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Service Bulletin

IT0300 Ice Machines

CYCLE TIMES/24 HOUR ICE PRODUCTION/REFRIGERANT PRESSURES

IDT0300A 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			
	50oF 10oC	70oF 21oC	90oF 32oC	
70°F 21°C	9.6-11.5	10.8-12.9	12.3-14.6	1-2.5
80°F 27°C	10.6-12.6	12.3-14.6	13.5-16.0	
90°F 32°C	11.8-14.0	13.9-16.4	15.0-17.7	
100°F 38°C	13.2-15.7	14.6-17.3	16.2-19.2	
110°F 43°C	15.0-17.7	15.8-18.7	17.7-20.9	

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		
	50°F 10°C	70°F 21°C	90°F 32°C
70°F 21°C	310 lbs 141 kgs	280 lbs 127 kgs	250 lbs 113 kgs
80°F 27°C	285 lbs 129 kgs	250 lbs 113 kgs	230 lbs 104 kgs
90°F 32°C	260 lbs 118 kgs	225 lbs 102 kgs	210 lbs 95 kgs
100°F 38°C	235 lbs 107 kgs	215 lbs 98 kgs	195 lbs 88 kgs
110°F 43°C	210 lbs 95 kgs	200 lbs 91 kgs	180 lbs 82 kgs

Ice slab weight of one harvest cycle = 2.4 lbs to 2.8 lbs (1.08 kg to 1.49 kg).
230/50/1 is approximately 12% lower than 230/60/1

Operating Pressures

Air Temperature Around the Unit	Freeze Cycle		Harvest Cycle	
	Discharge Pressure	Suction Pressure	Discharge Pressure	Suction Pressure
50°F 10°C	260-340 psi 1793-2344 kpa	70-40 psi 483-276 kpa	155-180 psi 1069-1241 kpa	145-165 psi 1000-1207 kpa
70°F 21°C	265-340 psi 187-2344 kpa	85-40 psi 586-276 kpa	155-200 psi 1069-1379 kpa	140-175 psi 965-1207 kpa
80°F 27°C	300-380 psi 2068 - 2620 kpa	85-41 psi 586-283 kpa	160-200 psi 1103-1379 kpa	145-175 psi 1000-1207 kpa
90°F 32°C	330-395 psi 2275-2723 kpa	90-42 psi 621-290 kpa	170-200 psi 1172-1379 kpa	150-175 psi 1034-1207 kpa
100°F 38°C	430-490 psi 2965-3378 kpa	95-44 psi 655-303 kpa	210-240 psi 1448-1655 kpa	185-220 psi 1276-1517 kpa
110°F 43°C	430-515 psi 2965-3551 kpa	105-48 psi 724-331 kpa	215-240 psi 1482-1655 kpa	185-220 psi 1276-1517 kpa

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IDT0300W Self Contained Water-cooled Ice Machines

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Around the Unit	Freeze Time (Minutes)			Harvest Time
	Water Temperature			
	50°F 10°C	70°F 21°C	90°F 32°C	
70°F 21°C	10.0-11.9	11.1-13.2	12.3-14.6	1-2.5
80°F 27°C	10.2-12.2	11.3-13.4	12.3-14.6	
90°F 32°C	10.4-12.4	11.8-14.0	12.3-15.0	
100°F 38°C	10.6-12.6	11.8-14.0	12.6-15.7	
110°F 43°C	10.8-12.9	11.8-14.0	12.9-15.3	

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		
	50°F 10°C	70°F 21°C	90°F 32°C
70°F 21°C	300 lbs 136 kgs	275 lbs 125 kgs	250 lbs 113 kgs
80°F 27°C	295 lbs 134 kgs	270 lbs 122 kgs	250 lbs 113 kgs
90°F 32°C	290 lbs 132 kgs	260 lbs 118 kgs	245 lbs 111 kgs
100°F 38°C	285 lbs 129 kgs	260 lbs 118 kgs	245 lbs 111 kgs
110°F 43°C	280 lbs 127 kgs	260 lbs 118 kgs	240 lbs 109 kgs

Ice slab weight of one harvest cycle = 2.4 lbs to 2.8 lbs (1.08 kg to 1.49 kg).
230/50/1 is approximately 12% lower than 230/60/1

Operating Pressures

Air Temperature Around the Unit	Freeze Cycle		Harvest Cycle	
	Discharge Pressure	Suction Pressure	Discharge Pressure	Suction Pressure
50°F 10°C	325-335 psi 2241-2310 kpa	65-40 psi 448-276 kpa	140-155 psi 965-1069 kpa	130-145 psi 896-1000 kpa
70°F 21°C	325-335 psi 2241-2310 kpa	75-40 psi 517-276 kpa	150-165 psi 1034-1137 kpa	130-155 psi 896-1069 kpa
80°F 27°C	325-340 psi 2241-2344 kpa	80-40 psi 552-276 kpa	150-165 psi 1034-1137 kpa	130-155 psi 896-1069 kpa
90°F 32°C	330-345 psi 2275-2379 kpa	85-40 psi 586-276 kpa	150-170 psi 1034-1172 kpa	130-155 psi 896-1069 kpa
100°F 38°C	330-345 psi 2275-2379 kpa	85-40 psi 586-276 kpa	150-170 psi 1034-1172 kpa	130-155 psi 896-1069 kpa
110°F 43°C	330-345 psi 2275-2379 kpa	90-40 psi 621-276 kpa	150-175 psi 1034-1207 kpa	130-155 psi 896-1069 kpa