
Edgebander Glue Scraper Holder Alignment & Calibration

1.0 Maintenance Objective & Frequency

The objective of this procedure is to align the glue scraper holder on the edgebander to ensure the scraper blade contacts the panel edge at the correct angle and pressure. Proper alignment prevents glue buildup, eliminates streaking or incomplete glue removal, and reduces the risk of damaging the finished panel surface. This PM is critical for maintaining consistent edgeband quality and minimizing downstream rework.

Frequency: Every 500 operating hours or monthly, whichever comes first. Perform immediately if glue residue is observed on finished panels or if the scraper blade shows uneven wear.

2.0 Lockout/Tagout (LOTO) & Safety

- **Electrical Isolation:** Disconnect main power to the edgebander at the disconnect switch. Apply personal lock and tag.
- **Pneumatic Isolation:** Close the compressed air supply valve to the machine. Bleed residual air from the scraper holder cylinder by actuating the manual override on the solenoid valve.
- **Hot Surface Hazard:** Allow the glue pot and scraper area to cool below 40°C (104°F) before beginning work. Use a non-contact thermometer to verify.
- **Mandatory PPE:** Safety glasses with side shields, cut-resistant gloves (ANSI A4 or higher), and hearing protection (if nearby equipment is running).

3.0 Required Tools, Parts & Lubricants

- 4mm hex key (Allen key)
- 6mm hex key (Allen key)
- Torque wrench (range 2-10 Nm) with 6mm hex bit
- Feeler gauge set (0.05mm to 1.0mm)
- Digital caliper (0-150mm, resolution 0.01mm)
- Non-contact infrared thermometer
- Replacement scraper blade (OEM part number as per machine manual)
- Anti-seize compound (nickel-based, high-temperature)
- Clean lint-free rags
- Isopropyl alcohol (99%) for cleaning

4.0 Step-by-Step Maintenance Procedure

1. Perform Lockout/Tagout as per Section 2.0. Verify zero energy state by attempting to start the machine.
2. Remove the scraper holder access cover (typically secured with 4mm hex screws). Set aside in a clean area.

3. Inspect the scraper blade for wear, chipping, or glue buildup. If the blade edge is rounded or damaged, replace it with a new OEM blade. Clean the blade holder slot with isopropyl alcohol and a lint-free rag.
4. Loosen the two M6 clamping bolts on the scraper holder bracket using a 6mm hex key. Do not remove them completely; just break torque so the holder can be adjusted.
5. Using the digital caliper, measure the distance from the reference edge of the holder to the panel support table. The OEM specification is typically $0.5\text{mm} \pm 0.1\text{mm}$. Adjust the holder position by sliding it until the measurement is within tolerance.
6. Tighten the clamping bolts to 6 Nm using the torque wrench with a 6mm hex bit. Use a crisscross pattern if more than two bolts are present.
7. Check the scraper blade angle relative to the panel path. Insert a feeler gauge (0.1mm) between the blade tip and a straightedge placed along the panel support table. The blade should contact the straightedge evenly across its full width. If not, loosen the blade set screw (4mm hex) and rotate the blade holder slightly, then retighten to 3 Nm.
8. Verify the pneumatic cylinder stroke and pressure. With the air supply still locked out, manually actuate the cylinder to ensure smooth, full extension and retraction. If sticky, clean the cylinder rod with isopropyl alcohol and apply a thin film of anti-seize compound to the rod.
9. Reinstall the access cover and secure with the 4mm hex screws. Torque to 2 Nm.
10. Remove LOTO devices and restore power and air supply. Set the glue pot to operating temperature and allow it to stabilize (approximately 10 minutes).

5.0 Verification & Return to Service

1. Run a test cycle with a scrap panel of the same material and thickness typically processed on this edgebander. Observe the glue line after the scraper passes. The glue should be cleanly removed with no streaks, smears, or residue left on the panel surface.
2. Measure the glue line width using the digital caliper. It should be consistent within $\pm 0.2\text{mm}$ across the entire panel length. If variation exceeds tolerance, repeat the alignment procedure.
3. Inspect the scraper blade for any signs of chatter marks or uneven contact after the test run. If present, re-check the blade angle and holder tightness.
4. Document the alignment measurements (distance from table, blade angle feeler gauge reading) and any parts replaced in the CMMS work order. Sign off on the PM in ServiceGrid.
5. Return the machine to production. Monitor the first five production panels for quality. If issues persist, escalate to maintenance supervisor for further diagnosis.

Regulatory Disclaimer: This document is a generic maintenance template provided for educational and informational purposes only. It does not constitute professional engineering or reliability advice. The end-user assumes all liability for validating all step sequences, torque specs, and LOTO protocols against specific machinery OEM manuals before deployment to a live production floor.