

Rigging & Assembly Instructions



APEX DRY
FLUID COOLERS



Mr. GoodTower®

Bulletin APEX26RIG



Table of Contents

Introduction	4
General Information.....	4
Method of Shipment	4
Receiving	5
Offloading Requirements.....	5
Support Structure.....	6
Piping Considerations for Temperature Sensor Installation.....	6
Coil Section Rigging & Assembly	7
Lower and Upper Coil Section Lifting & Anchoring Requirements	7
Joining Upper Coil Section to Lower Coil Section	9
Fan Section Rigging & Assembly	10
Fan Section Lifting & Fastening Requirements	10
Joining Fan Section to Upper Coil Section	13
Appendix A	14
Notes.....	15



Review these instructions in detail prior to lifting any units or sections. Lifting incorrectly may cause permanent damage to the equipment and/or serious injury to nearby personnel.

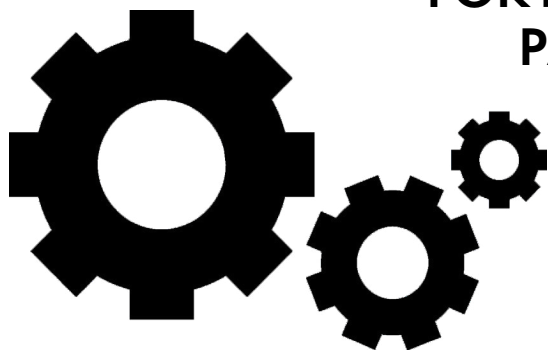
EVAPCO's eco-Air units should be rigged and assembled using the instructions and recommendations outlined in this bulletin.

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.

For a full description of EVAPCO's liability policy, please visit www.evapco.com to access our Terms and Conditions.



FOR EVAPCO AUTHORIZED PARTS AND SERVICE, CONTACT YOUR LOCAL EVAPCO REPRESENTATIVE OR THE LOCAL SERVICE CENTER



Mr. GoodTower®



EVAPCO, Inc. — World Headquarters & Research/Development Center

P.O. Box 1300 • Westminster, MD 21158 USA
410.756.2600 • marketing@evapco.com • evapco.com

North America

EVAPCO, Inc.
World Headquarters
Westminster, MD USA
410.756.2600
marketing@evapco.com

EVAPCO East
Taneytown, MD USA

EVAPCO East
Key Building
Taneytown, MD USA

EVAPCO Midwest
Greenup, IL USA
217.923.3431

EVAPCO Newton
Newton, IL USA
618.783.3433

EVAPCO West
Madera, CA USA
559.673.2207

EVAPCO Alcoil, Inc.
York, PA USA
717.347.7500
info@evapco-alcoil.com

EVAPCO Iowa
Lake View, IA USA

EVAPCO Iowa
Sales & Engineering
Medford, MN USA
507.446.8005

EVAPCO LMP ULC
Laval, Quebec, Canada
450.629.9864
info@evapcolmp.ca

EVAPCO Select Technologies, Inc.
Belmont, MI USA
844.785.9506
emarketing@evapcoselect.com

**Refrigeration Vessels &
Systems Corporation**
Bryan, TX USA
979.778.0095
rvs@rvscorp.com

Tower Components, Inc.
Ramseur, NC USA
336.824.2102
mail@towercomponentsinc.com

EvapTech, Inc.
Edwardsville, KS USA
913.322.5165
marketing@evaptech.com

EvapTech Gulf Services
Houston, TX USA
281.529.6526
angie.montes@evaptech.com

EVAPCO Dry Cooling, Inc.
Bridgewater, NJ USA
908.379.2665
info@evapcode.com

EVAPCO Dry Cooling, Inc.
Littleton, CO USA
908.895.3236
info@evapcode.com

Asia Pacific

**EVAPCO Asia Pacific
Headquarters**
Baoshan Industrial Zone Shanghai, P.R. China
(86) 21.6687.7786
marketing@evapcochina.com

**EVAPCO (Shanghai)
Refrigeration Equipment Co., Ltd.**
Baoshan Industrial Zone, Shanghai, P.R. China

**EVAPCO (Beijing)
Refrigeration Equipment Co., Ltd.**
Huairou District, Beijing, P.R. China
(86) 10.6166.7238
marketing@evapcochina.com

EVAPCO India Private Limited
Pune, Maharashtra 410501, India
info@evapco.in

**EVAPCO Air Cooling Systems
(Jiaxing) Company, Ltd.**
Jiaxing, Zhejiang, P.R. China
(86) 573.8311.9379
info@evapcochina.com

EVAPCO Australia (Pty.) Ltd.
Riverstone, NSW, Australia
(61) 02.9627.3322
sales@evapco.com.au

**EvapTech (Shanghai)
Cooling Tower Co., Ltd**
Baoshan District, Shanghai, P.R. China.
Tel: (86) 21.6478.0265

EvapTech Asia Pacific Sdn. Bhd.
Puchong, Selangor, Malaysia
(60) 3.8070.7255
marketing-ap@evaptech.com

Europe | Middle East | Africa

**EVAPCO Europe
EMENA Headquarters**
Tongeren-Borgloon, Belgium
(32) 12.39.50.29
evapco.europe@evapco.be

EVAPCO Europe BV
Tongeren-Borgloon, Belgium

EVAPCO Europe, S.r.l.
Milan, Italy
(39) 02.939.9041
evapcoeuropa@evapco.it

EVAPCO Europe, S.r.l.
Sondrio, Italy

EVAPCO Europe A/S
Aabybro, Denmark
(45) 9824.4999
info@evapco.dk

EVAPCO Europe GmbH
Meerbusch, Germany
(49) 2159.69560
info@evapco.de

EVAPCO Middle East DMCC
Dubai, United Arab Emirates
(971) 56.991.6584
info@evapco.ae

