

## GENERAL BROCHURE



**COOLING** TOWERS



**CLOSED CIRCUIT**  
FLUID COOLERS



**CLOSED CIRCUIT** SYSTEMS

**ORIGINAL PARTS,** & OPTIONAL EQUIPMENT



Thermal Performance Certified  
by the Cooling Technology Institute



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# 1

## ABOUT US



**MORE THAN 50 YEARS**

**Providing Solutions for the HVAC & Industrial Markets**

REYMSA's commitment for over 50 years has been to build only the best cooling towers for both the commercial and industrial cooling tower markets and providing solutions to our customer's needs.

Since the beginning we have been dedicated to the development, design, engineering, and manufacture of high quality Cooling Towers, enjoying continuous growth in the global market to this day.

REYMSA is present in the US and Canada through a network of Representatives and OEMs, and with distribution, service and engineering support readily available. Our Regional Sales Managers are strategically located to provide support and assistance to our Representatives and clients.

This has made REYMSA the leader in high grade fiberglass cooling towers.



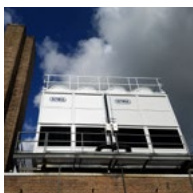
*Cooling Towers are an essential piece of equipment used in many HVAC or Industrial applications. From low to high rise Hotels, Schools, Government/Military, Malls, Office Buildings, and Industrial Processing Plants.*



**HVAC**



**INDUSTRIAL**





## 1.2 EXPERIENCE AND LEADERSHIP



### 1.2.1 TOP WARRANTY

REYMSA offers you a premium warranty among the longest in the industry.

The high quality of our products is backed by a 15-year warranty on FRP casing and structure. Motors are guaranteed for 5 years.



### 1.2.2 CTI CERTIFICATION

It is REYMSA's mission to maintain trust with our customers. From our RT series to HFC series towers we have over 4,000 models certified by the **Cooling Technology Institute (CTI)**.

Our towers are tested yearly by CTI to keep our certifications up to date.



### 1.2.3 IBC COMPLIANT

Many of our models have been tested and certified to meet seismic requirements set by the **International Building Code (IBC)**<sup>2</sup>.

1 - This Limited Warranty is valid only in the United States & Canada. Valid only for RT Series and HFC Series  
2 - Contact your local representative for a full list of supported models.

# 2

## ADVANTAGES OF FRP CONSTRUCTION



### 2.1 GENERAL ADVANTAGES

REYMSA Cooling Towers are **Fiberglass Reinforced Polyester (FRP)** construction, making our Cooling Towers unique and the best in the market due to the great advantages that FRP provides:



#### CORROSION RESISTANCE

FRP offers total corrosion resistance and is a proven excellent material against aggressive chemical water treatment.



#### BUILT FOR THE HARSHEST ENVIRONMENTS

The durable, **STRUCTURAL FRP** construction of REYMSA towers allows them to operate in the most **severe climate conditions** around the world, such as desert, coastal and sub-freezing temperatures when proper operating methods and controls are followed.

Structural Integrity: Meets high wind velocity requirements.



### MINIMUM MAINTENANCE

High quality and corrosion resistant materials help to reduce maintenance time and costs.



### 30+ YEARS LIFE EXPECTANCY<sup>1</sup>

REYMSA's all high-grade fiberglass construction will deliver a tower with at least 2 times the life span of a galvanized steel tower, even longer than most stainless steel towers.



### VERY EASY TO WORK WITH

FRP can be repaired to its original condition with high grade resin material readily available anywhere.



### STABILITY

FRP expands and contracts like stainless steel. However, unlike many competitor's towers that use welded or caulked seams in the cold water basin, REYMSA has a **seamless cold water basin and body casing** that eliminates the possibility of leaks.

## 2.2 SUSTAINABLE TECHNOLOGY

Our Cooling Towers are designed to be sustainable and have a low environmental impact.



### WATER CONSERVATION

Fiberglass materials support water treatment with higher cycles of concentration resulting in reduced blowdown, water consumption and cost.



### ENERGY EFFICIENCY

Our units exceed energy efficiency per ASHRAE Standard 90.1 to reduce operating cost.





# 3

## COOLING TOWERS - RT SERIES

### 3.1 DESCRIPTION

The RT Series is an **open circuit cooling tower** with more than 3,800 CTI certified models suitable for both the commercial and industrial cooling tower markets.

Our broad line of RT models is divided as follows:

#### DIRECT DRIVE SYSTEM MODELS



Single fan towers



Two fan towers



Four fan towers



Two fan modular towers

#### RT & RTU MODELS

#### RTM MODELS

#### DIRECT DRIVE SYSTEM MODELS WITH PERMANENT MAGNET MOTORS



Single fan towers



Two fan towers



Four fan towers



Two fan modular towers

#### RTP & RTUP MODELS

#### RTPM MODELS

#### GEAR DRIVE SYSTEM MODELS



Single fan towers

#### RTG & RTGTC MODELS



Single fan modular towers

#### RTGM & RTGMTc MODELS



## 3.2 GENERAL FEATURES

- **Durable Heavy Duty Construction**

- **FRP Casing & Structure**

Offers total corrosion resistance, long service life, minimum maintenance and no water leaking problems.

- **Longer Life Span**

REYMSA's all high-grade fiberglass construction will deliver a tower with 2 times the life span of galvanized steel towers, even longer than most stainless steel towers.

- **Modular Configuration**

For increased capacities and to accommodate any heat load.

- **Small Footprint**

Offers excellent performance in a compact footprint.

- **Low Environmental Impact**

Our equipment and motors are designed to conserve water and save energy. Meets or exceeds ASHRAE Standard 90.1 efficiency requirements.

- **Low Sound, Super Low Sound and Ultra Low Sound**

Optional models for noise sensitive applications where the lowest noise level is desired.



## 3.3 RT SERIES MODELS

### 3.3.1 RT MODELS

- RT models are available in one, two or four fan units with Direct Drive System.
- Over 700 CTI certified RT models.
- Capacities ranging from 25 - 1,471 Nominal Tons<sup>2</sup> in a single unit.



*Single fan models*



*Two fan models*



*Four fan models*

1 - This Limited Warranty is valid only in the United States & Canada.

