



High precision cut-to-size saws fm 6 and fm 8

**Aluminum and non-ferrous metals
cut cleanly and reliably**

schelling.com

LONG TERM STABILITY AND PRECISION WITH LESS IDLE TIME

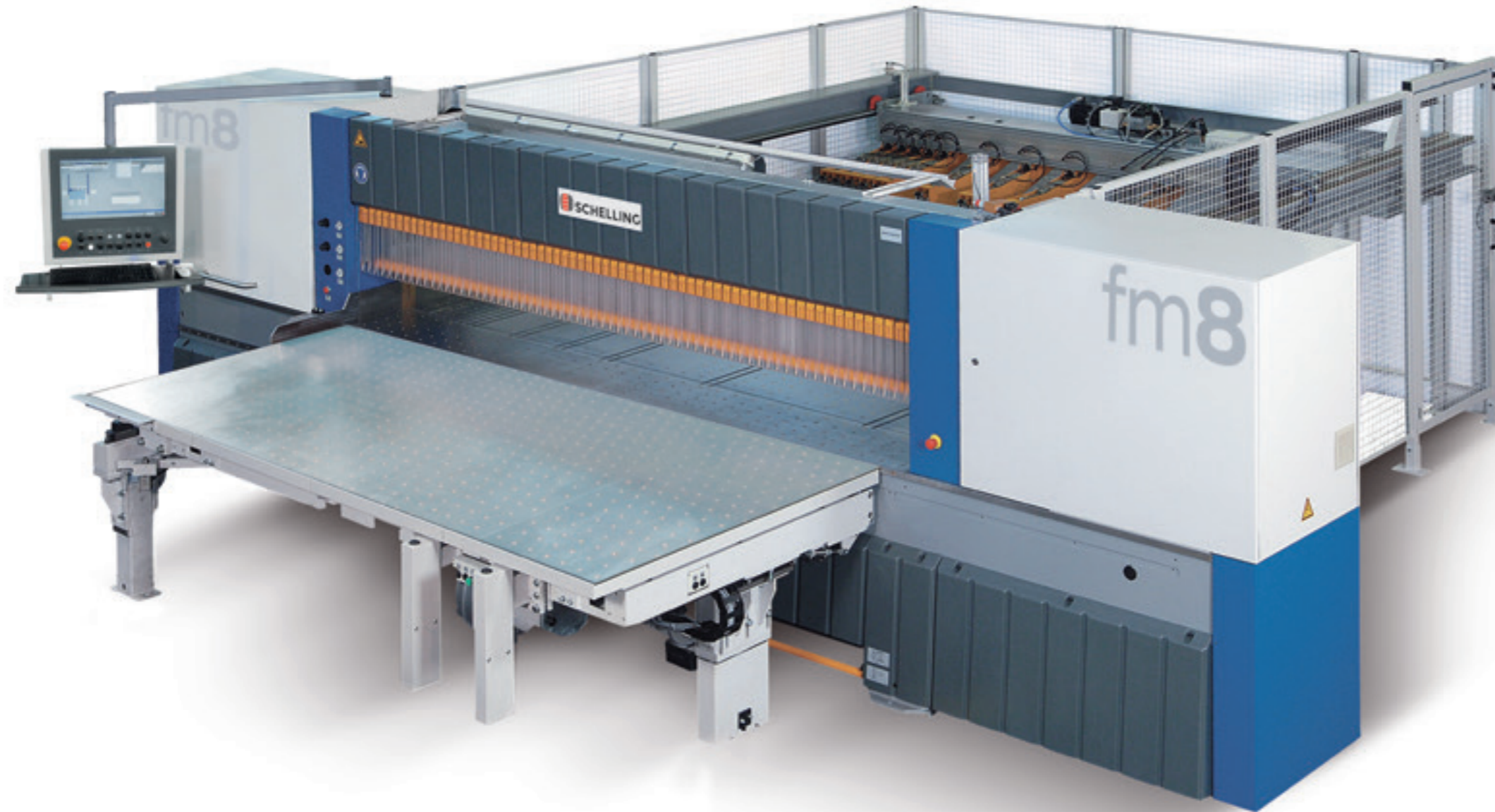


Cutting aluminum and other non-ferrous metal plates with high quality is a challenge. The characteristics and high value of these materials often requires well considered solutions in order to optimize cutting quality, to protect surfaces and to minimize scrap. The Schelling fm 6 and fm 8 offer the most advanced technology on the market for this purpose. They feature years of know-how provided by the market leader in cut-to-size saws: Schelling.

Robust construction prevents vibrations and torsion, which is an important prerequisite for high precision. The unique drive concept features a fixed motor, which enables a constant maximum power transmission of 35 kW. Optimization of all machine processes reduces unproductive idle time and increases the overall speed with sawing times solidly based on precision.

