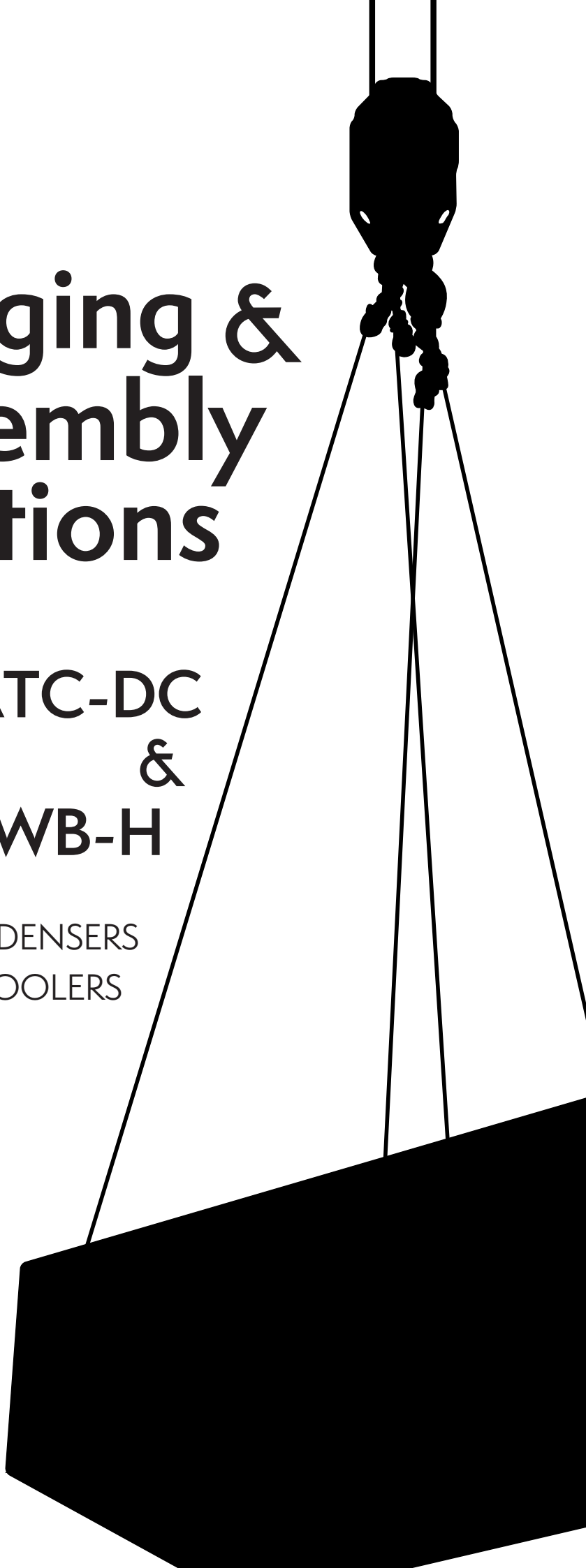
Rigging & Assembly Instructions

ATC-DC & eco-ATWB-H

INDUCED DRAFT CONDENSERS
& CLOSED CIRCUIT COOLERS



Mr. GoodTower

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The ATC-DC CONDENSER & eco-ATWB-H CLOSED CIRCUIT COOLER should be rigged and assembled using the instructions and recommendations outlined in this bulletin.

All personnel should review these procedures, as well as the latest industry-approved installation practices, prior to rigging and assembly. The information in this bulletin is for informational purposes only. These instructions do not purport to cover all variations and possible contingencies in connection with installation. Additionally, the procedures described herein are subject to change without prior notice, due to EVAPCO, Inc.'s ongoing research and development.

EVAPCO, Inc. makes no representations or warranties with respect to these instructions or the products described herein. Nor shall EVAPCO, Inc. be responsible for any loss or damage (direct, indirect, consequential, or other) during installation or handling of equipment after shipment.
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Introduction

Thank you for purchasing your EVAPCO induced draft condenser or closed circuit cooler. This manual provides instructions and recommendations to safely and correctly install all ATC-DC evaporative condensers and eco-ATWB-H, evaporative closed circuit coolers. It is recommended that all instructions provided in this manual be reviewed in detail prior to rigging and assembly. If at any point, specific circumstances not covered by this manual arise, please contact your local EVAPCO representative for assistance.

Proper care must be taken by all parties involved in handling and assembling the equipment to ensure that safe and thorough installation practices are implemented to prevent damage or injury to the equipment, persons, and environment involved.

Method of Shipment

The ATC-DC and eco-ATWB-H induced draft coil products are shipped in three sections. These sections consist of the fan section, the coil section and the basin section. These sections have mating flanges and will join together in a waterproof joint when sealed and bolted together as described in the following instructions. Miscellaneous items, such as sealer, self-tapping screws and any other required materials, are packaged and placed inside the pan for shipment. For units consisting of multiple cells, drip channels and splash guards will ship loose in the basin for field installation.

For 8' (2.4 m) and 8.5' (2.6 m) wide units and their multi-cell variants, the motors and drives are factory aligned and then shipped loose inside the basin section for mounting during installation. Refer to the "External Motor Installation" section in this bulletin.

Note:

All stainless steel rigging bolts should be coated with anti-seize spray on the threads to prevent nut galling.
All casing sections are factory inspected prior to shipment to verify proper fit for rigging. Please take extra care to handle and rig unit section per the instructions of this manual to avoid possible distortion and poor casing alignment. It is advisable to check each section upon receipt and during each lift to ensure that the factory alignment has not been altered. Should the field inspection indicate the section alignment ("square") has been altered, please contact the factory or your local EVAPCO representative for additional instructions to obtain proper section fit.

Structural Steel Support

Two structural I-beams running the length of the unit are required for support of each cell of the units. These beams should be located underneath the outer flanges of the unit (See **Table 1**). Mounting holes 3/4" (19mm) in diameter are located in the bottom flanges of the unit for bolting to the structural steel (See steel support print in unit submittal for exact bolt hole location). Bolt the bottom section to the steel support before rigging the top section.

Beams should be sized in accordance with accepted structural practices. Maximum deflection of the beam under the unit to be 1/360th of the unit length, not to exceed 1/2" (13mm). Deflection may be calculated by using 55% of the operating weight of the unit as a uniform load on each beam (See certified print in unit submittal for operating weight).

The supporting I-beams should be level before setting the unit. Do not level the unit by shimming between the bottom flanges and the beams as this will not provide proper and continuous longitudinal support. Support beams and anchor bolts are to be furnished by others. Always refer to the certified print in the unit submittal for unit weights, dimensions and technical data.

Please refer to the unit submittal for detailed, project specific steel support arrangement.

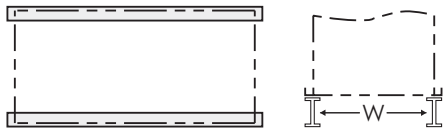
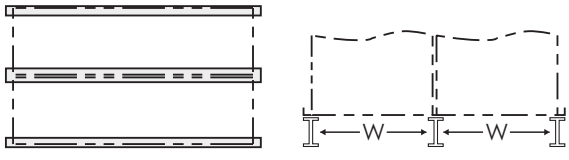
8' (2.4 m), **10'** (3 m), **12'** (3.6 m) wide models	
16' (4.8 m), **20'** (6 m), **24'** (7.3 m) wide models	

Table 1 — Standard Longitudinal Steel Support Arrangement

Rigging Basin Section

Lifting devices are located along the inside corners of the basin section for lifting and final positioning purposes as shown in **Figure 1**. The hook of the crane must be a minimum dimension of "H" above the lifting devices to prevent undue strain on the lifting devices. See **Table 2** for the minimum "H" dimension. "H" dimensions are shown considering a single pick point as depicted in **Figure 1**. These dimensions can be shortened if a spreader bar is used so long as the angle with horizontal exceeds 60°. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See "Extended Lifts" section for proper arrangement.) Bolt the basin section to the steel support before rigging the coil/fan section. The unit must be lifted from all lifting devices provided.

