

Profile cutting machines D 21 and 31  
Compression cutting machine D 5  
Horizontal CNC contour cutting center

## MATTRESS SPECIAL

PU foam  
(standard, HR, visco)

Latex

Bonded foam

Similar materials



Markus Frings (right)  
Head of Parts Production



Fecken-Kirfel produces precise and efficient cutting machines to process a wide variety of different plastics, rubber and similar materials. Founded in 1870, this family-owned company today leads the way on technology and quality in its field worldwide. Using its large pool of engineering knowledge and expertise, Fecken-Kirfel works together with customers to keep on developing its range of machines further. We produce 100 % of our cutting machines at our main base in Aachen, Germany.



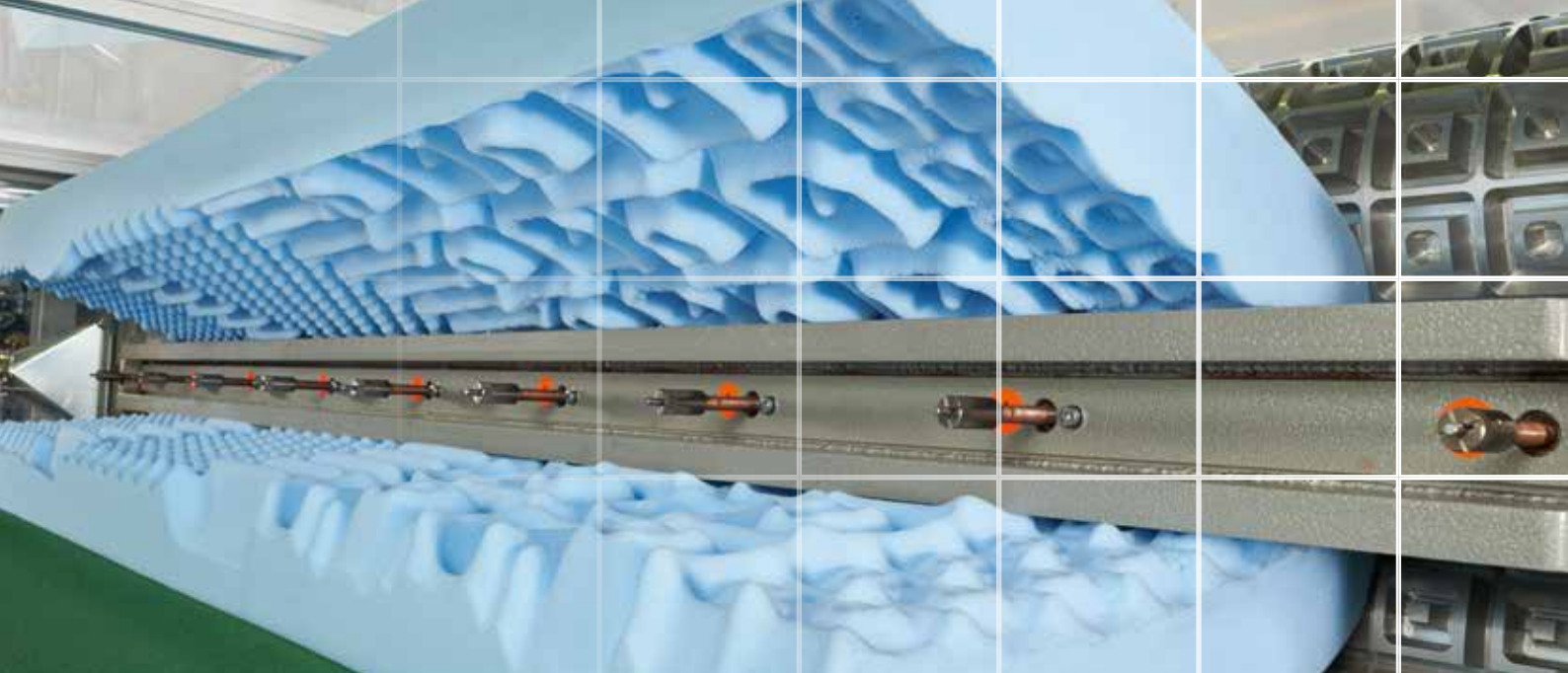
Founded in 1870

Independent family-owned business

Cutting machines "Made in Germany"

Machines process wide variety of materials

Leading the way on technology and quality worldwide



## HELLO AND WELCOME!

Are you looking to find the right machine to help you produce exactly the type of mattress you need? Well, help is at hand: we have exactly the device to suit you.

