
Edgebander Glue Spreading Roller Replacement

1.0 Maintenance Objective & Frequency

The objective of this procedure is to replace the glue spreading roller on an industrial edgebander to restore uniform glue application thickness, eliminate streaking or starved glue lines on panel edges, and prevent premature wear of downstream components. This PM is triggered by visual inspection showing uneven glue coating, scoring on the roller surface, or after every 2000 hours of operation, whichever comes first.

2.0 Lockout/Tagout (LOTO) & Safety

- **Electrical Isolation:** Disconnect main power supply to the edgebander at the disconnect switch and apply a personal lock and tag.
- **Pneumatic Isolation:** Close the compressed air supply valve to the glue unit and bleed any residual pressure from the system using the manual dump valve.
- **Thermal Hazard:** Allow the glue pot and roller assembly to cool to below 40°C before handling to prevent burns from hot adhesive.
- **PPE:** Wear heat-resistant gloves (rated for 150°C), safety glasses with side shields, and steel-toed boots.

3.0 Required Tools, Parts & Lubricants

- Replacement glue spreading roller (OEM part number per machine manual)
- Set of metric hex keys (4mm, 5mm, 6mm, 8mm)
- Torque wrench (range 10-50 Nm) with 10mm socket
- Brass scraper or plastic putty knife
- Clean lint-free rags
- High-temperature grease (e.g., Kluber Petamo GHY 133 N or equivalent)
- Dial indicator with magnetic base (for runout check)
- Safety lockout kit (lock, tag, hasp)

4.0 Step-by-Step Maintenance Procedure

1. Perform full lockout/tagout on the edgebander as per Section 2.0. Verify zero energy state by attempting to start the glue roller motor.
2. Remove the glue pot cover and any access panels shielding the spreading roller assembly using the appropriate hex keys. Set hardware aside in a labeled container.
3. Using the brass scraper, carefully remove any residual glue from the roller surface and surrounding housing. Dispose of scrapings in a metal waste bin.
4. Loosen the retaining bolts on the roller bearing blocks using a 6mm hex key. Do not remove completely yet.

5. Slide the roller assembly out of the housing by pulling it straight toward you. Support the roller evenly to avoid damaging the bearings or housing.
6. Clean the bearing seats and shaft ends with a lint-free rag to remove old grease and debris.
7. Apply a thin layer of high-temperature grease to the new roller's bearing journals and shaft ends.
8. Insert the new spreading roller into the housing, aligning the bearing blocks with the mounting holes. Push the roller fully into position.
9. Tighten the bearing block retaining bolts evenly in a cross pattern to a torque of 25 Nm using the torque wrench and 10mm socket.
10. Mount the dial indicator on the housing and zero the plunger against the roller surface. Rotate the roller by hand and measure runout. Acceptable runout is less than 0.05 mm total indicated reading (TIR). If runout exceeds this, loosen and re-torque the bearing blocks, or inspect for debris.
11. Reinstall the access panels and glue pot cover. Tighten all fasteners to hand-tight plus a quarter turn.
12. Remove lockout/tagout devices and restore power and compressed air to the machine.

5.0 Verification & Return to Service

1. Set the glue application temperature to the standard operating value per the adhesive manufacturer's specification (typically 180-200°C). Allow the glue pot to reach temperature.
2. Run a test cycle with a scrap panel of standard thickness. Observe the glue spread pattern on the panel edge. The coating should be uniform, without streaks, gaps, or excessive buildup.
3. Measure the glue line thickness using a feeler gauge or micrometer. Acceptable range is 0.2 mm to 0.4 mm depending on adhesive type. Adjust the doctor blade gap if necessary per the machine manual.
4. Run three consecutive test panels and inspect each for adhesion quality after edge banding. No delamination or glue starvation is acceptable.
5. Sign off on the PM work order in ServiceGrid, noting the new roller serial number and the date of replacement.

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.