

Series 1500 Cooling Tower



Most Serviceable Unit for Tight Spaces



For the most up to date information, visit www.BaltimoreAircoil.com/1500

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Series 1500 Cooling Tower

Most Serviceable Unit for Tight Spaces

The Series 1500 Cooling Tower is the best solution for applications requiring low maintenance and layout flexibility, as the single side air inlet design allows it to fit into tight spaces. It also has the lowest energy and maintenance costs. You can easily access all major components from the interior of the unit. Extreme Efficiency (XE) models further reduce the unit's energy and operating costs.

92 - 747 tons Up to 3,150 USGPM^[1] Crossflow // Axial Fan // Induced Draft







Series 1500 Benefits



Standard Internal Walkway and Optional Internal Ladder for Easy Maintenance



NOTES:

1. Compared to counterflow cooling towers.

 Operating costs based on fan kW x \$0.12kWh x 2500EFLH (equivalent full load hours) x 20 years (2011 ASHRAE Handbook HVAC Applications) x 3% per year energy inflation factor.



Install Close to Walls with the Single Air Intake

Lowest Maintenance Costs

26% LOWER ANNUAL MAINTENANCE COSTS^[1]

- Easy access to the cold water basin, hot water basin, and the drive system with the crossflow design, large access doors, and an internal walkway
- Fast inspection of the spray distribution system while the unit is in operation
- Increased ease of access with optional factory pre-assembled external platforms and ladders

Highest Reliability

DEPENDABLE BAC QUALITY

- Enhanced longevity with a variety of durable unique materials of construction including TriArmor[®] Corrosion Protection System, Baltibond[®] Hybrid Coating, and stainless steel options
- Increased capacity control and redundancy with standard independent fan motors
- Reliable year-round operation with superior winter operating performance
- Certified/complies with local codes including CTI, IBC, FM, HCAI, ASHRAE 90.1, ASRHAE 189, and California Title 24

Lowest Energy Usage

UP TO 40% MORE ENERGY EFFICIENT WITH XE MODELS

- XE Models are at least two times more efficient than the minimum requirements established in ASHRAE Standard 90.1
- Helps contribute to Energy and Atmosphere LEED[®] Credits (EAc1)
- Average payback of less than 2 years with BAC's enhanced selections which include user-defined life-cycle cost inputs based on energy savings and minimum payback

Increased Layout Flexibility

THE IDEAL REPLACEMENT UNIT FOR EXISTING BAC'S OR COMPETITORS' EQUIPMENT

- Fits in tight spaces with the single side air intake
- Save on installation costs for replacement projects since it fits on existing steel support, minimal piping changes, and has no enclosure modifications because of the layout flexibility of the single air intake



NOTE:

1. Motors are warranted for 7 years from date of shipment when space heaters are field-wired at time of initial installation.

Series 1500 Design Details





1 Heavy-Duty Construction

- G-235 mill galvanized steel panels
- Meets seismic and wind requirements for International Building Code and FM approval

2 BALTIDRIVE[®] Power Train

- Premium quality, solid-backed, multi-groove belt
- Corrosion resistant materials of construction
- Heavy-duty bearings L₁₀ 80,000 hours
- Premium efficient/inverter duty-ready motors are standard
- Extended lubrication lines with grease fittings are standard
- 7-year motor warranty^[1]; 5-year warranty on drive components

3 Low HP Axial Fan(s)

- Quiet operation
- High efficiency
- Quiet operation to minimize sound levels from the discharge of the unit

4 Water Distribution System

- Steel covers in easy to remove sections reduce maintenance
- Low pump head gravity distribution basins reduces system pump energy
- Visible and accessible during operation
- Large orifice, non-clog nozzles
- Standard weir dams can accommodate a flow range of 50% to 100%

5 BACross[®] Fill with Integral Drift Eliminators

- High efficiency heat transfer surface
- Recyclable polyvinyl chloride (PVC)
- · Impervious to rot, decay, and biological attack
- Flame spread rating of 5 per ASTM E84

6 Combined Inlet Shields

- Corrosion and UV resistant
- Less sunlight and debris enters the cold water basin; deters algae growth and reduces cleaning requirements

7 Cold Water Basin

- Sloped cold basin for easy cleaning
- Suction strainer with anti-vortex hood from a standard internal walkway

8 Hinged Access Doors

- Inward hinged door on each end wall allows easy access to the drive system
- Opening to a standard internal walkway

NOTE:

1. Motors are warranted for 7 years from date of shipment when space heaters are field-wired at time of initial installation.

