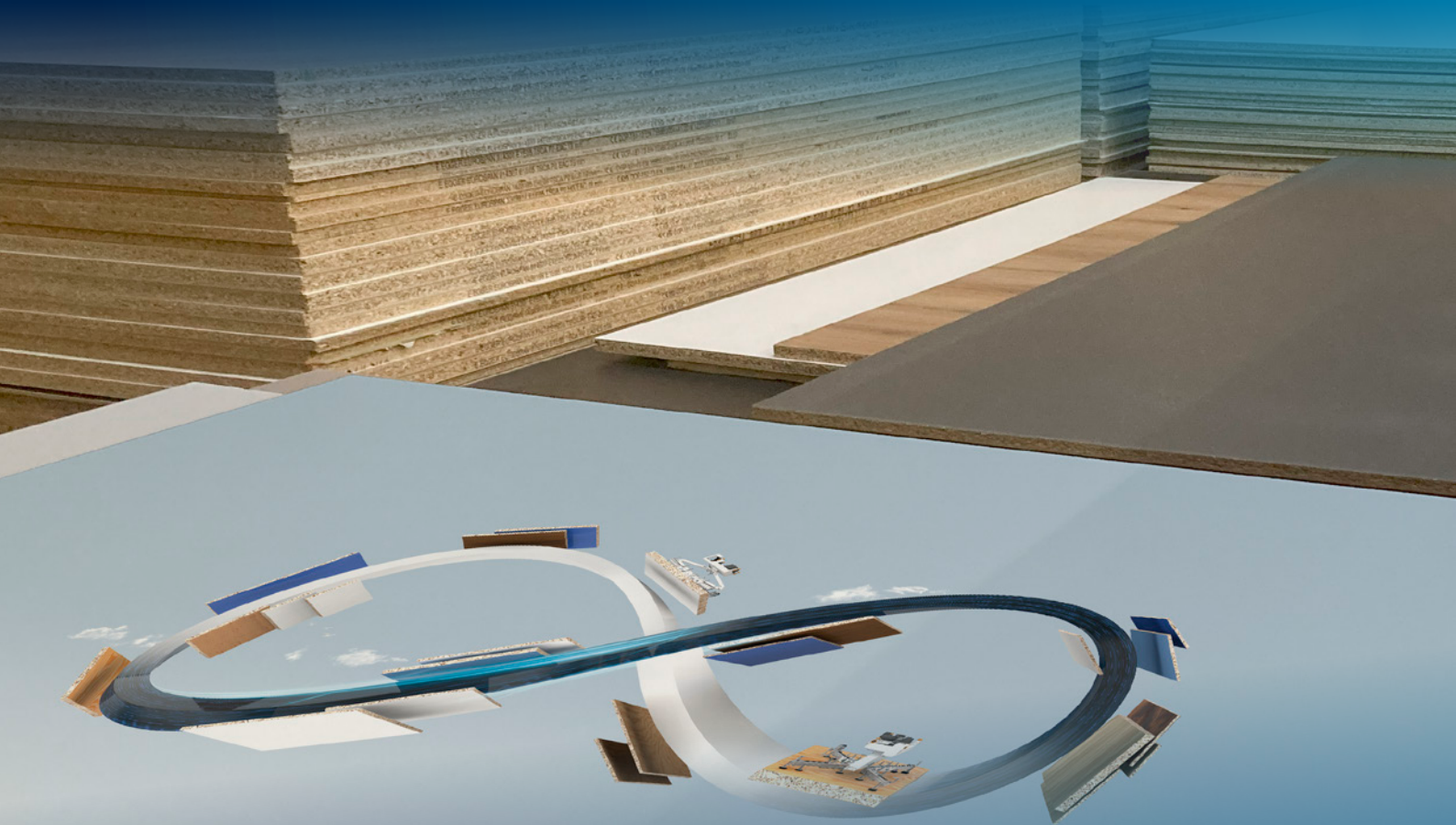


Storage control system woodStore 8

woodStore 8

Proactive storage management, intelligent storage control system, intuitive storage operation





woodStore — proactive, intelligent, intuitive.

Transparent information flow and efficient material management – these are the strengths of woodStore 8. The latest version of the storage control system links order management with order processing more closely than ever before, automatically detects and analyzes all incoming and outgoing movements, manages your materials through to panel offcuts and controls the flow of material under ongoing self-evaluation. woodStore 8 thus becomes the central element of the process chain – both for small entry-level solutions for woodworking shops and for large composite systems in the industrial sector.

