

# Large Enclosure Safe Handling Requirements

Do not reposition until permanently installed.



## **WARNING**

**Tipover hazard.  
Enclosure can crush  
you resulting in serious  
injury or death.**

- **Read and follow precautions in the Large Enclosure Safe Handling Requirements that accompanied the enclosure. It is also available at: [hoffmanonline.com/safehandling](http://hoffmanonline.com/safehandling)**
- **Do not transport using pallet end slots. These slots are only for trailer loading and unloading.**
- **Stabilize the enclosure before removing strapping.**
- **This Warning and Safe Handling Requirements manual may be repositioned only after the enclosure has been permanently installed.**

## IMPORTANT NOTICE

Pentair Technical Products provides this information to assist in the handling of its large enclosure products. The following procedures apply only to enclosures in their original packaging without electrical components and are provided to help avoid equipment damage, personal injury, or possible death during handling and installation of large top-heavy enclosures. The user should comply with all recommendations of the manufacturer for the material handling equipment being used. If you have questions about how to safely handle any of our products, please call 1-763-422-2211.



### WARNING

**To minimize the risk of serious injury, death, or structural damage to the enclosure, never attempt to lift or move the enclosure by any means other than the methods shown in this manual.**

## GENERAL SAFE HANDLING REQUIREMENTS

1. Before moving the enclosure, make sure that the route is clear of all obstructions, and workers are at a distance that is more than the overall height of the enclosure.
2. The enclosures must be handled by a trained and authorized forklift operator only. This is required by OSHA Standard 1910.178 and ANSI Standard B56.1.
3. Know the safe lifting capabilities of the lifting equipment; be certain it can handle the weight and size of the enclosure. Refer to the product label and the name plate data on the fork lift for this information.
4. When moving the enclosure, avoid contacting fixed objects. If you do, the enclosure could be pulled from the forks. Position enclosures far back on the forks to avoid the bottom load from being pulled from forks if it should catch on or strike a fixed object.
5. Carefully position the enclosures on the forks, noting that enclosures are top heavy. Keep load against the carriage. Always tilt the load backwards towards the fork's mast.
6. When using a forklift, secure enclosure to forklift mast before attempting to move the unit (see Figure No 2).
7. Start and stop the forklift slowly and gradually; avoid jerking movements. When traveling with the load, drive slowly with the forks carried as low to the ground as possible, consistent with safe operation.
8. A person should assist the forklift operator at a safe distance, i.e. more than the height of the enclosure, in guiding or directing movement of large top heavy enclosures.

# Handling one- and two-door enclosures using a standard forklift with an overhead clamping device

See Figure No. 1 and follow procedures listed below.

1. Spread the forks to maximum distance or as dictated by the skid width.
2. Enter the skid from the rear (Side A) of the enclosure. Carefully position the enclosure on the forks with the load against the carriage/mast to avoid the bottom of the load from being pulled away from the forks should it catch on or strike a fixed object. Avoid contacting fixed objects while transporting. If you do, properly reposition the enclosure on the forks before transporting.
3. Apply maximum clamping pressure that will not damage the enclosure.
4. Check the load to make sure it is secure.
5. Lift the enclosure a minimum distance so the skid is just clear of the floor.
6. Never attempt to move more than one enclosure at a time; capacity of the lift truck may be exceeded.

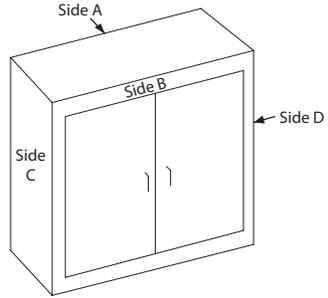


Figure No. 1

## Handling single- and two-door enclosures

See Figure No. 2 and follow procedures below

1. Spread forks to the maximum distance or as dictated by the skid width.
2. Enter the skid from the rear (Side A) of the enclosure. Carefully position the enclosure on the forks with the load against the carriage/mast to avoid the bottom of the load from being pulled away from the forks should it catch on or strike a fixed object. Avoid contacting fixed objects while transporting. If you do, properly reposition the enclosure on the forks before transporting.
3. Before lifting with forklift, secure the enclosure by inserting a 3000 lb.-rated chain or strap through the eye bolts provided on top of the enclosure and securely fasten to the forklift mast assembly. Sufficient tension should be placed on the chain or strap to prevent the top-heavy enclosure from tipping during transportation.
4. Lift the enclosure a minimum distance so the skid is just clear of the floor.
5. Never attempt to move more than one enclosure at a time; capacity of the lift truck may be exceeded.

