

FECKEN  KIRFEL

Always a cut above – since 1870

Cutting Lines + Software

FK



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!

Want to increase your production volumes, lower your production costs, or expand your range and need to create new capacities for this? With Fecken-Kirfel cutting lines, you can make production fast and flexible, and also significantly reduce the need for staff input.

Fecken-Kirfel connects up your machines to create a fully automatic cutting line. Centralized machine control and a wide range of useful software tools guarantee minimal staff input requirements and a consistent process that is customized to your production needs.

You can easily integrate your existing machines into the cutting line or extend your existing line with new machines. It is also easy to incorporate third-party components such as transport conveyors.

Efficient Control

- Automation software and all components from one source
- Increased efficiency and reduced costs – including for small commissions/series
- Software solutions customized to your production requirements

Fully automatic
cutting lines

Minimal staff input

Save on materials and
costs

Integration of new and
older machines

Software tools for any
application



Johny Schulz
Herbert Kamphausen
Assembly group leaders



With our FKOpti-Sheet software, you can save up to 10 % material per block.

FULLY AUTOMATIC CUTTING LINES W 22 AND F 62

Produce Small and Large Series of Contour Parts Flexibly and Efficiently

The W 22 horizontal splitting machine combines with the F 62 contour cutting center and versatile FK software solutions to create a fully automatic cutting line.

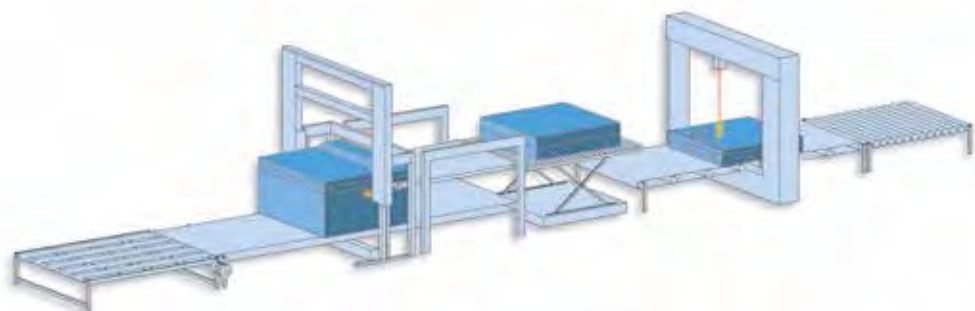
Using this line, you can split short blocks into even layers and cut out contours directly afterwards.

The Perfect Solution for Quick Processes

The W 22 splits the short block into the required layer thickness. The take-away conveyor then removes the required number of layers and feeds them into the F 62 contour cutting center via a scissor lift table.



Type | **W 22 and F 62**



High productivity

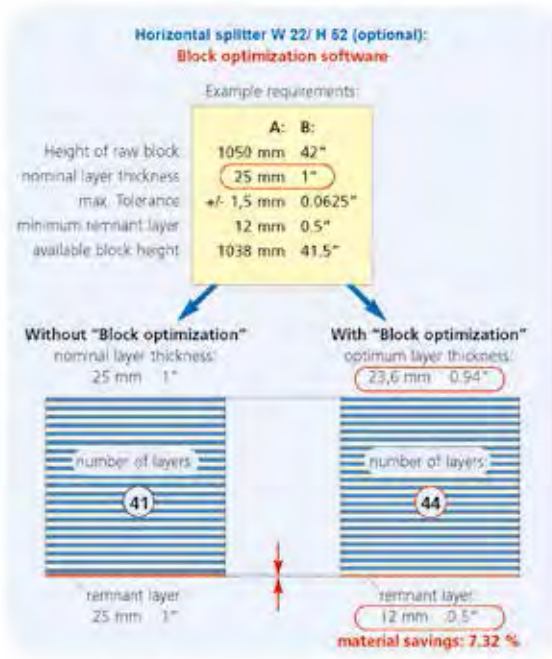
Low staff input

High efficiency

Quick, flexible production



W/F combination



FKOpti-Sheet

This software tool optimizes layer thickness when blocks are split and allows you to reduce residual layers. You can increase your production and save up to 10 % material per block.

