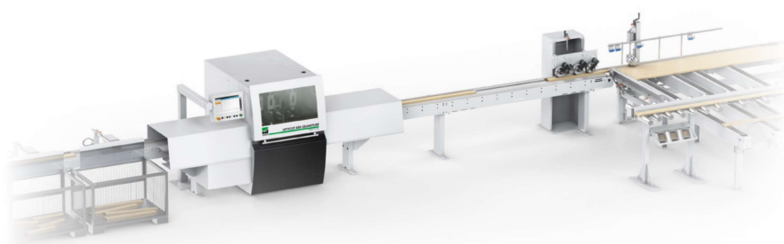


# OPTICUT 450 SERIES

Innovative cross-cutting and optimising systems for highest yield and maximum profit



# Always a cut above with WEINIG: profitable cross-cutting with market leading know-how

With its OptiCut 450 Dimiter Line models, WEINIG offers high-speed cross-cut lines for all industrial requirements. For fixed length cutting, defect removal and optimisation. OptiCut high-performance cross-cut saws are not only the fastest around, but also give you top reliability, accuracy and user-friendliness. Simply install and you can begin profitable, high-performance cross-cutting right away – thanks to the technology leader. WEINIG means state-of-the-art computer technology and software from our own resources.



Fixed length cutting  
Defect cutting  
Optimisation

One attractive option is to use scanners in OptiCut lines instead of manual defect and quality marking. The OptiCut can grow with the user's needs. Upgrading and retrofitting are possible at any stage. What's more: WEINIG customers benefit from the comprehensive service of an experienced manufacturer and the security of the world-wide WEINIG. What are your requirements? Simply select from our OptiCut range, from simple to fully automatic solutions.



## The OptiCut – a cut above the rest:

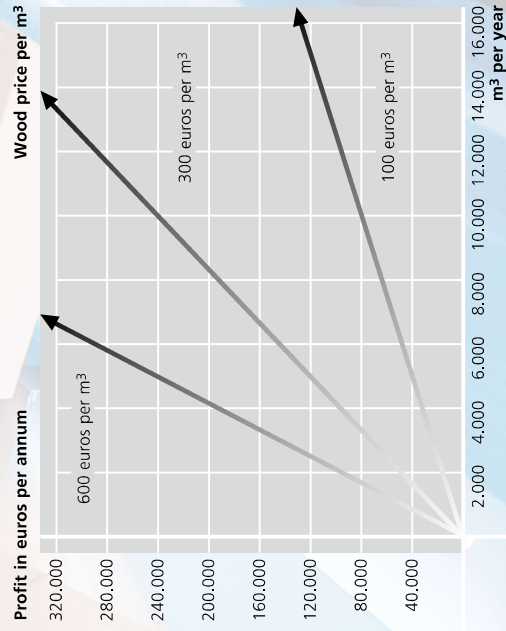
- High performance and speed
- High productivity
- Maximum profit
- Top reliability
- Absolute cutting accuracy
- Maximisation of timber yield
- Easy to operate
- Robust and durable
- Expandable and upgradeable
- Individual cutting solutions
- Use of scanner technology
- Fully automatic production

# WEINIG gets things moving: perfect cross-cutting in record time

High-speed positioning, cross-cutting and sorting – plus a maximum yield. Modern plants need this facility in their production. The innovative machine concept of the top models of the OptiCut 450 Series allows feed speeds of up to 550 m/min. Exact positioning from full speed followed by re-acceleration is performed at up to 50 m/s<sup>2</sup>. By way of comparison: a Formula-1 racing car takes almost three times as long just to accelerate! One cut takes just 0.069 seconds – the blink of an eye!



## Potential savings thanks to optimising



### Ultra-fast feed, exact positioning and precision cutting

Heavy feed rollers working from above keep the wood firmly in place. This ensures reliable, trouble-free transportation through the OptiCut. Even with rough, bowed or twisted timber – the drive rollers follow the contours of the material. HighGrip rollers allow extremely dynamic positioning and acceleration. Powerful drive units guarantee a high continuous performance. The extremely fast saw stroke ensures a very high cutting frequency.

