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KNOCKDOWN HORIZONTAL CYLINDER STORAGE CABINET: CYL-H-4-KD ASSEMBLY AND MAINTENANCE MANUAL



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.

Replacement Parts and Technical Assistance:

If you have questions that are not addressed in these instructions and to order replacement parts, labels, and accessories, call (260) 665-7586 and ask for the Service and Parts Department. The department can also be contacted online at http://www.vestilmfg.com/parts_info.htm.

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SPECIFICATIONS

Dimensions and other product specifications appear in the following table:

Model	Uniform cylinder capacity	Dimensions (W x L x H)	Net weight
CYL-H-4-KD	4 horizontal	30in. x 32in. x 35 ¹ / ₄ in. 76cm x 81cm x 89 ¹ / ₂ cm	185 lb. 84.1kg
CYL-H-8-KD	8 horizontal	30in. x 32in. x 68 ¹ / ₄ in. 76cm x 81cm x 173cm	305 lb. 138.6kg
CYL-H-16-KD	10 horizontal	60in. x 32in. x 68 ¹ / ₄ in. 152cm x 81cm x 173cm	390 lb. 177.3kg
CYL-H8-V510-KD	5-10 vertical 8 horizontal	60in. x 32in. x 68 ¹ / ₄ in. 152cm x 81cm x 173cm	495 lb. 225kg

SIGNAL WORDS

This manual uses SIGNAL WORDS to direct the reader's attention to important safety-related messages. These messages describe uses of the product that could result in personal injury or property damage. Each signal word corresponds to a specific hazard level. The following are definitions of signal words that might appear in this manual.



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.

HAZARDS

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



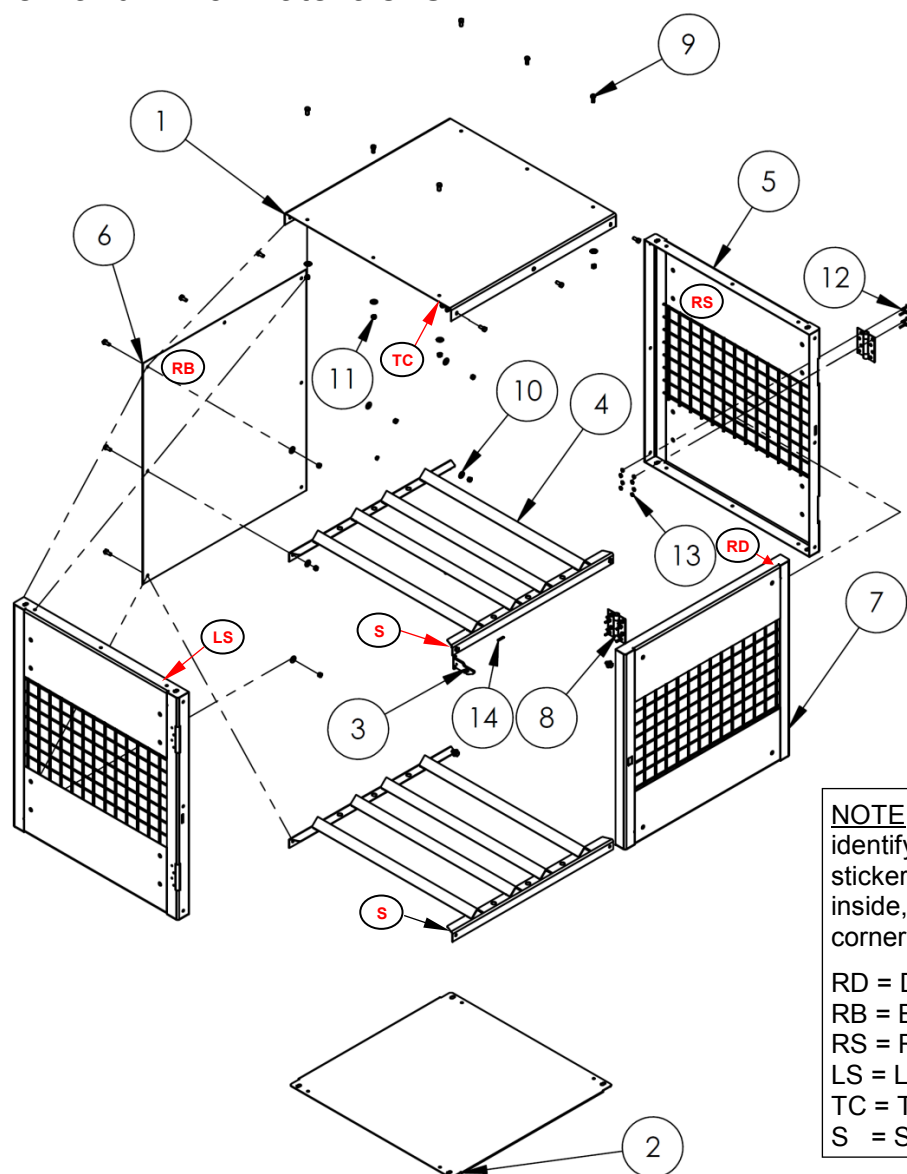
Failure to store liquefied petroleum gases ("LPG" or "LP-Gas") in a manner that complies with OSHA requirements in 29 CFR 1910.110 and 29 CFR 1926.153n (the "OSHA Rules") creates a serious safety hazard. To reduce the possibility that one or more LPG cylinders might be damaged and/or explode, only use the cylinder cabinet in a location that complies with all cylinder storage requirements in the OSHA Rules.



