



Mr. GoodTower®



# Replacement Parts

For AT Cooling Towers,  
ATW & ESW Closed Circuit  
Coolers and ATC Evaporative  
Condensers

**FREE Unit Inspection!**  
See Inside  
for More Details.



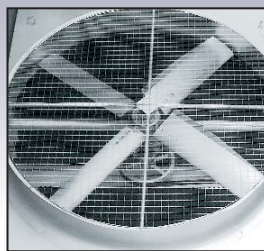
AT Cooling Tower  
(Belt Drive 12' Wide Tower)

***Any Part, Any Manufacturer, Any Time!***

**Induced Draft Products**

## 1 FAN SCREENS

The fan screens are galvanized steel mesh.



## FANS:

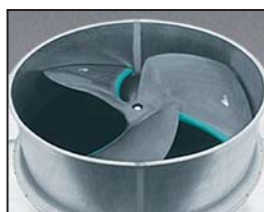
### 2A AXIAL PROPELLER FAN

The axial propeller type fans are constructed of an aluminum alloy and statically balanced. The fan is installed in a closely fitted cowl with venture air inlet.



### 2B SMOOTH FLOW FAN

The **Smooth Flow** fan utilizes a unique soft-connect, blade-to-hub design. This **VFD-friendly design** prevents vibration forces from transmitting to the unit structure and totally eliminates critical blade passing frequencies at any speed!



### 2C SUPER LOW SOUND FAN

The SLSF is one-piece molded heavy duty FRP construction utilizing a forward swept wide chord blade design. A 9-15 dB(A) sound reduction is typical versus standard fans!

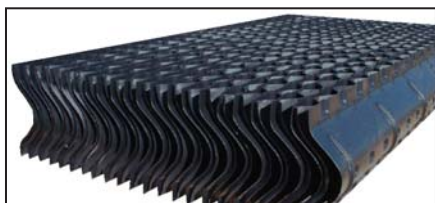
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Indicate Part Location Inside Unit.

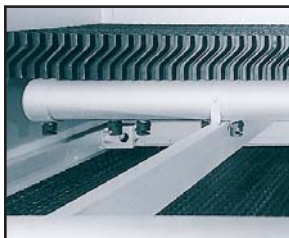
## 3 DRIFT ELIMINATORS

The eliminators are constructed entirely of Polyvinyl Chloride (PVC) in easily handled sections. The design incorporates three changes in air direction resulting in a high efficiency eliminator that limits the water carry-over to an **industry-leading** minimum of 0.001% of the circulating water rate. This reduces water and chemical loss. The light-weight PVC eliminators are easily removed for access to the water distribution system.



## 4A WATER DISTRIBUTION SYSTEM

The water distribution system is made of schedule 40 PVC pipe and ABS plastic water diffusers for corrosion protection in this key area. The piping is easily removable for cleaning. The water diffusers have a minimum opening of 3/8 by 1 inch and are **practically impossible to clog**. They also have an anti-sludge ring extending into the headers to prevent sediment from building up in the diffuser opening. Additionally, the spray branches have threaded end caps to allow easy debris removal. Coil products utilize EVAPCO'S Zero Maintenance (**ZM**) spray nozzle.



NOZZLE

ZM<sup>®</sup> NOZZLE

## 4B WATER DISTRIBUTION SYSTEM

Cooling towers utilize the EvapJet™ nozzle, ensuring complete and even water distribution resulting in maximum thermal performance. The unique design results in an oscillating spray pattern **yet contains no moving parts**. EvapJet™ nozzles increase equipment thermal performance **up to 3.5%**!



EvapJet™ Nozzles

## ACCESS DOORS:

### 5 DIRECT DRIVE

G235 hot-dip galvanized steel circular access door(s) are in the upper casing for easy access to the fan motor and water distribution system. Also available in SST.

### 6 BELT DRIVE

G235 hot-dip galvanized steel rectangular access door(s) are in the upper casing for easy to the fan drive and water distribution system. Also available in SST.

### 7 COIL

The patented Thermal-Pak<sup>®</sup> elliptical coil is all prime surface steel, encased in steel framework with the entire assembly hot-dip galvanized after fabrication. It is designed with sloping tubes for liquid drainage and tested to 400 psig air under water. The Thermal-Pak<sup>®</sup> elliptical design results in maximum heat transfer efficiency and minimum pressure drop. Coils are available in copper or stainless steel for corrosive or industrial applications.



