



## VESTIL MANUFACTURING CORP.

2999 North Wayne Street, P.O. Box 507, Angola, IN 46703

Telephone: (260) 665-7586 -or- Toll Free (800) 348-0868

Fax: (260) 665-1339

www.vestilmfg.com e-mail: [sales@vestil.com](mailto:sales@vestil.com)

### SST-45 Self-Leveling Scissor Table Assembly, Use, and Maintenance Manual



#### Receiving instructions:

After delivery, IMMEDIATELY remove the packaging from the product. Inspect the product closely for damage. **If damage is discovered, immediately record a complete description of the damage on the bill of lading.** If the product is undamaged, discard the packaging.

#### NOTES:

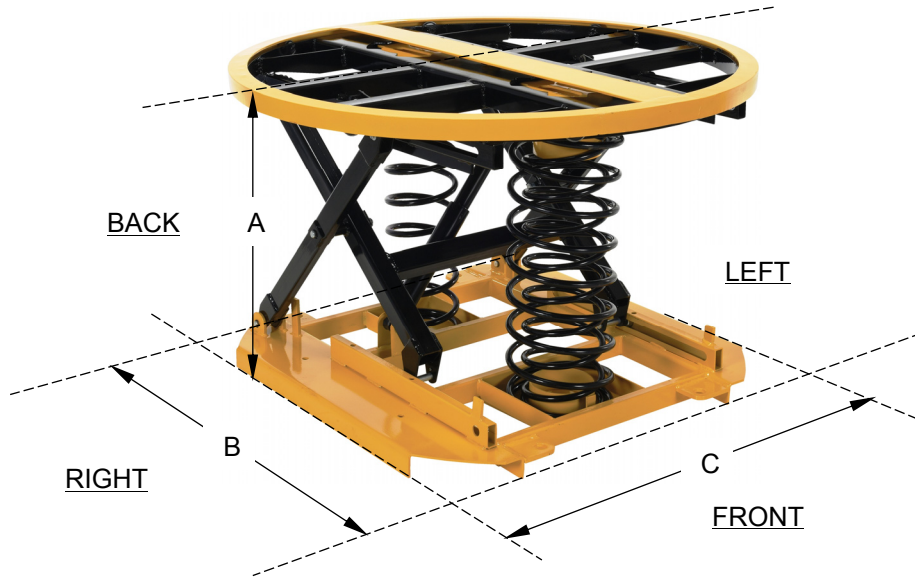
- 1) Compliance with laws, regulations, codes, and non-voluntary standards applied where the product is used is the exclusive responsibility of the end-user.
- 2) VESTIL is **not liable** for any injury or property damage that occurs from failure to apply either:
  - a) Instructions in this manual; or b) information provided on labels affixed to the product. Vestil is not responsible for consequential damages while assembling, installing, using or maintaining this product.

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### Product specifications:

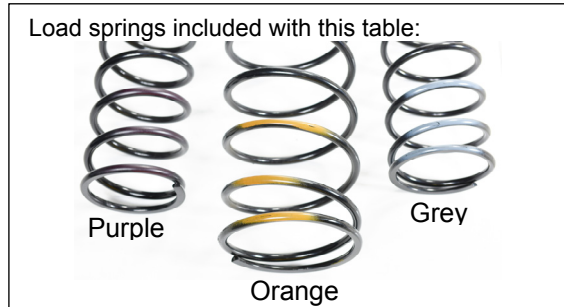
Dimensions and other product specifications appear in the diagrams and table below.