Improper or careless use of this product might result in serious personal injuries sustained by the operator and bystanders.

- ***Failure to read and understand the entire manual before assembling, using or servicing the product constitutes misuse.*** Read the manual to refresh your understanding of proper use and maintenance procedures as necessary.
- Inspect the cabinet regularly; DO NOT use it unless it is in normal condition. See [Inspections & Maintenance](#) recommendations on p. 7.
- DO NOT use the cabinet if the cylinder-supports sustain any structural damage. If structural damage is present, immediately tag the unit "Out of Service" and inform maintenance personnel about the problem.
- DO NOT modify this product in any way. Modifications automatically void the limited warranty and might make the cart unsafe to use.
- DO NOT store the cabinet in a location where water pools. Standing water might damage the feet of the cabinet which might cause instability.
- DO NOT use the cabinet UNLESS all labels are in place and readable. See [Labeling Diagram](#) on p. 7.
- DO NOT use the cabinet to store LPG cylinders if the cylinder supports or cabinet feet are structurally damaged. If damaged, the cabinet might fall over and any stored cylinder could be damaged. If you notice structural damage, immediately remove all cylinders, tag the cabinet "Out of Service", and report the problem to maintenance personnel.

Exploded View and Bill of Materials: CYL-H-4-KD 31-006-164



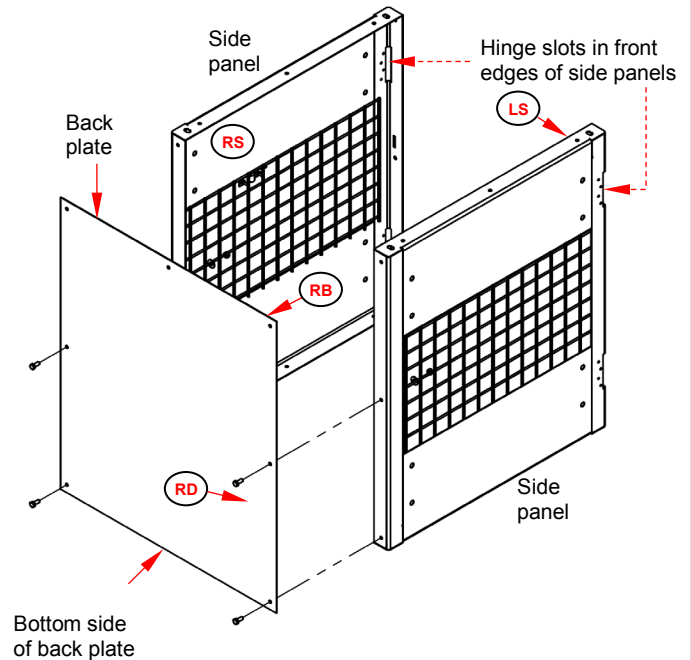
Item	Part no.	Description	Quantity
1	31-014-357	Frame, top plate ("Top cap")	1
2	31-014-356	Frame, base plate ("Base plate")	1
3	31-037-001	Door latch	1
4	31-514-227	Weldment, frame shelf, horizontal	2
5	31-514-224	Weldment, frame, side panel ("Side panel")	2
6	31-014-350	Frame, back plate ("Back plate")	1
7	31-514-223	Weldment, door frame	1
8	31-012-002	4in. stainless steel hinge	2
9	11053	$\frac{5}{16}$ in. – 18 x $\frac{3}{4}$ in. HHCS #2 zinc-plated bolt	20
10	33006	$\frac{5}{16}$ in. USS flat washer zinc-plated	20
11	36104	$\frac{5}{16}$ in. – 18 hex nut zinc-plated	20
12	24213	Flat head socket cap screw #10-32 x 1in. (used to fasten hinge to side panel and door frame)	16
13	36030	10-32 hex nut (used to fasten hinges to side panels and door frame)	17
14	64133	Spring pin, $\frac{3}{16}$ in. x 1in.	1

