

Software
CADmatic saw control system





CADmatic – the saw control system for the trade and industry

With horizontal panel dividing saws from HOMAG, it is like a modern premium car: Mastery of them and their functions demands a perfectly designed cockpit – one that is clearly arranged, with easy-to-understand displays and intelligent operator guidance. And that's exactly what the CADmatic control software has to offer. Developed by HOMAG saw professionals – and successfully in operation for over 30 years. We are **YOUR SOLUTION**.

Find out more here: www.homag.com



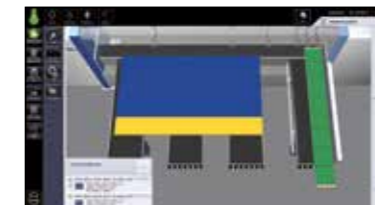
CADmatic 4.1 PRACTICE

The proven control software for all HOMAG 1 and 2 series saws.



CADmatic 4.1 PROFESSIONAL

CADmatic 4.1 PROFESSIONAL provides greater operator convenience with integrated touch operation and additional functions on request. Available as an optional feature for the HPP 200.



CADmatic 5

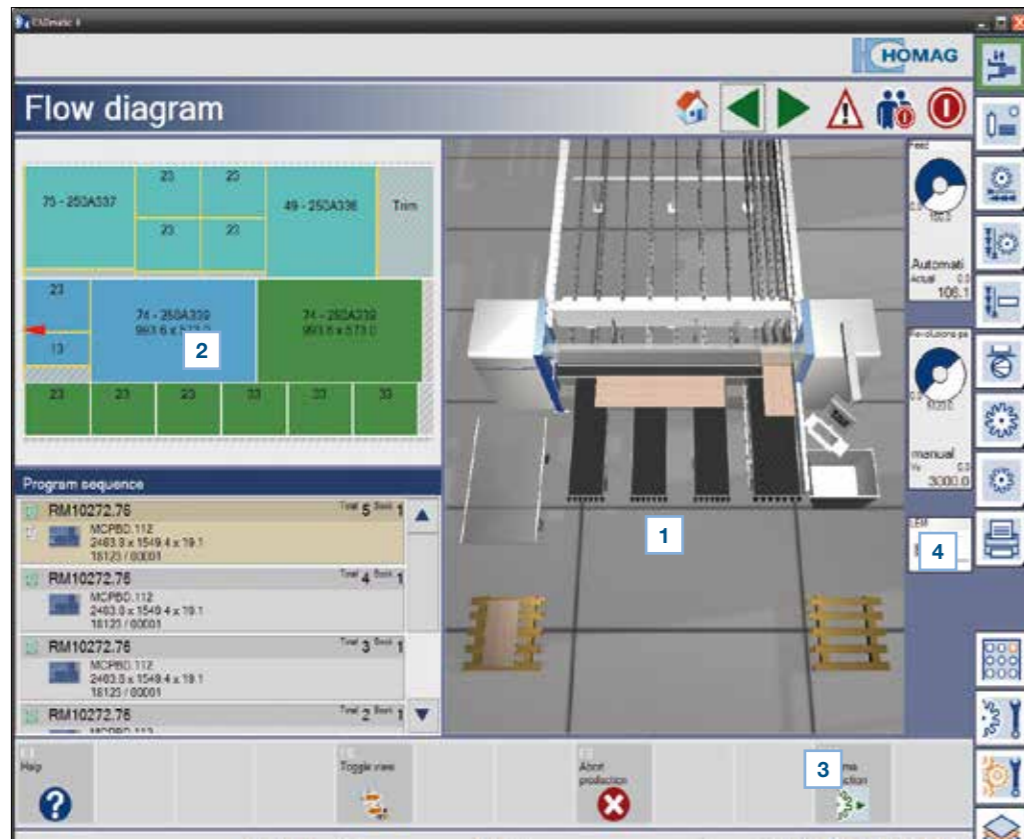
The latest version of the HOMAG machine control unit – with many powerful features, touch operation and the innovative assistance graphic. CADmatic 5 comes standard for saws from the 3 series on.

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CADmatic 4.1

Control all 1 and 2 series saws with CADmatic 4.1 PRACTICE.



1 Virtual bird's-eye view

The main screen displays your saw as if you were looking down onto it from a tower – in all its detail and with useful information on production status. You are even able to customize the layout of the functions you have at your disposal. Ask your HOMAG consultant for more details.

2 Keep an eye on the cutting pattern at all times

This graphic shows you clearly and precisely which parts have already been produced and which are still to be cut, enabling you to keep an eye on everything at all times.

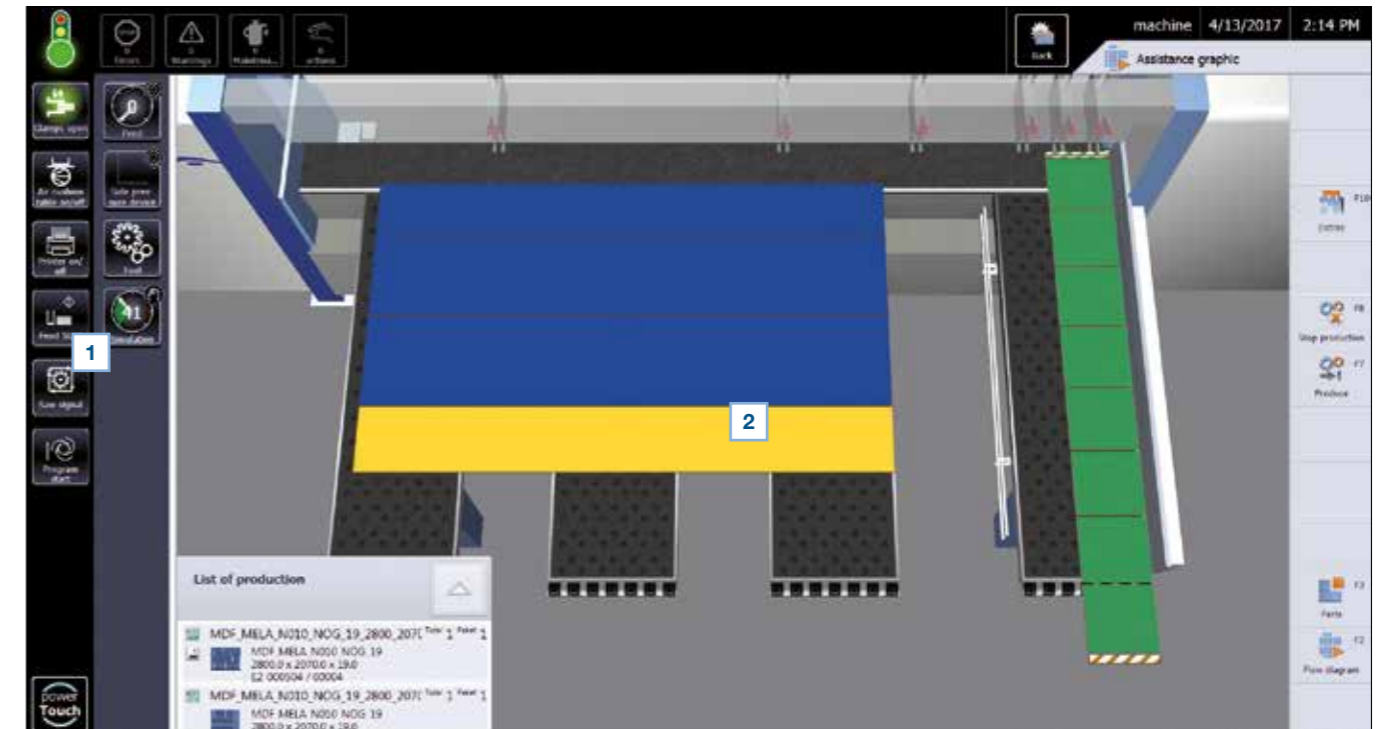


CADmatic 4.1 PROFESSIONAL

CADmatic 4.1 PROFESSIONAL is optionally available for your HPP 200 – for even more control options for the 2 series and with a convenient touchscreen.

CADmatic 5

Intuitive machine control – simple, quick and clear: CADmatic 5. The latest version of the control software guides the user by means of the innovative assistance graphic and uses a widescreen monitor including powerTouch. The machine control unit is therefore a pleasure to use.



1 powerTouch operating panel

The powerTouch operating panel comprises an extra-large widescreen monitor with touch function. Zoom, swipe, scroll – simple, smartphone-style movements are sufficient to utilize the control software's entire range of functions. CADmatic 5 also offers many further benefits:

- Intelligent production readiness display
- Softkey buttons
- Standardized navigation: all content can be selected via a single window (for more information, please see the "powerTouch" brochure)
- Uninterrupted operation thanks to software messages that briefly appear and automatically disappear using speech-bubble technology (not shown)
- MMR Basic for need-based maintenance and for recording key machine data

2 3D assistance graphic with preview and review feature

The 3D assistance graphic uses a realistic representation of the saw to show all work processes to be executed manually from various, selectable perspectives, until these processes have actually been executed. The different coloring of the parts symbolizes the various processing states. It is therefore possible to identify all the information necessary for a smooth workflow quickly and easily at all times.



