# The Hänel Group Innovations and Perspectives in Intralogistics and Office Organization





Joachim Hänel Chief Executive Sales



Michael Hänel Chief Executive Technology

# Hänel Office and Industrial Storage Systems A company with tradition and future

Since the 1950s the name 'Hänel' has stood for innovative solutions in automated records and materials handling.

Today we are one of the world's leading providers in the industry.

Thanks to the continuous refinement of our products and software, the solutions we offer today will meet the requirements of tomorrow.

For all this technological progress, we are fully aware of our responsibility to the environment, and we always aim to achieve the highest possible environmental compatibility in our development and production processes. Hänel was, for example, the first producer of vertical lift technology to develop an EcoDrive system, which converts the kinetic energy of the descending extractor into electrical energy and feeds it back into the electrical supply system. This is yet another contribution toward saving energy and protecting the environment.

The maxim of our company founder, Gerhard Hänel, was 'To do nothing by halves is the way of noble spirits' – an approach that defines our actions to this day. So we shall continue to develop efficient, ergonomic and space-saving storage solutions for your intralogistics and office organization needs well into the future.

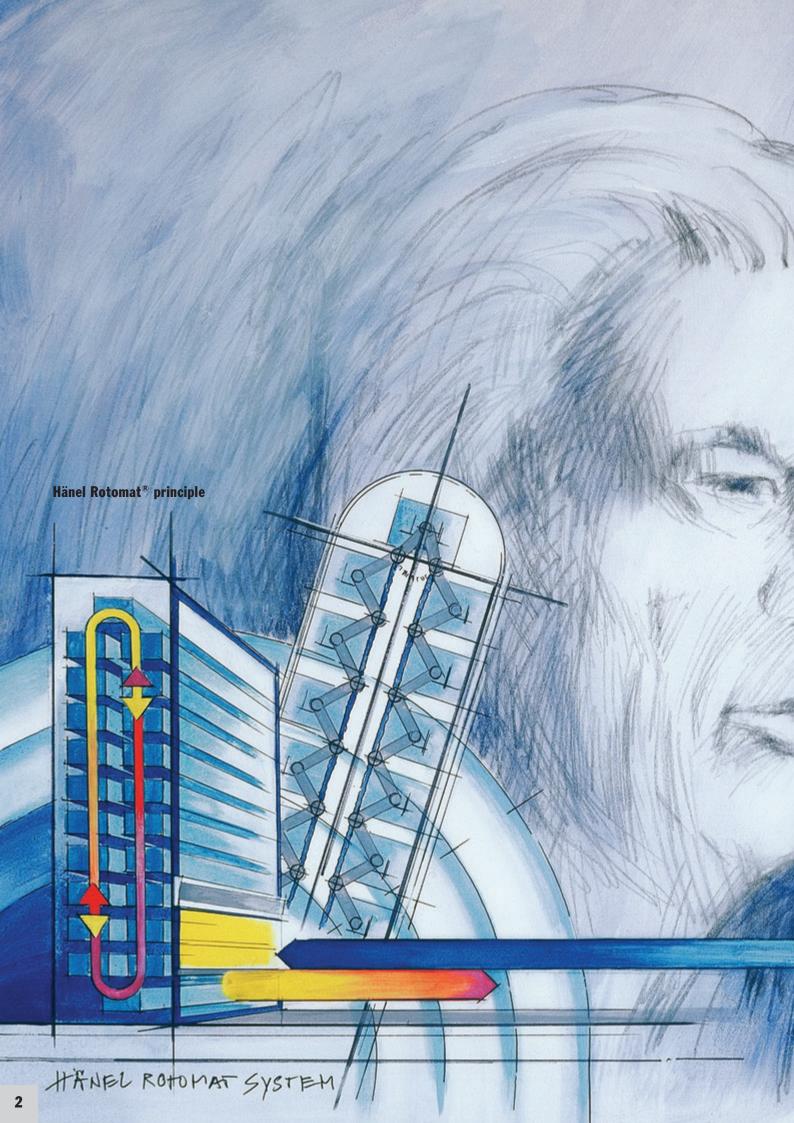
Kind regards

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Joachim Hänel

Michael Hänel

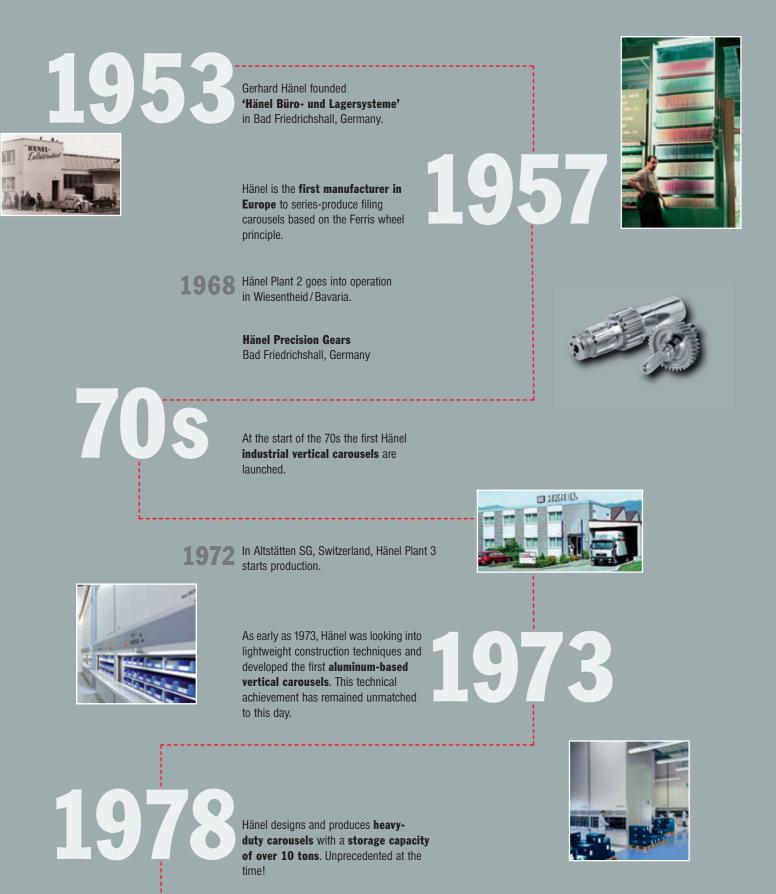


HANEL LEAN-LIFT SYSTEM

Hänel Lean-Lift® principle

