Hänel Storage Systems

MATERIALS HANDLING & AUTOMATION

Cutting costs in the hospital budget!

Ideas that move the world...

HÄNEL

The operating principle of Hänel storage systems

The Hänel Rotomat® principle

The principle is simple. Its applications are brilliant!
Each Hänel Rotomat® is designed according to the tried-and-tested Ferris wheel model (vertical carousel principle) which means: goods to user and not user to goods.

This saves time!

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.

This saves costs!

The Hänel Lean-Lift® principle

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 operator works comfortably in the ergonomically positioned retrieval area.

Hänel Rotomat® storage carousels

Optimizing procedures, increasing flexibility, lowering costs

Rationalization – cost-cutting – efficiency: These are demands that modern-day hospital organizations must meet!

Quality and leading-edge technology 'Made by Hänel'

In 1953 Gerhard Hänel founded the office equipment company 'Hänel Bürosysteme'. By 1957 Hänel was series-producing filing carousels based on the Ferris wheel principle – the first manufacturer in Europe to do so.

Today Rotomat® carousels and Hänel Lean-Lifts® are produced in three manufacturing plants – and exported worldwide. Hänel has distributors in over 60 countries across the globe.

Innovation and performance, dynamics and ideas, new technologies and team spirit have made Hänel one the leading providers of storage and organization systems!

Hänel Rotomat® storage carousels and Hänel Lean-Lift® systems are flexible intra-logistics solutions designed to precisely satisfy your storage requirements.

Up to 60 % more space

Hänel storage systems utilize the available room height and create up to 60 % more storage capacity thanks to their compact design. This means that costly warehousing space can be used more efficiently.

This saves costs!

Valuable time is saved

Hänel storage systems bring the required items to the retrieval area in just a few seconds.

Ergonomics

No more bending, ladder-climbing or walking long distances to find or restock inventory items. The required articles are brought automatically to the retrieval point at the optimum ergonomic height.

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.

Thanks to the intelligent Hänel EcoMode® energy management feature, Hänel storage systems can be switched to different standby modes. This reduces energy consumption to a minimum.

Our specialists will continue to work on the Hänel EcoConcept and develop further energy-efficient solutions for Hänel storage systems.

An excellent decision

If you want to improve your intra-logistics concept and reduce costs, you should talk to the specialists at Hänel first. They will work with you to develop your own 'tailor-made intralogistics concept'!

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Example 1:
Protected storage of surgical instruments in the Hänel Rotomat®

The Hänel Rotomat® system is especially suited for storing heavy anodized aluminum containers storing sterilized surgical instruments.

The rolling mechanism in the work counter makes retrieval very convenient and ergonomic. Items weighing up to 10 kg/22 lbs glide effortlessly to the retrieval point.

Furthermore, the carousel principle of the system ensures efficient, ergonomic, safe and error-free item retrieval. In the past, boxes were stored on immovable shelves or racks at different heights. Now there is no walking, bending, stretching or ladder climbing.

In the sterile storage area shown, basic surgical instruments and material needed for the operating rooms are stored in sterile containers and in standard DIN-sized containers.

The pluses

- Enormous space savings.
- Simple operation, short storage and retrieval times.
- Outstanding ergonomics.
- All items protected during storage.
- High efficiency and cost savings.

Protected storage of surgical instruments in the Hänel Rotomat®

The retrieval of sterile containers takes place at the optimum ergonomic height

Hänel storage systems can save up to 60 % of existing floor space

Example 1:
Hänel solutions for Central Sterile Supply Department and Pathology

The task defines the features:
Hänel storage systems offer tailored interior configurations for the most diverse requirements

Hänel storage systems offer maximum efficiency in the retrieval of surgical instruments and equipment in the central sterilization department of a hospital.

Here a Hänel Rotomat® holds thousands of individual items in a clearly arranged, protected environment – so the right instruments are always ready for retrieval even in emergencies!

In many hospitals, pathology specimens are stored in Hänel systems where they can be quickly accessed for examinations.

