

Cutting machines
Splitting machines
Peeling machines

TECHNICAL PLASTICS

Polyethylene
EVA
Cellular rubber
Expanded rubber
Rubber
Polyurethane foam





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 company

Cutting machines „Made in Germany“

For processing a wide variety of materials

World leader in technology and quality



HELLO AND WELCOME!

Cutting machines for rubber and compact plastics are used in a wide range of industries. Mechanical processing of the materials is varied, but often slab goods are cut horizontally in thin layers or slabs stuck into web material are peeled into roll goods. Recently, slab goods have been increasingly used for cutting contours. As these are generally top-quality materials, absolute cutting accuracy in the processing machine is an economic necessity. The Fecken-Kirfel cutting machines provide you with numerous options for processing a wide range of capacity requirements. In addition, our machines always guarantee the greatest possible cutting accuracy and therefore meet your quality expectations, and those of your customers.

Manual Splitting Machine 04
K 21 | K 31

Profile Cutting Machine 04
D 21 | D 31

Automatic Splitting Machine H 24 06

Automatic Loop Splitting Machine H 42 08

Manual Splitting Machine 10
G 1 | G 11

Peeling Machine 11
R 23 | R 24

Automatic Vertical Cutting Machine V 51 | 5 12

Trimming Machine 13
T 8 | T 8/5 | T 8 S

Horizontal Contour Cutting Center C 5x | C 6x 14

Vertical Contour Cutting Center F 62 15

Splitting and profiling | K 21, K 31, D 31



Dirk Welters
Bandknife production

Splitting Machine K 21

Reinforced
Splitting Machine K 31

Reinforced
Profile Cutting Machine D 31

Production of
roll goods

| Technical data | K 21 | K 31 | D 31 |
|----------------------|---------|---------|---------|
| Splitting | x | x | |
| Profiling | | | x |
| Operators | 2 | 2 | 2 |
| Tolerance in mm | ± 0.1 | ± 0.1 | |
| Residual layer | without | without | without |
| Automatic knife feed | x | x | x |
| Roller feed | x | x | x |
| Roll goods | x | x | x |
| Slab goods | x | x | x |

MANUAL BANDKNIFE SPLITTING AND PROFILING MACHINES

Material: The splitting machines are used for splitting cellular rubber (neoprene), expanded rubber, sponge rubber, EVA, PE foam, EPP foam (expanded polypropylene), PVC foam, reconstituted bonded rubber, and other materials with a Shore hardness of max. 70° scale A.

Operation: The material to be split is guided to the circulating bandknife by two feed rollers.

Equipment: For the production of roll goods, the machines K and D can be equipped with a Wind-Off Machine R 10 and two Wind-Up Machines R 39 or R 88.



Splitting Machine K 21 and R 10 and two R 39.



Profile Cutting Machine D 31.



Manual Bandknife
Splitting Machine K 21.



Lars Nelles
Sales Manager

All-rounder
Splitting Machine H 24 A

Splitting Machine H 24 E

for soft and thin materials
Splitting Machine H 24 F

Reinforced
Splitting Machine H 24 G

H 24 A

Material: For splitting slab goods made of cellular rubber (neoprene), expanded rubber, sponge rubber, EVA, PE foam, EPP foam (expanded polypropylene), PVC foam, and other materials.

AUTOMATIC BANDKNIFE SPLITTING MACHINES

The splitting machines in the H 24 series with sliding table work automatically, in forward and reverse motion.

H 24 E

Material: For semi-rigid foam (e.g., TF foam for car headliners), Baynat®, bonded foam up to 400 kg/m³ and PE foam.

H 24 F, H 24 T

Material: For particularly soft and/or adhesive materials (e.g., soft neoprene) and extremely thin layer thicknesses.

Equipment: The H 24 F is equipped with a vacuum upper roller which sucks in the material during the splitting process and transfers it to a take-away conveyor. The H 24 T has a special adhesion process for very thin layers up to 0.15 mm.

H 24 G

Material: For harder polyethylene, harder EVA, „Vulkollan“, reconstituted layer rubber, rubberized cork, cork, and highly-compressed compact plastics (e.g., UHMW).

