

	Standard Operating Procedure	SOP Number G-108	Revision 0
	Cherry Industrial Equipment Pallet Inverter	Effective Date 05/29/24	Page Page 1 of 4
Written by/ Date <i>[Signature]</i> 05-06-24	Reviewed by/ Date <i>[Signature]</i> 05/06/24	Approved by/ Date <i>[Signature]</i> 05/07/24	
Title: Warehouse Manager	Title: Chief Operating Officer	Title: Quality Assurance Director	

1.0 Purpose

The purpose of this procedure is to define the process for the operation, cleaning, and maintenance of the pallet inverter.

2.0 Scope

This procedure applies to the Cherry Industrial Equipment pallet inverter in operation at Ion Nutritional Labs.

3.0 Responsibility

- 3.1 It is the responsibility of all warehouse personnel to follow this procedure.
- 3.2 It is the responsibility of the department supervisor/manager to implement this procedure and to ensure that this procedure is being followed.
- 3.3 It is the responsibility of warehouse management to keep this procedure aligned with current practices.

4.0 Definitions

None

5.0 References

- 5.1 G-104, SOP, Lockout Tagout Procedure
- 5.2 G105, SOP, Lockout Tagout Devices

6.0 Procedure

- 6.1 Operation

- 6.1.1 Operator must make sure the pallet inverter is in the home position before operating. Turning basket is fully rotated and resting on the invert prox switch, with the clamp plate in the up position. Operator loads the machine with a forklift using the sidewall to guide the pallet load close to the sidewall.
- 6.1.2 Operator presses the green start button on the operator pendant to turn the motor on. Operator then presses the left and right arrow button, which lowers the clamping plate to secure the load.

Note: All movement buttons are press and maintain.

Caution: Clamping pressure is factory set at 1800 psi. Be careful not to oversqueeze the load.

- 6.1.3 If you are handling more sensitive products it may require that the operator cinch up the plate slowly to make contact with the top of the load but not meet maximum set pressure.

Note: A pressure relief valve is used in the clamp circuit which allows oil to dump back to tank once maximum set pressure is achieved.

- 6.1.4 Operator will then press the circular reverse arrow button on the operator pendant turning the basket 180 degrees. The operator will then press the left and right arrow button at least six inches releasing the pressure on the pallet and freeing up space. The wood pallet is then removed and replaced with a plastic pallet.
- 6.1.5 The operator presses the left and right arrow button to cinch the pallet up against the bottom of the load.
- 6.1.6 Operator presses the circular round reverse arrow button on the operator pendant, which turns the basket counter clockwise back to the load/unload position.
- 6.1.7 Operator presses and maintains the left and right arrow button on the operator pendant to move the plate off of the load.
- 6.1.8 Operator unloads the machine with a forklift. Operator backs away clear of the machine. The machine is back in the home position ready to receive the next load.

6.2 Maintenance

6.2.1 Weekly maintenance of pallet inverter

6.2.1.1 Sweep and clean in and around machine.

6.2.1.2 Ensure the internal load area and approach to the machine is clear and free from debris.

6.2.1.3 Confirm the emergency stop button is functioning correctly.

- 6.2.1.4 Check all electrical cables and conduits for signs of wear and abrasions.
- 6.2.1.5 Confirm that all limit or proximity switches are operating correctly.
- 6.2.1.6 Check that all gauges are working correctly.
- 6.2.1.7 Grease all points, with particular attention to the central shaft which must be kept running smoothly at all times.
- 6.2.2 Every 6 weeks maintenance of pallet inverter
 - 6.2.2.1 Check and tighten all bolts on the machine.
 - 6.2.2.2 Lubricate and grease all fittings, paying particular attention to the clamp slides assembly and rack & pinion. Refer to the machine breakdown and layout for locations.
 - 6.2.2.3 Check all hydraulic hoses and fittings for signs of wear and abrasions.
 - 6.2.2.4 Check all fluid levels and check gauge (when needle is in red replace filter).
 - 6.2.2.5 Confirm that all internal mechanical slides and components are secure.
- 6.2.3 Biannual maintenance
 - 6.2.3.1 Change return filter.
 - 6.2.3.2 Check the condition of the hydraulic oil. If replacement or additional hydraulic fluid is needed, use MEDALLION PLUS® AW32 hydraulic oil or equivalent. Oil level should be approximately two inches below the top of the tank, or at the top black line marker on the site / temperature gauge.
- 6.2.4 Annual maintenance
 - 6.2.4.1 Change return filter and suction filter. Drain and replace the hydraulic oil, using MEDALLION PLUS® AW32 hydraulic oil or equivalent. Some cold environment or food processing facilities may require ATF or food grade oil, please verify type of oil required. Oil level should be approximately two inches below the top of the tank, or at the top black line marker on the site / temperature gauge.
- 6.3 Lockout Tagout
 - 6.3.1 To lock out the basket, place basket in horizontal position. Remove lock bar. While under the basket, bolt lock bar to basket. Reverse process when complete.
 - 6.3.2 To lockout the clamp put the basket with clamping plate in a horizontal position (90°). Remove lock bar and rotate 90°. Rebolt to header tube using bolt and nut.

Note: Follow all other internal lockout tagout requirements as outlined in SOP G-104 Lockout Tagout Procedure and SOP G-105 Lockout Tagout Devices.

6.4 Cleaning

6.4.1 There are no special cleaning requirements for this piece of equipment. Generalized cleaning will be performed as part of the normal warehouse cleaning requirements.

7.0 Revision History

Revision	Date	Description of Changes	CCR #	By
0	05/06/24	New procedure.	N/A	J. Murphy