2D/3D Nesting – Optimize Material Usage

The nesting software from Fecken-Kirfel generates optimized 3D nesting for contours from the order data. This gives the ideal number of layers and loads to make optimum use of the material and keep cutting time to a minimum.



With a click of the mouse, contours can be moved between loads.

The order lists and necessary data can be generated with every table calculation (e.g. MS Excel) or imported directly from the ERP system.

Component	Thickness	Quantity	Quality	Filename
660x457	30	24	EH36	660x457.dpr
ARM5100	30	32	EH36	ARM5100.dpr
BT95T10	30	56	EH36	BT95T10.dpr
457x241	50	28	HR43	457x241.dpr
BT95T15	50	24	EH36	BT95T15.dpr
K32S12	50	32	EH36	K32S12.dpr
T760364	50	24	HR43	T760364.dpr
WING5110	50	24	EH36	WING5110.dpr

Pick-by-View: Pick Contour Parts Quickly and Easily

Pick-by-View makes it much easier to sort the cut contour parts. The software shows the user the precise layer pattern of the cut material stack on a monitor on the machine. The parts to be removed are highlighted in colors so they can be easily identified and allocated to the correct order. Pick-by-View makes picking easy and efficient even at high speeds. Self-adhesive labels can also be printed out for each order part for identification later on.



First layer pattern before removal of parts.
Second layer pattern with parts already removed marked in red.



FKOrder: The Rapid Order Generator for Your Cutting Line

FKOrder checks the block storage, generates cutting orders from the existing nestings, generates the cutting data files and sends these to the W 22 and F 62 cutting machines. At the end of the cutting process, the software automatically updates the order lists and stock inventory. Blocks that have only been partly used are also taken into consideration.



Karl-Heinz Steffens
Assembly/service technician



I can pre-select and control the entire cutting process using a single operating terminal.

CUTTING LINE WITH T 6 OR T 8 TRIMMING MACHINE AND SHUTTLE

The T 6 and T 8 cutting machines are ideal for use in simple and complex cutting lines. Used in combination with a downstream, transversely movable transport conveyor (shuttle), the T 6 or T 8 supply multiple cutting lines quickly and efficiently with blocks prepared to their final size.

One operator alone can control the entire cutting line directly via the T 6 or T 8 operating terminal. It is easy to pre-select the source and target destinations of the blocks. Block transfer is then carried out entirely automatically. This efficient working method saves on staff costs and speeds up production.