2 - A Nominal TON is defined as 3 GPM of water cooled from 95°F HWT to 85°F CWT with a 78°F WBT.

### 3.3.2 RTU MODELS

- RTU models are available in one, two or four fan units with Direct Drive System.
- Over 250 CTI Certified models.
- Excellent for transport in shipping containers due to their reduced height.
- Unitized body/basin.
- Capacities ranging from 25 - 1,172 Nominal Tons<sup>2</sup> in a single unit.



*Single fan models*



*Two fan models*



*Four fan models*

### 3.3.3 RTG MODELS

- RTG models are available in Single fan models with Gear Drive System as standard.
  - An optional Direct Drive System with a permanent magnet motor is available for RTG models.
- Over 400 CTI Certified models.
- Low sound by design.
- Capacities ranging from 182 - 944 Nominal Tons<sup>2</sup> in a single unit.



*Single fan models  
Standard: Gear Drive System*



*Single fan models  
Optional: Direct Drive System*

### 3.3.4 RTM MODULAR MODELS

- RTM models are available in Two fan models with Direct Drive System.
- Over 360 CTI Certified models.
- Capacities starting at 227 Nominal Tons<sup>2</sup>.
- **Modular models** are units intended to be mounted adjacent to each other, allowing the tower to grow to any size as the tower can have an unlimited number of modules to increase capacities and accommodate any heat load.



*Two fan modules*



*Two fan modules*

### 3.3.5 RTGM MODULAR MODELS

- RTGM models are available in Single fan models with Gear Drive System.
  - An optional Direct Drive System with a permanent magnet motor is available for RTGM models.
- Over 450 CTI Certified models.
- Low sound by design.
- Capacities starting at 178 Nominal Tons<sup>2</sup>.
- **Modular models** are units intended to be mounted adjacent to each other, allowing the tower to grow to any size as the tower can have an unlimited number of modules to increase capacities and accommodate any heat load.



*Single fan models  
Standard: Gear Drive System*



*Single fan models  
Optional: Direct Drive System*



### 3.3.6 RTGTC MODELS

- RTGTC models are available in Single fan models with Gear Drive System.
- Over 420 CTI Certified models.
- Capacities ranging from 223 - 1,350 Nominal Tons in a single unit<sup>2</sup>.
- Low sound operation with the standard fan.
- Some RTGTC models offer **increased capacity up to 15%** compared to RTG models.



*Single fan modules*

#### BOX SIZES

**Up to 14'x25'**

### 3.3.7 RTGMTC MODULAR MODELS

- RTGMTC models are available in Single fan models with Gear Drive System.
- Over 865 CTI Certified models.
- Low sound by design.
- Capacities starting at 276 Nominal Tons<sup>2</sup>.
- **Modular models** are units intended to be mounted adjacent to each other, allowing the tower to grow to any size as the tower can have an unlimited number of modules to increase capacities and accommodate any heat load.



*Single fan models  
Standard: Gear Drive System*

**UP TO 28'X25'  
BOX SIZE**

**Up to 2,597 Nominal Tons per  
module, with a single fan**



### 3.3.8 RTP, RTUP AND RTPM MODELS

#### THE ULTRA-EFFICIENT COOLING TOWER

The RTP models are the best cooling solution for any application, as their advanced design allows them to offer the best performance.

##### 3.3.8.1 FEATURES OF RTP MODELS



##### INCREASED CAPACITY

RTP models offer increased capacity up to 5% compared to RT models and up to 15% compared to Low Sound Models.



##### ENERGY EFFICIENT

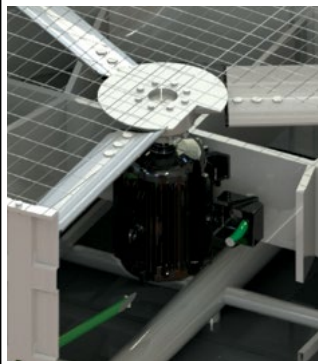
Improved design and permanent magnet motors offer greater energy savings, higher power densities, and improved control.



##### ULTRA LOW SOUND

Reduced noise operation, even lower than our Low Sound and Super Low Sound models without sacrificing capacity.

#### PERMANENT MAGNET MOTORS



A key component in the RTP models is the low RPM **permanent magnet motor** specially designed for REYMSA towers. In a permanent magnet (PM) motor, the rotor is permanently magnetized, unlike traditional induction motors whose rotor must be electrically magnetized to cause rotation. The efficiencies and energy savings offered by PM motors more than offset the higher first cost when the total cost of ownership is evaluated.

#### VFD (VARIABLE FREQUENCY DRIVE)

Permanent magnet (PM) motors **must be operated by the VFD (Variable Frequency Drive)** included in the PM motor package.

### 3.3.8.2 ADVANTAGES OF THE PERMANENT MAGNET MOTOR

#### ✓ ULTRA EFFICIENCY

The efficiency increase of a PM motor results mainly from the lack of a need for currents to be induced in the rotor to create a magnetic field within the rotor, as needed in an induction motor. Eliminating the rotor conductor losses results in inherently higher efficiencies in PM motors.

#### ✓ LOWER OPERATING TEMPERATURE

- With less waste energy in the form of heat, PM motors operate cooler than induction motors, improving its life expectancy and reliability.
- Lower amperage.

#### ✓ HIGH POWER DENSITY

- Permanent Magnet Direct Drive motors provide very high torque from small motors at low speed, eliminating the need for a gear reducer.
- Standard NEMA Frame Sizes and up to 2 frame size reduction compared to induction motors.

#### ✓ LOW RPM OPERATION

In a low speed application, the permanent magnet motor can be 1-2 frame sizes smaller, lower HP, lower amperage and with a smaller VFD, compared to the size and power requirement of common induction motors.



### 3.3.8.3 RTP MODELS

- RTP models are available in one, two or four fan units.
- Over 130 CTI certified RTP models.
- Capacities ranging from 136 - 1,314 Nominal Tons<sup>1</sup> in a single unit.



### 3.3.8.4 RTUP MODELS

- Available in one, two or four fan units.
- RTUP models are excellent for transport in shipping containers due to their **reduced height**.
- Over 50 CTI certified RTUP models.
- Capacities ranging from 133 - 1,149 Nominal Tons<sup>1</sup> in a single unit.



