



# VERTEX™

## EVAPORATIVE CONDENSER

**MEDIUM  
TO LARGE**  
TONNAGE  
REQUIREMENTS

**213 – 1,433 Nominal Tons**  
in a Single Unit



WHERE PEAK  
**RELIABILITY**  
MEETS EASY  
**MAINTENANCE**

Counterflow // Forced Draft // EC Fan System



# Vertex™ Evaporative Condenser

## BENEFITS

Introducing the Vertex™ Evaporative Condenser, where peak reliability meets easy maintenance. This new benchmark combines what you like most about legacy BAC evaporative condensers with new innovations for the future. The Vertex Condenser offers maximum uptime with easy and safe accessibility. It also has the lowest total cost of ownership with the lowest installation, maintenance, and operating costs. And of course, the Vertex Condenser uses evaporative cooling, so it's an inherently sustainable solution for your industrial refrigeration and other industrial process applications.



### MAXIMUM UPTIME & RELIABILITY

#### YEAR-ROUND OPERATION

- Maximize reliability and minimize unplanned downtime with the EC Fan System (direct-drive fan system with EC motors and axial fans)
- Enjoy peace of mind and uninterrupted operation with multiple fans, motors, and optional redundant pumps
- Perform through the harshest conditions with a durable and robust industrial design
- Increase reliability, corrosion resistance, and longevity with superior material options that save you time and money



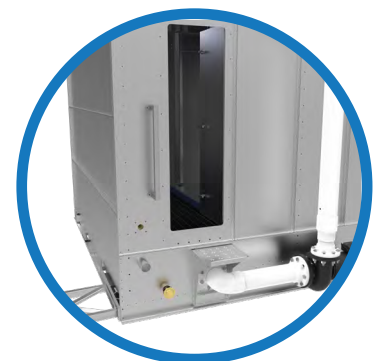
**INDUSTRIAL DESIGN FOR  
HARSHEST CONDITIONS**



### EASY & SAFE ACCESSIBILITY

#### ALLEVIATE CONFINED SPACE LIMITATIONS <sup>(1)</sup>

- The largest access door easily accommodates a 6.5' tall person; a sturdy step and safety handle provides safe entry and exit
- Ground level access to the drive system, pump(s), and terminal box eliminates the need for platforms or ladders to access them
- Stay dry while safely inspecting the basin with an internal walkway
- Reduce maintenance labor costs by 50% and address confined space hazards with a walkable, spacious interior and easy entry and exit<sup>(1)</sup>
- Industry-leading, most configurable OSHA compliant modular platforms to meet your specific site requirements



**ALLEVIATE CONFINED SPACE LIMITATIONS;  
EASILY ACCOMMODATES A 6.5' TALL PERSON**



## LOWEST INSTALLATION COSTS

30% REDUCTION IN INSTALLATION COSTS<sup>[2]</sup>

- Reduce on-site labor requirements and ensure on-time commissioning with pre-assembled platform options
- Align the upper section to the lower section in less than 15 minutes per cell, due to the industrial-grade rigidity of the unit
- Simplify field installation and save time with single-point wiring
- Save time and money; no VFD or vibration switch is required<sup>[3]</sup>



SIMPLIFY FIELD INSTALLATION WITH SINGLE-POINT WIRING



## LOWEST MAINTENANCE COSTS

50% REDUCTION IN MAINTENANCE COSTS<sup>[2]</sup>

- No regular maintenance required for the direct-drive EC Fan System
- Easy inspection of the basin, strainer, and drive components with a sturdy internal walkway
- Easy cleaning and improved hygiene with a compact, sloped water basin
- Save on chemical and water costs with up to 30% lower water volume<sup>[2]</sup>
- Fast and easy inspection of all nozzles with optional pre-assembled platforms at an ergonomic working height
- Reduce maintenance costs and maximize uptime with BAC's enhanced belt-driven independent fan system (optional); that easily allows access to all drive components



STAY DRY WHILE SAFELY INSPECTING THE BASIN WITH THE INTERNAL WALKWAY



## SUPERIOR EFFICIENCY

10% LOWER ENERGY USAGE<sup>[2]</sup>

- Reduce operating costs with the highly-efficient, direct-drive, variable-speed EC Fan System
- For many replacement jobs, the innovative design can provide a higher capacity or reduced energy usage at the same weight
- Save energy with improved head pressure control in winter months due to the EC Fan System's lower minimum speeds



SUPERIOR EFFICIENCY WITH THE EC FAN SYSTEM

Notes:  
1. Check local codes to verify confined space requirements.  
2. Comparisons are based on the Vertex Condenser vs. traditional forced draft axial fan evaporative condensers.  
3. For EC Fan System models only.

