

Vestil Manufacturing Company

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PST-Series Portable Scissor Tables



Receiving Instructions

After delivery, remove the packaging from the product. Inspect the product closely to determine whether it sustained damage during transport. If damage is discovered, record a complete description of it on the bill of lading. If the product is undamaged, discard the packaging.

NOTE: The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

Technical Service & Replacement Parts

For answers to questions not addressed in these instructions and to order replacement parts, labels, and accessories, call our Technical Service and Parts Department at (260) 665-7586. The department can also be contacted online at https://www.vestil.com/page-parts-request.php.

Electronic copies of Instruction Manuals

Additional copies of this instruction manual may be downloaded from <u>https://www.vestil.com/page-</u><u>manuals.php</u>.

Table of Contents	Page
Specifications	2
National Standards	2
Signal Words	3
Safety Instructions	3
Exploded Views & Bills of Materials	4, 5, 6, 7, 8, 9, 10, 11
Using the Table	12 - 13
Bleeding Air from Hydraulic System	13
Record of Satisfactory Condition	14
Inspections and Maintenance	14 - 15
Lowering Solenoid Valve Maintenance	15
Labeling Diagram	16
Troubleshooting	17
Limited Warranty	18

SPECIFICATIONS

Documents that provide specifications for PST-series portable scissor lift tables are available online to anyone who visits Vestil's website. Specifications include dimensions, net weight, and capacity information. To access the appropriate specifications document, navigate to the PST webpage at https://www.vestil.com/product.php?FID=203. Scroll the page to the entry for the model you purchased. Click the button in the "PDF" column that looks like a pencil inside a blue box. A PDF file will open. This file is the specifications document. Print a copy of the document and keep it with your copy of this manual. This is an example of a specifications document for model PST-2448-1-46.



NATIONAL STANDARDS

This product is a "portable scissors lift table" (PSLT). <u>ANSI standard MH29.1</u> (the "Standard") applies to PSLT's. Vestil strongly recommends that you acquire a copy of the most recent revision of the Standard. Follow all use and maintenance/care instructions provided in the Standard as well as all other provisions for owners and users of PSLT's. If content in this manual conflicts with any mandatory provision(s) in the Standard, please report the issue to Vestil's <u>TECHNICAL SERVICE</u> department and follow the Standard.

SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage. The following are signal words used in this manual and their definitions.



SAFETY INSTRUCTIONS

We strive to identify foreseeable hazards associated with the use of our products. However, material handling is dangerous and no manual can address every risk. Exercise sound judgment whenever using the table.

Improper or careless operation might result in serious personal injuries sustained by the operator and bystanders. Always apply material handling techniques learned during training and use the product properly:

- Failure to read and understand the entire manual before assembling, using or servicing the product <u>constitutes misuse</u>. Read the manual to refresh your understanding of proper use and maintenance procedures as necessary.
- DO NOT attempt to lift a load that weighs more than the capacity of your table. The capacity appears on label 287 as shown in <u>LABELING DIAGRAM</u> on p. 16. Also see <u>SPECIFICATIONS</u> on p. 2.
- DO NOT allow people to stand or sit on either the table or the load.
- Stand clear of the table while raising or lowering the tabletop.
- Keep clear of pinch points while the deck rises and lowers.
- DO NOT reach through the legs or crawl under the tabletop unless it is supported by maintenance props.
- DO NOT use the table in corrosive environments.
- ONLY use the table on compacted, improved surfaces capable of supporting the combined weight of the table plus a maximum rated load.
- DO NOT perform maintenance on this table UNLESS it is unloaded and maintenance props are in place. If repairs are necessary, ONLY install manufacturer-approved replacement parts.
- Center and evenly distribute loads on the tabletop. Secure loads to the tabletop if they are likely to roll or slide.
- DO NOT use the table unless it is in normal operating condition. Inspect the unit before each use according to the <u>INSPECTION & MAINTENANCE</u> instructions on <u>p. 14-15</u> to determine whether the unit is functioning normally. DO NOT use the table unless it passes every part of the inspection or until it is restored to normal operating condition.
- ALWAYS observe the table while raising and lowering the tabletop. It should rise smoothly and evenly from side-to-side. Watch for binding or jerky movement and listen for unusual noises. Tag the unit "Out of order" and do not use it if you observe anything abnormal.
- Always watch the load carefully while raising and lowering the tabletop.
- DO NOT continue to press the UP button if the tabletop is fully elevated (does not continue to rise).
- Before leaving the table unattended, unload it and relieve hydraulic pressure by pressing the DOWN button and holding it until the tabletop is fully lowered.
- DO NOT use the table UNLESS all labels are in place and readable. See <u>LABELING DIAGRAM</u> on p. 16.
- DO NOT modify this product in any way. Modifications automatically void the limited warranty and might make the table unsafe to use.











