Smart and precise – the control system.
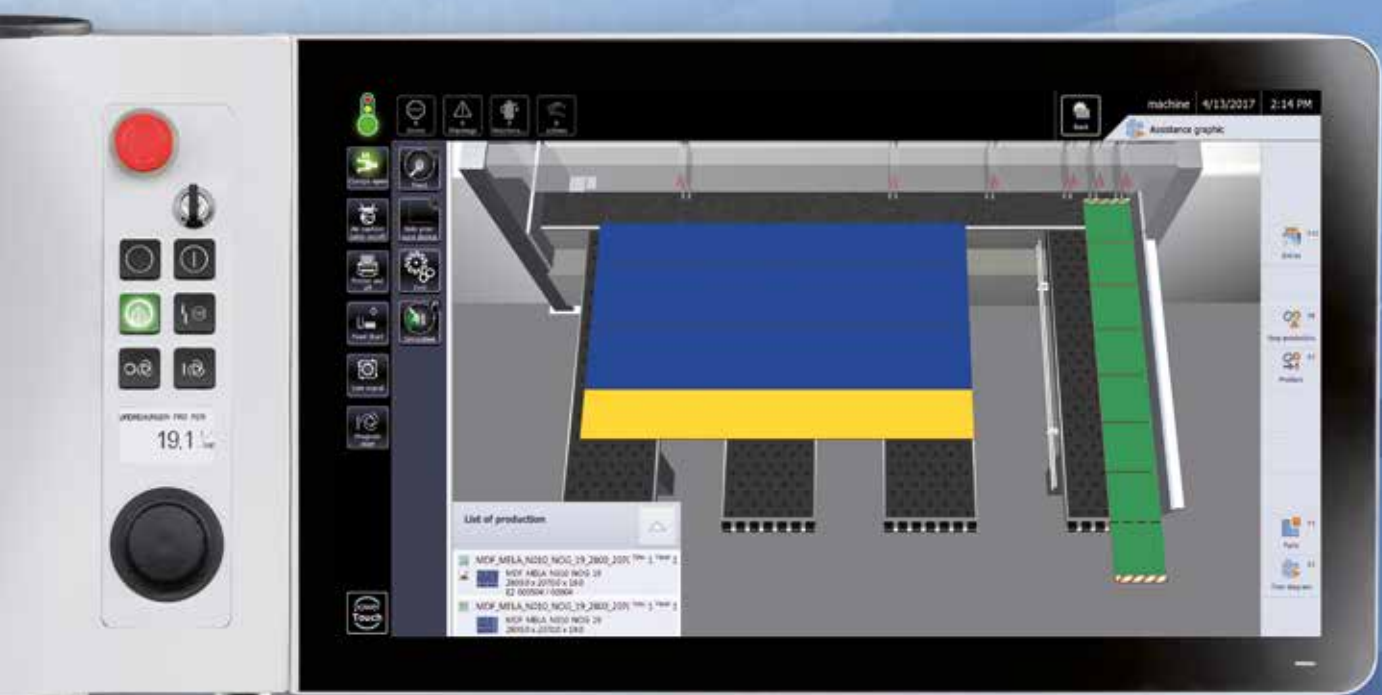
Software
CADmatic saw control system

CADmatic – the saw control system for the trade and industry

HOMAG horizontal panel dividing saws are similar to modern premium cars: 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.

YOUR SOLUTION

CONTENTS

CADmatic 5

Intuitive machine control – simple, quick and clear: CADmatic 5. The most recent version of the control software guides the user by means of an innovative assistance graphic and uses a widescreen monitor including powerTouch. The machine control unit is therefore a pleasure to use. What's more, all HOMAG saws with CADmatic 5 now come tapio-ready as standard, allowing direct access to cloud-based high-performance software.

1

powerTouch operating panel

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

- Intelligent production readiness display
- Softkeys
- 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
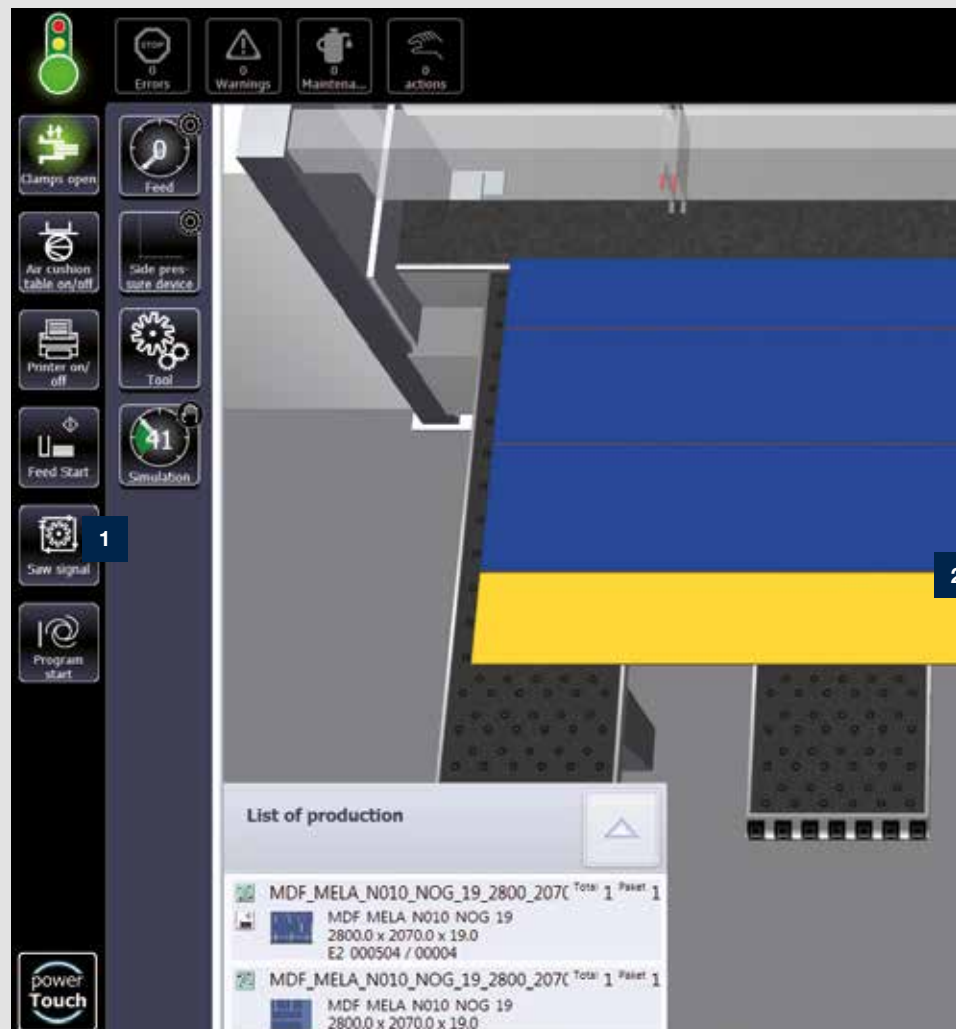
All HOMAG saws with
CADmatic 5 are tapio-ready.
Find out more at
www.tapio.one and at
www.homag.com.
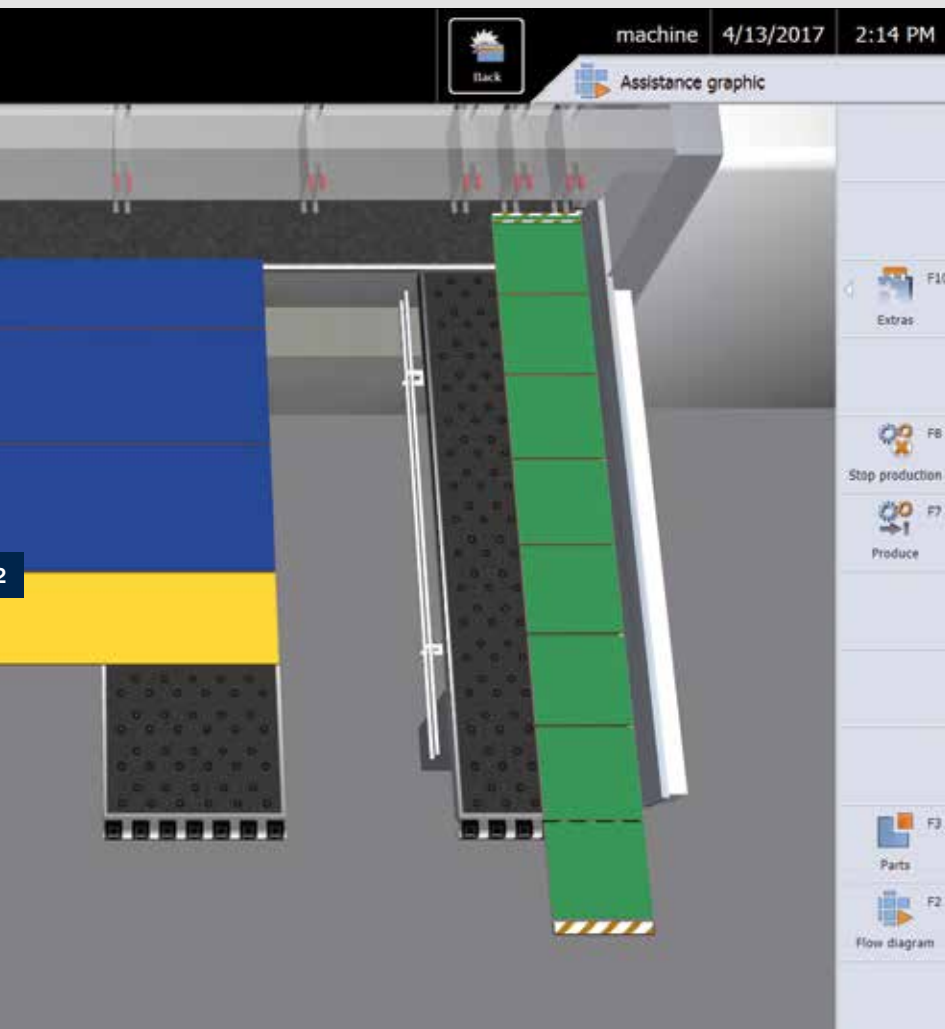
2