**'To do nothing by halves is the way of noble spirits'** Christoph Martin Wieland

# No future without a past **Milestones in Hänel's success**



The 1980s saw the development of a wide range of industrial storage carousels for the global market.

> New branches established – Hänel USA and Hänel France.

Hänel Netherlands followed early in 1990.

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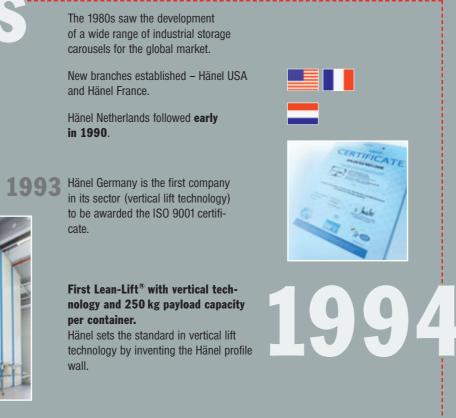
First Lean-Lift<sup>®</sup> with vertical technology and 250 kg payload capacity per container. Hänel sets the standard in vertical lift technology by inventing the Hänel profile wall.

**1995** Hänel Altstätten also awarded ISO 9001 certificate – the first company in its sector (vertical lift technology) in Switzerland.

> Lean-Lift<sup>®</sup> with 500 kg payload capacity per container.

**97/98** Massive expansion of manufacturing capability with state-of-the-art production technology.

> Lean-Lift<sup>®</sup> with 1,000 kg payload capacity per container.









<b>2001</b> 2003	Hänel opens a new Demo Center in Bad Friedrichshall. Hänel moves into its new administration building.	
2004	Hänel is the first manufacturer in Germany to offer the option of fitting its vertical lift modules with digital camera technology.	
	In a world premiere at the CeMAT trade fair, Hänel unveils the patented 3-axis Multi-Space <sup>®</sup> storage system – the new definition of vertical lift technology.	200

Hänel, the inventor of the extractor with double container placement, perfects this system and develops the Hänel Lean-Lift<sup>®</sup> in DualDrive

Doubling of the production area at the Hänel plant in Wiesentheid, Bavaria.