ASSEMBLY

To assemble the cabinet, perform the following steps. A CYL-H-4-KD is shown in the following assembly diagrams. [NOTE: Numbers in parentheses correspond to part numbers in the [exploded view](#) on p. 3.]

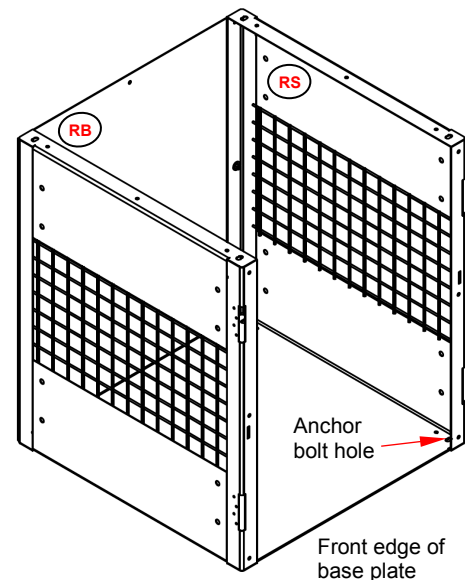
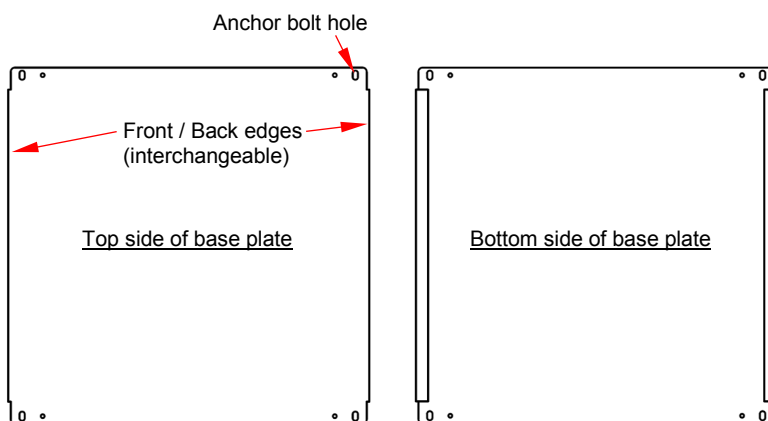
Step 1 – Fasten the back plate to the side panels with $\frac{5}{16}$ in. hardware (**11053**; **33006**; and **36104**). The back plate attaches to the outside of the side panels.

- Notice that one side of the back plate has only 2 bolt holes (there are three in each of the other sides). This is the bottom side of the back plate.
- Also notice that each side panel has an edge with 2 “hinge slots” cut out of it. This is the front edge of the side panel.
- Insert a $\frac{5}{16}$ in. – 18 x $\frac{3}{4}$ in. bolt (**11053**) through the holes in the back plate and the side panel, except the very top holes, as shown in the diagram to the right. Install a flat washer and nut on the end of each bolt. NOTE: Larger cabinets (CYL-H-8-KD; CYL-H-12-KD; and CYL-H-16-KD) require 3 bolts on each side.
- Fasten the back plate to the other side panel in the same manner. Do not tighten the nuts at this time.