Standard features

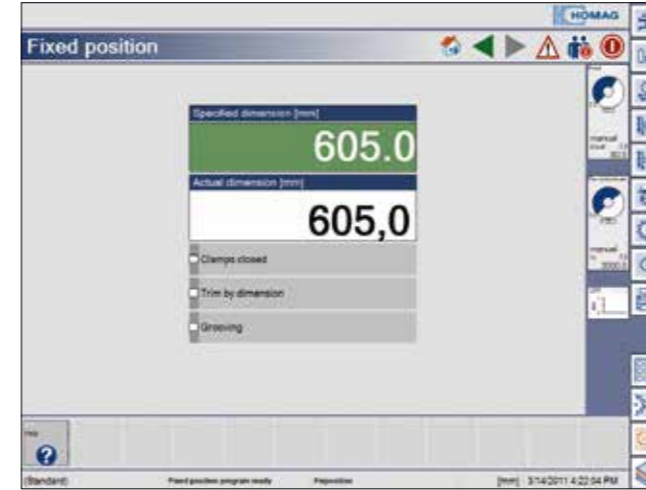
From cutting to length all the way to tool data maintenance: The standard features of the CADmatic control software alone offer you an enormous variety of functions. Further on, you can then find extras – under optional features.

Cutting pattern input



CADmatic 4.1
cutting pattern input

Fixed position



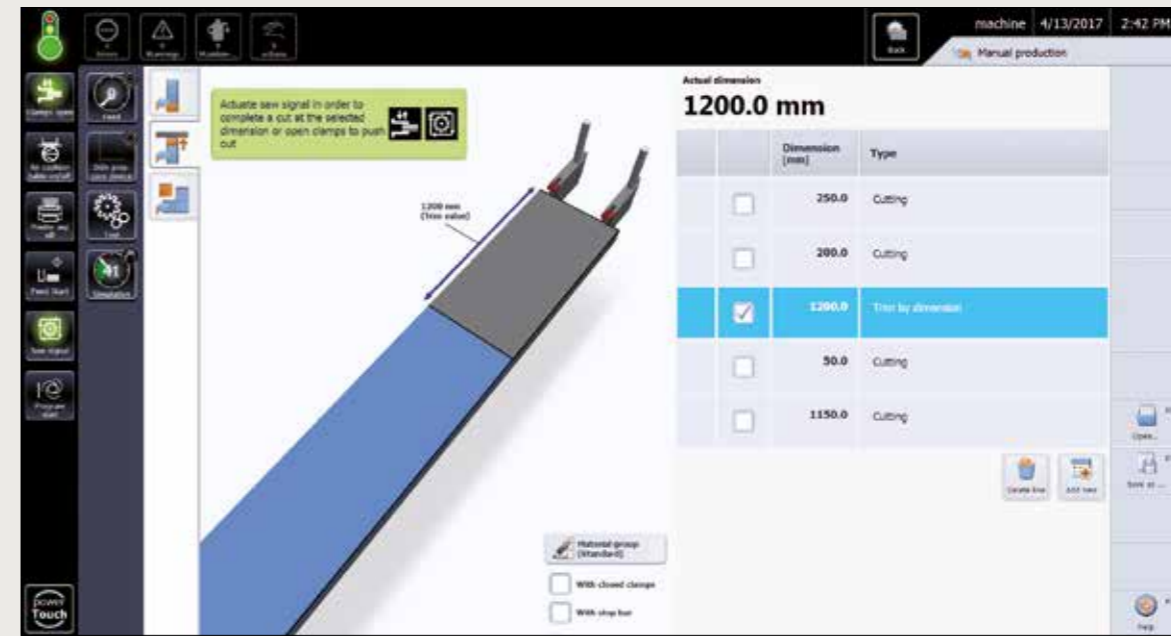
CADmatic 4.1
fixed position

For a fast single cut. Just enter the required dimension – nothing else is required to complete the cut.



CADmatic 5
cutting pattern input

The full range: This is where you enter all the data that your saw needs to complete complex rip and cross-cut patterns.

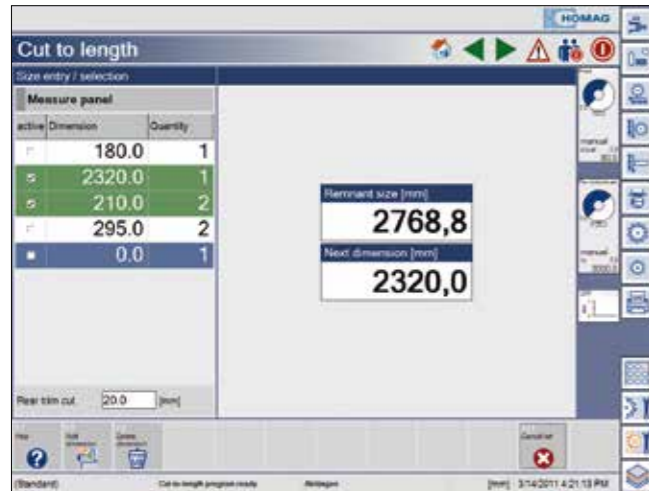


CADmatic 5
fixed position

The program fence is used as a fixed-position stop, with clamps either open or closed.

- Input lists can be saved
- Easy trimming of edges

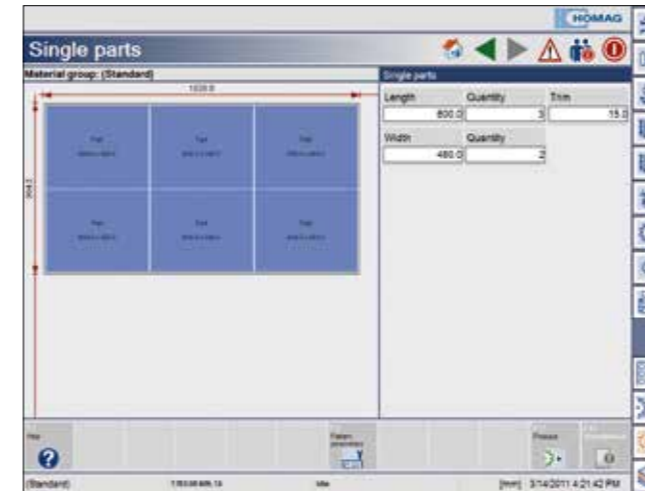
Cutting to length



CADmatic 4.1 cutting to length

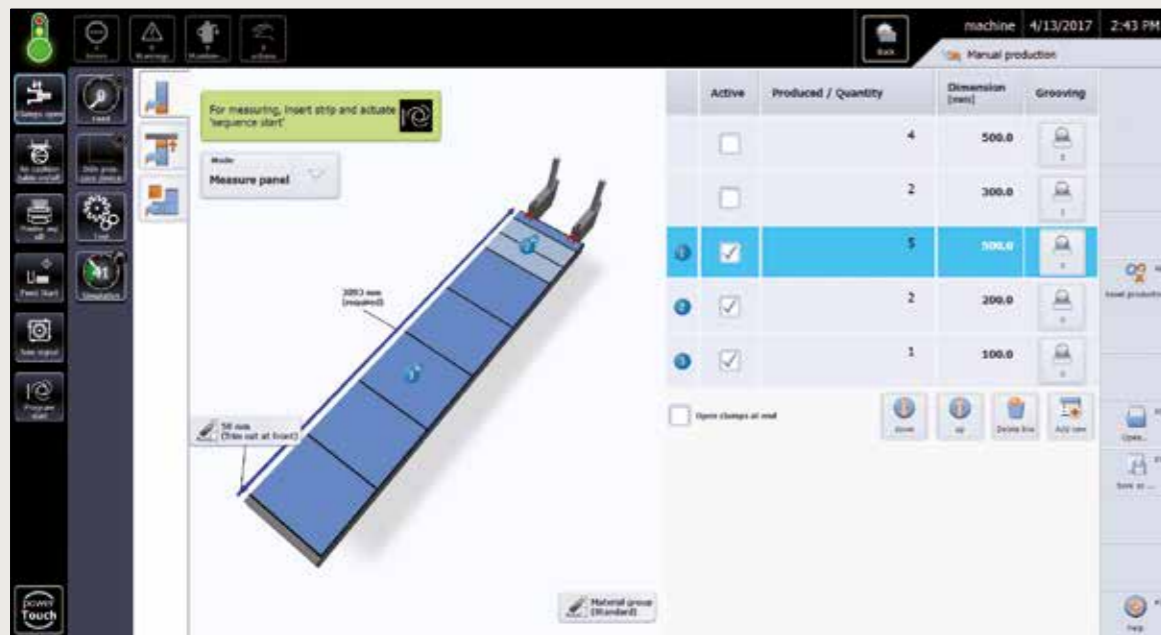
Cut after cut in one direction: Here you can enter all the data needed to cut a strip into differently sized parts.