Hänel ROTOMAT

Example 2:
Drug storage in the central pharmacy

Neat and safe storage of drugs in the Hänel Rotomat®

Drugs stored in the Hänel Rotomat® and Hänel Lean-Lift® in the central pharmacy.
The advantage: Continuous inventory update with short storage and retrieval times

Hänel storage systems are ideal for the administration and storage of the required medicines in the central pharmacy.

The HänelSoft® software manages the entire pharmacy and controls the Hänel storage systems. The software can also ensure that medications in the storage systems are not kept beyond their expiration dates. Direct connection to the in-house IT system ensures a continuous exchange of data.

The pluses

- Over 60 % more space than with conventional storage methods.
- Work times slashed thanks to quick and easy operation.
- Constant overview of inventory status.
- Better organization of drug dispensing.
- Protection and safety of the stored drugs.

Safe and secure retrieval with the Hänel Lockomat®

Whether it's for the central pharmacy of a hospital, or the decentralized storage of drugs – the Hänel Lockomat® ensures optimal security

Compartment doors that are closed manually or automatically guarantee error-free retrieval and protect the stored articles from unauthorized access.

All retrievals are logged and can be traced to the respective users. Drug categories can be assigned to different individuals and only requested by these people.

Only the drugs selected by barcode or storage number can be withdrawn. The other compartment doors of the Hänel Lockomat® remain magnetically locked.

Hänel ROTOMAT

Hänel ROTOMAT

Hänel ROTOMAT

Example 3:
File storage in the administration and radiology departments

Rationalization – cost-cutting – efficiency: Today's administration has to meet all these demands!

The Hänel Rotomat® is the ideal storage system for patient and personnel files!

With the automated Hänel Rotomat® filing system, the time spent on daily administrative tasks can be reduced significantly. Faster retrieval of requested files and documents makes workflow more efficient.

To organize the documents, you can use the Hänel file management function directly at the microprocessor control unit. And of course you can integrate the Hänel Rotomat® into your corporate network.

The pluses

- Quick and easy access to files and documents.
- Double the storage capacity when compared with conventional shelves and cabinets.
- Direct interfaces with IT workplaces.
- Protection against dust and unauthorized access.

Hänel offers the right interior fittings for every need, enabling the storage of

– vertical hanging folders
– lateral hanging folders
– vertical standing folders
– ring binders
– data media, microfilm, etc.

Our technical advisors would be happy to show you other filing options.

Example 4:
Optimized processes in the laundry

The huge amount of laundry needed in hospitals is easy to manage with Rotomat® storage carousels!

Hänel vertical carousels can also optimize the workflow in the laundry department. For example, towels, bed linen and clothing can be put into long-term or temperary storage in an efficient, space-saving manner.

The new high-speed version of the Hänel Rotomat® is the ideal system for sorting laundry and clothing quickly and making it available instantly using a barcode scanner.

The pluses

- Efficient workflow, resulting in time savings.
- Protection of freshly ironed laundry.
- Quick and automatic retrieval of the requested items.

This Rotomat® system has one access point at the front and one at the back. The ironed laundry is stowed away at the back and taken out as needed from the front

Hänel ROTOMAT

Example 5:
The Hänel Lean-Lift® as a central storage system serving several floors and departments

The hospital profits from more efficient processes and higher storage density

In the new storage center for sterile material, all articles are kept in two Hänel Lean-Lift® systems that fully comply with temperature, ventilation and air replenishment requirements.

The systems are installed behind the exterior cladding on the north side of the hospital. The building has a height of 22 m/72.18 ft, and the storage systems extend from the basement up to the fifth floor.

The hospital installed two Hänel systems with access and retrieval points on three different floors. One of the retrieval areas is used for bulk storage, the other for the retrieval of daily items in the sterile storage area. The third is used for operating rooms to provide fast access to surgical instruments and other products. The photo depicts the retrieval points in the sterile storage area.

All access points are equipped with an air-lock system: Two doors separate users from the storage area, whereby one of the doors is always closed.

This is necessary because of the differences in air pressure in the building – and this is required wherever sterile items are stored.

The pluses

- Antimicrobial surface finish for sterile environments.
- Special sealing ensures maximum impermeability.
- Reduced energy consumption with Hänel EcoDrive®.
- Access points on several floors.

