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INTRA LOGISTICS SOLUTION

Automatic Storage System

- AS/RS
- Mobile Racking
- Hanel

Automatic Picking System

- A-Frame
- OSR Shuttle
- Pick to Light
- Sorter System



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Automated Storage & Retrieval Systems

- Normal AS/RS
- Low Temperature AS/RS
- Special AS/RS
- Bucket AS/RS

Distribution Center

- DPS
- Sorter

AUTOLAMP MATERIAL AS/RS

Mold AS/RS Material AS/RS Assembly Line Product AS/RS Shipping Area

Product AS/RS : 18,117 CELLS
Material : 7,992 CELLS
Mold AS/RS : 804 CELLS
Total SRM : 20 ST

PNEUMATIC AUTOMATION AS/RS
 Pallet - W/H 76mL x 16mW x 16mH
 3,600 CELLS
 SRM : 4ST
 Bucket - W/H 76mL x 16mW x 16mH
 3,600 CELLS
 SRM : 4ST

WIRING ACCESSORIES AS/RS
 Pallet - W/H 151mL x 21mW x 34mH
 CELLS 18,972 SRM 5ST
 Bucket - W/H 137mL x 4mW x 9mH
 CELLS 14,220 SRM 2ST

CLEAN AMHS
 Class 10K
 3,788 CELLS
 SRM 10ST
 W/H 25mLx2mWx4mH/ST, Total 10ST

FREEZER FOOD AS/RS

W/H 43mLx35mWx33mH
7,152 CELLS
SRM 5ST
-25 °C

FREEZER JUICE AS/RS
 W/H 53mL x 23mW x 16mH
 IOF(-25 °C) W/H 152 CELLS
 Const. Temp (-20 °C) W/H 2976 CELLS
 Total SRM 5ST

FREEZER FOOD AS/RS
 W/H 64mL x 33mW x 24mH
 9,036 CELLS, SRM 5ST, -25 °C
 Brine machine 300HPx2ST, 60HPx2ST

FREEZER BLOOD AS/RS
 W/H 32mL x 9mW x 18mH
 5,616 CELLS
 SRM 3ST, -30 °C

FPC PP CHIP AS/RS (NINGBO)

W/H 106mL x 52mW x 31mH
21,080 CELLS
SRM 10ST

ABS CHIP AS/RS
 W/H 169mL x 42mW x 31mH
 27,744 CELLS
 SRM 8ST

NYLON CHIP AS/RS
 W/H 110mL x 24mW x 32mH
 12,864 CELLS
 SRM DD Type 3ST

SILK AS/RS
 W/H 218mL x 47mW x 31mH
 28,336 CELLS
 SRM 7ST

LCD PANEL AS/RS (LCM2)

W/H 46mL x 142mW x 32mH
17,400 CELLS
SRM 29 ST

LCD PANEL AS/RS (LCM4)
 W/H 70mL x 70mW x 34mH
 12,012 CELLS
 SRM 14ST

LCD PANEL AS/RS (LCM NA)
 W/H 56mL x 21mW x 23mH
 4,528 CELLS
 SRM 9ST

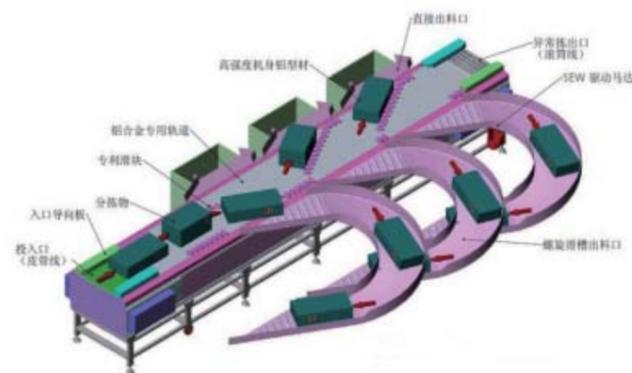
LCD PANEL AS/RS (LCM NHA)
 W/H 116mL x 136mW x 23mH
 Large CELLS 4,272
 Small CELLS 18,960
 SRM 23ST