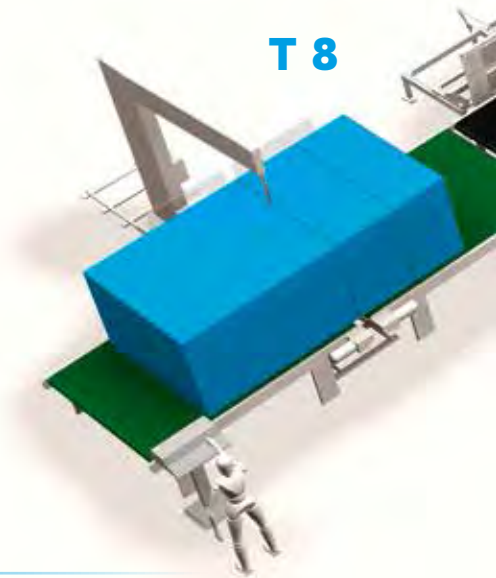
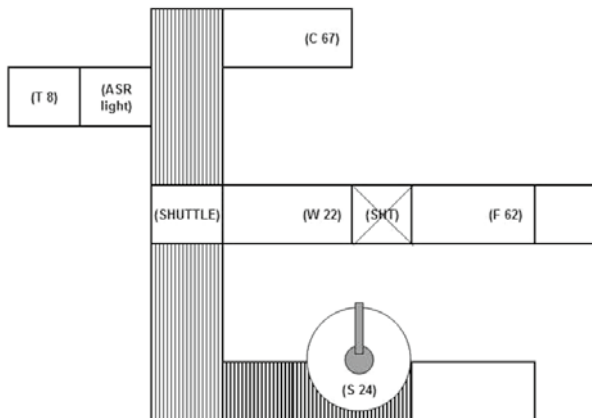
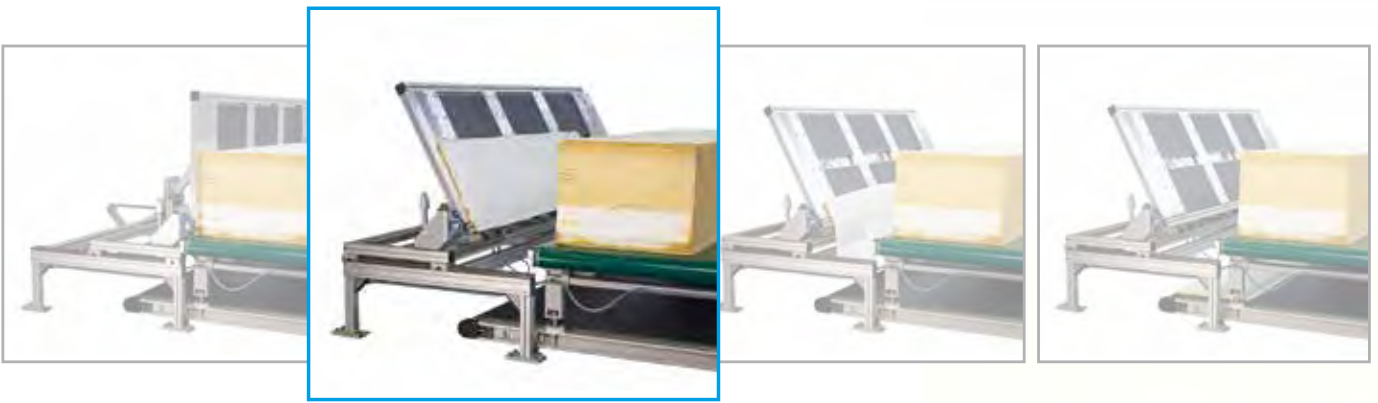
Versatile Combinations Possible

The T 6 or T 8 machines divide the block and/or trim it. The shuttle moves the block to the following machines based on the instructions from the operating terminal:

- CNC contour cutting center
- Horizontal splitting and stacking machines
- Profile cutting machines
- Packaging stations
- Other downstream machines

ASR – Automatic Scrap Removal

Fully automatic equipment that removes the trimmed layer on the opposite side to the operator.



The T 8 uses the shuttle to feed either the C 67 contour cutting center or the W 22 horizontal splitting and stacking machine with the downstream F 62 vertical contour cutting machine or the S 24 carousel splitting and stacking machine.

