



Short form specification:

Ice machine to be a Follett® Horizon Chewblet ice machine model _____ [Insert size/series, condenser type & installation/mounting, from model number guide] capable of producing compressed nugget ice using an efficient, sanitary horizontal evaporator/auger system and delivering ice by a flexible wire reinforced transport tube to □ ice storage bin, □ ice and water dispenser, □ ice and beverage dispenser, □ drop-in dispenser or □ Ice Manager™ diverter valve system and provided with a stainless steel frame and exterior, slide-out evaporator unit with utility docking station, front-mounted unit status display, automatic self-flush, and semi-automatic cleaning and sanitizing system, plus all the features listed below and mounting/performance-enhancing accessories checked:

Features

Horizon Chewblet ice machine with up to 1580 lb (669 kg) daily production of customer preferred Chewblet ice

- 1000 series - up to 900 pounds (409 kg) in 24 hours
- 1400 series - up to 1333 pounds (605 kg) in 24 hours
- 1650 series - up to 1580 pounds (717 kg) in 24 hours
 - automatically transport ice through a tube with RIDE® technology from up to 75' (22.8 m) away (10' (3 m) for Micro Chewblet ice)
 - chewable, compressed nugget ice is preferred over cubes¹
 - Chewblet ice dispenses reliably from ice and beverage dispensers
 - available with approximately 1.00" (2.54 cm) long standard Chewblet ice or optional 3/8" (0.95 cm) long Micro Chewblet ice
 - environmentally responsible R404a refrigerant with zero ozone depletion potential
 - water and energy efficient
 - quiet production without noisy harvest cycles

Durable, attractive ice machine

- regular bearing inspection or replacement is not required
- easy-to-read LED operating status and diagnostic display
- smooth contours for aesthetically appealing appearance

Designed with sanitation in mind

- Agion® silver-based antimicrobial product protection of key ice and water contact components²
- aluminum-bronze evaporator has antimicrobial properties
- automatic self-flushing reduces water scale buildup
- floatless, sealed design inhibits formation of biofilms
- semi-automatic cleaning and sanitizing system

Agency approvals



Warranty

- 3 years parts and labor, 5 years compressor parts

Horizon remote 1000,1400,1650 series ice machine						
Use/application	Install/mount	Condenser	V/Hz/Ph	1000 series	1400 series	1650 series
with ice storage bin	top mount	with	115/60/1	HCD1000RBT	HCD1400RBT	HCD1650RBT
		without	115/60/1	HCD1000NBT	HCD1400NBT	HCD1650NBT
	RIDE	with	115/60/1	HCD1000RBS	HCD1400RBS	HCD1650RBS
		without	115/60/1	HCD1000NBS	HCD1400NBS	HCD1650NBS
with Follett Vision™ dispenser	RIDE	with	115/60/1	HCD1000RVS	HCD1400RVS	HCD1650RVS
		without	115/60/1	HCD1000NVS	HCD1400NVS	HCD1650NVS
with ice and beverage dispenser (by others)	top mount*	with	115/60/1	HCD1000RHT	HCD1400RHT	HCD1650RHT
		without	115/60/1	HCD1000NHT	HCD1400NHT	HCD1650NHT
	RIDE	with	115/60/1	HCD1000RHS	HCD1400RHS	HCD1650RHS
		without	115/60/1	HCD1000NHS	HCD1400NHS	HCD1650NHS
with drop-in dispenser (by others)	RIDE	with	115/60/1	HCD1000RJS	HCD1400RJS	HCD1650RJS
		without	115/60/1	HCD1000NJS	HCD1400NJS	HCD1650NJS
with Ice Manager diverter valve system	RIDE	with	115/60/1	HCD1000RMS	HCD1400RMS	HCD1650RMS
		without	115/60/1	HCD1000NMS	HCD1400NMS	HCD1650NMS

All models ENERGY STAR® certified

* Requires Harmony™ top kit (see page 5 for part number)

NOTE: For Micro Chewblet ice, replace second character (C) with an M
e.g. HMD1000ABT

For three phase remote condensing unit, replace third character (D) with F
e.g. HCF1000RBT

