



SERVICE TECH'S ICE MACHINE HANDBOOK

Cubed Ice

Flaked Ice

Nugget ice

291-840

August 2011

Table Of Contents

C0322 - air cooled	Page 5
C0322 - water cooled	Page 6
C0330 - air cooled	Page 7
C0330 - water cooled	Page 8
C0522 - air cooled	Page 9
C0522 - water cooled	Page 10
C0522 - remote	Page 11
C0530 - air cooled	Page 12
C0530 - water cooled	Page 13
C0530 - Remote	Page 14
C0630 - air cooled	Page 15
C0630 - water cooled	Page 16
C0630 - remote	Page 17
C0830 - air cooled	Page 18
C0830 - water cooled	Page 19
C0830 - remote	Page 20
C1030 - air cooled	Page 21
C1030 - water cooled	Page 22
C1030 - remote	Page 23
C1448 - air cooled	Page 24
C1448 - water cooled	Page 25
C1448 - remote	Page 26
C1848 - air cooled	Page 27
C1848 - water cooled	Page 28
C1848 - remote	Page 29
C2148 - water cooled	Page 30
C2148 - remote	Page 31
C2648	Page 32
CU50	Page 33
CU1526.	Page 34
CU2026.	Page 35
CU3030.	Page 36
EH130 with C0600CP	Page 37
EH222 - with C0600CP	Page 38
EH222 - with C0800CP	Page 39
EH222 - with C1410CP	Page 40
EH330 with C1200CP	Page 41

EH430 - with C1410CP	Page 42
EH430 - with C1800CP	Page 43
EH430 - with C2000CP	Page 44
F0522 - Air cooled	Page 45
F0522 - Water cooled	Page 46
F0822 - Air cooled	Page 47
F0822 - Water cooled	Page 48
F0822 - Remote air cooled	Page 49
F0822L - Remote low side	Page 50
F1222 - Air cooled	Page 51
F1222 - Water cooled	Page 52
F1222 - Remote air cooled	Page 53
F1222L - Remote low side	Page 54
F1522 - Air cooled	Page 55
F1522 - Water cooled	Page 56
F1522L - Remote low side	Page 57
N0422 - Air cooled	Page 58
N0422 - Water cooled	Page 59
N0622 - Air cooled	Page 60
N0622 - Water cooled	Page 61
N0622 - Remote air cooled	Page 62
N0622L - Remote low side	Page 63
N0922 - Air cooled	Page 64
N0922 - Water cooled	Page 65
N0922 - Remote air cooled	Page 66
N0922L - Remote low side	Page 67
N1322 - Air cooled	Page 68
N1322 - Water cooled	Page 69
N1322 - Remote air cooled	Page 70
N1322L - Remote low side	Page 71
NU130	Page 72
Superheat	Page 73
Electrical Suffix Code	Page 74
Prodigy Model Identification:	Page 75
Hot Gas Valves	Page 76
Kits	Page 77
Cuber Capacity Check	Page 78
Flake or Nugget Ice Machine Field Capacity Check	Page 79

Refrigerant Temperature-Pressure Chart	Page 80
Thermistor Values.	Page 81
Thermistor Values.	Page 82
Compressor Potential Relays	Page 83
Start Capacitors	Page 84
Run Capacitors	Page 85
Warranty Summary	Page 86
Prodigy Pressure Switches.	Page 87
Cuber Controller Button Use	Page 88
Prodigy Cuber	Page 89
Cuber Test Mode:	Page 90
Prodigy Flake or Nugget Ice Machine	Page 91
Prodigy Flake or Nugget Ice Machine	Page 92
Prodigy Cuber Controller	Page 93

Notes:

- 1. Compressor amps are for typical voltages (C0322 thru C0530 are 115 volt) and phase. Three phase not listed unless noted.**
- 2. Where listed, BTUH is for air conditioning load, not condenser sizing. If water or remote cooled, BTUH may not be listed as they do not affect AC loads.**
- 3. Data is for 90/70 conditions unless noted.**
- 4. All water cooled freeze cycle discharge pressures are 245 PSIG.**

C0322 - air cooled

Modular Cuber. Single six inch high evaporator.

Ice production (lb /24 hr @ 90/70)	255
Ice production (lb /24 hr @ 70/50)	356
Water use, gallons ice only	48
Ice weight / cycle (lb)	2.4 - 2.6
Refrigerant charge, oz R-404A:	14
Fan pressure sw., cut out / cut in, PSIG	190 / 240
High pressure cut out / cut in, PSIG	500 / 390
Compressor Amps, beg. - end, freeze	7.3 - 4.8
Compressor Amps, harvest	6.2

Cycle Time (minutes)

Air Cooled	Ambient Air Temp (deg. F)		
	70	80	90
Water Temp			
50	9-10	10-11	11-12
70	10-11	11-12	12-13
80	11-12	12-13	13-14
90	12-13	13-14	14-15

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	26	60	32
Harvest - PSIG	100	105	130	125

C0322 - water cooled

Modular Cuber. Single six inch high evaporator.

Ice production (lb /24 hr @ 90/70)	329
Ice production (lb /24 hr @ 70/50)	366
Water use, gallons ice only	61
Water use, water cooled condenser only	454
Condenser GPM @ 45°F.	.2
Ice weight / cycle (lb)	2.4 - 2.6
Refrigerant charge, oz R-404A	11
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	7.3 - 4.8
Compressor Amps, harvest	6.2

Cycle Time (minutes)

Water Cooled	Ambient Air Temp (deg. F)		
	70	80	90
Water Temp			
50	8-10	10	10
70	10	11	10-11
80	11	11	11
90	11	11	12

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	56	32	57	32
Harvest - PSIG	95	105	110	130

C0330 - air cooled

Single 6 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	280
Ice production (lb /24 hr @ 70/50)	350
Water use, gallons ice only	63
Ice weight / cycle (lb)	2.4 - 2.6
Refrigerant charge, oz R-404A:	14
Fan pressure sw., cut out / cut in, PSIG	190 / 240
High pressure cut out / cut in, PSIG	500 / 390
Compressor Amps, beg. - end, freeze	6.2 - 4.8
Compressor Amps, harvest	5.7

Air Cooled	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9-10	10-11	11-12
70	10-11	11-12	12-13
80	11-12	12-13	13-14
90	12-13	13-14	14-15

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	28	53	34
Harvest - PSIG	100	110	134	115

C0330 - water cooled

Single six inch high evaporator.

Ice production (lb /24 hr @ 90/70)	280
Ice production (lb /24 hr @ 70/50)	400
Water use, gallons ice only	52
Water use, water cooled condenser only	457
Condenser GPM @ 45°F.	.1
Ice weight / cycle (lb)	2.4 - 2.6
Refrigerant charge, oz R-404A	11
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	6.2 - 4.8
Compressor Amps, harvest	5.7

Cycle Time (minutes)

Water Cooled	Ambient Air Temp (deg. F)		
	70	80	90
Water Temp	70	80	90
50	8-10	10	10
70	10	11	10-11
80	11	11	11
90	11	11	12

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	32	55	34
Harvest - PSIG	100	130	110	105

C0522 - air cooled

Single 12 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	380
Ice production (lb /24 hr @ 70/50)	475
Water use, gallons ice only	69
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	17
Fan pressure sw., cut out / cut in, PSIG	190 / 240
High pressure cut out / cut in, PSIG	500 / 390
Compressor Amps, beg. - end, freeze	7.9-6.5
Compressor Amps, harvest	7.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	11-13	13	16
70	13	15	16-18
80	14	15	18
90	15	16	19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	57	32	67	34
Harvest - PSIG	100	105	110	120

C0522 - water cooled

Single 12 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	494
Ice production (lb /24 hr @ 70/50)	549
Water use, gallons ice only	90
Water use, water cooled condenser only	701
Condenser GPM @ 45°F.	.3
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	14
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	7.9-6.2
Compressor Amps, harvest	7.2

Cycle Time (minutes)

Water cooled	Ambient Air Temp (deg. F)		
	70	80	90
Water Temp			
50	13-15	15	14
70	15	16	14-15
80	16	17	15
90	16-17	17	16

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	23	55	36
Harvest - PSIG	86	85	100	110

C0522 - remote

Single 12 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	465
Ice production (lb /24 hr @ 70/50)	517
Water use, gallons ice only*	85
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	160
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	7.9-6.2
Compressor Amps, harvest	7.2

Cycle Time (minutes)

Remote	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	12-13	13-14	14
70	13-14	13-+14	14-15
80	14-15	14-15	15-16
90	15-16	17-18	18-19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	35	56	35
Harvest - PSIG	88	85	92	90

C0530 - air cooled

Single 12 inch high evaporator. C Series (new compressor) mid 2011.