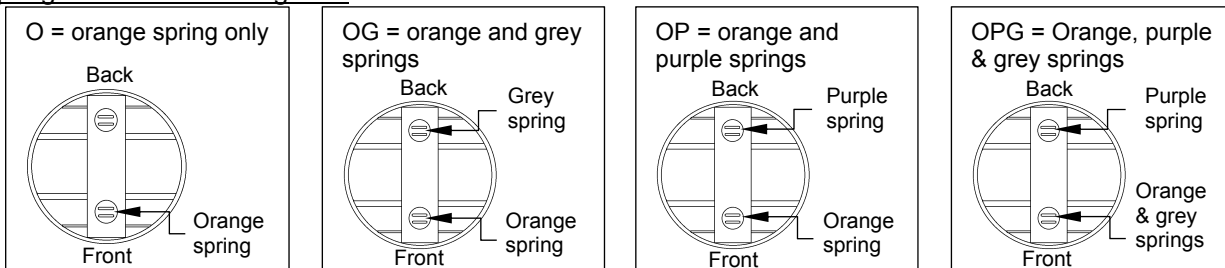
Model	A (Tabletop height)		B (Base length)	C (Base width)	Rotating ring diameter		Net weight	Capacity
	Springs compressed	Springs extended			Inside	Outside		
SST-45	9 <sup>1</sup> / <sub>2</sub> in. 24.1 cm	27 <sup>3</sup> / <sub>4</sub> in. 70.5 cm	36 <sup>1</sup> / <sub>4</sub> in. 92.1 cm	36 <sup>3</sup> / <sub>4</sub> in. 93.3 cm	40 <sup>5</sup> / <sub>8</sub> in. 103.2 cm	43 <sup>5</sup> / <sub>8</sub> in. 110.8 cm	380 lb. 172.7 kg	400-4400 lb. 182-2000 kg

#### Spring Combinations:

Three (3) springs are included with this product in order to optimize performance over a broad range of load weights and heights. Each spring is marked with a unique color: orange, grey, or purple. Use the table below to match the weight and height of your load with the proper complement of springs. Load weight ranges are given in pounds (lb.); height ranges are given in inches. Refer to the "Spring Combinations Diagrams" below when installing or removing springs.



#### Spring Combinations Diagrams:



Load weight including pallet/skid in pounds

Height of load in inches	Load weight including pallet/skid in pounds										
	0-400	400-800	800-1200	1200-1600	1600-2000	2000-2400	2400-2800	2800-3200	3200-3600	3600-4000	4000-4400
58-60	O	O	O	O	O	O	OG	OG	OG	OP	OP
56-58	O	O	O	O	O	OG	OG	OG	OG	OP	OP
54-56	O	O	O	O	O	OG	OG	OG	OG	OP	OP
52-54	O	O	O	O	O	OG	OG	OG	OP	OP	OP
50-52	O	O	O	O	O	OG	OG	OG	OP	OP	OGP
48-50	O	O	O	O	O	OG	OG	OG	OP	OP	OGP
46-48	O	O	O	O	O	OG	OG	OP	OP	OP	OGP
44-46	O	O	O	O	OG	OG	OP	OP	OP	OGP	OGP
42-44	O	O	O	OG	OG	OG	OP	OP	OGP	OGP	OGP
40-42	O	O	O	OG	OG	OP	OP	OP	OGP	OGP	OGP
38-40	O	O	O	OG	OG	OP	OP	OGP	OGP	OGP	OGP
36-38	O	O	O	OG	OG	OP	OGP	OGP	OGP	OGP	OGP
34-36	O	O	OG	OG	OP	OP	OGP	OGP	OGP	OGP	OGP
32-34	O	O	OG	OP	OP	OGP	OGP	OGP	OGP	OGP	OGP
30-32	O	O	OG	OP	OP	OGP	OGP	OGP	OGP	OGP	OGP

## 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 signal words used appear below along with the meaning of each word:



Identifies a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.



Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.



Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.



Identifies practices likely to result in product/property damage, such as operation that might damage the product.

Each person who assembles, installs, uses, or maintains this product should read the entire manual in advance and fully understand the directions. If after reading the manual you do not understand an instruction, ask your supervisor or employer for clarification, because failure to adhere to the directions in this manual might result in serious personal injury.