Series 1500 Features & Options

92 - 747 $\mathsf{tons}^{\scriptscriptstyle[1]}$ // Up to 3,150 $\mathsf{USGPM}^{\scriptscriptstyle[1]}$ // Crossflow // Axial Fan // Induced Draft

Features & Options	Page	Description
MATERIALS OF CONSTRUCTION	I	
G-235 Galvanized Steel	H3	Universally recognized for its strength and durability
TriArmor [®] Corrosion Protection System	H3	The ultimate in corrosion and leak protection for the basin at the best value; 10-year leak & corrosion warranty
Baltibond [®] Hybrid Coating	H4	Thermosetting hybrid polymer coating baked onto the G-235 galvanized steel creating another layer of protection
Welded Stainless Steel Cold Water Basin	H4	All steel panels and structural members of the basin are Type 304 stainless steel for increased corrosion resistance or job requirement
Stainless Steel Hot Water Basin	H5	The hot water basins and basin covers are constructed of Type 304 stainless steel
All Stainless Steel Construction	H5	All unit steel panels, structural elements, and the welded basin are Type 304 stainless steel for increased corrosion resistance or job requirement
DRIVE SYSTEM ^[2]		
Baltidrive [®] Power Train	H12	Belt driven system with a multi-groove and cast aluminum sheaves; reliable and easy to maintain
Extended Lubrication Lines	H13	Easy lubrication of the fan shaft bearings from inside the access door
Dual Drive	H13	A single motor and drive system attached to two fans; reduces the wiring and starter changes on replacement projects
Independent Fan Operation	H14	One fan motor and drive assembly for each fan allows independent operation, providing inherent redundancy
Baltiguard™ Fan System	H14	Two motors per fan; one motor for full speed and load, the other is a pony motor with 2/3 capacity
Vibration Cutout Switch	H15	Protects against rotating equipment failure
COLD WATER BASIN		
Mechanical Water Level Control	H17	Maintains the water level in the basin with a float valve
Electric Water Level Control	H17	Maintains the water level with a conductivity probes and a solenoid valve
Low and High Level Alarm Float Switches	H17	Alerts operators to abnormal conditions to ensure the highest system reliability
Basin Sweeper Piping	H18	Complete basin piping system with nozzles; easily connect side stream filtration equipment by others
Basin Heaters	H18	Protect the basin water from freeze-up in below freezing ambient conditions
MULTI CELL UNIT		
Flume Box ^[4]	H21	Balances the water level in the cold water basins of multi cell units
Equalizer	H21	Equalizer connections are available for multi cell cooling towers in lieu of a flume box; allows for easy isolation of a cell while continuing system operation for winter operation, maintenance, or inspection
WATER DISTRIBUTION SYSTEM		
Easy to Inspect Water Distribution System	_	Inspect the water distribution system while the unit is operating
Single Inlet Connection	_	Minimizes piping costs
Weir Dams	H23	Weir dams are used to successfully modulate the water flow; the hot water basin can accommodate a flow range of 50% to 100% of the design flow
FILL		
Fill	H26	PVC fill for applications with entering water temperatures up to 130°F (54.4°C)
High Temperature Fill	H26	HPVC fill for applications with entering water temperatures up to 140°F (60°C)
SHIPPING AND RIGGING		
Knockdown Units	H29	The unit ships disassembled for jobs where there are crane or other site limitations

Features & Options	Page	Description
FANS AND SOUND		
Axial Fan(s)	H31	The axial fans optimize low sound levels and maximizes thermal performance
Low Sound Fan(s)	H31	Reduces sound up to 8 dBA
Whisper Quiet Fan(s)	H31	Reduces sound up to 14 dBA
Sound Attenuation ^[4]	H31	Available for the air intake and discharge to further reduce sound levels
AIR INTAKE		
Combined Inlet Shields	H33	Constructed from corrosion and UV resistant PVC, bent flow path blocks sunlight from the cold water basin and fill section and acts as a screen to prevent debris from entering the unit
AIR DISCHARGE		
Fan Cowl Extensions	H35	Elevate the air discharge to the top of parapet walls for maximum thermal capacity
ACCESS		
Motor Removal System	H38	Includes motor removal davit arm(s) to facilitate motor replacement
External Platforms and Ladder Packages	H38	Factory preassembled and pre-fitted, attaches quickly in the field; easily inspect the spray distribution system while the unit is in operation
Access Door Platform and Ladder Packages	H39	Easily access the unit when installed on elevated supports
Handrail and Ladder Packages	H39	Provide safe access to the top of the unit for maintenance to the distribution system
Internal Walkway	Н	Allows easy access to the plenum area of the basin, make-up, fill, and drive system
Internal Service Platform and Ladder Packages	H40	Easily access the motor and drive assemblies; available on two piece units
Internal Ladder	H41	Easily access the motor and drive assemblies with a movable ladder
INSTALLATION FLEXIBILITY		
Piping Flexibility	—	AC offers a multitude of connection options and locations to ensure the proper fit for any application, potentially eliminating piping modifications and therefore reducing material and labor
Support Steel Flexibility	—	Several support steel configurations are available, including the ability to utilize pre-existing support steel for replacement units, significantly reducing cost
Single Side Air Intake	—	Ideal for tight enclosures; easily orient the blankoff side to sound sensitive areas

NOTES:

- 1. Nominal tons of cooling represents the capability to cool 3 USGPM of water from a 95°F entering water temperature to an 85°F leaving water temperature at a 78°F entering wet-bulb temperature.
- 3. Flume boxes are standard on all multi cell units.
- 4. The panel opposite the air intake, called the blank-off panel, is inherently quiet. Positioning the blank-off panel towards the sound sensitive direction insulates sensitive areas from higher sound levels.
- 2. Motors are warranted for 7 years from date of shipment when space heaters are field-wired at time of initial installation.

Series 1500 Engineering Data

Plan View











NOTES:

1. The specific size of the inlet and outlet connection may vary with the cooling water design flow rate. Consult unit print for dimensions.





