

# FECKEN **FK** KIRFEL

Always a cut above – since 1870

Automatic Bandknife Splitting Machines

Type | **H 31** | **H 24 E**

Type | **H 24 A**

Type | **H 24 F** | **H 24 T**

Type | **H 24 G**



Monika Marcinkowski

Purchase

René Matt

Purchase Manager

“

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

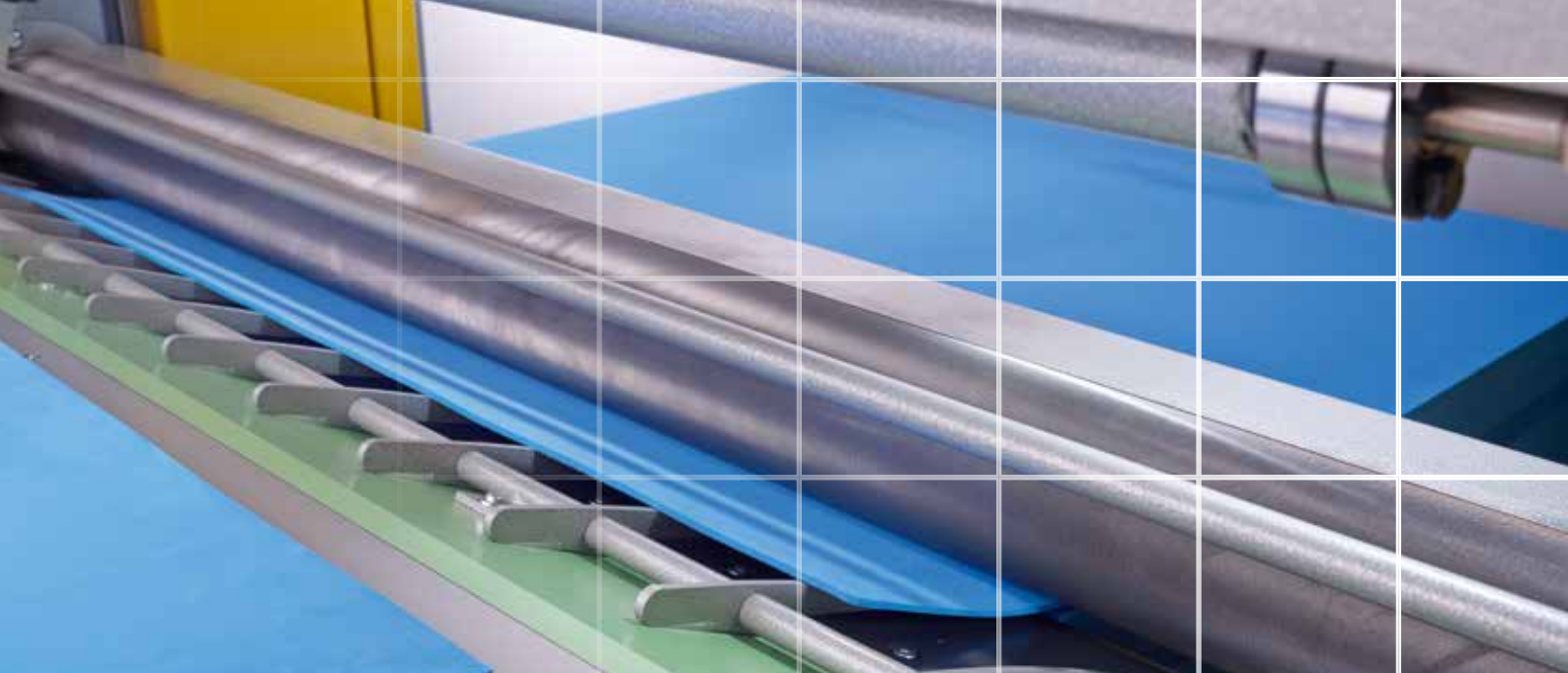
Independent  
family-owned company

Cutting machines  
„Made in Germany“

For processing  
a wide variety of materials

World leader in technology  
and quality





## HELLO AND WELCOME!

Fecken-Kirfel offers various designs of the H series for economical cutting of blocks and slabs of many different materials into layers. Each machine type is ideally suited for certain kinds of materials. This means that you always get exactly the machine which delivers the best results for your applications and for the materials you use – in a high-quality and economical manner.

