



**BALTIMORE  
AIRCOIL COMPANY**



RCF

RCC

# RCF Closed Circuit Cooling Towers RCC Evaporative Condensers

ASSEMBLY & RIGGING INSTRUCTIONS



RCF Closed Circuit Cooling Towers and RCC Evaporative Condensers should be rigged and assembled as outlined in this bulletin.

These procedures should be thoroughly reviewed prior to the actual rigging and assembly of the equipment to acquaint all personnel with procedures to be followed and to assure that all necessary equipment will be available beforehand.



Be sure to have a copy of the certified drawing available for reference. If you do not have a copy of this drawing, or if you need additional information about this unit, contact your BAC Representative. The model number and serial number of the unit are located on the label provided on the unit.



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RCF CLOSED CIRCUIT COOLING TOWERS  
RCC EVAPORATIVE CONDENSERS

# Introduction

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SHIPPING

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PRE RIGGING CHECKS

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FREEZE PROTECTION

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LOCATION

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ELIMINATORS

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WARRANTIES

## Shipping

BAC Cooling Equipment is factory assembled to assure uniform quality and minimum field assembly. For the dimensions and weights of a specific unit or section, refer to the certified drawings.

## Check Unit Before Rigging

When the unit is delivered to the jobsite, it should be checked thoroughly to ensure all required items have been received and are free of any shipping damage prior to signing the bill of lading. The following parts should be inspected:

- ☐ Pulleys and Belts
- ☐ Bearings
- ☐ Bearing Supports
- ☐ Fan Motor(s)
- ☐ Fan(s) and Fan Shaft(s)
- ☐ Float Valve Assembly(s)
- ☐ Water Distribution System
- ☐ Coils
- ☐ Cold Water Basin Strainer(s)
- ☐ Interior Surfaces
- ☐ Exterior Surfaces
- ☐ Air Inlet Louvres
- ☐ Miscellaneous Items: All bolts, nuts, washers, and sealer tape required to assemble sections or component parts are furnished by BAC and shipped with the unit. A checklist inside the envelope attached to the side of the unit marked "Contractor's Installation Instructions" indicates what miscellaneous parts are included with the shipment and where they are packed.

### Unit Weights

Before rigging any unit, the weight of each section should be verified from the unit certified drawing. Some accessories add additional weight as shown on the respective accessory drawings.

### Anchoring

The unit must be properly anchored in place.

Refer to the suggested support details on the certified drawing for locations and quantity of the mounting holes. Anchor bolts must be provided by others.

Holes suitable for 16 mm bolts are provided for bolting the unit to the support beams or concrete sump.

The unit must be level for proper operation and ease of piping. Support beams must also be level. Shim if necessary to level unit.



## Introduction

### Shipping

### Pre-rigging Checks



**WARNING:** Ensure that no water, or debris has collected in the basin or elsewhere in the unit. Such accumulations will add substantially to the equipment's lifting weight.

WARNING: In the event of extended lifts or where hazards exist, the lifting devices should be used in conjunction with safety slings



WARNING: Only personnel qualified to do so should undertake operation, maintenance and repair of this equipment. Proper care, procedures and tools must be used in handling, lifting, installing, operating, maintaining and repairing this equipment to prevent



WARNING: Each unit must be located and positioned to prevent the introduction of discharge air into the ventilation systems of the building on which the unit is located and of adjacent buildings.



## Safety

Adequate precautions appropriate for the installation and location of these products should be taken to safeguard the equipment and the premises from damage and the public from possible injury.

When the fan speed of the unit is to be changed from the factory set speed, including the use of a variable speed device, steps must be taken to avoid operating at or near the fan's "critical speed" which could result in fan failure and possible injury or damage. Consult with your local BAC Representative on any such applications.

## Connecting Pipework

All piping external to BAC cooling equipment must be supported separately. In case the equipment is installed on vibration rails or springs, the piping must contain compensators to eliminate vibrations carried through the external pipework.

## Location

All evaporative cooling equipment must be located to ensure an adequate supply of fresh air to the fans. When units are located adjacent to walls or in enclosures, care must be taken to ensure the warm, saturated, discharge air is not deflected and short-circuited back to the air intakes.

## Eliminators

Plastic eliminators are not designed to support the weight of a person or to be used as storage or work surface for any equipment or tools. Use of these eliminators as a walking, working or storage surface may result in injury to personnel or damage to the equipment. Units with plastic eliminators should not be covered with a clear plastic tarpaulin.

## Warranties

Please refer to the Limitation of Warranties applicable to and in effect at the time of the sale/purchase of these products.



# Rigging Guidelines

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RIGGING

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SECTION ASSEMBLY

**WARNING:** The basin and casing components must be rigged seperately. Never assemble the unit before lifting as the lifting devices are not designed to support the weight of the entire assembled unit.



## Rigging

To simplify rigging and installation RCC and RCF units are shipped in sections consisting of a basin and a casing section. Refer to the table below and Figures 1 and 2 for the recommended minimum size of the spreader bar and the recommended vertical dimension "H" from the lifting device at the base of each unit or section to the spreader bar.

In the event of extended lifts or where hazards exist, the lifting devices should be used in conjunction with safety slings placed under the unit.

