evapco®

ATC-E

EVAPORATIVE CONDENSERS

IBC COMPLIANT DESIGNS

MOTOR AND DRIVE 5 Year WARRANTY

Available with Optional

Pulse~Pure®

Water Treatment System

ADVANCED TECHNOLOGY CONDENSER

*Available in Capacities from **35** to **2,637** Ammonia Tons!*

Technology for the Future...Available Today!

U.S. GREEN BUILDING COUNCIL MEMBER

IARW® International Association of Refrigerated Warehouses

Member of iiar International Institute of Ammonia Refrigeration www.iiar.org

AHRI Air-Conditioning, Heating, and Refrigeration Institute

ATC-E Design and Construction Features

The ATC-E line of evaporative condensers reflects EVAPCO's continuing commitment to research and development. Their advanced design provides owners with many operational and performance advantages. The owner oriented features of the ATC-E along with the independent certification of IBC compliance reinforce the ATC's position as the premier induced draft evaporative condenser for the industrial refrigeration industry.

Thermal-Pak® II Heat Transfer Technology

- More surface area per plan area than competitive designs.
- Improved heat transfer efficiency due to tube geometry and orientation of tubes.
- Lower refrigerant charge.

G-235 Mill Hot-Dip Galvanized Steel Construction

(Stainless steel available as affordable option)

NEW ZERO MAINTENANCE ZM® II SPRAY NOZZLE

PVC Spray Distribution Header with ZM® II Nozzles

- Large orifice nozzles prevent clogging (no moving parts).
- Redesigned nozzles for superior water distribution.
- Nozzles are threaded into header at proper orientation.
- Fixed position nozzles require zero maintenance.
- Threaded end caps for ease of cleaning.
- Guaranteed for life.

Water Saver Drift Eliminators

- Patented design reduces drift rate to 0.001%.
- Made from corrosion resistant PVC for long life.

U.S. Patent No. 6315804

Pulse~Pure

Non-Chemical Water Treatment *(optional)*

- Scale, corrosion and bacteria control.
- Factory mounted with single source responsibility.
- Environmentally safe, chemical-free water treatment.

Totally Enclosed Pump Motors

- Help assure long, trouble-free operation.

Stainless Steel Strainer

- Resists corrosion better than other materials.

Super Low Sound Fan *(optional)*

- **9-15 dB(A) sound reduction.**
- Extremely wide chord fan blades for sound sensitive applications.
- One piece molded heavy duty construction.

Advanced Drive System Design

- Totally Enclosed Fan Motors assures Long Life.
- Power-Band Belts for Better Lateral Rigidity.
- Advanced Design Aluminum Fan Blades.
- Non-corroding Cast Aluminum Sheaves.
- Heavy-Duty Fan Shaft Bearings with L-10 Life of 75,000 - 135,000 hrs.
- All Other Components Corrosion Resistant Materials.
- All Components Covered by 5 Year Warranty.

Easy to Service Motor Mount Design

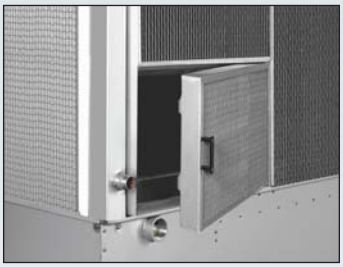
- **All normal maintenance can be performed quickly from outside the unit.**
- Designed for easy belt adjustment.
- Extended lube lines for easy bearing lubrication.
- If required, motor may swing to outside for easy removal.

Unique Field Seam

- Eliminates up to 66% of fasteners.
- Self guiding channels improve quality of field seam to eliminate leaks.
- Easy to install.
- Lower installation cost.

Air Inlet Access Door (Optional)

- Increased ease of access to basin.
- Hinged access panel with quick release mechanism.
- Not available on all models.



WST Air Inlet Louvers (Water and Sight Tight)

- Easily removable for access.
- Design keeps sunlight out – preventing biological growth.
- Keeps water in while keeping dirt and debris out.

"Clean Pan" Basin Design

- Access from all four sides.
- Large open area simplifies maintenance.
- Basin may be inspected with pumps running.
- Sloped basin design prevents sediment buildup, biological film and standing water.

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 17 locations in 8 countries around the world and supplied through a sales network consisting of over 170 offices.

ATC-E Design Features

Proven Performance and Design Flexibility

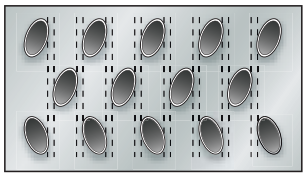
Thermal-Pak® II Coil

EVAPCO'S Thermal-Pak® II condensing coils are designed for maximum heat transfer efficiency. This unique coil design utilizes counterflow heat transfer. The rows of elliptical tubes are staggered and angled in the direction of airflow to enhance air turbulance, thereby increasing heat transfer while minimizing airside pressure drop.

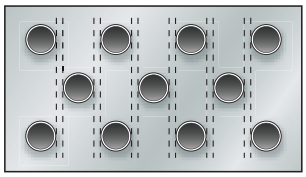
The design features of EVAPCO's Thermal-Pak® II condensing coils ensure the end user will receive the best evaporative heat transfer efficiency.

These characteristics and other engineering advancements of the Thermal-Pak® II have been proven in EVAPCO'S world-class research and development laboratory resulting in the following end user benefits:

- Lower Operating Refrigerant Charge
- Low Power Consumption Per Ton
- Lower Operating Weight
- Small Plan Area Per Ton



Thermal-Pak® II Coil by EVAPCO



Round Tube Coil by Others

The coils are manufactured from high quality steel tubing following the most stringent quality control procedures. Each circuit is inspected to assure the material quality and then tested before being assembled into a coil. Finally, the assembled coil is tested at 400 P.S.I.G. air pressure under water to make sure it is leak free.

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

Thermal-Pak® II Coil

ATC-E Design Features

Construction Features

EVAPCO, long known for using premium materials of construction, has developed the ultimate system for corrosion protection in galvanized steel construction – the EVAPCOAT Corrosion Protection System. Marrying corrosion free materials with heavy gauge mill hot-dip galvanized steel construction to provide the longest life product with the best value.

G-235 Mill Hot-Dip Galvanized Steel Construction

Mill hot-dip galvanized steel has been successfully used for over 40 years for the protection of evaporative condensers against corrosion. There are various grades of mill galvanized steel each with differing amounts of zinc protection. EVAPCO has been a leader in the industry in developing heavier galvanizing, and was the first to standardize on G-235 mill hot-dip galvanized steel.

G-235 designation means there is a minimum of 2.35 ounces of zinc per square foot of surface area as measured in a triple spot test. G-235 is the heaviest level of galvanizing available for manufacturing evaporative condensers and has a minimum of 12% more zinc protection than competitive designs using G-210 steel.

During fabrication, all panel edges are coated with a 95% pure zinc-rich compound for extended corrosion resistance.

Type 304 Stainless Steel Strainers

Subjected to excessive wear and corrosion, the sump strainer is critical to the successful operation of the condenser. EVAPCO uses only stainless steel for this very important component.

Unique Seam Design–Eliminate Field Leaks

The ATC-E features Evapco's unique panel construction design which includes a special butyl tape sealer with an integral sealing gasket. Each joint is then backed with a secondary caulking compound and encased in a double-brake flange for added strength and structural integrity. This unique sealing system has been proven effective in both laboratory tests and years of field application.

Easy Field Assembly

Fewer Fasteners–Lower Installed Cost

The ATC-E features a unique field seam design which ensures easier assembly and fewer field seam leaks. The field seam incorporates self-guiding channels to guide the coil casing section into position and set in place on the bottom basin section of the condenser.

In addition, the design eliminates up to 66% of the fasteners typically used to join the condenser sections in the field significantly reducing the contractor labor costs for installation.

Improved Maintenance

ZM® II Spray Nozzle Water Distribution System

Even and constant water distribution is paramount for reliable, scale-free evaporative condensing. EVAPCO'S Zero Maintenance ZM® II Spray Nozzle remains clog-free under the toughest conditions to deliver approximately 6 GPM to every square foot of coil plan area.

The heavy-duty ABS ZM® II Spray Nozzles have a 1-1/4" diameter opening and a 1-1/4" splash plate clearance. The fixed position ZM® II Spray Nozzles are mounted in corrosion-free PVC water distribution pipes that have threaded end caps. Together, these elements combine to provide unequaled coil coverage, enhanced droplet formation and make the industries best performing maintenance-free water distribution system.

ZM® II Nozzle

Alternate Materials of Construction

EVAPCO induced draft condensers have a modular design which allows for specific areas to be enhanced for increased corrosion protection. For particularly corrosive environments, EVAPCO condensers available with Stainless Steel construction for the basin, casing and/or coil.

Stainless Steel Basin

The basin area of a condenser is often subjected to high concentrations of impurities and silt. In addition to the EVAPCOAT Corrosion Protection System, EVAPCO offers optional stainless steel construction for superior corrosion resistance. This option provides Type 304 or Type 316 stainless steel for the entire basin section - including the support columns and air inlet louver frames.

Stainless Steel Coils

The heat exchanger coil is the heart of the evaporative condenser. For this critical component, EVAPCO offers the option of Type 304L stainless steel construction using the patented Thermal Pak® II coil design. Highly efficient heat transfer coils with the ultimate corrosion protection for evaporative cooling applications.

ATC-E Induced Draft Axial Fan Design Features

NEW

Belt Drive Units - 4', 8-1/2' & 17' Wide Models

ATC-50E-1g to ATC-926E-1g

The fan motor and drive assembly on these units is designed to allow easy servicing of the motor and **adjustment of the belt tension from the exterior of the unit**. A T.E.F.C. fan motor is mounted on the outside of these models. A protective cover swings away to allow servicing and belt adjustment.
A large hinged access door with a "quick release" latch provides access to the fan section for maintenance. (Not available on 4' Wide Models)

4' External Belt Driven Motor Mount

8-1/2' and 17' External Motor Mount (with optional ladder)

Belt Drive Units - 10', 12' & 24' Wide Models

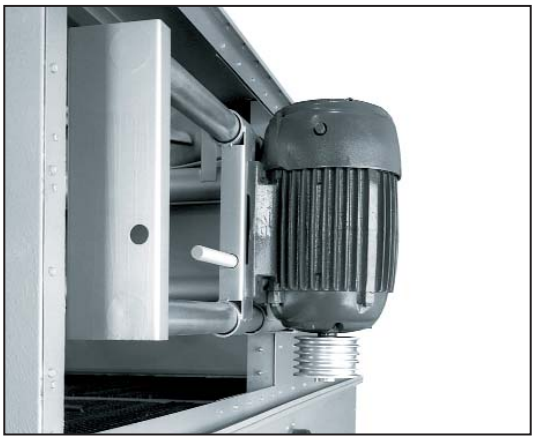
ATC-XE298E-1g to ATC-XC1340E-1g

ATC-428E-1g to ATC-3714E-1g

The fan motor and drive assembly is designed to allow easy **servicing of the motor and adjustment of the belt tension from the exterior of the unit**. The T.E.A.O. fan motor is located inside the fan casing on a rugged heavy duty motor base. The innovative motor base also features a unique locking mechanism for a positive adjustment.

Motor Base Assembly

The motor base is designed to swing out through a very large, 14 square foot access opening. This allows for easy servicing of the motor.



Motor Access

ATC-E Design Features

Drive System

Inverter Duty Motors: Inverter Duty Motors are standard on ATC-E condensers. Inverter Duty motors are totally enclosed premium efficiency and inverter capable (VFD by others).

Note: Variable Frequency Drive control may require other component modification such as motor shaft grounding brushes, AC load reactors, low pass filters and tuned trap filters to ensure proper motor performance and service life.

Power- Band Drive Belt: The Power-Band is a solid-back, multigroove belt system that has high lateral rigidity. The proven drive system is used on 8' wide and wider models. The belt is constructed of neoprene with polyester cords. The drive belt is designed for minimum 150% of the motor nameplate horsepower for long life and durability.

Fan Shaft Bearings: The fan shaft bearings in ATC-E units are specially selected for long, trouble-free life. They are rated for an L-10 life of 75,000 to 135,000 hours and are the heaviest pillow block bearing available.

Aluminum Alloy Sheaves: Fan sheaves are constructed of corrosion free aluminum for long life, eliminating the corrosion that exists on cast steel sheaves, thereby extending belt life.

Five Year Drive Warranty: All drive components on ATC-E units are covered by Evapco's exclusive 5 year drive warranty - including fan motors and belts!

Superior Water Saver Drift Eliminators

An extremely efficient drift eliminator system is standard on EVAPCO condensers. The patented system removes entrained water droplets from the air stream to limit the drift rate to less than 0.001% of the recirculating water rate. The drift eliminators are constructed of an inert polyvinyl chloride (PVC) plastic material which effectively eliminates corrosion of these vital components. They are assembled in sections to facilitate easy removal for inspection of the water distribution system.

Water Saver Drift Eliminator

Superior WST Air Inlet Louver Design

EVAPCO'S WST Inlet Louvers keep water in and sunlight out of the basins of induced draft products. The unique non-planar design is made from light-weight PVC sections which easily fit together and have no loose hardware, enabling easy basin access. (Patent Pending)

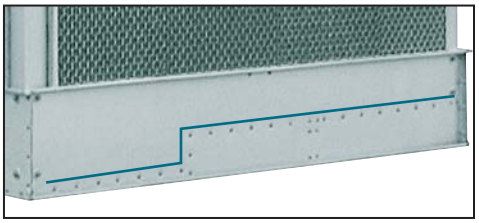
Developed with computational fluid dynamics (CFD) software and tested in EVAPCO's R&D center, the louver's air channels are optimized to maintain fluid dynamic and thermodynamic efficiency and block all line-of-sight paths into the basin eliminating splash-out; even when the fans are off. Additionally, algae growth is minimized by blocking all sunlight.

Inlet Louver Design

The combination of easy basin access, no splash-out and minimized algae growth saves the end user money on maintenance hours, water consumption and water treatment costs.

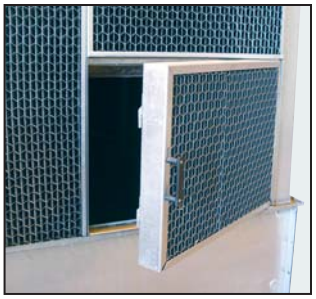
"Clean Pan" Basin Design

EVAPCO ATC-E condensers feature a sloped basin from the upper to lower pan section. This "Clean Pan" design allows the water to be completely drained from the basin. The condenser water will drain from the upper section to the depressed lower pan section where the dirt and debris can be easily flushed out through the drain. This design helps prevent buildup of sedimentary deposits, biological films and minimizes standing water.



Air Inlet Access Door (Optional)

To aid in basin maintenance, ATC-E models can be equipped with an optional air inlet access door. This feature improves the maintainability of the condenser by allowing easy access to the make-up float assembly and strainer for inspection without removing an entire inlet louver. Air inlet access doors are not available on models ATC-50E-1g to ATC-165E-1g.



IBC Compliance

IBC Compliance

EVAPCO has been applying advanced structural technology to evaporative condensers for many years. Following seismic events in the mid 1990's EVAPCO introduced the UB Series of induced draft cooling towers, fluid coolers and evaporative condensers. These products were designed, built and independently certified for extreme seismic and wind forces. With the advent of the International Building Code, EVAPCO is now offering a new line of ATC-E Evaporative Condensers that is IBC 2006 compliant as standard construction.

International Building Code

The International Building Code (IBC) is a comprehensive set of regulations addressing the structural design and installation requirements for building systems – including HVAC and industrial refrigeration equipment. As of June 2008, all 50 states plus Washington D.C have adopted the International Building Code. Compared to previous building codes that solely examined anchorage, the earthquake provisions contained within the International Building Code address anchorage, structural integrity, and operational capability of a component following a seismic event. The goal of the IBC is to minimize the loss of life and improve the capability of essential facilities to operate after a seismic event.

The International Building Code (IBC) was developed to replace the *BOCA National Building Code*, ICBO's *Uniform Building Code* and SBCCI's *Standard Building Code*. The International Building Code specifies that all components be designed to resist the equivalent seismic forces as the structure to which they are installed whereas previous building codes focused exclusively on the structure of the building to provide resistance against seismic forces. These components include all aspects of the building architectural, electrical and mechanical systems. The failure of these components during a seismic event has been a common occurrence in recent history. Although the structure of the building may be relatively undamaged from an earthquake, the damage to the nonstructural components could be significant and result in considerable secondary damage to the building (ie. flooding, fire, structural damage).

Seismic Design

The IBC specifies that all installed components must meet the requirements of ASCE 7-05 (American Society of Civil Engineers, *Minimum Design Loads for Buildings and Other Structures*). Exemptions noted in the code are for all mechanical components assigned to seismic design categories A or B. ASCE 7-05 explicitly states that in addition to the attachment and supports, the component itself must be designed to withstand the seismic forces prescribed in the code. Simply stated, the code provisions require that evaporative cooling equipment and all other components permanently installed on a structure must meet the same seismic design criteria as the building.

The seismic design force, utilized for component design, represents an equivalent static force that is applied to the components' center of gravity as described in the following equation:

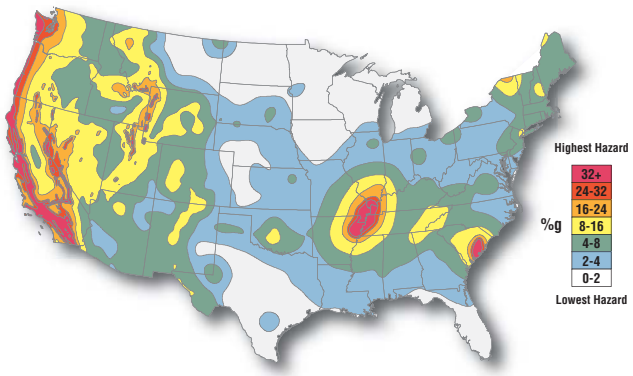
$$F_p = [(0.4 * (a_p) * (S_{DS}) * (W_p)) / (R_p / I_p)] * (1 + 2 * (z / h))$$

- F_p = Seismic Design Force centered at the component's center of gravity
- S_{DS} = Design spectral response acceleration, short period
- a_p = Component amplification factor
- I_p = Component importance factor
- W_p = Component operating weight
- R_p = Component response modification factor
- z = Height in structure of point of attachment of component with respect to the base
- h = Average roof height of structure with respect to the base

The minimum and maximum design force limits are specified as:

$$F_p\text{-min} = 0.3 \text{ SDS } I_p W_p$$
$$F_p\text{-max} = 1.6 \text{ SDS } I_p W_p$$

A series of charts and graphs are used to determine the appropriate factors based on the location of the installation and ultimately the "importance" of the facility. A chart of the potential seismic activity in the United States is shown below.



