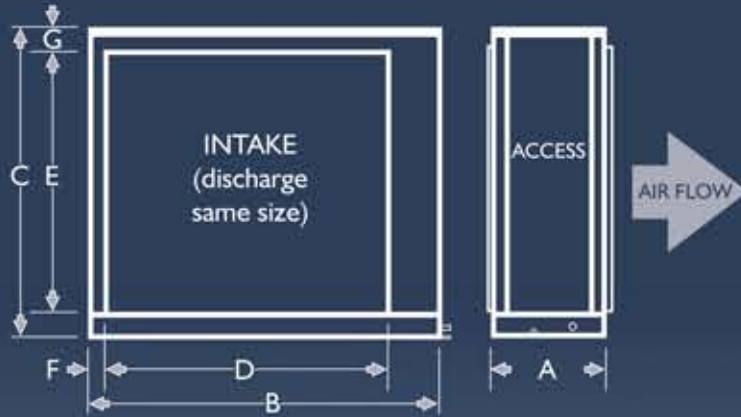


# Standard Models and Dimensions



Model	A	B	C	D	E	F	G
TA-24/24 EV	22	36	36	20	24	2	6
TA-36/36 EV	22	48	48	32	36	2	6
TA-36/48 EV	22	60	48	44	36	2	6
TA-48/48 EV	22	60	60	44	48	2	6
TA-48/60 EV	22	72	60	56	48	2	6
TA-60/60 EV	22	72	72	56	60	2	6
TA-60/72 EV	22	84	72	68	60	2	6
TA-72/72 EV	22	84	84	68	72	2	6
TA-72/84 EV	22	96	84	80	72	2	6
TA-72/96 EV	22	108	84	92	72	2	6
TA-72/120 EV	22	132	84	120	72	2	6

Other sizes available.

## Pledge to Our Customers

Titan Air pledges to continue product improvements and offerings through the use of customer input and new technologies as they become available. As a valued customer, Titan Air realizes you have come to expect nothing less.

## Contact Titan Air

For complete information on our products and services, please contact Titan Air at:

13901 16th Street, PO Box 717  
 Osseo, WI 54758  
 Phone: 715.597.2050  
 Fax: 715.597.3620  
[www.titan-air.com](http://www.titan-air.com)

**Titan Air will be the best, build the best,  
 employ the best, and lead the rest.**



SOLUTIONS FOR INDUSTRIAL AND COMMERCIAL COOLING HUMIDIFICATION



**Evaporative Cooling**



# Stay Cool with Titan Air.



## Economical Cooling Options

Titan Air manufactures the highest quality air make up systems and accessories, including evaporative coolers.

Used alone, or in conjunction with a heating unit, an evaporative cooling system is a very simple and cost effective cooling solution.

### Direct Evaporative Cooling

Evaporative Coolers are devices that cool air through the evaporation of water. It is a very common and inexpensive way to cool a space due to low energy requirements. Evaporative coolers are most effective in areas where relative humidity is low as it takes the warm dry, outside air and changes it to cool, moist air.

### Unique Features and Options

Titan Air's evaporative coolers feature a stainless steel sump with a galvanized sheet metal cabinet above the sump. The sheet metal cabinet can be provided with a G90 galvanized finish or can be painted if the job requires. 16 or 18 gauge sheet metal is utilized on exterior sheeting. Custom configurations with evaporative coolers incorporated into an air handler or multiple coolers in an "air-house" style are available.



Additional options include: stainless steel cabinet, pump enable thermostat or switch, fill and drain valves, flush and dry controls.

### Titan's Evaporative Cooling Media

Titan Air's evaporative coolers feature high quality, rigid cellulose media or flame retardant fiberglass media that is impregnated with anti-rot salts, along with rigidifying and wetting agents. The cooling effect of the evaporative media is measured by the wet bulb temperature, which is a function of the relative humidity.



### Easy To Set Up and Service

Titan Air designed their evaporative cooler to have the option to be used as a stand alone cooler. A vestibule is located on the side of the cooler that holds all of the components needed to operate and maintain the cooler. This side vestibule makes it easy to access components.

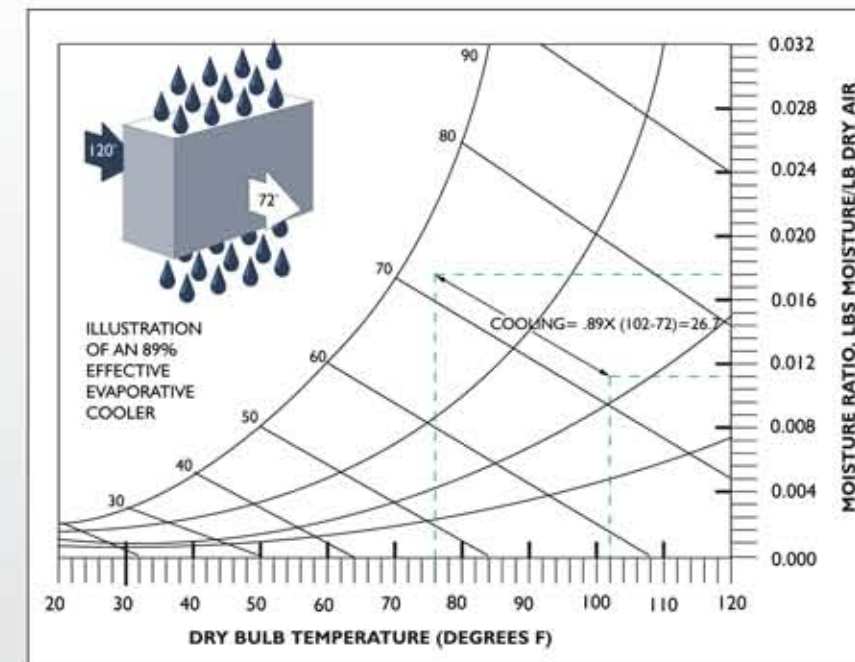


The vestibule contains the pump, water pressure gauge, bleed off adjustment and fill valve. A low water level switch is used to prevent the pump from running if the water level is incorrect.

### Evaporative Cooling Effectiveness

The performance of an evaporative cooler is based on the ratio of the number of degrees it can cool the air compared to the WET BULB DEPRESSION. This ratio is the "evaporative EFFECTIVENESS" or (evaporative efficiency) of the cooler.

The number of degrees the DRY BULB TEMPERATURE (DBT) of the air can be lowered is a percentage of the WET BULB DEPRESSION or  $(DBT-WBT) \times \text{EVAPORATIVE EFFECTIVENESS}$ .



### Example

FRESNO, CA.  
 AIR FLOW.....20,000 CFM  
 1% DESIGN DRY BULB.....102°  
 1% DESIGN WET BULB.....72°  
 HUMIDITY RATIO (INCOMING AIR).....00994 lbw/lba  
 COOLER EFFECTIVENESS.....89% @ 500 fpm  
 LEAVING DRY BULB.....75.3°  
 LEAVING WET BULB.....72°  
 HUMIDITY RATIO (DISCHARGE AIR).....01613 lb/lba

$$102^{\circ} - ((102^{\circ} - 72^{\circ}) \times (89/100)) = 75.3^{\circ}$$

At design conditions the evaporation rate to reduce the dry bulb temperature from 102° to 75° will be 59 gph. It is necessary to bleed some water off at all times to keep the reservoir water fresh.

Depending on the water conditions, the bleed off rate can be equal to the evaporation rate. The total make-up water rate can be as high as 118 gph with this example.