Precision and cleanliness are achieved by the chip guiding and chip extraction system as well as the further developed CLEAN-UP CUT system, which allows chip removal even during scrape cuts. With these features the machine now can provide extraction of up to 99.5 % of chips produced while cutting.

INCREASED PRODUCTIVITY: THE TURNTABLE



The patented turntable with 90 degree rotation makes saw operation even simpler and cutting more productive. Thirty years ago, Schelling invented the turntable and has continued to develop it ever since. Today, the entire machine is adapted to the turntable. It is mobile and semi-automatic. Quickly, plates and strips are first cut lengthwise, then crosswise.

The turntable offers many advantages:

1.) Material surface protection as the work pieces no longer need to be moved relative to the table; the material moves together with the table and is not scratched.

2.) Ergonomics and productivity; because there is no handling of individual parts involved, operation is more time-saving and less work-intensive.

3.) Advantages for very thick plates with low surface area, since these are supported better by continuous air flotation under the material, rather than by the machine version with fixed tables which has gaps between tables.

Because the turntable is designed as an air floating table, the surface of aluminum and non-ferrous metal plates can be handled without resistance and with little effort, and they remain completely protected.

The fm 6 and fm 8 with the turn table represent the first stage of automation. Schelling, the system specialist, can provide additional expansion modules, up to a fully automatic cut-to-size plant.

A CLEAN SOLUTION: 99.5% CHIP REMOVAL

The chip guiding and extraction system is one of the most important features for clean and precise cutting that produces high cutting quality, increased material yield, and high machine up time. This system is designed to ensure that close to one hundred percent of chips produced through the cutting process are removed from the machine. The system is designed to make intelligent use of the kinetic energy of the chips to remove them in a targeted manner. One specific feature is the chip protective curtain which provides a suction channel along the entire length of the pressure beam. The curtain is designed to fit exactly to the contour of the material to provide the highest performance possible.

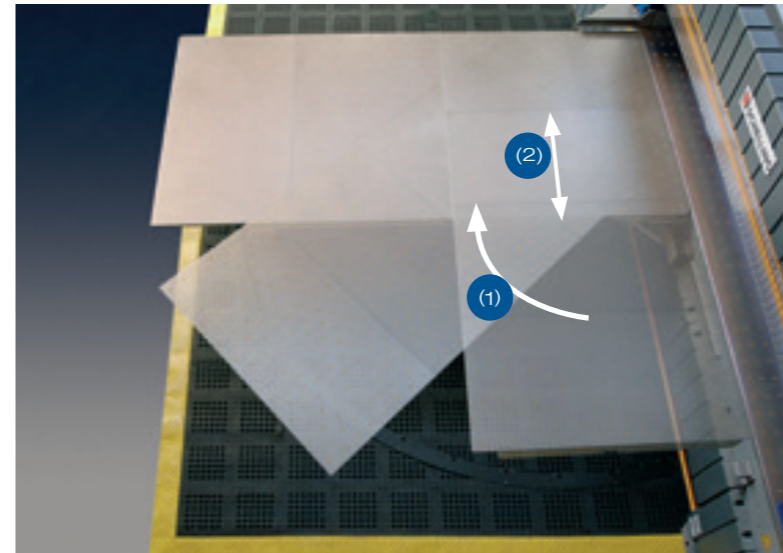
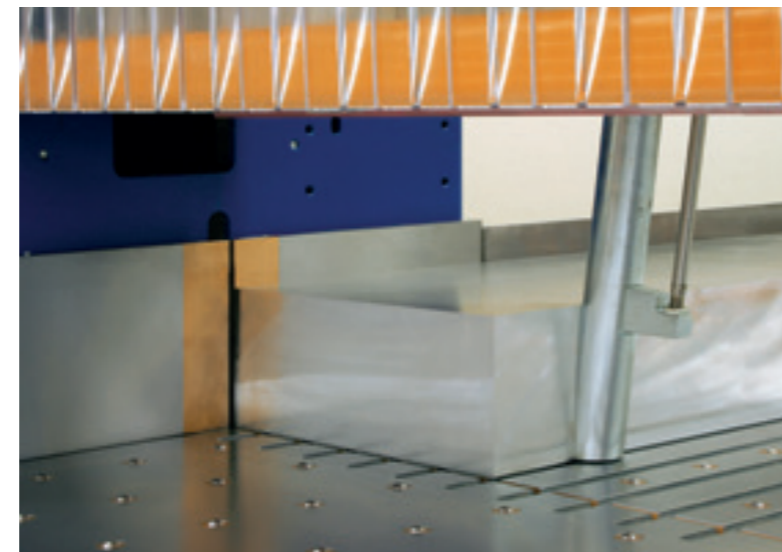
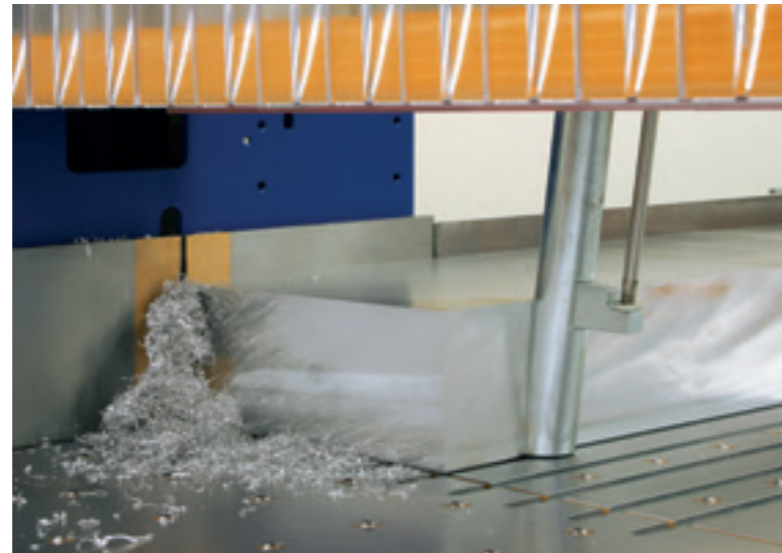
Key elements are a fully closed pressure beam and an independent hold down beam.