# Vertex™ Evaporative Condenser

## INNOVATIVE DESIGN FEATURES

*you won't find anywhere else*



### BranchLok™ Removal System

No tools required to remove or inspect spray branches and nozzles, reducing maintenance costs. Faster cleaning makes peak energy efficiency easier to sustain.

### EC Fan System

**\$68,000 Lifetime Savings**

Simple design for lowest maintenance, easiest access and maximum efficiency, this system includes single-stage axial fans and variable-speed EC motors. There is no transmission to maintain!



### BALTIDRIVE® Power Train (Optional)

**\$30,000 Lifetime Maintenance Savings**

Reduce maintenance costs and maximize uptime with BAC's belt-driven independent fan system. It's the most serviceable, most robust, and most reliable in the industry.

### Factory Pre-Assembled Platforms with Perimeter Handrails (Optional)

**\$2,000 Savings Per Cell**

Easy-to-install design for contractors and owners looking to reduce the cost of installation and ensure on-time commissioning. Safely inspect the nozzles across the entire unit with platforms at an ergonomic height.

### Largest Access Door(s)

**\$20,000 Lifetime Maintenance Savings**

The largest access door (68" H x 20" W) is also safe with a sturdy step and safety handle. It's easy for a 6.5' tall person to enter and exit for service. (2<sup>nd</sup> door optional)

### Internal Walkway

**\$20,000 Lifetime Maintenance Savings**

Stay dry while safely inspecting the basin with a sturdy internal walkway.

### Basin

**\$6,000 Lifetime Maintenance Savings**

The falling water on the high step of the basin causes turbulence and reduces cleaning requirements. The lower water volume reduces chemical and water volume by up to 30%.

### TriArmor® Corrosion Protection System & EVERTOUGH™ Construction (Optional)

**\$270,000 Lifetime Savings Per Cell**

Superior material options increase reliability, corrosion resistance, and longevity; 5-year leak-free warranty and seamless basins allow for higher cycles of concentration, save water and reduce chemical usage.

# Vertex™ Evaporative Condenser

## THE BEST CHOICE

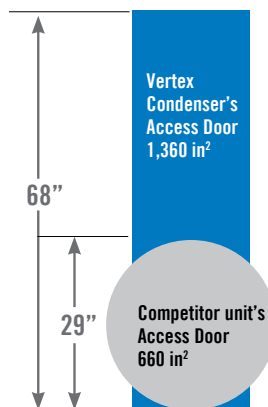


### ADVANTAGE VERTEX CONDENSER!

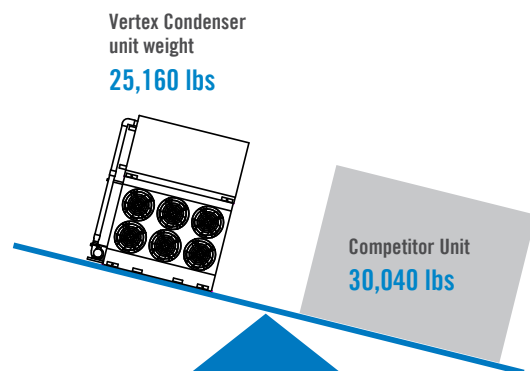
	Competitor's Forced Draft Axial Fan Evaporative Condenser	Vertex Evaporative Condenser	
Operating Weight	30,040 lbs	25,160 lbs	<b>16% LIGHTER WEIGHT</b>
Overflow Basin Volume	818 gal	521 gal	<b>36% LESS WATER</b>
High Efficiency	Belt-Drive	EC Fan System	<b>UP TO 30% MORE EFFICIENT</b>
Access Door	29" Tall	68" Tall	<b>3.25' TALLER DOOR</b>
Internal Walkway	Not Available	Standard	<b>\$6,000 MAINTENANCE SAVINGS</b>
VFD	Added Cost	Not Needed	<b>\$6,000 INSTALLATION SAVINGS</b>
Factory Wiring	Added Cost	Standard	<b>\$2,000 INSTALLATION SAVINGS</b>
Pre-Assembled Platforms <sup>[2]</sup>	Added Cost	Standard	<b>\$2,000 INSTALLATION SAVINGS</b>
Unit Construction	Galvanized Steel	EVERTOUGH™ Construction with TriArmor® Corrosion Protection System <sup>[2]</sup>	<b>ADVANCED MATERIAL OPTIONS FOR MAXIMUM VALUE</b>