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1. The specific size of the inlet and outlet connection may vary with the cooling water design flow rate. Consult unit print for dimensions.

Series 1500 Single Cell Data

			Optional		١	Veights (lbs)		Dimensions ^[3]						
Model Number	Nominal Tonnage ^[1]	Motor HP	Dual Drive Fan Motor HP	Fan (CFM)	Operating ^[2]	Shipping	Heaviest Section	L	Н	H1	A	С		
S15E-1285-06JN	158	7.5	-	38,020	9,100	4,310	4,310	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"		
S15E-1285-06KN	173	10	-	41,520	9,110	4,320	4,320	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"		
S15E-1285-06LN	198	15	-	47,090	9,240	4,450	4,450	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"		
S15E-1285-07KN	189	10	-	44,040	9,670	4,640	4,640	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"		
S15E-1285-07LN	217	15	-	50,310	9,790	4,760	4,760	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"		
S15E-1285-07MN	236	20	-	54,550	9,850	4,820	4,820	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"		
S15E-1285-09KN	223	10	-	50,570	11,760	5,770	3,260	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"		
S15E-1285-09LN	253	15	-	57,100	11,880	5,890	3,380	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"		
S15E-1285-09MN	276	20	-	62,250	11,940	5,950	3,440	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"		
S15E-1285-10LN	264	15	-	59,420	12,630	6,160	3,380	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"		
S15E-1285-10MN	289	20	-	64,740	12,690	6,220	3,440	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"		
S15E-1285-10NN	310	25	-	69,230	12,720	6,250	3,470	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"		
S15E-1212-07JN	282	(2) 7.5	(1) 15	66,220	14,160	6,310	6,310	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"		
S15E-1212-07KN	309	(2) 10	(1) 20	72,070	14,190	6,340	6,340	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"		
S15E-1212-07LC	332	(2) 15	(1) 25	76,950	14,440	6,590	6,590	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"		
S15E-1212-09JN	328	(2) 7.5	(1) 15	74,490	16,770	8,060	4,650	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"		
S15E-1212-09KN	358	(2) 10	(1) 20	81,000	16,800	8,090	4,680	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"		
S15E-1212-09LC	383	(2) 15	(1) 25	86,420	17,050	8,340	4,930	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"		
S15E-1212-09LN	401	(2) 15	(1) 30	91,310	17,050	8,340	4,930	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"		
S15E-1212-10KN	376	(2) 10	(1) 20	84,500	17,510	8,450	4,680	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"		
S15E-1212-10LC	402	(2) 15	(1) 25	90,130	17,760	8,700	4,930	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"		
S15E-1212-10LN	421	(2) 15	(1) 30	95,220	17,760	8,700	4,930	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"		
S15E-1212-10MN	459	(2) 20	(1) 40	103,680	17,880	8,820	5,050	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"		
S15E-1212-11KN	387	(2) 10	(1) 20	87,560	18,380	8,810	4,680	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"		
S15E-1212-11LC	414	(2) 15	(1) 25	93,370	18,630	9,060	4,930	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"		
S15E-1212-11LN	434	(2) 15	(1) 30	98,620	18,630	9,060	4,930	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"		
S15E-1212-11MN	478	(2) 20	(1) 40	107,330	18,750	9,180	5,050	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"		
S15E-1212-12KN	401	(2) 10	(1) 20	90,280	18,750	9,180	4,680	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"		
S15E-1212-12LC	429	(2) 15	(1) 25	96,240	19,000	9,430	4,930	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"		
S15E-1212-12LN	449	(2) 15	(1) 30	101,620	19,000	9,430	4,930	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"		
S15E-1212-12MN	495	(2) 20	(1) 40	110,560	19,120	9,550	5,050	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"		

			Optional		١	Neights (lbs)		Dimensions ⁽³⁾						
Model Number	Nominal Tonnage ⁽¹⁾	Motor HP	Fan Motor HP	Fan (CFM)	Operating ^[2]	Shipping	Heaviest Section	L	Н	H1	A	С		
S15E-1218-07JN	427	(3) 7.5	(1) 15 & (1) 7.5	100,050	23,470	9,680	9,680	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"		
S15E-1218-07KN	466	(3) 10	(1) 20 & (1) 10	108,900	23,510	9,720	9,720	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"		
S15E-1218-07LC	501	(3) 15	(1) 25 & (1) 15	116,280	23,890	10,100	10,100	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"		
S15E-1218-09JN	490	(3) 7.5	(1) 15 & (1) 7.5	112,420	27,220	12,130	6,970	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"		
S15E-1218-09KN	535	(3) 10	(1) 20 & (1) 10	122,270	27,260	12,170	7,010	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"		
S15E-1218-09LC	572	(3) 15	(1) 25 & (1) 15	130,460	27,640	12,550	7,390	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"		
S15E-1218-09LN	606	(3) 15	(1) 30 & (1) 15	137,860	27,640	12,550	7,390	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"		
S15E-1218-10KN	561	(3) 10	(1) 20 & (1) 10	127,510	28,560	12,680	7,010	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"		
S15E-1218-10LC	600	(3) 15	(1) 25 & (1) 15	136,020	28,940	13,060	7,390	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"		
S15E-1218-10LN	629	(3) 15	(1) 30 & (1) 15	143,710	28,940	13,060	7,390	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"		
S15E-1218-10MN	694	(3) 20	(1) 40 & (1) 20	156,490	29,120	13,240	7,570	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"		
S15E-1218-11KN	584	(3) 10	(1) 20 & (1) 10	132,110	29,340	13,200	7,010	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"		
S15E-1218-11LC	625	(3) 15	(1) 25 & (1) 15	140,890	29,720	13,580	7,390	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"		
S15E-1218-11LN	655	(3) 15	(1) 30 & (1) 15	148,810	29,720	13,580	7,390	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"		
S15E-1218-11MN	722	(3) 20	(1) 40 & (1) 20	161,970	29,900	13,760	7,570	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"		
S15E-1218-12KN	605	(3) 10	(1) 20 & (1) 10	136,180	30,390	13,730	7,010	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"		
S15E-1218-12LC	647	(3) 15	(1) 25 & (1) 15	145,190	30,770	14,110	7,390	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"		
S15E-1218-12LN	678	(3) 15	(1) 30 & (1) 15	153,320	30,770	14,110	7,390	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"		
S15E-1218-12MN	747	(3) 20	(1) 40 & (1) 20	166,820	30,950	14,290	7,570	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"		