Ice production (lb /24 hr @ 90/70)	400
Ice production (lb /24 hr @ 70/50)	562
Water use, gallons ice only*	80
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A:	22
Fan pressure sw., cut out / cut in, PSIG	190 / 240
High pressure cut out / cut in, PSIG	500 / 390
Compressor Amps, beg. - end, freeze	8-6.5
Compressor Amps, harvest	9.3

Cycle Time (minutes)

Air cooled	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	13	14	16
70	14	15	17
80	15	16	18
90	16	17	19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	52	33	55	32
Harvest - PSIG	100	95	120	105

C0530 - water cooled

Single 12 inch high evaporator. C Series (new compressor) mid 2011.

Ice production (lb /24 hr @ 90/70)	480
Ice production (lb /24 hr @ 70/50)	595
Water use, gallons ice only*	84
Water use, water cooled condenser only*	682
Condenser GPM @ 45°F.	.3
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	11
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	8-6.5
Compressor Amps, harvest	9.3

Cycle Time (minutes)

Water cooled	Ambient Air Temp (deg. F)		
	70	80	90
Water Temp			
50	10	12	12
70	11	13	13
80	12	13	13
90	13	13	14

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	33	55	34
Harvest - PSIG	99	100	110	110

C0530 - Remote

Modular Cuber. Single 12 inch high evaporator. C Series (new compressor) mid 2011.

Ice production (lb /24 hr @ 90/70)	460
Ice production (lb /24 hr @ 70/50)	511
Water use, gallons ice only*	83
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	160
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	8-6.5
Compressor Amps, harvest	9.3

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	11-13	13-14	13-14
70	14	14-15	14
80	15	15-16	15-16
90	16	17-18	17-18

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	30	55	35
Harvest - PSIG	146	145	99	100

C0630 - air cooled

Single 12 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	528
Ice production (lb /24 hr @ 70/50)	776
Water use, gallons ice only*	100
Ice weight / cycle (lb)	4.8 - 5.2
Fan pressure sw., cut out / cut in, PSIG	190 / 240
High pressure cut out / cut in, PSIG	500 / 390
Refrigerant charge, oz R-404A:	36
Compressor Amps, beg. - end, freeze	5.8-5.0
Compressor Amps, harvest	6.8

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9-10	10-11	10-11
70	10-11	11-12	11-12
80	11-12	12-13	12-13
90	12-13	13-14	13-14

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	40	21	53	27
Harvest - PSIG	87	85	108	115

C0630 - water cooled

Single 12 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	650
Ice production (lb /24 hr @ 70/50)	722
Water use, gallons ice only*	130
Water use, water cooled condenser only*	1455
Condenser GPM @ 45°F.	.4
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	14
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	5.8-5.0
Compressor Amps, harvest	6.8

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9	10	10
70	10	11	11
80	11	11	12
90	11	11	13

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	40	25	44	22
Harvest - PSIG	74	75	82	80

C0630 - remote

Single 12 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	616
Ice production (lb /24 hr @ 70/50)	684
Water use, gallons ice only*	115
Ice weight / cycle (lb)	4.8 - 5.2
Refrigerant charge, oz R-404A	160
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	5.8-5.0
Compressor Amps, harvest	6.8

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9	9	9-10
70	9-10	9-10	10
80	10-11	11-12	11
90	12	14	13-14

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	45	30	50	30
Harvest - PSIG	107	110	120	120

C0830 - air cooled

Single 18" high evaporator.

Ice production (lb /24 hr @ 90/70)	724
Ice production (lb /24 hr @ 70/50)	905
Water use, gallons ice only*	139
Ice weight / cycle (lb)	7.2
Refrigerant charge, oz R-404A:	46
Fan pressure sw., cut out / cut in, PSIG	190 / 240
Compressor Amps, beg. - end, freeze	6.4-5.3
Compressor Amps, harvest	6.6

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	11	12	13
70	12	13	14
80	13	14	15
90	14	15	16

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	26	60	30
Harvest - PSIG	83	80	110	100

C0830 - water cooled

Single 18 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	832
Ice production (lb /24 hr @ 70/50)	924
Water use, gallons ice only	157
Water use, water cooled condenser only	1132
Condenser GPM @ 45°F.	.4
Ice weight / cycle (lb)	7.2
Refrigerant charge, oz R-404A	34
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	6.4-5.3
Compressor Amps, harvest	6.6

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	11	12-13	13
70	12	13-14	13
80	13	13-14	14
90	14	14	15

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	30	55	31
Harvest - PSIG	88	85	88	90

C0830 - remote

Single 18 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	780
Ice production (lb /24 hr @ 70/50)	870
Water use, gallons ice only*	115
Ice weight / cycle (lb)	7.2
Refrigerant charge, oz R-404A	208
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	6.4-5.3
Compressor Amps, harvest	6.6

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9-11	10-11	12
70	11	11-12	13
80	12-13	12-13	13-14
90	13-14	15	16-17

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	52	32	55	32
Harvest - PSIG	100	100	110	110

C1030 - air cooled

Single 18" evaporator.

Ice production (lb /24 hr @ 90/70)	844
Ice production (lb /24 hr @ 70/50)	1077
Water use, gallons ice only*	153
Ice weight / cycle (lb)	7.2
Refrigerant charge, oz R-404A:	48
Fan pressure sw., cut out / cut in, PSIG	190 / 240
Compressor Amps, beg. - end, freeze	7.3-4.8
Compressor Amps, harvest	6.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9-10	10-11	11-12
70	10-11	11-12	12-13
80	11-12	12-13	13
90	10-13	13-14	14-15

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	45	26	52	30
Harvest - PSIG	80	80	90	85

C1030 - water cooled

Single 18 inch high evaporator.

Ice production (lb /24 hr @ 90/70)	908
Ice production (lb /24 hr @ 70/50)	1009
Water use, gallons ice only*	179
Water use, water cooled condenser only*	1389
Condenser GPM @ 45°F.	.4
Ice weight / cycle (lb)	7.2
Refrigerant charge, oz R-404A	38
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	7.3-4.8
Compressor Amps, harvest	6.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	10	11	11
70	11	11-12	11
80	11-12	12-12	12
90	12	12-13	13

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	44	26	45	30
Harvest - PSIG	72	70	75	75

C1030 - remote

Single 18 inch high evaporator.

Ice production (lb /24 hr)	851
Ice production (lb /24 hr @ 70/50)	996
Water use, gallons ice only*	155
Ice weight / cycle (lb)	7.2
Refrigerant charge, oz R-404A	208
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	7.3-4.8
Compressor Amps, harvest	6.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	10-11	11	12-13
70	11	11-12	12-13
80	12-13	12-13	14
90	13-14	15-16	16-17

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	45	28	46	27
Harvest - PSIG	95	95	105	100

C1448 - air cooled

Two 18" evaporators.

Ice production (lb /24 hr @ 90/70)	1242
Ice production (lb /24 hr @ 70/50)	1553
Water use, gallons ice only	207
Ice weight / cycle (lb)	14
Refrigerant charge, oz R-404A:	62
Fan pressure sw., cut out / cut in, PSIG	220 / 280
Compressor Amps, beg. - end, freeze	12.5-7.6
Compressor Amps, harvest	9.2

Cycle Time (minutes)

Water Temp	Ambient Air Temp (deg. F)		
	70	80	90
50	12-13	13-14	14-15
70	13-14	14-15	15-16
80	14-15	15-16	16-17
90	15-16	16-17	17-18

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	35	60	38
Harvest - PSIG	100	95	105	100

C1448 - water cooled

Modular Cuber. Two 18 inch high evaporators.