The proper rigging sequence is outlined below:

1. Lift the basin section into place
2. Lift the casing section into place and secure to the basin (See section assembly)
3. Securely bolt the unit to the supporting steel

Nominal Box Size	No. of Sections		Dimensions (for each cell) mm.		
	Basin	Casing	Min. H1	Min. H2	Min.W
5'X5'	1	1	1500	1700	1675
6'X6'	1	1	1700	2000	1980
7'X7'	1	1	1900	2200	2285
8'X8'	1	1	2200	2500	2590
9'X9'	1	1	2400	2700	2895
10'X10'	1	1	2700	3000	3200
11'X11'	1	1	2900	3300	3500
7'X10.5'	1	1	3300	2200	3270
8'X12'	1	1	3600	2500	3880
9'X13'5	1	1	3900	2700	4335
10'X15'	1	1	4500	3000	4790
11'X16.5	1	1	5000	3300	5250





RCF, RCC

Rigging

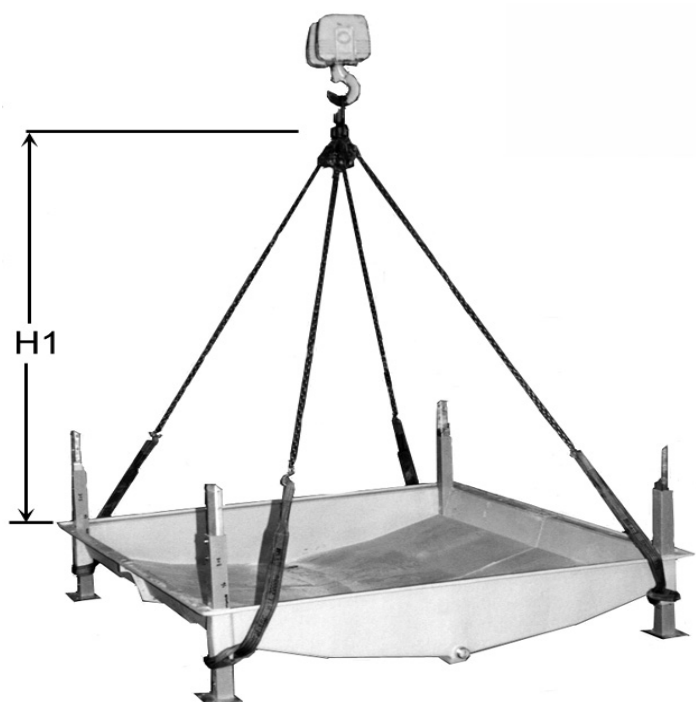


Figure 1: Lifting the basin section

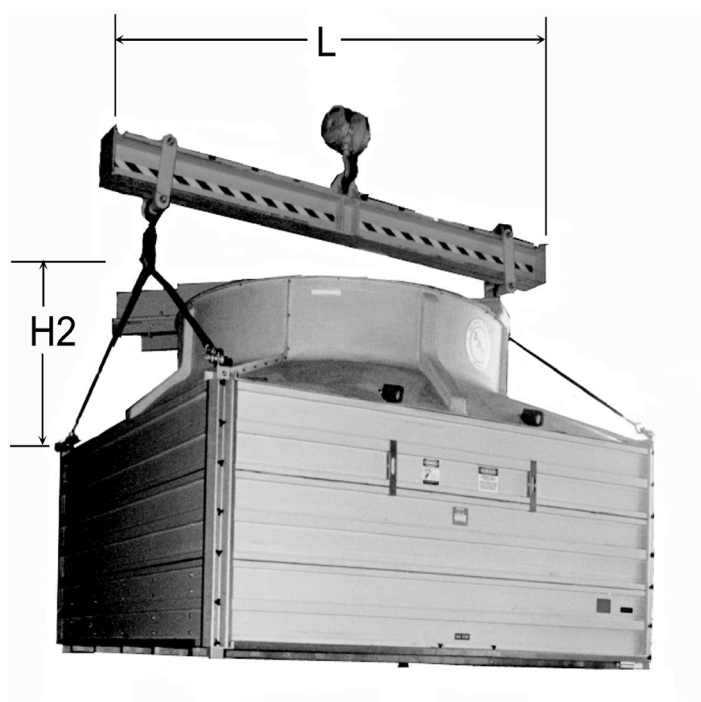


Figure 2: Lifting the casing section

Figure 1 shows the proper rigging of BAC RCC and RCF cooling equipment for installation. Casing sections may be hoisted short distances by using the lifting devices provided at the top of each unit as shown in Figure 2.

WARNING: When lowering a section into place, ensure that nothing can be trapped between the upper and lower flanges



## Section Assembly

To join the casing section to the basin, apply a small amount of sealer around the posts in each corner. Lower the casing into place as shown in Figure 3 using the basin-to-casing joining brackets as a guide to fit into the casing section corner posts.

Bolt the two sections together at each post.



Figure 3. Joining casing to basin section

COOLING TOWERS

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CLOSED CIRCUIT COOLING TOWERS

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ICE THERMAL STORAGE

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EVAPORATIVE CONDENSERS

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HYBRID PRODUCTS

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PARTS & SERVICES



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