RCT

Open cooling towers

Key benefits

- Easy maintenance
- Superior construction
- Low height

Configuration

Counter flow

Fans system

Axial fan, induced draft

Capacity range

7 - 265 l/s

Water distribution

Pressurised

Maximum entering water temperature

55°C standard fill
60°C with alternative fill

Typical applications

- Small to medium industrial applications
- Dirty water applications
- Replacement of field erected towers with basinless units

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Easy maintenance

- Easy **basin access** from all sides.
- Easy no-tool **removal of side panel** gives access to all internal cooling tower components.
- **Sloped basin** to flush out dirt and debris.
- **Easy removable** fill, spray branch arms, eliminators and combined inlet shields.
- Easy **access to motor and drives** from outside.

Superior construction

- Superior structure strength: **pultruded composite construction** guarantuees a long service life.

Low height

- Counterflow cooling tower with very restricted height, fits **in most enclosures**.

Interested in the RCT cooling tower for cooling your process water? Contact your local BAC representative for more information.

Downloads

- RCT open cooling towers

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Principle of operation

Warm process **water (1)** from the heat source enters the **spray system (2)** at the top of the cooling tower where it is distributed over the **fill** or heat transfer media **(3)**. At the same time the **axial fan (4)**, located at the top of the unit, draws the **air** from the sides of the unit **(5)** over the fill. **Combined inlet shields (6)** protect the tower from debris being drawn into the unit. While the warm process water contacts the cold air the latter heats up and part of the process water is evaporated which removes the heat from the remaining water. The **sloping sump (7)** or basin collects the cooled water after which it returns to the **heat source of the process (8)**. The warm saturated **air (9)** first passes through the **drift eliminators (10)**, which remove water droplets from the air, and then exits the tower at the top.

You want to use the RCT cooling tower to cool your process water?
Contact your local BAC representative for more information.

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For more up to date information, visit: http://www.baltimoreaircoil.eu/en/products/RCT-principle-of-operation

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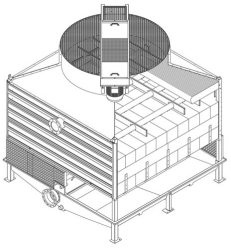
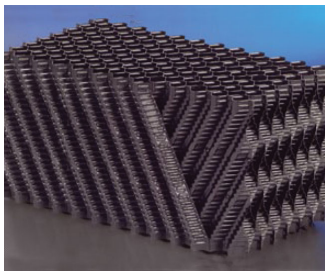
Construction details

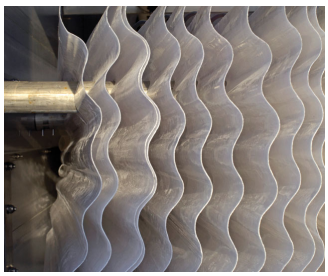
1. Material options



- **High strength pultruded composite** material is used for external unit panels and structural elements.
- Mould formed, hand laid, heavy-duty **fibreglass reinforced polyester** (FRP) with smooth internal finish, is used for the cold water basin and fan cylinder.
- **Option**: Tower without cold water basin for on-site **assembly on concrete tank**. Triple fan units are always supplied without water basin.

2. Heat transfer media





- Our heat transfer media is **Versapak fill**. Cross fluted fill design in **easy to handle, lift and remove blocks**. In polypropylene, which will not rot, decay or decompose. Optional in flame-retardant material. Sheet spacing is 19 mm.
- Use **12 mm sheet spacing** for clear water applications
- Choose **FRP fill** for dirty water applications: includes individual **waved FRP panels and a telescopic fill support.** Panels are easy to inspect and clean, eliminating the need for frequent fill replacement.
- For operation above 55°C, try our **optional high temperature fill**, usable with intake water up to 60°C.