Sorting system

分拣系统

一、滑块分拣机HIGH SPEED SHOE SORTER

滑块分拣特点 (The Characteristics of High Speed Shoe Sorter)



1. 滑块分拣, 不损伤输送物品(Slide sorting, not damage goods)

采用ABS专用滑块, 输送物品的同时将物品推到指定分拣口, 因此在分拣中不会损坏物品。

Using ABS special slide, the goods will be pushed to the designated sorting entrance while it is conveying goods. Therefore it will not damage the goods in the sorting process.

2. 高效率的分拣能力(high sorting efficiency)

在输送速度为150m/min、输送物品长度为200mm、间隔为600mm的条件下, 理论上最大

分拣能力为11250件/小时。可根据公式自行计算, 计算公式为: $Q = [V / (L + S)] * 60$ 。Q为每小时分拣产量, V为输送速度, L为输送物平均标准长, S为输送物间距。

Under the condition of speed 150m/min, 600mm goods length, and 600mm distance between goods, the maximum sorting capacity is 11250 pieces per hour in theory. You can also calculate by the formula. $Q = [V / (L + S)] * 60$. Q is the capacity per hour, V is the conveying speed, L is the average length of the case, S is the space between the cases.

3. 低噪音滑行(low noise running)

噪音值: 73db±3 (当输送速度为150m/min的时候)。

Level of noise: about 73db (when the sorting speed is 100m per minute)



4. 先进的机械性能兼备清洁输送及耐用性(the advanced mechanical function, clean transport, and durability)

分拣滑块在导轨内滑动, 滑块与输送机之间有空隙, 因此即使输送机上粘有胶带等异物, 也不会影响设备的正常工作, 可以保持稳定的输送作业; 同时设有各种安全装置, 可以检测出链条的松紧异常、滑块脱轨等问题。(The slide is running in the lead rail and there is gap between the slide and conveyor. Although there is tape over the conveyors, the

machine can also run normal. There are also other security equipments of the conveyor, and can check the chain and slide problems automatic.)

以下是适合滑块分拣的一些物品。

5. 可输送物品种类多(various goods shape)

只要输送物重量≤30kg(对于ASM型), 则不论物品的大小, 所有袋状物品、长形物品, 及至小型物品及薄物品(如信封书籍等)都能够准确的进行分拣。

As long as the transport weight ≤ 30kg (for ASM), no limit of the size both items, all baggy articles, long articles, and small items and thin objects (such as envelope Books) can be accurate sorted.

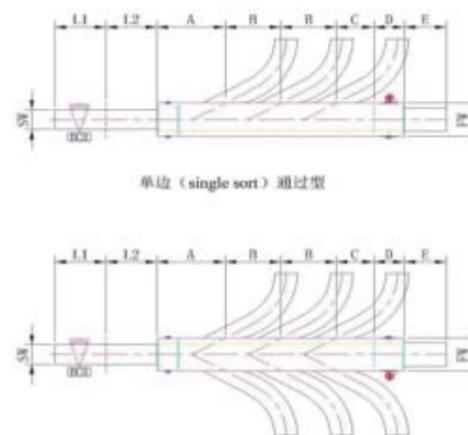
1. 提供最佳解决方案及服务(best solution plan and service)

优良的制造工艺, 可靠的控制系统(excellent production craft, reliable control system)

可按实际需求提供适合您的解决方案(We can provide the solution in the reference to your request.)