Single parts



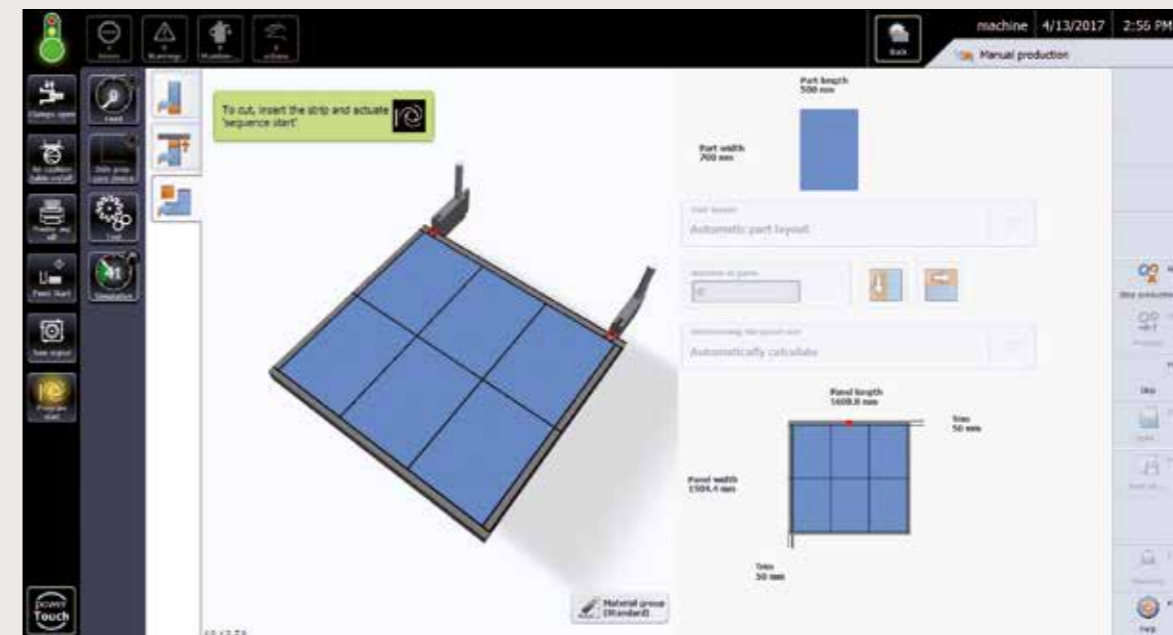
CADmatic 4.1 single parts

For single cuts with a trim, you only need to enter the dimensions. Everything else is already set up.



CADmatic 5 cutting to length

Cutting to length is controlled by a number of pre-settings, allowing you, for example, to enter the book height and to specify whether the clamps should open at the end. In addition, it is possible to save dimension lists that have already been entered. Finally, your input data is checked for plausibility.



CADmatic 5 single parts

For single cuts, enter the required part dimension as well as the trims in the longitudinal and transverse directions separately. Depending on the number of required parts, the system suggests a certain layout and takes into account any available panel formats for the selected material.

Graphically supported diagnostics



CADmatic 4.1
graphically supported diagnostics

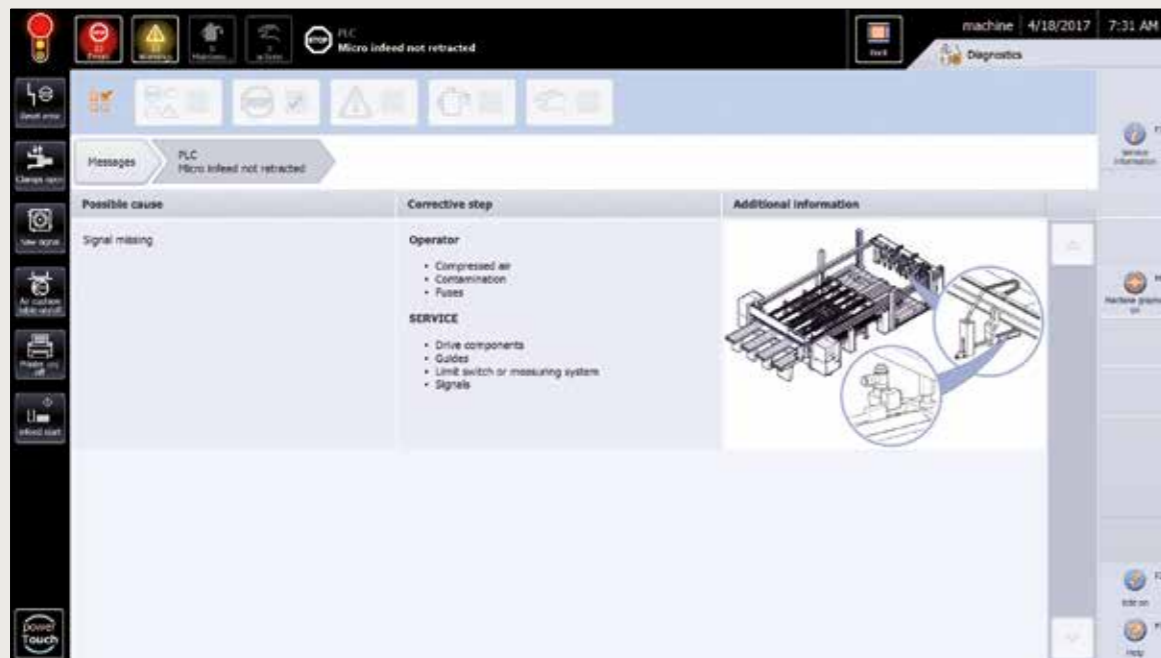
Cutting pattern management



CADmatic 4.1
cutting pattern management

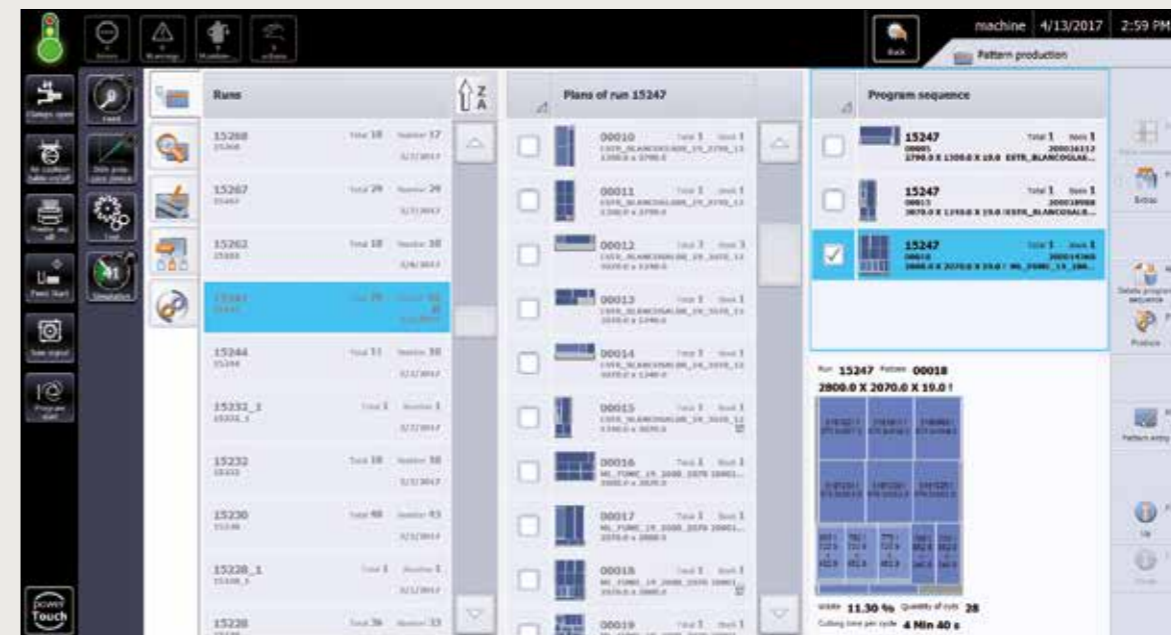
Many cutting jobs need completing more than once. The good news: Any cutting patterns created at the saw are saved and can be retrieved whenever needed, saving time and cutting costs.

CADmatic 4.1



CADmatic 5
graphically supported diagnostics

The graphically supported diagnostics show you immediately if, for example, an emergency stop has been activated or a service action is required. What's more, if your saw is equipped with a modem or an Internet connection (TeleServiceNet), HOMAG can rectify the majority of errors directly online. This feature saves time and increases your productivity.

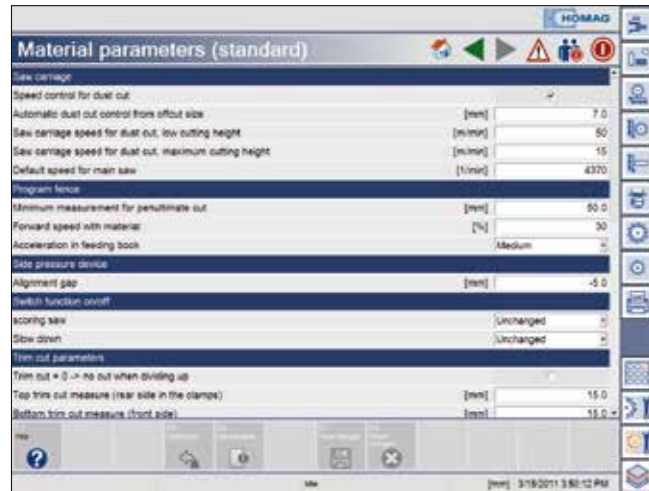


CADmatic 5
cutting pattern management

Individual production sequences can be defined using the program sequence feature (including parts overview).

CADmatic 5

Parameter management



CADmatic 4.1 parameter management



CADmatic 5 parameter management

Trim dimensions, speed or acceleration: CADmatic allows you to define basic machine settings, known as material parameters. These parameters are then automatically accessed for each cutting process. In order to do so, you create a user-defined parameter list. You also have the option of changing the stored values whenever necessary.

Tool management



CADmatic 5 tool management

How much material have you already cut with this saw blade? Does its condition still meet your quality requirements? The tool management feature knows the exact answers to such questions and indicates when it is time to change the blade. To make use of this feature, simply enter estimated values for the specific material mix.