### 3.3.8.5 RTPM MODULAR MODELS

- **Modular models** are units intended to be mounted adjacent to each other, allowing the tower to grow to any size as the tower can have an unlimited number of modules to increase capacities and **accommodate any heat load**.
- RTPM models are available as two fan units.
- Over 90 CTI certified RTPM models.
- Capacities: Starting at 265 Nominal Tons<sup>1</sup>.

## 3.4 MODULAR EXPANDABILITY

RTM, RTPM and RTGM models are units intended to be mounted adjacent to each other, allowing the tower to grow to any size, capable of handling any heat load.



### 3.4.1 ADVANTAGES OF MODULAR CONFIGURATION

- Modular towers can have an unlimited number of modules to increase capacity and accommodate any heat load.
  - Capacities starting at 178 Nominal Tons<sup>1</sup>, increasing according to size and number of modules.
- Modular configuration saves space:
  - It requires less plan area because the towers are joined together.
- Different options to meet all needs:

	RTM	RTPM	RTGM
<b>Fans per module</b>	Two direct drive fans	Two direct drive fans (PM Motor <sup>2</sup> )	Single gear driven fan <sup>3</sup>
<b>Capacities per module</b>	from 227 Ton	from 265 Ton	from 178 Ton
<b>CTI certified models</b>	Over 360	Over 90	Over 450

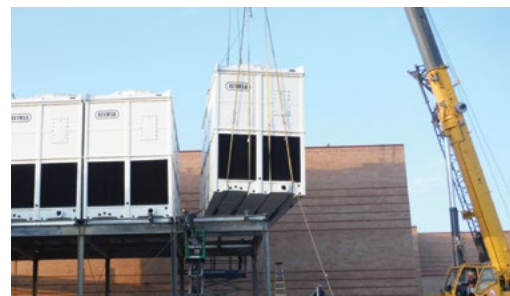
1. A Nominal TON is defined as 3 GPM of water cooled from 95°F HWT to 85°F CWT with a 78°F WBT.

2. Permanent Magnet Motor.

3. Standard: Gear Drive System. Optional: can be configured with a Direct Drive Permanent Magnet Motor.



Modular towers are easy to ship and require less time for assembly and installation. This will reduce handling and rigging labor cost.



### 3.4.2 MODULAR MODEL ARRANGEMENTS

RTM, RTPM and RTGM models can be arranged in multiple ways, these are the most common:

#### -L Orientation:

Parallel to the long axis of module, side-by-side.



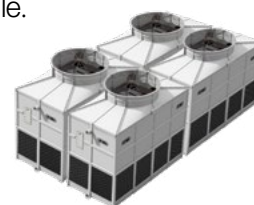
#### -S Orientation:

Aligned on the short axis of module, end-to-end.



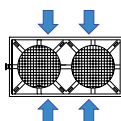
#### -X Orientation:

Arrangement with one short side and one long side open per module.

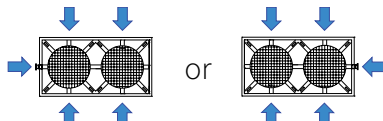


RTM, RTPM AND RTGM models are designated **T1** or **T2** according to the type of air inlet arrangement.

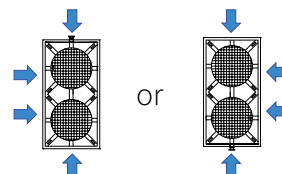
**T1 module type with 2 air inlets:** on both long sides of the unit (-S orientation).



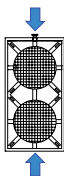
**T1 module type with 3 air inlets:** on both long sides and on one of the narrow sides of the unit (-S orientation).



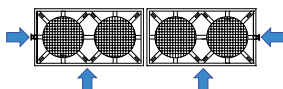
**T1 module type with 3 air inlets:** on one of the long sides and on both narrow sides of the unit (-L orientation).



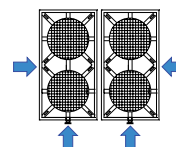
**T2 module type with 2 air inlets:** on both narrow sides of the unit (-L orientation).



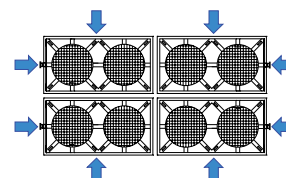
**T2 module type with 2 air inlets:** Two-module arrangement with one short side and one long side open per module joined together by the short axis (-S orientation).



**T2 module type with 2 air inlets:** Two-module arrangement with one short side and one long side open per module joined together by the long axis (-X orientation).



**T2 module type with 2 air inlets:** Four-module square arrangement with one long-side and one short-side open per module (-X orientation).





# 4

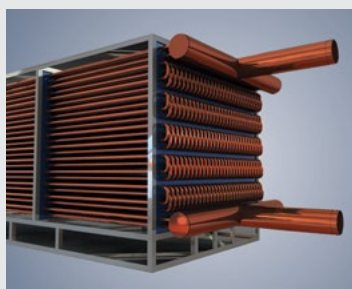
## CLOSED CIRCUIT FLUID COOLER - HFC SERIES



The HFC Series tower is a Closed Circuit Fluid Cooler, which rejects the heat load from the process fluid by means of a copper coil that prevents direct contact of the process fluid with environmental contaminants.

### 4.1 FEATURES

- FRP Casing and Structure.
- Over 150 CTI certified models.
- Direct Drive System on HFC models.
- Single Fan Gear Driven models (HFC-F models).
  - Optional direct drive system with a permanent magnet motor (HFC-F models).
- Standard and Low sound models for sound sensitive areas.
- Recirculating Pump: Designed for optimum performance, easy installation and simplified maintenance.



- **Excellent Thermal Performance:**  
The heat transfer between process fluid and water takes place in the **copper coil**. Copper's thermal conductivity is at least 8 times greater than that of galvanized steel.
- The copper coil is easily accessible for inspection and service. It is located at the bottom of the tower and can be removed by sliding it on Stainless Steel rails through a wide access door.