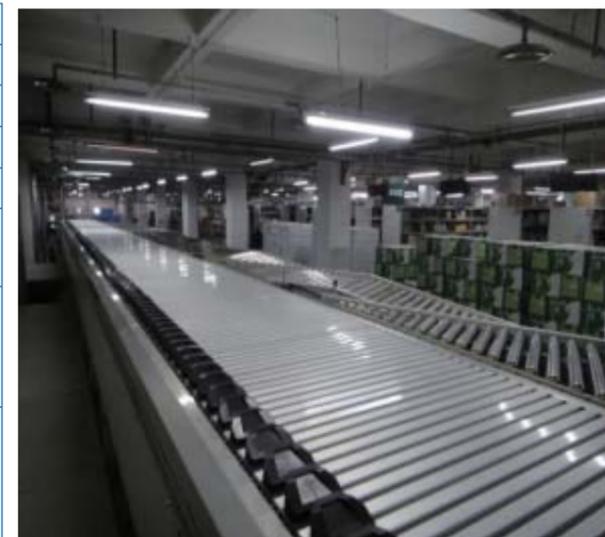
两年的质保期, 让您更放心的使用(Two years warranty period, easy to use)

基本参数 (标准机型) basic parameters(standard type)



宽度系列	有效宽度 Width	SW	FW	A		B		C	D	E	L1		L2	
				单侧 single	双侧 double	单侧 single	双侧 double				单侧 single	双侧 double	单侧 single	双侧 double
05	500	600	1150	2000	3000	1400	1600	1200	1400	1500	1200	1200	1200	4500
07	700	800	1350											
09	900	1000	1550											
11	1100	1200	1750											

分拣能力	平均8000件/小时
输送速度	最大150m/min
单机长度	最大65 m (可拼接)
机器宽度	500-1000mm
机器高度	1300 mm
输送物形状	纸箱、封袋、凸凹状纸包、周转箱、带状物品、扁平物等
输送物大小	W * L * H * 重量 最大 700 mm 1200 mm 600 mm 30kg 最小 20 mm 200 mm 10 mm
	※ 超过30 kg的物品请与本公司洽谈 ※ 视输送物品长度、间隔、速度等条件而定 ※ H=1300 mm: 或其它高度



Sorting Capacity	average 8000 pieces/hour
Speed	Maximum 150m/min
Each Length	Max 65 m (splicing)
Width	500-1000mm
Height	1300 mm
Goods Shape	Carton, container, belt stuff, flat stuff
Goods Size	W * L * H * weight
	Max 700 mm 1200 mm 600 mm 30kg
	Min 20 mm 200 mm 10 mm
	※ Please contact our sales representative when the weight is more than 30 kg.
	※ in reference to goods size, length, width and speed
	※ H= 1300 mm, or other size



适合输送的物品形状 (suitable shape for sorting)



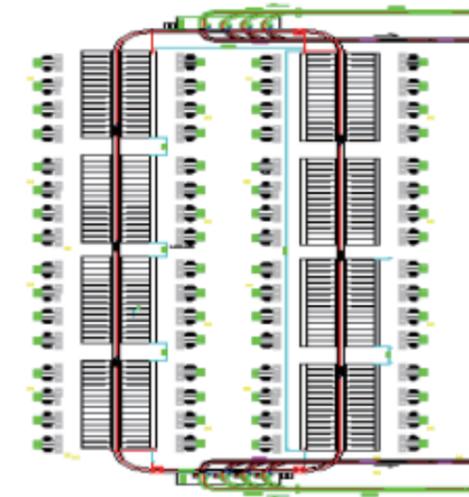
不适合输送的物品形状(un-suitable shape for sorting)



Industrial advantage



二、交叉带分拣机Cross Belt Sorting



介绍 Introduction of cross belt sorting

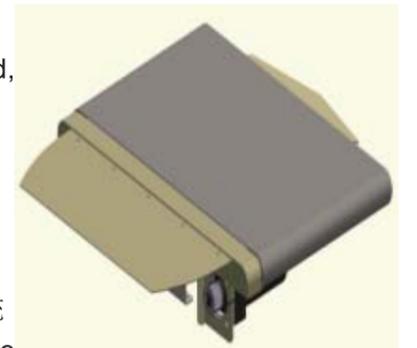
由主驱动带式输送机 and 载有小型带式输送机的台车(简称“小车”)连接在一起,当“小车”移动到所规定的分拣位置时,转动皮带,完成把商品分拣送出的任务。因为主驱动带式输送机与“小车”上的带式输送机呈交叉状,故称交叉带式分拣机。

The main drive belt conveyors connect with small trolleys. When the trolleys move to the fixed station and turn the belt, finishing the sorting duty. For the cross shape of main drive belt conveyor and the small trolleys, than it is called cross belt sorting.