ATW Closed Circuit Cooler  
ATC Evaporative Condenser  
(Direct Drive)

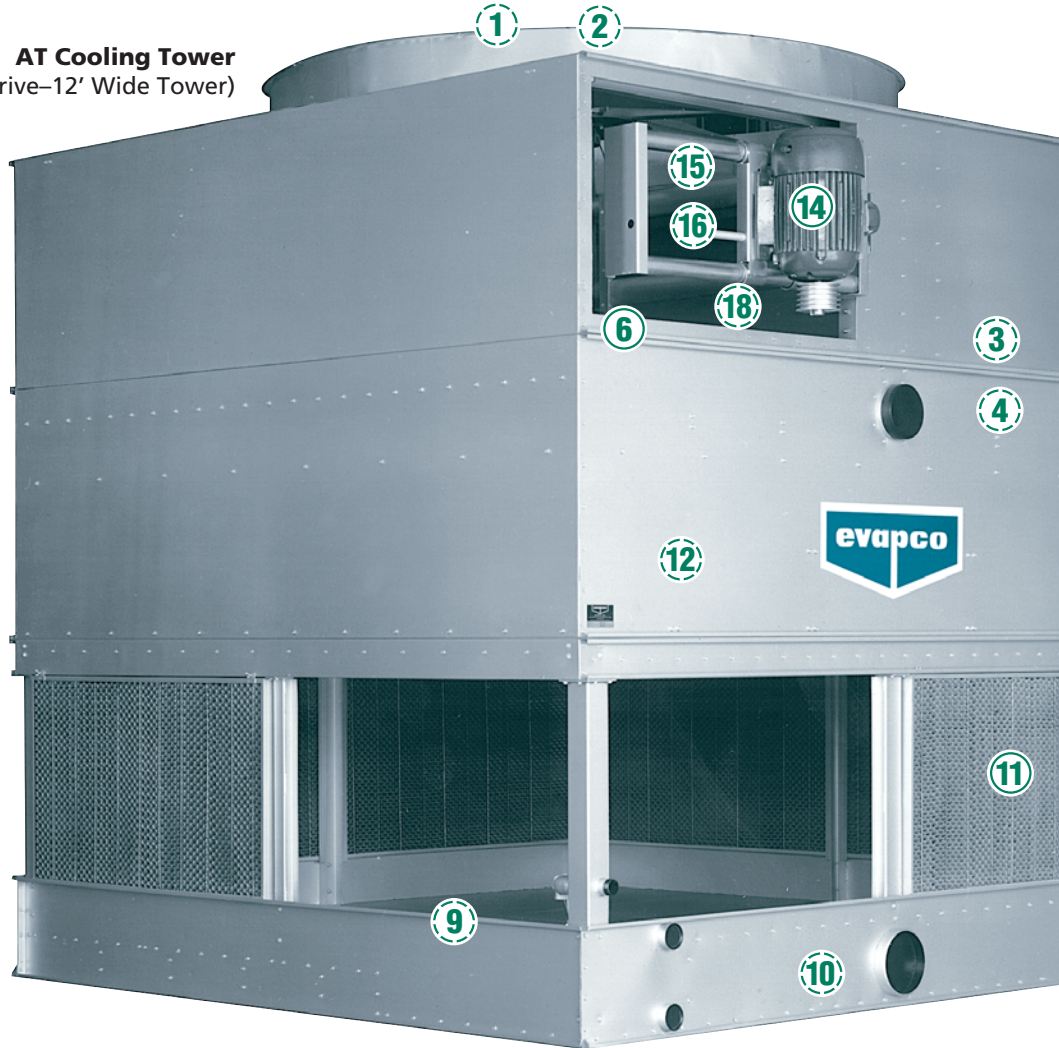
# Replacement Parts Identification

## Induced Draft Products

### Factory Authorized Parts and Quick Shipment!



**AT Cooling Tower**  
(Belt Drive-12' Wide Tower)



#### 8 WATER RECIRCULATION PUMP

Closed circuit coolers and evaporative condensers are supplied with a vertically installed close-coupled centrifugal pump with a mechanical seal installed to drain on shut down. The totally enclosed, fan cooled (TEFC) motor is provided with a protective canopy as standard.

