PECOAT
THERMOPLASTIC

MAINTENANCE DOCUMENT

Daily Maintenance Checklist & Precautions

Dual-Rail Screw Nylon Patch Machine

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Applicable Equipment	Dual-Rail Screw Nylon Patch Machine
Prepared by	[PECOAT® MACHINERY]

Keep this document with the equipment and make it available to all operating and maintenance personnel.

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Daily Maintenance Checklist and Precautions for the Dual-Rail Screw Nylon Patch Machine

This document lists the daily maintenance checklist and the precautions for each section of the dual-rail screw nylon patch machine. It is intended for operating and maintenance personnel, and covers the dual-rail main unit, screw feeding, induction heating, nylon powder feeding and recovery, air-cooled conveying and screw collection.

1. Maintenance Schedule at a Glance

The table below summarizes the routine maintenance tasks described in the following sections.

Section	Maintenance Task	Interval
Screw feeding	Inspect the vibratory bowl rim and the width adjustment mechanism; protect the bowl and linear vibrator from impact	Routine
Dual-rail main unit	Inspect the belt for pinching, fraying and edge damage; replace if worn	Routine
Dual-rail main unit	Check the gear oil level of the drive motor and top up if low	About once a year
Dual-rail main unit	Clean the main unit body; keep it free of standing water and rust	Routine
Induction heater	Confirm the chiller is running and cooling water is circulating before start-up	Every start-up
Induction heater	Check all connectors and the bracket screws for tightness	Routine
Nylon powder feeding	Check frame screws and floor anchor bolts; do not change vibration settings abruptly	Routine
Nylon powder recovery	Empty accumulated powder from the recovery bin; check suction force	Routine
Air-cooled conveyor	Check for jammed screws and belt deviation; realign the belt if	Routine

Section	Maintenance Task	Interval
	off track	
Screw receiving basket	Empty the basket; inspect the cooling fan, power plug and wheels	Routine
Whole machine	Inspect the electrical circuit and lubricate rotating gear points	Routine

2. Screw Feeding Section

2.1 Screw Feeding Components

This section comprises three components: the screw vibratory bowl, the vibratory bowl stand, and the linear vibrator.

2.2 Screw Feeding Maintenance Precautions

- Do not strike the edge of the screw vibratory bowl. Impact may damage the width adjustment mechanism on the rim and render it unadjustable.
- Do not apply excessive force when turning the adjusting screws.
- The linear vibrator must also be protected from impact; otherwise its feeding vibration performance will be affected.

3. Dual-Rail Main Unit

3.1 Dual-Rail Main Unit Components

This section consists of three parts: the dual-rail traveling assembly, the main unit body, and the electrical and pneumatic circuits.

3.2 Dual-Rail Main Unit Maintenance Precautions

- The belt on the dual-rail traveling assembly is a consumable part. Replace it if it is pinched and damaged or has frayed edges.
- Adjust the moving components carefully and avoid excessive twisting force.
- Keep the main unit body clean, and prevent heavy water exposure that may cause rust.

- Inspect the gear oil of the drive motor about once a year, and top up the oil if the level is low.
- Follow the safety precautions for the electrical and pneumatic circuits. If any abnormality occurs, shut off the main power supply before inspection.

4. Induction Heater Section

4.1 Induction Heater Components

This section consists of two parts: the induction heater and the heater adjustment bracket.

4.2 Induction Heater Start-Up Precautions

- The induction heater must be properly connected to the chiller. Confirm that the chiller is working normally and that cooling water circulates properly inside the unit before starting the heater.
- Do not adjust the heater settings too rapidly.
- Check that all connectors are securely tightened.

4.3 Heater Adjustment Bracket

- The heater adjustment bracket is used to adjust the height of the heating coil. All screws on the bracket must be tightened.

5. Nylon Powder Feeding Section

5.1 Nylon Powder Feeding Components

This section consists of three parts: the powder feeding vibratory bowl, the powder replenishment vibratory bowl, and the frame.

5.2 Nylon Powder Feeding Installation Precautions

- Tighten all screws on the frame, and anchor the frame to the floor with expansion anchor bolts.
- Do not make large adjustments to the powder bowl feeding settings. Excessive vibration may cause the vibratory bowls to shift.

6. Nylon Powder Recovery Bin Section

6.1 Recovery Bin Function

This part draws the excess powder generated during powder spraying back into the recovery bin. The bin is equipped with two recovery ports.

6.2 Suction Adjustment and Powder Cleaning

- Adjusting the opening size of one recovery port controls the suction force of the recovery bin.
- Avoid excessive powder accumulation inside the recovery bin; otherwise the suction performance will be impaired.

7. Air-Cooled Conveyor Section

7.1 Conveyor Function

This unit air-cools the screws after glue dispensing.

7.2 Jam and Belt Deviation Checks

- Check regularly for screws jammed inside the body to prevent damage to the conveyor belt.
- Inspect the conveyor belt periodically for deviation, and realign it if it is off track.

8. Screw Receiving Basket

8.1 Basket and Cooling Fan

This component collects the glue-dispensed screws. A cooling fan is fitted at the bottom of the basket.

- To speed up cooling, plug in the fan to blow air over the screws.
- When the fan is not in use, unplug and stow the power plug so that it is not crushed.

8.2 Load Limits and Emptying

- Do not overload the basket with screws; excessive weight may damage the wheels.
- Empty the screws once the quantity reaches an appropriate level.

9. General Maintenance and Service Support

9.1 Electrical Circuit and Lubrication

- Inspect the electrical circuit of the whole machine regularly, and repair any abnormality promptly.
- Lubricate the rotating gear points periodically.

9.2 Contacting the Manufacturer

If an unsolvable fault or a technical problem occurs during production, please contact the manufacturer at any time.