Efficient Tool Storage and Organization with the Intelligent Hänel Intralogistics Solutions

MATERIALS HANDLING & AUTOMATION

Ideas that move the world ...

HÄNEL

HÄNEL
Hänel MULTI-SPACE
Entnahme: 2
Tablett 120

Quality and leading technology – tool storage with Hänel industrial lift systems

Products such as the Lean-Lift®, the Multi-Space®, the Lockomat® and the Rotomat® are high-tech systems for automated tool storage

For over 60 years the Hänel name has stood for high-quality products in the intralogistics and tool storage sectors.

Vertical carousels like the Hänel Rotomat® or vertical lift systems like the Hänel Lean-Lift® and the Hänel Multi-Space® are high-tech products for automated tool provisioning.

These solutions save up to 60 % percent of the floor space available, and they dramatically reduce the time needed to access tools in storage!

Alongside ergonomic design, inventory protection and many system innovations, we assign top priority to the cost-efficiency of these solutions.

The highest quality standards and smart control technology from Hänel make these systems a worthwhile investment for your business.

Hänel lifts can be operated with integrated Hänel tool management software as stand-alone solutions, or as integrated systems supported by a variable control system in conjunction with a host tool management application.

Hänel storage systems are compatible with nearly all tool management systems now available.

Safe and secure retrieval

The Hänel Lockomat® and the VendiShelf option for the Hänel Lean-Lift® are two innovative systems that ensure error-free tool access while also protecting valuable tools from unauthorized access and theft.

We are committed to environmental protection

It goes without saying that production at our three plants complies with the latest environmental guidelines. Only environmentally friendly, recyclable materials are used.

We are constantly developing components based on the Hänel **EcoConcept** in order to improve overall energy efficiency.

The right decision

If you want to improve your tool storage concept and reduce costs, you should talk to the specialists at Hänel first. They will work with you to develop your own “tailor-made tool provisioning concept!”

Hänel industrial storage systems are the ideal choice for improving the efficiency of tool storage!

The Hänel Lean-Lift® – the ideal system for tool storage

Flexible, fast and cost-effective

The Hänel Lean-Lift® is designed according to the "vertical storage lift" principle. At the center of this closed system is a computer-controlled positioning lift – known as the extractor. In front of it and behind it are the storage shelves. Tools are stored on these shelves, known as containers, according to height for optimized capacity utilization.

The storage locations are accessed automatically by the extractor, which is guided by the intelligent Hänel control system.

The goods are then delivered to the retrieval area at the correct ergonomic height.

The Hänel Lean-Lift® is the ideal solution for centralized tool storage and dispensing, or for distributed tool provisioning directly on the production floor.

Various kinds of tool holders and container configurations make the Hänel Lean-Lift® a genuine all-rounder when it comes to tool storage.

Thanks to a maximum payload capacity of 2,204 lbs / 1,000 kg per container, even extremely heavy tools can be stored ergonomically in spacesaving Hänel systems.

Robust rails support containers when they are pulled out of the systems to give employees better ergonomic access to heavy tools. These support rails are available in rigid or folding versions

Central tool storage in six Hänel Lean-Lifts® boosts the pace of tool retrieval and provisioning

The Hänel Lean-Lift® as an efficient tool storage system

Tool storage in a Hänel Lean-Lift® with fire protection features

Central tool provisioning – ergonomic, flexible and compact

Simultaneous and fast access to tools, plus ergonomic transport to CNC machines

Fast provisioning of a wide range of tools for the entire production area is the main job of the tool storage and dispensing department.

The flexible Hänel multifunction containers can be configured to accommodate diverse tools having various sizes and shapes. The Lean-Lift® provides automated and height-optimized storage. Large and small tools can be neatly organized in a cluster of lift systems for maximum space utilization.

Complete tool set on one container

Storing a complete presorted tool set for a specific production machine on one Hänel container means that less time is required for the retrieval process. The entire container can be pulled out of the storage system easily and placed on a Hänel transport cart.

Machine operators in the production area receive all the tools they need for a specific job in one batch. In the meantime, tools can still be retrieved or returned to the storage systems simultaneously.

The entire container carrying a complete tool set for a specific production machine is moved ergonomically using the Hänel transport cart

Height-optimized storage of various tools on the Hänel multifunction container

Fast retooling times for CNC machines thanks to direct integration of tool provisioning in the production area

Fast and simultaneous access to the central tool depot

Optimal space utilization with the Hänel Multi-Space®

The Hänel Multi-Space® ensures optimal space utilization, short distances between access points and a wide range of configurations

Hänel optimized the principle of three-axis storage systems with the launch of the Multi-Space® system. In addition to the many advantages of Hänel Lean-Lift® technology, the Hänel Multi-Space® offers maximum flexibility, speed and space utilization.

Maximum flexibility

With its advanced technology, Hänel is able to offer a three-axis storage system that is more than 29.53 ft/9 m in width.

The Hänel Multi-Space® can even be varied in width and height once installed – a genuine innovation from Hänel!

Even the number of retrieval points is variable and can be changed at any time.

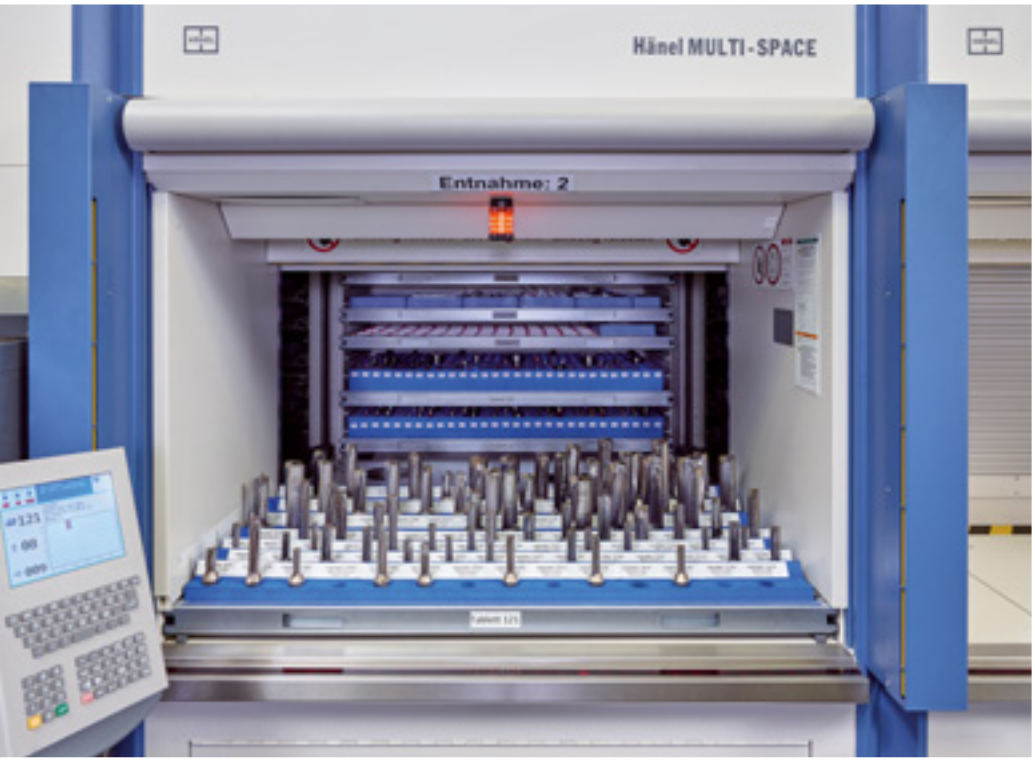
In conjunction with various container widths and depths, this results in a wide range of configuration options for tool storage.

