



IMA SCHELLING
GROUP

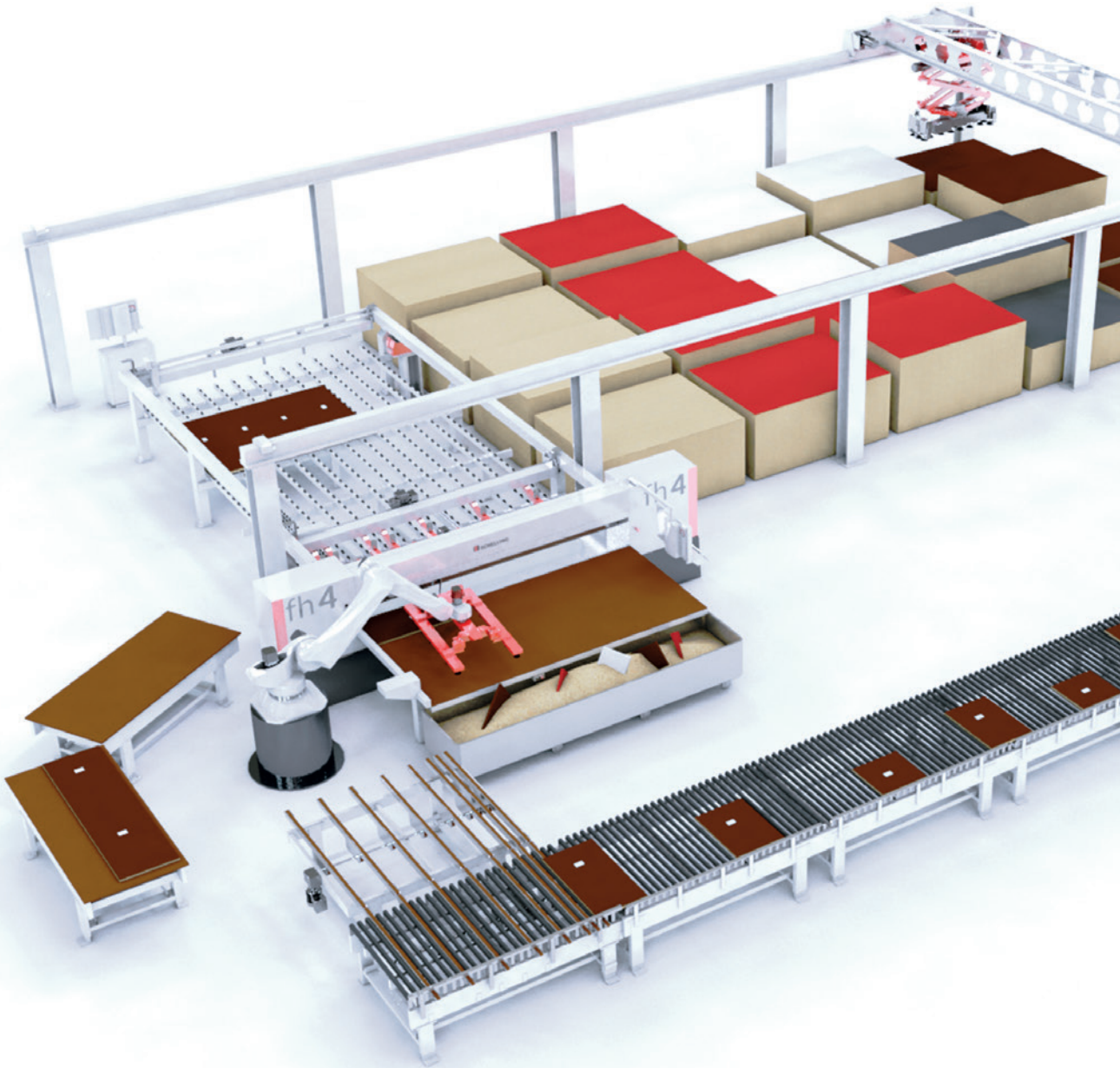


Cut-to-size saw fh 4 / fh 5

Compact. Precise. Versatile.

