



ESWB™

CLOSED CIRCUIT COOLER



**NOW
FEATURING**

CROSSCOOL™
INTERNALLY ENHANCED
COIL TECHNOLOGY





Since its founding in 1976, EVAPCO, Incorporated has become an industry leader in the engineering and manufacturing of quality heat transfer products around the world. EVAPCO's mission is to provide first class service and quality products for the following markets:

- Industrial Refrigeration
- Commercial HVAC
- Industrial Process
- Power

EVAPCO's powerful combination of financial strength and technical expertise has established the company as a recognized manufacturer of market-leading products on a worldwide basis. EVAPCO is also recognized for the superior technology of their environmentally friendly product innovations in sound reduction and water management.

EVAPCO is an employee owned company with a strong emphasis on research & development and modern manufacturing plants. EVAPCO has earned a reputation for technological innovation and superior product quality by featuring products that are designed to offer these operating advantages:

- Higher System Efficiency
- Environmentally Friendly
- Lower Annual Operating Costs
- Reliable, Simple Operation and Maintenance

With an ongoing commitment to Research & Development programs, EVAPCO provides the most advanced products in the industry—**Technology for the Future, Available Today!**



EVAPCO products are manufactured in 22 locations in 10 countries around the world and supplied through a sales network consisting of over 170 offices.

Super Low Sound Fan

The ESWB is available with Low Sound Solutions to reduce the overall sound generated from the top of the already quiet ESWB Closed Circuit Cooler. Each option provides various levels of sound reduction and can be combined to provide the lowest sound level available on a closed circuit cooler.

- Select a Super Low Sound Fan for a 9 to 15 dB(A) reduction!
- Select a Low Sound Fan for a 4 to 7 dB(A) reduction!



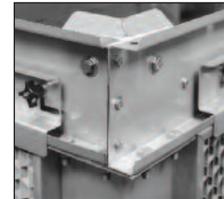
Easy to Maintain Drive System (12' wide units)

- Adjustable motor base enables the motor to swing outside the unit for easy access
- Belt tension can be easily checked and adjusted from outside the access door
- Lubrication lines are extended to the access door for added convenience



Easy Field Assembly

- A new field assembly seam design ensures easy assembly
- Self-guiding channels guide the fill section into position improving the quality of the field seam
- Eliminates up to 66% of fasteners



Framed WST II Air Inlet Louvers (Water and Sight Tight)

- Easily removable for access
- Improved design to keep sunlight out—preventing biological growth
- Keeps water in while keeping dirt and debris out

U.S. Patent #7,927,196



Optional Factory Mounted Non-Chemical or Chemical Water Treatment Systems

The ESWB is available with either a **Pulse~Pure**® non-chemical or a **Smart Shield**® solid chemical water treatment system. The **Pulse~Pure**® and **Smart Shield**® are environmentally sensitive alternatives for treating water in evaporative cooled equipment. The **Pulse~Pure**® and **Smart Shield**® systems include all components required for an effective water treatment system; factory mounted and wired.

ESWB DESIGN AND CONSTRUCTION FEATURES

The ESW family stands apart as being the most energy efficient and the quietest axial fan closed circuit coolers on the market today. The ESWB is able to provide superior performance as a result of its full footprint patented **Sensi-Coil®** Technology**. The **Sensi-Coil®** now features **CROSSCOOL™** Internal Tube Enhancement which increases the internal heat transfer coefficient of the coil and thus increases the cooling capacity of the unit.

The ESWB's owner oriented features and independent certification of the International Building Code (IBC) compliance reinforce the ESWB's position as a premier cooler in the HVAC industry.

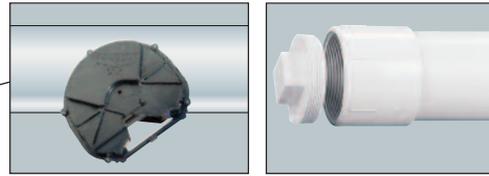


CTI Certified Units



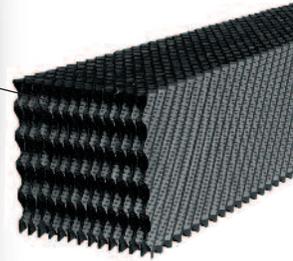
Water Distribution System

- Non-corrosive PVC construction with new EvapJet™ nozzles
- Large orifice EvapJet® nozzles prevent clogging and are threaded for easy removal and positive positioning
- System branches have threaded end caps to assist with debris removal



EvapJet® Nozzle

Patented EVAPAK® Fill *

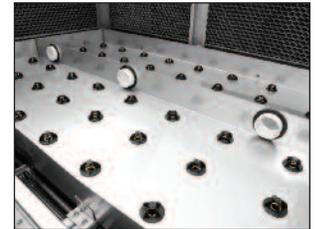


- Induces highly turbulent mixing of the air and water for superior heat transfer
- Special drainage tips allow high water loading without excessive pressure drop
- Flame spread rating less than 25 per ASTM E-84
- Can be used as an internal working platform

*U.S. Patent #5,124,087

New Redistribution Basin Section

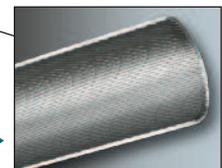
- The redistribution basin ensures even water loading of the full footprint **Sensi-Coil®**
- Large orifice nozzles prevent clogging
- Easily accessible for routine inspection



Galvanized Steel Coil

Elliptical Sensi-Coil™ Featuring **CROSSCOOL™** Internal Tube Enhancement Technology

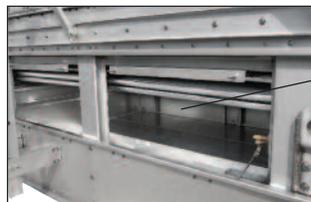
- Internal Tube Enhancement increases fluid turbulence providing **additional evaporative capacity**
- Elliptical return bends allows for more circuits per coil bundle increasing maximum capacity per footprint
- Coil located out of airstream eliminating water evaporation on the coil, reducing scale buildup potential



CROSSCOOL™
INTERNAL TUBE ENHANCEMENT

Most Accessible Basin and Coil

- Convenient side access from ground level
- Large open area simplifies maintenance
- Easy access to basin floor, float assembly, and pump strainer



**U.S. Patent #7,296,620

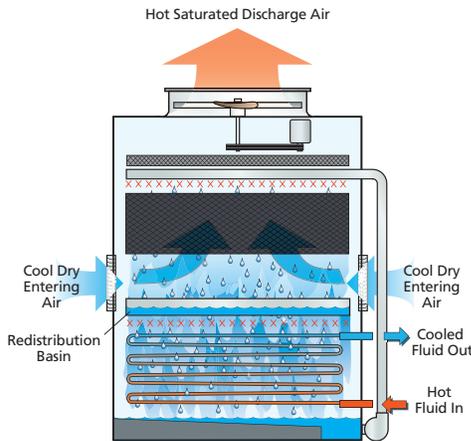
† Mark owned by the Cooling Technology Institute

ESWB DESIGN BENEFITS

Principle of Operation

EVAPCO was the first to develop a closed circuit cooler with Patented Optimized Technology*. The pump is energized, and water is circulated up to the water distribution system. This starts with the large orifice EvapJet nozzles evenly distributing water as a thin film over the extended fill surface for maximum cooling efficiency. The fan system operates simultaneously, moving large volumes of air through the unit in a direction opposite the falling water. The air and water contact directly across the fill surface whereupon a small portion of the spray water is evaporated. The warm and saturated air is then discharged from the unit dissipating heat to the atmosphere. The spray water exits the fill section as a cooled fluid where it is collected by the redistribution basin for even soaking of the full footprint coil. The hot process fluid enters the coil through the bottom coil connection(s). The heat load is rejected to the circulating water that cascades over the coil surface by means of sensible heat transfer.

*US Patent #6,598,862



Patented EVAPAK® Fill

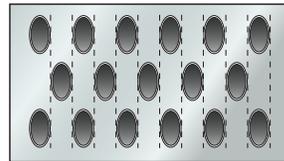
The patented EVAPAK® fill is specially designed to induce highly turbulent mixing of the air and water for superior heat transfer. The fill media is constructed of polyvinyl chloride (PVC) sheets which are thermally formed into a cross flute design. The individual fill sheets are bonded together to form rigid fill blocks. The fill blocks are then stacked within the unit's protective casing. The structural strength of the assembled fill pack enables it to be used as a working platform.

EVAPAK® fill is impervious to rot and decay, and is self-extinguishing with a flame spread rating of less than 25 per ASTM Standard E-84.

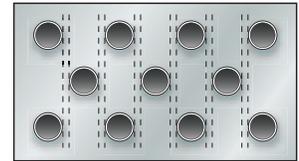


Cooling Coil

The ESWB Closed Circuit Cooler utilizes EVAPCO's **Sensi-Coil®**, featuring **CROSSCOOL™** Internal Tube Enhancement. The **Sensi-Coil®** provides the maximum amount of **Thermal-Pak®** elliptical tubes packed closely together in a coil arrangement designed with over 50% additional coil surface area.

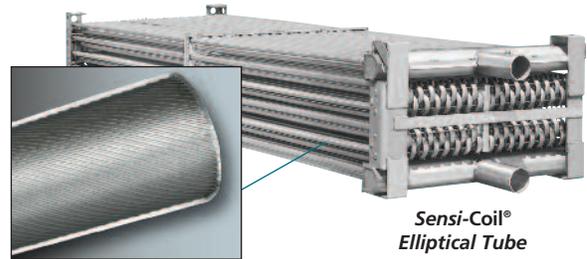


Sensi-Coil®



Round Tube Coil by Others

In addition, the **Sensi-Coil®** design utilizes elliptical return bend, coil technology. This increases the number of circuits per coil assembly, increasing the maximum cooling capacity per unit footprint. This **Sensi-Coil®** design features EVAPCO's **CROSSCOOL™** Internal Tube Enhancement, creating more turbulence to the fluid as it passes through the coil, further increasing the evaporative capacity.



CROSSCOOL™
Internal Tube Enhancement

Sensi-Coil®
Elliptical Tube
U.S. Patent #7,296,620

The coils are manufactured from high quality steel tubing following the most stringent quality control procedures. Each circuit is inspected to ensure the material quality and then tested before being assembled into a coil. Finally, the assembled coil is pneumatically tested at 390 psig under water to ensure it is leak free.

To protect the coil against corrosion, it is placed in a heavy steel frame and then the entire assembly is dipped in molten zinc (hot-dip galvanized) at a temperature of approximately 800°F.

Note: Closed circuit coolers should only be used on sealed, pressurized systems. Continual aeration of the water in an open system can cause corrosion inside the tubes of the cooler leading to premature failure.

Stainless Steel Coil Option

EVAPCO offers the optional **TITAN COIL**. Constructed with type 304L Stainless Steel, the TITAN COIL is manufactured using EVAPCO's patented elliptical tube **Sensi-Coil®** design upgraded to Xtra Tough construction featuring: Xtra Durability, Xtra Corrosion Resistance, and an Xtra long **5 YEAR Coil Warranty as standard.**



Sensi-Coil®

ENERGY EFFICIENT LOW SOUND

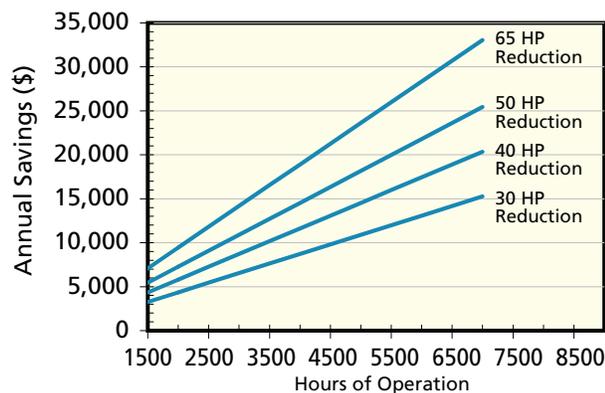
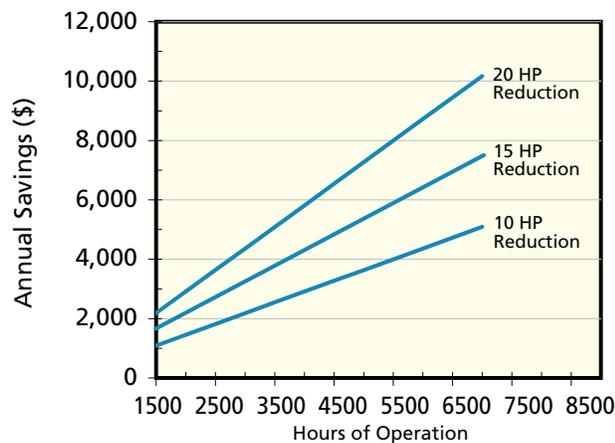
ESWB

Low Energy As Standard

The ESW product line stands alone as the most energy efficient closed circuit coolers on the market today. This efficiency, in terms of lower fan horsepower, translates directly to lower operating costs...*significantly lower operating costs*. With the ESWB installed, customers can realize immediate energy savings which continue each and every year for the life of the equipment.

- **Replace inefficient units:**

The potential for energy savings alone is often enough to justify replacing inefficient fluid coolers with high efficiency models. As an example, a 250 ton centrifugal fan fluid cooler with 80 HP worth of fan motors can be replaced by an ESWB model with a fan motor size of only 15HP. This tremendous reduction in fan motor size offers annual savings of \$16,530 per year based on 3,500 hours of operation and an electric rate of \$0.09/kWh.



Annual savings based on fan motor efficiency = 0.924 and energy cost of \$0.09/kWh

- **New Product Comparison:**

When comparing the cost of new equipment, energy efficiency and consumption are important factors for determining the total product cost. Units having a lower first cost but higher energy requirement are more expensive to operate and inevitably cost the end user more over the life of the equipment.

- **Smaller Footprint, Lower Horsepower:**

As an example, a typical induced-draft 150 ton** cooler can require a 12' x 12' footprint, 25 HP fan motor, and 5 HP pump. The same load can be accomplished in an ESWB with an 8.5' x 12' footprint, 7.5 HP fan motor, and 7.5 HP pump.

**Calculated using 3 GPM of Water at 95°F/85°F/78°F per ton.

Low Sound As Standard

In addition to being the most energy efficient axial fan fluid coolers, the ESW product line is also the quietest. At a distance of five feet above the fan, the ESWB has sound levels that are up to 13dBA less than other axial fan fluid coolers of equal capacity. Additionally, the coil sits just above the basin floor breaking the water fall and reducing water noise to the point where casual conversation is possible at only five feet from the unit...even with the fan running on high speed.

Research and Development

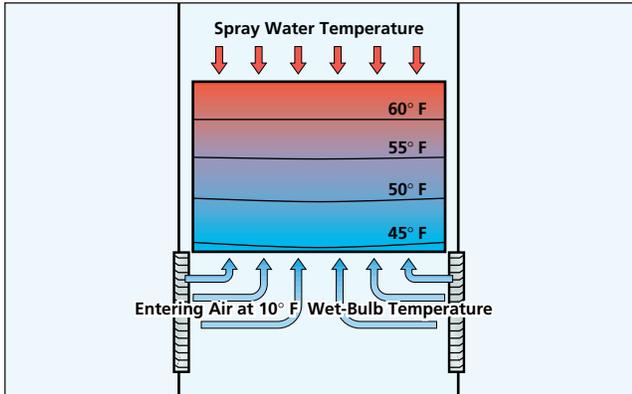
EVAPCO's research and development team considered the basic principles of heat transfer while developing the patented *Optimized Technology* that was used in the ESWA closed circuit cooler. Optimized Technology combines "latent" heat transfer over the fill and "sensible" heat transfer over the coil to maximize heat transfer.

The ESWB closed circuit cooler was developed to take Optimized Technology to the next level. The ESWB features more capacity than ever before, 6-21% more capacity per footprint on average. This is accomplished by using EVAPCO's new full footprint *Sensi-Coil*®, featuring *CROSSCOOL*™ Internal Tube Enhancement Technology. By using this new coil design (US Patent # 7,296,620), and water redistribution over the coil, EVAPCO has achieved significant performance gains over the previous generation ESWA! This means more performance, a smaller footprint, and less energy.

Other benefits of this unique counterflow design:

- The coil is easily piped at ground level.
- The coil is easily inspected and accessible at ground level via removable cover panels around the unit.
- Discharge hood with dampers are not required...the dense coil pack and sheltered enclosure around the coil reduces heat loss and eliminates natural drafts across the coil.

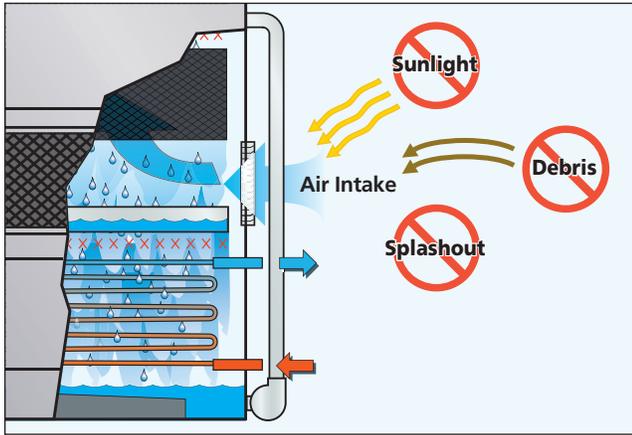
ESWB DESIGN BENEFITS



Counterflow... Optimum Design for Freezing Climates

The counterflow design of the ESWB Closed Circuit Cooler is well suited for winter operation. The fill section is totally encased and protected from freezing temperatures thus inhibiting ice formation on the fill section. The even temperature gradient of the counterflow design further improves winter operability by eliminating cold spots.

EVAPCO's counterflow design solves the problem of fill collapse due to ice formation.



Framed Water Sight Tight Air Inlet Louver*

EVAPCO's innovative air inlet louvers are both water and sight tight to ensure that the water stays in and the sunlight stays out of the cold water basin. Using extensive computational fluid dynamics modeling, EVAPCO engineers developed a louver to improve "splash resistance" while maximizing airflow. The resulting design maximizes thermal performance while minimizing water loss. This sight tight design also inhibits algae growth more effectively than previous designs.

