



PRODUCT CATALOGUE 

RFC Closed Circuit Cooling Tower



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The **RCF Closed Circuit Cooling Tower** is being offered to the market, complementing and completing BAC's already impressive array of products. Offering excellent thermal performance over a wide range of flow and temperature requirements. Standard design features satisfy today's environmental concerns, minimize installation costs, maximize year-round operating reliability, and simplify maintenance requirements.

NOTABLE FEATURES INCLUDE:

- ✓ Superior Pultruded Composite
- ✓ Low Energy Consumption
- ✓ Low Height Installations
- ✓ Easy Maintenance
- ✓ Low Installation Costs
- ✓ Ideal Replacement Unit



Benefits

> Low Energy Consumption

- ✓ RCF Closed Circuit Cooling Towers minimize the energy consumption of the entire system by providing the lowest condensing temperatures. Owners save money while conserving natural resources and reducing environmental impact.
- ✓ RCF Closed Circuit Cooling Towers provide the heat rejection required at the lowest possible energy via:
 - High efficiency, low horsepower axial fans
 - Premium efficient/VFD duty motors (standard)

> Easy Maintenance

- ✓ **EASY ACCESS** — Removable louvres provide easy access to the unit interior to adjust the float valve, clean the strainer, or flush the basin.
- ✓ Removable Coil Casing end panels fitted with removable knobs allow for visual inspection and cleaning of the coil.
- ✓ **EASY BRANCH REMOVAL SYSTEM** — Water distribution branch removal system that requires no tools.
- ✓ **HYGIENIC COLD WATER BASIN** — The cold water basin is sloped to eliminate stagnant water and reduce biological growth. Additionally, the suction strainer is easily removable to simplify maintenance.
- ✓ **FAN MOTORS** — The fan motors for the RCF are vertically mounted on an adjustable track. The base is easily moved to aid belt tensioning and changing. Direct Drive motors are mounted above the unit and the arrangement provides easy access to the motor.



Easy Access - removable casing side panels



Easy Branch Removal System



Fan motor outside air stream, easily accessible

> Low Installation Cost

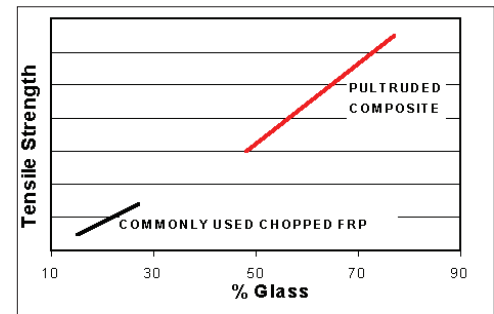
- ✓ **SELF-ALIGNING** — The coil section self aligns with the basin section. This feature significantly reduces the time required to rig the RCF
- ✓ **SUPPORT** — All models mount directly on three parallel I-beams and ship complete with motors and drives factory aligned.
- ✓ **MODULAR DESIGN** — Models can also ship in multiple sections to minimize the size and weight of the heaviest lift, allowing for the use of smaller, less costly cranes.
- ✓ **EXTERNAL SERVICE PLATFORM, LADDER, SAFETY CAGE, AND GATE (OPTIONAL)** — For external service, an access door platform can be added to the unit when purchased or as an aftermarket upgrade. Ladders, safety cages, and safety gates are also available. All components meet OSHA requirements.



Total Lower Installation Cost

> Long Service Life

- ✓ **MATERIALS OF CONSTRUCTION** — The RCF Closed Circuit Cooling Tower is made of Pultruded Composite Fibreglass to meet the corrosion resistance and budgetary requirements of any project.
- ✓ **The use of high strength Pultruded Composite components for the primary structure combined with BAC's patented "Bonded Panel to Post Connection" offer many advantages over conventional hand laid fibreglass construction options.**



Strength Pultruded Composite

> Reliable Year-Round Operation

- ✓ **BEARINGS** — Minimum L_{10} bearing life of 100,000 hours delivers years of trouble free service.
- ✓ **NOZZLES** — The RCF uses large orifice non-clog nozzles to ensure the coil is completely wetted, thereby delivering optimum heat transfer.
- ✓ **DRY OPERATION** — Operating the unit with the spray water off eliminates winter operating concerns.

Construction Details



1 High Strength Composite Construction

- ✓ Pultruded Composite fibreglass construction
- ✓ High corrosion resistance

2 BALTIDRIVE® Power Train

- ✓ Premium quality, multi-groove belt
- ✓ Heavy-duty bearings (L₁₀ 100,000 hour rating)
- ✓ Premium efficient/VFD duty motors are standard

3 Low HP Axial Fan(s)

- ✓ High efficiency
- ✓ Corrosion resistant aluminum fan hub with polypropylene blades.

4 Water Distribution System

- ✓ Tool-less removal of spray branches
- ✓ Overlapping spray patterns ensure proper water coverage
- ✓ Large orifice, non-clog spray nozzles

5 Coil

- ✓ Continuous serpentine, steel tubing
- ✓ Hot-dip galvanized after fabrication (HDGAF); Type 304 or 316 Stainless Steel optional
- ✓ Pneumatically tested at 26 bar
- ✓ Sloped tubes for free drainage of fluid

6 Sectional Air Inlet Louvre System

- ✓ Corrosion resistant
- ✓ Maintenance free
- ✓ UV-resistant finish
- ✓ Easy to remove sections

7 Cold Water Basin

- ✓ Sloped for easy cleaning
- ✓ Suction strainer with removable anti-vortex hood accessible from the louvre face
- ✓ Adjustable water make-up assembly
- ✓ Quick fill connection supplied as standard

8 Recirculating Spray Water Pump (NOT SHOWN)

- ✓ Close coupled, bronze fitted centrifugal pump
- ✓ Totally enclosed fan cooled (TEFC) motor
- ✓ Bleed line with metering valve installed from pump discharge to overflow

9 Access Doors

- ✓ Easily removable casing end panels.
- ✓ Easily removable louvres around the perimeter of the condenser.

CUSTOM

Features & Options

> Construction Options

✓ **STANDARD CONSTRUCTION:**

High strength pultruded composite components for the primary structure combined with patented bonded panel to post connection.

The mechanical support and other steel ancillary elements will be made from type 304 stainless steel.

✓ **OPTIONAL ALL TYPE 316 STAINLESS STEEL CONSTRUCTION:**

The mechanical support and other steel ancillary elements on the condenser can be constructed of Type 316 stainless steel for added corrosion resistance .

✓ **COLD WATER BASIN:**

The RCF Closed Circuit Cooling Tower cold water basin is constructed of fibreglass reinforced polyester. The basin is sloped to ensure that there is no stagnant water to reduce the risk of bacterial growth.

Optional: Units can be supplied without cold water basin for field assembly on a concrete tank. A unit supplied without cold water basin excludes the basin, louvres, legs, strainer, strainer and make-up assembly.

✓ **STANDARD SERPENTINE COIL:**

> Coil Configurations

The standard cooling coil is constructed of continuous lengths of all prime surface steel, hot-dip galvanized after fabrication (HDGAF). The galvanizing is on the outside surface. The coil is designed for low pressure drop with sloping tubes for free drainage of fluid. Each coil is pneumatically tested at 26 bar.

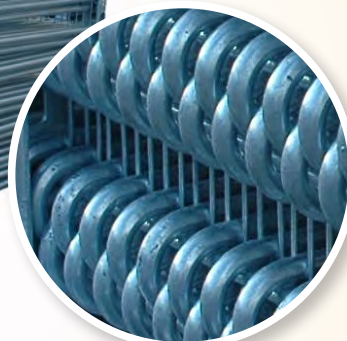
NOTE:



All BAC standard serpentine coils are designed to be drainable.

✓ **OPTIONAL STAINLESS STEEL COIL:**

Coils are available in Type 304 stainless steel and 316 stainless steel for specialised applications. The coil is designed for low pressure drop with sloping tubes for free drainage of fluid. Each coil is pneumatically tested at 26 bar.



Serpentine Coil

➤ Redundant Pump Operation

All RCF models are available with optional secondary pump. This pump can be switched easily and maintained while the unit remains in operation.