imaschelling.com

CUT-TO-SIZE SAW FH 4 / FH 5



FH 4 / FH 5
ENG 06/2022



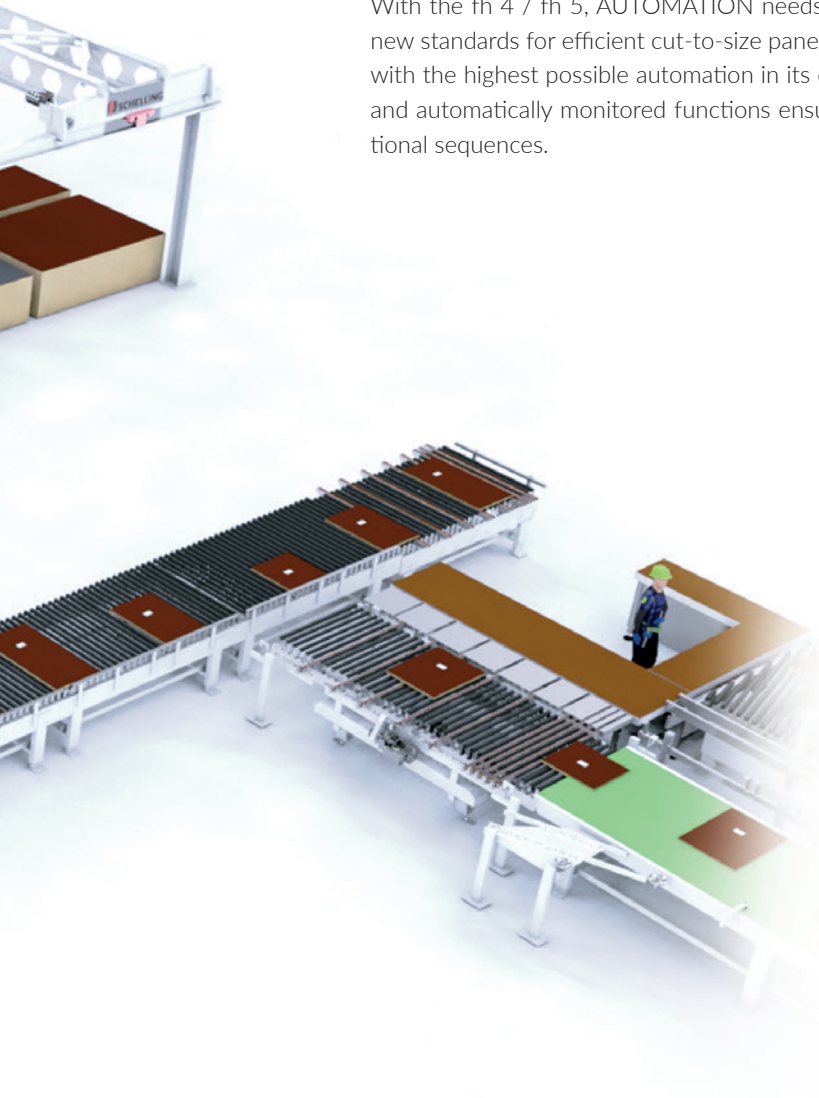
Energy-efficient production

With the fh 4 / fh 5, environmental protection and energy saving are already part of the standard programme: examples of this are the integrated standby operation, the optimised extraction of the units, a greatly reduced consumption of compressed air or, for example, the energy-efficient drive technology.

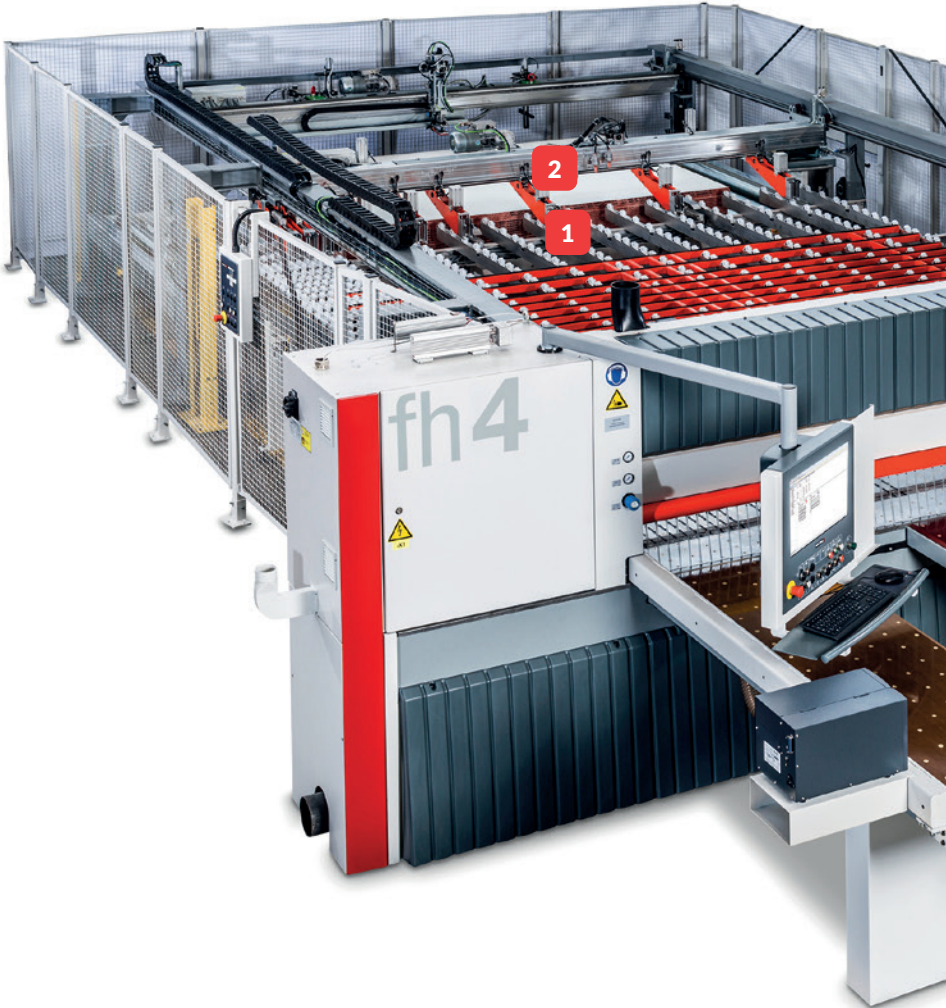
The highest level of automation in its class

The fh 4 / fh 5 cut-to-size saw offers maximum productivity and precision. One of its main strengths is its speed and flexibility to process cuts of both individual panels as well as multiple panels. The most compact variant of IMA Schelling's fh series follows the philosophy of solid machine construction just as strictly as the dividing saws in the larger categories. The robust design prevents natural vibrations and increases precision. It also ensures years of reliability, very long tool life and minimal maintenance costs.

With the fh 4 / fh 5, AUTOMATION needs to be written in capital letters. It sets new standards for efficient cut-to-size panels for the trade or industrial application with the highest possible automation in its class. The variety of automatic settings and automatically monitored functions ensures optimized and harmonious operational sequences.



