

No Ice Maker Delivers More

Versatile

Makes ice from fresh water, seawater or other liquids.

Uses standard or ozone-friendly refrigerants.

Can be installed on land or aboard ships with a broad range of power options.

Approved by the USDA for use in food processing plants.

Choose either a solid carbon or stainless steel freezing surface.

Manufactured with standard stainless steel water makeup tank and ice removal tools. Other stainless steel options are available.

Combine two or more models for greater ice making capacity.

Economical

Produces more ice than any other ice maker using an equally rated compressor.

Operates continuously with no defrost cycles.

Makes the coldest ice with better cooling power than any other ice maker.

Reduces refrigeration losses with insulated fiberglass enclosure.

Converts all water to ice without water loss.

Saves space with compact design.

Installs easily and requires minimal maintenance.

Dependable

Designed with only one major moving part and no refrigerant seals.

Built for industrial use with high quality heavy-duty parts. No other ice maker is as compact and heavy-duty as North Star.

Covered by a three year warranty on all North Star produced parts and a North Star performance guarantee.



Ice Maker Specifications

Model numbers indicate the square feet of freezing surface for each model. "CS" designates a carbon steel freezing surface; "SS" indicates a stainless steel freezing surface.

Product Specifications			Dimensions			Shipping Information			
Model	Motor Drive	Pump	Capacity	Height	Width	Length	Domestic Wt	Export Wt	Volume
5SS/—	1/4 hp dc .19 kw	1/30 hp .03 kw	3.0/ — tons* 2.7/ — MT	44 in 1,118 mm	25 in 635 mm	38 in 965 mm	550 lbs 250 kg	650 lbs 295 kg	60 ft ³ 1.7 m ³
10SS/CS	1/3 hp .25 kw	1/20 hp .04 kw	4.7/ 6.0 tons* 4.3/ 5.4 MT	45 in 1,143 mm	32 in 813 mm	48 in 1,219 mm	1,350 lbs 614 kg	1,500 lbs 682 kg	70 ft ³ 2.0 m ³
20SS/CS	1/2 hp .38 kw	1/2 hp .38 kw	11.4/ 14.0 tons* 10.3/ 12.7 MT	51 in 1,295 mm	56 in 1,422 mm	83 in 2,108 mm	3,800 lbs 1,727 kg	4,000 lbs 1,818 kg	240 ft ³ 6.8 m ³
40SS/CS	3/4 hp .56 kw	1/2 hp .38 kw	19.7/ 22.8 tons* 17.9/ 20.7 MT	75 in 1,905 mm	56 in 1,422 mm	83 in 2,108 mm	5,200 lbs 2,364 kg	5,700 lbs 2,591 kg	326 ft ³ 9.2 m ³
60SS/CS	1.00 hp .75 kw	1/2 hp .38 kw	29.8/ 38.0 tons* 27.0/ 34.5 MT	81 in 2,057 mm	76 in 1,930 mm	107 in 2,718 mm	8,100 lbs 3,632 kg	8,500 lbs 3,864 kg	510 ft ³ 14.4 m ³
90SS/CS	1 1/2 hp 1.13 kw	1/2 hp .38 kw	41.0/ 53.5 tons* 37.2/ 48.5 MT	105 in 2,667 mm	76 in 1,930 mm	109 in 2,769 mm	10,500 lbs 4,773 kg	11,200 lbs 5,091 kg	645 ft ³ 18.3 m ³

* Capacity in 2,000 pound tons (909 kg) per 24 hours with -25° F (-32° C) evaporator and 60° F (16° C) water supply temperatures, 1/16" (1.5 mm) ice thickness and ammonia refrigerant. For other requirements and conditions consult North Star or refer to our capacity guidance curves (IMC-2-SS or -CS).

Specifications subject to change without notice.

North Star: The World Leader In Flake Ice Technology

Since 1950, North Star Ice Equipment Corporation has been known the world over for its line of flake ice makers and ice handling systems. The company's product line includes ice rakes and storage systems, ice delivery systems, containerized ice plants and other related products. North Star ice systems are now operating in over 90 countries in a wide variety of applications.