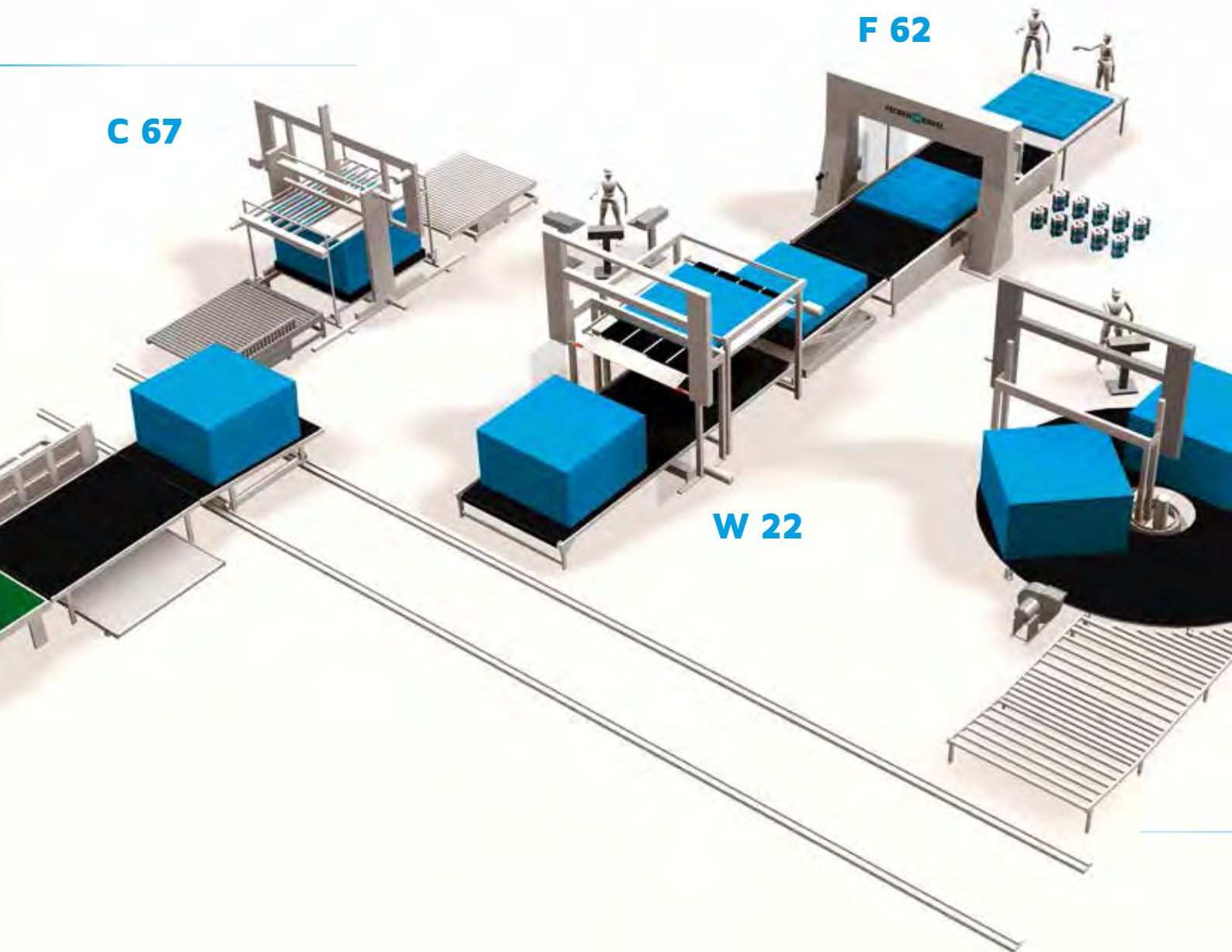
Perfect Trimming through Block Height Measurement

Fecken-Kirfel cutting lines also offer optional automatic block height measurement. A measuring light curtain scans the block surface and calculates its dimensions. The values are sent via TCP/IP to the W 22 splitting and stacking machine. The lowest measurement value is used as the basis for the block height. In this way, the splitting machine can trim perfectly with minimal material consumption, ensuring efficient use of material.

C 67

F 62

W 22



Type | T 6/T 8 and Shuttle

T 6/T 8 supplies multiple cutting lines

Start and destination can be pre-selected

Very low staff input

High flexibility

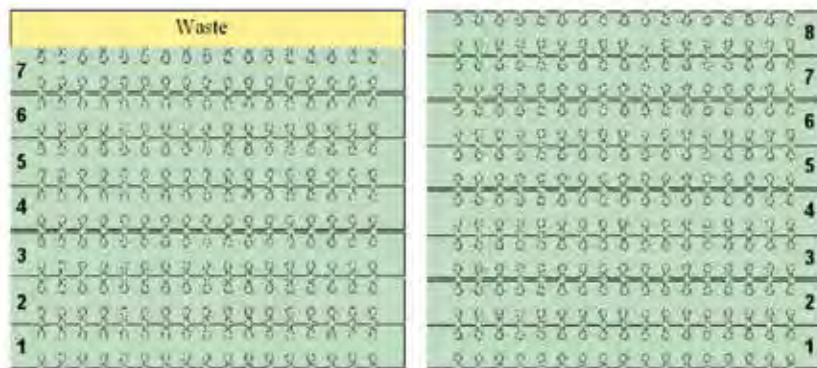


Cutting without FKOpti-Mat

Possible block height:	1100 mm
Height of a mattress (originally):	140 mm
No. mattresses:	7
Required height for 8 mattresses:	1120 mm