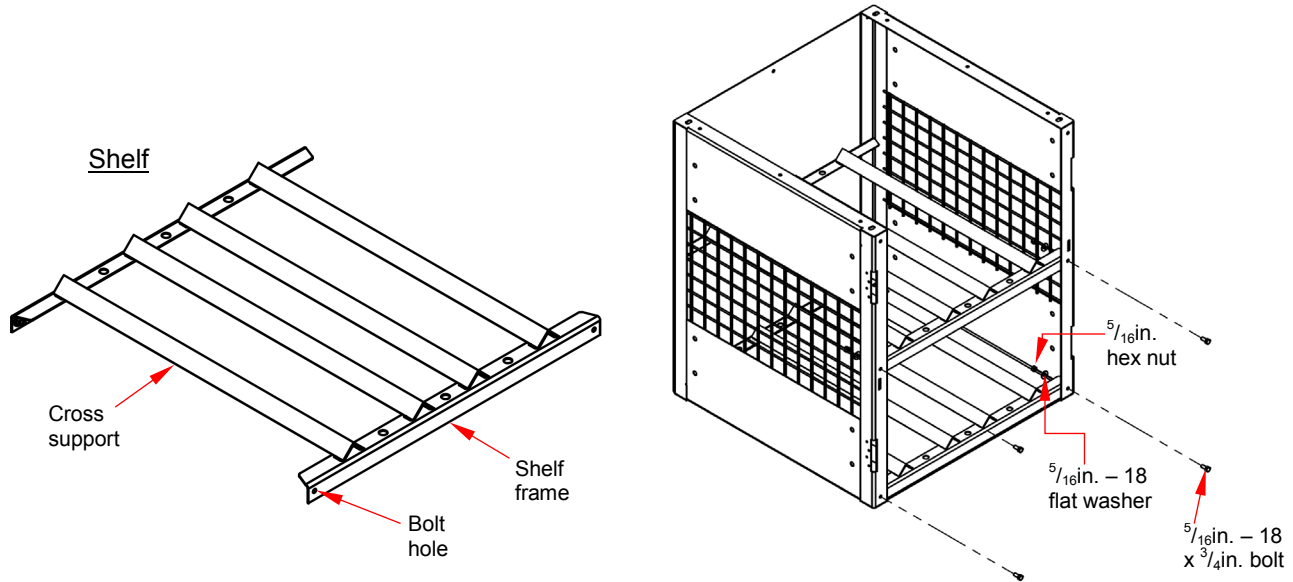
Step 2 – Attach the base plate to the side panels

- Find the base plate. Notice that notches are present along 2 opposite edges. These are the front and rear edges of the base plate. The front and rear edges are identical.
- Set the base plate inside the assembly. Align the large bolt holes in the base plate with the bolt holes in the bottom flange of each side panel.
- Place the cabinet in the location where it will be used. If you will anchor the cabinet to the ground, mark the ground/surface with the locations of all 4 bolt holes. The bolt holes will accept $\frac{1}{4}$ in. (diameter) anchor bolts. Your building engineer should determine how long the bolts need to be.



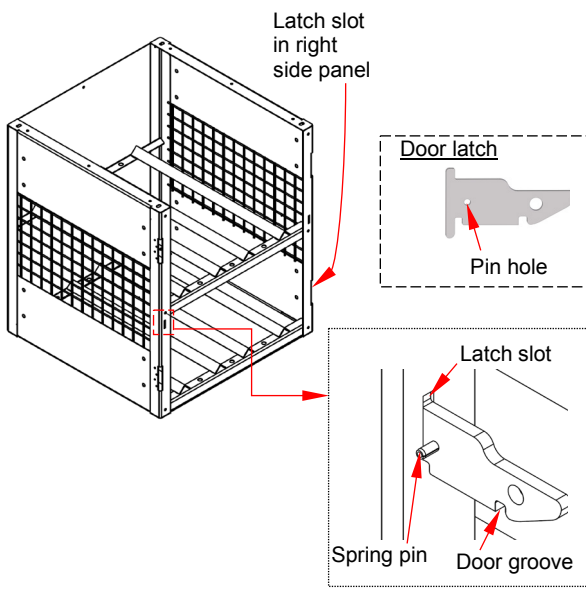
Step 3 – Attach the shelves.

