

FEATURES, ADVANTAGES & BENEFITS OF FLAKE ICE

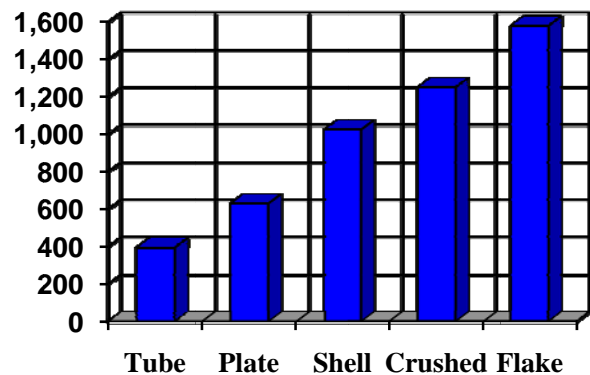
Flake ice differs from other types of ice in a number of important ways, and all flake ice makers are not the same. The unique features of North Star’s flake ice makers make them an effective and economical choice for many cooling needs in food related applications and other types of processes.

Faster Cooling: Flake ice has more than 17,000 square feet (1,579 square meters) of surface area per ton of ice, providing greater cooling efficiency than any other ice. Other types of ice, such as tube, plate, shell or crushed, offer only 4,250 to 13,500 square feet (395 to 1,254 square meters) of cooling surface area per ton of ice.

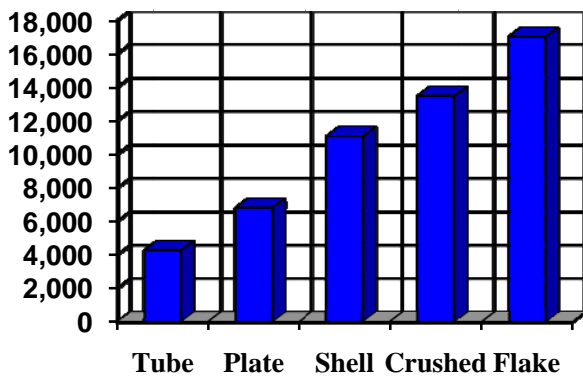
Better product coverage: Flake ice is formed in flat flakes which flow more freely and provide greater contact area than any other type of ice. Ice thickness can be changed from 1.5 to 2.0 mm with simple adjustments to the machine.

Thorough product mixing: Flake ice melts rapidly to dissipate heat and add moisture to mixtures, aiding the blending process, and will not damage blending equipment.

Approximate Cooling Surface Area in Square Meters Per Ton



Approximate Cooling Surface Area in Square Feet Per Ton



Greater product protection: Flake ice remains dry, packs well and cushions products against damage. Its flat shape will not create indentations in perishable products.

Cost-effective production: Flake ice is economical to produce, requiring only 1.3 tons of refrigeration per ton of ice from 60°F (16°C) water.

Easier storage and distribution: Flake ice is completely dry, so it will not rapidly fuse together in a low-temperature storage bin or clog screw conveyors or pneumatic delivery systems. It also

has the ability to form a thin crust in a vessel hold or use bin which preserves the ice for use at a later time. By breaking the thin crust, dry subcooled ice flakes are available for immediate use for product cooling or re-handling.