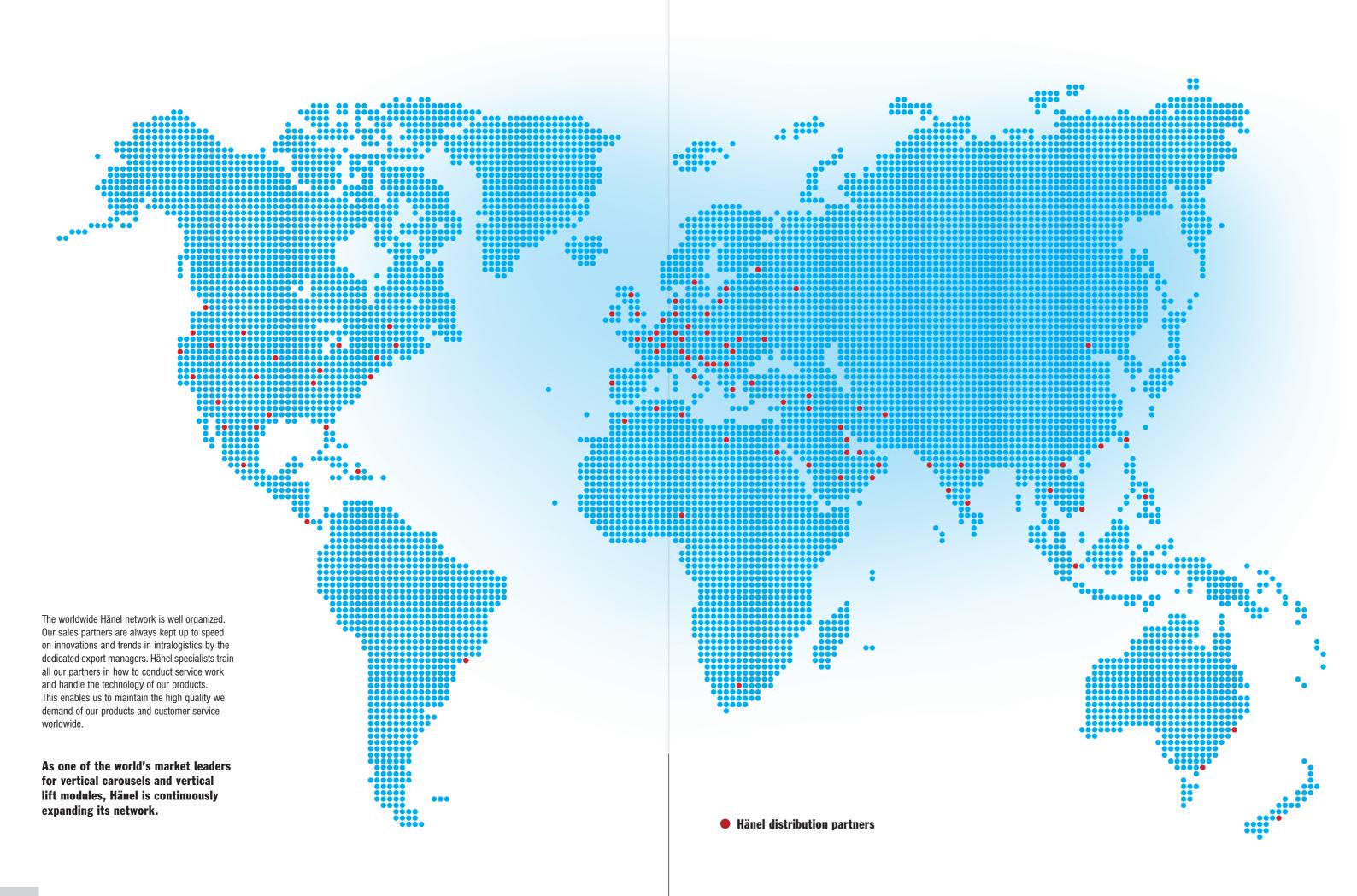


Hänel introduces an EcoDrive version of the Lean-Lift<sup> $\mathbb{R}$ </sup> – a world first for producers of storage systems. CO<sub>2</sub> reductions thanks to efficient energy recovery using a frequency converter with feedback unit.

2009 Celebration of Gerhard Hänel's 100-year anniversary.

> Hänel is one of the world's leading manufacturers of storage and organization systems, with distributors in over 60 countries.





