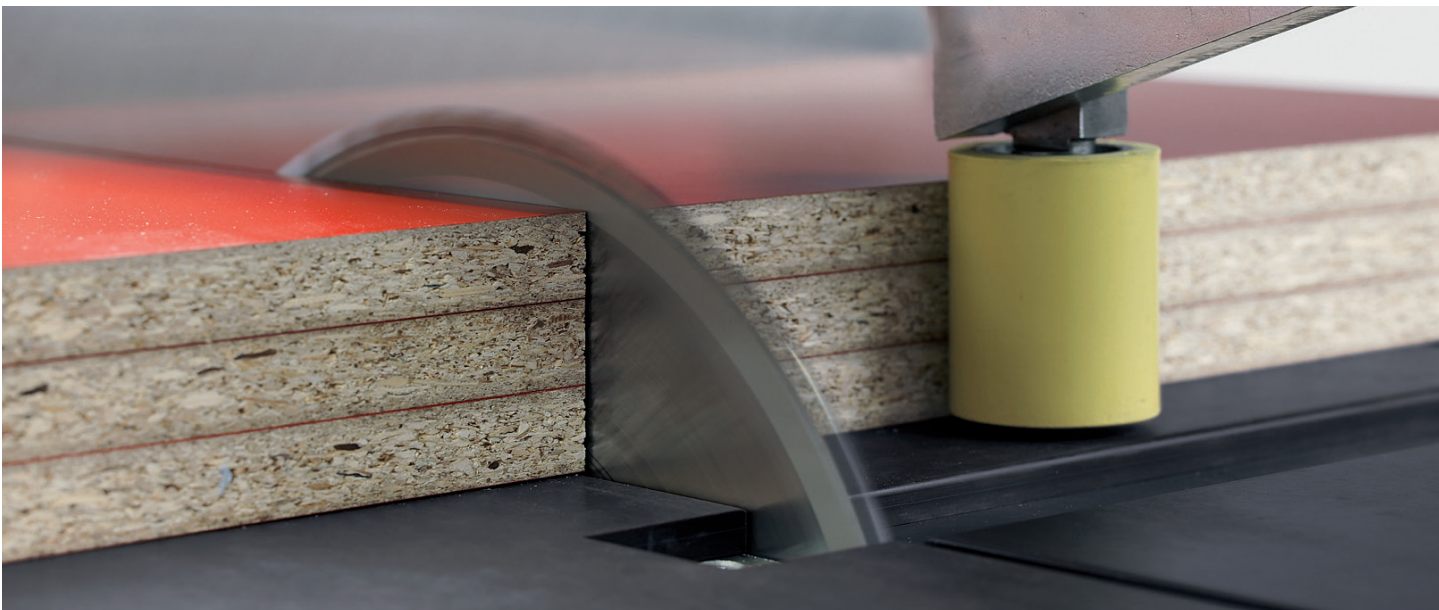Cut-to-size saw fh 3

The economical all-rounder

With the machine series fh3, Schelling sets new technological standards in cutting board-shaped wood-based materials. This series expands the processing spectrum significantly, compared with the technology used so far. The design allows for motorization with power and speed, which reduces main processing times. Numerous improvements of details also shorten non-productive times, push productivity and increase the operating comfort. All this turns the fh 3 into the international benchmark for the cutting of boards.

MACHINE EQUIPMENT

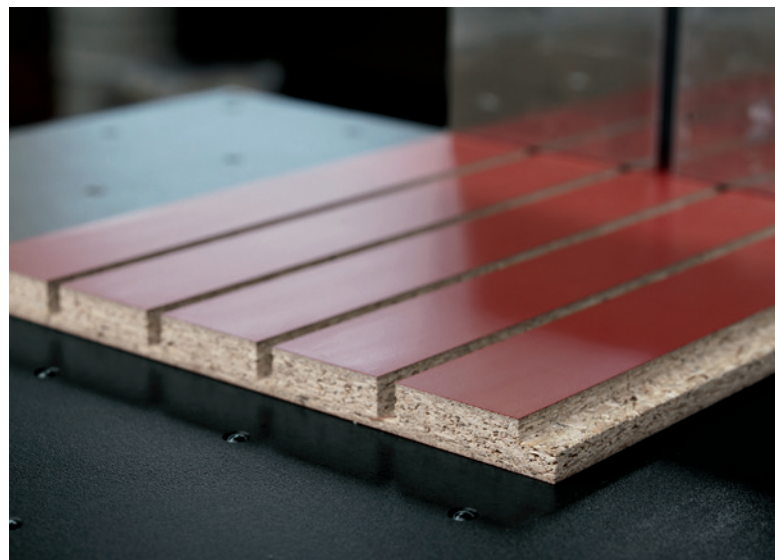Parking position for air floatation table – for better material handling

Powerfull saw motor with 14 kW power

The new generation

The new generation of beam saws – always one step ahead with the new Schelling fh 3! The innovative fh 3 revolutionises the work-flow in the cut-to-size process. Versatility and precision are the key issues of the new fh 3. Ideal for cutting single boards - lot size 1 and books.