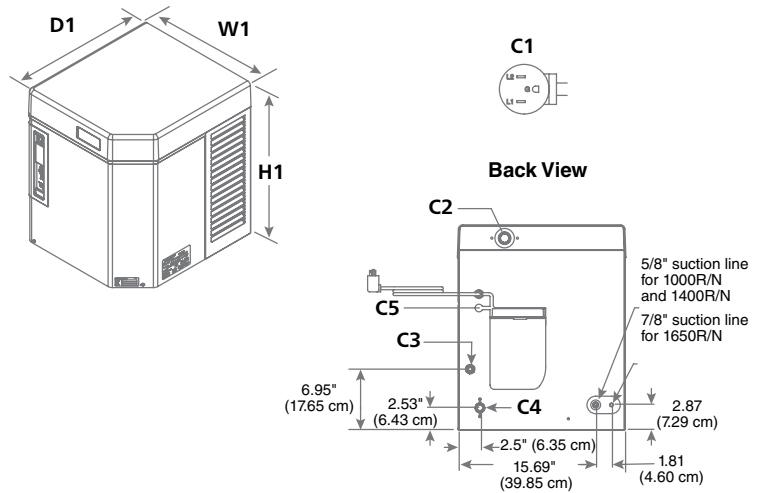
Job

Item

Accessories

- Harmony conversion top kit for ice and beverage dispensers (listed on page 5)
- Water filter kit (item# 00978957 – see form# 9905 for details)
 - ___ ea. extra primary water filter cartridge
 - ___ ea. extra pre-filter cartridge
- Carbonless water filter kit (item# 01050426 – see form# 6380 for details)
- Wall mount bracket (see accessory form# 3311)
- Ice machine stand, height-adjustable (see accessory form# 3311)
- Longer ice transport tube, specify length: ___ ft/m in 5'/1.5 m increments (10'/3 m is standard)
- 35' (10.7 m) refrigeration lines (item# 00193227 – not pre-charged) for 1000R and 1400R
- 35' (10.7 m) refrigeration lines (item# 00977785 – not pre-charged) for 1650R
- Timer to control one or two Horizon ice machines (see accessory form# 3311)
- Nu-Calgon® IMS-II sanitizer, 16 oz bottle (item# 00979674)
- SafeCLEAN™ environmentally responsible ice machine cleaner (item# 00132001)

