

Mobile. Connected. User-friendly.

HOMAG

woodStore 8

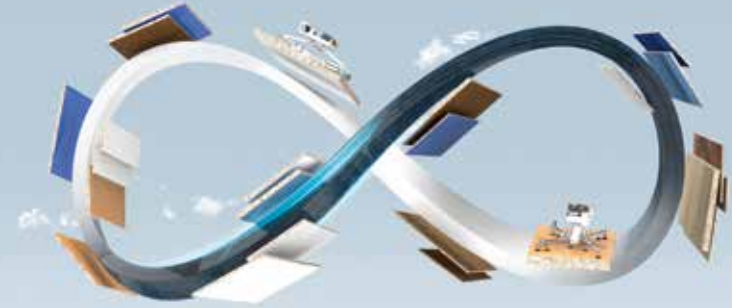
Smart storage software. Intelligent panel management.

YOUR SOLUTION



woodStore 8

A storage management system has never been more smart or efficient



The intelligence and efficiency of storage software is ultimately demonstrated by the transparency of the flow of information and materials that it achieves within a company. In this regard, woodStore 8 sets completely new standards.

The latest intelligent storage management system from HOMAG links the ordering process with order processing more closely than ever before, automatically detects and analyzes all in- and outgoing movements, manages your materials through to panel offcuts and controls the flow of material under ongoing self-evaluation.

Such optimal transparency is the key to effective process optimization. woodStore 8 ensures that you have and are able to use this key feature more effectively than ever before. In contrast to its predecessor, it also boasts a number of innovative features that improve your storage management and material management even further.

This includes, for example, the option to link two adjacent but physically separated storage systems and to connect an even greater number of processing machines to each. A further highlight: With woodStore 8, you can now use the storage return position up to 100% as a restacking position. This significantly increases your capacity with random storage management, especially if the storage system is equipped with few stack positions.

For all the digital intelligence and process optimization, there's one thing that HOMAG hasn't forgotten: people. That's why woodStore 8 is easier to use than all preceding versions and makes more logical use than ever of mobile solutions and networked operations. This is HOMAG.

YOUR SOLUTION

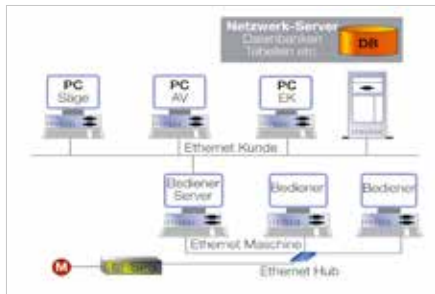
woodStore 8 highlights

- Significant increase in the number of processing machines and storage return positions — greater flexibility with regard to layout design
- Combine processing machines into groups with an individual production list for each
- Extended linking of multiple storage systems — automatic master data and production list comparison, cross-system manual offcut storage and advance removal from storage
- In certain circumstances, additional variants with two bridges adjacent to one another are possible
- “Slow-selling goods function” — simple detection and disposal of old panel overhangs
- Storage return position can be used as a restacking position, which is especially important in storage systems with few stack positions
- woodStore mobile — considerably simplified operation, better overview and integration of the camera to support functionality

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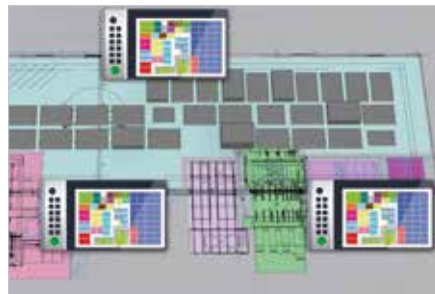
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- 20** Operation
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woodStore 8 FUNCTIONALITY



