Drawer Slide Mounting Hole Pattern Verification Jig

1.0 Objective & Quality Standard

The objective of this procedure is to ensure that all drawer slide mounting hole patterns are accurately positioned within ±0.5 mm of the engineering drawing specifications. Proper hole alignment prevents binding, misalignment, and premature wear of drawer slides during assembly and final use.

Acceptable tolerance: All hole centers must fall within a 1.0 mm diameter tolerance zone relative to the nominal position defined on the approved drawing. Any deviation exceeding this limit constitutes a defect requiring immediate corrective action.

2.0 Required Tools & Gauges

- Dedicated drawer slide mounting hole pattern verification jig (calibrated and certified per plant standard)
- Digital caliper (0-150 mm range, resolution 0.01 mm, calibrated)
- Set of metric feeler gauges (0.05 mm to 1.00 mm)
- Approved engineering drawing for the specific drawer slide model
- Red defect tag and non-conformance log (ShopDocs QA module)
- Clean, lint-free cloth for jig and part cleaning

3.0 Safety & Material Handling

- Wear clean, rubber-grip gloves to prevent oil transfer and scratches on finished panels.
- Place panels on a non-marring, static-free assembly mat to avoid surface damage.
- Handle the verification jig with care; store in a padded case when not in use to maintain calibration.
- Ensure work area is free of debris and clutter to prevent tripping or jig damage.

4.0 Step-by-Step Procedure

1. Retrieve the approved engineering drawing for the drawer slide model being verified and confirm the nominal hole positions and tolerances.
2. Clean the verification jig and the drawer panel mounting surface with a lint-free cloth to remove any dust, chips, or residue.
3. Place the drawer panel face down on the assembly mat with the mounting surface facing up.
4. Align the verification jig over the mounting hole pattern, ensuring the jig's locating pins or edges seat fully against the panel reference edges.
5. Insert the jig's verification pins into each mounting hole. Each pin must pass through the hole without force and seat fully against the jig body.
6. If any pin does not insert freely, use a digital caliper to measure the hole center offset from the jig's nominal position. Record the deviation in mm.

7. For each hole, verify that the measured offset does not exceed ±0.5 mm in both X and Y axes relative to the drawing nominal.

8. If all holes pass, remove the jig and mark the panel as accepted with a green QA sticker or digital pass in ShopDocs.

9. If any hole fails, red-tag the panel immediately and place it in the designated rework area. Do not proceed with assembly.

10. Document the defect details in the ShopDocs QA module: panel ID, hole position, measured deviation, and operator name.

5.0 Verification & Defect Reporting

1. After completing the jig verification, perform a final visual inspection of the mounting surface for any burrs, chips, or damage that could affect slide installation.

2. If a defect is found, attach a red tag with the following information: date, operator name, defect description, and measured deviation.

3. Rework options: For minor deviations (≤0.5 mm), the hole may be carefully reamed to the correct position using a jig-guided reamer. For deviations >0.5 mm, the panel must be scrapped or sent to engineering for disposition.

4. Log all rework and scrap actions in the ShopDocs QA module for root cause analysis and continuous improvement tracking.

5. If three or more consecutive panels fail the same hole position, stop the production line and notify the shift supervisor immediately for process adjustment.