YOUR SOLUTION

[MORE AT HOMAG.COM](https://www.homag.com)



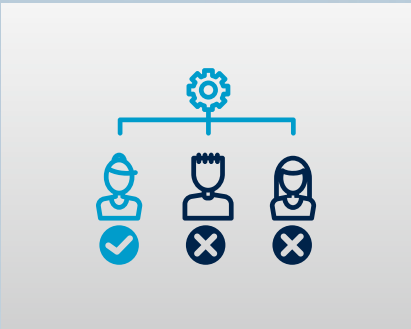
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- 04 Storage & storage control system – overview
- 08 Functionality
- 16 Process stability
- 18 Operation
- 22 Networked operations
- 24 Software modules
- 26 Life Cycle Services

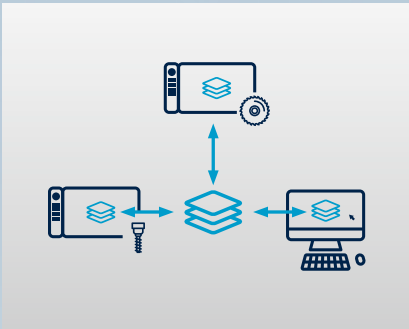
woodStore⁸

Smart storage software. Intelligent panel management.

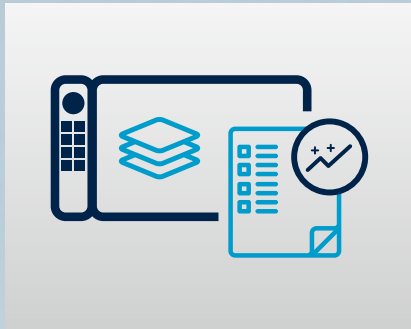
What makes woodStore a leading storage control system?



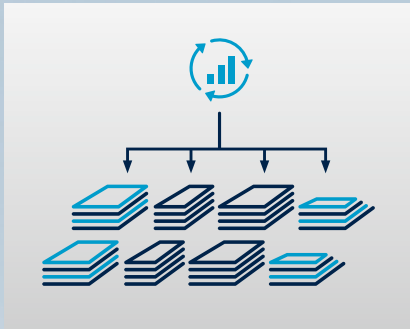
User management
Person-controlled storage operation with up to 40 different user rights and an unlimited number of user interfaces – at the saw, nesting machine or in the office.



Multiterminal interface
An unlimited number of user interfaces creates full transparency and optimal work processes. Whether on the saw, the nesting machine or in the office, the storage interface is completely accessible at all times and can be used in parallel depending on the access rights.



quickTip
Proactive setting recommendations, centrally in one place in woodStore, lead to optimal storage management and smooth processes.



Flexible storage organization
Flexible and customer-specific assignment and division of panels and storage positions into meaningful groups, including selection of the storage strategy. This means that the storage system adapts optimally to individual requirements while making maximum use of the storage capacity.



intelliStore
Permanent monitoring of all storage movements and automatic adaptation to current production conditions.



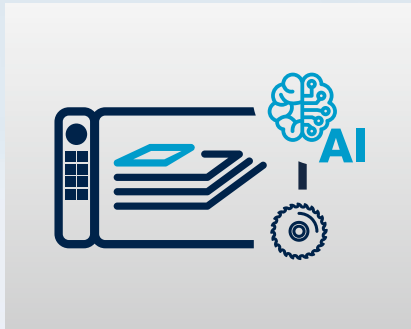
woodStore Analyzer
In a period that can be specifically defined, the main functions of the storage system are examined and analyzed according to the customer's requirements in order to determine whether the storage system is being used optimally and efficiently.



Management of external storage
Central management of cantilever racks (block storage, external storage) in realistic 3D view including forklift operator management.



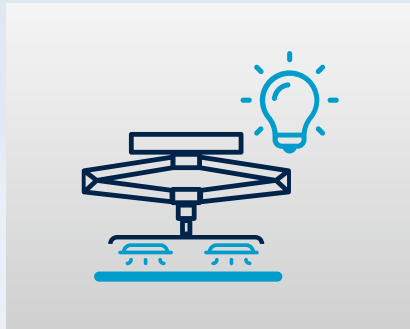
Scrap management
Automatic storage of offcuts from the saw and/or nesting with integrated measurement of the panels during the material intake process and management of manual offcuts in an external offcuts storage.



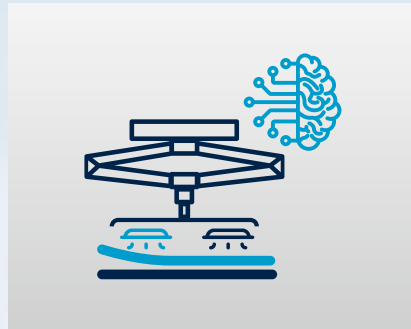
IntelliStore AI – offcuts
Automatic storage of offcuts on defined stacks of panels distributed across the storage system optimizes the use of space and reduces storage movements by up to 40%.



