



VESTIL MANUFACTURING CORP.

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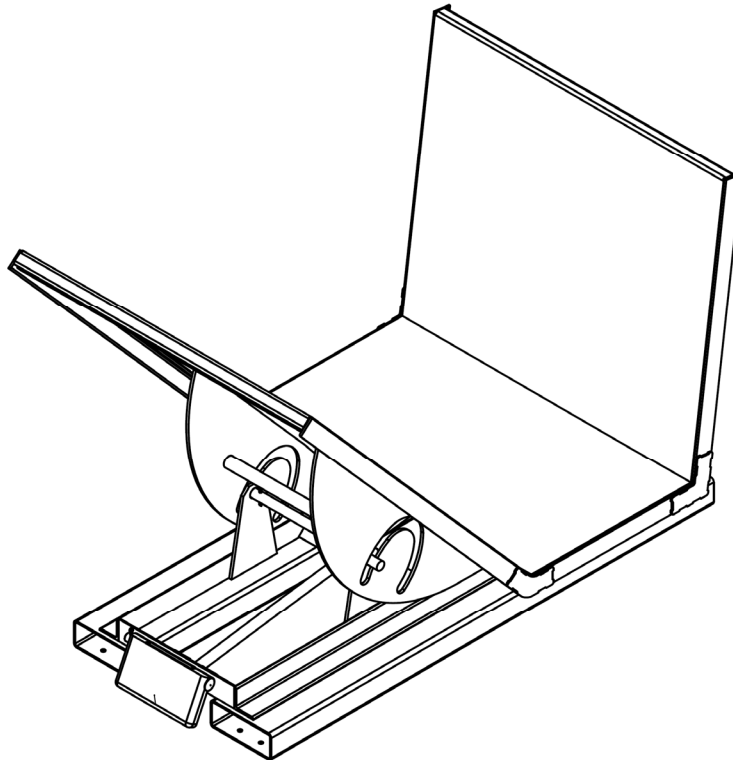
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D-NS-100-LD OPEN-SIDED HOPPER

Instruction Manual



Receiving instructions:

After delivery, immediately remove the packaging from the product in a manner that preserves the packaging. Inspect the product closely to determine whether it sustained damage during transport. 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:

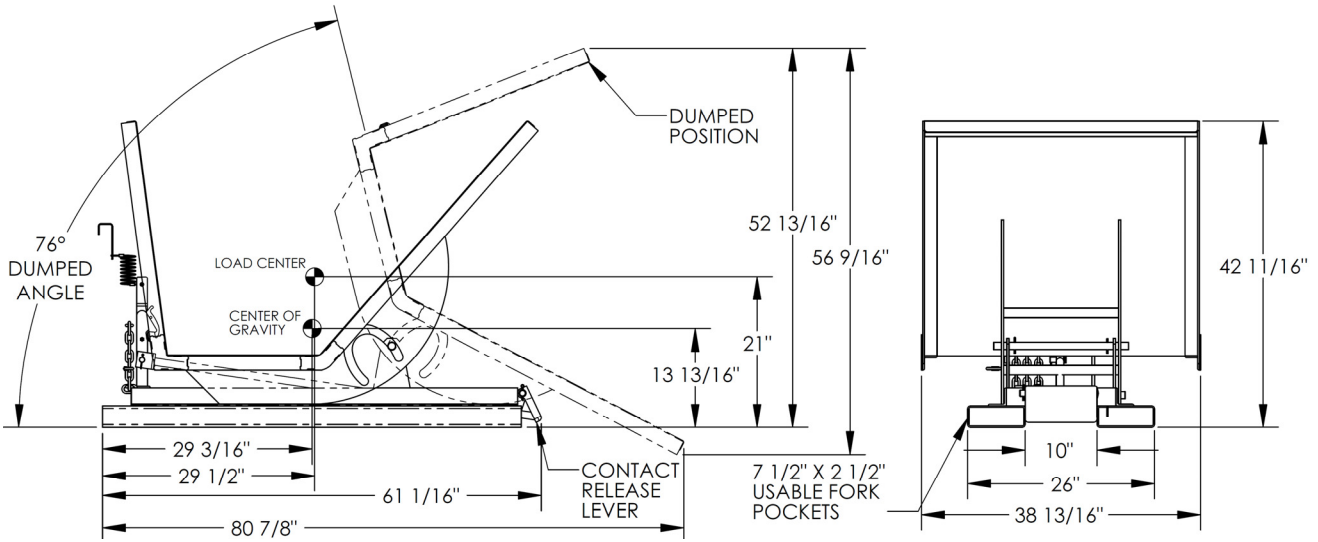
- 1) Compliance with laws, regulations, codes, etc. applied where the product is *used* is exclusively the responsibility of the owner/end-user.
- 2) VESTIL is not liable for any injury, property damage, or consequential damages that occur as a consequence of failing to apply either:
 - a) Instructions in this manual; or
 - b) Information provided on labels applied to the product.