- The shelves are identical, and therefore, can be installed interchangeably.
- Remove the $\frac{5}{16}$ in. hex nuts (36104) and flat washers (33006) from the bolts connecting the side panels to the back plate.
- Install a shelf in the lower/lowest position first. Insert the shelf into the assembly with cross supports pointing upwards. Cross supports must also be parallel to the side panels. Align the bolt holes in the shelf frame with the bolts in the lower bolt holes (of the back plate and the side panels).
- Reinstall the flat washers and hex nuts and tighten them.
- Insert bolts through the lower bolt holes in the front sides of the side panels (shown below).
- Install the other shelves in the same manner.



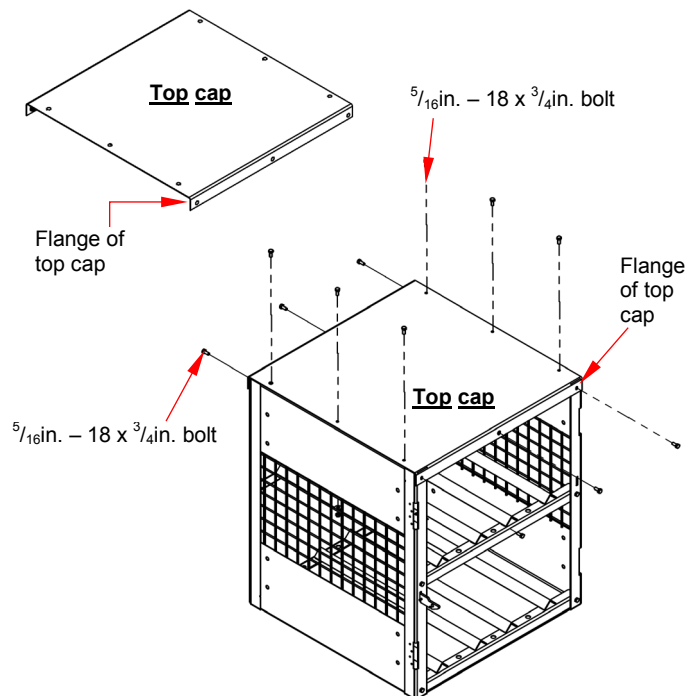
Step 4 – Attach door latch (31-037-001)

- The cabinet can be configured to allow the door to open to either the left or the right. In the diagram below, the door latch is installed through the latch slot in the left side panel to allow the cabinet to open to the right.
- Insert the latch through the latch slot from the inside of the cabinet.
- Insert the spring pin (64133) through the pin hole in the latch to secure it in place.



Step 5 – Attach top cap (31-014-357) to assembly

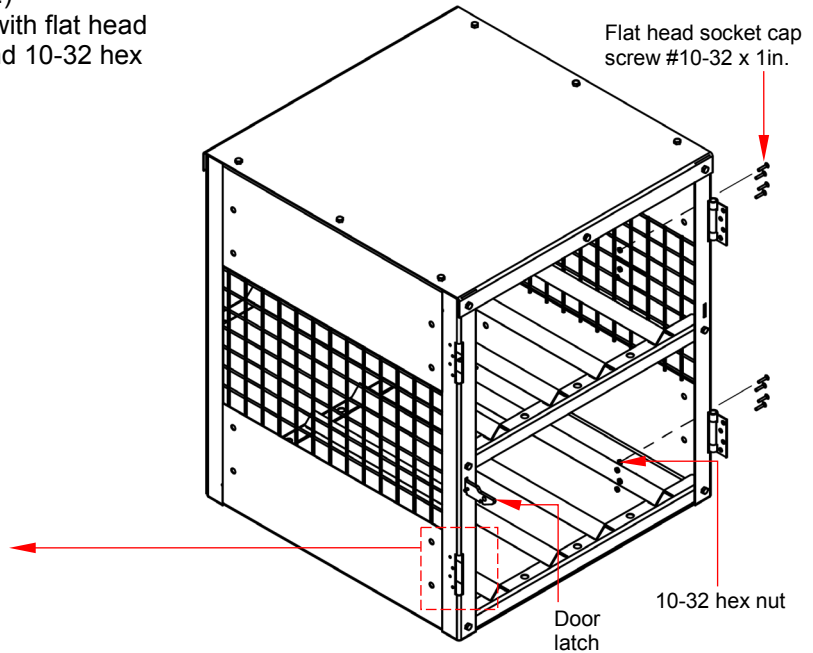
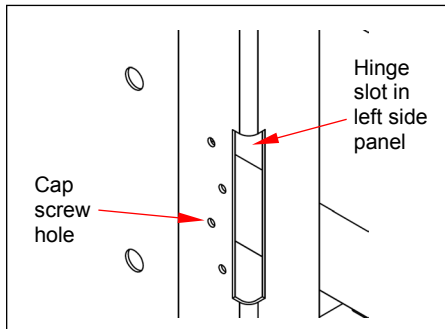
- Set the top cap on top of the assembly with the flanges overhanging the front and back sides.
- Fasten the top cap to the assembly with 12 sets of $\frac{5}{16}$ in. bolts, hex nuts, and flat washers as shown in the diagram below.