#### 9 MAKE-UP FLOAT VALVE ASSEMBLY

This assembly contains a brass float valve with an adjustable plastic float. The supply of makeup water entering the unit is easily regulated by adjusting wing nuts on the threaded float rod.



#### Pulse~Pure™ NON-CHEMICAL WATER TREATMENT

EVAPCO'S **Pulse~Pure™** system is an environmentally sensitive alternative for treating water in evaporative cooled equipment. It controls scale, biological growth and corrosion while eliminating chemicals completely from equipment drift and blowdown. **Pulse~Pure™** is used on GREEN or LEED projects because of this elimination of chemicals and the increased water conservation.



#### 10 PAN STRAINER

The type 304 stainless steel strainer is constructed with large removable perforated screens to reduce the need for frequent servicing.

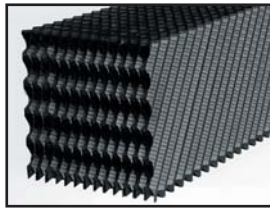


## 11 WST AIR INLET LOUVERS

The **Water and Sight Tight** inlet louver maximizes airflow while preventing water droplets from leaving the unit. The elimination of sunlight from the basin inhibits algae growth more effectively than other designs. Framed louver sections are located on all 4 sides (just 2 sides on 4X units) of the unit thus providing the most accessible basin in the industry. The light weight Polyvinyl Chloride (PVC) louvers are corrosion resistant and the frames are available in galvanized or SST material.

## 12 FILL

The Polyvinyl Chloride (PVC) fill with a cross-fluted design provides maximum heat transfer efficiency. The PVC sheets are bonded together for strength and durability. The fill is self-extinguishing for fire resistance and has a flame spread rating of 5 per ASTM E 84-819. It is also resistant to rot, decay and biological attack.



## ADDITIONAL ACCESSORIES:

### ELECTRIC WATER LEVEL CONTROL

The optional electric water level control system provides accurate control of the pan water level and does *not* require field adjustment. The control is mounted external to the unit in a vertical standpipe. The system includes a slow closing solenoid valve and an in-line Y-strainer.



### ELECTRIC BASIN HEATERS

Electric heaters are sized to maintain a +40° F (4.5°C) pan water temperature with the fans off. They are furnished with thermostat and low water protection devices to cycle the heater on and off while preventing them from energizing unless they are completely submerged. All components are enclosed in rugged, weather proof enclosures for outdoor use.



### SERVICE PLATFORM & LADDER w/MOTOR DAVIT

External service platforms provide safe and convenient access to the fan system, eliminators and the water distribution system. Heavy duty galvanized steel platforms are self-supporting. A less expensive alternative to field erected catwalks, the working platform uses a straight ladder as standard. The working platform and ladder meet all applicable OSHA requirements. The davit eliminates crane rentals and facilitates the removal of fans, motors and gear drives. The davit and bracket are constructed of heavy duty galvanized steel and are mounted on the side of the unit.



## FAN MOTORS:

**Totally enclosed, ball bearing type electric motors with 1.15 service factor specifically designed for evaporative cooling applications. All motors equipped with double sealed non-relubricable bearings, double dip and bake windings, and cast iron frames with Corro-Duty paint.**

## 13 DIRECT DRIVE



DIRECT DRIVE

## 14 BELT DRIVE

**8-1/2' Wide Towers**—The motor on 8-1/2' wide towers is mounted externally on the unit with an adjustable motor base for ease of service. A hinged protective cover shields the motor and sheave from the weather.

**10', 12', 14' and 24' Wide Towers** (shown)—The motor is mounted on an adjustable base allowing the motor to swing to the outside of the unit for ease of service.



BELT DRIVE

## FAN SHAFT & BEARINGS:

### 15 FAN SHAFTS

All belt driven units have a solid shaft of ground and polished steel. The exposed surface is coated with a rust preventative. Also available in 304SST.

### 16 FAN SHAFT BEARINGS

All belt driven units have heavy-duty self-aligning ball type bearings with grease fittings extended to the outside of the unit. Bearings are designed for an L-10 life of 75,000 to 135,000 hours, making them the heaviest duty pillow block bearings available for cooling tower duty.

## FAN DRIVE:

### 17 DIRECT DRIVE

The fan is mounted directly on the motor in a direct drive configuration.