Evap Egypt Engineering Industries Co.
A licensed manufacturer of EVAPCO, Inc.
Nasr City, Cairo, Egypt
(20) 10.054.32.198
evapco@tiba-group.com

EVAPCO S.A. (Pty.) Ltd.
A licensed manufacturer of EVAPCO, Inc.
Isando, South Africa
(27) 11.392.6630
evapco@evapco.co.za

South America

EVAPCO Brasil
Equipamentos Industriais Ltda.
Sorocaba, São Paulo, Brazil
(55) 11.5681.2000
vendas@evapco.com.br

FanTR Technology Resources
Sorocaba, São Paulo, Brazil
(55) 11.4025.1670
fantr@fantr.com

TECHNOLOGY FOR THE FUTURE, AVAILABLE TODAY

Visit EVAPCO's website: evapco.com



Introduction

Thank you for purchasing your EVAPCO eco-Air™ Series APEX™ dry fluid cooler (EAW-HD). This manual will provide detailed instructions for rigging and installation of the unit(s). If any questions arise during the installation, please contact your local EVAPCO representative.

General Information

Method of Shipment

The APEX dry fluid coolers will ship in three sections, each of which will have mating double break flanges that will be bolted together during rigging.



The optional internal ladder accessory ships loose for field installation. The factory-mounted external service platform has ship loose components for field installation.

Miscellaneous items such as rigging hardware and other required materials and documentation are packaged in a rigging box which is placed inside the unit for shipment.

Receiving

Carefully inspect all units, sections, and accessories upon arrival to verify that no damage has occurred during shipment. If any units have been damaged during transit, immediately notify the carrier and file a claim with that carrier.

The coils on all EVAPCO eco-Air APEX coolers are shipped from the factory with a low-pressure nitrogen charge. Maintain the nitrogen charge until connecting each unit to the system piping.

Each coil is shipped with a pressure gauge to verify the nitrogen charge in the coil. A coil without the factory nitrogen charge may indicate damage occurred during shipment. In this case, coil(s) should be pressure tested with dry nitrogen gas to assure that it is leak free prior to installation. Please notify your EVAPCO representative before installing any unit that has lost the factory nitrogen charge during shipment. Once the nitrogen charge is verified, release the nitrogen charge by opening the valve located on the outlet coil connection.

Offloading Requirements

All eco-Air Series APEX units covered in this manual are designed to be removed from the truck via crane.

Ensure that the crane operator and/or the truck driver lift the unit securely. Always consider the weight of the unit with regard to crane.

Tubes, return bends, coil connections and headers are never to be used for lifting.

Remove any packaging material and verify that no damage has occurred. Slightly bent fins can be repaired easily using a fin comb.

Damaged tubes are only to be repaired by a qualified welder. If the damaged tubes cannot be repaired by a qualified welder, contact your local EVAPCO representative to arrange for inspection and/or repairs.

Support Structure

eco-Air units can be mounted on structural steel “I” beams, concrete pads, concrete piers, or another similar acceptably sized and level support structure. It is recommended that you contact your local EVAPCO representative if you have any questions about the support requirements.

EVAPCO’s recommendations are related to structural steel support; however the information below, along with any external accessory dimensions and unit weight from the factory submittal can be used to size alternative support structures, such as a concrete pad.

Two structural “I” beams running the length of the unit are shown below for supporting the eco-Air Series units. These beams should be located underneath the outer flanges of the unit as shown in Figure 1.

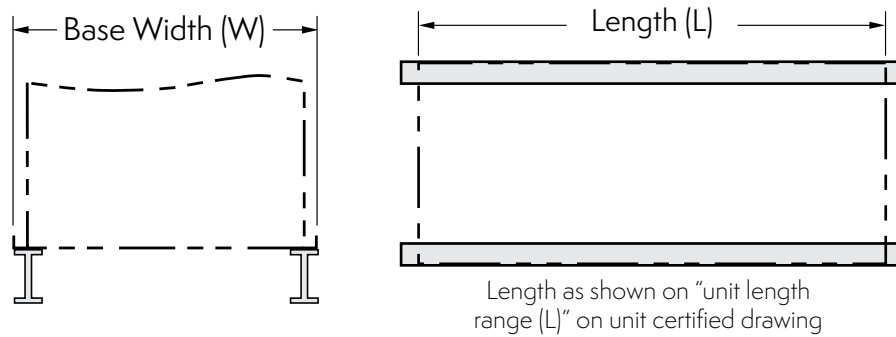


Figure 1 – Supporting Steel Diagram

See Table 1 for Steel Support Dimensions. Mounting holes, 3/4” in diameter, are provided for bolting the unit to the structural steel. Refer to the recommended structural steel support drawing and certified print in the factory submittal for exact bolt hole location.

eco-Air Series APEX Dry Fluid Cooler Supporting Steel Dimensions	
APEX Models	Dry Base Width (W)
12' Wide	11' 10-1/4"

Table 1 – eco-Air Series APEX Supporting Steel Dimensions

Beams should be sized in accordance with accepted structural practices. Maximum deflection of the beam under the unit should be 1/360 of the unit length, not to exceed 1/2". The supporting “I” beams should be level before setting the unit in place. Do not level the unit by shimming between it and the beams as this will not provide proper longitudinal support.

Support beams/structure and anchor bolts are to be provided by others.

Piping Considerations for Temperature Sensor Installation

If supplied with the optional EVAPCO Control Panel, there are additional considerations for the installation of the factory supplied temperature sensor in pipework. Please refer to the EVAPCO Controller User’s Manual for more detail on installation guidelines.

Coil Section Rigging & Assembly

Lower and Upper Coil Section Lifting & Anchoring Requirements

1. Use lifting ears located on top of the coil section. An adjustable/spreader lifting beam is required to be used along the entire unit length. Refer to the below instructions for lifting an APEX coil section.