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3. Air movement system

- **RCT fan system** features **low kW and noise axial fan(s)** in corrosion resistant aluminum, encased in FRP fan cylinder with removable fan guard. Together with the stainless steel fan shaft and heavy duty ball bearings and extended lubrication lines, this guarantees optimal and year-round operational efficiency.
- Models RCT-2118 and 2129 use **direct drive motor**. Larger units have the fan motor outside the discharge air stream and use **V-belt drives**. This drive system is encased in hot-dip galvanised steel with access door protected with the Baltibond hybrid coating.
- **Our drift eliminators** come in UV-resistant plastic, which will not rot, decay or decompose and their performance is tested and **certified by Eurovent**. They are assembled in **easily handled and removable sections**, for optimal internal access.
- Easy removable UV-resistant plastic **combined inlet shields** at air inlet. Sunlight block to prevent biological growth in tower, air filter and water splash-out stop.

4. Water distribution system

These consist of:

- **Spray branches** with non-clog plastic **nozzles** secured by rubber grommets. **Tool free branch removal** for easy inspection and flushing.
- **Flanged** inlet and outlet connections.
- Easy accessible **sloped cold water basin**, including anti-vortexing stainless steel strainer, make up and overflow connection**.**

5. Construction

- Easy no-tool **removal of one side panel** gives complete access to drift eliminators, spray system and fill.

Interested in the RCT cooling tower? Contact your local BAC representative.

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Options and accessories

Below is a listing of the main RCT options and accessories. If your required option or accessory is not listed, look no further than your local BAC representative.

Electric water level control package

For perfectly precise water level control, replace the standard mechanical valve with our electrical water level controller.

Remote sump connection

The best way to **prevent a sump freezing** is to use the auxiliary remote variety within a heated area. Shutting off the circulating pump allows all the water in the water distribution, as well as that in suspension and the sump to drain freely to the auxiliary sump.

Vibration cut out switch

When excessive vibration occurs, this switch shuts down the fan, ensuring your cooling equipment **operates safely**.

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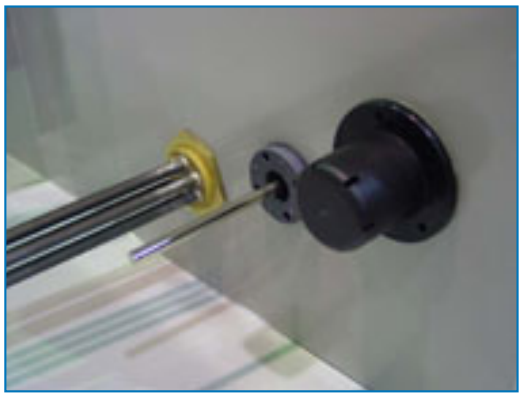
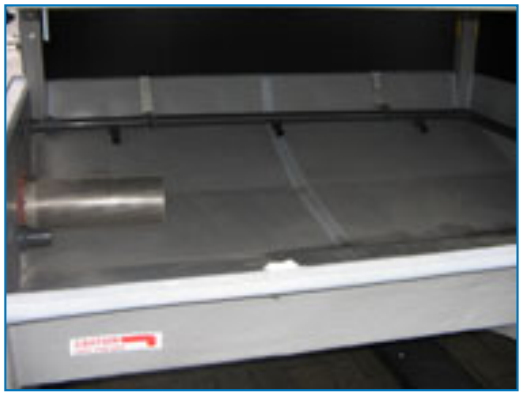
For more up to date information, visit: http://www.baltimoreaircoil.eu/en/products/RCT-options-accessories



Basin heater package

Thanks to our factory-installed heaters, the water stays at 4°C and **never freezes** , even during equipments downtime and however cold it gets outside.



Sump sweeper piping

Sump sweeper piping **prevents sediment collecting in the cold water basin** of the unit. A complete piping system, including nozzles, is installed in the basin of the condenser **for connection to side stream filtration** equipment.

Bridas

Separators and media filters efficiently **remove suspended solids** in the recirculating water, reducing system cleaning costs and optimizing water treatment results. Filtration helps you keep the recirculating water clean.

Flanges

Flanges facilitate **piping connections** on-site.

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Special needs?

Our ongoing R&D investment helps BAC offer you a complete set of solutions **for RCT open circuit cooling towers that meet your needs**. Plus, we also cater for extra requirements such as:

Year-round reliable operation

Inspect and maintain your cooling tower and protect it against extreme weather for year-round reliability. The options below help keep your cooling tower running smoothly and reliably and facilitate maintenance.