### 18 BELT DRIVE

The fan belt is a multi-groove, solid back, reinforced neoprene V-belt type with taper lock sheaves designed for 150% of the motor nameplate horsepower. The fan sheave is constructed of an aluminum alloy. The fans & fan sheaves are mounted on the shaft with a special dacromet plated bushing for maximum corrosion protection. Belt adjustment is easily accomplished from the exterior of the unit.

# FREE Unit Inspection!

Call Your  
EVAPCO Mr. GoodTower®  
Representative Today.



To ensure your equipment's optimum performance and trouble-free operation, EVAPCO offers a **FREE Unit Inspection**. Regardless of the equipment manufacturer, EVAPCO's Mr. GoodTower® representative will perform a **FREE Unit Inspection**. This Inspection combined with regular service & maintenance will ensure your equipment's peak efficiency and long service life.

Call your local EVAPCO Mr. GoodTower® representative to schedule your **FREE Unit Inspection** today!



## Maintenance Checklist

### PROCEDURE

- Clean pan strainer – **monthly or as needed**
- Clean and flush pan\*\* – **quarterly or as needed**
- Check bleed-off valve to make sure it is operative – **monthly**
- Lubricate pump and pump motor according to manufacturer's instructions
- Check operating level in pan and adjust float valve if necessary – **monthly**
- Check water distribution system and spray pattern – **monthly**
- Check drift eliminators – **quarterly**
- Check the fan blades for cracks, missing balancing weights and vibrations – **quarterly**
- Lubricate fan shaft bearings\* – **every 1,000 hours or every three months**
- Lubricate fan motor bearings – **see manufacturer's instructions, typically for non-sealed bearings every 2-3 years**
- Check belt tension and adjust – **monthly**
- Sliding motor base – inspect and grease, **annually or as needed**
- Check fan screens, inlet louvers and fans. Remove any dirt or debris – **monthly**
- Inspect and clean protective finish – **annually**  
Galvanized: scrape and coat with ZRC  
Stainless: clean and polish with a stainless steel cleaner
- Check water quality for biological contamination. Clean unit as needed and contact a water treatment company for recommended water treatment program\*\* – **regularly**

### DURING IDLE PERIODS

- Less than two weeks: Run gear reducer for 5 minutes – **weekly**
- Two to four weeks: Completely fill gear reducer with oil. Drain to normal level prior to running.
- One month or longer: Rotate motor shaft/fan 10 turns – **bi-weekly**
- One month or longer: Megger test motor windings – **semi-annually**

### OPTIONAL ACCESSORIES

- Gear Reducer: Check oil level with unit stopped – **24 hours after start-up & monthly**
- Gear Reducer/Piping: Do visual inspection for oil leaks and auditory inspection for unusual noises and vibrations – **monthly**
- Gear Reducer: Replace oil – **semi-annually**
- Oil Pump: Do visual inspection for leaks and proper wiring – **monthly**
- Gear Reducer/Coupling: Check alignment of the system – **24 hours after start-up & monthly**
- Coupling/Shaft: Inspect flex elements and hardware for tightness, proper torque & crack/deterioration – **monthly**
- Heater Controller: Inspect controller and clean between probe ends – **quarterly**
- Heater: Inspect junction box for loose wiring and moisture – **one month after start-up and semi-annually**
- Heater: Inspect elements for scale build-up – **quarterly**
- Electronic Water Level Controller: Inspect junction box for loose wiring and moisture – **semi-annually**
- Electronic Water Level Controller: Clean probe ends of scale build-up – **quarterly**
- Electronic Water Level Controller: Clean inside the standpipe – **annually**
- Solenoid Make-up Valve: Inspect and clean valve of debris – **as needed**
- Vibration Switch (mechanical): Inspect enclosure for loose wiring and moisture – **one month after start-up and monthly**
- Vibration Switch: Adjust the sensitivity – **during start-up and annually**
- Positive Closure Dampers: Check and lubricate the linkage – **monthly**
- Insulation: Check for damage/cracks and repair as necessary – **semi-annually**
- Sump Sweeper Piping: Inspect and clean piping of debris – **semi-annually**
- Water Level Indicator: Inspect and clean – **annually**

\* See maintenance manual for start-up instructions and lubrication recommendations.

\*\* Cooling Towers must be cleaned on a regular basis to prevent the growth of bacteria including Legionella Pneumophila.



EVAPCO PRODUCTS ARE MANUFACTURED WORLDWIDE



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