OVERVIEW



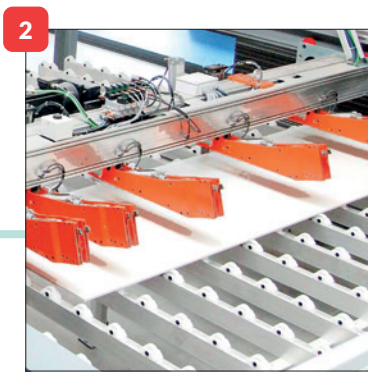
ROLLER-RAILS

Contour-turned polyamide freewheeling rollers ensure gentle material transport



FEEDER

Clamps ensure the exact positioning of the material on the cutting line



MACHINE TABLE

Finely machined steel surface prevents wear and tear and protects the material surfaces





SAW UNIT

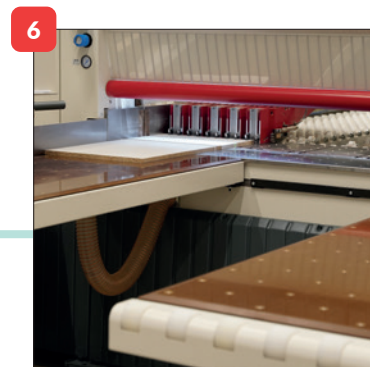
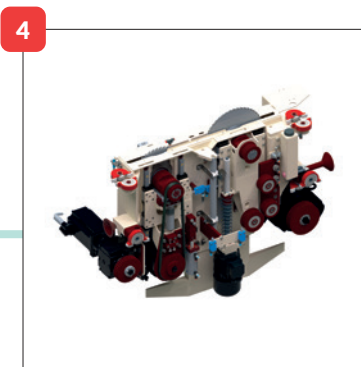
Evolution drive concept with fixed motor and integrated chip guidance system

STRIP-ALIGNER

Before and after the sawing line for highest angular accuracy

AIR FLOATATION TABLE

Individually lockable for optimal work





HIGHEST
PRECISION OVER
THE ENTIRE
SERVICE LIFE

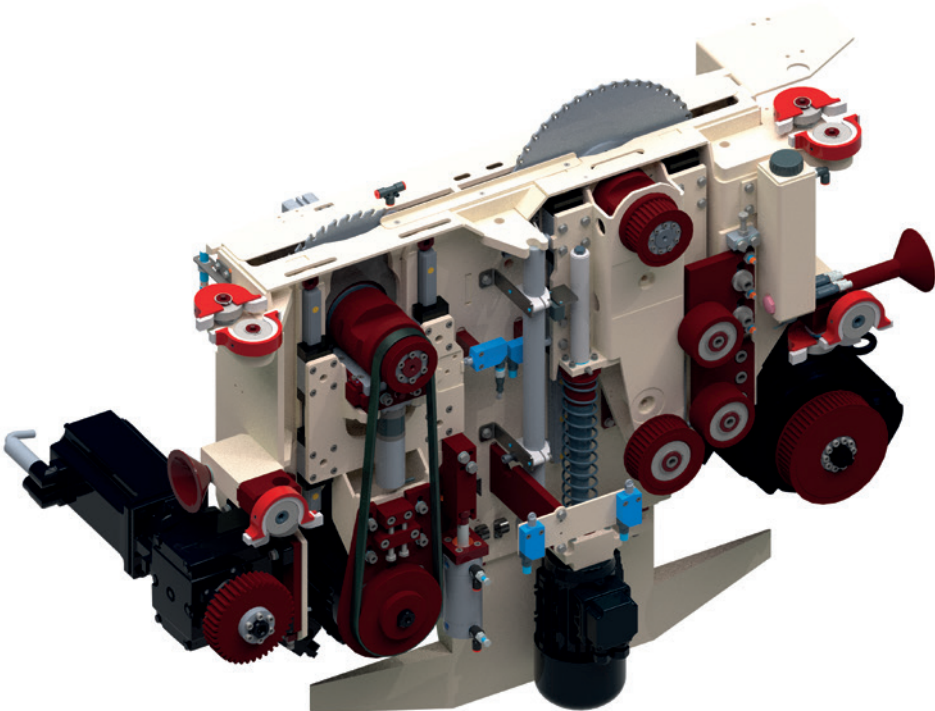
DETAILS OF THE SERIES

Intelligent features increase productivity

The fh 4 / fh 5 is characterised by many automatically-monitored functions. This ensures optimized and harmonious operational sequences. The actual format, as well as the book height of the material being processed is detected automatically via integrated sensors. Saw travel and saw stroke are executed simultaneously, which results in shorter cycle time. The saw travel speed adjusts automatically to the book height being processed, assuring maximum feed speeds. Also, the pressure of the pressure beam is self regulating based on the size and height of the book being processed assuring optimal hold down pressure.

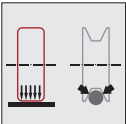
FEATURES

The IMA Schelling panel sizing saw fh 4 / fh 5 features the unique "Evolution" drive concept and offers an optimally matched ratio of motor power and usable package height. The saw motor is fixed to the saw carriage, so it does not move with the saw blade, which allows powerful motors with higher performance. The chip guidance system integrated in the saw carriage realizes the immediate disposal of chips from the cutting area. This results in longer saw blade life.

