MANITOWOC ICE
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Service Bulletin

Subject: Technical Specifications

IT0900N - REMOTE AIR-COOLED MODELS USED WITH JCT1200 - REMOTE CONDENSER

GENERAL SPECIFICATIONS			
Operating Temperatures	**IT0900N** 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) 7.5 lbs (3.4 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 - 11.7 Max Fuse Size - 15 amp	208-230V/50 Hz/1 Ph Min Circuit Amps - 7.1 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	20 gallons per 100 lbs of ice 76 liters per 45.5 kg of ice		
Heat of Rejection	Air Conditioning 12,700 BTU/hr (3,203 kcal/hr)	Peak 14,800 BTU/hr (3,732 kcal/hr)	
High Pressure Settings	Cut-in 450 psig (31 bar)	Cut-out 600 psig (41 bar)	
Dimensions	**Height**	**Width**	**Depth**
IT0900	26.5 in (673 mm)	30.0 in (762 mm)	24.5 in (622 mm)
JCT1200	34.0 in (863 mm)	24.5 in (623 mm)	28.0 in (712 mm)
Clearances	**Top**	**Sides**	**Bottom**
IT0900	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	9.6-10.9	10.5-12.3	11.3-13.5	0.75-2.5
80°F 27°C	9.9-11.5	10.8-12.7	11.7-13.7	
90°F 32°C	10.6-12.3	11.5-13.7	12.8-15.2	
100°F 38°C	11.8-14.0	13.0-15.5	14.8-17.5	

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	845 lbs 383 kgs	760 lbs 345 kgs	700 lbs 318 kgs
80°F 27°C	800 lbs 363 kgs	730 lbs 331 kgs	680 lbs 308 kgs
90°F 32°C	750 lbs 340 kgs	685 lbs 311 kgs	640 lbs 290 kgs
100°F 38°C	675 lbs 306 kgs	615 lbs 279 kgs	500 lbs 227 kgs

Ice slab weight of one harvest cycle = 6.2 lbs to 7.2 lbs (2.8 kgs to 3.3 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	280-320 psig 19-22 bar	68-35 psig 5-2 bar
70°F 21°C	300-345 psig 21-24 bar	70-38 psig 5-3 bar
80°F 27°C	310-360 psig 21-25 bar	73-39 psig 5-3 bar
90°F 32°C	315-366 psig 22-25 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	95-40 psig 7-3 bar

Operating Pressures - Harvest Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
50°F 10°C	180-235 psig 12-16 bar	95-110 psig bar
70°F 21°C	200-240 psig 14-17 bar	100-130 psig 7-9 bar
80°F 27°C	200-240 psig 14-17 bar	120-150 psig 8-10 bar
90°F 32°C	275-320 psig 19-22bar	135-165 psig 9-11 bar
100°F 38°C	310-360 psig 21-25 bar	140-180 psig 10-12 bar
110°F 43°C	310-360 psig 21-25 bar	150-190 psig 10-13 bar