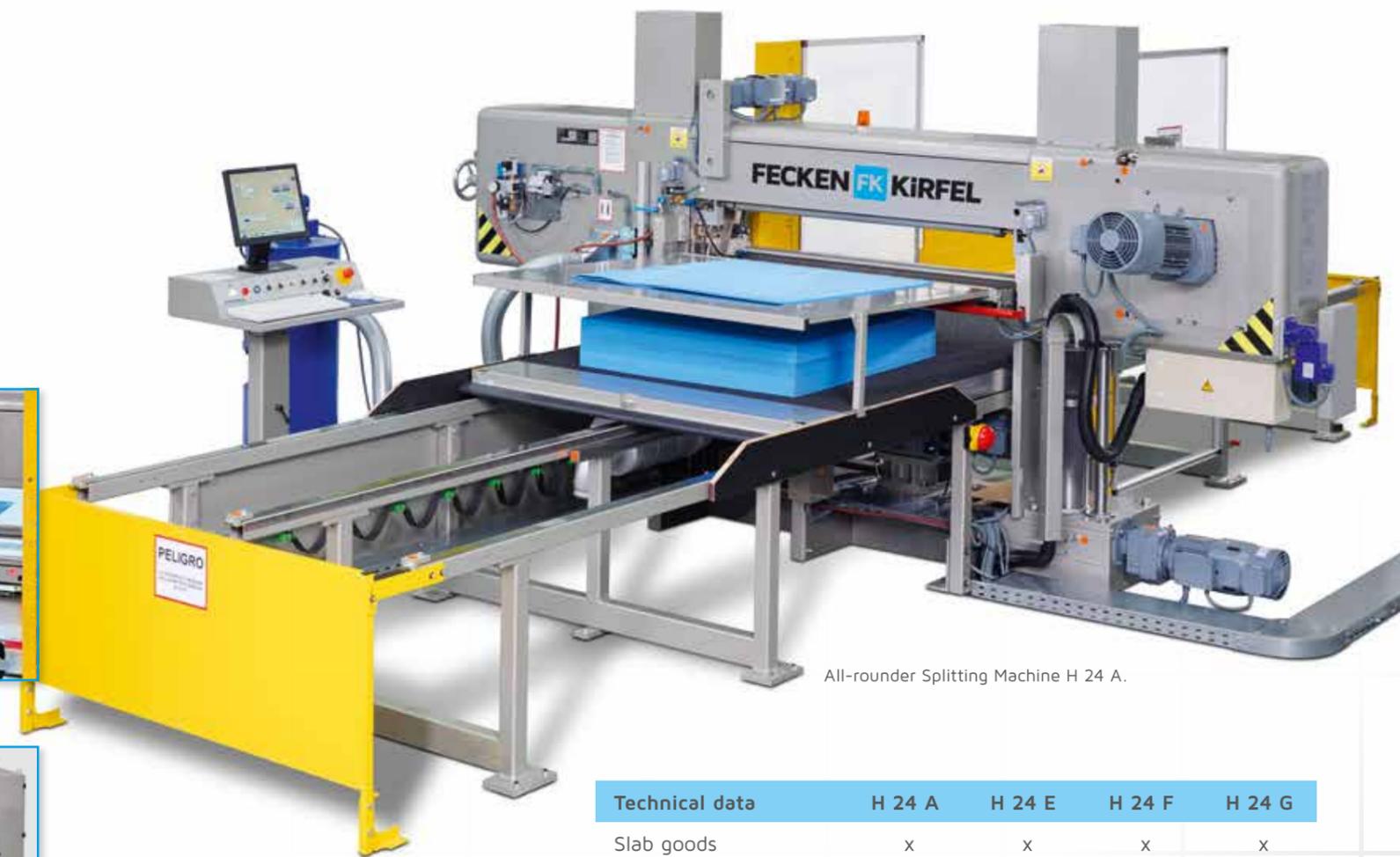
Equipment: Drives, table and vacuum of the H 24 G are reinforced. Additional rollers support the upper roller.



Splitting Machine H 24 F.



Splitting Machine H 24 G.