FlexSortPlus pre-sorting
Advance removal from storage everywhere in the storage system, e.g. at storage return positions and storage positions that are not required, and automatic generation of advance removal from storage orders from ongoing production or the program sequence of the processing machine improve the storage organization and efficiency.



Intelligent vacuum management
The suction traverse measures the parts in three axes with every movement and generates the data required for panel handling by defining only two panel properties (surface and rigidity) – this ensures dependable process reliability.



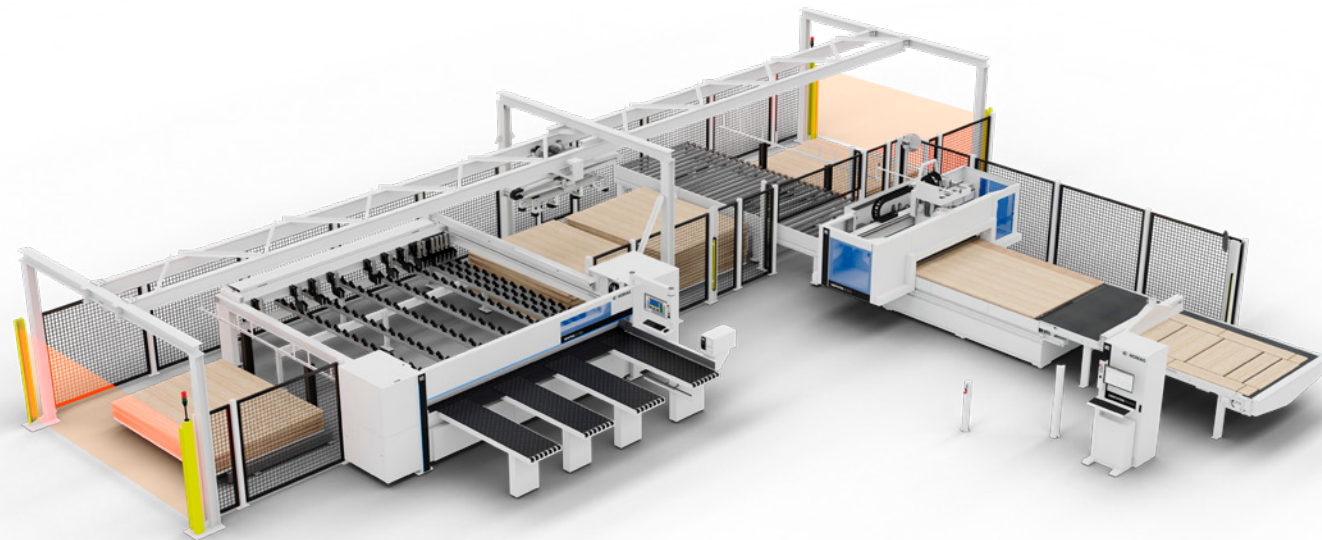
Smart Separation Learning
Fully automatic panel separation that requires only two panel handling settings.

Grow together.

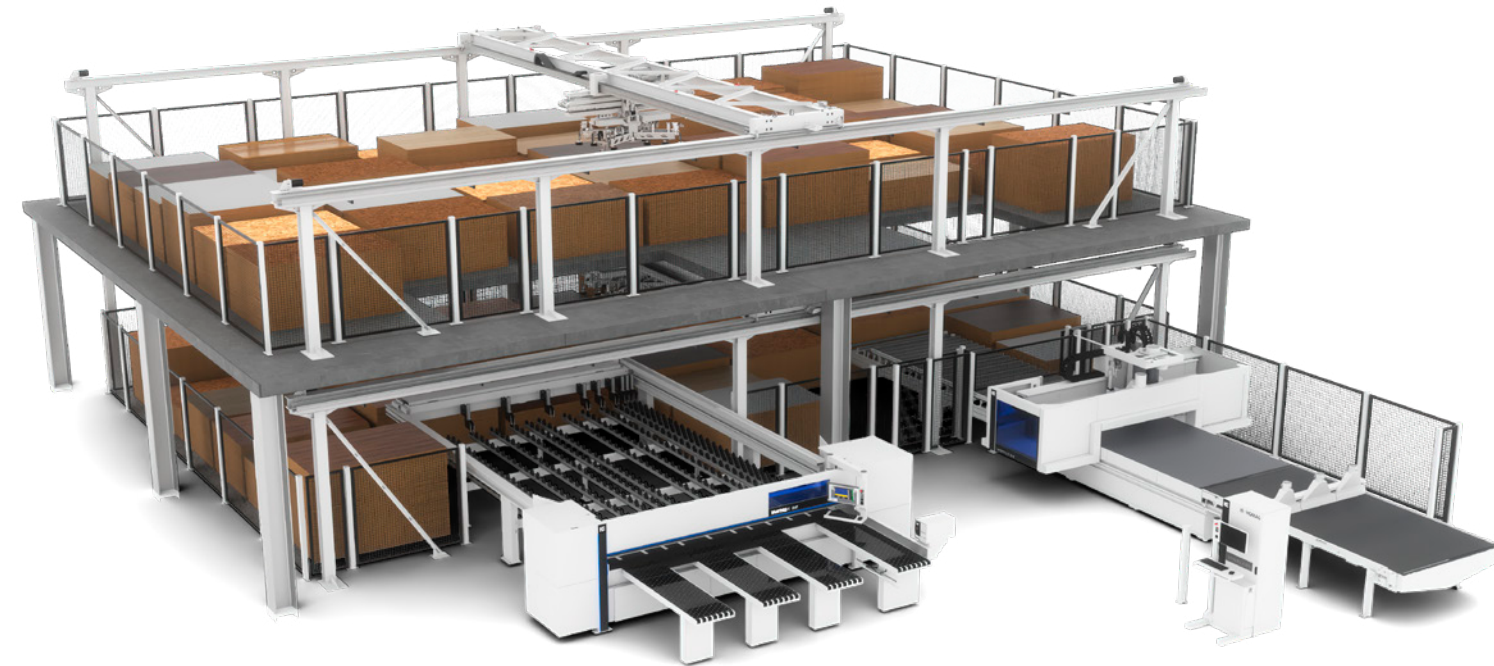
The universal solution for your material management.