NOTE: A system of adjustable/spreader lifting beams can be utilized in lieu of a single beam which runs the entire unit length, provided the unit is supported along its entire length and the below requirements are followed.

2. Use shackles (or other appropriate lifting devices) large enough to span the lifting ear and C-channel located on the unit ends as shown in Detail A below. Shackle/lifting device jaw opening must be greater than 64 mm (2-1/2"). Pin diameter must be less than 40 mm (1-9/16"), see Detail B. The anchor shackle length must be greater than 64 mm (2-1/2").

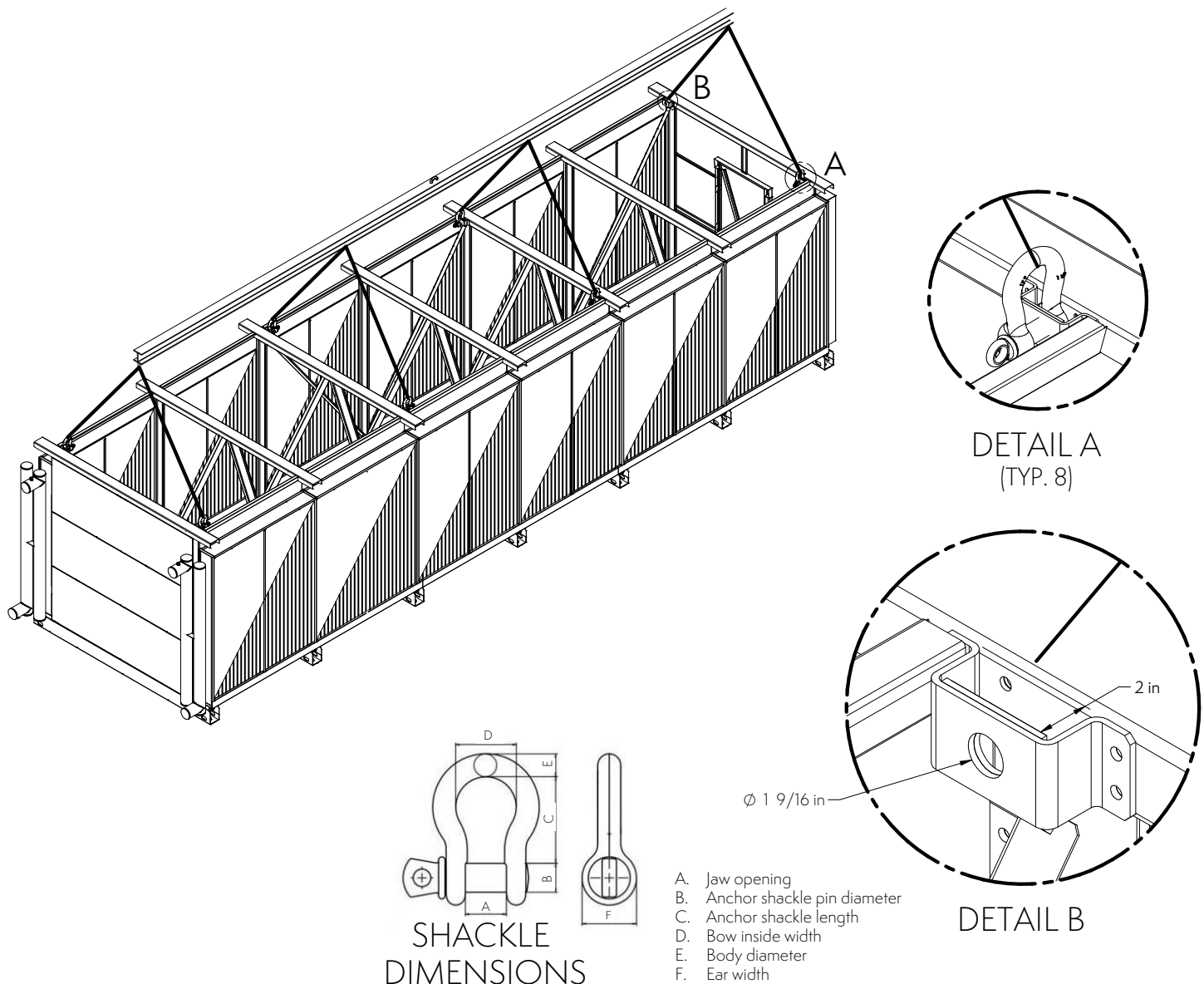


Figure 2 – Coil Section Rigging

3. Ensure that the 'H' dimension for the crane lift is greater than or equal to 92" (2.3 m) from the lifting ears as shown in Figure 3.1. When viewed from the side, the lifting angle must ALWAYS be 90 degrees (perpendicular) to the top of the unit, as shown in Figure 3.2. The centerline distance between the lower section lifting ears on the end elevation view is 8' 10-9/16" (2706 mm).

