FECKEN FK KIRFEL

Always a cut above – since 1870

Cutting machines
Splitting machines
Peeling machines

FLEXIBLE FOAM COLLECTOR

Flexible foams
Standard foams
HR foam
Visco foam
Bonded foams
Latex

Michael Förster
Warehouse Manager
Helga Hoffmeister
Purchasing

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.

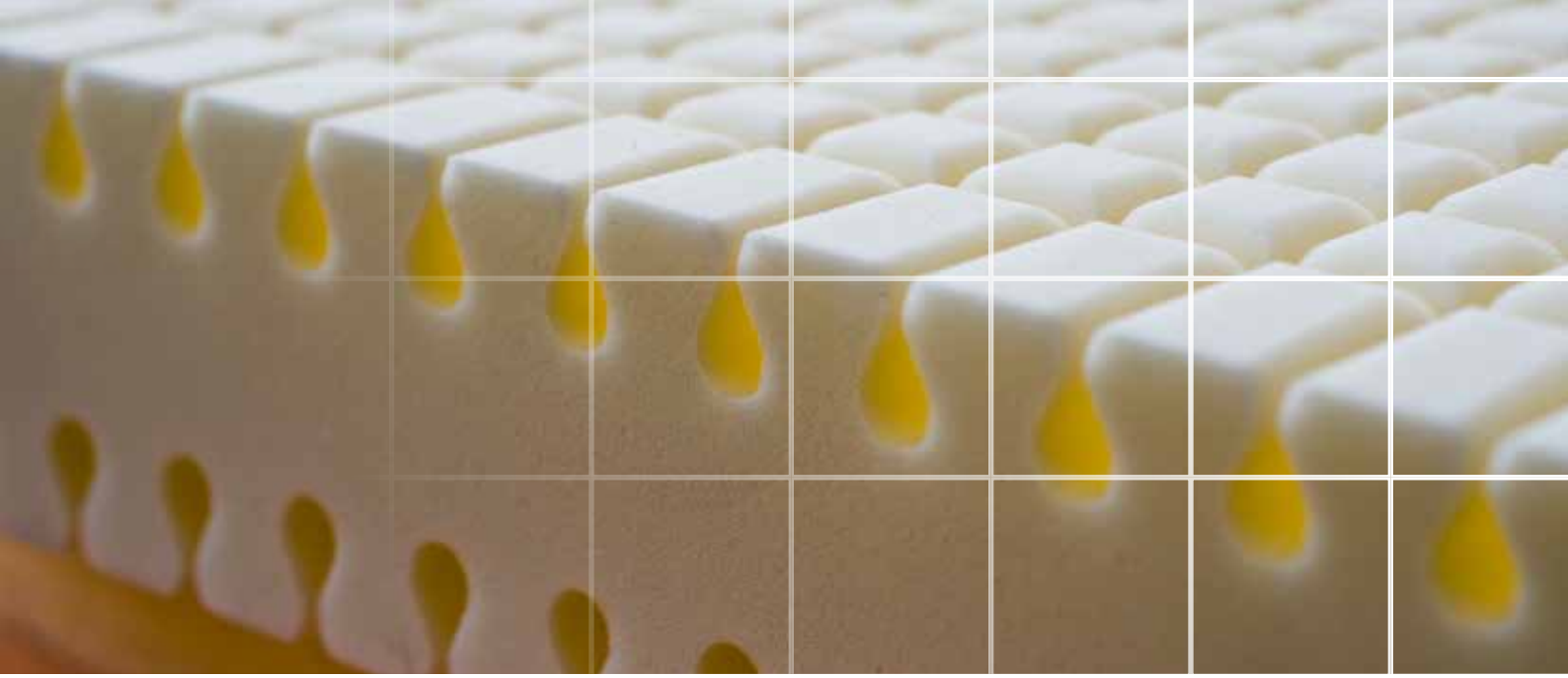
Founded in 1870

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!

It is impossible to imagine modern-day industry without flexible foams such as PU foam (polyether and polyester), open cellular PVC foam, latex, bonded foam, melamine-filled PU foams, and similar materials. Precision is key here: The foam blocks must be cut to length and trimmed on cutting machines before the material is split, contour cut or peeled. We provide a comprehensive range of cutting machines for the precise, rapid and efficient processing of flexible foams, allowing us to meet your most stringent quality requirements, and those of your customers.

Markus Frings
Head of Parts Production

TRAVELING AND STATIONARY CUT-OFF MACHINES

Materials: The machines are used to cut flexible foams, HR foam, visco foam, bonded foams and latex. All of the machines are able to process long and short blocks.

Machine design: The T 1 is a cross cutter with a stationary cutting unit, which is used to split long blocks into short blocks. During the cutting process, the cutting unit of the T 2 and T 4 machines is synchronized with the foam block. This means that these two types of machine can be used behind a continuous foaming line.

Equipment: The T 1 and T 2 work with a rotating bandknife, cutting from top to bottom. The T 4 uses an oscillating knife, and cuts transversely to the foaming direction.

