



**BALTIMORE
AIRCOIL AUSTRALIA**



CXV

FXV

Series 1500

RIGGING & ASSEMBLY INSTRUCTIONS





Table of Contents

RIGGING & ASSEMBLY INSTRUCTIONS » SERIES 1500

1 Introduction

- 2 Safety
- 2 Leveling
- 2 Pre-Rigging Checks
 - Unit Weights
 - Anchoring
- 3 Cold Weather Operation
- 3 Warranties
- 3 Shipping
- 3 Location

2 Unit Rigging & Assembly

- 4 Rigging
- 5 Section Assembly
- 5 Optional Ladders, Safety Cages, Handrail Packages, Platforms & Sound Attenuators

3 Final Assembly Details

- 6 Inspection



This bulletin outlines proper rigging and assembly procedures for Series 1500 evaporative condensers and evaporative fluid coolers. Thoroughly review the instructions in this bulletin with all personnel prior to an actual Series 1500 rigging operation.

Make sure all necessary equipment is available before starting.

Be sure to have a copy of the submittal drawings available for reference. If you do not have a copy of these drawings, or if you need additional information about this unit, contact your local BAC Representative whose name and telephone number are on the outside of the cold water basin. The model number and serial number of the unit are also located in this area.

Introduction

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 as appropriate for the installation and location of these products.

For a discussion of Safety Precautions to be followed when operating or maintaining this equipment, please refer to the equipment's Operating & Maintenance Instructions.

Leveling

Series 1500 units are factory-assembled to ensure uniform quality and minimise field assembly. All Series 1500 models ship in two sections per cell (upper and lower) due to shipping height restrictions. For the dimensions and weights of a specific cell or section, refer to the certified drawings.

Pre-Rigging Checks

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:


- Sheaves and Belts
- Bearings
- Bearing Supports
- Fan Motors
- Wet Deck Surface (VXT)
- Cooling or condensing coil(s)
- Water Distribution System
- Strainers
- Float Valve Assembly
- Louvres
- Spray Water Pump
- Interior & Exterior Surfaces
- Miscellaneous Items:
A checklist inside the envelope attached to one of the access doors and marked "For Rigger" indicates what miscellaneous parts, such as sealer, hardware and accessory items, are included and where they are packed. Be sure to remove all miscellaneous items from the pan before the unit is assembled.




WARNING: When the fan speed of a Series 1500 unit is to be changed from the factory set speed, including the use of a variable fan speed control device, steps must be taken to avoid operating at or near any natural frequency which may result in fan failure and possible injury or damage. Consult your BAC Representative on any such applications.



WARNING: Operation, maintenance and repair of this equipment should be undertaken only by personnel qualified to do so. Proper care, procedures and tools must be used in handling, lifting, installing, operating, maintaining and repairing this equipment to prevent personal injury and/or property damage. Units with PVC eliminators should not be covered with a clear plastic tarpaulin.



Failure to use designated lifting points can result in a dropped load causing severe injury, death, and/or property damage. Lifts must be performed by qualified riggers following BAC published Rigging Instructions and generally accepted lifting practices. The use of supplemental safety slings may also be required if the lift circumstances warrant its use, as determined by the rigging contractor.



ATTENTION: Before an actual lift is undertaken, ensure no water, snow, ice, or debris has collected in the basin or elsewhere in the unit. Such accumulations will add substantially to the equipment's lifting weight.

Unit Weights

Before rigging any Series 1500 unit, verify the weight of each section from the certified drawings.

Anchoring

22mm diameter holes are provided in the bottom flange of the pan section for bolting the unit to the support beams. Refer to the suggested support location drawing included in the submittal for location of the mounting holes. The unit must be level for proper operation. Anchor bolts must be provided by others.

Cold Weather Operation

These products must be protected against damage and/or reduced effectiveness due to possible freeze-up by mechanical and operational methods. Please refer to the Product catalog or contact the local B.A.C. representative for recommended protection alternatives

Warranties

Please refer to the Limitation of Warranties (located in the submittal package) applicable to and in effect at the time of the sale/purchase of these products.

Shipping

Series 1500 units are factory-assembled to ensure uniform quality and minimise field assembly. All Series 1500 models ship in two sections per cell (upper and lower) due to shipping height restrictions. For the dimensions and weights of a specific cell or section, refer to the certified drawings.

Location

Series 1500 units 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.

Also, each unit should be located and positioned to prevent the introduction of discharge air into the ventilation systems of the building where the unit is located or of adjacent buildings. For detailed recommendations on Series 1500 layout, please consult your BAC Representative.

Unit Rigging & Assembly

Rigging

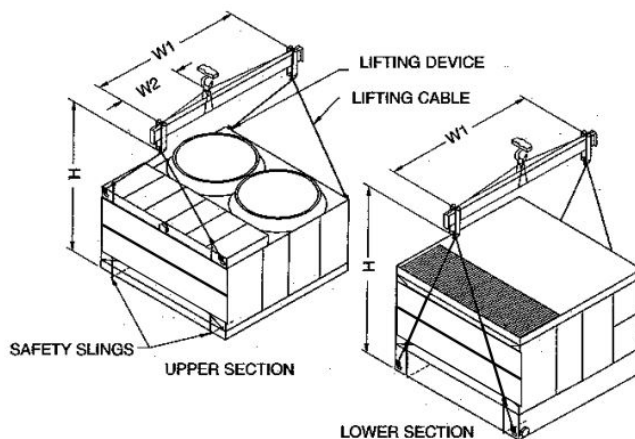
Refer to Table 1 and Figure 1 for each section's required minimum spreader bar length and recommended rigging dimensions. To assemble sections and join multiple cells, refer to the appropriate section below.



