

# Material Handling SOP

|                |                      |
|----------------|----------------------|
| Document no.   | SOP-MFG-007          |
| Revision       | 1.0                  |
| Owner          | Warehouse Supervisor |
| Effective date | September 15, 2026   |
| Review cycle   | Every 12 months      |

## 1. Purpose

To move material safely and accurately between storage, production and shipping areas, keeping inventory records correct and material moving in the right rotation to support the production schedule.

## 2. Scope

Applies to internal movement of raw material, work-in-process and finished goods using forklifts, pallet jacks or hand carts. Receiving inspection at the dock is covered by a separate SOP.

### Definitions

|              |                                                                                                            |
|--------------|------------------------------------------------------------------------------------------------------------|
| WMS          | Warehouse management system, used to track material location, quantity and movement transactions.          |
| FIFO         | First in, first out. A stock rotation method that uses the oldest available material first.                |
| Pick list    | The list of materials, quantities and locations to be retrieved for a production order or shipment.        |
| Point of use | The location on the production floor where material is staged for consumption by a process or workstation. |

## 3. Responsibilities

|                       |                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------|
| Material Handler      | Picks and transports material per the pick list, verifies quantities, and updates WMS transactions. |
| Forklift Operator     | Performs pre-operation equipment inspection and transports loads safely per site traffic rules.     |
| Warehouse Supervisor  | Maintains storage locations, reviews inventory accuracy, and enforces safe handling practices.      |
| Production Supervisor | Confirms point-of-use staging supports the production schedule and reports material shortages.      |

### RACI matrix

| Activity                                  | Material Handler | Forklift Operator | Warehouse Supervisor | Production Supervisor |
|-------------------------------------------|------------------|-------------------|----------------------|-----------------------|
| Perform forklift pre-operation inspection | I                | R/A               | I                    | -                     |
| Pick and verify material against          | R/A              | C                 | I                    | I                     |

| Activity                                     | Material Handler | Forklift Operator | Warehouse Supervisor | Production Supervisor |
|----------------------------------------------|------------------|-------------------|----------------------|-----------------------|
| the pick list                                |                  |                   |                      |                       |
| Transport and stage material at point of use | R                | R/A               | I                    | C                     |
| Update WMS inventory transactions            | R/A              | I                 | A                    | -                     |
| Report damaged material or packaging         | R                | R                 | A                    | I                     |

R = Responsible, A = Accountable, C = Consulted, I = Informed

## 4. Materials and PPE

### Materials, tools and systems

- Warehouse management system (WMS) with pick lists
- Forklift and pallet jack pre-operation checklist
- Barcode scanner
- Site traffic route map
- Material handling instructions for hazardous or fragile items
- Damaged material report form

### Personal protective equipment

- High-visibility vest
- Steel-toe boots
- Gloves appropriate to the material
- Hearing protection in high-noise areas

## 5. Procedure

| Step | Task                                                                                                                                                                                                                                                                                                                             | Owner             | Done                     |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------|
| 5.1  | <b>Complete the forklift pre-operation inspection</b><br>Forklift operator completes the pre-operation checklist covering brakes, forks, horn, lights and fluid levels before using the equipment for the shift.<br><b>Checkpoint:</b> Pre-operation checklist is completed and signed before the forklift is used for any move. | Forklift Operator | <input type="checkbox"/> |
| 5.2  | <b>Review the pick list in the WMS</b><br>Material handler reviews the pick list generated by the WMS for the production order or shipment, noting locations, quantities and any special handling instructions.                                                                                                                  | Material Handler  | <input type="checkbox"/> |
| 5.3  | <b>Retrieve material from the storage location</b><br>Handler retrieves the material from the location shown on the pick list, following FIFO or lot rotation rules for the material type.                                                                                                                                       | Material Handler  | <input type="checkbox"/> |
| 5.4  | <b>Verify material against the pick list</b><br>Handler checks the part number, lot number and quantity of the retrieved material against the pick list before moving it.<br><b>Checkpoint:</b> Part number, lot and quantity match the pick list before the material leaves the storage location.                               | Material Handler  | <input type="checkbox"/> |

| Step | Task                                                                                                                                                                                                                                                                                                            | Owner                | Done                     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------|
| 5.5  | <b>Inspect the load for stability</b><br>Forklift operator inspects the load for stability and confirms it is within the equipment's rated weight capacity before lifting or moving it.<br><b>Warning:</b> Never exceed the forklift's rated load capacity or transport an unstable or improperly stacked load. | Forklift Operator    | <input type="checkbox"/> |
| 5.6  | <b>Transport material on designated routes</b><br>Operator transports the load following the site's designated traffic routes and posted speed limits, sounding the horn at blind corners and intersections.                                                                                                    | Forklift Operator    | <input type="checkbox"/> |
| 5.7  | <b>Stage material at point of use</b><br>Handler stages the material at the correct point-of-use location for the production line, following FIFO so older lots are consumed first.                                                                                                                             | Material Handler     | <input type="checkbox"/> |
| 5.8  | <b>Scan and update the WMS transaction</b><br>Handler scans the material and location to update the WMS inventory transaction, confirming the system location matches the physical location.                                                                                                                    | Material Handler     | <input type="checkbox"/> |
| 5.9  | <b>Handle empty containers and returns</b><br>Handler returns empty pallets, containers and racks to their designated staging area for reuse or pickup, keeping them out of active traffic lanes.                                                                                                               | Material Handler     | <input type="checkbox"/> |
| 5.10 | <b>Report damaged material or packaging</b><br>Handler reports any damaged material, packaging or containers found during handling to the warehouse supervisor and completes a damage report before the material is used or shipped.                                                                            | Warehouse Supervisor | <input type="checkbox"/> |
| 5.11 | <b>Maintain clear aisles and staging areas</b><br>Handler keeps aisles, fire lanes and staging areas clear of material and debris, following the site's floor marking standards.                                                                                                                                | Material Handler     | <input type="checkbox"/> |
| 5.12 | <b>Secure hazardous or fragile materials</b><br>Handler follows the specific handling instructions for hazardous or fragile materials, including required secondary containment or protective packaging during transport.                                                                                       | Material Handler     | <input type="checkbox"/> |

## 6. Quality checks

- Forklift pre-operation checklists are completed for every shift the equipment is used.
- WMS system location matches the physical location during periodic spot checks.
- Material staged at point of use follows FIFO rotation with no expired or aged lots skipped.
- Damaged material is reported and documented before it reaches production or shipping.

## 7. Records

- Forklift pre-operation checklists
- WMS inventory transaction log
- Damaged material reports
- Pick list completion records

## 8. KPIs

- Inventory location accuracy
- On-time material delivery to point of use
- Material handling incidents or near-misses
- Damaged material rate

## 9. Common mistakes

- Skipping the forklift pre-operation checklist on a shift that's already running late.
- Moving material without scanning it, causing the WMS to show the wrong location.
- Breaking FIFO rotation by grabbing the most convenient pallet instead of the oldest lot.
- Overloading a forklift or stacking a load beyond a safe height.
- Leaving empty pallets or containers blocking an aisle or fire lane.

## 10. Revision history

| Revision | Date               | Description     | Reviewed by     |
|----------|--------------------|-----------------|-----------------|
| 1.0      | September 15, 2026 | Initial release | Ilia Pirozhenko |

## Approval

| Prepared by | Approved by | Date |
|-------------|-------------|------|
|             |             |      |

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