## **EVAPORATIVE CONDENSERS**



Advanced Technology Condenser

Available with Optional 304L or 316L Stainless Steel

**TITAN COIL** 

Available with Optional

evapco



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





-

International Association of Refrigerated Warehouses



Air-Conditioning, Heatin and Refrigeration Institut

# ATC-E Design and Construction Features

The ATC-E line of evaporative condensers reflects EVAPCO's continuing commitment to research and development. The 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.



#### 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.



#### 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.



#### 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

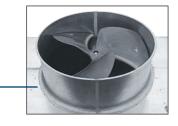
### Stainless Steel Strainer

• Resists corrosion better than other materials.

## 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.

2



#### 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.

#### G-235 Mill Hot-Dip Galvanized Steel Construction

(Stainless steel available as affordable option)

#### 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.

# ATC-E Design Features

Proven Performance and Design Flexibility





## About EVAPCO

Evapco is the global innovator in heat transfer solutions. Our pledge is to make everyday life easier, more comfortable, more reliable, and more sustainable for people everywhere. With manufacturing facilities and sales offices in more than 40 countries and 48 active US patents —we are the team that engineers and contractors know they can count on for life.

## Contact

your local Evapco Representative or visit **evapco.com** to learn more.

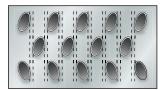
## Thermal-Pak® II Coil

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<sup>®</sup> II have been proven in EVAPCO'S worldclass 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<sup>®</sup> 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 heavyduty 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 hotdip 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. 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.

#### Improved Maintenance

#### ZM°II Spray Nozzle Water Distribution System

Even and constant water distribution is paramount for reliable, scale-free evaporative condensing. EVAPCO'S <u>Zero Maintenance</u> 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



ZM°II Nozzle

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.

## **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 are 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. 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 Casing**

EVAPCO offers optional stainless steel construction for superior corrosion resistance on various casing panel configurations including water touch basin, water touch unit, and all stainless steel panel construction. These options are available in Type 304 or Type 316 stainless steel for improved corrosion protection and jobsite requirement flexibility.

#### **Stainless Steel Coils**

The heat exchanger coil is the heart of the evaporative condenser. For this critical component, EVAPCO offers the options of Type 304L or Type 316L 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

### Belt Drive Units -4' through 8-1/2' Wide Models and multi-cell arrangements

#### ATC-50E to ATC-926E

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 TEFC 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



7' through 8-1/2' and multi-cell arrangements External Motor Mount (with optional ladder)

### Belt Drive Units -10' and 12' Wide Models and multi-cell arrangements

#### ATC-XE298E to ATC-XC1340E

#### ATC-428E to ATC-3714E

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 TEAO 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 Saving 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 Saving 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.

The combination of easy basin access, no splashout and minimized algae



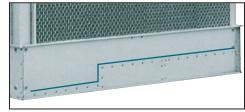
Inlet Louver Design

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 to ATC-165E.



# **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 line of ATC-E Evaporative Condensers that are IBC compliant as standard.

### 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 specifies that all components be designed to resist the equivalent seismic forces as the structure to which they are installed. These components include all aspects of the building architectural, electrical and mechanical systems. 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 (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 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<sub>DS</sub> = Design spectral response acceleration, short period
- $a_p$  = Component amplification factor
- $I_p^P$  = Component importance factor  $W_p$  = Component operating weight
- $R_{p}$  = Component response modification factor
- = 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:

$$F_p$$
-min = 0.3 SDS  $I_p W_p$   
 $F_p$ -max = 1.6 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

## 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 through shake table testing to comply with instalations requiring an SDS capability up to a value of 1.60. For applications that require a more severe seismic duty, EVAPCO offers an optional upgraded construction design for applications requiring up to an SDS value of 3.09. 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 TRU Compliance to complete the independent equipment testing and analysis.



# 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

#### 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 = <u>1,272,500 BTU/Hr</u> Total 6,672,500 BTU/Hr 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.

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 or ATC-XC641E.