## OptiCut 450 Quantum and OptiCut 450 FJ<sup>+</sup>: the fastest OptiCut in the world



The **OptiCut 450 Quantum** is the ultimate cross-cut saw, enabling you to increase your daily output by up to 30 % ! Besides its cleverly designed VarioSpeed feed system, it also has an intelligently controlled waste gate which only opens as far as needed. High-Grip rollers specially designed for and adapted to different types of wood ensure effective power transmission to the workpiece and precise positioning – assisted by the non drive-dependent length measuring system. The special saw unit can be precisely controlled (e.g. minimising of tear-out). Linking of multiple saws and integration of the lines into a company network can be readily implemented.

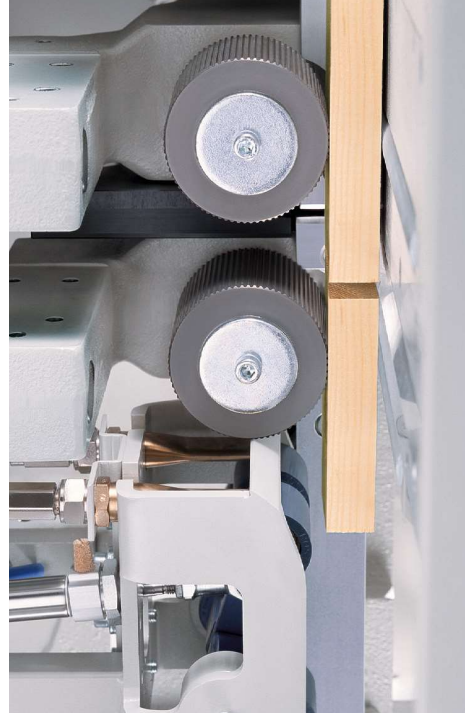
## OptiCut 450: the powerpack for universal application

The **OptiCut 450** can tackle timber of almost any quality. Even bowed and twisted timber can be reliably used in production with the ample power available. Thanks to the non drive-dependent length measuring system, the OptiCut cuts with an accuracy of up to  $\pm 0.8$  mm. Also included is a full optimisation facility for deriving the maximum yield from a minimum material input – and that goes for larger cross sections too.



Integration of WENIG scanner technology  
Automatic sorting  
OptiCut Stacker: Automatic stacking

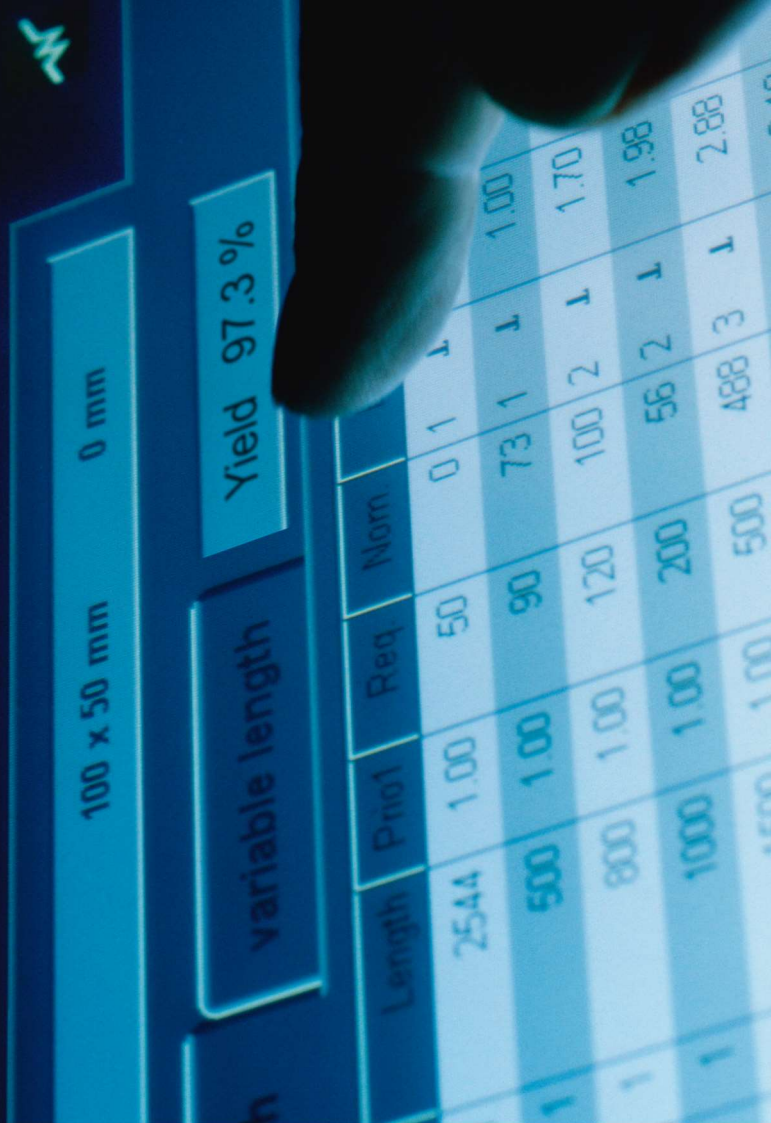
The **OptiCut 450 FJ<sup>+</sup>** is characterised by a special feed system which ensures secure transportation of even the shortest pieces of quality wood. Thus, the machine retains full control at the end of the board over short parts up to 80 mm, that are reliably separated from the waste and transferred to the sorting station. This results in a hugely increased yield in case of finger jointing operation. Thanks to their outstanding performance, OptiCut high-speed saws are ideal for use with automatic feed systems, scanners as well as the OptiCut Stacker. The WENIG project planning team helps you plan your cutting lines, whether it is linked machines, unmanned production or high-performance installations you're after.