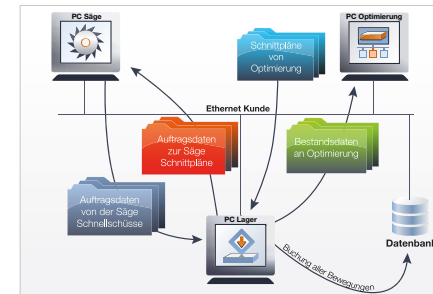
SQL server database system

- Open, scalable database system that can be stored on your server
- Integrated runtime logs to make performance problems in the network and IT infrastructure transparent
- Seamless integration into your data backup concept
- Seamless integration into your IT infrastructure
- Unlimited reporting options through Access, Excel or freely available reporting tools
- All movements are recorded in the database in real time



Multiterminal interface

- Unlimited number of user interfaces
- The complete storage interface is available on the saw PC, the nesting machines or in the office
- The starting sequence is irrelevant
- Reconnect in the event that the storage server is switched off
- Full transparency at every workstation



Smart Connected System

- Principle of “storage system controls saw” for planned jobs
- Principle of “saw controls storage system” for snapshots
- Flexible parameterization of reaction to express jobs without interrupting ongoing production
- Quick and flexible reaction to production changes
- Optimization of available materials thanks to feedback on plannable stocks



Scrap management

Offcuts management supports the management of manual offcuts. Unplanned offcuts are detected and removed using a scanner or mobile end device. A signal lamp or note on the display indicates whether the offcut may be removed or is already planned for another job.

- **NEW:** A manual offcut storage system can be used in an overarching fashion for more than one storage system!
- Optimum material yield from new parts to offcuts
- Management and realistic view of manually stored offcuts
- Simple generation, display and printout of retrieval lists
- Traffic light indicators for part identification (red: part already planned; green: part available)

woodStore 8 FUNCTIONALITY



Management of external storage

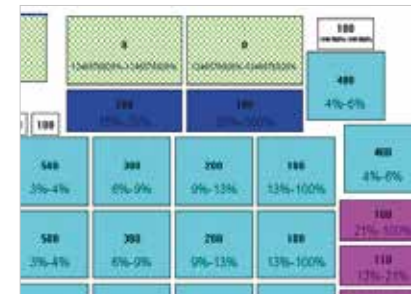
Management of forklift racks for easing the burden on the storage of frequently needed material and simultaneous storage in external storage systems and in automatic storage systems.

- Relieves external storage of small quantities
- Management of non-absorbent materials such as perforated panels
- External storage feed:
 - Via plant storage return position
 - From the front into the saw
 - Via saw lifting table
- Scanner connection for external storage positions
- Early and timely provision of user information on the saw and on the storage terminal regarding panels to be provided



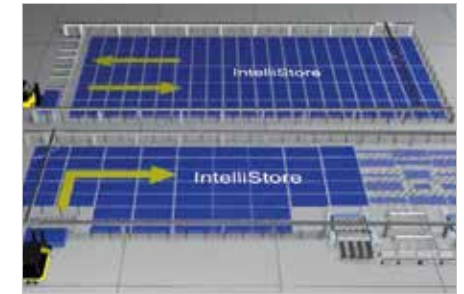
Forklift operator management

- For use in case of simple saw feeding or extensive use of an external storage system
- Simple overview of outstanding required and planned panel requirements
- Flexible combination of storage and pre-sorting to perform as few stack movements as possible
- User interface on the remote terminal of the forklift truck
- Constant update of orders for the forklift according to the processing of the production list
- Barcode support using remote scanners