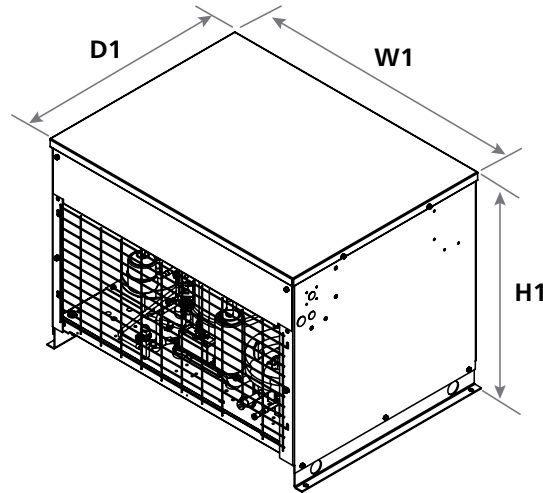
Dimensional drawing



Specification

	Horizon 1000 series	Horizon 1400 series	Horizon 1650 series
W1 Width	19.30" (49.0 cm)	19.30" (49.0 cm)	19.30" (49.0 cm)
D1 Depth	22.80" (57.9 cm)	23.77" (60.4 cm)	23.77" (60.4 cm)
H1 Height	23.50" (59.7 cm)	23.50" (59.7 cm)	23.50" (59.7 cm)
Ventilation clearance air-cooled models only	Top mount – 1.00" (2.54 cm) RIDE – See pg. 5 for details	Top mount – 1.00" (2.54 cm) RIDE – See pg. 5 for details	Top mount – 1.00" (2.54 cm) RIDE – See pg 5 for details
Electrical 115 V/60/1	C1 6 amps, requires dedicated 15 amp circuit, 7' (2 m) cord, NEMA 5-15 plug.	C1 6 amps, requires dedicated 15 amp circuit, 7' (2 m) cord, NEMA 5-15 plug.	C1 6 amps, requires dedicated 15 amp circuit, 7' (2 m) cord, NEMA 5-15 plug.
C2 Ice transport tube	See page 6 for details	See page 6 for details	See page 6 for details
C3 Water inlet	3/8" OD push-in water inlet	3/8" OD push-in water inlet	3/8" OD push-in water inlet
C4 Drain	3/4" MPT - vented T required	3/4" MPT - vented T required	3/4" MPT - vented T required
C5 Ice bin cord connection	for Vision applications only	for Vision applications only	for Vision applications only
Suction line	5/8"	5/8"	7/8"
Air temperature	50 - 100 F (10 - 38 C)	50 - 100 F (10 - 38 C)	50 - 100 F (10 - 38 C)
Water temperature	45 - 90 F (7 - 32 C)	45 - 90 F (7 - 32 C)	45 - 90 F (7 - 32 C)
Potable water pressure	10 - 70 psi (69 - 483 kPa)	10 - 70 psi (69 - 483 kPa)	10 - 70 psi (69 - 483 kPa)
Ice production	See ice production charts on page 8	See ice production charts on page 8	See ice production charts on page 8
Energy consumption 90 F (32 C) air, 70 F (21 C) water	single phase – 5.1 kWh, three phase – 3.9 kWh per 100 lb (45.4 kg) of ice	single phase – 4.8 kWh, three phase – 3.5 kWh per 100 lb (45.4 kg) of ice	single phase – 4.8 kWh, three phase – 3.7 kWh per 100 lb (45.4 kg) of ice
Water consumption	12.5 gal (47 L) of potable water per 100 lb (45.4 kg) of ice (per AHRI test standards) 13.6 gal (51 L) including periodic flushing	12.5 gal (47 L) of potable water per 100 lb (45.4 kg) of ice (per AHRI test standards) 13.2 gal (50 L) including periodic flushing	12.5 gal (47 L) of potable water per 100 lb (45.4 kg) of ice (per AHRI test standards) 13.2 gal (50 L) including periodic flushing
Approximate ship weight	180 lb (68 kg)	190 lb (86 kg)	190 lb (86 kg)
NOTE: For indoor use only			

Dimensional drawing



Specification

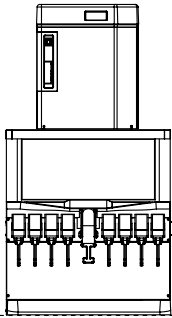
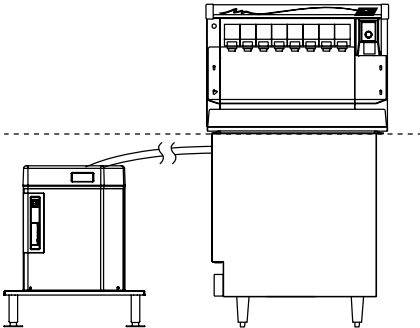
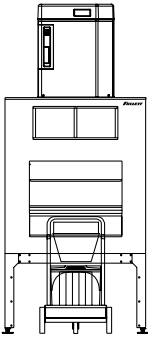
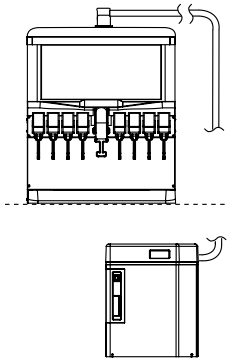
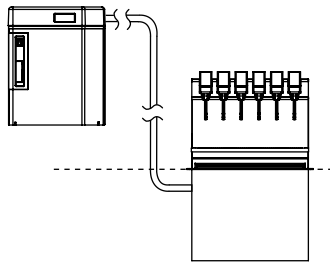
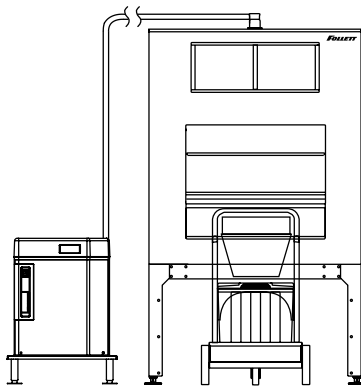
	Horizon 1000 series	Horizon 1400 series	Horizon 1650 series
W1 Width	36.25" (90.1 cm) - all models	36.25" (90.1 cm) - all models	36.25" (90.1 cm) - all models
D1 Depth	25.50" (64.8 cm) - all models	25.50" (64.8 cm) - all models	25.50" (64.8 cm) - all models
H1 Height	26.10" (66.3 cm) - all models	26.10" (66.3 cm) - all models	26.10" (68.0 cm) - all models
Electrical 208-230 V/60/1 – single phase	15 amps, requires dedicated amp circuit, internal connection	30 amps, requires dedicated amp circuit, internal connection	50 amps, requires dedicated amp circuit, internal connection
Electrical 208-230 V/60/3 - three phase	15 amps, requires dedicated amp circuit, internal connection	25 amps, requires dedicated amp circuit, internal connection	35 amps, requires dedicated amp circuit, internal connection
Cooling unit operating limits (air temperature)	min -20 F (-29 C) max 120 F (49 C)	min -20 F (-29 C) max 120 F (49 C)	min -20 F (-29 C) max 120 F (49 C)
Maximum refrigerant line run length	100' (30.5 m)	100' (30.5 m)	100' (30.5 m)
Maximum line rise above evaporator	35' (10.7 m)	35' (10.7 m)	35' (10.7 m)
Evaporator mounting above condenser	15' (4.6 m)	15' (4.6 m)	15' (4.6 m)
Maximum refrigeration line drop	15' (4.6 m)	15' (4.6 m)	15' (4.6 m)
BTU/hr (Kcal/hr) at 0 F (-18 C) evaporator, 90 F (32 C) ambient air (1000N, 1400N, 1650N units only)	7,700 (1,940)	10,000 (2,520)	13,000 (3,276)
Rack systems * EPR valve - set to	0 F (-18 C)	0 F (-18 C)	0 F (-18 C)
Approximate ship weight	300 lb (145 kg)	320 lb (145 kg)	340 lb (175 kg)