# The sales organization at a glance



## Hänel production plants



#### Hänel Plant 1 Bad Friedrichshall, Germany

Gerhard Hänel founded Hänel Office and Industrial Storage Systems in 1953. By 1957 Hänel was series-producing filing carousels based on the Ferris wheel principle – the first manufacturer in Europe to do so. Today Rotomat<sup>®</sup> carousels and Hänel Lean-Lifts<sup>®</sup> are produced in three manufacturing plants – and exported worldwide. Hänel has distribution partners in over 60 countries throughout the world. Innovation and performance, dynamics and ideas, new technologies and team spirit have made Hänel one the leading providers of storage and organization systems.



Hänel Precision Gears Bad Friedrichshall, Germany





Hänel Plant 2 Wiesentheid/Bavaria, Germany





# High-tech production for high-end demands

Highly qualified specialists implement the ideas of the planning engineers using cutting-edge manufacturing techniques

The linchpin of the production facility is the modern storeroom for sheet metal pieces which is situated centrally in the plant. From here the unworked metal sheets and also sub-assemblies are fed automatically to the machining centers and then returned to buffer storage.

The punching and laser work on the sheet metal pieces needed for production is carried out on TruMatic and TruPunch machines from the company TRUMPF. Automatic loading systems are available to feed the machines.

In order to guarantee the consistently high quality of Hänel products, state-of-the-art welding procedures are carried out by fully automated precision robots in a welding center developed specially for Hänel.

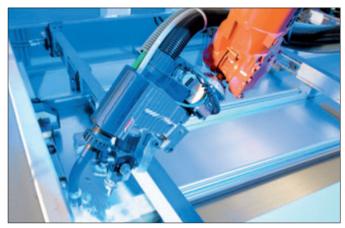
To ensure we can produce the high number of containers required, we use high-efficiency bending machines with robot technology.

### Responsibility for the environment

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



TRUMPF TruPunch 5000 - one of the most modern punching machines in the world



Fully automated welding center designed specially for Hänel



High-efficiency bending machines with robot technology



# Quality and leading-edge technology Hänel Office and Industrial Storage Systems

Products such as the Rotomat<sup>®</sup>, the Lean-Lift<sup>®</sup> or the Multi-Space<sup>®</sup> set the benchmarks for the automated storage technology sector

These dynamic storage systems are designed according to the vertical carousel and conveyor principles, which mean goods to man and not man to goods. The compact design enables maximum storage capacity to be created on a minimal footprint by making use of the available room height.

Modern Hänel microprocessor control systems provide continuous inventory update and accurate inventory control. They can be used as stand-alone storage

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management systems or communicate with customer IT systems.

With its numerous inventions, Hänel Office and Industrial Storage Systems has made a significant contribution to the success of vertical carousels and vertical lift modules in the sector of automated materials handling. This success is yet another incentive for our team to offer future-oriented solutions for intralogistics based on continuous further development. Hänel offers tailored intralogistics concepts for all needs – from small businesses to major industrial enterprises!

Live presentation of Hänel storage systems in the Demo Center, Bad Friedrichshall



# The Hänel Rotomat<sup>®</sup> principle 'Vertical carousel technology' – simply ingenious

The principle is simple. Its applications are brilliant



Hänel Rotomat<sup>®</sup> office carousel – the right file is found among thousands of hanging folders in seconds



Hänel intralogistics solutions offer small and medium-size enterprises an affordable entry to efficient storage management. Here we have a Hänel Lockomat<sup>®</sup> and a Hänel Lean-Lift<sup>®</sup> for tool storage

The compact design of the Hänel Rotomat<sup>®</sup> enables **up to 60% more storage area** to be created on a minimal footprint by making use of the available room height.

#### The structural design

Self-supporting steel plate casing, comparable to the cellular structure used in the aircraft industry. Lockable, smooth-running sliding doors. Environmentally friendly powder coating, as well as impact-resistant and shock-proof stove enamel finishes. There are five attractive colours to choose from. Customized finishes are possible.



#### The operating principle

The Hänel Rotomat<sup>®</sup> creates an enormous amount of storage volume on a small footprint. It works on the Ferris wheel principle, i. e. the goods come to the operator, not the operator to the goods.

Hänel Rotomat<sup>®</sup> office carousels The optimal filing systems for office and administration

Hänel Rotomat<sup>®</sup> industrial carousels

Top order-picking performance due to short travel paths

Hänel Lockomat<sup>®</sup> Safe and secure retrieval



## Vertical technology – simply brilliant The Hänel Lean-Lift<sup>®</sup> and the Hänel Multi-Space<sup>®</sup>

The Hänel Lean-Lift<sup>®</sup> with height-optimized storage lets the air out of your store!