Say goodbye to chips during clean-up cutting

Removing chips when making scrape cuts or cuts less than a saw blade width has never been easy. But, the Schelling CLEAN-UP system has mastered this challenging task.

Closed chip guiding system

The latest development of the system now enables suction at the front and rear edge of the material. A closed chip guiding system guides chips away with the aid of their own kinetic energy. The pressure beam, hold down beam, and chip guards enable a constantly sealed channel that allows 99.5 % extraction of chips.



The turntable: fast, smooth and precise operation

The patented Schelling turntable (optional) provides extremely easy handling of full plates and even small parts. It ensures all long rip cut strips are effortlessly rotated in a single procedure for cross cutting. This significantly reduces the amount of material handling time by 15 - 20 %, increases productivity and protects material surfaces. The generous size of the table allows manipulation of the material directly at the operating station. This means that material waiting to be cut can stay on the table and is easily moved out of the way. Finished parts may be unloaded piece-by-piece with ease.



Turntable lateral positioning

The turntable is movable in order to cut small parts to size with ease. Lateral mobility of the table allows perfect access to the cross aligning fence.

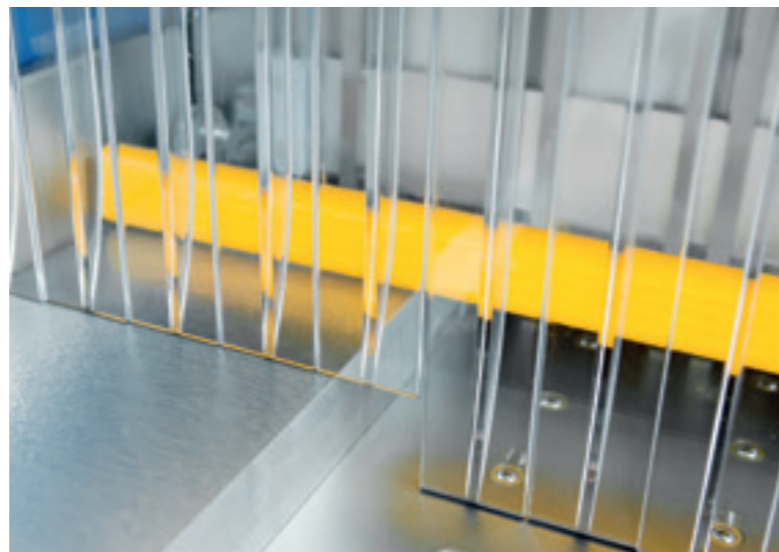
OPTIONS INCREASE SPEED AND SAFETY.

Remove material with ease: The scissor clamps position to the table

Material is pushed by the scissor clamps past the saw line onto the air floating tables (or turntable). Reaching over the saw line to remove material is not necessary. Not only does this provide more convenience, it also ensures greater safety.

The safety curtain protects you

The safety curtain can be pivoted, raised and lowered. The combined pivot-raise-lower function allows work to continue without any disruptive lifting of the lamellas, thus speeding up cutting. When applying short stroke cutting sequences, the pressure beam only opens for moments, but the safety curtain remains lowered.