Ice production (lb /24 hr @ 90/70)	1300
Ice production (lb /24 hr @ 70/50)	1444
Water use, gallons ice only	250
Water use, water cooled condenser only	1693
Condenser GPM @ 45°F.	.6
Ice weight / cycle	14
Refrigerant charge, oz R-404A	56
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	12.5-7.6
Compressor Amps, harvest	9.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	13-14	14-15	15-19
70	14-15	15-16	15-16
80	15-16	15-16	16-17
90	15-16	15-16	17-18

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	36	55	35
Harvest - PSIG	105	105	105	100

C1448 - remote

Modular Cuber. Two 18 inch high evaporators.

Ice production (lb /24 hr)	1221
Ice production (lb /24 hr @ 70/50)	1357
Water use, gallons ice only*	223
Ice weight / cycle	13
Refrigerant charge, oz R-404A	256
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	12.5-7.6
Compressor Amps, harvest	9.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	11	11-12	14-15
70	11-12	11-12	14-15
80	13	13	16
90	14	15-16	18-19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	40	60	40
Harvest - PSIG	105	100	125	125

C1848 - air cooled

Two 18" evaporators.

Ice production (lb /24 hr @ 90/70)	1527
Ice production (lb /24 hr @ 70/50)	1909
Water use, gallons ice only*	321
Ice weight / cycle	14
Fan pressure sw., cut out / cut in, PSIG	220 / 280
Refrigerant charge, oz R-404A:	62
Compressor Amps, beg. - end, freeze	16-10
Compressor Amps, harvest	15

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	10-11	11-12	12-13
70	11-12	12-13	13-14
80	12-13	13-14	14-15
90	13-14	14-15	15-16

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	30	55	32
Harvest - PSIG	90	90	100	100

C1848 - water cooled

Modular Cuber. Two 18 inch high evaporators.

Ice production (lb /24 hr @ 90/70)	1710
Ice production (lb /24 hr @ 70/50)	1900
Water use, gallons ice only*	315
Water use, water cooled condenser only*	2643
Condenser GPM @ 45°F.	1
Ice weight / cycle	14
Refrigerant charge, oz R-404A	63
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	16-10
Compressor Amps, harvest	15

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	10-11	11-12	11-12
70	11-12	12-13	11-12
80	12-13	12-13	12-13
90	12-13	12-13	13-14

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	45	30	50	30
Harvest - PSIG	75	80	85	85

C1848 - remote

Modular Cuber. Two 18 inch high evaporators.

Ice production (lb /24 hr @ 90/70)	1645
Ice production (lb /24 hr @ 70/50)	1828
Water use, gallons ice only*	289
Ice weight / cycle	14
Refrigerant charge, oz R-404A	320
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	16-10
Compressor Amps, harvest	15

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	10-11	11-12	13
70	11-12	12	13
80	13	13-14	14-15
90	14	16	17

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	45	32	55	33
Harvest - PSIG	85	85	100	105

C2148 - water cooled

Modular Cuber. Two 18 inch high evaporators.

Ice production (lb /24 hr @ 90/70)	1804
Ice production (lb /24 hr @ 70/50)	2091
Water use, gallons ice only	319
Water use, water cooled condenser only	2778
Condenser GPM @ 45°F.	1
Ice weight / cycle	14
Refrigerant charge, oz R-404A	69
High pressure cut out / cut in, PSIG	400 / 300
Compressor Amps, beg. - end, freeze	15.4-12.6
Compressor Amps, harvest	16.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	9-10	10-11	11
70	10-11	11-12	11
80	11-12	11-12	12
90	11-12	11-12	13

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	42	27	45	27
Harvest - PSIG	75	75	75	75

C2148 - remote

Modular Cuber. Two 18 inch high evaporators.

Ice production (lb /24 hr @ 90/70)	1849
Ice production (lb /24 hr @ 70/50)	2248
Water use, gallons ice only	337
Ice weight / cycle	14
Refrigerant charge, oz R-404A	320
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	15.4-12.6
Compressor Amps, harvest	16.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	10	10	11
70	9-10	10	12
80	11-12	11	13
90	12-13	14	15-16

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	40	24	45	24
Harvest - PSIG	80	80	95	95

C2648

Introduced January 2011, 3 evaporators, 2 pumps, remote 3 phase only.

Ice production (lb /24 hr @ 90/70)	2253
Ice production (lb /24 hr @ 70/50)	2570
Water use, gallons ice only	388
Ice weight / cycle (lb)	21
Refrigerant charge, oz R-404A	240
High pressure cut out / cut in, PSIG	450 / 350
Compressor Amps, beg. - end, freeze	13.2 - 12.9
Compressor Amps, harvest	12.7 - 11.8

Cycle Time (minutes) at select temperatures (F°)

Water Temp	Condenser Air Temp (degrees F.)			
	-20	70	80	120
50	9-11	10-12	11-13	16-18
70	10-12	11-13	12-14	17-19
80	11-13	12-14	13-15	18-20
90	12-14	13-15	15-16	19-21

Suction pressure, end of freeze:

- Minus -20 to 90: 26-30 PSIG
- 120: 34-36 PSIG

Suction pressure, harvest:

- Minus -20 to 90: 73-80 PSIG
- 120: 86-89 PSIG

OPR valve set to 80 PSIG at compressor dome.

Discharge pressure freeze: 205 minimum, 370 at 120°F.

Headmaster (217 set point) in PRC241 condenser.

CU50

15 inch gourmet cuber. Cap tube, R-134a.

Ice production (lb /24 hr @ 90/70)	50
Ice production (lb /24 hr @ 70/50)	65
Water use, gallons ice only	17
Ice weight / cycle (lb)	1
Refrigerant charge, oz R-134a	8
High pressure cut out / cut in, PSIG	none
Compressor Amps	2.6 - 3.2

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	19-20	19-20	20-21
70	26-27	28-29	29-31
80	30-31	31-32	33-34
90	33-34	35-36	36-37

CU1526

Undercounter cuber. Single 6 inch high plate.

Ice production (AC lb /24 hr @ 90/70)	115
Ice production (AC lb /24 hr @ 70/50)	150
Water use, gallons ice only	19-20
Ice weight / cycle	3 lb
Refrigerant charge, oz R-404A	12 AC 9 WC
High pressure cut out / cut in, PSIG - AC	500 / 390
High pressure cut out / cut in, PSIG - WC	400 / 300
Fan pressure control cut out / cut in	190 / 240
Compressor Amps, freeze	5-5.5
Compressor Amps, harvest	5.6-5.9

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	22-23	24	36
70	24	25	37
80	25	26	38
90	26	27	39

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	53-56	36-39	66-62	36-38
Harvest - PSIG	103-105	105-110	115-116	115-120

Superheat: 20

CU2026

Undercounter cuber. Single 6 inch high plate.

Ice production (AC lb /24 hr @ 90/70)	155
Ice production (AC lb /24 hr @ 70/50)	200
Water use, gallons ice only	28
Ice weight / cycle	3 lb
Refrigerant charge, oz R-404A	15 AC 9 WC
High pressure cut out / cut in, PSIG - AC	500 / 390
High pressure cut out / cut in, PSIG - WC	400 / 300
Fan pressure control cut out / cut in	190 / 240
Compressor Amps, freeze*	5.4-5.9
Compressor Amps, harvest*	6.1-6.3

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	16-17	18	25
70	17	19	26
80	18	20	27
90	19	21	28

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	61-57	33-34	66-70	35-36
Harvest - PSIG	100-101	100-105	124-125	125-130

*** 115 volt model's data shown**

Superheat: 16 - 8

CU3030

Undercounter cuber. Single 6 inch high plate.

