
Sheet Goods Offcut Management and Tracking Standard Operating Procedure

1.0 Objective & Scope

The objective of this procedure is to ensure that all sheet goods offcuts (plywood, MDF, melamine, acrylic, etc.) are accurately tracked, stored, and made available for reuse in future production orders. This SOP aims to reduce raw material waste by at least 15%, maintain offcut inventory accuracy above 98%, and prevent unnecessary purchases of full sheets when usable offcuts exist. The Inventory Clerk and Production Supervisor are jointly responsible for executing and enforcing this procedure.

2.0 Required Systems, Tools & Materials

- SupplyGrid WMS (Warehouse Management System) with offcut tracking module
- Mobile barcode scanner (Zebra TC21 or equivalent) with wireless connectivity
- Thermal label printer (Zebra ZD421) with 4x6 inch labels
- Digital caliper or tape measure (metric, accurate to 1 mm)
- Offcut storage racks or bins with clear location labels (e.g., A-01, B-03)
- Clipboard with offcut log sheet (backup for system downtime)
- Permanent marker (black, fine tip) for manual labeling if scanner fails

3.0 Safety & Handling Precautions

- Wear cut-resistant gloves when handling raw sheet edges to prevent lacerations.
- Steel-toed safety boots are mandatory in all storage and cutting areas.
- Use proper lifting technique (bend knees, keep back straight) for offcuts over 15 kg.
- Do not stack offcuts more than 1.2 metres high to prevent tipping hazards.
- Ensure offcut storage racks are rated for the weight of stored material (max 500 kg per shelf).

4.0 Step-by-Step Procedure

1. After cutting a full sheet, the operator measures the remaining usable offcut dimensions (length, width, thickness) using the digital caliper or tape measure and records them on the offcut log sheet.
2. Log into the SupplyGrid WMS on the mobile scanner and navigate to the 'Offcut Entry' screen.
3. Scan the parent sheet barcode (if available) or manually enter the material type, thickness, and grade. If no parent barcode exists, select the material from the dropdown list.
4. Enter the exact offcut dimensions in millimetres (length x width) and the measured thickness. The system will automatically calculate the surface area in square metres.

5. Assign a unique offcut ID by scanning the next available label from the thermal printer. The system generates a barcode label containing the offcut ID, dimensions, material type, and date.
6. Affix the printed barcode label to the offcut in a clean, flat area (preferably the top face near a corner) using firm pressure to ensure adhesion.
7. Select the designated storage location from the system list (e.g., Offcut Rack A-01) and scan the location barcode. If the location is full, choose an empty bin or rack and update the system with the new location.
8. Physically place the offcut in the assigned storage location with the label facing outward for easy scanning. Ensure offcuts are stacked flat and aligned to prevent warping.
9. Confirm the placement in the WMS by scanning the location barcode again and tapping 'Complete'. The system updates the offcut inventory in real time.
10. For offcuts smaller than 300 mm x 300 mm, evaluate if they are usable for future orders. If not, mark them as 'Scrap' in the system and place them in the designated scrap bin for recycling.
11. When a production order requires a partial sheet, the Inventory Clerk searches the offcut inventory in SupplyGrid by material type, thickness, and minimum dimensions. Select the best matching offcut and reserve it in the system.
12. Retrieve the reserved offcut from its storage location, scan the barcode to confirm removal, and deliver it to the cutting station. The system automatically reduces the offcut inventory count.

5.0 Verification & Discrepancy Reporting

1. At the end of each shift, the Inventory Clerk performs a random audit of 10% of offcut storage locations. Scan each offcut barcode and verify the physical dimensions match the system record.
2. If a physical offcut is missing or its dimensions differ by more than 5 mm from the system record, flag the discrepancy in the WMS by selecting 'Discrepancy Found' and entering the actual dimensions.
3. For any offcut found without a barcode label, measure it, create a new label using the 'Re-label Offcut' function, and update the system. Attach the label immediately.
4. If the discrepancy involves a missing offcut that was not properly checked out of inventory, escalate to the Inventory Manager via email within 1 hour. Include the offcut ID, last known location, and any relevant operator notes.
5. Damaged offcuts (cracked, delaminated, water-damaged) must be tagged with a red 'Quarantine' tag and moved to the quarantine area. The Inventory Clerk updates the system status to 'Quarantined' and notifies the Production Supervisor for disposition (scrap or rework).
6. All discrepancy reports are reviewed weekly during the inventory accuracy meeting. Root cause analysis is performed for any location with more than two discrepancies in a month.

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.