EVAPCO's louver design solves the problem of the circulating water and heat transfer surfaces being directly exposed to external contaminants and the harsh surroundings.



EvapJet® Nozzle



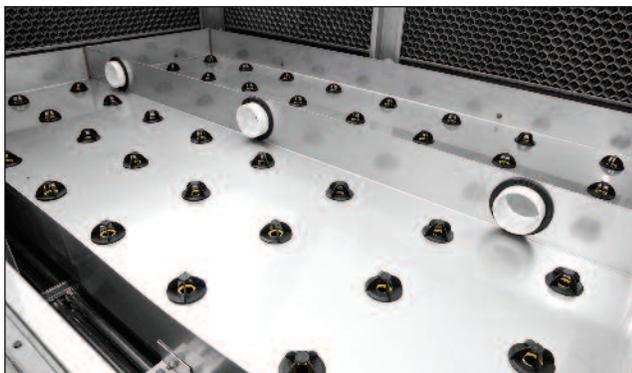
Water Distribution System

The water distribution system is enclosed and completely protected by the casing panels and drift eliminators. The eliminators also function as effective debris screens which block sunlight and prevent debris from entering the spray system.

The water distribution system is made with non-corrosive materials including schedule 40 PVC pipe for its distribution system and EvapJet® nozzles.

The spray branch piping is easily removed and designed with threaded end-caps for easy cleaning.

EVAPCO's EvapJet® nozzles and water distribution system design eliminates the problems of biological growth and clogging that can occur with a system that is open to direct sunlight and the surroundings.



Redistribution Basin

The redistribution basin ensures even water loading of the full footprint Sensi-Coil®. The redistribution basin is enclosed and completely protected by the air inlet louvers. The louvers also function as effective debris screens which block sunlight and prevent debris from entering redistribution system.

The redistribution basin is easily inspected with the removal of the framed air inlet louvers.

*U.S. Patent #7,927,196

Easy Maintenance Design

The cold water basin is perhaps the most important area for maintenance in an evaporative cooler. Service mechanics who work on this equipment know that dirt, debris and silt all settle out in the basin. Because basin maintenance is important and should be performed regularly, EVAPCO designed the basin to make inspection, cleaning and flushing as easy as possible.

EVAPCO's basin is designed for quick and easy access with the following valuable features:



Efficient Drift Eliminators**

The New ESWB is provided with an efficient drift eliminator system that effectively reduces entrained water droplets from the air discharge to less than 0.001% of the spray water flow rate.

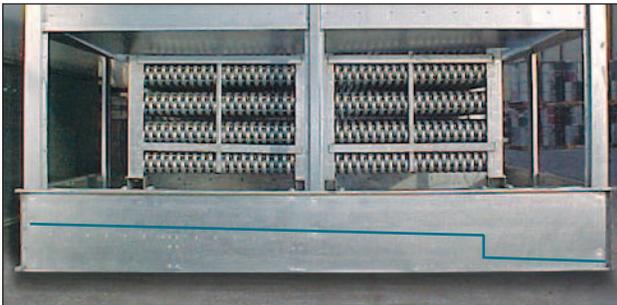
The eliminators are constructed of non-corrosive PVC with a multi-pass design for maximum drift reduction. They are assembled in modular sections for easy removal and access to the water distribution system.

In addition to reducing drift the eliminators also function as effective debris screens which protect the spray system from sunlight and debris.



Easy Access

The cold water basin section is easily accessible from ground level. The basin is provided with solid access panels which are designed to protect the basin water and heat transfer coil from direct exposure to sunlight and debris. The access panels are light-weight and easy to remove. With the access panels removed a service mechanic has complete access to the basin floor, heat transfer coil, float assembly and pump strainer.



Clean Pan Basin Design

The basin of the ESWB is sloped toward a depressed area where the drain is located. With the "Clean Pan" design, it is easy for a service mechanic to flush the pan without getting wet feet. Other fluid cooler designs may necessitate getting inside of the unit for complete cleaning.



Stainless Steel Strainers

The EVAPCO standard for many years, the 304 stainless steel strainer is one component that is subject to excessive wear and corrosion. With stainless steel construction this component will last the life of the unit.

**U.S. Patent #6,315,804

ESWB MAINTENANCE ADVANTAGES

Easy Maintenance Drive System

The EVAPCO POWER-BAND drive system utilized on the ESWB Closed Circuit Cooler is the easiest belt drive system to maintain in the industry. Unlike other designs, there is no need to enter the cold water basin and climb up the plenum for access to motors, bearings or belts. All routine and periodic maintenance on the drive system can be safely performed from the exterior of the unit.

Models with Motors Mounted Externally

8.5' Wide Models

The fan motor and drive assembly are designed for easy service and adjustment from the unit's exterior. The Totally Enclosed, Fan Cooled (TEFC) fan motor is mounted external to the unit with a protective cover which swings aside for maintenance. A large access door adjacent to the fan motor swings open enabling easy access to the fan drive system. The belt tension can be checked and adjusted easily from the outside of the unit. The fan shaft bearings also have their lubrication lines extended to the access door for added convenience. Note, these motors ship loosely for field installation. Contact your EVAPCO sales representative for factory mounting options.



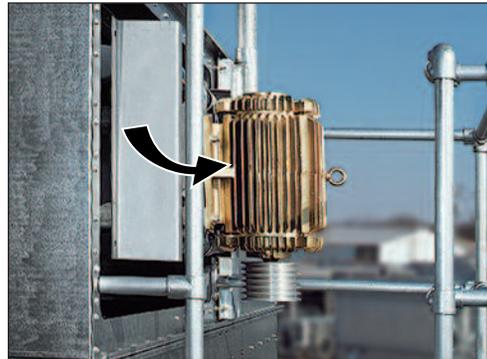
Models with Swing-Out Motors

12' Wide Models

The fan motor is Totally Enclosed, Air Over (TEAO) and specifically designed for evaporative cooling applications. The motor is mounted inside of the unit on an adjustable base that enables the motor to swing outside the unit for easy access. The belt tension is easily checked and adjusted from outside the access door. EVAPCO provides a special tool for belt adjustment which also functions as a locking mechanism for the motor base adjustment. Lubrication lines for the fan shaft bearings are also extended to the access door for added convenience.



Internal motor...



...with swing-out base

Internally mounted fan motor can swing outside the unit for easy access.

With all periodic and routine maintenance for the drive system performed from the side of the unit, EVAPCO drive systems are the most serviceable in the industry.

Sloped access ladders, working platforms and motor davits are available as options to make maintenance a breeze. See page 26, Optional Equipment, for details.

POWER-BAND Drive System Design

The ESWB Closed Circuit Cooler features the highly efficient POWER-BAND Belt Drive System. The POWER-BAND Drive System consistently performs with trouble-free operation in the most severe conditions. The reliability of the drive system is backed by a Five (5) Year complete drive system warranty.



POWER-BAND Belt



TEFC Fan Motor



TEAO Fan Motor

POWER-BAND Drive System Includes:

- Solid back POWER-BAND drive belt
- Totally enclosed fan motors
- Aluminum sheaves
- Fan shaft bearings with minimum 75,000 hrs. L-10 life
- 5 year drive system warranty

POWER-BAND Belt Drive

The POWER-BAND drive is a solid-backed multigroove belt designed for closed circuit cooler service. The drive belt is sized for 150 percent of the motor nameplate horsepower and constructed of neoprene with polyester chords. Band belts are field-proven with over 20 years of operation.

Drive System Sheaves

Drive system sheaves are constructed of an aluminum alloy for corrosion resistance in the humid closed circuit cooler environment.

Fan Shaft Bearings

The fan shaft bearings are specially selected to provide long life, minimizing costly downtime. They are rated for an L- 10 life of 75,000 to 135,000 hours, making them the heaviest duty pillow block bearings in the industry.

Fan Motors

All EVAPCO closed circuit coolers utilize totally enclosed fan motors (T.E.F.C. or T.E.A.O.) designed specifically for evaporative cooling applications. **Premium efficient fan motors, which are compatible with variable frequency drive (VFD) systems, come standard on all ESWB models.**

Alternative fan motor options are available as follows:

- Two speed single winding
- Two speed two winding
- Mill and chemical duty
- Explosion proof

Five Year Drive Warranty

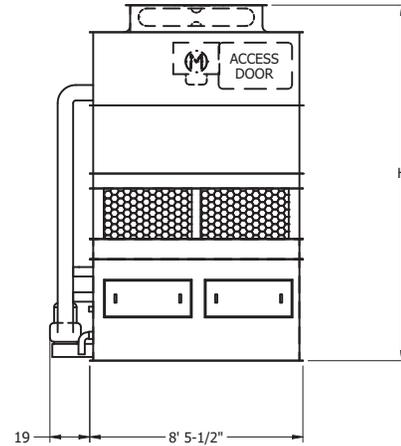
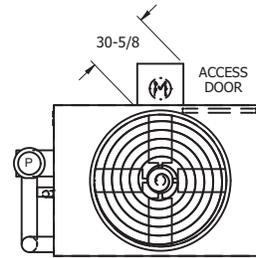
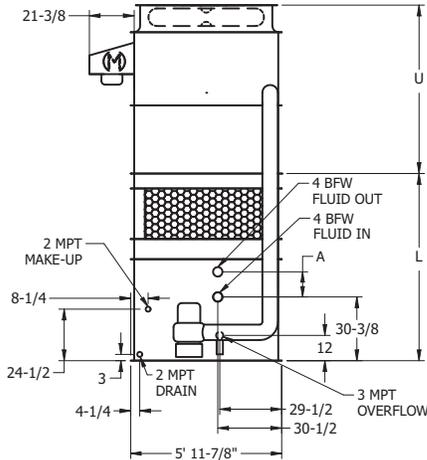
EVAPCO provides a standard 5 year motor and drive warranty on all POWER-BAND drive systems. This warranty provides end users with complete protection against fan motor or drive component failure. The comprehensive warranty includes the fan, fan motor, fan shaft, belts, sheaves, and fan bearings.



ESWB Engineering Data & Dimensions

ESWB Models 9-22F6 to 9-34I6

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



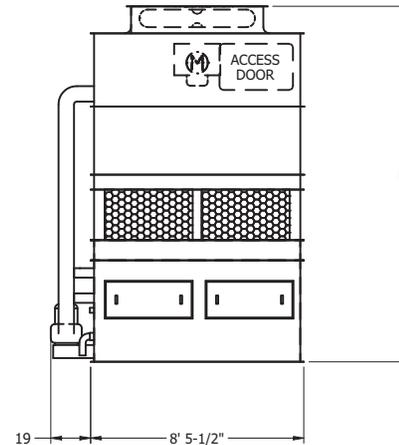
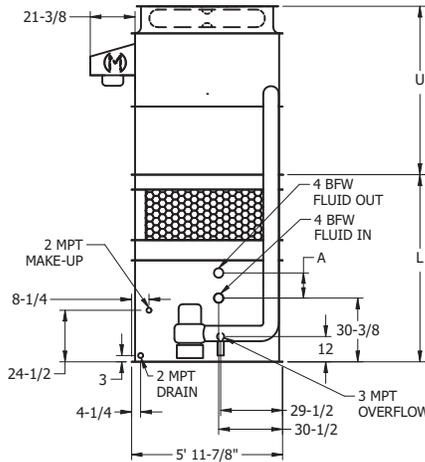
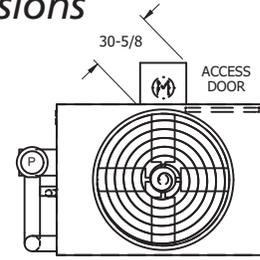
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-22F6	6,630	4,620	10,080	3	22,600	3	325	87	160	8"	8,020	7' 5-1/4"	6' 8-1/4"	12"	14' 1-1/2"
ESWB 9-22G6	6,640	4,620	10,090	5	26,500	3	325	87	160	8"	8,030	7' 5-1/4"	6' 8-1/4"	12"	14' 1-1/2"
ESWB 9-22H6	6,690	4,620	10,140	7.5	30,200	3	325	87	160	8"	8,080	7' 5-1/4"	6' 8-1/4"	12"	14' 1-1/2"
ESWB 9-22I6	6,700	4,620	10,150	10	33,300	3	325	87	160	8"	8,090	7' 5-1/4"	6' 8-1/4"	12"	14' 1-1/2"
ESWB 9-23F6	7,660	5,650	11,430	3	22,600	3	325	127	160	8"	9,370	8' 3/4"	6' 8-1/4"	19-1/2"	14' 9"
ESWB 9-23G6	7,670	5,650	11,440	5	26,500	3	325	127	160	8"	9,380	8' 3/4"	6' 8-1/4"	19-1/2"	14' 9"
ESWB 9-23H6	7,720	5,650	11,490	7.5	30,200	3	325	127	160	8"	9,430	8' 3/4"	6' 8-1/4"	19-1/2"	14' 9"
ESWB 9-23I6	7,730	5,650	11,500	10	33,300	3	325	127	160	8"	9,440	8' 3/4"	6' 8-1/4"	19-1/2"	14' 9"
ESWB 9-24F6	8,710	6,700	12,810	3	22,600	3	325	166	160	8"	10,750	8' 8 1/4"	6' 8-1/4"	27"	15' 4-1/2"
ESWB 9-24G6	8,720	6,700	12,820	5	26,500	3	325	166	160	8"	10,760	8' 8-1/4"	6' 8-1/4"	27"	15' 4-1/2"
ESWB 9-24H6	8,770	6,700	12,870	7.5	30,200	3	325	166	160	8"	10,810	8' 8-1/4"	6' 8-1/4"	27"	15' 4-1/2"
ESWB 9-24I6	8,780	6,700	12,880	10	33,300	3	325	166	160	8"	10,820	8' 8-1/4"	6' 8-1/4"	27"	15' 4-1/2"
ESWB 9-25F6	9,790	7,780	14,220	3	22,600	3	325	205	160	8"	12,150	9' 3-3/4"	6' 8-1/4"	34-1/2"	16' 0"
ESWB 9-25G6	9,800	7,780	14,230	5	26,500	3	325	205	160	8"	12,160	9' 3-3/4"	6' 8-1/4"	34-1/2"	16' 0"
ESWB 9-25H6	9,850	7,780	14,280	7.5	30,200	3	325	205	160	8"	12,210	9' 3-3/4"	6' 8-1/4"	34-1/2"	16' 0"
ESWB 9-25I6	9,860	7,780	14,290	10	33,300	3	325	205	160	8"	12,220	9' 3-3/4"	6' 8-1/4"	34-1/2"	16' 0"
ESWB 9-26F6	10,820	8,810	15,580	3	22,600	3	325	245	160	8"	13,510	9' 11-1/4"	6' 8-1/4"	42"	16' 7-1/2"
ESWB 9-26G6	10,830	8,810	15,590	5	26,500	3	325	245	160	8"	13,520	9' 11-1/4"	6' 8-1/4"	42"	16' 7-1/2"
ESWB 9-26H6	10,880	8,810	15,640	7.5	30,200	3	325	245	160	8"	13,570	9' 11-1/4"	6' 8-1/4"	42"	16' 7-1/2"
ESWB 9-26I6	10,890	8,810	15,650	10	33,300	3	325	245	160	8"	13,580	9' 11-1/4"	6' 8-1/4"	42"	16' 7-1/2"
ESWB 9-32F6	6,830	4,620	10,280	3	22,000	3	325	87	160	8"	8,220	7' 5-1/4"	7' 8-1/4"	12"	15' 1-1/2"
ESWB 9-32G6	6,840	4,620	10,290	5	26,100	3	325	87	160	8"	8,230	7' 5-1/4"	7' 8-1/4"	12"	15' 1-1/2"
ESWB 9-32H6	6,890	4,620	10,340	7.5	29,700	3	325	87	160	8"	8,280	7' 5-1/4"	7' 8-1/4"	12"	15' 1-1/2"
ESWB 9-32I6	6,900	4,620	10,350	10	32,500	3	325	87	160	8"	8,290	7' 5-1/4"	7' 8-1/4"	12"	15' 1-1/2"
ESWB 9-33F6	7,870	5,660	11,640	3	22,000	3	325	127	160	8"	9,570	8' 3/4"	7' 8-1/4"	19-1/2"	15' 9"
ESWB 9-33G6	7,880	5,660	11,650	5	26,100	3	325	127	160	8"	9,580	8' 3/4"	7' 8-1/4"	19-1/2"	15' 9"
ESWB 9-33H6	7,930	5,660	11,700	7.5	29,700	3	325	127	160	8"	9,630	8' 3/4"	7' 8-1/4"	19-1/2"	15' 9"
ESWB 9-33I6	7,940	5,660	11,710	10	32,500	3	325	127	160	8"	9,640	8' 3/4"	7' 8-1/4"	19-1/2"	15' 9"
ESWB 9-34F6	8,920	6,710	13,020	3	22,000	3	325	166	160	8"	10,950	8' 8-1/4"	7' 8-1/4"	27"	16' 4-1/2"
ESWB 9-34G6	8,930	6,710	13,030	5	26,100	3	325	166	160	8"	10,960	8' 8-1/4"	7' 8-1/4"	27"	16' 4-1/2"
ESWB 9-34H6	8,980	6,710	13,080	7.5	29,700	3	325	166	160	8"	11,010	8' 8-1/4"	7' 8-1/4"	27"	16' 4-1/2"
ESWB 9-34I6	8,990	6,710	13,090	10	32,500	3	325	166	160	8"	11,020	8' 8-1/4"	7' 8-1/4"	27"	16' 4-1/2"

- Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- Heaviest section is the lower section.
- Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 9-35F6 to 9-46J6

