

Vertical Orbital Shrink Wrapper

Operator's Manual & Safety Guide

Model WIBA 001 Series 26-30 | Document Version 1 | Revision Date: 2026-05-05

WARNING



This equipment contains moving parts, high-speed components, and high pressure air lines as well as pinch points. Failure to follow safety procedures may result in serious injuries. Only authorized personnel should operate this machine.

Read this entire manual before operating the equipment. Keep this manual accessible to all operators and maintenance personnel. Contact your supervisor immediately if you have questions about any procedure.

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1. Safety Guidelines

1.1 General Safety Requirements

All operators must follow basic safety procedures to complete any task before operating this equipment. Familiarize yourself with the location and operation of all emergency stop buttons before beginning to wrap or load new roll of film.

- **Before beginning a cycle:** Ensure all personnel are clear and out of the machine, one may be reloading shrink wrap.
- **Proper item placement on skid:** Strategically place all items in such an order so that a firm film at first round will not push or pull items off the skid, causing a collapse which may damage the machine which will not be warranted.
- **Securing a new roll:** Ensure bracket securing roll is properly latched and firm to roll.
- **Loading film to clamp:** Before retraction of the cutting/clamping arm be sure to close door, engaging safety and preventing arm/fingers from getting into a pinch point. Close door with caution as there is also a pinch point.
- **Work Area Clearance:** Maintain a minimum 3-foot clearance around all sides of the machine during operation. Keep the floor area clean and free of debris, film scraps, and trip hazards. Do not place any clothing items on or near the unit.

1.2 Operational Hazards

Moving Parts / Entanglement Risks / Unsecured Items

Never reach into the wrapping zone while the machine is running. The rotating components can cause severe crush injuries.

- Always use the Pause button located on the remote if you need to clear a jam or adjust product/item positioning
- Never attempt to catch falling products or reach through the orbital ring path. Please select Pause and then proceed
- Keep hands, tools, and foreign objects clear of machine when not actively engaging in repair or maintenance
- Ensure all safety guards and latches are in place and functioning before operation
- Loose film hanging from skids may cause unforeseen issues. All loose unnecessary hanging film should be removed

Electrical Safety

This machine operates on 240V single-phase (depending on model). Electrical shock can be fatal.

- Perform Lockout/Unplug procedures before any maintenance, cleaning, or adjustment work
- Never operate the machine with damaged power cords,
- Power cord to machine should never be elevated causing tripping hazard
- Ensure the machine is properly grounded to prevent electrical shock
- Keep liquids away from electrical components and control panels

- Only qualified authorized personnel may perform electrical repairs or modifications within the control panel

1.3 Emergency Procedures

Emergency Stop Activation

Press the red E-Stop button immediately if you observe any unsafe condition, falling items, entanglement, worker intrusion, or equipment malfunction. The machine will halt all motion instantly.

After E-Stop activation:

- Do not restart until the cause is identified and corrected
- Notify your supervisor immediately
- Document the incident per facility procedures

2. Equipment Overview

2.1 Machine Components

The vertical orbital shrink wrapper consists of the following systems:

Component	Description
Orbital Ring	Rotating frame that carries the film dispenser and the tensioner rollers around the product in a vertical circular motion. Driven by electric motor via chain.
Film Mount / Pre-stretch Rollers	Mount supporting the film roll, with a sliding bracket to unload or reload roll by unlatching toggle latch underneath, and re-latching properly after reloading. Be sure to securely lock latch in place before operating.
Clamping & Cutting Bar	Located inside a cover at the main door left side of the unit. This component clamps your shrink wrap pre-wrapping and re-clamps while cutting after wrapping by clamping film to a sharp edge. This arm can be functioned via

	toggle switch on control panel for loading film pre-wrapping.
Fork Inserts	Located front and center are two sleeves for fork entry to move the unit a fair distance.
Motor	Top left of the machine is located the force to give movability to the orbital ring using a chain.
Control Panel	Operator interface with digital displays, VFD, PLC, fuse cells, speed adjustments, and emergency stop button. Toggle switch for arm position, switch for power off or on, and a button labeled "Jog" for rotating ring back to home position.

3. Setup Instructions

3.1 Installation Requirements

Electrical Specifications:

- Model No. WIBA001
- Current: 10A
- Voltage: 240VAC
- Phase/Wire: 1ph/2-W
- Frequency: 60Hz
- HP: 1 x 1HP
- Enclosure Type: 3
- SCCR: 5KA
- Max Breaker: 20A
- Min Conductor: 12A
- Ambient Temperature: 0-40°C

Important: Never use extension cords or multi-outlet adapters. Voltage drop must be avoided.

Air Supply: Provide an air supply exceeding 80 PSI and air hose. Client is responsible for matching air hose connection.

3.2 Film Loading Procedure

Use only 20-inch rolls. Recommended 110 gauge film. Common film types: PVC (Polyvinyl Chloride), POF (Polyolefin), or PE (Polyethylene). Verify film width matches the roll mount capacity.