主要参数 main references

- 1、适宜于分拣各类小件商品,如食品、化妆品、衣物等。
It is suitable for all kinds of small commodities, such as food, cosmetics, clothes etc.
- 2、分拣出口多,可左右两侧分拣。
Many out-feed ports, can sort left and right in the same time.
- 3、分拣能力,一般达8000~12000个/时。
Sorting capacity is usually 8000~12000 per hour.

注:大型交叉带式分拣系统一般应用于机场行李分拣和安检系统
Remarks: Big cross belt sorting system is usually used in the airport for luggage sorting and security system.



分类 classification

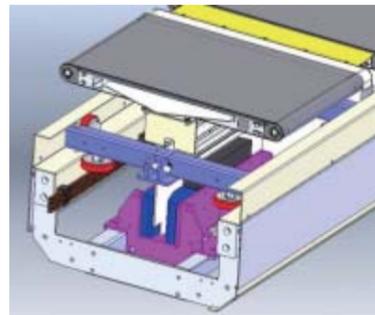
根据作业现场的具体情况可分水平循环式或直行循环式。
In the reference to the site situation, there are two different types, horizontal circulating and vertical circulating.

HJ-CB-600交叉带分拣系统的主要技术指标如下:

HJ-CB-600 main technical indicators of cross belt sorting system.

运载节距(Pitch of Tray Carriage):	600/1200mm (1车2带 one car 2 belt)
托盘长度(Length of Tray):	700mm
托盘皮带宽度(Width of Tray Belt):	450mm
系统驱动(System Driving):	双边交流直线电机(Bilateral AC linear motor)
供包方式(Feeding Mode):	自动/ 半自动/ 人工直接输入(Automatic / semi-automatic / artificial direct input)

锋馥集团根据电子商务物流的特点和发展新趋势,进一步运用企业智慧对其进行集成创新,使小车托盘轨道总成更简易、系统控制更智能。HJ-CB-600交叉带分拣系统正是这样一种产品,其推广应用得益于对客户需求的了解和不断开发创新的企业精神。该系统更有利于电子商务物流领域的规模化作业,也能满足快递物流企业生产作业的工艺流程和配置需求,为快递物流企业提供了适用、个性化、投资回报率合理的产品选择,正在成为国内外快递物流配送中心广泛采用的分拣设备。



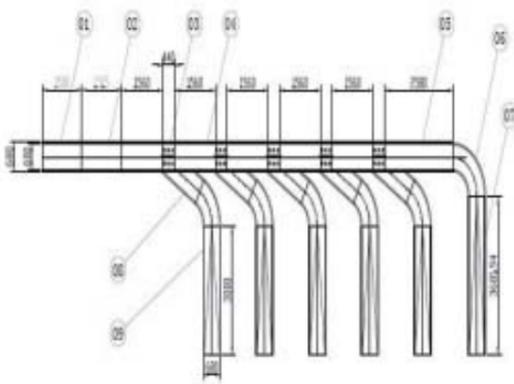
According to the new trend of electronic commerce, Hougfuh group use the wisdom to study one more simple and easier, more intelligent control system. HJ-CB-600 cross belt sorting system is just the product. Cause we know well about the requests of customers and the innovation of us, the product is well to be popularized. This system is conducive to the large-scale of the electric commerce and logistic industry. It can meet the demands of the production process and equipments of logistics enterprise, providing applicable, personalized, reasonable investment return rate selection of products for logistics enterprises. It will be widely used in domestic and international express distribution center.

