

Edgebander Glue Pot Level Sensor Calibration

1.0 Maintenance Objective & Frequency

The objective of this procedure is to calibrate the glue pot level sensor on an industrial edgebander to ensure accurate detection of glue level within the pot. Proper calibration prevents false low-level alarms, dry running of the glue pump, and potential damage to the glue pot heating elements. This PM is to be performed monthly or whenever the glue pot is replaced or the sensor is disturbed.

2.0 Lockout/Tagout (LOTO) & Safety

- Electrical Isolation: Disconnect the edgebander from main power supply and apply a personal lockout tagout device.
- Thermal Hazard: Allow the glue pot to cool below 50°C (122°F) before proceeding to avoid burns from hot glue or surfaces.
- PPE: Wear safety glasses, heat-resistant gloves, and closed-toe steel-toed boots.

3.0 Required Tools, Parts & Lubricants

- Digital multimeter with resistance measurement capability (Ohms)
- Small flathead screwdriver (for adjusting sensor trim pot)
- Clean, lint-free cloth
- Isopropyl alcohol (for cleaning sensor probe)
- Replacement glue (if needed for test fill)
- Manufacturer's service manual for specific sensor model

4.0 Step-by-Step Maintenance Procedure

1. Ensure the edgebander is locked out and the glue pot is cool to the touch. Remove the glue pot cover or access panel to expose the level sensor assembly.
2. Visually inspect the sensor probe for any glue residue, buildup, or physical damage. Clean the probe with a lint-free cloth dampened with isopropyl alcohol. Allow to dry completely.
3. Locate the sensor calibration trim pot (usually a small potentiometer on the sensor body or nearby control board). Note its current position for reference.
4. Set the digital multimeter to measure resistance (Ohms). Connect the probes to the sensor output terminals as specified in the manufacturer's manual.
5. With the glue pot empty, adjust the trim pot until the multimeter reads the manufacturer-specified resistance for an empty pot (typically 0-10 Ohms or open circuit). Turn the trim pot slowly and observe the reading.
6. Fill the glue pot with glue to the normal operating level (as indicated by the fill line or manufacturer specification). Allow the glue to settle for 2 minutes.

7. With the glue at operating level, adjust the trim pot again until the multimeter reads the manufacturer-specified resistance for a full pot (typically 100-500 Ohms or closed circuit). This may require iterative adjustment between empty and full states.
8. Repeat steps 5-7 at least twice to ensure the sensor responds correctly to both empty and full conditions. Record the final trim pot position.
9. Reinstall the glue pot cover or access panel. Ensure all fasteners are tightened to the manufacturer's torque specification (typically 5-10 Nm for plastic covers).
10. Remove the lockout/tagout device and restore power to the edgebander.

5.0 Verification & Return to Service

1. Power on the edgebander and navigate to the glue system diagnostics menu (refer to machine manual). Verify that the glue level sensor reading matches the actual glue level (empty or full).
2. Initiate a manual glue fill cycle (if applicable) and confirm the sensor triggers the low-level alarm when the glue drops below the sensor probe.
3. Run a short test production cycle (e.g., edgeband a few scrap panels) and monitor the glue level display for stability. Ensure no false alarms occur.
4. Document the calibration date, final trim pot position, and any observations in the maintenance log or ServiceGrid work order.
5. Sign off on the PM work order in ServiceGrid to close the task.

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.