**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 are actually executed.
The different coloring of the components
symbolizes the various processing states. It
is therefore possible to identify all necessary
information for a smooth workflow quickly
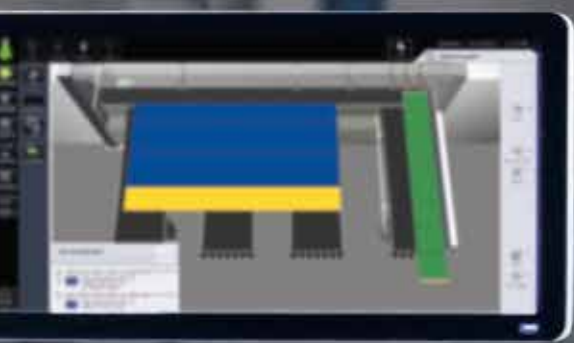and easily at all times.

HG HOMAG

SAWTEQ B-130

Standard features

From cutting to length all the way to managing tools: the standard features of the CADmatic control software alone offer you an enormous variety of functions. You can then find extras – under optional features.

Cutting pattern input

The full range: this is where you enter all the data that your saw needs
to cut complex rip and crosscut patterns.
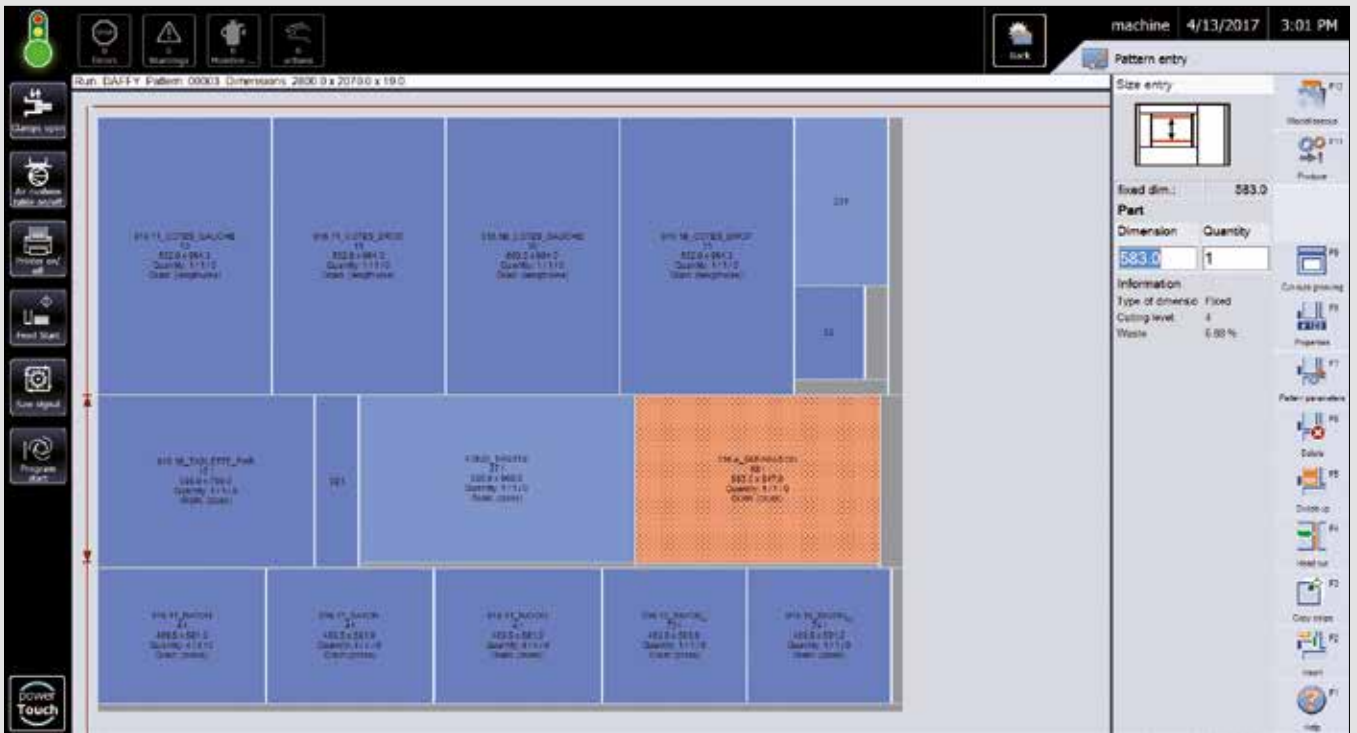
Fixed position

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

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.
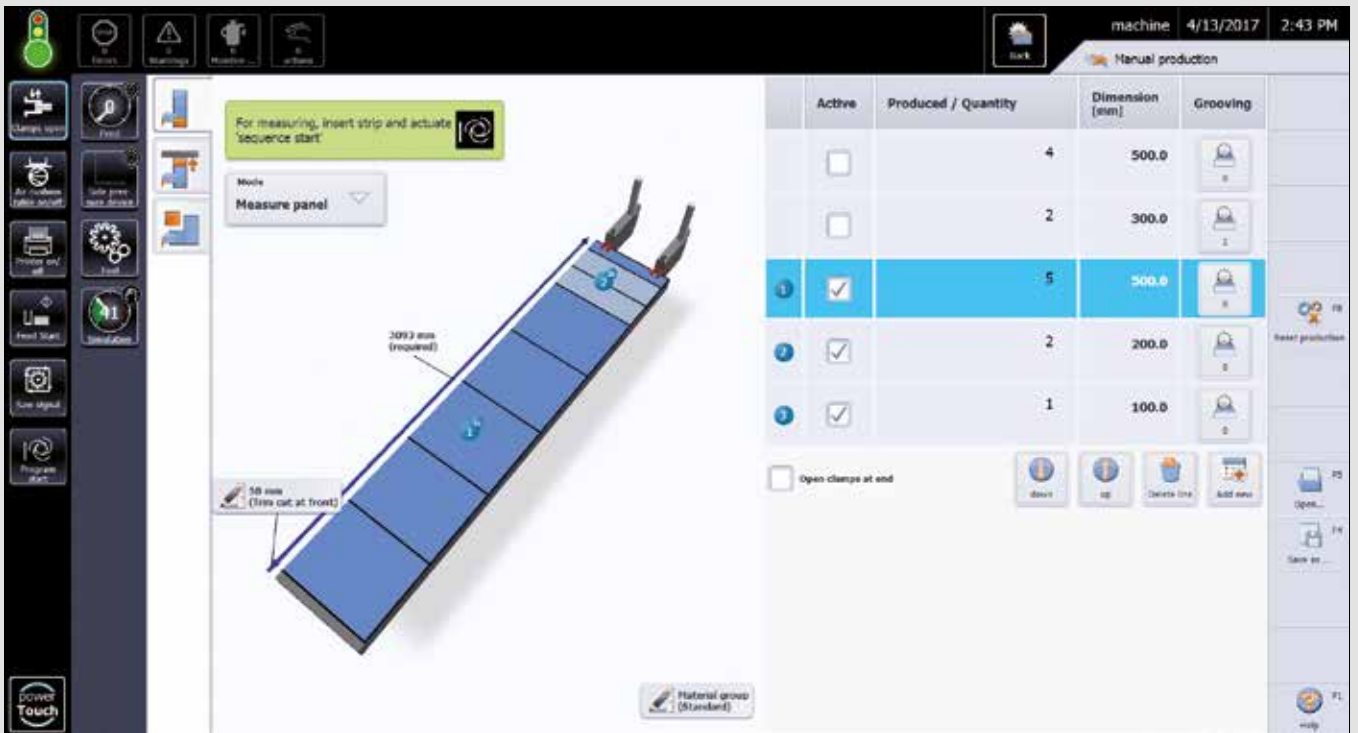
Single parts