The illustration at the right depicts Hänel systems with access points on three of the six floors in the building. The ventilation system is installed in an equipment room located above the storage system. Fresh air is channeled into the storage systems at intervals of 2 m/6.56 ft.

Example 6:

Hospitals in the United States are profiting from the benefits delivered by innovative solutions from Hänel

Hänel storage systems are easy to integrate in any hospital organization

Thanks to the safe and secure storage provided by the Hänel Rotomat®, this system has been installed in many hospitals throughout the United States. Constant inventory control is ensured thanks to easy integration in existing IT systems. It is nearly impossible that expiration dates inadvertently go unnoticed. The design of the containers in the Hänel Rotomat® is adapted to meet specific application requirements. Thus articles do not have to be stacked during storage.

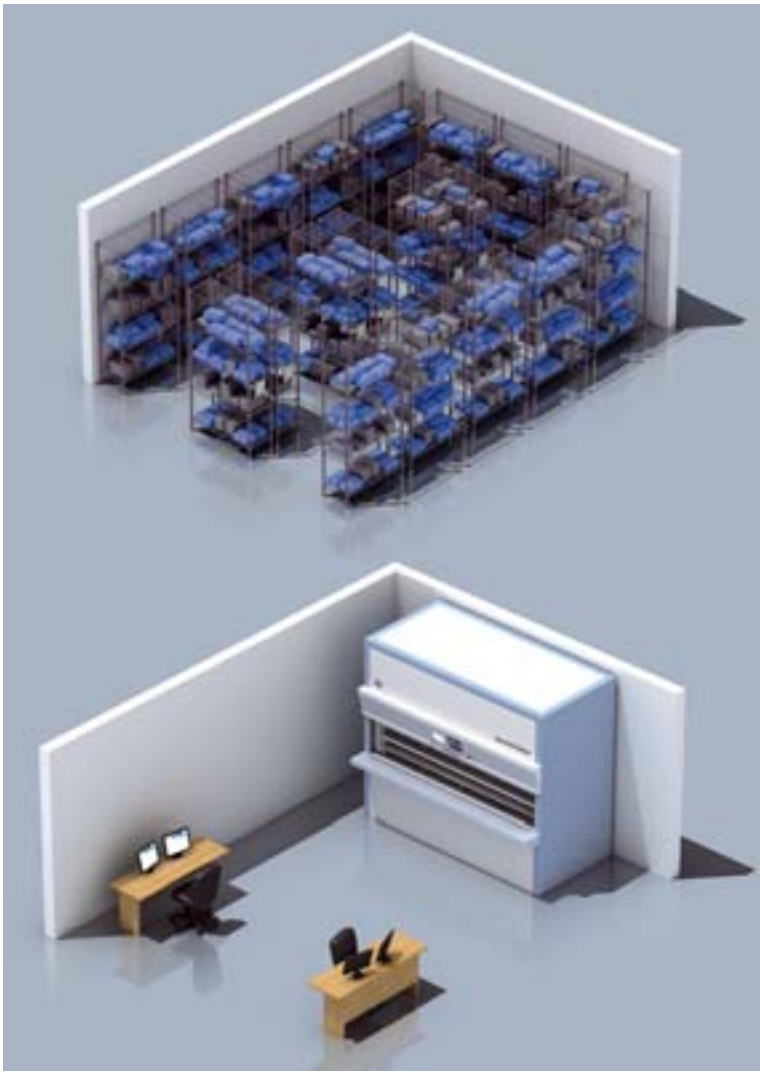
The pluses

- Less floor space required compared to shelf storage.
- Time saved when locating and retrieving stored items.
- Sensitive material is safeguarded with locking mechanisms and access codes.
- Required items or instruments are automatically delivered to the access point at an ergonomic retrieval height.
- Intelligent controllers and software solutions from Hänel ensure optimal inventory monitoring and control.
- The retrofit installation of Hänel Rotomat® storage systems create additional space in existing environments.

Small inventory items such as instruments and implants are stored in roll-out drawers

Up to 60 % more storage capacity

The Hänel Rotomat® storage carousel utilizes the available room height and creates up to 60 % more storage capacity thanks to its compact design. This produces maximum storage capacity with a minimum footprint.



The illustration shows the enormous amount of space saved with the Hänel Rotomat® storage carousel!