**Notes:**

1. Selections are based on 448 nominal R717 tons at 96.3°F condensing 78°F wet bulb.
2. Optional feature or accessory.
3. Estimated dollar savings based on 20-year equipment life, actual savings may vary.



**700in<sup>2</sup> Larger Access Area**

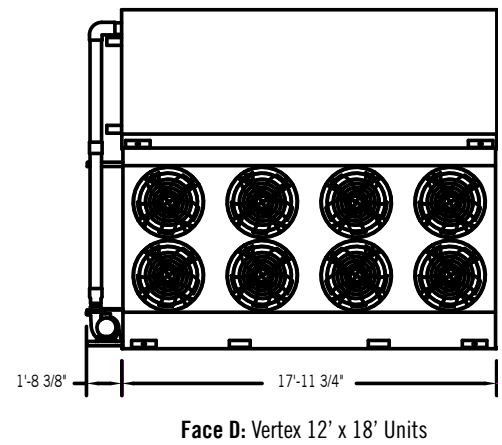
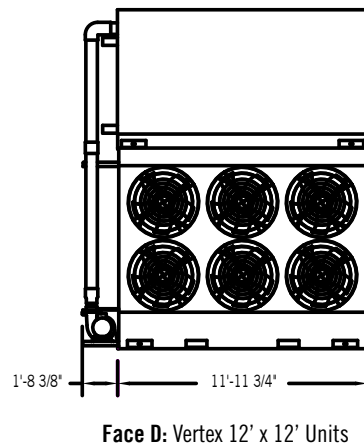
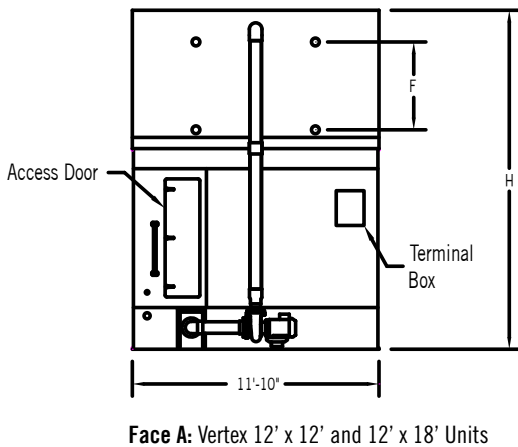
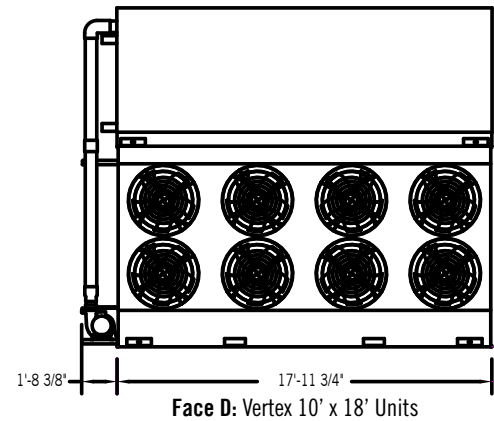
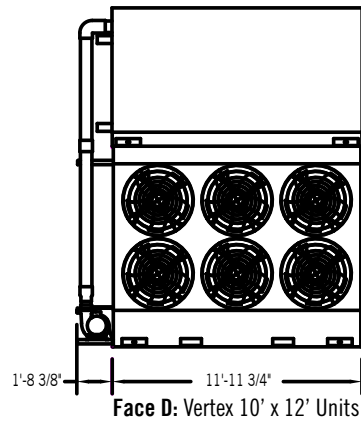
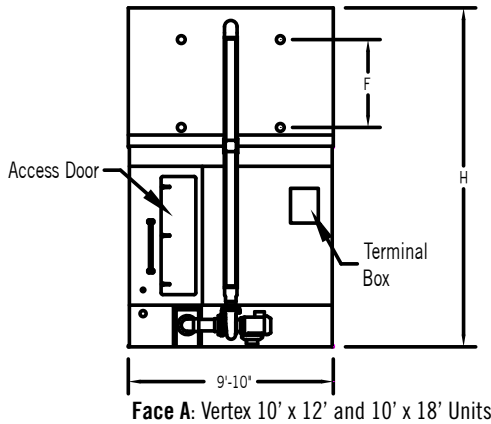