In our mattress special, we present three machines that have been specially designed for the efficient and economical manufacture of mattresses.

Depending on the model, thickness and mattress profile you require, we can find the perfect device to suit your needs.

Profile cutting machines **04**  
D 21 und 31

Compression cutting **08**  
machine D 5

Horizontal CNC **10**  
contour cutting center  
C 5x/6x



**Michael Greven**  
Customer Service Manager



The D 31's profile rollers are very stable and have a particularly large diameter, which ensures consistent cutting quality and a clean section.

## GREATER SCOPE FOR INNOVATIVE MATTRESS DESIGN

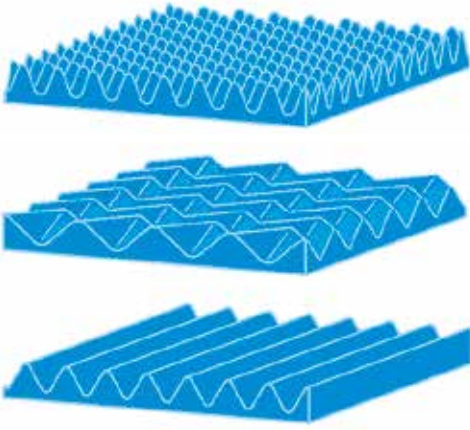
The profile cutting machines D 21 and D 31 feature exchangeable profile rollers which feed the material to be profiled onto a circulating bandknife. The material is compressed before it is cut. Upon re-expansion, the desired profile shape becomes visible. An optimized material conveying process allows you to forgo any subsequent trimming, even when working with particularly thick mattresses.

**Material:** PU foam slabs (standard, HR, visco), bonded foam or similar materials. An enhanced design of the D 31 is available to process particularly high materials up to 300 mm.

**Mattress profiles:** Symmetrical single/multiple-zone mattresses and a number of further profile options are available using cast or milled profile elements. Each profile is custom-made to meet your requirements.



# Type | D 21 and D 31



Bandknife  
automatically adjusted

Also suitable for high densities

Particularly clean section  
without pre-compression



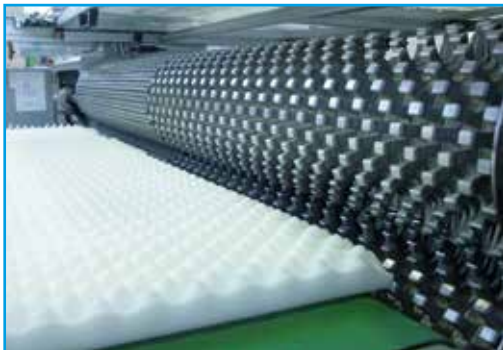
D 31 with conveyor belts  
and 7-zone profile roller.



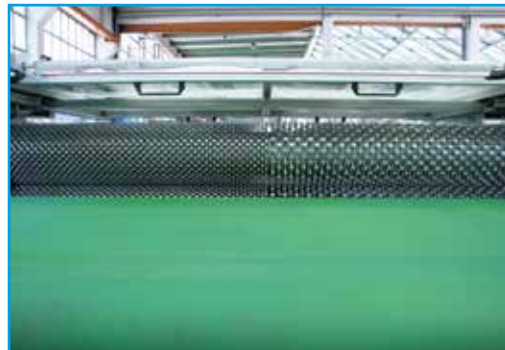
**Dennis Bohnhof**  
Construction/service technician



We manufacture cast or milled profile rings especially for you, which you can combine to create your own, custom-made profile roller.



