

# EVAPCO ENGINEERING FLASH



## What is the value of CTI Certification?

All reputable evaporative cooling equipment manufacturers have their products certified by the Cooling Technology Institute (CTI) but many contractors, engineers and owners are not familiar with the process it takes to get there. Through this E-Flash we will cover the process of achieving, and maintaining CTI certification for a factory assembled evaporative cooling product.

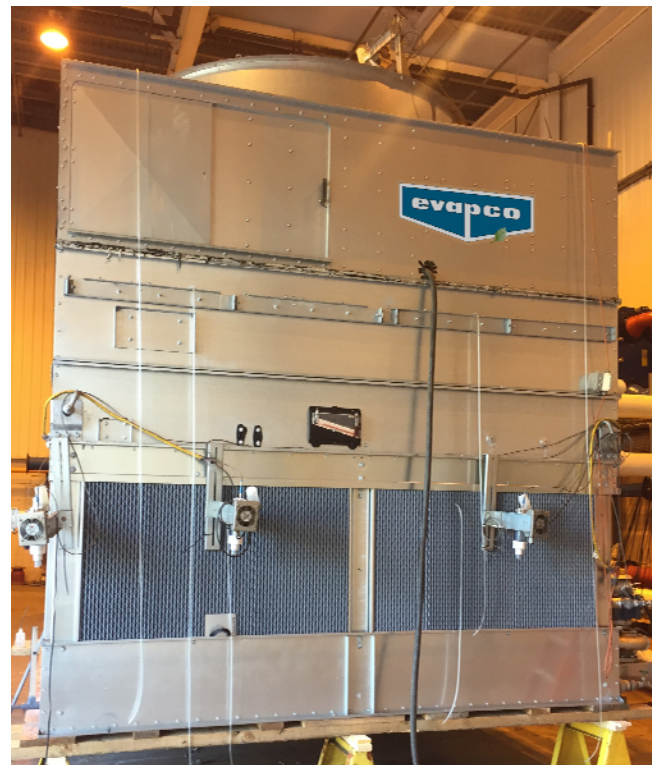
### What is CTI?



CTI is an independent third party organization who validates the published thermal performance of evaporative heat rejection equipment. Membership is voluntary and requires all evaporative cooling products listed in the program to be rated on a uniform scale. Membership to CTI offers credibility to the performance ratings published by each manufacturer. CTI was established in 1983 and today is comprised of 56 individual manufacturers representing over 130 product lines. Prior to this unbiased organization being formed, there was minimum control over the manufacturer's thermal performance ratings.

**STD 201 is a document written by CTI that describes the manufacturer's expansive requirements to certify a product. These requirements include:**

- **Annually** pay administrative fees and test expenses.
- Submit a "Data of Record" to CTI. This includes specific design information and detailed component breakdown (size and supplier) of every individual product model to be certified.
- Submit thermal performance ratings and rating methodology to the CTI Administrator. This information remains confidential however it provides CTI the information it needs to correctly validate performance ratings.
- Publish on a public domain at least 49 different performance conditions for each individual model in each product line.
- Make publicly available all physical data of each CTI Certified product model. This is typically done via a product catalog.
- Carry out and pass initial thermal performance qualification testing (in accordance with CTI test procedure ATC 105) of an individual model selected by the CTI administrator. This test requires either dedicated lab space as shown in the picture above or on-site field testing at a customer's site.
- **Annually** carry out and pass thermal performance reverification testing (ATC 105) on a **different** model selected by the CTI administrator.



*Unit being thermal performance tested in one of EVAPCO's state of the art research and development labs*

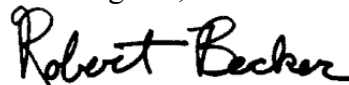
**Due to instrumentation tolerances, there are limitations set on the parameters that can be tested. Below are the certification limits set by CTI:**

	<b>Units</b>
Wet Bulb Temperature	50°F to 90°F (10°C to 32.2°C)
Minimum Range	4°F (2.2°C)
Minimum Approach	5°F (2.8°C)
Barometric Pressure	27" Hg to 31" Hg (91.4 kPa to 105 kPa)
Process Fluid Temperature	< 125°F (51.7°C)

Increasing the understanding of CTI Certification helps illustrate the tremendous value of purchasing CTI Certified equipment. CTI Certification eliminates the liability for the consulting engineer as it pertains to the performance of evaporative equipment while giving credibility to manufacturer's published performance ratings. Be certain from a design, installation and owner standpoint, that CTI Certified equipment is utilized on all your new construction needs!

**For more information on CTI Certification, please contact your local EVAPCO Sales Representative or visit [www.cti.org](http://www.cti.org)!**

Best Regards,



Robert Becker  
Assistant Manager – Replacement Market