➤ Extended Lubrication Lines (STANDARD)

Extended lubrication lines are standard for lubrication of the fan shaft bearings on units with belt driven systems.

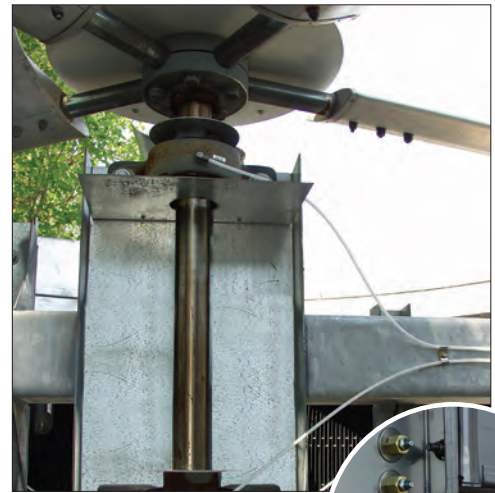
➤ Containerized For Export

- ✓ RCF 7' x 7' and 7' x 10.5' units are available for export.
- ✓ Engineered for:
 - The worldwide export market
 - Maximum capacity
 - Designed to fit a single unit in a standard container
 - Easy maintenance
 - Reliability
 - Lowest shipping costs!
- ✓ Units are factory assembled and require only minimal assembly and rigging!

➤ Low Sound Operation

(OPTIONAL)

For very sound sensitive installations, a low sound fan option is available to reduce the sound levels generated from the unit with minimal impact on thermal performance.



Extended Lubrication Lines
as Standard

Accessories

> Pre-Assembled Platforms, Ladders & Safety Gate

Modular external platforms are pre-assembled at the factory to ensure that every component will fit and function exactly as described. The platform will attach quickly in the field with minimal fasteners. Platforms can be added at the time of order or as an aftermarket item. Safety gates are available for all handrail openings.

> Basin Heaters

Closed Circuit Cooling Towers exposed to below freezing ambient temperatures require protection to prevent freezing of the water in the cold water basin when the unit is idle. Factory-installed electric immersion heaters, which maintain 4.4°C water temperature, are a simple and inexpensive way of providing such protection.



Pre-Assembled Platform Ladder, and Safety Gate



Basin Heater

> Electric Water Level Control Package

The electric water level control replaces the standard mechanical make-up valve when more precise water level control is required. This package consists of a conductance-actuated level control mounted in the basin and a solenoid activated valve in the make-up water line. The water level control includes a troubleshooting LED light to pinpoint operation issues. The valve is slow closing to minimize water hammer.

> Vibration Cutout Switch

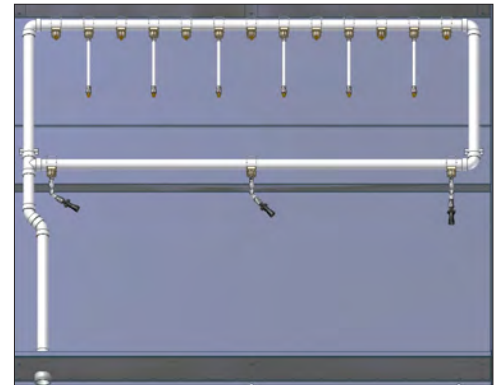
A factory mounted vibration cutout switch is available to effectively protect against equipment failure due to excessive vibration of the mechanical equipment system. BAC can provide either a mechanical or solid-state electronic vibration cutout switch in a NEMA 4 enclosure to ensure reliable protection. Additional contacts can be provided on either switch type to activate an alarm.

> Basin Sweeper Piping

Basin sweeper piping is an effective method of eliminating sediment that may collect in the cold water basin of the unit. A piping system is provided for connection to side stream filtration equipment (by others).



Vibration Cutout Switch



Basin Sweeper Piping

Selection

The method of unit selection for cooling water using the RCF Closed Circuit Cooling Tower is provided in the following pages.

NOTE: The selection procedure outlined here is suitable for cooling water only. Consult your local BAC Representative for closed circuit cooling tower selections for systems utilising the following:

- ✓ Propylene Glycol solutions
- ✓ Ethylene Glycol solutions
- ✓ Any other solutions.

Refer to page ** for the pressure drop through the coil

The performance factors listed in Table 1 are for single pass coil configuration, consult your BAC Representative for closed circuit cooling towers with two pass coils.

> Selection Procedure

The Performance Factors of the single pass RCF Closed Circuit Cooling Towers are shown in Table 1 and Figure 1 presents the nomograph the performance factors can be determined.

- ✓ Establish the range (°C), defined as the Entering Fluid Temperature - Leaving Water Temperature:
- ✓ Establish the Approach (°C), Leaving Water Temperature - Design Wet Bulb Temperature
- ✓ Find the Performance Factor from Figure**
- ✓ From Table 1 enter the Performance Factor column at or just below the selected Performance Factor. Read down the column and select the unit that has the water flow rate equal or greater than the design flow rate.
- ✓ If the selected Performance Factor is not an integer, interpolate the flow rate between Performance Factor columns. Do not extrapolate beyond the printed range

> Selection Example

GIVEN: Cool 17.0l/s of water from 42°C to 31°C at 24°C wet bulb temperature

1. Determine performance factor by entering nomogram on page 2 at 24°C wet bulb. Read down to 7 °C approach line, read right horizontally to 11 °C range line. Performance factor found is 8.9.
2. Enter table on page 3 at performance factor 8 and select trial model with a flow that equals or exceeds 16 l/s (RCF0808-3-K). Interpolate between 8 and 9 performance factors to determine capacity at 8.9 performance factor. Interpolation gives 13.73 l/s, which is smaller than required. Follow the same procedure with the another larger model (RCF0909-3-M), interpolation gives a capacity of 18.29 l/s.

With 18.29 l/s > than the required 16 l/s, RCF0909-3-M is a suitable selection.