## OptiCut 450 XL: high performance – even with extra-large cross sections

The **OptiCut 450 XL** is equipped with extra-wide feed rollers which bring a higher torque to bear on heavy timber sections. Despite the large cross sections, a surprisingly high cutting capacity and linear accuracy are achieved. The feed speed can be switched between 120 m/min. and 180 m/min. depending on the relevant cross section. And suitable feed, marking and sorting solutions are of course also available for the OptiCut 450 XL – including ones specially designed for heavy timber.





## The OptiCut optimisation function: more profit and greater transparency

OptiCut cross-cut saws can be controlled via the intuitive OptiCom Direct touchscreen. This software provides for optimum timber yield and thus for maximum profit. This future-oriented solution can be integrated in company networks and keeps production statistics for greater transparency in wood purchasing and

production output. Further advantages:  
 Reliable operation without hard disk  
 • Secure storage on Flash card  
 • Direct printer connection  
 • Can be directly integrated in Ethernet networks  
 • Easy generation of cut lists and statistics evaluation in the office  
 • Ideal solution for linking management

and production  
 • Possibility of integration into sector solutions.  
 Fixed length cutting, defect removal, optimisation – optimisation can easily save a good 8 % or more waste. The OptiCut therefore pays for itself in next to no time.



## Perfect sorting: fully automatic with the waste gate from Dimter Line

Clearing the way for accepted stock! When sorting at extremely high cutting speeds, it is particularly important to ensure the reliable separation of quality wood and rejects. That's why WEINIG high-performance saws are equipped with a waste gate as standard.

### The waste gate

The intelligently controlled waste gate is integrated directly in the saw and is precisely adjusted to the output of the high-speed cross-cut saws. This ensures reliable separation of rejects from pieces of quality timber and avoids problems with sorting and further processing. Quality timber is not considered as waste. The surest solution around for reliable sorting and trouble-free production.

### Automatic sorting

The OptiCut cuts at record speed. And it identifies every cut length. Sorting parts automatically by length, quality etc. from the outset is a logical way of doing things, particularly when it comes to order-based production. That way you simplify your logistics and save on personnel.



## WEINIG length measuring system: even better positioning and yield

The length measuring technique used by WEINIG measures – regardless of slip – directly on the workpiece surface. This ensures the right conditions for accurate cross-cutting: The beginning and end of the wood, the position of the marked defects and quality areas are recorded with great precision. The result: Less waste thanks to shorter cut-offs at either end. Exact lengths (up to  $\pm 0.8$  mm) thanks to assisted positioning. Perfect lengths without defects.



## OptiCut with VarioSpeed: continuous cross-cutting thanks to non-stop feed



Why pay out for more saws than you need? The OptiCut offers enormous performance potential right across the board. To exploit this capacity to the full, the intelligently controlled VarioSpeed reduces the distances between the workpieces as much as possible. That way the OptiCut is supplied continuously with wood, making the system even more economic.