Do you use a number of different tools? If so, you can save the respective parameters under an appropriate name. The software then assigns the data for usage and volume to each tool separately. If a tool has to be replaced due to wear, you simply reset the corresponding counter to zero.

Optional features

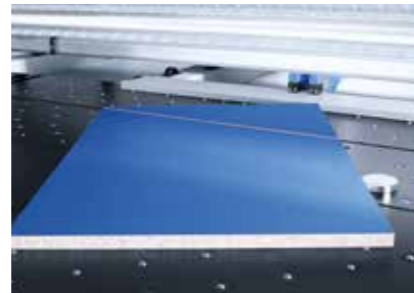
Special tasks and processes that go far beyond cutting require additional control options. Just select the right option for your production.



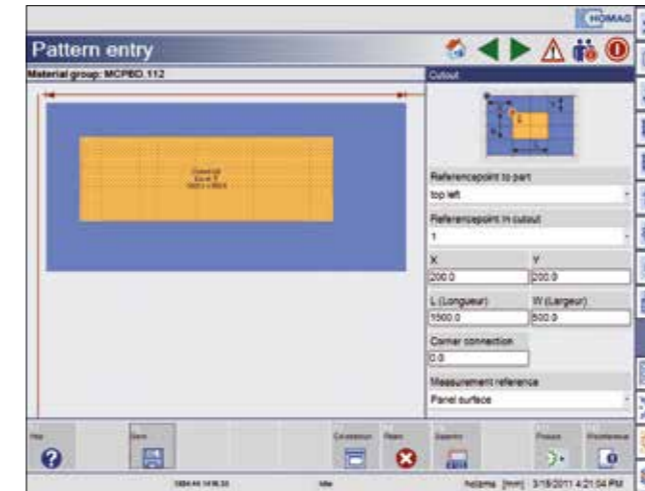
Manual angle cut



CADmatic 4.1
manual angle cut (HPP 200 only)



Cut-out and stress elimination cut



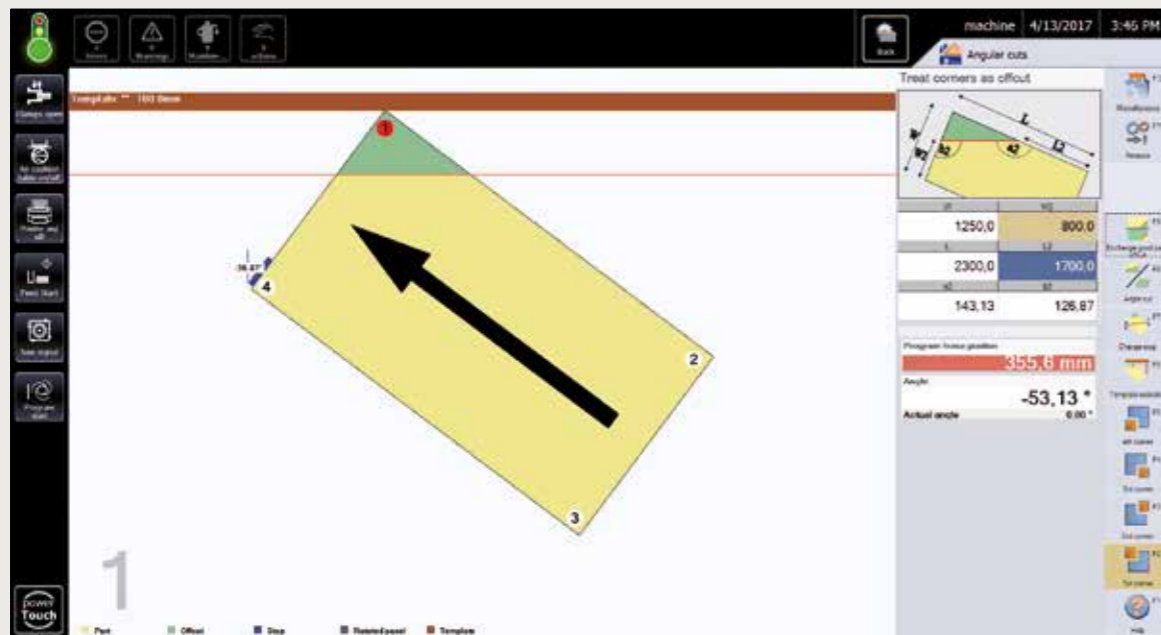
CADmatic 4.1
cut-out and stress elimination cut (HPP 200 only)

Stress elimination cut

There is also the "stress elimination cut" option for the HPP 130 – in a slightly different format and without the "cut-out" feature:

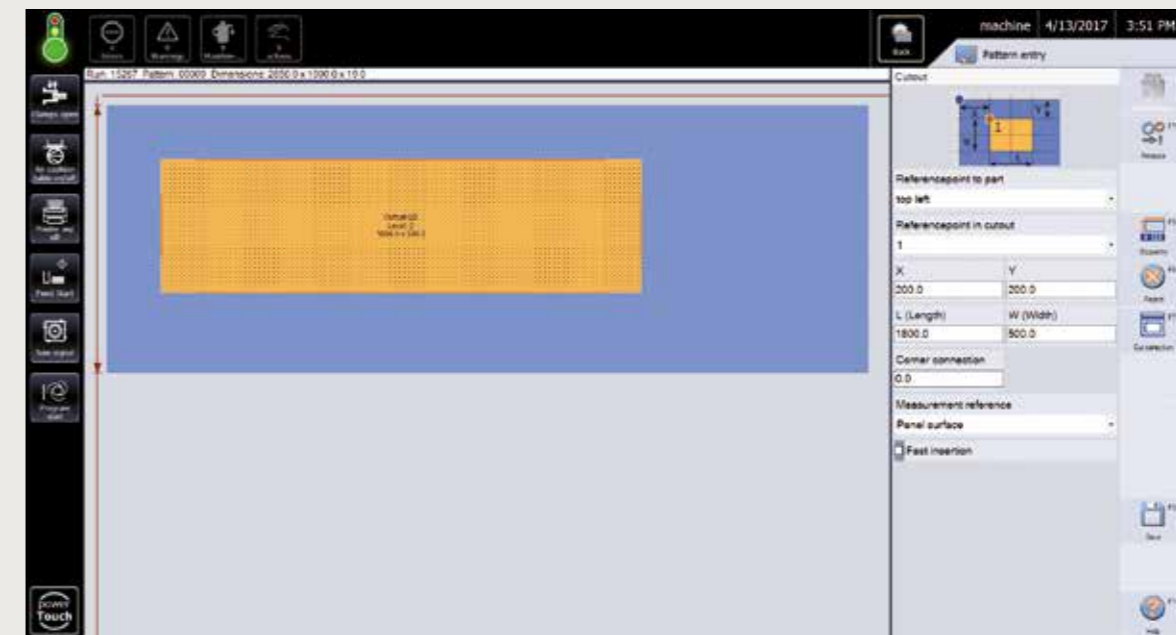


CADmatic 4.1
CADmatic 5



CADmatic 5
manual angle cut

This feature allows you to control angle cuts quickly, conveniently and precisely.

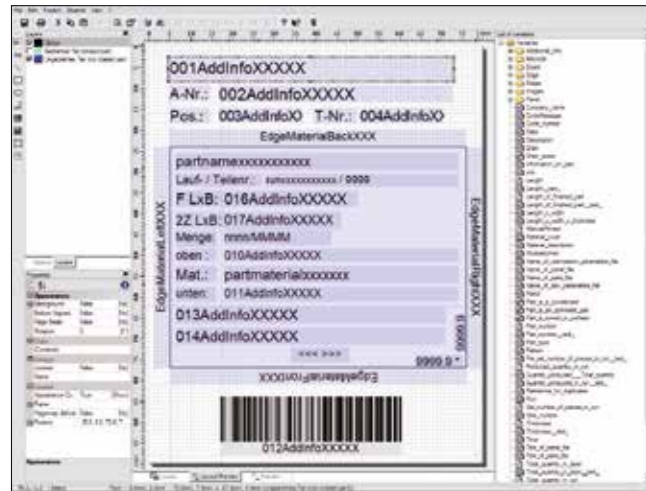


CADmatic 5
cut-out and stress elimination cut

Coated materials warp during cutting due to tension being released – and the stress elimination cut feature has the solution. Tension is released via specific pre-cuts in the material. What's more, the cut-out feature allows sections to be cut out of panels – for example for kitchen sinks.