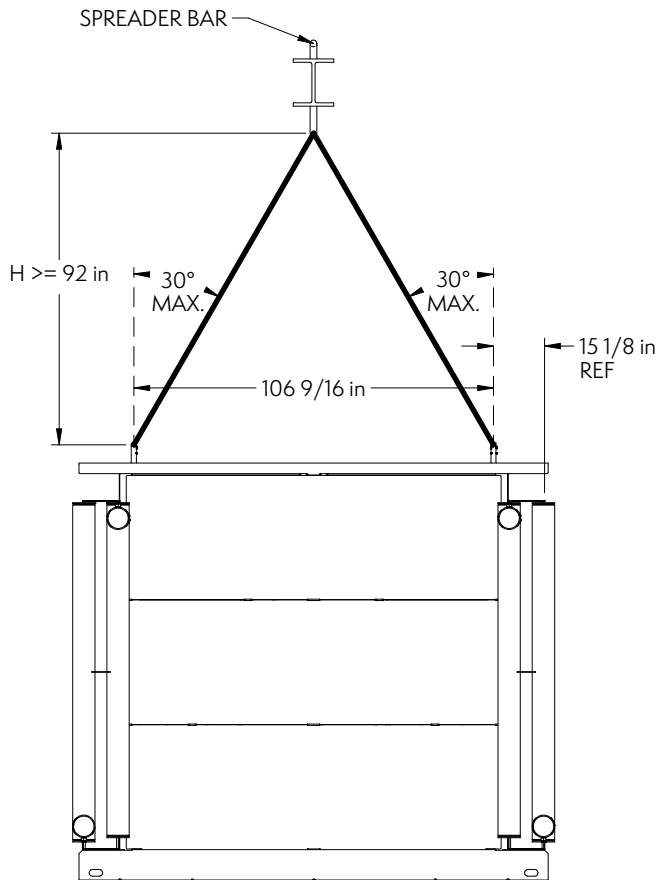


Figure 3.1 – Coil Section End Elevation View

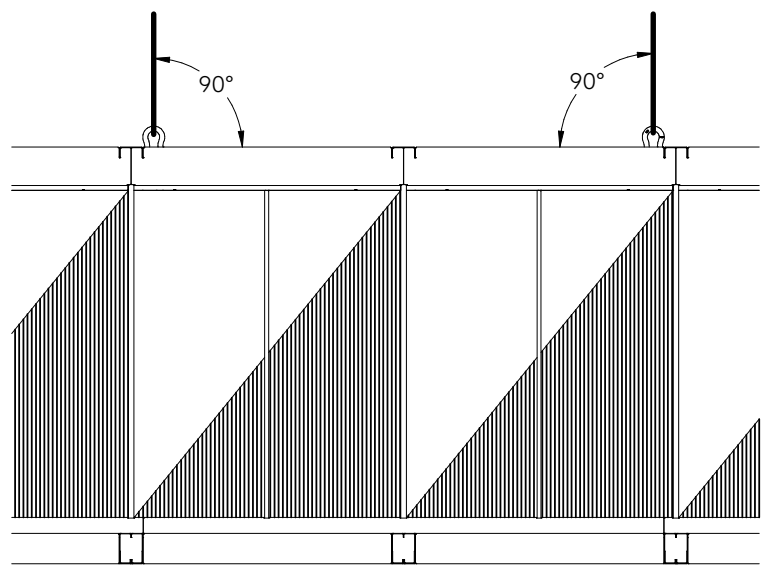


Figure 3.2 – Coil Section Side Elevation View

4. Once the coil section is lifted off the truck, place section onto staging area (riggers yard) or support structure (e.g., steel support, concrete pad, frame). If mounted to support structure, fasten lower coil section using anchor hardware (by others)- size & quantity shown on 'Recommended Steel Support Arrangement' drawing in the factory submittal.
5. Once the lower coil section has been anchored to its support structure, follow the procedure outlined above for lifting the upper coil section and refer to the following section for joining the upper and lower coil sections.

Joining Upper Coil Section to Lower Coil Section

1. Carefully lower upper coil section onto lower coil section using drift pins in the four corners and as needed to align rigging holes in the mating double break flanges. Fasten upper coil section to lower coil section rigging seam as shown in Figure 4. Units are provided with match markings on each section, as shown in Appendix A. Rigging hardware is provided.

NOTE: Upper and lower coil sections cannot be lifted together. This will cause permanent damage to the equipment and/or serious injury to nearby personnel.

