MANITOWOC ICE
2110 SOUTH 26TH STREET, MANITOWOC, WI 54220

800-545-5720
WWW.MANITOWOCICE.COM

Service Bulletin

Subject: Technical Specifications

IT2130C - QUIETQUBE HEAD SECTION USED WITH CVDT2100 AIR-COOLED CONDENSING UNIT

GENERAL SPECIFICATIONS			
Operating Temperatures	**IT2130C** Minimum 35°F (2°C) Maximum 110°F (43°C)	**CVDT2100** Minimum -20°F (-29°C) Maximum 120°F (49°C)	
Refrigerant Charge (R-410A)	Line Set: 0' to 50' (0 m to 15 m) 18.0 lbs (8.2 kg)	Line Set: 51' to 100' (15.5 m to 30 m) add 2.0 lbs (0.9 kg)	Total Maximum Charge 20.0 lbs (9.1 kg)
Line Set (R-410A)	RC 30 / 50	Suction Line: 3/4 in (19 mm)	Liquid Line: 1/2 in (13 mm)
S Trap Kit Required on Rises Above 20' (6 m)	K-00166	3/4 in (19 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	13.7 gallons per 100 lbs of ice 52 liters per 45.5 kg of ice		
High Pressure Settings	Cut-in 450 psig (31 bar)	Cut-out 600 psig (41 bar)	
Dimensions	**Height**	**Width**	**Depth**
IT2130C	29.5 in (750 mm)	30.0 in (762 mm)	24.5 in (622 mm)
CVDT2100	25.75 in (654 mm)	53.0 in (1346 mm)	26.0 in (660 mm)
Clearances	**Top**	**Sides**	**Front / Back**
IT2130C	2.0 in (50 mm)	8.0 in (200 mm)	5.0 in (130 mm)
CVDT2100	24.0 in (610 mm)*	24.0 in (610 mm)*	48.0 in (1220 mm)
*Recommended for Servicing.			

Manitowoc De-scaler (removes lime scale and mineral deposits)	9405463
Manitowoc Sanitizer (disinfects and removes algae and slime)	9405653

Electrical			
IT2130C	**CVDT2100-261**	**CVDT2100-263**	**Energy Usage Kwh / 100 lbs**
115V/60 Hz/1 Ph Max Fuse - 15 amp Min Circuit Amps - 1.2	208-230V/60 Hz/1 Ph Max Fuse - 40 amp Min Circuit Amps - 24.1 amp Min Wire Size - #8 Solid Copper Conductor	208-230V/60 Hz/3 Ph Max Fuse - 30 amp Min Circuit Amps - 18.3 amp Min Wire Size - #10 Solid Copper Conductor	Half Dice: 4.43 Kwh Dice: 4.66 Kwh

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Entering Condenser °F / °C	Water Temperature 50°F 10°C	70°F 21°C	90°F 32°C	Harvest Time
-20 to 70/ -29 to 21	10.3 - 11.2	11.2 - 12.1	12.1 - 13.1	0.75-2.0
80°F 27°C	10.8 - 12.0	11.8 - 12.7	12.4 - 15.0	
90°F 32°C	12.1 - 13.1	11.9 - 13.1	12.5 - 16.0	
100°F 38°C	13.1 - 14.0	13.5 - 14.8	15.6 - 16.8	

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
-20 to 70/ -29 to 21	2000 lbs 907 kgs	1850 lbs 839 kgs	1710 lbs 776 kgs
80°F 27°C	1830 lbs 830 kgs	1750 lbs 794 kgs	1550 lbs 703 kgs
90°F 32°C	1750 lbs 794 kgs	1690 lbs 766 kgs	1425 lbs 646 kgs
100°F 38°C	1665 lbs 755 kgs	1530 lbs 694 kgs	1390 lbs 630 kgs

Ice slab weight of one harvest cycle =
16.0 lb to 17.25 lb (7.0 kg to 7.6 kg)
Per evaporator = 7.75 lb - 8.5 lb (3.5 kg to 3.8 kg)

Operating Pressures - Freeze Cycle

Air Temperature Around the Unit	Discharge Pressure psig (bar)	Suction Pressure psig (bar)
-20 to 50/ -29 to 21	275 - 310 psig 19 - 21 bar	75 - 38 psig 5 - 3 bar
70°F 21°C	285 - 320 psig 20 - 22 bar	80 - 40 psig 6 - 3 bar
80°F 27°C	295 - 335 psig 20 - 23 bar	85 - 43 psig 6 - 3 bar
90°F 32°C	335 - 375 psig 23 - 26 bar	90 - 45 psig 6 - 3 bar
100°F 38°C	345 - 400 psig 24 - 28 bar	95 - 50 psig 7 - 3 bar
110°F 43°C	350 - 510 psig 24 - 35 bar	105 - 55 psig 7 - 4 bar

Operating Pressures - Harvest Cycle

Air Temperature Around the Unit	Discharge Pressure psig (bar)	Suction Pressure psig (bar)
50°F 10°C	115 - 195 psig 8 - 13 bar	85 - 110 psig 6 - 8 bar
70°F 21°C	135 - 225 psig 9 - 16 bar	95 - 115 psig 7 - 8 bar
80°F 27°C	150 - 240 psig 10 - 17 bar	105 - 135 psig 7 - 9 bar
90°F 32°C	165 - 260 psig 11 - 18 bar	120 - 150 psig 8 - 10 bar
100°F 38°C	180 - 280 psig 12 - 19 bar	130 - 165 psig 9 - 11 bar
110°F 43°C	215 - 300 psig 15 - 21 bar	130 - 185 psig 9 - 13 bar