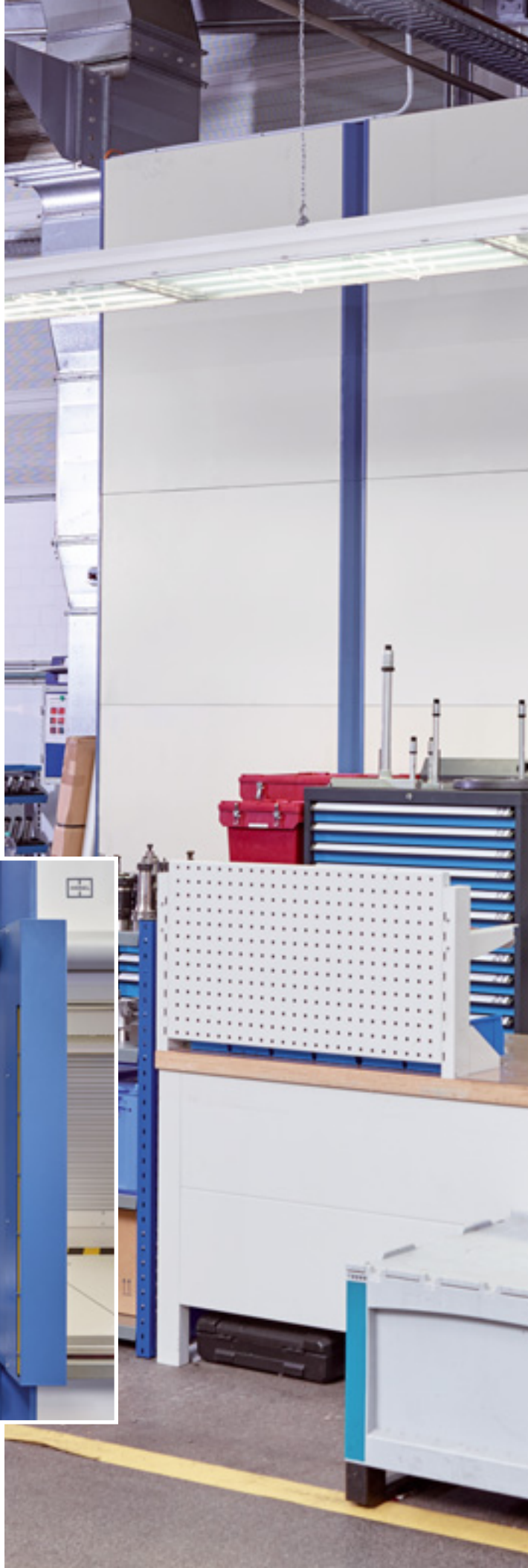
Optimized space utilization

The varied options for positioning the retrieval openings means that systems can be optimally integrated into existing warehouses.

Previously inaccessible areas can thus be incorporated into a storage concept without difficulty.

What's more, the Hänel slot profile in conjunction with Hänel multifunction containers creates ideal conditions for compact, height-optimized tool storage.





The Hänel Multi-Space® uses the same containers and tool holders that are found in Hänel Lean-Lift® tool storage solutions

All tools are located and tracked using external tool management software – items are brought to both access points of the Hänel Multi-Space® for retrieval