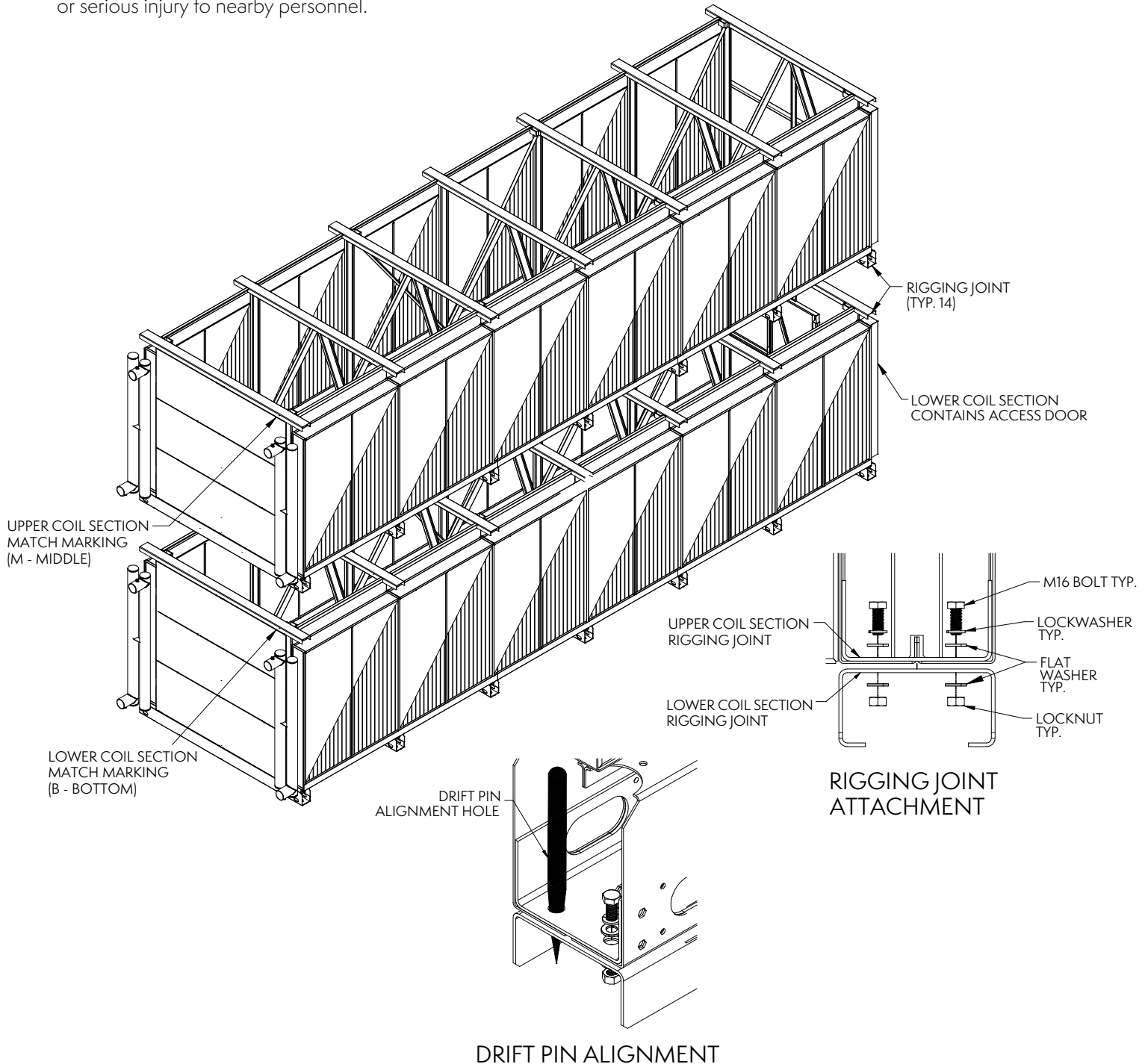


Figure 4 – Joining Upper Coil Section and Lower Coil Section

2. Once the upper coil section has been fastened to the lower coil section, proceed to rigging and lifting the fan section.

Fan Section Rigging & Assembly

Fan Section Lifting & Fastening Requirements

1. Use lifting points on top of the fan section as shown in Figure 5. An adjustable/spreader lifting beam is required to be used along the entire unit length. Refer to the below instructions for lifting the APEX fan section.

NOTE: A system of adjustable/spreader lifting beams can be utilized in lieu of a single beam which runs the entire unit length, provided the unit is supported along its entire length and the below requirements are followed.

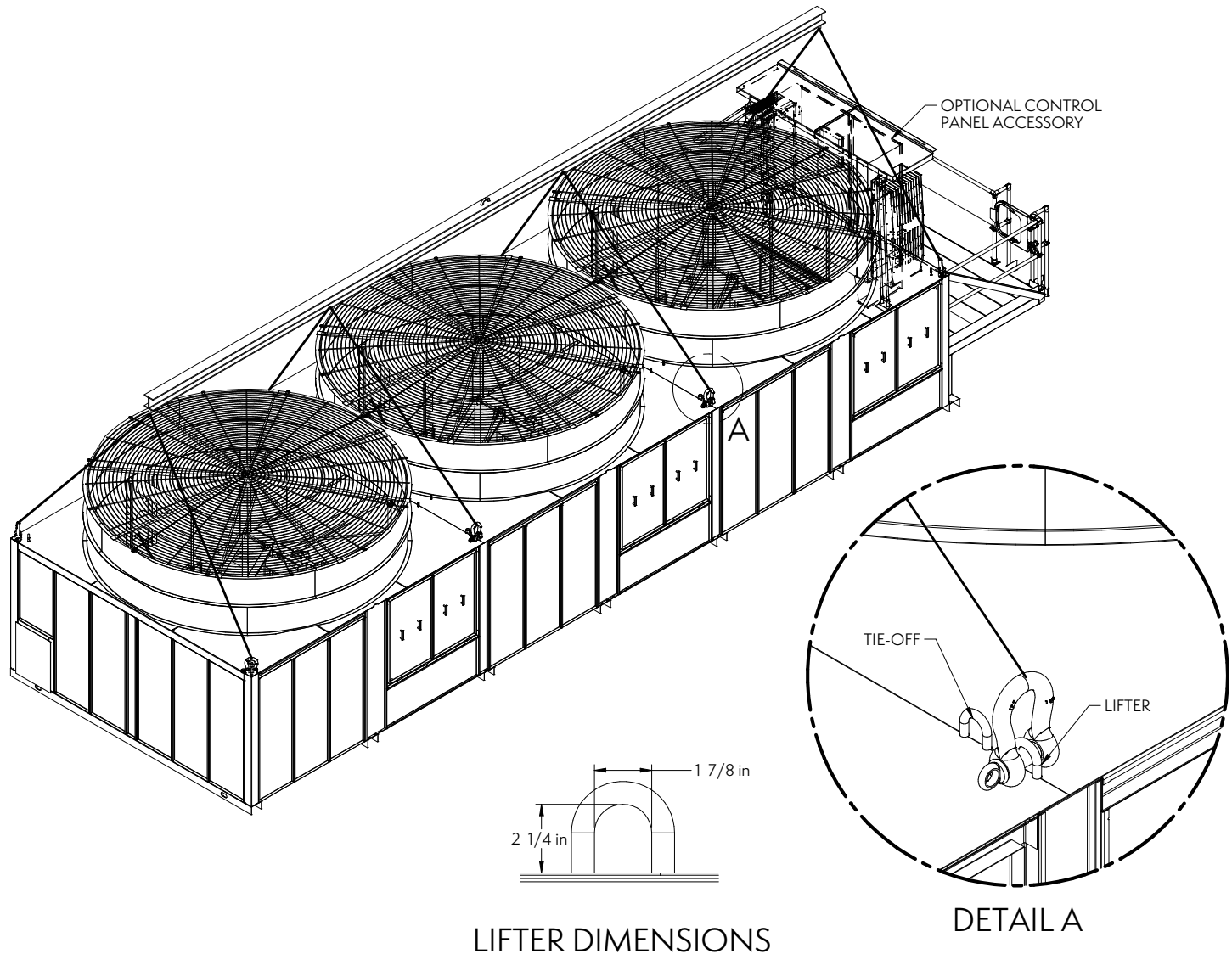


Figure 5 – Fan Section Rigging

2. Ensure that the 'H' dimension for the crane lift is greater than or equal to 11.5' (3.5 m) from the lifting ears as shown in Figure 6.1. When viewed from the side, the lifting angle must ALWAYS be 90 degrees (perpendicular) to the top of the unit, see Figure 6.2. The centerline distance between the fan section lifting ears on the end elevation view ranges from 13' 13/16" (3983 mm) to 13' 5-3/4" (4108 mm).

