Ice Production FAQ Information Sheet

Understanding Ice Production Measurement & Terminology

How is Ice Production Defined?

- Ice production is defined as the weight of ice made over a 24 hr. period of time.

What Parameters Affect Ice Production?

- Ambient air temperature and incoming water temperature are the most common factors that affect ice production. Higher temperatures can equate to less production/efficiency.
- Water quality and the age/condition of the ice machine can also impact ice production.
- Typically, 24 hr. production is based on an operating environment of:

OR

  - 90°F/32°C Air + 70°F/21°C Water Temperatures *(Typical Conditions)*
  - 70°F/21°C Air + 50°F/10°C Water Temperatures *(Ideal Conditions)*

What is "AHRI"?

- The AHRI (Air Conditioning, Heating and Refrigeration Institute) Product Performance Certification Program is a voluntary program, administered and governed by AHRI, which ensures that various types of heating, ventilation, air conditioning, refrigeration and water heating products perform according to manufacturers' published claims.
- Products that are certified through the AHRI Product Performance Certification Program are continuously tested by an Independent Third-party Laboratory to determine the product's ability to conform to product rating standards or specifications.

What is "AHRI" Ice Harvest Rate?

- The AHRI ice harvest rate calculates 24 hr. production based on an operating environment of 90°F/32°C Air + 70°F/21°C Water Temperatures (typical operating conditions).

Why Might Ice Production Differ From Published Values?

- Actual ice production may not match published values due to variances in air/water temperatures, breathability (air-cooled only), and line set lengths (remote only). Additionally, the methodology of conducting testing or collecting data may vary. However, most manufacturers use a test protocol defined by AHRI standards (AHRI Operations Manual).

How is Cube (Batch-Style) Ice Making Different than Nugget/Flake (Continuous-Style)?

- Traditional cube forms are produced in a "waffled" evaporator. As water passes over the evaporator, heat is removed during the ice making process. Once full cubes have formed, they are harvested as a batch (the entire slab falls into the bin), and this process restarts.
- Nugget/Flake ice is formed in a continuous cycle. Rather than having to wait for a batch to be harvested, water flows inside of an enclosed cylinder with a spinning auger. As heat is removed from the water, the auger pushes the "slushy" mix upwards through a series of extruder holes. The ice will then fall to the bin in a continuous manner.

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