## 4.2 HFC SERIES MODELS

### 4.2.1 HFC MODELS

- HFC models are available in one, two or four fan units with Direct Drive System.
- Over 110 CTI certified HFC models.
- Capacities ranging from 80 - 1,902 Nominal Tons<sup>2</sup> in a single unit.



*Single fan models*



*Two fan models*



*Four fan models*

### 4.2.2 HFC-F MODELS

- Single fan Gear Driven Models.
  - An optional direct drive system with permanent magnet motor is available for HFC-F models.
- Over 20 HFC-F CTI certified models.
- 502 - 1,418 Nominal Tons<sup>2</sup>.
- Low RPM fan.
- Low sound by design.
- High energy efficiency due to its larger volume casing and a low HP motor.



*Single fan models  
Standard: Gear Drive System*



*Single fan models  
Optional: Direct Drive System*



# 5

# CLOSED CIRCUIT SYSTEM



## 5.1 DESCRIPTION

### COOLING TOWER + PLATE HEAT EXCHANGER

In the Closed Circuit System (CCS), the heat load of the process fluid is rejected by a plate heat exchanger, which prevents direct contact of the process fluid with contaminants in the environment.

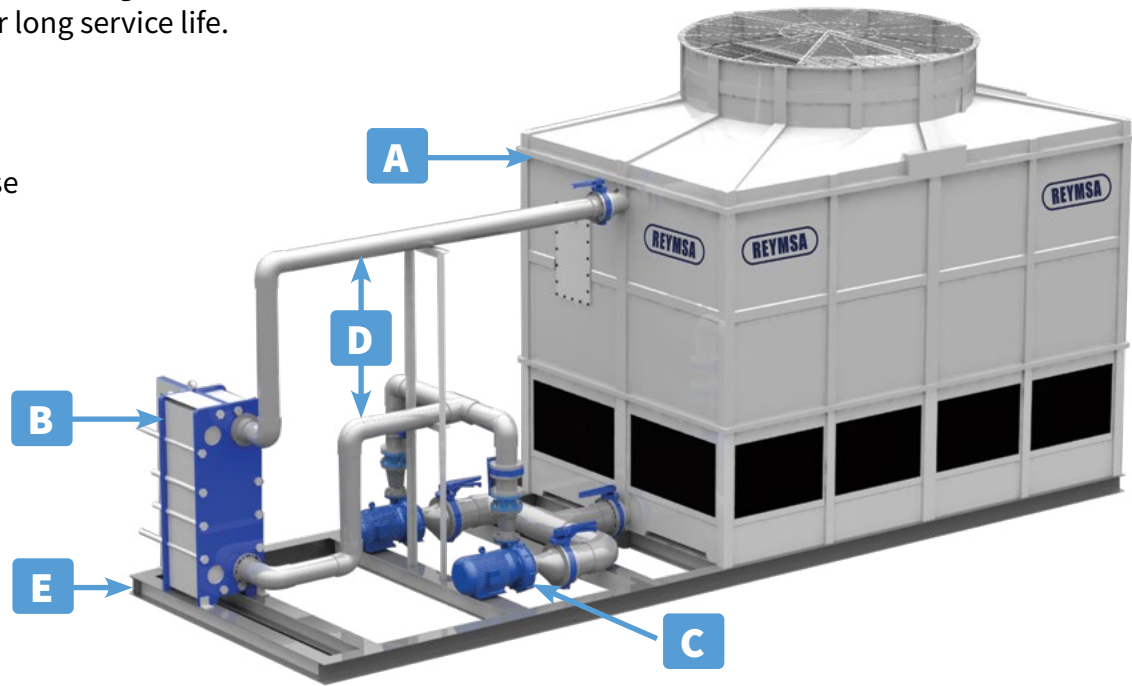
## 5.2 FEATURES

- **Savings in purchasing and logistics costs:**
  - The Closed Circuit System has a lower purchase cost than a closed circuit fluid cooler of the same capacity.
  - Lower shipping and operating weight than a closed circuit fluid cooler, minimizing rigging requirements and facilitating on-site installation with smaller cranes.
- **Energy Efficiency:**
  - Some models of Closed Circuit Systems use less power than a closed circuit fluid cooler. Lowering power consumption reduces operating costs.
- **Material and Component Features**
  - Cooling Tower: Fiberglass Reinforced Polyester (FRP) construction.
  - Plate Heat Exchanger: built with corrosion resistant stainless steel plates.
  - Pump: cast iron construction in accordance with ASTM A48.

## 5.3 SKID MOUNTED PACKAGE

The Closed Circuit System consists of:

- A.** FRP Cooling Tower (Casing & Structure).
- B.** Plate heat exchanger constructed with stainless steel plates for long service life.
- C.** Pump
- D.** Piping
- E.** Steel base



Availability:

- One, two or four fan models with direct drive system.
- Single fan gear driven models, with an option for direct drive system with a permanent magnet motor.



*Single fan models*



*Two fan models*



*Four fan models*



# 6

## OPTIONAL PERMANENT MAGNET MOTOR FOR RTG, RTGM & HFC-F MODELS

### 6.1 ALTERNATIVE TO GEAR DRIVE SYSTEM

Getting back to our roots as a Direct-Drive supplier, we now offer an alternative to Gear Drives on our RTG, RTGM and HFC-F Models, which previously were only available with Gear Drives.

The optional Permanent Magnet Motors are directly coupled to the fan assembly, once again offering the inherent advantages of direct-drive and eliminating the additional mechanical components, such as belts or Gear-reducers.