Grooving device (Optional)

Precice clamping with formating unit (optional)
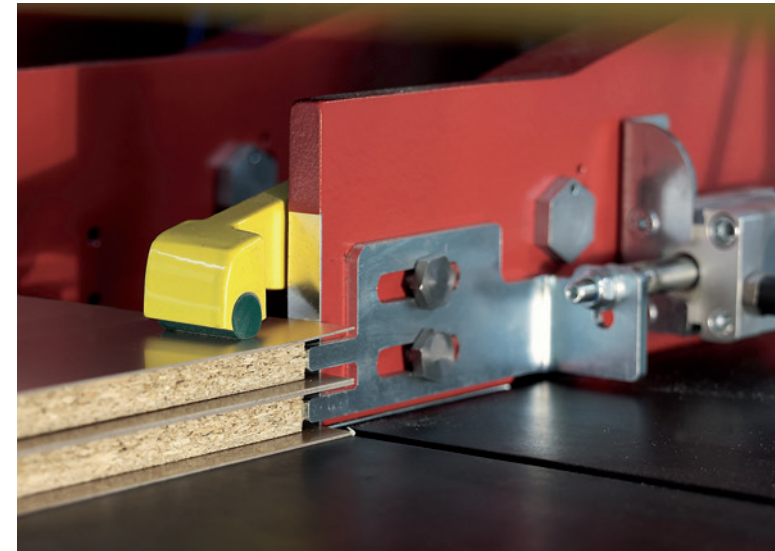
Standard

- Air floatation table fixed
- Air floatation moveable
- Parking position for air floatation table for better material handling
- High performance saw motor 14 kW
- Saw aggregate with rack drive
- Precision guiding for saw aggregate – 10 years warranty for guiding shaft
- Cutting height adjustment in 4 steps
- Automatic cleaning of saw aggregate
- Power lock system for saw blade changing
- Scorer aggregate with 1,5 kW
- Work room illumination
- Window in pressure beam cover
- Maintenance notes
- Twofold measuring system on feeder carriage
- Industry PC operating system Windows XP embedded
- Visual guidance of operator MCS
- 22 inch colour monitor
- Note pad on operating panel
- Remote maintenance
- Automatic measuring of the saw blade
- Automatic cutting length adjustment
- Strip aligning device
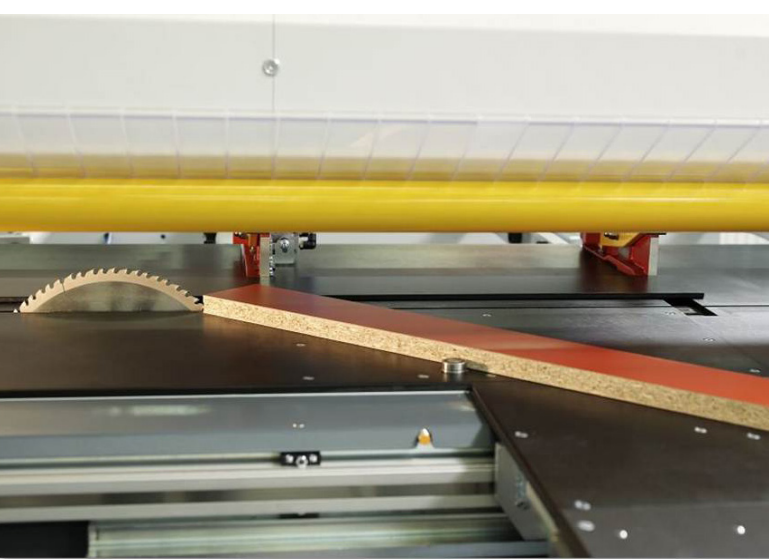- Ergonomic working height
- Smallest required space
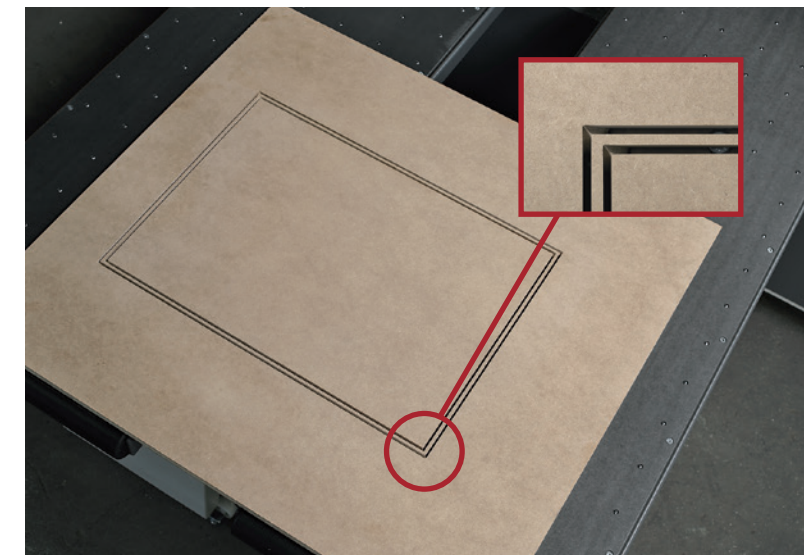
Example of use - Window Cutting device

