



# SUN

**AT FAMILY OF COOLING TOWERS**



**ADVANCED TECHNOLOGY IN  
INDUCED DRAFT, COUNTERFLOW COOLING TOWERS  
FEATURING INNOVATIVE AND SUSTAINABLE SOLAR TECHNOLOGY**

*TECHNOLOGY FOR THE FUTURE...AVAILABLE TODAY!*

† Mark owned by the Cooling Technology Institute





# SUN

EVAPCO, Inc. continues its dedication to energy efficiency improvements with the newest AT Series induced draft, counterflow cooling tower—**The EVAPCO SUN!**



Since its founding in 1976, EVAPCO, Incorporated has become an industry leader in the engineering and manufacturing of quality heat transfer products around the world. EVAPCO's mission is to provide first class service and quality products for the following markets:

- Industrial Refrigeration
- Commercial HVAC
- Industrial Process
- Power

EVAPCO's powerful combination of financial strength and technical expertise has established the company as a recognized manufacturer of market-leading products on a worldwide basis. EVAPCO is also recognized for the superior technology of their environmentally friendly product innovations in sound reduction and water management.

EVAPCO is an employee owned company with a strong emphasis on research & development and modern manufacturing plants. EVAPCO has earned a reputation for technological innovation and superior product quality by featuring products that are designed to offer these operating advantages:

- Higher System Efficiency
- Environmentally Friendly
- Lower Annual Operating Costs
- Reliable, Simple Operation and Maintenance

With an ongoing commitment to Research & Development programs, EVAPCO provides the most advanced products in the industry—**Technology for the Future, Available Today!**



EVAPCO products are manufactured on five continents around the world and distributed through hundreds of factory-authorized sales representatives.

### Solar Panel Array

- Innovative design maximizes solar power output with a minimal addition to the cooling tower plan area.
- Polycrystalline solar cell technology.
- Each 250 watt panel includes its own inverter.
- Five (5) Year EVAPCO Solar Panel Warranty.

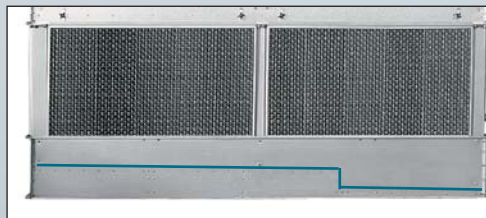
### Optional Working Platform

- Platform and ladder arrangement available as an option.
- Provides a robust self-supporting working surface for the service mechanic.



### Easy Field Assembly

- A new field assembly seam design which ensures easier rigging.
- Self-guided channels direct the fan casing section into position, improving the quality of the field seam.



### Clean Pan Sloped Basin Design

- Designed to completely drain the cold water basin.
- Helps prevent buildup of sediment and biological film.
- Eliminates standing water after drain down.



## Electronically Commutated ("EC") Fan Motors

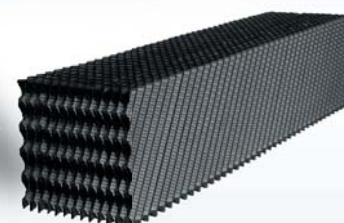
- Integrated speed controller eliminates VFD requirement.
- Fan Motor speed controlled via a 0-10 volt or MODBUS control signal.
- Highly efficient direct drive design.

## Water Distribution System

- Non-corrosive PVC construction with EvapJet™ nozzles.
- Large orifice nozzles prevent clogging and are threaded for easy removal and positive positioning.
- Each nozzle provides a large uniform spray pattern.
- System branches have threaded end caps to assist with debris removal.



EvapJet™ Nozzle



## EVAPAK® Fill

- Induces highly turbulent mixing of the air and water for superior heat transfer.
- Special drainage tips allow high water loading without excessive pressure drop.
- Flame spread rating of 5 per ASTM E84-81a.
- Can be used as an internal working platform.



## WST Air Inlet Louvers (Water and Sight Tight)

- Easily removable for access.
- Framed with same material construction as tower basin.
- Improved design to keep sunlight out—preventing algae growth.
- Keeps recirculating water in while keeping dirt and debris out.

U.S. Patent No. 7,927,196

## SUN Control Panel

- Exclusive control system that powers the fan motors, directs solar power generated to the appropriate component, and displays instantaneous solar power generated versus fan power consumed.
- Includes a web-based interface to track daily power generated and solar panel functionality (Ethernet connection required).
- Provides field selectable, local or BMS capacity control.
- Nema 4x enclosure with dual disconnect (utility and solar power sources). UL and CUL approved.



## CTI Certified-Standard 201

- Independent Performance Certification.
- Eliminates necessity for costly field performance tests.