## OptiCut with intelligent saw blade control: clean cut and minimal tear-out

The saw stroke is controlled. Due to the controlled exit of the saw blade from the workpiece the tear-out is reduced to a minimum. The other cutting phases on the other hand are performance-optimised. Waste or grades in which tearout is less of a problem can be cut at maximum speed.



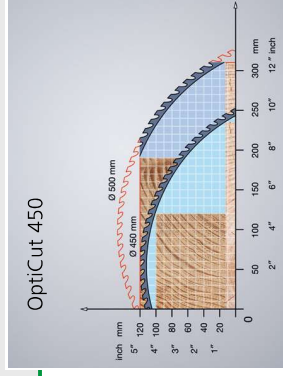
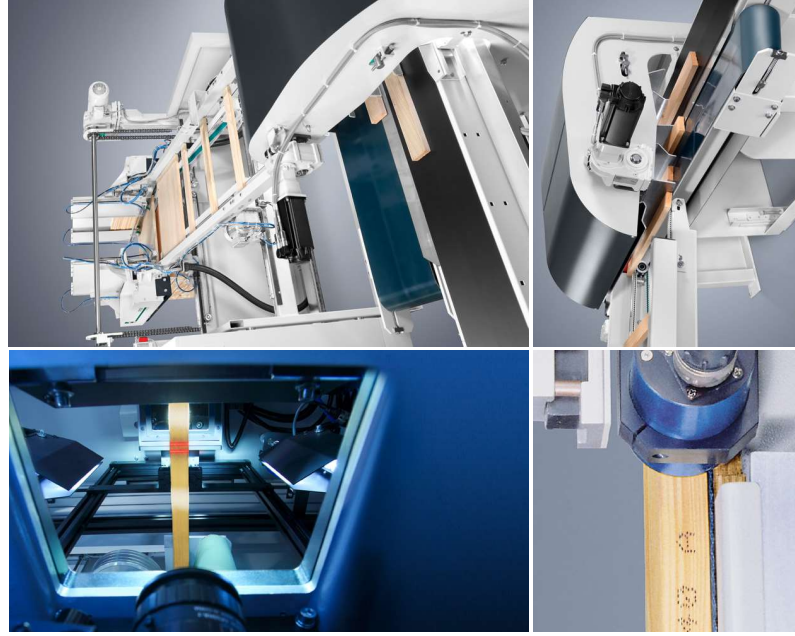
## WEINIG feed rollers with sure grip: top performance with all kinds of wood



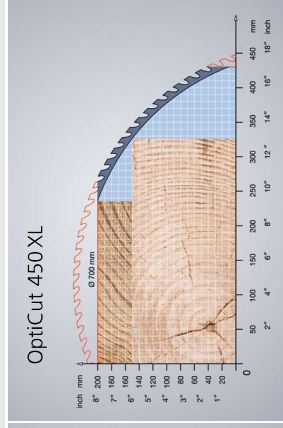
Heavy feed rollers working from above ensure reliable, trouble-free transportation through the OptiCut. Different wood qualities impose different requirements, however. That's why WEINIG offers feed rollers with the right surface finish for every application. These can be swapped in and out of the OptiCut high-speed saws in no time – just like tyres on a Formula 1 racing car. Now rough and planed qualities can be easily handled in the same shift. Resin-coated rollers are easy to clean – for a consistently high performance day in, day out.

# WEINIG high-speed cutting lines: advanced technology with great potential

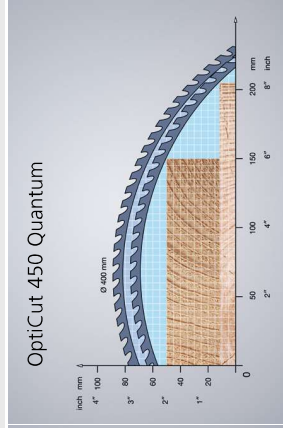
WEINIG OptiCut cutting lines are built on modular principles, thus ensuring that you are well equipped for the future. With the relevant upgrades, you can ensure a rapid response to changing market requirements. Useful add-ons include Scanner systems, ID technologies or the stacking device OptiCut Stacker.



OptiCut 450



OptiCut 450XL



OptiCut 450 Quantum

Attention! When determining a possible timber cross-section, bends and different timber dimensions must be taken into account. The nominal values in our technical data apply.