Throughout their whole lifespan the machines cut extraordinarily consistently with very low tolerances. All bandknife splitting machines are constructed to be particularly robust with a cast iron machine body.

The fully-automatic bandknife splitting machines are used in the following industries: Packaging industry for electronic components; automotive industry; construction industry, in particular for seals and for noise insulation and shock absorption; leisure industry for the production of sports bandages, wetsuits, and special clothing.

**Very low tolerances**  
+/- 0.1 mm

**Particularly robust**  
construction

**Cast iron**  
machine body

**Various designs for**  
different material types



**Matthias Seitz**  
After-sales service engineer



The automatic bandknife splitting machines are available in different working widths, working lengths, and cutting heights so you'll always find the right solution.

## THE SOLUTION FOR HORIZONTAL SPLITTING ON A STABLE SLIDING TABLE

The materials to be split need to be reliably fixed. In types H 31 and H 24 E, the slabs are placed so they are almost „unshakeable“ on a sliding table coated with adhesive special aluminium oxide.

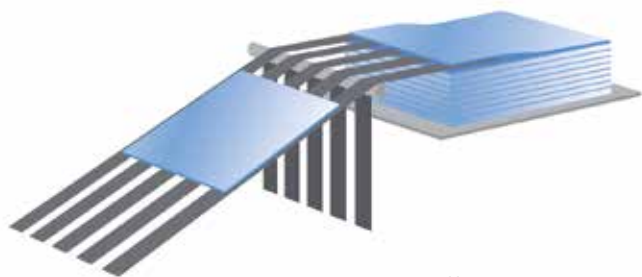
**Area of application:** Blocks and slabs are automatically split into exact layers and manually removed by one operator.

**Material:** PU foam, semi-rigid TF foam and bonded foam up to 200 kg/km<sup>3</sup> (400 kg/km<sup>3</sup>), Basotec® and other materials of a similar consistency.

**Equipment:** The bandknife is adjusted in the circulating production and therefore, even when worn, goes into the ideal knife position. The cast-iron construction and the specially-formed knife beam are particularly robust.