Flexible storage organization

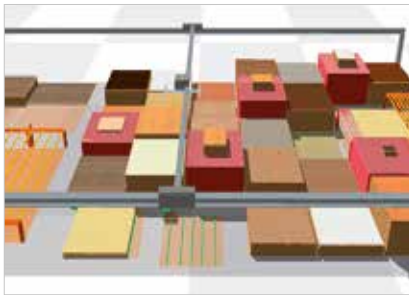
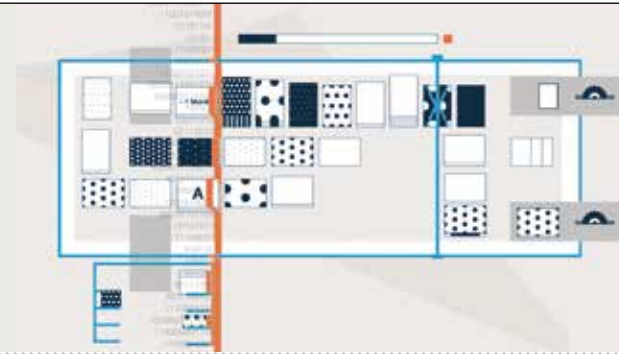
- Simple, extremely flexible assignment and division of panels and storage positions with maximum possible use of the storage capacity
- Preselection of single-type, random or dynamic storage strategy
- Overview of multiple positions in a mixed random group with single-type storage option for individual types
- Simple transfer of storage arrangement from demo software
- Total integrity of data storage in case of manual intervention



IntelliStore optimization module

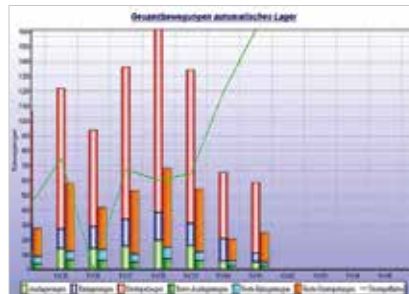
- Ensures storage organization that adapts automatically to the changing production conditions
- Simple and easy operation
- Define the analysis period and production fractions just once, then the system automatically takes care of everything else
- Parts are also always in the right storage area for the production fraction — with no additional restacking
- Reduces restacking by up to 30%

woodStore 8 FUNCTIONALITY



FlexSortPlus – pre-sorting

- Advance storage everywhere in the storage system (advance storage locations, storage locations, unrequired storage locations)
- Automatic generation of advance storage orders from the ongoing production process or from the saw program sequence
- Improved setting options:
 - Buffer positions for every storage target
 - Buffer positions for various panel dimensions
 - Automatic buffer positions, advance removal from storage only
 - Automatic buffer positions, intermediate buffering only

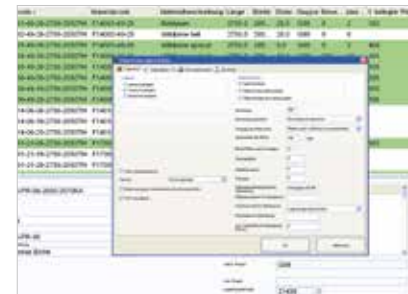


woodStore Analyzer

In a customizable time period, the main functions of the storage system are examined and analyzed according to the customer's requirements in order to determine whether the storage system is used optimally.

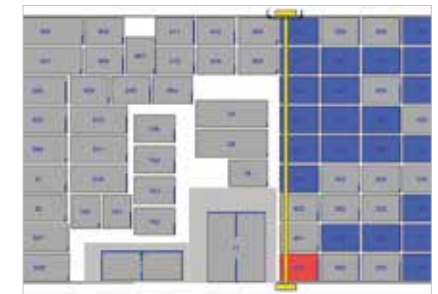
If the analysis reports a need for improvement, the integrated expert system provides tips on which steps can be introduced to increase the efficiency of the storage system for the most important storage criteria.

- Simple step-by-step instructions on how to increase the efficiency of the storage system.



Advanced storage functions

- Flexible processing of express jobs (immediate production, after ongoing, after operator decision)
- No more slow-selling goods, because panels that are too old are removed from storage first
- Panels to be removed from storage are removed in the order that they were stored. In case of real wood panels, this avoids decor variation on the finished product across different batches
- **NEW:** Automatically protect sensitive decors through time-controlled cover.
- Laminate box handling for transporting boxes containing several laminates