This option is available for the following models, from 20 HP and up:

**RTG**



**RTGM**



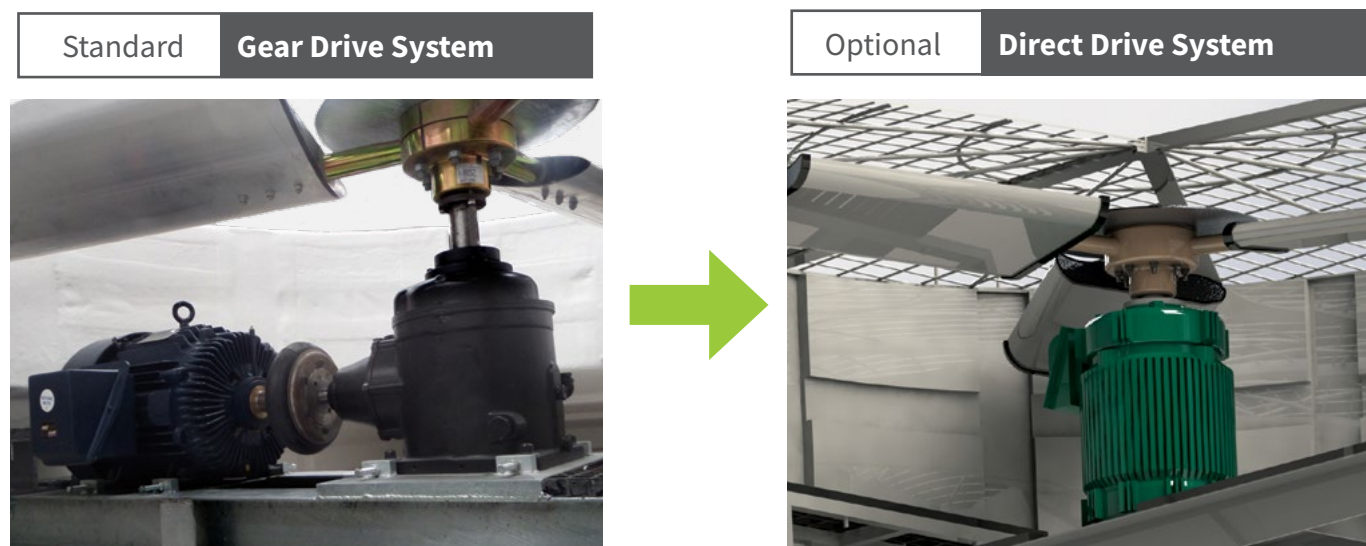
**HFC-F**



## 6.2 DRIVE SYSTEM RETROFITS

The optional permanent magnet motor is not just for new installations, you can **upgrade** your existing cooling towers with a standard gear drive system to a direct drive system.

This retrofit allows **reduced maintenance** by eliminating the coupling and gearbox because there are fewer components in the system to align and maintain.



Cooling Towers with this optional motor are also CTI certified.



### VFD

Permanent magnet (PM) motors must be operated by the VFD (Variable Frequency Drive) included in the PM motor package.

The Permanent Magnet Motor is warranted for 5 years.



### BENEFITS OF THE PERMANENT MAGNET MOTOR

- **Minimum Maintenance Cost**

The fan couples directly to the motor and eliminates the cost and maintenance required for traditional gearbox or belted solutions.

- **Improved Reliability**

Eliminates misalignment issues reducing unplanned downtime.

- **Low Sound by design**

# 7

## LOW SOUND SOLUTIONS

Some applications will require that our cooling towers meet or comply with lower sound levels than our standard, that is why REYMSA has different options to meet the needs of any project.



The RT Models are available with our optional “**Low Sound**” and “**Super Low Sound**” level fan designs (for models with Direct Drive System) which allow for a significant reduction in fan noise by utilizing a low RPM motor and a low noise sickle blade fan.

Low Noise and Super Low Noise models can be identified by the suffix “LS” and “SLS”.



The **RTP**, **RTUP** and **RTPM** models feature a direct drive system with a low RPM permanent magnet motor, and offer **Ultra Low Noise** by design.



The **RTG** and **RTGM** models have a gearbox transmission system and offer **Low Noise** by design.

If you have such an application, contact your local REYMSA representative for assistance in the appropriate cooling tower selection.



# 8

## EASY ASSEMBLY

- REYMSA towers are shipped in modular sections, designed for fast assembly.
- Assembly is reduced to placing and bolting the body and duct section.
- Easy assembly of all our towers results in lower installation costs.



**COOLING TOWER**  
shipping and assembly



**CLOSED CIRCUIT  
FLUID COOLER**  
shipping and assembly





# 9

## MOBILE COOLING TOWER - MRT SERIES



The perfect choice for companies offering ready-to-use temporary cooling solutions to their customers

### 9.1 FEATURES

- **1,000 TON Model:** capacity of 3,000 gpm cooling water at nominal conditions<sup>1</sup>.
- **500 TON Model:** capacity of 1,500 gpm cooling water at nominal conditions<sup>1</sup>.
- Multiple MRT units can be joined together to meet higher capacity requirements.
- **PLUG & PLAY:** Ships fully assembled and ready to use. Single Point Power Supply.
- Seamless body and basin: no water leaks.
- **5-Year Warranty (Casing & Structure)**<sup>2</sup>.
- Step Deck trailer (supplied by others) for transportation.

### Temporary Cooling Solutions for

Emergency Tower Replacement

Planned Maintenance

Unexpected Stoppages

1- A Nominal TON is defined as 3 GPM of water cooled from 95°F HWT to 85°F CWT with a 78°F WBT.

2- This Limited Warranty is valid only in the United States & Canada.

## 9.2 COMPONENTS



### 9.2.1 TOWER CONSTRUCTION

- Corrosion resistant FRP casing and structure.
- The most reliable non-corroding PVC water distribution system with non-clogging spray nozzles.
- Fill, Drift Eliminators & Louvers manufactured in corrosion resistant self-extinguishing PVC.
- Seamless basin - no water leaks.



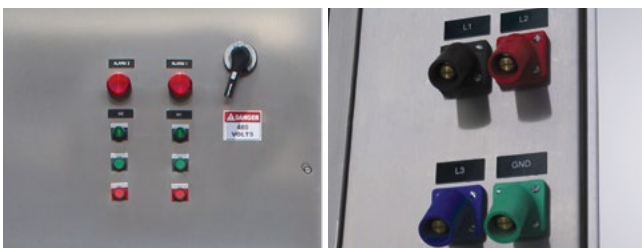
### 9.2.2 EC FAN MOTORS

- High performance EC fan assemblies with non-adjustable pitch fan blades, manufactured of aluminum, equipped with permanent magnet, **electronically commutated (EC) motors**<sup>3</sup>.



### 9.2.3 CONTROL MODULE

Outlet water temperature parameters can be easily configured through its control module with MODBUS or BACnet/IP communication protocols and LCD display. Control modules are protected in a NEMA 4X stainless steel housing.