Ice production (AC lb /24 hr @ 90/70)	210
Ice production (AC lb /24 hr @ 70/50)	250
Water use, gallons ice only	39-40
Ice weight / cycle	3 lb
Refrigerant charge, oz R-404A	12 AC 12 WC
High pressure cut out / cut in, PSIG - AC	500 / 390
High pressure cut out / cut in, PSIG - WC	400 / 300
Fan pressure control cut out / cut in	190 / 240
Compressor Amps, freeze*	6-7.3
Compressor Amps, harvest*	7.2-7.9

Cycle Time (minutes)

	Ambient Air Temp (deg. F)		
Water Temp	70	80	90
50	13	14	19
70	14	15	20
80	16	16	22
90	16	17	25

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	52-48	25-26	51-52	29-30
Harvest - PSIG	81-82	84-85	106-107	100-105

* 115 volt model's data shown

Superheat: 15-8

EH130 with C0600CP

Single Evaporator 600 lb low profile Eclipse. 30 inch wide cabinet

Ice production (lb /24 hr @ 90/70)	530
Ice production (lb /24 hr @ 70/50)	638
Water use*	98
BTUs per hour*	8000
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	232
Compressor amps, freeze	4-3.5
Compressor amps, harvest	4-5

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	10-12	12-13	13-14
	70	11-12	12-14	15
	80	13	13-14	16
	90	14	15-16	17-18

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	32	55	33
Harvest - PSIG	95	100	110	115

EH222 - with C0600CP

Single evaporator Eclipse model. 22 inch wide cabinet. New curtain Oct 2010.

Ice production (lb /24 hr @ 90/70)	595
Ice production (lb /24 hr @ 70/50)	700
Water use*	104
BTUs per hour*	9000
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	232
Compressor amps, freeze	4-3.5
Compressor amps, harvest	4-5

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	15-16	18	18-19
	70	16	18-19	20
	80	17-18	18	21
	90	18-19	22-23	23

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	32	55	32
Harvest - PSIG	95	100	100	105

EH222 - with C0800CP

Single evaporator Eclipse model. New curtain Oct 2010.

Ice production (lb /24 hr @ 90/70)	728
Ice production (lb /24 hr @ 70/50)	855
Water use*	128
BTUs per hour*	11000
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	232
Compressor amps, freeze	7-5.6
Compressor amps, harvest	6

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	12-13	14-15	15
	70	13	15	17
	80	14-15	14-15	18
	90	15-16	17	19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	30	58	30
Harvest - PSIG	100	105	105	110

EH222 - with C1410CP

Single evaporator Eclipse model. New curtain Oct 2010.

Ice production (lb /24 hr @ 90/70)	874
Ice production (lb /24 hr @ 70/50)	1035
Water use*	164
BTUs per hour*	13500
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	272
Compressor amps, freeze	9-6
Compressor amps, harvest	7.5-8

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	9	11	11-12
	70	9-10	10	13
	80	11	11-12	14
	90	12	14	15

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	28	55	28
Harvest - PSIG	100	105	105	110

EH330 with C1200CP

Low Profile 1200 lb Eclipse. 30 inch wide cabinet

Ice production (lb /24 hr @ 90/70)	1230
Ice production (lb /24 hr @ 70/50)	1411
Water use*	214
BTUs per hour*	19,000
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	272
Compressor amps, freeze*	10 to 14
Compressor amps, harvest*	

*** single phase**

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	11-12	12-13	14-15
	70	12-13	13	15
	80	14	14-15	16-17
	90	15	16-17	19-20

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	30	55	35

EH430 - with C1410CP

Two evaporator Eclipse model. 30 inch wide cabinet

Ice production (lb /24 hr @ 90/70)	1180
Ice production (lb /24 hr @ 70/50)	1520
Water use*	218
BTUs per hour*	17000
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	272
Compressor amps, freeze*	9-8
Compressor amps, harvest*	8

*** single phase**

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	12	12-13	15
	70	12-13	13	15-16
	80	14	14-15	17
	90	15	16-17	19-20

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	55	37	55	38
Harvest - PSIG	105	110	120	120

EH430 - with C1800CP

Two evaporator Eclipse model.

Ice production (lb /24 hr @ 90/70)	1670
Ice production (lb /24 hr @ 70/50)	1755
Water use*	294
BTUs per hour*	23500
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	288
Compressor amps, freeze*	12-15
Compressor amps, harvest*	15

*** single phase**

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	12	13-14	13-14
	70	12-13	13-14	15-16
	80	13-14	15	16-17
	90	14-16	17-18	18-19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	30	50	30
Harvest - PSIG	105	110	120	120

EH430 - with C2000CP

Two evaporator Eclipse model.

Ice production (lb 24/hr @ 90/70)	1765
Ice production (lb /24 hr @ 70/50)	1884
Water use*	307
BTUs per hour*	27000
High pressure cut out, opens / closes in PSIG	450 / 350
Headmaster setting, PSIG	217
Refrigerant charge, oz, R-404A	288
Compressor amps, freeze*	14-15
Compressor amps, harvest*	18-20

*** single phase**

Remote Cooled		Ambient Air Temp (deg. F)		
	Water Temp	70	90	100
Cycle Time (minutes)	50	11	12	12-13
	70	12	12-13	14-15
	80	13	14-15	15-16
	90	14	16	18-19

Low Side Pressures

	70/50		90/70	
	Beg	End	Beg	End
Freeze - PSIG	50	22-30	50	25-35
Harvest - PSIG	105	110	120	120

F0522 - Air cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	450
Ice production 90/70 (lb)	320
24 hour water use (gallons)	38-39
BTUH (AC load)	5000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	14
Suction Pressure (PSIG)	37 - 39 @ 70/50 45 - 46 @ 90/70
Discharge Pressure (PSIG)	235 - 245 @ 70/50 255 - 265 @ 90/70
Superheat (Degrees F.)	11 - 15
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F0522 - Water cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	530
Ice production 90/70 (lb)	420
24 hour water use, ice only (gallons)	50-51
Condenser water use (gallons)	344
Condenser GPM	.24
Condenser GPM @ 50°F. water	.14
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	11
Suction Pressure (PSIG)	38 - 40
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	10 - 14
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F0822 - Air cooled

Prodigy Flake Ice Machine. B series (new compressor) mid 2011.

Ice production 70/50 (lb)	800
Ice production 90/70 (lb)	580
24 hour water use (gallons)	70
BTUH (AC load)	7100
Refrigerant Type	R-404A
Refrigerant Charge (oz)	14
Suction Pressure (PSIG)	37 - 39 @ 70/50
	34 - 39 @ 90/70
Discharge Pressure (PSIG)	235-245 @ 70/50
	285-295 @ 90/70
Superheat (Degrees F.)	7 - 12
Metering device	Internally equalized TXV
Compressor amps (@ 115 v)	5.9-6.1
Auger drive motor amps @ 115 volts	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F0822 - Water cooled

Prodigy Flake Ice Machine. B series (new compressor) mid 2011.

Ice production 70/50 (lb)	775
Ice production 90/70 (lb)	620
24 hour water use, ice only (gallons)	75
Condenser water use (gallons)	508
Condenser GPM	.35
Condenser GPM @ 50°F. water	.21
BTUH (AC load)	not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	11
Suction Pressure (PSIG)	29 - 34
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	9 - 12
Metering device	Internally equalized TXV
Compressor amps @ 115 v	5.9 - 6.1
Auger drive motor amps @ 115 volts	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F0822 - Remote air cooled

Prodigy Flake Ice Machine. B series (new compressor) mid 2011.

Ice production 70/50 (lb)	760
Ice production 90/70 (lb)	610
24 hour water use (gallons)	73-74
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	192
Suction Pressure (PSIG)	35 - 37 @ 70/50 36 - 38
Discharge Pressure (PSIG)	240 - 250 @ 70/50 250 - 260
Superheat (Degrees F.)	8 - 12
Metering device	Internally equalized TXV
Compressor amps @ 115 v	5.9 - 6.1
Auger drive motor amps @ 115 volts	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

Uses ERC111 condenser with 217 PSIG headmaster.