The hard-chromed steel table protect surfaces

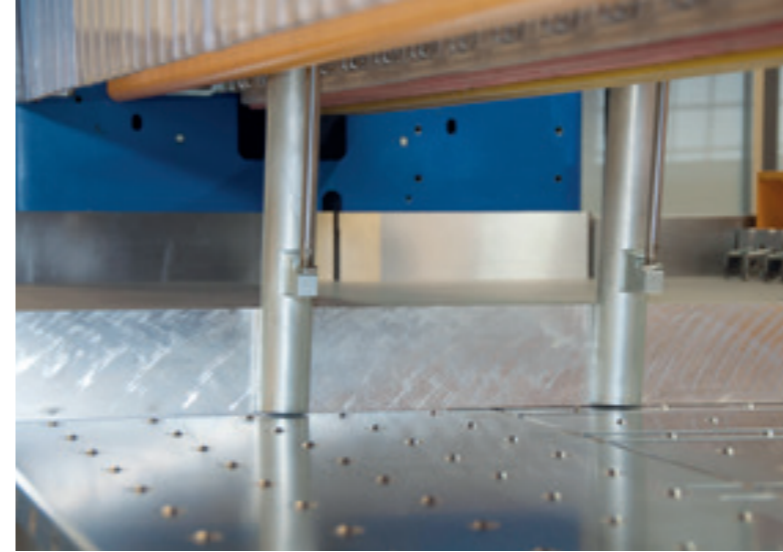
Protecting the surface of machined aluminum and non-ferrous plates is extremely important. There are two measures for this: First, a hard-chromed steel table, and second, the integrated air cushion in the entire machine table.

SOLID CONSTRUCTION FOR LASTING PRECISION

The heavy-duty construction of the Schelling fm 6 and fm 8 (up to twelve tons) prevents vibrations and torsion from the great forces involved when positioning and cutting non-ferrous metals. This ensures maximum angular accuracy and stands for a long, highly profitable service life of the machine.

Feeder carriage with robust drive

The feeder carriage ensures constant precision for positioning aluminium and non-ferrous plates. A major part of this is the robust drive unit. The feeder carriage is also equipped with an integrated brake. Once the feeder carriage has reached position, the brake locks it in place and holds while the saw is cutting. High dimensional accuracy is guaranteed.