## The automated 'high-bay warehouse in a cabinet'

The Hänel Lean-Lift<sup>®</sup> is both storage rationalization and goods protection in one: At the center of this closed system is a computer-controlled positioning lift – the 'extractor'. In front of it and behind it are the storage shelves. The goods are then delivered to the retrieval area at the correct ergonomic height.

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A highlight of the Hänel Lean-Lift<sup>®</sup> is the height-optimized storage concept. When the container is drawn in, the highly accurate light barriers measure the articles, and the Hänel



microprocessor control system finds the optimum storage location in the Hänel Lean-Lift<sup>®</sup>.

With its height sensors, the Hänel profile wall and space-saving slot design, the Hänel Lean-Lift<sup>®</sup> utilizes the available storage volume extremely efficiently.

This ingenious principle finds applications in a wide variety of industries. Used in the medical technology sector and electrical engineering (for which ESD versions are possible) and also in the automotive, aircraft and pharmaceutical industries as well as in mechanical engineering, the mailorder and wholesale trades – the Lean-Lift<sup>®</sup> is the ideal buffer, dispatch, production or tool store, to name but a few areas that demonstrate its versatility.

Hänel also offers small and medium-size enterprises an affordable entry to efficient storage management with its intralogistics solutions.

Our specialists would be happy to show you references from your line of business – just send us an inquiry!



In this injection molding facility, a vast amount of floor space was freed up by storing tools in a Hänel Lean-Lift®

#### Intralogistics in a new dimension – Hänel Multi-Space®

The innovative 3-axis storage system from Hänel with the many advantages of time-proven Hänel Lean-Lift<sup>®</sup> technology. Whether it operates as a stand-alone solution, in a network with other Multi-Space<sup>®</sup> units or in combination with Lean-Lifts<sup>®</sup> and Rotomats<sup>®</sup> – the Hänel Multi-Space<sup>®</sup> offers another innovative solution for your intralogistics! The Hänel Multi-Space<sup>®</sup> can even be varied in width and height once installed – an innovation from Hänel!

The new definition of vertical lift technology from Hänel!



Two Hänel Multi-Space  $^{\scriptscriptstyle (\!R\!)}$  units, each almost 10 m wide, constitute the central store for the production hall

# Our strength lies in our know-how Hänel Control and Software Technology

Hänel's microprocessor control units and inventory management software enable efficient, rationalized workflow

#### Hänel sets the standard for control systems

Object-related, practice-oriented microprocessor control units can offer you a complete storage management system. The modern design and intuitive handling are exemplary. A complete range of storage management features is already integrated in the controllers.

Efficient and transparent storage is possible without an additional PC. And of course the Hänel storage units can be integrated into the customer's IT system.



Hänel also offers software solutions for individual requirements.

Connection to enterprise resource planning systems is no problem.

Hänel microprocessor control system MP 12 N-S with touchscreen technology and integrated storage management

# Hänel software systems rationalize storage operations and provide optimal transparency in the storeroom!

For every application there are powerful software packages that can be tailored to each customer's needs thanks to useful configuration options and a range of standard modules.

#### Storage management

#### **Control software**

for Hänel storage systems networked with HOST-supported ERP systems.

#### **Tool management**

#### Storage management

with Hänel storage systems – from incoming goods to dispatch.

Talk to our specialists – we would be happy to advise you!



Hänel offers software solutions for individual requirements

# **Quality signed and sealed Innovative developments and state-of-the-art** production technology

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Hänel – a company committed to top quality

#### **Quality starts with** consulting

No two Hänel lifts are the same. Simply because each task requires a unique approach.

That's why, at Hänel, high quality of consultancy takes first place alongside product quality. On the basis of your requirements and our experience we develop a complete solution tailored to your needs.

Despite automation, the focus at Hänel is on people. They are the ones who coordinate the different production steps and monitor quality constantly.

sign, Conception, Production, Distribution and Maintenance On September 1, 1993, Hänel Germany was awarded the international certificate of quality according to ISO 9001 by the 'German Association for Certification of Quality Management Systems'. It was the first company in its field (vertical lift technology) to achieve this distinction. 1st October 2011

And in 2009 once again the process-oriented quality management of Hänel was acknowledged by the technical control board TÜV Hessen with the current DIN EN ISO 9001:2008 Certificate.