三、摆轮分拣机 Tilt-tray sorting system

摆轮式分拣机的介绍:

1、转轮式分拣机:其原理为货物到指定出口后电控系统将驱动气缸执行机构,使得货物到转向轮后改变前进方向,由直行滑到侧滑道,直到完全排出;货物排出后摆轮机构复位,变成直行输送,接受下一个货物。

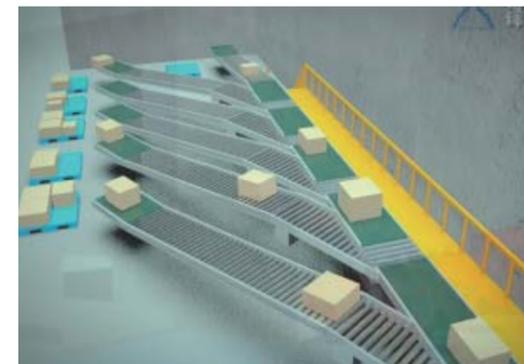
2、根据货物大小,转轮式分拣机理论分拣效率可达3000-3500件/小时,但考虑到实际物品的差异和整个系统的节拍匹配,实际的分拣效率建议为3000件/小时,转轮式分拣机能够满足使用要求。



Introduction of balance wheel sorting

When the goods are shipped to the fixed exit, will electrical control system drive the cylinder to change the goods direction. Than the production will from straight line to the side slide. When the productions go out of the system, the runners go back to the fixed station and receive the next goods.

For different shapes of goods, the sorting efficiency is different. In theory the runner sorting efficiency is 3500 pieces per hour. But cause of the difference of the goods and the beat match of the system, suggested efficiency is 3000 pieces per hour.



输送物规格及参数:

输送物名称: 包装纸箱,
 输送物外部尺寸: 最小尺寸L300*W200*H150, 最大尺寸L600*W400*H400;
 输送物最大重量: 最大30KG/件最小1.5KG
 输送环境: 室内、-5℃-20℃ (冷库空调系统)、
 输送方向: 沿长度方向输送
 分拣效率: 额定3000件/小时
 运行噪声不得超过70db (距离设备1米处测量)

Goods specification and reference:

Goods name: Packing Carton

Goods size: min L300*W200*H150, max L600*W400*H400

Goods max weight: max 30kg per piece, min 1.5kg per piece

Conveying environment: in door -5℃-20℃ (cold storage air-conditioning system)

Conveying direction: transport along the length direction

Sorting efficiency: rated 3000 pieces per hour

The noise of the conveyor in running is less than 70db. (measured from 1m to machine)

四、应用行业(Industry application)



武汉九州通医药 (Wuhan Jointown Pharmaceutical Company)



长沙烟草 (Changsha Tobacco Company)



天和双力 (Tian He Shuang Li)



武汉中百



交叉带 (Cross Belt)



大润发分拣系统现场图



重型电动移动货架 ASP

Aisle Saver Pallet

Industrial advantage

大幅度提高空间存储效率的重量级移动货架

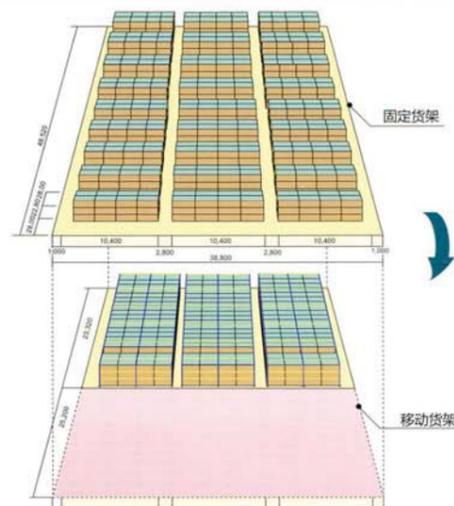
Aisle saver pallet rack with most utilization of space