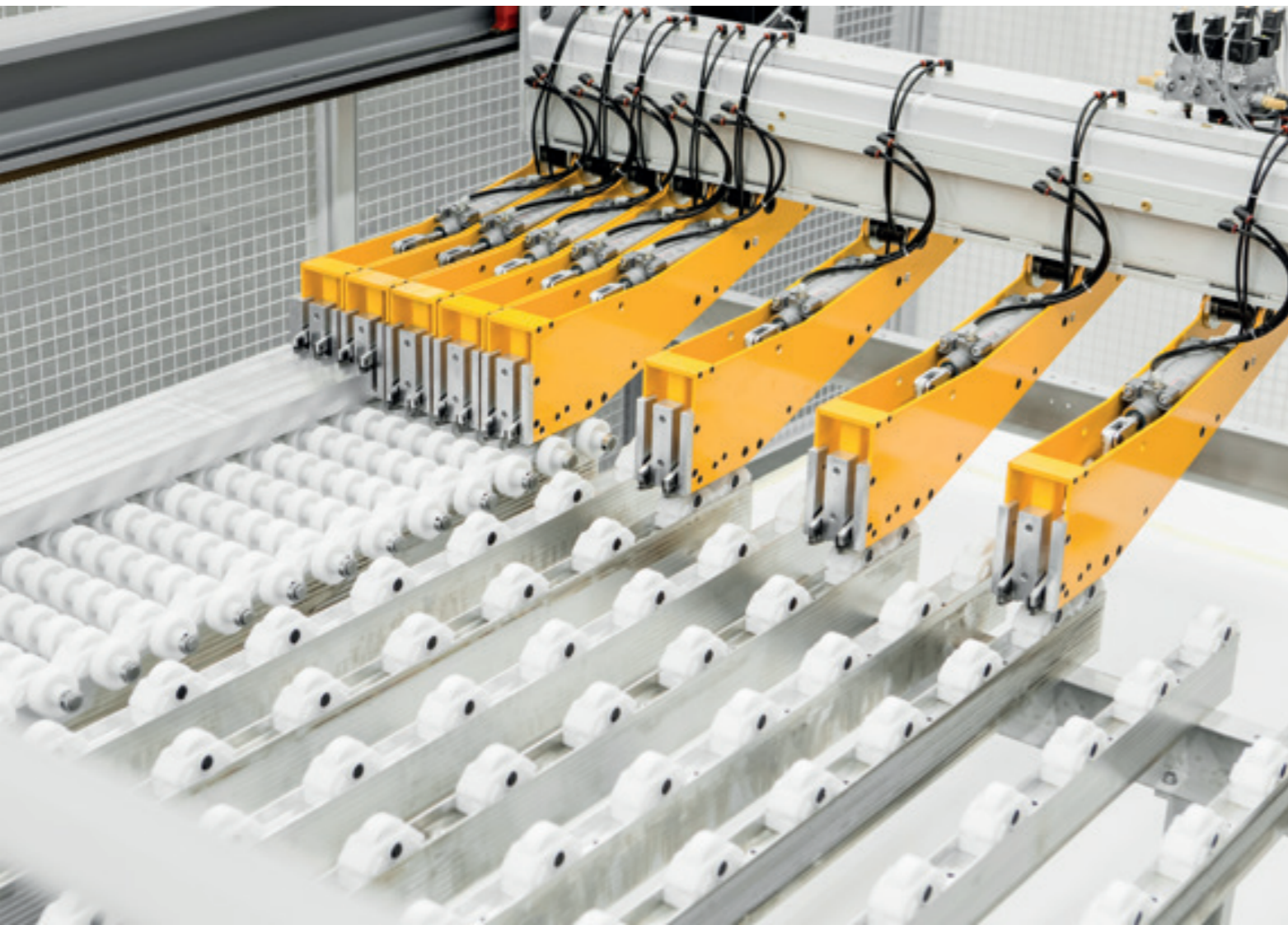


Strip aligning devices before and after the cut line

The double strip aligning devices before and after the cut line are another feature that makes the Schelling fm 6 and fm 8 the technological leaders in their class. They feature torque controls and ensure precise contact pressure when sawing shapes of any dimension. Power transmission via motor-driven pinion rack is ideal for high plate weights. The aligning force on the cross aligning fence also enables heavy plates to be processed very precisely. Optional aligners in the roller table area ensure that even long strips are reliably pressed onto the aligning fence. This ensures maximum angular precision.

Exact to the last hundredth: The gantry drive

The gantry drive is perfect for operators who want more than just high precision. This optionally selectable feature makes precision positioning down to the last hundredth of a millimeter range a operational reality.



PERIPHERALS AND EXPANSION MODULES

The core skills of the Schelling Company include not only the design of very practice-oriented standard saws, but also – and perhaps to an even greater extent – the planning and implementation of customer-specific engineered solutions.

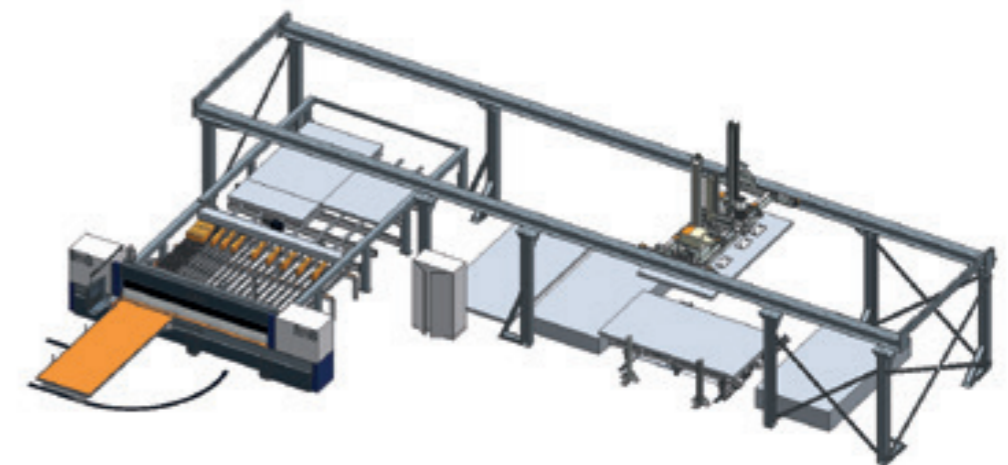
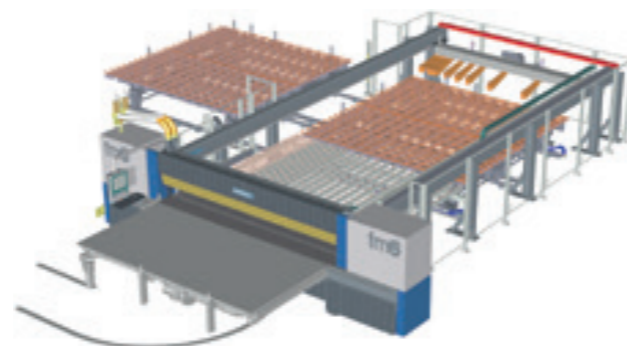
Extra comfort: Jib crane and vacuum suction loading

The jib crane and vacuum suction unit are expansion modules featured by the Schelling fm 6 and fm 8 that accelerate and automate material handling. These features allow the machine to be loaded/unloaded quickly and professionally in industrial environments.

Gain time with the preparation table

If the fm 6 and fm 8 are equipped with an optional preparation table, then additional time can be saved.