For single cuts, enter the required part dimension as well as the lengthwise and crosswise trims separately. Depending on the number of required components, the system suggests a certain layout and takes into account any available panel formats for the selected material.
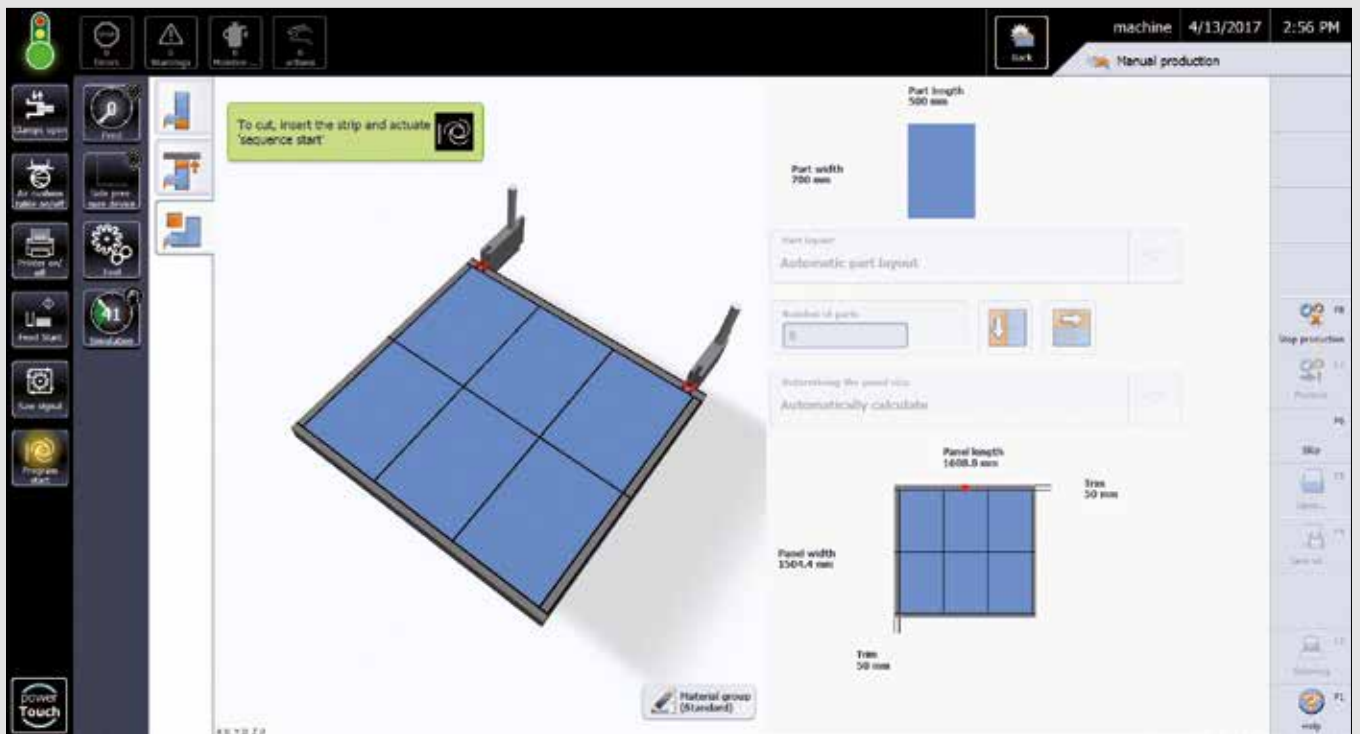
Graphically supported diagnostics

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 secure internet connection (TeleServiceNet), HOMAG will be able to remedy most errors directly online. This feature saves time and increases your productivity.
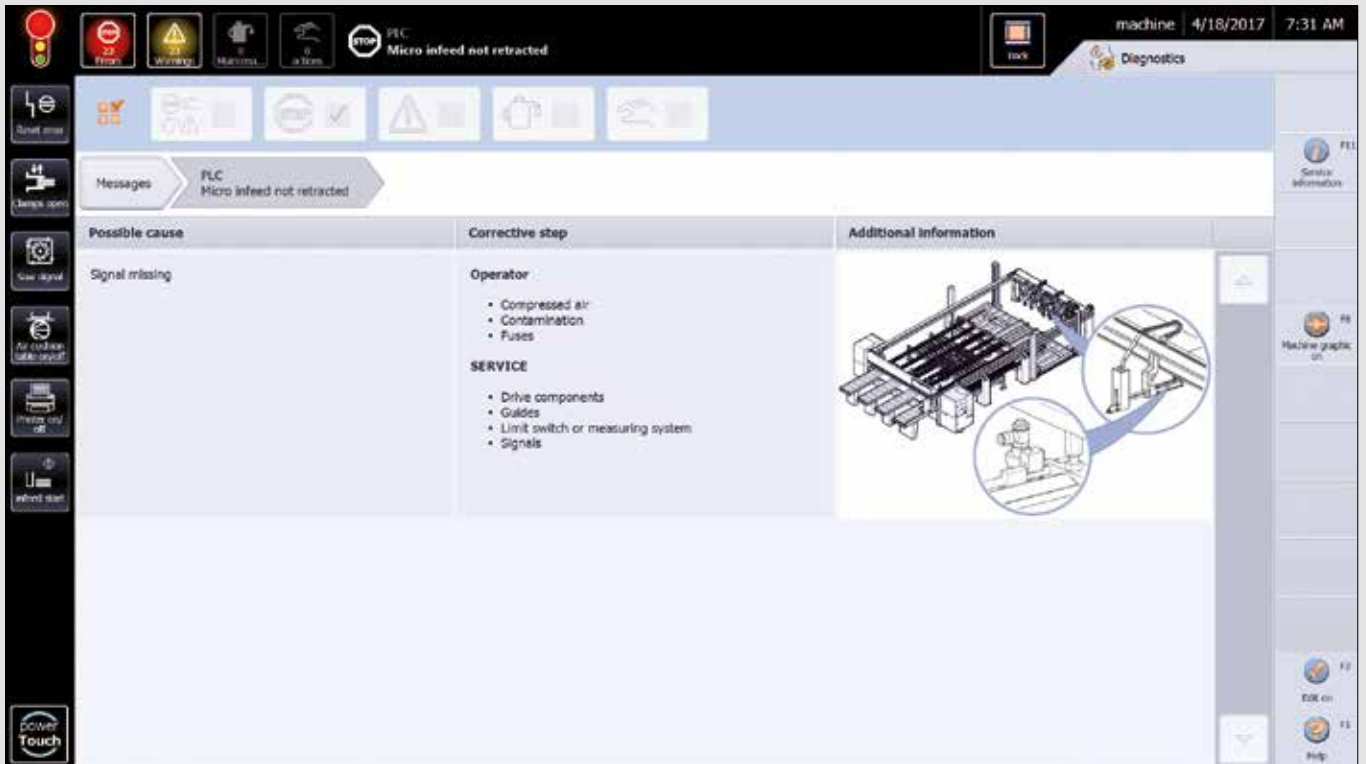
Cutting pattern management

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 costs. Furthermore, you can define individual production sequences using the program sequence feature (including parts overview).
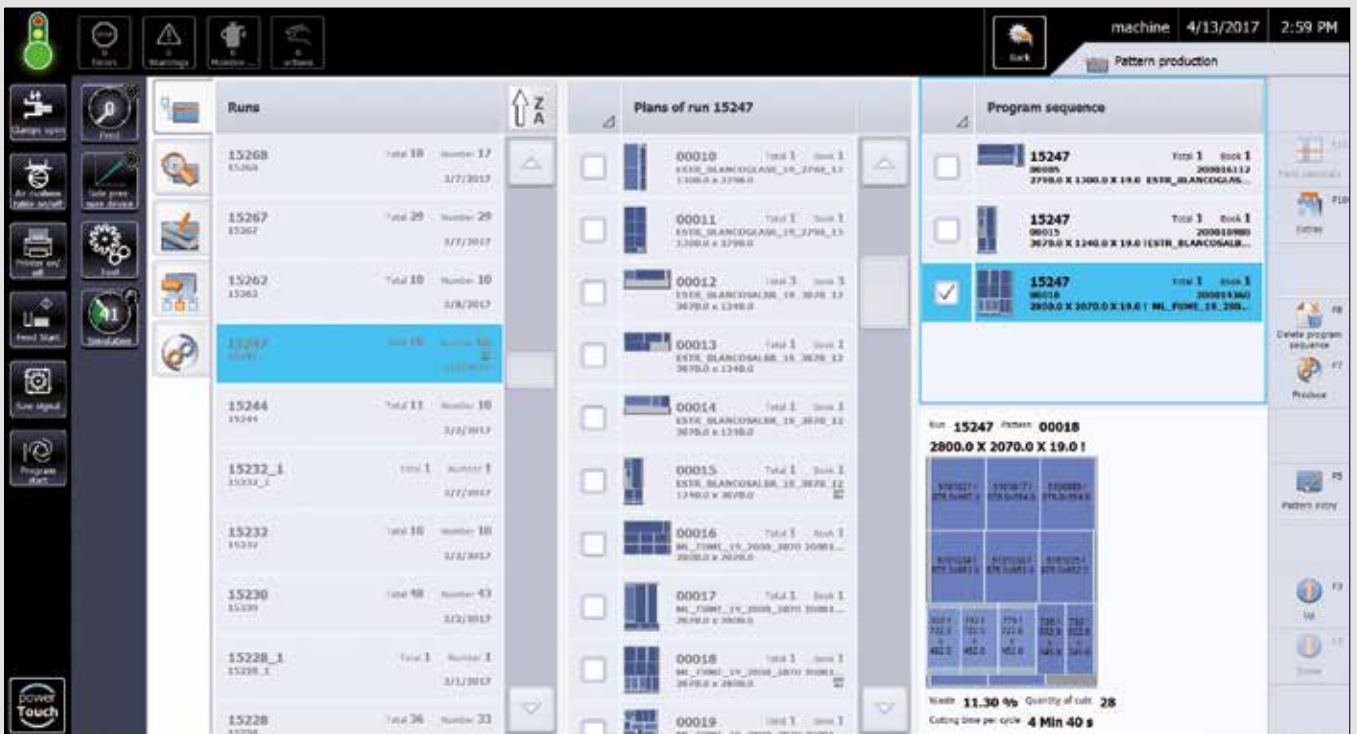
Parameter management