Section Width		Section Length		Minimum Basin Section "H" Dimension Without Spreader Bar		Number of Basin Lifting Devices
Feet	Meters	Feet	Meters	Feet	Meters	Number
8	2.4	9	2.7	10	3	4
		12	3.6	12	3.6	4
		14	4.3	15	4.6	4
		18	5.5	19	5.8	4
		21	6.4	22	6.7	4
10	3	12	3.6	15	4.6	4
		18	5.5	19	5.8	4
12	3.6	12	3.6	15	4.6	4
		14	4.3	17	5.2	4
		18	5.5	19	5.8	4
		20	6	21	6.4	4

Table 2 – Minimum "H" Dimension for Basin Sections

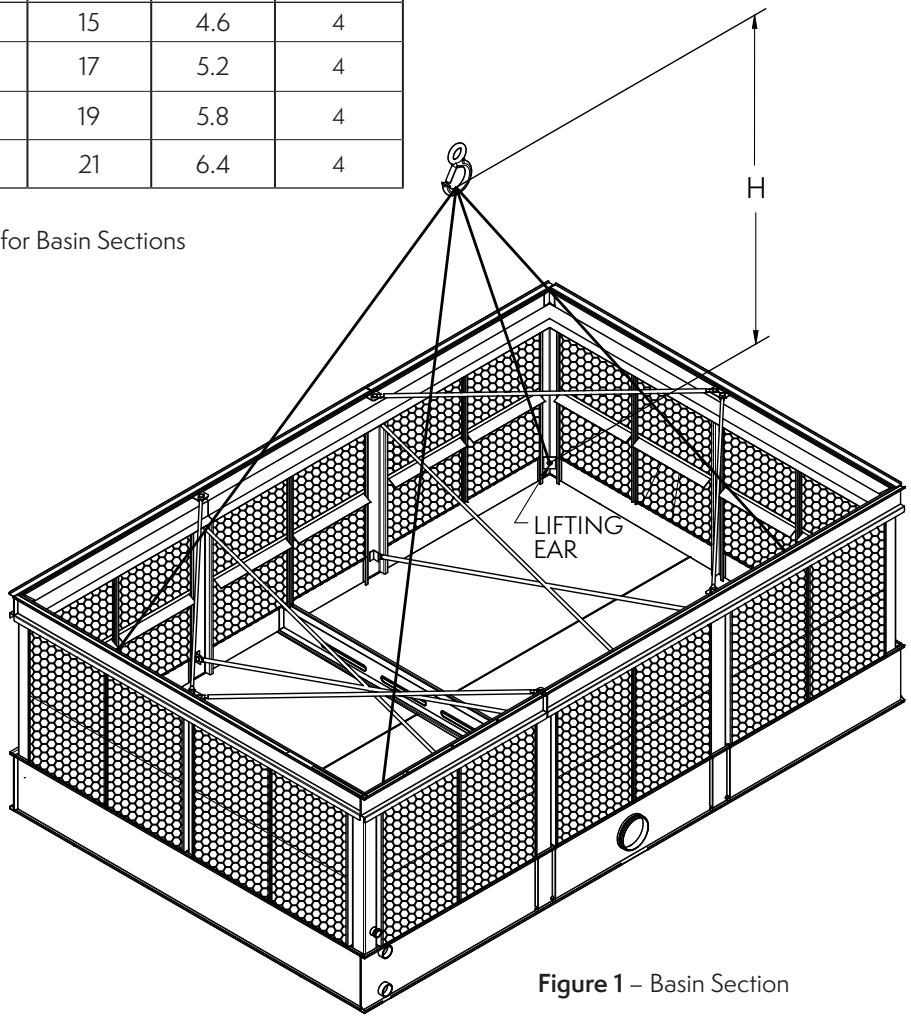


Figure 1 – Basin Section

Joining Multi-Cell Units

On all 2-cell models, the two bottom sections are shipped separately and are typically furnished with a connecting equalizer flume box between them.

In addition to the equalizer flumes, these units are provided with horizontal drip channels and vertical splash guards to keep water from splashing out from between the cells. All units have one or more horizontal drip channels and two vertical splash guards per flume box.

Flume boxes are a standard offering on multi-cell units.

For units on which the flume box ships loose:

1. Rig one of the bottom sections of the multi-cell cooling tower. Bolt to steel support.
2. One face of the flume box is provided with 3/8" (10 mm) welded bolts. Clean the mating flume opening on the rigged bottom section and apply a layer of sealer tape on this surface, centered between the hole centers and the outside edge. Remove paper backing strip from sealer tape.
3. Align the bolt holes in the rigged bottom section with the welded 3/8" (10 mm) bolts on the flume box.
4. Install 3/8" (10 mm) nuts and washers on every bolt around the flume opening and tighten.
5. Follow steps 4 through 12 as shown below.

For units on which the flume box ships mounted to one cell:

1. Install the bottom section with the factory installed flume box on it as described above.
2. Clean the flanges on the flume box on the end to be field connected. Apply a layer of sealer tape on the flange, centered between the hole centers and the outside edge. Remove paper backing strip from the sealer tape.
3. Clean the mating surface of the flume opening of any dirt, grease, or moisture.
4. Rig the second bottom section adjacent to the equalizer flume on the steel support as shown in the sequential figures that follow.
5. Align the bolt holes in the flume box and flume opening with drift pins (by others) while drawing the second bottom section against the flanged connection.
6. Install 3/8" (10 mm) bolts, nuts, and washers in every hole around the flume opening and tighten.
7. Bolt the second bottom section to the steel support.
8. Remove the 1/4" (6 mm) bolts which hold the drip channel retaining clips to the panel. Place the drip channel over the adjoining pan section flanges. Turn around the retaining clips and install them using the same hardware.
9. If there are multiple drip channels, apply sealer tape as shown in **Figure 2b**, fasten them together end-to-end by driving a self-tapping 5/16" (8 mm) screw through the section end with the larger hole into the mating end with the smaller hole. Stainless steel units will use 5/16" (8 mm) stainless steel nuts and bolts.
10. Place the vertical splash guard in the bend of the vertical supports. On galvanized units, attach the vertical splash guard using 5/16" (8 mm) self-tapping screws. On stainless steel units, attach the vertical splash guards using 5/16" (8 mm) stainless steel nuts and bolts. (See **Figure 2b**)
11. Attach the bottom of the vertical splash guard to the drip channel using 5/16" (8 mm) hardware and sealer tape as shown in **Figure 2b**.
12. This step only applies to units with a 5-1/8" (130 mm) spacing between cells. Place the filler cap channel in the upper flanges of the bottom section as shown in **Figure 2b**. Attach to vertical splash guards using 5/16" (8 mm) tappers (for galvanized units) or stainless steel nuts and bolts (for stainless steel units)