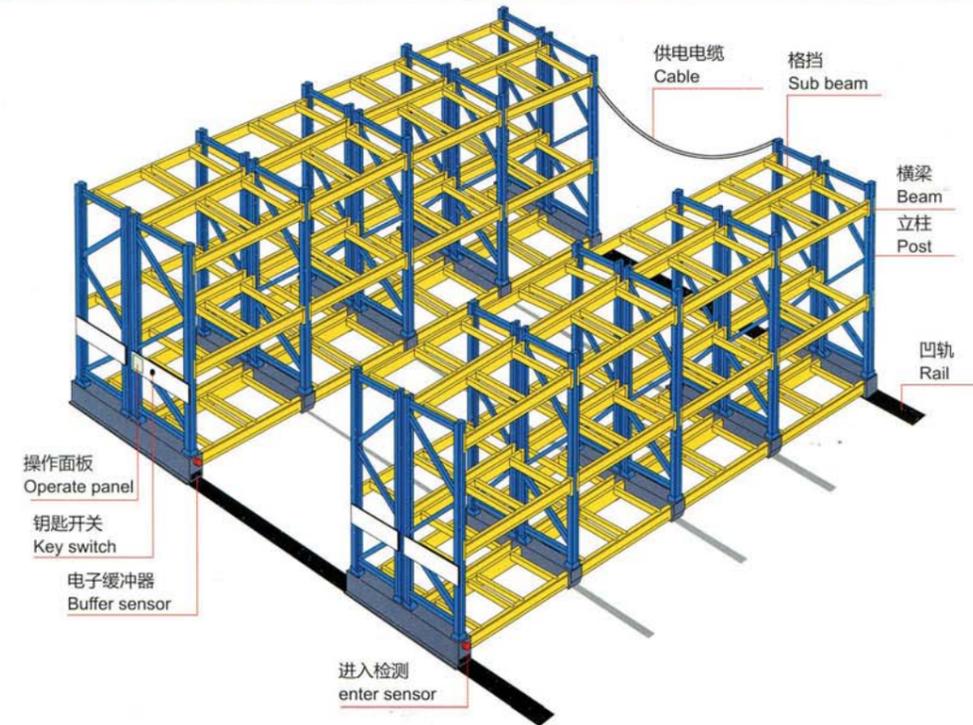
- 各移动列可以独立移动，只需要一条作业通道，与固定货架相比，增加1倍的存储量。
Each rack can be moved independently, only one working aisle is required
- 结构简单，驱动少，性价比高
Space utilization is doubled comparing with fixed rack

移动货架的7大特点

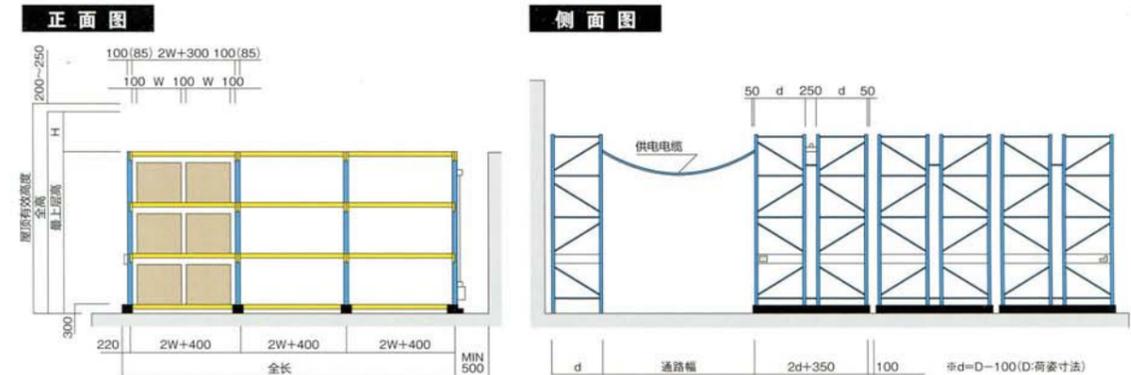
- ① 一条作业通道，高存储率
Only one working aisle is required
- ② 低价格的仓储系统
Good quality and low price
- ③ 作业面最大的仓储系统，可以从任何一个地方
Maximum working area
- ④ 构造简单，驱动少
Stocking equipment holds easy structure
- ⑤ 稳定性好，货架紧靠一起，避免货物落下
Good stability, avoid goods fall
- ⑥ 操作简单，一键式操作
Easy operate th bouton, assurant the safety
- ⑦ 多式样可选择：无轨与有轨，常温、冷冻、防爆环境
Cold store type and Blast-resistance



