
Drawer Front Reveal Consistency Audit – 3mm Standard

1.0 Objective & Quality Standard

The objective of this procedure is to verify that all drawer front reveals (the uniform gap between drawer fronts and the cabinet face frame or adjacent drawer fronts) are consistently maintained at 3mm $\pm$ 0.5mm. This ensures visual uniformity, proper clearance for operation, and compliance with the customer's aesthetic specification.

The acceptable quality standard is a gap measurement between 2.5mm and 3.5mm at any point along the reveal. Any measurement outside this range constitutes a defect requiring immediate adjustment or rework.

2.0 Required Tools & Gauges

- Metric feeler gauge set (0.05mm to 1.00mm blades, plus a 3.0mm blade or combination to reach 3.0mm)
- Digital caliper (0-150mm range, 0.01mm resolution) for verifying feeler gauge accuracy and measuring tight gaps
- Torque screwdriver (calibrated, range 0.5-5 Nm) for hinge adjustment if needed
- Non-marring pry tool or suction cup for gentle drawer front removal
- ShopDocs QA checklist (digital or printed) for recording measurements
- Red tag and marker for defect identification

3.0 Safety & Material Handling

- Wear clean, lint-free gloves to prevent oil or dirt transfer to finished surfaces.
- Place the cabinet on a stable, level workbench to prevent tipping during measurement.
- Use a non-marring mat under the cabinet to protect finished edges.
- Handle drawer fronts by the edges only to avoid smudging or scratching the face.
- Ensure all tools are clean and free of debris before contacting finished surfaces.

4.0 Step-by-Step Procedure

1. Verify that the cabinet is placed on a level surface and that all drawer boxes are fully seated and closed.
2. Select the 3.0mm feeler gauge blade. If a single 3.0mm blade is unavailable, combine blades (e.g., 2.0mm + 1.0mm) and verify total thickness with a digital caliper.
3. Starting with the top drawer, insert the 3.0mm feeler gauge into the horizontal gap between the drawer front and the cabinet face frame. The gauge should slide in with light resistance but not be forced.
4. Measure the gap at three points along the horizontal reveal: left end, center, and right end. Record each measurement in the ShopDocs QA checklist.
5. Repeat step 4 for the vertical reveals on both sides of the drawer front, measuring at top, middle, and bottom positions.
6. For adjacent drawer fronts, insert the feeler gauge into the gap between the two fronts. Measure at left, center, and right points along the horizontal reveal.

7. If the feeler gauge cannot enter or enters too loosely, use the digital caliper to measure the actual gap. Record the exact measurement.
8. Compare all recorded measurements against the 2.5mm to 3.5mm tolerance. Any measurement outside this range is a defect.
9. If a defect is found, mark the location with a red tag and note the specific gap measurement. Do not proceed to the next drawer until the defect is documented.
10. For out-of-tolerance gaps, adjust the hinge screws using the torque screwdriver. Turn the adjustment screws in small increments (1/4 turn) and re-measure after each adjustment.
11. If hinge adjustment does not bring the gap within tolerance, remove the drawer front using the non-marring pry tool or suction cup. Inspect the hinge bracket and mounting plate for damage or misalignment.
12. After completing all adjustments, re-measure all reveals on the drawer to confirm compliance. Record final measurements in the QA checklist.

5.0 Verification & Defect Reporting

1. After all drawer fronts on the cabinet have been measured and adjusted, perform a final audit by randomly selecting two drawers and re-measuring all reveals using the 3.0mm feeler gauge.
2. If any reveal remains outside the 2.5mm to 3.5mm tolerance after adjustment, flag the entire cabinet as a non-conformance. Attach a red tag with the defect description and the specific drawer location.
3. Log all out-of-tolerance defects in the ShopDocs QA module, including the drawer position, measured gap, and corrective action taken. This data will be used for root cause analysis and process improvement.
4. For cabinets that pass the final audit, sign off the QA checklist and move the unit to the next production stage. Ensure all red tags are removed and disposed of properly.
5. If three or more cabinets in a single batch exhibit consistent reveal defects, escalate to the production supervisor for a process review. This may indicate a systemic issue with hinge installation or cabinet frame squareness.

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.