The Hänel Multi-Space®
Benefits at a glance

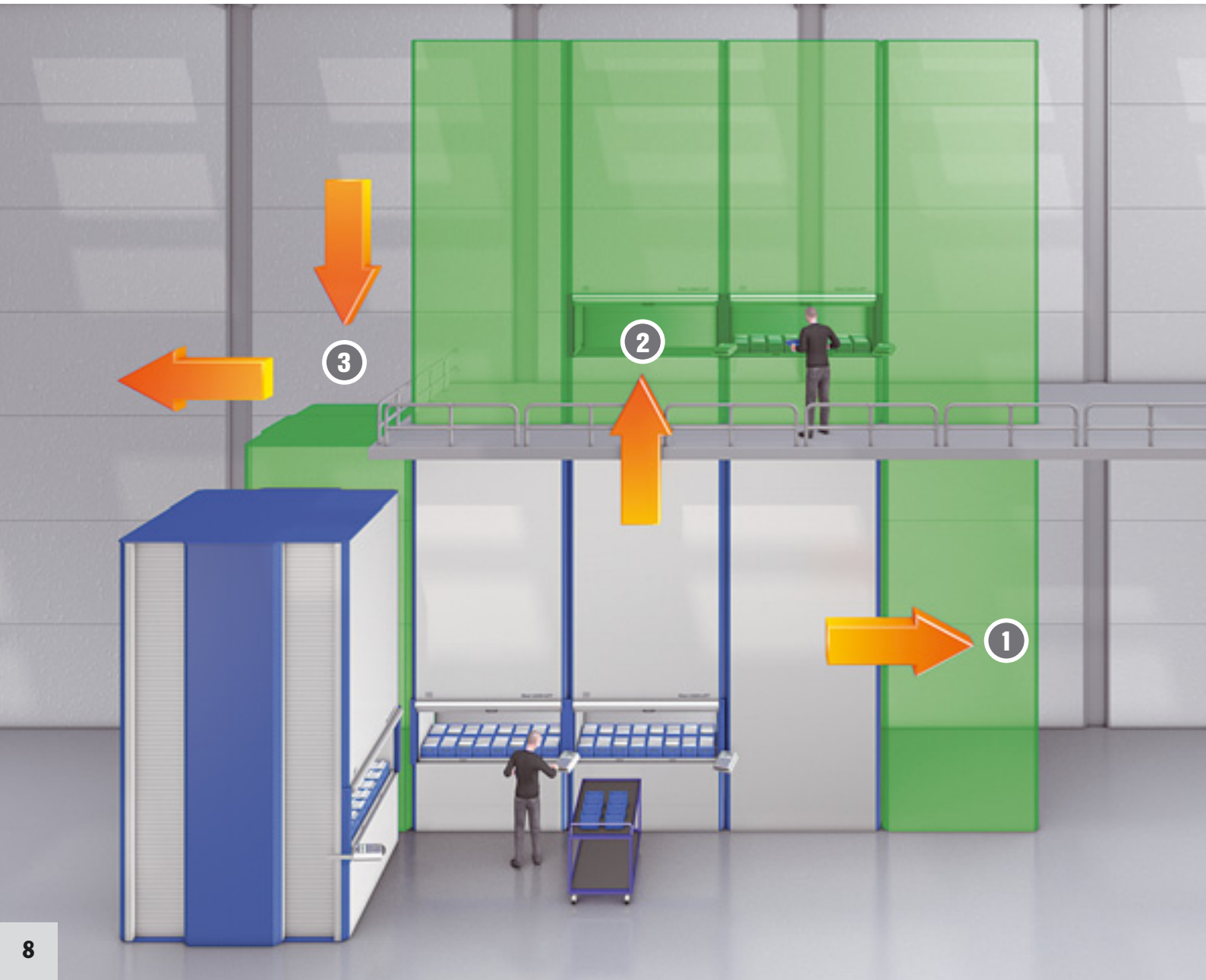
Whether it operates as a stand-alone solution, in a cluster with other Multi-Space® units or in combination with Lean-Lifts® and Rotomats® – the Hänel Multi-Space® is another innovative solution for your intralogistics!

The pluses

- Modular scalability is achieved by simply adding more lift units (payload capacity up to 40 tons per unit).
- Unique extractor design with lightweight state-of-the-art construction (as used in bridge building) guarantees maximum stability.
- The Hänel Multi-Space® can be extended in height and can have a width of more than 29.53 ft/9 m.
- Variable container widths, different payload capacities and Hänel's multiple pitch support optimal solutions to address every compact storage requirement.

Modular design

1. The Hänel Multi-Space® – the variable storage concept – with retrofit scalability.
2. There are no height limits for the Hänel Multi-Space®. The systems can even be combined to span several floors.
3. Additional storage capacity thanks to maximum space utilization.

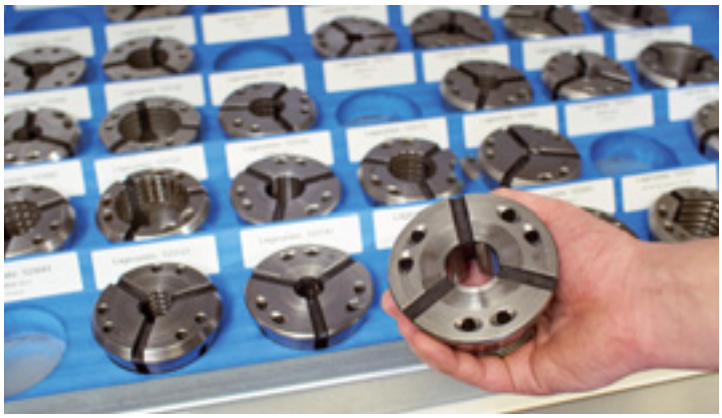


The access points are safeguarded with Hänel's high-speed door – employees can work simultaneously at both access points

Hänel compartment and sub-level indicators show where the requested items are located

Access authorization is possible via code input, transponders or barcode scanners, as shown here

Small tools are neatly stored in bins inside the Hänel Multi-Space®



A wide range of tool holders transform the Hänel Multi-Space® into a universal tool depot

Expensive drills and cutting tools can also be stored safely in the Hänel Multi-Space®

Handling heavy tools with ease – Hänel storage systems for extremely heavy loads

Hänel has the right solution for heavy-duty requirements

Even very bulky and heavy tools can be stored in Hänel lift systems.

The containers can carry loads of 551 lbs/250 kg, 1,102 lbs/500 kg, 1,543 lbs/700 kg or 2,204 lbs/1,000 kg depending on the version.

Storing various kinds of heavy tools such as injection molds, drill chucks for CNC systems or punching dies for presses is no problem with Hänel Lean-Lift® systems.

The total payload capacity per Lean-Lift® can be 44,092 lbs/20,000 kg, 66,139 lbs/30,000 kg, 88,185 lbs/40,000 or 132,277 lbs/60,000 kg.

The maximum storage height is determined solely by the height of the access opening.

The standard height of the access point is 2.92 ft/890 mm and can be adjusted in accordance with the height of the items stored (the standard is 2.43 ft/740 mm).

The Hänel Rotomat® has standard widths ranging up to 11.22 ft/3,420 mm (wider versions can also be delivered). Each of the system carriers can handle payloads up to a maximum of 1,653 lbs/750 kg, and the standard maximum payload per Rotomat® system is 30,864 lbs/14,000 kg. The Hänel Rotomat® is thus ideal for automated heavy-duty storage applications.

When handling assembled components, bulky parts or tools – the Hänel Rotomat® industrial storage lift brings all items to the ergonomic retrieval area upon request.

A large number of parts can be stored in a safe and protected environment within a minimum footprint.

The Hänel Rotomat® storage carousel for tool storage

With a payload capacity of up to 1,653 lbs / 750 kg per carrier, the Hänel Rotomat® industrial lift is ideal for ergonomic storage of heavy tools.

The Hänel transport cart

Complete containers can be taken out of the Lean-Lift® or Multi-Space® with the Hänel transport cart. Required tools can then be delivered to the production area or retrieved with hoists.

Automatic container removal

The Hänel Lean- Lift® and Multi-Space® can be equipped with an automatic container removal option. The container with the required tools is removed from the system by means of a motorized mechanism at the access point. Cranes or hoists can then be used to lift heavy tools from the container.