Example 7:
Cost-efficient storage at controlled temperatures

Hänel's product range includes future-oriented solutions for storage in air-controlled environments in the form of the CleanStore and ClimateStore® systems

The Hänel **ClimateStore®** technology allows Hänel stroage units to be used either as cold stores or as heated storage systems.

This makes Hänel systems ideal for storing medical and pharmaceutical products.

The pluses

- Space-saving storage in a temperature-controlled environment.
- Optimum use of floor space while ensuring constant temperatures.
- High economic efficiency and cost savings.
- Can be used in different temperature ranges depending on the device type:
  Rotomat® from – 4° to + 140° F
  Lean-Lift® from 32° to + 140° F.
- Reliable temperature constancy to ± 33.8° F.
- Recording of measured values with data loggers optional.

The Hänel **CleanStore** Rotomat® is the ideal solution for low-particle storage in clean-rooms.

Storage of contamination-sensitive products up to clean-room class 5 according to DIN EN ISO 14644-1 is possible.

Storage down to – 112° F

Hänel also delivers solutions for extremely cold storage at temperatures as low as – 112° F. For this purpose, Hänel storage containers with the electrification function are used.

These enable cold boxes to be put into storage and supplied with power while in the lift, ensuring constant cooling of the stored items.

The size of the access point on the Lean-Lift® is adapted to the respective refrigeration system in such cases. So operators can still benefit from Hänel's renowned ergonomic design.

This system, for example, is uesd to store donated blood.

Example 8:
Neat and well-organized storage in the maintenance department

Orderly storage of small parts and tools with the Hänel Rotomat®

Spare parts and tools are stored in containers, protected from dirt and damage. The requested containers are brought automatically to the retrieval area.

Hänel offers a range of inserts and dividers for its carriers to make the job easier.

Plastic boxes of varied dimensions, for example, can be stored in the Hänel Rotomat®.

The pluses

- Making maximum use of the available space.
- Protection of inventory from dirt, damage and unauthorized access.
- Compartment dividers, bins, drawers or loose goods – the possibilities are endless.
- Long lifecycle and high load-bearing capacity. Up to 750 kg / 1,653.47 lbs per carrier.

Hänel ROTOMAT

The Hänel control concept
A system with intelligence!

Our strength lies in our know-how – the practice-proven microprocessor control units from Hänel offer you a complete storage management system

Whether you use the Hänel storage systems as stand-alone solutions with integrated inventory management, or want to integrate the control units in a higher-level ERP system – the MP 12 N controller from Hänel has everything already built-in.

There are four different operating modes available, so you can choose the right one for your storage management:

MP 12 N-StandAlone
MP 12 N-HostWeb
MP 12 N-HostData
MP 12 N-HostCom

MP 12 N-StandAlone

The complete storage management package is integrated in this device, so no additional PC is required. The Ethernet interface makes integration in your IT environment easy. A web server is also available so that the storage data can be displayed on the intranet.

MP 12 N-HostWeb

Storage management takes place in the higher-level host system. An integrated web browser displays any required web page on the control unit via the HTML interface. The web applications are operated via touch screen on the control units.

MP 12 N-HostCom

In this mode storage management is performed in the higher-level host system, and the lifts are controlled via the user interface of the external storage management software. For storage and retrieval, a drive command is sent to the lift controller by the warehouse management software (WMS). Communication takes place via TCP/IP.

MP 12 N-HostData

The control system for quick and easy connection of our storage devices to the customer's ERP system. This version offers a file interface for storage and retrieval orders (pick lists) or individual data records. Data conversion takes place in the lift controller. The exchange of data is automatic and time-controlled. Route-optimized processing of orders is possible across multiple Hänel storage units.

MP 100 D – high-performance storage management intelligently designed!

Up to 99 storage systems can be controlled simultaneously with the MP 100 D.

The pluses

- Hardware and software are integrated in the lift, no additional PC or monitor required.
- No complex software installation on a PC.
- Direct integration into the corporate network via Ethernet link.
- Data is retrieved from the MP100D and MP12N–S simply by using the browser – constant transparency in the storage area is guaranteed.
- Integrated software for data exchange.
- Customized expansion possible with versatile supplementary modules.

