

Lamello

NEWS

05

MARCH 2020

*Jochen Meier
Schreinerei GmbH*

P-System: Ready for the digital transformation

New P-System Product

Clamex P-14 CNC

*Networked
production*

Extensive partner network

P-System: Ready for the digital transformation

"Expertise in furniture manufacturing" – a slogan that is not simply an empty phrase at Jochen Meier Schreinerei GmbH, but practised with passion. Thanks to end-to-end digitalised production, this expertise covers the entire manufacturing chain.



P-System profile groove machining with Homag Venture 316 L CNC 5-axes

Founded in the 1930s, the carpentry company based in Nuremberg is able to look back on a tradition that spans almost a century. Taking on the role of Manager in 2011, Jochen Meier is now the third generation of his family to run the medium-sized firm. While it remained specialised in coffin making in its founding years, the company's focus has since made a clear shift to producing modern furniture, exclusive interior fittings and high-quality furnishings. The progressive company also includes a planning and visualisation office, and is responsible for representing CAD software RSO on the German market.

Lamello fittings have always played an integral role at the Nuremberg firm's workshop. Besides the P-System connectors Clamex P, Tenso P and Divario P, the carpentry company uses the Cabineo CNC connector, as well as the highly innovative Invis magnetic connector. "The P-System connectors are the optimal solution for high-quality interior fittings and can be installed virtually without any tools," Jochen Meier explains. The connectors are primarily used for the carpentry firm's elegant cabinets and shelves.

Greater efficiency thanks to end-to-end production

Jochen Meier sees an additional advantage of the P-System connectors in

their compatibility with end-to-end production processes. "If a product is automated – or can be controlled digitally – it will also be used," he emphasises. This means that, as soon as a connector is entered in the planning, ERP and production software, the corresponding part will also be used in practice. "The customer is prepared to pay for this added value," Meier adds.

End-to-end production based on the example of Clamex P

But what does a specific example of end-to-end production look like and where is the Clamex P used in production?



Measuring

1



The proposal phase

2



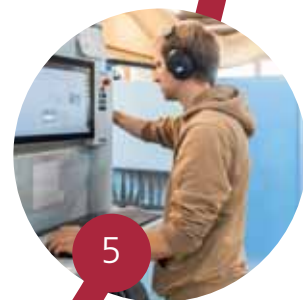
CAD planning

3



The bill of material

4



CNC machining

5



Final processing

6



Dispatch

7

From first contact with the customer through to the finished product, the following steps are completed:

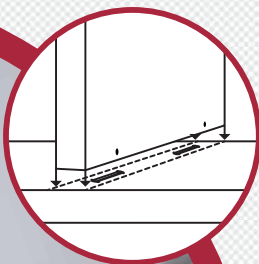
1. **Measuring:** Using the Leica room scanner, the relevant space or property is measured on location to millimetre accuracy within just a few minutes. Since the scanner works autonomously, the carpenter or joiner is able to address the customer's questions and concerns directly. What's more, this straightforward measurement process allows several customers to be served each day, which would be near impossible with conventional methods.
2. **The proposal phase:** The furniture is then planned within the digitised space. If necessary, elaborate renderings can also be prepared to produce an authentic impression of the end product.
3. **CAD planning:** Once the order is placed, the scanned room can be fed into the RSO CAD software. Here, the items of furniture are drawn with all of their individual components and connectors. In this phase, the planner can select the detachable Clamex P connector, which is automatically placed into the workpieces. This also works from multiple perspectives. The connectors can also be easily repositioned afterwards, where necessary.
4. **The bill of material:** The finished CAD file can then be imported into the ERP software Orga Calc, which automatically produces an exact bill of material. The material order can now be submitted manually.
5. **CNC machining:** This step involves formatting and machining the workpieces on the Homag Venture 316 L CNC 5-axis CNC machine. Thanks to macro linking in the CAD drawing, the P-System grooves are milled directly into the workpiece without additional effort. At Jochen Meier Schreinerei GmbH, practically all Clamex P connectors are milled by CNC. Now, the manual machine is only used sporadically.
6. **Final processing:** As soon as the workpieces have been cut to size and are ready for further processing, the edges are completed and coated and the Clamex P connectors installed.
7. **Dispatch:** The furniture is now ready to be transported to the customer. Ideally, the furniture should be sent flat packed, which is no problem at all with the P-System connectors.

For Jochen Meier, the biggest challenge with end-to-end manufacturing is bringing together individuality with industrial production: in other words, reconciling individual design with optimised, digital production chains. It seems the Franconian company is achieving this objective with outstanding results. Revenue has more than doubled since 2008, which is undoubtedly due in part to the switch to end-to-end production.

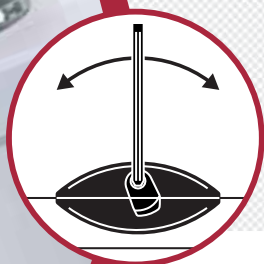
Clamex P-14 CNC

Detachable furniture connector
with precise alignment

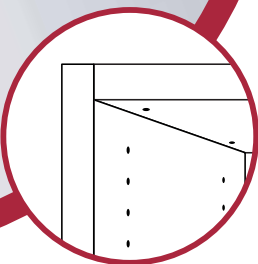
NOW
AVAILABLE
IN SPECIALIST
STORES



Precise
alignment



Detachable



Small opening
for lever

Advantages and features

Precise alignment – The profile of the positioning pins allows for precise alignment of the two connector halves. No need to use alignment dowels.