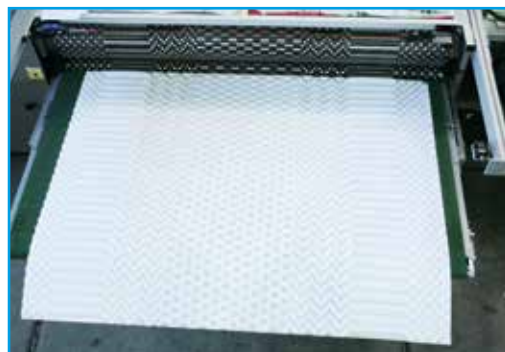
2-zone profile roller



2-zone front view



7-zone profile roller



7-zone top view

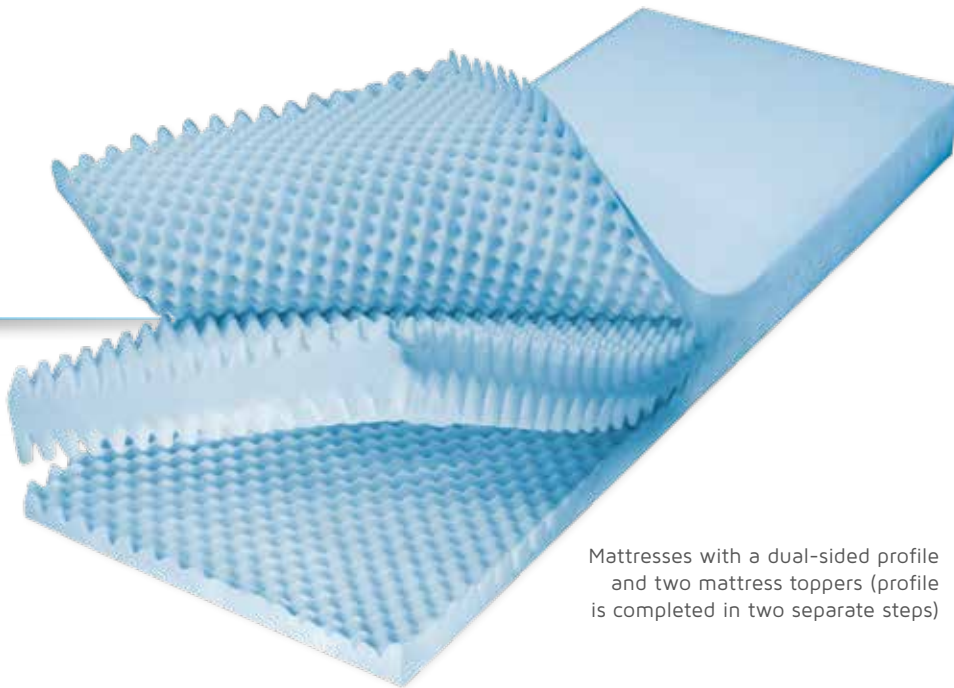
# Type | D 21 and D 31

Exchangeable profile roller

Optimized material conveyance

Cuts material up to a thickness of 300 mm

Profile rings in a range of combinations



Mattresses with a dual-sided profile and two mattress toppers (profile is completed in two separate steps)