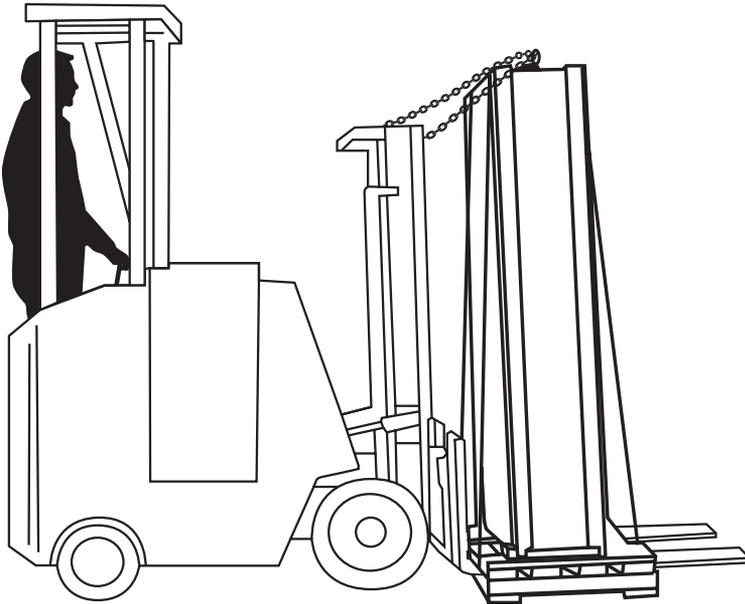
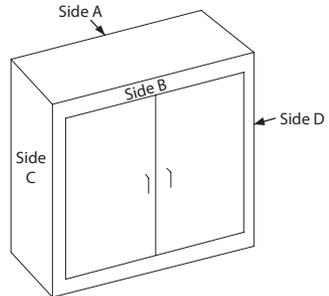
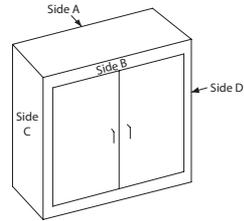


Figure No. 2

## End loading two-door enclosures on and off trailer

See Figure No. 3 and follow procedures listed below.

NOTE: Preferred handling method is from side A. If side A is not accessible, use the following procedures for loading and unloading from sides C and D. DO NOT TRANSPORT enclosures from side B, C or D. Enclosure must be handled from side A as soon as it is accessible.



1. Spread forks to match the pallet end slot openings. Enter the pallet from the narrow side C or D.



### WARNING

Always use both forks. Do not attempt to load or unload enclosures on one fork. If one fork is used, the capacity of the lift truck may be exceeded and the load will not be centered properly possibly causing it to tipover.

2. Carefully position the enclosure on the forks with the load against the carriage/mast to avoid the bottom of the load from being pulled away from the forks should it catch on or strike a fixed object. Avoid contacting fixed objects while transporting.
3. To load or unload, secure enclosures on the mast of the forklift. To accomplish this, insert a 3000 lb-rated chain or strap through the eyebolts provided on the top of the enclosure and securely fasten to the fork lift mast assembly. Sufficient tension should be placed on the chain or strap to prevent top-heavy enclosures from tipping.



### WARNING

Do not use chains or straps to lift enclosure as the capacity of the forklift may be exceeded due to a change of load centers. The chains/straps are only to be used to help prevent unit from tipping.