F0822L - Remote low side

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	865
Ice production 90/70 (lb)	640
24 hour water use (gallons)	77
BTUH Capacity Requirement	4000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	Field charged or rack connected. See condensing unit for charge amount.
Suction Pressure (PSIG)	30
Superheat (Degrees F.)	10-12
Metering device	Internally equalized TXV
Auger drive motor amps	3.4 - 4

F1222 - Air cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1100
Ice production 90/70 (lb)	825
24 hour water use (gallons)	99
BTUH (AC load)	10500
Refrigerant Type	R-404A
Refrigerant Charge (oz)	18
Suction Pressure (PSIG)	22 - 25 @ 70/50 32 - 34 @ 90/70
Discharge Pressure (PSIG)	205 - 215 @ 70/50 285 - 295 @ 90/70
Superheat (Degrees F.)	11 - 13
Metering device	Internally equalized TXV
Compressor amps - single phase	4.7 - 5.1
Compressor amps - three phase	3.9 - 4.1
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F1222 - Water cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1240
Ice production 90/70 (lb)	1040
24 hour water use, ice only (gallons)	125
Condenser water use (gallons)	1103
Condenser GPM	.76
Condenser GPM @ 50°F. water	.68
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	11
Suction Pressure (PSIG)	22 - 33
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	9 - 11
Metering device	Internally equalized TXV
Compressor amps, single phase	4.7 - 5.1
Compressor amps, three phase	3.9 - 4.1
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F1222 - Remote air cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1250
Ice production 90/70 (lb)	1000
24 hour water use (gallons)	120
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	192
Suction Pressure (PSIG)	28 - 30 @ 70/50 31 - 32 @ 90/70
Discharge Pressure (PSIG)	240 - 250 @ 70/50 245 - 255 @ 90/70
Superheat (Degrees F.)	10 - 12
Metering device	Internally equalized TXV
Compressor amps - single phase	4.7 - 5.1
Compressor amps - three phase	3.9 - 4.1
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

Uses ERC311 condenser with 217 PSIG headmaster.

F1222L - Remote low side

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1180
Ice production 90/70 (lb)	1000
24 hour water use (gallons)	120
BTUH Capacity Requirement	5000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	Field charged or rack connected. See condensing unit for charge amount.
Suction Pressure (PSIG)	33
Superheat (Degrees F.)	8 - 10
Metering device	Internally equalized TXV
Auger drive motor amps	3.4 - 4

F1522 - Air cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1570
Ice production 90/70 (lb)	1100
24 hour water use (gallons)	132
BTUH (AC load)	16000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	34
Suction Pressure (PSIG)	22 - 25 @ 70/50 28 - 32
Discharge Pressure (PSIG)	205 - 215 @ 70/50 295 - 305
Superheat (Degrees F.)	9 - 13
Metering device	Internally equalized TXV
Compressor amps	6.9 - 7.2
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F1522 - Water cooled

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1525
Ice production 90/70 (lb)	1220
24 hour water use, ice only (gallons)	146-147
Condenser water use (gallons)	854
Condenser GPM	.59
Condenser GPM @ 50°F. water	.32
BTUH (AC load)	not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	18
Suction Pressure (PSIG)	25 - 28
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	9 - 13
Metering device	Internally equalized TXV
Compressor amps	6.9 - 7.2
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

F1522L - Remote low side

Prodigy Flake Ice Machine

Ice production 70/50 (lb)	1455
Ice production 90/70 (lb)	1205
24 hour water use (gallons)	144-145
BTUH Capacity Requirement	7200
Refrigerant Type	R-404A
Refrigerant Charge (oz)	Field charged or rack connected. See condensing unit for charge amount.
Suction Pressure (PSIG)	30-33
Superheat (Degrees F.)	8-12
Metering device	Internally equalized TXV
Auger drive motor amps	3.4 - 4

N0422 - Air cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	420
Ice production 90/70 (lb)	310
24 hour water use (gallons)	37-38
BTUH (AC load)	5000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	14
Suction Pressure (PSIG)	37 - 39 @ 70/50 45 - 46
Discharge Pressure (PSIG)	235 - 245 @ 70/50 255 - 265
Superheat (Degrees F.)	11 - 15
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N0422 - Water cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	455
Ice production 90/70 (lb)	360
24 hour water use, ice only (gallons)	43-44
Condenser water use (gallons)	317
Condenser GPM	.22
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	11
Suction Pressure (PSIG)	38 - 42
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	12 - 14
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N0622 - Air cooled

Prodigy Nugget Ice Machine. B series (new compressor) mid 2011.

Ice production 70/50 (lb)	643
Ice production 90/70 (lb)	500
24 hour water use (gallons)	60
BTUH (AC load)	7100
Refrigerant Type	R-404A
Refrigerant Charge (oz)	14
Suction Pressure (PSIG)	37 - 39 @ 70/50 235 - 245
Discharge Pressure (PSIG)	34 - 40 @ 70/50 275 - 285
Superheat (Degrees F.)	9 - 12
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N0622 - Water cooled

Prodigy Nugget Ice Machine. B series (new compressor) mid 2011.

Ice production 70/50 (lb)	715
Ice production 90/70 (lb)	570
24 hour water use, ice only (gallons)	68-69
Condenser water use (gallons)	581
Condenser GPM	.4
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	11
Suction Pressure (PSIG)	29 - 32
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	10 - 12
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N0622 - Remote air cooled

Prodigy Nugget Ice Machine. B series (new compressor) mid 2011.

Ice production 70/50 (lb)	660
Ice production 90/70 (lb)	530
24 hour water use (gallons)	63-64
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	192
Suction Pressure (PSIG)	35 - 37 @ 70/50 36 - 38
Discharge Pressure (PSIG)	240 - 250 @ 70/50 250 - 260
Superheat (Degrees F.)	8-12
Metering device	Internally equalized TXV
Compressor amps	5.9 - 6.1
Auger drive motor amps	3.4 - 4
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

Uses ERC111 condenser with 217 PSIG headmaster.

N0622L - Remote low side

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	800
Ice production 90/70 (lb)	585
24 hour water use (gallons)	70
BTUH Capacity Requirement	4000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	Field charged or rack connected. See condensing unit for charge amount.
Suction Pressure (PSIG)	30
Superheat (Degrees F.)	10-12
Metering device	Internally equalized TXV
Auger drive motor amps	3.4 - 4

N0922 - Air cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	956
Ice production 90/70 (lb)	765
24 hour water use (gallons)	92
BTUH (AC load)	10500
Refrigerant Type	R-404A
Refrigerant Charge (oz)	18
Suction Pressure (PSIG)	22 - 25 @ 70/50 31 - 32
Discharge Pressure (PSIG)	205 - 215 @ 70/50 280 - 290
Superheat (Degrees F.)	9 - 12
Metering device	Internally equalized TXV
Compressor amps - single phase	4.7 - 5.1
Compressor amps - three phase	6.9 - 4.1
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N0922 - Water cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1094
Ice production 90/70 (lb)	875
24 hour water use, ice only (gallons)	105
Condenser water use, (gallons)	1094
Condenser GPM	.76
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	11
Suction Pressure (PSIG)	22 - 33
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	9 - 11
Metering device	Internally equalized TXV
Compressor amps, single phase	4.7 - 5.1
Compressor amps, three phase	3.9 - 4.1
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N0922 - Remote air cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1044
Ice production 90/70 (lb)	835
24 hour water use (gallons)	100
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	192
Suction Pressure (PSIG)	28 - 30 @ 70/50 31 - 32 @ 90/70
Discharge Pressure (PSIG)	240 - 250 @ 70/50 245 - 255 @ 90/70
Superheat (Degrees F.)	10-12
Metering device	Internally equalized TXV
Compressor amps, single phase	4.7 - 5.1
Compressor amps, 3 phase	3.9 - 4.1
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

Uses ERC311 condenser with 217PSIG headmaster.

