Are you ready for warehouse automated systems?

Start by mapping the situation that currently prevails in your warehouse.
Complete our Survey →

JUNGHEINRICH

Any warehouse automated system study should start by mapping the current situation. How is the warehouse set up? How effective are processes? What are the characteristics of the material flow?

With this inventory list, you can then map much of your operation by yourself. Your answers will give you a clearer picture of how things currently stand. In addition, the list will enable your supplier to give you some initial advice on points for improvement in your operation and on possible automated system solutions.

Complete Survey →

1. General information

Company:

Contact Name:

Street Name:

Postcode:

Telephone:

Email:

Members of Project Group:

Consultant (If known):

Continue survey ›

JUNGHEINRICH

2. The operation

A broad outline of the operation.
Such as: is it a parts warehouse or a distribution warehouse to supply shops?
Are there hazardous materials involved, or is it mostly fresh produce that passes through?

Warehouse Type:

Product Type:

Number of SKU's:

Area:

Number of Warehouse Employees:

Number of Flexi Workers:

Number of Shift Workers:

Continue survey ›

2.

JUNGHEINRICH

3. The building

What are the contours of the building in which the operation is carried out?
What are the peculiarities of the building?

a) Is the warehouse constructed as a traditional building or as a self-supporting structure (Silo building) like a goods warehouse?

- [ ] New traditional construction
- [ ] Existing traditional construction
- [ ] Self-supporting structure (SILO)
- [ ] Yet to be decided

Continue survey ›

3.

JUNGHEINRICH

b) What are the characteristics of the current building or new construction? Provide the specifications of each hall.

Hall	Length (m)	Width (m)	Height (m)	Docks	Floor Type	Floor Evenness (mm/m)	Floor Load (kg/m2)	Peculiarities*

* Possible peculiarities:

- **(K)** refrigerated or cold store, temperature in °C
- **(B)** (explosion) protected area
- **(S)** sterile area
- **(M#)** maximum stacking height in view of sprinkler requirements

c) Are CAD drawings available showing the design of the building, the layout of the warehouse and/or the design of the mechanical system? Send these to your supplier.

d) What expansion opportunities are available?

3.

Continue survey ›

JUNGHEINRICH

4. Current Situation

How is the current warehouse set up? What tools do you use?

a) How many industrial trucks are there?

Machine Type	Number	Used for
Forklift Trucks		
Reach Trucks		
Electric Pedestrian Pallet Trucks		
Order Pickers		
Narrow Aisle Trucks		

Continue survey ›

4.

JUNGHEINRICH

How is the current warehouse set up? What tools do you use?

b) Which stationary storage systems are there?

System Type	Length/Locations	Used for
Pallet Racking		
Drive-in Racking		
Cantilever Racking		
Live Storage Racking		
Multi-tier Shelving		

c) What forms of automation/semi-automation or mechanisation are there?

Automation/ Mechanisation type	Number/Locations	Used for
Conveyors		
AGVs		
Pick/Put-to-light		
Pallet Cranes		
Small Load Carrier Cranes		
Pallet Carriers		

4.

Continue survey ›

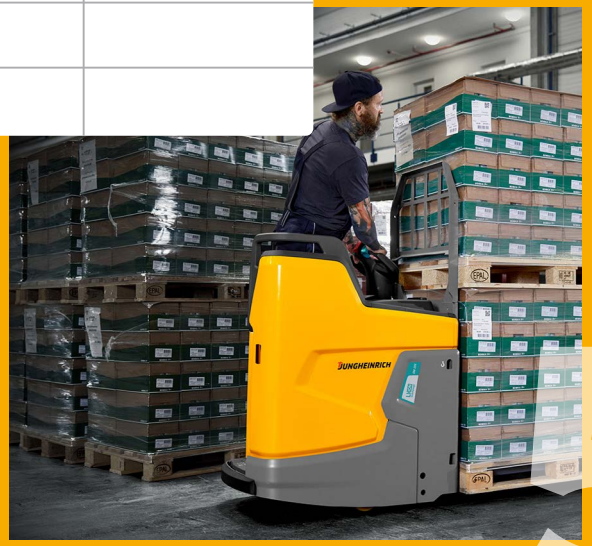
JUNGHEINRICH

5. Range Structure

What are the physical properties of the items in your stock? What is the turnover rate? You may be able to find the physical properties in your master data and add them as an Excel file.