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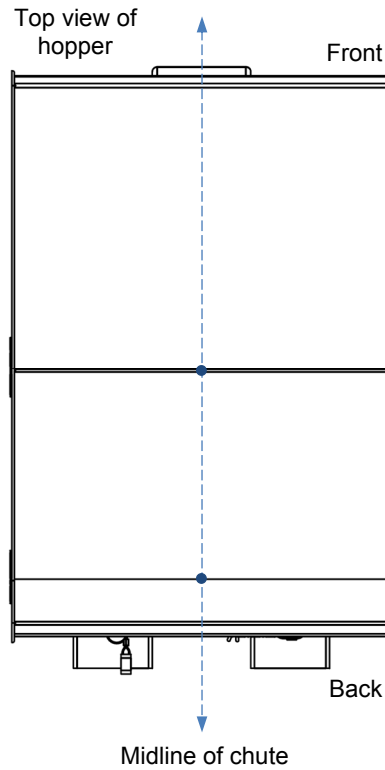
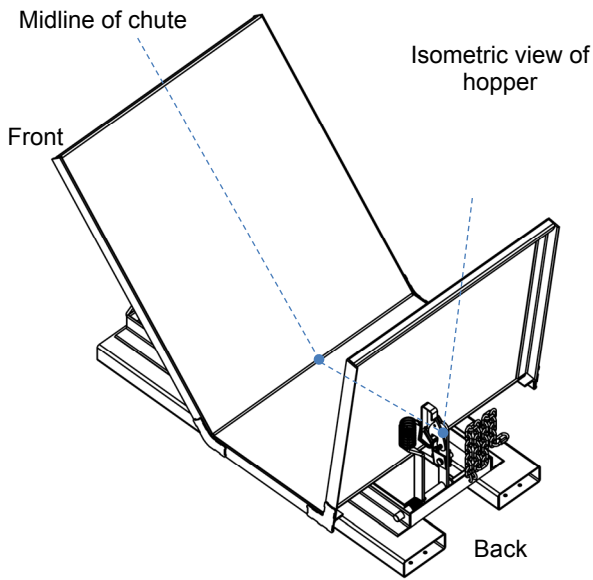
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Specifications:

Dimensions and other specifications for each standard hopper model and accessory equipment appear in the following diagrams and tables.