Map courtesy US Geological Survey website

IBC Compliance

Importance Factor (Ip)

A major parameter that must be determined prior to calculating the seismic design force is the component importance factor (Ip). ASCE 7-05 defines the component importance factor as:

Importance Factor, Ip	Classification
1.5	• Life safety component required to function after seismic event. • Component containing hazardous content • Components installed at Group III (essential) facilities
1.0	All other components

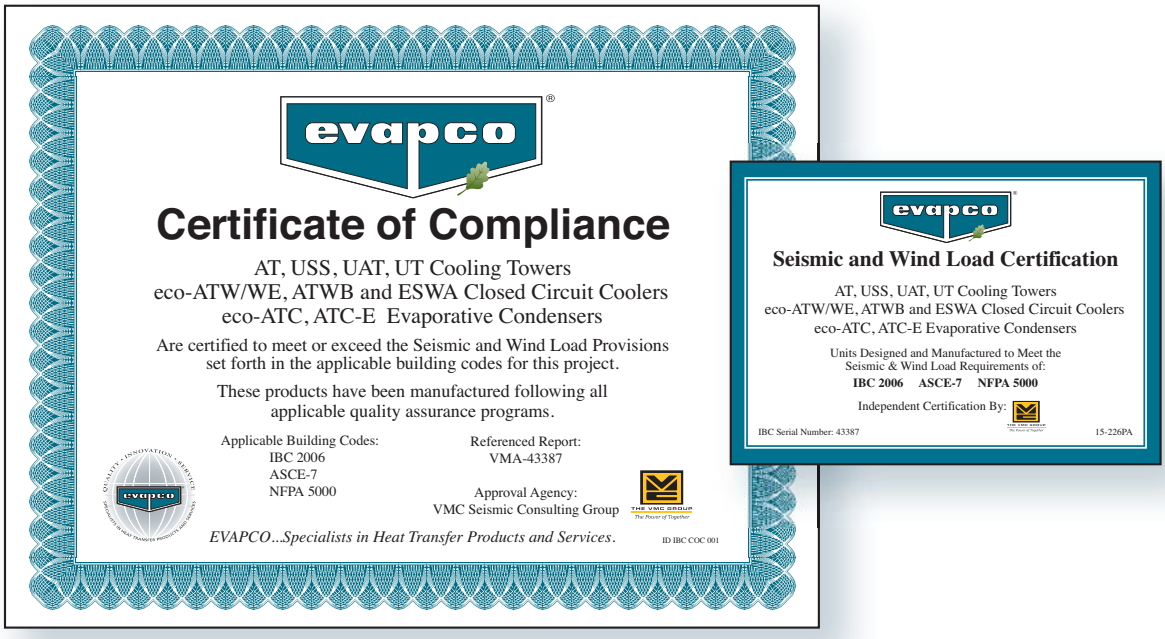
Products such as ammonia refrigerant condensers should always be assigned an importance factor of 1.5 since they contain ammonia. The IBC identifies ammonia as hazardous content in reference of OSHA standards. According to the American Society of Civil Engineers (ASCE) Manual, 07-05 edition, section 13.1.3, hazardous materials require an importance factor of 1.5.

Design Implementation

In order to achieve this goal, an architect or civil engineer is responsible for analyzing the soil and the design of a structure to determine the factors to be used. A mechanical consulting engineer and/or design build contractor applies these factors to advise the manufacturer on the proper design for the application. EVAPCO takes this information and determines the necessary equipment to meet IBC regulations. Evapco then determines the condenser design requirements based on the IBC criteria. The standard ATC-E design is independently certified to meet the 1g IBC compliance factors. For applications that require a more severe seismic duty, EVAPCO offers an optional 5.12g construction design. This process ensures that the mechanical equipment and its components are seismically compliant per the provisions of the International Building Code.

Independent Certification

As required by the International Building Code, EVAPCO supplies a certificate of compliance as part of its submittal documents. The certificate of compliance should demonstrate that the equipment/unit has been independently tested and analyzed in accordance with the IBC program. Evapco has worked closely with Vibrations Mountings and Controls Group (VMC) to complete the independent equipment testing and analysis. A sample of the certificate of compliance and unit label is presented below:



evapco

Certificate of Compliance

AT, USS, UAT, UT Cooling Towers
eco-ATW/WE, ATWB and ESWA Closed Circuit Coolers
eco-ATC, ATC-E Evaporative Condensers

Are certified to meet or exceed the Seismic and Wind Load Provisions set forth in the applicable building codes for this project.

These products have been manufactured following all applicable quality assurance programs.

Applicable Building Codes:
IBC 2006
ASCE-7
NFPA 5000

Referenced Report:
VMA-43387

Approval Agency:
VMC Seismic Consulting Group

EVAPCO...Specialists in Heat Transfer Products and Services.

ID IBC COC 001

evapco

Seismic and Wind Load Certification

AT, USS, UAT, UT Cooling Towers
eco-ATW/WE, ATWB and ESWA Closed Circuit Coolers
eco-ATC, ATC-E Evaporative Condensers

Units Designed and Manufactured to Meet the Seismic & Wind Load Requirements of:
IBC 2006 ASCE-7 NFPA 5000

Independent Certification By:

IBC Serial Number: 43387

15-226PA

ATC-E Selection Procedure

Two methods of selection are presented, the first is based on the total heat of rejection as described immediately below. The second and more simple method is based on evaporator tons. The evaporator ton method is only applicable to systems with open type reciprocating compressors.

The heat of rejection method is applicable to all but centrifugal compressor applications and is normally used for selecting evaporative condensers for use with hermetic compressors and screw compressors. It can also be used for standard open type reciprocating compressors as an alternate to the evaporator ton method.

The evaporator ton method is based on the estimated heat of compression. **The heat of rejection method of selection is more accurate and should be used whenever possible.**

Refer to the factory for selections on systems with centrifugal compressors.

Heat of Rejection Method

In the heat of rejection method, a factor for the specified operating conditions (condensing temperature and wet bulb) is obtained from Table 1 or 2 and multiplied times the heat of rejection.
The resultant figure is used to select a unit from Table 3. Unit capacities are given in Table 3 in thousands of BTU/Hr or MBH.

If the heat of rejection is not known, it can be determined by one of the following formulaes:

Open Compressors:

Heat of Rejection = Evaporator Load (BTU/Hr) + Compressor BHP x 2545

Hermetic Compressors:

Heat of Rejection = Evaporator Load (BTU/Hr) + K.W. Compressor Input x 3415

EXAMPLE

Given: 450 ton load, ammonia refrigerant 96.3° condensing temperature, 78° W.B. temperature and 500 compressor BHP.

Selection: Heat of Rejection

450 tons x 12000	=	5,400,000 BTU/Hr
500 BHP x 2545	=	1,272,500 BTU/Hr
Total		6,672,500 BTU/Hr

From Table 2 the capacity factor for 96.3° condensing and 78° W.B. = 1.37
6,672,500 x 1.37 = 9,141,325 BTU/Hr or 9142 MBH. Therefore, select a model ATC-639E-1g or ATC-XC641E-1g.

Note: For screw compressor selections employing water cooled oil cooling, select a condenser for the total MBH as in the example. The condenser can then function in one of two ways:

(1) Recirculating water from the water sump can be used for oil cooling. A separate pump should be employed and the return water should be directed into the water sump at the opposite end from the pump suction.

(2) The condenser coil can be circuited so that water or a glycol-water mixture for the oil cooler can be cooled in a separate section of the coil. Specify load and water flow required.

For refrigerant injection cooled screw compressors, select the condenser in the same manner as shown in the example.

If the oil cooler is supplied by water from a separate source, then the oil cooling load should be deducted from the heat of rejection before making the selection.

Table 1 - HCFC-22 and HFC-134a Heat Rejection Factors

Condensing Pres. psig		Cond. Temp. °F	Wet Bulb Temperature, (°F)																
HCFC-22	HFC-134a		50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
156	95	85	1.10	1.22	1.39	1.50	1.61	1.75	1.93	2.13	2.42	2.78	3.02	3.29	3.64	4.00	-	-	-	-
168	104	90	.93	1.02	1.14	1.21	1.28	1.36	1.45	1.57	1.71	1.89	2.00	2.12	2.25	2.38	2.85	3.50	-	-
182	114	95	.80	.87	.95	1.00	1.05	1.10	1.15	1.22	1.31	1.40	1.45	1.50	1.56	1.64	1.82	2.07	2.37	2.77
196	124	100	.71	.76	.82	.85	.88	.91	.94	.98	1.03	1.09	1.12	1.15	1.20	1.24	1.34	1.46	1.63	1.82
211	135	105	.63	.66	.70	.72	.75	.77	.80	.83	.87	.91	.93	.95	.97	1.00	1.06	1.13	1.23	1.35
226	146	110	.56	.59	.62	.64	.65	.67	.69	.71	.74	.77	.78	.80	.82	.84	.88	.93	.98	1.04

Table 2 - Ammonia (R-717) Heat Rejection Factors

Condensing Pres. psig	Cond. Temp. °F	Wet Bulb Temperature, (°F)																	
		50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
152	85	.98	1.09	1.24	1.34	1.44	1.56	1.72	1.90	2.16	2.48	2.70	2.94	3.25	3.57	-	-	-	-
166	90	.83	.91	1.02	1.08	1.14	1.21	1.29	1.40	1.53	1.69	1.79	1.89	2.01	2.12	2.54	3.12	-	-
181	95	.71	.78	.85	.89	.94	.98	1.03	1.09	1.17	1.25	1.29	1.34	1.39	1.47	1.63	1.85	2.12	2.47
185	96.3	.69	.75	.82	.86	.90	.94	.98	1.03	1.10	1.18	1.22	1.26	1.31	1.37	1.51	1.71	1.94	2.25
197	100	.63	.68	.73	.76	.79	.81	.84	.87	.92	.97	1.00	1.03	1.07	1.11	1.20	1.30	1.46	1.63
214	105	.56	.59	.62	.64	.67	.69	.71	.74	.78	.81	.83	.85	.87	.89	.95	1.01	1.10	1.21
232	110	.50	.53	.55	.57	.58	.60	.62	.63	.66	.69	.70	.71	.73	.75	.79	.83	.87	.93

Table 3 - Unit Heat Rejection

ATC & ATC-X Models									
Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base
ATC-50E-1g	735	ATC-XC427E-1g	6,277	ATC-XE665E-1g	9,776	ATC-935E-1g	13,746	ATC-1495E-1g	21,974
ATC-65E-1g	956	ATC-428E-1g	6,296	ATC-666E-1g	9,793	ATC-XE947E-1g	13,921	ATC-1496E-1g	21,991
ATC-80E-1g	1,176	ATC-442E-1g	6,490	ATC-XC669E-1g	9,834	ATC-949E-1g	13,950	ATC-1561E-1g	22,954
ATC-90E-1g	1,323	ATC-XC443E-1g	6,512	ATC-675E-1g	9,925	ATC-967E-1g	14,218	ATC-1562E-1g	22,961
ATC-105E-1g	1,544	ATC-XE448E-1g	6,586	ATC-682E-1g	10,027	ATC-979E-1g	14,395	ATC-1616E-1g	23,761
ATC-120E-1g	1,764	ATC-456E-1g	6,706	ATC-687E-1g	10,097	ATC-980E-1g	14,406	ATC-1625E-1g	23,881
ATC-135E-1g	1,985	ATC-457E-1g	6,715	ATC-703E-1g	10,339	ATC-XE984E-1g	14,465	ATC-1654E-1g	24,320
ATC-150E-1g	2,205	ATC-XC462E-1g	6,791	ATC-706E-1g	10,380	ATC-1006E-1g	14,789	ATC-1655E-1g	24,329
ATC-165E-1g	2,426	ATC-XE472E-1g	6,938	ATC-XE709E-1g	10,422	ATC-1007E-1g	14,803	ATC-1708E-1g	25,106
ATC-170E-1g	2,499	ATC-473E-1g	6,948	ATC-713E-1g	10,475	ATC-XC1011E-1g	14,862	ATC-1709E-1g	25,122
ATC-187E-1g	2,751	ATC-474E-1g	6,973	ATC-XC720E-1g	10,584	ATC-XE1032E-1g	15,170	ATC-1720E-1g	25,282
ATC-199E-1g	2,932	ATC-486E-1g	7,140	ATC-725E-1g	10,660	ATC-1046E-1g	15,379	ATC-1729E-1g	25,410
ATC-218E-1g	3,199	ATC-XE492E-1g	7,232	ATC-XE742E-1g	10,907	ATC-1047E-1g	15,391	ATC-1783E-1g	26,214
ATC-221E-1g	3,242	ATC-503E-1g	7,394	ATC-746E-1g	10,973	ATC-XC1049E-1g	15,420	ATC-1784E-1g	26,225
ATC-233E-1g	3,428	ATC-XC504E-1g	7,409	ATC-747E-1g	10,987	ATC-1077E-1g	15,838	ATC-1795E-1g	26,394
ATC-238E-1g	3,497	ATC-508E-1g	7,462	ATC-755E-1g	11,091	ATC-1078E-1g	15,847	ATC-1805E-1g	26,527
ATC-246E-1g	3,619	ATC-XE516E-1g	7,585	ATC-XC775E-1g	11,393	ATC-1085E-1g	15,942	ATC-1851E-1g	27,216
ATC-247E-1g	3,633	ATC-523E-1g	7,689	ATC-778E-1g	11,441	ATC-XC1112E-1g	16,346	ATC-1861E-1g	27,354
ATC-253E-1g	3,721	ATC-XC525E-1g	7,718	ATC-780E-1g	11,466	ATC-1117E-1g	16,420	ATC-1879E-1g	27,628
ATC-258E-1g	3,795	ATC-527E-1g	7,753	ATC-781E-1g	11,477	ATC-1118E-1g	16,435	ATC-1915E-1g	28,152
ATC-269E-1g	3,957	ATC-XE528E-1g	7,762	ATC-791E-1g	11,628	ATC-XC1153E-1g	16,949	ATC-1925E-1g	28,294
ATC-280E-1g	4,119	ATC-539E-1g	7,919	ATC-XC804E-1g	11,819	ATC-XE1157E-1g	17,008	ATC-2002E-1g	29,430
ATC-294E-1g	4,326	ATC-XE542E-1g	7,967	ATC-805E-1g	11,831	ATC-1163E-1g	17,093	ATC-2082E-1g	30,604
ATC-XE298E-1g	4,381	ATC-545E-1g	8,009	ATC-806E-1g	11,849	ATC-1164E-1g	17,111	ATC-2158E-1g	31,725
ATC-305E-1g	4,489	ATC-XE553E-1g	8,129	ATC-XE812E-1g	11,936	ATC-1166E-1g	17,136	ATC-2223E-1g	32,676
ATC-325E-1g	4,777	ATC-556E-1g	8,169	ATC-816E-1g	12,001	ATC-1167E-1g	17,155	ATC-2256E-1g	33,161
ATC-XE333E-1g	4,895	ATC-557E-1g	8,188	ATC-827E-1g	12,160	ATC-1191E-1g	17,503	ATC-2320E-1g	34,100
ATC-XC346E-1g	5,086	ATC-XC558E-1g	8,203	ATC-830E-1g	12,199	ATC-1192E-1g	17,522	ATC-2324E-1g	34,157
ATC-355E-1g	5,219	ATC-559E-1g	8,210	ATC-842E-1g	12,374	ATC-1203E-1g	17,684	ATC-2404E-1g	35,335
ATC-XE356E-1g	5,233	ATC-578E-1g	8,503	ATC-854E-1g	12,553	ATC-1204E-1g	17,699	ATC-2490E-1g	36,603
ATC-358E-1g	5,269	ATC-XC579E-1g	8,511	ATC-XC855E-1g	12,569	ATC-XC1210E-1g	17,787	ATC-2509E-1g	36,877
ATC-XC360E-1g	5,292	ATC-581E-1g	8,547	ATC-857E-1g	12,592	ATC-XC1222E-1g	17,963	ATC-2647E-1g	38,904
ATC-XE368E-1g	5,410	ATC-583E-1g	8,568	ATC-858E-1g	12,613	ATC-1239E-1g	18,214	ATC-2765E-1g	40,644
ATC-369E-1g	5,430	ATC-XE596E-1g	8,761	ATC-865E-1g	12,721	ATC-1240E-1g	18,228	ATC-2855E-1g	41,964
ATC-371E-1g	5,454	ATC-598E-1g	8,789	ATC-869E-1g	12,769	ATC-XC1264E-1g	18,581	ATC-2900E-1g	42,630
ATC-379E-1g	5,570	ATC-601E-1g	8,842	ATC-XC884E-1g	12,995	ATC-XC1282E-1g	18,845	ATC-3029E-1g	44,531
ATC-385E-1g	5,663	ATC-XE608E-1g	8,938	ATC-892E-1g	13,107	ATC-1283E-1g	18,860	ATC-3210E-1g	47,181
ATC-XE387E-1g	5,689	ATC-609E-1g	8,947	ATC-895E-1g	13,160	ATC-1284E-1g	18,875	ATC-3232E-1g	47,518
ATC-XC388E-1g	5,704	ATC-XC611E-1g	8,982	ATC-XE896E-1g	13,171	ATC-1293E-1g	19,009	ATC-3313E-1g	48,706
ATC-392E-1g	5,759	ATC-620E-1g	9,107	ATC-XC897E-1g	13,186	ATC-1294E-1g	19,022	ATC-3336E-1g	49,032
ATC-398E-1g	5,850	ATC-630E-1g	9,260	ATC-907E-1g	13,330	ATC-XC1340E-1g	19,698	ATC-3459E-1g	50,855
ATC-XC402E-1g	5,909	ATC-639E-1g	9,392	ATC-912E-1g	13,413	ATC-1364E-1g	20,054	ATC-3482E-1g	51,188
ATC-XE406E-1g	5,968	ATC-XC641E-1g	9,423	ATC-913E-1g	13,421	ATC-1365E-1g	20,066	ATC-3591E-1g	52,783
ATC-409E-1g	6,006	ATC-642E-1g	9,437	ATC-XC925E-1g	13,598	ATC-1425E-1g	20,950	ATC-3714E-1g	54,597
ATC-423E-1g	6,224	ATC-647E-1g	9,504	ATC-926E-1g	13,619	ATC-1426E-1g	20,962		

Note: Table 3 presents only the standard model selections. Other models exist for special horsepower or layout applications. Please consult the factory or EVAPCO Representative for the special situations.

Evaporator Ton Method

In the evaporator ton method, factors for the specified operating conditions (suction temperature, condensing temperature and wet bulb) are obtained from either Table 5 or 6 and multiplied times the heat load in tons. The resultant figure is used to select a unit from Table 4. The condenser model in Table 4 is equal to the unit capacity in evaporator tons for HCFC-22 or HFC-134a conditions of 105°F condensing, 40°F suction and 78° wet bulb.

EXAMPLE

Given: 300 ton evaporator load, R-717, condensing at 95° F, with +10° F suction and 76° F wet bulb temperatures.

Selection: The capacity factor from Table 6 for the given condensing and wet bulb conditions is 1.38, and the capacity factor for the suction temperature of +10° F is 1.03, so the corrected capacity required may be determined as:

300 X 1.38 X 1.03 = 426 corrected tons. Therefore, select a model ATC-442E-1g or ATC-XC443E-1g depending on unit type desired, and any layout or horsepower considerations.

