

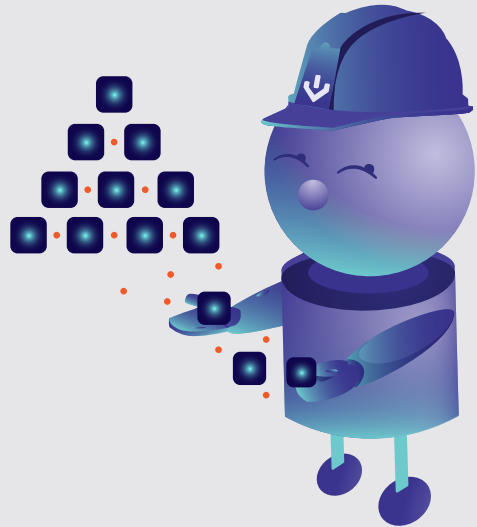


WMS

Warehouse Management System

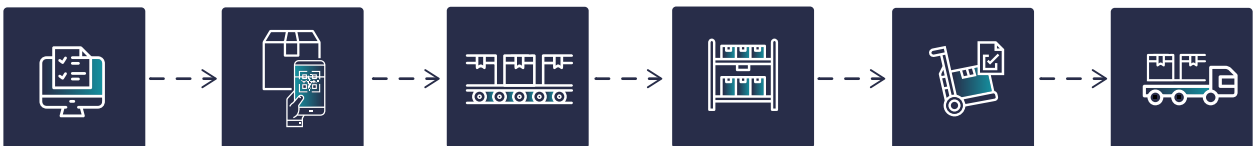
In simple world we see warehouse just as a box, the box that contains the processes between supply and demand requests, inbound & outbound processing.

Concept of strategies, rules and technologies can be applied and used as your magic stick, to ensure that your warehouse is well optimized, cost efficient and safe-working place instead of having a feeling of a blackhole box.



QUESTIONS THAT HELP TO OPTIMIZE YOUR WAREHOUSE FLOW:

- How do we receive the product,
- How do we arrange location strategy & store the product,
- How we pick the product and ensure that you follow first-in first-out strategy to transfer product from above to below and know exactly what you have in each bin at any point of time.
- How do we track whether the packed product is in progress or in transit,
- How do we make sure the orders are delivered on schedule to the right customers and notifies them.
- Last but not least, do you use data records for analytical study, to ensure intelligent algorithms in your processes.



TIPS FOR ANSWERS:

- Min touches of goods
- One way flow
- Stock is in the right place (fast, medium and slow moving products)
- The right amount of stock, just intime inventory level
- Efficient labor
- Implement **Warehouse Management System (WMS)**
- Know your data benchmarking
- Collect inputs on all levels & execution areas
- Implement analytics
- Continuous improvement strategy

As part of ERP implementation Keel consult our customers in setup of Warehouse Management System (WMS) implementation.

The main rule that always guide us: ERP system is an assistant, hands and support of your flow, not vice versa.

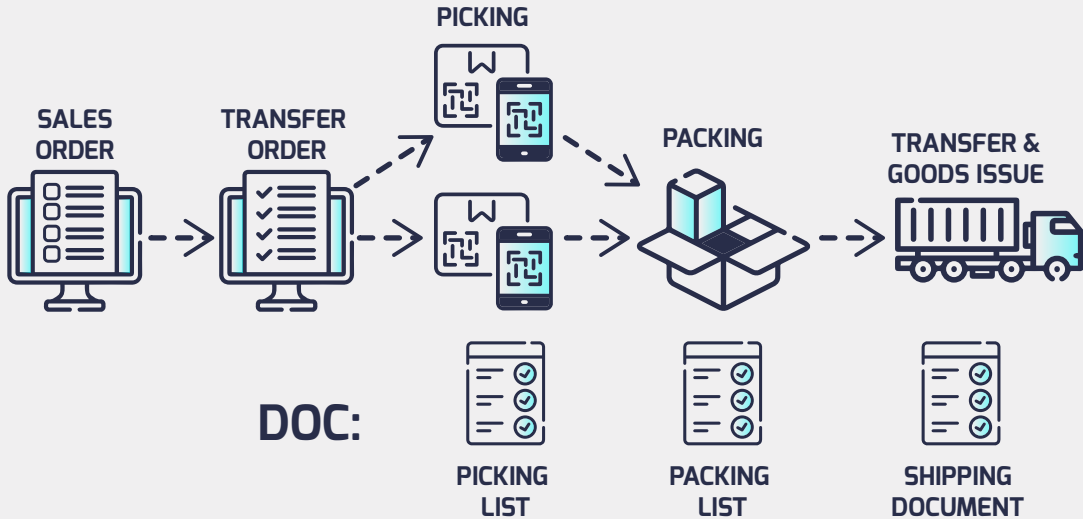
This strategy we are gained to apply on all steps of supply chain circle, from Sales Order to Delivery to the customer, including smooth workflow setup, collection of feedbacks, perform analytics and implement continuously improvement strategy of your processes.