T 2 traveling cut-off machine.

T 4 traveling cut-off machine.

Cut-off machines | **T 1, T 2, T 4**

Bandknife sharpened on one side:
T 1 stationary cross cutter

Rotating bandknife:
T 2 traveling cut-off machine

Oscillating knife:
T 4 traveling cut-off machine

Technical data	T 1	T 2	T 4
Distance from the foaming head		45 m	30 m
Bandknife	Rotating	Rotating	Oscillating
Cutting principle	Stationary	Traveling	Traveling
Grinding device	x	x	
Long/short blocks	x	x	x

T 1 stationary cross cutter
with alignmentstation.

Michael Greven
Customer Service Manager

CUT-OFF AND TRIMMING MACHINES

Materials: The machines are used to cut and trim flexible foams (polyether and polyester), HR foam, visco foam, bonded foams and latex.

Machine design: The material is fed into the V 111 via a manual sliding table. The V 51 and T 8 have a cutting unit that moves automatically.

Equipment: All our cut-off and trimming machines can also be supplied with a saw. The knife fitted to the T 8 can be rotated beyond the material to be cut by +/- 90 degrees in both directions. The T 8 can be positioned at the start of a cutting line.

Technical data	V 111	V 51	T 8
Movement of the unit	Stationary	Automatic	Automatic
Cutting angle	0°	0°	+/- 90°
Cutting directions	Two	Two	Four
Saws (optional)	x	x	x

Vertical cutting | **V 111, V 51, T 8**

Stationary cutting unit:
V 111 manual vertical cutting machine

Movable cutting unit:
V 51 automatic vertical cutting machine

Knife rotatable by +/- 90 degrees:
T 8 cut-off and trimming machine

T 8 cut-off and
trimming machine with
alignmentstation.

Leon Mohnen
Sales

AUTOMATIC HORIZONTAL SPLITTING AND STACKING MACHINES

Materials: The machines belonging to the W series are ideal for splitting and stacking PU foam blocks, open-cellular PVC foam, and bonded foam up to a maximum of 120 kg/m3.

Machine design: The W 21 has an aluminum oxide-coated sliding table with a vacuum, while the W 22 has an adhesive conveyor belt with a vacuum. Both machines cut blocks using a forward and reverse motion.

Equipment: The sliding table on the W 21 can be extended by 1000 mm in both directions. It is possible to extend the conveyor belt on the W 22 by 2000 mm in both directions. The high band tension of approximately 10 t guarantees small tolerances.

Technical data	W 21	W 22
Feed	Table	Belt
System operation		x
Long blocks (roll goods)		x

Horizontal splitting | **W 21, W 22**

Tabletop machine:
W 21 automatic splitting and stacking machine

Adhesive conveyor belt:
W 22 splitting and stacking machine

W 22 horizontal splitting and stacking machine with take-away conveyor.

W 21 automatic horizontal splitting and stacking machine with sliding table.

Three W 22 splitting and stacking machines in production.

H 51/H 52, H 24 E | Horizontal splitting

HORIZONTAL SPLITTING MACHINES

H 51/H 52

Materials: The H 51 is used for the horizontal splitting of PU foams (polyether and polyester), including those with high densities. It can also process filled foams (CMHR), bonded foams of up to 150 kg/m³ and technical foams.

Machine design: The H 51 uses an automatic table-feed system to convey the material placed on the sliding table to the rotating bandknife. During the reverse movement of the table, the knife guidance fitted to the H 51 enters the kerf, allowing the next stage to begin. This means that the H 51 can run fully automatically and unmanned. Alternatively, the H 52 is fitted with a conveyor belt for automatic loading and unloading.

H 24 E

Materials: The H 24 E splits blocks and slabs made from bonded foam and polyester, as well as semi-rigid PU foams (Baynat®), and similar materials.

H 24 E
with semi-rigid foam (Baynat®).

Technical data	H 51	H 52	H 24 E
Working widths	2200 mm	2200 mm	1400 mm, 1600 mm, 2000 mm, 2200 mm, 2600 mm
Max. block height	1300 mm, 1500 mm	1300 mm, 1500 mm	800 mm, optional: 1000 mm, 1300 mm
Material	150 kg/m³	150 kg/m³	200 kg/m³
Unit	Reinforced welded construction	Reinforced welded construction	Cast iron body
Feed	Table	Belt	Table

AUTOMATIC CIRCULAR SPLITTING AND STACKING MACHINE

S 2x

Materials: The S series machines are ideal for splitting PU foams (polyether and polyester), latex and similar materials, and bonded foams of up to approximately 120 kg/m^2.

Machine design: The blocks are placed on the aluminum oxide-coated table. The rotational speed is continuously adjustable.

S 24 with PU foam.