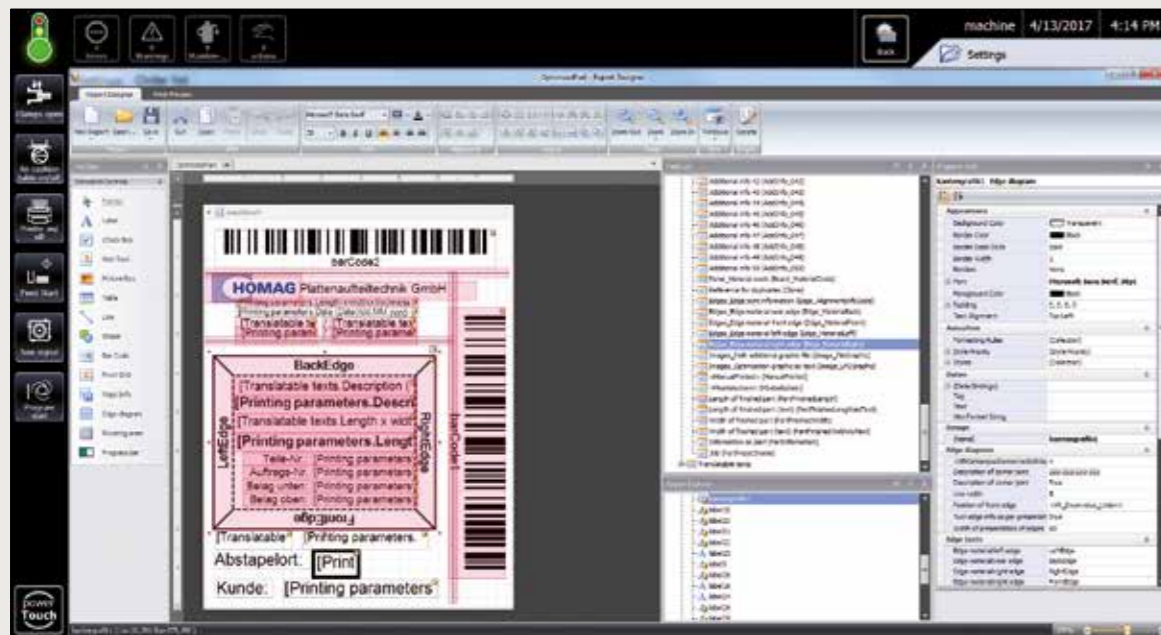
Labeling



CADmatic 4.1 labeling



Material-dependent parameters



CADmatic 5 labeling

Be it individual parts, cut books or entire stacks: With the optional labeling feature, you can label the results of your work with all the relevant information in time with the cuts and pass data on to downstream machines.

How does it work? The layout editor allows you to define the label design and enter the required data in CADmatic. When labeling, you are able to include text information as well as graphics and freely

selectable barcodes. The system will then generate the labels in perfect time with the processing cycles. Depending on the system, the labels are then attached automatically or by hand.

An optional feature that sets industry benchmarks where scope for design and hardware quality is concerned, leaving nothing to be desired.



CADmatic 5 material-dependent parameters

When processing many different materials, the saw needs re-adjusting each time the material is changed. This re-adjustment increases setup time at the expense of production time. Adjustment can be automated and significantly speeded up using the add-on module "material-dependent parameters".

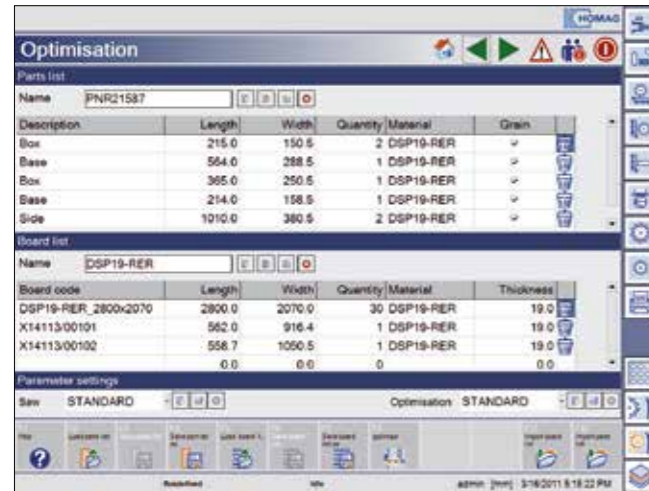
You only need to enter the parameter settings for each material once. These settings may include settings for the travel of the side pressure

device, for the saw blade projection or for the point of immersion for postforming material. Other parameters such as the pressure of the clamps and pressure beam or the speed can also be specified if your saw is equipped with one of these options.

When you change materials, you then only have to retrieve the corresponding profile – and your saw is adjusted. This process is performed fully automatically and in the blink of an eye.

CADmatic 4.1
CADmatic 5

CADplan – manual cutting-pattern optimization



CADmatic 4.1
CADplan – manual cutting-pattern optimization

Just-in-time optimization

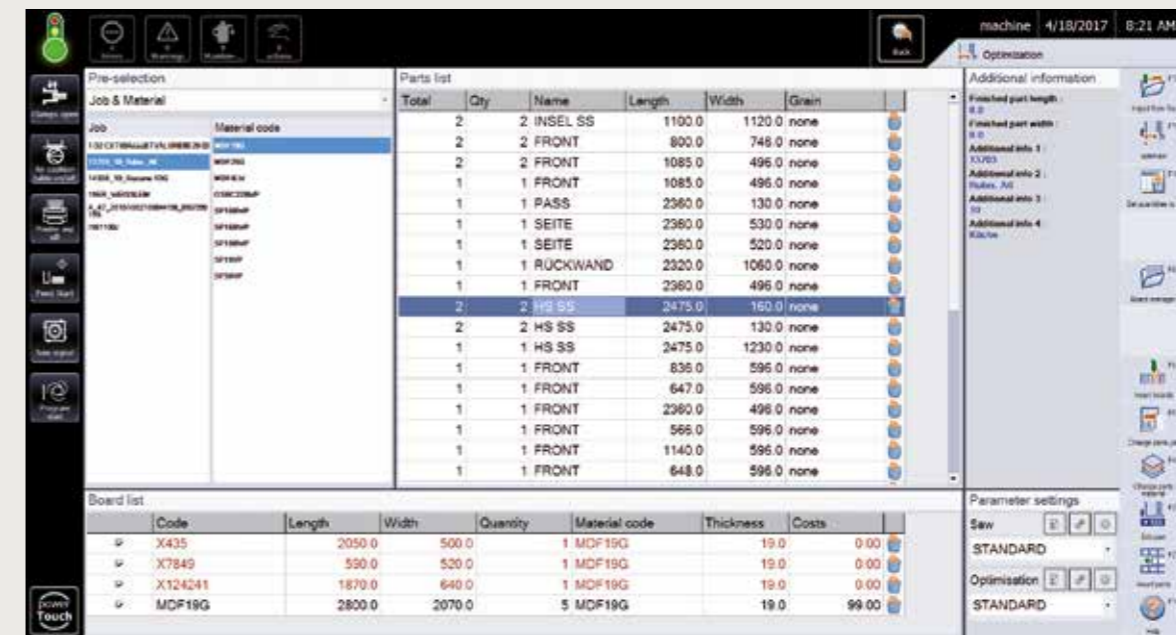


CADmatic 4.1
just-in-time optimization



CADmatic 5
CADplan – manual cutting-pattern optimization

Our motto is “get more out of it”. That’s why HOMAG has taken its CADplan cutting pattern optimization feature directly to the saw. The benefits for you: You simply enter all the parts lists and panel lists for the current order into CADmatic or import the Excel lists required in CSV file format. CADplan then promptly generates optimized cutting patterns, minimizing material wastage and making your company more productive. The ideal solution for small to medium-sized orders.



CADmatic 5
just-in-time optimization

The just-in-time optimization feature from HOMAG goes one step further than CADplan, allowing you to import the parts lists currently required directly from the office and to process them on the saw – without time-consuming manual input, and precisely when you need them. When importing these lists and processing them on the saw, if the same materials are required by different jobs, they can be grouped and optimized together. Thanks to this feature, the “just-in-time” add-on module allows very dynamic, production-related cutting pattern optimization.

If required, any offcuts available at the saw can be entered by hand before starting production and can then be included in the optimization process. The intelligent parts management feature allows a company’s entire panel stock to be managed via CADmatic – an interesting alternative for all panel-dividing saws without storage control connection.

In addition, you also have the option of importing cutting patterns that have already been optimized from the office. Data will then simply be imported from an industry-standard optimization software program such as Cut Rite.

CADmatic 4.1

CADmatic 5

Online data transfer

Online data transfer

If you work in a network environment, you can exchange useful CADmatic data quickly and interactively – from saw to saw, as well as between the saw and your company’s central data management system.

HOMAG offers you several ways of doing this:

- Online connection via WiFi
- Online connection via Ethernet cable
- USB interface (no chat function available with this)

Program sequence 0-240-82-3003

Current production

Run	Pattern	Stoll Anzahl Zyklen	Ist Anzahl Zyklen	Start	End
18233	00001	4	0	3/18/2011 2:10:49 PM	3/18/2011 2:22:49 PM

Program sequence

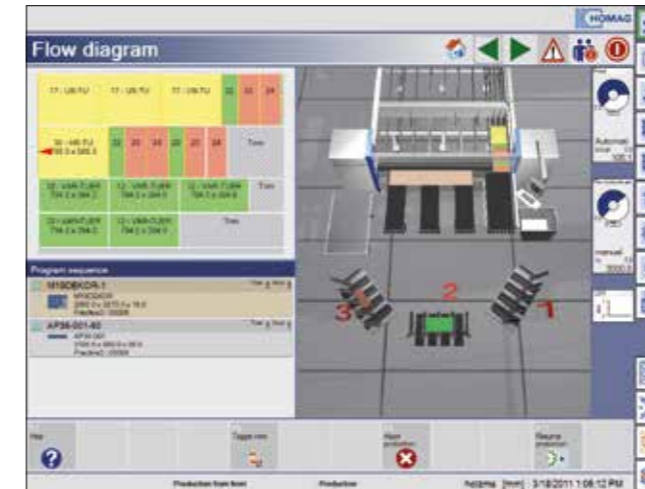
Run	Pattern	Stoll Anzahl Zyklen	Ist Anzahl Zyklen	Start	End
18233	00002	1	0	3/18/2011 2:22:49 PM	3/18/2011 2:26:19 PM
17979	00001	1	0	3/18/2011 2:26:19 PM	3/18/2011 2:27:19 PM
17979	00002	1	0	3/18/2011 2:27:19 PM	3/18/2011 2:29:59 PM
17979	00003	1	0	3/18/2011 2:29:59 PM	3/18/2011 2:32:29 PM
17979	00004	1	0	3/18/2011 2:32:29 PM	3/18/2011 2:33:59 PM
17979	00005	1	0	3/18/2011 2:33:59 PM	3/18/2011 2:36:30 PM
17979	00005	1	0	3/18/2011 2:36:30 PM	3/18/2011 2:39:20 PM
17979	00007	2	0	3/18/2011 2:39:29 PM	3/18/2011 2:41:49 PM
17979	00008	1	0	3/18/2011 2:41:49 PM	3/18/2011 2:42:49 PM
17979	00009	1	0	3/18/2011 2:42:49 PM	3/18/2011 2:43:59 PM
17979	00010	1	0	3/18/2011 2:43:59 PM	3/18/2011 2:46:29 PM
17979	00011	1	0	3/18/2011 2:46:29 PM	3/18/2011 2:47:39 PM
18233	00003	1	0	3/18/2011 2:47:39 PM	3/18/2011 2:51:00 PM