Table of Contents







USING THE TABLE

Consult <u>ANSI standard MH29.1</u>, Section 12, and read the owner's/user's responsibilities regarding the operation, care, and maintenance of this machine.

Standard PST-series portable lift tables are suitable for use indoors in most non-classified industrial locations and many commercial locations. It is intended to lift stable, evenlydistributed, nonhazardous materials loads having a size or footprint approximately the same size as, or smaller than, the platform.

Center and evenly distribute loads on the tabletop/deck. Loads should not overhang the deck, i.e. should be entirely contained within the deck area. The capacity of the table appears on the data label of your unit. See <u>LABELING</u> <u>DIAGRAM</u>, label 1153 on p. 16. Capacity is the maximum <u>net</u> weight the table can support. Exceeding the capacity could result in personal injury and/or could cause permanent damage to the table or load.



Apply the floor lock whenever the table is stopped/stationary. See diagram in <u>INSPECTIONS AND</u> <u>MAINTENANCE</u> section. Push down on the floor lock lever to apply the lock. Lift the lever to release the lock.

Loading the platform.

The uniform capacity (in pounds and kilograms) is shown on the data label (label 1153) located on the hinged end of the platform. See <u>LABELING DIAGRAM</u> on p. 16. Capacity is the maximum net weight of a centered, evenly distributed static load on the deck that the table can support. The table's capacity is reduced to 75% of its uniform capacity when the tabletop is end-loaded (load placed on either end), and to 50% when side loaded (either side). **Do not drop loads onto the tabletop**.



DO NOT exceed the lift table's load ratings. Injury to personnel or permanent damage to the lift table can result from exceeding the capacity. Note: Take into account the weight of all items on the tabletop when determining the net weight supported by the tabletop.

The platform rollers are not captured, i.e. they can lift off of the frame. DO NOT hang any load over the sides of the tabletop. A cantilevered or overhanging load at the hinged end of the tabletop (by the handle and power unit) can cause the tabletop to tilt and dump the load. For applications involving side or end edge loading, consult the factory.

This lift table is not approved for lifting personnel.

Operation.

A WARNING

At the beginning of every shift, check the condition of the guards, controls, scissor mechanisms, hydraulic lines, and limit switches. If any item is in need of repair or otherwise contributes to an unsafe condition, remove the lift table from service until it has been restored to a safe operating condition.

Standard PST scissor lift tables are provided with handheld pushbutton controllers that connect to electric-hydraulic power units.

- Pressing the 1 (RAISE) pushbutton energizes the power unit and raises the decl. The deck rises only while the button is pressed. Releasing the button causes the deck to stop & hold position. A limit switch shuts off the motor when the deck reaches its maximum height.
- Lowering speed is preset at the factory and cannot exceed 30 fpm. In the event of a hydraulic line failure, a velocity fuse in the cylinder prevents the deck from lowering.
- Each table is provided with hydraulic overload protection to prevent hydraulic system damage that could result from attempting to raise a load that exceeds the table's capacity.





	Carefully watch the area around the table as well as the load on the tabletop while	
	operating the table.	
	Never use the table if any damage or unusual noise is observed, if it is in need of	
	repair, or if any malfunction occurs. Tag the unit "Out of service"; then notify your	
	supervisor or maintenance personnel about the observed issue(s).	
	Keep all personnel clear of the machine while it is in operation. Before operating the	
	lift table, make certain no part of any person or object is under the tabletop.	
	Guards shall be in place before operating the lift table.	
	Guards cannot protect against every possible condition and cannot a substitute for	
	good judgment & care in use, loading, handling, storage, and maintenance of the	
	table.	