### 9.2.4 MAIN CONTROL PANEL

Main Control Panel that supplies power to all devices in the tower, with a Single Point Power Supply. NEMA 4X protection.



### 9.2.5 OPTIONAL EQUIPMENT (500 TON MODEL)

- 150 kVA transformer that is outdoor rated and includes a gray Nema 3R steel enclosure.
- Hoses and fittings for water inlet, outlet and pumps. Storage boxes included.

**3-** Direct Drive System with induction motors and Fiberglass Reinforced Polyamide fan blades is also available. Contact REYMSA for more information about this option.

# 10

## THE BEST COOLING TOWER FOR DESIGN-SENSITIVE PROJECTS

When it comes to water cooling solutions and a design-sensitive project comes into sight, REYMSA Cooling Towers has become the number one choice for **architects and business owners** due to our high quality products and flexibility.

### 10.1 CONSTRUCTION ADVANTAGES

- FRP (Fiberglass Reinforced Polyester) appearance is much more aesthetically pleasing than metal.
- Permanently bonded UV protection.
- Very little maintenance required; periodic cleaning per ASHRAE 188 Protocol.
- Life expectancy of 30+ years<sup>1</sup>.
- The durable, STRUCTURAL FRP construction of REYMSA towers allows them to operate in the most severe climate conditions around the world, such as desert, coastal and sub-freezing temperatures when proper operating methods and controls are followed.
- Structural Integrity: meets high wind velocity requirements.



**NO ENCLOSURES NEEDED**

*Our cooling towers are the most aesthetically pleasing to the eye in the market.*

1 - CTI Guideline 152, page 5 of 16, section 1.3: "Life of Structure - A reasonable anticipated life of 30-35 years can be expected from an FRP structure tower".



## 10.2 WHY ARCHITECTS CHOOSE REYMSA?

REYMSA has more than 4,000 CTI Certified models, starting from single fan tower models to industrial-grade modular towers, with choices from a variety of colors, capacities, accessories and more.

- You can select a color that matches the overall tone of your building.
- Different configurations that allow increased capacities with the same footprint.
- Modular configuration, joined together by the long or short side of the tower.
- Low sound solutions.
- OSHA Safety accessories.
- Customized connections.



*Public spaces and productive areas can coexist seamlessly as our towers are designed to integrate harmoniously with their surroundings.*

### 10.2.1 OPTIONAL COLORS

REYMSA towers are available in several colors that match our customer's needs. Some recent special colors are shown below.



**White**

Standard color



**Beige**

Standard color



**Gray**

Standard color



**Colonial Stone**

Special color



**Eden Green**

Special color



**Dark Bronze**

Special color

# 11

# ORIGINAL PARTS, ACCESSORIES AND OPTIONAL EQUIPMENT

## 11.1 ORIGINAL PARTS

We have an extensive catalog that includes original parts as well as accessories and optional equipment to meet your safety and accessibility requirements.

### 11.1.1 MOTORS



#### 11.1.1.1 INDUCTION MOTOR

— Available for RT and HFC Series.

- Premium efficient
- Severe Duty
- Marine Duty
- Inverter Rated
- Epoxy coated (internal and external)
- Cast iron construction
- Inpro/Seal VBX bearing isolator for added protection.



#### 11.1.1.2 PERMANENT MAGNET MOTOR

— Available for RTP, RTUP, & RTPM models.

- Ultra Efficient
- High Power Density
- Standard NEMA Frame Sizes and up to 2 frame size reduction compared to induction motors.
- Lower operating temperature.
- Lower amperage.
- Low RPM operation.



#### 11.1.1.3 PERMANENT MAGNET MOTOR (OPTIONAL)

— Option for RTG, RTGM & HFC-F models.

- Premium efficient
- Severe Duty
- Marine Duty
- Inverter Rated
- Epoxy coated (internal and external)
- Cast iron construction
- Inpro/Seal VBX bearing isolator for added protection.



#### 11.1.2 GEAR REDUCER AND COUPLINGS

— Available for RTG, RTGM & HFC-F models.

- Rigid shafts and permanently aligned housing guarantee alignment of the gears under load.
- Bearings are sized to meet or exceed the minimum life of AGMA and CTI.
- Flexible coupling that transmits power from one shaft to another, protects equipment by damping vibrations and absorbing shock loads.



### **11.1.3 AIR FOIL FAN BLADES**

— Available for RT, RTU, RTM & HFC models.

Adjustable pitch air foil molded with fiberglass reinforced polyamide are available for models with Direct Drive System.



### **11.1.4 SICKLE FAN BLADES**

— Available for RT, RTU, RTM & HFC models.

Optional “Low Sound” and “Super Low Sound” level fan designs are available for models with Direct Drive System. The sickle blades molded with fiberglass reinforced polyamide in these options considerably reduce the noise level.



### **11.1.5 ALUMINUM FAN BLADES**

— Available for RTG, RTGM, HFC-F, RTP, RTUP and RTPM models.

Adjustable pitch air foil blades made of aluminum. Available for Gear Drive System models and Direct Drive System with permanent magnet motors.





### 11.1.6 FILL

— Available for all models.

#### Standard fill:

- High quality PVC film fill. For use in HVAC and light industrial applications where the water contains very low levels of total suspended solids.

#### Special fills:

- Trickle fill for applications where the circulating water has very high levels of suspended solids and high potential for scale buildup.
- Hinged panel fill with an open design that provides maximum fouling resistance, even in dirty water applications where fibers are present such as: Refining, Petrochemical, Steel, Chemical, Pulp & Paper, and Food Processing industries.

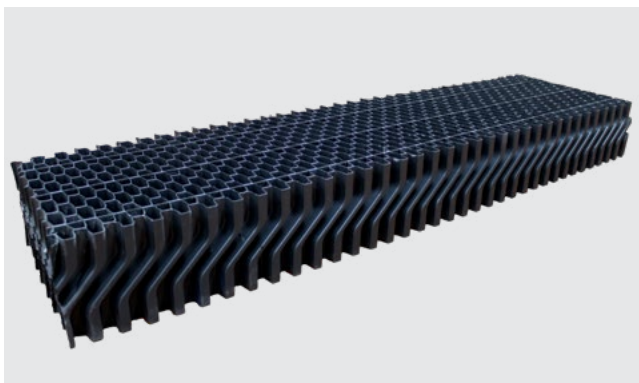


### 11.1.7 LOUVERS

— Available for all models.