**16% Lighter Weight**

# Vertex™ Evaporative Condenser

## ENGINEERING DATA

Multicell units (10'x24', 10'x36', 12'x24' and 12'x36') and BALTIDRIVE® Fan System (belt-drive) models are also available. Complete up-to-date engineering data, free product selection software, and more can be found at [www.BaltimoreAircoil.com](http://www.BaltimoreAircoil.com).



### NOTES:

1. Model number denotes nominal tons using R-717 tons are at a 96.3°F condensing temperature, a 20°F suction temperature, and a 78°F entering wet-bulb temperature.
2. R-22 tons are at a 105°F condensing temperature, a 40°F suction temperature, and a 78°F entering wet-bulb temperature.
3. BALTIDRIVE® Fan System (belt-drive) models are also available, and can be found at [www.baltimoreaircoil.com/VertexData](http://www.baltimoreaircoil.com/VertexData).
4. Unless otherwise noted, the coil section is the heaviest section.
5. Operating weight is for the unit with the water level at the overflow level and with the coil charged with R-717.
6. The R-22 operating charge is 1.93 times the R-717 charge; R-134a is 1.98 times.
7. Drain size is based on a bottom connection.
8. Coil inlet and outlet connections are 4" beveled for welding.

**Do not use for construction.** Refer to factory certified dimensions. This catalog includes data current at the time of publication, which should be reconfirmed at the time of purchase.