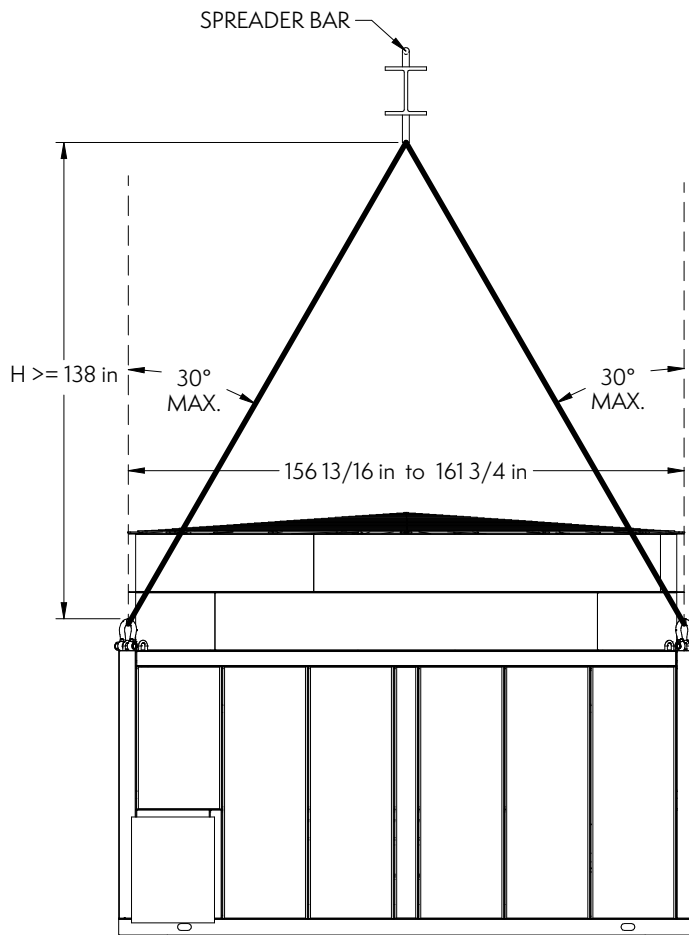


Figure 6.1 – Fan Section End Elevation View

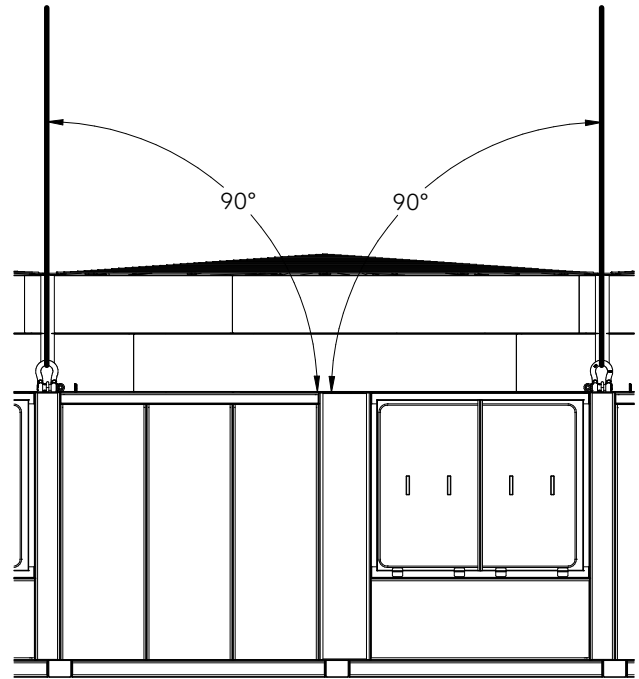


Figure 6.2 – Fan Section Side Elevation View

3. The fan section for APEX units can include a factory-mounted control panel and external service platform. Refer to Figure 7 for center of gravity point for eccentric weight distribution.