N0922L - Remote low side

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1090
Ice production 90/70 (lb)	915
24 hour water use (gallons)	110
BTUH Capacity Requirement	5000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	Field charged or rack connected. See condensing unit for charge amount.
Suction Pressure (PSIG)	33
Superheat (Degrees F.)	8-10
Metering device	Internally equalized TXV
Auger drive motor amps	3.4 - 4

N1322 - Air cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1180
Ice production 90/70 (lb)	950
24 hour water use (gallons)	114
BTUH (AC load)	16000
Refrigerant Type	R-404A
Refrigerant Charge (oz)	34
Suction Pressure (PSIG)	22 - 25 @ 70/50 30 - 32 @ 90/70
Discharge Pressure (PSIG)	205 - 215 @ 70/50 295 - 305 @ 90/70
Superheat (Degrees F.)	8 - 12
Metering device	Internally equalized TXV
Compressor amps	6.9 - 7.2
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N1322 - Water cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1354
Ice production 90/70 (lb)	1050
24 hour water use, ice only (gallons)	126
Condenser water use (gallons)	850.5
Condenser GPM	.59
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	18
Suction Pressure (PSIG)	25 - 28
Discharge Pressure (PSIG)	240 - 250
Superheat (Degrees F.)	9 - 13
Metering device	Internally equalized TXV
Compressor amps	6.9 - 7.2
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

N1322 - Remote air cooled

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1329
Ice production 90/70 (lb)	1030
24 hour water use (gallons)	123
BTUH (AC load)	Not significant
Refrigerant Type	R-404A
Refrigerant Charge (oz)	192
Suction Pressure (PSIG)	28-30
Discharge Pressure (PSIG)	235-250
Superheat (Degrees F.)	12
Metering device	Internally equalized TXV
Compressor amps	6.9 - 7.2
Auger drive motor amps	1.1 - 2
Low pressure cut out (PSIG)	15
Low pressure cut in (PSIG)	30
High pressure cut out (PSIG)	450
High pressure cut in (PSIG)	350

Uses ERC311 condenser with 217PSIG headmaster.

N1322L - Remote low side

Prodigy Nugget Ice Machine

Ice production 70/50 (lb)	1330
Ice production 90/70 (lb)	1100
24 hour water use (gallons)	132
BTUH Capacity Requirement	7200
Refrigerant Type	R-404A
Refrigerant Charge (oz)	Field charged or rack connected. See condensing unit for charge amount.
Suction Pressure (PSIG)	30-33
Superheat (Degrees F.)	8-12
Metering device	Internally equalized TXV
Auger drive motor amps	3.4 - 4

NU130

Self contained nugget ice machine, introduced September 2011

Ice production 90/70 (lb)	59
24 hour water use (gallons)	7-8
BTUH Capacity Requirement	1390
Refrigerant Type	R-134a
Refrigerant Charge (oz)	4.5
Suction Pressure (PSIG)	8-10
Compressor amps	2.8-3.1
Metering device	Cap tube
Auger drive motor amps	.4 to .5

Superheat

In a mechanical refrigeration system, superheat is the amount the evaporator outlet's temperature is warmer than the temperature equivalent of the refrigerant's pressure in the evaporator. Too much superheat is a symptom of low charge or a TXV starving the evaporator, and likely overheating the compressor. Too little is a symptom of a TXV flooding through and overcooling the compressor.

Testing has shown that superheat is usually not a constant number. It changes both during the freeze cycle of a cuber and as the thermostatic expansion valve modulates or hunts. An accurate measurement of superheat requires several sample measurements of TXV bulb temperature and suction pressure.

The recommended frequency of measuring is every 15 seconds. Start 5 minutes into a freeze cycle.

Set up a table like this to record the information.

Freeze Cycle Time	15 sec	30 sec	45 sec	60 sec	Average
1. TXV bulb temp					n/a
2. Suction Pressure					n/a
3. Suction pressure converted to temperature					n/a
Superheat (1-3)					

Record data in rows 1 and 2. Convert row 2 to temperature and record it in row 3. Subtract row 3 from row 1 and enter the data in the superheat row. Calculate the average superheat.

This example is only for one minute's operation. Five minute's operation will give a more accurate reading.

Note: Thermometer attachment and insulation is critical in obtaining accurate readings.

Electrical Suffix Code

CODE	VOLTAGE	CYCLES	PHASE
-1	115	60	1
-2	230	60	1
-3	208-230*	60	3
-4	115/230**	60	1
-6	230	50	1
-7	208	60	1
-9	115/208-230**	60	3
-10	115/208**	60	1
-31	115/208-230**	60	1
-32	208-230*	60	1
-63	230/380-420/50/3	50	3

***Two voltages separated by a hyphen (-) means that the machine can operate between the two voltages.**

****Two voltages separated by a slash (/) means that both voltages are required to operate the machine. Usually requires a neutral wire.**

Prodigy Model Identification:

General Example: C0530SA-1C

C	05	30	S	A	-1	C
Type	Capacity	Cab. Width	Cube Size	Cond Type	Elec Code	Series
	100s of lb					

Type:

- C = modular cuber, CU = under counter cuber, F = flake, N = nugget, EH = Eclipse Head

Capacity:*

- 05 means 500 lb model

Cabinet Width

- 30 is 30 inches wide, others are 22 and 48

Cube Size - not used on flaked or nugget models

- S = small or half dice
- M = medium or full dice

Cond Type:

- A means air cooled
- W means water cooled
- R means remote air cooled
- L means remote low side

Electrical:

- -1 means 115 volt, see prior page for more info.

Series:

- and B means 2nd design series.

*Capacity Exceptions: EH models are Eclipse Heads, EH222 is 22" wide; EH130, EH330 and EH430 are 30" wide.

Date Code

Scotsman's production date code is located in the serial number.

2 digit Year, 2 digit Month, mfg site ID, six numbers

Example: **09061320998877**

0906 = Manufactured June, 2009

Hot Gas Valves

Design

Hot gas valves are selected by flow rate, coil voltage and tubing size for each refrigeration system. Flow rates that are too small will extend the harvest cycle, while flow rates that are too large may cause excessive refrigerant flow to the compressor. When replacing a complete valve do NOT use anything other than the OEM valve specified for the model in question. Rebuild kits are available for those valves without seat damage.

Diagnosis

Most hot gas valves are pilot type valves: Activation lifts a plunger that relieves pressure above the main valve disk allowing the main valve disk to lift up, allowing full flow of gas.

Valves can fail in three ways:

1. Do not open.
2. Leak through when closed (freeze cycle).
3. Do not open fully.

Do not open: When a valve does not open in the harvest cycle the power to the valve coil should be the first thing to check. If the proper voltage is present, check the coil for continuity.

Leaks through when closed: This can be caused by contamination on the seat of the valve. The degree of leak through can vary greatly. A good valve will have some temperature differential between its inlet and outlet during freeze and frost will gradually build up on the tubing leading from the evaporator inlet to the gas valve.

A leaking valve will cause the body of the valve to stay hot during the freeze cycle.

Does not open fully: This can be caused by a stuck disk in the valve. The coil pulls up the plunger and the valve opens, but ice release is slow. Another symptom of this is very low suction pressure during harvest and lack of heat at the evaporator inlet.

Kits

Water Valve Repair Kit (no coil or frame)

- Blue body valves: 12-2912-01
- Water regulating valves: 11-0559-01 (3/8" only)

Hot Gas Valve Kits (Alco only)

Model	Voltage	Valve Complete	Coil Part Number	Rebuild Kit Part Number
C0322, C0522, C0330, C0530	115	11-0493-22	12-2719-21	12-2733-30
C0322, C0522, C0330, C0530, C0630, C0830, C1030, C1448, C1848, C2148	230	11-0493-21	12-2719-22	

Cuber Capacity Check

1. Check cube size - is it correct?

- Prodigy: Harvests as a sheet - 1/8 to 3/16" bridge.

2. Check ice formation pattern - is it even?

- Must make ice over all freezing surfaces - nearly evenly.

3. Measure water temperature to ice machine.

4. Measure air temperature

- Air cooled check air temp into the coil
- Water cooled check ambient air

5. Operate the machine for 2 cycles and then measure the total cycle time (freeze + harvest). Compare to the cycle time in the manual or this book for the air and water temperatures the ice machine is operating in.

- 90/70 = 90°F. air temp and 70°F. water temp.
- 70/50 = 70°F. air temp and 50°F. water temp.
 - Temperatures above will cause longer cycles
 - Temperatures below will cause shorter cycles
 - Temperatures in between will result in cycle times between 90/70 and 70/50 times.

6. If total cycle time is within a minute or two of what is listed in the machines's service manual for the temperatures the unit is in, the capacity is normal.

Note: Harvest times set for winter operation (for those units with adjustable harvest times) will extend the total cycle beyond normal.

Flake or Nugget Ice Machine Field Capacity Check

These models are continuous flow machines, and make ice at a steady rate once stabilized. A capacity check confirms the machines efficiency and is also a good measure of ice quality.