Safe and secure tool storage with the Hänel VendiShelf system in the Hänel Lean-Lift®

Access control and user authorization safeguard tool inventories

The Hänel VendiShelf system allows small to medium-sized tools to be stored on the multifunction container in compartments featuring automatic lock mechanisms.

Only the requested tool can be removed; all the other compartments remain locked.

An LED identifies the compartment in which the required tool is stored. Various compartment sizes and heights are available to ensure maximum flexibility.

Authorized access is possible using barcode scanners, transponders or access codes.

VendiShelf – the ideal solution for valuable tools!

A clever idea – the Hänel VendiShelf system

Only the compartment containing the requested tool can be opened

Individual containers in a Lean-Lift® system can be equipped with the VendiShelf system as required

An LED identifies the compartment containing the requested tool

P708
P209
P423
P656
P736
P211

Safe and secure tool storage with the Hänel Lockomat®

Safe, secure and convenient tool storage in the Hänel Lockomat®

User authorization

Users confirm their authorization by means of an ID card, password or transponder. Then a personalized user interface appears on the display.

This means that all transactions can be traced to a specific user. Multiple users with various authorizations can also be set up.

Tool management

Tools are retrieved or put into storage by manually entering a tool number or scanning a barcode. The digital LED indicator on the work counter indicates the compartment in which the tool is stored.

Then the specified compartment door opens automatically.

All pick and put operations are logged, which makes later verification and tracking easy.

There is also no confusion when retrieving similar-looking tools.

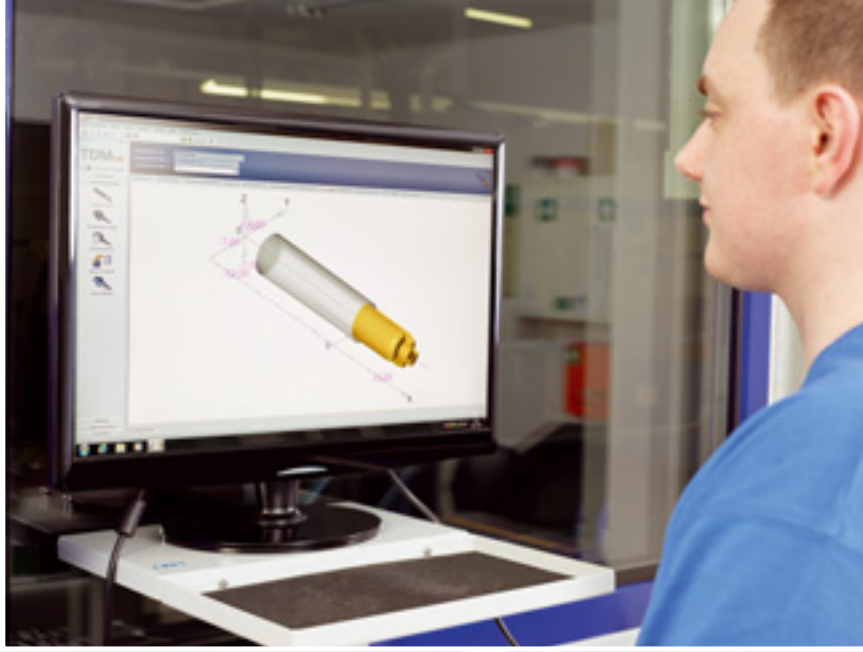
Tool protection

The closed and locked storage system protects your inventory from unauthorized access.

Secure user authorization

Only the specified compartment door is opened – the other doors remain locked

Neat storage of small items in bins with dividers



The Hänel Lockomat® can easily be integrated in various tool management systems

2JA
Werkzeugwesen
Lockomat
2JA

Inventory control

Constant inventory control means that shortages can be avoided. The intelligent microprocessor control system can be easily integrated in the customer's own IT system. This ensures that you have an updated inventory overview at all times.

Thanks to Hänel's intelligent controller technology, the Lockomat® can be operated with nearly every tool management application now available.

The Hänel Lockomat® is the ideal storage system for safe and secure provisioning of tools, small parts and much more . . .