**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 glycolwater 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

Pres	ensing . psig	Cond. Temp.							Wet	Bulb T	emper	ature,	°F)							
HCFC 22	HFC- 134a	°F	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.	Cond. Temp.							Wet	Bulb T	emper	ature,	(°F)							
psig	°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
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ATC-46E         95         ATC-8738E         4969         ATC-402E         672         ATC-878E         8799         ATC-778E         1133         ATC-904E         1117         ATC-904E         1117         ATC-904E         1117         ATC-904E         1117         ATC-904E         1117         ATC-904E         1117         ATC-904E         11166         ATC-178E         11166         ATC-904E         1117         ATC-904E					A		ΓC-X & Α	TC-M	Models					
ATC-86E         956         ATC-8738E         4979         ATC-8778E         8789         ATC-8778E         1174         ATC-807E         1174           ATC-806E         1176         ATC-338E         4969         ATC-462E         6771         ATC-806E         8789         ATC-778E         1144         ATC-976E         1428         ATC-1666           ATC-90E         1323         ATC-814E         5057         ATC-874E         6492         ATC-870E         1644         ATC-976E         1428         ATC-816E         6470         ATC-870E         1642         ATC-976E         1426         ATC-890E         14406         ATC-890E         1440         ATC-890E         1440         ATC-890E         1440         ATC-890E         1440         ATC-890E         1440         ATC-890E         1440         ATC-890E <t< th=""><th>Model</th><th>MBH Base</th><th>Model</th><th>MBH Base</th><th>Model</th><th>MBH Base</th><th>Model</th><th>MBH Base</th><th>Model</th><th>MBH Base</th><th>Model</th><th>MBH Base</th><th>Model</th><th>MBH Base</th></t<>	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base
ATC-68E         956         ATC-802E         4979         ATC-802E         8789         ATC-872E         1978         ATC-804E         1471         ATC-804E         1405         ATC-804E         1405         ATC-804E         1405         ATC-804E         1405         ATC-804E         1406         ATC-804E         1407         ATC-804E         1406         ATC-804E         1407         ATC-804E<	ATC-50E	735	ATC-325E	4777	ATC-457E	6715	ATC-XE596E	8761	ATC-772E	11348	ATC-963E	14156	ATC-1426E	20962
ATC-80E         II76         ATC-338E         499         ATC-462E         6791         ATC-4064         8872         ATC-77E         IL44         ATC-97E         L328         ATC-1496           ATC-00E         1323         ATC-M344E         5057         ATC-M42E         6871         ATC-407E         8923         ATC-78E         IL46         ATC-79FE         IL47         ATC-807E         1147         ATC-807E         1147         ATC-807E         1147         ATC-807E         1144         ATC-147E         6793         ATC-407E         8923         ATC-79FE         IL47         ATC-807E         1446         ATC-147E           ATC-150E         2205         ATC-475E         574         ATC-47E         6793         ATC-4607E         8932         ATC-807E         1893         ATC-100E         1479         ATC-1627           ATC-107E         2499         ATC-37E         5292         ATC-47E         6793         ATC-460E         8942         ATC-87E         1893         ATC-100E         1479         ATC-1628           ATC-107E         2491         ATC-37E         5292         ATC-481E         7071         ATC-482E         988         ATC-87E         1201         ATC-100E         1479         ATC-4478         470 </td <td></td> <td>21974</td>														21974
ATC-90E         1323         ATC-M344E         5057         ATC-M262         6791         ATC-M042E         8879         ATC-70E         Tid6         ATC-79E         14395         ATC-130E           ATC-100E         1544         ATC-X346E         5060         ATC-47E         6923         ATC-70E         1747         ATC-30E         1477         ATC-30E         14746         ATC-30E         14746         ATC-132E         14744         ATC-142E         6738         ATC-460E         8933         ATC-305E         11831         ATC-1002E         14744         ATC-1625           ATC-130E         2407         ATC-358E         5233         ATC-471E         6938         ATC-460E         8934         ATC-80E         8149         ATC-1002E         14744         ATC-1625           ATC-130E         2407         ATC-471E         6973         ATC-460E         9107         ATC-80E         1900         ATC-1002E         1803         ATC-1002E         1803         ATC-1002E         1803         ATC-1002E         1803         ATC-1002E         1803         ATC-1002E         1803         ATC-1002E         1703         ATC-312E         1804         ATC-1002E         1703         ATC-312E         1700         ATC-1002E         1703         ATC-3										1				21991