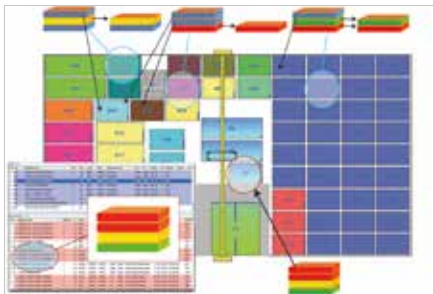
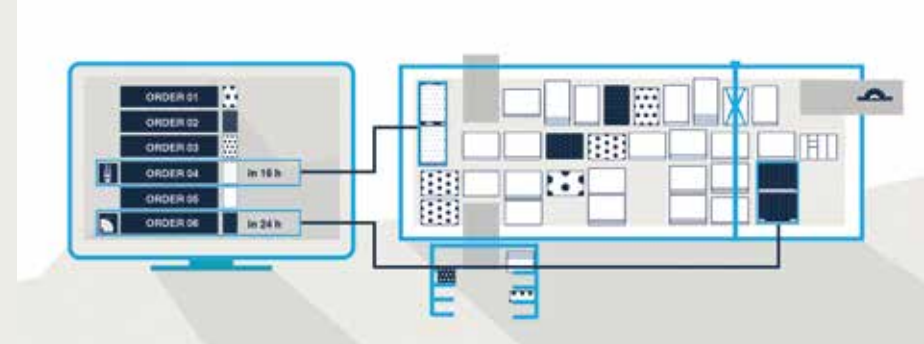


Storage strategies

Better organization, clearer overview, greater reliability! Storage positions or storage zones can be flexibly configured for mixed, random or single-type management.

- Fastest access, worst storage zone
- Fixed or variable stock removal order
- Reduction in restacking operations by up to 90% with variable order
- Consideration of express jobs
- Advance removal from storage for next shift during ongoing production
- Consideration of required panels in target stack when restacking
- **NEW:** storage return position can be used up to 100% as a restacking position. Benefits for you: significant increase in capacity with random storage management. No empty positions or two up to 50% occupied positions are required to enable restacking down to the bottom panel.

woodStore 8 FUNCTIONALITY



High-performance intermediate buffers

In case of high-performance intermediate buffers, stacks are formed dynamically from the required panels according to the production order.

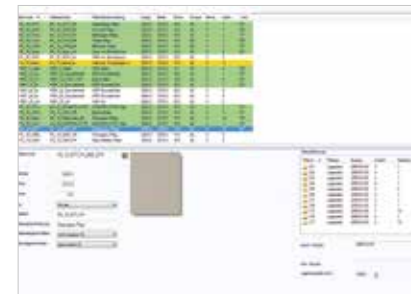
- Minimal storage movements through predictive stack layout — essential for “Just in time” production!



Rainbow pattern

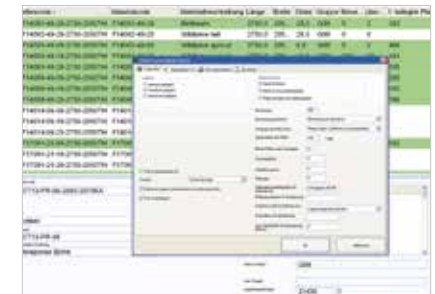
Various commissions can be cut for the same cut patterns in a package.

- Packages with different decors can be cut at the same time
- Colorful packages in a stack, e.g.: red, yellow, green or decor



Import and export of stack information

- Stack information is imported automatically by the scan function: for booking in entire panel stacks
- Entire stacks including all relevant data are transferred into the system
- Manual operator input is no longer necessary
- Stack information is exported automatically, including accompanying leaflet print, electronic table of contents for stack
- Stack contains the processing information for the panels
- Direct production of stacks removed from storage without further operator input directly on the saw — simply by scanning the accompanying leaflet



Panel allocation

- Independent of the optimization, panels can be allocated for various scenarios
- Order-related allocation of panel allocation as early as infeed to storage
- Panel allocation from the available material stock before removal from storage
- Panel allocation according to various group parameters
- Easy to carry out thanks to the allocation assistant
- Core market: plastic, real wood customer materials

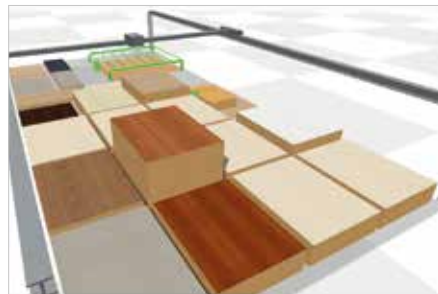
woodStore 8 FUNCTIONALITY



Integrated image database

Decor images for a realistic representation of the panels available in the storage system.

