
Kanban Card System for Assembly Parts

1.0 Objective & Quality Standard

The objective of this procedure is to establish a standardized Kanban card system for controlling the flow of assembly parts to the production line. This system ensures that parts are replenished only when consumed, preventing overproduction, reducing inventory carrying costs, and maintaining a smooth, uninterrupted assembly process. The quality standard is that no assembly station shall experience a stockout of any Kanban-controlled part, and the total inventory of each part shall not exceed the defined maximum level (Kanban quantity plus safety stock). The system must be audited weekly to ensure 100% card accuracy and adherence to the pull signal.

2.0 Required Tools & Gauges

- Kanban cards (laminated, color-coded by part family, with part number, description, container quantity, and supplier info)
- Kanban board or rack (clearly labeled with part numbers and card slots)
- Standardized containers (bins, totes, or pallets) of fixed size for each part
- Label printer or pre-printed labels for container identification
- Handheld scanner or barcode reader (optional, for digital tracking)
- Clipboard and pen for manual card tracking
- Red tag for non-conforming or obsolete cards
- Stopwatch or timer for cycle time measurement (optional)

3.0 Safety & Material Handling

- Wear steel-toed safety boots when handling heavy containers or pallets.
- Use proper lifting techniques (bend knees, keep back straight) when moving containers weighing over 10 kg.
- Ensure all containers are stable and stacked securely to prevent tipping.
- Do not place Kanban cards near sharp edges or moving machinery to avoid damage or loss.
- Keep aisles and Kanban board areas clear of obstructions to maintain clear visual signals.

4.0 Step-by-Step Procedure

1. Verify that the assembly station has a designated Kanban board or rack with slots for each part number used at that station.
2. Confirm that each part has a standardized container with a fixed quantity (e.g., 50 screws per bin) and that the container is labeled with the part number and quantity.
3. Attach one Kanban card to each full container using a cardholder or adhesive pocket. The card must face outward for easy visibility.
4. When the assembly operator takes the last part from a container, they must remove the Kanban card and place it in the designated card collection box or slot on the Kanban board.

5. The operator must not start a new container until the card from the empty container has been placed in the collection point.
6. A material handler or designated team member must collect all Kanban cards from the collection box at regular intervals (e.g., every 30 minutes or at the end of each shift) and sort them by part number.
7. For each collected card, the material handler must locate the corresponding full container in the supermarket or storage area and move it to the assembly station.
8. Before placing the new container at the station, the material handler must verify that the card on the container matches the part number and quantity on the collected card.
9. If the container is damaged or the card is missing, the material handler must red-tag the container and report it to the supervisor immediately.
10. Once the new container is in place, the material handler must place the collected card into the cardholder on the new container, ensuring it faces outward.
11. The material handler must then return the empty container to the designated return area for cleaning or recycling.
12. At the end of each shift, the team leader must audit the Kanban board to ensure all cards are accounted for and that no card is missing or duplicated. Record any discrepancies in the Kanban log.

5.0 Verification & Defect Reporting

1. Verify that the Kanban card system is functioning correctly by performing a daily audit of card counts against physical inventory. The count must match within 0% tolerance.
2. If a stockout occurs (i.e., an operator runs out of parts before a replenishment container arrives), immediately flag the event as a critical defect. The supervisor must investigate the root cause (e.g., incorrect card quantity, delayed material handling, or missing card).
3. If a Kanban card is lost or damaged, red-tag the affected container and create a replacement card using the standardized template. The replacement must be approved by the team leader.
4. If a container is found with a quantity that does not match the card (e.g., 48 screws instead of 50), red-tag the container and do not use it until the quantity is corrected. Report the discrepancy to the supplier or internal parts department.
5. Log all defects (stockouts, card errors, quantity mismatches) in the ShopDocs QA module for root cause analysis and continuous improvement. Assign corrective actions with due dates.
6. If the same defect occurs more than three times in a month, initiate a Kaizen event to redesign the Kanban card, adjust container quantities, or revise the replenishment route.

Regulatory Disclaimer: This document is a generic quality assurance template. The end-user assumes all liability for validating all dimensional tolerances, testing procedures, and engineering specifications against actual production requirements before deployment.