SIMPLE MATERIAL INFEED, PRECISE POSITIONING.

CONTROL DESK: EASE OF OPERATION

Schelling's easy-to-operate "MCS Evolution" control software and PIOS 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.

Angle cut device for precise angle cuts

Options:

- Grooving device
- Window cutting and insertion grooves
- Label printer
- Formatting device
- Additional clamp
- Variable pressure adjustment clamp
- Angle cut device
- PIOS Professional Optimization
- Motor driven cutting height adjustment main saw
- Continuous rotation speed control
- Electronic scorer adjustment
- Postforming scorer aggregate
- Line laser alignment
- Machine table with air cushion
- Controlled short stroke for pressure beam

Automatic cleaning system of guiding shafts of saw aggregate
– maintenance and wear-and-tear-free guiding system

Optimization software PIOS

PIOS Pro V3:
Cut optimization software, for automatic generating of time or material optimized cutting patterns.

- Cutting pattern generation, with board indication scrap indication
- Part lists with edge correction
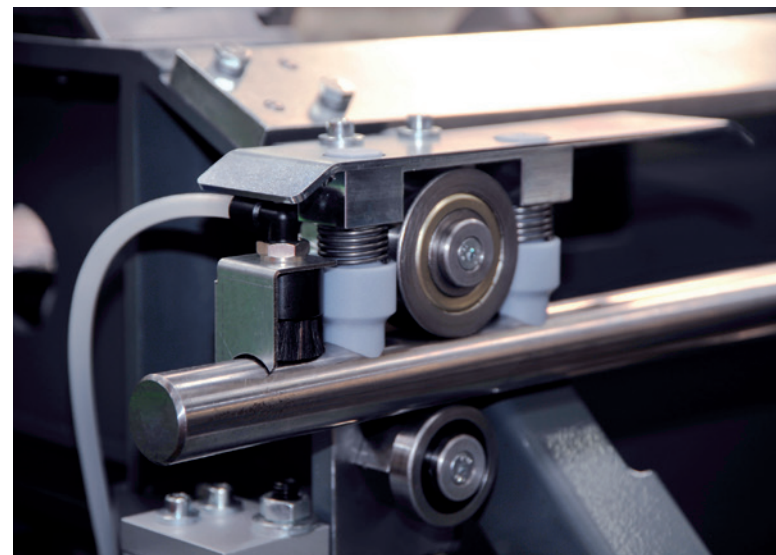- Material management and remainder formats
- Tension relief cut program

The software can be expanded individually with numerous modules:
- Data import: automatic import of part lists from extraneous programs via USB-interface or network
- Block part optimization: Positioning and combining of single elements depending on the grain direction
- Module library: Furniture/parts flexibly defined, when changing L/W/T/Qty. the part list is adjusted automatically
- Filler parts: It is possible to create standard part for a material, which can be inserted in the cutting pattern instead of remainder parts, up to a defined amount.
- Edge calculation: Evaluation of the necessary total edge length per edge type, for each selected order
- Cutting time calculation: Calculation of the cutting time in consideration of processing speeds and handling times, calculated separately for each processing mode.

A perfect addition for PIOS Pro V3 is the material and remainder administration

Intelligent management of remainder parts which were created by the optimization. Information messages during the cut, e.g. regarding storage location, storing number etc. Individual configuration of remainder storage locations. This allows using remainder parts in other processes as well, e.g. CNC machining centres. Manual booking in and out of remainders.