NOTES FOR SINGLE CELL UNITS:

- Nominal tons of cooling represents the capability to cool 3 USGPM of water from a 95°F entering water temperature to an 85°F leaving water temperature at a 78°F entering wet-bulb temperature.
- 2. Operating weight is based on the water level in the cold water basin at overflow height. If a lower operating weight is needed to meet design requirements, your local BAC Representative can provide additional assistance.
- 3. Refer to **page C38** for dimensional reference drawings.

Series 1500 XE Model Data

			Optional		V	Veights (lbs)		Dimensions ⁽³⁾				
	Nominal	Motor	Dual Drive Fan	Fan			Heaviest					
Model Number	Tonnage ^[1]	HP	Motor HP	(CFM)	Operating ^[2]	Shipping	Section	L	Н	H1	A	C
XES15E-1285-06EN	92	1.5	-	22,710	8,990	4,200	4,200	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"
XES15E-1285-06FN	101	2	-	24,830	9,010	4,220	4,220	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"
XES15E-1285-06GN	117	3	-	28,460	9,040	4,250	4,250	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"
XES15E-1285-06HN	138	5	-	33,320	9,050	4,260	4,260	8'-6"	10'-0"	9'-9"	9'-11"	8 1/4"
XES15E-1285-07EN	101	1.5	-	24,350	9,540	4,510	4,510	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1285-07FN	111	2	-	26,630	9,560	4,530	4,530	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1285-07GN	128	3	-	30,500	9,590	4,560	4,560	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1285-07HN	150	5	-	35,380	9,600	4,570	4,570	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1285-07JN	174	7.5	-	40,690	9,650	4,620	4,620	8'-6"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1285-09FN	131	2	-	30,670	11,650	5,660	3,150	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"
XES15E-1285-09GN	151	3	-	35,050	11,680	5,690	3,180	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"
XES15E-1285-09HN	178	5	-	40,870	11,690	5,700	3,190	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"
XES15E-1285-09JN	204	7.5	-	46,450	11,740	5,750	3,240	8'-6"	14'-4"	14'-4"	14'-1"	8 1/4"
XES15E-1285-10FN	137	2	-	31,960	12,400	5,930	3,150	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"
XES15E-1285-10GN	158	3	-	36,520	12,430	5,960	3,180	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"
XES15E-1285-10HN	186	5	-	42,570	12,440	5,970	3,190	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4″
XES15E-1285-10JN	213	7.5	-	48,370	12,490	6,020	3,240	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"
XES15E-1285-10KN	233	10	-	52,640	12,510	6,040	3,260	8'-6"	15'-8"	15'-8"	15'-5"	8 1/4"
XES15E-1212-07EN	167	(2) 1.5	(1) 3	40,230	13,940	6,090	6,090	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1212-07FN	183	(2) 2	(1) 5	43,890	13,980	6,130	6,130	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1212-07GC	197	(2) 3	(1) 5	46,940	14,040	6,190	6,190	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1212-07GN	208	(2) 3	(1) 7.5	49,580	14,040	6,190	6,190	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1212-07HC	226	(2) 5	(1) 7.5	53,540	14,060	6,210	6,210	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1212-07HN	247	(2) 5	(1) 10	58,320	14,060	6,210	6,210	12'-0"	11'-4"	11'-1"	11'-3"	8 1/4"
XES15E-1212-09EN	195	(2) 1.5	(1) 3	45,400	16,550	7,840	4,430	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"
XES15E-1212-09FN	213	(2) 2	(1) 5	49,510	16,590	7,880	4,470	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"
XES15E-1212-09GC	229	(2) 3	(1) 5	52,930	16,650	7,940	4,530	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"
XES15E-1212-09GN	243	(2) 3	(1) 7.5	55,890	16,650	7,940	4,530	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"
XES15E-1212-09HC	263	(2) 5	(1) 7.5	60,320	16,670	7,960	4,550	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"
XES15E-1212-09HN	287	(2) 5	(1) 10	65,670	16,670	7,960	4,550	12'-0"	14'-3"	13'-11"	14'-1"	8 1/4"
XES15E-1212-10EN	204	(2) 1.5	(1) 3	47,460	17,260	8,200	4,430	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-10FN	224	(2) 2	(1) 5	51,750	17,300	8,240	4,470	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-10GC	241	(2) 3	(1) 5	55,320	17,360	8,300	4,530	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-10GN	255	(2) 3	(1) 7.5	58,400	17,360	8,300	4,530	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-10HC	276	(2) 5	(1) 7.5	63,020	17,380	8,320	4,550	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-10HN	302	(2) 5	(1) 10	68,580	17,380	8,320	4,550	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-10JN	344	(2) 7.5	(1) 15	77,730	17,480	8,420	4,650	12'-0"	15'-7"	15'-3"	15'-5"	8 1/4"
XES15E-1212-11EN	211	(2) 1.5	(1) 3	49,260	18,130	8,560	4,430	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"
XES15E-1212-11FN	231	(2) 2	(1) 5	53,710	18,170	8,600	4,470	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"
XES15E-1212-11GC	248	(2) 3	(1) 5	57,410	18,230	8,660	4,530	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"