ATC-105E         1544         ATC-X244E         5060         ATC-47E         6424         ATC-67E         8923         ATC-77E         11477         ATC-950E         14406         ATC-16524           ATC135E         1565         ATC-37E         6724         ATC-47E         6724         ATC-608E         8933         ATC-707E         1628         ATC-708E         1445         ATC-1054           ATC-156E         2205         ATC-355E         529         ATC-47E         6734         ATC-608E         893         ATC-806E         1849         ATC-1006E         1479         ATC-1654           ATC-181E         2661         ATC-X5156         529         ATC-481E         7071         ATC-605E         9107         ATC-8119         936         ATC-1006E         14802         ATC-1005E         14003         ATC-1004         1432         ATC-1014         1402         ATC-1014         1402         ATC-1014         1402         ATC-1014         1402         ATC-1014         1402         ATC-1014         1403         ATC-1014         1502         ATC-1014														22954
ATC-120E         IT64         ATC-35E         S160         ATC-47E         6924         ATC-M07E         9923         ATC-77E         11628         ATC-X8984         14455           ATC-130E         2005         ATC-35E         S174         ATC-47E         6988         ATC-60EE         8978         ATC-40EE         1897         ATC-40EE         1976         ATC-100E         1400         ATC-105E         4070         ATC-40E         707         ATC-43EE         707         ATC-44EE         708         ATC-44EE         708         ATC-44EE         708         ATC-44EE         708         ATC-44E										1				22961
ATC-135E         1985         ATC-M32E         ST/4         ATC-472E         6938         ATC-4068E         8978         ATC-402E         1189         ATC-1002E         1174         ATC-1032E           ATC-135E         2205         ATC-355E         5219         ATC-472E         6938         ATC-406E         8938         ATC-805E         1189         ATC-1002E         1174         ATC-1007E         1470         ATC-1007E <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>23761</td></td<>														23761
ATC-ISOE         2025         ATC-3SSE         S2I9         ATC-XE47E         6938         ATC-XE60E         1831         ATC-100E         1479         ATC-1054           ATC-105E         2429         ATC-XE55E         5233         ATC-47E         6948         ATC-806E         11943         ATC-100E         1479         ATC-30E           ATC-10E         2499         ATC-33E         529         ATC-44E         6703         ATC-40E         907         ATC-80E         1200         ATC-401E         1402           ATC-19E         2371         ATC-30E         5292         ATC-48E         700         ATC-630E         907         ATC-80E         1200         ATC-4012E         1517         ATC-1720           ATC-192E         2323         ATC-48E         700         ATC-631E         920         ATC-812E         1219         ATC-104E         1537         ATC-1720           ATC-202E         3202         ATC-452E         570         ATC-302E         520         ATC-302E         1220         ATC-302E         1230         ATC-302E         1337         ATC-302E         1337         ATC-302E         1337         ATC-302E         1330         ATC-302E         1330         ATC-302E         1230         ATC-302E														23881
ATC-165E         2426         ATC-XES5E         5233         ATC-472E         6498         ATC-607E         8947         ATC-805E         11849         ATC-100E         14789         ATC-100F           ATC-107E         2499         ATC-358E         5269         ATC-474E         6973         ATC-607E         1007         ATC-80E         1000         ATC-104E         1537         ATC-1720           ATC-1026         2984         ATC-30E         5300         ATC-80E         9200         ATC-81E         1209         ATC-104E         1537         ATC-1720           ATC-2016         308         ATC-378E         5500         ATC-80E         920         ATC-81E         1204         ATC-104E         1537         ATC-104E         1542         ATC-104E         1424         ATC-81E         1204														24320