Whether it's a large range of parts, high speeds or minimal space requirements: The HOMAG STORETEQ portfolio combines the strengths of automation with intelligent logistics – from a single-axis feeder, through storage systems, second-level storage systems, double-level storage systems up to storage systems with two bridges. This results in noticeable

optimization effects in reliable panel handling, intuitive operation and higher material utilization while simultaneously improving sustainability – all made possible by the consistent use of the **woodStore 8 storage software**.



STORETEQ F-100 single-axis feeder with SAWTEQ S-300 saw and CENTATEQ N-210 nesting



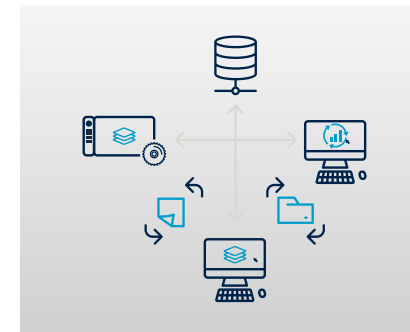
STORETEQ P-520 double-level storage system with SAWTEQ S-300 saw and CENTATEQ N-210 nesting

Reasons for a HOMAG storage system

- **Efficient material flow:** Safe panel transport without unnecessary travel paths and gentle handling without searching for panels – even with a high variety of materials – save time and space
- **Fast delivery times:** Timely material procurement and provision and optimized processes increase efficiency
- **Optimized material handling:** Material consumption is coordinated with order management and order planning. Only the quantities needed for the foreseeable future are stored
- **Sustainable material management:** Offcuts are organized and automatically managed via the offcuts storage or are returned to the storage system
- **Personnel resource savings:** Cutting and material provision are separated from one another
- **High quality assurance:** Suppliers and incoming goods can be uniquely allocated to the finished product
- **Minimal idle time:** Optimization plans only available material and the processing machines are fully utilized
- **Easy management of exotic materials:** Management of the entire material – even when it is not in the storage system
- **Gentle panel handling:** Reliable panel separation and safe handling using a vacuum on the suction traverse.
- **Intuitive operation:** Intelligent operating and analysis functions and proactive support thanks to setting recommendations

woodStore 8 FUNCTIONALITY

HOMAG's proprietary storage software is used by thousands of companies worldwide. The functions range from management through optimization to intuitive operation and can be upgraded to the latest version from woodStore 4.0.



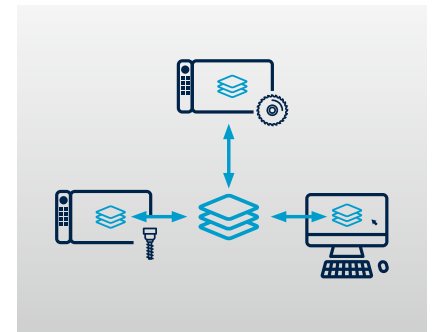
Smart Connected System

- Principle of "storage system controls saw" for planned jobs
- Principle of "saw controls storage system" for express jobs
- Flexible processing of express jobs that can be parameterized (immediate production, after ongoing, after operator decision)
- Quick and flexible reaction to production changes
- Optimized use of the available material through automatic feedback of planned stocks