Table 4 - Unit Sizes

ATC & ATC-X Models [1]							
ATC-50E-1g	ATC-355E-1g	ATC-486E-1g	ATC-620E-1g	ATC-805E-1g	ATC-980E-1g	ATC-1240E-1g	ATC-1851E-1g
ATC-65E-1g	ATC-XE356E-1g	ATC-XE492E-1g	ATC-630E-1g	ATC-806E-1g	ATC-XE984E-1g	ATC-XC1264E-1g	ATC-1861E-1g
ATC-80E-1g	ATC-358E-1g	ATC-503E-1g	ATC-639E-1g	ATC-XE812E-1g	ATC-1006E-1g	ATC-XC1282E-1g	ATC-1879E-1g
ATC-90E-1g	ATC-XC360E-1g	ATC-XC504E-1g	ATC-XC641E-1g	ATC-816E-1g	ATC-1007E-1g	ATC-1283E-1g	ATC-1915E-1g
ATC-105E-1g	ATC-XE368E-1g	ATC-508E-1g	ATC-642E-1g	ATC-827E-1g	ATC-XC1011E-1g	ATC-1284E-1g	ATC-1925E-1g
ATC-120E-1g	ATC-369E-1g	ATC-XE516E-1g	ATC-647E-1g	ATC-830E-1g	ATC-XE1032E-1g	ATC-1293E-1g	ATC-2002E-1g
ATC-135E-1g	ATC-371E-1g	ATC-523E-1g	ATC-XE665E-1g	ATC-842E-1g	ATC-1046E-1g	ATC-1294E-1g	ATC-2082E-1g
ATC-150E-1g	ATC-379E-1g	ATC-XC525E-1g	ATC-666E-1g	ATC-854E-1g	ATC-1047E-1g	ATC-XC1340E-1g	ATC-2158E-1g
ATC-165E-1g	ATC-385E-1g	ATC-527E-1g	ATC-XC669E-1g	ATC-XC855E-1g	ATC-XC1049E-1g	ATC-1364E-1g	ATC-2223E-1g
ATC-170E-1g	ATC-XE387E-1g	ATC-XE528E-1g	ATC-675E-1g	ATC-857E-1g	ATC-1077E-1g	ATC-1365E-1g	ATC-2256E-1g
ATC-187E-1g	ATC-XC388E-1g	ATC-539E-1g	ATC-682E-1g	ATC-858E-1g	ATC-1078E-1g	ATC-1425E-1g	ATC-2320E-1g
ATC-199E-1g	ATC-392E-1g	ATC-XE542E-1g	ATC-687E-1g	ATC-865E-1g	ATC-1085E-1g	ATC-1426E-1g	ATC-2324E-1g
ATC-218E-1g	ATC-398E-1g	ATC-545E-1g	ATC-703E-1g	ATC-869E-1g	ATC-XC1112E-1g	ATC-1495E-1g	ATC-2404E-1g
ATC-221E-1g	ATC-XC402E-1g	ATC-XE553E-1g	ATC-706E-1g	ATC-XC884E-1g	ATC-1117E-1g	ATC-1496E-1g	ATC-2490E-1g
ATC-233E-1g	ATC-XE406E-1g	ATC-556E-1g	ATC-XE709E-1g	ATC-892E-1g	ATC-1118E-1g	ATC-1561E-1g	ATC-2509E-1g
ATC-238E-1g	ATC-409E-1g	ATC-557E-1g	ATC-713E-1g	ATC-895E-1g	ATC-XC1153E-1g	ATC-1562E-1g	ATC-2647E-1g
ATC-246E-1g	ATC-423E-1g	ATC-XC558E-1g	ATC-XC720E-1g	ATC-XE896E-1g	ATC-XE1157E-1g	ATC-1616E-1g	ATC-2765E-1g
ATC-247E-1g	ATC-XC427E-1g	ATC-559E-1g	ATC-725E-1g	ATC-XC897E-1g	ATC-1163E-1g	ATC-1625E-1g	ATC-2855E-1g
ATC-253E-1g	ATC-428E-1g	ATC-578E-1g	ATC-XE742E-1g	ATC-907E-1g	ATC-1164E-1g	ATC-1654E-1g	ATC-2900E-1g
ATC-258E-1g	ATC-442E-1g	ATC-XC579E-1g	ATC-746E-1g	ATC-912E-1g	ATC-1166E-1g	ATC-1655E-1g	ATC-3029E-1g
ATC-269E-1g	ATC-XC443E-1g	ATC-581E-1g	ATC-747E-1g	ATC-913E-1g	ATC-1167E-1g	ATC-1708E-1g	ATC-3210E-1g
ATC-280E-1g	ATC-XE448E-1g	ATC-583E-1g	ATC-755E-1g	ATC-XC925E-1g	ATC-1191E-1g	ATC-1709E-1g	ATC-3232E-1g
ATC-294E-1g	ATC-456E-1g	ATC-XE596E-1g	ATC-XC775E-1g	ATC-926E-1g	ATC-1192E-1g	ATC-1720E-1g	ATC-3313E-1g
ATC-XE298E-1g	ATC-457E-1g	ATC-598E-1g	ATC-778E-1g	ATC-935E-1g	ATC-1203E-1g	ATC-1729E-1g	ATC-3336E-1g
ATC-305E-1g	ATC-XC462E-1g	ATC-601E-1g	ATC-780E-1g	ATC-XE947E-1g	ATC-1204E-1g	ATC-1783E-1g	ATC-3459E-1g
ATC-325E-1g	ATC-XE472E-1g	ATC-XE608E-1g	ATC-781E-1g	ATC-949E-1g	ATC-XC1210E-1g	ATC-1784E-1g	ATC-3482E-1g
ATC-XE333E-1g	ATC-473E-1g	ATC-609E-1g	ATC-791E-1g	ATC-967E-1g	ATC-XC1222E-1g	ATC-1795E-1g	ATC-3591E-1g
ATC-XC346E-1g	ATC-474E-1g	ATC-XC611E-1g	ATC-XC804E-1g	ATC-979E-1g	ATC-1239E-1g	ATC-1805E-1g	ATC-3714E-1g

[1] **Note:** The condenser model in Table 4 is equal to the unit capacity in evaporator tons for HCFC-22 or HFC-134a conditions of 105°F condensing, 40°F suction and 78° wet bulb.

Table 5 - HCFC-22 and HFC-134a Capacity Factors

Condensing Pres. psig		Cond. Temp. °F	Wet Bulb Temperature, (°F)																	
HCFC-22	HFC 134a		50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
156	95	85	1.05	1.16	1.32	1.43	1.53	1.66	1.83	2.02	2.30	2.64	2.87	3.13	3.46	3.80	-	-	-	-
168	104	90	.90	.98	1.10	1.17	1.24	1.31	1.40	1.52	1.65	1.82	1.93	2.05	2.17	2.30	2.75	3.38	-	-
182	114	95	.78	.85	.93	.98	1.02	1.07	1.12	1.19	1.28	1.37	1.42	1.46	1.52	1.60	1.78	2.02	2.31	2.70
196	124	100	.70	.75	.81	.84	.87	.90	.93	.97	1.02	1.08	1.11	1.14	1.19	1.23	1.33	1.44	1.61	1.80
211	135	105	.63	.66	.70	.72	.75	.77	.80	.83	.87	.91	.93	.95	.97	1.00	1.06	1.13	1.23	1.35
226	146	110	.57	.60	.63	.65	.66	.68	.70	.72	.75	.78	.79	.81	.83	.85	.89	.94	.99	1.05

Suction Temp. °F		-20°	-10°	-0°	+10°	+20°	+30°	+40°	+50°
Suction Press. (psig)	HCFC-22	10.1	16.5	24.0	32.8	43.0	54.9	68.5	84.0
	HFC-134a	-1.8	1.9	6.5	11.9	18.4	26.1	35.0	45.4
Capacity Factor		1.22	1.17	1.13	1.09	1.06	1.03	1.00	0.97

Table 6 - Ammonia (R-717) Capacity Factors

Condensing Pres. psig	Cond. Temp. °F	Wet Bulb Temperature, (°F)																		
		50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
152	85	.99	1.09	1.25	1.34	1.44	1.57	1.73	1.91	2.17	2.49	2.71	2.95	3.26	3.59	-	-	-	-
166	90	.84	.93	1.03	1.10	1.16	1.23	1.32	1.42	1.55	1.71	1.81	1.92	2.04	2.16	2.59	3.17	-	-
181	95	.74	.80	.87	.92	.97	1.01	1.06	1.12	1.21	1.29	1.33	1.38	1.44	1.51	1.68	1.91	2.18	2.55
185	96.3	.72	.78	.85	.89	.93	.97	1.01	1.07	1.14	1.22	1.26	1.30	1.35	1.41	1.56	1.76	2.01	2.33
197	100	.66	.71	.76	.79	.82	.85	.87	.91	.96	1.01	1.04	1.07	1.12	1.15	1.25	1.36	1.52	1.69
214	105	.59	.62	.66	.68	.71	.73	.75	.78	.82	.86	.88	.90	.91	.94	1.00	1.07	1.16	1.27
232	110	.53	.56	.59	.61	.62	.64	.66	.68	.71	.73	.74	.76	.78	.80	.84	.89	.93	.99

Suction Temp. °F	-30°	-20°	-10°	0°	+10°	+20°	+30°	+40°
Suction Press. (psig)	-1.6	3.6	9.0	15.7	23.8	33.5	45.0	58.6
Capacity Factor	1.18	1.14	1.10	1.07	1.03	1.00	0.97	0.95

Note: Table 4 presents only the standard model selections. Other models exist for special horsepower or layout applications. Please consult the factory or EVAPCO Representative for the special situations.

Engineering Dimensions & Data

Models ATC-50E-1g to 165E-1g

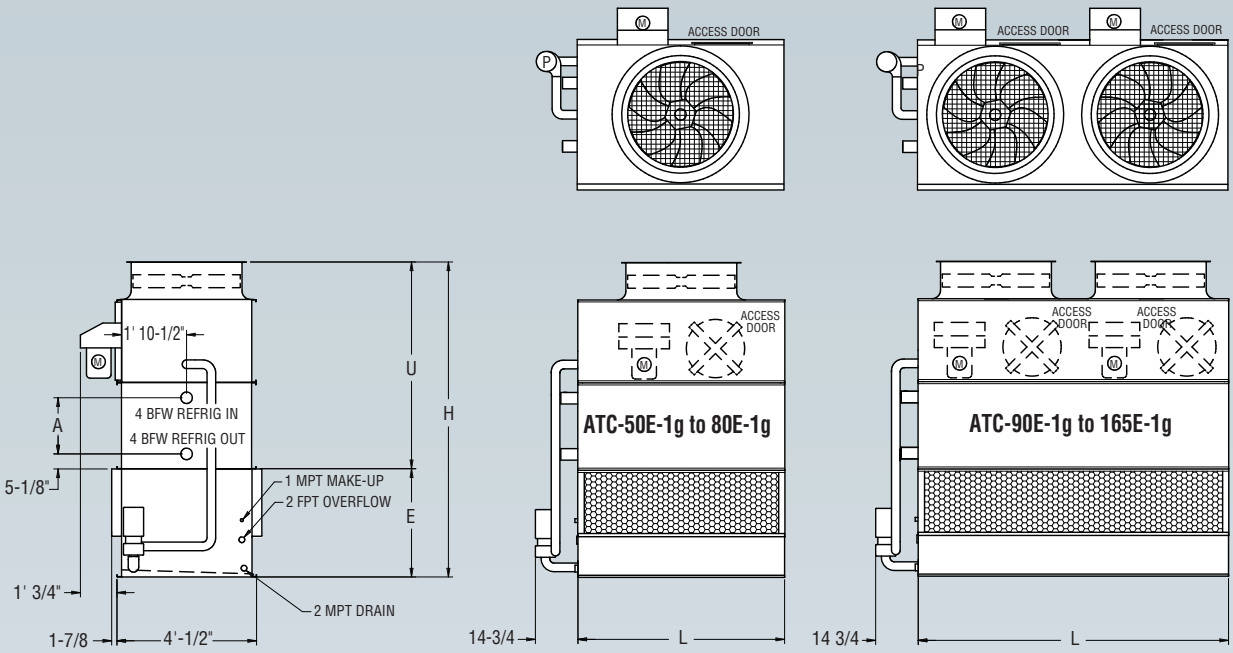


Table 7 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-50E-1g	35	3	11,800	2,780	2,270	3,960	51	7	3/4	135	120	6"	3,500	9' 1-3/8"	5' 11-3/4"	3' 1-5/8"	19-1/2"	5' 11-3/4"
ATC-65E-1g	46	5	12,600	3,160	2,650	4,370	66	9	3/4	135	120	6"	3,910	9' 8-7/8"	6' 7-1/4"	3' 1-5/8"	27"	5' 11-3/4"
ATC-80E-1g	57	5	12,000	3,570	3,060	4,810	81	11	3/4	135	120	6"	4,350	10' 4-3/8"	7' 2-3/4"	3' 1-5/8"	34-1/2"	5' 11-3/4"
ATC-90E-1g	64	(2) 3	21,200	4,110	3,440	5,820	75	10	1	200	180	6"	5,200	9' 1-3/8"	5' 11-3/4"	3' 1-5/8"	19-1/2"	8' 11-3/4"
ATC-105E-1g	74	(2) 3	19,800	4,660	3,990	6,410	97	13	1	200	180	6"	5,790	9' 8-7/8"	6' 7-1/4"	3' 1-5/8"	27"	8' 11-3/4"
ATC-120E-1g	85	(2) 3	19,100	5,250	4,580	7,050	120	16	1	200	180	6"	6,430	10' 4-3/8"	7' 2-3/4"	3' 1-5/8"	34-1/2"	8' 11-3/4"
ATC-135E-1g	96	(2) 3	25,300	5,690	4,870	8,000	129	18	1-1/2	270	230	8"	7,220	9' 8-7/8"	6' 7-1/4"	3' 1-5/8"	27"	11' 11-3/4"
ATC-150E-1g	106	(2) 3	23,800	6,490	5,670	8,860	159	22	1-1/2	270	230	8"	8,080	10' 4-3/8"	7' 2-3/4"	3' 1-5/8"	34-1/2"	11' 11-3/4"
ATC-165E-1g	117	(2) 5	25,900	6,510	5,690	8,880	159	22	1-1/2	270	230	8"	8,100	10' 4-3/8"	7' 2-3/4"	3' 1-5/8"	34-1/2"	11' 11-3/4"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-170E-1g to 247E-1g

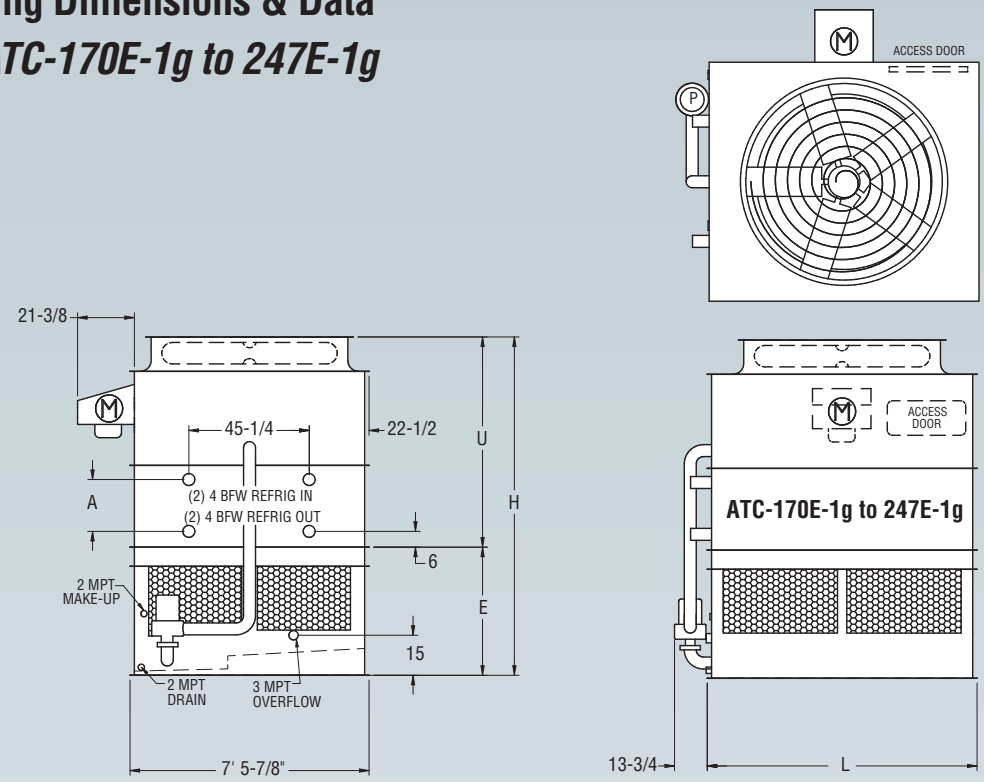


Table 8 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-170E-1g	121	5	29,700	7,730	6,430	10,310	183	25	2	340	220	8"	9,210	11' 2-3/4"	7' 2-1/2"	4' 1/4"	27"	8' 5-1/2"
ATC-187E-1g	133	7.5	34,000	7,780	6,480	10,360	183	25	2	340	220	8"	9,260	11' 2-3/4"	7' 2-1/2"	4' 1/4"	27"	8' 5-1/2"
ATC-199E-1g	141	10	37,200	7,790	6,490	10,370	183	25	2	340	220	8"	9,270	11' 2-3/4"	7' 2-1/2"	4' 1/4"	27"	8' 5-1/2"
ATC-221E-1g	157	10	36,100	8,830	7,530	11,490	226	31	2	340	220	8"	10,390	11' 10-1/4"	7' 10"	4' 1/4"	34-1/2"	8' 5-1/2"
ATC-238E-1g	169	15	40,500	8,960	7,660	11,620	226	31	2	340	220	8"	10,520	11' 10-1/4"	7' 10"	4' 1/4"	34-1/2"	8' 5-1/2"
ATC-247E-1g	175	15	39,200	9,990	8,690	12,730	269	37	2	340	220	8"	11,630	12' 5-3/4"	8' 5-1/2"	4' 1/4"	42"	8' 5-1/2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

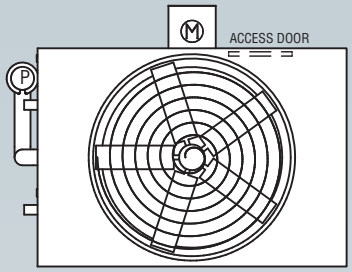
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

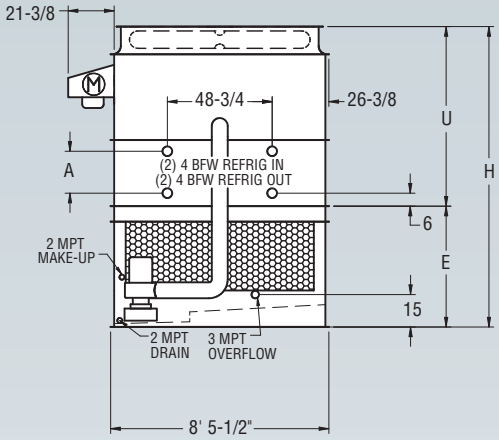
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-218E-1g to 473E-1g