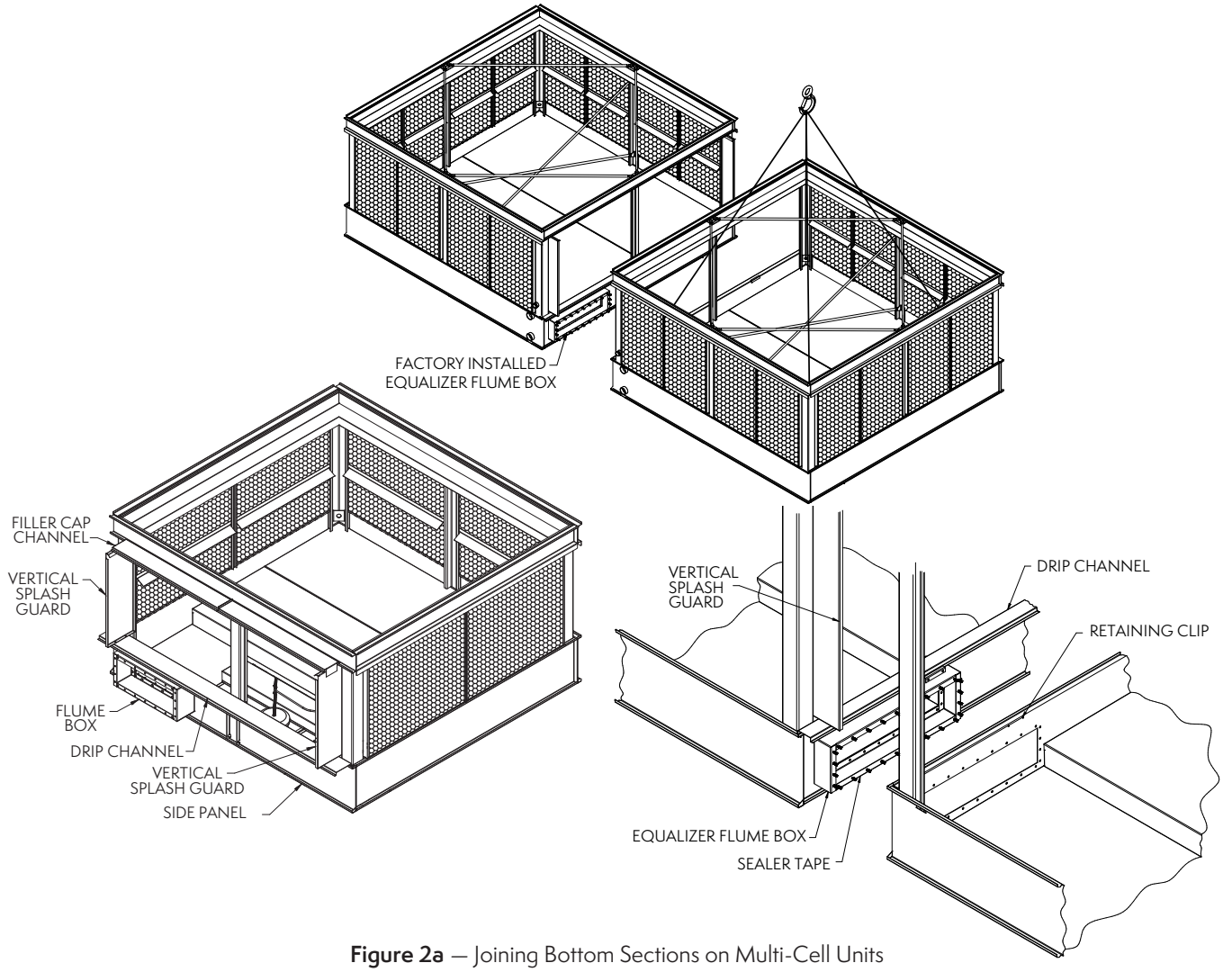


Figure 2a — Joining Bottom Sections on Multi-Cell Units

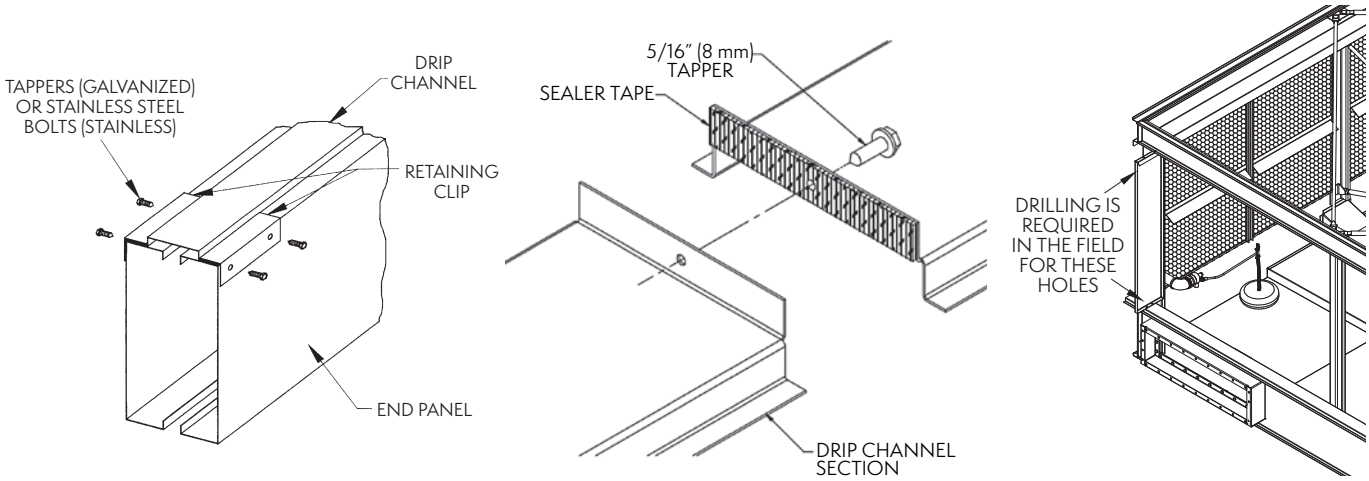


Figure 2b — Drip Channel and Vertical Splash Guard Installation

Equalizer Blank-Off Plate: Multi Cell Units

Equalizer blank-off plate(s) are available to isolate the bottom sections for individual cell operation, periodic cleaning, or maintenance.The optional equalizer blank-off plate is factory installed on the equalizer flume and secured by wing nuts. This plate is also known as a "flume plate" or "positive closure plate."

For units not requiring the blank-off plate under normal operating conditions, remove the wing nuts, washers, plate and gasket. Reinstall washers and wing nuts for proper leak free operation of the equalizer flume box.

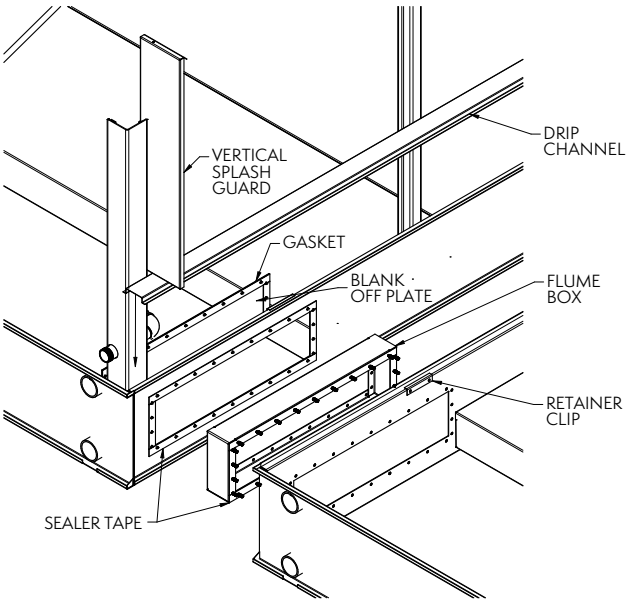


Figure 3 — Equalizer Blank-Off Plate Installation

Application of Sealer Tape

Once the bottom section has been set on the supporting steel and bolted in place, the top flanges should be wiped down to remove any dirt or moisture. Sealer tape should be placed over the mounting hole centerline on the side flanges along the entire length of all sides. Apply two strips of sealer tape, one partially overlapping the other, on the entire length of the end flanges (flanges with no bolt holes).

The sealer tape *should overlap on the corners* as shown in **Figure 4a.** Do not splice the sealer tape along the end flanges and preferably not on the side flanges if it can be avoided. **Always remove the paper backing from the sealer tape.**

All models with two or more top sections must have sealer tape applied along the entire length of all internal flanges, as shown in **Figure 4b**.