FIGURE 1: PERFORMANCE FACTOR NOMOGRAM

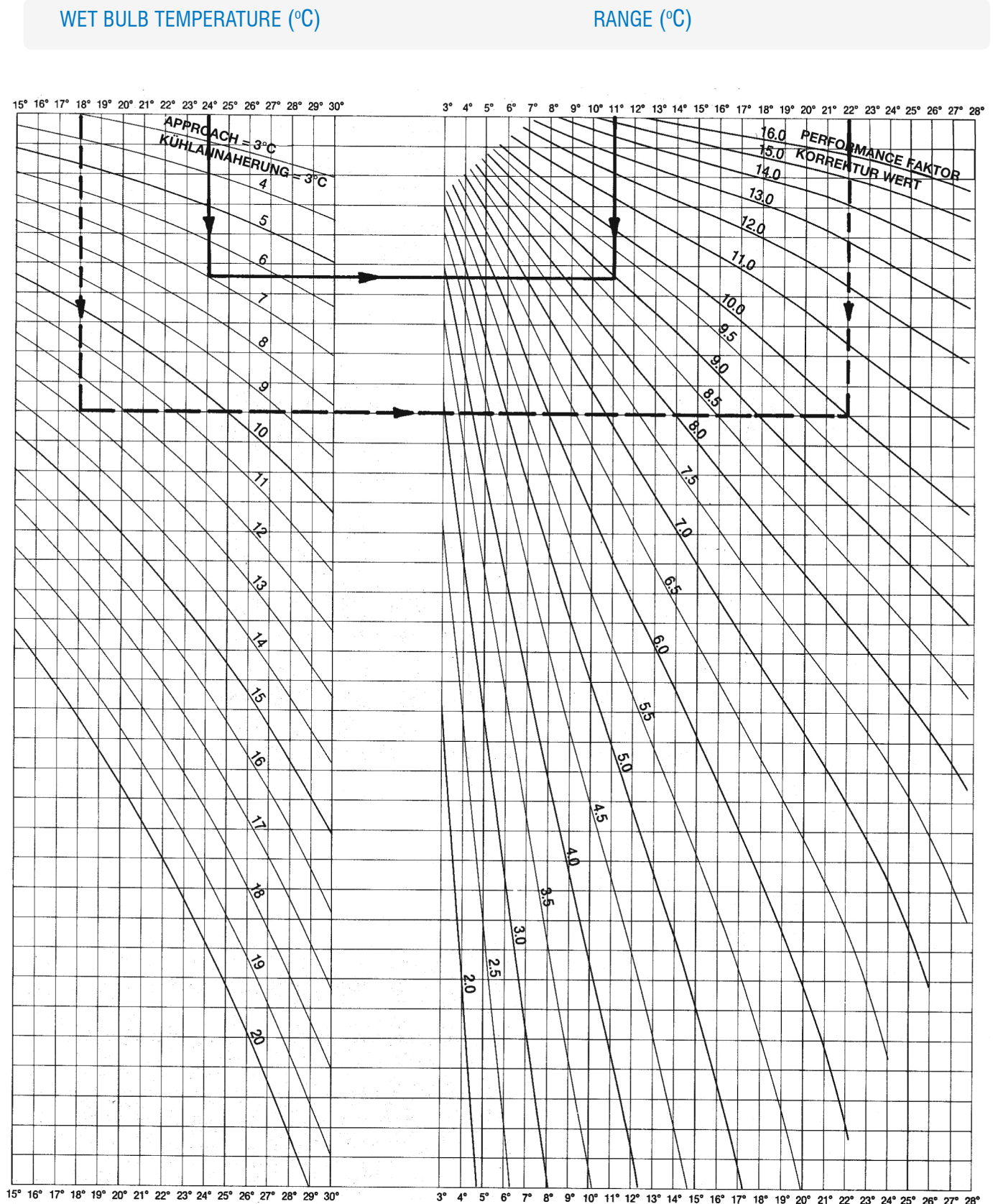


TABLE 1: FIELD SELECTION PERFORMANCE FACTORS (SINGLE PASS)

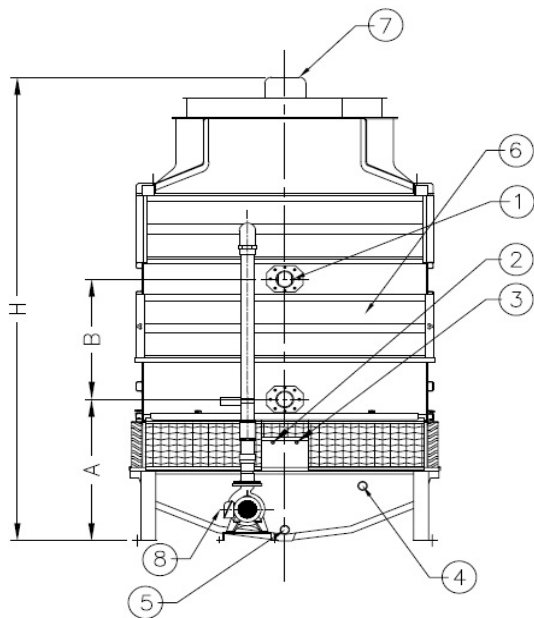
Nom. Box Size	Model Number	Performance Factors										Flow Limits (l/s)	
		4	5	6	7	8	9	10	11	12	13	Min.	Max.
5'X5'	RCF0505-1-F	8.20	6.16	4.63	3.59	2.83	2.17	1.73				2.0	30.0
	RCF0505-1-G	9.52	7.15	5.37	4.18	3.28	2.53	2.00				2.0	30.0
	RCF0505-1-I	11.99	9.00	6.76	5.26	4.13	3.18	2.52	2.09	1.76		2.0	30.0
	RCF0505-2-F	9.99	7.57	5.74	4.51	3.57	2.77	2.22	1.84			2.0	30.0
	RCF0505-2-G	11.62	8.81	6.69	5.26	4.17	3.24	2.60	2.16	1.84		2.0	30.0
	RCF0505-2-I	14.68	11.13	8.48	6.67	5.30	4.14	3.33	2.77	2.36	2.12	2.0	30.0
	RCF0505-3-G	12.52	9.56	7.30	5.78	4.61	3.61	2.91	2.43	2.07	1.85	2.0	30.0
	RCF0505-3-I	15.85	12.13	9.31	7.39	5.91	4.65	3.76	3.16	2.71	2.44	2.0	30.0
	RCF0505-3-J	17.95	13.75	10.57	8.40	6.74	5.32	4.33	3.63	3.13	2.81	2.0	30.0
6'X6'	RCF0606-1-G	11.96	9.02	6.82	5.33	4.22	3.25	2.60	2.14	1.81		2.3	30.0
	RCF0606-1-I	15.13	11.43	8.64	6.75	5.33	4.12	3.30	2.73	2.31	2.06	2.3	30.0
	RCF0606-1-J	17.14	12.94	9.79	7.66	6.05	4.68	3.75	3.10	2.63	2.35	2.3	30.0
	RCF0606-2-G	14.51	11.03	8.41	6.62	5.26	4.10	3.29	2.73	2.32	2.07	2.3	30.0
	RCF0606-2-I	18.39	14.01	10.70	8.45	6.73	5.27	4.25	3.53	3.01	2.69	2.3	30.0
	RCF0606-2-J	20.85	15.90	12.15	9.61	7.67	6.02	4.86	4.05	3.47	3.11	2.3	30.0
	RCF0606-3-I	19.76	15.14	11.64	9.25	7.40	5.84	4.73	3.95	3.38	3.03	2.3	30.0
	RCF0606-3-J	22.42	17.22	13.27	10.56	8.48	6.70	5.43	4.57	3.91	3.53	2.3	30.0
	RCF0606-3-K	25.33	19.47	15.03	11.99	9.66	7.66	6.25	5.26	4.53	4.08	2.3	30.0
7'X7'	RCF0707-2-I	22.38	17.08	13.05	10.33	8.24	6.54	5.20	4.32	3.68	3.29	2.6	60.0
	RCF0707-2-J	25.42	19.41	14.86	11.78	9.42	7.39	5.97	4.98	4.25	3.80	2.6	60.0
	RCF0707-2-K	28.72	21.97	16.86	13.40	10.72	8.43	6.83	5.71	4.89	4.39	2.6	60.0
	RCF0707-3-J	27.23	20.92	16.13	12.84	10.32	8.15	6.62	5.54	4.74	4.25	2.6	60.0
	RCF0707-3-K	30.81	23.72	18.34	14.62	11.79	9.34	7.59	6.40	5.49	4.95	2.6	60.0
	RCF0707-3-L	35.84	27.64	21.42	17.15	13.87	11.04	9.04	7.64	6.60	5.95	2.6	60.0
8'X8'	RCF0808-2-J	30.73	23.52	18.03	14.31	11.42	8.99	7.26	6.05	5.16	4.61	3.0	60.0
	RCF0808-2-K	34.78	26.65	20.48	16.28	13.03	10.28	8.33	6.96	5.95	5.33	3.0	60.0
	RCF0808-2-L	40.48	31.07	23.94	19.07	15.31	12.12	9.86	8.27	7.11	6.39	3.0	60.0
	RCF0808-3-J	32.85	25.26	19.48	15.52	12.46	9.84	7.98	6.67	5.70	5.11	3.0	60.0
	RCF0808-3-K	37.20	28.67	22.18	17.70	14.27	11.30	9.18	7.72	6.61	5.96	3.0	60.0
	RCF0808-3-L	43.33	33.45	25.95	20.79	16.82	13.39	10.96	9.24	7.98	7.19	3.0	60.0
9'X9'	RCF0909-2-J	35.70	27.34	20.98	16.65	13.29	10.45	8.43	7.01	5.97	5.33	3.4	60.0
	RCF0909-2-K	40.45	31.02	23.85	18.96	15.18	11.96	9.69	8.08	6.90	6.17	3.4	60.0
	RCF0909-2-L	47.13	33.22	27.93	22.26	17.90	14.15	11.51	9.64	8.27	7.42	3.4	60.0
	RCF0909-3-K	43.15	33.25	25.71	20.52	16.52	13.08	10.63	8.90	7.62	6.83	3.4	60.0
	RCF0909-3-L	50.31	38.87	30.17	24.15	19.53	15.53	12.67	10.69	9.18	8.27	3.4	60.0
	RCF0909-3-M	56.92	44.05	34.28	27.50	22.33	17.84	14.65	12.39	10.71	9.67	3.4	60.0
10'X10'	RCF1010-2-K	46.14	35.40	27.23	21.62	17.34	13.64	11.03	9.19	7.83	7.00	3.8	60.0
	RCF1010-2-L	53.83	41.42	31.97	25.45	20.46	16.16	13.09	10.98	9.40	8.41	3.8	60.0
	RCF1010-2-M	60.92	46.92	36.29	28.99	23.35	18.53	15.11	12.69	10.90	9.80	3.8	60.0
	RCF1010-3-L	57.32	44.28	34.35	27.52	22.21	17.64	14.39	12.08	10.38	9.32	3.8	60.0
	RCF1010-3-M	64.91	50.25	39.09	31.40	25.44	20.29	16.59	14.04	12.09	10.92	3.8	60.0
	RCF1010-3-N	70.56	54.64	42.63	34.29	27.86	22.30	18.33	15.52	13.43	12.13	3.8	60.0
11'X11'	RCF1111-2-L	60.09	46.21	35.64	28.39	22.79	18.00	14.59	12.19	10.41	9.31	4.2	60.0
	RCF1111-2-M	68.07	52.45	40.55	32.39	26.07	20.67	16.82	14.10	12.09	10.85	4.2	60.0
	RCF1111-2-N	74.02	57.10	44.23	35.36	28.55	22.69	18.52	15.57	13.38	12.03	4.2	60.0
	RCF1111-3-M	72.39	55.96	43.55	34.93	28.28	22.25	18.41	15.50	13.33	11.99	4.2	60.0
	RCF1111-3-N		61.02	47.54	38.18	31.01	24.77	20.28	17.17	14.80	13.35	4.2	60.0
	RCF1111-3-O		65.41	51.09	41.12	33.44	26.79	22.04	18.67	16.17	14.60	4.2	60.0