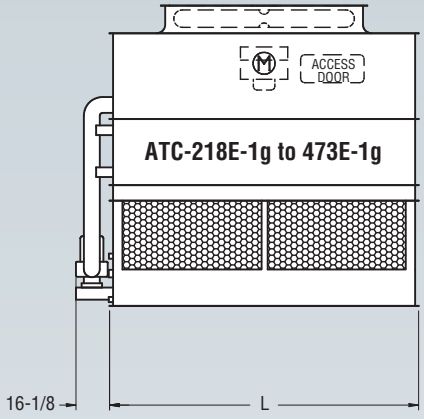


Table 9 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-218E-1g	155	7.5	38,400	9,190	7,750	12,210	210	29	2	410	250	8"	10,930	11' 10-7/8"	7' 7"	4' 3-7/8"	27"	8' 11-1/2"
ATC-233E-1g	166	10	42,200	9,200	7,760	12,220	210	29	2	410	250	8"	10,940	11' 10-7/8"	7' 7"	4' 3-7/8"	27"	8' 11-1/2"
ATC-253E-1g	180	15	47,500	9,330	7,890	12,350	210	29	2	410	250	8"	11,070	11' 10-7/8"	7' 7"	4' 3-7/8"	27"	8' 11-1/2"
ATC-258E-1g	183	10	40,900	10,460	9,020	13,570	260	35	2	410	250	8"	12,290	12' 6-3/8"	8' 2-1/2"	4' 3-7/8"	34-1/2"	8' 11-1/2"
ATC-280E-1g	199	15	46,100	10,590	9,150	13,700	260	35	2	410	250	8"	12,420	12' 6-3/8"	8' 2-1/2"	4' 3-7/8"	34-1/2"	8' 11-1/2"
ATC-305E-1g	217	20	48,400	11,880	10,440	15,090	309	42	2	410	250	8"	13,810	13' 1-7/8"	8' 10"	4' 3-7/8"	42"	8' 11-1/2"
ATC-246E-1g	175	15	54,700	9,370	7,730	12,820	187	25	3	500	290	10"	11,310	11' 3-3/8"	6' 11-1/2"	4' 3-7/8"	19-1/2"	10' 5-1/2"
ATC-269E-1g	191	10	46,800	10,600	8,960	14,160	244	33	3	500	290	10"	12,650	11' 10-7/8"	7' 7"	4' 3-7/8"	27"	10' 5-1/2"
ATC-294E-1g	209	15	53,100	10,720	9,080	14,280	244	33	3	500	290	10"	12,770	11' 10-7/8"	7' 7"	4' 3-7/8"	27"	10' 5-1/2"
ATC-325E-1g	231	15	51,500	12,210	10,570	15,880	302	41	3	500	290	10"	14,370	12' 6-3/8"	8' 2-1/2"	4' 3-7/8"	34-1/2"	10' 5-1/2"
ATC-355E-1g	252	20	54,100	13,700	12,060	17,480	359	49	3	500	290	10"	15,970	13' 1-7/8"	8' 10"	4' 3-7/8"	42"	10' 5-1/2"
ATC-369E-1g	262	25	57,600	13,730	12,090	17,510	359	49	3	500	290	10"	16,000	13' 1-7/8"	8' 10"	4' 3-7/8"	42"	10' 5-1/2"
ATC-358E-1g	255	15	56,800	13,230	11,430	17,530	344	47	3	550	330	10"	15,820	12' 10-3/4"	8' 2-1/2"	4' 8-1/4"	34-1/2"	11' 11-3/4"
ATC-371E-1g	263	15	55,000	14,870	13,070	19,290	410	56	3	550	330	10"	17,580	13' 6-1/4"	8' 10"	4' 8-1/4"	42"	11' 11-3/4"
ATC-379E-1g	269	20	61,500	13,290	11,490	17,590	344	47	3	550	330	10"	15,880	12' 10-3/4"	8' 2-1/2"	4' 8-1/4"	34-1/2"	11' 11-3/4"
ATC-392E-1g	278	20	59,700	14,930	13,130	19,350	410	56	3	550	330	10"	17,640	13' 6-1/4"	8' 10"	4' 8-1/4"	42"	11' 11-3/4"
ATC-409E-1g	290	25	63,500	14,960	13,160	19,380	410	56	3	550	330	10"	17,670	13' 6-1/4"	8' 10"	4' 8-1/4"	42"	11' 11-3/4"
ATC-385E-1g	274	20	71,000	13,250	11,240	18,090	323	44	3	600	380	10"	16,130	12' 3-1/4"	7' 7"	4' 8-1/4"	27"	13' 11-3/4"
ATC-398E-1g	283	15	63,000	15,030	13,020	20,020	400	54	3	600	380	10"	18,060	12' 10-3/4"	8' 2-1/2"	4' 8-1/4"	34-1/2"	13' 11-3/4"
ATC-423E-1g	301	20	68,800	15,090	13,080	20,080	400	54	3	600	380	10"	18,120	12' 10-3/4"	8' 2-1/2"	4' 8-1/4"	34-1/2"	13' 11-3/4"
ATC-442E-1g	313	25	73,300	15,120	13,110	20,110	400	54	3	600	380	10"	18,150	12' 10-3/4"	8' 2-1/2"	4' 8-1/4"	34-1/2"	13' 11-3/4"
ATC-457E-1g	324	25	71,000	17,020	15,010	22,160	477	65	3	600	380	10"	20,200	13' 6-1/4"	8' 10"	4' 8-1/4"	42"	13' 11-3/4"
ATC-473E-1g	336	30	74,700	17,070	15,060	22,210	477	65	3	600	380	10"	20,250	13' 6-1/4"	8' 10"	4' 8-1/4"	42"	13' 11-3/4"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

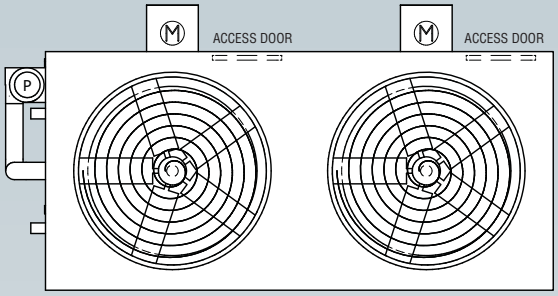
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

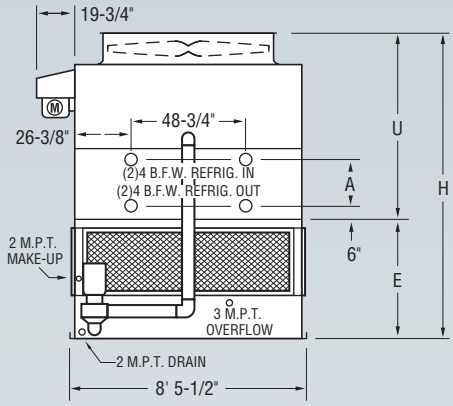
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-486E-1g to 755E-1g





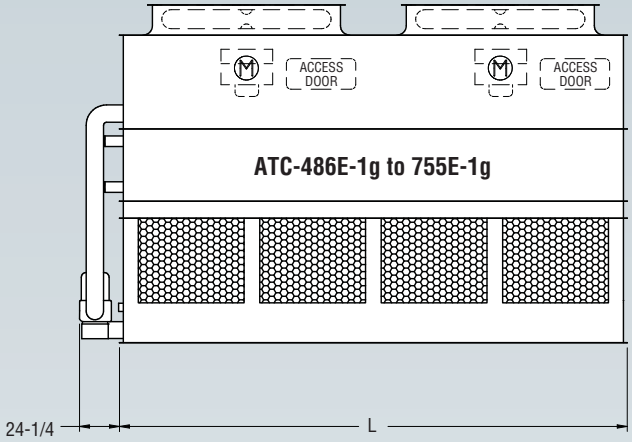


Table 9 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-486E-1g	345	(2) 10	84,800	17,630	14,840	23,930	412	56	5	800	510	12"	21,380	12' 7-1/4"	7' 7"	5' 1/4"	27"	18' 0"
ATC-527E-1g	374	(2) 15	95,300	17,880	15,090	24,180	412	56	5	800	510	12"	21,630	12' 7-1/4"	7' 7"	5' 1/4"	27"	18' 0"
ATC-578E-1g	411	(2) 15	92,500	20,200	17,410	26,690	512	70	5	800	510	12"	24,140	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	18' 0"
ATC-598E-1g	425	(2) 15	89,500	22,660	19,870	29,340	612	83	5	800	510	12"	26,790	13' 10-1/4"	8' 10"	5' 1/4"	42"	18' 0"
ATC-630E-1g	447	(2) 20	97,100	22,780	19,990	29,460	612	83	5	800	510	12"	26,910	13' 10-1/4"	8' 10"	5' 1/4"	42"	18' 0"
ATC-508E-1g	360	(2) 15	104,100	17,540	14,440	24,760	363	50	7-1/2	1050	590	12"	21,790	11' 11-3/4"	6' 11-1/2"	5' 1/4"	19-1/2"	21' 0"
ATC-557E-1g	395	(2) 10	93,800	20,070	16,970	27,520	480	65	7-1/2	1050	590	12"	24,550	12' 7-1/4"	7' 7"	5' 1/4"	27"	21' 0"
ATC-609E-1g	432	(2) 15	101,200	20,320	17,220	27,770	480	65	7-1/2	1050	590	12"	24,800	12' 7-1/4"	7' 7"	5' 1/4"	27"	21' 0"
ATC-666E-1g	473	(2) 15	98,200	23,030	19,930	30,700	596	81	7-1/2	1050	590	12"	27,730	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	21' 0"
ATC-687E-1g	488	(2) 15	95,100	25,880	22,780	33,770	713	97	7-1/2	1050	590	12"	30,800	13' 10-1/4"	8' 10"	5' 1/4"	42"	21' 0"
ATC-703E-1g	499	(2) 20	103,400	23,150	20,050	30,820	596	81	7-1/2	1050	590	12"	27,850	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	21' 0"
ATC-725E-1g	515	(2) 20	100,100	26,000	22,900	33,890	713	97	7-1/2	1050	590	12"	30,920	13' 10-1/4"	8' 10"	5' 1/4"	42"	21' 0"
ATC-755E-1g	536	(2) 25	108,600	26,060	22,960	33,950	713	97	7-1/2	1050	590	12"	30,980	13' 10-1/4"	8' 10"	5' 1/4"	42"	21' 0"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-643E-1g to 950E-1g

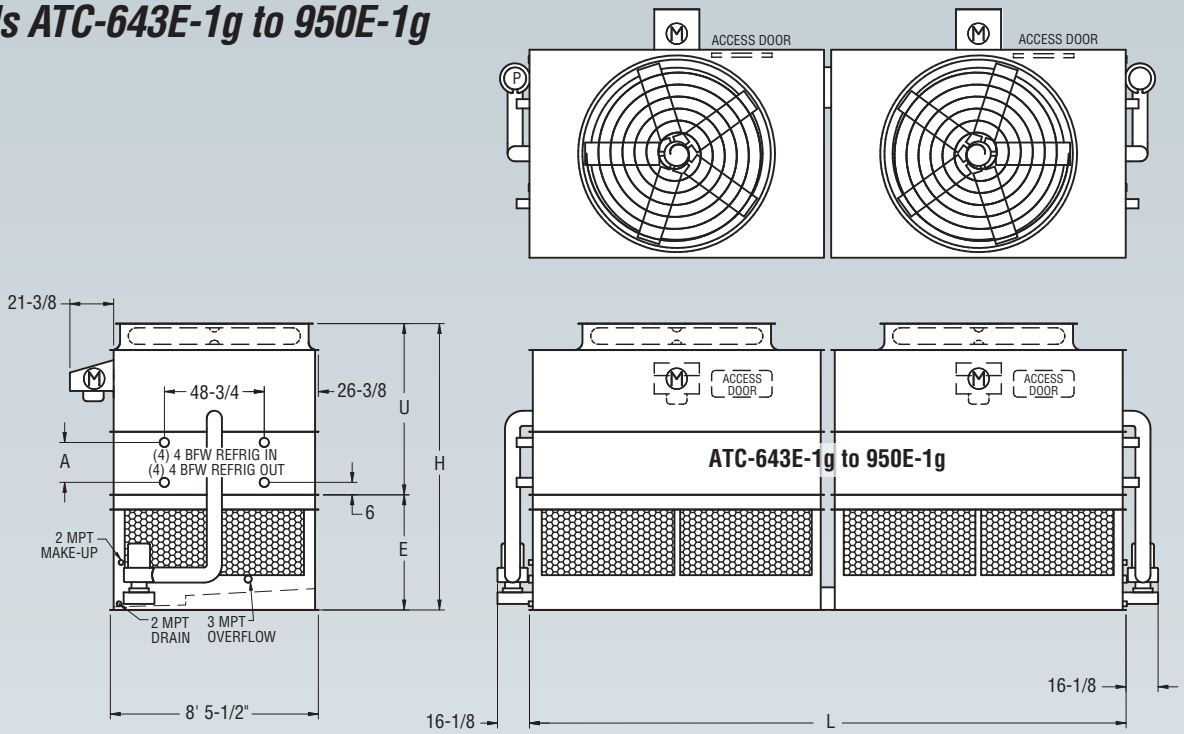


Table 10 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-643E-1g	456	(2) 15	116,500	23,300	9,850	31,640	556	76	(2) 3	1100	660	(2) 10"	28,220	12' 7-1/4"	7' 7"	5' 1/4"	27"	24' 2"
ATC-679E-1g	482	(2) 20	126,300	23,420	9,910	31,760	556	76	(2) 3	1100	660	(2) 10"	28,340	12' 7-1/4"	7' 7"	5' 1/4"	27"	24' 2"
ATC-710E-1g	504	(2) 15	113,000	26,460	11,430	35,060	688	94	(2) 3	1100	660	(2) 10"	31,640	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	24' 2"
ATC-750E-1g	532	(2) 20	122,400	26,580	11,490	35,180	688	94	(2) 3	1100	660	(2) 10"	31,760	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	24' 2"
ATC-782E-1g	555	(2) 25	130,400	26,640	11,520	35,240	688	94	(2) 3	1100	660	(2) 10"	31,820	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	24' 2"
ATC-809E-1g	574	(2) 25	126,300	29,920	13,160	38,760	819	112	(2) 3	1100	660	(2) 10"	35,340	13' 10-1/4"	8' 10"	5' 1/4"	42"	24' 2"
ATC-800E-1g	568	(2) 15	127,400	30,060	13,020	40,040	800	109	(2) 3	1200	760	(2) 10"	36,120	13' 8-3/4"	8' 2-1/2"	5' 6-1/4"	34-1/2"	28' 2"
ATC-828E-1g	588	(2) 15	123,500	33,860	14,920	44,140	954	130	(2) 3	1200	760	(2) 10"	40,220	14' 4-1/4"	8' 10"	5' 6-1/4"	42"	28' 2"
ATC-851E-1g	604	(2) 20	139,000	30,180	13,080	40,160	800	109	(2) 3	1200	760	(2) 10"	36,240	13' 8-3/4"	8' 2-1/2"	5' 6-1/4"	34-1/2"	28' 2"
ATC-887E-1g	630	(2) 25	148,000	30,240	13,110	40,220	800	109	(2) 3	1200	760	(2) 10"	36,300	13' 8-3/4"	8' 2-1/2"	5' 6-1/4"	34-1/2"	28' 2"
ATC-918E-1g	652	(2) 25	143,400	34,040	15,010	44,320	954	130	(2) 3	1200	760	(2) 10"	40,400	14' 4-1/4"	8' 10"	5' 6-1/4"	42"	28' 2"
ATC-950E-1g	674	(2) 30	150,900	34,140	15,060	44,420	954	130	(2) 3	1200	760	(2) 10"	40,500	14' 4-1/4"	8' 10"	5' 6-1/4"	42"	28' 2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

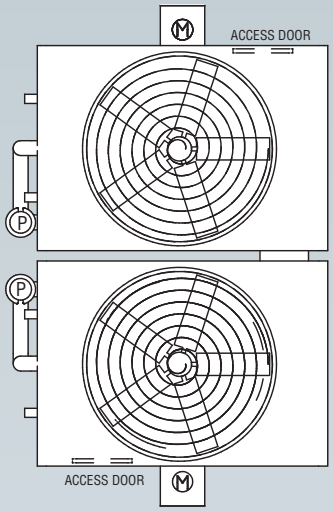
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

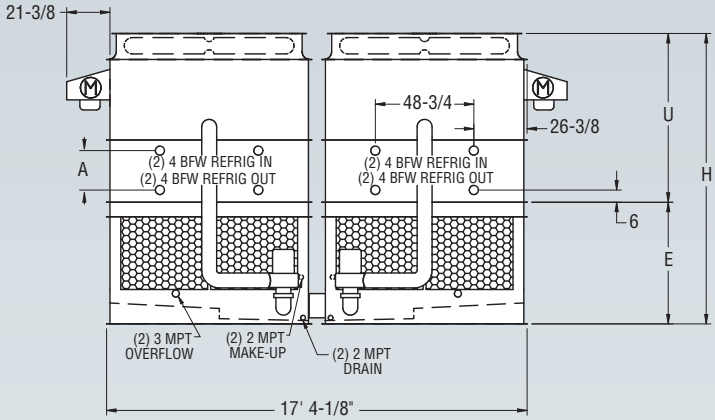
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-639E-1g to 926E-1g





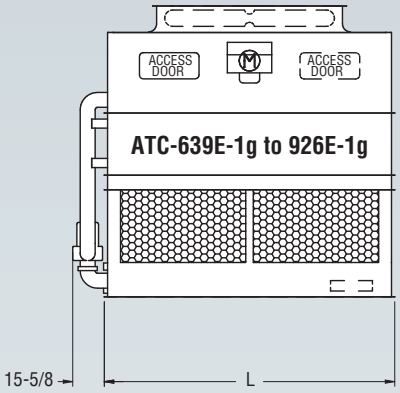


Table 10 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-639E-1g	454	(2) 15	115,900	23,300	9,850	31,640	556	76	(2) 3	1100	660	(2) 10"	28,220	12' 7-1/4"	7' 7"	5' 1/4"	27"	11' 11-3/4"
ATC-675E-1g	479	(2) 20	125,700	23,420	9,910	31,760	556	76	(2) 3	1100	660	(2) 10"	28,340	12' 7-1/4"	7' 7"	5' 1/4"	27"	11' 11-3/4"
ATC-706E-1g	501	(2) 15	112,500	26,460	11,430	35,060	688	94	(2) 3	1100	660	(2) 10"	31,640	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	11' 11-3/4"
ATC-746E-1g	530	(2) 20	121,800	26,580	11,490	35,180	688	94	(2) 3	1100	660	(2) 10"	31,760	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	11' 11-3/4"
ATC-778E-1g	553	(2) 25	129,800	26,640	11,520	35,240	688	94	(2) 3	1100	660	(2) 10"	31,820	13' 2-3/4"	8' 2-1/2"	5' 1/4"	34-1/2"	11' 11-3/4"
ATC-805E-1g	571	(2) 25	125,700	29,920	13,160	38,760	819	112	(2) 3	1100	660	(2) 10"	35,340	13' 10-1/4"	8' 10"	5' 1/4"	42"	11' 11-3/4"
ATC-780E-1g	554	(2) 15	124,800	30,060	13,020	40,040	800	109	(2) 3	1200	760	(2) 10"	36,120	13' 8-3/4"	8' 2-1/2"	5' 6-1/4"	34-1/2"	13' 11-3/4"
ATC-830E-1g	589	(2) 20	136,200	30,180	13,080	40,160	800	109	(2) 3	1200	760	(2) 10"	36,240	13' 8-3/4"	8' 2-1/2"	5' 6-1/4"	34-1/2"	13' 11-3/4"
ATC-865E-1g	614	(2) 25	145,000	30,240	13,110	40,220	800	109	(2) 3	1200	760	(2) 10"	36,300	13' 8-3/4"	8' 2-1/2"	5' 6-1/4"	34-1/2"	13' 11-3/4"
ATC-895E-1g	636	(2) 25	140,500	34,040	15,010	44,320	954	130	(2) 3	1200	760	(2) 10"	40,400	14' 4-1/4"	8' 10"	5' 6-1/4"	42"	13' 11-3/4"
ATC-926E-1g	658	(2) 30	147,900	34,140	15,060	44,420	954	130	(2) 3	1200	760	(2) 10"	40,500	14' 4-1/4"	8' 10"	5' 6-1/4"	42"	13' 11-3/4"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

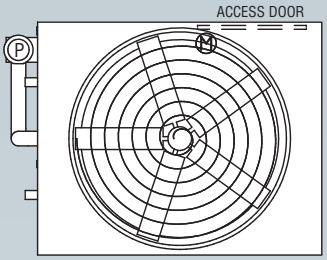
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