Production history

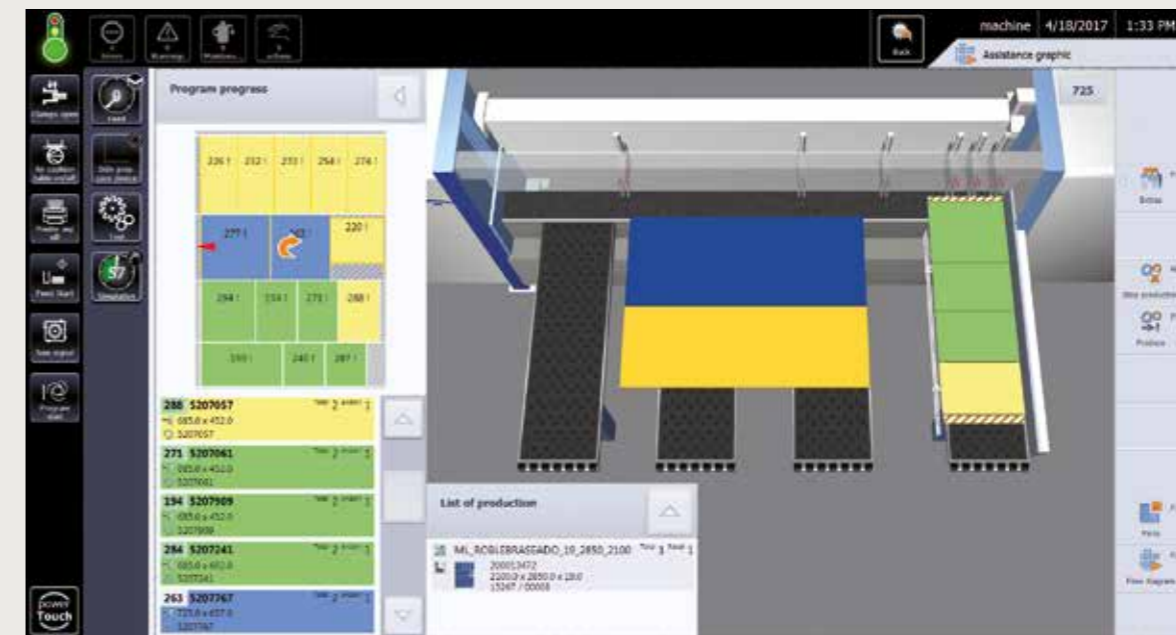
Run	Pattern	Stoll Anzahl Zyklen	Ist Anzahl Zyklen	Start	End
18233	00001	1	0	3/18/2011 2:03:42 PM	3/18/2011 2:03:42 PM
18233	00004	4	4	3/18/2011 2:07:50 PM	3/18/2011 2:09:55 PM
18233	00005	1	1	3/18/2011 2:09:55 PM	3/18/2011 2:09:34 PM
18233	00006	1	1	3/18/2011 2:09:34 PM	3/18/2011 2:10:02 PM
18233	00007	3	2	3/18/2011 2:10:03 PM	3/18/2011 2:10:15 PM

With CADmatic 4.1 PROFESSIONAL and CADmatic 5 everyone can also see the production status and use the chat function to communicate – via a secure network.

Destacking module LITE



CADmatic 4.1
Destacking module LITE



CADmatic 5
Destacking module LITE

Which part goes where? The answer to this question is supplied by the integrated destacking display. The individual parts are color-coded both in the cutting pattern and in the assistance graphic, allowing the machine operator to clearly see which of the parts already produced have been allocated to which destacking stations.

Storage control connection and production planning

1. Storage location management for offcuts

Transparency in your offcuts store in the blink of an eye

The way to transparency in your offcuts store is quick and simple. All you need to get there is:

- Cut Rite from version PRACTIVE onwards
- CADmatic 4.1 or 5 with the "storage location management for offcuts" module
- The HOMAG storage system software integrated at the factory
- The "stock control" module for Cut Rite

The benefits

- You can adopt a customized storage strategy and sort offcuts according to size, material or other criteria
- How many offcuts are in the store? How many are moved in or out of the store on average each day? The integrated statistical data generator provides the answers to these and other questions
- Cut Rite groups cutting patterns together in a single run. In doing so, all the offcuts required can be shown at once and can be retrieved from the store before starting production

With CADmatic 4.1 for HPP 200 only

Plenty of potential for expansion

If you subsequently invest in a HOMAG Automation storage system, the "storage location management for offcuts" module can be directly integrated into the HOMAG Automation software.

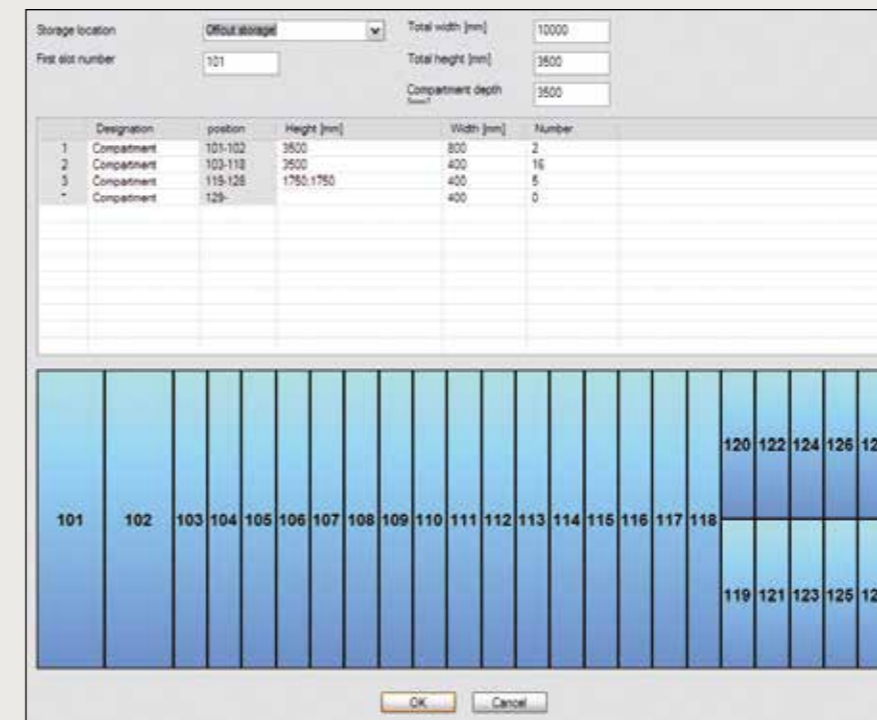


From feeding...

A storage system that controls the saw: CADmatic features a data connection to your storage system, providing the basis for completely automated feeding. Current stock information from your horizontal, block stack or high-bay storage system is provided synchronously with production and is taken into account in all CADmatic calculations, allowing material usage to be optimized. Even offcuts are registered and recorded in the storage system.

...to real-time production planning

CADmatic is prepared for connection to your internal ERP or PPS system. All production data is passed to the planning system in real time, allowing you to react promptly even to last minute changes in orders and take them into account for your production planning.



Set up offcuts storage

2. Storage location management for offcuts

The procedure – step-by-step

After installing the module, you must enter the length, depth and width of each shelf compartment in the offcuts store – a quick and easy process thanks to the intuitive user interface.

- As soon as an offcut leaves the saw, a label is automatically printed.
- The label indicates the compartment where the offcut is to be stored. Alternatively, you can also manually determine the storage location via CADmatic.
- In either case, CADmatic recognizes the storage location and automatically synchronizes this information with the data in the storage system software and Cut Rite.

- If you then want to produce a new cutting pattern, there are two options available: Either retrieve a cutting pattern that has already been optimized by Cut Rite via CADmatic, or create a pattern directly at the saw using the CADmatic “pattern input” feature.
- As soon as you start production, the process graphic/assistance graphic will show you which offcut you need to retrieve from which shelf.