TABLE 1: FIELD SELECTION PERFORMANCE FACTORS (SINGLE PASS) ...CONT'D

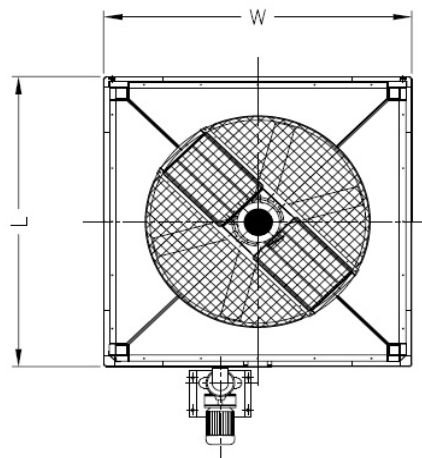
Nom. Box Size	Model Number	Performance Factors										Flow Limits (l/s)	
		4	5	6	7	8	9	10	11	12	13	Min.	Max.
7'X10.5'	RCF0710-2-J	30.45	23.32	17.93	14.23	11.36	8.92	7.19	5.98	5.08	4.53	2.6	60.0
	RCF0710-2-K	34.54	26.50	20.42	16.24	13.00	10.25	8.29	6.91	5.89	5.26	2.6	60.0
	RCF0710-2-L	40.30	31.02	23.95	19.10	15.35	12.15	9.87	8.26	7.07	6.34	2.6	60.0
	RCF0710-3-K	37.10	28.60	22.13	17.67	14.22	11.25	9.13	7.63	6.52	5.84	2.6	60.0
	RCF0710-3-L	43.31	33.49	26.01	20.83	16.84	13.39	10.90	9.19	7.90	7.08	2.6	60.0
	RCF0710-3-M	49.05	37.96	29.59	23.75	19.29	15.41	12.64	10.67	9.21	8.30	2.6	60.0
8'X12'	RCF0812-2-K	39.84	30.56	23.52	18.68	14.95	11.75	9.48	7.88	6.70	5.97	3.0	60.0
	RCF0812-2-L	46.56	35.82	27.64	22.02	17.68	13.96	11.31	9.44	8.06	7.20	3.0	60.0
	RCF0812-2-M	52.77	40.68	31.48	25.11	20.25	16.05	13.05	10.93	9.37	8.40	3.0	60.0
	RCF0812-3-L	49.93	38.52	29.91	23.94	19.30	15.29	12.44	10.41	8.91	7.98	3.0	60.0
	RCF0812-3-M	56.60	43.83	34.09	27.37	22.14	19.62	14.37	12.12	10.40	9.37	3.0	60.0
	RCF0812-3-N	61.59	47.71	37.22	29.91	24.29	19.40	15.91	13.43	11.58	10.43	3.0	60.0
9'X13.5'	RCF0913-2-L	56.14	43.20	33.36	26.58	21.34	16.84	13.63	11.37	9.69	8.66	3.4	60.0
	RCF0913-2-M	63.67	49.11	38.02	30.38	24.47	19.38	15.76	13.19	11.29	10.11	3.4	60.0
	RCF0913-2-N	69.29	53.53	41.52	33.23	26.83	21.31	17.38	14.59	12.52	11.20	3.4	60.0
	RCF0913-3-M	68.17	52.75	41.07	32.94	26.66	21.21	17.32	14.55	12.49	11.21	3.5	60.0
	RCF0913-3-N	74.20	57.55	55.86	36.04	29.27	23.36	19.10	16.15	13.92	12.51	3.5	60.0
	RCF0913-3-O		61.74	48.25	38.81	31.60	25.29	20.79	17.58	15.18	13.69	3.6	60.0
10'X15'	RCF1015-2-M	69.70	53.69	41.51	33.10	26.60	21.00	17.02	14.20	12.11	10.82	3.7	60.0
	RCF1015-2-N	75.79	58.57	45.36	36.18	29.19	23.11	18.78	15.71	13.43	12.02	3.7	60.0
	RCF1015-2-O		62.83	48.80	39.00	31.51	25.02	20.37	17.08	14.64	13.12	3.8	60.0
	RCF1015-3-N		62.81	48.90	39.21	31.72	25.22	20.58	17.27	14.81	13.29	3.8	60.0
	RCF1015-3-O		67.52	52.61	42.28	34.29	27.33	22.31	18.83	16.21	14.55	3.9	60.0
	RCF1015-3-P		76.67	59.98	48.29	39.36	31.55	25.94	21.96	18.98	17.12	4.0	60.0
11'X16.5'	RCF1116-2-N		68.27	52.88	42.24	34.01	26.91	21.85	18.26	15.60	13.95	4.0	60.0
	RCF1116-2-O		73.27	56.91	45.53	36.73	29.14	23.72	19.86	17.01	15.24	4.1	60.0
	RCF1116-2-P			64.85	52.05	42.15	33.59	27.46	23.11	19.88	17.86	4.2	60.0
	RCF1116-3-N		73.14	56.93	45.64	36.91	29.32	23.89	20.03	17.16	15.38	4.2	60.0
	RCF1116-3-O			61.28	49.22	39.89	31.78	25.91	21.85	18.77	16.84	4.3	60.0
	RCF1116-3-P			69.90	56.33	45.83	36.70	30.15	25.49	22.00	19.83	4.3	60.0