All-rounder Splitting Machine H 24 A.

| Technical data | H 24 A | H 24 E | H 24 F | H 24 G |
|----------------------------|--------|--------|---------|--------|
| Slab goods | x | x | x | x |
| Operators | 1 | 1 | 1 | 1 |
| Tolerance in mm | ± 0.1 | ± 0.1 | x ± 0.1 | ± 0.1 |
| Residual layer in mm | 3 | 2 | 2 | 2 |
| Table feed | x | x | x | x |
| Automatic knife adjustment | x | x | x | x |



Johny Schulz
Herbert Kamphausen
Construction/Service technicians

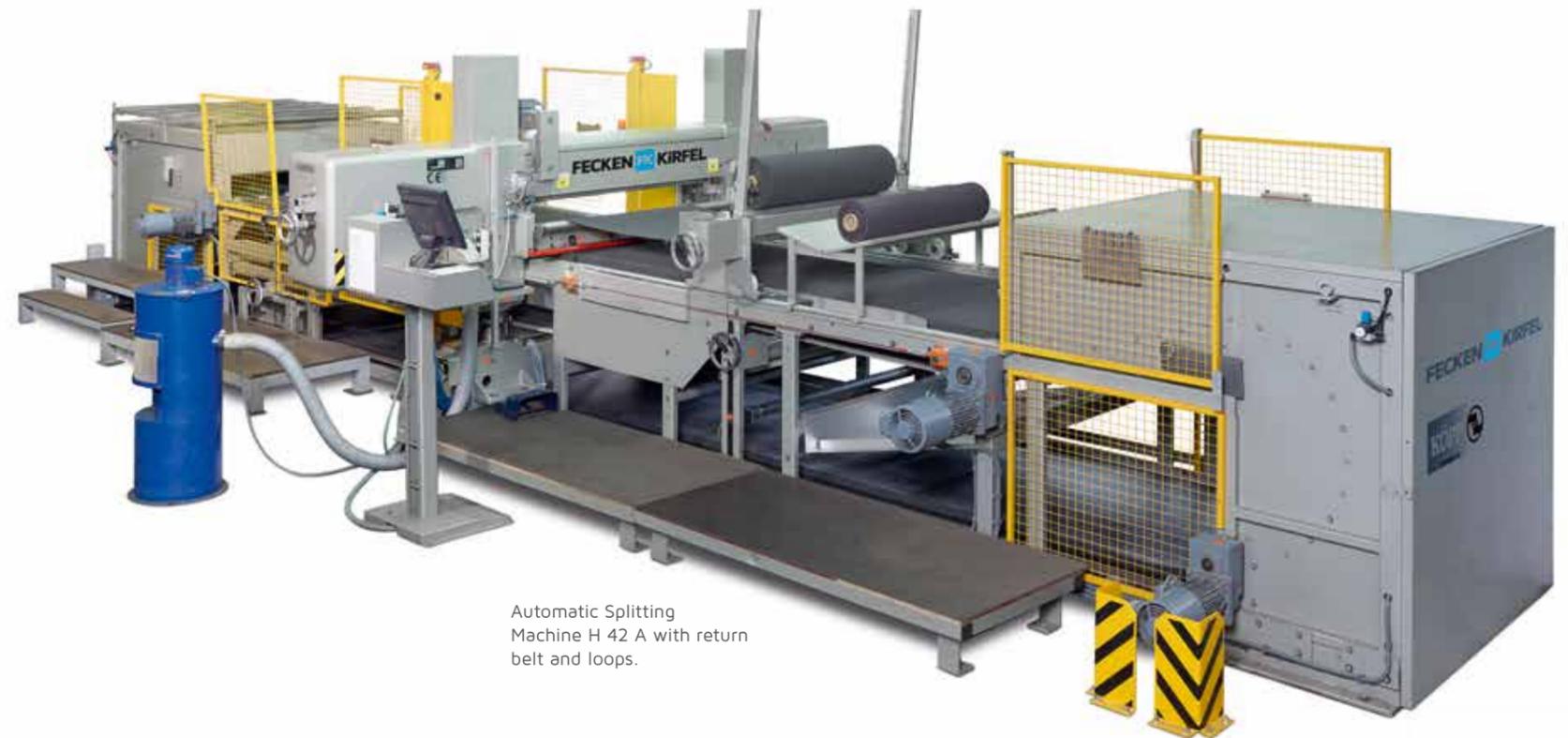
| Technical data | H 42 A |
|----------------------|--------|
| Roll goods | x |
| Slab goods | x |
| Operators | 1 |
| Tolerance in mm | ± 0.1 |
| Residual layer in mm | 4 |
| Belt feed | x |
| Automatic knife feed | x |