a) Items with average stock greater than one pallet

Item No.	No. of units/ packages	No. Per Pallet	No. of Pallets	Pallet Type	Pallet Dimensions Incl. load (mm) (LxWxH)	Max Weight Per pallet (kg)	Peculiarities*



*** Possible peculiarities:**

- Special developments in view of dimensions/pallets/stock level
- Seasonal impacts at stock level, FiFo compulsory (at item or batch level)
- Special storage conditions: fire or explosion risk/refrigerated or cold storage/sterile/ fragrant/prone to theft/
- Jewellery/drugs/hazardous substance (classification)/shelf life
- Fragile, unstable, liquids, bagged items

5.

Continue survey ›

JUNGHEINRICH

b) Items with average stock less than one pallet

Item No.	No. of units/ packages	Dimensions Per Unit/Package (mm) (LxWxH)	Max Weight Per unit/ package (kg)	Peculiarities*

*** Possible peculiarities:**

- Special developments in view of dimensions/pallets/stock level
- Seasonal impacts on stock level
- FiFo compulsory (at item or batch level)
- Special storage conditions
- Fire or explosion risk
- Refrigerated or cold storage
- Sterile
- Fragrant
- Prone to theft (jewellery, drugs)
- Hazardous substance (classification)
- Shelf life
- Fragile, unstable, liquids, bagged items

c) Do you have an ABC classification based on turnover rate? In that case, provide the specifications for each category.

Category	Description	Turnover Rate	Unit (units, packages, pallets)	Peculiarities
A	Fast movers			
B	Medium movers			
C	Slow movers			

JUNGHEINRICH

6. Load carriers

If you are considering investing in automated systems, it's important to know which load carriers you use. Are you working with Europallets alone? Or do you use storage containers and crates as well?

a) Which load carriers need to be stored and/or transported?

- ☐ Small load carriers (Containers, crates, trays, boxes, etc.)
- ☐ Large load carriers (Europallets, block pallets, roll containers, etc.)

b) In the table below, outline all types of load carrier that need to be stored.

Type	Description/ Load carrier type	Dimensions LxWxH (mm)	Stacking Depth (mm)	Using beams, shelves and/or box frames	Share in total %	Material
A						
B						
C						
D						
E						
F						

Continue survey ›

JUNGHEINRICH

c) Which overhang (L1, B1) applies to which load carrier?

Type	Description	Overhang length L1 (mm)	Overhang width B1 (mm)
A			
B			
C			
D			
E			
F			

Continue survey ›

6.

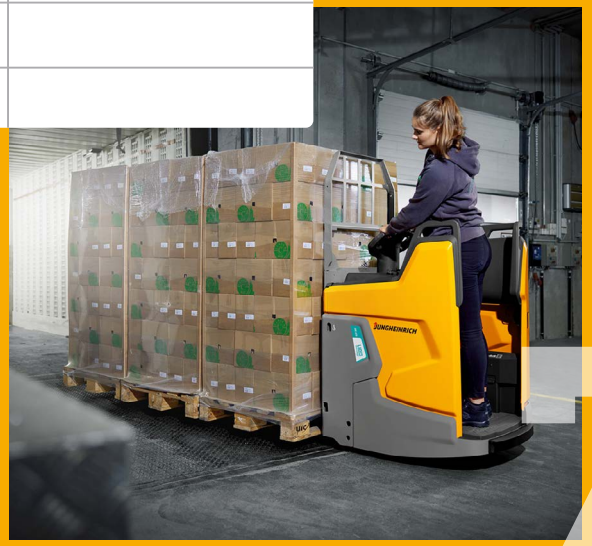
JUNGHEINRICH

7. Material flow

To calculate the throughput of your warehouse, it is important to know what volumes are passing through. Not just generally, but by process step as well.

a) Volumes

Item No.	Storage per Year (in numbers)			Removal per Year (%)		ABC Coding	Peculiarities*
	Units/ packages	No. Per Pallet	No. of Pallets	No. of full pallets	Share by Order Pick		



*** Possible peculiarities:**

- Destination – internal or external
- Seasonal impacts on storage and removal

Continue survey ›

7.

JUNGHEINRICH

b) Sub-flows

- If available, add:
- Material flow diagram
- Transport matrix with scope of material flow per hour

If not available, complete the table below.