4. To load or unload the enclosure, tilt the mast a sufficient amount to take the weight off the opposite end of the enclosure and slide or push the enclosure as required.
5. Transportation after off loading from trailer must be done from side A. See Handling one- and two-door enclosures using a standard forklift with an overhead clamping device on page 3.



Figure No. 3

# Handling three-, four-, five-, and six-door enclosures with a standard forklift and ROLL-A-LIFT™<sup>1</sup>

See Figure No. 4 and follow the procedures outlined below.

1. Enter the skid from the narrow side C or D of the enclosure. Forks should be spaced just wide enough to enter the skid. Do not place the forks completely together. Carefully position the enclosure on the forks with the load against the carriage/mast to avoid the bottom of the load from being pulled away from the forks should it catch on or strike a fixed object. Avoid contacting fixed objects while transporting.
2. Secure the enclosure to the mast of the forklift. To accomplish this, insert a 3000 lb.-rated chain or strap through the eye bolts provided on top of the enclosure and securely fasten it to the forklift mast assembly. Sufficient tension should be placed on the chain or strap to prevent the top-heavy enclosure from tipping during transportation.



## WARNING

**Do not use chains or straps to lift enclosure as the capacity of the forklift may be exceeded due to a change of load centers. The chains or straps are only to be used to help prevent unit from tipping.**

3. On opposite end of the enclosure, place a ROLL-A-LIFT™ or similar device under the enclosure. Lift this end a minimum distance to ensure skid is clear of floor surface. Secure ROLL-A-LIFT™ to the enclosure using eye bolts provided.
4. With the forklift, lift the end of the enclosure a sufficient distance so the skid is clear of the floor. Re-check the tension on the chain or strap to ensure the enclosure is secure.

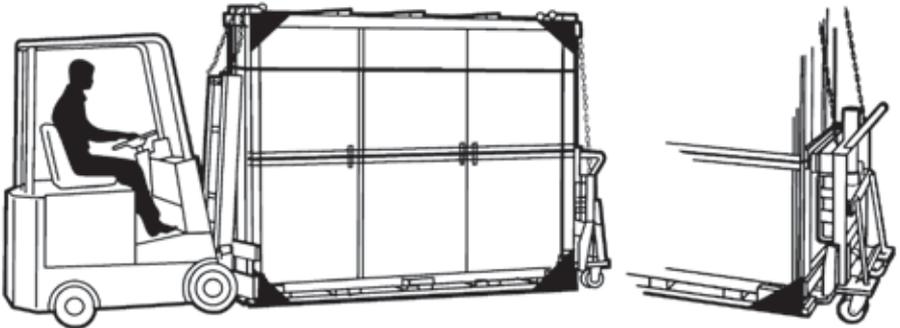


Figure No. 4



## WARNING

**Only use Roll-A-Lift™ made by Starnes Inc. or a similar device at one end with a forklift at the opposite end. The enclosure could easily tip over if a forklift with securing mechanism (chains, clamp, etc.) is not used.**

<sup>1</sup> ROLL-A-LIFT™ is a trademark of Starnes, Inc.

# Handling three-, four-, five-, and six-door enclosures with a standard forklift and overhead clamping device

See Figure No. 5 and follow the procedures outlined below

1. Enter the skid from the narrow side C or D of the enclosure. Forks should be spaced just wide enough to enter skid. Do not place forks completely together.



## WARNING

Always use both forks. Do not attempt to load or unload enclosures on one fork. If one fork is used, the capacity of the lift truck may be exceeded and the load will not be centered properly possibly causing a tipover.

2. Carefully position the enclosure on the forks with the load against the carriage/mast to avoid the bottom of the load from being pulled away from the forks should it catch on or strike a fixed object. Avoid contacting fixed objects while transporting.