			Optional		N	/eights (lbs)			l	Dimensions ⁽⁽	3]	
Model Number	Nominal Tonnage ⁽¹⁾	Motor HP	Fan Motor HP	Fan (CFM)	Operating ^[2]	Shipping	Heaviest Section	L	Н	H1	A	С
XES15E-1212-11GN	263	(2) 3	(1) 7.5	60,600	18,230	8,660	4,530	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"
XES15E-1212-11HC	285	(2) 5	(1) 7.5	65,380	18,250	8,680	4,550	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"
XES15E-1212-11HN	311	(2) 5	(1) 10	71,130	18,250	8,680	4,550	12'-0"	16'-11"	16'-7"	16'-9"	8 1/4"
XES15E-1212-11JN	355	(2) 7.5	(1) 15	80,590	18,350	8,780	4,650	12'-0"	16'-11"	17'-11"	16'-9"	8 1/4"
XES15E-1212-12FN	239	(2) 2	(1) 5	55,430	18,540	8,970	4,500	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"
XES15E-1212-12GC	257	(2) 3	(1) 5	59,240	18,600	9,030	4,530	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"
XES15E-1212-12GN	272	(2) 3	(1) 7.5	62,530	18,600	9,030	4,530	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"
XES15E-1212-12HC	295	(2) 5	(1) 7.5	67,460	18,620	9,050	4,550	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"
XES15E-1212-12HN	323	(2) 5	(1) 10	73,380	18,620	9,050	4,550	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"
XES15E-1212-12JN	368	(2) 7.5	(1) 15	83,110	18,720	9,150	4,650	12'-0"	18'-3"	17'-11"	18'-1"	8 1/4"
XES15E-1218-07EN	252	(3) 1.5	(1) 3 & (1) 1.5	60,750	23,140	9,350	9,350	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"
XES15E-1218-07FN	277	(3) 2	(1) 5 & (1) 2	66,280	23,200	9,410	9,410	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"
XES15E-1218-07GN	318	(3) 3	(1) 7.5 & (1) 3	75,640	23,290	9,500	9,500	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"
XES15E-1218-07HN	373	(3) 5	(1) 10 & (1) 5	88,100	23,320	9,530	9,530	18'-0"	11'-10"	11'-10"	11'-9"	16 1/4"
XES15E-1218-09EN	291	(3) 1.5	(1) 3 & (1) 1.5	68,470	26,890	11,800	6,640	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"
XES15E-1218-09FN	319	(3) 2	(1) 5 & (1) 2	74,680	26,950	11,860	6,700	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"
XES15E-1218-09GN	366	(3) 3	(1) 7.5 & (1) 3	85,180	27,040	11,950	6,790	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"
XES15E-1218-09HN	430	(3) 5	(1) 10 & (1) 5	99,100	27,070	11,980	6,820	18'-0"	14'-9"	14'-8"	14'-7"	16 1/4"
XES15E-1218-10EN	305	(3) 1.5	(1) 3 & (1) 1.5	71,560	28,190	12,310	6,640	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"
XES15E-1218-10FN	335	(3) 2	(1) 5 & (1) 2	78,040	28,250	12,370	6,700	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"
XES15E-1218-10GN	385	(3) 3	(1) 7.5 & (1) 3	88,980	28,340	12,460	6,790	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"
XES15E-1218-10HN	451	(3) 5	(1) 10 & (1) 5	103,460	28,370	12,490	6,820	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"
XES15E-1218-10JN	514	(3) 7.5	(1) 15 & (1) 7.5	117,290	28,520	12,640	6,970	18'-0"	16'-1"	16'-0"	15'-11"	16 1/4"
XES15E-1218-11EN	318	(3) 1.5	(1) 3 & (1) 1.5	74,250	28,970	12,830	6,640	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"
XES15E-1218-11FN	348	(3) 2	(1) 5 & (1) 2	80,970	29,030	12,890	6,700	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"
XES15E-1218-11GN	401	(3) 3	(1) 7.5 & (1) 3	92,300	29,120	12,980	6,790	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"
XES15E-1218-11HN	470	(3) 5	(1) 10 & (1) 5	107,280	29,150	13,010	6,820	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4"
XES15E-1218-11JN	536	(3) 7.5	(1) 15 & (1) 7.5	121,570	29,300	13,160	6,970	18'-0"	17'-5"	17'-4"	17'-3"	16 1/4″
XES15E-1218-12EN	329	(3) 1.5	(1) 3 & (1) 1.5	/6,610	30,020	13,360	6,720	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"
XES15E-1218-12FN	361	(3) 2	(1) 5 & (1) 2	83,530	30,080	13,420	6,720	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"
XES15E-1218-12GN	415	(3) 3	(1) 7.5 & (1) 3	95,220	30,170	13,510	6,790	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"
XES15E-1218-12HN	486	(3) 5	(1) 10 & (1) 5	110,640	30,200	13,540	6,820	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"
XES15E-1218-12JN	555	(3) 7.5	(1) 15 & (1) 7.5	125,340	30,350	13,690	6,970	18'-0"	18'-9"	18'-8"	18'-7"	16 1/4"