# Type | **H 31 and H 24 E**

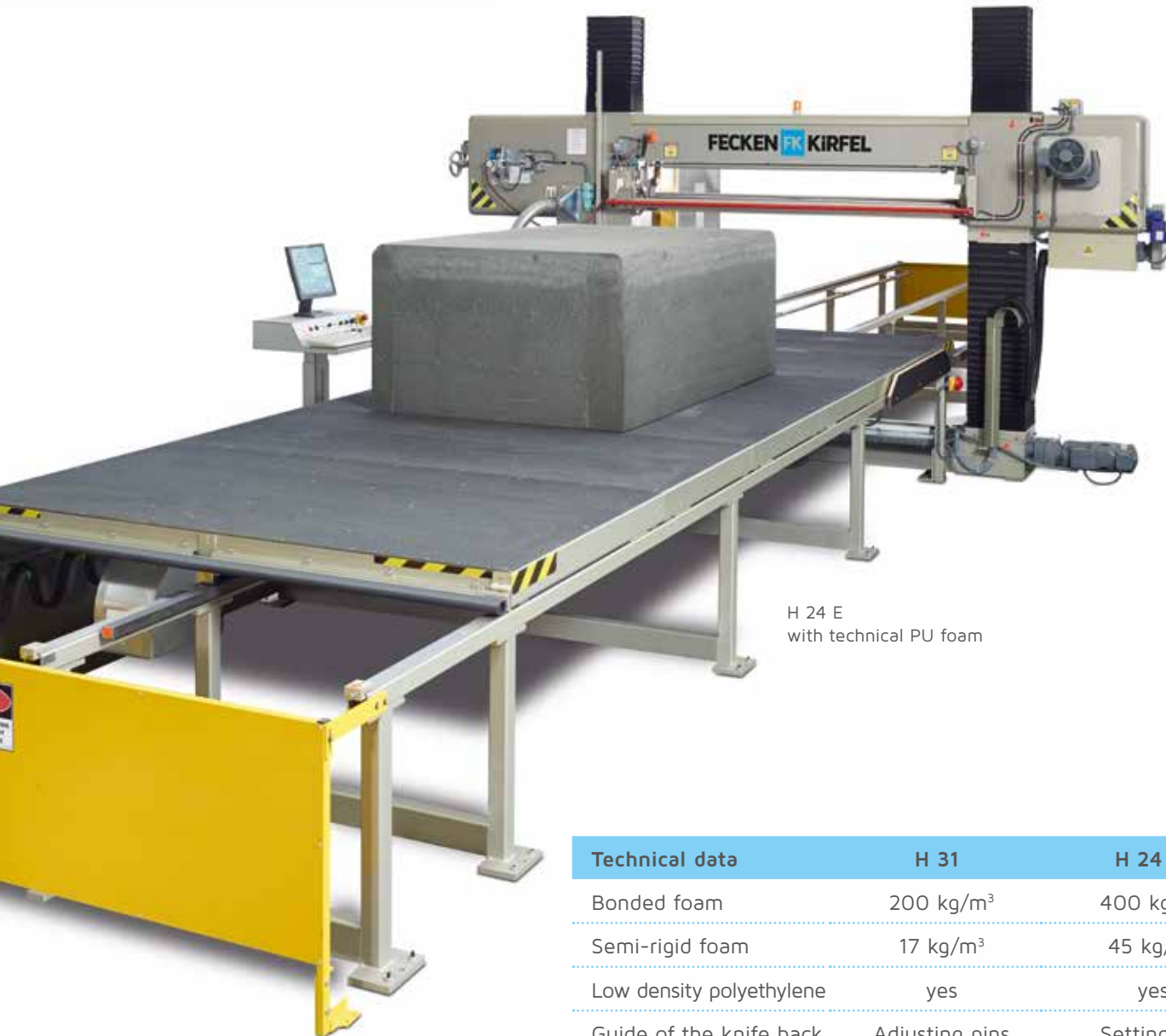
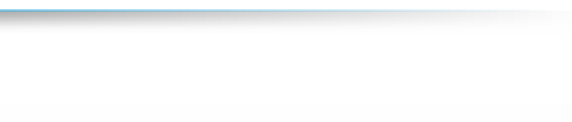


Stacking device: More efficiency due to automated processes.

Bandknife is automatically adjusted

consistent cutting quality

robust knife beam



H 24 E  
with technical PU foam

Technical data	H 31	H 24 E
Bonded foam	200 kg/m <sup>3</sup>	400 kg/m <sup>3</sup>
Semi-rigid foam	17 kg/m <sup>3</sup>	45 kg/m <sup>3</sup>
Low density polyethylene	yes	yes
Guide of the knife back	Adjusting pins	Setting gib



**Martin Ring**  
Construction/service technician



I can completely handle the machine myself, I do not need a second man to complete the splitting of the blocks.

## ALL-ROUNDER FOR A WIDE RANGE OF MATERIALS

Vacuum sliding table and pressure roller reliably fix the material to be split. The material can be split into layers with tolerances of  $\pm 0.1$  mm, up to a residual layer of 2 mm.

**Area of application:** Blocks and slabs are automatically split into exact layers and manually removed by one operator.

**Material:** Slabs of cellular rubber (neoprene), PE foam, EVA, expanded and sponge rubber, PVC foam, as well as other materials of a similar consistency.

**Equipment:** The bandknife is adjusted in the circulating production and therefore, even when worn, goes into the ideal knife position. The cast-iron construction and the specially-formed knife beam are particularly robust. The drives are particularly efficient.

