Edgebander Exhaust Hood Cleaning for PUR

1.0 Maintenance Objective & Frequency

The objective of this procedure is to remove accumulated PUR adhesive residue, dust, and debris from the exhaust hood and ductwork of the edgebander. This prevents airflow restriction, reduces the risk of fire due to combustible adhesive buildup, and ensures consistent fume extraction during PUR application. This PM is to be performed every 40 hours of machine operation or weekly, whichever comes first.

2.0 Lockout/Tagout (LOTO) & Safety

- Electrical Isolation: Disconnect the edgebander main power disconnect and apply a personal lock and tag. Verify zero voltage with a multimeter.
- Pneumatic Isolation: Close the compressed air supply valve to the machine and bleed any residual pressure from the system.
- Mandatory PPE: Safety glasses, heat-resistant gloves (for handling hot adhesive), and a NIOSH-approved N95 respirator (to avoid inhaling adhesive fumes and dust).

3.0 Required Tools, Parts & Lubricants

- Screwdriver set (flathead and Phillips)
- 5mm Allen key
- Putty knife or plastic scraper (non-marring)
- Wire brush (brass or stainless steel)
- Shop vacuum with HEPA filter
- PUR adhesive remover (e.g., isopropyl alcohol or approved solvent)
- Clean lint-free rags
- Flashlight

4.0 Step-by-Step Maintenance Procedure

1. Perform LOTO as per Section 2.0. Ensure the machine is completely isolated and cool to the touch (below 40°C) before proceeding.
2. Using a 5mm Allen key, remove the screws securing the exhaust hood access panel. Set the panel aside in a safe location.
3. Inspect the interior of the exhaust hood and ductwork for visible PUR adhesive buildup, dust, or debris. Use a flashlight to check all corners and seams.
4. Using the putty knife or plastic scraper, carefully scrape away any large chunks of hardened PUR adhesive from the hood walls, baffles, and duct opening. Work from top to bottom to prevent debris from falling onto clean areas.

5. Apply a small amount of PUR adhesive remover to a clean rag and wipe down all interior surfaces of the hood to dissolve any remaining residue. Allow the solvent to sit for 2-3 minutes for stubborn deposits.

6. Use the wire brush to gently scrub any areas with persistent adhesive buildup, taking care not to damage the hood surface or any seals.

7. Vacuum all loose debris, dust, and solvent residue from the hood interior and ductwork using the shop vacuum with HEPA filter. Pay special attention to the duct connection point.

8. Inspect the exhaust fan blades (if accessible) for adhesive buildup. Clean with a rag and solvent if necessary. Do not bend the blades.

9. Reinstall the exhaust hood access panel and secure it with the screws. Torque screws to 2 Nm (hand-tight plus a quarter turn).

10. Remove LOTO devices and restore power and compressed air to the machine.

5.0 Verification & Return to Service

1. Start the edgebander and engage the exhaust system. Verify that airflow is strong and consistent at the hood opening using a piece of paper or an anemometer (target: >2 m/s airflow).

2. Run a short test cycle with PUR adhesive on a scrap board. Monitor the exhaust hood for any smoke or unusual odours. Ensure no adhesive is being drawn into the ductwork.

3. Inspect the cleaned area for any remaining debris or solvent residue. Wipe down the exterior of the hood with a clean rag.

4. Sign off on the PM work order in ServiceGrid, noting the date, time, and any observations (e.g., excessive buildup, damaged seals).