

*North Star.*

# MODEL 90 FLAKE ICE MAKER SPECIFICATION SHEET

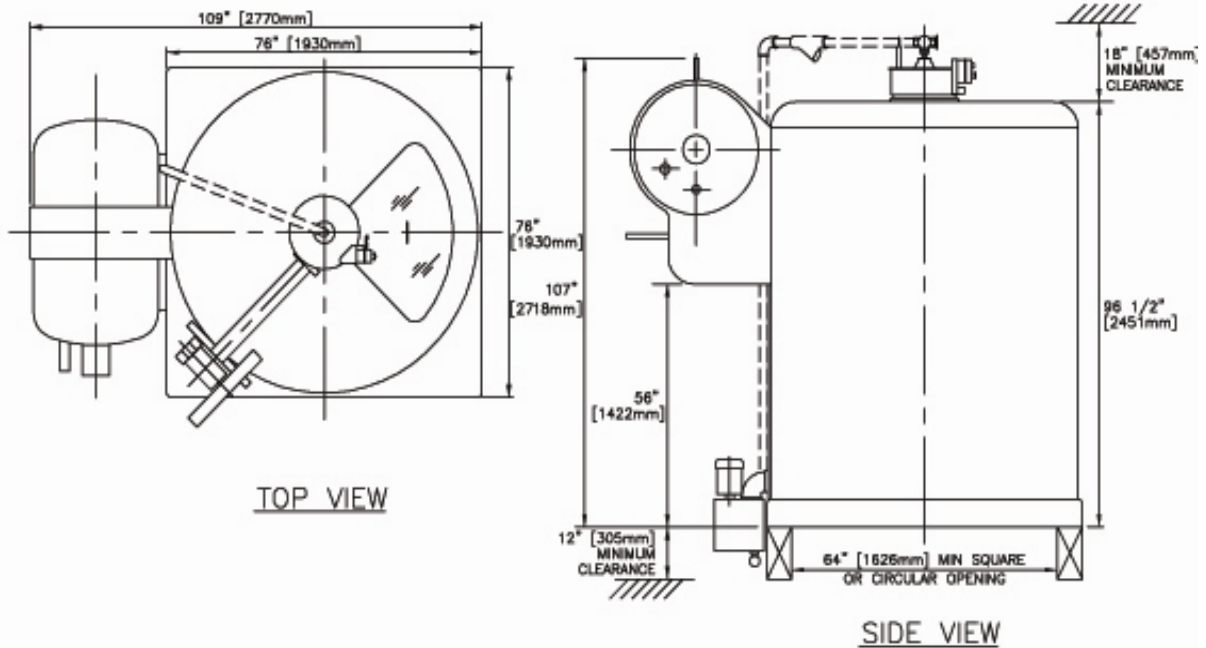


## STANDARD FEATURES

- ◆ Double walled, stationary evaporator. No refrigerant seals to leak.
- ◆ Available with either a solid carbon or stainless steel freezing surface.
- ◆ Protection and safety features include mechanical load limit switch, emergency stop switch, jog switch, inspection hatch safety switch and a drive belt guard.
- ◆ Machine available for shipboard installation to produce seawater ice.
- ◆ Polyurethane insulation enclosed in molded fiberglass covers.
- ◆ Attached accumulator for complete gas- liquid refrigerant separation. (Flooded operation)
- ◆ Patented drip shield to insure complete water-ice separation.
- ◆ Stainless steel water make-up tank and ice removal tools are standard. Other stainless steel options are available.
- ◆ Economical, compact, simple to install and operate with minimal maintenance.
- ◆ LIFETIME WARRANTY on North Star evaporators and PERFORMANCE GUARANTEE.

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# North Star Model 90 Operating Data



**Refrigerant Control:** Sporlan Levelmaster or RFS (Refrigerant Float Switch)

**WEIGHT:** 10,500 lbs - 4,763 kg  
**VOLUME:** 645 cu ft - 18.3 cu mtr  
**DRIVE MOTOR:** 1.50 HP  
**PUMP MOTOR:** 0.50 HP  
**SUCTION LINE:** 6" Sch 40  
**LIQUID LINE:** 2" Sch 80

**OIL DRAIN LINE:** 1/2" MPT  
**WATER LINE:**  
**Tank Inlet:** 1/2" FPT  
**Tank Drain:** 1 1/4" FPT  
**Pump Outlet:** 1 1/4" FPT  
**Flow Control Valve Inlet:** 1 1/2" FPT

REFRIGERANT CAPACITY (Volume 17.1 Cubic Feet - .48 Cubic Meters)				REFRIGERATION REQUIREMENT (Tons of Refrigeration Per Ton of Ice)					
<b>Freon R-134a</b>	1,400 lbs (635 kg)	<b>Freon R-404a</b>	1,350 lbs (612 kg)	<b>Water Temperature °F</b>	40	50	60	70	80
<b>Freon R-22</b>	1,300 lbs (590 kg)	<b>Ammonia R-717</b>	650 lbs (295 kg)	<b>Tons of Refrigeration</b>	1.20	1.25	1.30	1.40	1.50

## ICE MAKING CAPACITY RANGE GUIDELINE

Evaporator Temperature (°F)	+5	0	-5	-10	-15	-20	-25	-30
<b>Stainless Steel Model</b>	<i>18.3</i> 21.2	<i>21.0</i> 24.5	<i>23.7</i> 27.8	<i>26.6</i> 31.4	<i>29.6</i> 34.9	<i>32.7</i> 38.1	<i>35.6</i> 41.0	<i>38.0</i> 43.2
<b>Carbon Steel Model</b>	<i>19.5</i> 23.0	<i>24.0</i> 29.2	<i>28.3</i> 34.2	<i>32.7</i> 39.2	<i>37.0</i> 44.0	<i>41.2</i> 48.9	<i>45.0</i> 53.0	<i>48.0</i> 56.0

\*Capacity based on tons (2,000 pounds) per 24 hours, 1.5 to 2.0mm ice thickness, 60°F make-up water, and oil-free ammonia refrigerant. For other operating conditions and specific capacities, refer to our capacity curves or visit the Ice Maker Selection Tool on our web site at [www.northstarice.com](http://www.northstarice.com). Capacities in *italics* are 2.0mm ice thickness.

**WATER REQUIREMENT: 0.167 GPM PER TON OF ICE PER 24 HOURS**

## THERE'S ONLY ONE NORTH STAR