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.
For this purpose, you create a user-defined parameter list. You also
have the option of changing the stored values whenever necessary.

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. Simply select the right options for your production.

Manual angle cut

This feature allows you to control angle cuts quickly,
conveniently and precisely.
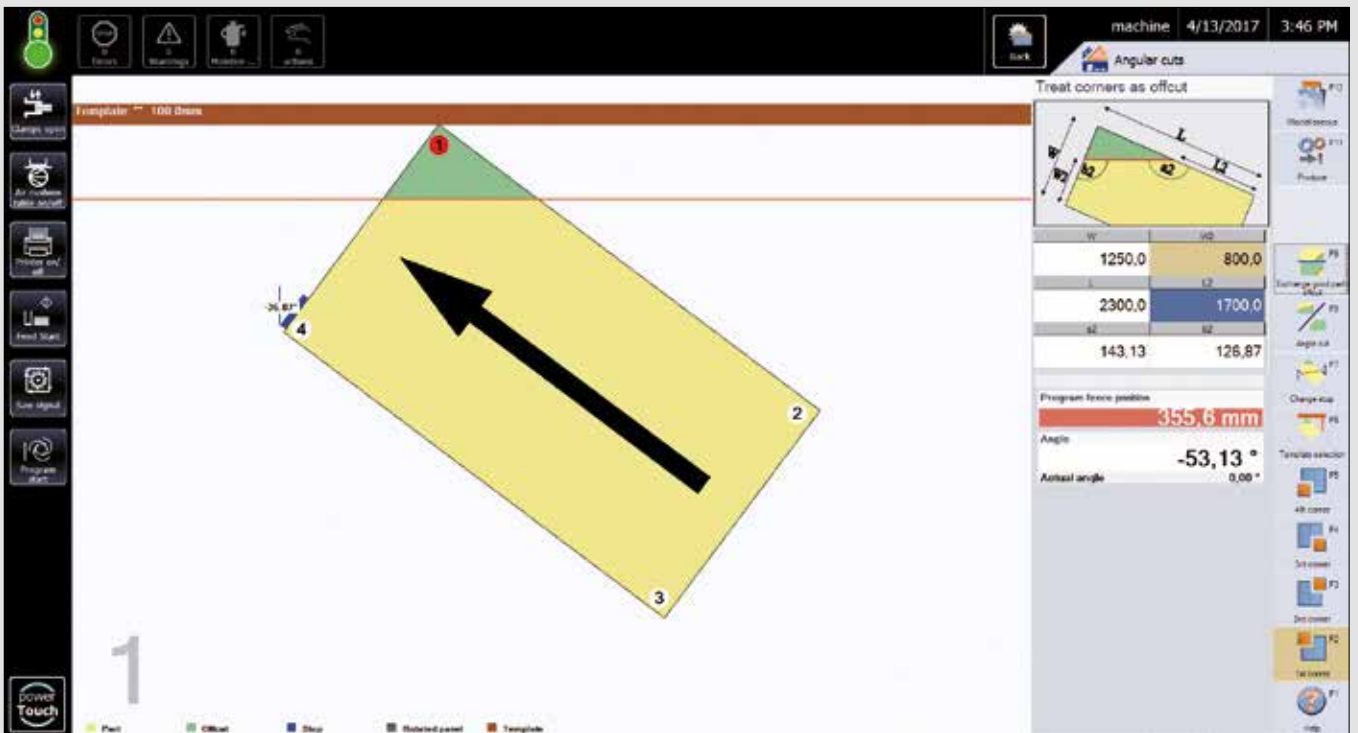
Cut-out and stress elimination cut

Laminated materials warp during cutting due to tension being released. The stress elimination cut provides a solution here. 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

Be it individual components, 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. You are able to include text information as well as graphics and freely selectable bar codes. The system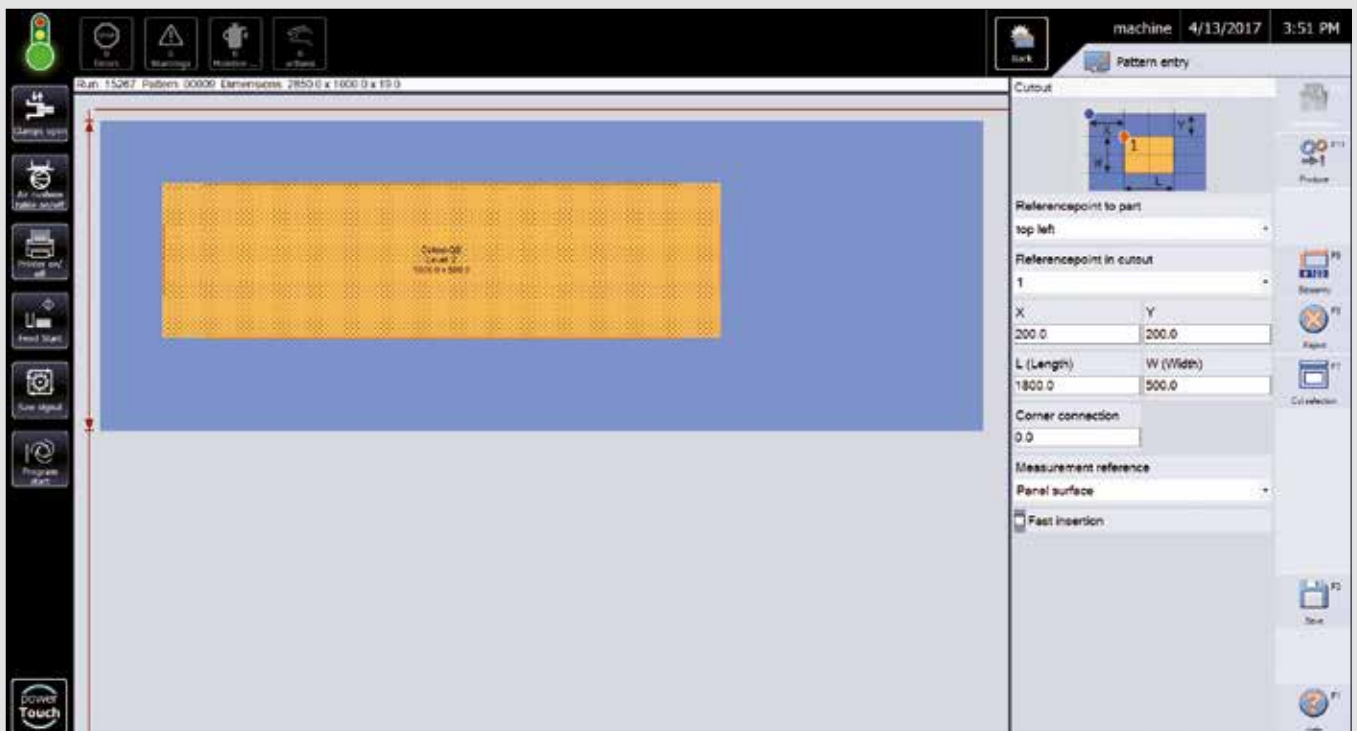 will then generate the labels in perfect time with the processing cycles. Depending on the system, the labels are then attached automatically or by hand. An optional feature that sets industry benchmarks where scope for design and hardware quality is concerned, leaving nothing to be desired.
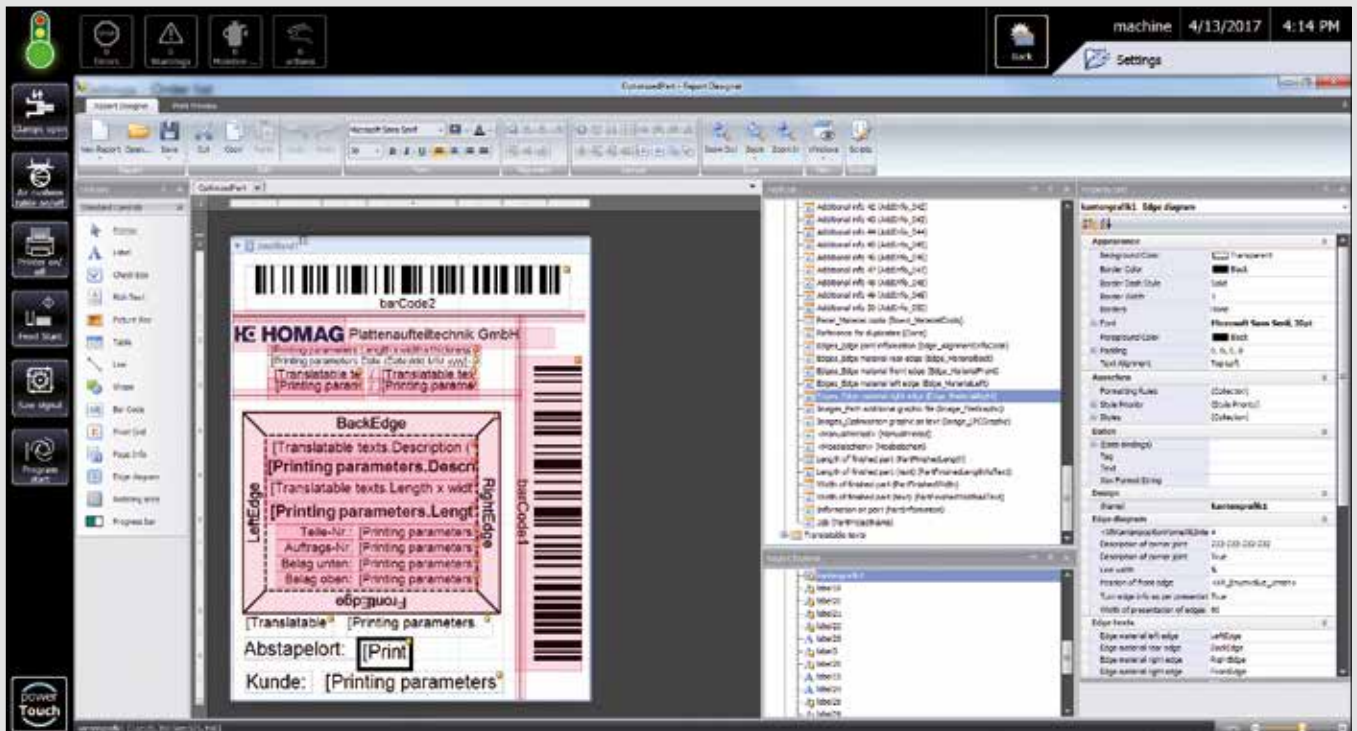
Material-dependent parameters