- Easy selection and assignment of panel decor
- Simplification of operation thanks to the decor presentation for panel selection
- Representation aid for 3D storage view



Multiple position optimization support

Optimization can make panel allocations in the storage system — previously allocated panels can be re-allocated.

- Optimization over multiple positions in the storage system
- Optimization of allocated panels one below the other
- Optimization can make, amend or release allocations



Stationary machine connection

NEW: Up to 15 stationary machines or external storage positions can now be connected to the panel storage as standard.

- Depending on the layout of the production line, the machines can be connected inside or outside the storage system — flexibly as required.
- With this module, you can also connect CNC processing machines to the storage system



Lifting table management

This module enables complete management of lifting tables in the saw as well as internal and external roller conveyors for infeed and outfeed to the lifting table.

- Offcuts, express jobs or special parts can bypass the lifting table and be placed directly on the saw table
- Offcut stacks can be stored or discharged

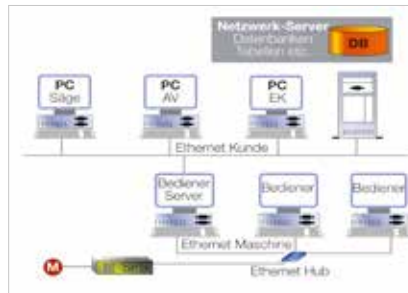
woodStore 8 FUNCTIONALITY



Headcut module

Parts with headcuts are returned from the saw, removed from storage and inserted again rotated.

- The rotating table in the saw can be omitted for plants with low output



ERP/PPS integration

- Connection of external optimizations or production planning systems directly at database level
- Maintenance option for all master data at any position
- Automatic storage and removal from storage for offcuts, including by external systems
- Comparison with external systems, taking into account physical and allocated stock
- Comparison with ordering operations in PPS/ERP systems
- Supplier, delivery date and storage date management
- Flexible import and export interfaces (database, Excel ASCII, BDx)



woodStore 8 PROCESS STABILITY



Stabilization function

- Storage system always allocates thin panels such as laminate to panel stacks with dimensions that are the same size or larger
- Panels that “hang” are placed on stable panels
- Cross rails can be placed on panels in the same way
- More options for storing various panels, thereby enabling better use of the available storage positions



Database access analysis

Database access is measured for performance and logged to identify digital bottlenecks.

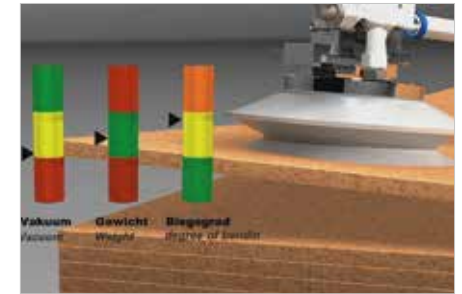
- Transparent identification of bottlenecks
- System inspector points out malfunctions in the customer network



Email alert

In the event of any malfunctions in the operation of the storage system, the system sends an email to a defined email account

- Notification function instead of or in addition to SMS for emergencies
- Transparent communication for quick correction of errors
- Freely configurable notification level and time window