NOTE:

- 1400 and 1650 model condensing units have a liquid suction line heat exchanger. The entire liquid line should be insulated separately from the suction line.
 - Outdoor installation of low side is not recommended and will void warranty.
- * EPR valve to be supplied by installer.

1 – Locating the ice machine

Horizon self-contained Chewblet ice machines allow top-mounting or mounting in a base cabinet, on a wall or on a floor stand up to 75' (22.8 m) from the dispenser or ice bin with RIDE technology (10' (3.0 m) for Micro Chewblet ice). In-cabinet mounting (RIDE applications) require special attention to service access, unit ventilation and ice tube runs (see pages 5-6).

<p>Top mounting – ice & beverage dispensers (by others)</p>	<p>RIDE model – Follett low-profile Vision™ ice & beverage dispensers</p>	<p>Top mount on Follett ice storage bins</p>
		
<p>Important specifier notes:</p> <ol style="list-style-type: none"> 1. Dispenser must be compatible with nugget ice. See page 5 for compatible ice and beverage dispenser models and top kit numbers. 2. Verify ceiling or soffit height to ensure sufficient top clearance. 	<p>Important specifier notes:</p> <ol style="list-style-type: none"> 1. See page 5 for critical clearance & venting requirements. 	<p>Important specifier notes:</p> <ol style="list-style-type: none"> 1. See form# B300 for bin sizing. 2. Verify ceiling or soffit height to ensure top clearance. 3. Locate floor sink or grate and drains in front of storage bin. 4. Do not position bin drain lines to block Ice•Devlce™ bin cart.
<p>RIDE model – ice & beverage dispensers (by others)</p>	<p>RIDE model – drop-in beverage dispensers (by others)</p>	<p>RIDE model – Follett ice storage bins</p>
		
<p>Important specifier notes:</p> <ol style="list-style-type: none"> 1. Dispenser must be compatible with nugget ice. Compatible dispensers include Cornelius DB/ID/DF150/175, Lancer 4500-22N & FS-16N, Servend MD150/175/200/250, SV175/200/250 and Coca-Cola Freestyle. As well as dispensers listed on page 5. 	<p>Important specifier notes:</p> <ol style="list-style-type: none"> 1. See form# 3425 for qualified applications. 	<p>Important specifier notes:</p> <ol style="list-style-type: none"> 1. See form# B300 for bin sizing. 2. Locate floor sink or grate and drains in front of storage bin. 3. Do not position bin drain lines to block Ice•Devlce bin cart.