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-35F6	9,990	7,780	14,420	3	22,000	3	325	205	160	8"	12,350	9' 3-3/4"	7' 8-1/4"	34-1/2"	17' 0"
ESWB 9-35G6	10,000	7,780	14,430	5	26,100	3	325	205	160	8"	12,360	9' 3-3/4"	7' 8-1/4"	34-1/2"	17' 0"
ESWB 9-35H6	10,050	7,780	14,480	7.5	29,700	3	325	205	160	8"	12,410	9' 3-3/4"	7' 8-1/4"	34-1/2"	17' 0"
ESWB 9-35I6	10,060	7,780	14,490	10	32,500	3	325	205	160	8"	12,420	9' 3-3/4"	7' 8-1/4"	34-1/2"	17' 0"
ESWB 9-36F6	11,020	8,810	15,780	3	22,000	3	325	245	160	8"	13,710	9' 11-1/4"	7' 8-1/4"	42"	17' 7-1/2"
ESWB 9-36G6	11,030	8,810	15,790	5	26,100	3	325	245	160	8"	13,720	9' 11-1/4"	7' 8-1/4"	42"	17' 7-1/2"
ESWB 9-36H6	11,080	8,810	15,840	7.5	29,700	3	325	245	160	8"	13,770	9' 11-1/4"	7' 8-1/4"	42"	17' 7-1/2"
ESWB 9-36I6	11,090	8,810	15,850	10	32,500	3	325	245	160	8"	13,780	9' 11-1/4"	7' 8-1/4"	42"	17' 7-1/2"
ESWB 9-42F6	7,060	4,630	10,510	3	21,400	3	325	87	160	8"	8,440	7' 5-1/4"	8' 8-1/4"	12"	16' 1-1/2"
ESWB 9-42G6	7,070	4,630	10,520	5	25,400	3	325	87	160	8"	8,450	7' 5-1/4"	8' 8-1/4"	12"	16' 1-1/2"
ESWB 9-42H6	7,120	4,630	10,570	7.5	29,100	3	325	87	160	8"	8,500	7' 5-1/4"	8' 8-1/4"	12"	16' 1-1/2"
ESWB 9-42I6	7,130	4,630	10,580	10	32,000	3	325	87	160	8"	8,510	7' 5-1/4"	8' 8-1/4"	12"	16' 1-1/2"
ESWB 9-42J6	7,260	4,630	10,710	15	36,300	3	325	87	160	8"	8,640	7' 5-1/4"	8' 8-1/4"	12"	16' 1-1/2"
ESWB 9-43F6	8,090	5,660	11,860	3	21,400	3	325	127	160	8"	9,790	8'-3/4"	8' 8-1/4"	19-1/2"	16' 9"
ESWB 9-43G6	8,100	5,660	11,870	5	25,400	3	325	127	160	8"	9,800	8'-3/4"	8' 8-1/4"	19-1/2"	16' 9"
ESWB 9-43H6	8,150	5,660	11,920	7.5	29,100	3	325	127	160	8"	9,850	8'-3/4"	8' 8-1/4"	19-1/2"	16' 9"
ESWB 9-43I6	8,160	5,660	11,930	10	32,000	3	325	127	160	8"	9,860	8'-3/4"	8' 8-1/4"	19-1/2"	16' 9"
ESWB 9-43J6	8,290	5,660	12,060	15	36,300	3	325	127	160	8"	9,990	8'-3/4"	8' 8-1/4"	19-1/2"	16' 9"
ESWB 9-44F6	9,140	6,710	13,240	3	21,400	3	325	166	160	8"	11,170	8' 8-1/4"	8' 8-1/4"	27"	17' 4-1/2"
ESWB 9-44G6	9,150	6,710	13,250	5	25,400	3	325	166	160	8"	11,180	8' 8-1/4"	8' 8-1/4"	27"	17' 4-1/2"
ESWB 9-44H6	9,200	6,710	13,300	7.5	29,100	3	325	166	160	8"	11,230	8' 8-1/4"	8' 8-1/4"	27"	17' 4-1/2"
ESWB 9-44I6	9,210	6,710	13,310	10	32,000	3	325	166	160	8"	11,240	8' 8-1/4"	8' 8-1/4"	27"	17' 4-1/2"
ESWB 9-44J6	9,340	6,710	13,440	15	36,300	3	325	166	160	8"	11,370	8' 8-1/4"	8' 8-1/4"	27"	17' 4-1/2"
ESWB 9-45F6	10,210	7,780	14,640	3	21,400	3	325	205	160	8"	12,570	9' 3-3/4"	8' 8-1/4"	34-1/2"	18' 0"
ESWB 9-45G6	10,220	7,780	14,650	5	25,400	3	325	205	160	8"	12,580	9' 3-3/4"	8' 8-1/4"	34-1/2"	18' 0"
ESWB 9-45H6	10,270	7,780	14,700	7.5	29,100	3	325	205	160	8"	12,630	9' 3-3/4"	8' 8-1/4"	34-1/2"	18' 0"
ESWB 9-45I6	10,280	7,780	14,710	10	32,000	3	325	205	160	8"	12,640	9' 3-3/4"	8' 8-1/4"	34-1/2"	18' 0"
ESWB 9-45J6	10,410	7,780	14,840	15	36,300	3	325	205	160	8"	12,770	9' 3-3/4"	8' 8-1/4"	34-1/2"	18' 0"
ESWB 9-46F6	11,250	8,820	16,010	3	21,400	3	325	245	160	8"	13,930	9' 11-1/4"	8' 8-1/4"	42"	18' 7-1/2"
ESWB 9-46G6	11,260	8,820	16,020	5	25,400	3	325	245	160	8"	13,940	9' 11-1/4"	8' 8-1/4"	42"	18' 7-1/2"
ESWB 9-46H6	11,310	8,820	16,070	7.5	29,100	3	325	245	160	8"	13,990	9' 11-1/4"	8' 8-1/4"	42"	18' 7-1/2"
ESWB 9-46I6	11,320	8,820	16,080	10	32,000	3	325	245	160	8"	14,000	9' 11-1/4"	8' 8-1/4"	42"	18' 7-1/2"
ESWB 9-46J6	11,450	8,820	16,210	15	36,300	3	325	245	160	8"	14,130	9' 11-1/4"	8' 8-1/4"	42"	18' 7-1/2"

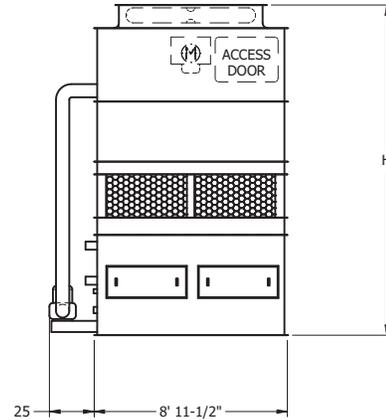
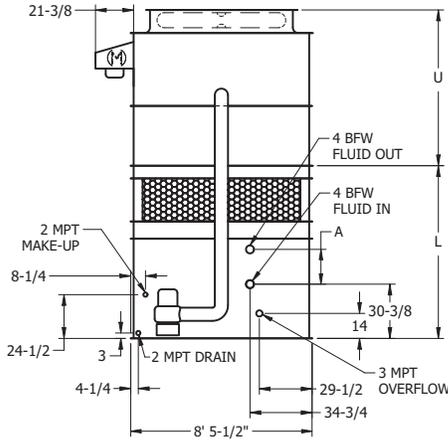
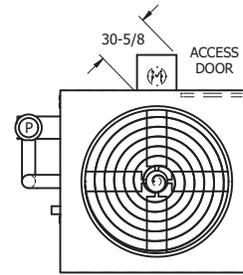
- Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- Heaviest section is the lower section.
- Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



ESWB Engineering Data & Dimensions

ESWB Models 9-23G9 to 9-35J9

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-23G9	9,580	6,870	14,740	5	35,500	5	665	149	280	10"	12,210	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-23H9	9,630	6,870	14,790	7.5	40,600	5	665	149	280	10"	12,260	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-23I9	9,640	6,870	14,800	10	44,700	5	665	149	280	10"	12,270	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-23J9	9,770	6,870	14,930	15	50,800	5	665	149	280	10"	12,400	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-24G9	10,770	8,060	16,320	5	35,500	5	665	196	280	10"	13,790	8' 8 1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-24H9	10,820	8,060	16,370	7.5	40,600	5	665	196	280	10"	13,840	8' 8 1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-24I9	10,830	8,060	16,380	10	44,700	5	665	196	280	10"	13,850	8' 8 1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-24J9	10,960	8,060	16,510	15	50,800	5	665	196	280	10"	13,980	8' 8 1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-25G9	11,980	9,270	17,920	5	35,500	5	665	243	280	10"	15,390	9' 3 3/4"	7' 3-1/4"	34-1/2"	16'-7"
ESWB 9-25H9	12,030	9,270	17,970	7.5	40,600	5	665	243	280	10"	15,440	9' 3 3/4"	7' 3-1/4"	34-1/2"	16'-7"
ESWB 9-25I9	12,040	9,270	17,980	10	44,700	5	665	243	280	10"	15,450	9' 3 3/4"	7' 3-1/4"	34-1/2"	16'-7"
ESWB 9-25J9	12,170	9,270	18,110	15	50,800	5	665	243	280	10"	15,580	9' 3 3/4"	7' 3-1/4"	34-1/2"	16'-7"
ESWB 9-26G9	13,170	10,460	19,490	5	35,500	5	665	289	280	10"	16,970	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-26H9	13,220	10,460	19,540	7.5	40,600	5	665	289	280	10"	17,020	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-26I9	13,230	10,460	19,550	10	44,700	5	665	289	280	10"	17,030	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-26J9	13,360	10,460	19,680	15	50,800	5	665	289	280	10"	17,160	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-33G9	9,850	6,870	15,010	5	35,000	5	665	149	280	10"	12,480	8' 3/4"	8' 3-1/4"	19-1/2"	16'-4"
ESWB 9-33H9	9,900	6,870	15,060	7.5	40,100	5	665	149	280	10"	12,530	8' 3/4"	8' 3-1/4"	19-1/2"	16'-4"
ESWB 9-33I9	9,910	6,870	15,070	10	43,900	5	665	149	280	10"	12,540	8' 3/4"	8' 3-1/4"	19-1/2"	16'-4"
ESWB 9-33J9	10,040	6,870	15,200	15	49,800	5	665	149	280	10"	12,670	8' 3/4"	8' 3-1/4"	19-1/2"	16'-4"
ESWB 9-34G9	11,040	8,060	16,590	5	35,000	5	665	196	280	10"	14,060	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-34H9	11,090	8,060	16,640	7.5	40,100	5	665	196	280	10"	14,110	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-34I9	11,100	8,060	16,650	10	43,900	5	665	196	280	10"	14,120	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-34J9	11,230	8,060	16,780	15	49,800	5	665	196	280	10"	14,250	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-35G9	12,260	9,280	18,200	5	35,000	5	665	243	280	10"	15,660	9' 3-3/4"	8' 3-1/4"	34-1/2"	17'-7"
ESWB 9-35H9	12,310	9,280	18,250	7.5	40,100	5	665	243	280	10"	15,710	9' 3-3/4"	8' 3-1/4"	34-1/2"	17'-7"
ESWB 9-35I9	12,320	9,280	18,260	10	43,900	5	665	243	280	10"	15,720	9' 3-3/4"	8' 3-1/4"	34-1/2"	17'-7"
ESWB 9-35J9	12,450	9,280	18,390	15	49,800	5	665	243	280	10"	15,850	9' 3-3/4"	8' 3-1/4"	34-1/2"	17'-7"

1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).

2 Heaviest section is the lower section.

3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).

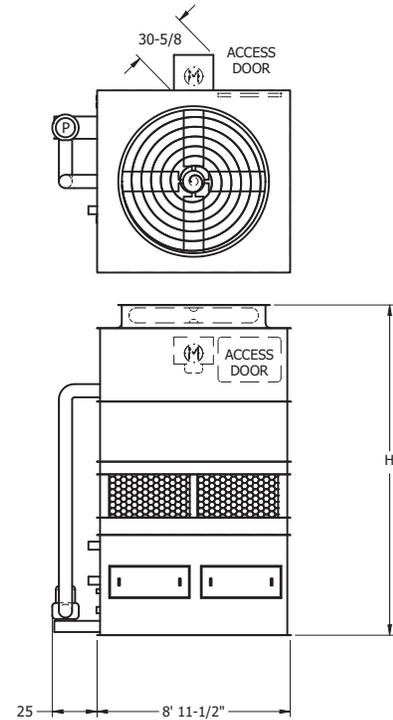
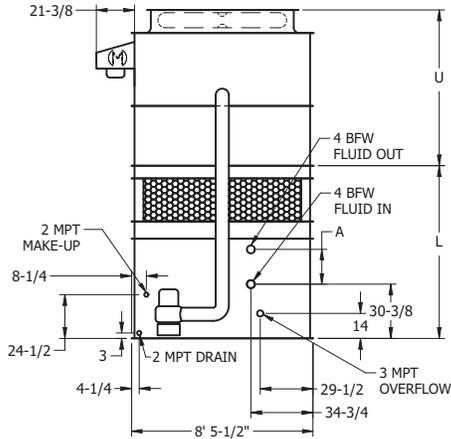
4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.

5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 9-36G9 to 9-46K9

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



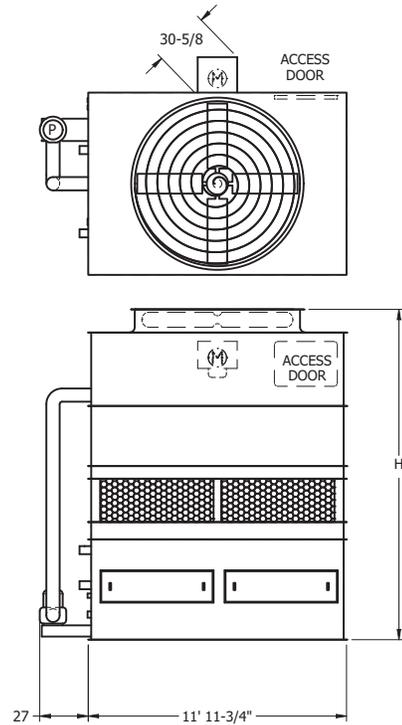
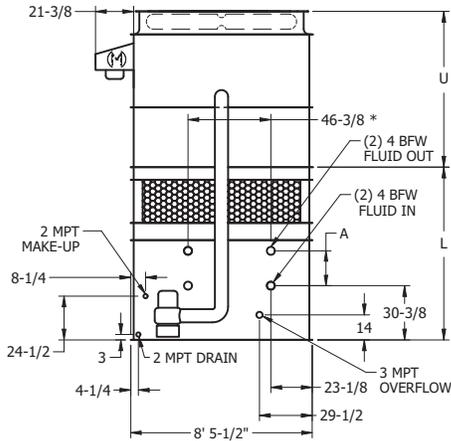
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-36G9	13,450	10,470	19,770	5	35,000	5	665	289	280	10"	17,240	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-36H9	13,500	10,470	19,820	7.5	40,100	5	665	289	280	10"	17,290	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-36I9	13,510	10,470	19,830	10	43,900	5	665	289	280	10"	17,300	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-36J9	13,640	10,470	19,960	15	49,800	5	665	289	280	10"	17,430	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-43G9	10,170	6,880	15,330	5	34,300	5	665	149	280	10"	12,790	8' 3/4"	9' 3-1/4"	19-1/2"	17' 4"
ESWB 9-43H9	10,220	6,880	15,380	7.5	39,300	5	665	149	280	10"	12,840	8' 3/4"	9' 3-1/4"	19-1/2"	17' 4"
ESWB 9-43I9	10,230	6,880	15,390	10	43,200	5	665	149	280	10"	12,850	8' 3/4"	9' 3-1/4"	19-1/2"	17' 4"
ESWB 9-43J9	10,360	6,880	15,520	15	49,000	5	665	149	280	10"	12,980	8' 3/4"	9' 3-1/4"	19-1/2"	17' 4"
ESWB 9-43K9	10,420	6,880	15,580	20	53,600	5	665	149	280	10"	13,040	8' 3/4"	9' 3-1/4"	19-1/2"	17' 4"
ESWB 9-44G9	11,360	8,070	16,910	5	34,300	5	665	196	280	10"	14,370	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44H9	11,410	8,070	16,960	7.5	39,300	5	665	196	280	10"	14,420	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44I9	11,420	8,070	16,970	10	43,200	5	665	196	280	10"	14,430	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44J9	11,550	8,070	17,100	15	49,000	5	665	196	280	10"	14,560	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44K9	11,610	8,070	17,160	20	53,600	5	665	196	280	10"	14,620	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-45G9	12,570	9,280	18,510	5	34,300	5	665	243	280	10"	15,970	9' 3-3/4"	9' 3-1/4"	34-1/2"	18' 7"
ESWB 9-45H9	12,620	9,280	18,560	7.5	39,300	5	665	243	280	10"	16,020	9' 3-3/4"	9' 3-1/4"	34-1/2"	18' 7"
ESWB 9-45I9	12,630	9,280	18,570	10	43,200	5	665	243	280	10"	16,030	9' 3-3/4"	9' 3-1/4"	34-1/2"	18' 7"
ESWB 9-45J9	12,760	9,280	18,700	15	49,000	5	665	243	280	10"	16,160	9' 3-3/4"	9' 3-1/4"	34-1/2"	18' 7"
ESWB 9-45K9	12,820	9,280	18,760	20	53,600	5	665	243	280	10"	16,220	9' 3-3/4"	9' 3-1/4"	34-1/2"	18' 7"
ESWB 9-46G9	13,760	10,470	20,080	5	34,300	5	665	289	280	10"	17,550	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46H9	13,810	10,470	20,130	7.5	39,300	5	665	289	280	10"	17,600	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46I9	13,820	10,470	20,140	10	43,200	5	665	289	280	10"	17,610	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46J9	13,950	10,470	20,270	15	49,000	5	665	289	280	10"	17,740	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46K9	14,010	10,470	20,330	20	53,600	5	665	289	280	10"	17,800	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"

- Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- Heaviest section is the lower section.
- Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 9-23H12 to 9-34K12