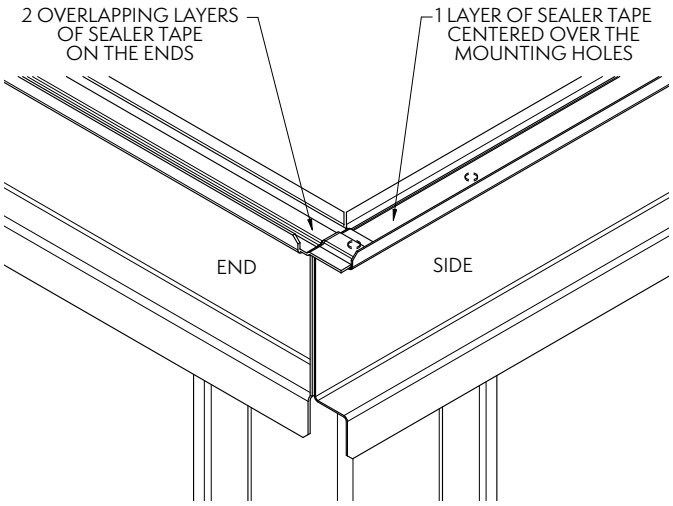


Figure 4a — Sealer Tape on Flange of Bottom Section

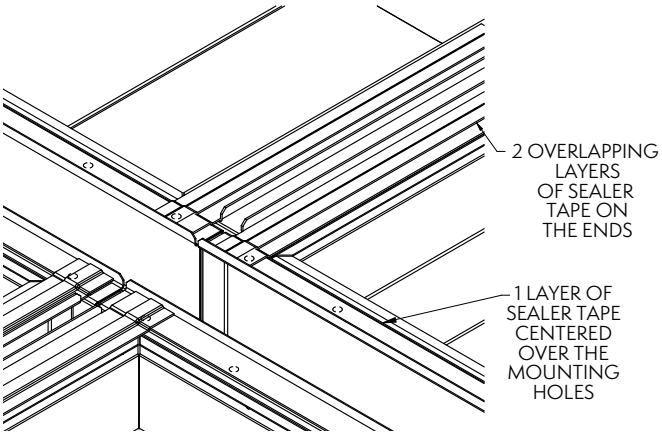


Figure 4b — Sealer Tape Detail for Center Joint of Units with Four Top Sections

Coil/Fan Section

Coil Section

Four lifting ears are provided in the lower corners of most coils for lifting into final position. Some 18' (5.5 m) and longer sections will have two additional lifting ears in the middle of the section. Use all lifting ears. A spreader beam must be used for lifting the coil section(s) as shown in **Figures 5 and 6.** The hook of the crane must be a minimum dimension "H" above the lifting devices to prevent undue strain on the lifting ears. See **Table 3** for the minimum "H" dimension. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See "Extended Lifts" for proper arrangement.)

NOTE: The top "finned dry coil" is not a working surface and should not be walked on. Cardboard or plywood should be laid on top of these coils for added protection when entering through the motor access door.

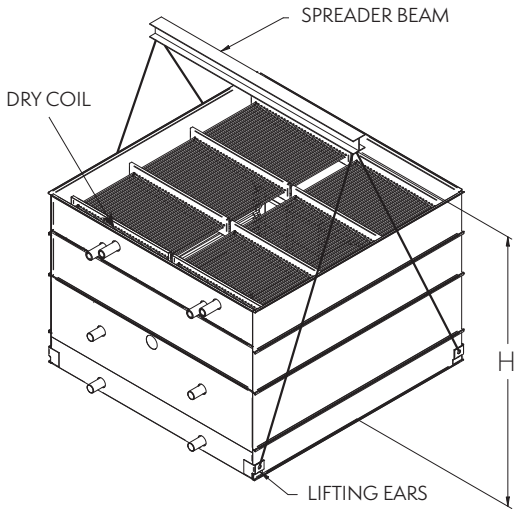


Figure 5 – Four Point Lift

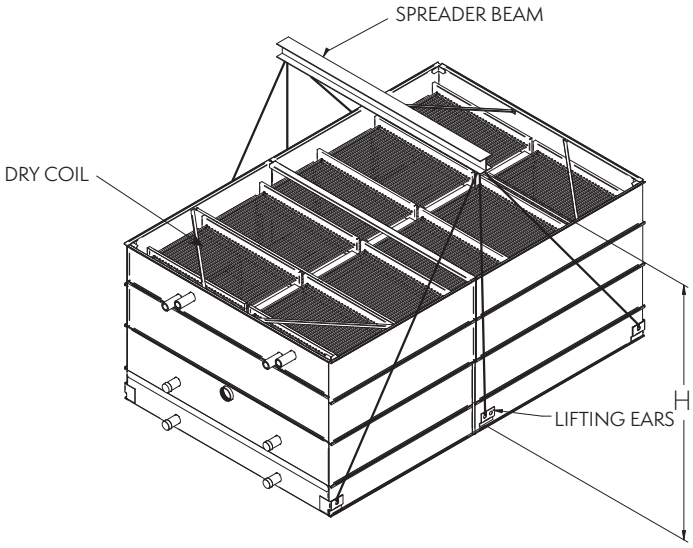


Figure 6 – Six Point Lift

Section Width		Section Length		Minimum Coil Section "H" Dimension With Spreader Bars		Number of Coil Section Lifters
Feet	Meters	Feet	Meters	Feet	Meters	Number
8	2.4	9	2.7	9	2.7	4
		12	3.6	12	3.6	4
		14	4.3	14	4.3	4
		18	5.5	17	5.2	4
		21	6.4	20	6	4
10	3	12	3.6	12	3.6	4
		18	5.5	17	5.2	6
12	3.6	12	3.6	12	3.6	4
		14	4.3	14	4.3	4
		18	5.5	17	5.2	6
		20	6	18	5.5	6

Table 3 – Minimum "H" Dimension for Coil Sections

Coil/Fan Section

Fan Section

When lifting the fan section separate from the casing section, the center of gravity of the fan section is biased toward the location of the fan motor and sling adjustment may be required to keep the load level. Four lifting ears are provided in the lower corners of most coil/fan sections for lifting into final position. Some fan sections will have a lifting ear located on the motor support in addition to two U-Bolts located on the top of the fan deck (See **Figure 8**.) Use all lifting ears. The hook of the crane must be a minimum dimension "H" above the lifting devices to prevent undue strain on the lifting ears. See **Table 4** for the minimum "H" dimension. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See "Extended Lifts" for proper arrangement.)

Note: For 8' wide models and their multi-cell variants, mount the external motor prior to rigging as detailed in the "External Motor Installation" section.

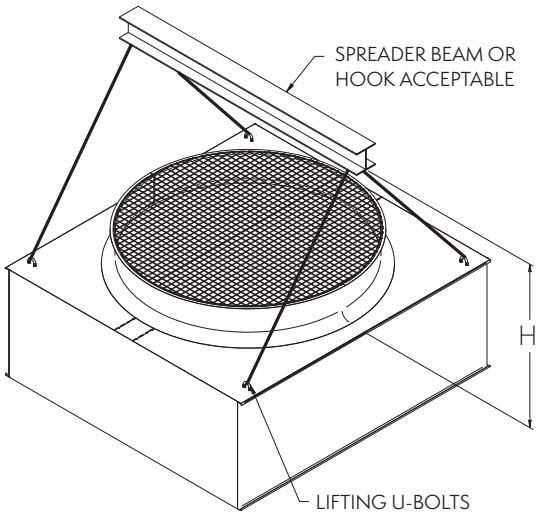


Figure 7 – Four Point Lift

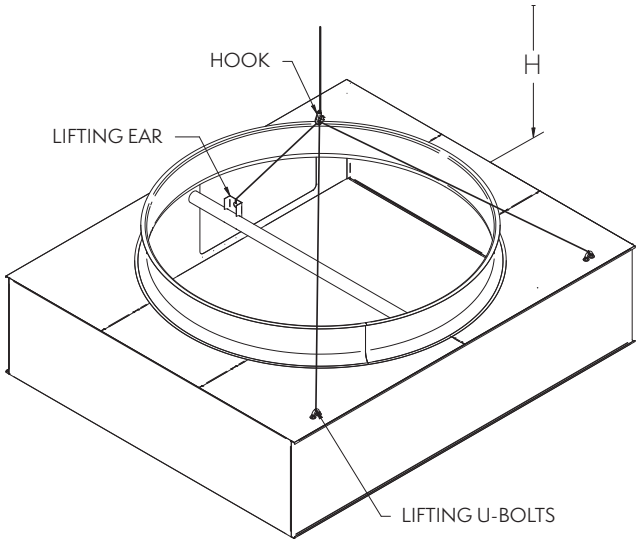


Figure 8 – Three Point Lift

Section Width		Section Length		Minimum Fan Section "H" Dimension		Number of Fan Section Lifters
Feet	Meters	Feet	Meters	Feet	Meters	Number
8	2.4	9	2.7	11	3.4	4
		12	3.6	13	4	4
		14	4.3	15	4.6	4
		18	5.5	18	5.5	8
		21	6.4	20	6	8
10	3	12	3.6	14	4.3	3
		18	5.5	18	5.5	3
12	3.6	12	3.6	15	4.6	3
		14	4.3	16	4.8	3
		18	5.5	19	5.8	3
		20	6	21	6.4	3

Table 4 – Minimum "H" Dimension for Fan Sections

Extended Lifts

IMPORTANT: The lifting devices and "U" bolts should be used for final positioning only and for lifting where no danger exists. If they are used for extended lifts, safety slings should be provided under the sections.