Technical data	S 20	S 22	S 24
Working widths	1800 mm	2200 mm	2600 mm
Exterior table diameter	4800 mm	5600 mm	6400 mm
Usable table area	Approx. 17 m^2	Approx. 24 m^2	Approx. 32 m^2
Cutting speed continuously adjustable between	10-85 m/min	10-100 m/min	10-100 m/min
Table rotations	Max. 5.7 Upm	Max. 5.7 Upm	Max. 5 Upm
Cut-off and stacking height	1300/1600 mm	1300/1600 mm	1300/1600 mm
Block dimensions	Number of blocks	Number of blocks	Number of blocks
1.00 x 2.00 m	4	7	9
1.25 x 2.00 m	3	5	7
1.40 x 2.00 m	3	5	6
1.60 x 2.00 m	2	4	5
2.00 x 2.00 m	-	2	4
2.00 x 2.20 m	-	2	3
2.15 x 2.15 m	-	-	3

Michael Schmidt
Assembly/Service Technician

R 21/88 bandknife peeling machine.

PRODUCTION OF ROLL GOODS

R 21/88

Materials: The R 21/88 peeling machine processes cylinders made from PU foam, and similar soft materials.

Application: The R 21/88 peels long, thin films from soft PU cylinders. These films are then processed by the R 88 wind-up machine.

Equipment: Our R 7 boring machine or our R 17 boring and mandrel inserting machine work alongside the R 21/88 by boring a hole through the cylinder or block.

W 22 + A 2/A 4

Materials: The W 22 processes PU foams (polyether and polyester), bonded foam up to a maximum of 120 kg/m^3, and similar materials.

Machine design: When working in combination with the A 2 wind-up machine or the A 4 gluing and wind-up machine, the W 22 automatic splitting machine is able to produce roll goods. The machine unit comprises an adhesive conveyor belt with a vacuum and a cutting unit. Conveyor belts that match the length of the block to be processed (10–60 m) can also be fitted. In the W 22 + A 2, the length of the roll always corresponds to the length of the block. The A 4 gluing and wind-up machine is able to extend the length of the roll to multiple times that of the block. Both types of machine are suitable for one-man operation.

Production of roll goods | **R 21/88, W 22 + A 2/4, H 32 LF**

Small volumes:
R 21/88 peeling machine

Small to medium-sized volumes:
W 22 + A 2/A 4 automatic splitting and stacking machine

Large volumes:
H 32 LF loop

H 32 LF

Materials: The H 32 LF loop processes long blocks made from PU foam such as polyether and polyester.

Operation: The H 32 LF splits long blocks into thin sheets before winding them into roll goods. Using the machine within a loop allows endlessly glued blocks to be split in a circulating process and limited long blocks to be split in a forward and reverse motion. For ease of operation, the A 1 wind-up machine may optionally be placed on the ground.

H 32 LF loop machine.

C 6x | Contour cutting

C 67 horizontal contour cutting center.

HORIZONTAL CONTOUR CUTTING CENTERS

C 6x

Materials: The C 6 x contour cutting center processes blocks made from PU foam (polyether and polyester), latex, bonded foam, Basotect (melamine), PE foam, and similar materials.

Equipment: The C 67 CNC-controlled contour cutting center has an operating speed of 40 m/min, which can be increased to a maximum of 70 m/min. The contour cutting center can be fitted with an optional rotating table, a job queue feature and automatic loading and unloading devices. The central knife guidance can move automatically and is equipped with a slab hold-down device, allowing the machine to be used for a flexible and versatile range of operations.

Technical data	C 66	C 67	C 68	C 69
Working range (L x W)	2300 x 2300 mm 2500 x 2500 mm (optional) 2900 x 2900 mm (optional)	2300 x 2300 mm 2500 x 2500 mm (optional) 2900 x 2900 mm (optional)	2300 x 2300 mm 2500 x 2500 mm (optional)	2300 x 2300 mm 2500 x 2500 mm (optional)
Cutting speed	40 m/min 70 m/min (optional)	40 m/min 70 m/min (optional)	15 m/min	15 m/min
Bandknife	Rotating	Rotating	Oscillating	Oscillating
Twist angle	+/- 360°	+/- 360°	∞	∞
Grinding unit	Yes	Yes	No	No
Central knife guidance	Yes	Yes	Yes	Yes
Slab hold-down device	Yes	Yes	Yes	Yes
Automatic rotating table	optional	Yes	Optional	Yes

C 6x horizontal
contour cutting centers

F 62 vertical
contour cutting center

VERTICAL CONTOUR CUTTING CENTER

F 62

Materials: The F 62 contour cutting center is ideal for processing a variety of materials: Blocks and slab goods made from PU foam, PE foam, EVA, fleece/wadding, bonded foam, materials coated with textiles, slabs laminated with self-adhesive film, felts, and similar materials.

Equipment: The F 62 CNC-controlled contour cutting center has a cutting speed of 70 m/min, which can optionally be increased to 100 m/min. The space-saving design coupled with the patented movement of the knife enable a cutting angle of +/- 360° to be achieved.

F 62 vertical contour cutting center.

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