
Waste Container Slide Out Mechanism Function

1.0 Objective & Quality Standard

The objective of this procedure is to ensure that the waste container slide out mechanism operates smoothly, aligns correctly within the cabinet opening, and fully extends without binding or excessive play. The mechanism must support the rated load (typically 20 kg) and return to the closed position without manual assistance.

Acceptable tolerances: The slide out must extend to at least 95% of its nominal travel length. Side-to-side play at full extension must not exceed 2 mm. The mechanism must not exhibit any audible scraping or binding during operation. The waste container must sit level within the slide out frame, with a maximum tilt of 1 degree from horizontal.

2.0 Required Tools & Gauges

- Digital caliper (0-150 mm range, 0.01 mm resolution)
- Feeler gauge set (0.05 mm to 1.00 mm)
- Spirit level (300 mm length, 0.5 mm/m accuracy)
- Torque screwdriver (0.5-5 Nm range, with appropriate bits)
- Test weight set (20 kg total, in 5 kg increments)
- Marking pen (non-permanent, for defect tagging)
- ShopDocs QA checklist (digital or printed)

3.0 Safety & Material Handling

- Wear safety glasses to protect against debris or spring-loaded components during testing.
- Use cut-resistant gloves when handling metal slide rails to avoid sharp edges.
- Ensure the cabinet is secured on a stable work surface to prevent tipping during extension testing.
- Lift test weights using proper ergonomic technique (bend knees, keep back straight) to avoid strain.
- Do not exceed the rated load of the slide mechanism (20 kg) during testing.

4.0 Step-by-Step Procedure

1. Visually inspect the slide out mechanism for any obvious damage, deformation, or missing fasteners before installation.
2. Install the slide out mechanism into the cabinet opening according to the manufacturer's specifications, ensuring the rails are parallel and level.
3. Tighten all mounting screws to the torque specified in the hardware manual (typically 1.5 Nm for M4 screws) using a torque screwdriver.
4. Place the waste container into the slide out frame and verify it sits flush and level. Use the spirit level to check front-to-back and side-to-side levelness; adjust if tilt exceeds 1 degree.

5. Manually extend the slide out mechanism to its full travel. Measure the extension length with a digital caliper and confirm it is at least 95% of the nominal travel length specified by the manufacturer.
6. While the mechanism is fully extended, measure side-to-side play by applying a lateral force of approximately 10 N and recording the displacement with a feeler gauge. Play must not exceed 2 mm.
7. Retract the mechanism smoothly and listen for any scraping, clicking, or binding. If any abnormal noise is detected, inspect the rails for debris or misalignment and re-lubricate if necessary.
8. Load the waste container with the test weight in 5 kg increments up to 20 kg. Extend and retract the mechanism fully at each weight increment, verifying smooth operation and no sagging.
9. Release the mechanism from the fully extended position under load and confirm it retracts to the closed position without manual assistance (self-close feature, if applicable).
10. Remove the test weight and perform a final visual inspection of the mechanism and container for any signs of stress, deformation, or loosening of fasteners.

5.0 Verification & Defect Reporting

1. Record all measurements (extension length, side play, tilt angle) on the ShopDocs QA checklist. If any measurement falls outside the specified tolerances, flag the unit as non-conforming.
2. For defects such as binding, excessive play, or failure to self-close, attach a red tag to the mechanism with the defect description, date, and inspector initials.
3. If the defect is due to misalignment or loose fasteners, re-torque and re-test. If the mechanism is damaged or worn, replace the slide out assembly and re-test.
4. Log all out-of-tolerance defects in the ShopDocs QA module for root cause analysis and trend tracking. Escalate recurring issues to the engineering team for design review.
5. For units that pass all criteria, sign off the QA checklist and move the assembly to the next production stage.

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.