The preferred method for extended lifts is to use slings under the unit. (See **Figure 9.**) Spreader bars should always be used between the cables at the top of the section to prevent damage to the upper flanges or fan cylinders.

Safety slings and skids should be removed before final positioning of the unit. Refer to **Tables 2** through **4** for minimum "H" dimensions.

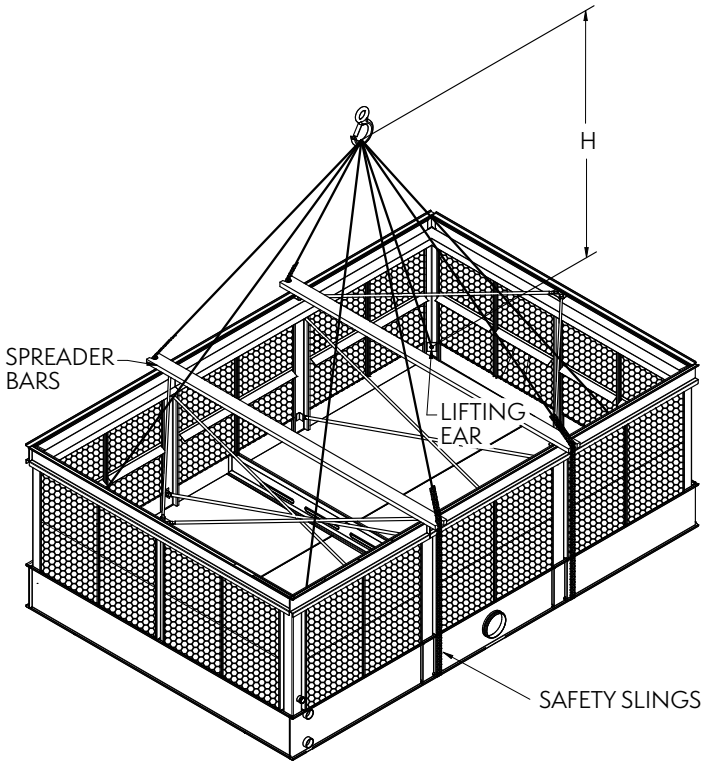


Figure 9 - Extended Lifts, Basin Section

Assembly of the Coil Section to the Basin - Section (8', 10' and 12' [2.4 - 3.0 and 3.6 m] Wide Models)

Before assembling the coil section to the basin section, remove any loose parts shipped in the pan. Four lifting ears are provided in the corners of most coil sections for lifting into final position.

Some 18' (5.5 m) and longer sections will have two additional lifting ears in the middle of the section. Use all lifting ears. When lifting the coil sections, use the lifting ears at the bottom of the coil section. The hook of the crane must be a minimum dimension "H" above the lifting devices to prevent undue strain on the lifting ears. See **Table 3** for the minimum "H" dimension. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See Extended Lifts' for proper arrangement.)

Before assembling the coil section to the basin section, wipe the flanges on the bottom of the coil section and apply sealer tape to the basin section. Check to see that the access doors are in the correct position relative to the coil section (see certified print). Units are also provided with match markings on each section, as shown in Appendix A. Place nuts and bolts in all four corner bolt holes. Then continue to install the rest of the nuts and bolts working from the corners towards the center. Nuts and bolts are required on the end flanges.

NOTE: The top "finned dry coil" is not a working surface and should not be walked on. Cardboard or plywood should be laid on top of these coils for added protection when entering through the motor access door.

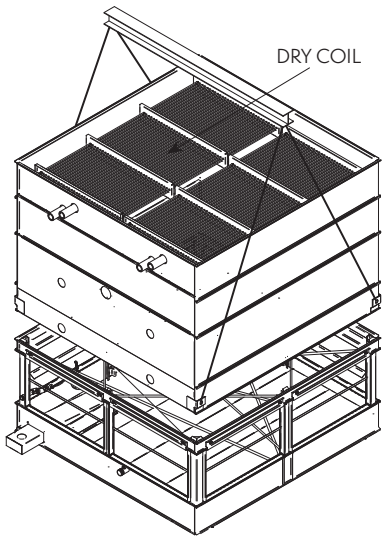


Figure 10 – Mating Coil Section to Basin Section

Note: 3/8" (10 mm) stainless steel nuts, bolts and washers are used for stainless steel construction.

Use of Drift Pins for Final Positioning

Drift pins are tools used to align holes in the flanges of the upper and lower sections of the unit prior to final fastening. By the time drift pins are needed, the lower section of the unit has already been anchored to its support structure. The sealer tape has been laid down on the lower section's flanges, and the upper section is now hovering over the lower section.

A drift pin should be driven in to each of the corner bolt holes such that the upper and lower flanges are aligned as best as possible with sideways motion restricted.

On units which are longer than 12' ("L" > 12' [3.6 m]), a drift pin should be used at an intermediate pair of bolt holes in the rigging seam to allow for proper alignment.

Notes: Bolts can be driven upward through the mating flanges if access is restricted. All rigging hardware is provided by EVAPCO. Drift pins are provided by others.

Assembly of the Fan Section to the Coil - Section (8', 10' and 12' [2.4 - 3.0 and 3.6 m] Wide Models)

Three or four lifting points are provided in the top corners of fan sections for lifting into final position. Use all lifting devices. The hook of the crane must be a minimum dimension "H" above the lifting devices to prevent undue strain on the lifting ears. See **Table 4** for the minimum "H" dimension. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See Extended Lifts' for proper arrangement.)

Note: for 8' wide cells (and their multi-cells), mount the external motor prior to rigging as detailed in the "External Motor Installation" section.

Before assembling the fan section to the coil section, wipe the flanges on the bottom of the fan section and apply sealer tape. Check to see that the motor access doors are in the correct position relative to the coil section (see certified print). Units are also provided with match markings on each section, as shown in Appendix A. Place nuts and bolts in all four corner bolt holes. Then continue to install the rest of the nuts and bolts working from the corners towards the center. Nuts and bolts are required on the end flanges.

Note: 3/8" (10 mm) stainless steel nuts, bolts and washers are used for stainless steel construction.

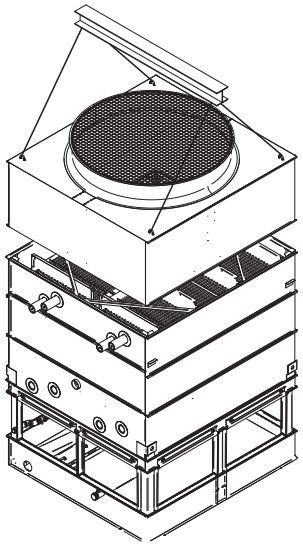


Figure 11 – Mating Fan Section to Coil/Basin

Assembly of the Fan Section to the Coil Section - Section (16', 20' and 24' [4.8 - 6 and 7.3 m] Wide Models)

Fan section will need to be mounted to the coil section first, otherwise, all fan rigging seams will not be accessible, See **Figure 13** below.

Three or four lifting points are provided in the top corners of fan sections for lifting into final position. Use all lifting devices. The hook of the crane must be a minimum dimension "H" above the lifting devices to prevent undue strain on the lifting ears. See **Table 4** for the minimum "H" dimension. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See Extended Lifts' for proper arrangement.)

Note: For 16' (4.8 m) wide units, mount the external motor prior to rigging as detailed in the "External Motor Installation" section.