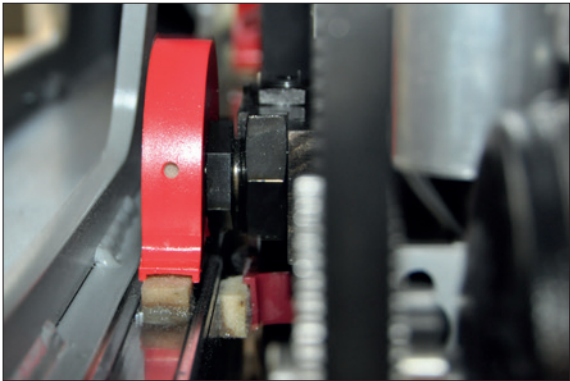


HIGH-PERFORMANCE FLAT GUIDE

The IMA Schelling high-performance flat guide is used for saw aggregates, feeder and separate push off carriages. It stands for the highest level of precision for the entire service life of the machine. It also ensures that maintenance costs stay low.



System comparison:
Line contact – no point load



Highest precision over the entire service life



Double strip aligners ensure highest angular accuracy, even with thin panel strips

DUAL STRIP ALIGNERS

The dual strip aligners, one before and one after the saw line remain on the material during the cut ensuring maximum angular precision. The alignment force adjusts automatically to the material thickness or book height with the aid of a frequency converter. This means that even thin panel strips can be cut with high precision.



The air floatation table is always where it is needed at the moment

AIR FLOATATION TABLE

The extra-wide, movable air floatation tables enable optimal working and can be locked in any desired position. At the same time, it serves as a material buffer during the entire cutting process.

- No removal and reloading of parts in the saw necessary
- Protection of the panel surfaces

STEEL MACHINE SURFACE

- Very thin table top made of solid steel
- More stable and less subject to wear than plastic surface
- Smaller saw blades with the same book heights
- Smaller saw blades mean: more cutting power with the same motor power



Steel machine surface

MATERIAL SUPPLY

IMA Schelling offers individual feeding, material handling and stacking variants that can be adapted to customer-specific requirements. Everything from a single source – from planning to commissioning.

AUTOMATIC IN-FEED

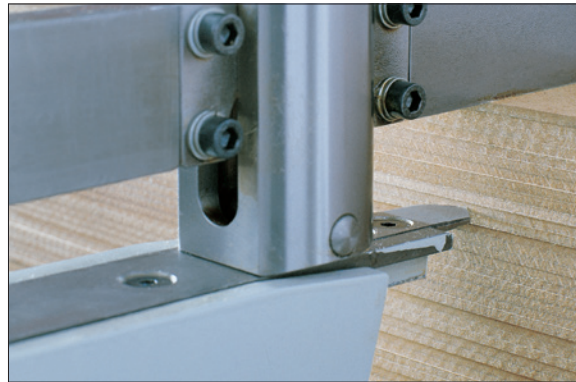
With automatic in-feed the lift table adjusts itself precisely to the set number of panels to be divided (for panel thicknesses from 6 mm). The push-off rods move the book of material from the lift table onto the roller table. Special push-off spindles are used to handle panels from a thickness of 3 mm as well as wavy material. With special counterholders, even thin sheets with a thickness of 3 mm or more can be pushed off the stack with piece-by-piece precision.

AREA STORAGE

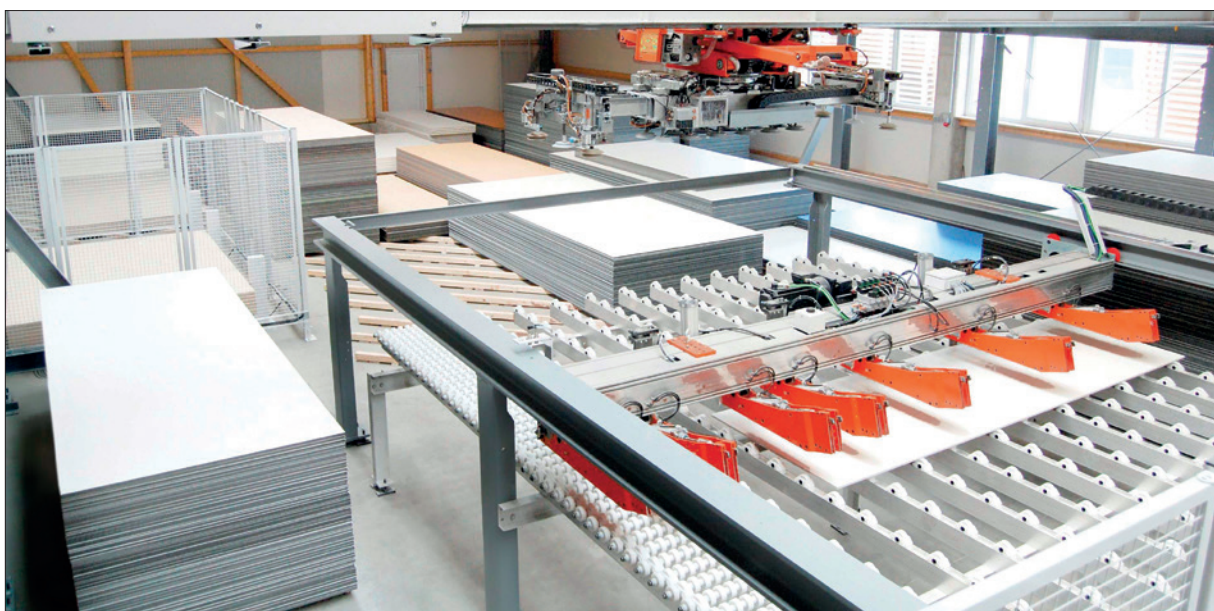
Our area storage systems offer perfect storage logistics and space utilisation with optimal access to each individual panel. The faster and more space-saving the panel passes through the warehouse, the more economical.



Automatic loading at the lifting table



From a thickness of 3 mm with special retainers



Area storage: increased productivity

HANDLING FEATURES

Easy and comfortable handling allows a significant reduction of time, protects the material and relieves the operating personnel.