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 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 – fully automatically and in the blink of an eye.

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.

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.

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.

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.

Integrated camera monitoring

Especially for large panel dividing 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.
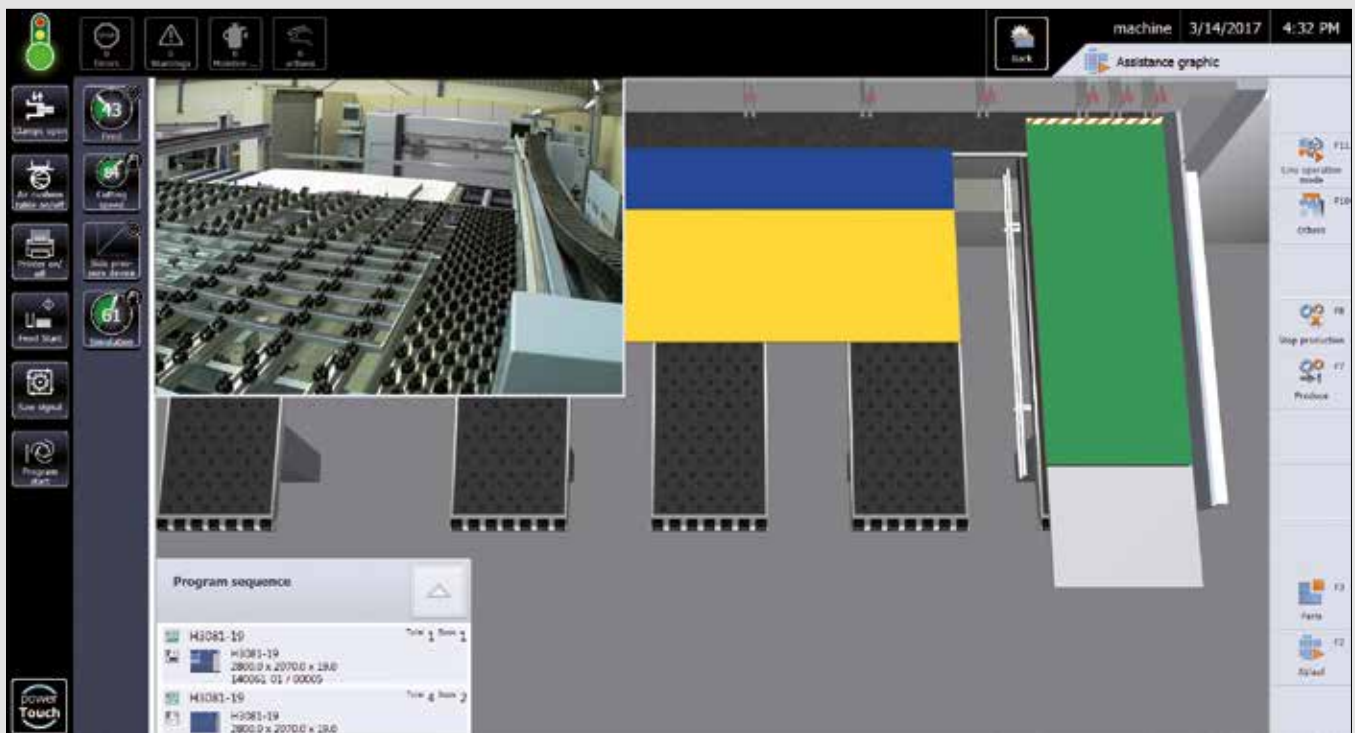
Storage control connection and production planning

From feeding ...

The storage system controls the saw: the CADmatic control system 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 at the same time as 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 PPC 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.

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.
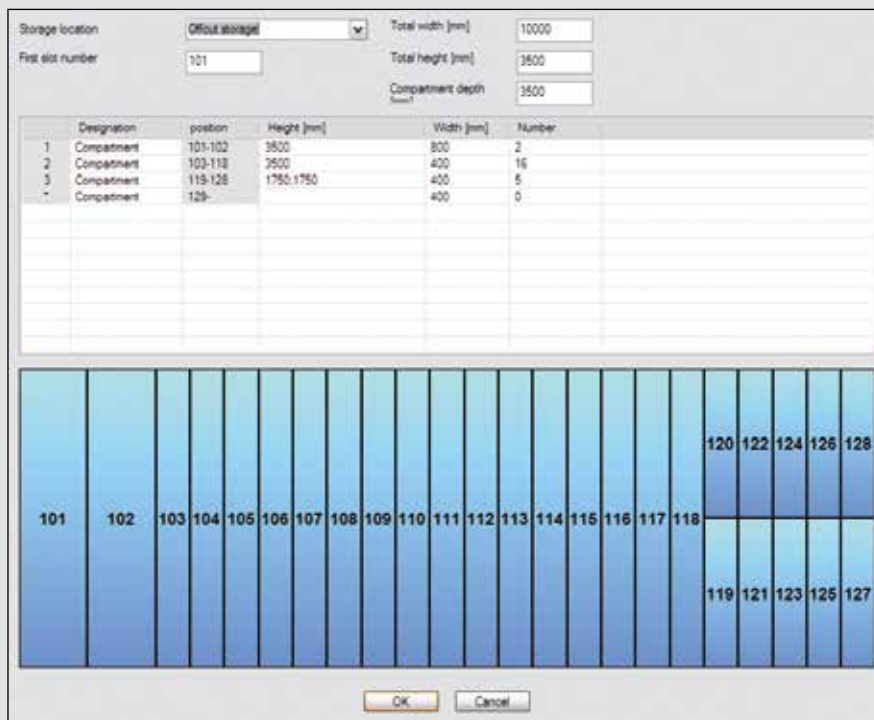All you need to get there is:

- Cut Rite

- CADmatic 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

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.

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.

Setting up the offcuts store

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 "cutting pattern input" feature.