Note: Capacity ratings are for new, clean machines in exactly the listed conditions. Scale will reduce capacity.

1. Remove the lower chute.
2. Operate the machine for 10 minutes to stabilize it.
3. Catch the ice for exactly 15 minutes, shut the machine off.
4. Weigh the ice together with any meltage in the container; do not drain the water before weighing. Use an accurate scale (like a refrigerant drum scale), as small errors will be multiplied in the formula and cause an improper conclusion.
5. Calculate capacity: multiply measured weight by 96 (number of 15 minute segments in 24 hours).
6. Compare to rated capacity at the closest to local conditions. Models are rated at two conditions, 70/50 and 90/70. Ice machines make less ice as the load and ambient increase.
7. Reassemble machine and switch to ice making.

Example:

A model's rated 90/70 capacity is 1110. The measured weight was 11.5. $11.5 \times 96 = 1104$. The ambient was 88 and the water temperature 76. This machine is making the appropriate amount of ice.

Judging results: Field machines are almost never at the exact conditions they are rated at, so a direct match is unlikely. Low capacity units will test significantly low (>10%) and normal units will not.

Refrigerant Temperature-Pressure Chart

TEMP.	R-12	R22	R502	R-404A [^]	HP81 [^]
-14	2.8	13.8	19.5	21.1	19.6
-12	3.7	15.1	21.0	22.6	21.1
-10	4.5	16.5	22.6	24.2	22.7
-8	5.4	17.9	24.2	25.9	24.4
-6	6.3	19.3	25.8	27.6	26.1
-4	7.2	20.8	27.5	29.3	27.8
-2	8.2	22.4	29.3	31.1	29.7
0	9.2	24.0	31.1	33.0	31.5
1	9.7	24.8	32.0		
2	10.2	25.6	32.9	34.9	33.5
4	11.2	27.3	34.9	36.9	35.5
6	12.3	29.1	36.9	39.0	37.5
8	13.5	30.9	38.9	41.1	39.6
10	14.6	32.8	41.0	43.3	41.8
11	15.2	33.7	42.1		
12	15.8	34.7	43.2	45.5	44.1
14	17.1	36.7	45.4	47.8	46.4
15	17.7	37.7	46.5		
16	18.4	38.7	47.7	50.2	48.8
18	19.7	40.9	50.0	52.7	51.2
19	20.4	41.9	51.2		
20	21.0	43.0	52.5	55.2	53.8
22	22.4	45.3	54.9	57.8	56.4
23	23.2	46.4	56.2		
24	23.9	47.6	57.5	60.4	59.1
26	25.4	49.9	60.1	63.2	61.8
27	26.1	51.2	61.5		
28	26.9	52.4	62.8	66.0	64.6
30	28.5	54.9	65.6	68.9	67.5
31	29.3	56.2	67.0		
32	30.1	57.5	68.4	71.8	70.5
33	30.9	58.8	69.9		
34	31.7	60.1	71.3	74.9	73.6
36	33.4	62.8	74.3	78.0	76.7
38	35.2	65.6	77.4	81.3	80.0
40	37.0	68.5	80.5	84.6	83.3
42	38.8	71.5	83.8	88.0	86.7
44	40.7	74.5	87.0	91.4	90.2
46	42.7	77.6	90.4	95.0	93.8
48	44.7	80.8	93.9	98.7	97.4
50	46.7	84.0	97.4	102.4	101.2
60	57.7	101.6	116.4	125.1	127.4
70	70.2	121.4	137.6	148.2	150.6
80	84.2	143.6	161.2	174.0	176.5
90	99.8	168.4	187.4	202.9	205.2
100	117.2	195.9	216.2	235.1	237.1
110	136.4	226.4	247.9	270.8	272.2
120	157.7	259.9	282.7	310.3	310.9
130	181.0	296.8	320.8	353.9	353.2
140	206.6	337.3	362.6	401.9	399.5
150	234.6	381.5	408.4	454.5	449.9

[^]<50°F = Sat. Vapor >50°F. = Sat. Liquid.

Thermistor Values

Temp (F°)	Resistance (ohms)	Temp (F°)	Resistance (ohms)	Temp (F°)	Resistance (ohms)
0	85325	44	23394	88	7685
1	82661	45	22767	89	7507
2	80090	46	22159	90	7333
3	77607	47	21569	91	7164
4	75210	48	20997	92	6999
5	72896	49	20442	93	6839
6	70660	50	19903	94	6683
7	68501	51	19381	95	6530
8	66415	52	18873	96	6382
9	64400	53	18381	97	6238
10	62453	54	17903	98	6097
11	60571	55	17439	99	5960
12	58752	56	16988	100	5826
13	56995	57	16551	101	5696
14	55296	58	16126	102	5569
15	53653	59	15714	103	5446
16	52065	60	15313	104	5325
17	50529	61	14924	105	5208
18	49043	62	14546	106	5093
19	47607	63	14179	107	4981
20	46217	64	13823	108	4872
21	44872	65	13476	109	4766
22	43571	66	13139	110	4663
23	42313	67	12812	111	4562
24	41094	68	12494	112	4463
25	39915	69	12185	113	4367
26	38774	70	11884	114	4273
27	37669	71	11592	115	4182
28	36600	72	11308	116	4093
29	35564	73	11031	117	4006
30	34561	74	10763	118	3921
31	33590	75	10502	119	3838
32	32649	76	10247	120	3757
33	31738	77	10000	121	3678
34	30855	78	9760	122	3601
35	30000	79	9526	123	3526
36	29171	80	9299	124	3452
37	28368	81	9077	125	3381
38	27589	82	8862	126	3311
39	26835	83	8652	127	3243
40	26104	84	8448	128	3176
41	25395	85	8250	129	3111
42	24707	86	8056	130	3047
43	24041	87	7868	131	2985

Thermistor Values

Temp (F°)	Resistance (ohms)	Temp (F°)	Resistance (ohms)	Temp (F°)	Resistance (ohms)
132	2924	176	1256	219	606
133	2865	177	1234	220	597
134	2807	178	1212	221	587
135	2751	179	1190	222	578
136	2696	180	1169	223	569
137	2642	181	1149	224	560
138	2589	182	1129	225	551
139	2537	183	1109	226	543
140	2487	184	1090	227	534
141	2438	185	1071	228	526
142	2390	186	1052	229	518
143	2343	187	1034	230	510
144	2297	188	1016	231	502
145	2252	189	998	232	495
146	2208	190	981	233	487
147	2165	191	965	234	480
148	2123	192	948	235	472
149	2082	193	932	236	465
150	2042	194	916	237	458
151	2003	195	901	238	451
152	1965	196	885	239	444
153	1927	197	871	240	438
154	1890	198	856	241	431
155	1855	199	842	242	425
156	1819	200	828	243	419
157	1785	201	814	244	412
158	1752	202	800	245	406
159	1719	203	787	246	400
160	1687	204	774	247	394
161	1655	205	761	246	389
162	1624	206	749	249	383
163	1594	207	737	250	377
164	1565	208	724		
165	1536	209	713		
166	1508	210	701		
167	1480	211	690		
168	1453	212	679		
169	1427	213	668		
170	1401	214	657		
171	1375	215	646		
172	1350	216	636		
173	1326	217	626		
174	1302	218	616		
175	1279				

Compressor Potential Relays

The part number prefix for a Scotsman compressor start relay is 18-1903, the ending numbers identify the individual part's configuration.

Part Number	Pick-Up Volts	Drop Out Volts	Continuous Voltage Rating	Hz
18-1903-04	150-160	20-55	130	60
18-1903-18	340-360	55-125	336	60
18-1903-21	320-340	60-140	395	60
18-1903-22	300-320	60-133	336	50
18-1903-26	320-340	75-160	420	60
18-1903-28	260-280	75-150	420	60
18-1903-29	240-260	60-140	395	60
18-1903-30	280-300	60-140	336	50
18-1903-31	170-180	45-90	256	60
18-1903-33	190-200	55-115	332	60
18-1903-34	300-320	75-160	420	60
18-1903-35	190-200	60-124	336	50
18-1903-40	170-180	40-90	336	60
18-1903-44	150-160	45-90	256	60
18-1903-46	190-200	60-130	395	60
18-1903-47	300-320	60-140	395	60
18-1903-50	210-230	75-150	420	60
18-1903-52	170-180	55-115	332	60
18-1903-53	160-170	35-77	228	50
18-1903-54	240-260	60-140	395	60
18-1903-55	160-170	40-90	332	60
18-1903-56	240-260	60-121	337	50
18-1903-57	190-200	55-115	332	60
18-1903-58	210-230	30-150	420	60
18-1903-59	190-200	60-121	375	60
19-1903-62	260-280	60-120	420	60

Start Capacitors

The part number prefix for a Scotsman start capacitor is 18-1901, the ending numbers identify the individual part's configuration.

