
End Of Line Stretch Wrapper Film Threading And Tension Setting

1.0 Maintenance Objective & Frequency

The objective of this procedure is to correctly thread the stretch film through the pre-stretch rollers and set the film tension to the OEM-specified value. Proper threading and tension prevent film breakage, inconsistent wrap patterns, and excessive film waste. This procedure is performed at every film roll change or when tension-related wrapping defects are observed.

2.0 Lockout/Tagout (LOTO) & Safety

- **Electrical Isolation:** Disconnect main power to the stretch wrapper and apply a personal lockout tagout device on the disconnect switch.
- **Pneumatic Isolation:** Close the shut-off valve on the compressed air supply line and bleed any residual pressure from the system.
- **Mechanical Lockout:** Ensure the rotating arm or turntable is mechanically blocked or pinned to prevent unintended movement.
- **PPE:** Wear cut-resistant gloves (ANSI A4 or higher) when handling film edges. Safety glasses and steel-toed boots are mandatory.

3.0 Required Tools, Parts & Lubricants

- New stretch film roll (correct gauge and width per OEM spec)
- Cut-resistant gloves (ANSI A4 or higher)
- Tension gauge (spring scale or digital tension meter, 0-50 lb range)
- Allen key set (metric, 4mm-10mm)
- Torque wrench (0-20 Nm range)
- Clean lint-free cloth
- Isopropyl alcohol (99%) for cleaning rollers

4.0 Step-by-Step Maintenance Procedure

1. Verify LOTO is applied: confirm the main disconnect is locked out and the pneumatic supply is isolated and bled down.
2. Remove the old film roll from the unwind shaft. Inspect the shaft for damage or debris; clean with a lint-free cloth if necessary.
3. Mount the new film roll onto the unwind shaft, ensuring the film unwinds in the correct direction (typically from the top, toward the pre-stretch rollers).
4. Thread the film through the dancer arm rollers, following the path indicated on the machine decal. Ensure the film passes between all nip rollers without twisting.
5. Route the film through the pre-stretch rollers. Verify the film is centered on each roller and that the roller gap is set to the OEM specification (typically 0.5-1.0 mm).

6. Engage the film clamp or nip roller mechanism. Tighten the clamp bolts to 8 Nm using a torque wrench to ensure even pressure across the film width.
7. Set the initial tension by adjusting the dancer arm spring preload or pneumatic regulator per the OEM manual. A typical starting value is 15-20 lbs of force.
8. Using a tension gauge, measure the film tension at the exit of the pre-stretch rollers. Adjust the dancer arm or regulator until the tension reads within ± 2 lbs of the target value.
9. Manually rotate the turntable or arm one full revolution (with power off) to verify the film feeds smoothly and does not snag or tear.
10. Trim any excess film tail using a sharp blade, leaving approximately 6 inches for the next wrap cycle.

5.0 Verification & Return to Service

1. Remove all LOTO devices and restore power and pneumatic supply to the stretch wrapper.
2. Run a test wrap cycle on an empty pallet or a scrap load. Observe the film payout and tension during the entire cycle.
3. Inspect the wrap pattern: the film should be evenly applied with no loose areas or excessive neck-down. Adjust tension if necessary.
4. Measure the final film tension on the wrapped load using a tension gauge. Acceptable range is 18-22 lbs for standard applications.
5. Sign off on the PM work order in ServiceGrid, noting the new film roll installed and the final tension setting.

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.