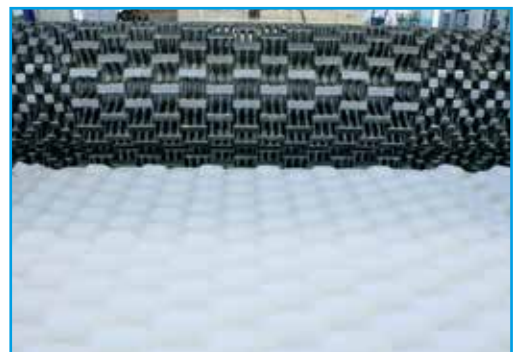
Sinus profile



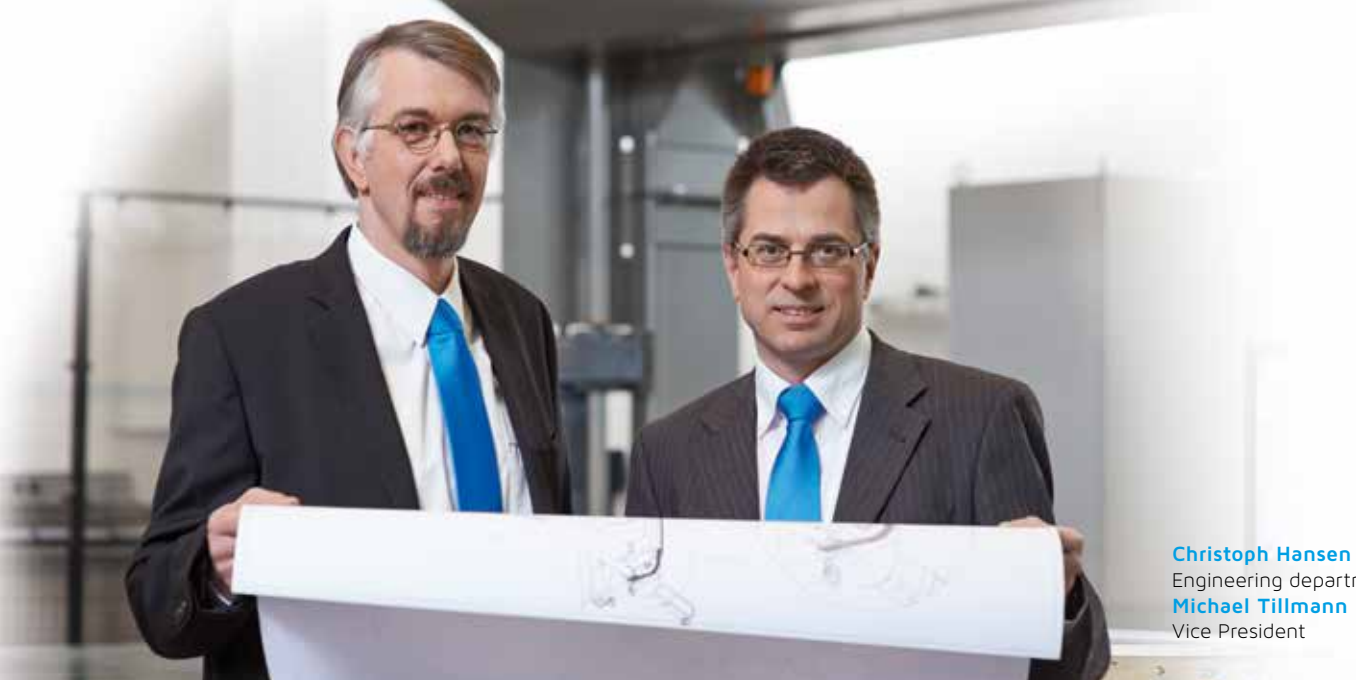
Wave profile



Various hump profiles



Hump profile



**Christoph Hansen**  
Engineering department  
**Michael Tillmann**  
Vice President



The D 5 allows you to cut mattresses with a width of up to 2000 mm in practically any desired shape.

## MATTRESS CUTTING USING A TEMPLATE

The D 5 compression cutting machine works according to a compression system: The process works by using a template featuring impressions that correspond to the desired mattress shape. Together with the forward movement of the table, the compressed material is automatically fed in whilst the circulating bandknife cuts all material that protrudes from the template. This process even allows you to produce a dual-sided mattress profile in two quick and easy steps. With the D 5, you can create mattresses up to 2000 mm in width.

**Material:** PU foam slabs (standard, HR, visco), bonded foam or similar materials.

**Mattress profiles:** Practically any shape possible.





# Type | **D 5**



The D 5 allows you to create mattresses using a compression system.

Automatic table feed

Only two steps required

Cut up to a width of 2000 mm



Compression cutting machine D 5



**Dirk Welters**  
Bandknife production



When combined, FK's software and an optional rotating table produce an almost endless number of design options for your mattress profile.

## MULTIPLE MATTRESSES FROM A SINGLE MATERIAL BLOCK

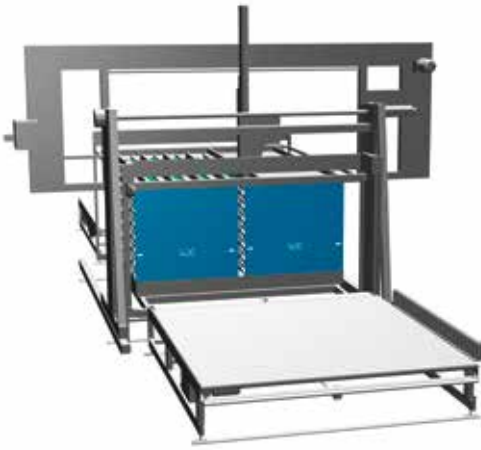
The horizontal CNC contour cutting centers C 5x/C 6x allow you to cut several mattresses on top of one another out of single material blocks. The device's horizontal, circulating and (if requested) oscillating bandknife cuts your desired profile into the material block. An optional rotating table can also be used to add further, 90°-offset profiles. During either one of these two steps, you have the option to select any desired length or width for your mattress.

**Material:** Blocks made of PU foam, latex, bonded foam and similar materials.

**Mattress profiles:** FK's special software makes it easier for you to develop, construct and optimize any desired mattress contour on a CAD workstation. The specified mattress contours can then be uploaded to the CNC control system and immediately cut. When combined with our optional rotating table, the result is an almost unlimited range of design options.