- As soon as you start production, the process or assistance graphic will show you which offcut you need to retrieve from which shelf.
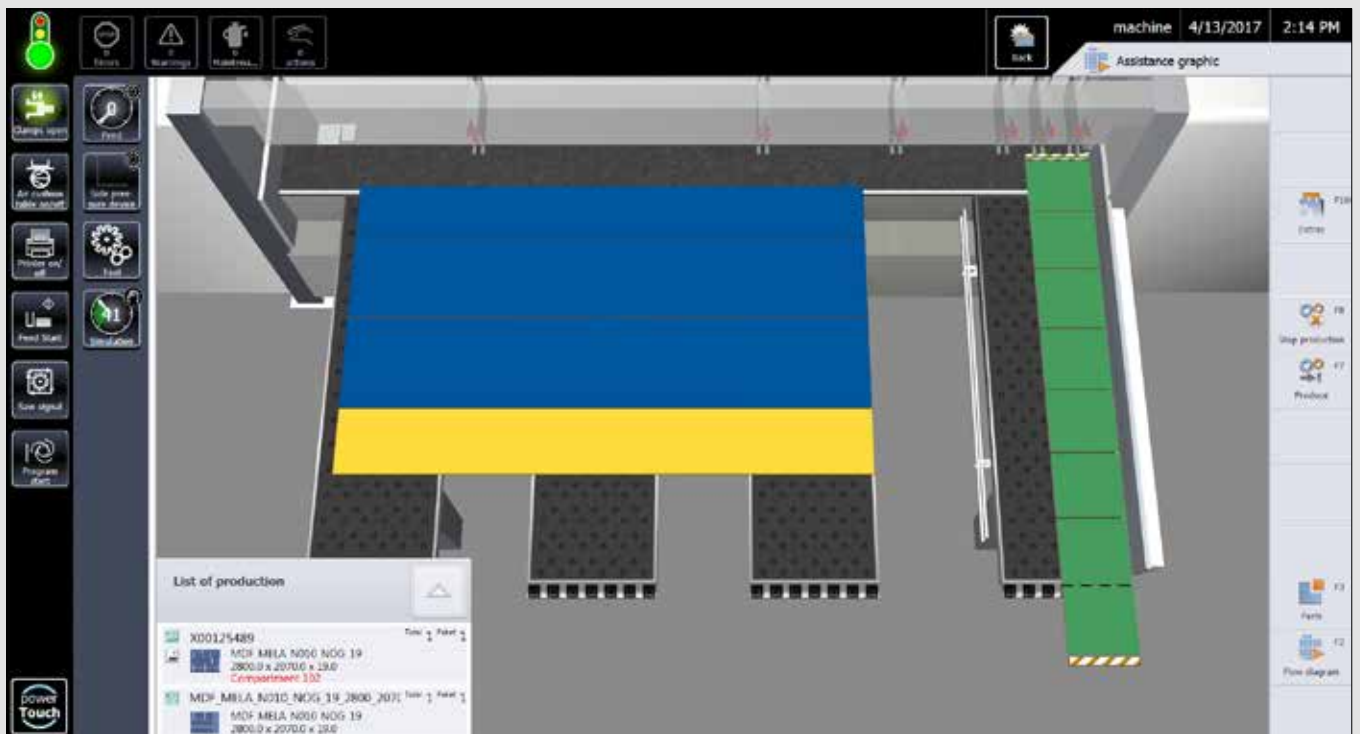
Offcut removal display in the assistance graphic

3. Storage location management for offcuts

An extra for greater flexibility: the scanner package

If you do not use only your saw to process offcuts, you can now benefit from the 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 comes on.

- If this is not the case, a green light comes on and the operator can take the offcut. The "storage location management for offcuts" then automatically adjusts the stock.

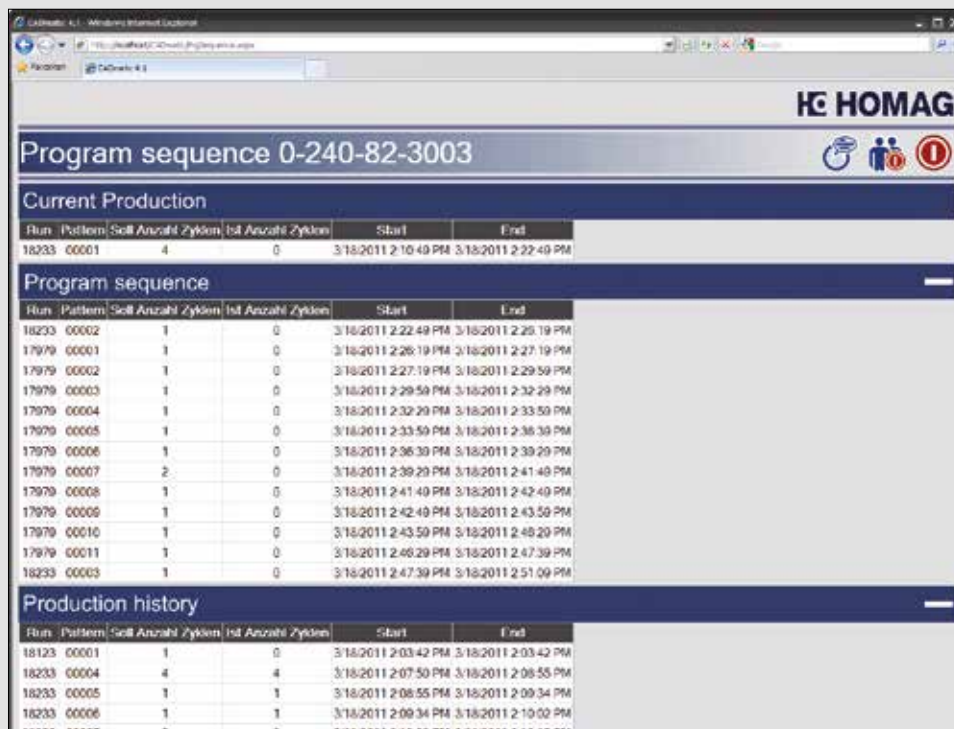- In exceptional cases, a blue light may come on and prompt the operator to enter more details.

Controlled storage of offcuts

Data transfer via network

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. Another advantage: every employee can see the production status and use the chat function to communicate – via a secure network. HOMAG offers you several ways of doing this:

▪ Online connection via WiFi

▪ Online connection via Ethernet cable

▪ USB interface (chat function not available in this case)

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.
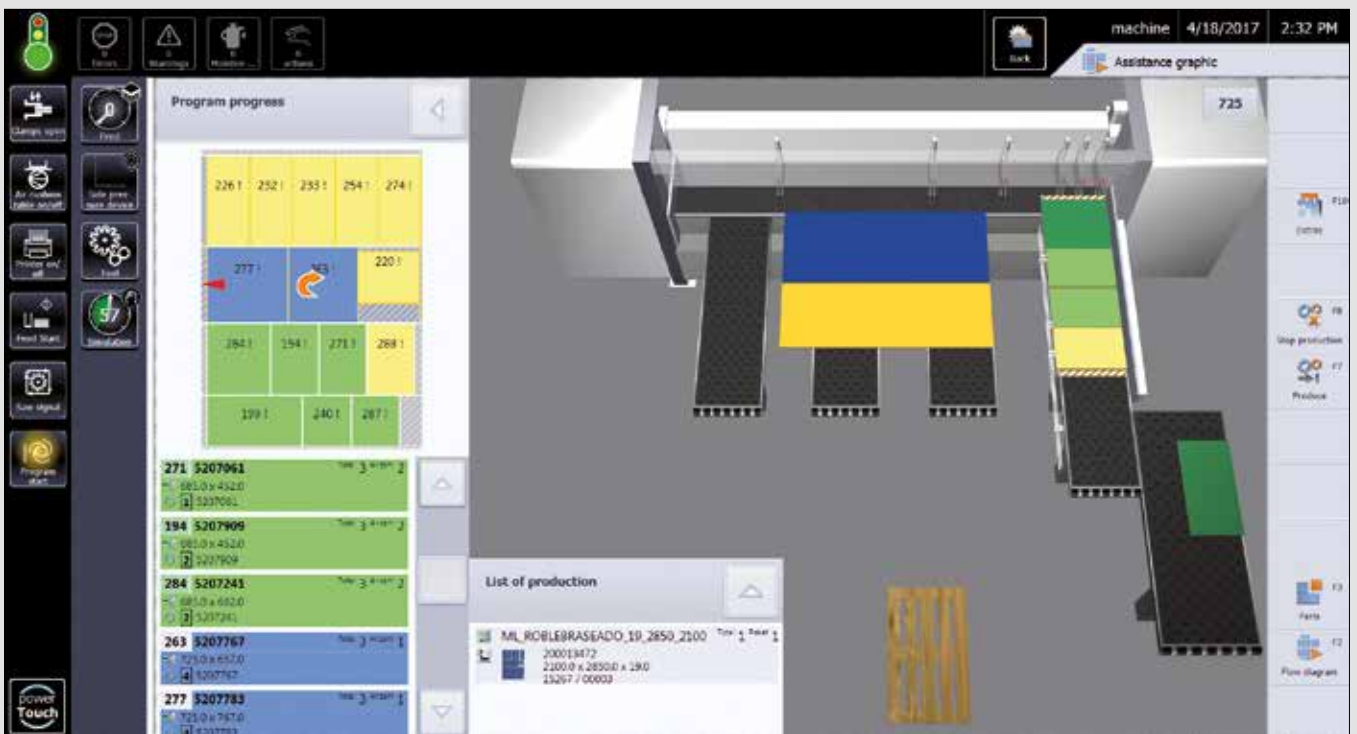
Destacking module PRACTIVE

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 each 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-cutting processes enormously – for example, by creating stacks optimized for subsequent processing steps.