## Safe Use Recommendations:

We strive to identify all hazards associated with the use of our products. However, material handling is dangerous and no manual can address every risk. The end-user ultimately is responsible for exercising sound judgment at all times.



Material handling is dangerous. Improper or careless operation of this table might result in serious personal injuries.

- ***Failure to read and understand the entire manual before assembling, using or servicing the product constitutes misuse.*** Read the manual whenever necessary to refresh your understanding of proper use and maintenance procedures.
- DO NOT install the table outdoors or in corrosive environments. ONLY install the table on compacted, improved surfaces (e.g. concrete) that are level and even. The surface must be capable of supporting the combined weight of the table and a full capacity load.
- DO NOT use the table unless it is in normal operating condition. Inspect the unit as described in the inspection instructions on p. 6. DO NOT use the machine unless it passes every part of the appropriate inspection or until it is restored to normal operating condition.
- DO NOT use the table to lift people. DO NOT stand on the table frame or climb onto the tabletop.
- Always watch the table carefully while applying a load to it.
- Avoid pinch points. Pinch points are created as the table rises and lowers do to the pivoting motion of the scissor legs. NEVER reach into or put any part of your body between the scissor legs.
- Always load the table properly (see p. 2). Center and evenly distribute all loads applied to this table.
- The tabletop should elevate evenly as weight is removed from it and lower smoothly as weight is applied to it. Watch for binding or jerky movement and listen for unusual noises. Remove the unit from service if you observe anything abnormal.
- DO NOT apply loads to this table on broken or damaged pallets. Examine each pallet to confirm that no nails protrude from the surfaces and that all boards are intact. A damaged/broken pallet might interfere with tabletop rotation. A sudden stop while rotating the tabletop could cause the load to shift or fall.
- Lift a load high enough that it is clearly no longer in contact with the tabletop before backing away from the table.
- If the table must be moved, completely unload it first.
- DO NOT use this table UNLESS all labels are in place & readable (see "Labeling diagram" on p. 7.)
- DO NOT modify this product in any way. Modifying the machine automatically voids the limited warranty (see p. 8). and might make it unsafe to use.
- If repairs are necessary, ONLY install manufacturer-approved replacement parts.



Proper use and maintenance are essential for this product to function properly.

- Always use this product in accordance with the instructions in this manual.
- Periodically lubricate moving parts.
- Keep the product clean & dry at all times. Always store the unit inside.
- Only use approved replacement parts. To order replacement or spare parts for this equipment, contact the factory.

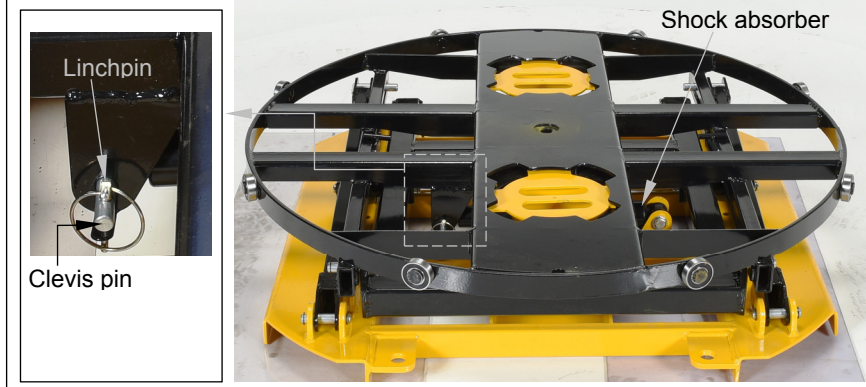


**Assembling Instructions:**

The table is easily assembled and disassembled. However, heavy lifting is required and it is, therefore, strongly recommended that at least 2 people work together to assemble and disassemble the table. [NOTE: Numbers in parentheses () in steps 1-8 below correspond to item numbers.] The unit is shipped as shown below. The tabletop must be deployed and the appropriate spring combination must be installed before it can be used.