BLEEDING AIR FROM HYDRAULIC SYSTEM

If the tabletop lowers extremely slowly or not at all when the DOWN button is pressed, air might be caught in the cylinder. Air causes a safety feature called a velocity fuse to close. When the velocity fuse is closed, the tabletop will not lower. To correct this issue, bleed air from the system. A bleeder screw is located at the top of the cylinder. See appropriate <u>EXPLODED VIEW</u> on pages 4-11. The bleeder screw includes a hose fitting for a small diameter hose. By attaching a hose to the screw, any oil that escapes during the bleeding process can be directed into a container for disposal. To bleed air from the system:

- Unload the tabletop.
- Rotate the maintenance prop into position. See <u>INSPECTIONS AND MAINTENANCE</u> diagram.
- Press the DOWN button until the tabletop is entirely supported by the maintenance prop.
- Locate the bleeder screw located near the top of the cylinder. The screw looks like a grease zerk; see the appropriate <u>EXPLODED VIEW</u> on pages <u>4-11</u>. Hold a rag over the screw or attach a hose to it. Open the screw about a half turn with a wrench: turn the hex until air begins to escape. Oil and air will sputter from the screw.
- Jog the motor by briefly pressing and releasing the UP button. If air escapes from the bleeder screw, jog the motor several more times. Wait several seconds (5-10) between jogs.
- Close the screw once air no longer is heard or seen bubbling out of it. Just a clear stream of oil should be seen flowing from the screw.
- Remove the cover from the modular power unit. Check the oil level in the reservoir. If the surface of the oil is lower than 1 to 1½ in. below the fill port, then add oil. Use anti-wear hydraulic fluid with a viscosity grade of 150 SUS at 100°F (ISO 32 @ 40°C) like AW-32 or Dexron transmission fluid. Also refer to the <u>MPU-DC MANUAL</u>. A copy can be downloaded from the Vestil.com website. On the home page, move our cursor over the DOWNLOADS drop down menu. Click on OWNERS MANUALS. In the search field, type "MPU-DC"; then click on "Download Manual".

RECORD OF SATISFACTORY CONDITION (THE "RECORD")

Before putting the scissor table into service, thoroughly photograph and/or video the lift table from multiple angles. Photographs should include close-up shots of all welds, pivot points, the cylinder, hydraulic cylinder, hydraulic fittings and hoses, leg rollers, casters and wheels, the floor lock, all labels, and the modular power unit (MPU). Cycle the tabletop up and down. Describe the motion of the legs and roller. Describe the sound of the power unit as it operates. Also include a description of the cylinders and pistons as they extend and retract. Each piston should extend and retract smoothly and at the same rate as the other. Collect all photographs/videos and writings in a file. Mark the file appropriately to identify it. This file is a record of the table in satisfactory condition. Compare the results of future inspections to this Record to determine if the lift table is in satisfactory condition. Do not use the lift table unless it is in satisfactory condition. Purely cosmetic changes, like damaged paint or powder coat, do not constitute changes from satisfactory condition. However, touchup paint should be applied to all affected areas as soon as damage occurs.

INSPECTIONS & MAINTENANCE

Regular maintenance is necessary to maximize the service life of this product. Compare all inspection results to the <u>RECORD OF SATISFACTORY CONDITION</u>. Only use the table if it is in satisfactory condition. If an inspection reveals any changes from satisfactory condition, complete all repairs and parts replacements before returning the table to service. Only use manufacturer-approved replacement parts. DON'T GUESS! Contact <u>TECHNICAL SERVICE</u> if you have questions that are not addressed in these instructions or if you are uncertain how to address an issue discovered during an inspection. Contact Technical Service by calling (260) 665-7586 and asking for the Technical Service and Parts Department, or by submitting your questions online through Vestil's parts and service portal at <u>https://www.vestil.com/page-parts-request.php</u>.



Only qualified individuals trained to understand mechanical devices, electrical and hydraulic circuits, and the hazards associated with them, should attempt troubleshooting and repair of this equipment.