An integration between ERP (with their concept of technologies, standard rules, & flows) & Mob Devices (tablets, mobiles & scanners) is the way to automate and assist during your work processes.



WAREHOUSE FLOW IN SAP:

SALES ORDER >> TRANSFER ORDER (CREATE & RUN OUTBOUND DELIVERY) >> WAREHOUSE TASKS >> PICKING >> PACKING >> TRANSFER & GOODS ISSUE.



SAP TERMINOLOGY FOR PACKING PROCESS:

Material – is a logical representation of certain goods or service that is an object of production, sales, purchasing, inventory management etc. Every material has a characteristic called “material type” which is used throughout the system for various purposes.

Transfer Order – the order contains all the information required to execute the physical transfer of materials into the warehouse, out of the warehouse, or from one storage bin to another storage bin within the warehouse. In addition, it is also used for executing logical stock transfers.

Outbound delivery – is the process that support transfer activities such as: picking, packing, and goods issue.

The screenshot shows the SAP Outbound Delivery 8000019 Display screen. The 'Subsequent Functions' menu is open, with 'Create Transfer Order' highlighted. The 'Picking' tab is selected in the main interface. The screen displays delivery details, item overview, and a table of items.

Item	Material	Deliv. Qty	Un	Description	Req. Segment	Stock Segment	B..	ItCa	P	V	Batch	Val. Type	Open Qty
10	100003	1	M3	Aloes extractum siccum				TAN	C	C			1
20	100004	2	PC	Ambroxol				TAN	C	C			2

Picking – the process of creation and confirmation of transfer order, that involves taking goods from a storage location and staging the right quantity in a picking area where the goods will be prepared for shipping.

Handling Unit – unit that contain packaging materials (load carriers/packing material) and the goods requested for delivery. All the information contained in the product items, for example, about batches, is retained in the handling units and is always available.

HANDLING UNIT DATA

HEADER DATA - TABLE VEKP	ITEM DATA - TABLE VEPO
Identification number <ul style="list-style-type: none"> ■ EAN ■ SSCC ■ Shipping Unit Packaging Material Weight, Volume, Dimensions Warehouse Number Status <ul style="list-style-type: none"> ■ User Status ■ System Status Packaging Instructions	Contents: <ul style="list-style-type: none"> ■ Packed Material ■ Packed HU Batch or Valuation type (If Any) Quantity and Units or Measurement Plant/Storage Location Stock Category (Unrestricted/Quality etc.) Reference of packed serial number

Packing Material – material that can be used to pack or transport goods that have been ordered for shipping, such as: crates, boxes, containers, wire baskets, and pallets.

The screenshot displays the SAP Warehouse Management System interface for 'Display Material 52 (Packaging)'. The interface is divided into several sections:

- Table View:** Shows a table with columns for Identification, Material, and Quantity. The material '52' is highlighted.
- Header Data (Table VEKP):**
 - Identification number:** HU Identification: 100000483, Identification Type: Carboard box.
 - Packaging Material:** Packag. mat type: 0001 Pallets, Pack. Mat. Cat.: C Packaging materi..
 - Status:** System Status: PHEX WHSE, User status: [checked], HU storage number: PK1, Storage status: Blank.
- Item Data (Table VEPO):**
 - Material:** 52, Descr.: Carboard box.
 - General Data:** Base Unit of Measure: PC, Piece, Material Group: 01, Old material number, Division, Product allocation, X-Plant Mat. Status, Valid from, GenItemCatGroup: VERP Packaging.
 - Dimensions/EAUs:** Gross weight: 1, Weight unit: KG, Net weight: 1, Volume: 324, Volume unit: M³.

STEPS NEEDED TO CONFIGURE OPTIMIZE PACKING PROCESS:

- Activate Delivery Document type with Automatic Packing – OVLK
- Define Packaging material type – VHAR
- Define Material Group for Packaging – VEGR
- Define Allowed Packing Material – VHZU
- Define Material Master Data – MM01
- Maintain Packing Transaction Profile for Outbound delivery – OVHU2
- Set up Condition Technique for Packing Instruction Determination
- Create Packing Master Data – POP1

Post Goods Issue - is the last step of delivery/shipment processing and is done when goods are moved from warehouse or plant after delivery is fully picked. Once PGI is processed, shipping document released, and the ownership is transferred to the carrier/transporter. After goods are delivered and status is updated accordingly, accounting entries can be processed & shipment can be billed.

WHERE KEEL IS NEEDED:

- Set up Warehouse Management (WM) in SAP S4HANA
- Define warehouse strategy and create structure (storage types, sections, bins)
- Master Data management, classification of materials, define category, class, type
- Configure automatic process in the system, define strategy & create rules
- Develop SAP Fiori applications for workflow optimization
- Barcode scanner implementation into your process via Fiori application

**FOR MORE INFO
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