- Remote sump connection
- Sump sweeper piping
- Filter
- Flanges
- Vibration cut-out switch
- Basin heater package
- Electric water level control package

Do you too want to benefit from the above solutions? Contact your local BAC representative for more information.

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RCT

Open cooling towers

Engineering data

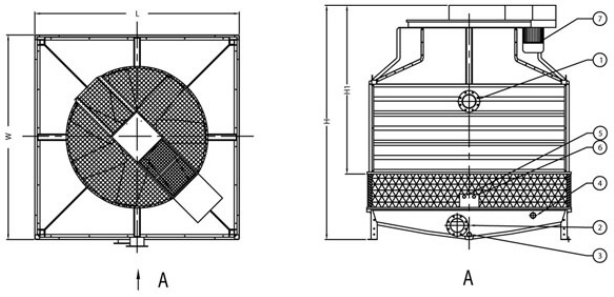
REMARK: Do not use for construction. Refer to factory certified dimensions & weights. This page includes data current at time of publication, which should be reconfirmed at the time of purchase. In the interest of product improvement, specifications, weights and dimensions are subject to change without notice.

General notes

1. Access door is always opposite to inlet connection end.
2. Alternative inlet/outlet and tower configurations are available.
3. Nominal outlet connection size provided.
4. Actual outlet sized to match flow.
5. Models RCT 2218-1 and 2129-1 have direct drive motors.
6. Models RCT 2218-2 and 2129-2 have direct drive motors.
7. Triple fan units are not available with common FRP basin. Only for installation on concrete basin.

Last update: 30/06/2019

RCT 2118-1 - 2441-1



1. Water inlet; 2. Water outlet; 3. Drain; 4. Overflow; 5. Make up; 6. Quick fill; 7. Fan motor.

Model	Weights (kg)			Dimensions (mm)			Air Flow (m^3/s)	Fan Motor (kW)	Fluid Inlet ND (mm)
	Oper. Weight (kg)	Ship. Weight(kg)	Heaviest Section (kg)	L	W	H			
RCT 2118-1	3950	1100	1000	2284	2284	3252	15.4	(1x) 5.5	(1x) 150
RCT 2129-1	3950	1100	1000	2284	2284	3252	17.3	(1x) 7.5	(1x) 150
RCT 2142-1	3375	1250	1250	2589	2589	3326	18.5	(1x) 5.5	(1x) 150
RCT 2156-1	3375	1250	1250	2589	2589	3326	20.4	(1x) 7.5	(1x) 150
RCT 2183-1	4125	1550	1550	2894	2894	3413	23.9	(1x) 7.5	(1x) 200
RCT 2208-1	4125	1550	1550	2894	2894	3413	27.2	(1x) 11.0	(1x) 200
RCT 2238-1	4850	1800	1800	3198	3198	3646	31.2	(1x) 11.0	(1x) 200
RCT 2262-1	4850	1800	1800	3198	3198	3646	34.2	(1x) 15.0	(1x) 200
RCT 2368-1	7300	2700	2700	4787	3198	4228	47.8	(1x) 18.5	(1x) 200
RCT 2386-1	7300	2700	2700	4787	3198	4228	50.2	(1x) 22.0	(1x) 200
RCT 2299-1	5700	2100	2100	3499	3499	3810	39.0	(1x) 15.0	(1x) 200
RCT 2320-1	5700	2100	2100	3499	3499	3810	41.8	(1x) 18.5	(1x) 200
RCT 2418-1	8500	3000	3000	5247	3500	4428	54.3	(1x) 18.5	(1x) 200
RCT 2441-1	8500	3000	3000	5247	3500	4428	57.3	(1x) 22.0	(1x) 200

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RCT

Open cooling towers

Engineering data

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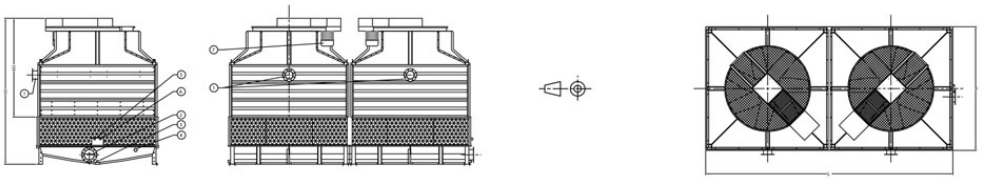
General notes