- Immobilize the tabletop with the maintenance prop before inspecting or performing maintenance on the table.
 - 1. Unload the table.
 - 2. Raise the tabletop to its maximum height.
 - 3. Rotate the maintenance prop into contact with the frame. See dotted arrow.
 - 4. Lower the tabletop until the maintenance prop presses against the end of the frame.

(A) Daily/Before each use inspections.

Qualified persons shall complete these inspections. Remove the table from service and repair or replace any damaged parts if any of the following is found.

- 1. Look for:
 - a. Frayed wires.
 - b. Oil leaks.



- c. Pinched, chafed, worn, or cracking hydraulic hoses.
- d. Damage, deformation, or cracks in any structural member or any weld. Give special attention to the hydraulic cylinder mounting brackets.
- e. Loose or missing fasteners.
- f. Unusual noise or evidence of binding.
- 2. Test the function of the upper travel limit switch. Operate the lift table through several complete raise-and-lower cycles. Verify that the upper travel limit switch (mounted on the base frame, near the left-side hinge) automatically turns off the power unit when the tabletop reaches its maximum raised height.

(B) Monthly inspections.

- 1. Check the oil level. Oil should be 1in. to 1¹/₂in. below the top of the reservoir/tank with the tabletop fully lowered. See also <u>MPU-DC instruction manual</u>. Check for oil leaks. Add oil, if necessary. The Annual Inspection section below provides hydraulic oil specifications.
- 2. Check the hydraulic hoses and electrical wires for wear, kinks, cuts, etc. Replace damaged hoses.
- 3. Check hardware: roller bushings, axle pins and retaining rings, clevises, pivot points, fasteners, wheels, and casters for significant wear and/or damage. Replace all components that are significantly worn or damaged.
- 4. Inspect each leg roller for looseness and/or significant wear. Replace rollers as necessary.
- 5. Cycle the tabletop up and down. Confirm normal operation. Listen for unusual noises; watch for abnormal movement, binding, etc. See <u>TROUBLESHOOTING</u>, p. 17.
- 6. Make sure all labels are in place, undamaged, & in easily readable condition. See <u>LABELING</u> <u>DIAGRAM</u> on p. 16.
- 7. Clean debris from all surfaces to remove dirt and debris.

(C) Annual inspection.

Check the condition of the oil. Change the oil if it darkens, becomes gritty, or turns a milky color (indicating the presence of water). Replace with an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F (ISO 32 cSt @ 40°C), such as AW 32, HO 150 or Dexron non-synthetic transmission fluid. You may use a synthetic transmission fluid if you flush the system with the synthetic fluid before filling the reservoir. 150 SUS at 100°F (ISO 32 cSt @ 40°C) or Dexron transmission fluid.

Lowering Solenoid valve maintenance.

If the tabletop slowly lowers on its own even though the "DOWN" control button is not pressed, the lowering solenoid valve must be removed, inspected, and cleaned. Follow the *Cleaning the Lowering Solenoid Valve* instructions in the <u>MPU-DC manual</u>.

LABELING DIAGRAM

Label content and location are subject to change so your product might not be labeled exactly as shown. Compare the diagram below to your <u>RECORD OF SATISFACTORY CONDITION</u>. If there are any differences between actual labeling and this diagram, contact <u>TECHNICAL SERVICE</u>.

Replace all labels that are damaged, missing, or not easily readable (e.g. faded). To order replacement labels or to inquire whether your unit is properly labeled, contact the <u>TECHNICAL</u> <u>SERVICE AND PARTS DEPARTMENT</u> online at <u>https://www.vestil.com/page-parts-request.php</u> or by calling (260) 665-7586 and asking for the Parts Department.



TROUBLESHOOTING

Use this guide in conjunction with the Troubleshooting section of your <u>MPU-DC manual</u>. Solutions in *italics* are found in the MPU-DC manual. Contact <u>the TECHNICAL SERVICE DEPARTMENT</u> (contact information on cover page) if you need assistance with an issue that is not presented in this section.

