
Pocket Hole Screw Strip Out Torque Verification Procedure

1.0 Objective & Quality Standard

The objective of this procedure is to verify that pocket hole screws are driven to the correct torque to achieve a secure joint without stripping the screw head or damaging the workpiece material. The acceptable torque range for #8 x 1-1/4" pocket hole screws in 3/4" plywood is 15-20 in-lbs (1.7-2.3 Nm). Any screw that strips (spins freely without tightening) or exceeds 22 in-lbs (2.5 Nm) without seating is considered a defect.

2.0 Required Tools & Gauges

- Torque screwdriver (0-30 in-lbs range, calibrated within 90 days)
- Pocket hole screwdriver bit (square drive #2 or #3 as per screw specification)
- Digital caliper (0-150mm range) for measuring screw depth
- Pocket hole jig (if verifying jig alignment)
- Test workpiece (3/4" plywood scrap, same material as production)
- Red tag and defect log sheet
- ShopDocs QA module for digital recording

3.0 Safety & Material Handling

- Wear safety glasses to protect from flying debris during screw driving.
- Use hearing protection if operating pneumatic or electric screwdrivers.
- Handle test workpieces with clean, dry hands to avoid oil contamination.
- Ensure work area is clear of clutter to prevent tripping hazards.
- Do not exceed maximum torque rating of the screwdriver; risk of tool breakage.

4.0 Step-by-Step Procedure

1. Select a test workpiece of the same material and thickness as the production run (e.g., 3/4" plywood).
2. Clamp the test workpiece securely to the workbench using a non-marring clamp.
3. Drill a pocket hole using the pocket hole jig at the standard depth setting for the material thickness.
4. Insert a pocket hole screw into the drilled hole and hand-tighten until the screw tip contacts the workpiece surface.
5. Attach the torque screwdriver with the appropriate square drive bit and set the torque to 15 in-lbs (1.7 Nm).
6. Drive the screw using the torque screwdriver until the clutch clicks. Observe if the screw seats flush with the workpiece surface without spinning.
7. If the screw does not seat, increase torque by 1 in-lb increments and repeat step 6 until the screw seats or reaches 20 in-lbs (2.3 Nm).

8. If the screw seats within the 15-20 in-lbs range, record the final torque value. If the screw strips (spins freely) before seating, or if torque exceeds 22 in-lbs without seating, mark as a defect.
9. Measure the screw head depth relative to the workpiece surface using a digital caliper. Acceptable depth is 0-0.5mm below the surface.
10. Repeat steps 3-9 for a total of 5 test screws to establish a baseline for the production batch.
11. If any screw fails, inspect the pocket hole jig for wear, the screw batch for defects, and the screwdriver for calibration.
12. Document all torque values and any defects in the ShopDocs QA module.

5.0 Verification & Defect Reporting

1. Verify that all 5 test screws seat within the 15-20 in-lbs torque range and have a screw head depth of 0-0.5mm below the surface.
2. If any screw fails (strip out or torque exceeds 22 in-lbs), red-tag the affected screw and workpiece immediately.
3. Isolate the defective screw and workpiece for root cause analysis. Do not use in production.
4. Log the defect in the ShopDocs QA module with details: torque value, screw type, material, and operator name.
5. If 2 or more screws fail out of 5, stop production and notify the QA supervisor. Recalibrate the torque screwdriver and inspect the pocket hole jig before resuming.
6. For rework: remove the stripped screw using a screw extractor, re-drill the pocket hole if damaged, and install a new screw at the verified torque.
7. Document all rework actions in the ShopDocs QA module for continuous improvement tracking.

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.