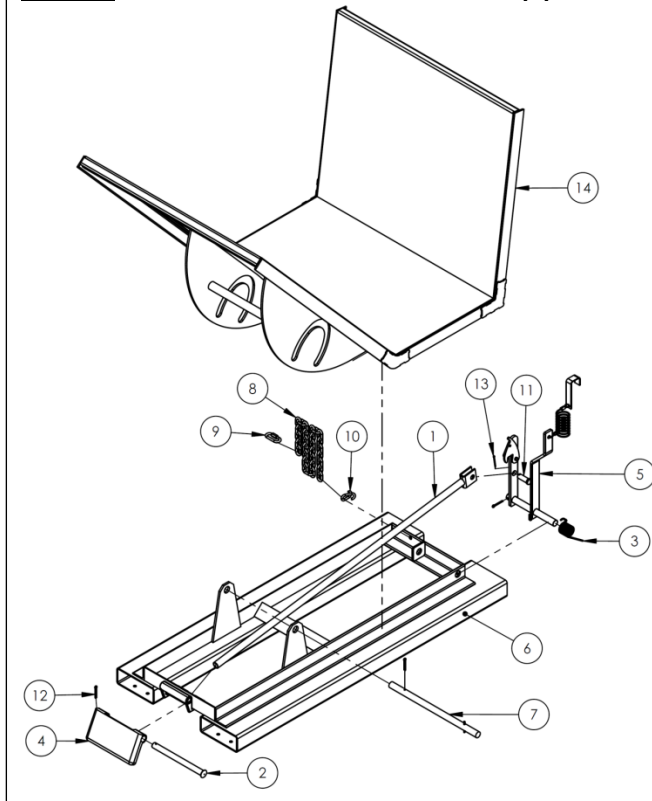


Model	Volume	Capacity	Overall Dimensions (W x L x H)	Distance between Fork Pocket Centers	Net Weight
D-NS-100-LD	1 yd ³ (0.76 m ³)	2,000 lb. (909 kg)	38 ^{13/16} " x 61 ^{1/16} " x 42 ^{11/16} " (98.6 x 155.1 x 108.4)cm	18" (45.7cm)	461.6 lb. 209.8kg



NOTE: When loading the hopper with material with long material, make sure that the material balances. Center all material on the midline of the chute. Drive carefully and turn very slowly to avoid losing the load.

Fig. 1: D-NS-100-LD series hoppers exploded parts diagram & bill of materials



Item no.	Part no.	Description	Qty.
1	37-537-006	Weldment, release lever rod	1
2	37-112-006	Pin, bumper plate	1
3	37-146-005	Spring, torsion, hopper release	1
4	37-037-040	Bumper release	1
5	37-537-012	Weldment, lock, release, lever assembly	1
6	37-514-008	Weldment, frame, base	1
7	37-612-005	Subassembly, pin, main connection pin	1
8	99-145-037	$\frac{9}{16}$ " chain 36"	1
9	99-145-053	$\frac{9}{16}$ " quick link	1
10	99-145-084	Lap link	1
11	28-112-043	Pin, $\frac{3}{4}$ " x 2" retaining clevis	1
12	65127	Cotter pin, zinc-plated, $\frac{3}{16}$ " x 2"	3
13	65080	Extended prong cotter pin, zinc finish, $\frac{1}{8}$ " x 2"	1
14	37-545-105	Weldment, chute	1

Signal Words:

Vestil Manufacturing Corp. created this manual to acquaint owners and users of our fork-mounted hoppers with safe use and maintenance procedures. Although Vestil diligently strives to identify foreseeable, hazardous situations, this manual cannot address every conceivable danger. The end-user is ultimately responsible for exercising sound judgment at all times.

The mechanisms of each hopper are relatively intuitive to operate. Nonetheless, all persons who might use or operate this product should familiarize themselves with the instructions provided in this manual. Each person who **might** use or maintain the product must read this entire manual and fully understand the directions BEFORE using or performing maintenance on the hopper.

Failure to apply the directions in this manual might lead to serious personal injury or even death. Vestil is **not liable** for any injury or property damage that occurs as a consequence of failing to apply either: 1) the instructions that appear in this manual; or 2) the information disclosed on labels affixed to the product. Furthermore, failure to exercise good judgment and common sense could result in property damage, serious personal injury or death, and also are **not the responsibility of Vestil**.

To draw attention to hazards that users might encounter, this manual classifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen indicates the seriousness of the described hazard.