With CADmatic 4.1 for HPP 200 only

3. Storage location management for offcuts

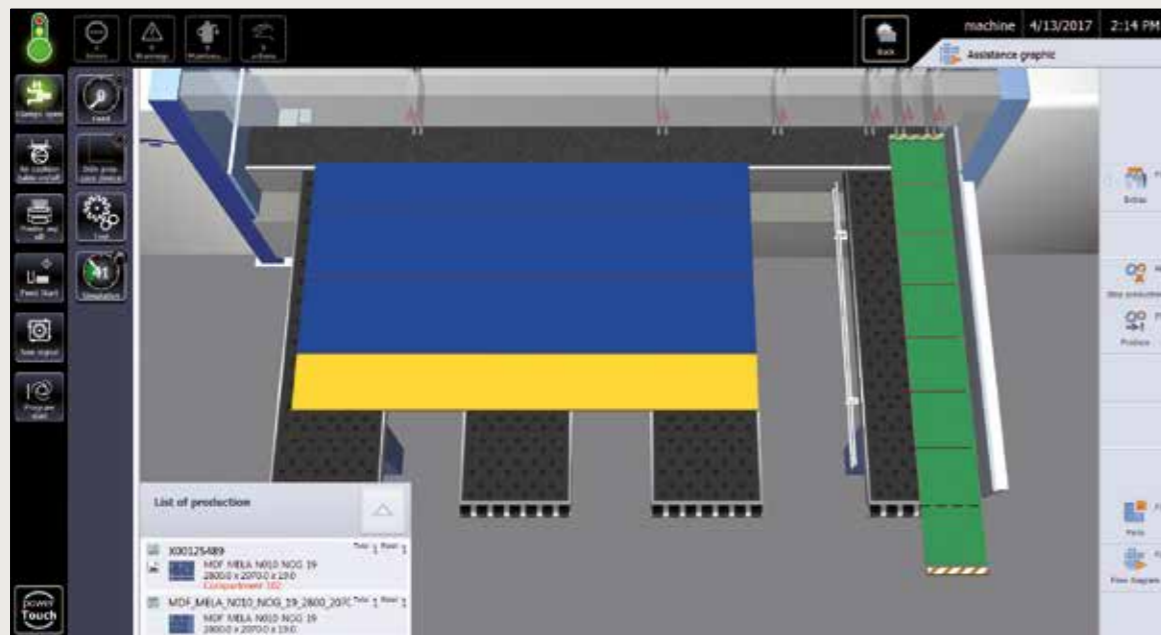
An extra for greater flexibility: the scanner package

If you do not only process offcuts on your saw, you can now benefit from the new scanner package. The scanner will show whether an offcut in the store is still available or already reserved.

- The operator scans the label using the scanner.
- If the offcut has already been reserved for a cutting pattern, a red light illuminates.
- If this is not the case, a green light illuminates and the operator can take the offcut. The “storage location management for offcuts” then automatically adjusts the stock.
- In exceptional cases, a blue light may illuminate and prompt the operator to enter more details.



With CADmatic 4.1 for HPP 200 only



CADmatic 5
offcut removal display in the assistance graphic



CADmatic 5
controlled storage of offcuts

Destacking module PRACTIVE

An intelligent destacking concept that guides the operator

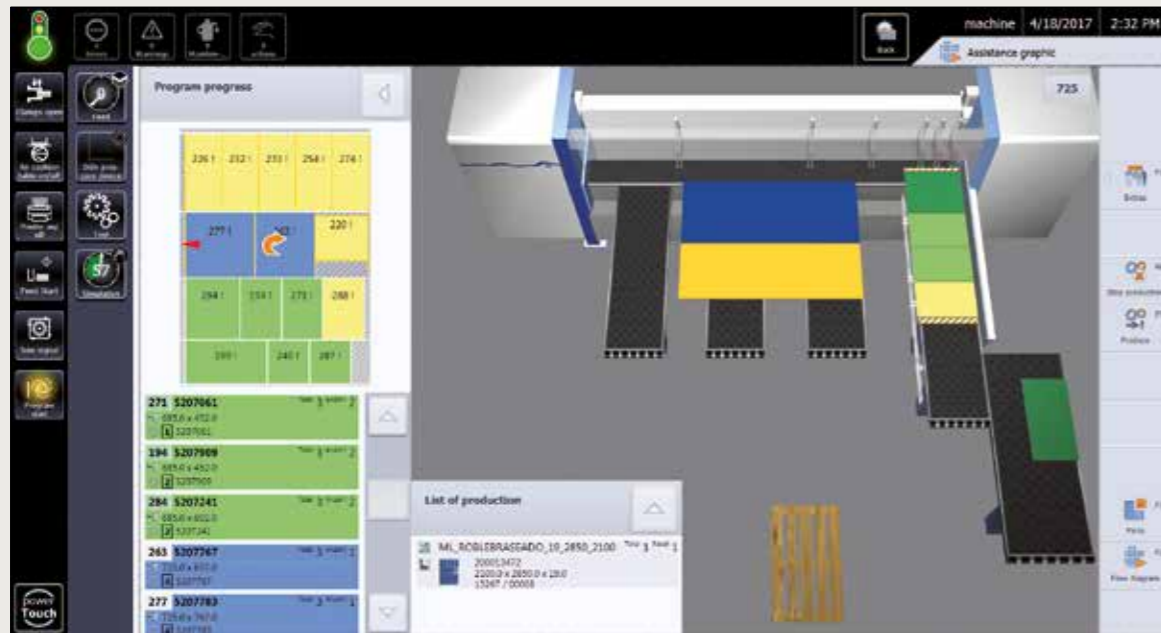
With the optional “destacking module PRACTIVE”, CADmatic 5 controls not only the cutting process, but the process of destacking by the operator too. The new powerTouch operating panel shows the operator exactly when and where the part is to be deposited via the monitor and on each label. This process is underpinned by an intelligent destacking concept designed to boost the efficiency of post-cut processes enormously – for example, by creating stacks optimized for subsequent processing steps.

Reduces routes, space requirements and operator dependency

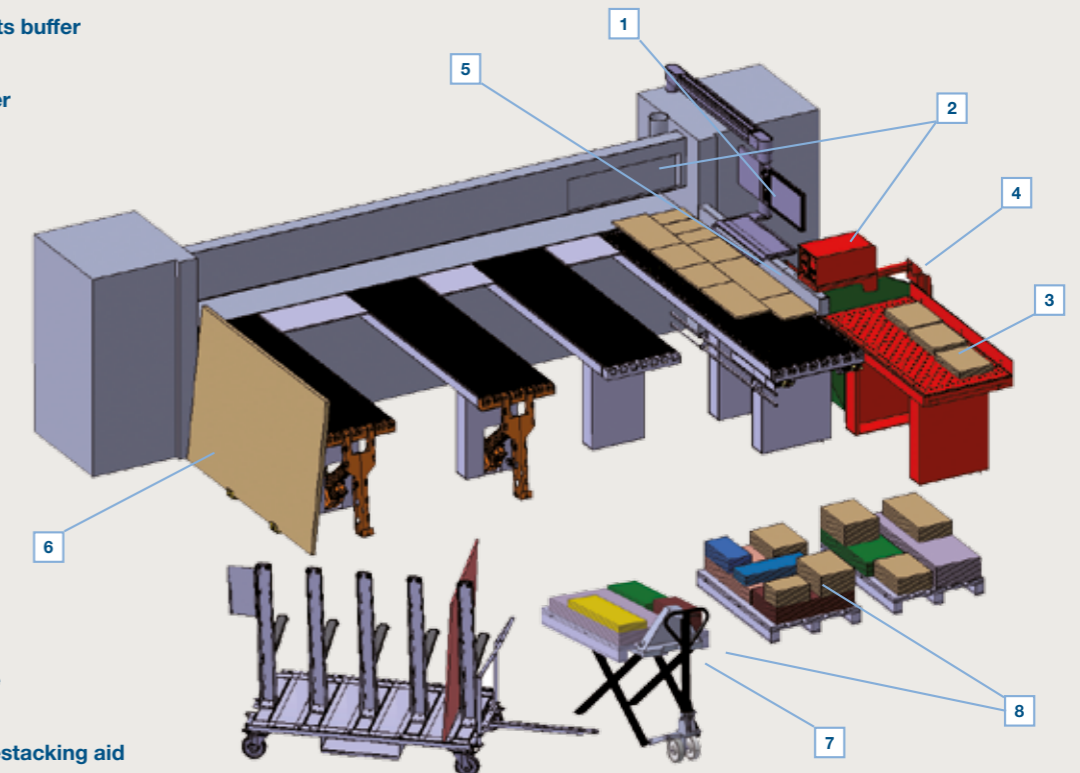
Thanks to the “destacking module PRACTIVE”, the program sequence and destacking strategy can be managed more precisely and tailored more effectively to requirements than ever before. You can determine whether the stack formation is optimized for subsequent processing steps or according to the order or material. These priorities can be combined with one another and weighted according to the primary objective. This process ensures clear operator guidance, reduces routes between the saw and destacking station, and ensures optimized pallet utilization with solid stack formation.

Additional extras for intelligent destacking:

- Visual operator guidance: An additional LED display indicates, at the same time as the monitor, when a cut part must be pushed onto, or removed from, the parts buffer.
- Flexible parts buffer: In order to keep the saw running, only the last-cut parts of a panel used to go to the parts buffer. The parts buffer is always used if the stack formation can be improved.
- Additional stability: To give the stacks more stability, specific waste parts are now also used for stack formation.