1. **Power OFF** and verify all power is OFF before beginning film loading.
2. **Position the film roll** onto the mandrel or film spindle on the orbital ring carriage. Use proper lifting techniques; film rolls can weigh 40-60 lbs.
3. **Secure the roll** with the locking latch beneath or set screw to prevent roll drop out during rotation.
4. **Thread the film** through the pre-stretch rollers following the threading diagram decal on the machine. Typical path: from roll → through tension brake 1 TOP → over brake roller 2 bottom → through idle roller bottom → to clamping arm from the bottom.
5. **Once roll is in place** and properly weaved through tensioner, you must exit machine and close all doors, then proceed to **POWER ON** the unit.
6. **Once at clamp**, extend arm with switch located on control panel and bring film in from beneath then over the top allowing it to overhang, close door and retract the arm for clamping film.
7. **Adjust film tension** using the nuts on the latches on the tensioner mount to adjust tension to the springs. Use to get familiar.

4. Operational Procedures

This section provides step-by-step instructions for normal operation of the vertical orbital shrink wrapper.

4.1 Starting the Machine

1. Verify the work area is clear of personnel and obstructions
2. Turn the main disconnect switch to the ON position
3. Reset the Emergency Stop button by twisting clockwise (if engaged)
4. Check that film is properly threaded and clamped

4.2 Wrapping a Load

1. **Position the product:** Ensure the pallet or product is properly positioned within the wrapping zone. The load must be stable and within the machine's size specifications.
2. **Initiate cycle:** Press the Start button to begin the wrapping cycle. The orbital ring will begin rotating around the product.
3. **Monitor operation:** Observe the wrapping process to ensure proper film application and product stability. Use the Pause button if adjustments are needed.
4. **Cycle completion:** The machine will automatically stop when the operator presses the cut function on the remote, and the clamping arm will sever the film.
5. **Remove wrapped product:** Carefully remove the wrapped pallet from the wrapping zone once the cycle is complete and the ring has returned to home position. Backing out straight at a 90 degree is crucial.

Emergency Shutdown:

1. Press the red E-Stop button immediately
2. Clear the hazard or unsafe condition
3. Follow procedures in Section 1.3 before restarting

4.4 Film Tension Adjustment

Proper film tension is critical for secure wrapping:

- Adjust tension using the nuts on the tensioner mount latches
- Too much tension may cause film breakage or product deformation
- Too little tension results in loose, inadequate wrapping
- Test adjustments on sample loads before production, use to get familiar

5. Troubleshooting Guide

This section addresses common operational problems. For issues not covered here or problems that persist after corrective action, contact qualified maintenance personnel.

5.1 Film & Wrapping Issues

Problem	Possible Cause	Solution
Film breaks during wrapping	Excessive tension or sharp product edges. Too thin film	Reduce film tension brake setting. Pad sharp corners or use heavier gauge film.
Loose or wrinkled film application	Inadequate film tension	Increase tension brake setting gradually. Verify pre-stretch rollers are functioning.
Film won't cut post wrapping	Clamping arm may not be retracting far enough to touch knife; air regulator may be set too low for firm retraction	Increase PSI on air regulator by 5 PSI intervals, or the film may be too thick not allowing clamp to close fully resulting in uncut film.

5.2 Machine Operation Issues

Problem	Possible Cause	Solution
Machine won't power on	Main disconnect off, blown fuse, or E-Stop engaged	Verify main disconnect is ON. Check for tripped breakers. Reset E-Stop button (twist clockwise).
Machine won't start	Fuse may be blown within control panel, or machine might have free wheeled causing over drive and resulting in self shut off	If machine self shut off, open panel and press OFF on VFD and then ON again. This will reset.
Orbital ring won't rotate	Drive motor failure, chain broke, or obstruction withholding somewhere	Check for obstructions in ring path. Verify chain is secure. Contact maintenance if motor issues suspected.
Unusual noises during operation	Lack of lubrication, worn bearings not allowing wheel rotation, or loose components	Shut down and investigate. Check for loose bolts. Lubricate per maintenance schedule. Contact maintenance.
Intermittent power loss	Low supply voltage or poor electrical connections	Verify supply voltage is within $\pm 10\%$ of rated voltage. Check all electrical connections. Contact electrician.

6. Maintenance Schedules

Regular preventive maintenance is essential for safe operation, optimal performance, and long equipment life. Follow these schedules strictly.

6.1 Daily Maintenance

These tasks can be performed by trained operators and take approximately 5-10 minutes.