The preparation table allows the next plate or book to be loaded while plates are being cut to size on the machine. Idle periods are reduced because the next order can start the cutting process while the previous order is being unloaded.



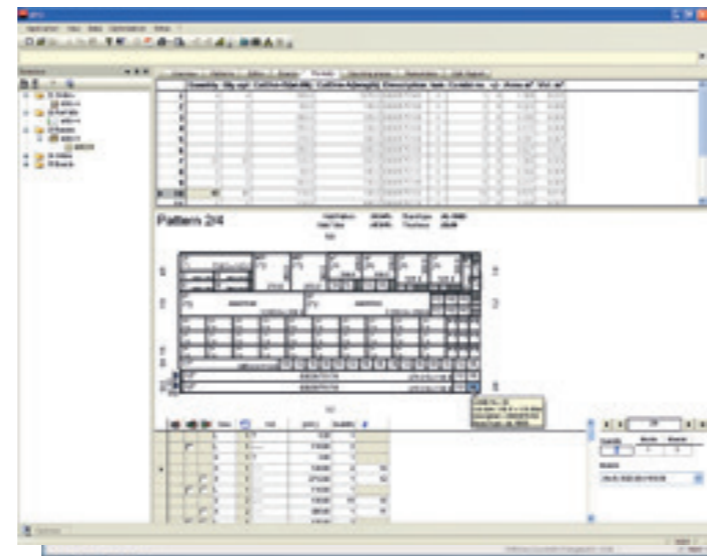
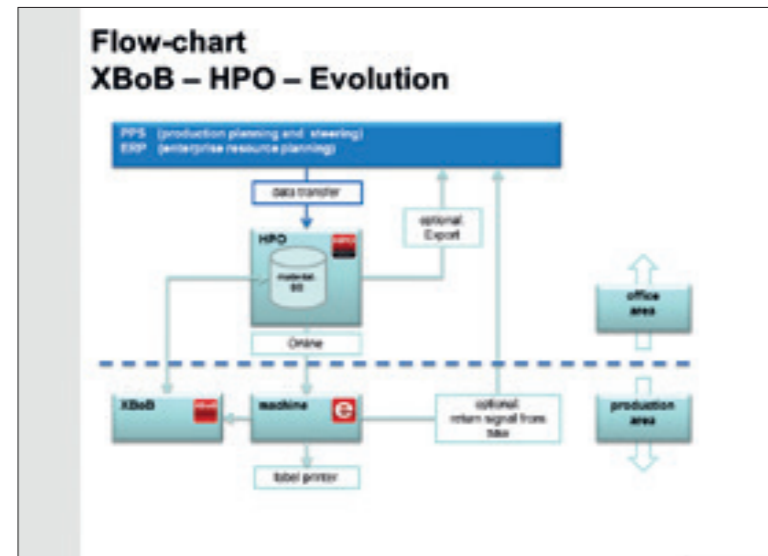
Flexible thanks to individual expansion modules

Expansion with individual modules ensures even greater industrial performance. All conceivable, precisely adapted solutions for loading, material handling and stacking can be planned. Everything comes from a single source, from the technology leader in cut-to-size saws: Schelling.

From planning all the way to commissioning, Schelling controls the process. This means just one contact person is responsible for ensuring that all components work seamlessly together from the very first moment.

INTELLIGENTLY CONTROLLED FOR HIGH OUTPUT

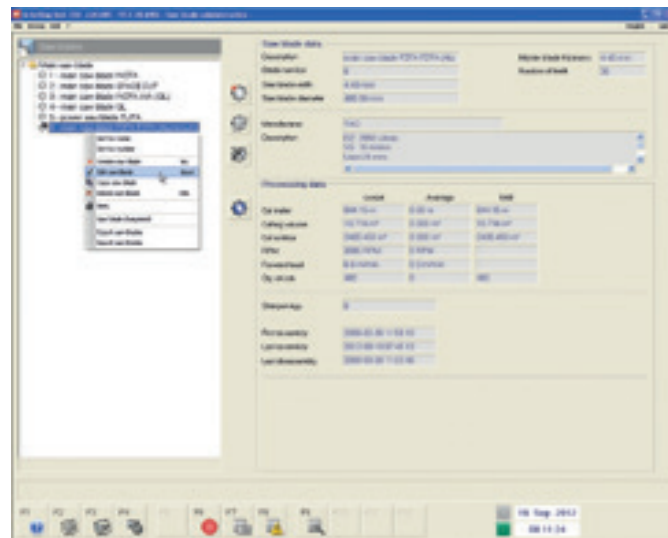
The Schelling MCS Evolution logic controller makes using the fm 6 and fm 8 efficient right from the start, and it also makes it possible to rapidly implement a high degree of automation. Open interfaces allow the machine to be easily integrated with existing systems and programmed from an office PC. A new diagnostic function for peripherals facilitates the work of machine operators and maintenance personnel and hotline remote maintenance, which is rewarding right from commissioning. The control desk with the MCS Evolution and the Schelling HPO optimization software turns work into a pleasure. Processes are displayed in real life mode – with unsurpassed fault diagnostics. Self-explanatory operator guidance practically excludes handling errors and increases saw availability and efficiency.