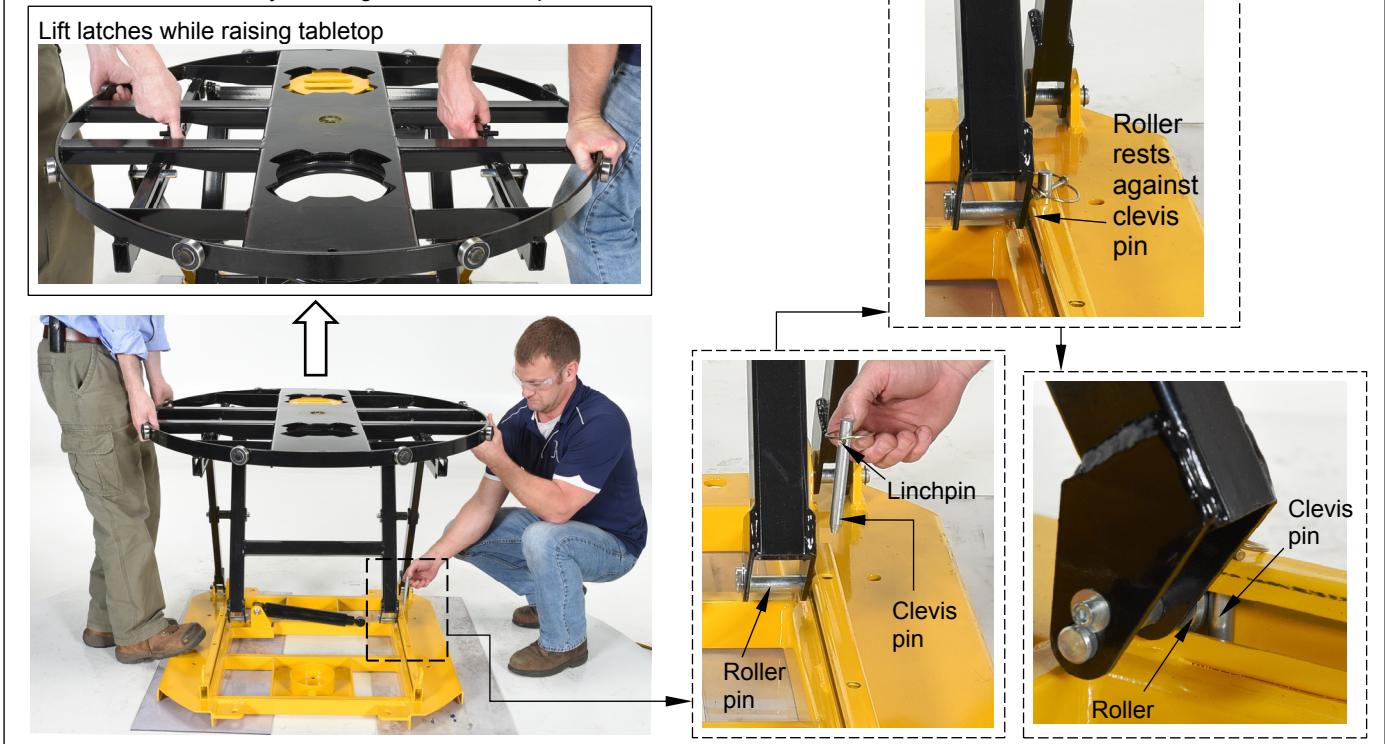
**Step 1:** Remove the (yellow) carousel from the tabletop. Then, remove the linchpin and clevis pin to release one end of the shock absorber from the shock bracket as shown below.