NOTES FOR XE MODELS:

- 1. Nominal tons of cooling represents the capability to cool 3 USGPM of water from a 95°F entering water temperature to an 85°F leaving water temperature at a 78°F entering wet-bulb temperature.
- 2. Operating weight is based on the water level in the cold water basin at overflow height. If a lower operating weight is needed to meet design requirements, your local BAC Representative can provide additional assistance.
- 3. Refer to page C38 for dimensional reference drawings.

Series 1500 Double Cell Data

			Optional		w	eights (lbs)				Dimensions ^{[3}		
Model Number	Nominal Tonnage ^[1]	Motor HP	Drive Fan Motor HP	Fan (CFM)	Operating ^[2]	Shipping	Heaviest Section	L	н	H1	A	С
S15E-1285-06JN-2	316	(2) 7.5	-	76,040	18,200	8,620	4,310	17'-2"	10'-0"	9'-9"	9'-11"	8 1/4"
S15E-1285-06KN-2	346	(2) 10	-	83,040	18,220	8,640	4,320	17'-2"	10'-0"	9'-9"	9'-11"	8 1/4"
S15E-1285-06LN-2	396	(2) 15	-	94,180	18,480	8,900	4,450	17'-2"	10'-0"	9'-9"	9'-11"	8 1/4"
S15E-1285-07KN-2	378	(2) 10	-	88,080	19,340	9,280	4,640	17'-2"	11'-4"	11'-1"	11'-3"	8 1/4"
S15E-1285-07LN-2	434	(2) 15	-	100,620	19,580	9,520	4,760	17'-2"	11'-4"	11'-1"	11'-3"	8 1/4"
S15E-1285-07MN-2	472	(2) 20	-	109,100	19,700	9,640	4,820	17'-2"	11'-4"	11'-1"	11'-3"	8 1/4"
S15E-1285-09KN-2	446	(2) 10	-	101,140	23,520	11,540	3,260	17'-2"	14'-4"	14'-4"	14'-1"	8 1/4"
S15E-1285-09LN-2	506	(2) 15	-	114,200	23,760	11,780	3,380	17'-2"	14'-4"	14'-4"	14'-1"	8 1/4"
S15E-1285-09MN-2	552	(2) 20	-	124,500	23,880	11,900	3,440	17'-2"	14'-4"	14'-4"	14'-1"	8 1/4"
S15E-1285-10LN-2	528	(2) 15	-	118,840	25,260	12,320	3,380	17'-2"	15'-8"	15'-8"	15'-5"	8 1/4"
S15E-1285-10MN-2	578	(2) 20	-	129,480	25,380	12,440	3,440	17'-2"	15'-8"	15'-8"	15'-5"	8 1/4"
S15E-1285-10NN-2	620	(2) 25	-	138,460	25,440	12,500	3,470	17'-2"	15'-8"	15'-8"	15'-5"	8 1/4"
S15E-1212-07JN-2	564	(4) 7.5	(2) 15	132,440	28,320	12,620	6,310	24'-2"	11'-4"	11'-1"	11'-3"	8 1/4"
S15E-1212-07KN-2	618	(4) 10	(2) 20	144,140	28,380	12,680	6,340	24'-2"	11'-4"	11'-1"	11'-3"	8 1/4"
S15E-1212-07LC-2	664	(4) 15	(2) 25	153,900	28,880	13,180	6,590	24'-2"	11'-4"	11'-1"	11'-3"	8 1/4"
S15E-1212-09JN-2	656	(4) 7.5	(2) 15	148,980	33,540	16,120	4,650	24'-2"	14'-3"	13'-11"	14'-1"	8 1/4"
S15E-1212-09KN-2	716	(4) 10	(2) 20	162,000	33,600	16,180	4,680	24'-2"	14'-3"	13'-11"	14'-1"	8 1/4"
S15E-1212-09LC-2	766	(4) 15	(2) 25	172,840	34,100	16,680	4,930	24'-2"	14'-3"	13'-11"	14'-1"	8 1/4"
S15E-1212-09LN-2	802	(4) 15	(2) 30	182,620	34,100	16,680	4,930	24'-2"	14'-3"	13'-11"	14'-1"	8 1/4"
S15E-1212-10KN-2	752	(4) 10	(2) 20	169,000	35,020	16,900	4,680	24'-2"	15'-7"	15'-3"	15'-5"	8 1/4"
S15E-1212-10LC-2	804	(4) 15	(2) 25	180,260	35,520	17,400	4,930	24'-2"	15'-7"	15'-3"	15'-5"	8 1/4"
S15E-1212-10LN-2	842	(4) 15	(2) 30	190,440	35,520	17,400	4,930	24'-2"	15'-7"	15'-3"	15'-5"	8 1/4"
S15E-1212-10MN-2	918	(4) 20	(2) 40	207,360	35,760	17,640	5,050	24'-2"	15'-7"	15'-3"	15'-5"	8 1/4"
S15E-1212-11KN-2	774	(4) 10	(2) 20	175,120	36,760	17,620	4,680	24'-2"	16'-11"	16'-7"	16'-9"	8 1/4"
S15E-1212-11LC-2	828	(4) 15	(2) 25	186,740	37,260	18,120	4,930	24'-2"	16'-11"	16'-7"	16'-9"	8 1/4"
S15E-1212-11LN-2	868	(4) 15	(2) 30	197,240	37,260	18,120	4,930	24'-2"	16'-11"	16'-7"	16'-9"	8 1/4"
S15E-1212-11MN-2	956	(4) 20	(2) 40	214,660	37,500	18,360	5,050	24'-2"	16'-11"	16'-7"	16'-9"	8 1/4"
S15E-1212-12KN-2	802	(4) 10	(2) 20	180,560	37,500	18,360	4,680	24'-2"	18'-3"	17'-11"	18'-1"	8 1/4"
S15E-1212-12LC-2	858	(4) 15	(2) 25	192,480	38,000	18,860	4,930	24'-2"	18'-3"	17'-11"	18'-1"	8 1/4"
S15E-1212-12LN-2	898	(4) 15	(2) 30	203,240	38,000	18,860	4,930	24'-2"	18'-3"	17'-11"	18'-1"	8 1/4"
S15E-1212-12MN-2	990	(4) 20	(2) 40	221,120	38,240	19,100	5,050	24'-2"	18'-3"	17'-11"	18'-1"	8 1/4"