Integration of the Hänel Lockomat® in the tool management system

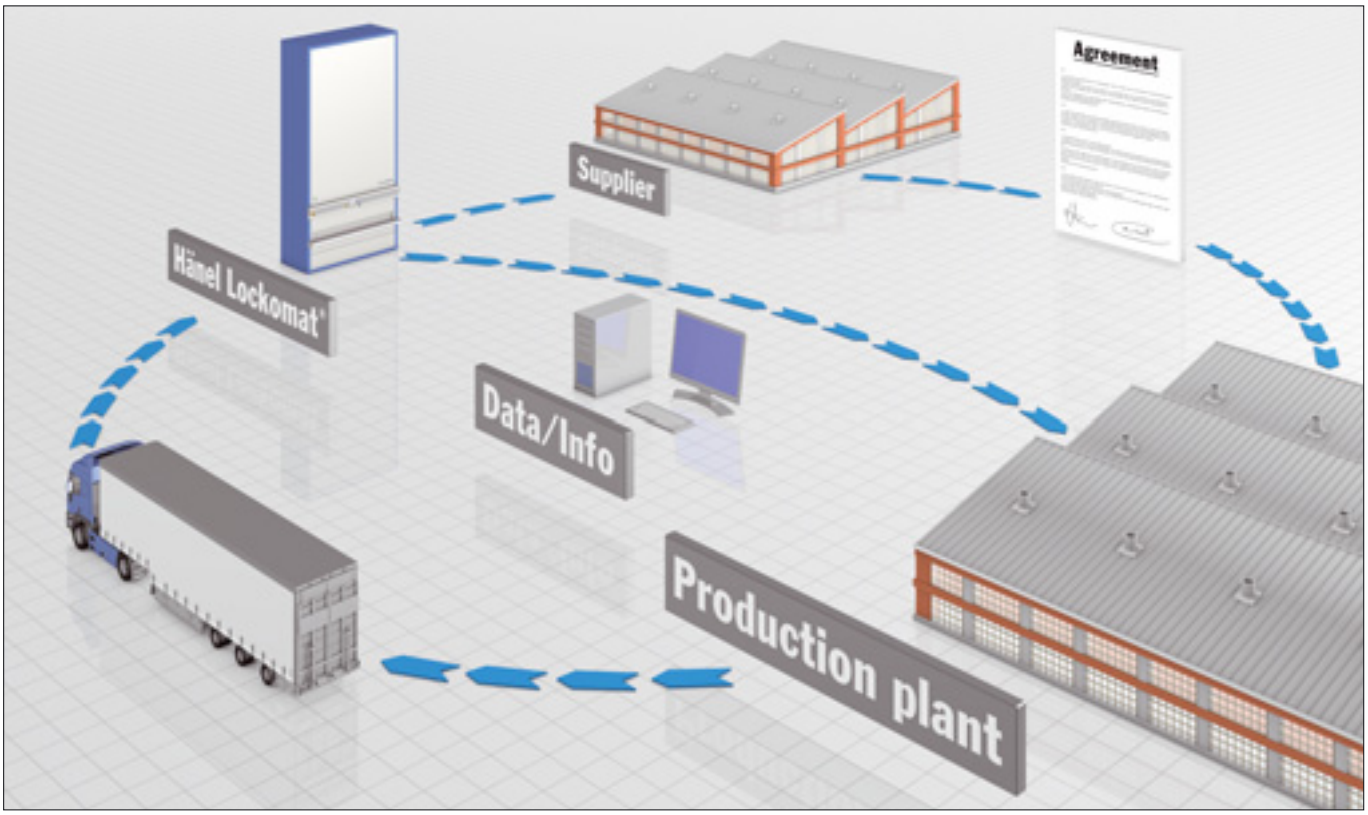
Hänel Management of C items

In recent years the subject of tool management has been a matter of keen interest in all types of industries. And we can expect tool kitting and provisioning "as a service" to become even more important in the future.

When manufacturing plants need to be supplied with tools around the clock, the Hänel Lockomat® in conjunction with Hänel TDM software is the ideal tool provisioning system.

Benefits at a glance:

- 24-hour tool availability
- Constant inventory control
- No downtime due to missing tools
- Secure storage of valuable tools
- Transparent cost control
- Secure access with employee authorization
- Accurate retrieval of similar-looking tools
- Fully automated tool provisioning
- Convenient handling



Customized options for various types of tools

100 % individuality for our customers – the right container for every requirement

Hänel offers a variety of container widths and depths. The containers can thus be adapted individually to accommodate the stored tools.

The following dimensions are offered:

Width

Inch	mm	Inch	mm
33.00	840	112.60	2,860
51.18	1,300	120.48	3,060
64.56	1,640	128.35	3,260
73.23	1,860	144.10	3,660
81.10	2,060	159.85	4,060
90.55	2,300	175.60	4,460
96.85	2,460		

Depth

Inch	mm	Inch	mm
25.00	635	41.22	1,047
32.48	825	50.00	1,270

Hänel multifunction containers always retain their shape and are absolutely distortion-free.

Hänel multifunction containers – simply ingenious

Integrated handles and very robust plastic rollers ensure that the entire container can be removed from the system smoothly.

The containers are galvanized or can be finished with an environmentally friendly powder coating as an option.

They can also be delivered with slots punched around the inside for customized dividers at extra cost.

Practical, variable, ergonomic

A wide range of accessories, such as tool inserts, molded trays for small parts, holders for milling cutters and other dividers transform the Hänel Lean-Lift® into a complete tool depot that saves money, makes optimum use of space, makes work easier and minimizes access times.

Hänel has also developed a number of customized storage solutions for special or unique tools.

Our experts will be happy to develop a tailored solution for your specific storage requirements!

Space-saving storage of gear cutting tools

Holders for drill chucks

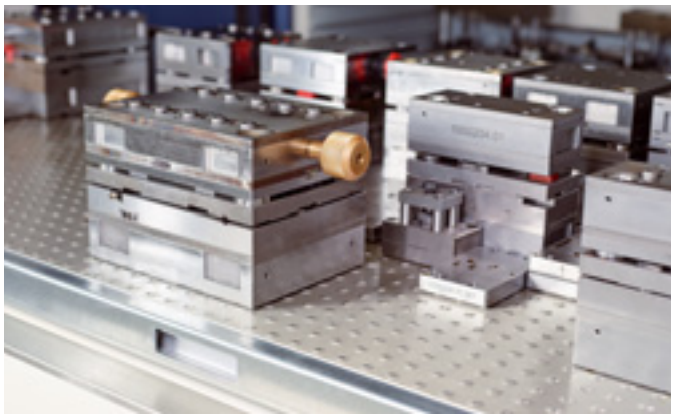
Storage of drilling heads in chucks

Storage of milling heads

Neat storage of small tools with plastic dividers

Storage of tools in metal bins

Small tools stored in special plastic grid trays



Heavy tools on a sliding container for smooth and ergonomic removal

Hänel control systems with integrated tool management – a clever solution!

Intelligent inventory control with Hänel storage management packages

The compact MP 12 N stand-alone controller and the MP 100 D central control unit can be delivered with Hänel tool management software as an option.

The application can be used to manage tool numbers, tool designations, quantities, storage positions, tool status, classification, users and other key data.

Pick list and order management is already integrated.

Tools can be retrieved or returned to the Hänel lift systems in the administration mode, which is safeguarded with passwords.

The provisioning mode features integrated access code management so that authorized users can retrieve tools from the Hänel lift systems. Each transaction is tracked until the tool is returned to the storage system.

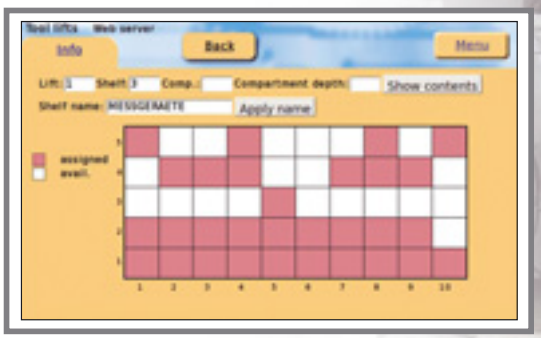
The Hänel lifts can easily be integrated in central host systems via FTP, CIFS or SOAP at anytime.

The integrated web server also enables retrieval and processing of tool management data via an intranet browser.

No additional PC is required!

Administration mode
Tools can be retrieved or returned to the Hänel lift systems in administration mode, which is safeguarded with passwords.

Provisioning mode
This mode is used to identify and record the name of the employee requesting and using a particular tool. The overview list shows the tools that have been retrieved, how long they have been in use and the names of the employees who have them.



Tool storage position data
The graphic overview shows the current status on each container. Touching the compartments marked on the display will reveal the contents.

HänelSoft® – Reloaded!