AUTOMATIC LOOP BANDKNIFE SPLITTING MACHINE

H 42 A

Material: For splitting slab goods or roll goods made of cellular rubber (neoprene), expanded rubber, sponge rubber, EVA, PE foam, PVC foam, and other materials.

Equipment: The Splitting Machine H 42 A can be supplied with various equipment options: In the basic version, the H 42 A machine is equipped with a conveyor belt, and slabs and blocks can be split in forward and reverse motion. If the machine is equipped with an additional return belt under the machine, then splitting of infinite adhered web goods in a circulating process is possible. When fully equipped, the H 42 A not only has the additional return belt under the machine, it also has deflection devices (loops), which allow for the splitting of slab goods in circulating operation and the production of roll goods from finite and infinite web goods.



Automatic Splitting
Machine H 42 A with return
belt and loops.



Splitting Machine G 1.

MANUAL BANDKNIFE SPLITTING MACHINES

G 1

Material: The G 1 splitting machine is used for splitting solid rubber slabs, neolite, and polyurethane elastomer slabs with a Shore hardness of 50–95° Shore scale A when cold and PVC flooring slabs and other materials when warm.

Operation: The material to be split is fed to the circulating bandknife by two feed rollers with additional back-up rollers.

G 11

Material: In principle, the Splitting Machine G 11 is the same as the G 1 machine, but it is used particularly for the splitting of thin foils.

Operation: The lower feed roller of the G 11 machine runs in slide bearings in order to guarantee high run-out accuracy.



Splitting Machine G 11 with wind-up and wind-off device.

| Technical data | G 1 | G 11 |
|----------------------------|---------|---------|
| Roll goods | x | x |
| Slab goods | x | x |
| Operators | 2 | 2 |
| Tolerance in mm | ± 0.1 | ± 0.1 |
| Residual layer | without | without |
| Roller feed | x | x |
| Automatic knife adjustment | x | x |

Splitting Machine G 1

Splitting Machine G 11

Peeling Machine R 23

Peeling Machine R 24

BANDKNIFE PEELING MACHINES

The R 23 and R 24 are combined with a wind-up device. The material cylinder positioned on the driven peeling mandrel is brought into a rotary motion and cut according to the set layer thickness. The peeled material web is continually wound up by the next device.

R 23

Material: The Bandknife Peeling Machine R 23 is used where thin foils are economically produced from cylinders of cork, rubberized cork, bonded foam, „Vulkollan,” and similar materials.

R 24

Material: The R 24 peeling machine is used for the production of webs and foils from reconstituted bonded rubber, polyurethane elastomers (full „Vulkollan”), and similar materials.



Peeling Machine R 23.



Peeling Machine R 24.

| Technical data | R 23 | R 24 |
|----------------------|---------|---------|
| Roll goods | x | x |
| Slab goods | | |
| Operators | 1 | 1 |
| Tolerance in mm | ± 0.1 | ± 0.1 |
| Residual layer | without | without |
| Roller feed | x | x |
| Automatic knife feed | x | x |

V 51/5 | Vertical cutting



Lutz Weinberg
Technical Editor

Cut-off and trimming mode | T 8, T 8 S, T 8/5

Vertical Cutting Machine V 51/5

Cut-Off and Trimming Machine T 8 S

T 8, T 8 S AND T 8/5

Material: For trimming slabs and blocks of PU foam, viscose foam, cellular rubber, PE foam, bonded foam, viscose sponge material, expanded rubber, etc.