			Optional	Optional		Weights (lbs)				Dimensions [3]					
Model Number	Nominal Tonnage ⁽¹⁾	Motor HP	Dual Drive Fan Motor HP	Fan (CFM)	Operating ^[2]	Shipping	Heaviest Section	L	Н	H1	A	С			
S15E-1218-07JN-2	854	(6) 7.5	(2) 15 & (2) 7.5	200,100	46,940	19,360	9,680	36'-2"	11'-10"	11'-10"	11'-9"	16 1/4"			
S15E-1218-07KN-2	932	(6) 10	(2) 20 & (2) 10	217,800	47,020	19,440	9,720	36'-2"	11'-10"	11'-10"	11'-9"	16 1/4"			
\$15E-1218-07LC-2	1,002	(6) 15	(2) 25 & (2) 15	232,560	47,780	20,200	10,100	36'-2"	11'-10"	11'-10"	11'-9"	16 1/4"			
S15E-1218-09JN-2	980	(6) 7.5	(2) 15 & (2) 7.5	224,840	54,440	24,260	6,970	36'-2"	14'-9"	14'-8"	14'-7"	16 1/4"			
S15E-1218-09KN-2	1,070	(6) 10	(2) 20 & (2) 10	244,540	54,520	24,340	7,010	36'-2"	14'-9"	14'-8"	14'-7"	16 1/4"			
S15E-1218-09LC-2	1,144	(6) 15	(2) 25 & (2) 15	260,920	55,280	25,100	7,390	36'-2"	14'-9"	14'-8"	14'-7"	16 1/4"			
S15E-1218-09LN-2	1,212	(6) 15	(2) 30 & (2) 15	275,720	55,280	25,100	7,390	36'-2"	14'-9"	14'-8"	14'-7"	16 1/4"			
S15E-1218-10KN-2	1,122	(6) 10	(2) 20 & (2) 10	255,020	57,120	25,360	7,010	36'-2"	16'-1"	16'-0"	15'-11"	16 1/4"			
S15E-1218-10LC-2	1,200	(6) 15	(2) 25 & (2) 15	272,040	57,880	26,120	7,390	36'-2"	16'-1"	16'-0"	15'-11"	16 1/4"			
S15E-1218-10LN-2	1,258	(6) 15	(2) 30 & (2) 15	287,420	57,880	26,120	7,390	36'-2"	16'-1"	16'-0"	15'-11"	16 1/4"			
S15E-1218-10MN-2	1,388	(6) 20	(2) 40 & (2) 20	312,980	58,240	26,480	7,570	36'-2"	16'-1"	16'-0"	15'-11"	16 1/4"			
S15E-1218-11KN-2	1,168	(6) 10	(2) 20 & (2) 10	264,220	58,680	26,400	7,010	36'-2"	17'-5"	17'-4"	17'-3"	16 1/4"			
S15E-1218-11LC-2	1,250	(6) 15	(2) 25 & (2) 15	281,780	59,440	27,160	7,390	36'-2"	17'-5"	17'-4"	17'-3"	16 1/4"			
S15E-1218-11LN-2	1,310	(6) 15	(2) 30 & (2) 15	297,620	59,440	27,160	7,390	36'-2"	17'-5"	17'-4"	17'-3"	16 1/4"			
S15E-1218-11MN-2	1,444	(6) 20	(2) 40 & (2) 20	323,940	59,800	27,520	7,570	36'-2"	17'-5"	17'-4"	17'-3"	16 1/4"			
S15E-1218-12KN-2	1,210	(6) 10	(2) 20 & (2) 10	272,360	60,780	27,460	7,010	36'-2"	18'-9"	18'-8"	18'-7"	16 1/4"			
S15E-1218-12LC-2	1,294	(6) 15	(2) 25 & (2) 15	290,380	61,540	28,220	7,390	36'-2"	18'-9"	18'-8"	18'-7"	16 1/4"			
S15E-1218-12LN-2	1,356	(6) 15	(2) 30 & (2) 15	306,640	61,540	28,220	7,390	36'-2"	18'-9"	18'-8"	18'-7"	16 1/4"			
S15E-1218-12MN-2	1,494	(6) 20	(2) 40 & (2) 20	333,640	61,900	28,580	7,570	36'-2"	18'-9"	18'-8"	18'-7"	16 1/4"			