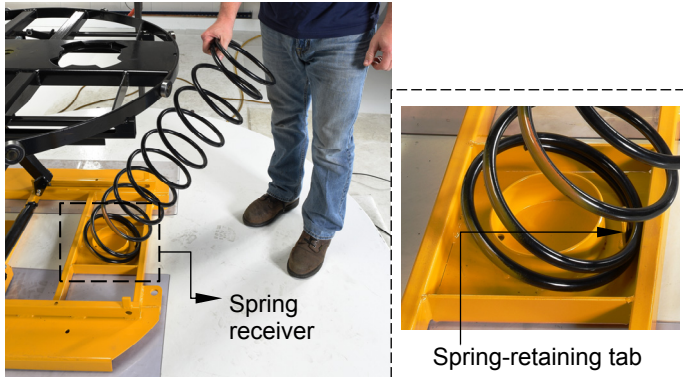
**Step 2:** Remove the tabletop plug from the opening above the spring receiver. Turn the plug and lift it out the top of the table.



**Step 3:** Lift the tabletop latches and lift the tabletop as high as it will go. Then, install the clevis pin into one of the 2 pin holes in the roller channel as shown below. The clevis pin prevents the scissor legs from moving. After installing the pin, slowly lower the table until the roller firmly rests against the clevis pin.



**Step 4:** Insert the bottom of the spring (each spring is painted with a unique color near the bottom end as shown on p. 2) into the spring receiver. Insert the base of the spring between the frame and the spring-retaining tab.



**Step 5:** Compress the spring by pressing down on the second or third loop (not the top of the spring) and slide it under the tabletop.



**Step 6:** Make sure that the top of the spring is properly seated inside the upper spring receiver; then remove the clevis pin.



**Step 7:** Press the tabletop down until the latches catch; then pull out the free end of the shock absorber and attach it to the shock bracket using the clevis pin and linchpin.



Extend shock:

Fasten shock to bracket:

Bracket  
Linchpin  
Clevis pin



**Step 8:** Reinstall the carousel (unit shown below with all 3 springs installed).



Installing/Removing Springs:

Before loading the table, use the "Spring Combinations Table" on p. 2 to determine if more than just the orange spring is required. If the height and weight of a particular load requires adding springs, determine which springs are necessary as well as their proper placement as indicated in the "Spring combinations diagram" on p. 2. To install either the grey or purple spring:

1. Remove the appropriate tabletop plug;
2. Insert the spring through the opening. Make sure that the spring is seated properly;
3. Then, reinsert the plug and turn it as far as possible (the fins of the plug will contact stops) to secure the plug in place.
4. Look underneath the tabletop to confirm that the spring is properly seated as shown in the photograph to the right.

Spring seated inside upper receiver with plug reinstalled.





**Table Loading Instructions:**

Loading -- When using the spring table to load a pallet, always center the pallet on the table and center the load on the pallet. Distribute weight evenly on the pallet. For instance, if you are palletizing boxed items, add boxes in layers. Complete each layer before adding boxes to higher layers. Be careful while removing the loaded pallet from the table. Insert the forks of your lift truck through the pallet and slowly raise the forks. The table will rise at the same time. Continue to raise the forks until the tabletop is several inches below the bottom of the pallet before backing away from the table.

Unloading -- If you use the table to support a pallet while unloading it, apply the loaded pallet to the tabletop by slowly lowering the forks of your lift truck. Continue to slowly lower the forks as the springs compress under the load. Watch the pallet closely. When a gap appears between the top side of the forks and the pallet deck boards, stop lowering the forks. Raise the forks just enough to almost close the gap; then slowly back away from the pallet. Adjust the elevation of the forks if necessary to avoid over-compressing or under-compressing the springs. Unload the pallet evenly. Remove items in layers by completely unloading each layer before removing items from lower layers.

**Inspections & Maintenance:**

If any of the inspections described below reveal problems, tag the unit "Out of Service". Restore the machine to normal operating condition BEFORE using it again.

A. Before each use, inspect the following components. Each component must be in normal operating condition. To establish normal operating condition, make a thorough record of the appearance, sound, and function of the various parts of the table when you first assemble it. Compare later observations to the record to determine whether the machine is in normal operating condition.