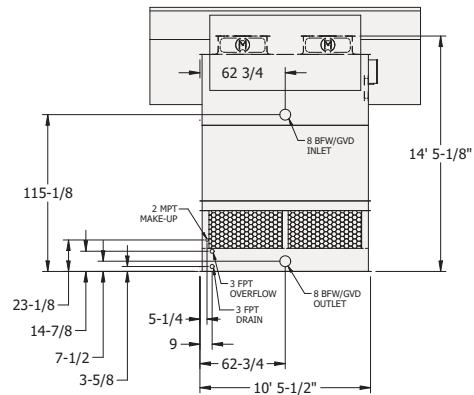
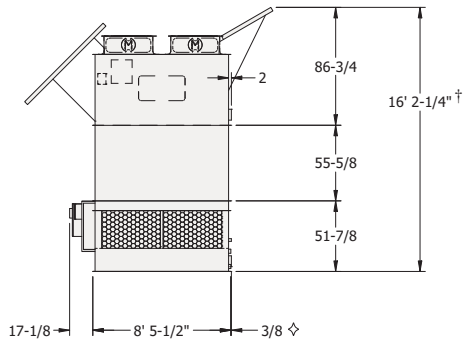
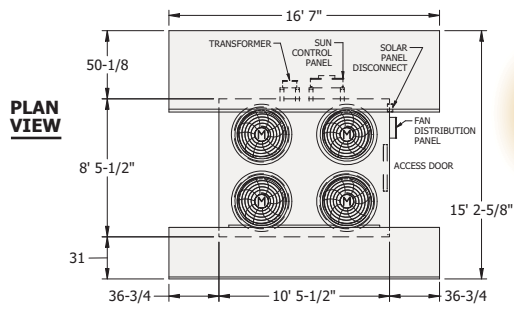


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# SUN ENGINEERING DATA & DIMENSIONS

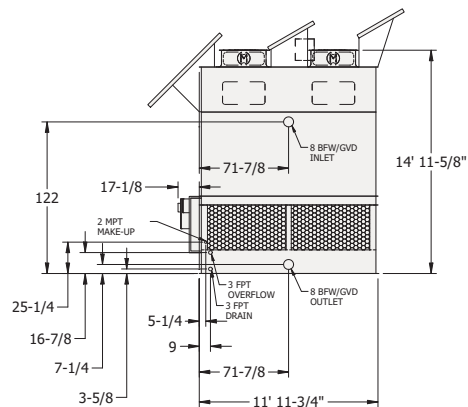
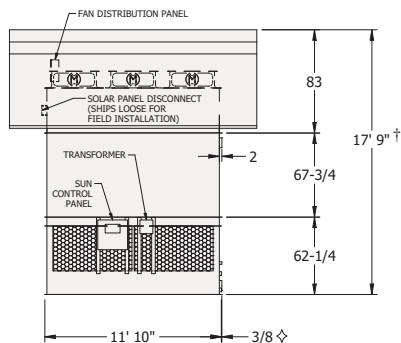
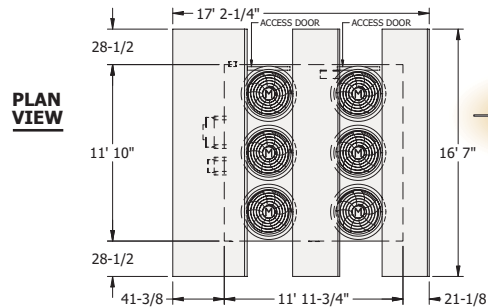
## MODEL: SUN-19-611

Model No.	Nominal Tonnage	Weights (LBS)			Fan Motor (HP) (Qty. 4) 4.3	Air Flow (CFM)
		Shipping	Operating	Heaviest Section <sup>†</sup>		
SUN-19-611	241	6,010	9,040	2,580		48,900



## MODEL: SUN-112-812L

Model No.	Nominal Tonnage	Weights (LBS)			Fan Motor (HP) (Qty. 6) 4.3	Air Flow (CFM)
		Shipping	Operating	Heaviest Section <sup>†</sup>		
SUN-112-812L	383	10,200	15,900	3,950		77,700



- NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.  
 (2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.  
 (3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.  
 (4) Nominal Tonnage is based on 3 gpm per ton at 95 degree entering water temperature, 85 degree leaving water temperature, and 78 degree wet-bulb temperature.
- ◇ Outlet connection extends 3/8" beyond bottom flange.  
 † Heaviest section is fan section. Unit ships in three sections.  
 † Height includes solar panel array and supports.



# SUN

The **World's Only** CTI Certified Cooling Tower  
Capable of NET ZERO Annual Energy Consumption!



**U**nder typical North American solar exposure and commercial HVAC loading conditions, the **SUN** Tower is capable of offsetting 100% of annual fan energy consumption with its strategically located solar panel array.

During periods of solar power generation, the power is directed to the fan motors. When the solar panels are generating surplus energy, the balance returns to the building for use by other equipment, such as pumps, lighting, fans, etc. When the fan motors are drawing more power than the solar panels are generating, the balance is drawn from the typical utility power supply.

### LEED® and ASHRAE

- Opportunity for LEED® Point in:
  - Innovation and Design
  - Energy and Atmosphere - Optimize Energy Performance
  - Energy and Atmosphere - Renewable Energy Production
- Assists in complying with ASHRAE 189.1-2011 Standard for the Design of High Performance Green Buildings.
- Available with Optional *Pulse~Pure*® Non-Chemical Water Treatment for a complete sustainable cooling tower package!

### Financial Incentives

- Significant reduction or elimination of annual cooling tower energy use for the life of the equipment.
- Owners can take advantage of a 30% Federal Government tax credit on the Solar Package components of the **SUN** Tower.
- Many State Governments also offer additional deductions. Contact your local tax law professional for more information.



EVAPCO PRODUCTS ARE MANUFACTURED WORLDWIDE.



★ World Headquarters/ Research and Development Center
■ EVAPCO Facilities

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