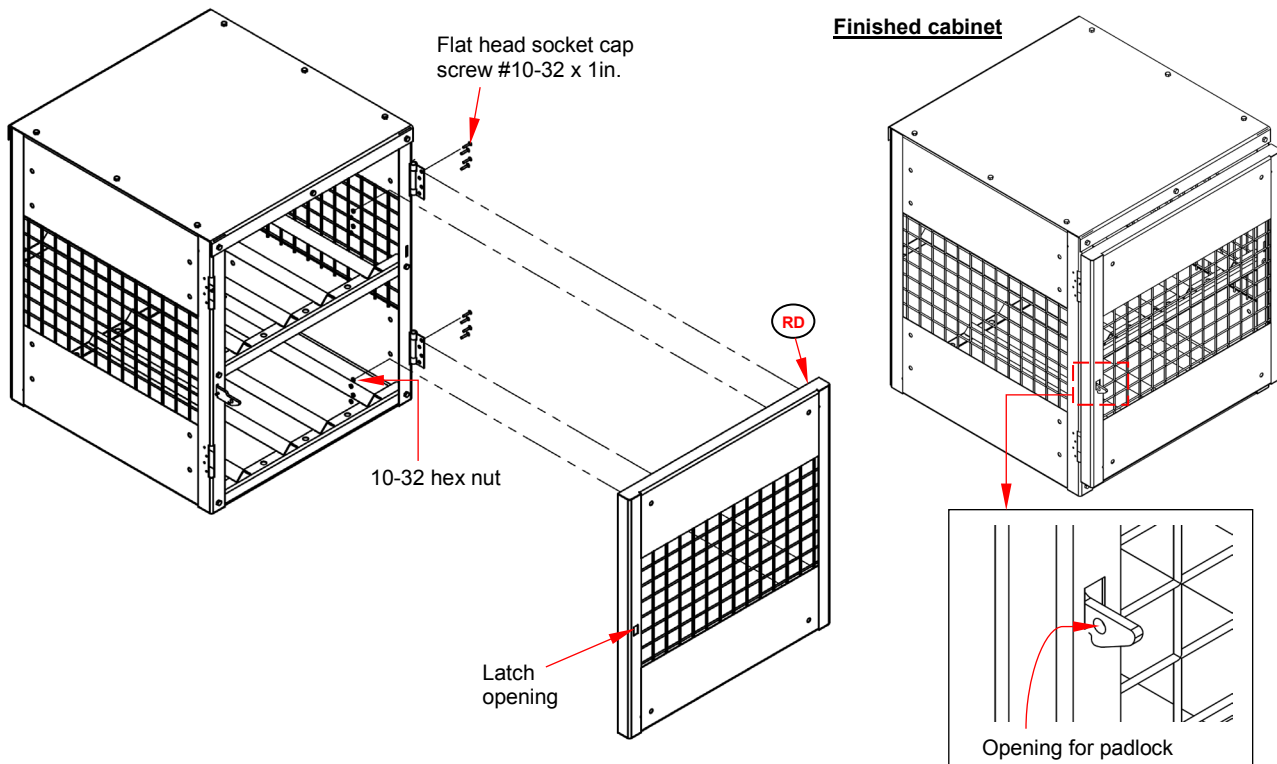
Step 6 – Attach hinges (31-012-002) to side panel

Next to each hinge slot there are 4 holes. These holes are for the cap screws (24213) used to attach the hinges to the side panels.

- Align the hinges with the holes in the side panel opposite the door latch. (In the diagram below, the latch is on the left side, so the hinges attach to the right side.)
- Fasten the hinges to the side panel with flat head socket cap screws (#10-32 x 1in.) and 10-32 hex nuts.