1. Frame: examine the frame, scissor legs, roller channels, and carousel. Look for damaged welds, warps, cracks, or other deformations.
2. Casters: examine each caster. Confirm that casters are not severely worn, swivel freely, and that the brakes firmly engage the wheels.
3. Springs: apply a test load to the table that is appropriate for each spring combination. The tabletop should move smoothly without binding or jerking. While applying the test loads, listen for unusual sounds.
4. Fasteners: check bolts and nuts. Make sure all fasteners are tightly connected.
5. Roller bearings: rotate the carousel. Watch and listen to the carousel as it rotates. If unusual noise is produced, or if the carousel binds, wobbles, or lurches, remove it and examine the roller bearings. Rotate each bearing to determine it requires lubrication. Replace all bearings that are significantly worn. Clean the underside of the carriage where the bearings make contact with it to remove debris that might interfere with them.

B. At least once per month:

1. Wiring: inspect the electrical system and look for loose connections and damage.
2. Clean the machine: remove dirt and other matter from all surfaces.
3. Labels: refer to the "Labeling Diagram" on p. 7. Make sure that all labels are in place and readable.
4. Batteries: remove corrosion from the posts if present.

**Troubleshooting guide:**

The following table describes the most common issues that occur with these spring tables. If your unit experiences a problem not included in this guide, contact the factory for assistance.

Issue:	Explanation	Remedy
1) When a load is applied to the table, the carousel rotates on its own.	a) Table is not level.	a) Determine the state of levelness and adjust the position of the frame to level the unit.
2) The carousel produces a lot of noise while it rotates	b) 1 or more carousel bearings need to be lubricated or replaced.	b) Rotate each of the bearings to determine which are noisy and/or do not rotate smoothly. Lubricate bearings. If a bearing appears to be significantly worn, replace it.
3) The tabletop lowers too much when a load is applied.	c) The load applied exceeds the weight limit of the spring combination.  d) The load exceeds the maximum capacity of the table (4,400 lb.)	c) Remove the load and select the proper spring combination for the load. (See "Spring Combinations Table".) d) Reduce the load until it is within the capacity of the table.
4) The tabletop does not lower enough when a load is applied.	e) The spring combination is too strong for the load applied.	e) Remove the load and select the proper spring combination for the load. (See "Spring Combinations Table".)
5) The tabletop bounces or feels spongy when pressed.	f) The shock absorber is malfunctioning.	f) Examine the shock absorber. Replace it if it is damaged or leaking.

**Labeling diagram:**

The table should always be labeled as shown in the diagram below. Replace all labels that become damaged or unreadable.



**A: Label 207**

<p><b>⚠ WARNING</b></p> <p><b>⚠ ADVERTENCIA</b></p> <p><b>⚠ AVERTISSEMENT</b></p>	<p>DO NOT EXCEED RATED CAPACITY. DISTRIBUTE LOAD EVENLY. READ OWNERS MANUAL BEFORE OPERATING OR REPAIRING LIFT.</p> <p>NO EXCEDA LA CAPACIDAD TASADA. DISTRIBUYA LA CARGA UNIFORMEMENTE. LEA EL MANUAL DEL PROPIETARIO ANTES DE USAR O REPARAR EL ELEVADOR.</p> <p>NE PAS DÉPASSER CHARGE NOMINALE. REPARTIR ÉGALEMENT LE CHARGEMENT. LIRE LE GUIDE D'UTILISATION AVANT D'UTILISER OU DE RÉPARER L'ÉLEVATEUR.</p>	<p>DO NOT PUT HANDS, FEET OR OBJECTS UNDER TOP. LOWER PLATFORM SLOWLY.</p> <p>NO PONGA MANOS, PIES U OBJETOS DEBAJO DEL BORDE. DESCienda LA PLATAFORMA LENTAMENTE.</p> <p>NE PAS METTRE LES MANS, LES PIEDS OU TOUT OBJET SOUS LE PLATEAU SUPÉRIEUR. DESCENDRE LA PLATE-FORME LENTEMENT.</p>	<p>DO NOT WORK UNDER LIFT WITHOUT SAFETY BLOCK OR WHILE LOADED. KEEP CLEAR OF MOVING SCISSOR LEG MECHANISM.</p> <p>NO TRABAJE DEBAJO DEL ELEVADOR SIN LOS FRENSOS DE SEGURIDAD O CUANDO ESTÉ CARGADO. MANTENGASE ALEJADO DEL MECANISMO DE TUBA EN MOVIMIENTO.</p> <p>NE PAS TRAVAILLER SOUS L'ÉLEVATEUR SANS BLOCS DE SÉCURITÉ OU LORSQU'IL EST CHARGÉ. RESTER À L'ÉCART DU MÉCANISME CISEAU LORSQUE L'ÉLEVATEUR EST EN FONCTIONNEMENT.</p>	<p>DO NOT STAND, SIT OR RIDE ON LIFT.</p> <p>NO SE SIENTE, SE PARE, O VIA EN EL ELEVADOR.</p> <p>NE PAS SE TENIR DEBOUT, S'ASSEoir OU MONTER SUR L'ÉLEVATEUR.</p>
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**B: Label 287**