1. Access door is always opposite to inlet connection end.
2. Alternative inlet/outlet and tower configurations are available.
3. Nominal outlet connection size provided.
4. Actual outlet sized to match flow.
5. Models RCT 2218-1 and 2129-1 have direct drive motors.
6. Models RCT 2218-2 and 2129-2 have direct drive motors.
7. Triple fan units are not available with common FRP basin. Only for installation on concrete basin.

Last update: 30/06/2019

RCT 2118-2 - 2262-2



1. Water inlet; 2. Water outlet; 3. Drain; 4. Overflow; 5. Make up; 6. Quick fill; 7. Fan motor.

Model	Weights (kg)			Dimensions (mm)			Air Flow (m^3/s)	Fan Motor (kW)	Fluid Inlet ND (mm)
	Oper. Weight (kg)	Ship. Weight(kg)	Heaviest Section (kg)	L	W	H			
RCT 2118-2	5400	2000	1000	4551	2284	3385	30.8	(2x) 5.5	(2x) 150
RCT 2129-2	5400	2000	1000	4551	2284	3385	34.6	(2x) 7.5	(2x) 150
RCT 2142-2	6800	2500	1250	5160	2589	3479	37.1	(2x) 5.5	(2x) 150
RCT 2156-2	6800	2500	1250	5160	2589	3479	40.8	(2x) 7.5	(2x) 150
RCT 2183-2	8300	3100	1550	5770	2894	3574	47.8	(2x) 7.5	(2x) 200
RCT 2208-2	8300	3100	1550	5770	2894	3585	54.4	(2x) 11.0	(2x) 200
RCT 2238-2	9750	3600	1800	6379	3198	3836	62.4	(2x) 11.0	(2x) 200
RCT 2262-2	9750	3600	1800	6379	3198	3836	68.4	(2x) 15.0	(2x) 200

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RCT

Open cooling towers

Engineering data

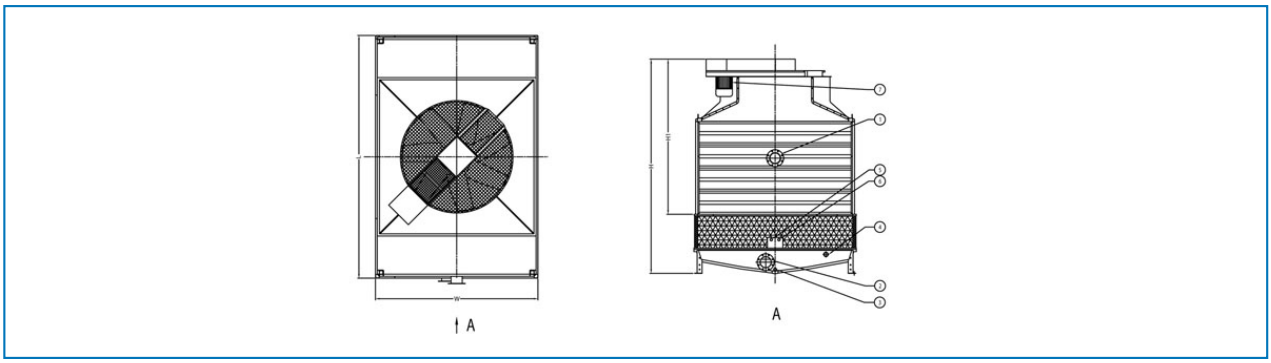
REMARK: Do not use for construction. Refer to factory certified dimensions & weights. This page includes data current at time of publication, which should be reconfirmed at the time of purchase. In the interest of product improvement, specifications, weights and dimensions are subject to change without notice.