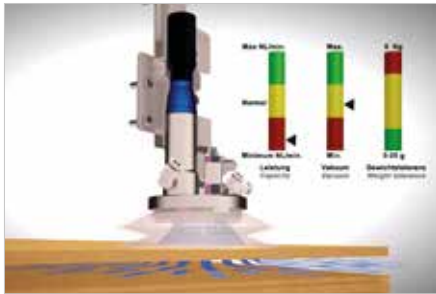


Intelligent vacuum management

- Weight measurement with automatic consideration of supplier tolerances
- Integrated control loop for separating device: for high levels of process reliability when separating parts
- Automatic generation of all vacuum parameters only through the definition of two panel properties (surface and rigidity)
- Part measurement in three axes (x/y and rotation) for every panel movement with no negative impact on performance
- Optimal panel positioning even with large-scale restacking operations

woodStore 8

PROCESS STABILITY



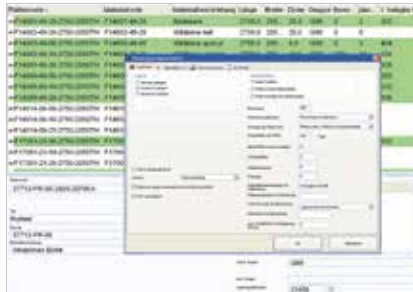
Smart Separation Learning

Fully automatic panel separation that requires only two panel handling settings:

- Panel = suction, yes/no
- Panel = flexible, yes/no
- The result is stored in the system and loaded as the basis for handling parameters on request.
- Parameters are constantly adjusted in the ongoing process to achieve optimal panel separation



woodStore 8 OPERATION



Master data maintenance/management

Templates for automatic creation of master data

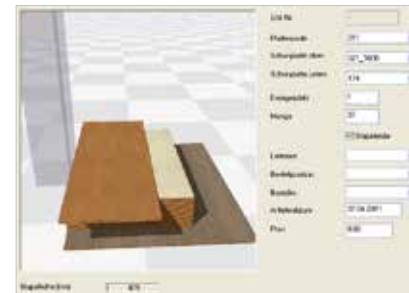
- Central maintenance for saws, optimization and storage in one place for master data: in external PPS systems, in optimization, in storage
- Master data from the optimization or from a PPS system is automatically read by the storage system
- Master data from the storage system is also automatically stored in Cut Rite
- **NEW:** Linking and comparison of master data for multiple storage systems
- Flexible import and export interfaces (CSV files, Excel lists, database interfaces, optimization data)



Overview of master data

Freely configurable overview of master data

- Freely definable columns that can be displayed and hidden for a customized overview
- Individual filter functions
- Set individual filters, which can be used for bulk copying, for example



Easy2Work package

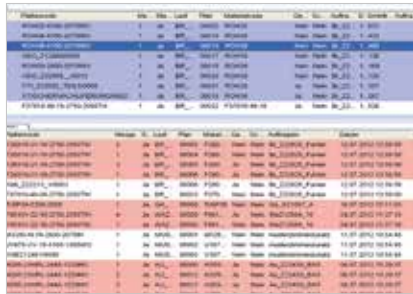
Virtual 3D view of each stack in the storage system as well as the entire storage system ensures the greatest possible transparency and monitoring

- 3D view of stacks to be stored simplifies the entry of stack data
- Each stack is realistically represented in 3D — and even complete with all protection boards, cover plates and corresponding fixed edges
- Integrated image database for panel decors with visual support for the selection and entry of part numbers and panel codes
- Automatic completion of panel codes when new data is created (name, dimensions, material — and it's done)



- Integrated system visualization in 2D/3D
- Freely configurable toolbars and menus, allowing functions that are not needed to be hidden
- Support for Windows clipboard
- Restack/store easily using drag and drop
- Properties window can be displayed for panel data, position data and target/actual values, tooltip support for icons/selection fields
- Avoidance of incorrect operation through selective input/selection options (e.g. when entering panel codes)

woodStore 8 OPERATION



Production list module

Simple processing and activation of all orders with full plausibility check ensures reliability for the operating personnel.