Cutting with FKOpti-Mat

Possible block height:	1100 mm
Height of a mattress (adjusted):	137.5 mm
No. mattresses:	8
Material saved:	14.3 %



S 24

More Mattresses with FKOpti-Mat

The FKOpti-Mat software optimizes layer thickness specifically for cutting horizontal contours, e.g. for mattress production. FKOpti-Mat can be used for all horizontal contour cutting centers. The tool adjusts the cutting order to blocks with lower heights or places multiple contours on the same block. This means you save up to 15 % in materials.

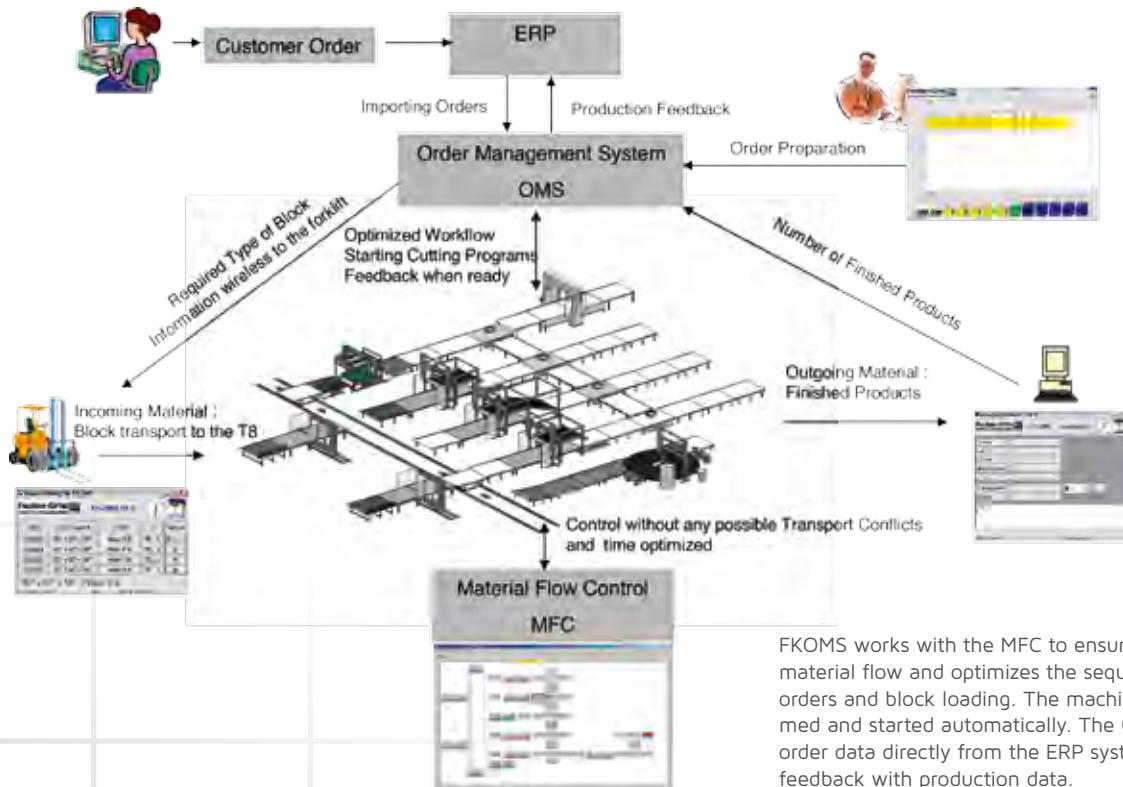
The nested contours are automatically compressed in height and the position of the hold-down device is adjusted accordingly. It is easy to set the maximum permissible height deviation and the actual block height can be controlled simply via a slide control.