- 1 Destacking software
- 2 Label printing
- 3 Ergonomic parts buffer
- 4 Waste container

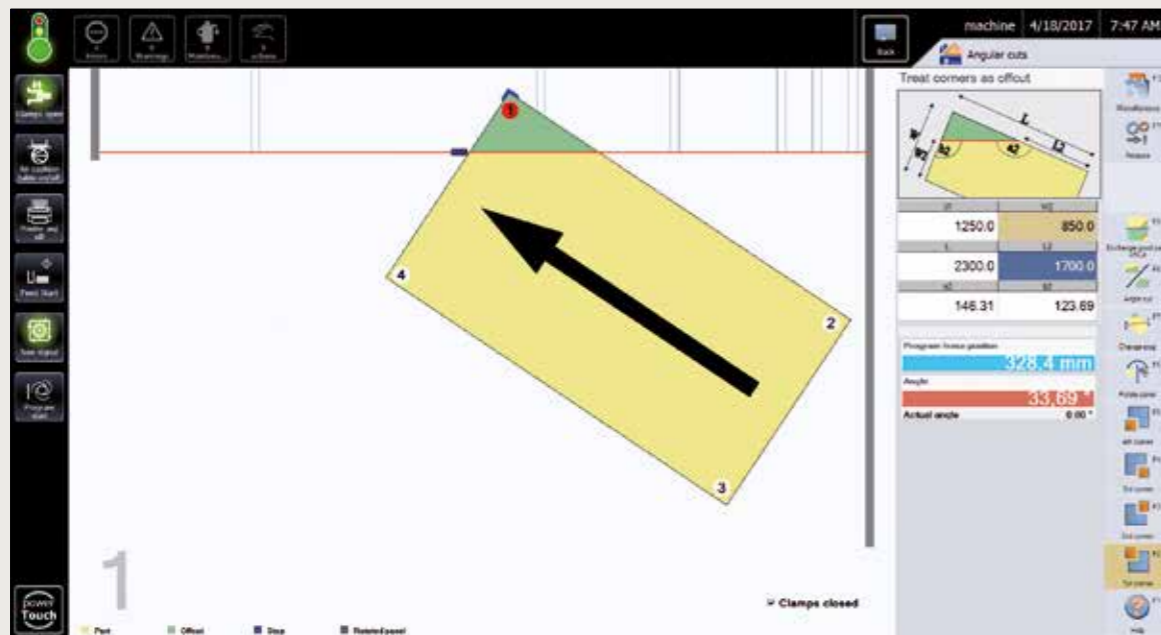


- 5 Chopping edge
- 6 Feeding and destacking aid
- 7 Scissor lift pallet truck “HuGo”
- 8 Intelligent stack formation

Automatic angle cut

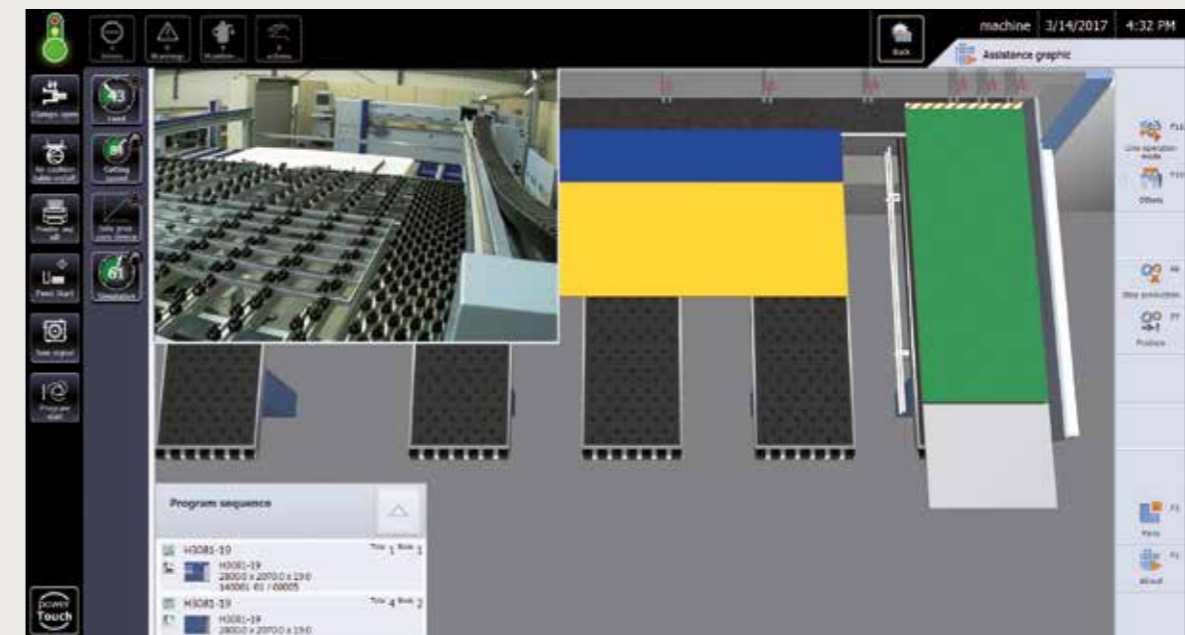


Integrated camera monitoring



CADmatic 5 automatic angle cut

The angle cut program allows you to control precise angle cuts either manually or automatically using a special angle-cut clamp, depending on how the machine is equipped. This feature enables you to achieve precise results quickly and easily.



CADmatic 5 integrated camera monitoring

Especially for large panel saws, HOMAG offers an integrated camera monitoring system for the rear machine table. Whenever the saw is fed, CADmatic automatically displays the current camera image, enabling you to keep an eye on everything at all times. Furthermore, it is also possible to record the camera images for troubleshooting and workflow-optimization purposes, and to forward the images to the HOMAG Service department.

Area	Function	Sales option	4.1 PRACTICE	4.1 PROFESSIONAL as an option	5
	Machine model		HPP 130 HPP 180 HPP 200	HPP 200	3 series 4 series 5 series 6 series HPS 320 flexTec
General					
	Display		19"	19"	21"
	Resolution		1280 x 1024	1280 x 1024	1920 x 1080
	Touchscreen		X	✓	✓
	Machine keys		✓	✓	✓
	Machine controller		✓	✓	✓
	Optimized user interface: "Simplified views"		✓	✓	✓
	Optimized user interface: "Advanced views"		X	✓	✓
Production methods					
	Fixed position		S	S/A	S/A
	Cutting to length		S	S/A	S/A
	Single parts		S	S/A	S/A
	Cutting pattern input		✓	✓	✓
	Pattern selection (cutting pattern management)		S/A	S/A	S/A
	Pattern selection: estimation of production times		X	✓	✓
Production methods – optional features					
	Grooving program (automatic)	6050	X	X	O
	Turbo grooving	6057	X	X	O
	Cut-out and stress elimination cut	6065	HPP 180: X HPP 200: O HPP 130: O (stress elimination cut only)	O	O
	Angle cut program	6085	O (HPP 200 only)	O	O
	Manual production list	6066	O (HPP 200 only)	O	O
	PPS feedback	6240	X	X	O
	Integrated camera monitoring	6318	X	X	O
	Camera-controlled scoring saw adjustment	6040	X	X	O
	Barcode reader-supported production start	6230	O (HPP 200 only)	O	O
Storage location management					
	Storage control connection	6225	O (HPP 200 only)	O	O
	Storage control connection in CADplan and cutting pattern input		✓ (HPP 200 only)	✓	✓
	Improved offcuts return system		X	X	✓
	Storage location management for offcuts	6097	O (HPP 200 only)	O	O
	Storage location management for offcuts (scanner option)	6098	O (HPP 200 only)	O	O

Area	Function	Sales option	4.1 PRACTICE	4.1 PROFESSIONAL as an option	5
	Machine model		HPP 130 HPP 180 HPP 200	HPP 200	3 series 4 series 5 series 6 series HPS 320 flexTec
Optimization					
	CADlink	6089	O	O	O
	CADplan for angular saw units	6092	X	X	O
	CADplan just in time	6093	O	O	O
Process graphic/assistance graphic					
	Process graphic/assistance graphic		S/A	S/A	S/A
	Display of part details in the cutting pattern		✓	✓	✓
	Process graphic/assistance graphic: preview and review feature		X	A	A
Settings/parameters					
	Parameter management		✓	✓	✓
	Hide individual parameters		✓	✓	✓
	Material-dependent parameters	6100	X	X	O
	Automatic compensation of saw blade offset		✓	✓	✓
	Tool settings		✓	✓	✓
	Tool management		X	✓	✓
Destacking					
	Destacking module LITE	6310	O (HPP 200 only)	O	O
	Destacking module PRACTICE (with operator guidance)	6311	✓ (HPP 200 only)	✓	✓
	Plants destacking module	6315	X	X	✓
Miscellaneous					
	Alarms overview (visual error diagnostics)		✓	✓	✓
	woodLine and woodScout integration	6243	X	X	O
	Online data transfer	6200	O	O	O
	WEB access for sales option 6200		X	O	O
	USB data transfer	6206	O	O	O
	HOMAG MMR Basic		✓	✓	✓
	HOMAG MMR Professional	6125	X	X	O
	Run data evaluation with Cut Rite	6120	O (HPP 200 only)	O	O
Labeling					
	Labeling program	6075	O	O	O
	Labeling with parts graphic	6070	O	O	O

- ✓ Standard
- S Standard simplified
- A Standard advanced
- O Optional
- X Not possible

HOMAG Plattenaufteiltechnik GmbH

Holzmastrasse 3
75365 Calw-Holzbronn
Germany
Tel.: +49 (0) 7053 69-0
info-holzbronn@homag.com
www.homag.com



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