Process step	Starting point	Destination	Load carriers/hour		Working time (hrs)
			Average	Peak	
Example 1	Production line 1	Shipping area	50	75	3-shift (24hrs)
Example 2	Warehouse	Shipping area	20	60	2-shift (16hrs)

7.

Continue survey ›

JUNGHEINRICH

8. Goods receipt

How does the goods receipt process look in detail? And when do goods arrive?

What are the delivery times? (also consider seasonal peaks, for example)

Per day (example x% between 8.00 and 9.00, etc.)

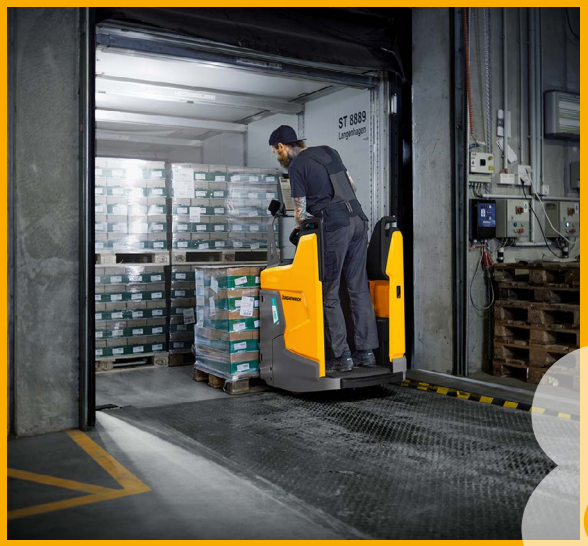
Per week (example x% on Monday and Tuesday, etc.)

Per month (example x% in December)

How do goods enter?

- [ ] On pallets
- [ ] Slip sheets
- [ ] Stacked loose

Continue survey ›



8.

JUNGHEINRICH

What does the unloading process look like?

Do own personnel unload or the driver of the truck?

From the side or rear of the truck?

Via dockboards or a loading ramp?

Delivery via containers or trucks?

From floor level or in the truck?

Number of trucks per day?

What work takes place during goods receipt? For example, Checking, Restacking, unpacking and repacking. Labelling, Booking in, Sampling/quality control etc.

Continue survey ›

8.

JUNGHEINRICH

9. Storage

What is the storage process like?

What are the storage times (also consider seasonal peaks, for example)

Per day (example x% between 8.00 and 9.00, etc.)

Per week (example x% on Monday and Tuesday, etc.)

Per month (example x% in December)

Cross-docking (number of pallets)

Activities during storage For example, restacking at pick location/bulk location, booking in etc.

9.

Continue survey ›

JUNGHEINRICH

How is storage set up? Which items are in which area?

a) Total number of storage locations by load carrier type

	Description - Load carrier	Number of storage locations
A		
B		
C		
D		
E		
F		

b) Allocation of stock keeping units (SKUs)/items that must be stored

	Warehouse area	No. of storage locations	No. items/ SKU's	Stock per item/SKU (minimum)	Stock per item/SKU (average)	Stock per item/SKU (maximum)
1						
2						
3						
4						
5						
6						

9.

Continue survey ›

JUNGHEINRICH

10. Removal (>1 pallet per article)

How does the removal of full pallets work?

What are the removal times? (also consider seasonal peaks, for example)

Per day (example x% between 8.00 and 9.00, etc.)

Per week (example x% on Monday and Tuesday, etc.)

Per month (example x% in December)

Is there cross-docking? If yes, how many pallets are removed via cross-docking?

What work takes place during removal? For example, wrapping or strapping of pallets, labelling of pallets and booking in etc.

Continue survey ›

10.

JUNGHEINRICH

11. Order Picking and Order Structure

What does the order picking process look like? And how are orders actually structured?

What is the number of order lines per order, and the number of units per line?

How is the number of orders distributed by?

Day

Week

Year

What agreements are there with customers in terms of cut-off times and delivery times?

On which load carrier are orders collated?

- [ ] Pallets
- [ ] Roll containers
- [ ] Flat-bed trucks

Continue survey ›

JUNGHEINRICH

Are there boundary conditions that stacking must satisfy? This could include weight distribution, stack height, etc.

Cross-docking: do orders need to be picked directly from incoming goods? If yes, how many orders on average?