Proven Hänel warehouse management software for the highest demands

The proven warehouse management software from Hänel combines modern design with exceptional convenience and functionality

HänelSoft® is a powerful software package with an advanced design featuring the latest technologies and a concept that sets industry standards. It offers many configuration options and additional modules to meet the specific needs of every customer.

The smooth interaction between HänelSoft® and the Hänel lift controllers guarantees efficient storage operations.

It supports the management of not only Rotomat®, Lockomat®, Lean-Lift® and Multi-Space® systems, but also other kinds of storage such as manual tool depots.

A standardized HOST interface supports data communication with any type of tool management system.

The specialists at Hänel focused their expertise on three major objectives when developing this software:

Top functionality

Intuitive user guidance

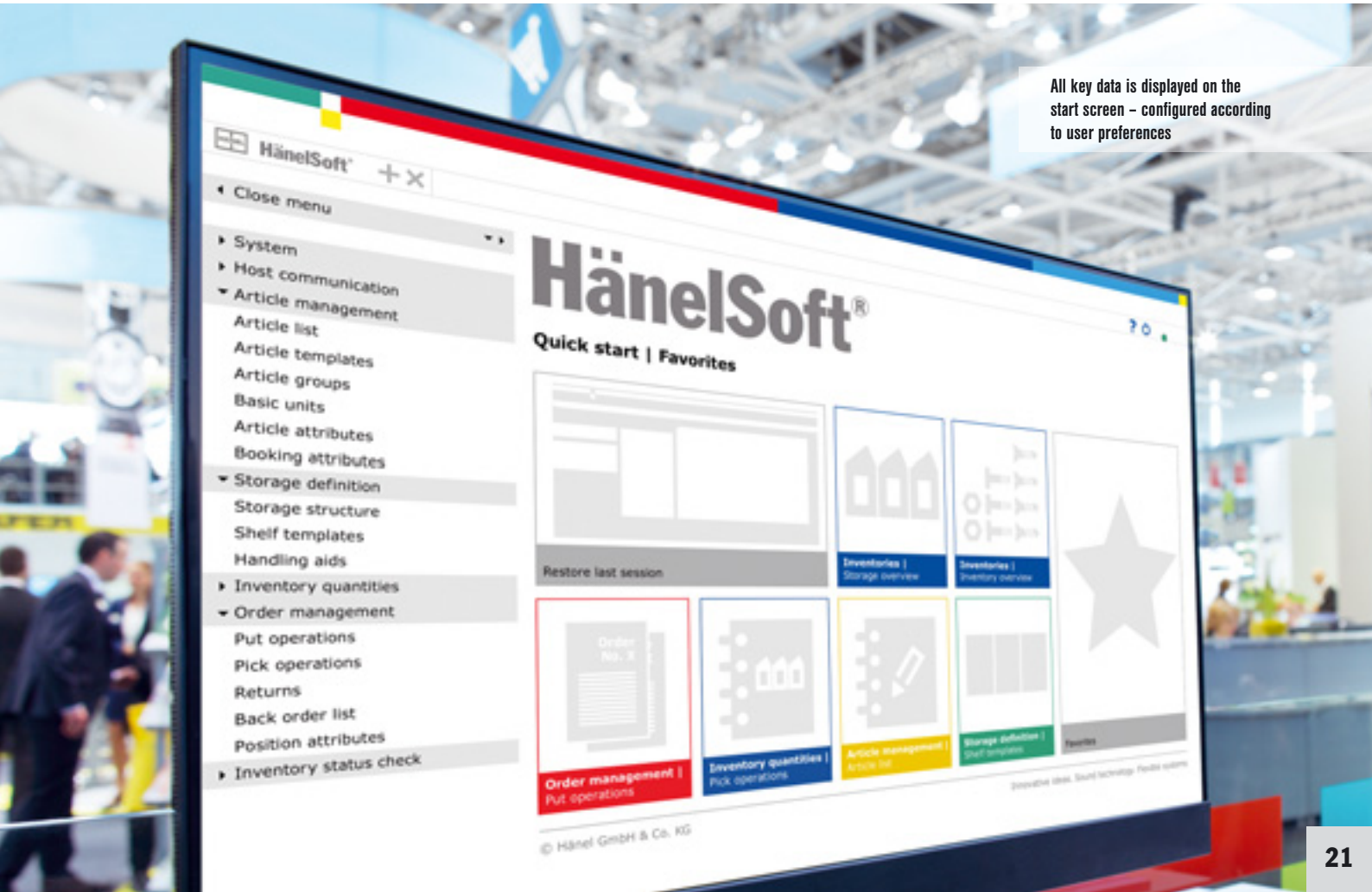
Outstanding price-performance ratio

HänelSoft® basic package

HänelSoft® offers a wide range of functions for efficient storage management even in the basic version:

- Master data management for recording the article number, designation and additional information, plus definitions of storage strategies and article characteristics.
- Definition of storage structures.
- Interface to the Hänel storage systems: requesting items/parts directly at the MP control unit.
- Storage and retrieval based on article properties and storage strategy.
- Residual inventory function.
- Information and analysis on the screen or on printout.
- HOST interface – for manual data import and export.
- Management of manual tool storerooms.

All pick and put operations can be booked directly at the lift control units.