Daniel Carreño Torres
Sales

FKOMS – EXTREMELY ECONOMIC WITH LARGE BATCHES

Cutting lines with an order management system (OMS) are ideal for extremely high production volumes. The FKOMS software controls all cutting lines entirely automatically in complex and large systems.



FKOMS works with the MFC to ensure a smooth material flow and optimizes the sequences for cutting orders and block loading. The machines are programmed and started automatically. The OMS takes the order data directly from the ERP system and returns feedback with production data.

Order Management System | **OMS**

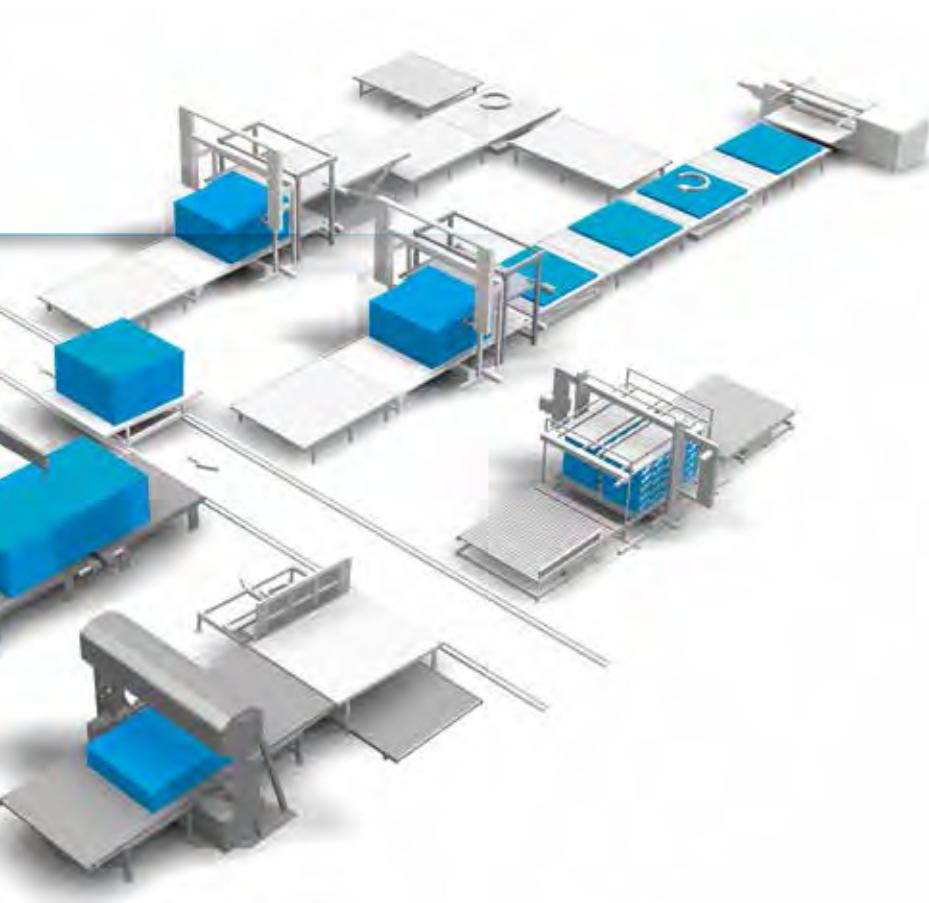
For high volumes

Improved material flow

Optimum order sequences

Automated machine start and programming

Connection to ERP system



Complex cutting lines with OMS.

Constant Flow: The Material Flow Controller (MFC)

The MFC software coordinates and optimizes material flow between all cutting machines. The tool reliably prevents conflicts such as two shuttles being placed on the same rail and optimizes material flow at crossing points.



The entire line can be remote-controlled via a central operating terminal, minimizing staff input. Current production status can also be monitored at any time.



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