SQL server database system

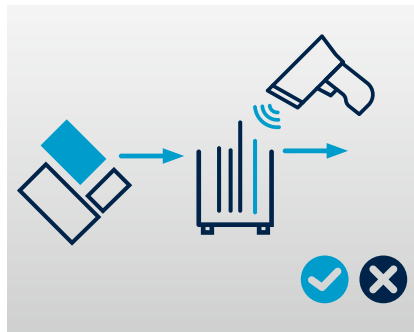
- Open, scalable database system enables easy integration into IT infrastructure
- Database can be stored on own network server – data security and backup concept
- Integrated runtime logs to make performance problems in the network and IT infrastructure transparent
- Unlimited reporting options through Access, Excel or freely available reporting tools
- All movements are recorded in the SQL 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 and can be used in parallel depending on access rights
- The starting sequence of the computers is not relevant for access
- Full transparency at every workstation

Good to know: The number of user interfaces that can be used depends on the license. Two licenses are included in the standard version. Additional licenses can be purchased at any time.



Manual offcuts management

Manual offcuts management provides end-to-end support in the management of manual offcuts in an external offcuts storage and thus prevents the creation of residual stocks.

- Recording of all manual offcuts as stock that can be planned for cutting optimization
- Removal of unplanned offcuts using a scanner or mobile end device
- Display and management of the offcuts shelf compartments with name, number and assignment in 3D view
- Offcuts to be provided are displayed to the operator at an early stage at the saw and at the storage terminal
- Traffic light indicators for part identification (red: Part already planned; green: Part available)
- **NEW!:** Manual offcuts management can be used in an overarching fashion for more than one storage system



Automatic offcuts management optionally with IntelliStore AI – Offcuts

With automatic offcuts management, offcuts are automatically returned to defined offcuts storage positions in the storage system and recorded as stock that can be planned for cutting optimization.

- NEW!:** IntelliStore AI – Offcuts enables automatic offcuts storage on defined stacks of panels distributed across the storage system. Offcuts can still be stored in classic offcuts storage positions. A combination of the two methods is also possible — woodStore Analyzer continuously evaluates the storage data for this purpose and shows which method is most efficient.
- Depending on the panel variety and parts portfolio, you can reduce your storage movements by up to 40%
 - More flexibility, performance and optimized use of space

Good to know: Even if the IntelliStore AI – Offcuts option has not yet been purchased, woodStore Analyzer continuously checks whether automatic offcuts stacking on defined stacks of panels would be advantageous for the storage system. If this is the case, the recommendation appears automatically via quickTip. The simple reference via function+ is then just a few mouse clicks away.



Management of external storage

Management and central display of cantilever racks (block storage, external storage) in realistic 3D view.

- Eases the burden on the storage system from frequently needed material and simultaneous storage in external storage systems and in automatic storage systems
- Easy to manage non-absorbent materials simultaneously, e.g. perforated panels
- Supply of the external storage panels:
 - Via plant storage return position
 - From the front into the processing machine
 - From the rear via the lifting table of the processing machine
- Scanner connection for external storage positions
- Timely operator information about panels to be provided



Forklift operator management

- Integrated standard function for simple machine feeding or extensive use of the external storage
- Compressed overview of the required and already planned panel requirements incl. time of requirement
- Pre-sorting of stacks and necessary returns to storage can be combined flexibly
- User interface on the wireless terminal of the forklift truck incl. permanent updating of the jobs according to the progress of the production list
- Barcode support using remote scanners



Flexible storage organization

- Simple, flexible assignment and division of panels and storage positions with maximum possible use of the storage capacity
- Customer-specific division of the storage system into groups and zones and flexible assignment of panels to the groups and zones
- Selection of the storage strategy: Single type, random, dynamic
- Simple transfer of the storage arrangement from the demo software (result of woodStore training)
- Settings can be changed by the customer themselves



IntelliStore optimization module

- Ensures storage organization that adapts automatically to the changing production conditions
- Define the observation period and production fractions of the material groups just once, then the system automatically takes care of everything else
- Panels are always in the correct storage area for the production fraction, with no additional restacking
- Reduces restacking by up to 30%
- We already knew that with a 25x10 m storage system and approx. 1000 movements per day, the energy savings from IntelliStore over 10 years can be up to €13,000!