Detachable – Open the connector multiple times with the rotating lever.

Small opening for lever – A choice between a 6 mm hole for cover caps or a 5 mm hole for the use without cover caps.

Same processing as Clamex P-14 – No new tools or programming costs and no need for new expertise – easy to handle

Compatible with any Clamex P connector half without lever
P-14 without lever, P-10 without lever, and the P-10 Medius without lever



Clamex P-14 CNC with lever
2000 pieces sorted

Part no.
145388



Clamex P-14 without lever **Part no.**
2000 pieces sorted **145339**



Clamex P-10 without lever **Part no.**
2000 pieces sorted **145358**



Clamex P-10 Medius without lever **Part no.**
2000 pieces sorted **145369**

Networked production

Design and production software, aggregates,
cutting tools and CNC machining



CAD / ERP / CAM software

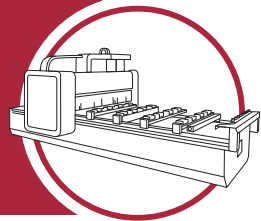


CNC machines



What do you need to create P-System grooves on your CNC machine?

CNC machine



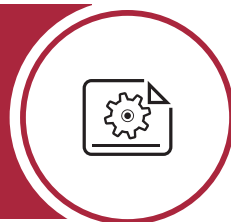
- Machine with 3 / 4 / 5 axes
- **The number of axes and equipment options influence the processing possibilities**

CNC software



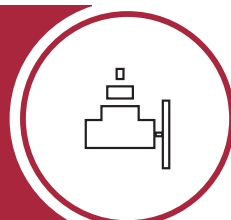
- Purchase software for machine / macro / component from the manufacturer
- or
- Program the machining process yourself
- **The macro / component determines / affects the processing possibilities**

The P-System tools



- Purchase tools from Lamello or a P-System tool partner

Suitable angle aggregate



- Aggregate sub-program
- The angle aggregate enables the P-System groove to be cut in the surface and the centre of the surface

Note: Obtain application approval of the P-System cutter on the aggregate from the CNC machine manufacturer.



Aggregates



CNC tools



CNC machines with optional equipment for particularly efficient processing using the Lamello P-System



HOMAG

DRILLTEQ V-500
25-spindle +
1 x aggregate
(VKNR 1549)
1 x tool set (VKNR 9763)

1 · 2 · 3



**EVOLUTION 7405
Connect**

1 · 2 · 3



BIESSE

Brema Eko 2.1
1 x aggregate
2 x P-System cutter
1 x cutter arbor

1 · 2 · 3



BIESSE

Brema Eko 2.2
1 x aggregate for 90°
1 x aggregate 45° for 2 x 45°
2 x P-System cutter
1 x cutter arbor

1 · 2 · 3 · 4



Project TF 100 / TF 100 2.0
1 x aggregate
2 x P-System cutter
1 x cutter arbor

1 · 2 · 3



cx 210
1 x aggregate
2 x P-System cutter
1 x cutter arbor

1 · 2 · 3

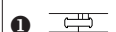


Nextec 7707
1 x tool set

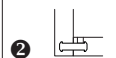
1 · 2 · 3 · 4



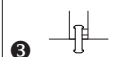
**Surface
180°**



**Corner
90°**



**Center wall
90°**



**Miter
22.5° - 180°**

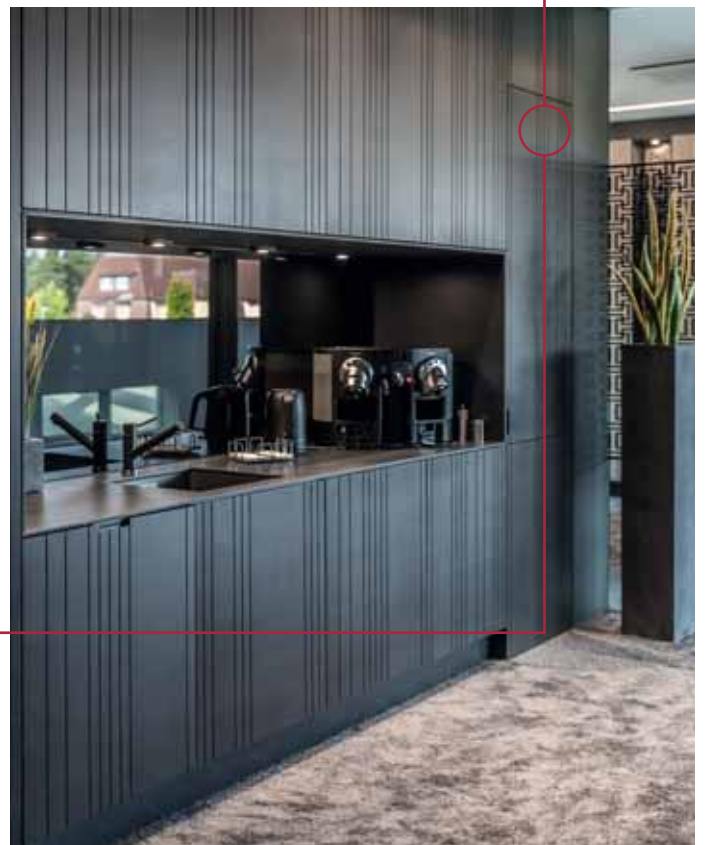


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Tenso P-14



Clamex P-14



Divario P-18



Tenso P-14



Cabineo 12 black