Reduces walking, space requirements and operator dependency

Thanks to the optional "destacking module PRACTIVE", the program sequence and the destacking strategy can be managed more precisely and tailored more effectively to requirements than ever before. You can specify whether stack formation is optimized for subsequent processing steps on the basis of the order or the material. These priorities can be combined with one another and weighted according to the primary objective. This process ensures clear operator guidance, reduces walking between the saw and the destacking station, and ensures optimized pallet utilization with stable stack formation.
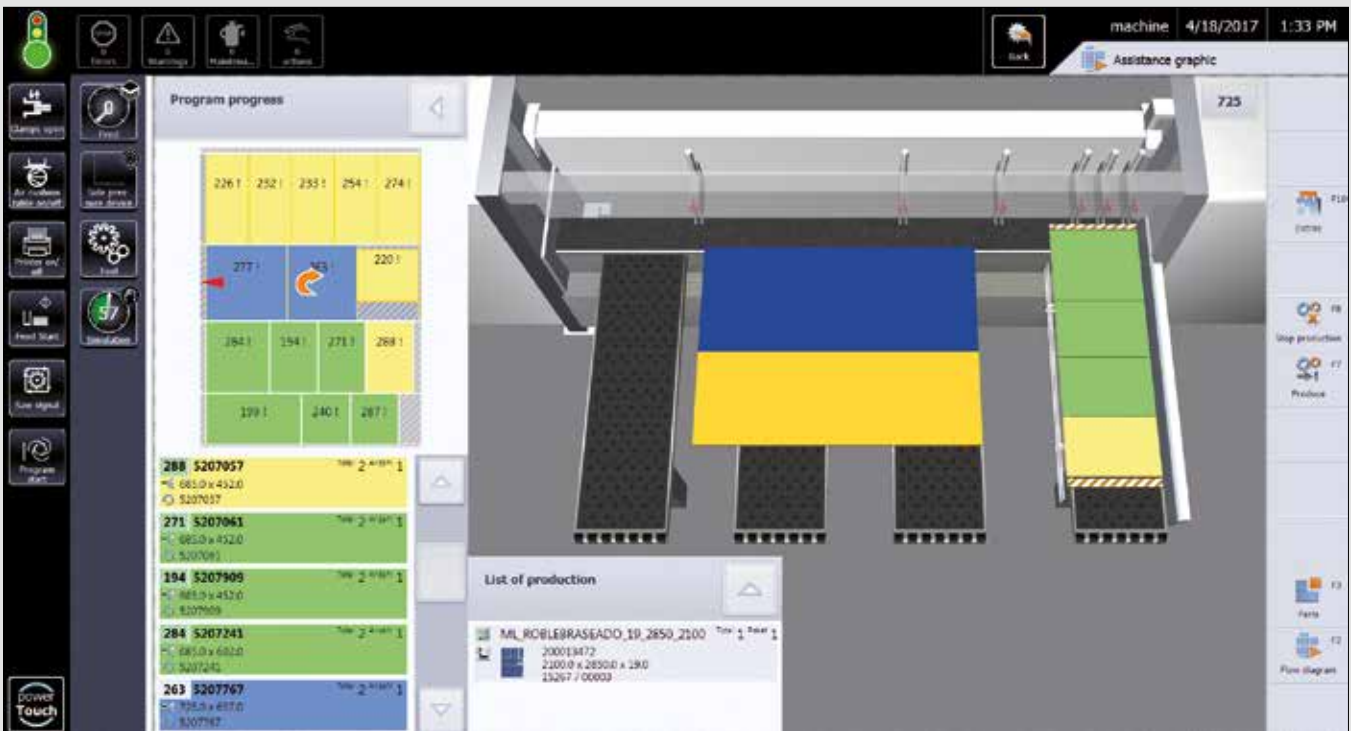
Additional extras for intelligent destacking:

- 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.

- Parts buffering: the operator places the last-cut parts on the parts buffer until he has time to destack them. Like this, the saw is not unnecessarily forced to slow down and the operator can work calmly. The parts buffer is also used to improve stack formation: the operator only places the part on the stack when doing so increases the stability of the stack. He is guided in this by information on the monitor and, optionally, also by an LED display at the parts buffer.

- Additional stability: to give the stacks more stability, waste parts are now also systematically used for stack formation.

1.	Destacking software as add-on module for CADmatic 5
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
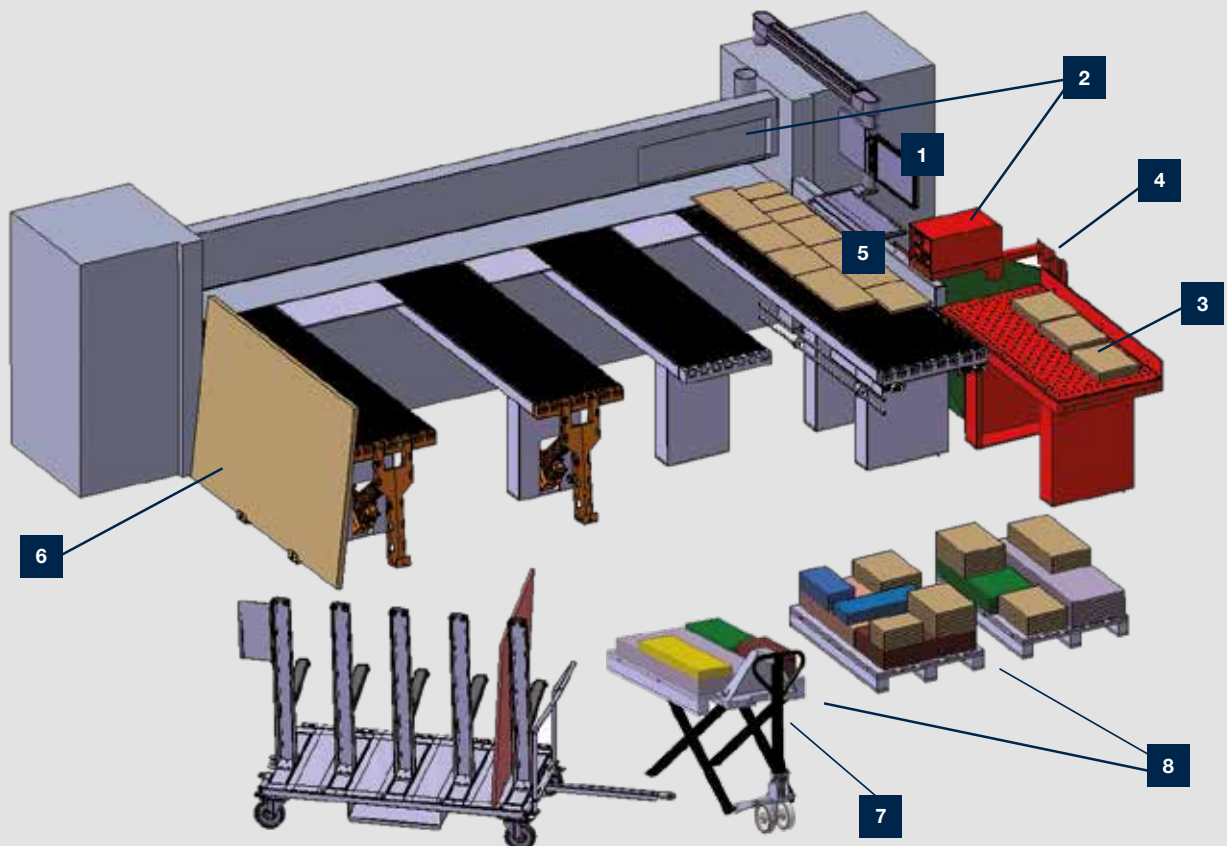
intelliGuide – the intelligent operator guidance system

CADmatic 5 is ready for intelliGuide, the first assistance system in the history of panel dividing technology to allow saws to respond flexibly and intelligently to the actions of the machine operator. The assistance system becomes more intelligent with each stage of expansion: from intelliGuide basic, to advanced, right through to professional. So you get exactly your solution.

MORE AT HOMAG.COM

intelliGuide

The foundation:

1. CADmatic 5

intelliGuide is the result of a long period of technical evolution. It all started with the CADmatic saw control system – software that has since become indispensable. The new version of the software, CADmatic 5, is now more focused on the user than ever before. This is thanks to a new assistance graphic in CADmatic 5 that clearly shows the operator the next step they have to perform. Compared to the previous process graphic that showed all the work steps of the saw (and can still be called up if required), this new graphic represents a 180-degree change in perspective!