Cluster with IT systems

Of course, Hänel storage systems can be connected to the customer's IT environment. The control systems are easily connected via the integrated Ethernet interface.

Article data, pick lists and booking information are exchanged via the integrated communication software.

Hänel software made-to-measure

If you wish, Hänel specialists will develop a tailor-made storage management concept that precisely meets your requirements!

The variable control keyboard for the Hänel Lean-Lift® is placed at the side of the access point – the most ergonomic position for operators – to prevent bending and reaching!

You will find detailed information about Hänel microprocessor control systems in our brochure 'The intelligent Hänel control and software technology'.

STOP

The Hänel EcoConcept
An innovation that sets the standard!

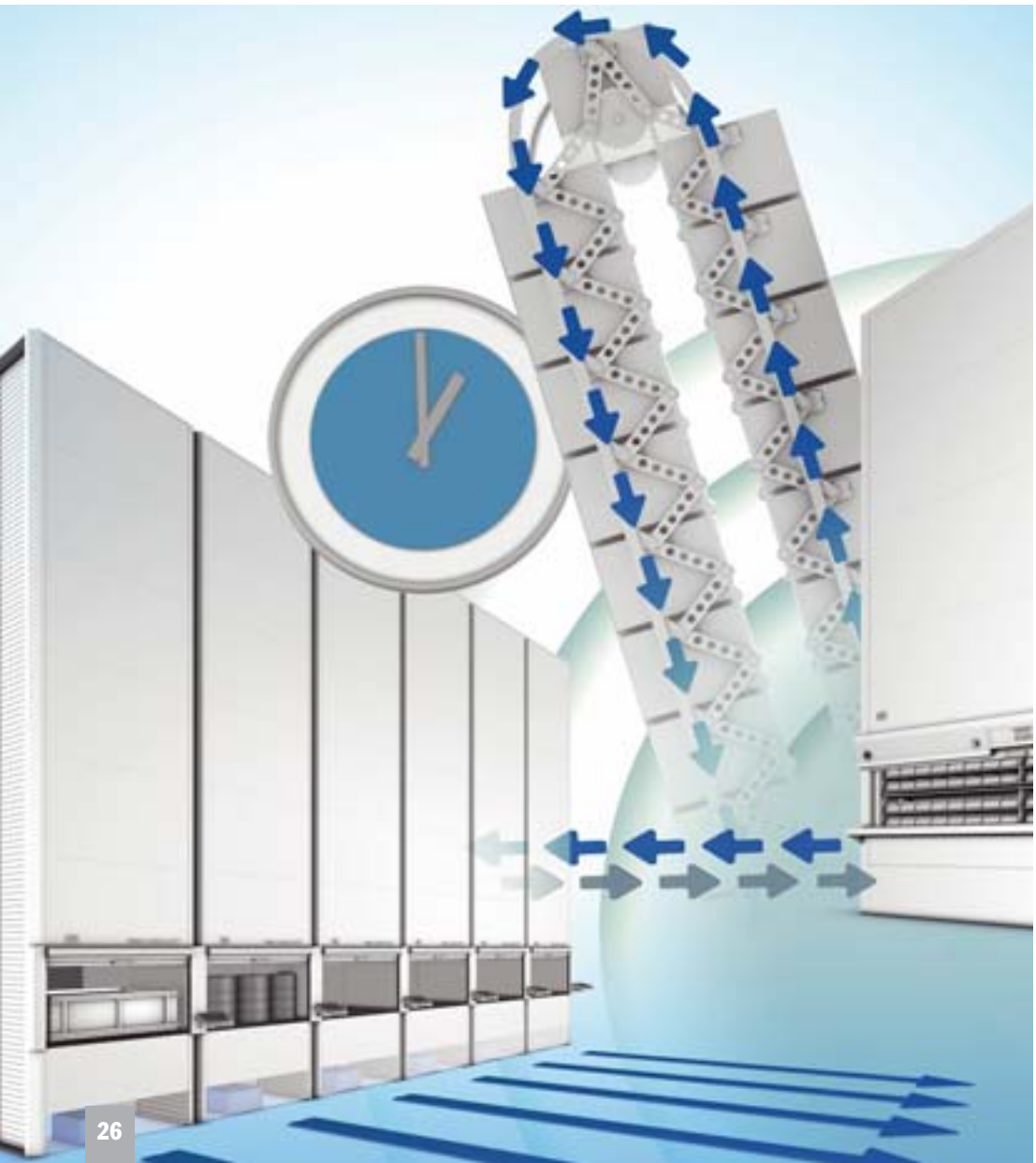
Energy-efficient systems are the key to lowering energy consumption in your warehouse