1 – Locating the ice machine (continued)

Top mounting – compatible ice & beverage dispensers*					
Manufacturer	Model Number	Width in (cm)	Depth† in (cm)	Height** in (cm)	Harmony top kit – specify "F" for front facing, or "B" for backward facing units
Lancer dispensers	4500-30N	30.00 (76.2)	30.50 (77.5)	36.50 (92.7)	HTL30RC-F
	FS-22N	22.00 (55.9)	30.50 (77.5)	42.13 (107.0)	HTL22RC-F
	FS-30N	30.00 (76.2)	30.50 (77.5)	42.13 (107.0)	HTL30RC- (F or B)
	FS-44N#	44.00 (111.8)	30.50 (77.5)	42.13 (107.0)	(2) HTL22RC-F
Cornelius dispensers	DB/ED/DF 200 series	30.00 (76.2)	30.00 (76.2)	34.38 (87.3)	HTC30RC-F
	DB/ED/DF 250 series	30.00 (76.2)	30.00 (76.2)	38.38 (97.5)	HTC30RC-F
	DB/ED/DF 300 series	44.00 (111.8)	30.00 (76.2)	34.00 (86.4)	HTC44RC- (F or B)
	FlavorFusion/Overload	30.00 (76.2)	30.70 (78.0)	39.38 (100.0)	HTC30RC-10F-FF
	IDC215	30.00 (76.2)	30.70 (78.0)	39.38 (100.0)	HTC30RC-10F-IDC
	IDC255	30.00 (76.2)	30.70 (78.0)	36.38 (92.4)	HTC30RC-10F-IDC
Servend dispensers	MDH-302	42.75 (108.6)	31.00 (78.7)	32.38 (82.2)	HTS44RC- (F or B)†
	MDH-402	60.00 (152.4)	30.50 (77.5)	32.38 (82.2)	HTS60RC- (F or B)†§

*All approved dispensers can be filled with a RIDE model Horizon ice machine without a top kit.
 ** Net height after installation of top kit (excluding height of ice machine).
 # FS-44N consists of 2 separate 22.00" (55.9 cm) dispensers. A top kit is needed for each Horizon ice machine ordered.
 † Requires minimum 0.50" (1.27 cm) clearance between back of dispenser and wall.
 § 60- inch models: Please specify number of Horizon ice machines and location. D = 2; R = 1 on right side; L = 1 on left side

2 – Undercounter/in-cabinet mounting

Cabinet details

Important specifier notes

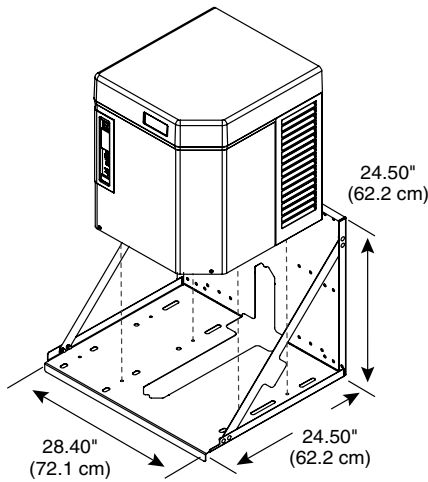
1. Cabinet door opening must meet minimum size requirements shown and be free of obstructions to allow ice machine to slide out (no lip or utilities to block removal).
2. Cabinet base must be capable of supporting ice machine and allow ice machine to rest flat on cabinet bottom.
3. No counter supports, electric or plumbing can run in front of the ice machine.

The diagram illustrates the installation of an ice machine within a cabinet. Key components and requirements are labeled:

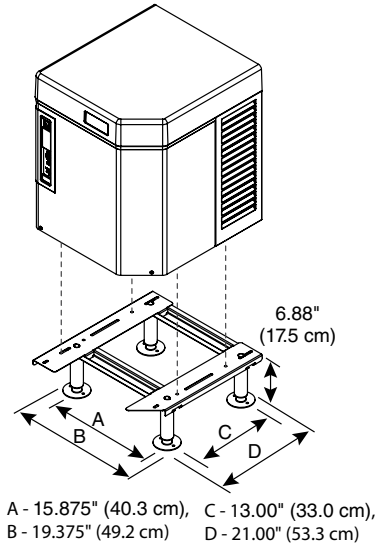
- Cabinet door opening:** 21.00"W x 24.50"H (53.3 cm x 62.2 cm) minimum.
- Ice transport tube:** minimum 1/4" per foot (2 cm per meter) pitch toward ice machine, secure to prevent dips and traps from forming.
- Connections:** electric and water lines are shown connected to the machine.
- Drain:** A drain is located at the bottom of the cabinet.
- Cabinet base:** must be flat & free of obstructions (no lip or utilities to block removal).
- Clearance:** 12.00" (30.5 cm) minimum between ice machine and dispenser.
- Door Action:** The cabinet door is shown sliding out.
- Reference:** see dispenser specification sheet for installation requirements.

