Waldneukirchen, Austria, since 2012. At the same time as acquiring Palette CAD, Palette CAM was installed to work with his CNC traverse machine. However, as production demands grew over the years, a nesting machine was introduced to support the eight employees in manufacturing and take the company’s productivity to the next level.

■ Challenge

Increased staff shortages due to multiple manual processes

With the introduction of Palette CAD and CAM in 2012, every part was numbered, labelled and linked to the corresponding CNC program generated by Palette CAD, ensuring a clean workflow. However, over the years, investment pressure gradually increased again. Staff shortages and an ageing panel saw began to reveal more weaknesses in the process. “My panel saw had reached 20 years and was showing significant wear. I had to invest anyway,” reports Martin Damböck.

Damböck was also aiming for a higher level of accuracy: “Cutting on one machine and drilling on another often resulted in unsightly misalignment between the bottoms and sides, as well as significant dimensional tolerances.” The greatest benefit Damböck hoped to gain from connecting a nesting CNC machine was primarily to relieve his production staff: “I didn’t want to assign skilled workers to the saw and CNC machine anymore. My carpenters should be engaged in higher-level tasks than just placing parts and pressing the green button.”

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The nesting machine eases the workload for the skilled staff

To ensure a largely unmanned production process, Martin Damböck decided to acquire a Biesse Rover K FT nesting machine. One advantage for Damböck's carpentry workshop was that the machine uses the same system language as the previously employed CNC traverse machine, which simplified the installation. After implementation, Mr Damböck remained in constant contact with the Palette CAM team to report any issues and provide practical feedback. "After about a month, the integration was running perfectly. And it continues to do so to this day."

Today, the CNC-capable data is transferred to and encapsulated on the nesting machine after CAD planning and is transferred to and encapsulated on the nesting machine. Entire panels in sizes up to 280x207 are now processed piece by piece and edged automatically. This has significantly increased precision and speed in production without any input required from the skilled staff. Martin Damböck also highlights another key advantage brought by the nesting machine: "With the nesting machine, we have switched to using Tenso connectors. Palette CAM offers a module for this type of connector, enabling our nesting machine to perform the necessary milling operations. This type of connector makes assembly incredibly easy. We put the furniture parts together as if it were Lego."



The Biesse Rover K FT nesting machine is very space-efficient and allows for access from all sides.



Milling for the Lamello TENSO connector on both the surface and the edge.

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Damböck's carpentry workshop has two Palette CAD workstations, each equipped with a 43" main monitor for planning and two side monitors for material and object catalogues.



Result

Excitement among colleagues ... and customers

Martin Damböck views the CAM integration for the nesting machine as essential: "Our sales have increased, complaints and error rates have decreased, our reputation has improved, and so has motivation among our employees. I can no longer imagine production here without Palette CAD and the nesting integration." The carpentry workshop now completes every order using the CAD/CAM nesting workflow, from small bedside tables to office furnishings with six-figure budgets.

For each order, Martin Damböck personally creates a 3D visualisation, including space planning. Some clients also receive a short video clip featuring a high-resolution virtual camera fly-through. "This creates a huge wow effect for the clients, and the order is more or less secured," he explains. To achieve results quickly in Palette CAD, he has built his own library within the software, containing his standard hinges, edges, drawers, materials and handles. "Every plan is theoretically ready for production at any time."

Damböck also emphasises that the process remains seamless through the subsequent steps. "My work preparation is very efficient with Palette CAD. I generate parts lists, material lists and CNC programs at the push of a button." After cutting optimisation the required panel and edge materials, as well as fittings, are ordered directly from Häfele or Schachermayer through the integrated shop connections in Palette CAD. "The shop integration saves time and prevents mistakes," Damböck emphasises. The CAM handover then takes place.

