

Inventory Kanban Bin Replenishment Procedure

1.0 Objective & Scope

The objective of this procedure is to ensure that all Kanban bins in the warehouse are replenished in a timely manner using a pull-based system, maintaining optimal inventory levels to prevent stockouts and overstocking. This procedure applies to all inventory clerks, material handlers, and warehouse associates responsible for monitoring and replenishing Kanban bins for production or picking areas.

The scope includes all raw materials, components, and consumables stored in Kanban bins designated for lean inventory management. The goal is to achieve 99% bin availability and reduce waste associated with excess inventory or emergency replenishments.

2.0 Required Systems, Tools & Materials

- Access to SupplyGrid WMS or ERP system with Kanban module
- Mobile barcode scanner (Zebra TC21 or equivalent)
- Kanban cards or digital Kanban triggers in the system
- Replenishment cart or pallet jack
- Standardized Kanban bins (color-coded or labeled)
- Inventory labels and bin location labels
- Clipboard and pen for manual backup (if applicable)
- Personal protective equipment (PPE) as per section 3.0

3.0 Safety & Handling Precautions

- High-visibility vest required in all active forklift aisles and production areas.
- Steel-toed safety boots must be worn at all times in the warehouse.
- Use proper ergonomic lifting techniques for boxes over 15 kg; request assistance or use a lift aid for heavier items.
- Ensure replenishment cart or pallet jack is in good working condition before use.
- Keep aisles clear of debris and obstructions to prevent tripping hazards.
- Do not stack bins higher than the designated height limit to prevent tipping.

4.0 Step-by-Step Procedure

1. Log into the SupplyGrid WMS system and navigate to the Kanban Replenishment dashboard to view all bins flagged for replenishment.
2. Review the list of bins requiring replenishment, noting the bin location, part number, and required quantity for each.
3. Scan the Kanban card or bin barcode using the mobile scanner to confirm the replenishment trigger in the system.

4. Proceed to the bulk storage or reserve location for the part number. Scan the bulk location barcode to verify you are at the correct pick location.
5. Pick the required quantity of the item from the bulk location, using the quantity displayed on the Kanban card or system prompt. Use a cart or pallet jack for larger quantities.
6. Scan each picked item or container barcode to confirm the correct part and quantity are being moved.
7. Transport the picked items to the Kanban bin location. Scan the bin location barcode again to confirm the destination.
8. Place the replenished items into the Kanban bin, ensuring the oldest stock is placed behind any existing stock (FIFO principle).
9. Update the system by scanning the bin barcode and confirming the replenishment quantity. The system should automatically adjust the Kanban status to 'Full' or 'In Stock'.
10. If the bin has a physical Kanban card, remove the empty card and place it in the designated collection tray, or update the digital card status to 'Replenished'.
11. Repeat steps 2 through 10 for all bins on the replenishment list. If any bin cannot be fully replenished due to stock shortage, flag it in the system and notify the inventory manager.
12. Once all replenishments are complete, log out of the system and return all equipment to its designated storage area.

5.0 Verification & Discrepancy Reporting

1. After replenishment, perform a visual check to ensure the bin quantity matches the system-recorded replenishment quantity. If a discrepancy is found, recount immediately.
2. If the physical count differs from the system count by more than 2%, escalate to the Inventory Manager for a full cycle count of that part number.
3. If any damaged or expired stock is discovered during replenishment, attach a red 'Quarantine' tag to the item and move it to the designated quarantine area. Update the system to reflect the quarantine status.
4. Document all discrepancies in the Kanban Replenishment Log (digital or paper) including the part number, bin location, expected quantity, actual quantity, and any notes on damage or shortage.
5. Submit the discrepancy report to the Inventory Manager by the end of the shift. For critical shortages that could impact production, notify the manager immediately via radio or phone.

Regulatory Disclaimer: This document is a generic operational template provided for educational purposes. The end-user assumes all liability for reviewing, adapting, and validating all step sequences and material handling protocols against local shop capabilities.