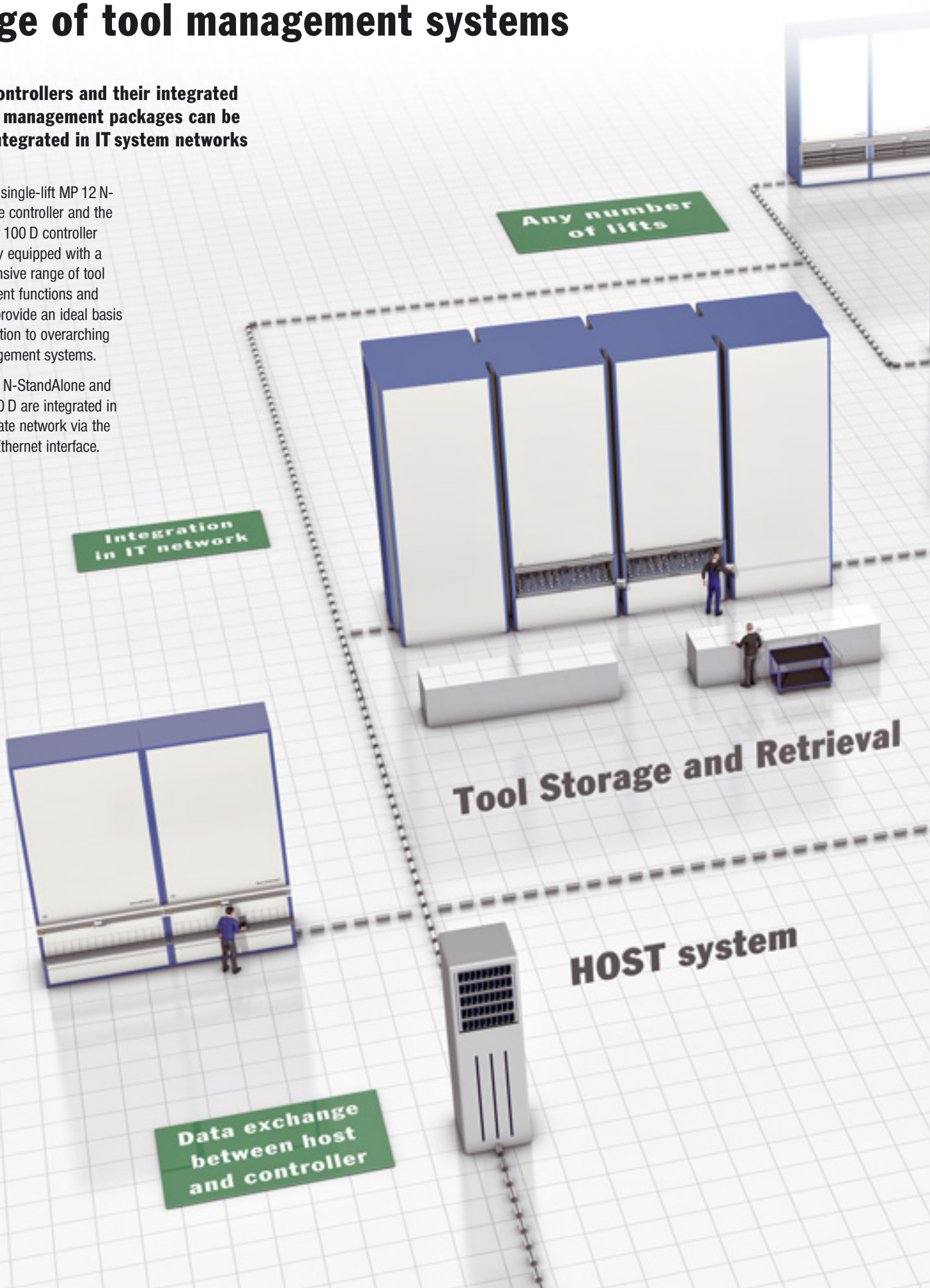
All key data is displayed on the start screen – configured according to user preferences

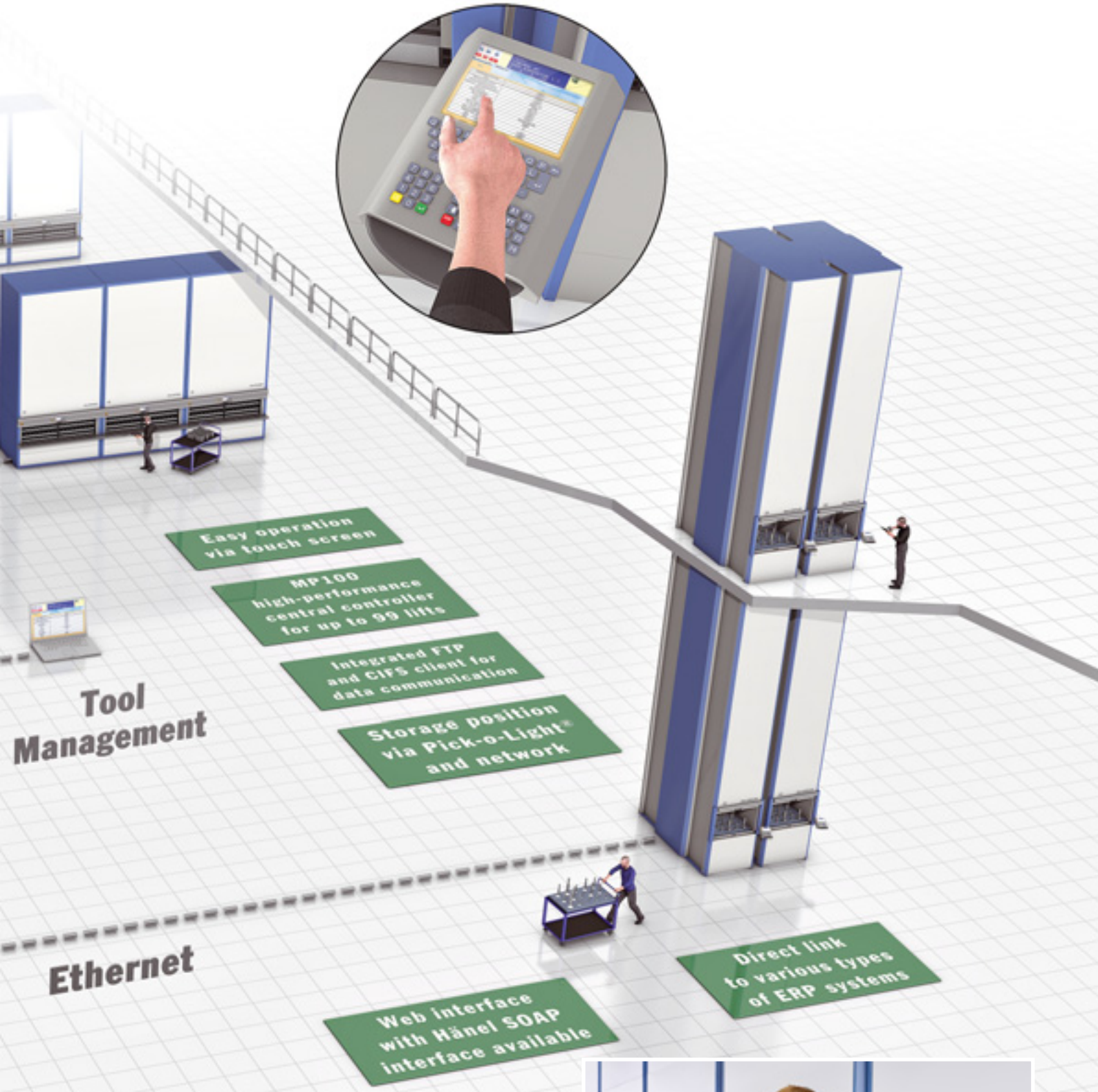
Integration of Hänel storage lifts in a wide range of tool management systems

Hänel controllers and their integrated storage management packages can be easily integrated in IT system networks

The Hänel single-lift MP 12 N-StandAlone controller and the central MP 100 D controller are already equipped with a comprehensive range of tool management functions and therefore provide an ideal basis for connection to overarching tool management systems.