RCF

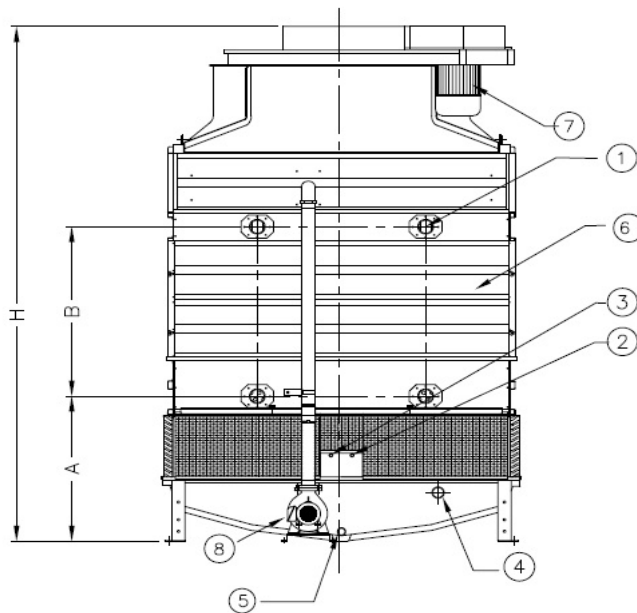
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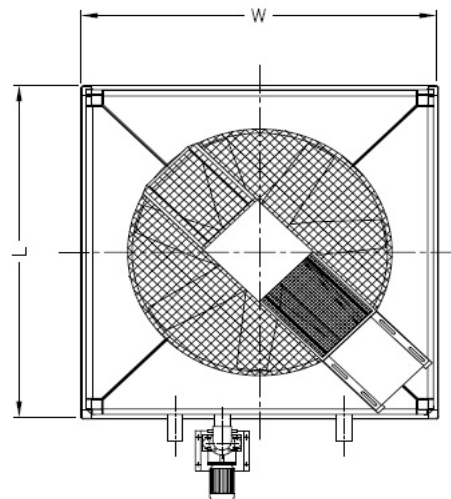
Face
RCF 5' x 5' to 7' x 7' Units



Plan
RCF 5' x 5' to 7' x 7' Units



Face
RCF 8' x 8' to 11' x 11' Units



Plan
RCF 8' x 8' to 11' x 11' Units

1. Coil Inlet and Outlet Connections; 2. Make-up; 3. Quick-fill; 4. Overflow; 5. Drain; 6. Access Door; 7. Fan Motor; 8. Recirculation Spray Pump

Nom. Box Size	Model Number	Approx. Internal Coil Volume	Fan Motor (kW) ^[2]	Airflow Rate (m³/s)	Pump Motor (kW)	Spray Flow Rate (l/s)	Approximate Dimensions (mm)					Approximate Weights (kg)			
							A	B	W	L	H	Heaviest Section	Shipping Weight	Operating Weight	@ Overflow Level
5'X5'	RCF0505-1-F	173	1.5	5.9	0.55	6.8	910	660	1675	1675	2850	880	1210	2250	2450
	RCF0505-1-G	173	2.2	6.7	0.55	6.8		660			2850	880	1210	2250	2450
	RCF0505-1-I	173	4	8.0	0.55	6.8		660			2850	880	1210	2250	2450
	RCF0505-2-F	231	1.5	5.6	0.55	6.8		820			3010	1050	1380	2490	2790
	RCF0505-2-G	231	2.2	6.4	0.55	6.8		820			3010	1050	1380	2490	2790
	RCF0505-2-I	231	4	7.6	0.55	6.8		820			3010	1050	1380	2490	2790
	RCF0505-3-G	289	2.2	6.1	0.55	6.8		1120			3315	1230	1560	2790	3040
	RCF0505-3-I	289	4	7.3	0.55	6.8		1120			3315	1230	1560	2790	3040
	RCF0505-3-J	289	5.5	8.3	0.55	6.8		1120			3315	1230	1560	2790	3040
6'X6'	RCF0606-2-G	335	2.2	8.2	0.75	9.8	970	820	1980	1980	3280	1549	1830	3430	3780
	RCF0606-2-I	335	4	9.7	0.75	9.8		820			3280	1549	1830	3430	3780
	RCF0606-2-J	335	5.5	11.1	0.75	9.8		820			3280	1549	1830	3430	3780
	RCF0606-3-I	418	4	9.3	0.75	9.8		1120			3585	1800	2080	3850	4150
	RCF0606-3-J	418	5.5	10.6	0.75	9.8		1120			3585	1800	2080	3850	4150
	RCF0606-3-K	418	7.5	11.7	0.75	9.8		1120			3585	1800	2080	3850	4150
7'X7'	RCF0707-2-I	457	4	11.9	0.75	13.3	1025	820	2285	2285	3470	2050	2390	4480	4930
	RCF0707-2-J	457	5.5	13.6	0.75	13.3		820			3470	2050	2390	4480	4930
	RCF0707-2-K	457	7.5	15.1	0.75	13.3		820			3470	2050	2390	4480	4930
	RCF0707-3-J	571	5.5	13.0	0.75	13.3		1120			3775	2390	2730	5080	5480
	RCF0707-3-K	571	7.5	14.4	0.75	13.3		1120			3775	2390	2730	5080	5480
	RCF0707-3-L	571	11	16.4	0.75	13.3		1120			3775	2390	2730	5080	5480
8'X8'	RCF0808-2-J	590	5.5	16.2	1.1	17.4	1075	820	2590	2590	3450	2790	3050	5750	6300
	RCF0808-2-K	590	7.5	18.0	1.1	17.4		820			3450	2790	3050	5750	6300
	RCF0808-2-L	590	11	20.5	1.1	17.4		820			3450	2790	3050	5750	6300
	RCF0808-3-J	738	5.5	15.5	1.1	17.4		1120			3755	3230	3500	6470	7020
	RCF0808-3-K	738	7.5	17.2	1.1	17.4		1120			3755	3230	3500	6470	7020
	RCF0808-3-L	738	11	19.6	1.1	17.4		1120			3755	3230	3500	6470	7020
9'X9'	RCF0909-2-J	759	5.5	19.0	1.5	22	1135	820	2895	2895	3580	3500	3810	7090	7840
	RCF0909-2-K	759	7.5	21.1	1.5	22		820			3580	3500	3810	7090	7840
	RCF0909-2-L	759	11	23.9	1.5	22		820			3580	3500	3810	7090	7840
	RCF0909-3-K	949	7.5	20.2	1.5	22		1120			3885	4060	4380	8000	8800
	RCF0909-3-L	949	11	22.9	1.5	22		1120			3885	4060	4380	8000	8800
	RCF0909-3-M	949	15	25.4	1.5	22		1120			3885	4060	4380	8000	8800
10'X10'	RCF1010-2-K	950	7.5	24.2	2.2	27.1	1390	820	3200	3200	3820	4210	4580	8550	9450
	RCF1010-2-L	95	11	27.5	2.2	27.1		820			3820	4210	4580	7690	8590
	RCF1010-2-M	95	15	30.5	2.2	27.1		820			3820	4210	4580	7690	8590
	RCF1010-3-L	1188	11	26.4	2.2	27.1		1120			4125	4910	5280	9700	10600
	RCF1010-3-M	1188	15	29.3	2.2	27.1		1120			4125	4910	5280	9700	10600
	RCF1010-3-N	1188	18.5	31.4	2.2	27.1		1120			4125	4910	5280	9700	10600
11'X11'	RCF1111-2-L	1158	11	31.3	2.2	32.8	1355	820	3500	3500	3985	5040	5450	10120	11220
	RCF1111-2-M	1158	15	34.7	2.2	32.8		820			3985	5040	5450	10120	11220
	RCF1111-2-N	1158	18.5	37.2	2.2	32.8		820			3985	5040	5450	10120	11220
	RCF1111-3-M	1447	15	33.2	2.2	32.8		1120			4290	5880	6300	11520	12620
	RCF1111-3-N	1447	18.5	35.6	2.2	32.8		1120			4290	5880	6300	11520	12620
	RCF1111-3-O	1447	22	37.7	2.2	32.8		1120			4290	5880	6300	11520	12620

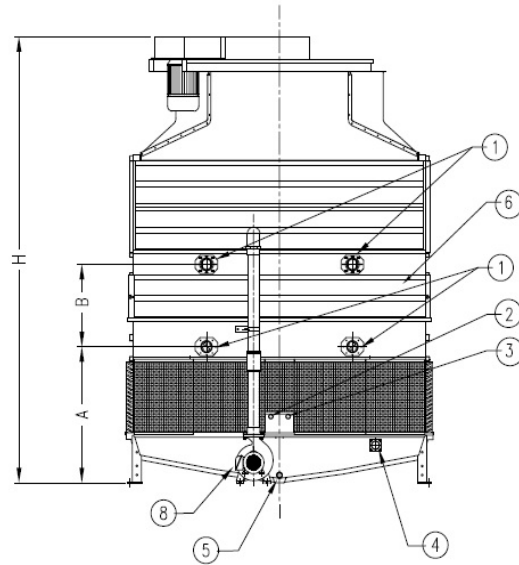
NOTES:

- Dimensions showing location of refrigerant connections are approximate and should not be used for prefabrication of connecting piping.
- Refrigerant inlet and outlet connections are beveled for welding. Standard size for inlet and outlet connections is 100NB.
- Maximum drain size is based on a bottom connection.
- Standard make-up, drain, and overflow connections are MPT.