⚠ DANGER 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.

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

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

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

Safety Recommendations:

Study the entire manual before using the product for the first time. Read the manual whenever necessary to refresh your understanding of safe operation, inspection and maintenance procedures.

- ⚠ WARNING** Material handling is dangerous. Improper or careless operation might result in serious personal injuries.
- Read & understand the instructions included in this manual before installing, using or servicing the hopper.
 - DO NOT use a malfunctioning or structurally damaged hopper. Examples structural damage include: 1) damage to the hopper release mechanism (that allows the hopper to dump); 2) broken fork pocket(s); 3) main connection pin; or 4) broken welds. Inspect the hopper before each use according to the inspection instructions on p. 5. DO NOT use the hopper unless it passes every part of the inspection.
 - DO NOT use the hopper if the safety chain is damaged or absent; DO NOT lift the hopper until it is securely connected to the carriage of the fork truck with the safety chain.
 - DO NOT fill the hopper with a load weighing more than the maximum rated load (see Table, p. 2).
 - DO NOT stand beneath or travel under the hopper at any time. DO NOT permit any person to stand beneath or travel under the hopper.
 - **Hoppers with lifting lugs** can be lifted with overhead hoists and cranes. DO NOT lift a hopper unless the chute is securely latched to the frame. The hopper must not be able to dump while it is suspended.
 - DO NOT allow people to ride on or in the hopper.
 - DO NOT use the hopper if any product label (see "Labeling diagram" on p. 6) is unreadable, damaged, or missing. Contact Vestil to order replacement labels.
 - When loading the hopper, make sure that the load balances. Center all material on the midline of the chute (see diagrams on p. 2). Drive carefully and turn very slowly to avoid losing the load. Strap the material to the chute, if necessary.
 - ALWAYS apply proper (fork) lift truck operation practices learned during your training program. Before raising the hopper from the floor AND tilt the (forklift) mast toward the cab of the truck to ensure that the hopper will not slide towards the tips of the forks.
 - DO NOT modify the hopper in any way! Modification(s) might make the hopper unsafe to use.
 - DO NOT dump the hopper UNLESS every person in the vicinity is safely behind the forklift truck.
 - DO NOT dump the hopper if the forklift is facing down a slope. Only dump the hopper while parked on a level surface.
 - Do not exceed the load rating of the hopper or overfill the hopper, i.e. do not fill above the front and back of the hopper. Injury to personnel or permanent damage to the equipment could result from overloading.

Loading and Use Instructions:

Standard self-dumping hoppers are suitable for use indoors and outdoors and in most industrial and commercial settings. They are intended to be used with rider forklift trucks as a means for dumping non-hazardous refuse into larger trash receptacles.

Confirm that the hopper chute is latched to the base frame (i.e. cannot dump) before loading the chute with material. Open-sided hoppers are designed to accept material that is too long to fit into closed hoppers. However, all material loaded into this open-sided hopper must balance in the chute. Generally, this requires centering loaded material on the midline of the chute. If necessary, use straps to secure the load before moving the hopper, if necessary. While moving the hopper, turn very slowly to avoid ejecting the load.

The hopper chute rotates through a 70° dump angle and can be dumped in 2 ways: 1) manually by pulling the release cable; or 2) remotely by pressing the bumper plate against an object. To dump the hopper, follow the 6 steps below.

Step 1: Drive the lift truck forward and insert the forks into the fork tubes. Drive forward until either: 1) the tips of the forks begin to stick out of the ends of the tubes; or 2) if the forks are not long enough to extend all the way through the tubes, drive forward as far as possible.

Step 2: Securely attach the hopper to the fork carriage with the safety chain. Wrap the chain around part of the fork carriage; then connect the quick link at the end of the chain to a link in the chain with as little slack as possible.

⚠ WARNING DO NOT wrap the release cable around any part of your body, e.g. hands, or attach the handle at the end of the cable to your clothing. If you do and the chute is released, you might be seriously injured.

