MANITOWOC ICE
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Service Bulletin

Subject: UP0140 Technical Specifications

AIR-COOLED MODELS

GENERAL SPECIFICATIONS			
Operating Temperatures	Minimum 50°F (10°C) Maximum 100°F (38°C)		
Refrigerant Charge (R-290)	4.9 oz (140 g)		
Ice Making Water Inlet	Connection Size - 3/8" FPT (Female Pipe Thread)	Water Temperature - Minimum 40°F (4.4°C) Maximum 90°F (32°C)	Water Pressure - Minimum 20 psig (1.3 bar) Maximum 80 psig (5.5 bar)
Ice Making Water Drain	Connection Size - 1/2" FPT (Female Pipe Thread)		
Potable Water	17 gallons per 100 lbs of ice 64.35 liters per 45.5 kg of ice		
Electrical	**115V/60 Hz/1 Ph**	**230V/50 Hz/1 Ph**	**Energy Usage** **Kwh / 100 lbs**
	Min Circuit Amps - 5.0 Max Fuse Size - 15 amp	Min Circuit Amps - 2.5 Max Fuse Size - 15 amp	7.25 Kwh
Compressor Nominal Rating	0.33 HP		
Heat of Rejection	**Air Conditioning** 2,500 BTU/hr (630 kcal/hr)	**Peak** 2,900 BTU/hr (731 kcal/hr)	
Fan Cycle Control	Cut-in - 200 psig (14 bar)	Cut-out - 150 psig (10 bar)	
High Pressure Settings	Cut-in - 250 psig (17 bar)	Cut-out - 350 psig (24 bar)	
Dimensions	**Height**	**Width**	**Depth**
	38.5 in (980 mm)	26.0 in (660 mm)	28.5 in (725 mm)
Clearances	**Top**	**Side**	**Back**
	5.0 in (130 mm)	5.0 in (130 mm)	5.0 in (130 mm)

Self Contained Air-cooled Ice Machines

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temp. Entering Condenser °F/°C	Freeze Time (Minutes)			Harvest Time
	Water Temperature			
	50°F 10°C	70°F 21°C	90°F 32°C	
70°F 21°C	10.2-11.7	12.3-13.7	13.0-14.8	1.0-2.5
80°F 27°C	11.2-12.9	13.0-14.9	14.5-16.5	
90°F 32°C	11.8-13.7	14.5-16.5	17.5-20.0	
100°F 38°C	14.6-16.5	17.6-20.0	17.5-21.5	
110°F 43°C	16.2-18.5	19.9-22.4	20.3-23.0	

Cycle times and pressures vary with operating condition.
Production and cycle times are for dice cube - Half dice cube cycle times can be 2 - 3 minutes faster, depending on water and ambient temperature

24 Hour Ice Production

Air Temp. Entering Condenser °F/°C	Water Temperature		
	50°F 10°C	70°F 21°C	90°F 32°C
70°F 21°C	130 lbs 59 kgs	110 lbs 50 kgs	105 lbs 48 kgs
80°F 27°C	120 lbs 54 kgs	105 lbs 48 kgs	95 lbs 43 kgs
90°F 32°C	115 lbs 52 kgs	95 lbs 43 kgs	85 lbs 39 kgs
100°F 38°C	95 lbs 43 kgs	85 lbs 39 kgs	80 lbs 36 kgs
110°F 43°C	85 lbs 39 kgs	80 lbs 36 kgs	70 lbs 32 kgs

Ice slab weight of one harvest cycle = 1.1 lbs to 1.4 lbs (0.49 kgs to 0.63 kgs).

Operating Pressures - Freeze Cycle

Air Temp. Entering Condenser °F/°C	Discharge Pressure	Suction Pressure
50°F 10°C	140-210 psig 9.7-14.5 bar	45-17 psig 3.1-1.2 bar
70°F 21°C	140-215 psig 9.7-14.8 bar	54-17 psig 3.7-1.2 bar
80°F 27°C	150-220 psig 10.3-15.2 bar	55-17 psig 3.8-1.2 bar
90°F 32°C	160-225 psig 11.0-15.5 bar	58-17 psig 4.0-1.2 bar
100°F 38°C	205-230 psig 14.1-15.9 bar	60-20 psig 4.1-1.4 bar
110°F 43°C	235-260 psig 16.2-18.0 bar	65-22 psig 4.5-1.5 bar

Operating Pressures - Harvest Cycle

Air Temp. Entering Condenser °F/°C	Discharge Pressure	Suction Pressure
50°F 10°C	95-120 psig 6.6-8.3 bar	65-95 psig 4.5-6.6 bar
70°F 21°C	100-120 psig 6.9-8.3 bar	70-95 psig 4.8-6.6 bar
80°F 27°C	105-120 psig 7.2-8.3 bar	75-95 psig 5.2-6.6 bar
90°F 32°C	120-140 psig 8.3-9.7 bar	90-114 psig 6.2-7.9 bar
100°F 38°C	140-160 psig 9.7-11.0 bar	110-135 psig 7.6-9.3 bar
110°F 43°C	160-185 psig 11.0-12.8 bar	100-155 psig 6.9-10.7 bar

Storage Capacity

Storage Bin Capacity*
90 lbs (40 kg)
*Storage Capacity is AHRI certified.

NOTE: Ice Production Derate %

- 60Hz Dice and Half Dice production derate as shown
- 60Hz Regular cube production derate is 7%.
- 50Hz Dice and Half Dice production derate is 12%.
- 50Hz Regular cube production derate is 14%.