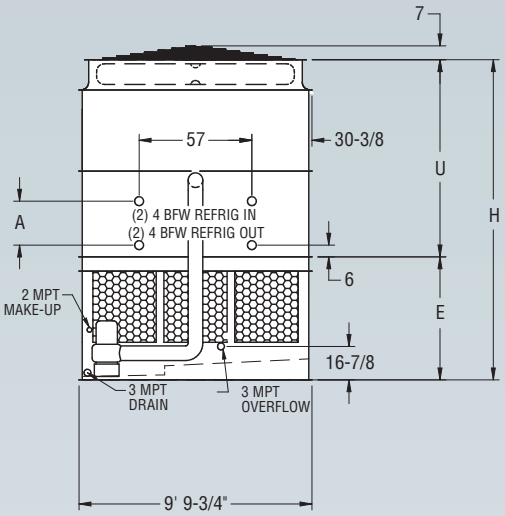
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-XE298E-1g to XC462E-1g





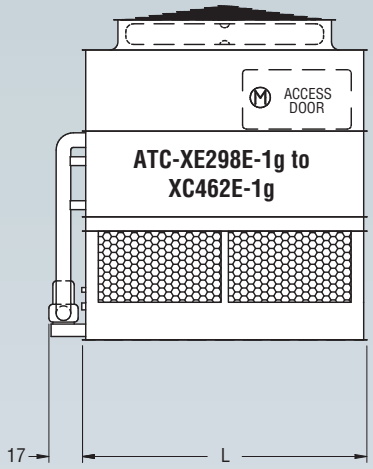


Table 11 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE298E-1g	211	10	55,500	12,390	9,840	18,260	249	34	5	685	420	12"	14,690	13' 5-7/8"	8' 3-5/8"	5' 2-1/4"	22-1/4"	11' 11-3/4"
ATC-XE333E-1g	236	10	54,700	14,270	11,720	20,290	326	44	5	685	420	12"	16,720	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-XC346E-1g	245	20	70,000	12,580	10,030	18,450	249	34	5	685	420	12"	14,880	13' 5-7/8"	8' 3-5/8"	5' 2-1/4"	22-1/4"	11' 11-3/4"
ATC-XE356E-1g	252	10	53,900	16,050	13,500	22,220	404	55	5	685	420	12"	18,650	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-XC360E-1g	255	25	75,400	12,610	10,060	18,480	249	34	5	685	420	12"	14,910	13' 5-7/8"	8' 3-5/8"	5' 2-1/4"	22-1/4"	11' 11-3/4"
ATC-XE368E-1g	261	10	53,100	17,970	15,420	24,290	481	66	5	685	420	12"	20,720	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	11' 11-3/4"
ATC-XE387E-1g	274	15	61,700	16,180	13,630	22,350	404	55	5	685	420	12"	18,780	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-XC388E-1g	275	20	68,900	14,460	11,910	20,480	326	44	5	685	420	12"	16,910	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-XC402E-1g	285	25	74,200	14,490	11,940	20,510	326	44	5	685	420	12"	16,940	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-XC427E-1g	303	25	73,100	16,270	13,720	22,440	404	55	5	685	420	12"	18,870	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-XC443E-1g	314	30	77,700	16,320	13,770	22,490	404	55	5	685	420	12"	18,920	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-XC462E-1g	328	30	76,600	18,240	15,690	24,560	481	66	5	685	420	12"	20,990	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	11' 11-3/4"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

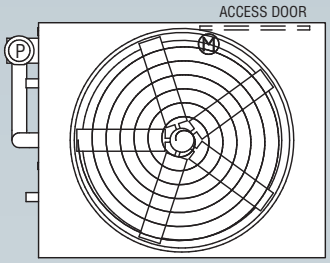
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

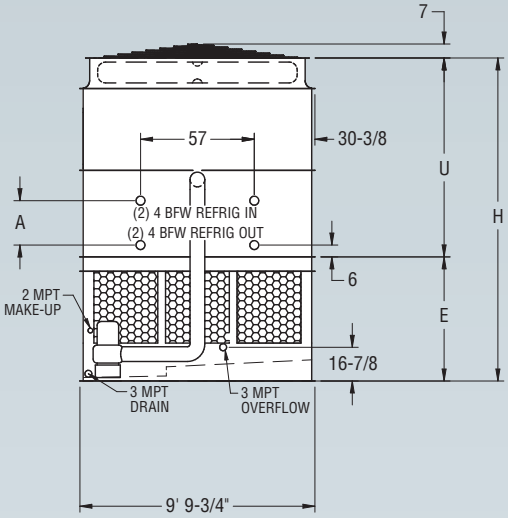
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-XE406E-1g to XC669E-1g





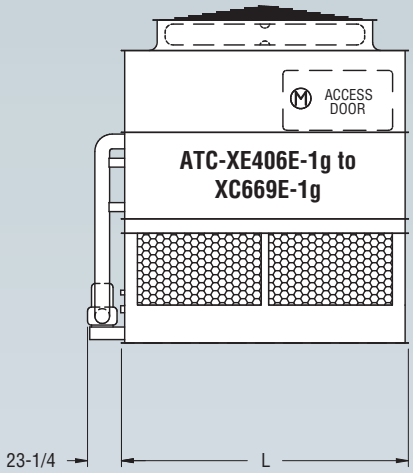


Table 12 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Shipping			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE406E-1g	288	10	74,400	17,630	13,980	26,490	367	50	7-1/2	1030	630	12"	21,240	13' 5-7/8"	8' 3-5/8"	5' 2-1/4"	22-1/4"	18' 0"
ATC-XE448E-1g	318	10	73,300	20,420	16,770	29,510	484	66	7-1/2	1030	630	12"	24,260	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	18' 0"
ATC-XE472E-1g	335	10	72,200	23,130	19,480	32,440	601	82	7-1/2	1030	630	12"	27,190	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	18' 0"
ATC-XE492E-1g	349	15	83,900	20,550	16,900	29,640	484	66	7-1/2	1030	630	12"	24,390	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	18' 0"
ATC-XC504E-1g	357	25	100,900	17,850	14,200	26,710	367	50	7-1/2	1030	630	12"	21,460	13' 5-7/8"	8' 3-5/8"	5' 2-1/4"	22-1/4"	18' 0"
ATC-XE516E-1g	366	15	82,600	23,260	19,610	32,570	601	82	7-1/2	1030	630	12"	27,320	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	18' 0"
ATC-XC525E-1g	372	30	107,200	17,900	14,250	26,760	367	50	7-1/2	1030	630	12"	21,510	13' 5-7/8"	8' 3-5/8"	5' 2-1/4"	22-1/4"	18' 0"
ATC-XE528E-1g	374	20	92,300	20,610	16,960	29,700	484	66	7-1/2	1030	630	12"	24,450	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	18' 0"
ATC-XE542E-1g	384	15	81,400	26,120	22,470	35,650	718	98	7-1/2	1030	630	12"	30,400	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	18' 0"
ATC-XE553E-1g	392	20	90,900	23,320	19,670	32,630	601	82	7-1/2	1030	630	12"	27,380	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	18' 0"
ATC-XC558E-1g	396	25	99,400	20,640	16,990	29,730	484	66	7-1/2	1030	630	12"	24,480	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	18' 0"
ATC-XC579E-1g	411	25	98,000	23,350	19,700	32,660	601	82	7-1/2	1030	630	12"	27,410	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	18' 0"
ATC-XE608E-1g	431	25	96,500	26,210	22,560	35,740	718	98	7-1/2	1030	630	12"	30,490	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	18' 0"
ATC-XC611E-1g	433	40	116,300	20,850	17,200	29,940	484	66	7-1/2	1030	630	12"	24,690	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	18' 0"
ATC-XC641E-1g	455	40	114,600	23,560	19,910	32,870	601	82	7-1/2	1030	630	12"	27,620	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	18' 0"
ATC-XC669E-1g	474	40	112,900	26,420	22,770	35,950	718	98	7-1/2	1030	630	12"	30,700	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	18' 0"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-XE596E-1g to XC925E-1g

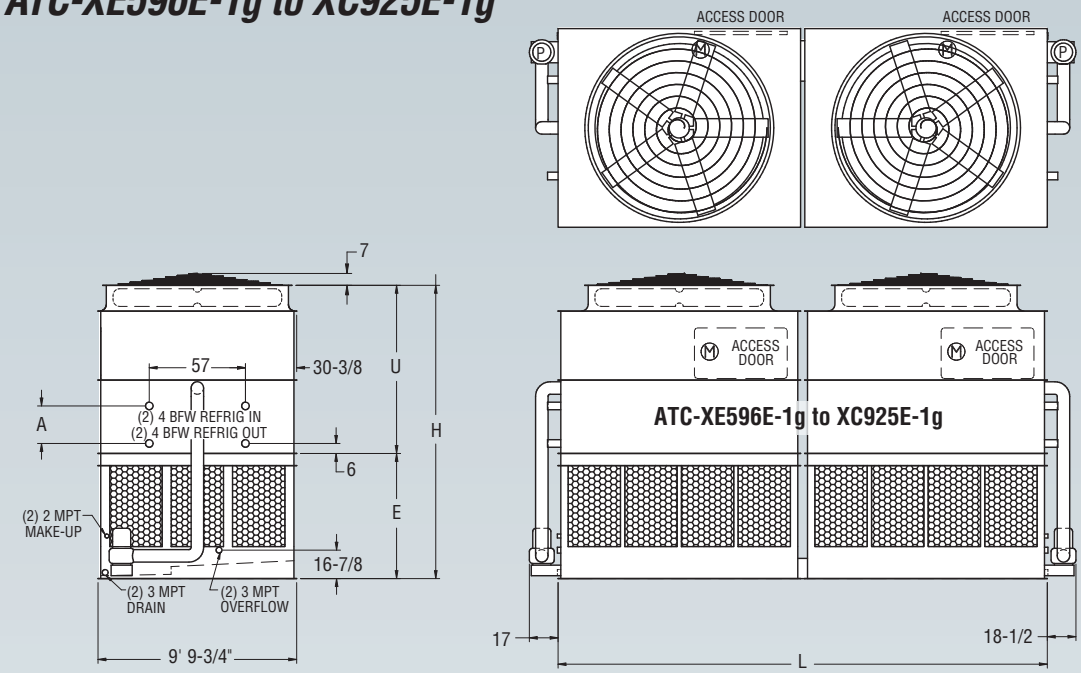


Table 13 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE596E-1g	423	(2) 10	111,000	25,040	9,840	36,780	497	68	(2) 5	1370	840	(2) 12"	29,640	14' 5-7/8"	8' 3-5/8"	6' 2-1/4"	22-1/4"	24' 2"
ATC-XE665E-1g	472	(2) 10	109,400	28,800	11,720	40,840	652	89	(2) 5	1370	840	(2) 12"	33,700	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	24' 2"
ATC-XE709E-1g	503	(2) 10	107,800	32,360	13,500	44,700	807	110	(2) 5	1370	840	(2) 12"	37,560	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	24' 2"
ATC-XC720E-1g	511	(2) 25	150,700	25,480	10,060	37,220	497	68	(2) 5	1370	840	(2) 12"	30,080	14' 5-7/8"	8' 3-5/8"	6' 2-1/4"	22-1/4"	24' 2"
ATC-XE742E-1g	526	(2) 10	106,200	36,200	15,420	48,840	962	131	(2) 5	1370	840	(2) 12"	41,700	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"
ATC-XC775E-1g	550	(2) 20	137,800	29,180	11,910	41,220	652	89	(2) 5	1370	840	(2) 12"	34,080	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	24' 2"
ATC-XC804E-1g	570	(2) 25	148,500	29,240	11,940	41,280	652	89	(2) 5	1370	840	(2) 12"	34,140	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	24' 2"
ATC-XC855E-1g	606	(2) 25	146,300	32,800	13,720	45,140	807	110	(2) 5	1370	840	(2) 12"	38,000	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	24' 2"
ATC-XC884E-1g	627	(2) 30	155,500	32,900	13,770	45,240	807	110	(2) 5	1370	840	(2) 12"	38,100	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	24' 2"
ATC-XC897E-1g	636	(2) 25	144,100	36,640	15,640	49,280	962	131	(2) 5	1370	840	(2) 12"	42,140	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"
ATC-XC925E-1g	656	(2) 30	153,200	36,740	15,690	49,380	962	131	(2) 5	1370	840	(2) 12"	42,240	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-XE812E-1g to XC1340E-1g

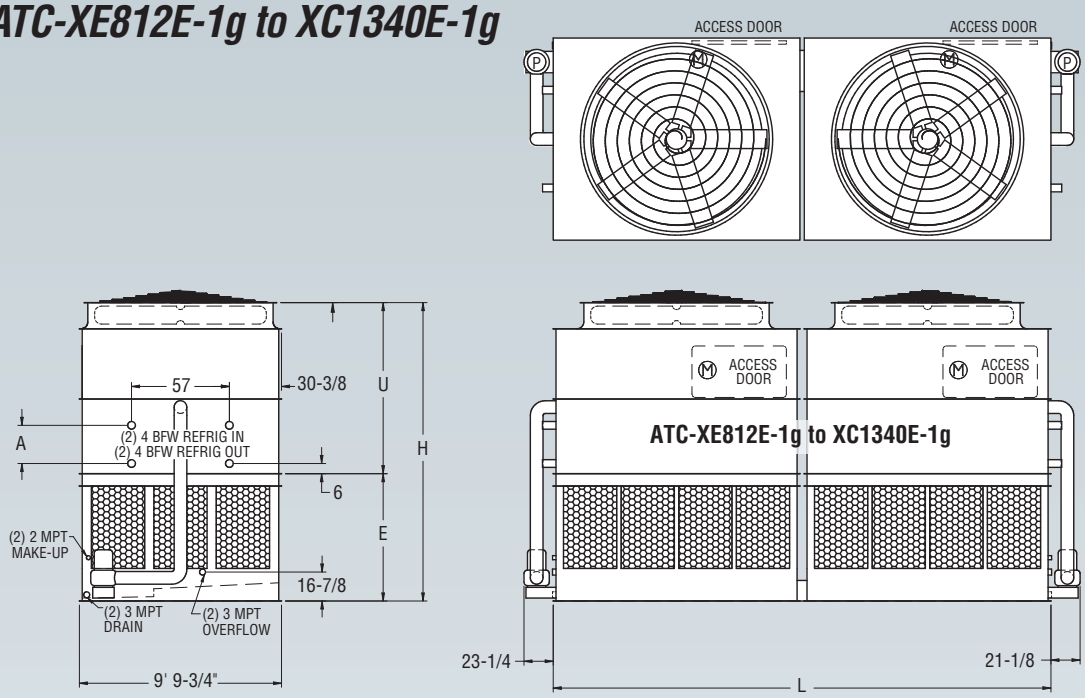


Table 14 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE812E-1g	576	(2)10	148,700	35,260	13,980	52,980	734	100	(2) 7.5	2060	1260	(2)12"	42,480	14' 7/8"	8' 3-5/8"	6' 2-1/4"	22-1/4"	36' 2-1/2"
ATC-XE896E-1g	635	(2)10	146,500	40,840	16,770	59,020	969	132	(2) 7.5	2060	1260	(2)12"	48,520	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-XE947E-1g	672	(2)10	144,400	46,260	19,480	64,880	1203	164	(2) 7.5	2060	1260	(2)12"	54,380	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-XE984E-1g	698	(2)15	167,700	41,100	16,900	59,280	969	132	(2) 7.5	2060	1260	(2)12"	48,780	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-XC1011E-1g	717	(2)25	201,900	35,700	14,200	53,420	734	100	(2) 7.5	2060	1260	(2)12"	42,920	14' 5-7/8"	8' 3-5/8"	6' 2-1/4"	22-1/4"	36' 2-1/2"
ATC-XE1032E-1g	732	(2)15	165,300	46,520	19,610	65,140	1203	164	(2) 7.5	2060	1260	(2)12"	54,640	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-XC1049E-1g	744	(2)30	214,500	35,800	14,250	53,520	734	100	(2) 7.5	2060	1260	(2)12"	43,020	14' 5-7/8"	8' 3-5/8"	6' 2-1/4"	22-1/4"	36' 2-1/2"
ATC-XC1112E-1g	789	(2)25	198,900	41,280	16,990	59,460	969	132	(2) 7.5	2060	1260	(2)12"	48,960	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-XC1153E-1g	818	(2)30	211,300	41,380	17,040	59,560	969	132	(2) 7.5	2060	1260	(2)12"	49,060	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-XE1157E-1g	821	(2)20	179,200	52,360	22,530	71,420	1437	196	(2) 7.5	2060	1260	(2)12"	60,920	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	36' 2-1/2"
ATC-XC1210E-1g	858	(2)30	208,200	46,800	19,750	65,420	1203	164	(2) 7.5	2060	1260	(2)12"	54,920	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-XC1222E-1g	867	(2)40	232,600	41,700	17,200	59,880	969	132	(2) 7.5	2060	1260	(2)12"	49,380	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-XC1264E-1g	896	(2)30	205,100	52,520	22,610	71,580	1437	196	(2) 7.5	2060	1260	(2)12"	61,080	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	36' 2-1/2"
ATC-XC1282E-1g	909	(2)40	229,200	47,120	19,910	65,740	1203	164	(2) 7.5	2060	1260	(2)12"	55,240	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-XC1340E-1g	950	(2)40	225,800	52,840	22,770	71,900	1437	196	(2) 7.5	2060	1260	(2)12"	61,400	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	36' 2-1/2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

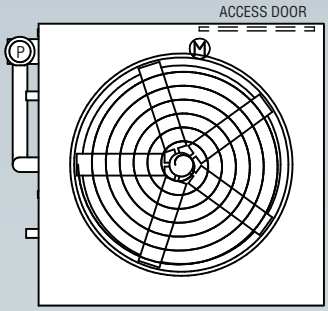
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

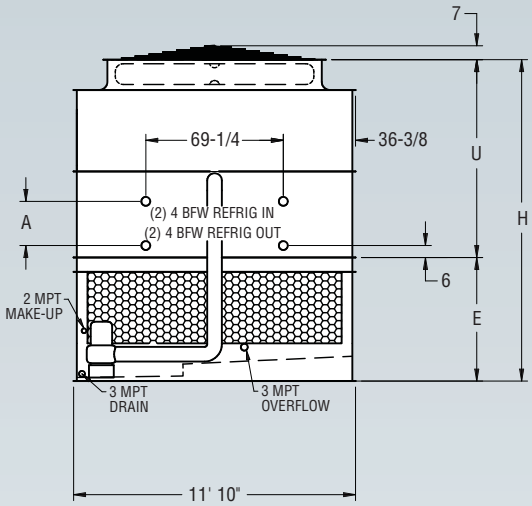
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-428E-1g to 647E-1g