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



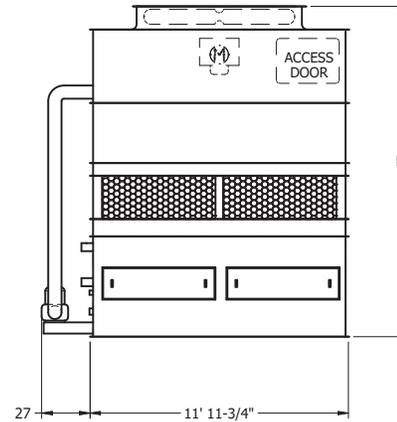
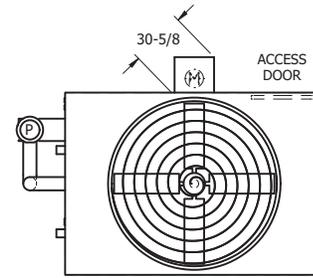
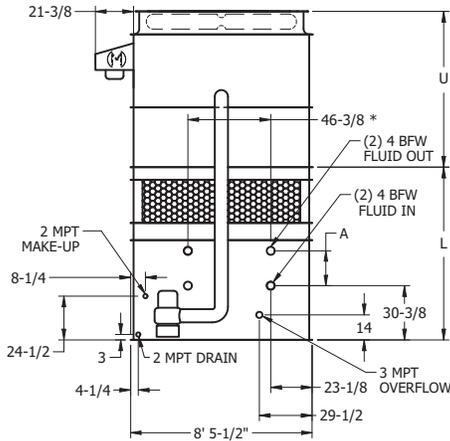
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-23H12	13,510	10,010	19,920	7.5	50,100	7.5	850	259	330	12"	16,200	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-23I12	13,520	10,010	19,930	10	55,100	7.5	850	259	330	12"	16,210	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-23J12	13,650	10,010	20,060	15	63,100	7.5	850	259	330	12"	16,340	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-23K12	13,710	10,010	20,120	20	69,100	7.5	850	259	330	12"	16,400	8' 3/4"	7' 3-1/4"	19-1/2"	15' 4"
ESWB 9-24H12	15,520	12,020	22,270	7.5	50,100	7.5	850	341	330	12"	18,550	8' 8-1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-24I12	15,530	12,020	22,280	10	55,100	7.5	850	341	330	12"	18,560	8' 8-1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-24J12	15,660	12,020	22,410	15	63,100	7.5	850	341	330	12"	18,690	8' 8-1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-24K12	15,720	12,020	22,470	20	69,100	7.5	850	341	330	12"	18,750	8' 8-1/4"	7' 3-1/4"	27"	15' 11-1/2"
ESWB 9-25H12	17,550	14,050	24,640	7.5	50,100	7.5	850	423	330	12"	20,920	9' 3-3/4"	7' 3-1/4"	34-1/2"	16' 7"
ESWB 9-25I12	17,560	14,050	24,650	10	55,100	7.5	850	423	330	12"	20,930	9' 3-3/4"	7' 3-1/4"	34-1/2"	16' 7"
ESWB 9-25J12	17,690	14,050	24,780	15	63,100	7.5	850	423	330	12"	21,060	9' 3-3/4"	7' 3-1/4"	34-1/2"	16' 7"
ESWB 9-25K12	17,750	14,050	24,840	20	69,100	7.5	850	423	330	12"	21,120	9' 3-3/4"	7' 3-1/4"	34-1/2"	16' 7"
ESWB 9-26H12	19,560	16,060	26,990	7.5	50,100	7.5	850	505	330	12"	23,260	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-26I12	19,570	16,060	27,000	10	55,100	7.5	850	505	330	12"	23,270	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-26J12	19,700	16,060	27,130	15	63,100	7.5	850	505	330	12"	23,400	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-26K12	19,760	16,060	27,190	20	69,100	7.5	850	505	330	12"	23,460	9' 11-1/4"	7' 3-1/4"	42"	17' 2-1/2"
ESWB 9-33H12	13,870	10,010	20,280	7.5	49,500	7.5	850	259	330	12"	16,560	8' 3/4"	8' 3-1/4"	19-1/2"	16' 4"
ESWB 9-33I12	13,880	10,010	20,290	10	54,500	7.5	850	259	330	12"	16,570	8' 3/4"	8' 3-1/4"	19-1/2"	16' 4"
ESWB 9-33J12	14,010	10,010	20,420	15	61,900	7.5	850	259	330	12"	16,700	8' 3/4"	8' 3-1/4"	19-1/2"	16' 4"
ESWB 9-33K12	14,070	10,010	20,480	20	67,800	7.5	850	259	330	12"	16,760	8' 3/4"	8' 3-1/4"	19-1/2"	16' 4"
ESWB 9-34H12	15,890	12,030	22,640	7.5	49,500	7.5	850	341	330	12"	18,910	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-34I12	15,900	12,030	22,650	10	54,500	7.5	850	341	330	12"	18,920	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-34J12	16,030	12,030	22,780	15	61,900	7.5	850	341	330	12"	19,050	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"
ESWB 9-34K12	16,090	12,030	22,840	20	67,800	7.5	850	341	330	12"	19,110	8' 8-1/4"	8' 3-1/4"	27"	16' 11-1/2"

- 1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- 2 Heaviest section is the lower section.
- 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 9-35H12 to 9-46K12

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



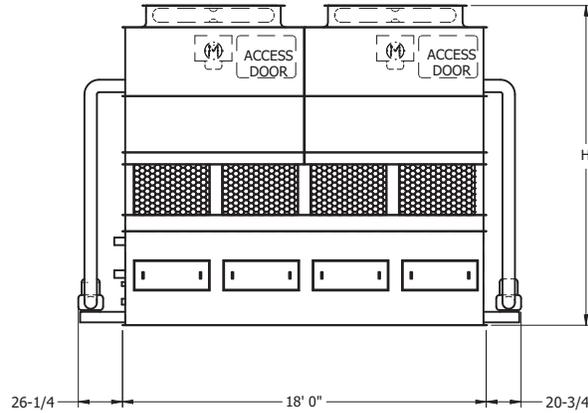
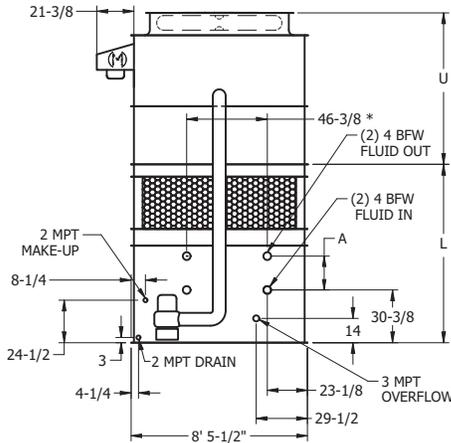
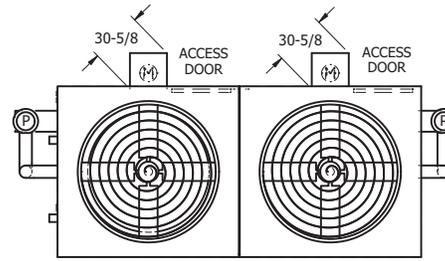
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-35H12	17,920	14,060	25,010	7.5	49,500	7.5	850	423	330	12"	21,280	9' 3-3/4"	8' 3-1/4"	34-1/2"	17' 7"
ESWB 9-35I12	17,930	14,060	25,020	10	54,500	7.5	850	423	330	12"	21,290	9' 3-3/4"	8' 3-1/4"	34-1/2"	17' 7"
ESWB 9-35J12	18,060	14,060	25,150	15	61,900	7.5	850	423	330	12"	21,420	9' 3-3/4"	8' 3-1/4"	34-1/2"	17' 7"
ESWB 9-35K12	18,120	14,060	25,210	20	67,800	7.5	850	423	330	12"	21,480	9' 3-3/4"	8' 3-1/4"	34-1/2"	17' 7"
ESWB 9-36H12	19,920	16,060	27,350	7.5	49,500	7.5	850	505	330	12"	23,620	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-36I12	19,930	16,060	27,360	10	54,500	7.5	850	505	330	12"	23,630	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-36J12	20,060	16,060	27,490	15	61,900	7.5	850	505	330	12"	23,760	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-36K12	20,120	16,060	27,550	20	67,800	7.5	850	505	330	12"	23,820	9' 11-1/4"	8' 3-1/4"	42"	18' 2-1/2"
ESWB 9-43H12	14,270	10,020	20,680	7.5	48,400	7.5	850	259	330	12"	16,950	8' 3/4"	9' 3-1/4"	19-1/2"	17'-4"
ESWB 9-43I12	14,280	10,020	20,690	10	53,300	7.5	850	259	330	12"	16,960	8' 3/4"	9' 3-1/4"	19-1/2"	17'-4"
ESWB 9-43J12	14,410	10,020	20,820	15	61,000	7.5	850	259	330	12"	17,090	8' 3/4"	9' 3-1/4"	19-1/2"	17'-4"
ESWB 9-43K12	14,470	10,020	20,880	20	66,700	7.5	850	259	330	12"	17,150	8' 3/4"	9' 3-1/4"	19-1/2"	17'-4"
ESWB 9-44H12	16,280	12,030	23,030	7.5	48,400	7.5	850	341	330	12"	19,300	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44I12	16,290	12,030	23,040	10	53,300	7.5	850	341	330	12"	19,310	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44J12	16,420	12,030	23,170	15	61,000	7.5	850	341	330	12"	19,440	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-44K12	16,480	12,030	23,230	20	66,700	7.5	850	341	330	12"	19,500	8' 8-1/4"	9' 3-1/4"	27"	17' 11-1/2"
ESWB 9-45H12	18,310	14,060	25,400	7.5	48,400	7.5	850	423	330	12"	21,670	9' 3-3/4"	9' 3-1/4"	34-1/2"	18'-7"
ESWB 9-45I12	18,320	14,060	25,410	10	53,300	7.5	850	423	330	12"	21,680	9' 3-3/4"	9' 3-1/4"	34-1/2"	18'-7"
ESWB 9-45J12	18,450	14,060	25,540	15	61,000	7.5	850	423	330	12"	21,810	9' 3-3/4"	9' 3-1/4"	34-1/2"	18'-7"
ESWB 9-45K12	18,510	14,060	25,600	20	66,700	7.5	850	423	330	12"	21,870	9' 3-3/4"	9' 3-1/4"	34-1/2"	18'-7"
ESWB 9-46H12	20,310	16,060	27,740	7.5	48,400	7.5	850	505	330	12"	24,010	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46I12	20,320	16,060	27,750	10	53,300	7.5	850	505	330	12"	24,020	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46J12	20,450	16,060	27,880	15	61,000	7.5	850	505	330	12"	24,150	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"
ESWB 9-46K12	20,510	16,060	27,940	20	66,700	7.5	850	505	330	12"	24,210	9' 11-1/4"	9' 3-1/4"	42"	19' 2-1/2"

- 1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- 2 Heaviest section is the lower section.
- 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 9-23G18 to 9-35J18

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



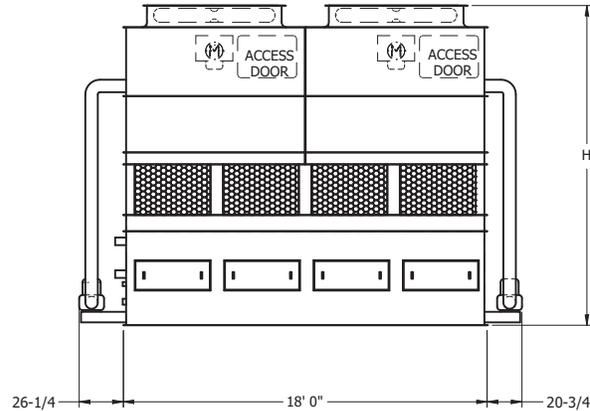
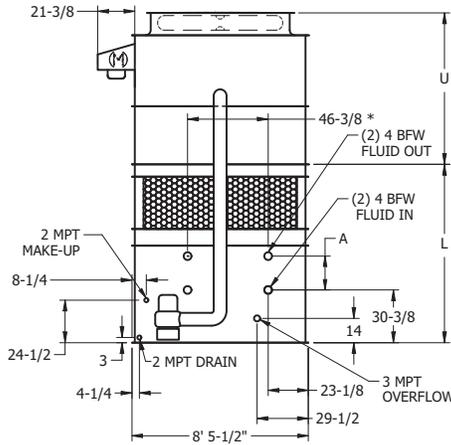
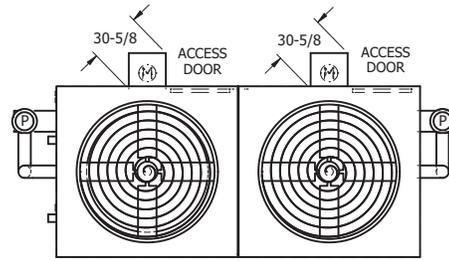
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-23G18	20,210	14,820	29,950	(2) 5	72,000	(2) 5	1,330	391	890	12"	27,470	8' 6-3/4"	7' 3-1/4"	19-1/2"	15' 10"
ESWB 9-23H18	20,310	14,820	30,050	(2) 7.5	81,900	(2) 5	1,330	391	890	12"	27,570	8' 6-3/4"	7' 3-1/4"	19-1/2"	15' 10"
ESWB 9-23I18	20,340	14,820	30,080	(2) 10	89,800	(2) 5	1,330	391	890	12"	27,600	8' 6-3/4"	7' 3-1/4"	19-1/2"	15' 10"
ESWB 9-23J18	20,590	14,820	30,330	(2) 15	102,000	(2) 5	1,330	391	890	12"	27,850	8' 6-3/4"	7' 3-1/4"	19-1/2"	15' 10"
ESWB 9-24G18	23,280	17,890	33,540	(2) 5	72,000	(2) 5	1,330	516	890	12"	31,050	9' 2-1/4"	7' 3-1/4"	27"	16'-5-1/2"
ESWB 9-24H18	23,380	17,890	33,640	(2) 7.5	81,900	(2) 5	1,330	516	890	12"	31,150	9' 2-1/4"	7' 3-1/4"	27"	16'-5-1/2"
ESWB 9-24I18	23,410	17,890	33,670	(2) 10	89,800	(2) 5	1,330	516	890	12"	31,180	9' 2-1/4"	7' 3-1/4"	27"	16'-5-1/2"
ESWB 9-24J18	23,660	17,890	33,920	(2) 15	102,000	(2) 5	1,330	516	890	12"	31,430	9' 2-1/4"	7' 3-1/4"	27"	16'-5-1/2"
ESWB 9-25G18	26,300	20,910	37,090	(2) 5	72,000	(2) 5	1,330	642	890	12"	34,600	9' 9-3/4"	7' 3-1/4"	34-1/2"	17' 1"
ESWB 9-25H18	26,400	20,910	37,190	(2) 7.5	81,900	(2) 5	1,330	642	890	12"	34,700	9' 9-3/4"	7' 3-1/4"	34-1/2"	17' 1"
ESWB 9-25I18	26,430	20,910	37,220	(2) 10	89,800	(2) 5	1,330	642	890	12"	34,730	9' 9-3/4"	7' 3-1/4"	34-1/2"	17' 1"
ESWB 9-25J18	26,680	20,910	37,470	(2) 15	102,000	(2) 5	1,330	642	890	12"	34,980	9' 9-3/4"	7' 3-1/4"	34-1/2"	17' 1"
ESWB 9-26G18	29,330	23,940	40,640	(2) 5	72,000	(2) 5	1,330	768	890	12"	38,140	10' 5-1/4"	7' 3-1/4"	42"	17'-8-1/2"
ESWB 9-26H18	29,430	23,940	40,740	(2) 7.5	81,900	(2) 5	1,330	768	890	12"	38,240	10' 5-1/4"	7' 3-1/4"	42"	17'-8-1/2"
ESWB 9-26I18	29,460	23,940	40,770	(2) 10	89,800	(2) 5	1,330	768	890	12"	38,270	10' 5-1/4"	7' 3-1/4"	42"	17'-8-1/2"
ESWB 9-26J18	29,710	23,940	41,020	(2) 15	102,000	(2) 5	1,330	768	890	12"	38,520	10' 5-1/4"	7' 3-1/4"	42"	17'-8-1/2"
ESWB 9-33G18	20,750	14,830	30,490	(2) 5	70,400	(2) 5	1,330	391	890	12"	28,000	8' 6-3/4"	8' 3-1/4"	19-1/2"	16' 10"
ESWB 9-33H18	20,850	14,830	30,590	(2) 7.5	80,600	(2) 5	1,330	391	890	12"	28,100	8' 6-3/4"	8' 3-1/4"	19-1/2"	16' 10"
ESWB 9-33I18	20,880	14,830	30,620	(2) 10	88,200	(2) 5	1,330	391	890	12"	28,130	8' 6-3/4"	8' 3-1/4"	19-1/2"	16' 10"
ESWB 9-33J18	21,130	14,830	30,870	(2) 15	100,000	(2) 5	1,330	391	890	12"	28,380	8' 6-3/4"	8' 3-1/4"	19-1/2"	16' 10"
ESWB 9-34G18	23,820	17,900	34,080	(2) 5	70,400	(2) 5	1,330	516	890	12"	31,580	9' 2-1/4"	8' 3-1/4"	27"	17'-5-1/2"
ESWB 9-34H18	23,920	17,900	34,180	(2) 7.5	80,600	(2) 5	1,330	516	890	12"	31,680	9' 2-1/4"	8' 3-1/4"	27"	17'-5-1/2"
ESWB 9-34I18	23,950	17,900	34,210	(2) 10	88,200	(2) 5	1,330	516	890	12"	31,710	9' 2-1/4"	8' 3-1/4"	27"	17'-5-1/2"
ESWB 9-34J18	24,200	17,900	34,460	(2) 15	100,000	(2) 5	1,330	516	890	12"	31,960	9' 2-1/4"	8' 3-1/4"	27"	17'-5-1/2"
ESWB 9-35G18	26,840	20,920	37,630	(2) 5	70,400	(2) 5	1,330	642	890	12"	35,130	9' 9-3/4"	8' 3-1/4"	34-1/2"	18' 1"
ESWB 9-35H18	26,940	20,920	37,730	(2) 7.5	80,600	(2) 5	1,330	642	890	12"	35,230	9' 9-3/4"	8' 3-1/4"	34-1/2"	18' 1"
ESWB 9-35I18	26,970	20,920	37,760	(2) 10	88,200	(2) 5	1,330	642	890	12"	35,260	9' 9-3/4"	8' 3-1/4"	34-1/2"	18' 1"
ESWB 9-35J18	27,220	20,920	38,010	(2) 15	100,000	(2) 5	1,330	642	890	12"	35,510	9' 9-3/4"	8' 3-1/4"	34-1/2"	18' 1"