Part Number	MFD	VAC
18-1901-03	124-149	220
18-1901-04	324-389	110
18-1901-09	161-193	220
18-1901-12	540-648	110
18-1901-15	145-174	220
18-1901-20	108-130	330
18-1901-23	130-156	330
18-1901-27	189-227	330
18-1901-33	189-227	220
18-1901-40	88-109	250
18-1901-41	378-455	135
18-1901-42	270-324	160
18-1901-43	61-72	250
18-1901-45	88-106	330
18-1901-47	282-340	110
18-1901-48	145-174	250
18-1901-49	243-292	110
18-1901-50	145-174	250
18-1901-51	108-130	250
18-1901-52	130-156	250
18-1901-53	88-106	220
18-1901-54	108-130	220
18-1901-55	72-88	250
18-1901-56	72-88	330
18-1901-57	64-77	330
18-1901-58	270-324	330
18-1901-59	145-174	330
18-1901-60	288-352	125
18-1901-61	113-138	220
18-1901-62	145-175	165

Run Capacitors

The part number prefix for a Scotsman run capacitor is 18-1902, the ending numbers identify the individual part's configuration.

Part Number	MFD	VAC
18-1902-17	10	370
18-1902-27	40	440
18-1902-28	30	440
18-1902-29	20	370
18-1902-30	15	440
18-1902-45	25	370
18-1902-51	35	370
18-1902-52	15	370
18-1902-53	30	370
18-1902-55	35	370
18-1902-56	40	370
18-1902-57	45	370
18-1902-58	50	440
18-1902-59	60	370
18-1902-62	80	370
18-1902-63	30	440

Warranty Summary

Scotsman's commercial warranty varies by product type, country, and model prefix or model number.

- All cubers (Prodigy, CU0515, CU1526, CU2026, CU3030); slope front ice storage bins (BH550, BH801, BH900, B222, B322, B330, B530, B842, B948); and HD22 or HD30 dispensers have 3 years labor, 3 years parts, plus Prodigy evaporators are covered for 5 years parts and labor and their condensers and compressors have 5 years parts.
- ICS, BH1100, BH1300, BH1600 and HTB bins have 5 years parts and labor.
- ID dispensers have 1 year labor and 2 years parts.
- CSW45 has 1 year parts and labor.
- Prodigy and AutoSentry Flakers, N0422, N0622, N0922, N1322, F0522, F0822, F1222, F1522, NME654, NME954, NME1254, NME1854, FME804, FME1204, FME1504, FME2404 have three years parts, three years labor and 5 years on the compressor (parts).
- MAR industrial flakers have three years parts and labor plus 10 years parts on the evaporator drum and refrigerant seal kit

All other products have two years parts, two years labor and 5 years on the compressor (parts).

See warranty statements for specific information.

Prodigy Pressure Switches

	Cut In (PSIG)	Cut Out (PSIG)
Fan Pressure Control, 22" and 30"	240	190
Fan Pressure Control, 48"	280	220
Cuber High Pressure Cut Out AC	390	500
Cuber High Pressure Cut Out WC	300	400
Cuber High Pressure Cut Out, Remote	350	450
Flaker low pressure cut out	30	15
Flaker high pressure cut out	350	450
Flaker pump down pressure switch	30	15

Cuber Controller Button Use

Set purge level, 1-5 (1 is minimum, 5 is maximum) or Automatic: (status light off)

- Hold off button in for 3 seconds. Release.
- Press and release the On button to cycle through and select one of the five purge settings or to use the Automatic setting.

Recall diagnostic code: (status light off)

- Hold off button in for 3 seconds. Release.
- Press and release the Harvest button to cycle through each of the last 10 error codes from most recent to oldest.

Clear diagnostic code: (status light off)

- Hold Clean and Harvest buttons in for 3 seconds to clear all prior codes.

Reset control:

- Depress and release Off, then depress and release On

Start Test Mode: (status light off)

- Hold Off button in for 3 seconds. Release.
- Hold Clean button in for 3 seconds. Release.

Lock / Unlock control:

- Hold On button in for 3 seconds, keep holding then press and release Off twice.

Empty reservoir:

- Hold Clean button in for 3 seconds. Release. Pump and purge valve will be ON for 30 seconds. Repeat as needed.

Clear De-Scale / Sanitize Light (status light off)

- Push and release the Clean button
- Wait 3 minutes
- Push and release the Clean button again
- Push and release the Off button
- Push and release On to resume ice making

Prodigy Cuber

Change De-Scale Notification Interval

Like the others, this feature is accessible only from standby (Status Light Off).

1. Press and hold harvest button for 3 seconds.

Starts the Time to Clean Adjustment State and displays the current time to clean setting.

2. Press the clean button repeatedly to cycle through the 4 possible settings:

Rev 5 and up (10/08 production start)

- 1 year (8760 hours)
- 0 (disabled)
- 4 months (2920 hrs)
- 6 months (4380 hours) (default)

Prior

- 6 months
- 5 months
- 4 months
- 3 months

3. Press Off or leave untouched for 60 seconds to select the displayed interval

Cuber Test Mode:

- Depress Off for 3 seconds, release. Then depress Clean for 3 seconds.
- The sump will fill the first 30 seconds of the test. If the sump is full it will overflow into the bin. At 30 seconds the WIV will shut off and the WP will turn on. You will be able to see and hear the water running over the plates. After 10 seconds the PV and HGV will turn on. Water will be purging from the machine. After 10 more seconds the compressor will start. 5 seconds later the HGV will close. The compressor will run for a total of 20 seconds. After which everything will turn off for 5 seconds. After that time the HGV will open and you'll be able to hear the hissing as the pressure is equalized. 10 seconds later the fan will turn on (if fan control jumped). After 10 seconds all will be off and the output test will be complete.

Time from test start (seconds)	On
0-30	Inlet water valve - may overflow into bin
30-40	Water pump
40-50	Purge valve, hot gas valve and water pump
50-55	Compressor, hot gas valve
60-70	Compressor
70-75	Nothing is on
75-80	Hot gas valve
80-90	Fan (if pressure control jumped)

Prodigy Flake or Nugget Ice Machine

Control Button Use

Recall diagnostic code:

- Hold off button in for 3 seconds. Release.
- Press and release the Clean button to cycle through each of the last 10 error codes from most recent to oldest.

Clear diagnostic code:

- Hold Clean and Off buttons in for 3 seconds to clear all prior codes.

Reset control:

- Depress and release Off, then depress and release On

Start Test Mode:

- Hold Off button in for 3 seconds. Release.
- Hold Clean button in for 3 seconds. Release.

Lock / Unlock control:

- Hold On button in for 3 seconds, keep holding then press and release Off twice.

Prodigy Flake or Nugget Ice Machine

Change De-Scale Notification Interval

This feature is accessible only from standby (Status Light Off).

1. Press and hold Clean button for 3 seconds.

This starts the Time to Clean Adjustment State and displays the current time to clean setting.

2. Press the clean button repeatedly to cycle through the 4 possible settings:

- 1 year (8760 hours)
- 0 (disabled)
- 4 months (2920 hrs)
- 6 months (4380 hours) (default)

3. Push Off to confirm the selection.

Start Test Mode:

- Hold Off button in for 3 seconds. Release.
- Hold Clean button in for 3 seconds. Release.

d shows in code display

Time from test start (seconds)	On
0 to 10	Compressor
10 to 20	Compressor and Auger Gear Motor
20 to 30	Auger Gear Motor

Prodigy Cuber Controller

Hi Voltage Connections