3 – Horizon ice machine mounting accessories

Optional wall mount bracket



Optional machine stand

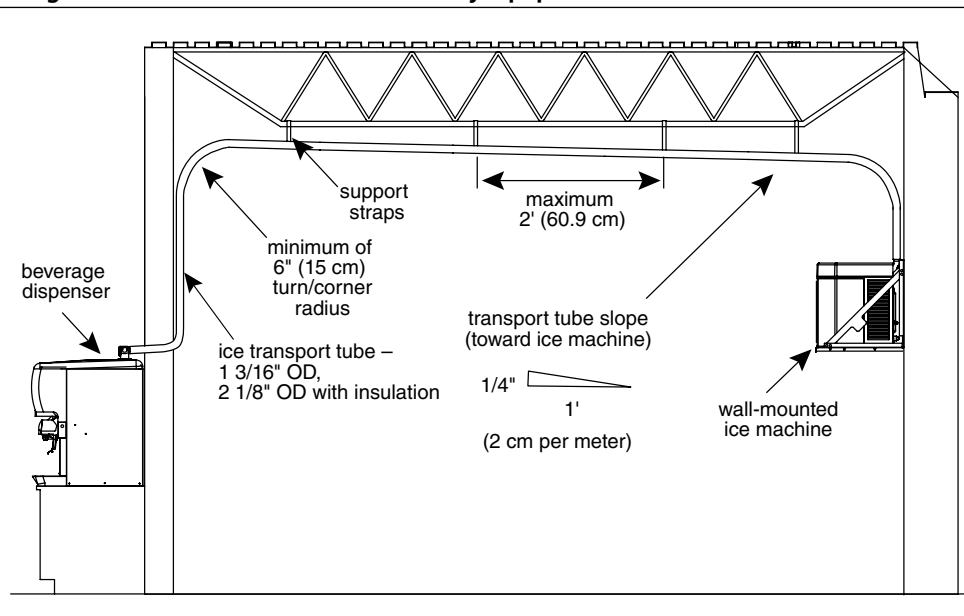


Important specifier notes:

1. For secure wall mounting, specify optional wall mount bracket.
2. Wall and fasteners must support the weight of the ice machine, bracket, supply water and ice. Use of a backing board may be required with hollow wall construction.
3. Machine stand mounting adds 6.88" (17.5 cm) to height of ice machine.
4. No dips in tube routing allowed.
5. Ice transport tube needs minimum 1/4" per foot (2 cm per meter) pitch toward ice machine and should be secured to prevent dips and traps from forming.

4 – Horizon ice tube runs - specifier guidelines

Long tube runs for RIDE remote ice delivery equipment



Important specifier notes:

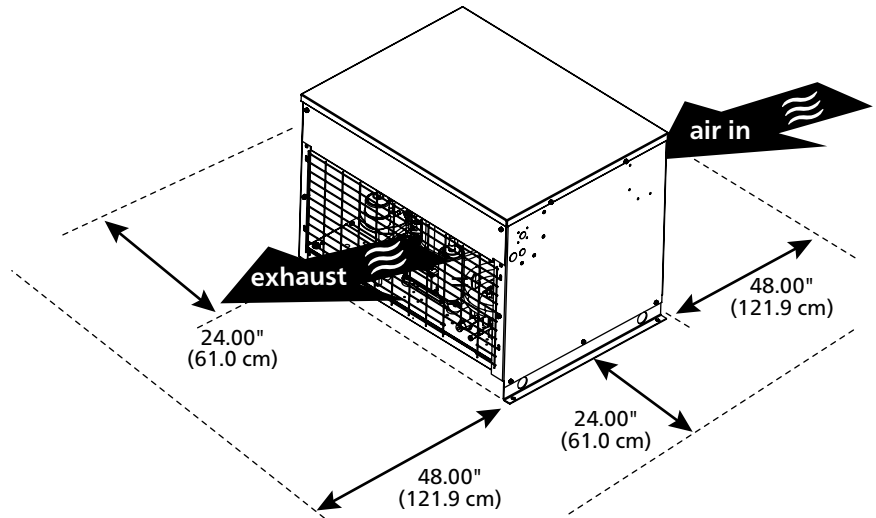
1. 75' (22.8 m) maximum ice transport tube run (10' (3.04 m) for Micro Chewblet ice).
2. Tubing routing bends must have a 6.00" (15.2 cm) radius or larger.
3. If not supported from underneath, secure insulated ice transport tube at least every 2' (60.9 cm) to prevent dips or traps.
4. Relative humidity levels above 80% in areas where the ice machine or ice transport tube are located may produce excessive condensation that will cause water damage.
5. Contact factory for recommendations on running tubing through a decorative soffit or chase.

