MANITOWOC ICE
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Service Bulletin

Subject:Technical Specifications

IT1200C / CVDT1200

GENERAL SPECIFICATIONS			
Refrigerant Charge (R-410A)	Line Set Length: 0’ to 50’ (0 m to 15 m)	10.25 lbs (4.65 kg)	
	Line Set Length: 51’ to 100’ (15.5 m to 30 m)	Add 2 lbs (0.90 kg) Total: 12.25 lbs (5.56 kg)	
Line Set	RC-21 RC-31 RC-51	Suction Line: 0.625 in (15.9 mm)	Liquid Line: 0.375 in (9.5 mm)
S-Trap Kit required on rises above 20’ (6 m)	K-00172	0.625 in (15.9 mm) Tubing	
Ice Making Water Inlet	Water Inlet Connection - 0.375” FPT (Female Pipe Thread)	Water Temperature - Minimum 35°F (1.6°C) Maximum 110°F (43°C)	Water Pressure - Minimum 20 psig (1.38 bar) Maximum 80 psig (5.52 bar)
Ice Making Water Drain	Connection - 0.5” FPT (Female Pipe Thread)		
Potable Water	19.9 gallons per 100 lbs of ice 75.3 liters per 45.5 kg of ice		
Compressor Nominal Rating	1.75 HP		
Heat of Rejection	Air Conditioning 16,200 BTU/hr (4,082 kcal/hr)	Peak 19,100 BTU/hr (4,813 kcal/hr)	
High Pressure Settings	Cut-in - 450 psig (31.0 bar)	Cut-out - 600 psig (41.4 bar)	
Operating Temperatures	**IT1200C** Minimum 40°F (4.4°C) Maximum 110°F (43°C)	**CVDT1200** Minimum -20°F (-29°C) Maximum 120°F (48.9°C)	
Electrical	**IT1200C** 115V/60 Hz/1 Ph Max Fuse - 15 amp Total Amps - 1.2	**CVDT1200** 208-230V/60 Hz/1 Ph Max Fuse - 25 amp Min Circuit Amps - 14.8 amp	**CVDT1200** 208-230V/60 Hz/3 Ph Max Fuse - 15 amp Min Circuit Amps - 9.3 amp
Energy Usage Kwh / 100 lbs	Half Dice Models 4.5 Kwh	Dice Models 4.5 Kwh	
Dimensions	**Height**	**Width**	**Depth**
IT1200C	29.5 in (749 mm)	30.0 in (762 mm)	24.5 in (622 mm)
CVDT1200	25.75 in (654 cm)	34.0 in (864 mm)	24.13 in (613 mm)

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Around the Unit	Freeze Time (Minutes) Water Temperature 50°F 10°C	70°F 21°C	90°F 32°C	Harvest Time
-20 to 70°F -29 to 21°C	6.4 - 7.7	7.4 - 8.8	7.8 - 9.4	0.75 - 2.5
80°F 27°C	7.2 - 8.6	7.7 - 9.1	8.2 - 9.7	
90°F 32°C	7.6 - 9.0	8.0 - 9.5	8.8 - 10.4	
100°F 38°C	8.3 - 9.9	8.5 - 10.1	9.9 - 11.8	
110°F 43°C	8.9 - 10.6	9.7 - 11.5	10.5 - 12.4	

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.
Times are in minutes.

24 Hour Ice Production

Air Temperature Around the Unit	Water Temperature 50°F 10°C	70°F 21°C	90°F 32°C
-20 to 70°F -29 to 21°C	1075 lbs 488 kgs	1005 lbs 456 kgs	955 lbs 433 kgs
80°F 27°C	1025 lbs 465 kgs	975 lbs 442 kgs	925 lbs 420 kgs
90°F 32°C	985 lbs 447 kgs	940 lbs 426 kgs	870 lbs 395 kgs
100°F 38°C	910 lbs 413 kgs	890 lbs 404 kgs	780 lbs 354 kgs
110°F 43°C	860 lbs 390 kgs	800 lbs 363 kgs	745 lbs 338 kgs

Ice slab weight of one harvest cycle = 6.2 lbs to 7.2 lbs (2.8 kgs to 3.3 kgs).
230V/50 Hz/1 Ph is approximately 12% lower than 230V/60 Hz/1 Ph

Operating Pressures - Freeze Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
-20 to 50°F -29 to 10°C	230-340 psig 15.9-23.4 bar	70-40 psig 4.8-2.75 bar
70°F 21°C	275-350 psig 19.0-24.1 bar	70-40 psig 4.8-2.75 bar
80°F 27°C	290-360 psig 20.0-24.8 bar	70-41 psig 4.8-2.8 bar
90°F 32°C	310-370 psig 21.4-25.5 bar	75-41 psig 5.2-2.8 bar
100°F 38°C	365-470 psig 25.2-32.4 bar	90-44 psig 6.2-3.0 bar
110°F 43°C	375-480 psig 25.9-33.1 bar	90-45 psig 6.2-3.1 bar

Operating Pressures - Harvest Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
-20 to 50°F -29 to 10°C	155-200 psig 10.7-13.8 bar	110-135 psig 7.6-9.3 bar
70°F 21°C	160-210 psig 11.0-14.5 bar	110-130 psig 7.6-9.0 bar
80°F 27°C	170-210 psig 11.7-14.5 bar	115-140 psig 7.9-9.7 bar
90°F 32°C	180-210 psig 12.4-14.5 bar	120-140 psig 8.3-9.7 bar
100°F 38°C	220-315 psig 15.2-21.7 bar	130-175 psig 9.0-12.1 bar
110°F 43°C	225-320 psig 15.5-22.0 bar	150-175 psig 10.3-12.1 bar