What are the key figures of the order picking process?

☐ Man to goods ☐ Goods to man ☐ Other

Order picking type	No. of orders per hour	No. of order lines per hour (min., avg. & max.)	No. of units or packages per order (min., avg. & max.)	Average No. of units or packages per load carrier	Average No. of load carriers per order

1.1.

Continue survey ›

JUNGHEINRICH

12. Miscellaneous Work

What other work takes place in the warehouse?

What is the nature and scope of the other work?
Consider: Processing of items, value added logistics (VAL), (re)packaging/restacking labelling of items, adding transport documents and consolidating part orders from different warehouse areas.

Activities:
Receipt, storage, removal, VAL, storage, removal, goods issue or receipt, VAL, storage, removal and goods issue

Continue survey ›

12.

JUNGHEINRICH

13. Shipping Area

What does the shipping and unloading process look like?

What are the loading times? (consider seasonal peaks as well)

Per day (example x% between 8.00 and 9.00, etc.)

Per week (example x% on Monday and Tuesday, etc.)

Per month (example x% in December)

How should goods be loaded? Stacked on pallets or roller containers or stacked loose?

13.

Continue survey ›

JUNGHEINRICH

How is loading carried out?

- [ ] By own personnel or by truck driver
- [ ] From the side or rear of the truck
- [ ] Via dockboards or a loading ramp
- [ ] Loading from containers or trucks
- [ ] From floor level or in the truck
- [ ] Number of trucks per unit of time

What work takes place during loading? (consider seasonal peaks as well)
Sorting by delivery route, palletising/restacking/unpacking/re(packing), checking and booking out etc.

Continue survey ›

13.

JUNGHEINRICH

14. Software Control Technology

How is your operation controlled? How do those systems work?

a) What type of system is used to control your operation?

- [ ] Warehouse Management System (WMS)
- [ ] Warehouse Control System (WCS)
- [ ] WMS module of an ERP system
- [ ] Custom application

b) Where does the system run?

- [ ] On a local server
- [ ] On a central server at another location (multisite)
- [ ] In a private cloud
- [ ] In a public cloud

c) Is the system integrated with other systems?

- [ ] Host system (ERP or order management system)
- [ ] Carrier management system
- [ ] Transport management system (TMS)
- [ ] Carriers' systems
- [ ] Customers'/suppliers' systems

Continue survey ›

JUNGHEINRICH

d) What aids do employees use?

- [ ] Barcode scanners
- [ ] Handheld terminals
- [ ] Forklift truck terminals
- [ ] Voice terminals
- [ ] Smart glasses
- [ ] Pick-to-light

Do you lack functionality in the current control system?

Continue survey ›

14.

JUNGHEINRICH

15. Bottlenecks

Go through this inventory again with all process steps.

What are the current bottlenecks in your operation?

Do you lack pallet storage capacity?
Do your order pickers make too many mistakes?
Are your orders late leaving?
Is the freight forwarding area too small?

Continue survey ›

15.

JUNGHEINRICH

16. Future Developments

The market is constantly changing – your business too.

What developments do you anticipate?

What are your future expectations in terms of the points above?

Continue survey ›

16.

JUNGHEINRICH

Provide a general outline of planned and required improvements to operational processes in the warehouse:

Desired number of bulk locations

Desired number of picking locations

Desired capacity in respect of goods movements

Improvements to utilisation of space/general utilisation

Improvements to order picking efficiency

Improvements to order picking ergonomics

Savings on storage costs

Savings on personnel costs

Reducing throughput times

Continue survey ›

16.

JUNGHEINRICH

17. Timeline

If you have strong indications that automated systems are necessary, it may be a good idea to set deadlines in advance. Pay particular attention to the desired commissioning date. Will that be before the start of the peak season? Or are there other deadlines that need to be considered, such as relocating external stock to the warehouse?

Deadline date

Deadline due to:

- [ ] Relocation
- [ ] New construction
- [ ] New product
- [ ] New customer
- [ ] Growth
- [ ] Need for efficiency

Other:

Continue survey ›

17.

JUNGHEINRICH

Now submit your completed survey to Jungheinrich

Submit your information here and a member of the Jungheinrich automation team will be in touch to advise you regarding the best automation solution to suit your business.

Submit Survey ›

JUNGHEINRICH