Remote condensing unit

Condensing unit installation specifications

Important specifier notes:

1. Provide front, back and side clearances as shown.
2. The maximum refrigerant line run length is 100' (30.5 m). Installations with up to 50' (15.2 m) line run require:
1000 Series – 8 lb (4 kg) of refrigerant
1400 Series – 11 lb (5 kg) of refrigerant
1650 Series – 11 lb (5 kg) of refrigerant
Consult installation manual for correct refrigerant charge if line run exceeds 50 ft (15.2 m).
3. The maximum line rise above the evaporator is 35 ft (10.7 m).
Condensing unit above evaporator unit – 35 ft (10.7 m) (installations with rise over 20 ft (6.1 m) require additional suction line s-trap at midpoint rise).
4. The evaporator can only be mounted a maximum of 15' (4.6 m) above the condensing unit.
Note: The service loop is not included when calculating length, rise or drop in the tubing run.



Note: To connect evaporator/ice machine to rack systems, see page 3.

Ice production – Horizon HCD1000 series, air-cooled

Inlet water temperature F (C)	Ambient air temperature F (C)					lb/kg production in 24 hr
	60 (16)	70 (21)	80 (27)	90 (32)	100 (38)	
50 F (10 C)	944 (429)	900 (409)	853 (387)	819 (372)	791 (359)	
60 F (16 C)	887 (493)	866 (393)	837 (380)	800 (363)	756 (343)	
70 F (21 C)	833 (378)	824 (374)	804 (365)	765 (347)	710 (322)	
80 F (27 C)	784 (356)	774 (351)	752 (342)	714 (324)	656 (298)	
90 F (32 C)	740 (336)	714 (324)	680 (309)	640 (291)	594 (270)	

Ice production – Horizon HCD1400 series, air-cooled

Inlet water temperature F (C)	Ambient air temperature F (C)					lb/kg production in 24 hr
	60 (16)	70 (21)	80 (27)	90 (32)	100 (38)	
50 F (10 C)	1354 (614)	1333 (605)	1260 (571)	1243 (564)	1227 (556)	
60 F (16 C)	1293 (586)	1272 (577)	1225 (556)	1208 (548)	1192 (541)	
70 F (21 C)	1229 (557)	1208 (548)	1190 (540)	1172 (532)	1157 (525)	
80 F (27 C)	1167 (529)	1146 (520)	1102 (500)	1084 (492)	1069 (485)	
90 F (32 C)	1107 (502)	1060 (481)	1013 (460)	995 (451)	980 (445)	

Ice production – Horizon HCD1650 series, air-cooled

Inlet water temperature F (C)	Ambient air temperature F (C)					lb/kg production in 24 hr
	60 (16)	70 (21)	80 (27)	90 (32)	100 (38)	
50 F (10 C)	1669 (757)	1580 (717)	1479 (671)	1422 (645)	1366 (620)	
60 F (16 C)	1596 (724)	1528 (693)	1451 (658)	1387 (629)	1310 (594)	
70 F (21 C)	1523 (691)	1474 (669)	1424 (646)	1350 (612)	1254 (569)	
80 F (27 C)	1440 (653)	1387 (629)	1332 (604)	1267 (575)	1191 (540)	
90 F (32 C)	1356 (615)	1298 (589)	1240 (562)	1183 (537)	1127 (511)	



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Agion is a registered trademark of Sciessent LLC.

1 Independent third party studies. Contact Follett for details.

2 Disclaimer: Antimicrobial protection is limited to the treated components and does not treat water or ice.

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Self-contained 1000-1400 series ice machine