MANITOWOC ICE
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Service Bulletin

Subject: Technical Specifications

IT0750N - REMOTE AIR-COOLED MODELS USED WITH JCT1200 - REMOTE CONDENSER

GENERAL SPECIFICATIONS			
Operating Temperatures	**IT0750N** Minimum 35°F (2°C) Maximum 110°F (43°C)	**JCT1200** Minimum -20°F (-29°C) Maximum 120°F (49°C)	
Refrigerant Charge (R-410A)	Line Set: 0’ to 50’ (0 m to 15 m) 7.0 lbs (3.2 kg)	Line Set: 51’ to 100’ (15.5 m to 30 m) add 2.0 lbs (0.9 kg)	
Electrical	208-230V/60 Hz/1 Ph Min Circuit Amps - 9.9 Max Fuse Size - 15 amp	208-230V/50 Hz/1 Ph Min Circuit Amps - 9.4 Max Fuse Size - 15 amp	Energy Usage Half Dice: 4.82 Kwh Dice 4.87 Kwh
Line Set (R-410A)	RT 20 / 35 / 50	Discharge Line: 1/2 in (13 mm)	Liquid Line: 5/16 in (7.9 mm)
Ice Making Water Inlet	Water Inlet Connection - 3/8” FPT (Female Pipe Thread)	Water Temperature - Minimum 40°F (4.4°C) Maximum 90°F (32°C)	Water Pressure - Minimum 20 psig (1.4 bar) Maximum 80 psig (5.5 bar)
Ice Making Water Drain	Connection - 1/2” FPT (Female Pipe Thread)		
Potable Water	17.7 gallons per 100 lbs of ice 67 liters per 45.5 kg of ice		
Heat of Rejection	Air Conditioning 12,800 BTU/hr (3,228 kcal/hr)	Peak 13,700 BTU/hr (3,455 kcal/hr)	
High Pressure Settings	Cut-in 450 psig (31 bar)	Cut-out 600 psig (41 bar)	
Dimensions	**Height**	**Width**	**Depth**
IT0750	21.5 in (546 mm)	30.0 in (762 mm)	24.0 in (610 mm)
JCT1200	34.0 in (863 mm)	24.5 in (623 mm)	28.0 in (712 mm)
Clearances	**Top**	**Sides**	**Bottom**
IT0750	8.0 in (203 mm)	8.0 in (203 mm)	5.0 in (130 mm)
JCT1200	36.0 in (910 mm)	24.0 in (610 mm)	16.0 in (410 mm)

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Entering Condenser °F / °C	Water Temperature			Harvest Time
	50°F 10°C	70°F 21°C	90°F 32°C	
70°F 21°C	8.1-9.1	9.0-10.1	9.7-11.0	0.75-2.0
80°F 27°C	8.8-9.9	9.5-10.6	10.1-11.5	
90°F 32°C	9.3-10.8	10.2-11.5	10.8-12.2	
100°F 38°C	10.3-12.1	11.2-13.2	12.0-14.0	

Freeze Time in minutes.
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 Entering Condenser	Water Temperature		
	50°F 10°C	70°F 21°C	90°F 32°C
70°F 21°C	720 lbs 326 kgs	660 lbs 299 kgs	610 lbs 277 kgs
80°F 27°C	700 lbs 318 kgs	650 lbs 295 kgs	585 lbs 265 kgs
90°F 32°C	660 lbs 299 kgs	600 lbs 272 kgs	545 lbs 247 kgs
100°F 38°C	575 lbs 261 kgs	525 lbs 238 kgs	460 lbs 209 kgs

Ice slab weight of one harvest cycle = 4.7 lbs to 5.1 lbs (2.1 kgs to 2.3 kgs).
230/50/1 is approximately 12% lower than 230/60/1.

Operating Pressures - Freeze Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
50°F 10°C	265-285 psig 18-20 bar	60-35 psig 4-2 bar
70°F 21°C	300-330 psig 21-23 bar	60-35 psig 4-2 bar
80°F 27°C	310-350 psig 22-24 bar	65-38 psig 5-3 bar
90°F 32°C	315-360 psig 22-24 bar	75-40 psig 5-3 bar
100°F 38°C	430-510 psig 30-35 bar	85-45 psig 6-3 bar
110°F 43°C	450-525 psig 31-36 bar	90-50 psig 6-4 bar

Operating Pressures - Harvest Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
50°F 10°C	180-225 psig 12-15 bar	105-140 psig 7-10 bar
70°F 21°C	200-240 psig 14-16 bar	120-180 psig 8-10 bar
80°F 27°C	200-240 psig 14-16 bar	120-180 psig 8-10 bar
90°F 32°C	275-320 psig 19-22 bar	135-200 psig 8-12 bar
100°F 38°C	310-360 psig 21-25 bar	150-220 psig 10-15 bar
110°F 43°C	310-360 psig 21-25 bar	160-230 psig 11-15 bar