Cooling Technology Institute (CTI) Certification

Independent Assurance of Thermal Performance In Advance

For over two decades, cooling tower owners, operators, design engineers and installing contractors have relied upon CTI Certification of cooling tower thermal performance in accordance with CTI Standard STD-201. CTI Certification provides independent assurance, prior to shipment and installation, that a specific cooling tower will perform in accordance with the manufacturer's published thermal performance data. Having CTI certification eliminates the need for costly onsite field tests and ensures system performance will meet design objectives.

BAC Commitment to CTI Certification

BAC is committed to providing independent thermal performance verification for all its products. Starting with FXT Cooling Towers, in 1981, every factory-assembled BAC Cooling Tower line has been CTI Certified.

CTI Certification For Closed Circuit Cooling Towers

CTI Standard STD-201 was expanded to include Closed Circuit Cooling Towers. BAC led the industry, certifying the thermal performance of the FXV Closed Circuit Cooling Tower line in 1998 and the Series V Closed Circuit Cooling Tower line in 2000. Dual air inlet FXV models were added in 2003, with the largest capacity of any factory-assembled Closed Circuit Cooling Tower cell in the industry. BAC Closed Circuit Cooling Towers can be specified with the same assurance of thermal performance as its Open Circuit Cooling Towers.

Why is CTI Certification Important to You?

Equipment Owners and Operators

Independent certification of cooling tower thermal performance assures owners and operators that they will receive full value from their investment. It eliminates the potential for years of excessive operating costs due to deficient equipment and provides this benefit at no additional cost to the project. In fact, performance certification can actually reduce first cost by eliminating the need for "safety factors" when sizing the equipment and the cost of a field acceptance test to verify performance.

Design Engineers

By specifying CTI Certification of thermal performance, a design engineer can protect the owner and ensure that the client receives the specified performance. CTI performance certification provides a responsible basis for design and complements codes and standards used to control other systems and products. Many industry organizations are working to include certification in their standards. For instance, California Title 24 has required CTI Certification of all cooling towers since 2005. CTI Certification complies with these codes, prevents contractual misunderstandings, and eliminates disputes over deficient performance after installation.

Installing Contractors

Independent certification of cooling tower thermal performance assures the installing contractor that all certified cooling tower proposals are based on the same level of thermal performance. This not only eliminates the potential for costly callbacks due to deficient thermal performance, but also maintains a responsible basis of design for design/build, design/assist, or value-engineered projects.

The Cost of Cooling Tower Deficiency

While sometimes hard to detect, a deficient cooling tower forces other system components to work harder to make up for its shortcomings. In an air conditioning application, this burden is imposed upon the chiller. If the cooling tower cannot reject the required load at the lowest possible temperatures, the chiller is forced to operate against a condensing pressure higher than necessary, thereby consuming considerably more energy. This may not affect building comfort levels except at peak conditions, but it will increase operating costs year-round. A tower that is 20% underrated will cost the owner three to four times the original price of the tower in added energy costs! Why take a chance – insist on CTI certified performance!

Specify CTI Certification for ALL Your Cooling Tower Needs

The equipment sections of this handbook include suggested specifications for each product. When adding verbiage to an existing specification, suggested wording is as follows:

“The thermal performance shall be certified by the Cooling Technology Institute in accordance with CTI Standard STD-201 or, lacking such certification, a field acceptance test shall be conducted within the warranty period in accordance with CTI Acceptance Test Code ATC-105, by the Cooling Technology Institute, or other qualified independent third-party testing agency, licensed by CTI. Tests performed by the manufacturer’s personnel are not acceptable.”

Performance Testing in BAC’s R&D Facility