- 1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- 2 Heaviest section is the lower section.
- 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 9-36G18 to 9-46K18

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 9-36G18	29,870	23,950	41,180	(2) 5	70,400	(2) 5	1,330	768	890	12"	38,670	10' 5-1/4"	8' 3-1/4"	42"	18' 8-1/2"
ESWB 9-36H18	29,970	23,950	41,280	(2) 7.5	80,600	(2) 5	1,330	768	890	12"	38,770	10' 5-1/4"	8' 3-1/4"	42"	18' 8-1/2"
ESWB 9-36I18	30,000	23,950	41,310	(2) 10	88,200	(2) 5	1,330	768	890	12"	38,800	10' 5-1/4"	8' 3-1/4"	42"	18' 8-1/2"
ESWB 9-36J18	30,250	23,950	41,560	(2) 15	100,000	(2) 5	1,330	768	890	12"	39,050	10' 5-1/4"	8' 3-1/4"	42"	18' 8-1/2"
ESWB 9-43G18	21,340	14,840	31,080	(2) 5	68,900	(2) 5	1,330	391	890	12"	28,580	8' 6-3/4"	9' 3-1/4"	19-1/2"	17' 10"
ESWB 9-43H18	21,440	14,840	31,180	(2) 7.5	78,900	(2) 5	1,330	391	890	12"	28,680	8' 6-3/4"	9' 3-1/4"	19-1/2"	17' 10"
ESWB 9-43I18	21,470	14,840	31,210	(2) 10	86,800	(2) 5	1,330	391	890	12"	28,710	8' 6-3/4"	9' 3-1/4"	19-1/2"	17' 10"
ESWB 9-43J18	21,720	14,840	31,460	(2) 15	98,400	(2) 5	1,330	391	890	12"	28,960	8' 6-3/4"	9' 3-1/4"	19-1/2"	17' 10"
ESWB 9-43K18	21,840	14,840	31,580	(2) 20	107,600	(2) 5	1,330	391	890	12"	29,080	8' 6-3/4"	9' 3-1/4"	19-1/2"	17' 10"
ESWB 9-44G18	24,400	17,900	34,660	(2) 5	68,900	(2) 5	1,330	516	890	12"	32,160	9' 2-1/4"	9' 3-1/4"	27"	18' 5-1/2"
ESWB 9-44H18	24,500	17,900	34,760	(2) 7.5	78,900	(2) 5	1,330	516	890	12"	32,260	9' 2-1/4"	9' 3-1/4"	27"	18' 5-1/2"
ESWB 9-44I18	24,530	17,900	34,790	(2) 10	86,800	(2) 5	1,330	516	890	12"	32,290	9' 2-1/4"	9' 3-1/4"	27"	18' 5-1/2"
ESWB 9-44J18	24,780	17,900	35,040	(2) 15	98,400	(2) 5	1,330	516	890	12"	32,540	9' 2-1/4"	9' 3-1/4"	27"	18' 5-1/2"
ESWB 9-44K18	24,900	17,900	35,160	(2) 20	107,600	(2) 5	1,330	516	890	12"	32,660	9' 2-1/4"	9' 3-1/4"	27"	18' 5-1/2"
ESWB 9-45G18	27,430	20,930	38,220	(2) 5	68,900	(2) 5	1,330	642	890	12"	35,710	9' 9-3/4"	9' 3-1/4"	34-1/2"	19' 1"
ESWB 9-45H18	27,530	20,930	38,320	(2) 7.5	78,900	(2) 5	1,330	642	890	12"	35,810	9' 9-3/4"	9' 3-1/4"	34-1/2"	19' 1"
ESWB 9-45I18	27,560	20,930	38,350	(2) 10	86,800	(2) 5	1,330	642	890	12"	35,840	9' 9-3/4"	9' 3-1/4"	34-1/2"	19' 1"
ESWB 9-45J18	27,810	20,930	38,600	(2) 15	98,400	(2) 5	1,330	642	890	12"	36,090	9' 9-3/4"	9' 3-1/4"	34-1/2"	19' 1"
ESWB 9-45K18	27,930	20,930	38,720	(2) 20	107,600	(2) 5	1,330	642	890	12"	36,210	9' 9-3/4"	9' 3-1/4"	34-1/2"	19' 1"
ESWB 9-46G18	30,450	23,950	41,760	(2) 5	68,900	(2) 5	1,330	768	890	12"	39,250	10' 5-1/4"	9' 3-1/4"	42"	19' 8-1/2"
ESWB 9-46H18	30,550	23,950	41,860	(2) 7.5	78,900	(2) 5	1,330	768	890	12"	39,350	10' 5-1/4"	9' 3-1/4"	42"	19' 8-1/2"
ESWB 9-46I18	30,580	23,950	41,890	(2) 10	86,800	(2) 5	1,330	768	890	12"	39,380	10' 5-1/4"	9' 3-1/4"	42"	19' 8-1/2"
ESWB 9-46J18	30,830	23,950	42,140	(2) 15	98,400	(2) 5	1,330	768	890	12"	39,630	10' 5-1/4"	9' 3-1/4"	42"	19' 8-1/2"
ESWB 9-46K18	30,950	23,950	42,260	(2) 20	107,600	(2) 5	1,330	768	890	12"	39,750	10' 5-1/4"	9' 3-1/4"	42"	19' 8-1/2"

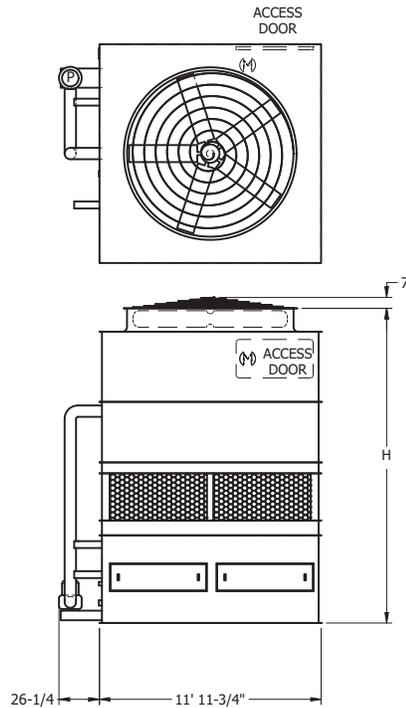
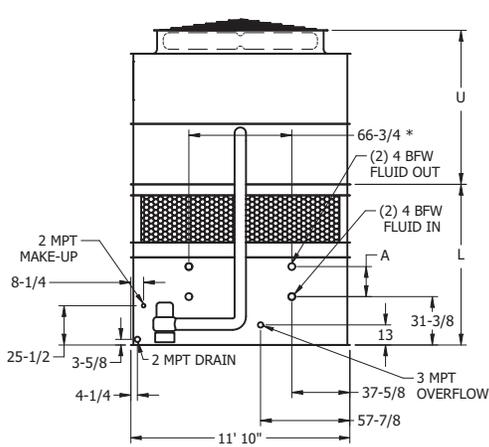
- 1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- 2 Heaviest section is the lower section.
- 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



ESWB Engineering Data & Dimensions

ESWB Models 12-23112 to 12-34M12

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



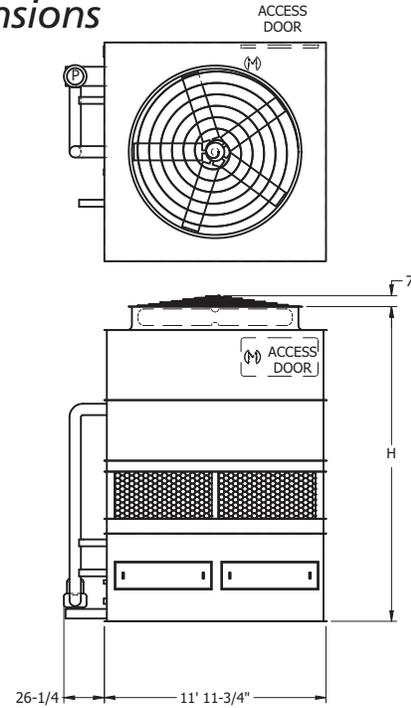
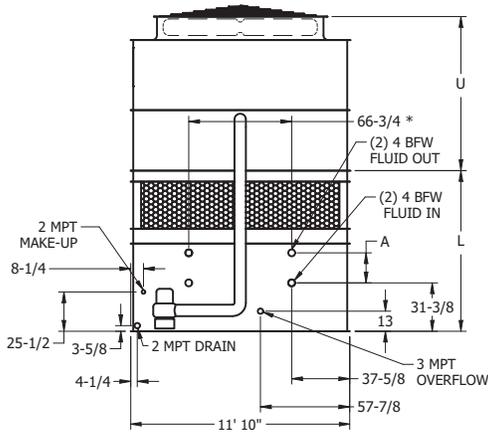
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 12-23112	18,870	13,970	28,710	10	71,600	10	1,050	380	590	12"	23,760	8' 8-1/4"	8' 4"	19-1/2"	17' 1/4"
ESWB 12-23J12	19,000	13,970	28,840	15	81,400	10	1,050	380	590	12"	23,890	8' 8-1/4"	8' 4"	19-1/2"	17' 1/4"
ESWB 12-23K12	19,060	13,970	28,900	20	89,300	10	1,050	380	590	12"	23,950	8' 8-1/4"	8' 4"	19-1/2"	17' 1/4"
ESWB 12-23L12	19,090	13,970	28,930	25	95,800	10	1,050	380	590	12"	23,980	8' 8-1/4"	8' 4"	19-1/2"	17' 1/4"
ESWB 12-23M12	19,140	13,970	28,980	30	101,500	10	1,050	380	590	12"	24,030	8' 8-1/4"	8' 4"	19-1/2"	17' 1/4"
ESWB 12-24I12	21,760	16,860	32,100	10	71,600	10	1,050	501	590	12"	27,160	9' 3-3/4"	8' 4"	27"	17' 7-3/4"
ESWB 12-24J12	21,890	16,860	32,230	15	81,400	10	1,050	501	590	12"	27,290	9' 3-3/4"	8' 4"	27"	17' 7-3/4"
ESWB 12-24K12	21,950	16,860	32,290	20	89,300	10	1,050	501	590	12"	27,350	9' 3-3/4"	8' 4"	27"	17' 7-3/4"
ESWB 12-24L12	21,980	16,860	32,320	25	95,800	10	1,050	501	590	12"	27,380	9' 3-3/4"	8' 4"	27"	17' 7-3/4"
ESWB 12-24M12	22,030	16,860	32,370	30	101,500	10	1,050	501	590	12"	27,430	9' 3-3/4"	8' 4"	27"	17' 7-3/4"
ESWB 12-25I12	24,670	19,770	35,510	10	71,600	10	1,050	621	590	12"	30,570	9' 11-1/4"	8' 4"	34-1/2"	18' 3-1/4"
ESWB 12-25J12	24,800	19,770	35,640	15	81,400	10	1,050	621	590	12"	30,700	9' 11-1/4"	8' 4"	34-1/2"	18' 3-1/4"
ESWB 12-25K12	24,860	19,770	35,700	20	89,300	10	1,050	621	590	12"	30,760	9' 11-1/4"	8' 4"	34-1/2"	18' 3-1/4"
ESWB 12-25L12	24,890	19,770	35,730	25	95,800	10	1,050	621	590	12"	30,790	9' 11-1/4"	8' 4"	34-1/2"	18' 3-1/4"
ESWB 12-25M12	24,940	19,770	35,780	30	101,500	10	1,050	621	590	12"	30,840	9' 11-1/4"	8' 4"	34-1/2"	18' 3-1/4"
ESWB 12-26I12	27,560	22,660	38,910	10	71,600	10	1,050	742	590	12"	33,960	10' 6-3/4"	8' 4"	42"	18' 10-3/4"
ESWB 12-26J12	27,690	22,660	39,040	15	81,400	10	1,050	742	590	12"	34,090	10' 6-3/4"	8' 4"	42"	18' 10-3/4"
ESWB 12-26K12	27,750	22,660	39,100	20	89,300	10	1,050	742	590	12"	34,150	10' 6-3/4"	8' 4"	42"	18' 10-3/4"
ESWB 12-26L12	27,780	22,660	39,130	25	95,800	10	1,050	742	590	12"	34,180	10' 6-3/4"	8' 4"	42"	18' 10-3/4"
ESWB 12-26M12	27,830	22,660	39,180	30	101,500	10	1,050	742	590	12"	34,230	10' 6-3/4"	8' 4"	42"	18' 10-3/4"
ESWB 12-33I12	19,410	13,970	29,250	10	69,900	10	1,050	380	590	12"	24,300	8' 8-1/4"	9' 4"	19-1/2"	18' 1/4"
ESWB 12-33J12	19,540	13,970	29,380	15	80,000	10	1,050	380	590	12"	24,430	8' 8-1/4"	9' 4"	19-1/2"	18' 1/4"
ESWB 12-33K12	19,600	13,970	29,440	20	87,600	10	1,050	380	590	12"	24,490	8' 8-1/4"	9' 4"	19-1/2"	18' 1/4"
ESWB 12-33L12	19,630	13,970	29,470	25	93,900	10	1,050	380	590	12"	24,520	8' 8-1/4"	9' 4"	19-1/2"	18' 1/4"
ESWB 12-33M12	19,680	13,970	29,520	30	99,500	10	1,050	380	590	12"	24,570	8' 8-1/4"	9' 4"	19-1/2"	18' 1/4"
ESWB 12-34I12	22,300	16,860	32,640	10	69,900	10	1,050	501	590	12"	27,700	9' 3-3/4"	9' 4"	27"	18' 7-3/4"
ESWB 12-34J12	22,430	16,860	32,770	15	80,000	10	1,050	501	590	12"	27,830	9' 3-3/4"	9' 4"	27"	18' 7-3/4"
ESWB 12-34K12	22,490	16,860	32,830	20	87,600	10	1,050	501	590	12"	27,890	9' 3-3/4"	9' 4"	27"	18' 7-3/4"
ESWB 12-34L12	22,520	16,860	32,860	25	93,900	10	1,050	501	590	12"	27,920	9' 3-3/4"	9' 4"	27"	18' 7-3/4"
ESWB 12-34M12	22,570	16,860	32,910	30	99,500	10	1,050	501	590	12"	27,970	9' 3-3/4"	9' 4"	27"	18' 7-3/4"

1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
 2 Heaviest section is the lower section.
 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 12-35I12 to 12-46N12