NOTE: All units must be rigged one section at a time.

Model No	Dimensions (for each cell)			
	Section	H	W1	W2
CXV-74 to CXV-93	Upper	4300	2400	950
FXV-42X	Lower	2100	2400	-
CXV-117 to CXV-147	Upper	4900	2400	950
FXV-43X	Lower	2700	2400	-
CXV-153 to CXV-193	Upper	5500	2400	950
FXV-44X, FXVQ-44X	Lower	3400	2400	-
CXV-207 to CXV-296	Upper	5500	3000	1150
FXV-54X, FXVQ-54X	Lower	3400	3000	-
CXV-338 to CXV-435	Upper	7600	3000	1150
FXV-56X, FXVQ-56X	Lower	5500	3000	-
CXV-283 to CXV-327	Upper	5500	3600	1350
FXV-64X	Lower	3400	3600	-
CXV-416 to CXV-481	Upper	7600	3600	1350
FXV-66X	Lower	5500	3600	-

Table 1. Preferred rigging method for Series 1500 Evaporative Condensers & Evaporative Fluid Coolers.



Two-Piece Cells
Each section requires different rigging.
(See Table 1)



WARNING: Unless unit ships fully assembled, pan-fan and casing components must be rigged separately. Never assemble the unit before lifting as the lifting devices provided are not designed to support the weight of the entire assembled unit.

Figure 1. All CXV and FXV Models

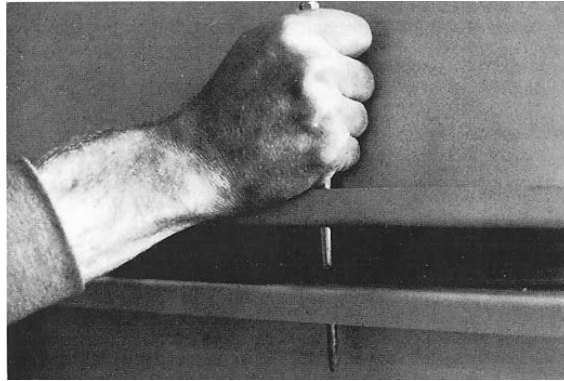


Figure 2.

Section Assembly

Position the bottom section on the tower support and bolt in place. Wipe down the top horizontal flanges on the lower section to remove dust, dirt or moisture that may have accumulated during shipment and storage. Apply the 25mm flat (trapezoidal cross section) tape sealer around the periphery of the top flange of the lower section. This tape sealer must be centred directly over the centre line of the taper holes and on the centre line of the end flanges where there are no taper holes. The sealer is to be spliced only along the flanges with taper holes. When it is necessary to splice sealer, miter and press the two ends together so as to form a smooth, continuous bead. Using drift pins in the bolt holes provided (Figure 2), guide the top section onto the bottom section. Match marks must line up as shown on the sections. Bolt in place as illustrated in Figure 3.

Optional Ladders, Safety Cages, Handrail Packages, Platforms and Sound Attenuators

All optional accessories such as ladders, safety cages, deck grating, platforms and sound attenuators should be installed as shown on the appropriate reference drawings in the submittal package from BAC. The drawings are included with the unit in the envelope attached to the side of the unit marked "For Rigger".

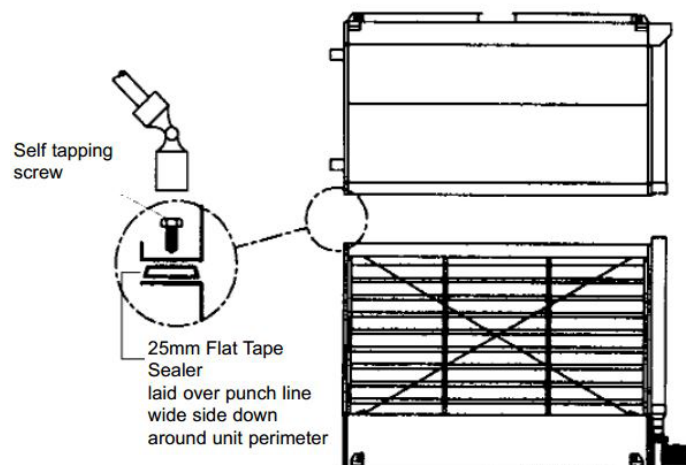


Figure 3.

Final Assembly Details

Inspection

Prior to start-up, the following services, which are described in detail in the Operating and Maintenance Manual, must be performed.

Inspect general condition of unit.

Inspect fans and air inlet screens for obstructions.

Check make-up valve and sump water level.

Inspect spray nozzles and heat transfer section.

Lubricate all bearings and purge them of old grease.

Proper start-up procedures and scheduled periodic maintenance will prolong the life of the equipment and ensure trouble-free performance for which the unit is designed.

COOLING TOWERS

CLOSED CIRCUIT COOLING TOWERS

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