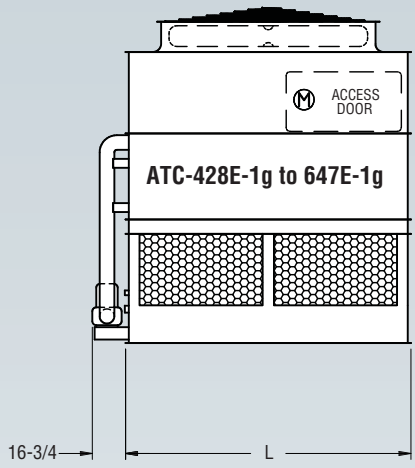


Table 15 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-428E-1g	304	15	73,800	16,560	13,850	23,360	401	55	5	800	490	12"	19,410	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-456E-1g	324	20	81,200	16,620	13,910	23,420	401	55	5	800	490	12"	19,470	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-474E-1g	337	25	86,600	16,650	13,940	23,450	401	55	5	800	490	12"	19,500	14' 2-3/8"	9' 1/8"	5' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-503E-1g	357	20	78,900	18,800	16,090	25,780	497	68	5	800	490	12"	21,830	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-523E-1g	371	25	84,000	18,830	16,120	25,810	497	68	5	800	490	12"	21,860	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-539E-1g	382	30	88,500	18,880	16,170	25,860	497	68	5	800	490	12"	21,910	14' 10-7/8"	9' 8-5/8"	5' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-559E-1g	397	30	85,700	21,240	18,530	28,400	593	81	5	800	490	12"	24,450	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	11' 11-3/4"
ATC-583E-1g	414	40	92,900	21,400	18,690	28,560	593	81	5	800	490	12"	24,610	15' 7-3/8"	10' 5-1/8"	5' 2-1/4"	47-3/4"	11' 11-3/4"
ATC-545E-1g	387	30	101,900	18,940	15,880	26,940	466	64	5	900	570	12"	22,370	14' 8-3/8"	9' 1/8"	5' 8-1/4"	30-3/4"	13' 11-3/4"
ATC-556E-1g	395	20	87,300	21,360	18,300	29,580	578	79	5	900	570	12"	25,010	15' 4-7/8"	9' 8-5/8"	5' 8-1/4"	39-1/4"	13' 11-3/4"
ATC-581E-1g	413	25	94,000	21,390	18,330	29,610	578	79	5	900	570	12"	25,040	15' 4-7/8"	9' 8-5/8"	5' 8-1/4"	39-1/4"	13' 11-3/4"
ATC-601E-1g	427	25	91,100	24,390	21,330	32,820	690	94	5	900	570	12"	28,250	16' 1-3/8"	10' 5-1/8"	5' 8-1/4"	47-3/4"	13' 11-3/4"
ATC-620E-1g	440	30	95,800	24,440	21,380	32,870	690	94	5	900	570	12"	28,300	16' 1-3/8"	10' 5-1/8"	5' 8-1/4"	47-3/4"	13' 11-3/4"
ATC-647E-1g	459	40	103,800	24,600	21,540	33,030	690	94	5	900	570	12"	28,460	16' 1-3/8"	10' 5-1/8"	5' 8-1/4"	47-3/4"	13' 11-3/4"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

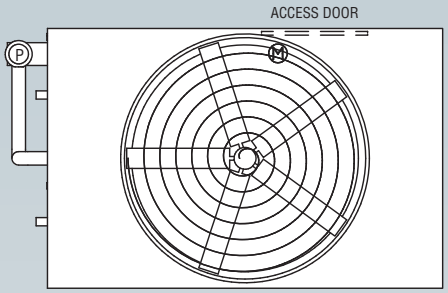
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

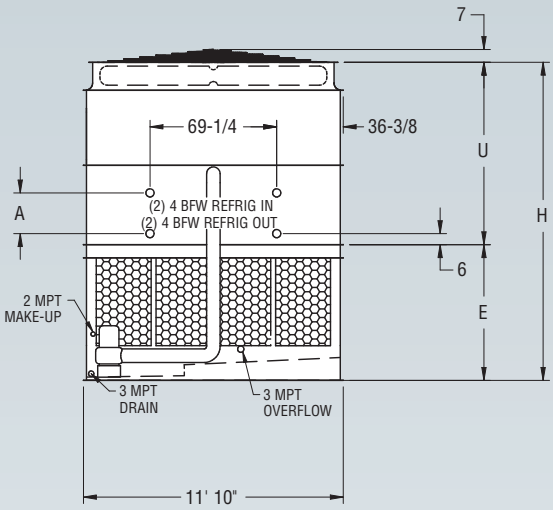
† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-642E-1g to 967E-1g





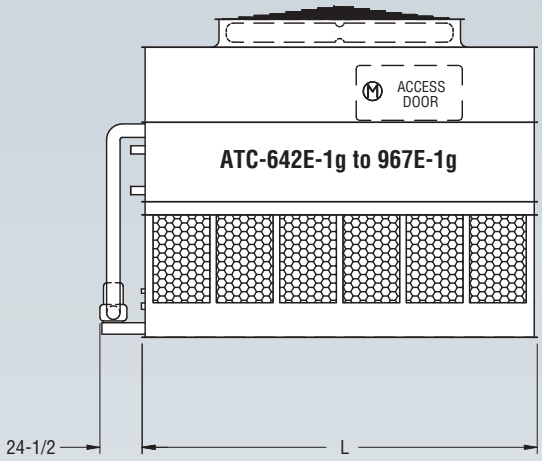


Table 16 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-642E-1g	456	20	110,100	23,690	19,770	33,930	597	81	7-1/2	1200	720	12"	28,060	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	18' 0"
ATC-682E-1g	484	25	118,400	23,720	19,800	33,960	597	81	7-1/2	1200	720	12"	28,090	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	18' 0"
ATC-713E-1g	506	30	126,000	23,770	19,850	34,010	597	81	7-1/2	1200	720	12"	28,140	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	18' 0"
ATC-747E-1g	531	25	114,900	27,020	23,100	37,540	741	101	7-1/2	1200	720	12"	31,670	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	18' 0"
ATC-781E-1g	554	30	122,100	27,070	23,150	37,590	741	101	7-1/2	1200	720	12"	31,720	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	18' 0"
ATC-806E-1g	572	30	118,400	30,460	26,540	41,260	885	121	7-1/2	1200	720	12"	35,390	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	18' 0"
ATC-827E-1g	587	40	132,600	27,230	23,310	37,750	741	101	7-1/2	1200	720	12"	31,880	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	18' 0"
ATC-854E-1g	606	40	128,400	30,620	26,700	41,420	885	121	7-1/2	1200	720	12"	35,550	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	18' 0"
ATC-892E-1g	633	50	136,700	30,630	26,710	41,430	885	121	7-1/2	1200	720	12"	35,560	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	18' 0"
ATC-791E-1g	562	40	147,600	26,350	21,840	37,840	662	90	10	1400	800	14"	31,140	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	20' 0"
ATC-816E-1g	580	30	131,100	29,870	25,360	41,660	822	112	10	1400	800	14"	34,960	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	20' 0"
ATC-842E-1g	598	30	126,900	34,020	29,510	46,120	983	134	10	1400	800	14"	39,420	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	20' 0"
ATC-869E-1g	617	40	143,200	30,030	25,520	41,820	822	112	10	1400	800	14"	35,120	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	20' 0"
ATC-907E-1g	644	50	152,400	30,040	25,530	41,830	822	112	10	1400	800	14"	35,130	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	20' 0"
ATC-935E-1g	664	50	147,600	34,190	29,680	46,290	983	134	10	1400	800	14"	39,590	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	20' 0"
ATC-967E-1g	687	60	155,300	34,390	29,880	46,490	983	134	10	1400	800	14"	39,790	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	20' 0"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-858E-1g to 1294E-1g

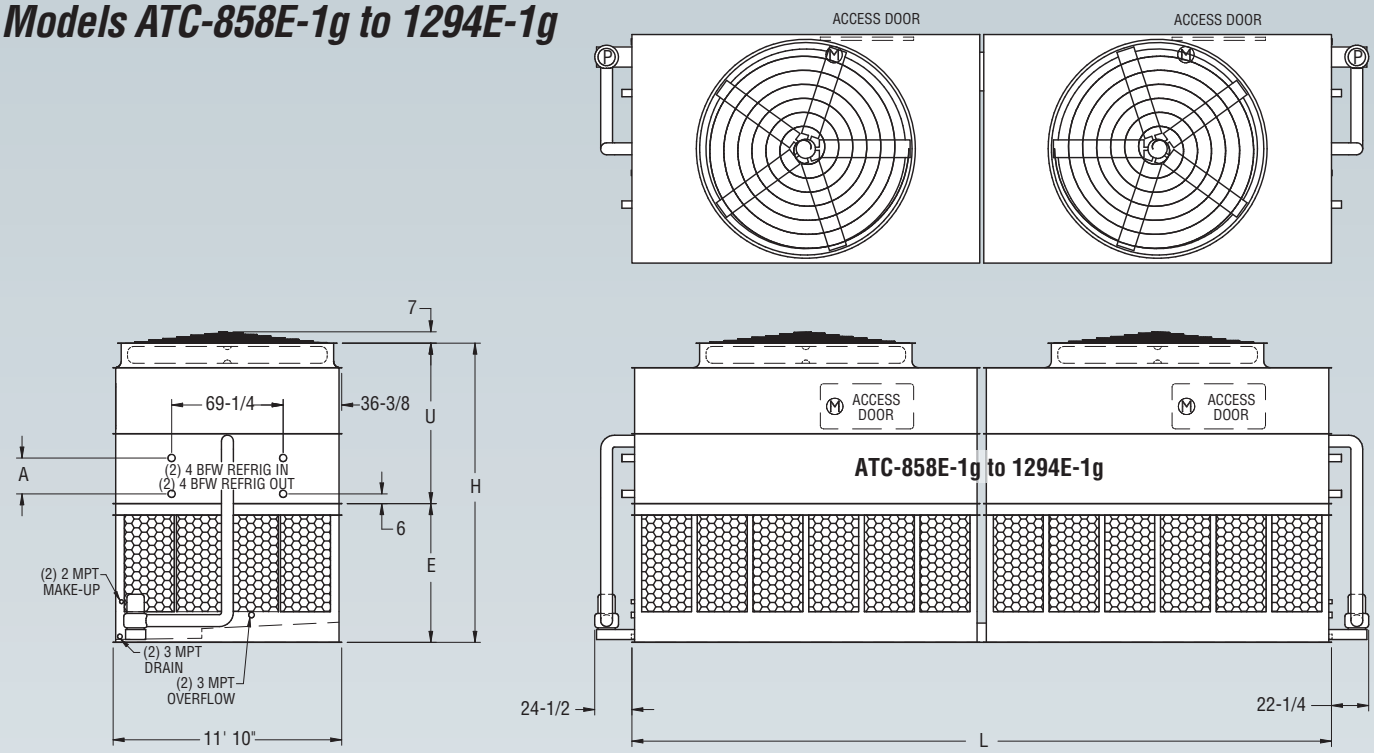


Table 17 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-858E-1g	608	(2)15	147,600	33,120	13,850	46,720	803	109	(2) 5	1600	980	(2)12"	38,820	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	24' 2"
ATC-913E-1g	648	(2)20	162,500	33,240	13,910	46,840	803	109	(2) 5	1600	980	(2)12"	38,940	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	24' 2""
ATC-949E-1g	674	(2)25	173,200	33,300	13,940	46,900	803	109	(2) 5	1600	980	(2)12"	39,000	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	24' 2"
ATC-980E-1g	695	(2)15	138,900	42,200	18,390	56,520	1185	161	(2) 5	1600	980	(2)12"	48,620	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"
ATC-1007E-1g	714	(2)20	157,800	37,600	16,090	51,560	994	135	(2) 5	1600	980	(2)12"	43,660	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	24' 2"
ATC-1047E-1g	743	(2)25	168,000	37,660	16,120	51,620	994	135	(2) 5	1600	980	(2)12"	43,720	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	24' 2"
ATC-1078E-1g	765	(2)30	177,000	37,760	16,170	51,720	994	135	(2) 5	1600	980	(2)12"	43,820	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	24' 2"
ATC-1085E-1g	770	(2)25	162,700	42,380	18,480	56,700	1185	161	(2) 5	1600	980	(2)12"	48,800	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"
ATC-1118E-1g	793	(2)30	171,500	42,480	18,530	56,800	1185	161	(2) 5	1600	980	(2)12"	48,900	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"
ATC-1167E-1g	828	(2)40	185,700	42,800	18,690	57,120	1185	161	(2) 5	1600	980	(2)12"	49,220	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	24' 2"
ATC-1164E-1g	826	(2)25	187,900	42,780	18,330	59,220	1157	158	(2) 5	1800	1140	(2)12"	50,080	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	28' 2"
ATC-1204E-1g	854	(2)25	182,100	48,780	21,330	65,640	1380	188	(2) 5	1800	1140	(2)12"	56,500	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	28' 2"
ATC-1240E-1g	880	(2)30	191,600	48,880	21,380	65,740	1380	188	(2) 5	1800	1140	(2)12"	56,600	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	28' 2"
ATC-1294E-1g	918	(2)40	207,600	49,200	21,540	66,060	1380	188	(2) 5	1800	1140	(2)12"	56,920	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	28' 2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-1192E-1g to 1925E-1g

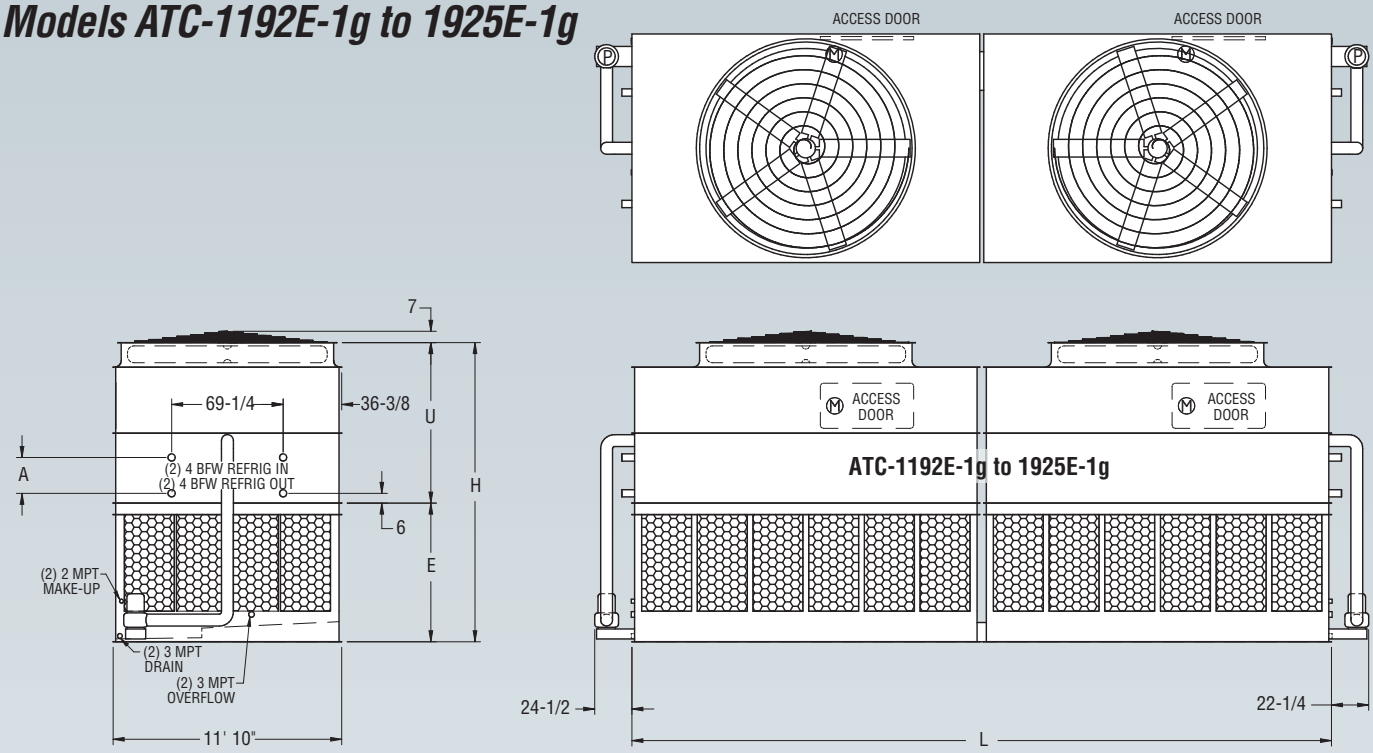


Table 17 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-1192E-1g	845	(2)30	259,500	40,680	16,420	60,600	904	123	(2) 7.5	2400	1440	(2)12"	48,860	15' 5-7/8"	8' 3-5/8"	7' 2-1/4"	22-1/4"	36' 2-1/2"
ATC-1284E-1g	911	(2)20	220,100	47,380	19,770	67,860	1193	163	(2) 7.5	2400	1440	(2)12"	56,120	16' 2-3/8"	9' 1/8"	7' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-1365E-1g	969	(2)25	236,700	47,440	19,800	67,920	1193	163	(2) 7.5	2400	1440	(2)12"	56,180	16' 2-3/8"	9' 1/8"	7' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-1426E-1g	1012	(2)30	252,000	47,540	19,850	68,020	1193	163	(2) 7.5	2400	1440	(2)12"	56,280	16' 2-3/8"	9' 1/8"	7' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-1496E-1g	1061	(2)25	229,800	54,040	23,100	75,080	1482	202	(2) 7.5	2400	1440	(2)12"	63,340	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-1562E-1g	1109	(2)30	244,200	54,140	23,150	75,180	1482	202	(2) 7.5	2400	1440	(2)12"	63,440	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-1655E-1g	1175	(2)40	265,100	54,460	23,310	75,500	1482	202	(2) 7.5	2400	1440	(2)12"	63,760	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-1709E-1g	1213	(2)40	256,800	61,240	26,700	82,840	1771	241	(2) 7.5	2400	1440	(2)12"	71,100	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	36' 2-1/2"
ATC-1784E-1g	1266	(2)50	273,400	61,260	26,710	82,860	1771	241	(2) 7.5	2400	1440	(2)12"	71,120	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	36' 2-1/2"
ATC-1625E-1g	1153	(2)30	262,100	59,740	25,360	83,320	1645	224	(2) 10	2800	1600	(2)14"	69,920	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	40' 2-1/2"
ATC-1729E-1g	1227	(2)40	286,400	60,060	25,520	83,640	1645	224	(2) 10	2800	1600	(2)14"	70,240	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	40' 2-1/2"
ATC-1805E-1g	1281	(2)50	304,800	60,080	25,530	83,660	1645	224	(2) 10	2800	1600	(2)14"	70,260	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	40' 2-1/2"
ATC-1861E-1g	1321	(2)50	295,100	68,380	29,680	92,580	1966	268	(2) 10	2800	1600	(2)14"	79,180	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	40' 2-1/2"
ATC-1925E-1g	1367	(2)60	310,600	68,780	29,880	92,980	1966	268	(2) 10	2800	1600	(2)14"	79,580	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	40' 2-1/2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-857E-1g to 1293E-1g