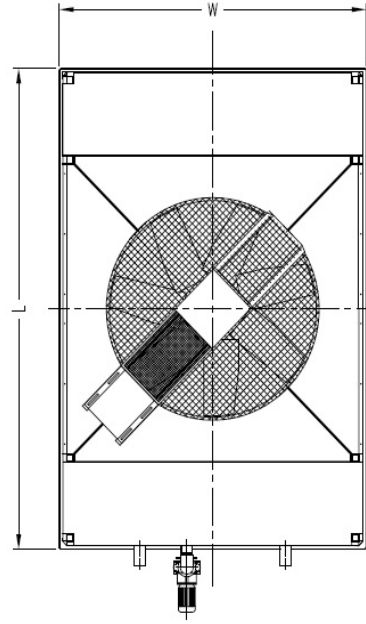
- Unit height is indicative, for precise value please refer to certified drawing
- Operating weight is for the unit with the water level at the overflow.
- Dimensions, shipping and operating weights indicated are for units without accessories. Consult your local BAC representative for further information.

Do not use for construction. Refer to factory certified dimensions. This catalogue includes data current at the time of publication, which should be reconfirmed at the time of purchase.

RCF ENGINEERING DATA CONTINUED »



Face
RCF 7' x 10.5' to 11' x 16.5' Units



Plan
RCF 7' x 10.5 to 11' x 16.5' Units

1. Coil Inlet and Outlet Connections; 2. Make-up; 3. Quick-fill; 4. Overflow; 5. Drain; 6. Access Door; 7. Fan Motor; 8. Recirculation Spray Pump

Nom. Box Size	Model Number ¹	Approx. Internal Coil Volume	Fan Motor (kW) ¹	Airflow Rate (m ³ /s)	Pump Motor (kW)	Spray Flow Rate (l/s)	Approximate Dimensions (mm)					Approximate Weights (kg)			
							A	B	W	L	H	Heaviest Section	Shipping Weight	Operating Volume	@ Overflow Level
7'X10.5'	RCF0710-2-J	708	5.5	15.9	1.5	20.4	1310	820	3270	2285	4215	3070	3580	6750	7450
	RCF0710-2-K	708	7.5	17.7	1.5	20.4		820			4215	3070	3580	6750	7450
	RCF0710-2-L	708	11	20.1	1.5	20.4		820			4215	3070	3580	6750	7450
	RCF0710-3-K	885	7.5	16.9	1.5	20.4		1120			4535	3580	4090	7590	8240
	RCF0710-3-L	885	11	19.2	1.5	20.4		1120			4535	3580	4090	7590	8240
	RCF0710-3-M	855	15	21.3	1.5	20.4		1120			4535	3580	4090	7560	8210
8'X12'	RCF0812-2-K	911	7.5	21.1	2.2	26.5	1310	820	3880	2590	4145	4180	4560	8620	9470
	RCF0812-2-L	911	11	24.0	2.2	26.5		820			4145	4180	4560	8620	9470
	RCF0812-2-M	911	15	26.6	2.2	26.5		820			4145	4180	4560	8620	9470
	RCF0812-3-L	1139	11	23.0	2.2	26.5		1120			4465	4850	5230	9710	10560
	RCF0812-3-M	1139	15	25.5	2.2	26.5		1120			4465	4850	5230	9710	10560
	RCF0812-3-N	1139	18.5	27.3	2.2	26.5		1120			4465	4850	5230	9710	10560
9'X13.5'	RCF0913-2-L	1168	11	28.1	2.2	33.5	1300	820	4335	2895	4205	5250	5710	10630	11780
	RCF0913-2-M	1168	15	31.1	2.2	33.5		820			4205	5250	5710	10630	11780
	RCF0913-2-N	1168	18.5	33.4	2.2	33.5		820			4205	5250	5710	10630	11780
	RCF0913-3-M	1460	15	29.8	2.2	33.5		1120			4525	6090	6560	12030	13230
	RCF0913-3-N	1460	18.5	32.0	2.2	33.5		1120			4525	6090	6560	12030	13230
	RCF0913-3-O	1460	22	33.9	2.2	33.5		1120			4525	6090	6560	12030	13230
10'X15'	RCF1015-2-M	1456	15	35.9	5.5	41.3	1310	820	4790	3200	4400	6310	6870	12820	14170
	RCF1015-2-N	1456	18.5	38.5	5.5	41.3		820			4400	6310	6870	12820	14170
	RCF1015-2-O	1456	22	40.7	5.5	41.3		820			4400	6310	6870	12820	14170
	RCF1015-3-N	1820	18.5	36.8	5.5	41.3		1120			4720	7360	7920	14530	15880
	RCF1015-3-O	1820	22	39.0	5.5	41.3		1120			4720	7360	7920	14530	15880
	RCF1015-3-P	1820	30	43.3	5.5	41.3		1120			4720	7360	7920	14530	15880
11'X16.5'	RCF1116-2-N	1776	18.5	43.7	5.5	49.9	1510	820	5247	3500	4585	7560	8180	17190	16890
	RCF1116-2-O	1776	22	46.3	5.5	49.9		820			4585	7560	8180	17190	16890
	RCF1116-2-P	1776	30	51.3	5.5	49.9		820			4585	7560	8180	17190	16890
	RCF1116-3-N	2220	18.5	41.8	5.5	49.9		1120			4905	8820	9450	17270	18970
	RCF1116-3-O	2220	22	44.3	5.5	49.9		1120			4905	8820	9450	17270	18970
	RCF1116-3-P	2220	30	49.1	5.5	49.9		1120			4905	8820	9450	17270	18970

➤ Pressure Drop Calculation

Water pressure drop data shown below are for fluid coolers with standard and cleanable header coils, contact your Baltimore Representative for pressure drops for other fluids or for other heatexchanger options.

Enter the pressure drop table at the selected model number, proceed horizontally to the flow column closest to the actual water flow. Read the pressure drop at the intersection of the model number. If necessary determine pressure drop by interpolation.

RCF Coil Pressure Drop (kPa)

