AMCA ANNOUNCES THE PUBLICATION OF ANSI/AMCA STANDARD 220-21—LABORATORY METHODS OF TESTING AIR CURTAIN UNITS FOR AERODYNAMIC PERFORMANCE RATING


The purpose of this standard is to establish uniform methods for laboratory testing of air curtain units (ACUs) to determine aerodynamic performance in terms of airflow rate, ACU outlet air velocity uniformity, electrical power consumption and air velocity projection for rating, guarantee, or code compliance purposes.

It is not the purpose of this standard to specify the testing procedures to be used for design, production, or field testing.

Key changes addressed in this revision include:

1. AMCA 210 reference to AMCA 210-16 updated.
2. Definitions revised to harmonize with AMCA 99. Definitions added for new methodologies described below.
   a. Created new methodology utilizing a discharge plane and Normal Vector to address testing Air Curtain Units (ACU’s) that do not have a discharge nozzle construction or geometry normal to the direction of airflow.
   b. Created new methodology to address setup of ACU’s with more than one active discharge nozzle.
3. Clarified nozzle discharge angles required to be used during the test with text and additional figures.
4. Clarified when the velocity projection test is terminated when a minimum average air curtain core velocity is specified.
5. Deleted the section on the calculation of ACU Efficiency which was actually ACU Fan Efficiency and not an accurate representation of product effectiveness. Research is underway to replace this section with new Effectiveness Rating methodology.
6. Adopted a specifically formatted version for input boundaries from AMCA 210 for ACU Power Rating, that takes into consideration motor control losses.
The publication is available for purchase through the AMCA store at $45 for members and $90 for non-members. Please CLICK HERE for a copy. If you have any questions, please direct them to Joe Brooks, Director of Publications & Standards (jbrooks@amca.org) or Shruti Kohli-Bhargava, Manager of Publications & Standards (shrutik@amca.org).

About AMCA International
Air Movement and Control Association (AMCA) International Inc. is a not-for-profit association of manufacturers of fans, dampers, louvers, air curtains, and other air-system components for commercial HVAC, industrial-process, and power-generation applications. With programs such as certified ratings, laboratory accreditation, verification of compliance, and international-standards development, its mission is to advance the health, growth, and integrity of the air-movement-and-control industry consistent with the interests of the public. For more information about AMCA, visit www.amca.org.