Foil Line Cable Payoff

Standard Operating Procedure

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| **Document Number: AMS-ENG-SOP-252-V2\_Foil\_Line\_Cable\_Payoff** | **Version:** V2 | **Date:** 30/04/2025 |

Author

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| --- | --- | --- | --- |
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| --- | --- |
| Equipment Required | Additional Training Reference |
| Foil Line Cable Payoff | Nil |

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| --- | --- |
| Production Operator Skill(s) Required | Additional Training Reference |
| Nil | Nil |

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| --- | --- |
| Associated Hazards and Risks | Hazard and Risk Mitigation(s) |
| Finger entrapment, knocks to head/body parts, electrical hazards |  |

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| --- | --- | --- | --- |
| Version | Reason for revision (Change reference) | Initial | Date |
| V1 | Initial release | LB | 11/06/2024 |
| V2 | Cable feed direction, no. pulleys, cable feeder | LB | 30/04/2025 |

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# Set up: Positioning the cable payoff

|  |  |
| --- | --- |
| Process Step | Process Detail |
| 1. | 1. Make sure the area is clear. Position the machine so the payoff bucket is central to the white plastic slot in the foil heater table jig. |
| 2. | Lock 2 wheels. |
| 3. | Plug in the power cord. |
| 4. | Attach the control buttons to the work station. |
| 5. | Turn on the power to the machine. |

# Loading the cable spool, threading of the pulley system, and cable feeder

|  |  |
| --- | --- |
| Process Step | Process Detail |
| 1. | Routing diagram. Note: Cable comes off the top of the spool, lift weighted block to separate the belts. |
| 2. | Take off the locking cone. To do this, back off the screw by a couple turns. Then, while pulling the release, push the cone forward so it disengages, then pull back off the shaft. |
| 3. | Check that you have the correct cable. Ensure the QC label facing outwards. You may have to shift the label to the other side of the spool so it is visible. |
| 4. | Check that the cable is coming off the **top** of the spool towards the blue roller |
| 5. | Lift one side of the spool onto the shaft. |
| 6. | Now, lift the other side of the spool onto the shaft (pivoting around the shaft). |
| 7. | Engage the slot in spool with the pin on the cone. |
| 8. | Before sliding the cone onto the shaft. Make sure that you wind the cone out far enough. Approximately 8 half turns. This is as you need to wind it back to have space to then push forward when taking the cone off the shaft. |
| 9. | Put the Uhing easy lock on the shaft. Turn the locking cone two half turns. This does not need to be tight. Check that the pin driving cone is still properly engaged with the spool |
| 10. | Feed the cable around the blue roller. |
| 11. | Around the top pulley. |
| 12. | Around the dancer arm. |
| 13. | Around the second top pulley. |
|  | Through the second pulleys on the dancer arm. |
| 14. | Through the top pulley and slot |
| 15. | Lift the cable guide. |
| 16. | Line up cable with belts and slot. |
| 17. | Put the cable feed guide back in place |
| 18. | Use the jog function outlined in the next section to pay off enough cable to get to the start of the heater. Approximately 2 m. |
| 19. | Feed the end of the cable through the white plastic slot. |

# Operating the machine

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| --- | --- |
| Process Step | Process Detail |
| 1. | **JOG: Pays off cable while you are holding the button down.**  Located on both the machine and foil line.  Use this to make sure the cable reaches the start of the heater. The button will only function while the “START” button’s green LED is on. |
| 2. | **START: Pays off one whole heaters worth of cable (21 m) with one press of the button.**  Press this when you are ready to start routing the cable around the pin jig. The button will only function while its green LED is on.    Start making the heater as soon as you have pressed the button to reduce the likelyhood of tangles. Do not payoff more than one heaters worth of cable at a time. |
| 3. | **EMERGENCY STOP (E – STOP): Stops all of the motors in the event of an emergency.**  Located on both the machine and foil line.  Press the E–STOP if you need to stop the machine for any emergency.To deactivate the E–STOP, twist the red knob in the direction of the arrow. |
| 4. | **RESET: Resets any limit switch errors (knot block and dancer arm) or E–STOP activation.**  Press this to reset the system once the limit switch error or E–STOP activation causes have been solved. The button’s blue LED will be on while an emergency stop condition is active. |

# Trouble shooting

## Machine stops due to E-STOP error

1. **Someone has pressed the E-STOP**
   1. Find out why it was pressed and if safe, de-activate the E-STOP by twisting the red knob in the direction of the arrow, then press the reset button.

## Machine stops due to limit switch error

If the machine stops it could be due to a few causes.

1. **A knot in the cable has triggered the automatic stop**
   1. Cut the cable by the knot and re-thread the cable through the cable feeder. Then press the reset button. Continue as normal.
2. **The dancer arm hits the limit switch automatic stop**
   1. The spool has been loaded onto the axle the wrong way around.
   2. The spool is out of cable and needs to be replaced.
   3. The cable is knotted around the spool and needs to be unknotted.

For each of these errors

## The machine will not payoff cable

If the motors are still spinning but no cable is being fed out it could be due to a few things.

1. **The cable is slipping through the cable feeder.**
   1. The belts contacting the cable may not be tight enough.
2. **The cable is slipping out of the belts.**
   1. The cable is not going through the cable guide at the start of the guarding**.**
3. **The spool is empty.**
   1. Put a new spool in the machine.

PRD

SOP

Foil Line Cable Payoff

File location for SOP’s. Once you add them to the folder you can not move them around and need to ask Dave Gandy to update them or shift them to an obsolete folder.

F:\Argus Heating\02 Quality\01 Argus Management System - Master\Production Work Instructions and General SOP