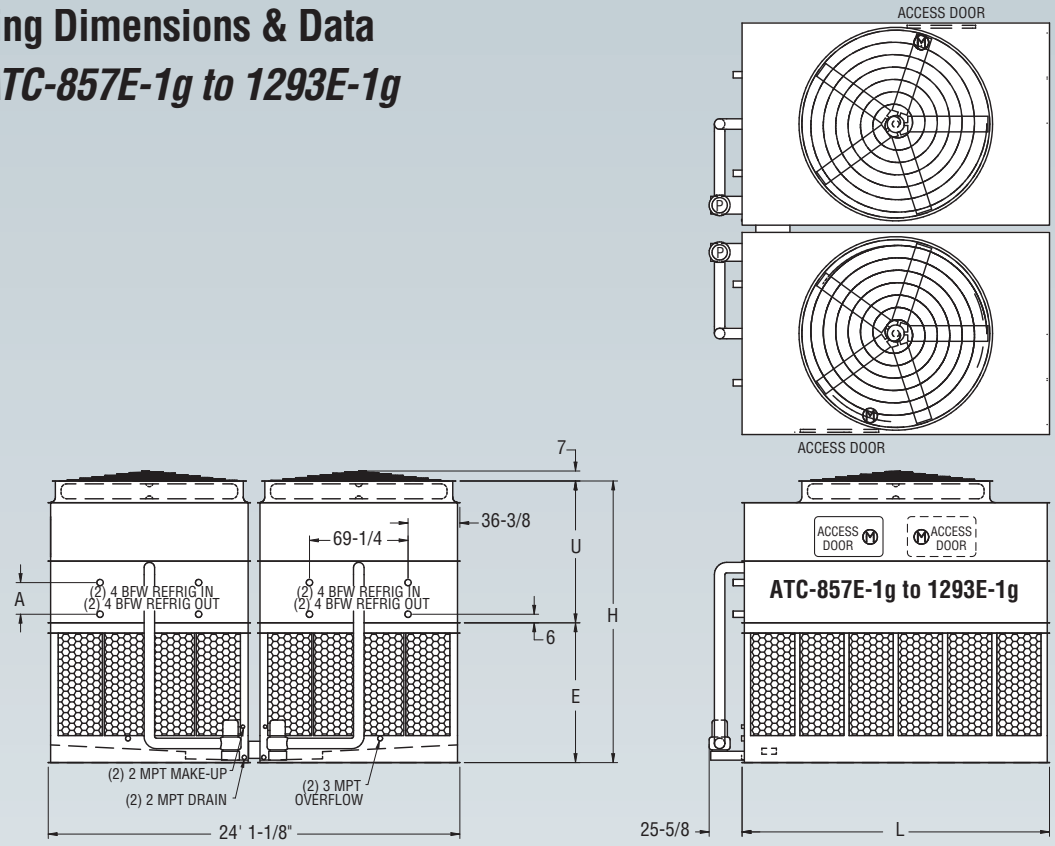


Table 18 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-857E-1g	608	(2)15	147,600	33,120	13,850	46,720	803	109	(2) 5	1600	980	(2) 12"	38,820	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-912E-1g	648	(2)20	162,500	33,240	13,910	46,840	803	109	(2) 5	1600	980	(2) 12"	38,940	15' 2-3/8"	9' 1/8"	6' 2-1/4"	30-3/4"	11' 11-3/4"
ATC-979E-1g	695	(2)15	138,900	42,200	18,390	56,520	1185	161	(2) 5	1600	980	(2) 12"	48,620	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	11' 11-3/4"
ATC-1006E-1g	714	(2)20	157,800	37,600	16,090	51,560	994	135	(2) 5	1600	980	(2) 12"	43,660	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-1046E-1g	743	(2)25	168,000	37,660	16,120	51,620	994	135	(2) 5	1600	980	(2) 12"	43,720	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-1077E-1g	765	(2)30	177,000	37,760	16,170	51,720	994	135	(2) 5	1600	980	(2) 12"	43,820	15' 10-7/8"	9' 8-5/8"	6' 2-1/4"	39-1/4"	11' 11-3/4"
ATC-1117E-1g	793	(2)30	171,500	42,480	18,530	56,800	1185	161	(2) 5	1600	980	(2) 12"	48,900	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	11' 11-3/4"
ATC-1166E-1g	828	(2)40	185,700	42,800	18,690	57,120	1185	161	(2) 5	1600	980	(2) 12"	49,220	16' 7-3/8"	10' 5-1/8"	6' 2-1/4"	47-3/4"	11' 11-3/4"
ATC-1163E-1g	826	(2)25	187,900	42,780	18,330	59,220	1157	158	(2) 5	1800	1140	(2) 12"	50,080	16' 10-7/8"	9' 8-5/8"	7' 2-1/4"	39-1/4"	13' 11-3/4"
ATC-1203E-1g	854	(2)25	182,100	48,780	21,330	65,640	1380	188	(2) 5	1800	1140	(2) 12"	56,500	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	13' 11-3/4"
ATC-1239E-1g	880	(2)30	191,600	48,880	21,380	65,740	1380	188	(2) 5	1800	1140	(2) 12"	56,600	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	13' 11-3/4"
ATC-1293E-1g	918	(2)40	207,600	49,200	21,540	66,060	1380	188	(2) 5	1800	1140	(2) 12"	56,920	17' 7-3/8"	10' 5-1/8"	7' 2-1/4"	47-3/4"	13' 11-3/4"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-1191E-1g to 1915E-1g

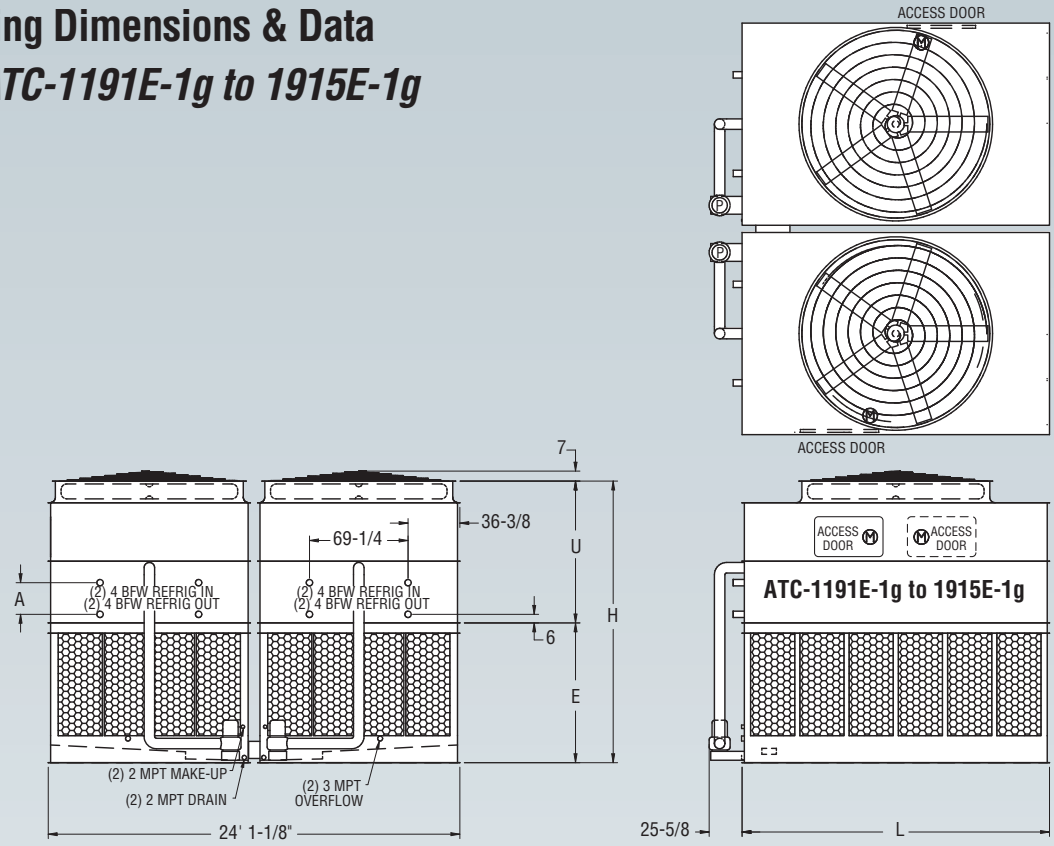


Table 18 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-1191E-1g	845	(2)30	259,500	40,680	16,420	60,600	904	123	(2) 7.5	2400	1440	(2) 12"	48,860	16' 5-7/8"	8' 3-5/8"	8' 2-1/4"	22-1/4"	18' 0"
ATC-1283E-1g	911	(2)20	220,100	47,380	19,770	67,860	1193	163	(2) 7.5	2400	1440	(2) 12"	56,120	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	18' 0"
ATC-1364E-1g	969	(2)25	236,700	47,440	19,800	67,920	1193	163	(2) 7.5	2400	1440	(2) 12"	56,180	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	18' 0"
ATC-1425E-1g	1012	(2)30	252,000	47,540	19,850	68,020	1193	163	(2) 7.5	2400	1440	(2) 12"	56,280	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	18' 0"
ATC-1495E-1g	1061	(2)25	229,800	54,040	23,100	75,080	1482	202	(2) 7.5	2400	1440	(2) 12"	63,340	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	18' 0"
ATC-1561E-1g	1109	(2)30	244,200	54,140	23,150	75,180	1482	202	(2) 7.5	2400	1440	(2) 12"	63,440	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	18' 0"
ATC-1654E-1g	1175	(2)40	265,100	54,460	23,310	75,500	1482	202	(2) 7.5	2400	1440	(2) 12"	63,760	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	18' 0"
ATC-1708E-1g	1213	(2)40	256,800	61,240	26,700	82,840	1771	241	(2) 7.5	2400	1440	(2) 12"	71,100	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	18' 0"
ATC-1783E-1g	1266	(2)50	273,400	61,260	26,710	82,860	1771	241	(2) 7.5	2400	1440	(2) 12"	71,120	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	18' 0"
ATC-1616E-1g	1148	(2)30	260,800	59,740	25,360	83,320	1645	224	(2) 10	2800	1600	(2) 14"	69,920	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	20' 0"
ATC-1720E-1g	1221	(2)40	284,900	60,060	25,520	83,640	1645	224	(2) 10	2800	1600	(2) 14"	70,240	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	20' 0"
ATC-1795E-1g	1275	(2)50	303,300	60,080	25,530	83,660	1645	224	(2) 10	2800	1600	(2) 14"	70,260	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	20' 0"
ATC-1851E-1g	1315	(2)50	293,600	68,380	29,680	92,580	1966	268	(2) 10	2800	1600	(2) 14"	79,180	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	20' 0"
ATC-1915E-1g	1360	(2)60	309,100	68,780	29,880	92,980	1966	268	(2) 10	2800	1600	(2) 14"	79,580	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	20' 0"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Engineering Dimensions & Data

Models ATC-1879E-1g to 3714E-1g

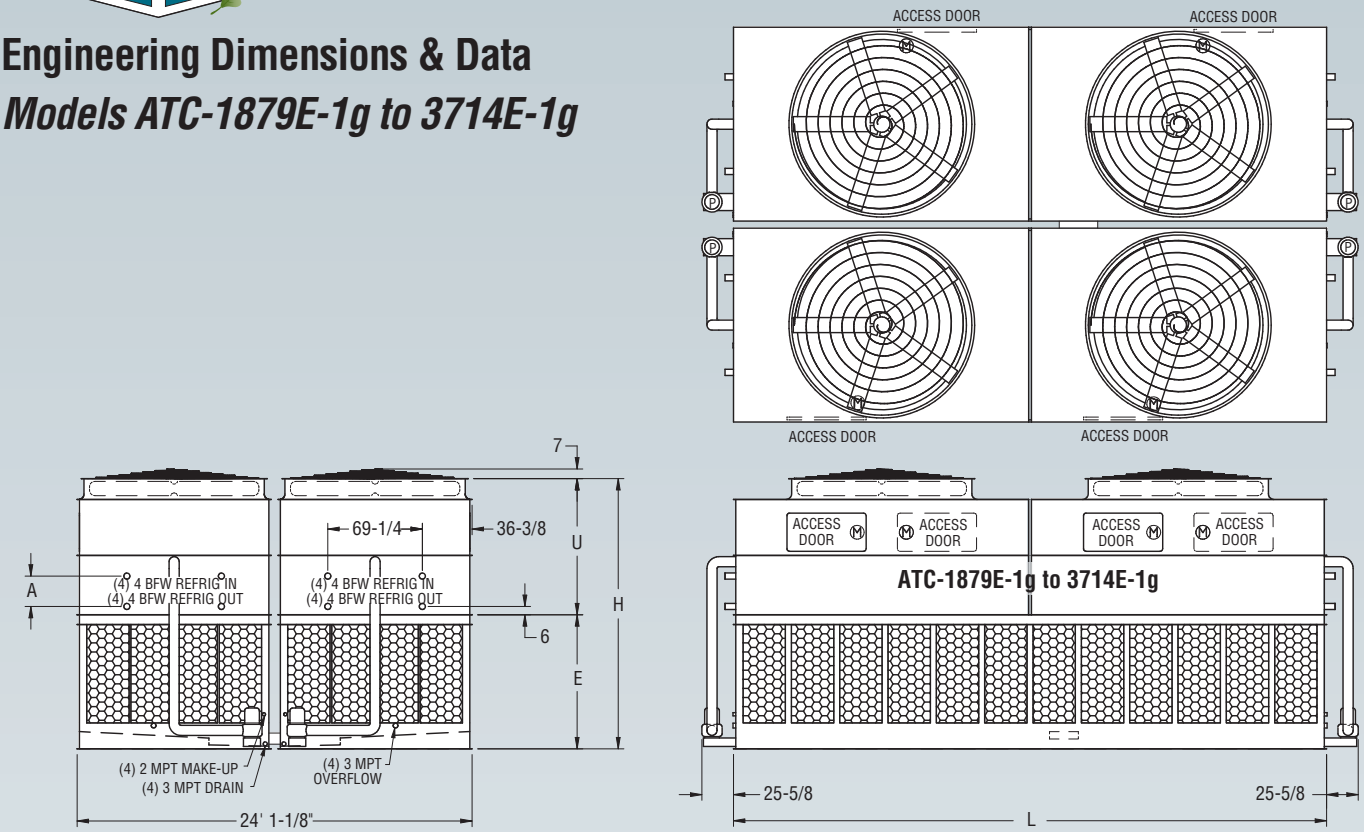


Table 19 Engineering Data

Model No.	R-717 Tons*	Fans		Weights†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-1879E-1g	1334	(4)15	286,600	75,300	16,030	103,240	1988	271	(4) 5	3200	1960	(4)12"	87,180	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	24' 2"
ATC-2002E-1g	1421	(4)20	315,600	75,540	16,090	103,480	1988	271	(4) 5	3200	1960	(4)12"	87,420	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	24' 2"
ATC-2082E-1g	1478	(4)25	336,000	75,660	16,120	103,600	1988	271	(4) 5	3200	1960	(4)12"	87,540	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	24' 2"
ATC-2158E-1g	1532	(4)25	325,500	85,100	18,480	113,760	2370	323	(4) 5	3200	1960	(4)12"	97,700	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	24' 2"
ATC-2223E-1g	1578	(4)30	342,900	85,300	18,530	113,960	2370	323	(4) 5	3200	1960	(4)12"	97,900	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	24'2"
ATC-2320E-1g	1647	(4)40	371,400	85,940	18,690	114,600	2370	323	(4) 5	3200	1960	(4)12"	98,540	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	24' 2"
ATC-2256E-1g	1602	(4)25	370,200	85,760	18,330	118,780	2313	315	(4) 5	3600	2280	(4)12"	100,220	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	28' 2"
ATC-2324E-1g	1650	(4)30	389,500	85,960	18,380	118,980	2313	315	(4) 5	3600	2280	(4)12"	100,420	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	28' 2"
ATC-2404E-1g	1707	(4)30	377,500	97,960	21,380	131,820	2761	376	(4) 5	3600	2280	(4)12"	113,260	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	28' 2"
ATC-2509E-1g	1781	(4)40	408,900	98,600	21,540	132,460	2761	376	(4) 5	3600	2280	(4)12"	113,900	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	28' 2"
ATC-2490E-1g	1768	(4)20	433,700	95,360	19,770	136,520	2386	325	(4) 7.5	4800	2880	(4)12"	112,740	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-2647E-1g	1879	(4)25	466,400	95,480	19,800	136,640	2386	325	(4) 7.5	4800	2880	(4)12"	112,860	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-2765E-1g	1963	(4)30	496,500	95,680	19,850	136,840	2386	325	(4) 7.5	4800	2880	(4)12"	113,060	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	36' 2-1/2"
ATC-2900E-1g	2059	(4)25	452,600	108,680	23,100	150,960	2964	404	(4) 7.5	4800	2880	(4)12"	127,180	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-3029E-1g	2151	(4)30	481,000	108,880	23,150	151,160	2964	404	(4) 7.5	4800	2880	(4)12"	127,380	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-3210E-1g	2279	(4)40	522,300	109,520	23,310	151,800	2964	404	(4) 7.5	4800	2880	(4)12"	128,020	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	36' 2-1/2"
ATC-3313E-1g	2352	(4)40	506,000	123,080	26,700	166,480	3542	483	(4) 7.5	4800	2880	(4)12"	142,700	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	36' 2-1/2"
ATC-3459E-1g	2456	(4)50	538,700	123,120	26,710	166,520	3542	483	(4) 7.5	4800	2880	(4)12"	142,740	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	36' 2-1/2"
ATC-2855E-1g	2027	(4)30	529,900	104,860	21,680	151,000	2647	361	(4) 10	5600	3200	(4)14"	123,900	17' 2-3/8"	9' 1/8"	8' 2-1/4"	30-3/4"	40' 2-1/2"
ATC-3232E-1g	2295	(4)30	497,500	136,180	29,510	184,760	3932	536	(4) 10	5600	3200	(4)14"	157,660	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	40' 2-1/2"
ATC-3336E-1g	2368	(4)40	561,300	120,220	25,520	167,560	3290	448	(4) 10	5600	3200	(4)14"	140,460	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	40' 2-1/2"
ATC-3482E-1g	2472	(4)50	597,400	120,260	25,530	167,600	3290	448	(4) 10	5600	3200	(4)14"	140,500	17' 10-7/8"	9' 8-5/8"	8' 2-1/4"	39-1/4"	40' 2-1/2"
ATC-3591E-1g	2549	(4)50	578,400	136,860	29,680	185,440	3932	536	(4) 10	5600	3200	(4)14"	158,340	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	40' 2-1/2"
ATC-3714E-1g	2637	(4)60	608,900	137,660	29,880	186,240	3932	536	(4) 10	5600	3200	(4)14"	159,140	18' 7-3/8"	10' 5-1/8"	8' 2-1/4"	47-3/4"	40' 2-1/2"

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is 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.)

† Heaviest section is the coil section. **When 5.12g seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

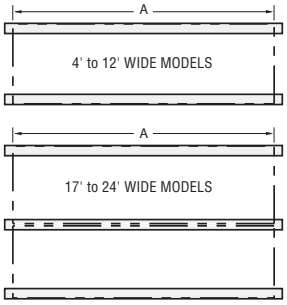
ATC-E Steel Support

EVAPCO ATC-E condensers are designed to be supported with structural "I" beams located under the outer flanges and running the entire length of the unit. Mounting holes, 3/4" in diameter are located in the bottom channels of the pan section to provide for bolting to the structural steel. (Refer to certified drawings from the factory for bolt hole locations.)

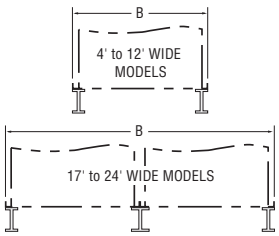
Beams should be level to within 1/8" in 6' before setting the unit in place. Do not level the unit by shimming between it and the "I" beams as this will not provide proper longitudinal support.

NOTE: Consult IBC 2006 for required steel support layout and structural design.

