MANITOWOC ICE
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Service Bulletin

Subject: Technical Specifications

UP0050 MODELS

GENERAL SPECIFICATIONS			
Operating Temperatures	Minimum 50°F (10°C) Maximum 110°F (43°C)		**Cube - Octagon Shape** **"Gourmet"** 1.375 in x 1.375 in (3.94 cm x 3.94 cm)
Refrigerant Charge (R-290)	2.5 oz (0.07 kg)		
Ice Making Water Inlet	0.25" OD Copper (6 mm)	Water Temperature - Minimum 35°F (1.6°C) Maximum 90°F (32.2°C)	Water Pressure - Minimum 20 psig (1.38 bar) Maximum 80 psig (5.52 bar)
Ice Making Water Drain	0.75" Hose Barb (6 mm)		
Drain Pump - K00376	0.375" Hose Barb (9 mm)		
Potable Water	29 gallons per 100 lbs of ice 110 liters per 45.5 kg of ice		
Compressor Nominal Rating	1/6 HP		
Heat of Rejection	Air Conditioning 1,145 BTU/hr (289 kcal/hr)	Peak 2,300 BTU/hr (560 kcal/hr)	
High Pressure Settings	Cut-in - 200 psig (13.8 bar)	Cut-out - 450 psig (31.0 bar)	
	Height	**Width**	**Depth**
Unit Dimensions	33.5 in (85.1 cm)	14.75 in (37.5 cm)	23.0 in (58.4 cm)
Cabinet Cut-out Dimensions	35.0 in (88.9 cm)	15.0 in (38.1 cm)	26.0 in (66.0 cm)
Water Filter	AR-2800		

Electrical	**Air-cooled Models**
115V/60 Hz/1 Ph	Min Circuit Amps - 4.1 Max Fuse Size - 15 amp
Power Cord	6 ft (182 cm) NEMA 5-15P plug
Power kwh/100 lbs @90°/70°F	12.0 Kwh

Manitowoc Metal Safe De-scaler (removes lime scale and mineral deposits)	000000084
Manitowoc Sanitizer (disinfects and removes algae and slime)	9405653

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Entering Condenser °F / °C	Water Temperature 50°F 10°C	70°F 21°C	90°F 32°C	Harvest Time
70°F 21°C	20-22	22-23	22-24	2.0-3.5
80°F 27°C	24-26	25-27	26-28	
90°F 32°C	26-28	27-29	28-30	
100°F 38°C	28-30	29-31	31-33	
110°F 43°C	39-41	40-42	41-43	

Freeze Time in minutes.
Cycle times and pressures vary with operating condition.

24 Hour Ice Production

Air Temperature Entering Condenser	Water Temperature 50°F 10°C	70°F 21°C	90°F 32°C
70°F 21°C	42 lbs 19.0 kgs	39 lbs 18.0 kgs	34 lbs 15.5 kgs
80°F 27°C	15.0 lbs 23 kgs	33 lbs 15.0 kgs	33 lbs 15.0 kgs
90°F 32°C	32 lbs 14.5 kgs	32 lbs 14.5 kgs	28 lbs 13.0 kgs
100°F 38°C	26 lbs 12.0 kgs	25 lbs 11.5 kgs	24 lbs 11.0 kgs
110°F 43°C	23 lbs 10.5 kgs	23 lbs 10.5 kgs	22 lbs 10.0 kgs

Ice weight of one harvest cycle = 10 oz to 11.4 oz (286 g to 322 g).
Cubes of one harvest cycle = 16
Individual Cube Weight - 0.70 oz (30 g)

Operating Temperatures - Freeze Cycle

Air Temperature Entering Condenser °F / °C	Discharge Line Temperature °F / °C	Suction Line Temperature °F / °C	Harvest Line Inlet Temperature °F / °C
50°F 10°C	115-130°F 46.1-54.4°C	60-50°F 15.5-10.0°C	85-68°F 29.4-20.0°C
70°F 21°C	130-160°F 54.4-71.1°C	85-68°F 29.4-20.0°C	108-95°F 42.2-35.0°C
80°F 27°C	150-180°F 65.5-82.2°C	88-70°F 31.1-21.1°C	120-108°F 48.8-42.2°C
90°F 32°C	170-185°F 76.6-85.0°C	102-92°F 38.8-33.3°C	128-118°F 53.3-47.7°C
100°F 38°C	190-210°F 87.7-98.8°C	105-95°F 40.5-35.0°C	145-130°F 62.7-54.4°C
110°F 43°C	210-220°F 98.8-104.4°C	110-100°F 43.3-37.7°C	146-138°F 63.3-58.8°C

Operating Temperatures - Harvest Cycle

Air Temperature Entering Condenser °F / °C	Discharge Line Temperature °F / °C	Suction Line Temperature °F / °C
50°F 10°C	120-105°F 48.8-40.5°C	40-60°F 4.4-15.5°C
70°F 21°C	150-125°F 65.5-51.6°C	60-75°F 15.5-23.8°C
80°F 27°C	170-140°F 76.6-60.0°C	62-98°F 16.6-36.6°C
90°F 32°C	175-150°F 79.4-65.5°C	65-101°F 18.3-38.3°C
100°F 38°C	200-165°F 93.3-73.8°C	70-114°F 21.1-45.5°C
110°F 43°C	205-170°F 96.1-76.6°C	75-120°F 23.8-48.8°C

Suction pressure drops gradually throughout the freeze cycle