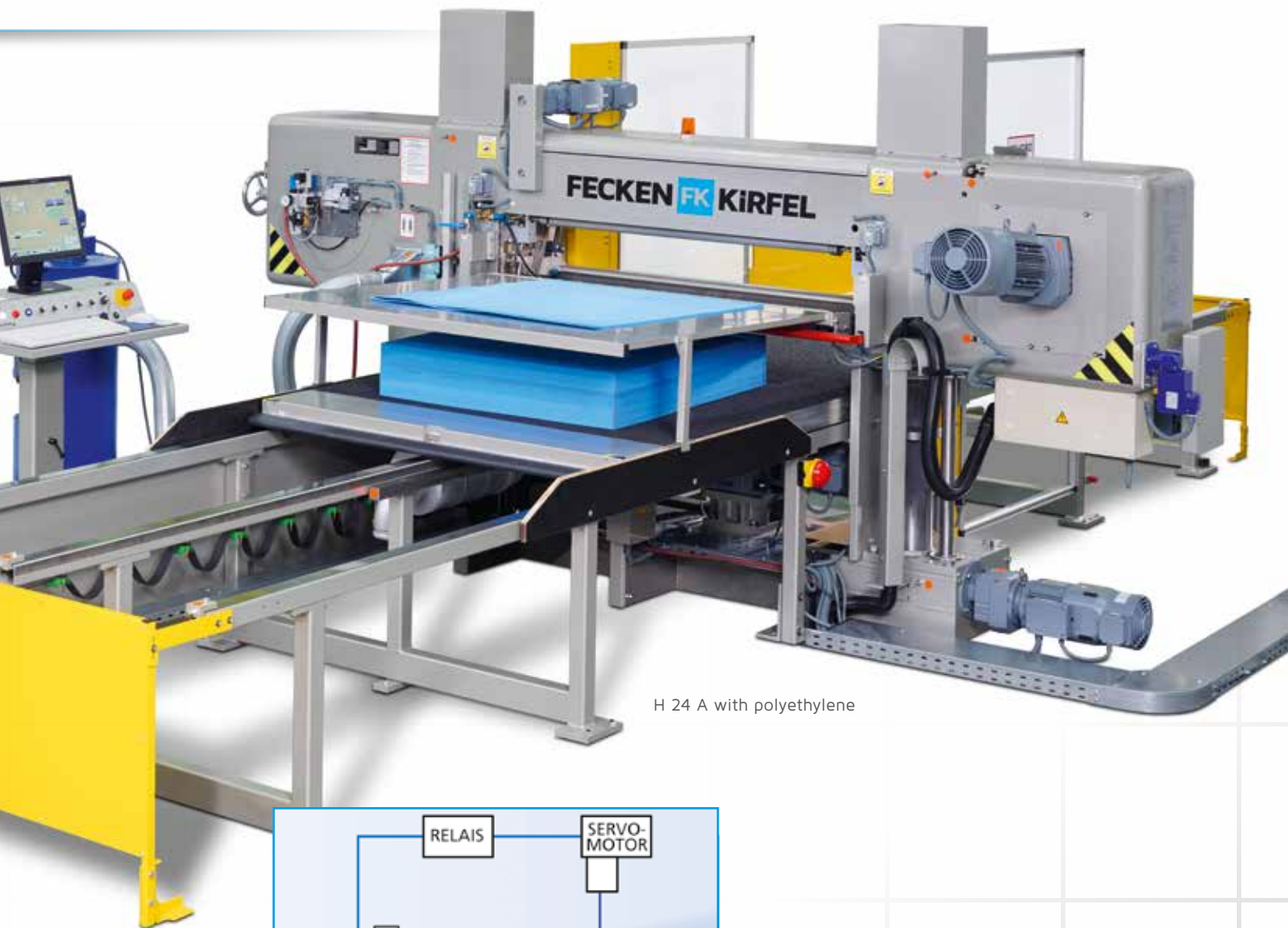


# Type | **H 24 A**

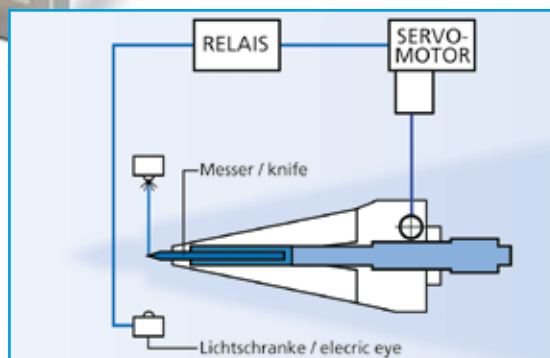
very wide range of materials

very thin residual layer

consistent cut quality



H 24 A with polyethylene



The following applies for all H types: The bandknife is automatically adjusted with the aid of a light barrier and a servomotor. The ratio between the material to be cut, the knife tip, and the knife guide remains constant. This means that a consistent cut quality is achieved over the entire lifespan of the bandknife.