# Type | C 67

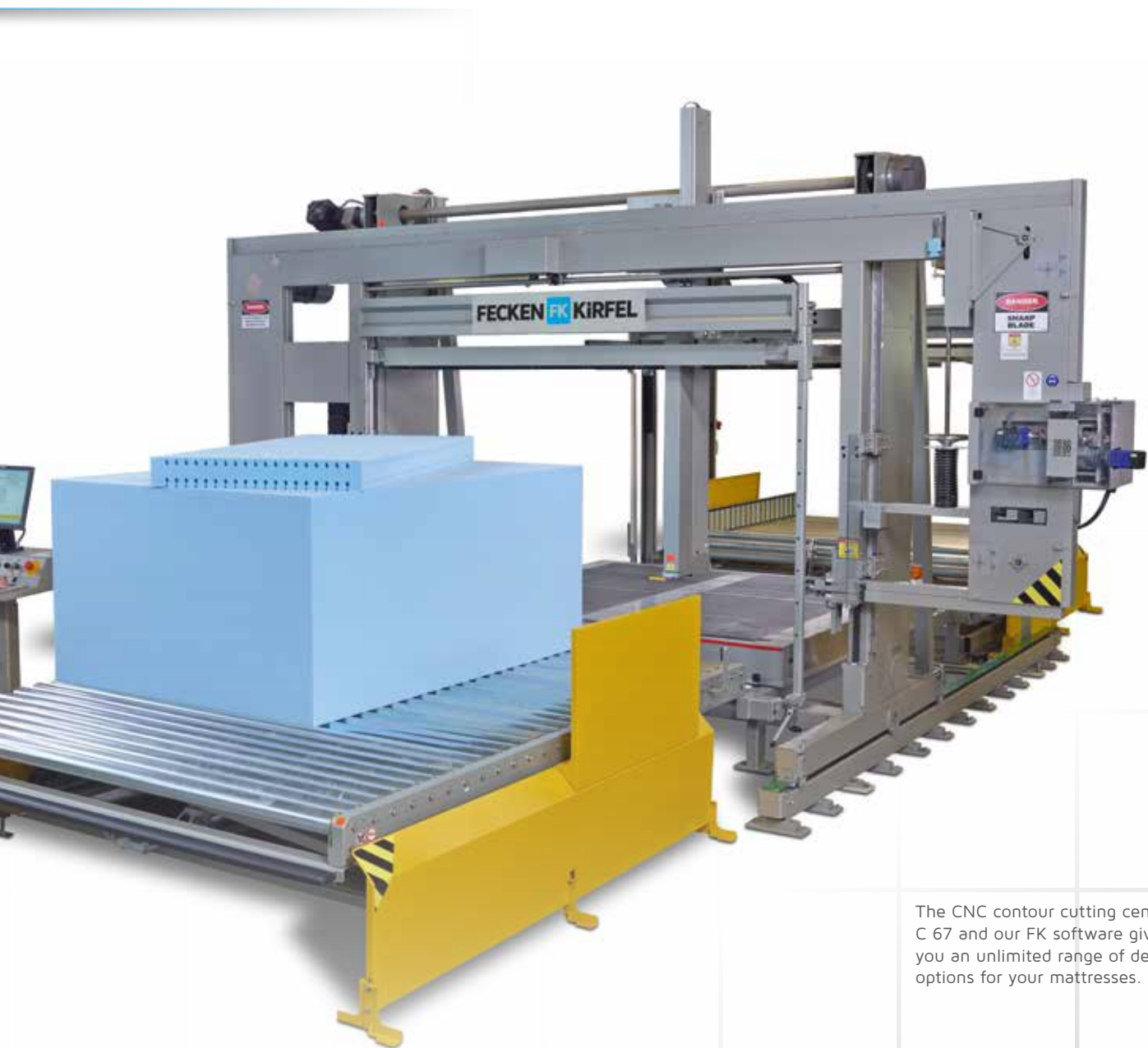


Optional rotating table  
to produce profiles offset by 90°

Create your own contours  
using FK software

Cut several mattresses  
simultaneously

Choose any length and width



The CNC contour cutting center  
C 67 and our FK software give  
you an unlimited range of design  
options for your mattresses.



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