Triple pass PVC air inlet louvers, designed to:

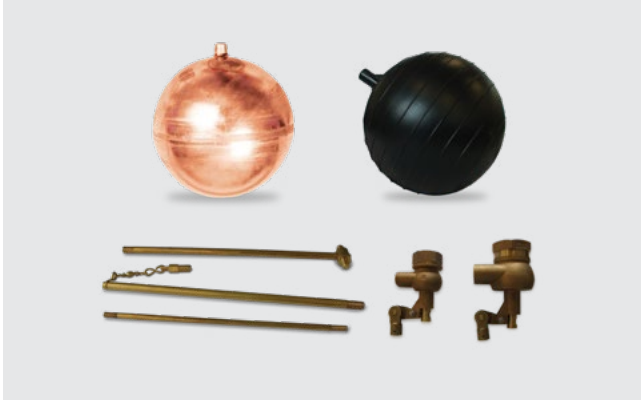
- Minimize direct sunlight to the water.
- Reduce splash out - reduced make-up water and chemicals.
- Reduce noise while having low pressure drop that results in less fan motor energy consumption.
- The potential of algae growth is reduced, therefore reducing water treatment and maintenance cost.
- UV stabilized - longer service life.



### 11.1.8 DRIFT ELIMINATOR

— Available for all models.

High quality PVC drift eliminator that is UV stabilized, resistant to weather exposure, chemical degradation from alkali, acids and biological attacks.



### 11.1.9 FLOAT VALVE

— Available for all models.

- Plastic float.
- Copper float.
- Rods and valves.



### 11.1.10 SPRAY NOZZLES

— Available for all models.

- Interchangeable internal components.
- Unique square water spray pattern that provides a reliable fill coverage and results in an optimal thermal performance.



### 11.1.11 COPPER COIL

— Available only for HFC & HFC-F models.

- **Excellent performance:**  
Copper's thermal conductivity is at least 8 times greater than that of galvanized steel.
- Corrosion resistance and durability.
- Stainless steel casing.
- Type L copper coil.



### 11.1.12 RECIRCULATING PUMP

— Available for HFC Series and Closed Circuit Systems.

- Designed for optimum performance, easy installation and simplified maintenance.
- The close-coupled design results in improved alignment and increased seal life.
- Vertical in-line pumps are also available.

## 11.2 OPTIONAL EQUIPMENT



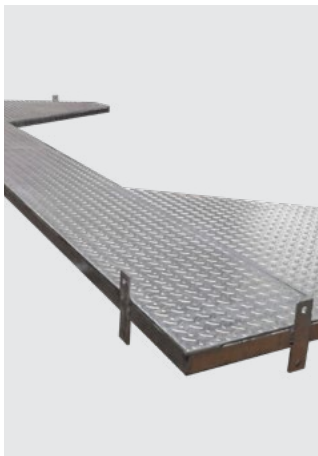
### 11.2.1 ACCESS LADDER & HANDRAIL

— Available for RT and HFC Series.

For safe access to fan assemblies.

Choose:

- Stainless Steel
- Galvanized Steel



### 11.2.2 NON-SKID CATWALK

— Available for RT and HFC Series.

Access platform for maintenance and servicing.

Choose:

- Lightweight, corrosion-resistant fiberglass grating.
- Stainless Steel or Galvanized Steel.



### 11.2.3 DAVIT / HOIST

— Davit support is available only if requested at the time of purchase; must be Factory Installed. For RT and HFC Series.

- For motor removal where crane access is difficult.
- It can be disassembled for relocation when more than one cooling tower is installed.





#### 11.2.4 ELECTRIC WATER LEVEL CONTROL

— Available for all models.

Includes water level controller, stilling chamber, and solenoid valve for make up water.



#### 11.2.5 BASIN HEATER

— Available for all models.

Designed to provide freeze protection during shutdown or standby conditions. Includes heater element, thermostat, and low water level safety cutoff.



#### 11.2.6 VIBRATION CUT-OFF SWITCH

— Available for all models.

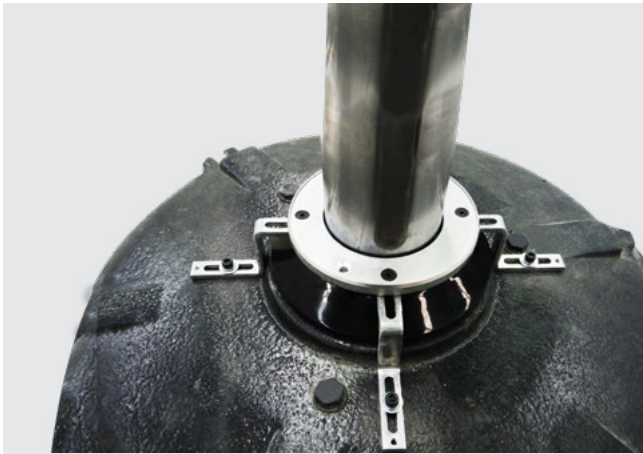
Vibration switch interrupts the power to the fan motor when triggered by excessive vibration or shock.



### 11.2.7 EXTERNAL MOUNTED MOTOR

— Available only if requested at the time of purchase; must be Factory Installed. For RTG, RTGM and HFC-F models.

Motor mounted outside the airstream, connected by a drive shaft for easy access to maintenance.



### 11.2.8 SHAFT GROUNDING RING

— Available for all models.

Shaft grounding is recommended (NEMA MG1 31.4.4.3) as an effective means of bearing protection for motors operated from inverter power.



### 11.2.9 AIR DEFLECTORS

— Available for RT and HFC Series.

Made of a curved deflecting surface that redirects air and sound.



#### 11.2.10 FLAME RETARDANT RESIN

— Available only if requested at the time of purchase; must be Factory Installed. For All models.

Controls the spread of flame meeting the ASTM-E84 standard.



#### 11.2.11 FIRE SPRINKLER

— Available for all models.