Task	Procedure	Tools Required
Remove film debris	Clear all film scraps, plastic dust, and residue from orbital	Brush, vacuum, blow

Clean photo sensors	ring track, conveyor, and wipe photo-eye lenses with lint-free cloth dampened with water only. Do not use solvents.	Lint-free cloth
Inspect film path	Check for film buildup on rollers and guides. Verify film is tracking properly on all rollers.	Visual inspection
Check safety guards	Ensure all guards, covers, and safety interlocks are present and secure. Report any damage immediately.	Visual inspection
Clean work area	Sweep floor around machine. Remove tripping hazards. Dispose of film waste properly.	Broom, waste container
Clean cylinder	With high pressure air nozzle, blow all dust off the top of cylinder. Clean cylinder surface and remove dust, specifically guide rail where mount travels.	Air nozzle

6.2 Weekly Maintenance

Maintenance personnel or trained operators perform these tasks.

Task	Procedure	Specifications
Grease orbital bearings	Apply grease to orbital ring bearing grease fittings for wheels which the ring rides on, using grease gun (2-3 pumps per fitting).	Multi-purpose lithium grease

6.3 Monthly Maintenance

- Inspect and tighten all bolts and fasteners on the orbital ring assembly
- Check drive chain tension and adjust if necessary
- Inspect all safety interlocks and emergency stops for proper function
- Check air pressure regulator settings and adjust to 80+ PSI if needed
- Inspect film cutting blade for sharpness and replace if dull
- Check gearbox oil level and top off as needed

7. Technical Specifications

7.1 Machine Specifications – Model WIBA 001 Series 26-30

Parameter

Specification

Maximum Product Size

48" W × 48" H (can change)

Minimum Product Size

12" W × 12" D × 12" H

Orbital Ring Diameter

93 inches

Ring Rotation Speed

Variable

Film Width Range

18" - 20" width

Film Thickness Range

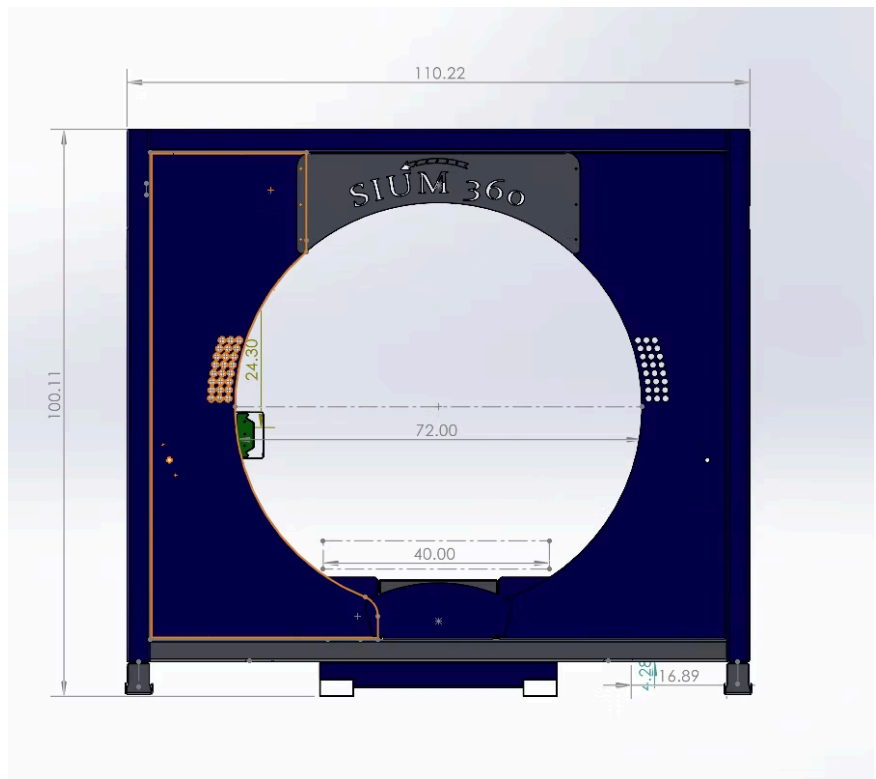
90-125 gauge

Film Types Compatible

PVC, POE, PE

Film Roll Weight

40-60 lbs typical



7.2 Electrical Specifications

Parameter	Specification
Model Number	WIBA001
Serial Number	2026001
Voltage	240VAC
Current	10A

Phase/Wire	1ph/2-W
Frequency	60Hz
Motor Horsepower	1 x 1HP
Enclosure Type	Type 3
SCCR	5KA
Maximum Breaker	20A
Minimum Conductor	12A
Ambient Temperature	0-40°C
Date of Manufacture	March 11, 2026

7.3 Pneumatic Requirements

- **Minimum Air Pressure:** 80 PSI
- **Air Connection:** Client-supplied hose with matching connection
- **Air Quality:** Clean, dry compressed air recommended

7.4 Warranty & Support

For technical support, parts ordering, or service requests, contact:

Technical Support Phone: 1-204-245-1284

Email: gideon@wbmetalfab.com

Hours: Monday-Friday, 7:00AM - 7:00 PM EST

Emergency after-hours support not available

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