HPO High Performance Optimization

HPO cutting plan optimization saves time and money

The current release of optional HPO cutting pattern optimization presents new functions for productivity and operating comfort. The multi-core design ensures that information contained within modern computer hardware is recovered quickly. This means computing times are reduced by as much as 60%. In addition, the system works with the latest computer core. Another new feature is the pattern appearance can be virtually set as desired, on request the optimal non-machined panel can be determined, the print function can be configured and searching has been even more clearly designed.



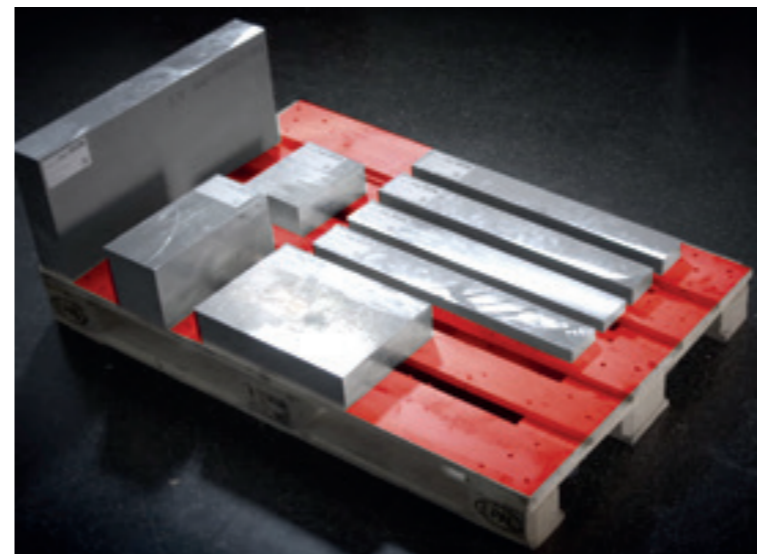
The operating data reporting of the MCS Evolution logs all relevant operating data, such as operating hours and the travel paths of the saw unit, feeder, pressure beam, etc. In addition, the running data of the saw blades are individually captured.



XBoB eXtended Board Booking

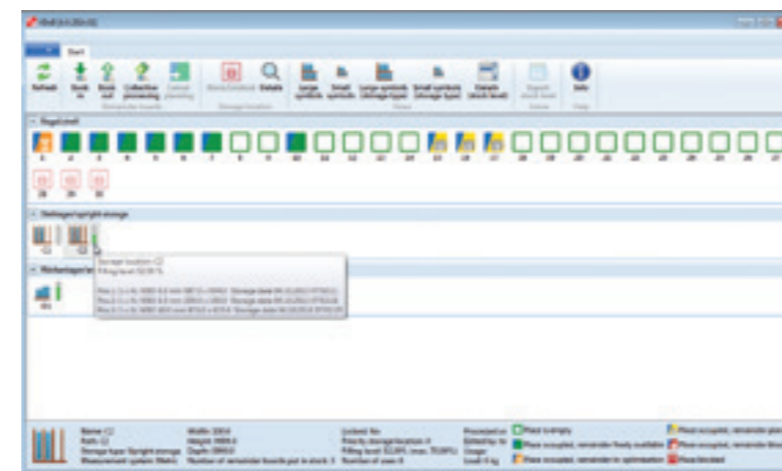
XBoB brings order to waste

With the XBoB remainder management program, board remainders can be managed in a manual store. Remainders are automatically booked in and out in interaction with the machine control unit. In addition, XBoB is the interface from the machine control unit 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 utilisation of material.



Display of the current cutting pattern, the cut, the order, and the material on the operator screen.

The newly developed optical power display aids easy sight monitoring of the saw motor power. (Only with the continuously adjustable RPM control option).