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



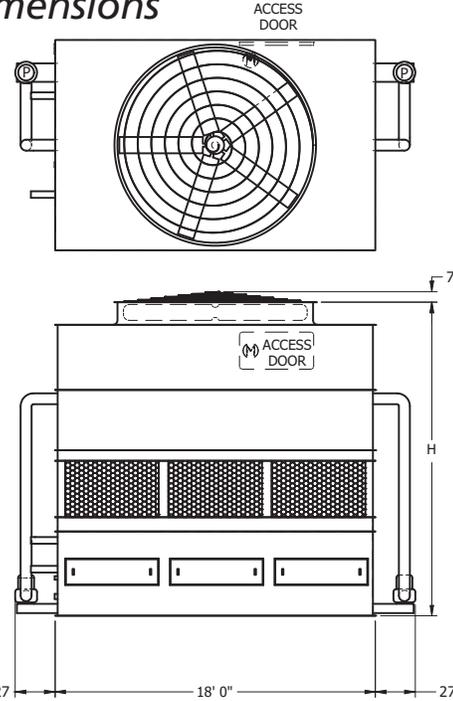
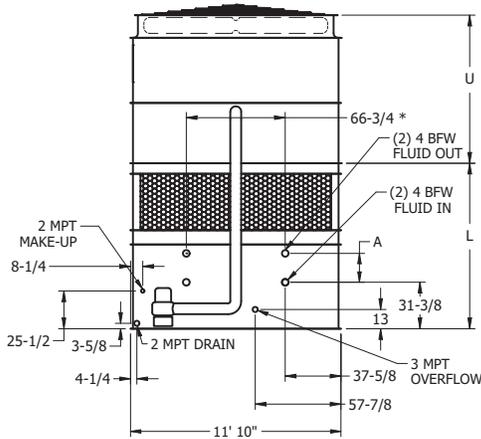
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 12-35I12	25,210	19,770	36,050	10	69,900	10	1,050	621	590	12"	31,110	9' 11-1/4"	9' 4"	34-1/2"	19' 3-1/4"
ESWB 12-35J12	25,340	19,770	36,180	15	80,000	10	1,050	621	590	12"	31,240	9' 11-1/4"	9' 4"	34-1/2"	19' 3-1/4"
ESWB 12-35K12	25,400	19,770	36,240	20	87,600	10	1,050	621	590	12"	31,300	9' 11-1/4"	9' 4"	34-1/2"	19' 3-1/4"
ESWB 12-35L12	25,430	19,770	36,270	25	93,900	10	1,050	621	590	12"	31,330	9' 11-1/4"	9' 4"	34-1/2"	19' 3-1/4"
ESWB 12-35M12	25,480	19,770	36,320	30	99,500	10	1,050	621	590	12"	31,380	9' 11-1/4"	9' 4"	34-1/2"	19' 3-1/4"
ESWB 12-36I12	28,110	22,670	39,460	10	69,900	10	1,050	742	590	12"	34,500	10' 6-3/4"	9' 4"	42"	19' 10-3/4"
ESWB 12-36J12	28,240	22,670	39,590	15	80,000	10	1,050	742	590	12"	34,630	10' 6-3/4"	9' 4"	42"	19' 10-3/4"
ESWB 12-36K12	28,300	22,670	39,650	20	87,600	10	1,050	742	590	12"	34,690	10' 6-3/4"	9' 4"	42"	19' 10-3/4"
ESWB 12-36L12	28,330	22,670	39,680	25	93,900	10	1,050	742	590	12"	34,720	10' 6-3/4"	9' 4"	42"	19' 10-3/4"
ESWB 12-36M12	28,380	22,670	39,730	30	99,500	10	1,050	742	590	12"	34,770	10' 6-3/4"	9' 4"	42"	19' 10-3/4"
ESWB 12-43I12	19,900	13,970	29,740	10	68,800	10	1,050	380	590	12"	24,790	8' 8-1/4"	10' 4"	19-1/2"	19'-1/4"
ESWB 12-43J12	20,030	13,970	29,870	15	78,700	10	1,050	380	590	12"	24,920	8' 8-1/4"	10' 4"	19-1/2"	19'-1/4"
ESWB 12-43K12	20,090	13,970	29,930	20	86,200	10	1,050	380	590	12"	24,980	8' 8-1/4"	10' 4"	19-1/2"	19'-1/4"
ESWB 12-43L12	20,120	13,970	29,960	25	92,400	10	1,050	380	590	12"	25,010	8' 8-1/4"	10' 4"	19-1/2"	19'-1/4"
ESWB 12-43M12	20,170	13,970	30,010	30	97,800	10	1,050	380	590	12"	25,060	8' 8-1/4"	10' 4"	19-1/2"	19'-1/4"
ESWB 12-43N12	20,330	13,970	30,170	40	107,100	10	1,050	380	590	12"	25,220	8' 8-1/4"	10' 4"	19-1/2"	19'-1/4"
ESWB 12-44I12	22,800	16,870	33,140	10	68,800	10	1,050	501	590	12"	28,190	9' 3-3/4"	10' 4"	27"	19' 7-3/4"
ESWB 12-44J12	22,930	16,870	33,270	15	78,700	10	1,050	501	590	12"	28,320	9' 3-3/4"	10' 4"	27"	19' 7-3/4"
ESWB 12-44K12	22,990	16,870	33,330	20	86,200	10	1,050	501	590	12"	28,380	9' 3-3/4"	10' 4"	27"	19' 7-3/4"
ESWB 12-44L12	23,020	16,870	33,360	25	92,400	10	1,050	501	590	12"	28,410	9' 3-3/4"	10' 4"	27"	19' 7-3/4"
ESWB 12-44M12	23,070	16,870	33,410	30	97,800	10	1,050	501	590	12"	28,460	9' 3-3/4"	10' 4"	27"	19' 7-3/4"
ESWB 12-44N12	23,230	16,870	33,570	40	107,100	10	1,050	501	590	12"	28,620	9' 3-3/4"	10' 4"	27"	19' 7-3/4"
ESWB 12-45I12	25,710	19,780	36,550	10	68,800	10	1,050	621	590	12"	31,600	9' 11-1/4"	10' 4"	34-1/2"	20' 3-1/4"
ESWB 12-45J12	25,840	19,780	36,680	15	78,700	10	1,050	621	590	12"	31,730	9' 11-1/4"	10' 4"	34-1/2"	20' 3-1/4"
ESWB 12-45K12	25,900	19,780	36,740	20	86,200	10	1,050	621	590	12"	31,790	9' 11-1/4"	10' 4"	34-1/2"	20' 3-1/4"
ESWB 12-45L12	25,930	19,780	36,770	25	92,400	10	1,050	621	590	12"	31,820	9' 11-1/4"	10' 4"	34-1/2"	20' 3-1/4"
ESWB 12-45M12	25,980	19,780	36,820	30	97,800	10	1,050	621	590	12"	31,870	9' 11-1/4"	10' 4"	34-1/2"	20' 3-1/4"
ESWB 12-45N12	26,140	19,780	36,980	40	107,100	10	1,050	621	590	12"	32,030	9' 11-1/4"	10' 4"	34-1/2"	20' 3-1/4"
ESWB 12-46I12	28,600	22,670	39,950	10	68,800	10	1,050	742	590	12"	34,990	10' 6-3/4"	10' 4"	42"	20' 10-3/4"
ESWB 12-46J12	28,730	22,670	40,080	15	78,700	10	1,050	742	590	12"	35,120	10' 6-3/4"	10' 4"	42"	20' 10-3/4"
ESWB 12-46K12	28,790	22,670	40,140	20	86,200	10	1,050	742	590	12"	35,180	10' 6-3/4"	10' 4"	42"	20' 10-3/4"
ESWB 12-46L12	28,820	22,670	40,170	25	92,400	10	1,050	742	590	12"	35,210	10' 6-3/4"	10' 4"	42"	20' 10-3/4"
ESWB 12-46M12	28,870	22,670	40,220	30	97,800	10	1,050	742	590	12"	35,260	10' 6-3/4"	10' 4"	42"	20' 10-3/4"
ESWB 12-46N12	29,030	22,670	40,380	40	107,100	10	1,050	742	590	12"	35,420	10' 6-3/4"	10' 4"	42"	20' 10-3/4"

- Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- Heaviest section is the lower section.
- Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 12-23J18 to 12-35O18

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



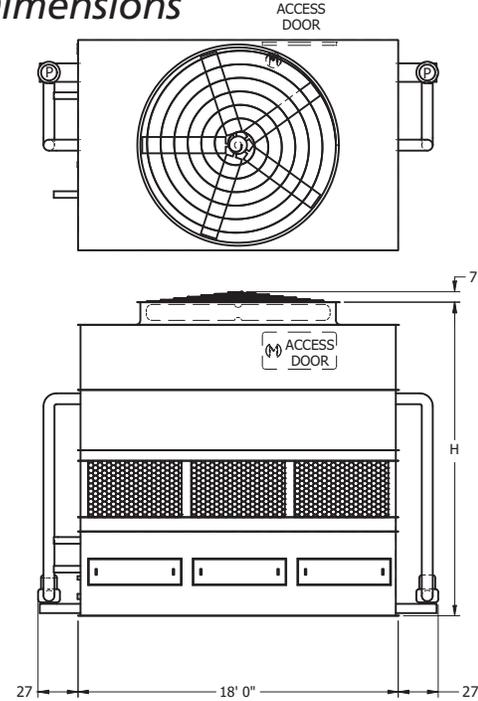
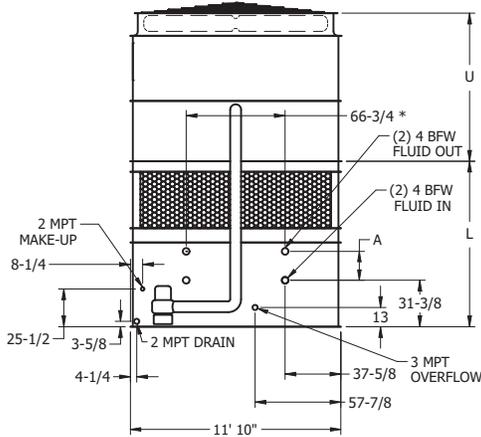
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 12-23J18	27,180	20,510	42,000	15	109,600	(2) 7.5	1,700	573	1,150	14"	36,790	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23K18	27,240	20,510	42,060	20	120,600	(2) 7.5	1,700	573	1,150	14"	36,850	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23L18	27,270	20,510	42,090	25	129,600	(2) 7.5	1,700	573	1,150	14"	36,880	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23M18	27,320	20,510	42,140	30	137,400	(2) 7.5	1,700	573	1,150	14"	36,930	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23N18	27,480	20,510	42,300	40	151,200	(2) 7.5	1,700	573	1,150	14"	37,090	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-24J18	31,520	24,850	47,110	15	109,600	(2) 7.5	1,700	758	1,150	14"	41,900	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24K18	31,580	24,850	47,170	20	120,600	(2) 7.5	1,700	758	1,150	14"	41,960	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24L18	31,610	24,850	47,200	25	129,600	(2) 7.5	1,700	758	1,150	14"	41,990	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24M18	31,660	24,850	47,250	30	137,400	(2) 7.5	1,700	758	1,150	14"	42,040	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24N18	31,820	24,850	47,410	40	151,200	(2) 7.5	1,700	758	1,150	14"	42,200	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-25J18	35,870	29,200	52,230	15	109,600	(2) 7.5	1,700	943	1,150	14"	47,020	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25K18	35,930	29,200	52,290	20	120,600	(2) 7.5	1,700	943	1,150	14"	47,080	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25L18	35,960	29,200	52,320	25	129,600	(2) 7.5	1,700	943	1,150	14"	47,110	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25M18	36,010	29,200	52,370	30	137,400	(2) 7.5	1,700	943	1,150	14"	47,160	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25N18	36,170	29,200	52,530	40	151,200	(2) 7.5	1,700	943	1,150	14"	47,320	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-26J18	40,190	33,520	57,320	15	109,600	(2) 7.5	1,700	1,128	1,150	14"	52,110	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26K18	40,250	33,520	57,380	20	120,600	(2) 7.5	1,700	1,128	1,150	14"	52,170	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26L18	40,280	33,520	57,410	25	129,600	(2) 7.5	1,700	1,128	1,150	14"	52,200	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26M18	40,330	33,520	57,460	30	137,400	(2) 7.5	1,700	1,128	1,150	14"	52,250	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26N18	40,490	33,520	57,620	40	151,200	(2) 7.5	1,700	1,128	1,150	14"	52,410	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-33J18	27,970	20,520	42,790	15	107,800	(2) 7.5	1,700	573	1,150	14"	37,570	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33K18	28,030	20,520	42,850	20	118,700	(2) 7.5	1,700	573	1,150	14"	37,630	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33L18	28,060	20,520	42,880	25	127,400	(2) 7.5	1,700	573	1,150	14"	37,660	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33M18	28,110	20,520	42,930	30	135,000	(2) 7.5	1,700	573	1,150	14"	37,710	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33N18	28,270	20,520	43,090	40	147,700	(2) 7.5	1,700	573	1,150	14"	37,870	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33O18	28,280	20,520	43,100	50	158,500	(2) 7.5	1,700	573	1,150	14"	37,880	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-34J18	32,300	24,850	47,890	15	107,800	(2) 7.5	1,700	758	1,150	14"	42,680	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34K18	32,360	24,850	47,950	20	118,700	(2) 7.5	1,700	758	1,150	14"	42,740	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34L18	32,390	24,850	47,980	25	127,400	(2) 7.5	1,700	758	1,150	14"	42,770	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34M18	32,440	24,850	48,030	30	135,000	(2) 7.5	1,700	758	1,150	14"	42,820	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34N18	32,600	24,850	48,190	40	147,700	(2) 7.5	1,700	758	1,150	14"	42,980	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34O18	32,610	24,850	48,200	50	158,500	(2) 7.5	1,700	758	1,150	14"	42,990	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-35J18	36,660	29,210	53,020	15	107,800	(2) 7.5	1,700	943	1,150	14"	47,800	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35K18	36,720	29,210	53,080	20	118,700	(2) 7.5	1,700	943	1,150	14"	47,860	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35L18	36,750	29,210	53,110	25	127,400	(2) 7.5	1,700	943	1,150	14"	47,890	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35M18	36,800	29,210	53,160	30	135,000	(2) 7.5	1,700	943	1,150	14"	47,940	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35N18	36,960	29,210	53,320	40	147,700	(2) 7.5	1,700	943	1,150	14"	48,100	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35O18	36,970	29,210	53,330	50	158,500	(2) 7.5	1,700	943	1,150	14"	48,110	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"

- Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- Heaviest section is the lower section.
- Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 12-36J18 to 12-46P18

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



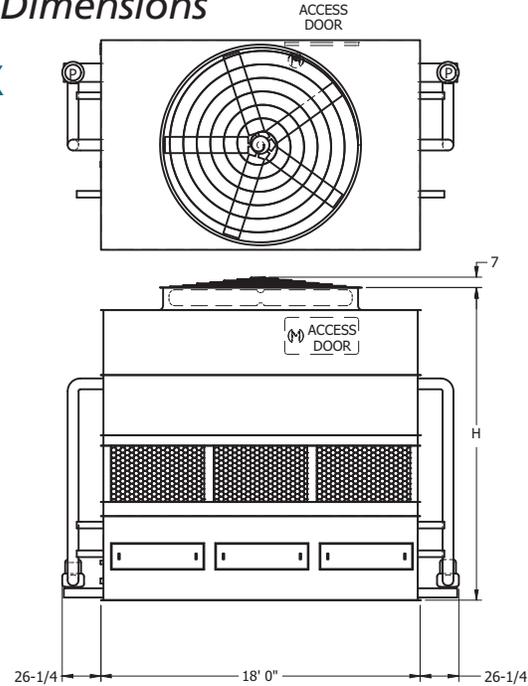
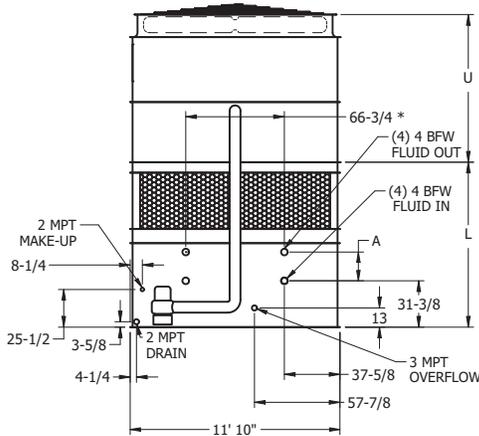
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 12-36J18	40,980	33,530	58,110	15	107,800	(2) 7.5	1,700	1,128	1,150	14"	52,890	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36K18	41,040	33,530	58,170	20	118,700	(2) 7.5	1,700	1,128	1,150	14"	52,950	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36L18	41,070	33,530	58,200	25	127,400	(2) 7.5	1,700	1,128	1,150	14"	52,980	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36M18	41,120	33,530	58,250	30	135,000	(2) 7.5	1,700	1,128	1,150	14"	53,030	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36N18	41,280	33,530	58,410	40	147,700	(2) 7.5	1,700	1,128	1,150	14"	53,190	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36O18	41,290	33,530	58,420	50	158,500	(2) 7.5	1,700	1,128	1,150	14"	53,200	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-43J18	28,720	20,530	43,540	15	105,800	(2) 7.5	1,700	573	1,150	14"	38,310	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43K18	28,780	20,530	43,600	20	116,400	(2) 7.5	1,700	573	1,150	14"	38,370	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43L18	28,810	20,530	43,630	25	125,400	(2) 7.5	1,700	573	1,150	14"	38,400	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43M18	28,860	20,530	43,680	30	132,800	(2) 7.5	1,700	573	1,150	14"	38,450	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43N18	29,020	20,530	43,840	40	145,200	(2) 7.5	1,700	573	1,150	14"	38,610	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43O18	29,030	20,530	43,850	50	155,600	(2) 7.5	1,700	573	1,150	14"	38,620	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43P18	29,230	20,530	44,050	60	164,900	(2) 7.5	1,700	573	1,150	14"	38,820	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-44J18	33,050	24,860	48,640	15	105,800	(2) 7.5	1,700	758	1,150	14"	43,420	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44K18	33,110	24,860	48,700	20	116,400	(2) 7.5	1,700	758	1,150	14"	43,480	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44L18	33,140	24,860	48,730	25	125,400	(2) 7.5	1,700	758	1,150	14"	43,510	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44M18	33,190	24,860	48,780	30	132,800	(2) 7.5	1,700	758	1,150	14"	43,560	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44N18	33,350	24,860	48,940	40	145,200	(2) 7.5	1,700	758	1,150	14"	43,720	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44O18	33,360	24,860	48,950	50	155,600	(2) 7.5	1,700	758	1,150	14"	43,730	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44P18	33,560	24,860	49,150	60	164,900	(2) 7.5	1,700	758	1,150	14"	43,930	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-45J18	37,400	29,210	53,760	15	105,800	(2) 7.5	1,700	943	1,150	14"	48,540	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45K18	37,460	29,210	53,820	20	116,400	(2) 7.5	1,700	943	1,150	14"	48,600	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45L18	37,490	29,210	53,850	25	125,400	(2) 7.5	1,700	943	1,150	14"	48,630	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45M18	37,540	29,210	53,900	30	132,800	(2) 7.5	1,700	943	1,150	14"	48,680	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45N18	37,700	29,210	54,060	40	145,200	(2) 7.5	1,700	943	1,150	14"	48,840	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45O18	37,710	29,210	54,070	50	155,600	(2) 7.5	1,700	943	1,150	14"	48,850	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45P18	37,910	29,210	54,270	60	164,900	(2) 7.5	1,700	943	1,150	14"	49,050	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-46J18	41,730	33,540	58,860	15	105,800	(2) 7.5	1,700	1,128	1,150	14"	53,630	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46K18	41,790	33,540	58,920	20	116,400	(2) 7.5	1,700	1,128	1,150	14"	53,690	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46L18	41,820	33,540	58,950	25	125,400	(2) 7.5	1,700	1,128	1,150	14"	53,720	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46M18	41,870	33,540	59,000	30	132,800	(2) 7.5	1,700	1,128	1,150	14"	53,770	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46N18	42,030	33,540	59,160	40	145,200	(2) 7.5	1,700	1,128	1,150	14"	53,930	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46O18	42,040	33,540	59,170	50	155,600	(2) 7.5	1,700	1,128	1,150	14"	53,940	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46P18	42,240	33,540	59,370	60	164,900	(2) 7.5	1,700	1,128	1,150	14"	54,140	11' 2-1/4"	10' 4"	42"	21' 6-1/4"

1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
 2 Heaviest section is the lower section.
 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 12-23J18X to 12-35O18X