DIN EN ISO 9001:2008

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Hanel & Co. Büro- und Lagersysteme

Büro- und Lagersysteme

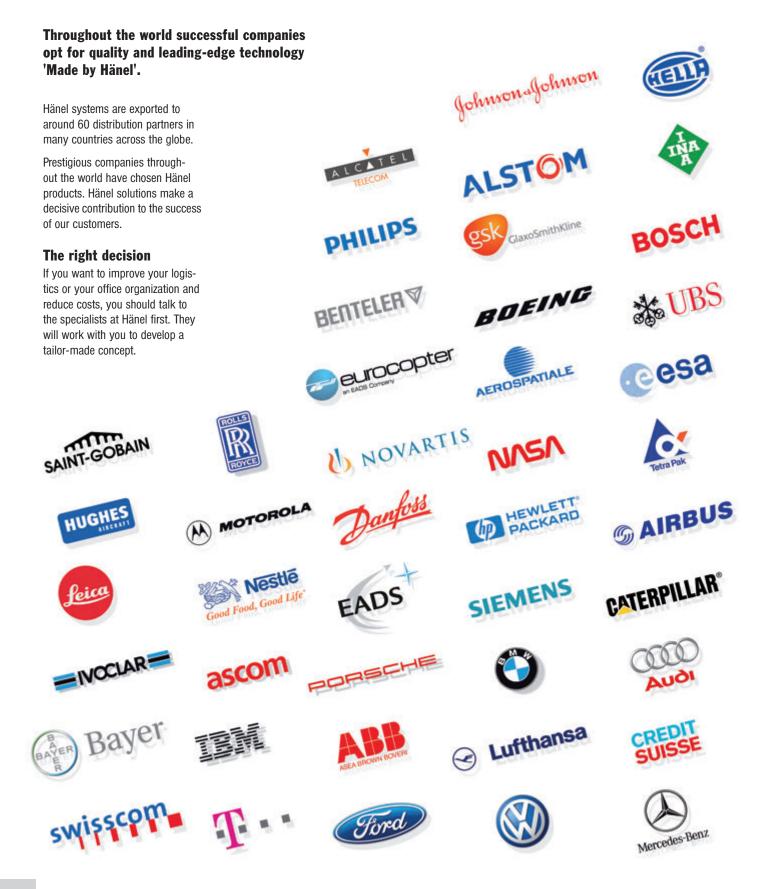




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# Ideas that move the world... Cutting-edge technology 'Made by Hänel'



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



Hänel Rotomat<sup>®</sup> office carousel

The Hänel Rotomat  $^{\ensuremath{\mathbb{B}}}$  is the optimal filing system for office and administration.

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

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



Hänel Rotomat<sup>®</sup> industrial carousel

Each Hänel Rotomat<sup>®</sup> 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<sup>®</sup> are the same, because each task demands a precisely defined solution.



#### Hänel Lockomat<sup>®</sup>

The Hänel Lockomat<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup>. In addition to the many advantages of the Hänel Lean-Lift technology, the Hänel Multi-Space<sup>®</sup> 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 in width. The Hänel Multi-Space<sup>®</sup> 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 know-how. 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 a computer interface, of course. Interface with enterprise resource planning systems is no problem. Hänel also offers software solutions for individual requirements.

#### Hänel

**Büro- und Lagersysteme** P. O. Box 11 61 D - 74173 Bad Friedrichshall

Tel. 07136/277-0 Fax 07136/277201 E-mail: info@haenel.de www.hanelworldwide.com

#### Hänel

**Büro- und Lagersysteme** 

Bafflesstrasse 21 CH - 9450 Altstätten SG Tel. 071 757 30 80 Fax 071 757 30 85 E-mail: info@haenel.ch www.haenel.ch

#### Hanel Systèmes

Europarc · 139, Chemin des Bassins F - 94035 Créteil Cedex Tél. 01 45 13 96 10 Fax 01 45 13 96 13 E-mail: hanel@hanel.fr www.hanel.fr

#### Hänel

#### Kantoor- en Magazijnsystemen

De Linie 3 D NL- 2905 AX Capelle a/d IJssel Tel. 010/4504450 Fax 010/4503577 E-mail: info@haenel.nl www.haenel.nl

#### Hänel

#### Storage Systems

121 Industry Drive Pittsburgh, PA 15275 Tel. (412) 787 – 3444 Fax (412) 787 – 3744 E-mail: info@hanel.us www.hanel.us

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