UNIT	FLOW (l/s)												
	2	3	4	5	6	8	9	10	12	14	16	18	20
RCF 0505-0-*	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.0	1.4	2.0	2.6	3.2	4.0
RCF 0505-1-*	0.1	0.1	0.2	0.4	0.5	0.9	1.2	1.5	2.1	2.9	3.8	4.8	5.9
RCF 0505-2-*	0.1	0.2	0.3	0.5	0.7	1.3	1.6	2.0	2.8	3.9	5.1	6.4	7.9
RCF 0505-3-*	0.1	0.2	0.4	0.6	0.9	1.6	2.0	2.5	3.6	4.9	6.3	8.0	9.9
	2	6	10	12	14	16	18	20	24	28	32	36	40
RCF 0606-1-*	0.1	0.5	1.3	1.9	2.5	3.3	4.2	5.2	7.5	10.2	13.3	16.8	20.8
RCF 0606-2-*	0.1	0.6	1.8	2.5	3.4	4.5	5.7	7.0	10.1	13.7	17.9	22.7	28.0
RCF 0606-3-*	0.1	0.8	2.2	3.1	4.3	5.6	7.0	8.7	12.5	17.1	22.3	28.2	34.8
RCF 0707-2-*	0.1	0.6	1.6	2.3	3.1	4.0	5.1	6.3	9.1	12.3	16.1	20.4	25.2
RCF 0707-3-*	0.1	0.7	2.0	2.8	3.8	5.0	6.3	7.8	11.2	15.3	20.0	25.3	31.2
	6	10	14	18	22	26	30	34	38	42	46	50	54
RCF 0808-2-*	0.5	1.5	2.8	4.7	7.0	9.8	13.1	16.8	20.9	25.6	30.7	36.3	42.3
RCF 0808-3-*	0.7	1.8	3.6	5.9	8.8	12.3	16.4	21.1	26.4	32.2	38.6	45.6	53.2
RCF 0909-2-*	0.5	1.3	2.5	4.2	6.3	8.8	11.7	15.0	18.8	22.9	27.5	32.5	37.9
RCF 0909-3-*	0.6	1.6	3.2	5.3	7.9	11.0	14.6	18.8	23.5	28.7	34.4	40.6	47.4
	8	14	20	26	32	38	44	50	56	62	68	74	80
RCF 1010-2-*	0.8	2.3	4.7	7.9	12.0	17.0	22.7	29.4	36.8	45.2	54.3	64.3	75.2
RCF 1010-3-*	0.9	2.8	5.8	9.8	14.8	20.9	28.1	36.3	45.5	55.7	67.0	79.4	92.8
RCF 1111-2-*	0.7	2.1	4.2	7.1	10.8	15.2	20.3	26.3	32.9	40.4	48.6	57.5	67.2
RCF 1111-3-*	0.8	2.6	5.3	9.0	13.6	19.1	25.7	33.1	41.6	50.9	61.3	72.6	84.8
	6	10	14	18	22	26	30	34	38	42	48	54	60
RCF 0710-2-*	0.8	2.4	4.6	7.6	11.4	15.9	21.2	27.2	33.9	41.5	54.1	68.5	84.6
RCF 0710-3-*	1.1	2.9	5.7	9.5	14.2	19.8	26.3	33.8	42.2	51.6	67.4	85.3	105.3
RCF 0812-2-*	0.8	2.2	4.3	7.1	10.6	14.9	19.8	25.4	31.8	38.8	50.7	64.2	79.2
RCF 0812-3-*	1.0	2.7	5.3	8.8	13.2	18.4	24.5	31.5	39.3	48.1	62.8	79.5	98.1
	8	14	20	26	32	38	44	50	56	62	68	74	80
RCF 0913-2-*	1.2	3.8	7.8	13.2	20.0	28.2	37.8	48.8	61.2	75.0	90.2	106.8	124.8
RCF 0913-3-*	1.6	4.8	9.8	16.6	25.1	35.4	47.4	61.3	76.8	94.2	113.3	134.2	156.8
RCF 1015-2-*	1.1	3.4	7.0	11.8	17.9	25.3	33.9	43.8	54.9	67.3	80.9	95.8	112.0
RCF 1015-3-*	1.4	4.3	8.7	14.7	22.3	31.4	42.1	54.4	68.2	83.6	100.6	119.1	139.2
RCF 1116-2-*	1.0	3.1	6.3	10.6	16.1	22.7	30.5	39.4	49.4	60.5	72.8	86.2	100.8
RCF 1116-3-*	1.3	3.9	7.9	13.4	20.2	28.5	38.2	49.4	61.9	75.9	91.3	108.2	126.4

RCF

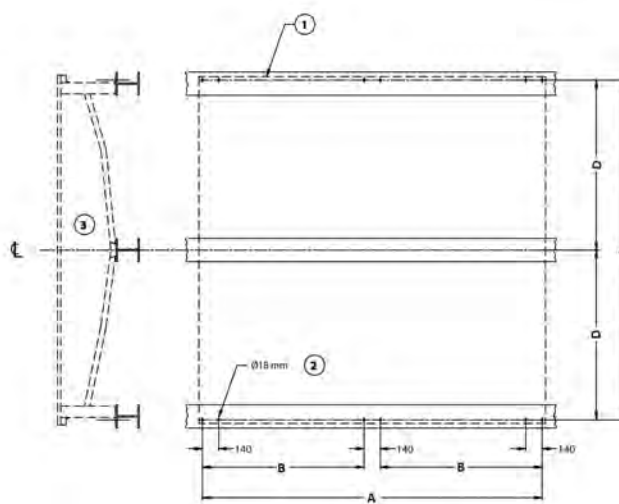
Structural Support

The recommended support arrangement for the RCF Closed Circuit Cooling Tower consists of parallel I-beams positioned as shown on the drawing. Besides providing adequate support, the steel also serves to raise the unit above any solid foundation to assure access to the bottom of the unit.

To support a RCF Closed Circuit Cooling Tower on columns with an alternate steel support arrangement, consult your local BAC Representative.

NOTES:

1. Spray recirculation pumps on RCF Closed Circuit Cooling Towers are supported separately to the unit. Refer to the support drawing provided with your submittal package for the pump weight and support details.
2. Contact your local BAC Representative for multi-cell unit steel support.
3. Support beams and anchor bolts to be selected and installed by others.
4. All support steel must be level at the top.
5. Beam size should be calculated in accordance with accepted structural practice. The length of the beam must be at least equal to the length of the basin. Refer to engineering data for basin dimensions. Support data and maximum allowed deflection is tabulated in the table to the right.
6. If vibration isolators are used, a rail or channel must be provided between the unit and the isolators to provide continuous support.



Spray recirculation pump is supported separately to the unit. Please see NOTE #1.

Single Cell Standard Square Box Unit

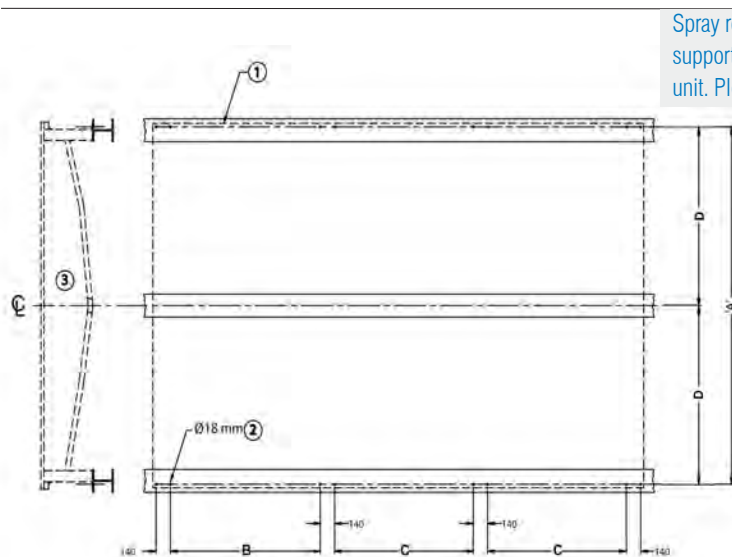
SINGLE CELL STANDARD UNIT ONLY

Nominal-Box Size	A	B	C	D	Max Deflection
RC- 5'X5'	1588	724	N/A	794	2
RC- 6'X6'	1892	876		946	2
RC- 7'X7'	2198	1029		1099	2
RC- 8'X8'	2502	1181		1251	2
RC- 9'X9'	2806	1333		1403	2
RC- 10'X10'	3112	1486		1556	3
RC- 11'X11'	3416	1638		1708	3

All dimensions are in millimeters

RCF

Structural Support



Single Cell Standard Rectangular Box Unit

Spray recirculation pump is supported separately to the unit. Please see NOTE #1.

NOTES:

1. Spray recirculation pumps on RCF Closed Circuit Cooling Towers are supported separately to the unit. Refer to the support drawing provided with your submittal package for the pump weight and support details.
2. Contact your local BAC Representative for multi-cell unit steel support.
3. Support beams and anchor bolts to be selected and installed by others.
4. All support steel must be level at the top.
5. Beam size should be calculated in accordance with accepted structural practice. The length of the beam must be at least equal to the length of the basin. Refer to engineering data for basin dimensions. Support data and maximum allowed deflection is tabulated in the table to the left.
6. If vibration isolators are used, a rail or channel must be provided between the unit and the isolators to provide continuous support.