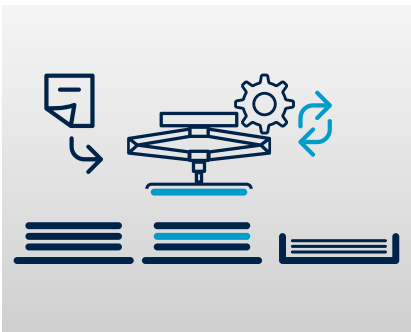
FlexSortPlus pre-sorting

- Advance removal from storage everywhere in the storage system, e.g. to storage return positions or storage positions not required
- Automatic generation of advance removal from storage orders from the ongoing production process or from the saw program sequence
- Flexible setting options for buffer positions based on the storage removal target, panel dimensions or for intermediate buffering
- Integrated simulation improves the forecast for restacking in the storage system
- No more waste of storage space required for advance removal from storage positions



woodStore Analyzer

- In a period that can be specifically defined, 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 being used optimally.
- Simple and fast option of guided storage analysis with the expert installed as standard
 - Regardless of whether it's ABC analysis, identification of old stocks or analysis of offcuts panels — all information is available with just a few clicks
 - Analysis report that can be saved, including recommendations for action for optimization and increasing the efficiency of the storage management



Other intelligent storage functions

- No slow-moving goods, as panels that are too old are removed from storage first – the panels to be removed from storage are removed in the order in which they were stored. In the case of real wood panels, decor changes on the finished product across different batches are avoided
- **NEW!:** Automatically protect sensitive decors through time-controlled cover
- Laminate tray handling for transporting trays containing several laminates
- **NEW!:** 100% of storage return position can be used as a restacking position. For random positions, especially in smaller storage systems, only one position must be available for restacking, not two positions.



Storage strategies

- Better organization, clearer overview, greater reliability! Storage positions or storage zones can be flexibly configured for random, single-type or mixed management.
- Priority on fastest access
 - Fixed or variable storage removal order: reduction in the number of 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





Import and export of stack information

- Automatic import of stack information via scan function with no manual operator input: For booking entire stacks of panels incl. all relevant data
- Automatic export of stack information including accompanying document for the stack, electronic table of contents of the stack and processing information for the panels
- Direct production of stacks removed from storage without further operator input on the saw – simply by scanning the accompanying document



Panel allocation

- Independent of the optimization, panels can be allocated for various scenarios
- Panel allocation:
 - Order-related allocation as early as infeed to storage
 - From the available material stock before removal from storage
 - According to various grouping parameters
- Easy to operate thanks to the allocation assistant
- Optimization can make, change or release allocations, even across several positions in the storage system
- Mainly used for plastic and real wood materials



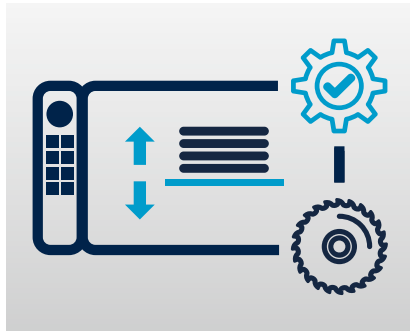
ERP/PPS integration

- 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 system
- Supplier, delivery date and storage date management
- Flexible import and export interfaces (SQL database, Excel ASCII, BDX)



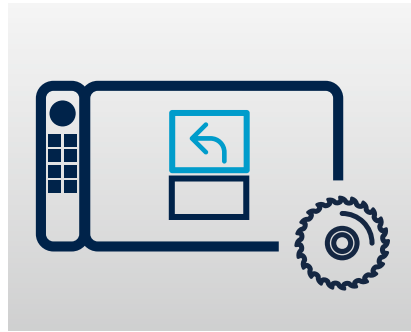
High-performance intermediate buffers

- In the 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



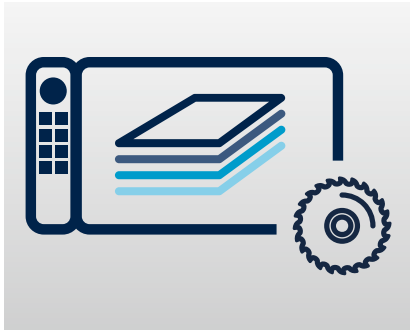
Lifting table management

- 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 stack and be placed directly on the saw table
 - Offcut stacks can be stored or discharged



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



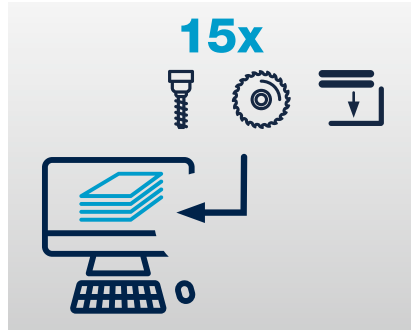
Rainbow pattern

- Various commissions can be cut for the same cutting patterns in a book.
- Packages with different decors can be cut at the same time
 - Colorful packages in a stack, e.g. red, yellow, green or wood-design



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

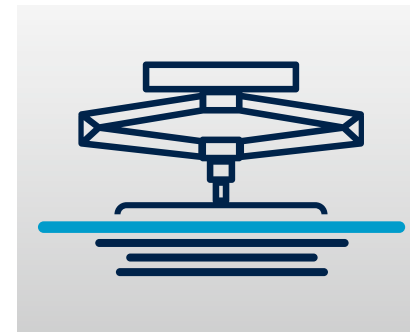


Connection of processing machines

- Connection of up to 15 processing machines (CNC nesting and/or saw) or storage removal positions in the standard version.
- The machines are connected flexibly inside or outside the storage system in accordance with the production layout.

woodStore 8 PROCESS STABILITY

Process stability is a decisive factor for smooth operation, high-quality products and efficient working. woodStore 8 enables a stable process environment thanks to advanced systems as well as the monitoring and adjustment of process parameters in real time.