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



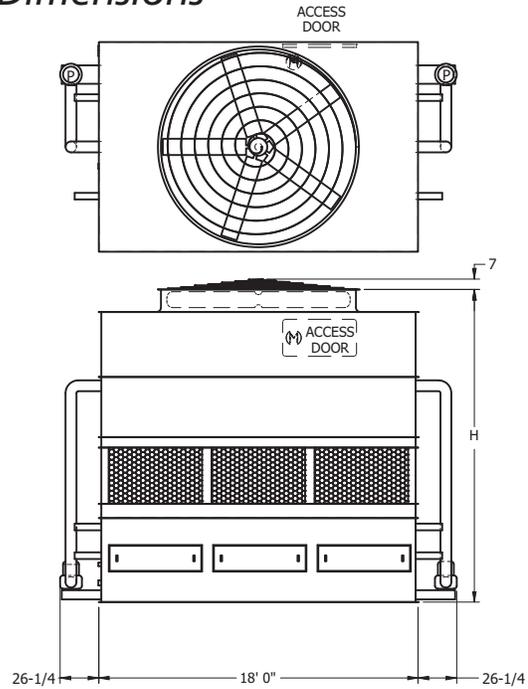
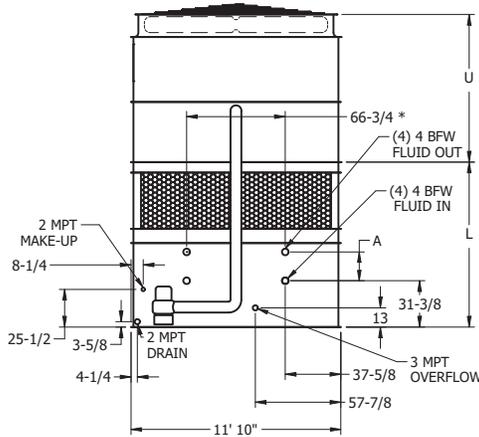
Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 12-23J18X	28,380	21,710	42,020	15	109,600	(2) 10	2,030	584	1,520	14"	39,540	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23K18X	28,440	21,710	42,080	20	120,600	(2) 10	2,030	584	1,520	14"	39,600	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23L18X	28,470	21,710	42,110	25	129,600	(2) 10	2,030	584	1,520	14"	39,630	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23M18X	28,520	21,710	42,160	30	137,400	(2) 10	2,030	584	1,520	14"	39,680	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-23N18X	28,680	21,710	42,320	40	151,200	(2) 10	2,030	584	1,520	14"	39,840	9' 3-3/4"	8' 4"	19-1/2"	17' 7-3/4"
ESWB 12-24J18X	32,680	26,010	46,700	15	109,600	(2) 10	2,030	766	1,520	14"	44,210	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24K18X	32,740	26,010	46,760	20	120,600	(2) 10	2,030	766	1,520	14"	44,270	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24L18X	32,770	26,010	46,790	25	129,600	(2) 10	2,030	766	1,520	14"	44,300	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24M18X	32,820	26,010	46,840	30	137,400	(2) 10	2,030	766	1,520	14"	44,350	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-24N18X	32,980	26,010	47,000	40	151,200	(2) 10	2,030	766	1,520	14"	44,510	9' 11-1/4"	8' 4"	27"	18' 3-1/4"
ESWB 12-25J18X	37,230	30,560	51,630	15	109,600	(2) 10	2,030	948	1,520	14"	49,140	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25K18X	37,290	30,560	51,690	20	120,600	(2) 10	2,030	948	1,520	14"	49,200	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25L18X	37,320	30,560	51,720	25	129,600	(2) 10	2,030	948	1,520	14"	49,230	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25M18X	37,370	30,560	51,770	30	137,400	(2) 10	2,030	948	1,520	14"	49,280	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-25N18X	37,530	30,560	51,930	40	151,200	(2) 10	2,030	948	1,520	14"	49,440	10' 6-3/4"	8' 4"	34-1/2"	18' 10-3/4"
ESWB 12-26J18X	41,560	34,890	56,340	15	109,600	(2) 10	2,030	1,130	1,520	14"	53,850	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26K18X	41,620	34,890	56,400	20	120,600	(2) 10	2,030	1,130	1,520	14"	53,910	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26L18X	41,650	34,890	56,430	25	129,600	(2) 10	2,030	1,130	1,520	14"	53,940	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26M18X	41,700	34,890	56,480	30	137,400	(2) 10	2,030	1,130	1,520	14"	53,990	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-26N18X	41,860	34,890	56,640	40	151,200	(2) 10	2,030	1,130	1,520	14"	54,150	11' 2-1/4"	8' 4"	42"	19' 6-1/4"
ESWB 12-33J18X	29,170	21,720	42,810	15	107,800	(2) 10	2,030	584	1,520	14"	40,320	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33K18X	29,230	21,720	42,870	20	118,700	(2) 10	2,030	584	1,520	14"	40,380	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33L18X	29,260	21,720	42,900	25	127,400	(2) 10	2,030	584	1,520	14"	40,410	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33M18X	29,310	21,720	42,950	30	135,000	(2) 10	2,030	584	1,520	14"	40,460	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33N18X	29,470	21,720	43,110	40	147,700	(2) 10	2,030	584	1,520	14"	40,620	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-33O18X	29,480	21,720	43,120	50	158,500	(2) 10	2,030	584	1,520	14"	40,630	9' 3-3/4"	9' 4"	19-1/2"	18' 7-3/4"
ESWB 12-34J18X	33,460	26,010	47,480	15	107,800	(2) 10	2,030	766	1,520	14"	44,990	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34K18X	33,520	26,010	47,540	20	118,700	(2) 10	2,030	766	1,520	14"	45,050	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34L18X	33,550	26,010	47,570	25	127,400	(2) 10	2,030	766	1,520	14"	45,080	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34M18X	33,600	26,010	47,620	30	135,000	(2) 10	2,030	766	1,520	14"	45,130	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34N18X	33,760	26,010	47,780	40	147,700	(2) 10	2,030	766	1,520	14"	45,290	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-34O18X	33,770	26,010	47,790	50	158,500	(2) 10	2,030	766	1,520	14"	45,300	9' 11-1/4"	9' 4"	27"	19' 3-1/4"
ESWB 12-35J18X	38,020	30,570	52,420	15	107,800	(2) 10	2,030	948	1,520	14"	49,920	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35K18X	38,080	30,570	52,480	20	118,700	(2) 10	2,030	948	1,520	14"	49,980	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35L18X	38,110	30,570	52,510	25	127,400	(2) 10	2,030	948	1,520	14"	50,010	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35M18X	38,160	30,570	52,560	30	135,000	(2) 10	2,030	948	1,520	14"	50,060	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35N18X	38,320	30,570	52,720	40	147,700	(2) 10	2,030	948	1,520	14"	50,220	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"
ESWB 12-35O18X	38,330	30,570	52,730	50	158,500	(2) 10	2,030	948	1,520	14"	50,230	10' 6-3/4"	9' 4"	34-1/2"	19' 10-3/4"

- Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- Heaviest section is the lower section.
- Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

ESWB Engineering Data & Dimensions

ESWB Models 12-36J18X to 12-46P18X

Note: The coil connections increase to 6" BFW when the flow rate exceeds 450 gpm. This required option is referred to as the High Flow coil configuration.



Model Number ¹	Weights (lbs.)			Fans		Spray Pump		Coil Volume (gallons)	Remote Sump ⁴			Dimensions ⁵			
	Shipping	Heaviest Section ²	Operating	HP	CFM	HP	GPM		Gallons Required ³	Conn. Size	Operating Weight (lbs.)	Lower L	Upper U	Coil A	Height H
ESWB 12-36J18X	42,350	34,900	57,130	15	107,800	(2) 10	2,030	1,130	1,520	14"	54,630	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36K18X	42,410	34,900	57,190	20	118,700	(2) 10	2,030	1,130	1,520	14"	54,690	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36L18X	42,440	34,900	57,220	25	127,400	(2) 10	2,030	1,130	1,520	14"	54,720	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36M18X	42,490	34,900	57,270	30	135,000	(2) 10	2,030	1,130	1,520	14"	54,770	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36N18X	42,650	34,900	57,430	40	147,700	(2) 10	2,030	1,130	1,520	14"	54,930	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-36O18X	42,660	34,900	57,440	50	158,500	(2) 10	2,030	1,130	1,520	14"	54,940	11' 2-1/4"	9' 4"	42"	20' 6-1/4"
ESWB 12-43J18X	29,920	21,730	43,560	15	105,800	(2) 10	2,030	584	1,520	14"	41,060	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43K18X	29,980	21,730	43,620	20	116,400	(2) 10	2,030	584	1,520	14"	41,120	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43L18X	30,010	21,730	43,650	25	125,400	(2) 10	2,030	584	1,520	14"	41,150	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43M18X	30,060	21,730	43,700	30	132,800	(2) 10	2,030	584	1,520	14"	41,200	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43N18X	30,220	21,730	43,860	40	145,200	(2) 10	2,030	584	1,520	14"	41,360	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43O18X	30,230	21,730	43,870	50	155,600	(2) 10	2,030	584	1,520	14"	41,370	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-43P18X	30,430	21,730	44,070	60	164,900	(2) 10	2,030	584	1,520	14"	41,570	9' 3-3/4"	10' 4"	19-1/2"	19' 7-3/4"
ESWB 12-44J18X	34,210	26,020	48,230	15	105,800	(2) 10	2,030	766	1,520	14"	45,730	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44K18X	34,270	26,020	48,290	20	116,400	(2) 10	2,030	766	1,520	14"	45,790	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44L18X	34,300	26,020	48,320	25	125,400	(2) 10	2,030	766	1,520	14"	45,820	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44M18X	34,350	26,020	48,370	30	132,800	(2) 10	2,030	766	1,520	14"	45,870	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44N18X	34,510	26,020	48,530	40	145,200	(2) 10	2,030	766	1,520	14"	46,030	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44O18X	34,520	26,020	48,540	50	155,600	(2) 10	2,030	766	1,520	14"	46,040	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-44P18X	34,720	26,020	48,740	60	164,900	(2) 10	2,030	766	1,520	14"	46,240	9' 11-1/4"	10' 4"	27"	20' 3-1/4"
ESWB 12-45J18X	38,760	30,570	53,160	15	105,800	(2) 10	2,030	948	1,520	14"	50,660	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45K18X	38,820	30,570	53,220	20	116,400	(2) 10	2,030	948	1,520	14"	50,720	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45L18X	38,850	30,570	53,250	25	125,400	(2) 10	2,030	948	1,520	14"	50,750	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45M18X	38,900	30,570	53,300	30	132,800	(2) 10	2,030	948	1,520	14"	50,800	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45N18X	39,060	30,570	53,460	40	145,200	(2) 10	2,030	948	1,520	14"	50,960	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45O18X	39,070	30,570	53,470	50	155,600	(2) 10	2,030	948	1,520	14"	50,970	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-45P18X	39,270	30,570	53,670	60	164,900	(2) 10	2,030	948	1,520	14"	51,170	10' 6-3/4"	10' 4"	34-1/2"	20' 10-3/4"
ESWB 12-46J18X	43,100	34,910	57,880	15	105,800	(2) 10	2,030	1,130	1,520	14"	55,370	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46K18X	43,160	34,910	57,940	20	116,400	(2) 10	2,030	1,130	1,520	14"	55,430	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46L18X	43,190	34,910	57,970	25	125,400	(2) 10	2,030	1,130	1,520	14"	55,460	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46M18X	43,240	34,910	58,020	30	132,800	(2) 10	2,030	1,130	1,520	14"	55,510	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46N18X	43,400	34,910	58,180	40	145,200	(2) 10	2,030	1,130	1,520	14"	55,670	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46O18X	43,410	34,910	58,190	50	155,600	(2) 10	2,030	1,130	1,520	14"	55,680	11' 2-1/4"	10' 4"	42"	21' 6-1/4"
ESWB 12-46P18X	43,610	34,910	58,390	60	164,900	(2) 10	2,030	1,130	1,520	14"	55,880	11' 2-1/4"	10' 4"	42"	21' 6-1/4"

- 1 Model numbers will end in "-Z" for units with Series Flow piping configuration. Series Flow will require crossover piping. Model numbers will include "C" for units with stainless steel coil(s), "R" for units with low sound fan(s).
- 2 Heaviest section is the lower section.
- 3 Gallons shown includes water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation (12" would normally be sufficient).
- 4 When a remote sump arrangement is selected, the spray pump, suction strainer and associated piping are omitted; the unit is provided with an oversized outlet to facilitate drainage to the remote sump.
- 5 Unit dimensions may vary slightly from catalog. See factory certified prints for exact dimensions. Coil connections are 4 inch bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



EVAPCO Water Systems

The ESWB is available with EVAPCO's Factory Mounted water treatment systems. EVAPCO offers both a solid chemical and a non-chemical solution for water treatment to maintain your heat transfer efficiency and extend the life of the equipment. Each system has been specifically designed for your closed circuit cooler.

EVAPCO's Water Systems offer ESWB owners a single-source of responsibility for equipment, water treatment, and service. Both **Smart Shield®** and **Pulse~Pure®** are manufactured and warranted by EVAPCO.

Benefits of adding an EVAPCO water treatment system include:

- **SAVE MONEY** by simplifying equipment commission:
 - Single power connection is the only field installation requirement
- **Factory Mounting** your water treatment system ensures that it is installed to factory specifications.
- **Patented self-draining piping** eliminates the need for line insulation and heat tracing above the overflow level.
- **A Factory Authorized Service Partner** provides the first year of water system service and monitoring, to ensure proper operation and ongoing success.
- **Conductivity control package** maximizes water efficiency and features:
 - Low maintenance non-fouling torodial probe
 - USB port for downloadable 60 day audit trail of system operation
 - Motorized blowdown valve that provides the most reliable bleed control with power open / spring return operation

EVAPCO Water Systems



Pulse~Pure® Non-Chemical Water Treatment System



EVAPCO's **Pulse~Pure**® water treatment system utilizes pulsed electric field technology to provide an environmentally responsible alternative for the treatment of water in evaporative cooled equipment. The **Pulse~Pure**® system delivers short, high-frequency bursts of low energy electromagnetic fields to the recirculating water in the ESWB.

- EVAPCO guarantees that total bacterial counts will not exceed 10,000 CFU/ml in the cooling water
- Controls scale, corrosion, and microbiological growth with absolutely no chemicals required
- Compact design with no moving parts and low energy consumption

Learn More about **Pulse~Pure**® online at: www.evapco.com



Smart Shield® Solid Chemical Water Treatment System



EVAPCO's **Smart Shield**® system utilizes proven solid chemistry delivered via our revolutionary feed system. Patented controlled release scale and corrosion inhibitor is fed whenever your spray water pump is energized, keeping your system protected anytime the spray water pump is operating. **Smart Shield**® is a complete water treatment package that:

- Utilizes 'Bag in Bag' no touch chemical replenishments, making reloads easier and safer
- Creates reduced packaging, shipping and handling providing a reduced carbon footprint compared to liquid chemicals
- Eliminates the hazards associated with liquid chemicals, potential for liquid spills and the need for expensive feed pumps making it the easiest and safest chemical water treatment system available today

Watch a short product video at: www.smartshield.evapco.com



Design

EVAPCO equipment is constructed of the highest quality materials and designed to provide years of reliable service when properly installed and maintained. The following sections present items which must be considered prior to the selection and installation of equipment.

Equipment Layout Planning

Proper equipment layout is essential to ensure that the fluid cooler operates at its rated capacity. Since evaporative cooling equipment requires large quantities of fresh air for cooling, it is important that the unit be located where the air supply is fresh and unobstructed.

The unit should also be located so that recirculation of the moist discharge air is minimized. Recirculation, also known as short-cycling, occurs when some of the warm, moist air discharge flows back to the unit's air inlet. The recirculation effect results in higher wet bulbs to the unit, which has a negative impact on the unit's field performance.

Engineering Bulletin No. 311 presents the Layout Guidelines for EVAPCO cooling towers, fluid coolers and evaporative condensers. This bulletin is available from your local representative, or it can be downloaded from www.evapco.com

The closed circuit cooler should be located away from fresh air intakes, operable windows, kitchen exhaust, and prevailing winds directed toward public areas.

Closed Circuit Applications

Closed Circuit Coolers are designed to be used on "Closed Loop" systems where the cooling loop is sealed and pressurized. These units are not intended for use in "Open Systems" where the cooling fluid has atmospheric contact.

If applied in open systems, the coil may corrode from the inside with rust deposition throughout the cooling loop.

The cooling fluid must be compatible with the coil material; standard coils are fabricated from black steel with the outer surface hot dip galvanized.

Piping

Supply and return piping for fluid coolers should be designed and installed in accordance with generally accepted engineering practice. The piping layout should be symmetrical for systems with multiple units, and should be sized for a low water velocity and pressure drop.

Since these units are intended for "Closed Loop" applications, the loop piping should include an expansion tank to allow for fluid expansion and to purge excess air from the system.

The piping system should include air vents and drain valves at the coil piping so that the coil can be drained if the need arises.

All piping external to the unit should be secured and anchored by properly designed hangers and supports. No external loads should be placed upon the coil connections nor should any pipe supports be anchored to the unit.

Recirculating Water Quality

Proper water treatment is an essential part of the maintenance required for evaporative cooling equipment. A well designed and consistently implemented water treatment program will help to ensure efficient system operation while maximizing the equipment's service life. A qualified water treatment company should design a site specific water treatment protocol based on equipment (including all metallurgies in the cooling system), location, makeup water quality, and usage.

Bleed off

Evaporative cooling equipment requires a bleed or blowdown line, located on the discharge side of the recirculating pump, to remove concentrated (cycled up) water from the system. EVAPCO recommends an automated conductivity controller to maximize the water efficiency of your system. Based on recommendations from your water treatment company, the conductivity controller should open and close a motorized ball or solenoid valve to maintain the conductivity of the recirculating water. If a manual valve is used to control the rate of bleed it should be set to maintain the conductivity of the recirculating water during periods of peak load at the maximum level recommended by your water treatment company.

Water Treatment

The water treatment program prescribed for the given conditions must be compatible with the unit's materials of construction, including any galvanized components. The initial commissioning and passivation period is a critical time for maximizing the service life of galvanized equipment. EVAPCO recommends that your site specific water treatment protocol includes a passivation procedure which details water chemistry, any necessary chemical addition, and visual inspections during the first six (6) to twelve (12) weeks of operation. During this passivation period, recirculating water pH should be maintained above 7.0 and below 8.0 at all times. Batch feeding of chemicals is not recommended.

Control of Biological Contaminants

Evaporative cooling equipment should be inspected regularly to ensure good microbiological control. Inspections should include both monitoring of microbial populations via culturing techniques and visual inspections for evidence of biofouling.

Poor microbiological control can result in loss of heat transfer efficiency, increase corrosion potential, and increase the risk of pathogens such as those that cause Legionnaires' disease. Your site specific water treatment protocol should include procedures for routine operation, startup after a shut-down period, and system lay-up, if applicable. If excessive microbiological contamination is detected, a more aggressive mechanical cleaning and/or water treatment program should be undertaken.