Seafood

Fishing, aquaculture, at-sea & land-based processing, holding, transportation & display

Produce

Perishable cooling & transport

Meat & Poultry

Processing & value-added products

Bakery

Dough cooling

Chemical

Dye & chemical manufacturing

Construction

Concrete cooling

Grocery

Perishable food holding & display

Recreation

Ski resort snow-making

North Star

North Star Ice Equipment Corporation
P.O. Box 80227 • 8151 Occidental Ave. S.
Seattle, WA 98108-0227 USA
Telephone: (206) 763-7300
Toll-free in USA: 1-800-321-1381
Fax: (206) 763-7323
E-mail: info@northstarice.com
Web Site: www.northstarice.com

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North Star Ice Equipment



Industrial
Flake Ice
Makers

North Star

North Star® Flake Ice Makers

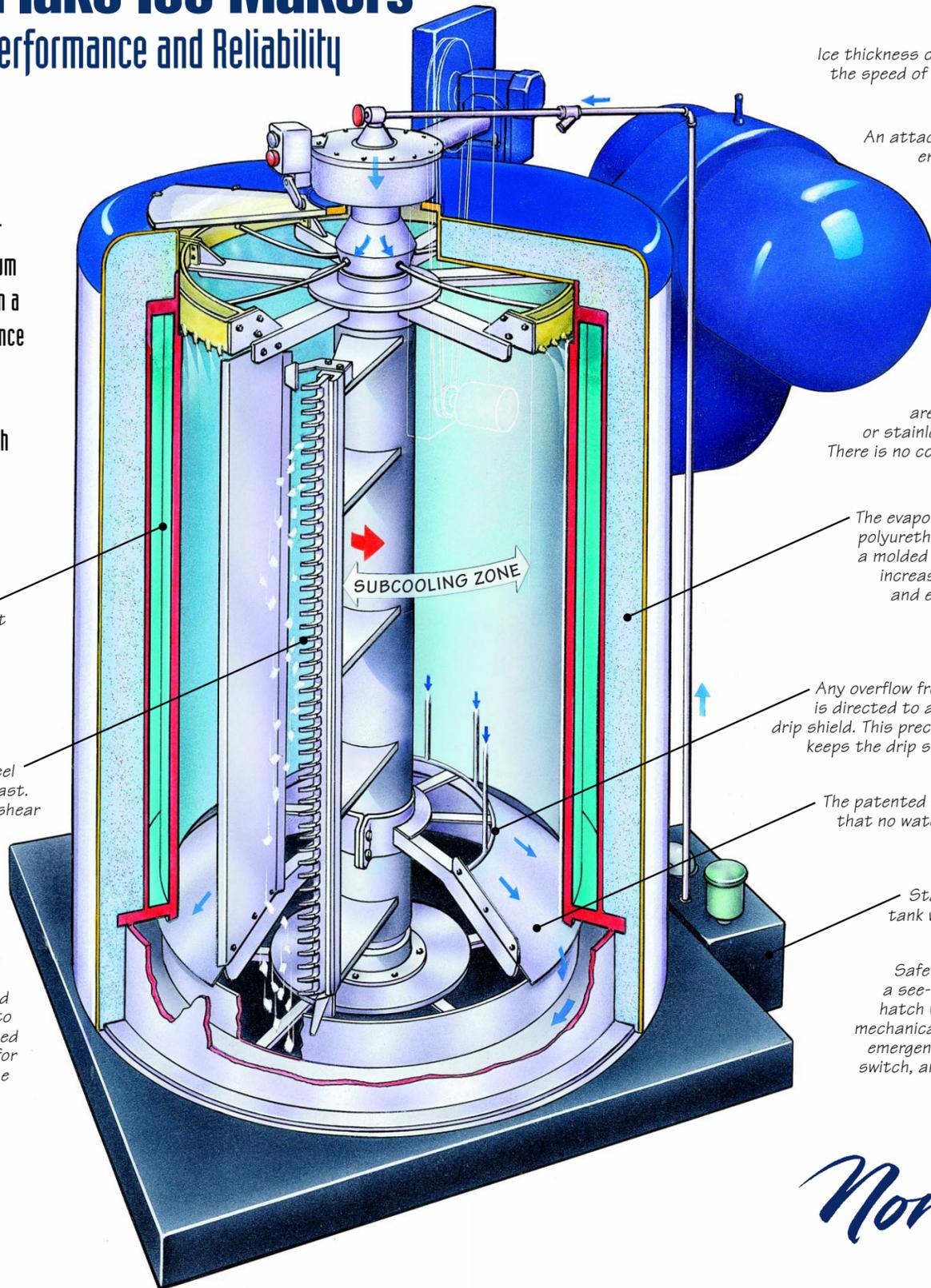
Proven Design, Performance and Reliability