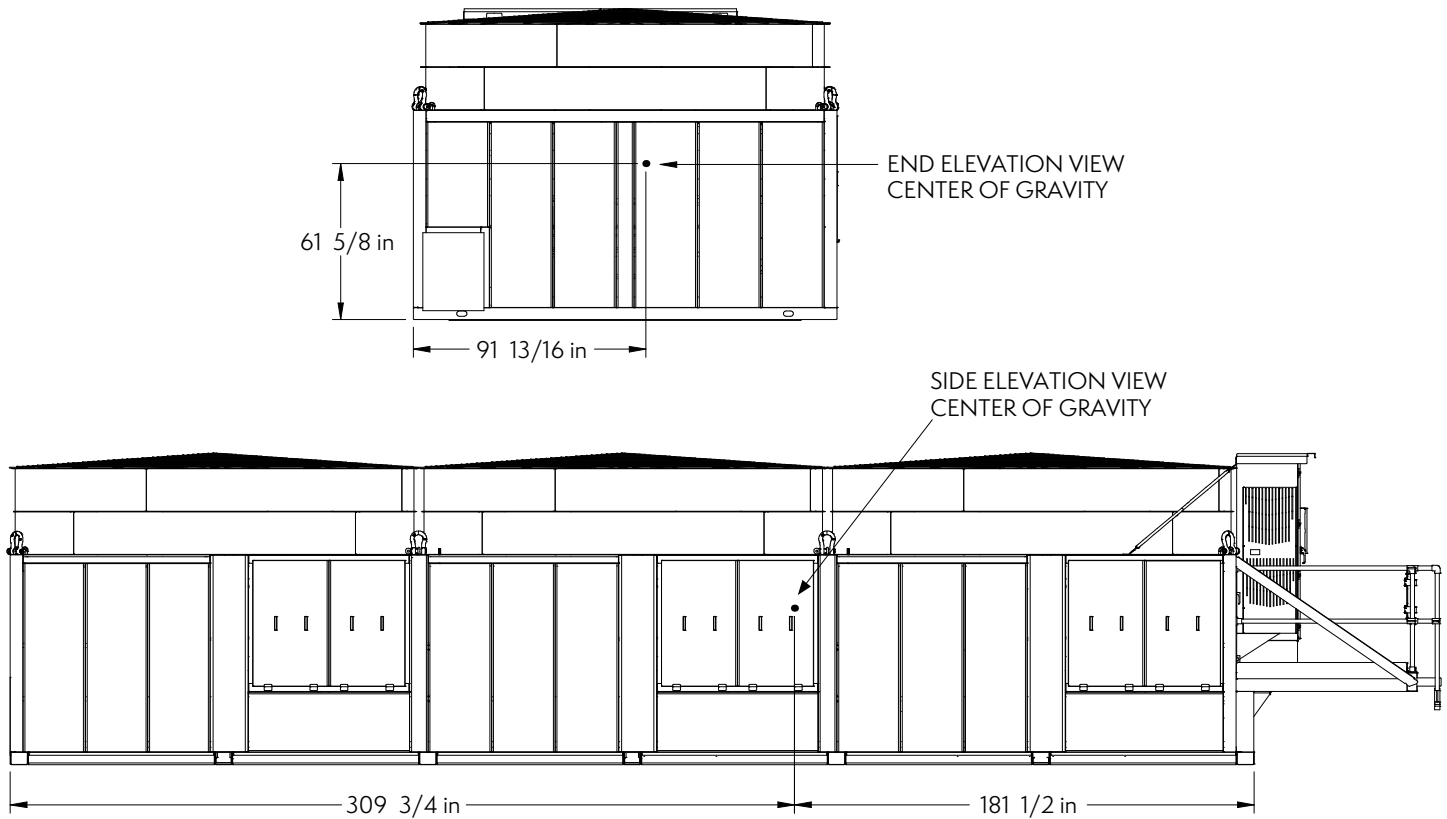


Figure 7 – Fan Section Center of Gravity with Factory-Mounted Control Panel and External Service Platform

4. Once the fan section has been lifted, proceed to joining the fan section to the upper coil section.

Joining Fan Section to Upper Coil Section

1. Carefully lower fan section onto upper coil section using drift pins in the four corners and as needed to align rigging holes with the transverse steel support channels on the upper coil section. Fasten fan section to upper coil section rigging connections as shown in Figure 8. Units are provided with match markings on each section, as shown in Appendix A. Rigging hardware is provided.

NOTE: Coil sections and fan section cannot be lifted together. This will cause permanent damage to the equipment and/or serious injury to nearby personnel.