The effective energy consumption of automated material and file handling systems has a major impact on operating costs, amortization and not least on environmental protection.

For this reason we have always placed great emphasis on continually optimizing the energy efficiency of our storage systems. This brings our customers many benefits, both from an economic and an ecological perspective!

At the CeMAT trade fair in 2008, Hänel demonstrated its pioneering role in the industry by unveiling Hänel **EcoDrive®**, the first component in the Hänel EcoConcept.

The built-in frequency transformer in **EcoDrive®** converts the kinetic energy of the descending extractor into electrical energy and feeds it back into the electrical supply system. This enables up to 40 % of the energy required by the storage system to be recovered, depending on the rate of travel.



Since its introduction, many customers have opted for this energy regeneration technology when ordering Hänel Lean-Lift® and Hänel Multi-Space® storage systems. In fact, the number of storage systems sold with Hänel **EcoDrive®** has doubled since 2011.

Another great success story is the Hänel **EcoLoad®** system. Continuous monitoring of the load situation in the Rotomat® and adherence to the storage recommendations ensures that even and balanced load distribution is achieved. As a result, only minimal energy is needed to start the storage carousel rotating. In 2013, 60 % of all the Hänel Rotomat® storage carousels sold were equipped with this technology.

And the sales figures for Hänel **EcoMode®** also continue to climb. With this standby technology, all systems that consume energy, even when at standstill, are closed down by the control system in four **EcoMode®** levels (energy-saving levels). This reduces the energy consumption of the Hänel storage systems to a minimum when they are not being used.

We are very happy to see that more and more of our customers are selecting systems that contribute to sustainability.

The Hänel EcoConcept – for the sake of the environment!

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 Lockomat®

The Hänel Lockomat® is the ideal storage system for safe and secure provisioning of small parts, tools, electronic components, medicines, etc.

User authentication is provided by ID card, PIN code or optionally by transponder. The Hänel Lockomat® can be used in a wide range of sectors – the chemical industry, banking, pharmacies, etc. – wherever items that look the same on the outside but are entirely different on the inside need to be stored and retrieved quickly and without error.

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 3-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 3-axis storage system over 9 m / 30 ft 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.

Hänel
Storage Systems
121 Industry Drive
Pittsburgh, PA 15275
Tel. +1 (412) 787 – 3444
Fax +1 (412) 787 – 3744
E-Mail: info@hanel.us
www.hanel.us

Hänel
Büro- und Lagersysteme
P. O. Box 11 61
D - 74173 Bad Friedrichshall
Tel. +49 (0) 71 36 / 2 77 – 0
Fax +49 (0) 71 36 / 27 72 01
E-Mail: info@haenel.de
www.hanelworldwide.com

Hänel
Büro- und Lagersysteme
Bafflesstrasse 21
CH - 9450 Altstätten SG
Tel. +41 (0) 71 757 30 80
Fax +41 (0) 71 757 30 85
E-Mail: info@haenel.ch
www.haenel.ch

Hanel Systèmes
Europarc · 139, Chemin des Bassins
F - 94035 Créteil Cedex
Tél. +33 (0) 1 45 13 96 10
Fax +33 (0) 1 45 13 96 13
E-Mail: hanel@hanel.fr
www.hanel.fr

Hänel
Kantoor- en Magazijnsystemen
Nieuwland Parc 13a
NL - 2952 DA Alblasserdam
Tel. +31 (0) 78 / 890 76 50
Fax +31 (0) 78 / 890 76 59
E-Mail: info@haenel.nl
www.haenel.nl

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MATERIALS HANDLING & AUTOMATION

Innovative ideas. Sound technology. Flexible systems

Subject to change

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