**Dipl.-Ing. Francis Pinckers**  
Vice President



Wow! I wouldn't have thought that we would be able to cut materials as thin as newspaper.

## **SPLITTING OF PARTICULARLY SOFT MATERIALS INTO VERY THIN LAYERS**

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.

**Area of application:** The slabs are split into very thin layers in a fully automatic process. The splitting accuracy is extremely high.

**Material:** Very soft, elastic, and/or sticky materials, cellular rubber (neoprene), fine cellular PU foams, and similar materials.

**Equipment:** The bandknife is adjusted in the circulating production and therefore, even when worn, goes into the ideal knife position. An efficient grinding device ensures that the knife is extremely sharp during the grinding process.

# Type | **H 24 F and H 24 T**

for very thin layers

even for sticky materials

fully-automated process

efficient grinding device



H 24 T with fine cellular  
PU-foam



**Andreas Billmann**  
Project Engineer



The Windows-based modular IPC control can be used quickly and intuitively. It is easy to enter different layer thicknesses, the number of cuts, and cutting speeds.

## SPLITTING OF PARTICULARLY HARD MATERIALS

The H 24 G is a reinforced version of the H 24 A. During the cutting process, the material to be cut exerts considerable pressure on the feed roller. The feed roller of the H 24 G is stabilized using additional back-up rollers. The table construction, vacuum power, grinding device, and drives have also been reinforced.

**Material:** Reconstituted bonded rubber, hard cellular rubber, hard polyethylene, hard EVA, UHMW, rubberized cork, and similar hard materials.



Splitting Machine H 24 G with wind-up and wind-off device

### Technical data

Working widths

Table lengths

max. block height

Material passage  
above the bandknife

Vacuum power

Knife beam

Bandknife width

Bandknife thickness

Lifespan of the  
bandknife

Bandknife speed

Feed speed

Driven pressure roller

# Type | H 24 G

Maximum productivity

Automatic loading and unloading  
(with options)

Powered roller conveyors

Different cutting orders

H 31	H 24 E	H 24 A	H 24 F	H 24 G	H 24 T
1600 mm 2000 mm 2200 mm	1400 mm 1600 mm 2000 mm 2200 mm 2600 mm	1400 mm 1600 mm 2000 mm 2200 mm	1400 mm 1600 mm	1400 mm	800 mm 1100 mm
2200 mm + Multiple 1000 mm	2200 mm + Multiple 1000 mm	2400 mm + Multiple 1200 mm	2400 mm + Multiple 1200 mm	2400 mm + Multiple 1200 mm	1200 mm optional 2400 mm
800 mm optional: 1000 mm 1300 mm	800 mm optional: 1000 mm 1300 mm	250 mm optional: 1000 mm	50 mm optional: 250 mm	250 mm optional: 610 mm	250 mm optional: 500 mm
200 mm	100 mm	100 mm	50 mm	20 mm	50 mm
100 mm WS	100 mm WS	220 mm WS at 50 Hz	320 mm WS at 50 Hz	300 mm WS	Adjustable for each material max. 500 mm WS
8°	12°	12° reinforced	12° reinforced	20°	12° reinforced
60 mm	60 mm	60 mm	60 mm	60 mm	60 mm
0.6 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm
approx. 150-200 hrs depending on material	approx. 150-200 hrs depending on material	approx. 150-200 hrs depending on material	approx. 150-200 hrs depending on material	approx. 150-200 hrs depending on material	approx. 150-200 hrs depending on material
1.8 m/s	4.5 m/s	1.6 and 3.2 m/s optional: 1.5-4.2 m/s	1.6 and 3.2 m/s optional: 2-8 m/s	1.6 and 3.2 m/s optional: 1.5-4.2 m/s	2-15 m/s
4-40 m/min optional: 7-70 m/min	7-70 m/min	4 - 40 m/min	2 m/min 40 m/min	4-40 m/min optional: 7-70 m/min	0.2-10 m/min forward motion and -40 m/min reverse motion
optional	yes	yes	yes with vacuum	yes	special technique



**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](mailto:info@fecken-kirfel.de) | [www.fecken-kirfel.de](http://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](mailto:info@fk-am.com)