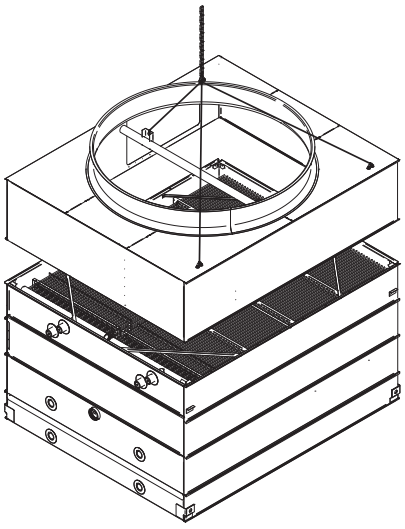


Figure 12 – Mating Fan Section to Coil Section

Before assembling the fan section to the coil section, wipe the flanges on the bottom of the fan section and apply sealer tape. Check to see that the motor access doors are in the correct position relative to the coil section (see certified print). Units are also provided with match markings on each section, as shown in Appendix A. Place nuts and bolts in all four corner bolt holes. Then continue to install the rest of the nuts and bolts working from the corners towards the center. Nuts and bolts are required on the end flanges.

Note: 3/8" (10 mm) stainless steel nuts, bolts and washers are used for stainless steel construction.

Assembly of the Coil Section to the Basin - Section (16', 20' and 24' 24' [4.8 - 6 and 7.3 m] Wide Models)

Before assembling the fan/coil section to the basin section, remove any loose parts shipped in the pan. Four lifting ears are provided in the corners of most coil sections for lifting into final position. 18' (5.5 m) and longer sections will have two additional lifting ears in the middle of the section. Use all lifting ears. When lifting assembled fan/coil sections, **use the lifting ears at the bottom of the coil section and not the U-Bolts of the fan section.** The hook of the crane must be a minimum dimension "H" above the lifting devices to prevent undue strain on the lifting ears. For combined section lifts, utilize a minimum "H" dimension of 18ft above the lifting devices to prevent strain and clear both section heights. These lifting devices should not be used for extended lifts or where any hazard exists unless safety slings are employed under the section. (See Extended Lifts' for proper arrangement.)

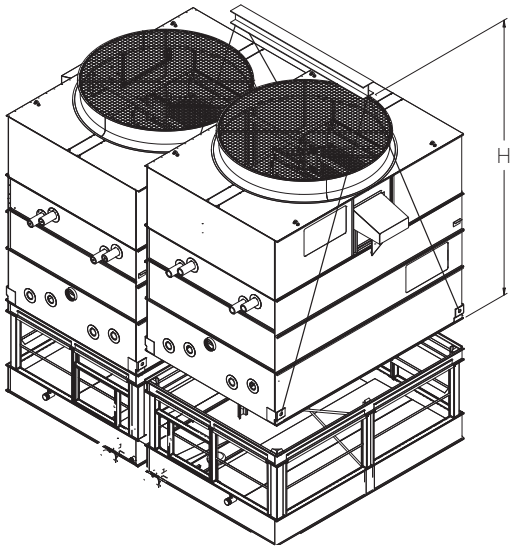


Figure 13 – Mating Fan/Coil Section to Basin Section

Before assembling the fan/coil section to the basin section, wipe the flanges on the bottom of the coil section and apply sealer tape to the basin section. Check to see that the access doors are in the correct position relative to the basin section (see certified print). Units are also provided with match markings on each section, as shown in Appendix A. Place nuts and bolts in all four corner bolt holes. Then continue to install the rest of the nuts and bolts working from the corners towards the center. Nuts and bolts are required on the end flanges.

Note: 3/8" (10 mm) stainless steel nuts, bolts and washers are used for stainless steel construction. For multi-cell units, the side flanges located in between cells can be accessed from inside the unit. Bolts can be driven upward through the mating flanges if access is restricted.

Mounting Fan Screens

On 10' (3m) wide units and larger, a conical fan screen support is used in order to prevent the fan screen from sinking down into the fan cylinder. In some cases, shipping height restrictions may require the fan screen support(s) and fan screen(s) to ship loose for installation in the field. Please follow the below instructions to install these components on the fan cylinder(s).

1. Set the fan screen support across the top of the fan cylinder as shown in **Figure 14**.
2. Place both halves of the fan screen on top of the fan screen support. Each half will be tagged to match markings on the cylinder.
   Align the eyelets of the fan screen with the holes on the cylinder perimeter.
3. Join the two screen halves with "**U**" bolts, as shown in **Figure 15.**
4. At each hole, attach the fan screen to the fan cylinder as shown in **Figure 14.**
   At the four points where the fan screen support meets the cylinder, bolt the support to the cylinder together with the fan screen.