Step 3: If you will release the chute manually by pulling the release handle, store the handle within reach of the forklift operator, for example by hooking it to the frame of the cab. Make sure that there is plenty of slack in the cable to avoid accidentally releasing/dumping the chute.

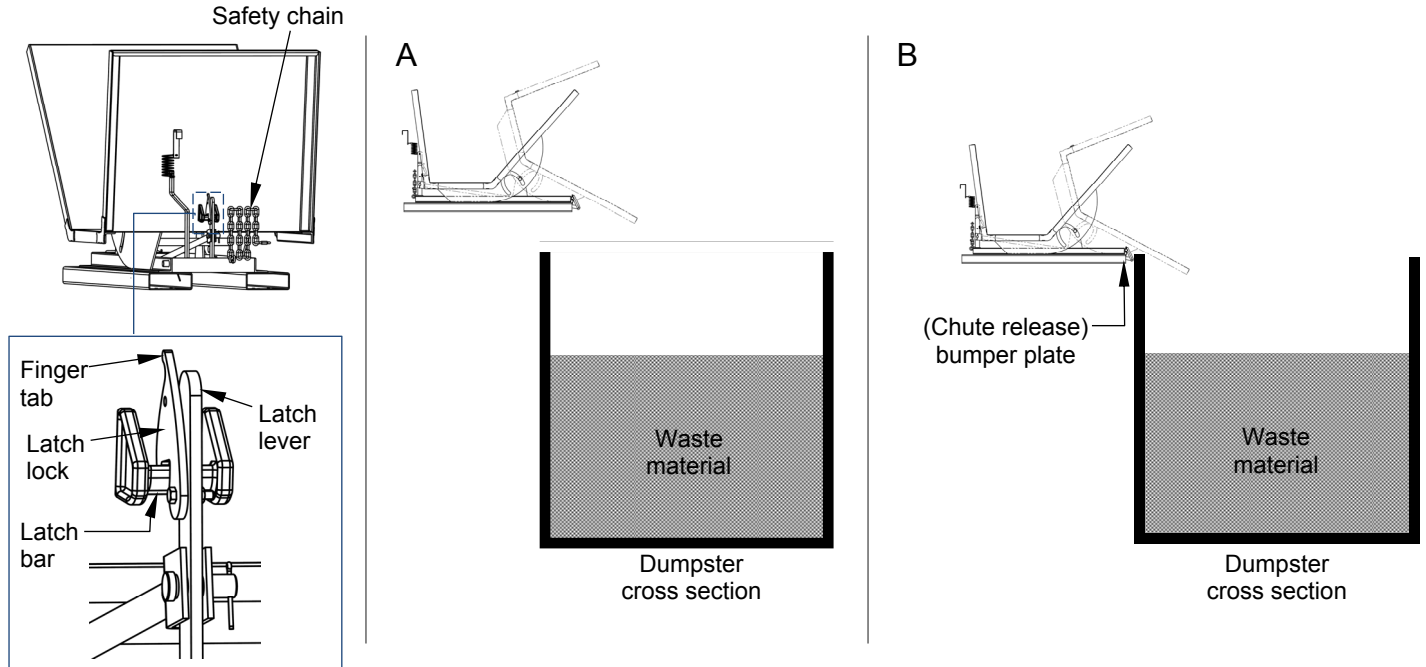
NOTE: If you will use the bumper plate mechanism to dump the chute, attach the handle to the *frame* of the hopper. Do not hook the handle to the chute because it could be torn from the cable when the chute is dumped.

Step 4: Drive the forklift to the dumping area. Before raising the hopper, unlock the latch lever by pulling the finger tab until the lock disengages the latch bar (see diagrams with Step 5 below).

Step 5: Raise the forks and tilt the forklift mast forward (towards the dumpster). To dump the hopper:

A. **Manually:** elevate the entire hopper above the side wall of the dumpster (see diagram A) and pull the release cable
NOTE: NEVER wrap the release cable around your fingers, hand, etc.