Since 1950, North Star Ice Equipment has led the world in the design and manufacture of high-capacity industrial flake ice makers. Often copied but never equaled, North Star's simple, vertical drum design and expert construction results in a low stress, low wear, and low maintenance ice maker that is simple to install and operate. The compact, economical unit produces totally subcooled flake ice with efficiency and reliability unmatched by other ice machines.

The stationary double-walled evaporator is designed without seals to eliminate refrigerant leaks. The unit uses ammonia, ozone-friendly refrigerants, glycol, or brine in flooded or pump recirculation systems.

Investment cast stainless steel ice removal tools are built to last. The tools hold their edge and shear the ice without touching the freezing surface.

North Star ice can be subcooled as low as 0° F, eliminating the need for mechanical devices to dry the ice. Dry, subcooled ice is more free flowing for better long term storage and handling.



Ice thickness can be varied in the field by changing the speed of the rotor at the external drive unit.

An attached insulated accumulator ensures accurate refrigerant level control and complete separation of liquid and gas refrigerant.

The high efficiency evaporator produces cold, dry ice with more cooling power than any other ice maker on the market today. Evaporators are available with solid carbon or stainless steel freezing surfaces. There is no coating or plating to chip off.

The evaporator is encased in polyurethane insulation with a molded fiberglass cover to increase energy efficiency and eliminate corrosion.

Any overflow from the water rings is directed to a spray tube on the drip shield. This pre-cools the water and keeps the drip shield from freezing.

The patented drip shield ensures that no water falls into the ice storage bin.

Stainless steel water tank with optional cover.

Safety features include a see-through inspection hatch with safety switch, mechanical load limit switch, emergency stop switch, jog switch, and drive belt guard.

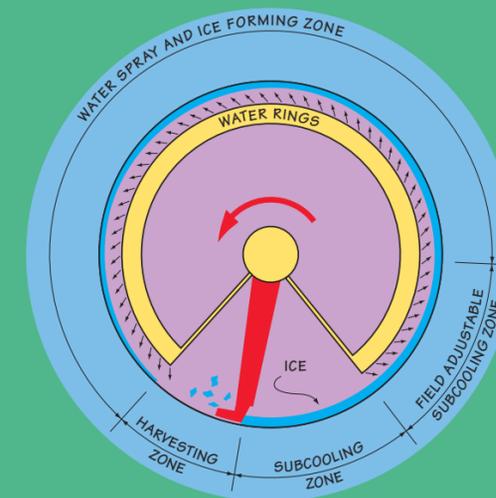
Built for Years of Trouble-Free Operation

Six North Star models produce between two and 56 tons of ice continuously with no defrost cycles to interrupt the supply.

To begin the ice-making process, water is pumped from the stainless steel recirculating water tank to the top of the rotor. It is then distributed to the freezing surface via high-density plastic water rings.

The water freezes immediately on contact with the freezing surface, then is thoroughly subcooled to make dry flake ice with superior cooling power. The temperature of the ice can be easily adjusted by changing the subcooling zone located ahead of the ice removal tools.

After subcooling, the ice is sheared from the surface by the ice removal tools and falls out of the bottom of the ice maker. Any water that does not freeze returns to the water tank for recirculation.



North Star Makes Better Ice



North Star flake ice is the most effective and economical choice for your cooling needs.

Faster cooling and mixing

North Star flake ice provides more than 17,000 square feet of cooling surface area per ton of ice for the greatest cooling efficiency. Other types of ice offer only 4,260 to 11,050 square feet of cooling surface area. Thorough subcooling also ensures that North Star flake ice contains more BTUs per ton than any other type of ice.

Greater product protection

North Star flake ice stays dry, packs well and cushions products against damage. Its flat shape will not create indentations in perishable products.

Better product coverage

Flat ice flakes flow more freely and provide greater contact area than other types of ice.

Easier storage and distribution

Because North Star flake ice is completely dry, it remains free-flowing in a low-temperature storage bin and conveys easily via screw or pneumatic systems.

North Star®