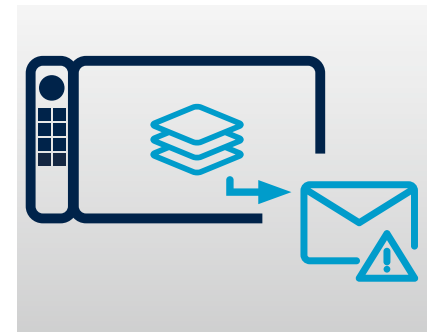
Stabilization function

- Storage system always allocates thin panels such as laminate to panel stacks with dimensions that are the same size or larger
- Panels that are very flexible are placed on stable panels – the suction traverse can thus be placed evenly on the panel
- More options for storing various panels, thereby enabling better use of the available storage positions and stack heights



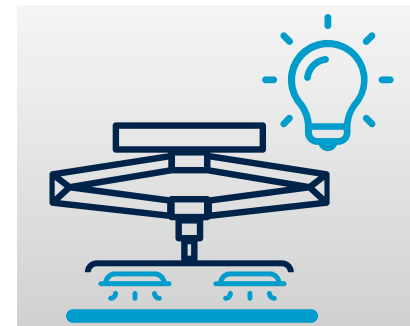
Database access analysis

- Database access is measured for performance and logged to identify digital bottlenecks transparently.
- System inspector points out malfunctions in the customer network



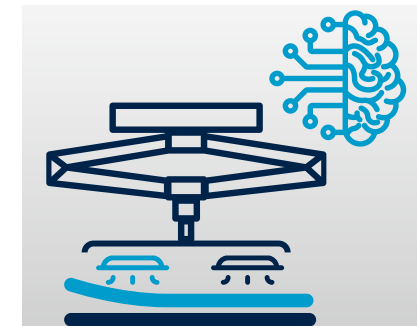
Email notification

- 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 text message 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
- 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



Smart Separation Learning

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

- Absorbent panel yes/no;
flexible panel 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

woodStore 8 is characterized by its user-friendly and simple operation, among other things. This is evident in the intuitive user interface, a clear structure and a clear design with 3D storage system views.

In addition, woodStore 8 can be easily operated via mobile end devices, allowing you to access the software easily while on the move.



Integrated quickTip assistance function

quickTip proactively supports the machine operator with setting recommendations for optimal storage management. Functions and parameters can be activated centrally and clearly in one place in woodStore – this allows the full storage potential to be exhausted at any time.



Master data maintenance/management

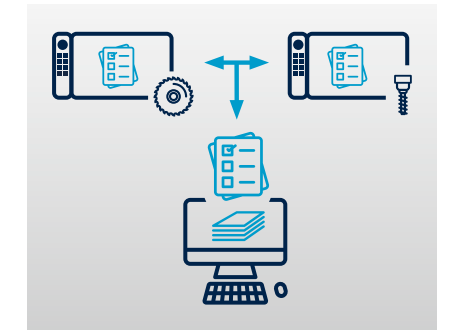
Templates for automatic creation of master data

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



Easy2Work package

- 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)

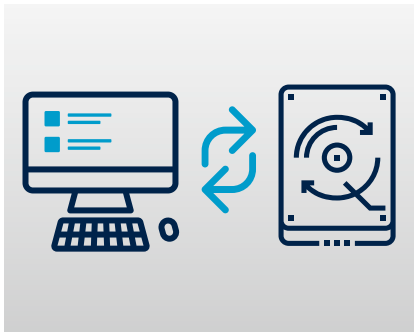


Production list module

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!:** Interlinking and comparison of production lists for more than one storage system
- Variable storage and removal strategies
- Dynamic express job release
- Forklift operator management





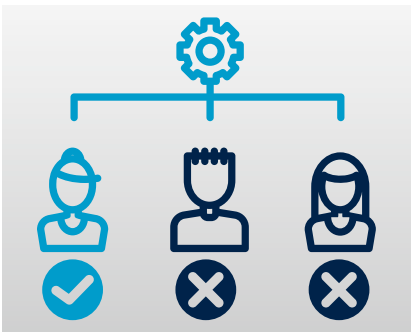
Backup system

- 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

Networking, transparency and the close cooperation of human and machine are decisive success factors in modern production. woodStore 8 lays the foundation for smooth and automatic data exchange and thus creates maximum efficiency and flexibility. For example, seamless operation via mobile end devices enables easy access to the software while on the move. In addition, MachineBoard displays the current machine status, remaining run times and error messages at a glance constantly.