General benefits of intelliGuide

- Intuitive machine operation

- Systematic means of avoiding errors

- Fast processes: operator and saw work in tandem and do not slow each other other down

- The operator rarely needs to look at the monitor and so can concentrate on processing the cutting pattern

- Fluid, ergonomic processes for efficient and concentrated work

- Smooth change of operator possible at any time
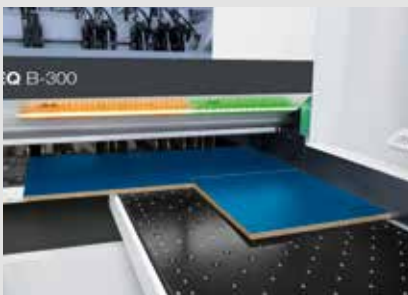
intelliGuide basic:

1. CADmatic 5

2. LED strip at the cutting line

- Colored LED signals at the cutting line allow intuitive operation and a speedy and safe way of working

- Using the colored LED elements, machine operators can immediately see if a part has been fully processed, needs to be cut again or can be disposed of as waste

- Based on the LEDs that are lit up, the operator can determine whether the workpiece being processed meets the required specifications

intelliGuide advanced:

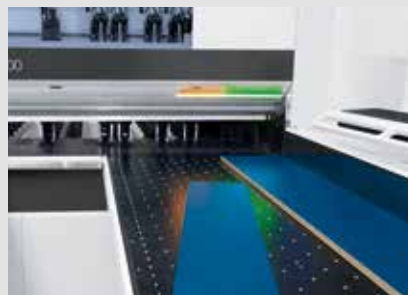**1. CADmatic 5**

2. LED strip at the cutting line

3. Camera

- The system uses this camera to see which strip or part the operator has deposited and how it has been aligned

- If the intended part is not deposited, intelliGuide responds to the change of plan in a flexible manner

- If the change does not necessitate further action, the saw simply begins working. Otherwise, intelliGuide provides the operator with feedback and instructions

4. Illumination

- Enhances safety and quality by ensuring the workplace and workpieces are evenly lit

- Improves the appearance of the work-place and makes it even more ergonomic
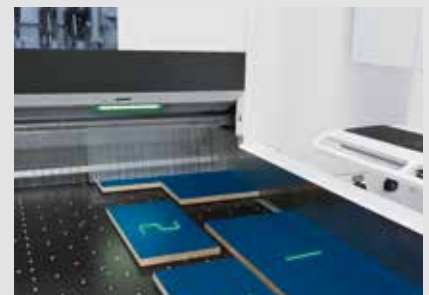
intelliGuide professional:

1. CADmatic 5

2. LED strip at the cutting line

3. Camera

4. Illumination

5. Laser

- Projects clear information regarding processing and handling directly onto the current workpiece

- Arrows, for example, indicate the direction in which a panel needs to be turned and how it needs to be positioned. An X means that the wrong part has been inserted. The trash can symbol indicates waste parts

- In short: thanks to the self-explanatory symbols, operators always know which step they need to perform next and can immediately take the appropriate action

TECHNICAL DATA

Area	Function	Sales option	CADmatic 5	available for
General				
	Display		21"	
	Resolution		1,920 x 1,080	
	Touchscreen		✔	
	Machine keys		✔	
	Machine controller		✔	
	Optimized user interface: "simplified views"		✔	
	Optimized user interface: "advanced views"		✔	
Production methods				
	Fixed position		S/A	
	Cutting to length		S/A	
	Single parts		S/A	
	Cutting pattern input		✔	
	Pattern selection (cutting pattern management)		S/A	
	Pattern selection: estimation of production times		✔	
Production methods – optional features				
	Grooving program (automatic)	6050	O	SAWTEQ B-300 to SAWTEQ B-600
	Turbo grooving	6057	O	SAWTEQ B-300 to SAWTEQ B-600
	Cut-out and stress elimination cut	6065	O	SAWTEQ B-200 to SAWTEQ B-600
	Angle cut program	6085	O	Manual: SAWTEQ B-200 Automatic: SAWTEQ B-300 to SAWTEQ B-600
	PPC feedback	6240	O	SAWTEQ B-300 to SAWTEQ B-600
	Integrated camera monitoring	6318	O	SAWTEQ B-300 to SAWTEQ B-600
	Camera-controlled scoring saw adjustment	6040	O	SAWTEQ B-300 to SAWTEQ B-600
	Barcode reader supported production start	6230	O	SAWTEQ B-200 to SAWTEQ B-600
Stock control				
	Storage control connection	6225	O	SAWTEQ B-200 to SAWTEQ B-600
	Storage control connection in CADplan and cutting pattern input		✔	
	Improved offcuts return system		✔	
	Storage location management for offcuts	6097	O	SAWTEQ B-200 to SAWTEQ B-600
	Storage location management for offcuts (scanner option)	6098	O	SAWTEQ B-200 to SAWTEQ B-600

TECHNICAL DATA				
Area	**Function**	**Sales option**	**CADmatic 5**	**available for**
Optimization				
	CADlink	6088	O	All
	CADplan for angular saw units	6092	O	All angular saw units
	CADplan just in time	6093	O	All
Process graphic / assistance graphic				
	Process graphic / assistance graphic		S/A	
	Display of part details in the cutting pattern		✔	
	Process graphic / assistance graphic: preview and review feature		A	
Settings / parameters				
	Parameter management		✔	
	User-defined show / hide parameters feature		✔	
	Material-dependent parameters	6100	O	SAWTEQ B-300 to SAWTEQ B-600
	Automatic compensation of saw blade offset		✔	
	Tool settings		✔	
	Tool management		✔	
Destacking				
	Destacking module LITE	6310	O	For all single saws from SAWTEQ B-200 to SAWTEQ B-600
	Destacking module PRACTIVE (with operator guidance)	6311	O	For all single saws from SAWTEQ B-200 to SAWTEQ B-600
	Destacking module Systems	6315	O	For all angular units from SAWTEQ B-300 to SAWTEQ B-600
Miscellaneous				
	Alarms overview (graphically supported diagnostics)		✔	
	Data transfer via network	6200	O	All
	WEB access for sales option 6200		O	All
	Data transfer via USB	6206	O	All
	HOMAG MMR basic		✔	
	HOMAG MMR professional	6125	O	SAWTEQ B-300 to SAWTEQ B-600
	Run data evaluation with Cut Rite	6120	O	SAWTEQ B-200 to SAWTEQ B-600
Labeling				
	Labeling program	6075	O	All
	Labeling with parts graphic	6070	O	All

✔	Standard
S	Standard simplified
A	Standard advanced
O	Optional
All	All models

LifeCycleServices

HOMAG LifeCycleService

Optimal service and individual consultations are included in the purchase of our machines. We provide support through service innovations and products that are tailored exactly to your company's requirements. With short response times and fast customer solutions, we can guarantee excellent availability and cost-effective production for the entire life cycle of your machine.

Remote service

- Hotline support for the control system, mechanics, and process technology from our remote service specialists. This results in 90% fewer on-site service visits!

- Mobile applications such as ServiceBoard reduce costs by providing fast assistance in the event of malfunctions via mobile live video diagnostics, online service messages and eParts, the online spare parts shop

Spare part service

- Identify, request and order spare parts 24/7 via www.eParts.de

- Parts available locally worldwide through sales and service companies, as well as sales and service partners

- Reduction in downtimes due to specific replacement part and wear part kits

Modernization

- Keep your machine pool up to date and increase both the productivity and product quality. Meet future product requirements today!

- We provide support through upgrades, modernizations, and individual consultations and development

1,200
service employees worldwide

>90%
fewer on-site visits due to successful remote diagnostics

5,000
customer training sessions per year

>150,000
**machines electronically documented
in 28 languages in eParts**

**HOMAG Finance –
tailor-made financial solutions**

- We offer you tailored financing proposals
  for your machinery or plants. Our financial
  advice goes hand in hand with our
  expertise relating to technical questions.
  Your personal contact person will take
  care of the whole process

- The benefits for you: you can invest in
  new technologies without delay, while
  remaining financially flexible

Training

- Thanks to training that is precisely tailored
  to your needs, your machine operators
  can operate and maintain HOMAG
  machines as efficiently as possible

- You will also receive customer-specific
  training material with tried-and-tested
  exercises
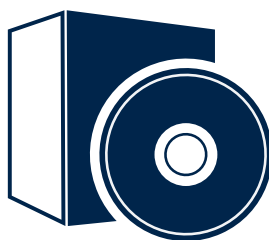
Software

- Telephone support and advice from
  Software Support

- Digitization of your sample parts using
  3D scanning saves time and money in
  comparison with reprogramming

- Retrospective networking of your machine
  fleet with intelligent software solutions
  from design through to production

Field service

- Increased machine availability and
  product quality thanks to certified service
  personnel

- Regular checks through maintenance /
  inspection ensure that your products are
  of the highest quality

- Minimized downtimes in the event of
  unforeseeable malfunctions due to the
  high availability of our technicians

HOMAG Group AG

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YOUR SOLUTION