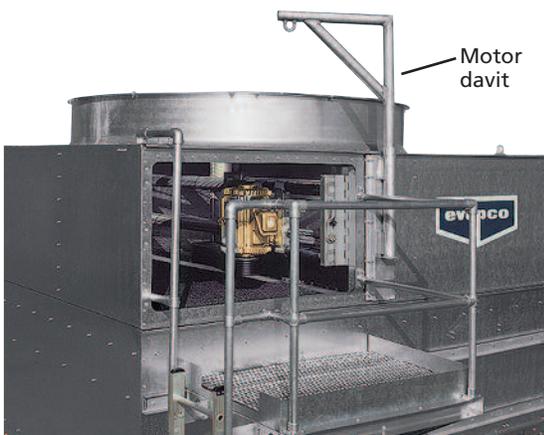
OPTIONAL EQUIPMENT

ESWB

External Platforms, Ladders & Motor Davits



External platforms provide a sturdy base for access to the drive components, water distribution and drift eliminators. Constructed from heavy gauge galvanized steel, the platform mounts easily to the unit and requires no external support. The platform option includes a vertical aluminum ladder and meets all applicable OSHA requirements. A safety cage for the ladder is also available if required for the installation. The platform option also includes a vertical aluminum ladder to inspect the redistribution basin.



The economical motor davit option eliminates the need for a crane in the event that a fan or motor needs to be removed. The service mechanic only needs a chain-fall or come-along for easy removal of these items. The motor davit is constructed from heavy duty aluminum with easy mounting to the unit in the field.

Electric Water Level Control

An electric water level control package is available as an alternative to the standard mechanical makeup valve and float ball. This package provides accurate control for the basin water level and does not require field adjustment, even under varying operating conditions.

The control was designed by EVAPCO and is manufactured exclusively for EVAPCO. It consists of multiple heavy duty stainless steel electrodes mounted external to the unit in a vertical stand pipe. For winter operation, the stand pipe must be wrapped with electric heating cable and insulated to protect it from freezing. The weather protected slow closing solenoid valve(s) for the makeup water connection is factory supplied and is ready for piping to a water supply.



Stainless Steel Basin

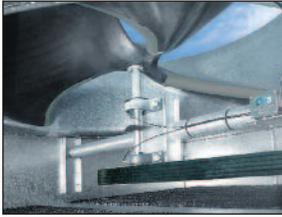
The modular design of EVAPCO coolers allow specific areas to be targeted for increased corrosion protection. The basin area of the cooler will experience silt build-up and turbulent mixing of air and water making it the part of the unit that is most prone to corrosion. This section also serves as the foundation of the unit providing critical support to the upper sections. EVAPCO recognizes the need for corrosion protection in this area and offers a Stainless Steel Basin as an affordable option. This option provides Type 304 or 316 stainless steel for the entire basin area including the support columns and louver frames.



ESWB OPTIONAL EQUIPMENT

Super Low Sound Fan

9–15 dB(A) Reduction versus Standard Fan!



The Super Low Sound Fan offered by EVAPCO uses an extremely wide chord blade design for very sound sensitive applications where the lowest sound levels are required. The fan is one-piece molded heavy duty FRP construction utilizing a forward swept blade design.

The Super Low Sound fan is capable of reducing the unit sound pressure levels by **9 dB(A) to 15 dB(A)**, depending on specific unit selection and measurement location. The fans are high efficiency axial propeller type.

Low Sound Fan

4–7 dB(A) Reduction!

The Low Sound Fan offered by EVAPCO uses a wide chord blade design for sound sensitive applications where low sound levels are desired. Low Sound Fan construction uses aluminum blades and a steel fan hub.



The Low Sound Fan is capable of reducing the unit sound pressure levels by **4 dB(A) to 7dB(A)**, depending on specific unit selection and measurement location with a minimal impact to thermal performance. The fans are high efficiency axial propeller type.

Fan Discharge Sound Attenuation

Up to 10 dB(A) Reduction!

The ESWB Fan Discharge Attenuator offered by EVAPCO allows for further sound reduction of the unit. The attenuator can be used with the standard ESWB fan or in combination with the Low Sound or Super Low Sound Fan option.

The discharge attenuator is a factory-assembled straight-sided discharge hood designed to reduce overall discharge sound levels at full fan speed by **5 dB(A) to 10 dB(A)**, depending on specific unit selection and measurement location with a minimal impact to thermal performance. It is constructed of G-235 galvanized steel as standard (options available for Type 304 stainless steel) and includes insulated walls and a low pressure drop baffling system that is acoustically lined with high density fiberglass. The discharge attenuator is self-

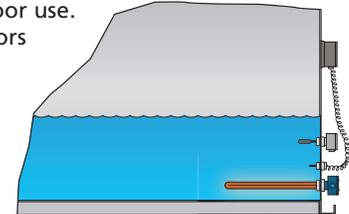


supported by the unit and is shipped loose for field mounting. A heavy-gauge, hot-dip galvanized steel fan guard covers the discharge attenuator to prevent debris from entering the attenuator.

Electric Basin Heaters

Electric immersion heaters are available factory-installed in the basin of the cooler. Standard Heaters are sized to maintain a +40°F pan water temperature with the fans and pumps off and an ambient air temperature of 0°F. The heater option includes a thermostat and low-water protection device to control the heater and to prevent it from energizing unless they are completely submerged. All components are in weather proof enclosures for outdoor use.

The heater power contactors and electric wiring are additional. Refer to the Basin Heater Sizing table below for heater sizing at various freeze design temperatures.



BASIN HEATER SIZING			
Box Size	0°F kW	-20°F kW	-40°F kW
8.5 x 6	5	7	9
8.5 x 9	7	10	15
8.5 x 12	(2) 4	(2) 7	(2) 9
8.5 x 18	(2) 6	(2) 9	(2) 12
12 x 12	(2) 6	(2) 9	(2) 12
12 x 18	(2) 9	(2) 15	(2) 18

Capacity Control

All ESWB models come standard with premium efficient, inverter capable fan motors that can be used with variable frequency drive (VFD) systems for precise capacity control. VFD systems can control the speed of a fan motor by modulating the voltage and frequency of the input electrical signal. When connected to a building automation system a VFD can receive signals telling it to slow down the fan motor as the capacity of the closed circuit cooler exceeds the cooling demand and speed it back up when demand increases. This popular method of capacity control can yield significant energy savings.

EVAPCO offers two-speed fan motors as an option for alternative capacity control. In periods of lightened loads or reduced wet bulb temperatures the fans can operate at low speed providing about 60% of full speed capacity yet consuming only about 15% of full speed power. In addition to the energy savings the sound levels of the unit can be greatly reduced by operating at low speed. These motors do not require the use of VFD systems however they can only operate at two speeds: full or low.

STEEL SUPPORT/FREEZE PROTECTION

ESWB

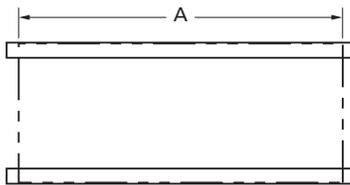
Recommended Steel Support

The recommended support for EVAPCO Closed Circuit Coolers is structural "I" beams located under the outer flanges and running the entire length of the unit. The unit should be elevated to allow access underneath the unit and to the roof below. Mounting holes 3/4" in diameter are located in the bottom flanges of the pan section to provide for bolting to the structural steel. (Refer to certified drawings from the factory for bolt hole locations).

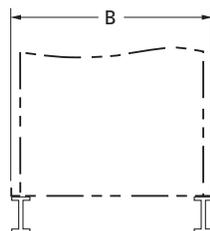
Beams should be level before setting the unit in place. Do not level the unit by shimming between the unit and the structural steel. Dimensions, weights, and data are subject to change without notice. Refer to the factory certified drawings for exact dimensions.

NOTE: Consult IBC 2012 for required steel support layout and structural design.

ESWA SUPPORTING STEEL DIMENSIONS		
Unit Footprint	A	B
8.5' x 6'	8' 5-1/2"	5' 11-7/8"
8.5' x 9'	8' 11-1/2"	8' 5-1/2"
8.5' x 12'	11' 11-3/4"	8' 5-1/2"
8.5' x 18'	18' 0"	8' 5-1/2"
12' x 12'	11' 11-3/4"	11' 10"
12' x 18'	18' 0"	11' 10"



Plan Views



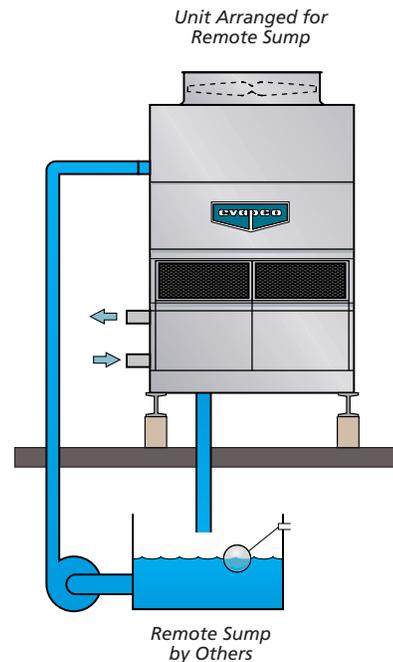
End Elevations

Freeze Protection for the Recirculating Water System

If the units are installed in a cold climate and operated year round, freeze protection must be provided for the recirculating water system in the unit as well as for the heat exchanger coil.

The surest way to protect the recirculating water system from freezing is with a remote sump. The remote sump should be located inside the building and below the unit. When a remote sump arrangement is selected, the spray pump is provided by others and installed at the remote sump. All water in the closed circuit cooler basin should drain to the remote sump when the spray pump cycles off.

Other freeze protection methods are available when a remote sump is not feasible. Electric pan heaters or steam or hot water coils can be used to keep the pan water from freezing when the unit cycles off. Water lines to and from the unit, spray pump and related piping should be heat traced and insulated up to the overflow level in order to protect from freezing.





ESWB

FREEZE PROTECTION/HEAT LOSS

Freeze Protection for the Heat Exchanger Coil

Units installed in climates subject to freezing conditions must be adequately protected against freezing of the heat exchanger coil and pan water.

The simplest and most effective way of protecting the heat exchanger coil from freezing is to use an inhibited ethylene or propylene glycol solution.

If a glycol solution cannot be used both of the following conditions must be met:

- 1) Maintain sufficient process heat load through the coil such that the coil temperature is kept above 50°F. If the process load cannot support 50°F fluid, an auxiliary heat load should be applied when freezing conditions exist. Refer to Table 1 for coil heat loss data.

Table 1 Heat Loss Data

Box Size	Coil Rows	MBH
8.5 x 6	4	64
	6	70
	8	77
	10	84
	12	91
8.5 x 9	6	91
	8	99
	10	107
	12	115
8.5 x 12	6	111
	8	121
	10	130
	12	140
8.5 x 18	6	151
	8	164
	10	176
	12	189
12 x 12	6	141
	8	152
	10	163
	12	175
12 x 18	6	189
	8	204
	10	218
	12	232
12 x 18X	6	189
	8	204
	10	218
	12	232

- 2) Design flow should be maintained through the coil whenever possible. If this is not possible, refer to Table 2 for minimum recommended flow rates.

If the coil is not protected with an antifreeze/glycol solution, automatic drain valves and air vents should be installed in the coil supply and return piping. The drain valves and piping should be heat traced and sized for quick drainage of the coil. The drain valves and air vents should be signaled to drain the coil if the fluid flow stops or drops below 40°F in freezing conditions.

Draining the coil as an emergency method of freeze protection is acceptable, however it is not recommended as standard practice. Frequent draining of the coil exposes the inner tube surface to oxygen which results in corrosion. If the coil is drained for emergency freeze protection, it should not be left empty for extended periods of time.

Table 2 Minimum Flow Chart

Unit No.	Standard Unit (gpm)	Series Flow Unit (gpm)
8.5 x 6	160	80
8.5 x 9	230	115
8.5 x 12	230	115
8.5 x 18	230	115
12 x 12	330	165
12 x 18	330	165
12 x 18X	660	330



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★ World Headquarters/ Research and Development Center

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EVAPCO, Inc. — World Headquarters & Research/Development Center

EVAPCO, Inc. • P.O. Box 1300 • Westminster, MD 21158 USA
PHONE: 410-756-2600 • FAX: 410-756-6450 • E-MAIL: marketing@evapco.com

EVAPCO North America

EVAPCO, Inc. World Headquarters

P.O. Box 1300 Westminster, MD 21158 USA Phone: 410-756-2600 Fax: 410-756-6450 E-mail: marketing@evapco.com

EVAPCO East

5151 Allendale Lane Taneytown, MD 21787 USA Phone: 410-756-2600 Fax: 410-756-6450 E-mail: marketing@evapco.com

EVAPCO Midwest

1723 York Road Greenup, IL 62428 USA Phone: 217-923-3431 Fax: 217-923-3300 E-mail: evapcomw@evapcomw.com

EVAPCO West

1900 West Almond Avenue Madera, CA 93637 USA Phone: 559-673-2207 Fax: 559-673-2378 E-mail: contact@evapcowest.com

EVAPCO Iowa

925 Quality Drive Lake View, IA 51450 USA Phone: 712-657-3223 Fax: 712-657-3226

EVAPCO Iowa Sales & Engineering

215 1st Street, NE P.O. Box 88 Medford, MN 55049 USA Phone: 507-446-8005 Fax: 507-446-8239 E-mail: evapcomn@evapcomn.com

EVAPCO Newton

701 East Jourdan Street Newton, IL 62448 USA Phone: 618-783-3433 Fax: 618-783-3499 E-mail: evapcomw@evapcomw.com

EVAPCOLD

521 Evapco Drive Greenup, IL 62428 USA Phone: 217-923-3431 E-mail: evapcomw@evapcomw.com

EVAPCO-BLCT Dry Cooling, Inc.

1011 US Highway 22 West Bridgewater, New Jersey 08807 USA Phone: 908-379-2665 E-mail: info@evapco-blct.com

Refrigeration Valves & Systems Corporation

A wholly owned subsidiary of EVAPCO, Inc. 1520 Crosswind Dr. Bryan, TX 77808 USA Phone: 979-778-0095 Fax: 979-778-0030 E-mail: rvs@rvscorp.com

EVAPCO Northwest

5775 S.W. Jean Road, Suite 210 Lake Oswego, Oregon 97035 USA Phone: 503-639-2137 Fax: 503-639-1800

EvapTech, Inc.

A wholly owned subsidiary of EVAPCO, Inc. 8331 Nieman Road Lenexa, KS 66214 USA Phone: 913-322-5165 Fax: 913-322-5166 E-mail: marketing@evaptech.com

Tower Components, Inc.

A wholly owned subsidiary of EVAPCO, Inc. 5960 US HWY 64E Ramseur, NC 27316 Phone: 336-824-2102 Fax: 336-824-2190 E-mail: mail@towercomponentsinc.com

EVAPCO South America

Evapco Brasil

Equipamentos Industriais Ltda. Al. Vênus, 151 - CEP: 13347-659 Indaiatuba - São Paulo - Brasil Phone: (55) 11-5681 2000 E-mail: vendas@evapco.com.br

EVAPCO Europe

EVAPCO Europe BVBA European Headquarters

Heersteveldweg 19 Industrieterrein Oost 3700 Tongeren, Belgium Phone: (32) 12-395029 Fax: (32) 12-238527 E-mail: evapco.europe@evapco.be

EVAPCO Europe, S.r.l.

Via Ciro Menotti 10 I-20017 Passirana di Rho Milan, Italy Phone: (39) 02-939-9041 Fax: (39) 02-935-00840 E-mail: evapcoeuropa@evapco.it

EVAPCO Europe, S.r.l.

Via Dosso 2 23020 Piateda Sondrio, Italy

EVAPCO Europe gmbh

Insterburger Straße 18 D-40670 Meerbusch, Germany Phone: (49) 2159-695618 Fax: (49) 2159-695611 E-mail: info@evapco.de

EVAPCO Air Solutions

Knosgårdvej 115 DK-9440 Aabybro Denmark Phone: (45) 9824 4999 Fax: (45) 9824 4990 E-mail: info@flexcoil.dk

EVAPCO S.A. (Pty.) Ltd.

A licensed manufacturer of EVAPCO, Inc. 18 Quality Road Isando 1600 Republic of South Africa Phone: (27) 11-392-6630 Fax: (27) 11-392-6615 E-mail: evapco@evapco.co.za

Evap Egypt Engineering Industries Co.

A licensed manufacturer of EVAPCO, Inc. 5 El Nasr Road Nasr City, Cairo, Egypt Phone: 2 02 24022866/2 02 24044997 Fax: 2 02 24044667/2 02 24044668 E-mail: Primacool@link.net / Shady@primacool.net

EVAPCO Asia/Pacific

EVAPCO Asia/Pacific Headquarters

1159 Luoning Rd. Baoshan Industrial Zone Shanghai 200949, P.R. China Phone: (86) 21-6687-7786 Fax: (86) 21-6687-7008 E-mail: marketing@evapcochina.com

EVAPCO (Shanghai) Refrigeration Equipment Co., Ltd.

1159 Luoning Rd., Baoshan Industrial Zone Shanghai 200949, P.R. China Phone: (86) 21-6687-7786 Fax: (86) 21-6687-7008 E-mail: marketing@evapcochina.com

Beijing EVAPCO Refrigeration Equipment Co., Ltd.

No. 13 Yanxi Avenue, Yanqi Development Zone Huai Rou County Beijing, P.R. China Postal Code: 101407 Phone: (86) 10 6166-7238 Fax: (86) 10 6166-7395 E-mail: evapcobj@evapcochina.com

EVAPCO Australia (Pty.) Ltd.

34-42 Melbourne Road P.O. Box 436 Riverstone, N.S.W. 2765, Australia Phone: (61) 2 9627-3322 Fax: (61) 2 9627-1715 E-mail: sales@evapco.com.au

EVAPCO Composites Sdn. Bhd

No. 70 (Lot 1289) Jalan Industri 2/3 Rawang Integrated Industrial Park 48000 Rawang, Selangor, Malaysia Phone: 60 3 6092-2209 Fax: 60 3 6092-2210

EvapTech Asia Pacific Sdn. Bhd

A wholly owned subsidiary of EvapTech, Inc. B-6-1, IOI Boulevard Jalan Kenari 5, Bandar Puchong Jaya 47170 Puchong, Selangor, Malaysia Phone: (60-3) 8070-7255 Fax: (60-3) 8070-5731 E-mail: marketing-ap@evaptech.com

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