Nom. Box Size	Model Number <sup>(1)</sup>	Base Heat Rejection (MBH)	R-22 Tons <sup>(2)</sup>	EC Fan System Fan Motor (HP) <sup>(3)</sup>	Airflow Rate (CFM)	Pump Motor (HP)	Spray Flow Rate (GPM)	Approximate Weight (lbs)			R-717 Operating Charge <sup>(5)</sup> (lbs)	Internal Coil Volume (ft <sup>3</sup> )	Remote Sump			F	H
								Ship Weight	Heaviest Section <sup>(3)</sup>	Oper. Weight <sup>(4)</sup>			Drain Size <sup>(6)</sup> (in)	Volume Req. (gal)	Approx. Oper. Weight (lbs)		
10' x 12'	VRC-0241A-1012N-GB	4,986	339	(6) 2.6	70,700	5	500	11,990	7,350	16,330	345	42	8	313	14,530	2'-4 1/4"	14'-5"
	VRC-0269A-1012N-HB	5,569	379	(6) 4.3	83,400			12,050	7,350	16,390	345	42			14,600	2'-4 1/4"	14'-5"
	VRC-0297A-1012N-JB	6,156	419	(6) 6.7	96,800			12,150	7,350	16,490	345	42			14,700	2'-4 1/4"	14'-5"
	VRC-0270A-1012N-GB	5,572	379	(6) 2.6	64,100			13,340	8,700	17,760	427	52			15,960	2'-11 3/4"	15'-0"
	VRC-0301A-1012N-HB	6,223	423	(6) 4.3	75,500			13,400	8,700	17,820	427	52			16,030	2'-11 3/4"	15'-0"
	VRC-0332A-1012N-JB	6,880	468	(6) 6.7	87,600			13,500	8,700	17,920	427	52			16,130	2'-11 3/4"	15'-0"
	VRC-0289A-1012N-GB	5,974	406	(6) 2.6	53,100			15,610	10,970	20,170	566	69			18,360	3'-7"	15'-8"
	VRC-0323A-1012N-HB	6,671	454	(6) 4.3	62,600			15,670	10,970	20,230	566	69			18,430	3'-7"	15'-8"
	VRC-0356A-1012N-JB	7,375	502	(6) 6.7	72,600			15,770	10,970	20,330	566	69			18,530	3'-7"	15'-8"
	VRC-0310A-1012N-GB	6,419	437	(6) 2.6	54,800			17,110	12,470	21,760	658	80			19,960	4'-2 1/2"	16'-3"
	VRC-0346A-1012N-HB	7,169	488	(6) 4.3	64,600			17,170	12,470	21,820	658	80			20,030	4'-2 1/2"	16'-3"
	VRC-0383A-1012N-JB	7,925	539	(6) 6.7	74,900			17,270	12,470	21,920	658	80			20,130	4'-2 1/2"	16'-3"
10' x 18'	VRC-0357A-1018N-GB	7,384	502	(8) 2.6	97,200	7.5	760	16,430	10,440	22,790	513	63	10	456	20,270	2'-4 1/4"	14'-5"
	VRC-0399A-1018N-HB	8,255	562	(8) 4.3	114,600			16,520	10,440	22,880	513	63			20,360	2'-4 1/4"	14'-5"
	VRC-0441A-1018N-JB	9,127	621	(8) 6.7	133,000			16,650	10,440	23,010	513	63			20,490	2'-4 1/4"	14'-5"
	VRC-0389A-1018N-GB	8,060	548	(8) 2.6	90,300			18,410	12,420	24,890	637	78			22,370	2'-11 3/4"	15'-0"
	VRC-0435A-1018N-HB	9,010	613	(8) 4.3	106,500			18,500	12,420	24,980	637	78			22,460	2'-11 3/4"	15'-0"
	VRC-0481A-1018N-JB	9,962	678	(8) 6.7	123,600			18,630	12,420	25,110	637	78			22,590	2'-11 3/4"	15'-0"
	VRC-0426A-1018N-GB	8,812	599	(8) 2.6	74,200			21,720	15,730	28,410	848	104			25,890	3'-7"	15'-8"
	VRC-0476A-1018N-HB	9,849	670	(8) 4.3	87,500			21,810	15,730	28,500	848	104			25,980	3'-7"	15'-8"
	VRC-0526A-1018N-JB	10,889	741	(8) 6.7	101,500			21,940	15,730	28,630	848	104			26,110	3'-7"	15'-8"
	VRC-0457A-1018N-GB	9,470	644	(8) 2.6	76,000			23,910	17,920	30,740	987	121			28,220	4'-2 1/2"	16'-3"
	VRC-0511A-1018N-HB	10,586	720	(8) 4.3	89,600			24,000	17,920	30,830	987	121			28,310	4'-2 1/2"	16'-3"
	VRC-0565A-1018N-JB	11,705	796	(8) 6.7	104,000			24,130	17,920	30,960	987	121			28,440	4'-2 1/2"	16'-3"
12' x 12'	VRC-0281A-1212N-GB	5,819	396	(6) 2.6	72,300	5	610	13,840	8,810	18,600	424	52	8	430	17,430	2'-4 1/4"	14'-5"
	VRC-0314A-1212N-HB	6,499	442	(6) 4.3	85,200			13,900	8,810	18,660	424	52			17,490	2'-4 1/4"	14'-5"
	VRC-0348A-1212N-JB	7,184	489	(6) 6.7	98,900			14,000	8,810	18,760	424	52			17,590	2'-4 1/4"	14'-5"
	VRC-0311A-1212N-GB	6,430	437	(6) 2.6	69,600			15,490	10,460	20,350	525	64			19,180	2'-11 3/4"	15'-0"
	VRC-0347A-1212N-HB	7,181	488	(6) 4.3	82,100			15,550	10,460	20,410	525	64			19,240	2'-11 3/4"	15'-0"
	VRC-0383A-1212N-JB	7,938	540	(6) 6.7	95,300			15,650	10,460	20,510	525	64			19,340	2'-11 3/4"	15'-0"
	VRC-0338A-1212N-GB	7,001	476	(6) 2.6	65,500			18,070	13,040	23,090	683	84			21,910	3'-7"	15'-8"
	VRC-0378A-1212N-HB	7,819	532	(6) 4.3	77,200			18,130	13,040	23,150	683	84			21,970	3'-7"	15'-8"
	VRC-0418A-1212N-JB	8,643	588	(6) 6.7	89,700			18,230	13,040	23,250	683	84			22,070	3'-7"	15'-8"
	VRC-0363A-1212N-GB	7,507	511	(6) 2.6	60,900			19,870	14,840	25,010	794	97			23,830	4'-2 1/2"	16'-3"
	VRC-0405A-1212N-HB	8,384	570	(6) 4.3	71,800			19,930	14,840	25,070	794	97			23,890	4'-2 1/2"	16'-3"
	VRC-0448A-1212N-JB	9,268	630	(6) 6.7	83,400			20,030	14,840	25,170	794	97			23,990	4'-2 1/2"	16'-3"
12' x 18'	VRC-0417A-1218N-GB	8,638	588	(8) 2.6	101,700	7.5	920	19,080	12,530	26,160	632	77	10	619	24,370	2'-4 1/4"	14'-5"
	VRC-0467A-1218N-HB	9,652	657	(8) 4.3	119,900			19,170	12,530	26,250	632	77			24,460	2'-4 1/4"	14'-5"
	VRC-0516A-1218N-JB	10,668	726	(8) 6.7	139,200			19,300	12,530	26,380	632	77			24,590	2'-4 1/4"	14'-5"
	VRC-0457A-1218N-GB	9,445	642	(8) 2.6	97,500			21,500	14,950	28,730	785	96			26,940	2'-11 3/4"	15'-0"
	VRC-0510A-1218N-HB	10,554	718	(8) 4.3	115,000			21,590	14,950	28,820	785	96			27,030	2'-11 3/4"	15'-0"
	VRC-0564A-1218N-JB	11,665	794	(8) 6.7	133,500			21,720	14,950	28,950	785	96			27,160	2'-11 3/4"	15'-0"
	VRC-0497A-1218N-GB	10,286	700	(8) 2.6	92,200			25,250	18,700	32,720	1,024	125			30,940	3'-7"	15'-8"
	VRC-0555A-1218N-HB	11,494	782	(8) 4.3	108,800			25,340	18,700	32,810	1,024	125			31,030	3'-7"	15'-8"
	VRC-0614A-1218N-JB	12,704	864	(8) 6.7	126,200			25,470	18,700	32,940	1,024	125			31,160	3'-7"	15'-8"
	VRC-0536A-1218N-GB	11,093	755	(8) 2.6	84,600			27,890	21,340	35,530	1,192	146			33,740	4'-2 1/2"	16'-3"
	VRC-0599A-1218N-HB	12,396	843	(8) 4.3	99,800			27,980	21,340	35,620	1,192	146			33,830	4'-2 1/2"	16'-3"
	VRC-0662A-1218N-JB	13,701	932	(8) 6.7	115,700			28,110	21,340	35,750	1,192	146			33,960	4'-2 1/2"	16'-3"