With the help of the clamps, the panels are transported directly to the saw and the air floatation table

FORMAT DEVICE

The IMA Schelling format device allows for cutting of material with surface overhang all around the panel. The trimming fixtures required for this are mounted directly on the clamps. The feeder clamps offset automatically to the entered overhang dimension to the format stops allowing for precise alignment of the material and secure clamping even several panels high.

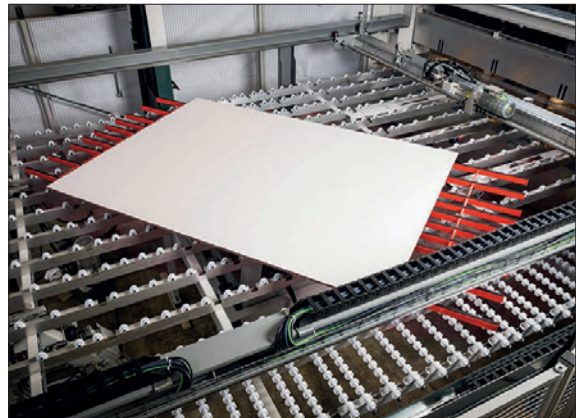
- Includes software for format post processing
- Adjustable search criteria (job name, format number, position number, line number, etc.)
- Graphic presentation of the format with the appropriate edge and corner definition
- Cutting pieces in pre-cut size, oversize or finished size

CLAMPING PARTS

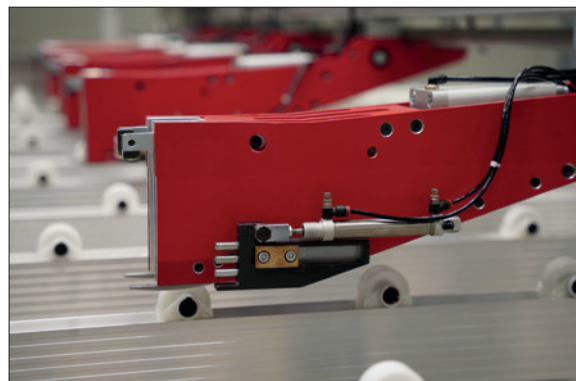
- The retractable bottom clamping parts enable a material push out to the end of the machine table with the clamps
- An ergonomic advantage that benefits the operator by making the takeover of boards or books easier, thus increasing efficiency

TURNING DEVICE

- Makes automatic execution of head cuts and longitudinal cuts possible without interruption or manual interference
- Each of these turns is executed in 90 degree steps. In this process the speed is automatically adapted to the actual material book height



The turning device has been developed for automatic loading cut-to-size machines and angular systems



Cutting of material with protruding cover layers

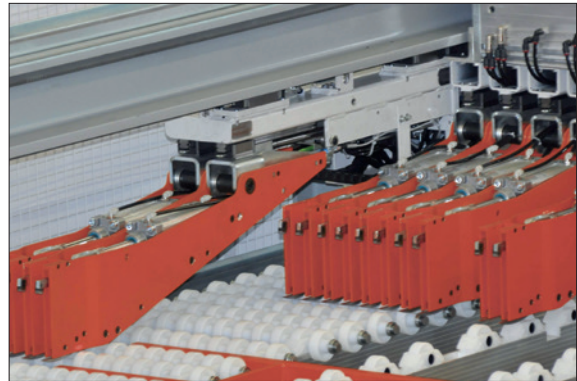
PERFORMANCE ENHANCING FEATURES



AUTOMATIC LABELING

- In this process, labels are applied to the entire board fully automatically in the infeed area
- The labeling positions can be selected freely
- For parts rotated by 90 degrees, the label is also offset by a quarter turn.
- The labels are applied parallel to the cutting of the preceding cutting plan
- Previous stops for manual labeling are eliminated, and production speed increases

Furthermore, IMA Schelling offers optional, individual and customised features that contribute to a significant increase in performance.



Two individually operating feeders that position the material independently of each other in the saw

DUPLUS

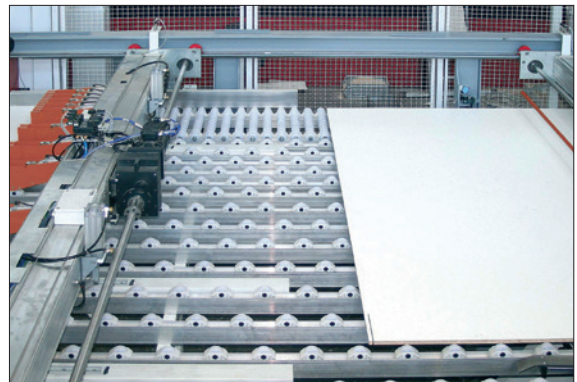
With the DUPLUS2 concept either head and main parts or cross sections of two strips with different cutting patterns can be processed simultaneously.



Jump scoring for soft or post-formed edges

CUT QUALITY

With the ascending scoring saw blade the entry and exit edges are scored for soft-formed and post-formed panels. Thus tear-free cuts are achieved.