B. **Remotely:** elevate the hopper so that the bumper plate will contact the side of the dumpster at or near the top (see diagram B). Drive slowly towards the dumpster and press the bumper plate against the top of the side wall.



Step 6: Return the chute to the latched position. Tilt the forklift mast toward the cab and back away from the dumpster. The hopper will automatically return to the latched position. Confirm that the chute is latched to the base by raising the forks and tilting the mast forward. The hopper should not dump. If necessary, lower the forks completely and manually latch the chute to the frame by pressing down on the rear wall of the chute until the latch lever engages the latch bar. Then, apply the latch lock.

Inspections & Maintenance:

⚠WARNING If issues are discovered during an inspection, DO NOT use the hopper or return it to regular service until it is restored to normal operating condition. DO NOT continue to use a structurally damaged hopper. Examples of structural damage include cracked welds, warping or deformation of one or both of the fork pockets, chute, pivot points, or frame members.

Inspections:

Inspect the following components at least once per month. Replace any component that is significantly worn or no longer operates normally:

- 1.) **Pivot points:** check for excessive wear, warping, or other significant damage to pivot pins, cotter pins, and pin receivers.
- 2.) **Hopper chute and base frame:** examine for damage, deformation, and corroded or excessively rusted regions. Remove rust with a steel bristle brush and apply touch-up paint to exposed metal.
- 3.) **Hardware (bolts, nuts, pins, cotter pins, retaining rings):** inspect hardware for looseness and severe wear. Tighten loose connections and replace all damaged hardware.
- 4.) **Casters (if hopper is equipped with caster kit):** check for looseness, excessive wear, etc. to the casters, bearings, mounting brackets, and mounting hardware.
- 5.) **Release mechanism:** the torsion spring should cause the latch lever to automatically recoil and the lever should firmly contact the release lock bar. Check the release cable for frayed, thinned, and bird-caged regions.
- 6.) **Moving parts:** listen for unusual noises and watch for irregular movement. Remove dirt and debris from areas that could affect the hopper's dumping motion.
- 7.) **Safety chain:** examine the safety chain, its attachment to the base frame, and the quick links for damage.
- 8.) **Labels:** all labels must be firmly affixed in the locations shown in the "Labeling Diagram" on p. 6.

Maintenance:

Implement a maintenance program to ensure that the product functions properly and is adequately maintained. The following steps should be applied to complement established maintenance programs.

Step 1: Tag the hopper, "Out of Service."

Step 2: Inspect the unit as described above. If deformity, corrosion, rusting, or excessive wear of structural members is found, DO NOT continue to use the product.

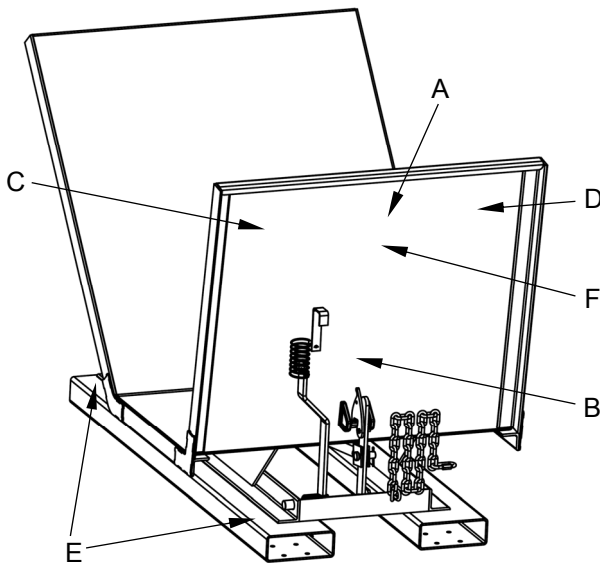
Step 3: Perform all necessary adjustments, replacements, and repairs.