Fire Sprinkler System option is designed to meet FM Global Standards.



#### 11.2.12 CENTRIFUGAL PUMP

- Smooth and quiet operation, designed for long life in today's demanding water and liquid handling applications.
- Cast iron construction in accordance with ASTM A48.





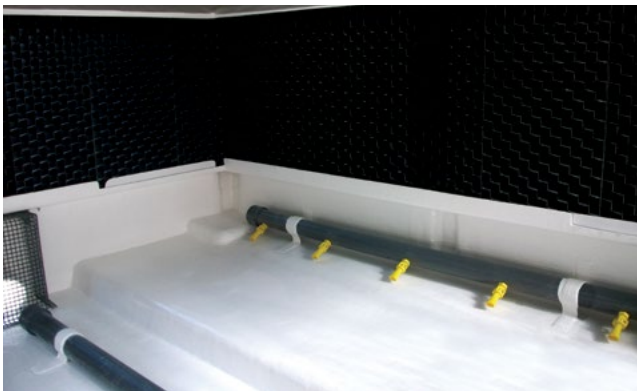
### 11.2.13 PLATE HEAT EXCHANGER

- Constructed with stainless steel plates for long service life.
- Plate heat exchanger prevents direct contact of the process fluid with contaminants in the environment.



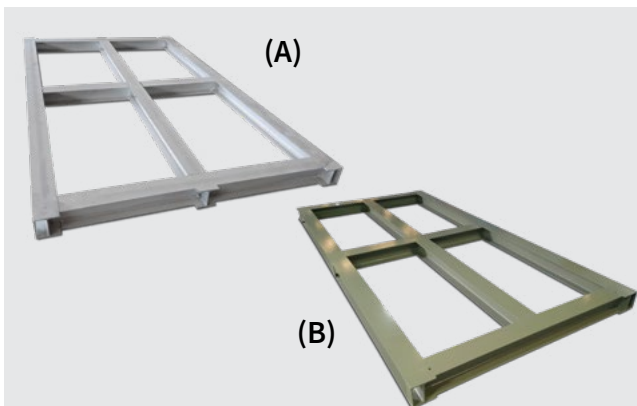
### 11.2.14 CENTRIFUGAL SEPARATOR

- Mechanical device that uses the principle of centrifugal force and friction to cause the separation of suspended solids from liquids, effectively removing suspended particles larger than 40 microns from a variety of fluids.
- It is a low cost option for removing environmental contaminants for HVAC and Industrial applications.
- It has no moving parts or filter media, so it requires less maintenance than other systems.
- May be used in Side-Stream mode or with Basin Sweeper installations. See image 11.2.15 SWEEPER PIPING.
- Automatic purge system with valve and electric actuator.



### 11.2.15 SWEEPER PIPING

Sweeper piping continuously circulates the water in the basin and directs the fluid stream towards the pump suction of the separator, preventing solids from settling to the bottom of the tower basin.



### 11.2.16 STEEL BASE SUPPORT (SBS)

— Available for all models of Cooling Towers, Fluid Coolers and Closed Circuit Systems.

- A. Hot-dip galvanized steel support (HDGS).
- B. Steel support with anti-rust paint.
- Fabricated and Shipped from our Factory.

# 12

# MODEL COMPARISON

	RT SERIES MODELS (Open Circuit)										HFC SERIES MODELS (Closed Circuit)	
FEATURES	RT	RTU	RTM	RTG	RTGM	RTGTC	RTGMTC	RTP	RTUP	RTPM	HFC	HFC-F
30+ Years Life Expectancy	•	•	•	•	•	•	•	•	•	•	•	•
15-Year Warranty on Casing & Structure <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•
Nominal Tons	25 - 1,471	25 - 1,172	227 - ∞	182 - 944	178 - ∞	223 - 1,350	276 - ∞	136 - 1,314	133 - 1,149	265 - ∞	80 - 1,902	500 - 1,418
CTI Certified Models	720	255	360	408	452	420	865	138	57	92	118	27
IBC Compliant <sup>2</sup>	•	•	•									
Exceeds energy efficiency per ASHRAE Standard 90.1	•	•	•	•	•	•	•	•	•	•	•	•
Minimum Maintenance	•	•	•	•	•	•	•	•	•	•	•	•
FRP Corrosion Resistant Construction (Casing and Structure)	•	•	•	•	•	•	•	•	•	•	•	•
Unitized Body/Basin		•							•			
Direct Drive System	•	•	•					•	•	•	•	
Gear Drive System				•	•	•	•					•
Motor: Premium efficient, severe duty, marine duty, inverter rated, Inpro/Seal VBX bearing isolator, cast iron construction, 5-year warranty <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•
Direct Drive Permanent Magnet Motor <sup>3</sup>				Optional	Optional	Optional	Optional	•	•	•		Optional
Copper Coil											•	•
Recirculating Pump											•	•
Standard	•	•	•								•	
Low Sound	•	•	•	•	•	•	•				•	•
Super Low Sound	•	•	•	•	•							
Ultra Low Sound								•	•	•		
Single Fan Models	•	•		•	•	•	•	•	•		•	•
Two Fan Models	•	•	•					•	•	•	•	
Four Fan Models	•	•						•	•		•	
Modular Configuration for increased capacities and to accommodate any heat load.			•		•		•			•		

1- This Limited Warranty is valid only in the United States & Canada.

2- IBC Compliant: contact REYMSA for a list of approved models.

3- PERMANENT MAGNET MOTORS

Difference between RTP Models and RTG Models using an optional permanent magnet motor:

## RTG, RTGM, RTGTC, RTGMTC & HFC-F MODELS

- Standard: Gear Drive System
- Optional: Direct Drive System with a permanent magnet motor.
  - Towers with this option have the same capacity as standard gear drive.
- Minimum maintenance
- Low Sound by design
- Single Fan Models

## RTP, RTUP & RTPM MODELS

- Standard: Direct Drive System with a permanent magnet motor.
  - Increased capacity from 5 up to 15% compared to RT, RTU and RTM models.
- Minimum maintenance
- Ultra Low Sound by design
- One, two and four fan models







**REYMSA COOLING TOWERS, INC.**

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