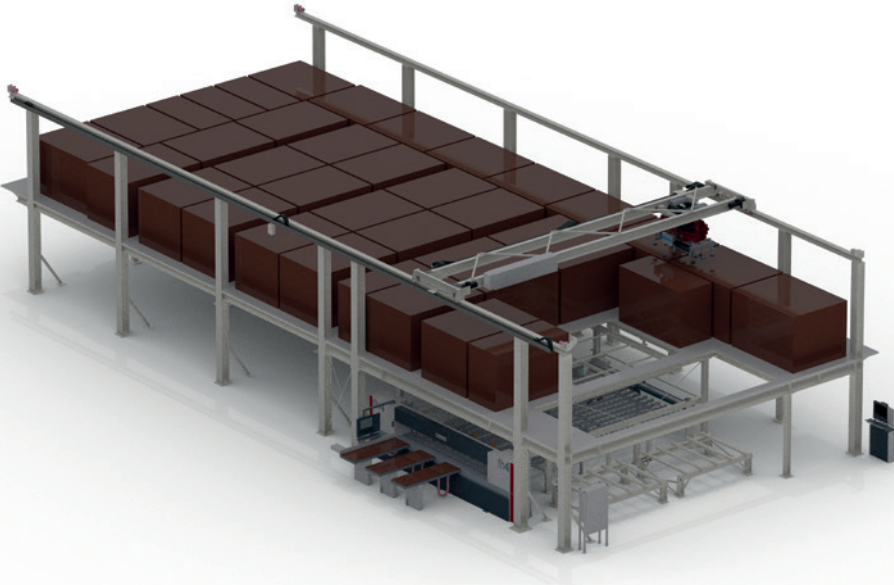
Production increases by up to 25%

PUSH-OFF CARRIAGE

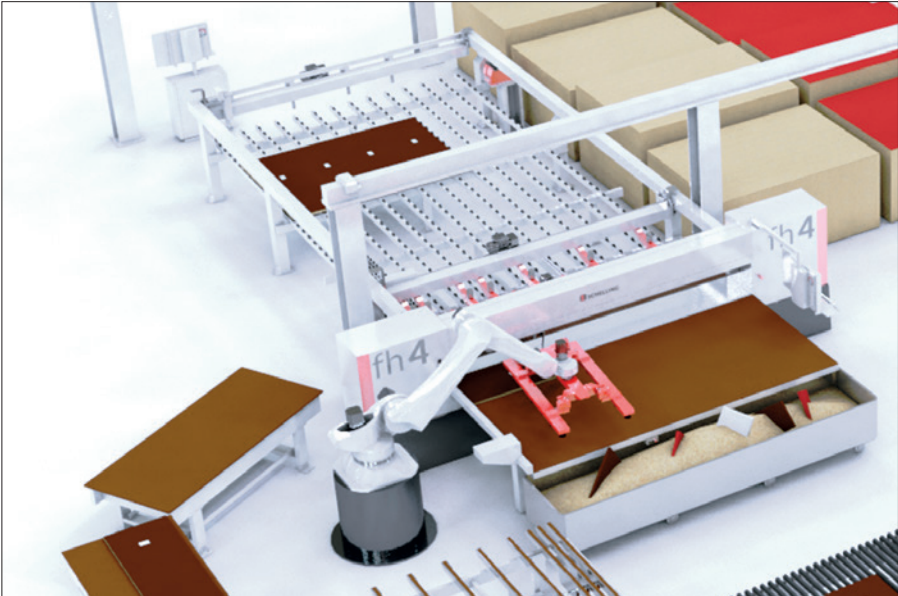
The separate pusher carriage allows parallel, i.e. simultaneous loading of the saw and dividing of the boards panels.

DESIGN VARIANTS

All versions are available in several expansion stages or can be retrofitted and upgraded. This is a unique selling point, especially for the version with fully automated robot handling.