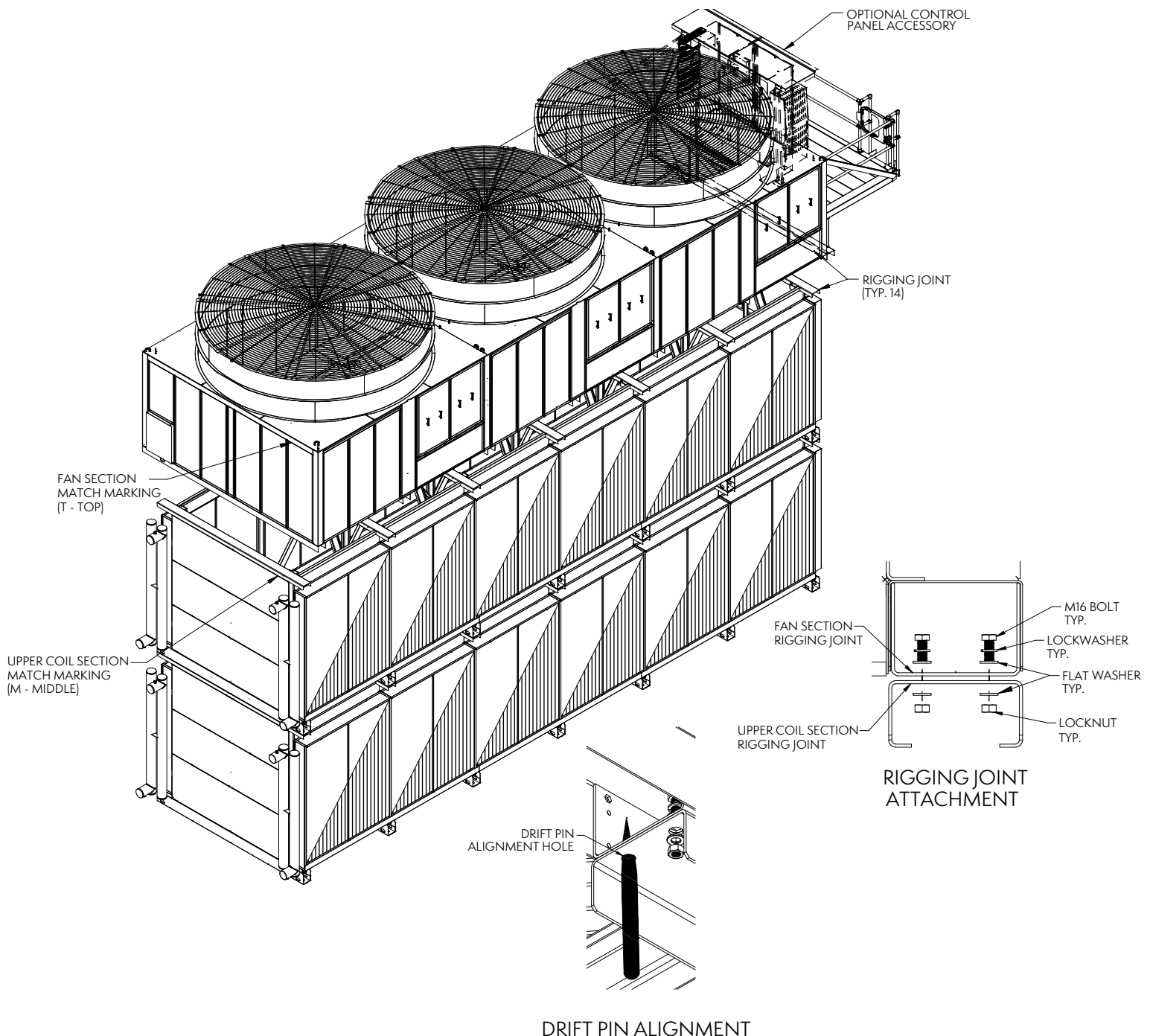


Figure 8 – Joining Fan Section to Upper Coil Section

Appendix A

eco-Air APEX units are provided with match markings on the connection face of each section at the rigging seam. Standard match marking designations are shown below:

XXX – Y
 └── Section Designator: B (Bottom); M (Middle) or T (Top)
 └── Last 3 Digits of the Serial Number

Example:

Serial Number: 26p203456

Match Marks: Section: 456-B

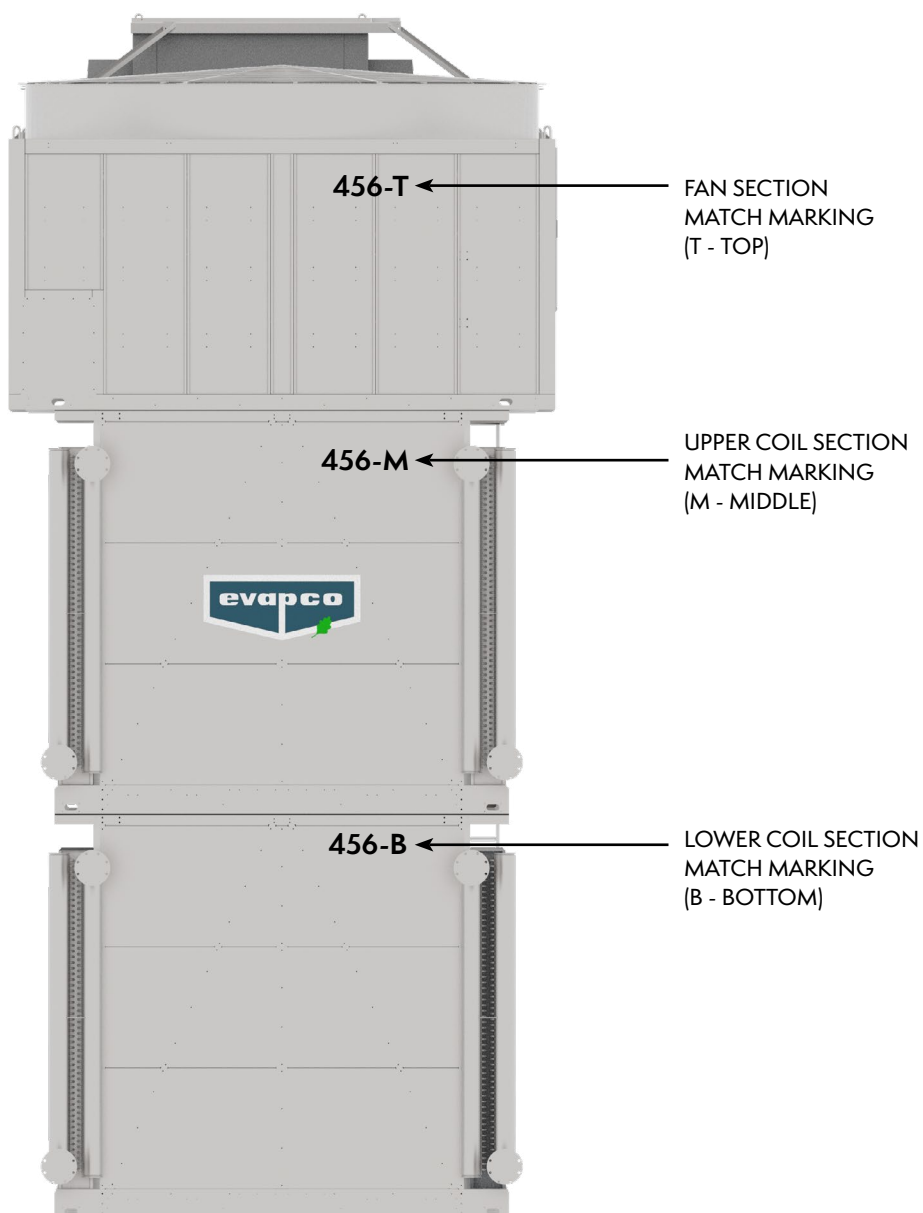


Figure 9 – eco-Air APEX Sections - Match Marking



NOTES:

A series of 20 horizontal lines for taking notes, spanning the width of the page below the 'NOTES:' header.



EVAPCO, Inc. • P.O. Box 1300 • Westminster, MD 21158 USA
PHONE: 410-756-2600 • FAX: 410-756-6450 • E-MAIL: marketing@evapco.com

©2026 EVAPCO, Inc.