SINGLE CELL STANDARD UNIT ONLY

Nominal Box Size	A	B	C	D	Max Deflection
RC- 7'X10.5'	2198	996	889	1099	3
RC- 8'X12'	2502	1147	1041	1251	3
RC- 9'X13.5'	2806	1302	1193	1403	3
RC- 10'X15'	3112	1454	1346	1556	3
RC- 11'X16.5'	3416	1608	1498	1708	3

All dimensions are in millimeters

For alternative RCF Evaporative Condenser supports such as concrete plinths or piers consult the factory for a drawing of the recommended minimum support requirements and load distributions.

Engineering Specs



See our website at www.BaltimoreAircoil.com for an electronic copy of product engineering specifications.

1.0 Closed Circuit Cooling Tower

1.1 General: Furnish and install, _____ factory assembled closed circuit cooling tower(s) of counterflow draw-through design, with four sided air inlet, conforming in all aspects to the specifications and schedule as shown on the plans.

1.2 Capacity: The closed circuit cooling tower(s) shall be warranted by the manufacturer to have cool _____ l/s of water from _____ °C to _____ °C at _____ °C entering wet-bulb temperature.

1.3 Corrosion Resistant Construction (standard): All panels and structural members shall be constructed from Fibre Reinforced Polyester (FRP) and unless otherwise stated the steel components shall be made from Type 304 Stainless Steel.

1.4 Units shall have self-aligning pan and casing section for easy rigging.

1.5 Warranty: The manufacturer's standard equipment warranty shall be for a period of one year from the date of startup or eighteen months from the date of shipment, whichever ends first. The manufacturer shall, in addition, provide a 5-year mechanical drive warranty covering the fans, fan shafts, bearings, sheaves, supports, and fan motors.

1.6 Factory Testing: Equipment manufacturer shall be capable of testing the operation of the condenser in the manufacturer's own test facility.

1.7 Quality Assurance: The manufacture shall have a Management System certified by an accredited registrar as complying with the requirements of ISO-9001 to ensure consistent quality of products and services. Manufacturers that are not ISO-9001 certified shall provide an additional one-year warranty to the customer at no additional cost.

2.0 Parts

2.1 Coil Casing Assembly

2.1.1 Coil Casing Section: Evaporative condenser coil section shall consisting of a heat exchanger coil, a spray water distribution system, and drift eliminators as indicated by the manufacturer.

2.1.2 The heat exchanger coil shall be fabricated of continuous lengths of all prime surface steel at the manufacturer's own facility, and hot-dip galvanized after fabrication (HDGAF). The refrigerant condensing coil shall be tested at 26 bar air pressure under water. The refrigerant condensing coil shall be designed for low pressure drop with sloping tubes for free drainage of liquid refrigerant.

2.2 Water Distribution System

2.2.1 Spray Water Distribution: Water shall be distributed evenly over the coil to ensure complete wetting of the coil at all times. The water distribution system shall have an operating pressure of 115 kPa at the evaporative condenser spray water inlet connection.

2.2.2 Nozzles: Large-orifice plastic distribution nozzles spaced across the coil face area, shall provide overlapping, umbrella spray patterns. Nozzles shall have a minimum of 0.25" (6.35 mm) protrusion inside the spray branches to ensure unimpeded water flow between regular cleanings of the water distribution system. Nozzles shall be removable without any tools for cleaning.

2.2.3 Spray Branches: Spray branches shall be held in place by snap-in rubber grommets, allowing quick removal of complete branches for cleaning or flushing. Spray branches shall be removable without the use of any tools and constructed out of Schedule 40 PVC.

2.2.4 Removable PVC drift eliminators shall be positioned to prevent moisture from leaving the evaporative condenser and incorporate a minimum of three (3) changes in air direction.

2.3 Basin Assembly

2.3.1 Cold Water Basin: The cold water basin shall be constructed of Fibre Reinforced Polyester (FRP) panels. The basin shall have four sided air inlet and easily removable PVC air inlet louvers. The basin shall be sloped towards the pump inlet and shall include: a drain/clean-out connection; a steel strainer; a corrosion resistant make-up valve; overflow connection; water quick-fill connection; and a water recirculation pump assembly.

a. Drain/cleanout connection shall be located in the cold water basin to allow removal of recirculating water.

b. Lift-out steel strainer shall be supplied with perforated openings sized smaller than the water distribution nozzle orifices and an integral anti-vortexing hood to prevent air entrainment.

c. Corrosion resistant make-up valve shall be supplied with a large diameter, plastic float arranged for easy adjustment.

d. Overflow connection shall be provided in the cold water basin to protect against recirculating water spillage.

2.3.2 Water Recirculation Pump: shall be a close-coupled, bronze-fitted centrifugal pump equipped with a mechanical seal, mounted separate from the basin and piped from the suction strainer to the water distribution system. The pump shall have a bronze impeller. The pump shall be installed so that it may drain freely when the basin is drained. The pump assembly shall include bleed line to control the bleed rate from the pump discharge to the overflow connection. The pump motor shall be totally enclosed fan cooled (TEFC) type suitable for _____ V, _____ phase, _____ Hz electrical service.

3.0 Mechanical Equipment

3.1 Fan(s): Fans shall be heavy-duty, axial flow type with rigid polypropylene blades and an aluminium alloy hub driven by a multi-groove neoprene/polyester belt designed for a minimum of 150% of the motor nameplate horsepower.

3.2 Fan Motors: Fan motors and drives shall be located at the top of the unit to facilitate access without requiring access to the inside of the unit. Fan motor bases on belt drive units shall be adjustable for belt tensioning by adjusting easily accessible nuts. Fan motor(s) shall be totally enclosed type, premium efficiency/VFD ready with a 1.15 service factor, suitable for _____ V, _____ phase, _____ Hz electrical service.

3.3 Bearings: Fan shafts shall be mounted in heavy-duty, self aligning, grease-packed relubricatable ball bearings with eccentric locking collars, designed for a minimum L_{10} life of 95,000 hours (1,000,000 hours average life). Bearing lubrication lines shall be extended to the exterior of the unit.

3.4 Sheaves: Fan and motor sheaves shall be fabricated from cast iron.

3.5 Mechanical Equipment Warranty: The fan(s), fan shaft(s), bearings, mechanical equipment support and fan motor shall be warranted against defects in materials and workmanship for a period of five (5) years from date of shipment.

4.0 Optional Equipment Specifications

4.1 Basin Sweeper Piping: The cold water basin of the unit shall be equipped with PVC sump sweeper piping for a separator.

4.2 Basin Water Level Control: The evaporative condenser manufacturer shall provide an electric water level control (EWLC) with an LED troubleshooting system. The system shall consist of water level sensing and control units in quantities and locations as indicated on the drawings. Each water level sensing and control unit shall consist of the following: NEMA 4 enclosure with gasketed access cover; solid state controls including all necessary relays and contacts to achieve the specified sequence of operation; stainless steel water level sensing electrodes with brass holder. Provide PVC union directly below the control enclosure to facilitate the removal and access of electrodes and control enclosure. (Optional) The number and position of water level sensing electrodes shall be provided to sense the following: high water level, low water level, high water alarm level, low water alarm level, and heater safety cutout.

4.3 Basin Heaters: Evaporative condenser shall be provided with basin heaters to prevent freezing of the water in the cold water basin when the evaporative condenser is idle. The basin heaters shall be selected to maintain $+4.4^{\circ}\text{C}$ basin water temperature at a _____ ambient temperature and 16.1 km/hr wind speed. Basin heaters shall be electric immersion type controlled by a remote thermostat with the sensing bulb located in the basin water. Basin heaters shall be provided with a factory-installed low water level cutout switch to prevent heater operation unless the heater elements are fully submerged.

4.4 Vibration Cutout Switch: Provide an electronic remote reset vibration switch with contact for BAS monitoring. Wiring shall be by the installing contractor. The electronic vibration cutout switch shall be set to trip at a point so as not to cause damage to the unit.

4.5 External Access: Evaporative condenser shall be provided with a factory assembled, field-installed external platform with an access ladder and handrails complying with OSHA standards and regulations to reach to the access door of the evaporative condenser. External platform shall have a 610 mm wide non-skid walking surface and 1,220 mm high safety railings. Optional safety cage and safety gate shall be available to meet OSHA requirements as necessary.



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