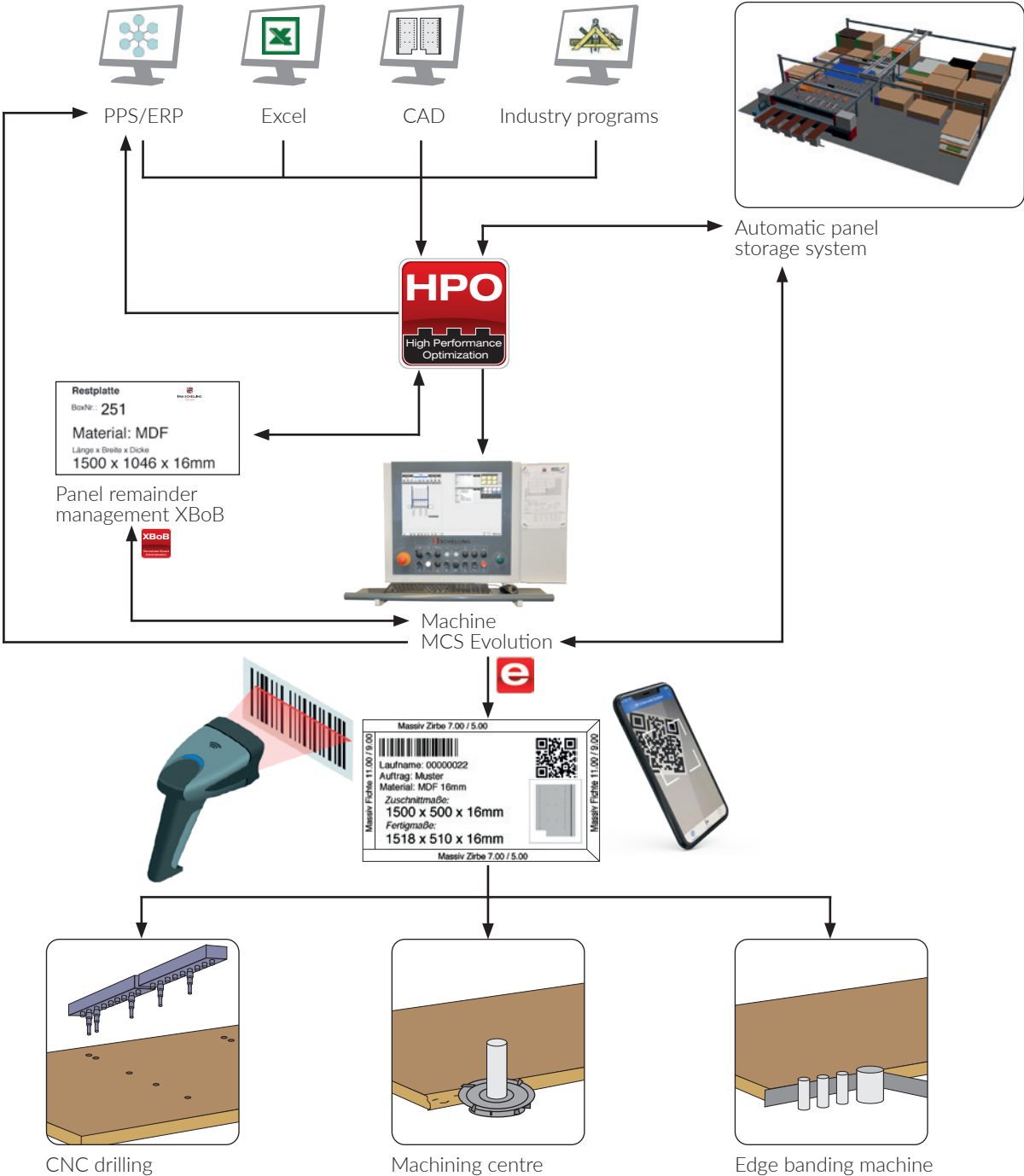


Space-saving positioning of the saw under the surface bearing



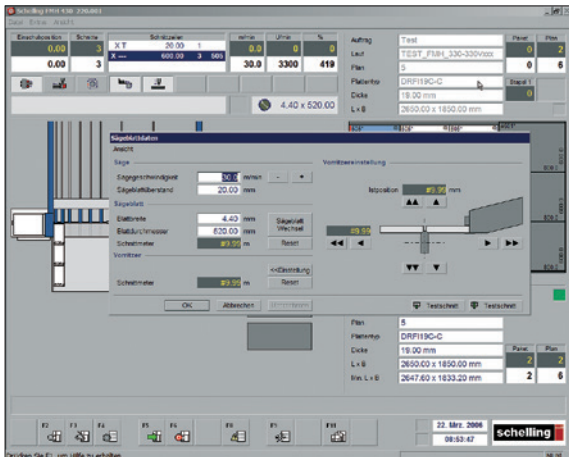
Also available fully automated with robot handling

PRODUCTION SEQUENCE DIAGRAM

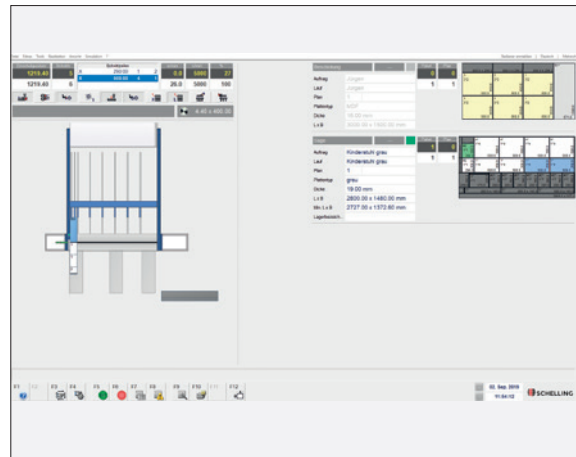


CONTROL DESK: EASE OF OPERATION!

IMA Schelling's easy-to-operate "MCS Evolution" control software and "HPO" optimization software make operating the saw a breeze. Sequences are represented in real-time mode with unsurpassed fault diagnostic. Self explanatory operator guidance particularly eliminate operating errors, therefore increasing availability and machine efficiency.



Operator panel: Electronic scorer adjustment

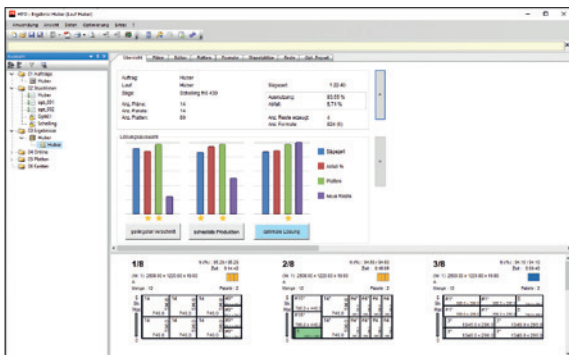


Control: Data of actual production on the screen



With the XBoB remainder management program, panel remainders can be managed in a manual store. Remainders are booked in and out in interaction with the machine controller.

In addition XBoB is the interface from the machine controller to the optimization program. Remainders that accumulate can be re-planned and used without delay in the optimization. An easy and safe system for maximum capacity utilization of material.



The current release of the HPO cutting plan optimization presents new functions for productivity and operating convenience. Multi-core use ensures the speed available from state-of-the-art hardware is effectively utilised. Thus computing times are reduced by as much as 60 %. In addition the system works with the latest computer core. Another new feature is that the appearance of plans can be virtually set as desired, on request the optimal un-machined panel can be determined, the print function can be configured and searching has been even more clearly designed.