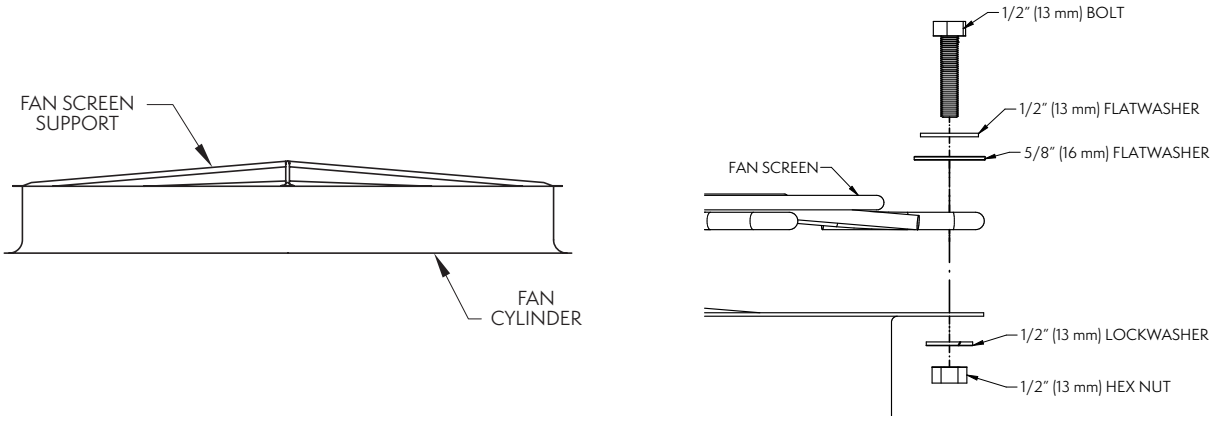


Figure 14 – Fan Screen Support & Fan Screen installation

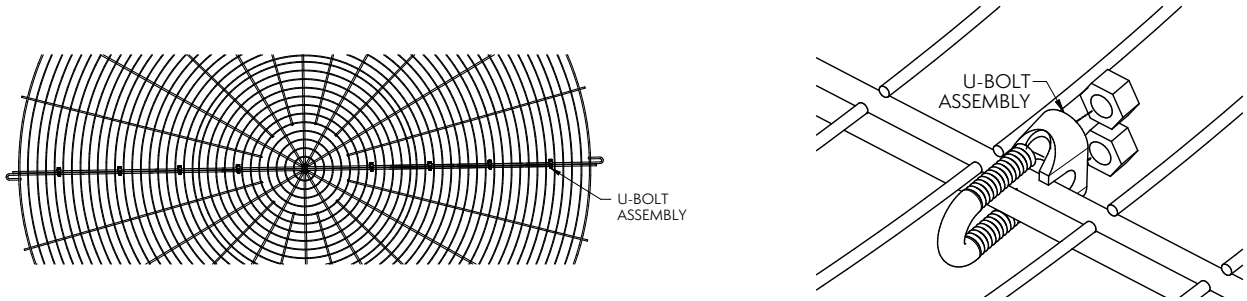


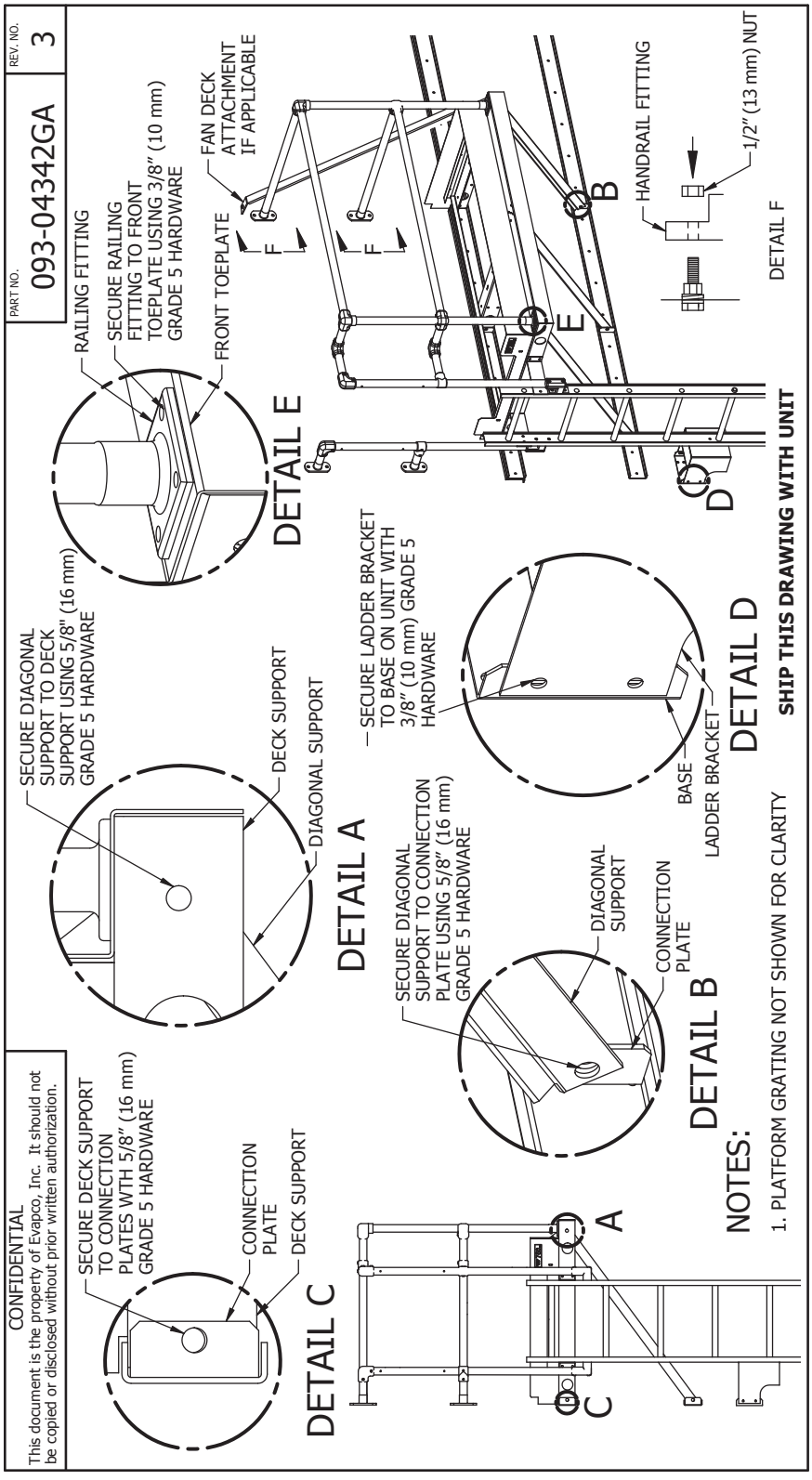
Figure 15 – U-Bolt Assembly Spacing & Arrangement

Note: European market sometimes utilizes alternative CE compliant fan screen with 30mm x 30mm mesh. Screen has 120mm clearance from trailing edge of fan blades.

Field Assembly of Optional Working Platform and Ladder

The working platform/ladder assemblies are shipped in the basin of the unit. In some cases they are shipped separately due to basin accessories that interfere with storage. The platform is partially assembled prior to shipment for minimal field assembly.

The platform and ladder assembly should be attached after the unit is fully rigged following the instructions below.



Optional Motor and Gear Box Davit

Motor davits, also known as jib-booms, are offered by EVAPCO as an optional accessory to facilitate removal of the motor, fan assembly or gear box. The assembly consists of a davit and a mounting base that is to be attached to the side of the unit next to the access door, as shown below in **Figure 16**. Both these items will ship loose in the unit's basin. On multi-cell units, there will be provisions to install a mounting channel on each cell. Use the following procedure to install the mounting channel:

1. Align the mounting channel with 3/8" (10 mm) bolts and flat washers to the factory installed mounting brackets.
2. Use 3/8" (10 mm) flat washers, lock washers and nuts to secure the mounting channel to the bracket, as shown in **Figure 17.**

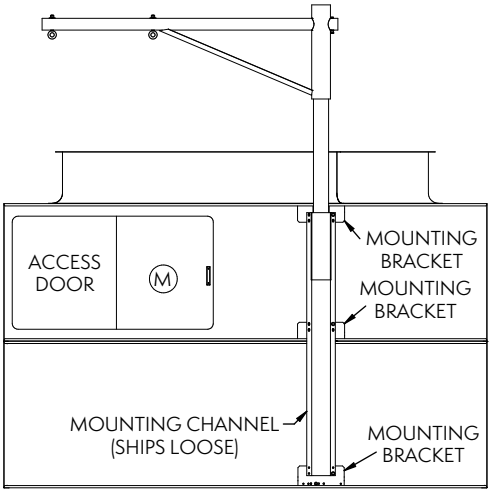


Figure 16

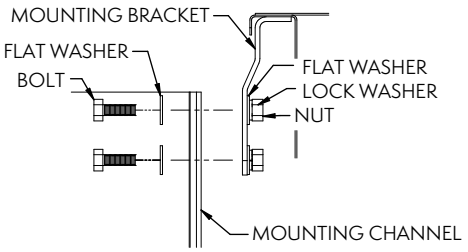


Figure 17

Optional Discharge Hood Damper

Section Assembly

Once the upper section (casing/fan section) has been secured to the bottom section, inspect the top of the upper section to ensure removal of any shipping blocks or other obstructions. Lower the discharge hood damper section onto the top of the upper section while aligning the holes located in each corner.

Place self-tapping bolts in all four corner bolt holes. Continue to install the rest of the self-tapping bolts working from the corners toward the center.
A self-tapper must be installed in every hole on the side flanges although none are required on the end flanges.

Note: Do not use U-bolts to lift the discharge hood damper section when attached to another part of the equipment. Always lift the hood separately.

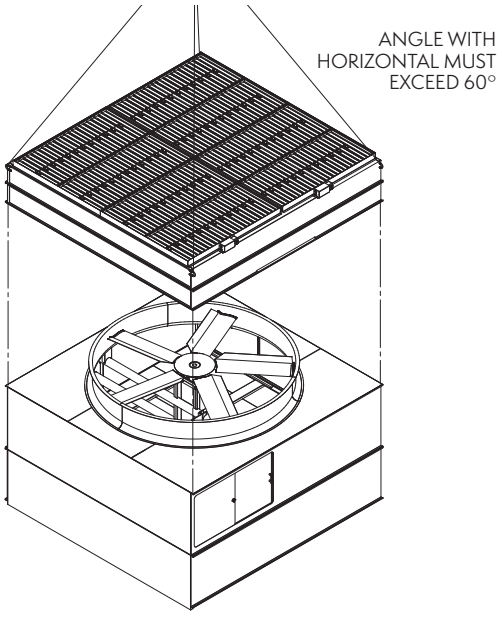


Figure 18 - Mating Discharge Hood Damper Section to Coil/Fan Section

External Motor Installation

All units narrower than 10' (3m) wide have their motors installed outside the unit in a shaft up configuration as shown in **Figures 19 and 20** below. Due to shipping width restrictions, these motors cannot ship mounted on the units since they would extend past the width of the truck. For this reason, the motor(s), motor base(s), motor guard(s), "**J**" bolts, pivot pins and belt(s) are shipped in the cold-water basin of the cooling tower. Please follow the step-by-step instructions below to properly install these components.