Operation: The machines operate with conveyor belts in front and behind the knife as well as a movable cutting unit in the T 8, T 8/5 and T 8 S. The knife guides are turned, which allows for both trimming of all four sides and division of the slabs and blocks.

AUTOMATIC, VERTICAL BANDKNIFE CUTTING MACHINE

V 51/5

Material: The materials to be cut are flexible PU foam, cellular rubber, PE foam, bonded foam, viscose sponge material, expanded rubber, etc.

Equipment: The machine has a movable cutting unit and a stationary aluminium material table.



Vertical Bandknife Cutting Machine V 51/5.

| Technical data | V 51/5 |
|------------------------|--|
| Blocks | x |
| Slab goods | x |
| Operators | 1 |
| Tolerance in mm | ± 1 mm Double cut ± 0.5 mm Single cut |
| Cutting directions | 2 |
| Aluminium table | x |
| Saw | x |
| Smooth knife | x |
| Calotte grinding knife | |
| Toothed knife | x |

| Technical data | T 8 S | T 8 + T 8/5 |
|------------------------|-------|-------------|
| Blocks | x | x |
| Slab goods | x | x |
| Operators | 1 | 1 |
| Tolerance in mm | ± 1-3 | ± 1-3 |
| Cutting directions | 4 | 4 |
| Conveyor belt | x | x |
| Saw | x | |
| Smooth knife | x | x |
| Calotte grinding knife | | |
| Toothed knife | x | |



Trimming Machine T 8 S.



HORIZONTAL CONTOUR CUTTING CENTERS

All horizontal and vertical contour cutting centers from Fecken-Kirfel are characterized by the use of state-of-the-art CNC and servo technology. They are particularly well-suited for cutting PE foam, bonded and melamine foam, as well as other technical foams.

C 55, C 56, C 57

Equipment: The circulating bandknife is sharpened during the cutting process, thereby ensuring a dust-free, smooth cutting surface.

C 66, C 67

Equipment: The Horizontal CNC Contour Cutting Centers C 66 and C 67 work with a maximum cutting speed of 70 m/min. In combination with optimized parameters and state-of-the-art servo technology, the C 66 and C 67 deliver even shorter cutting times.

In these designs the circulating bandknife is also sharpened during the cutting process, thereby ensuring a dust-free, smooth cutting surface.

C 68, C 69

Equipment: The oscillation technology is ideal for cutting technical materials, as well as contours with sharp edges or small radii with small tolerances. Wear parts are minimized, what makes this machine especially economic.



Horizontal Contour Cutting Center C 56.



Horizontal Contour Cutting Center C 69.

| Technical data | C 55 | C 56 | C 57 | C 66 | C 67 | C 68 | C 69 | F 62 |
|--|------|------|------|------|------|------|------|------|
| Blocks | x | x | x | x | x | x | x | x |
| Slab goods | | | | | | | | x |
| Operators | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Table pad | x | x | | x | | x | | |
| Conveyor belt | | | x | | x | | x | x |
| Transport conveyor for loading and unloading | | | x | | x | | x | x |
| Circulating knife | x | x | x | x | x | | | x |
| Grinding unit | x | x | x | x | x | | | x |

VERTICAL CONTOUR CUTTING CENTER

F 62

Equipment: Due to the patented knife motion, the F 62 can cut any contours with a cutting angle of +/- 360°, and the space required is reduced to a minimum.



Vertical Contour Cutting Center F 62

Horizontal
Contour Cutting Centers C 5x

Horizontal
Contour Cutting Centers C 6x

Vertical
Contour Cutting Center F 62



Fecken-Kirfel GmbH & Co. KG | Prager Ring 1-15 | 52070 Aachen | Germany

Postfach 10 08 54 | 52008 Aachen | Germany | Tel. +49 241 18202-100 | Fax +49 241 18202-752 | info@fecken-kirfel.de | www.fecken-kirfel.de

Fecken-Kirfel America, Inc. affiliated to Fecken-Kirfel GmbH & Co. KG | Aachen | Germany

6 Leighton Place | Mahwah, N.J. 07430 | USA | Phone +1 201 891-5530 | Fax +1 201 891-0129 | info@fk-am.com