- A flexible combination of storage and pre-sorting reduces stack movements to a minimum
- Production order can be determined by the storage
- **NEW:** Linking and comparison of production lists for more than one storage system
- Variable storage and removal strategies
- Dynamic express job release
- Forklift operator management



Backup system

Undo feature for basic functions — similar to Windows recovery, the system can be restored to a saved state.

- The following functions are part of the undo function:
 - Changes to master data
 - Changes to storage position settings (e.g. coordinates)
 - Changes to the storage position contents (number of panels, supplier information, etc.)



Report generator

- Creation of standard reports for the evaluation of storage organization regarding:
 - inventory report, number of restackings, storage/removal from storage
 - Overview of panels and positions in groups
 - Load through stored offcuts
- Freely configurable import and export interfaces for storage positions, lists and master data (Excel, ASCII/CSV files, database interfaces, Cut Rite optimization (BDX, SAW), Cut Rite board library)
- Fully automatic time-controlled retrieval



User management

The user management is completely integrated in the HOMAG powerTouch framework. The users created and registered there are automatically transferred to the storage software.

- Users can be grouped and rights set at group level
- More than 40 different rights can be assigned separately on the storage software
- Operators can only execute those functions for which they have been assigned authorizations

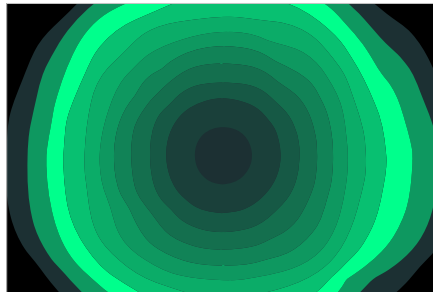
woodStore 8 NETWORKED OPERATIONS



Mobile operation

Various functions can be controlled via mobile end devices connected within the machine's WiFi network:

- Start and stop storage functions (e.g. storage, removal from storage, advance removal from storage)
- Create storage jobs
- Rebookings in a manual storage system
- Display material availability
- Display the remaining cutting time of the saw
- Display statistics for current storage movements



Cloud-ready

The interface for connecting to the HOMAG Group Machinery Board is already integrated via Cloud Connector.

- Various evaluations are displayed:
 - Machine status
 - Error messages
 - Cut time remaining



NEW: Greater convenience for networked operations

With woodStore 8, you can now simply use your smartphone or tablet to:

- Scan panel codes and now also record in-depth information such as supplier names, order items or order numbers, delivery date and price. This allows you to benefit from even simpler recording of comprehensive master data right from the moment that panel material is stored
- Take decor images to store automatically in the database and to save in the master data as a visual extra

woodStore — software module for STORETEQ	S-200	S-500	side
SQL server database system	x	x	04
Multiterminal interface	x	x	04
Smart Connected System	x	x	05
Scrap management	*	*	05
Management of external storage	x	x	06
Forklift operator management	x	x	06
Flexible storage organization	x	x	07
IntelliStore optimization module	x	x	07
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*Additional equipment is required to make full use of the full range of functions.

THE 10 MOST IMPORTANT REASONS FOR A STORAGE SYSTEM

- 1. No more searching for panels:** Simple panel handling with a large number of types
- 2. Reduced delivery times:** Time-controlled procurement is made possible, optimized processes increase efficiency
- 3. Optimization of material handling:** Only the amount needed for the foreseeable future is stored
- 4. Cost savings:** Offcuts are used
- 5. Personnel resource savings:** Cut and material provision are separated from one another
- 6. Reduction in unneeded stock:** Material consumption is co-ordinated with order management and order planning
- 7. Quality assurance:** Suppliers and incoming goods can be clearly allocated to the finished product
- 8. No expensive idle times, higher speed:** Processing machines work to capacity, high speeds **through mobile operation**
- 9. No production faults** due to lack of material: The optimization system plans only the material that is available
- 10. Benefits also for exotic materials** that cannot be transported automatically (panels for cut-outs for glass panes, perforated panels, etc.): The entirety of the material is managed, not just what is in the machine

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YOUR SOLUTION