
Vibratory Finisher Media Replacement And Drain Cleaning

1.0 Maintenance Objective & Frequency

The objective of this procedure is to replace worn or contaminated vibratory finishing media and thoroughly clean the drain system to restore finishing efficiency, prevent media breakdown debris from clogging the drain, and ensure consistent part finish quality. This PM is to be performed every 500 operating hours or when media volume has reduced by 20%, whichever comes first.

2.0 Lockout/Tagout (LOTO) & Safety

- **Electrical Isolation:** Disconnect the main power supply to the vibratory finisher at the disconnect switch and apply a personal lock and tag.
- **Mechanical Isolation:** Ensure the vibratory bowl has come to a complete stop before approaching.
- **PPE:** Wear safety glasses, cut-resistant gloves, steel-toed boots, and hearing protection. Use a dust mask if handling dry media.
- **Hazardous Material:** Old media may contain metal fines and compound residue. Dispose of in accordance with local environmental regulations.

3.0 Required Tools, Parts & Lubricants

- Replacement vibratory finishing media (ceramic or plastic, as per OEM specification)
- 5-gallon bucket or media collection container
- Rubber mallet
- Screwdriver set (flathead and Phillips)
- Adjustable wrench or socket set
- Drain snake or flexible wire brush (for drain cleaning)
- Shop vacuum with HEPA filter
- Lint-free rags
- Penetrating oil (e.g., WD-40)
- Gasket sealant (if drain plug has a gasket)

4.0 Step-by-Step Maintenance Procedure

1. Perform LOTO: Disconnect and lock out the main electrical disconnect. Verify zero energy state by attempting to start the machine.
2. Remove the access cover or lid from the vibratory bowl. Set aside hardware in a safe location.
3. Using a bucket or container, manually scoop or shovel the old media out of the bowl. Work from one side to avoid strain. For large bowls, use a media discharge chute if equipped.

4. Inspect the bowl liner for wear, cracks, or delamination. If damage is found, schedule liner replacement before adding new media.
5. Locate the drain plug at the lowest point of the bowl. Use an adjustable wrench to remove the plug. If seized, apply penetrating oil and wait 5 minutes before attempting again.
6. Using a drain snake or flexible wire brush, clean the drain line from the bowl outlet to the collection point. Remove all compacted media fines and sludge. Flush with water if the system allows, then dry with rags.
7. Inspect the drain plug gasket or O-ring. Replace if cracked or compressed. Apply a thin layer of gasket sealant if specified by OEM. Reinstall the drain plug and torque to 25 Nm (or OEM specification).
8. Use a shop vacuum to remove any remaining dust or debris from the bowl interior and around the drain area.
9. Pour the new media into the bowl, filling to the manufacturer's recommended level (typically 60-80% of bowl volume). Do not overfill.
10. Reinstall the access cover or lid, ensuring all fasteners are tightened to OEM torque specifications.
11. Remove LOTO devices and restore power to the machine.

5.0 Verification & Return to Service

1. Run the vibratory finisher empty for 2 minutes to distribute the new media evenly. Listen for unusual noises (grinding, rattling) that may indicate a loose component or incorrect media load.
2. Add a small batch of test parts (scrap or low-value parts) and run a standard cycle. Inspect the parts for consistent finish and ensure no media is escaping the bowl.
3. Check the drain area for leaks during operation. Tighten the drain plug if necessary.
4. Verify that the machine returns to normal operating amplitude and cycle time. If vibration is uneven, recheck media level and distribution.
5. Record the completion in the CMMS (ServiceGrid) including media type, quantity used, and any observations (e.g., liner condition).

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.