主要结构部件 / Main structure



标准尺寸图 / Standard size



形式 Mode	负荷能力 loading	速度 Speed	马达 Motor (kW)	电源 power (V)	控制方式 Controlling	安全装置 Secure equipment
有轨方式 Rail mode	12T(2轮)	MAX 10m/min	MAX 1.5kW	220V 380V	PLC 控制方式	<ul style="list-style-type: none"> ● 打开通道锁定/Automatic locking of aisle ● 进入检测/Enter checking and lock ● 行走指示灯/Light indicator lamp ● 过载保护/Over loading protection ● 行走超时报警/Time out protection ● 电子缓冲器/Buffer sensor ● 行走蜂鸣警示 ● 电源打开自动锁定
	24T(4轮)					
	32T(4轮)					
无轨方式 Railless mode	8T(2轮)					
	16T(4轮)					



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

Hänel Rotomat® office carousels The optimal filing systems for office and administration

Hänel started series-producing filing carousels (the first manufacturer in Europe to do so) over 50 years ago – and you reap the benefits of this long experience!

With the Hänel Rotomat® office carousel, we offer a flexible organization and filing system that adapts optimally to your needs.

- ▶ Optimum use of floor space. There are no upper limits to the Rotomat®.
- ▶ High-performance controllers and interface with IT systems make the Rotomat® flexible and enable customized applications.
- ▶ The office worker no longer goes to the files, instead the files are brought automatically to the ergonomic retrieval height when requested.
- ▶ The Rotomat® protects all the files from dust, light and unauthorized access.



The right file is found among thousands of hanging folders in seconds

Hänel Lean-Lift® Vertical technology – simply brilliant

The Hänel Lean-Lift® 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. This is where the articles are stored in containers in height optimized positions.

- ▶ Fast storage and retrieval times.
- ▶ High storage density, even when articles have different heights.
- ▶ Improved order-picking performance.
- ▶ Load-bearing capacity of up to 1,000 kg per tray.
- ▶ Load-bearing capacity of up to 60,000 kg per Lean-Lift® (higher payloads on request).
- ▶ Integrated storage management.



Depending on the height of the Hänel Lean-Lifts®, access points can be installed on different floors. Several people can use the Hänel Lean-Lift® simultaneously at different positions and levels

Hänel Multi-Space® The new definition of vertical lift technology

The innovative 3-axis storage system from Hänel with the many advantages of time-proven Hänel Lean-Lift® technology. Whether it operates as a stand-alone solution, in a network with other

Multi-Space® units or in combination with Lean-Lifts® and Rotomats® – the Hänel Multi-Space® offers another innovative solution for your intralogistics!

- ▶ Unique extractor design in state-of-the-art lightweight construction (as used in bridge engineering) guarantees maximum stability.
- ▶ The Hänel Multi-Space® offers modular scalability in height and width – up to a total width of over 9 meters.
- ▶ Variable container widths, different payload capacities and the Hänel multiple pitch ensure the optimal solution for any challenge to compact storage.



Two Hänel Multi-Space® units each 9.57 m wide constitute the central store for the production hall

Industrial advantage



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 micro-processor 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® industrial 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 in width. 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 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.