# BALTIMORE AIRCOIL COMPANY

## THE BAC DIFFERENCE

WITH 80 YEARS OF INDUSTRY-LEADING INNOVATION AND EXPERIENCE, BAC CREATES CUTTING-EDGE COOLING EQUIPMENT FOR THE REFRIGERATION, HVAC, AND INDUSTRIAL MARKETPLACES. WE SOLVE CUSTOMERS' UNIQUE NEEDS WITH OUR EXPERTISE AND WIDE RANGE OF HIGH-PERFORMANCE SYSTEMS. BAC LEVERAGES THE POWER OF EVAPORATIVE COOLING BY OPTIMIZING THE BALANCE OF WATER AND ENERGY, BUT THE TRUE BAC DIFFERENCE LIES IN OUR ABSOLUTE COMMITMENT TO CREATING SUSTAINABLE SOLUTIONS AND DELIVERING VALUE TO YOU, OUR CUSTOMER.



EXPERT SUPPORT



EXPERIENCED REPS



EXCEPTIONAL VALUE



EFFICIENT SOLUTIONS



PEACE OF MIND

[baltimoreaircoil.com](http://baltimoreaircoil.com)

### ASSURED PERFORMANCE

The Vertex™ Evaporative Condenser was subjected to a rigorous qualification process to ensure corrosion resistance, longevity, and reliability.