**Step 7 – Attach hinges to door**

- Align the free sides of the hinges with the hinge holes in the door.
- Fasten the hinges to the door with flat head socket cap screws (#10-32 x 1in.) and 10-32 hex nuts.
- Close the door and confirm that the latch fits through the latch opening in the door. The door should seat in the door groove of the latch. See [Step 4](#) on p. 5.
- The door can be locked closed by hooking a padlock through the opening in the end of the latch.



USING THE CABINET

Each shelf will accommodate 2 cylinders stored horizontally.

RECORD OF SATISFACTORY CONDITION (THE “RECORD”)

Before putting the cabinet into service, record its condition. Thoroughly photograph the unit from multiple angles. Take close range photographs of all labeling and fasteners (bolts, nuts, etc.). Photograph the entire perimeter of the base of the unit where it contacts the ground. Include photographs of the latch mechanism and the shelves. Collect all photographs in a single file and label the file appropriately to identify it. This file documents satisfactory condition. Compare the results of all inspections to this record to determine whether the cabinet is in satisfactory condition. Purely cosmetic changes, like damaged paint/powdercoat, do not constitute changes from satisfactory condition. However, touchup paint should be applied to all affected areas as soon as cosmetic damage occurs.

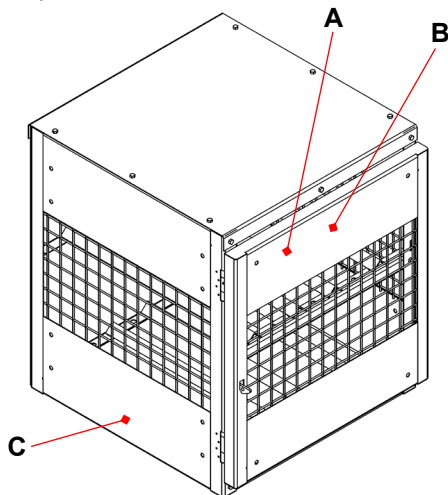
INSPECTIONS & MAINTENANCE

Compare the results of each inspection to the [Record](#) to determine whether the cabinet is in satisfactory condition. If repairs/replacement parts are necessary, restore the cabinet to satisfactory condition BEFORE returning it to service.

- 1) Apply grease to any hinge that squeaks or operates roughly;
- 2) Inspect the cabinet at least once per month. Check for corrosion and/or rust that might occur in places where the paint is damaged or missing:
 - i) Remove rust with a steel bristle brush (or sandpaper); then apply touchup paint or clear finish to the affected area;
 - ii) Inspect the feet of the cabinet to verify structural soundness:
 - Remove rust and reseal if necessary;
 - Check for deformation, for example bending, warping, or cracking;
 - iii) Inspect the cylinder supports:
 - Remove rust and reseal if necessary;
 - Check for deformation (bending, warping, or cracking).

LABELING DIAGRAM

The unit should be labeled as shown in the diagrams. However, label content and location are subject to change so your product might not be labeled exactly as shown. Thoroughly photograph the unit when you first receive it as discussed in the [Record of Satisfactory Condition](#) portion of the [Inspections and Maintenance](#) section on p. 7-8. Make sure that your record includes a photograph of each label. Replace all labels that are, or later become, damaged, missing, or not easily readable (e.g. faded). To order replacement labels, contact the technical service and parts department online at http://www.vestilmfg.com/parts_info.htm. Alternatively, you may request replacement parts and/or service by calling (260) 665-7586 and asking the operator to connect you to the [Parts Department](#).



C: Label 204: Secure frame to floor
(Apply to each side panel)

▲ WARNING	▲ ADVERTENCIA	▲ AVERTISSEMENT
SECURE FRAME TO FLOOR	ASEGURE EL BASTIDOR AL PISO	FIXER SOLIDEMENT LE CADRE AU PLANCHER

A: All units

Label 287: Model & capacity
(Applied to inside of door)

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

287 REV 0812

B: Units used within USA

Label 735: FLAMMABLE – NO SMOKING
(Applied to front door)

**FLAMMABLE
NO SMOKING**

Units used in Canada

Both Label 735 (above) & Label 736 (below):
(Applied to front door)

**INFLAMMABLE
NON-FUMEURS**

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

<u>US 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	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 90 days. For wearing parts, the warranty period is 90 days. 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;
- Unauthorized modifications: 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 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. 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.