PROBLEM	POSSIBLE CAUSES	ACTION
	Transformer fuse is blown.	Test with meter. Replace if bad.
Power unit doesn't run when the (RAISE) button is pressed.	No supply voltage.	Test with meter. Check fuses, breakers, and overloads to determine the cause
	Upper-travel limit switch is engaged or faulty.	Inspect and test switch. Replace if bad.
	Bad control transformer.	Check for 24 VAC at secondary. Replace if bad.
	Bad motor relay coil.	Test with meter. Replace if bad.
	Bad solenoid start switch (DC units).	The green LED on motor relay will be off, or will turn off when the UP pushbutton is pressed.
	Battery voltage low (DC units).	Test with meter. Charge battery if low (is the motor relay LED on?)
Motor runs but		
deck doesn't move. Power unit not noisy.	Pump is failing to produce pressure.	Contact Technical Service.
	Pump is failing to produce pressure.	<u>Contact Technical Service</u> .
Motor hums or pump squeals, but the deck does not move, or the deck moves only slowly.	Excess voltage drop to motor, due to power wire size too small, wire-run too long, or incoming voltage too low.	Check the power installation for adequacy. Check the incoming voltage while the motor is running. Correct any problems found.
	Motor is "single-phasing".	Determine and correct cause of voltage loss on phase.
	Pressure relief opening at full pressure.	Check for structural damage or binding of the scissor legs, etc. Check for tabletop overload condition, i.e. load weight exceeds capacity.
	Contamination holding open the lowering valve or the check valve.	Remove and inspect valves. Clean per instructions in the " <u>Inspections and Maintenance</u> " section and "Cleaning the Lowering Solenoid Valve" on p. 19 of <u>MPU-DC manual</u> .
Platform elevates; then drifts down.	Contamination holding open the lowering valve or the check valve.	Remove and inspect lowering solenoid valve. Clean per instructions in " <u>Inspections and Maintenance</u> " section; refer to "Cleaning the Lowering Solenoid Valve" on p. 19 of <u>MPU-DC manual</u> .
Spongy or jerky platform movement.	Excessive air in the hydraulic cylinders.	Bleed air per procedure described in the " <u>Bleeding</u> <u>Air from the Hydraulic System</u> " section on p. 13 of this manual and p. 20 of the <u>MPU-DC manual</u> .
Platform won't lower.	Solenoid coil is bad.	Check with multimeter using the diode-check function. (Reading for ohms will not provide an accurate test of the coil). Replace if bad.
	Physical blockage of the mechanism.	Inspect for foreign material or objects blocking the scissors or the rollers.
	Solenoid valve, flow control, or suction hose screen plugged.	Remove and inspect valves. Clean per instructions in "Inspections and Maintenance" section.
Platform lowers too slowly.	Solenoid valve, flow control, or suction hose screen plugged.	Remove and inspect valves. Clean per instructions in "Inspections and Maintenance" section.
	Velocity fuse locking (indicated by platform only slowly creeping down).	Check for air in hydraulic system. Bleed air as needed.
	Flow control valve spool sticking.	Remove and inspect valves. Clean per instructions in "Inspections and Maintenance" section.
Platform lowers too quickly.	Flow control valve spool sticking.	Remove and inspect valves. Clean per instructions in "Inspections and Maintenance" section.

LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

Definition of "original part"?

An original part is a part used to make the product as shipped to the Warrantee.

What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the <u>Customer Invoice</u> that displays the shipping date; AND 2) a <u>written request</u> for warranty service including your name and phone number. Send requests by one of the following methods:

<u>US Mail</u> Vestil Manufacturing Company 2999 North Wayne Street, PO Box 507 Angola, IN 46703

(260) 665-1339 <u>Phone</u> (260) 665-7586

Fax

<u>Email</u> info@vestil.com Enter "Warranty service

request" in subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions ("wearing parts"), such as bearings, hoses, wheels, seals, brushes, and batteries.

How long is the warranty period?

The warranty period for original dynamic components is <u>1 year</u>. For wearing parts, the warranty period is <u>90 days</u>. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any covered part. An authorized representative of Vestil will contact you to discuss your claim.

What is not covered by the warranty?

The Warrantee (you) is responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

Events that automatically void this Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- <u>Unauthorized modifications</u>: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

Do any other warranties apply to the product?

Vestil Manufacturing Co. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty. Vestil makes no warranty or representation that this product complies with any state or local design, performance, or safety code or standard. Noncompliance with any such code or standard is not a defect in material or workmanship.