⚠️WARNING DO NOT modify the hopper in any way without first obtaining written approval from Vestil. Modifications automatically void the Limited Warranty and might make the hopper unsafe to use. A "modification" is a change that alters the hopper from original condition, like bending a structural member or removing a component.

Step 4: Make a dated record of all repairs made to the hopper.

Labeling diagram:

The unit should always be labeled as shown below. Replace all labels that are missing, damaged, or not easily readable.



A: Label 620

⚠️WARNING	
	<p>DO NOT wrap release cable around hand.</p> <p>Severe injury or amputation might occur if cable wrapped around body part when chute dumped.</p>
<p>STAY CLEAR of hopper when dumping.</p> <p>DO NOT hook manual release handle on hopper when using bumper release.</p> <p>Each person who uses this hopper should have access to the user manual. Copies of the manual can be downloaded from www.vestil.com.</p>	
⚠️ADVERTENCIA	
<p>NO AGARRAR el cable con la mano.</p> <p>Puede causar un daño severo o amputación si el cable se envuelve alrededor del cuerpo al estar descargando la tolva.</p> <p>MANTENTE ALEJADO de la tolva al descargar.</p> <p>Nunca agarrar el gancho de la tolva.</p> <p>Cada persona que use la tolva debe de usar el manual, las copias se pueden descargar de la dirección www.vestil.com.</p>	
<small>620 rev 0716</small>	

B: Label 549

Model / Modelo / Modele D- -	⚠️WARNING	⚠️ADVERTENCIA
Capacity / Capacidad / Capacite lb. kg	<ul style="list-style-type: none"> SECURELY ATTACH safety restraint to forklift Tilt load backwards to prevent hopper from sliding Distribute load evenly DO NOT exceed rated capacity Hopper MUST be locked when not dumping Disengage lock on hopper release before dumping hopper DO NOT wrap release cable around any body part 	<ul style="list-style-type: none"> ASEGURE la cadena de seguridad a la transepaleta Vuelque la carga hacia atrás para prevenir que el carrito resbale Distribuya la carga uniformemente NO exceda la capacidad de carga tasada El depósito de alimentación debe ser cerrado al no descargar Suelte cerradura en la liberación de depósito de alimentación antes de descargar depósito de alimentación No envuelva cable de liberación alrededor de cualquier parte del cuerpo
Serial No. / Serie No. / Serie No.	<small>530 REV 1011</small>	

C: Label 375 (both sides)

⚠️WARNING	⚠️ADVERTENCIA	⚠️AVERTISSEMENT
DO NOT PLAY ON OR AROUND	NO JUEGE ALREDEDOR	NE PAS JOUER SUR OU ATOUR DE L'UNITÉ

D: Label 220 (both sides)

⚠️WARNING	⚠️ADVERTENCIA	⚠️AVERTISSEMENT
KEEP CLEAR WHEN IN USE	MANTENGASE ALEJADO CUANDO SE ESTA OPERANDO	SE TENIR À DISTANCE LORS DU FONCTIONNEMENT

E: Label 208 (both fork tubes)

⚠️WARNING	⚠️ADVERTENCIA	⚠️AVERTISSEMENT
KEEP CLEAR OF PINCH POINT	MANTENGASE ALEJADO DEL PUNTO DE CORTE	SE TENIR À DISTANCE DU POINT DE PINCEMENT

F: Label 995

⚠️WARNING	⚠️ADVERTENCIA
DO NOT use this product to lift or transport people.	NO use este producto para transportar o elevar personas.

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”): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger.

How long is the warranty period?

The warranty period for original dynamic components is 90 days. For wearing parts, the warranty period is 90 days. Both 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 began when the distributor shipped the product. Vestil may extend the 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?

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 conditions;
 - Inadequate or improper maintenance;
 - Damage sustained during shipping;
 - Accidents involving 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.

