MANITOWOC ICE
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Service Bulletin

Subject: IP0500 Technical Specifications

AIR-COOLED

50 HZ ONLY

GENERAL SPECIFICATIONS			
Operating Temperatures	Minimum 4.4°C Maximum 43°C		
Refrigerant Charge (R-290)	250 g		
Electrical 208-230V/50 Hz/1 Ph	Instant Power - 1109 W Min Circuit Amps - 2.0 amp Max Circuit Amps - 4.82 amp Max Fuse Size - 15 amp		**Energy Use Kwh / 45.5 kgs** Half Dice: 4.08 Kwh Dice: 4.39 Kwh Regular: 4.44 Kwh
Ice Making Water Inlet	Connection Size - 10 mm FPT (Female Pipe Thread)	Water Temperature - Minimum 4.4°C Maximum 32°C	Water Pressure - Minimum 1.4 bar Maximum 5.5 bar
Ice Making Water Drain	Connection Size - 13 mm FPT (Female Pipe Thread)		
Potable Water Use	55 liters per 45.5 kg of ice		
Compressor Nominal Rating	1.0 HP		
Heat of Rejection	Air Conditioning 946 kcal/hr (3753 BTU/hr)	Peak 1689 kcal/hr (6702 BTU/hr)	
Fan Cycle Control Settings	Cut-in - 17.23 bar ±0.34	Cut-out - 15.17 bar ±0.34	
High Pressure Settings	Cut-in - 17.23 bar ±0.69	Cut-out - 24.13 bar ±0.69	
Dimensions	**Height**	**Width**	**Depth**
	546 mm	762 mm	622 mm
Clearances	**Top**	**Side**	**Back**
	203 mm	203 mm	127 mm

Self Contained Air-cooled Ice Machines

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Around the Unit	Freeze Time (Minutes)			Harvest Time
	Water Temperature			
	10°C	21°C	32°C	
21°C	13.6-15.5	15.5-17.7	16.4-18.7	1-2.5
27°C	15.5-17.7	16.2-18.5	17.4-19.9	
32°C	16.2-18.5	16.9-19.3	19.2-21.9	
38°C	17.4-19.9	19.2-21.9	21.3-24.3	
43°C	18.9-21.5	21.0-23.9	23.5-26.8	

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 Temperature Around the Unit	Water Temperature		
	10°C	21°C	32°C
21°C	200 kgs	177 kgs	168 kgs
27°C	177 kgs	170 kgs	159 kgs
32°C	170 kgs	163 kgs	145 kgs
38°C	159 kgs	145 kgs	132 kgs
43°C	147 kgs	134 kgs	120 kgs

Ice slab weight of one harvest cycle = 2.1 kgs to 2.4 kgs.

Operating Temperatures - Freeze Cycle

Air Temperature Around the Unit	Discharge Temperature (°C) T2	Suction Temperature (°C) T4
10°C	57-74	9-4
21°C	60-77	10-6
27°C	66-88	16-10
32°C	77-93	18-11
38°C	88-107	19-17
43°C	93-110	19-18

Operating Temperatures - Harvest Cycle

Air Temperature Around the Unit	Discharge Temperature (°C) T2	Suction Temperature (°C) T4
10°C	52-38	2-7
21°C	54-41	2-7
27°C	54-63	3-10
32°C	54-66	7-13
38°C	60-79	9-18
43°C	63-82	10-18