General notes

1. Access door is always opposite to inlet connection end.
2. Alternative inlet/outlet and tower configurations are available.
3. Nominal outlet connection size provided.
4. Actual outlet sized to match flow.
5. Models RCT 2218-1 and 2129-1 have direct drive motors.
6. Models RCT 2218-2 and 2129-2 have direct drive motors.
7. Triple fan units are not available with common FRP basin. Only for installation on concrete basin.

Last update: 30/06/2019

RCT 2299-2 - 2320-2



1. Water inlet; 2. Water outlet; 3. Drain; 4. Overflow; 5. Make up; 6. Quick fill; 7. Fan motor.

This file has been generated from the BAC website on: 01/07/2019
For more up to date information, visit: http://www.baltimoreaircoil.eu/en/products/RCT-2299-2-2320-2

Model	Weights (kg)			Dimensions (mm)			Air Flow (m^3/s)	Fan Motor (kW)	Fluid Inlet ND (mm)
	Oper. Weight (kg)	Ship. Weight(kg)	Heaviest Section (kg)	L	W	H			
RCT 2299-2	11450	4200	2100	6985	3499	4019	78.1	(2x) 15.0	(2x) 200
RCT 2320-2	11450	4200	2100	6985	3499	4019	83.5	(2x) 18.5	(2x) 200

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RCT

Open cooling towers

Engineering data

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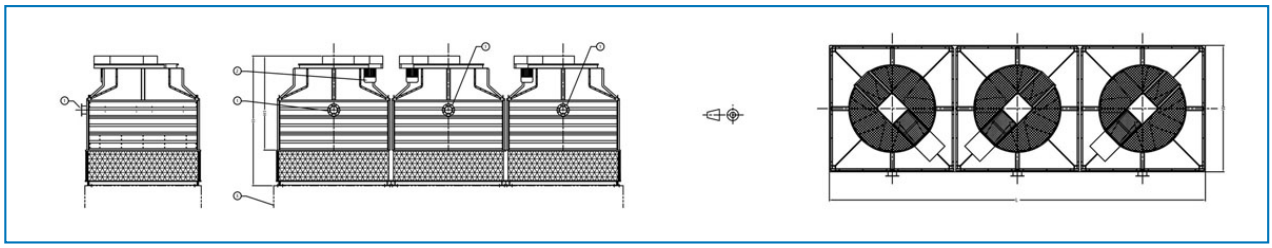
General notes

1. Access door is always opposite to inlet connection end.
2. Alternative inlet/outlet and tower configurations are available.
3. Nominal outlet connection size provided.
4. Actual outlet sized to match flow.
5. Models RCT 2218-1 and 2129-1 have direct drive motors.
6. Models RCT 2218-2 and 2129-2 have direct drive motors.
7. Triple fan units are not available with common FRP basin. Only for installation on concrete basin.

Last update: 30/06/2019

RCT 2142-3 - 2320-3



1. Water inlet; 2. Fan motor; 3. Concrete basin (by others).

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Model	Weights (kg)			Dimensions (mm)			Air Flow (m^3/s)	Fan Motor (kW)	Fluid Inlet ND (mm)
	Oper. Weight (kg)	Ship. Weight(kg)	Heaviest Section (kg)	L	W	H			
RCT 2142-3	10125	3750	1250	7732	2589	3555	55.6	(3x) 5.5	(3x) 150
RCT 2156-3	10125	3750	1250	7732	2589	3555	61.2	(3x) 7.5	(3x) 150
RCT 2183-3	12375	4650	1550	8646	2894	3671	71.6	(3x) 7.5	(3x) 200
RCT 2208-3	12375	4650	1550	8646	2894	3671	81.6	(3x) 11.0	(3x) 200
RCT 2238-3	14550	5400	1800	9560	3198	3931	93.6	(3x) 11.0	(3x) 200
RCT 2262-3	14550	5400	1800	9560	3198	3931	102.6	(3x) 15.0	(3x) 200
RCT 2299-3	17100	6300	2100	10471	3499	4124	117.1	(3x) 15.0	(3x) 200
RCT 2320-3	17100	6300	2100	10471	3499	4124	125.3	(3x) 18.5	(3x) 200

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For more up to date information, visit: http://www.baltimoreaircoil.eu/en/products/RCT-2142-3-2320-3