NOTES FOR DOUBLE CELL UNITS:

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- Nominal tons of cooling represents the capability to cool 3 USGPM of water from a 95°F entering water temperature to an 85°F leaving water temperature at a 78°F entering wet-bulb temperature.
- 2. Operating weight is based on the water level in the cold water basin at overflow height. If a lower operating weight is needed to meet design requirements, your local BAC Representative can provide additional assistance.
- 3. Refer to page C39 for dimensional reference drawings.

Series 1500 Structural Support

The recommended support arrangement for the Series 1500 Cooling Tower consists of parallel structural members positioned as shown in the following drawings. In addition to providing adequate support, the members also serve to raise the unit above any solid foundation to ensure access to the bottom of the tower. The Series 1500 may also be supported on columns at the anchor bolt locations shown in Plan A. The supports may also be run in the direction perpendicular to the beams shown below (Plan B). To support a Series 1500 Cooling Tower on columns or in an alternate steel support arrangement, consult your local BAC Representative. Upgraded structures for high wind and seismic load regions will require additional mounting holes.







NOTES:

- 1. Support members and anchor bolts shall be designed, furnished, and installed by others.
- Design of support members and anchor bolts shall be in accordance with the strength and serviceability requirements of the applicable building code and project specifications.
- 3. Support members shall be level at the top.
- Refer to the certified unit support drawing for loading and additional support requirements.
- If vibration isolation (provided by others) is used, the isolators should be located under a structural base that complies with one of the recommended support arrangements. Contact your local BAC Representative for all other isolator configurations.
- 6. When using Alternative Plan C support arrangements with optional bottom water outlet, size and location restrictions will apply to water outlet piping. Consider the Cantilevered Plan C support arrangement or consult your local BAC Representative for details.

Model Number	Unit Replaced	А	В	C	D	D1	E	L	L1
S15E/ XES15E-1285	VLT/VST	7'-7 1/2"	8'-3 1/2"	8'-9 1/8"	1'-8"	1'-4 7/8"	2'-11 1/4"	8'-5 3/4"	17'-2"
	CFT/Series 3000	7'-7 1/2"	8'-3 1/2"	8'-0"	2'-5 1/8"	1'-4 7/8"	3'-8 3/8"	8'-5 3/4"	17'-2"
	VLT/VST	11'-1 1/2"	11'-9 1/2"	8'-11 1/4"	1'-5 3/8"	1'-5 3/8"	2'-9 1/8"	11'-11 3/4"	24'-2"
\$15E/	VXT/VXMT	11'-1 1/2"	11'-9 1/2"	9'-7 1/2"	1'-1 1/4"	1'-1 1/4"	2'-0 7/8"	11'-11 3/4"	24'-2"
XES15E-1212	CFT/Series 3000	11'-1 1/2"	11'-9 1/2"	8'-0"	1'-11"	1'-11"	3'-8 3/8"	11'-11 3/4"	24'-2"
	Series 3000	11'-1 1/2"	11'-9 1/2"	9'-6"	1'-2"	1'-2"	2'-2 3/8"	11'-11 3/4"	24'-2"
\$15E/	VLT/VST	17'-1 1/2"	17'-9 1/2"	8'-11 1/4"	1'-5 3/8"	1'-5 3/8"	2'-9 1/8"	17'-11 3/4"	36'-2"
XES15E-1218	VXT/VXMT	17'-1 1/2"	17'-9 1/2"	9'-7 1/2"	1'-1 1/4"	1'-1 1/4"	2'-0 7/8"	17'-11 3/4"	36'-2"

RECOMMENDED ALTERNATIVE STRUCTURAL SUPPORT FOR UNIT REPLACEMENT (PLAN C)

Plan C: Cantilever Blank-Off Only (Double Cell Unit Shown)

PRODUCT & APPLICATION HANDBOOK VOLUME VI C47





The Ultimate in Corrosion and Leak Protection for the Cold Water Basin