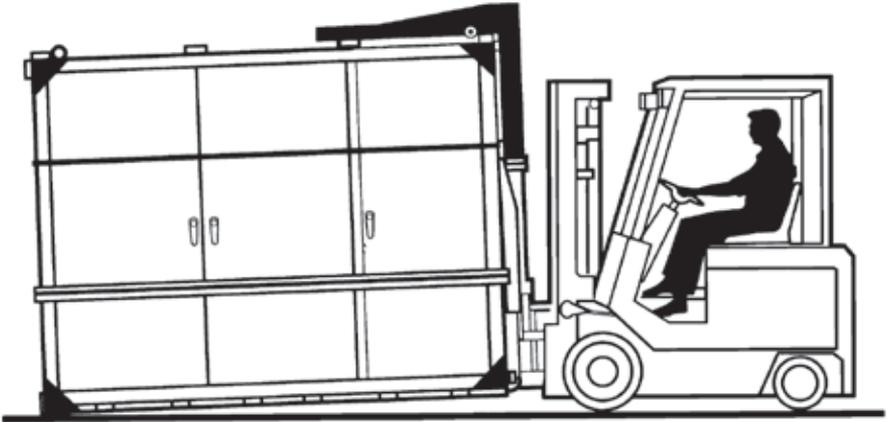


Figure No. 5

3. Check load to make sure it is secure.
4. Tilt mast a sufficient amount from the forklift side to take the weight off the opposite end of the enclosure and slide/push enclosure as required.



## WARNING

Do not attempt to lift such an enclosure completely off the ground. The capacity of lift truck may be exceeded and result in a tipover.

## Overhead lifting

### (Recommended for enclosures provided with eye bolts)

See Figure No. 6 and follow procedures as listed below.

1. Attach rigging to eye bolts always maintaining the 45° maximum angle illustrated in Figure No. 6. When lifting three-, four-, and five-door enclosures, four eye bolts must be used.



### WARNING

Ensure that the load rating of the lifting device and rigging is sufficient to safely handle any of these loads.

2. Do not use ropes or cables through the eye bolts as sharp angles may cause excessive wear and possible failure. Only use slings with adequate load-rated hooks or shackles.
3. Select or adjust the rigging lengths to compensate for any unequal weight distribution of the load and to support the enclosure in an upright position.
4. To reduce tension on the rigging and compression on the enclosure, do not allow the angle between the lifting cables and the vertical to exceed 45 degrees, see Figure No. 6.

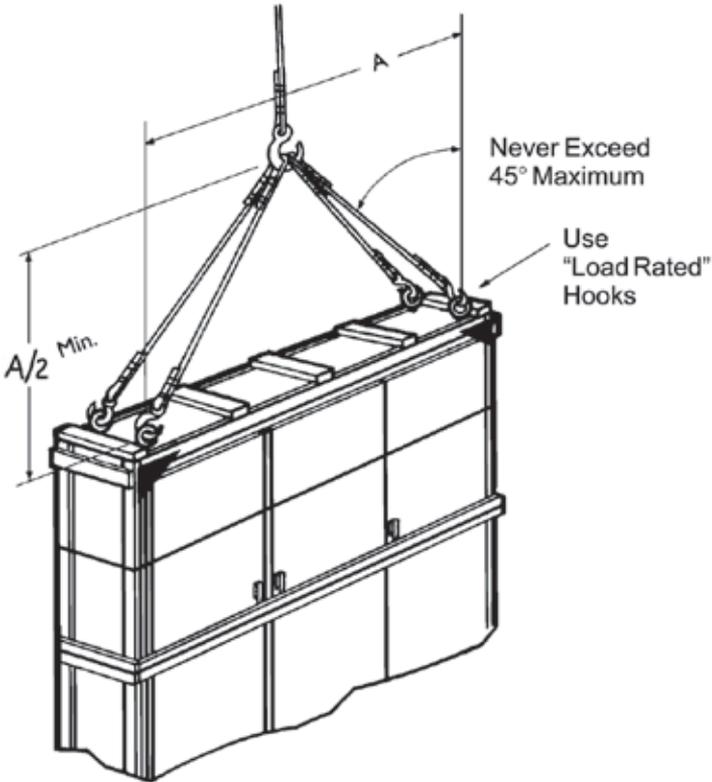


Figure No. 6

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