ATC-I70E         2499         ATC-38E         5269         ATC-47E         6973         ATC-X61E         9822         ATC-81E         1031         ATC-1007E         14033         ATC-1708I           ATC-187E         2751         ATC-36E         5307         ATC-482E         7071         ATC-620E         9107         ATC-81E         12001         ATC-1042E         1370         ATC-1720I           ATC-197E         2731         ATC-36E         5321         ATC-4482E         7085         ATC-631E         926         ATC-818E         1202         ATC-1044E         15374         ATC-1720I           ATC-2042         932         ATC-362E         5430         ATC-4492E         7120         ATC-632E         920         ATC-832E         120         ATC-1044E         15379         ATC-1780I           ATC-204E         939         ATC-378E         5500         ATC-M030E         7394         ATC-632E         920         ATC-832E         1230         ATC-842E         1234         ATC-184E         12374         ATC-104E         15379         ATC-180I           ATC-204E         3038         ATC-378E         5630         ATC-50E         7394         ATC-482E         1234         ATC-107E         1588         ATC-180E														24329
ATC-181E         2661         ATC-XG30E         5292         ATC-481E         7071         ATC-30E         9107         ATC-816E         1201         ATC-XC101E         1462         ATC-1794           ATC-181E         2751         ATC-362E         5321         ATC-482E         7006         ATC-302E         9188         ATC-817E         1200         ATC-X6103E         15170         ATC-1794           ATC-1929         2823         ATC-3626E         5321         ATC-449E         7100         ATC-362E         9260         ATC-811E         1201         ATC-1444E         1532         ATC-1794           ATC-2028         2924         ATC-3626         540         ATC-4492E         722         ATC-631E         1216         ATC-1044E         1537         ATC-1794           ATC-208E         3038         ATC-379E         550         ATC-4492E         7350         ATC-362E         9292         ATC-831E         1216         ATC-1077E         1583         ATC-1805           ATC-218E         3199         ATC-383E         563         ATC-504E         740         ATC-442E         937         ATC-842E         1237         ATC-107E         1584         ATC-1986           ATC-218E         3199         ATC-383E										1				25106
ATC-187E         2751         ATC-361E         5307         ATC-482E         7085         ATC-402E         9180         ATC-870E         1200         ATC-1802E         1570         ATC-1720           ATC-197E         2837         ATC-362E         5310         ATC-4486E         7140         ATC-430E         9276         ATC-830E         1202         ATC-1044E         15332         ATC-1729           ATC-2042         2999         ATC-339E         5430         ATC-2422E         1220         ATC-1047E         15391         ATC-1805           ATC-204E         3999         ATC-339E         5430         ATC-501E         7320         ATC-430E         9220         ATC-832E         1203         ATC-1047E         15391         ATC-10505           ATC-201E         3109         ATC-301E         7320         ATC-637E         9230         ATC-842E         1234         ATC-1077E         15838         ATC-8105           ATC-212E         3244         ATC-380E         5630         ATC-508E         734         ATC-647E         9504         ATC-842E         1234         ATC-077E         15847         ATC-805E           ATC-222E         3308         ATC-838E         5630         ATC-508E         7764         ATC-647E														25122
ATC-192E         2837         ATC-362E         5321         ATC-4488E         7100         ATC-630E         9260         ATC-818E         12025         ATC-1042E         15322         ATC-17294           ATC-197E         2924         ATC-4586E         5430         ATC-462FE         7220         ATC-630E         9276         ATC-837E         1216         ATC-1042E         15379         ATC-1784           ATC-2042         9299         ATC-M37E         5454         ATC-4042E         7220         ATC-631E         9200         ATC-831E         1226         ATC-1042E         15379         ATC-1784           ATC-2018         3102         ATC-M37E         5454         ATC-4012E         7350         ATC-637E         9392         ATC-832E         1226         ATC-107E         15838         ATC-817E           ATC-2018         3102         ATC-385E         563         ATC-501E         7340         ATC-442F         9437         ATC-842E         12374         ATC-1078E         15894         ATC-1816           ATC-202E         3224         ATC-385E         5689         ATC-504E         7409         ATC-642F         9504         ATC-844E         1207         ATC-1182E         14040         ATC-925E           ATC-232										1				25282