TECHNICAL DATA

| Saw blade | fm 6 | fm 8 |
|---------------|----------------|----------------|
| Diameter | 460 mm / 18.1" | 520 mm / 20.5" |
| Projection | 135 mm / 5.3" | 165 mm / 6.5" |
| Clamp opening | 135 mm / 5.3" | 155 mm / 6.2" |
| Book height | 100 mm / 4.0" | 152 mm / 6.0" |

| Power | fm 6 | fm 8 |
|-----------|---------------|---------------|
| Saw Motor | 27 kW / 36 PS | 34 kW / 46 PS |

| Feed rate | fm 6 | fm 8 |
|-----------|-------------------------------|-------------------------------|
| forward | 0 – 30 m/min / 0 – 100 ft/min | 0 – 30 m/min / 0 – 100 ft/min |
| reverse | 0 – 30 m/min / 0 – 100 ft/min | 0 – 30 m/min / 0 – 100 ft/min |

| Saw feed rate | fm 6 | fm 8 |
|---------------|-----------------------------------|-----------------------------------|
| forward | 0,1 – 80 m/min / 0,3 – 262 ft/min | 0,1 – 80 m/min / 0,3 – 262 ft/min |
| reverse | 80 m/min / 262 ft/min | 80 m/min / 262 ft/min |

Dimensions fm 6 / fm 8 manual

| | 330 | 430 | 630 |
|---|----------------|----------------|-----------------|
| a | 3330 / 131.00" | 4330 / 170.50" | 6330 / 249.25" |
| b | 6350 / 250.00" | 7350 / 290.00" | 9350 / 368.00" |
| c | 3860 / 152.00" | 4860 / 191.25" | 6860 / 270.00" |
| d | 7120 / 280.00" | 8120 / 320.00" | 10120 / 398.50" |
| e | 4200 / 165.50" | 5200 / 204.50" | 7200 / 283.50" |

Dimensions – mm / inch

Weight

| | |
|-----|------------------------|
| 330 | 8.500 kg / 18,750 lbs |
| 430 | 11.000 kg / 24,250 lbs |
| 630 | 14.000 kg / 30,750 lbs |

Dimensions fm 6 / fm 8 automatic

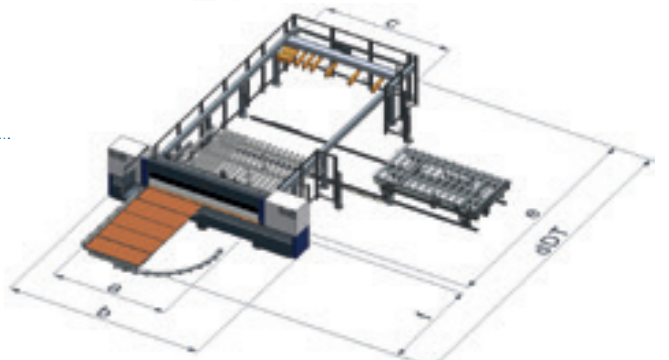
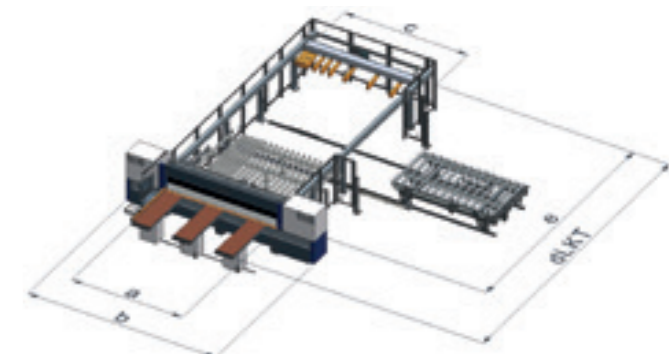
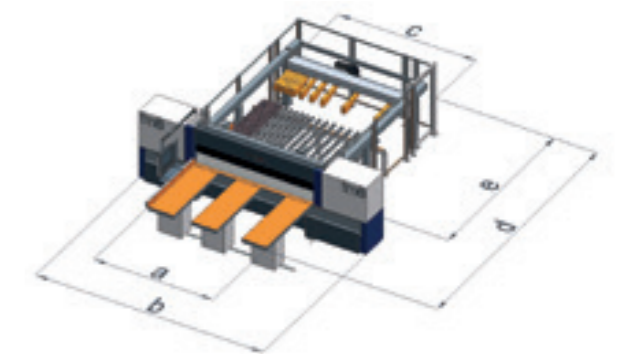
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| dLKT | 11060 / 435.50" | 12110 / 477.00" | 15110 / 595.00" |
| eLKT | 8140 / 320.50" | 9190 / 359.00" | 12190 / 480.00" |
| dDT | 10940 / 431.00" | 12990 / 511.50" | 17590 / 692.50" |
| eDT | 6940 / 273.00" | 7990 / 314.50" | 10590 / 417.00" |
| f | 3605 / 142.00" | 4605 / 181.50" | 9980 / 393.00" |

Dimensions – mm / inch

DT – turntable / LKT – air floatation table

Weight

| | |
|-----|------------------------|
| 330 | 11.000 kg / 24,250 lbs |
| 430 | 13.000 kg / 28,750 lbs |
| 630 | 17.000 kg / 37,500 lbs |





**ONE GROUP –
ONE GOAL:
EXPERTISE IN
DEVELOPING
SOLUTIONS
FOR THE METAL
WORKING
INDUSTRY**

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 metal processing.

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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.