## Overview table OptiCut 450 Series: Standards and options

The matrix shows the main distinctive features of the different models. Your WEINIG expert will gladly provide you with further details adapted to your individual requirements.

The figures provided are standard values for guidance only. Please ask us if you have other requirements. Different values may apply to different versions. ( ) = optional.

### Technical data:

Min. nominal cross section	30 x 12 mm
Min. ingoing lengths from	500 mm
Min. ingoing lengths with automatic feed from	900 mm
Max. ingoing lengths	6.3 m
Max. feed speed	300 – 415 m/min (450 XL 180 m/min)
Cutting accuracy up to 1 m cutting length	± 0.8 mm
Cutting accuracy up to 2.5 m cutting length	± 1.5 mm
Min. cutting length / at end of workpiece	80 – 150 mm / 80 – 180 mm

### OptiCut 450 Series

	OptiCut 450	450 XL	450 Quantum / FJ+
<b>Equipment:</b>			
VarioSpeed	●		●
Servo saw stroke			●
Fixed length cutting / defect removal	●	●	●
Full optimisation of max. ingoing length: fixed and variable lengths, up to 8 qualities, 16 groups, >100,000 lengths	●	●	●
Pneumatic waste gate	●		
High-performance waste gate			●
Automatic sorting	●		●
Automatic feed		○	○
Integration in systems		○	○
Integration of scanner		○	○

**WEINIG Scanner systems** detect fully automatically and at lightning speed relevant workpiece characteristics such as knots, cracks and structural patterns, and supply up to 4 OptiCut high-performance saws with cutting data via intelligent mechanisms while maintaining full production speed.

**Inkjet printers** or paint sprayers allow easy, unambiguous identification of parts and material grades. This makes for simpler logistics, particularly when producing a wide variety of parts. The control of the printer is fully integrated into the OptiCom Direct control system of the OptiCut, so that the data for printing can be easily entered via the touchscreen.

The **OptiCut Stacker** is the ideal solution for the production of preferred lengths. These are stacked fully automatically to a stacking height of 1,200 mm and at a rate of up to 80 parts/min. Different stacking patterns can be selected in the saw control system.

Subject to technical modifications. The information and illustrations in this brochure also include extras which are not part of the standard package. Protective coverings may have been removed for purposes of photography.

● Standard ○ Option

## WEINIG quality:

The sum of many properties



Not many companies succeed in becoming a brand. WEINIG has succeeded in doing so. Trust plays a central role here. And the ability to prove this trust on a daily basis with our customer. We do this with quality. From product development to our supply of spare parts, from materials used to our worldwide service network. Based on employees noted for their expertise and passion for the product. Utmost care in assembling machines is part of this, as is continuous training. In order to maintain WEINIG's high standards we focus on vertical integration and independent quality management. Based on the world famous kaizen method, our production undergoes a continuous optimization process.

But WEINIG quality also means aligning production for the future with open machine systems, energy efficiency and sustainability. All these characteristics blend to create a product praised by our customers around the globe as outstanding. We call it 100% WEINIG quality.

## WEINIG service:

Very close to customers



Customer relations are good. But we have a better word for it: WEINIG service. Supported by people who want to share their enthusiasm for wood with others. And when experts start talking together, a solution is not far away. This is why WEINIG service focuses on dialog with you, on outstanding training and a local support presence. The global WEINIG service network is so densely spread like no other in the sector. For you this means easy communication in your own language and rapid help. Whether by telephone or by a technician on site. We are here for you when you need it. You can order any spare part you need via the hotline for rapid delivery – even old models.

You will be advised in detail by a professional WEINIG expert in your country. In our individually tailored training programs you can find out how to optimally exploit the capabilities of your machine. Our specialists are always open to your production tasks.

- Subsidiaries in all continents of the globe
- Local WEINIG expert who speaks your language
- Mobile team of over 300 service technicians
- Spare parts via the hotline
- Professional advice by specialists via the hotline
- 6 day service
- Individually tailored training program
- Service agreements on request
- International ExpoCenter
- Financing to suit your needs

or more information,  
go to [film6.weinig.com](http://film6.weinig.com)



# OPTICUT 450 SERIES

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