MODEL/MODELO/MODELE _____
STATIC CAPACITY (evenly distributed) _____ lbs.
LA CAPACIDAD CONSTANTE (distribuida uniformemente) _____ kgs.
CAPACITÉ STATIQUE (distribuée régulièrement) _____ kgs.
SERIAL/SERIE/SÉRIE _____

287 rev 012

**C: Label 824**

<p><b>⚠ DANGER</b></p> <p>To avoid bodily injury, stand clear while in motion.</p>		<p><b>⚠ PELIGRO</b></p> <p>Para evitar daños, mantengase alejado cuando en movimiento.</p>
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824

**D: Label 208**

<p><b>⚠ WARNING</b></p> <p>KEEP CLEAR OF PINCH POINT</p>	<p><b>⚠ ADVERTENCIA</b></p> <p>MANTENGASE ALEJADO DEL PUNTO DE CORTE</p>	<p><b>⚠ AVERTISSEMENT</b></p> <p>SE TENIR À DISTANCE DU POINT DE PINCEMENT</p>
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**E: Label 204**

<p><b>⚠ WARNING</b></p> <p>SECURE FRAME TO FLOOR</p>	<p><b>⚠ ADVERTENCIA</b></p> <p>ASEGURE EL BASTIDOR AL PISO</p>	<p><b>⚠ AVERTISSEMENT</b></p> <p>FIXER SOLIDEMENT LE CADRE AU PLANCHER</p>
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204 rev 001

**F: Label 269**

<p><b>⚠ WARNING</b></p> <p>INSTALL ALL SUPPLIED MAINTENANCE STOPS before any maintenance is performed on unit.</p> <p>DO NOT perform maintenance with load on unit.</p>	<p><b>⚠ ADVERTENCIA</b></p> <p>INSTALE TODAS LAS PARADAS DE MANTENIMIENTO SUMINISTRADAS antes de hacer cualquier reparación en la unidad.</p> <p>NO haga ninguna reparación con la unidad cargada.</p>
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269 rev 011

## 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 if the part is 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.

### What is an “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 Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by any of the following methods:

<u>Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	sales@vestil.com

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

### What is covered under the warranty?

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 may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following *original* dynamic components: motors, hydraulic pumps, electronic controllers, switches 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 90 days. For wearing parts, the warranty period is also 90 days. The warranty periods begin on the date when 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 the warranty periods 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?

1. Labor;
2. Freight;
3. Occurrence of any of the following, which automatically voids the warranty:
  - Product misuse;
  - Negligent operation or repair;
  - Corrosion or use in corrosive environments;
  - Inadequate or improper maintenance;
  - Damage sustained during shipping;
  - Collisions or other incidental contacts causing damage to the product;
  - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

### Do any other warranties apply to the product?

Vestil Manufacturing Corp. 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.