Plan Views



End Elevations

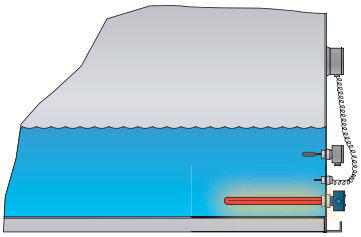


Steel Dimensions		
4' Wide Models	**A**	**B**
ATC-50E-1g to 165E-1g	5' 11-7/8"	4' 1/4"
90E-1g to 120E-1g	8' 11-1/2"	4' 1/4"
135E-1g to 165E-1g	11' 11-3/4"	4' 1/4"
8-1/2' Wide Models	**A**	**B**
ATC-170E-1g to 247E-1g	8' 5-1/2"	7' 5-7/8"
218E-1g to 305E-1g	8' 11-1/2"	8' 5-1/2"
246E-1g to 369E-1g	10' 5-1/2"	8' 5-1/2"
358E-1g to 409E-1g	11' 11-3/4"	8' 5-1/2"
385E-1g to 473E-1g	13' 11-3/4"	8' 5-1/2"
486E-1g to 630E-1g	18'	8' 5-1/2"
666E-1g to 755E-1g	21'	8' 5-1/2"
10' Wide Models	**A**	**B**
ATC-XE298E-1g to XC462E-1g	11' 11-3/4"	9' 9-3/4"
XE406E-1g to XC669E-1g	18'	9' 9-3/4"
XE596E-1g to XC925E-1g	24' 2"	9' 9-3/4"
XE812E-1g to XC1340E-1g	36' 2-1/2"	9' 9-3/4"
17' Wide Models	**A**	**B**
ATC-639E-1g to 805E-1g	11' 11-3/4"	17' 4-1/8"
780E-1g to 926E-1g	13' 11-3/4"	17' 4-1/8"
12' Wide Models	**A**	**B**
ATC-428E-1g to 583E-1g	11' 11-3/4"	11' 10"
545E-1g to 647E-1g	13' 11-3/4"	11' 10"
642E-1g to 892E-1g	18'	11' 10"
791E-1g to 967E-1g	20'	11' 10"
858E-1g to 1167E-1g	24' 2"	11' 10"
1164E-1g to 1294E-1g	28' 2"	11' 10"
1192E-1g to 1784E-1g	36' 2-1/2"	11' 10"
1625E-1g to 1925E-1g	40' 2-1/2"	11' 10"
24' Wide Models	**A**	**B**
ATC-857E-1g to 1166E-1g	11' 11-3/4"	24' 1-1/8"
1163E-1g to 1293E-1g	13' 11-3/4"	24' 1-1/8"
1191E-1g to 1783E-1g	18'	24' 1-1/8"
1616E-1g to 1915E-1g	20'	24' 1-1/8"
1879E-1g to 2320E-1g	24' 2"	24' 1-1/8"
2256E-1g to 2509E-1g	28' 2"	24' 1-1/8"
2490E-1g to 3459E-1g	36' 2-1/2"	24' 1-1/8"
2855E-1g to 3714E-1g	40' 2-1/2"	24' 1-1/8"

Optional Equipment

Electric Heaters

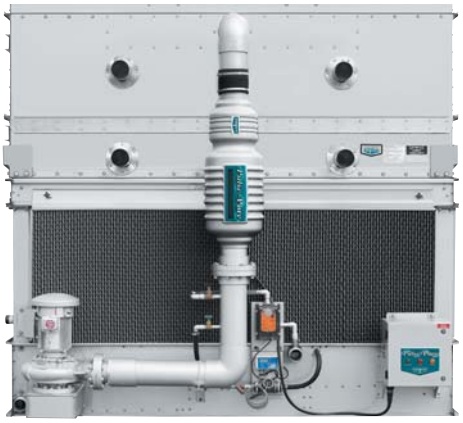
Electric immersion heaters are available factory installed in the basin of the condenser. They are sized to maintain a +40° F pan water temperature with the fans off and an ambient air temperature of 0°F, -20°F or -40°F. They are furnished with a thermostat to cycle the heater on when required and a low water protection device to prevent the heater elements 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 not included as standard.



Heater Sizes (kW)			
Models	**0°F**	**-20°F**	**-40°F**
ATC-50E-1g to 165E-1g	3	4	5
90E-1g to 120E-1g	4	5	7
135E-1g to 165E-1g	5	7	9
170E-1g to 247E-1g	6	8	12
218E-1g to 305E-1g	7	10	15
246E-1g to 369E-1g	8	12	15
358E-1g to 409E-1g	(2) 4	(2) 7	(2) 9
385E-1g to 473E-1g	(2) 5	(2) 7	(2) 10
486E-1g to 630E-1g	(2) 6	(2) 9	(2) 12
666E-1g to 755E-1g	(2) 7	(2) 12	(2) 15
639E-1g to 805E-1g	(4) 4	(4) 7	(4) 9
780E-1g to 926E-1g	(4) 5	(4) 7	(4) 10
XE298E-1g to XC462E-1g	(2) 5	(2) 8	(2) 10
XE406E-1g to XC669E-1g	(2) 7	(2) 12	(2) 15
XE596E-1g to XC925E-1g	(4) 5	(4) 8	(4) 10
XE812E-1g to XC1340E-1g	(4) 7	(4) 12	(4) 15
428E-1g to 583E-1g	(2) 6	(2) 9	(2) 12
545E-1g to 647E-1g	(2) 7	(2) 10	(2) 15
642E-1g to 892E-1g	(2) 9	(2) 15	(2) 18
791E-1g to 967E-1g	(2) 10	(2) 15	(3) 15
858E-1g to 1167E-1g	(4) 6	(4) 9	(4) 12
1164E-1g to 1294E-1g	(4) 7	(4) 10	(4) 15
1192E-1g to 1784E-1g	(4) 9	(4) 15	(4) 18
1625E-1g to 1925E-1g	(4) 10	(4) 15	(6) 15
857E-1g to 1166E-1g	(4) 6	(4) 9	(4) 12
1163E-1g to 1293E-1g	(4) 7	(4) 10	(4) 15
1191E-1g to 1783E-1g	(4) 9	(4) 15	(4) 18
1616E-1g to 1915E-1g	(4) 10	(4) 15	(4) 20
1879E-1g to 2320E-1g	(4) 12	(4) 18	(6) 15
2256E-1g to 2509E-1g	(4) 15	(4) 20	(6) 18
2490E-1g to 3459E-1g	(4) 18	(6) 18	(8) 18
2855E-1g to 3714E-1g	(4) 20	(6) 20	(8) 20

ATC-E Optional Equipment

Pulse~Pure® is an environmentally sensitive non-chemical water treatment system for evaporative condensers. Developed by EVAPCO, Pulse~Pure offers an alternative to chemical water treatment programs. Utilizing pulse-power technology Pulse~Pure provides chemical-free treatment that is environmentally safe.



Self Supporting Service Platforms

Condensers are available with self-supporting service platforms that include access ladders which are designed for easy field installation. This option offers significant savings in comparison to field constructed, externally supported catwalks. The Evapco service platform option is located at each maintenance access door.

Motor Davit

In the event that a fan motor should need to be replaced, a lightweight motor davit is available from which a chain fall can be mounted to easily lower the motor to the ground.

ATC-E Condenser with Optional Service Platform and Motor Davit

Multiple Circuit Coils

Condensers may be supplied with multiple circuit coils to match various system requirements such as split systems, or if a glycol or water circuit is desired for compressor head cooling.

ASME Coils

Evaporative condensers can be furnished with condensing coils manufactured in accordance with the ASME Pressure Vessel Code Section VIII, Division I. Coils built with this option will bear a U-stamp indicating their compliance with the ASME code.

TITAN Coils – Stainless Steel Construction

EVAPCO offers the option of Type 304L stainless steel construction using the Thermal Pak® II coil design. Highly efficient heat transfer coils with the ultimate corrosion protection.

Electric Water Level Control

Evaporative condensers may be ordered with an electric water level control in lieu of the standard mechanical float and make-up assembly. This package provides accurate control of water levels and does not require field adjustment.

Two Speed Motors

Two speed fan motors can provide an excellent means of capacity control. In periods of lightened loads or reduced wet bulb temperatures, the fans can operate at low speed, which will provide about 60% of full speed capacity, yet consume only about 15% of the power compared with high speed. In addition to the energy savings, the sound levels of the units will be greatly reduced at low speed.

ATC-E Optional Equipment

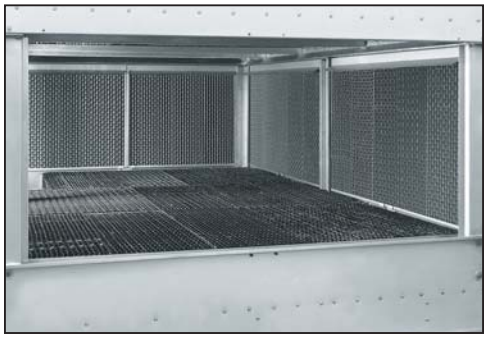
Sound Reduction Options

Super-Low Sound Fan

Evapco's Super Low Sound Fan utilizes an extremely wide chord blade design and is ideal for low energy, sound sensitive installations without sacrificing thermal performance. This revolutionary technology is one-piece molded, heavy duty fiberglass reinforced polyester hub and blade construction utilizing a forward swept blade design. The Super Low Sound Fan is capable of reducing the unit sound pressure levels 9 dB(A) to 15 dB(A) depending on specific unit selection and measurement location.

Water Silencer

The water silencer option, constructed of lightweight PVC sections, is located in the falling water area of the cold water basin. This option will reduce the overall sound levels 4 dB(A) to 7 dB(A), measured 5 ft. from the side or end of the unit, with no impact on unit thermal performance. This option will also reduce the overall sound levels 9 dB(A) to 12 dB(A) when operating the condenser with the fans off and water circulating



Fan Discharge

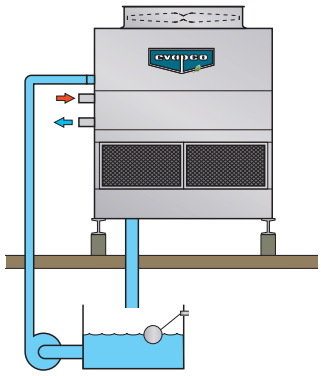
The fan discharge sound attenuator is a factory assembled, straight sided hood that will reduce overall discharge sound levels at full fan speed 5 dB(A) to 10 dB(A), depending on the specific unit selection and measurement location. Construction features include G-235 galvanized steel panels (optional Type 304 stainless steel) with insulated walls and low pressure drop baffling system that is acoustically dampened with high density fiberglass. The discharge attenuator is entirely supported by the unit and is shipped as an assembled section for easy mounting in the field.

Stainless Steel Basin

ATC-E condensers are available with an inexpensive all stainless steel basin section. This provides superior corrosion resistance over other materials of construction.

Remote Sump Configuration

For units operating in areas where temperatures may be very low, or where low temperatures may occur during periods when the unit is not operating, a sump located inside the building is the preferred means of ensuring that the basin water will not freeze. For these applications, the condenser will be supplied without the spray pump, suction strainers and all associated piping, but with an oversize bottom outlet.



ATC-E Application

Design

EVAPCO units are heavy-duty construction and designed for long trouble-free operation. Proper equipment selection, installation and maintenance is, however, necessary to ensure good unit performance. Some of the major considerations in the application of a condenser are presented below. For additional information, contact the factory.

Structural Steel Support

The method of support for EVAPCO condensers is two structural "I" beams located under the outer flanges and running the entire length of the unit. Mounting holes 3/4" in diameter, are located in the bottom channels 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 to within1/8" in 6' before setting the unit in place. Do not level the unit by shimming between it and the "I" beams as this will not provide proper longitudinal support.

NOTE: Consult IBC 2006 for required steel support layout and structural design.

Air Circulation

In reviewing the system design and unit location, it is important that proper air circulation be provided. The best location is on an unobstructed roof top or on ground level away from walls and other barriers. Care must be taken when locating condensers in wells or enclosures or next to high walls. The potential for recirculation of hot, moist discharge air back into the fan intake exists. Recirculation raises the wet bulb temperature of the entering air causing the condensing pressure to rise above the design. For these cases, a discharge hood or ductwork should be provided to raise the overall unit height even with the adjacent wall, thereby reducing the chance of recirculation. Good engineering practice dictates that the evaporative condenser's discharge air not be directed or located close to or in the vicinity of building air intakes. Engineering assistance is available from the factory to identify potential recirculation problems and recommend solutions.

For additional information regarding layout of evaporative condensers, see EVAPCO Bulletin entitled ***"Equipment Layout".***

Piping

Condenser piping should be designed and installed in accordance with generally accepted engineering practice. All piping should be anchored by properly designed hangers and supports with allowance made for possible expansion and contraction. No external loads should be placed upon condenser connections, nor should any of the pipe supports be anchored to the unit framework. For additional information concerning refrigerant pipe sizing and layout, see EVAPCO Bulletin entitled ***"Piping Evaporative Condensers"***.

Maintaining the Recirculated Water System

The heat rejection in a condenser is accomplished by the evaporation of a portion of the recirculated spray water. As this water evaporates, it leaves behind all of its mineral content and impurities. Therefore, it is important to bleed-off an amount of water equal to that which is evaporated to prevent the build-up of these impurities. If this is not done, the mineral or the acidic nature of the water will continue to increase. This will ultimately result in heavy scaling or a corrosive condition.

Bleed-off

Each unit supplied with a pump mounted on the side is furnished with a clear bleed line for visual inspection and a valve which, when fully open, will bleed-off the proper amount of water. If the make-up water supplying the unit is relatively free of impurities, it may be possible to cut back the bleed, but the unit must be checked frequently to make sure scale is not forming. Make-up water pressure should be maintained between 20 and 50 psig.

Water Treatment

A proper water treatment program is an essential part of routine maintenance in order to help assure proper operation and longevity of the unit. To help prevent the formation of "white rust", the interior of the unit should be passivated during start-up and monitored periodically as part of the water treatment program. For more information about white rust, please request a copy of EVAPCO Engineering Bulletin 36. A qualified water treatment company should be contacted to design a water treatment protocol specifically based on applicable location, water quality and unit materials of construction.

If acid is used for treatment, it should be accurately metered and the concentration properly controlled. **The pH of the water should be maintained between 6.5 and 8.0. Units constructed of galvanized steel operating with circulating water having a pH of 8.3 or higher will require periodic passivation of the galvanized steel to prevent the formation of "white rust".** Batch chemical feeding is not recommended because it does not afford the proper degree of control. If acid cleaning is required extreme caution must be exercised and only inhibited acids recommended for use with galvanized construction should be used.

NOTE: Operating the condenser below 6.0 pH for any period of time may cause the removal of the protective zinc coating on the galvanized steel components.

For more information see EVAPCO Bulletin entitled *"Maintenance Instructions".*

Control of Biological Contamination

Water quality should be checked regularly for biological contamination, If biological contamination is detected, a more aggressive water treatment and mechanical cleaning program should be undertaken. The water treatment program should be performed in conjunction with a qualified water treatment company. It is important that all internal surfaces be kept clean of accumulated dirt and sludge. In addition, the drift eliminators should be maintained in good operating condition.

Solutions for Sound Sensitive Applications

The ATC-E product line is now available with four (4) equipment options to reduce the overall sound generated from the side or top of the unit. Each option provides various levels of sound reduction and can be used in combination to provide the lowest sound level. Consult EVAPCO's evap*Select*™ selection program for unit sound levels. If a detailed analysis or full octave band data sheet is required for your application, please consult your EVAPCO Sales Representative.

NOTE: These low sound options may impact the overall installed dimensions and weight of the unit.

ATC-E Mechanical Specifications

Furnish and install, as shown on the plans, an EVAPCO model _____ induced draft, counterflow evaporative condenser with a condensing capacity of _____ MBH total heat of rejection when operating with _____ refrigerant at _____ °F condensing temperature with a _____ °F design wet bulb temperature.

IBC 2006 Compliance
The condenser shall be designed and constructed to meet the International Building Code (IBC 2006) specifications for installed components per ASCE 7-05. The manufacturer shall provide a certificate of compliance to demonstrate that the equipment/unit has been independently tested and certified in accordance with the IBC program.

Basin and Casing
The basin and casing shall be constructed of G-235 hot-dip galvanized steel for long life and durability.
Standard basin accessories shall include overflow, drain, type 304 stainless steel strainers, and brass make-up valve with plastic float.

Models ATC-50E-1g to ATC-926E-1g

Fan Motor
_____ horsepower totally enclosed fan cooled motors with 1.15 service factor shall be furnished suitable for outdoor service on _____ volts, _____ hertz, and _____ phase. Motor(s) shall be mounted on an adjustable base which is accessible from the outside of the unit for service. A swing away protective cover shall shield the motor and sheave from the weather.

Drive
The fan drive shall be multigroove, solid back V-belt type with taper lock bushings designed for 150% of the motor nameplate horsepower. The belt material shall be neoprene reinforced with polyester cord and specifically designed for evaporative condenser service. Fan sheave shall be aluminum alloy construction. The fans and the fan sheaves shall be mounted on the shaft with a specially coated bushing to provide maximum corrosion protection. Belt adjustment shall be accomplished from the exterior of the unit. Bearing lube lines shall be extended to the exterior of the unit for easy maintenance.

Models ATC-XE298E-1g to ATC-XC1340E-1g, ATC-428E-1g to ATC-3714E-1g

Fan Motor
_____ horsepower totally enclosed air over ball bearing fan motor(s), with 1.15 service factor shall be furnished suitable for service on _____ volts, _____ hertz, and _____ phase. Motor(s) shall be mounted on an adjustable base which allows the motor to swing to the outside of the unit for servicing.

Drive
The fan drive shall be a multigroove, solid back V-belt type with taper lock bushings designed for 150% of the motor nameplate horsepower. The belt material shall be neoprene reinforced with polyester cord and specifically designed for evaporative condenser service. Fan and motor sheaves shall be aluminum alloy construction. The fans and fan sheaves shall be mounted on the shaft with a specially coated bushing to provide maximum corrosion protection. Belt adjustment shall be accomplished from the exterior of the unit. Bearing lube lines shall be extended to the exterior of the unit for easy maintenance.

Axial Propeller Fans
Fans shall be heavy duty axial propeller type statically balanced. The fans shall be constructed of aluminum alloy or fiberglass reinforced polypropylene blades, installed in a closely fitted cowl with venturi air inlet. Fan screens shall be galvanized steel mesh and frame, bolted to the fan cowl.

Fan Shaft Bearings
Fan shaft bearings shall be heavy duty self-aligning ball type with grease fittings extended to the outside of the unit. Bearings shall be designed for a minimum L-10 life of 75,000 hours.

Water Recirculation Pump
The pump(s) shall be a close-coupled, centrifugal type with mechanical seal, installed vertically at the factory to allow free drainage on shut down. _____ horsepower totally enclosed motor(s) shall be furnished suitable for outdoor service on _____ volts, _____ hertz, and _____ phase.

Heat Transfer Coil
Condensing coil(s) shall be all prime surface steel, encased in a steel framework and hot-dip galvanized after fabrication as a complete assembly. The coil(s) shall be designed with sloping tubes for free drainage of liquid refrigerant and shall be pneumatically tested at 400 psig, under water.

Water Distribution System
The system shall provide a water flow rate of 6 GPM over each square foot of unit face area to ensure proper flooding of the coil. The spray header shall be constructed of schedule 40 polyvinyl chloride pipe for corrosion resistance. All spray branches shall be removable for cleaning. Heavy-duty ABS spray nozzles with large 1-1/4" diameter opening and internal sludge ring to eliminate clogging. Nozzles shall be threaded into spray header to provide easy removal for maintenance.

Eliminators
The eliminators shall be constructed entirely of inert polyvinyl chloride (PVC) in easily handled sections. The eliminator design shall incorporate three changes in air direction to assure complete removal of all entrained moisture from the discharge air stream. Maximum drift rate shall be less than 0.001% of the circulating water rate.

Louvers
The louvers shall be constructed from polyvinyl chloride (PVC). The louvers shall be mounted in easily removable sections for access to the pan for maintenance. The louvers shall have a minimum of two changes in air direction to prevent splashout and block direct sunlight.

Finish
All basin and casing materials shall be constructed of G-235 heavy gauge mill hot-dip galvanized steel. During fabrication, all panel edges shall be coated with a 95% pure zinc-rich compound for superior protection against corrosion.

EVAPCO PRODUCTS ARE MANUFACTURED WORLDWIDE.

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