MCS Evolution

- Input of cutting patterns with grafic display
- Cutting pattern generator
- Cutting pattern transfer to optimization by network connection USB
- Cleartext-diagnosis
- Trimming automatic
- Slow cutting in/out
- Continuous automatic adjustment of cutting lengths to board size with freely selectable saw blade projection
- Third-, fourth-...phase-cuts with automatic alignment
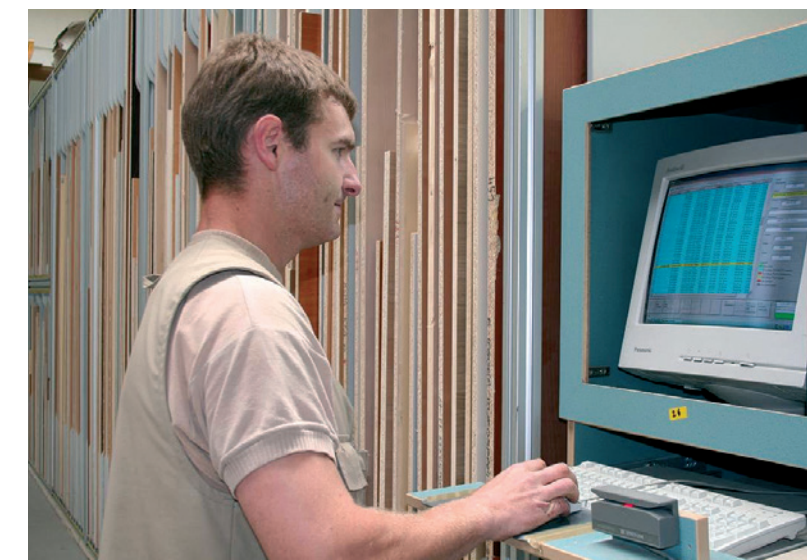- Automatic prepositioning of saw aggregate and feeder

Remote maintenance via Internet

The remote maintenance system via Internet offers the following possibilities:

- Access to machine PC
- Access to machine PLC

Technical data

	fh 3
Saw Blade	
Diameter (mm)	300
Projection (mm)	82
Clamp opening (mm)	84
Book height (mm)	72
scorer aggregate	
Diameter (mm)	180
Feeder speed	
forward (m/min)	0 – 100
backwards (m/min)	0 – 120

Saw Carriage speed	
forward (m/min)	0,1 – 100
backwards (m/min)	100
Motor power	
Main saw (kW)	14
Scorer (kW)	1,5
Extraction unit	
Extraction channel bottom (mm)	Ø 140
Extraction connector top (mm)	Ø 100
Air speed (m/s)	30
Machine resistance (Pa)	1800
Volume flow rate (m³/h)	3400

Dimensions **fh 3**
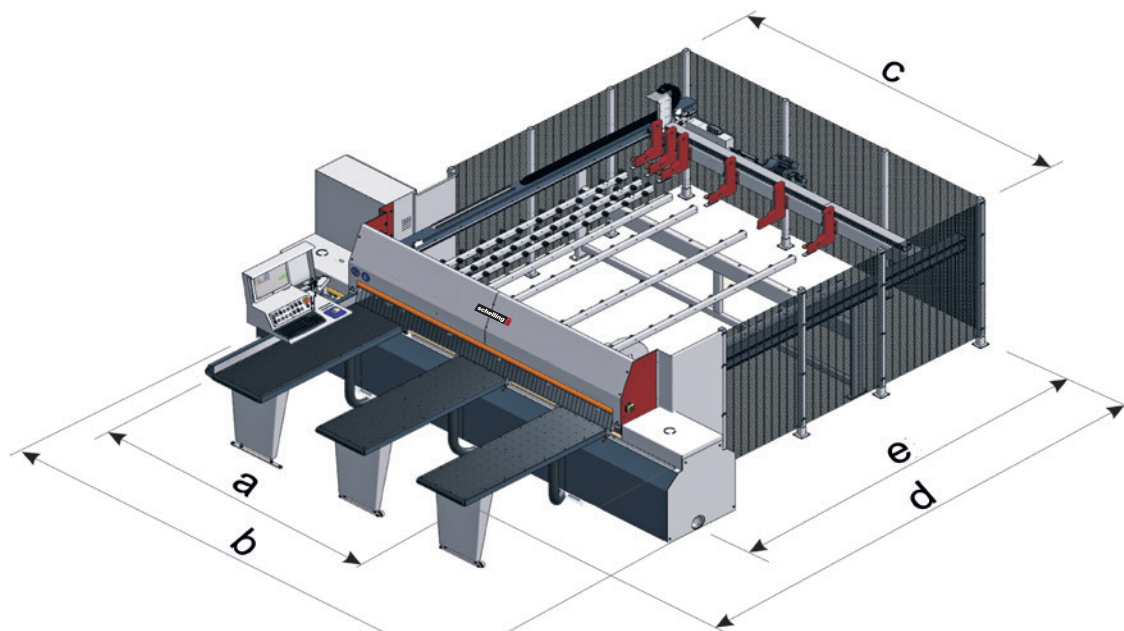
fh 3	320	420
Cutting length	3200	4200
a (mm)	3210	4210
b (mm)	5198	6198
c (mm)	3824	4778
d (mm)	6279	7291
e (mm)	4231	5243
Weight (kg)	3950	4750

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