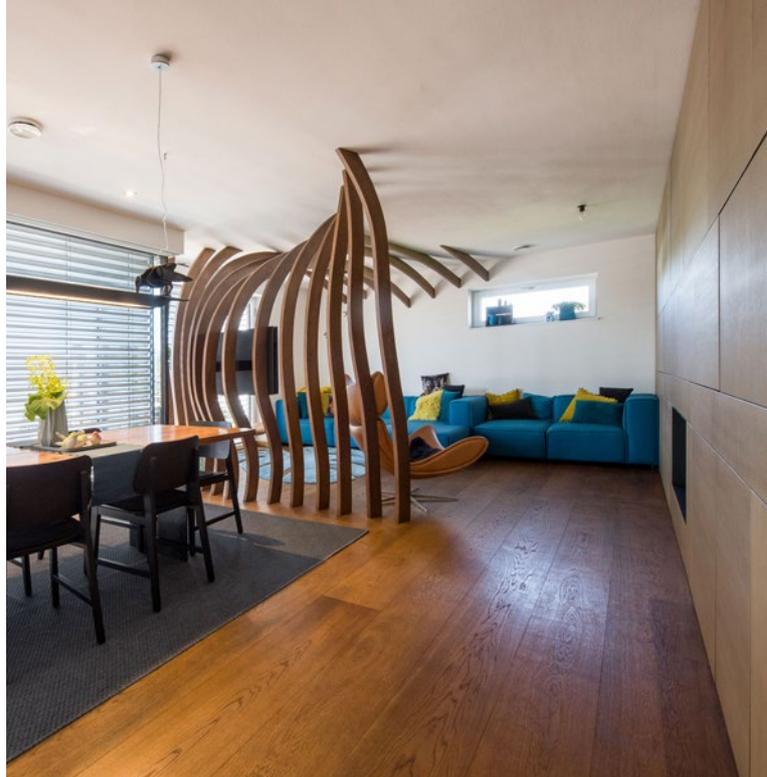
Martin Damböck sees further potential in digitalisation for his business: "Next, we want to invest in digital measurement technology to create a seamless workflow from A to Z."

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Benchmark project

In a ten-year-old detached house, the challenge was taken on to integrate a wood-burning stove with a visible window into an elegant piece of furniture. The goal was to ensure that only the fire area would remain visible, while the heating chimney would be fully incorporated into the living room cabinet. Close collaboration with the stove manufacturer, who also uses Palette CAD, facilitated the exchange of plans and helped overcome technical challenges during the planning phase. The cabinet was designed to offer plenty of storage, while blending in seamlessly with the surroundings. This was achieved through a combination of differing front panel proportions and varying the orientation of the oak wood grain. Additionally, a wooden room divider was created to provide transparency to the open living area, while cosily enclosing the sofa area and television area. The use of original sofa elements from the manufacturer BoConcept in Palette CAD allowed for precise planning, optimally shaping the space. Furthermore, the Damböck carpentry business generates additional revenue from the sale of sofas through the use of original manufacturer data.



TISCHLEREI
DAMBÖCK

Martin Damböck
Master carpenter

COMPANY:

Tischlerei Damböck | 4595 Waldneukirchen, Austria
Founded in 1827, operating in the 7th generation
www.tischlerei-damboeck.at

CHAMBER OF CRAFTS:

Member of the Austrian Federal Economic Chamber (WKÖ),
Federal Guild of Carpenters

CORE COMPETENCIES:

Furniture construction with a focus on cabinet construction

CAD/CAM SOFTWARE:

Palette CAD, Palette CAM

CNC MASCHINE:

Biesse Rover K FT nesting machine



LIVE DEMO

GET TO KNOW PALETTE CAD: ONLINE, LIVE, IN PERSON

During a live demo, you will receive a **free introductory session** on the CAD software Palette CAD. You will get an overview and have the opportunity to ask all your questions about CAD planning and CAM handover. **In just 30 minutes**, the key features and solutions for presentation, planning and production will be presented to you.

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Palette CAD AG

Behlesstraße 9-11
70329 Stuttgart, Germany
+49 711 9595-0
enquiries@palettecad.com
www.palettecad.com/en

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