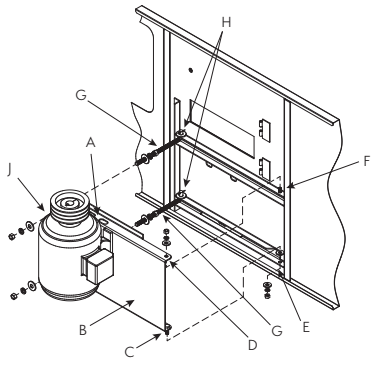


Figure 19 — External Motor Installation

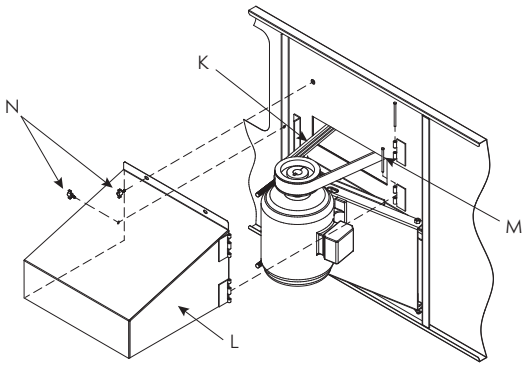


Figure 20— Motor Guard and Power-Band Belt Installation

1. Study **Figure 19** above before installing the motor base on the unit.
2. Insert the lifting device into the slots **A** located on the top of the motor base.
3. Lift the motor base **B** and insert the pivot pin **C** down into hole **E** and pivot pin **F** into hole **D**.
4. Install washer and nut (do not overtighten) on pivot pins. Install jam nut on pivot pin **C**.
5. Insert "**J**" bolts **G** into holes **H**. Install flat washers and cotter pins. Place nuts and washers on threaded portion of "**J**" bolts. These will be behind the motor base installed in the next step.
6. Install "**J**" bolts **G** into holes **J** in the motor base. Install flat washers, lock washer and nuts. Remove lifting device from the motor base. Position motor base towards top section of unit for belt installation.
7. Install Power-Band belt **K** (**Figure 20**) around fan sheave and motor sheave. Tighten belt by adjusting nuts on "**J**" bolts. Do not overtighten the belts. The center of the belt should deflect approximately 3/4" (19 mm) in the horizontal plane with moderate hand pressure.
8. Measure to see that the top and bottom of the motor base are the same distance out from the casing of the unit. This will ensure that the sheaves are properly aligned since the driven sheave on the fan shaft comes pre-set from the factory.
9. As a final check, lay a straight edge from sheave to sheave as shown below in **Figure 21.** There should be four-point contact. Adjust the position of the motor sheave as necessary until four-point contact is achieved.

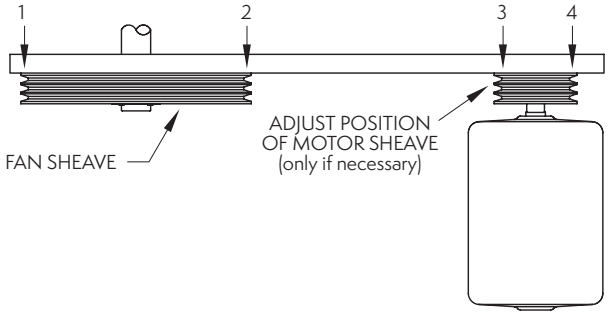


Figure 21 — Sheave Alignment Check

10. To install motor guard **L**, match up hinges and install hingepins **M** as shown in **Figure 20.**
11. Close motor guard **L** and install wing bolts **M**.

Note: For the European market, an additional belt cover plate needs to be installed.

Appendix A

Units are provided with match markings on each section. Standard match marking location is at the rigging seam on the connection face. Standard match marking designation is shown below:

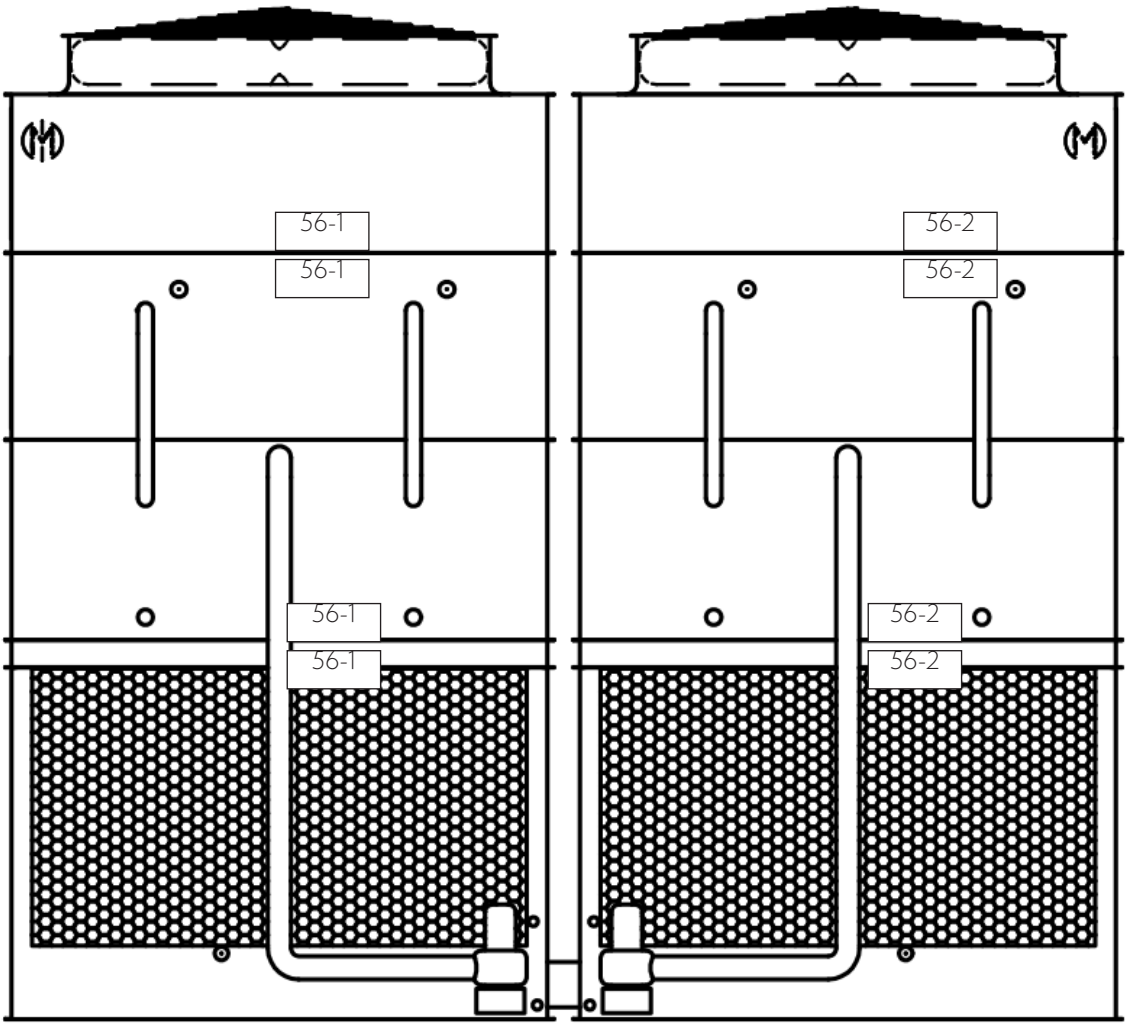
XX – Y

- Cell Number Designator
- Last 2 Digits of Serial Number

Example:

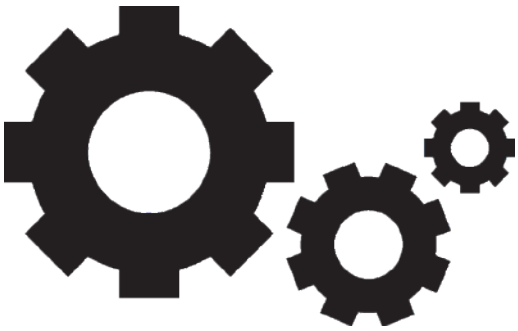
Serial Number: 23p123456 Number of Cells: 2

Match Marks: Cell #1: 56-1 Cell #2: 56-2



Notes:

Notes:



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