TECHNICAL DATA

fh 4

fh 5

SAW BLADE

Diameter	360 mm / 14.173"	400 mm / 15.748"
Projection	105 mm / 4.134"	125 mm / 4.981"
Clamp opening	105 mm / 4.134"	125 mm / 4.921"

POWER

Saw motor	18 / 21 kW
Saw motor	24.5 / 28.5 PS

SCORER

Diameter	300 mm / 7.874"
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FEED RATE

Forward	up to 80 m/min / 262 ft/min
Reverse	80 m/min / 262 ft/min

SAW FEED RATE

Forward	up to 160 m/min / 524 ft/min
Reverse	160 m/min / 524 ft/min

330**430****580****DIMENSION FH 4 / FH 5 MANUAL (DIMENSIONS - MM / INCH)**

a	3330 / 131.00"	4330 / 170.50"	5830 / 229.50"
b	5750 / 226.00"	6750 / 265.75"	8250 / 324.80"
c	3650 / 143.70"	4650 / 183.00"	6150 / 253.90"
d	6800 / 267.75"	7800 / 307.00"	9300 / 366.25"
e	4680 / 255.00"	5680 / 223.60"	7180 / 282.70"

WEIGHT FH 4 / FH 5 MANUAL

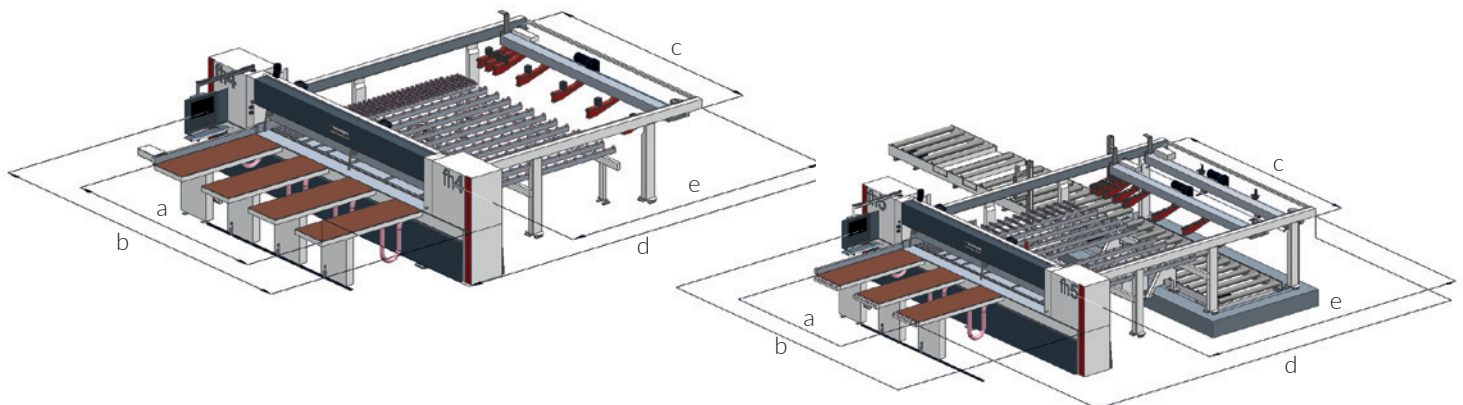
kg / lbs	6.500 kg / 14,250 lbs	7.500 kg / 16,500 lbs	9.500 kg / 21,000 lbs
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330x160**330x220****430x160****430x220****580x220****DIMENSION FH 4 / FH 5 AUTOMATIC (DIMENSIONS - MM / INCH)**

a	3330 / 131.00"	3330 / 131.00"	4330 / 170.50"	4330 / 170.50"	5830 / 229.50"
b	5750 / 226.00"	5750 / 226.00"	6750 / 265.75"	6750 / 265.75"	8250 / 324.80"
c	3650 / 143.70"	3650 / 143.70"	4650 / 183.00"	4650 / 183.00"	6150 / 253.90"
d	7700 / 303.15"	8750 / 344.50"	8750 / 344.50"	9750 / 383.90"	11000 / 433.00"
e	5100 / 200.80"	6200 / 244.00"	6100 / 240.20"	7200 / 283.50"	8200 / 322.80"

WEIGHT FH 4 / FH 5 AUTOMATIC

kg / lbs	9.000 kg / 19,750 lbs	11.000 kg / 24,250 lbs	21.500 kg / 27,500 lbs
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Status	Wartung
Frist bereits abgelaufen	0
Dringend	0
Todo	13

SERVICE PLATFORM ZIMBA

The ZIMBA service platform is an agreement with which we shape our relationship: 100% transparency, 100% modularity and almost 100% efficiency - from the first to the last production day of your plant.

In addition to the classic ticket and hotline modules, further services are available via ZIMBA that extend the production quality and efficiency as well as the service life of your IMA Schelling machines and systems.



ZIMBA.portal

is the entry into the ZIMBA world and includes:

- Documentation
- Administration
- User management & administration
- Security Updates
- Installations & connection fee
- Ongoing updates and data connection checks



ZIMBA.ticket

offers fast and qualified support through the ticket system and spare parts management. It includes:

- 24h online ticket system
- Telephone accessibility
- E-parts
- Digital machine documentation
- Ticket history
- Remote Assist



ZIMBA.maintenance

is the time-based maintenance manager. Maintenance can be scheduled & documented on time and assigned to staff. This includes:

- Automatic maintenance messages
- Automatically generated knowledge articles for the maintenance messages
- Creation of maintenance lists
- Documentation of the maintenance carried out

The IMA Schelling Group is a reliable partner for implementing of sophisticated system solutions.
The demands of our customers are a daily challenge to us, our know-how and creativity!
We work with you to develop innovative and unique solutions for wood processing.

www.imaschelling.com

Subject to technical modifications and amendments and to further developments. The offer, respectively the order confirmation is relevant in either case!
The picture of the machine could have been taken without complete protection devices. The protection device is part of the scope of delivery.
Photos could also be options, not being part of the scope of delivery.



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