Mobile operation

Various functions can be controlled via mobile end devices connected to the machine's Wi-Fi 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
- By scanning panel codes, detailed information such as supplier names, order items, order numbers, delivery date and price can be captured as soon as the panel material is placed in storage
- Scanning of labels of offcuts in the manual offcuts storage for easy handling without scanner hardware
- Take decor images to store them automatically in the database and to save them in the master data as a visual extra



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

WOODSTORE — SOFTWARE MODULE FOR STORETEQ	F-100	P-3X0	P-5X0	PAGE
Smart Connected System	✓	✓	✓	09
Database SQL server	✓	✓	✓	09
Multiterminal interface	✓	✓	✓	09
Manual offcuts management	+	✓	✓	10
Automatic offcuts management optionally with intelliStore AI – Offcuts	–	+	+	10
Management of external storage	+	✓	✓	10
Forklift operator management	+	✓	✓	11
Flexible storage organization	–	✓	✓	11
IntelliStore optimization module	–	✓	✓	11
FlexSortPlus pre-sorting	–	✓	✓	12
woodStore Analyzer	–	✓	✓	12
Other intelligent storage functions	–	+	+	12
Storage strategies	–	✓	✓	13
Import and export of stack information	+	✓	✓	14
Panel allocation	✓	✓	✓	14
ERP/PPS integration	✓	✓	✓	14
High-performance intermediate buffers	–	✓	✓	15
Lifting table management	–	+	+	15
Headcut module	–	+	+	15
Rainbow pattern	–	✓	✓	15
Integrated image database	✓	✓	✓	15
Connection of processing machines	–	+	+	15
Stabilization function	–	✓	✓	17
Database access analysis	✓	✓	✓	17
Email notification	+	+	+	17
Intelligent vacuum management	–	✓	✓	17
Smart Separation Learning	–	✓	✓	17

WOODSTORE — SOFTWARE MODULE FOR STORETEQ	F-100	P-300	P-500	PAGE
Integrated quickTip assistance function	–	✓	✓	19
Easy2Work package	✓	✓	✓	19
Production list module	✓	✓	✓	19
Master data maintenance/management	✓	✓	✓	19
Backup system	✓	✓	✓	20
Report generator	✓	✓	+	20
User management	✓	✓	✓	20
Mobile operation	–	+	+	23
Cloud-ready	✓	✓	✓	23

LEGEND	
Standard	✓
Optional	+
Not available	–



LIFE CYCLE SERVICES

Improved performance, more efficient processes, faster help, assurance of availability and smarter working

TEAM & COVERAGE

Largest global service network in the industry with over 1,350 personnel.

INSTALLATION & COMMISSIONING

For a smooth start, we only let proven experts manage your setup.

OPERATION & CONTROL

After teaching your personnel the intuitive control system, our clever apps help to make the operator's life much easier.

MAINTENANCE & SERVICING

To keep things running, we're happy to take a preventative approach. You decide how often and how intensively you want the support to be. As we all know, prevention is better than the cure.

eSHOP & ONLINE ADVANTAGE

A few clicks and it's fixed. Receive exclusive advantages by ordering spare parts online, depending on market availability. shop.homag.com

HOTLINE & READINESS

When there's an emergency, we're here. Direct by phone, digitally via app or video, or with on-site support. We are close to you with over 90 regional service organizations worldwide. With more than 35,000 spare parts immediately available, we can deliver 85% of your orders fast.

TRAINING & EDUCATION

With classroom, live online or eLearning training, we offer flexible options to help you get knowledge. We conduct over 4,000 customer training courses every year, and we even have our own training centers in 19 countries

MODERNIZATION & IMPROVEMENT

Our modernization program is tailored to your machines and processes. We can evaluate your data and situation and advise you on the next step.

ANALYSIS & SUSTAINABILITY

On request, we analyze all your processes with proven tools and procedures (LeanSixSigma). We have a large, certified team of experts for this purpose.

FINANCING & CONSULTING

We offer you tailor-made financing concepts worldwide. With more than 60 years of experience and a close partner network of prominent banks and insurance companies to help us to find the right solution for you, we're always transparent and reliable in processing.

Fast support:

94% resolution rate via our hotline

Close to you:

1,350 service experts worldwide

We get things moving:

Over 1,000 worldwide spare parts shipments each day

No one else has that:

Electronic documentation on over 150,000 machines, available in 28 languages



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YOUR SOLUTION