The MP 12 N-StandAlone and the MP 100 D are integrated in the corporate network via the standard Ethernet interface.





The Hänel MP 12 N controller driven directly by a PC-supported tool management system such as HänelSoft® or the customer's own software

Customers can use their existing tool management software with the Hänel MP 12 N controller in the modes HostCom, HostData and HostWeb.

The MP 12 N-HostCom controller is integrated in the corporate network via PC.

The MP 12 N-HostData and MP 12 N-HostWeb can be connected directly to the tool management system without an additional PC.

The MP 12 N-HostData controller has a data buffer and the 'HOST communication' module.

Easy integration of Hänel lifts in the tool management systems of other manufacturers

Experience Hänel live!
Videos about actual system installations are available on our home page

Central tool provisioning with the Hänel Lean-Lift® at Zetec Zerspanungstechnik GmbH & Co. KG

A Hänel Lean-Lift® is at the heart of the central tool provisioning solution at Zetec Zerspanungstechnik in Gosheim, Germany. Several Hänel containers in the system are equipped with VendiShelf for safe and secure storage of rather expensive tools.

www.haenellinks.com/us/tool/zetec

The Hänel Lean-Lift® – a high-tech tool depot at Müller Präzisionsteile GmbH

A cluster of six pace-saving Hänel Lean-Lift® systems installed in the production area at Müller Präzisionsteile GmbH in Pyrbaum, Germany, plus an additional Lean-Lift® in an adjacent building, make central tool storage possible within a small footprint.

www.haenellinks.com/us/tool/mueller-praez

Tool storage in the Hänel Multi-Space® at August Müller CNC-Zerspanungstechnik GmbH

More than 9,000 different tools used at August Müller CNC-Zerspanungstechnik GmbH are kept on 145 containers in one Hänel Multi-Space® for efficient and height-optimized storage. The Hänel Multi-Space® is operated in conjunction with an external tool management system.

www.haenellinks.com/us/tool/mueller-cnc

Safe and secure storage of cutting tools at Pfeiffer Metalltechnologie GmbH

Safeguarded management of cutting tools, jigs and clamps at Pfeiffer Metalltechnologie GmbH is supported by a Hänel Lockomat® which is directly linked to the central tool provisioning department.

www.haenellinks.com/us/tool/pfeiffer

Inventory-driven management of valuable tools

A well-known German manufacturer of machinery for the concrete sector relies on the Hänel Lockomat® for tool provisioning. The Lockomat® is linked with the tool management system; employee authorization is based on RFID.

www.haenellinks.com/us/tool/betontechnik

The Hänel product portfolio – the right solution for every need!

Hänel Rotomat® office carousel

The Hänel Rotomat® is the optimal filing system for office and administration.

Folders, index cards or files – the Hänel Rotomat® keeps them all in order. It finds the right file from among thousands of hanging folders and retrieves it in seconds. The powerful Hänel microprocessor control systems enable the Rotomat® to be networked directly with a PC.

All Rotomat® office carousels are also available in a version suitable for disabled operators.

Hänel Rotomat® storage carousel

Each Hänel Rotomat® is designed according to the tried-and-tested Ferris wheel model (vertical carousel principle) which means: goods to man and not man to goods.

The compact construction enables up to 60 % more storage capacity to be created on a minimal footprint by making use of the available room height. No two Hänel Rotomats® are the same, because each task demands a precisely defined solution.

Hänel Lean-Lift®

The Hänel Lean-Lift® is both storage rationalization and goods protection in one. At the center of the 'cabinet' is a computer-controlled positioning lift – called the 'extractor'. In front of it and behind it are the storage shelves. This is where the articles are kept in containers.

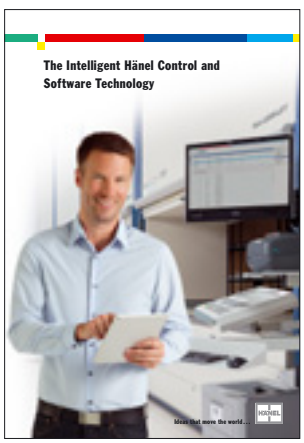
The storage locations are accessed automatically under electronic control by means of the extractor, which stores or retrieves the requested container. The goods are then delivered to the retrieval area at the correct ergonomic height.

Hänel Multi-Space®

Hänel has optimized the principle of three-axis storage systems with the Hänel Multi-Space®. In addition to the many advantages of the Hänel Lean-Lift® technology, the Hänel Multi-Space® offers maximum flexibility, speed and use of space.

With its advanced technology, Hänel is able to offer a three-axis storage system over 29.5 ft / 9 m wide. The Hänel Multi-Space® can even be varied in width and height once installed – an innovation from Hänel!

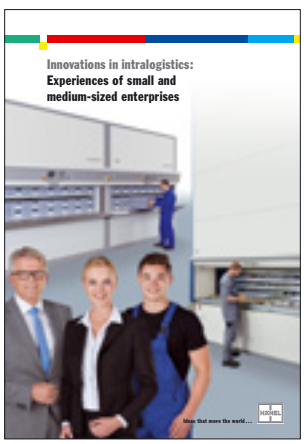
Even the number of retrieval points is variable and can be changed at any time.



The intelligent Hänel control and software technology

Our strength lies in our knowledge. Because only object-related, practice-oriented microprocessor control units can offer you a complete storage management system. Hänel storage systems can also be controlled via computer interface, of course. Interface with enterprise resource planning systems is no problem.

Hänel also offers software solutions for individual requirements. HänelSoft® for example is a powerful software package that can be tailored to any customer's individual needs.



Innovations in intralogistics

Tightening up operating procedures, increasing flexibility and lowering costs – these are the objectives of small and medium-sized enterprises if they are to be successful.

With Hänel storage systems, we offer you first-class high-tech systems for storage organization and materials handling that save time, storage space and costs and result in substantially improved workflow.

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