ATC-199E         2932         ATC-X836E         5410         ATC-486E         7140         ATC-631E         9276         ATC-827E         12160         ATC-1044E         15377         ATC-17843           ATC-2002         2994         ATC-307E         5430         ATC-X427E         7220         ATC-830E         1219         ATC-1044E         1537         ATC-17844           ATC-200E         3998         ATC-377E         5570         ATC-M30E         5200         ATC-630E         9320         ATC-831E         1220         ATC-1047E         1538         ATC-19764           ATC-201E         3102         ATC-M30E         5580         ATC-501E         7365         ATC-422E         9321         ATC-832E         1220         ATC-1077E         1588         ATC-180E           ATC-211E         3109         ATC-382E         5630         ATC-504E         7409         ATC-442E         9341         ATC-844E         1237         ATC-117E         1640         ATC-180E           ATC-212E         3108         ATC-387E         5689         ATC-508E         740         ATC-462E         976         ATC-834E         1233         ATC-117E         1640         ATC-807E           ATC-222E         308         ATC-387E														25410
ATC-M203E         2984         ATC-369E         5430         ATC-XE492E         7232         ATC-632E         9290         ATC-830E         12199         ATC-1046E         15379         ATC-17844           ATC-204E         2999         ATC-M37E         5454         ATC-M04E         7262         ATC-M034E         9320         ATC-831E         1216         ATC-1047E         15371         ATC-17954           ATC-202E         3058         ATC-371E         5570         ATC-M00E         7550         ATC-642E         9321         ATC-842E         12374         ATC-1081E         15881         ATC-1861E           ATC-212E         3102         ATC-388E         5630         ATC-501E         7394         ATC-642E         9437         ATC-843E         12392         ATC-1078E         15847         ATC-1867E           ATC-212E         3242         ATC-388E         5669         ATC-504E         7409         ATC-4665E         976         ATC-845E         1259         ATC-1117E         16420         ATC-802E           ATC-222E         3308         ATC-X138E         5699         ATC-521E         759         ATC-362E         976         ATC-845E         1259         ATC-1117E         16420         ATC-802E           ATC										1				26214
ATC-204E         2999         ATC-M37IE         5454         ATC-M494E         7262         ATC-M634E         9320         ATC-83IE         1216         ATC-1047E         15391         ATC-17956           ATC-208E         3058         ATC-37PE         5570         ATC-M500E         7350         ATC-637E         9322         ATC-832E         12230         ATC-0177E         15838         ATC-18051           ATC-218E         3102         ATC-383E         5630         ATC-503E         7409         ATC-642E         9423         ATC-843E         12392         ATC-1077E         15838         ATC-18791           ATC-202E         3224         ATC-387E         5689         ATC-505E         7409         ATC-642E         9437         ATC-854E         12392         ATC-1077E         15847         ATC-18791           ATC-22E         3244         ATC-387E         5689         ATC-505E         7409         ATC-642E         973         ATC-854E         1253         ATC-117E         16420         ATC-18791           ATC-22E         3308         ATC-378E         5699         ATC-525E         7653         ATC-6669E         9734         ATC-854E         1263         ATC-3117E         16435         ATC-3168           ATC-														26225
ATC-208E         3058         ATC-379E         5570         ATC-M500E         7350         ATC-639E         9392         ATC-812E         12230         ATC-XC104PE         1540         ATC-1805           ATC-218E         3109         ATC-M380E         5586         ATC-501E         7355         ATC-462E         9437         ATC-842E         12374         ATC-107E         15838         ATC-187E           ATC-218E         3199         ATC-383E         5630         ATC-503E         7494         ATC-642E         9437         ATC-844E         12407         ATC-108E         15942         ATC-187E           ATC-212E         3244         ATC-387E         5689         ATC-508E         7409         ATC-4665E         9776         ATC-837E         1529         ATC-1117E         16430         ATC-197E           ATC-222E         3308         ATC-379E         579         ATC-521E         7693         ATC-666E         9733         ATC-868E         12613         ATC-X1112E         16435         ATC-2080           ATC-232E         3242         ATC-4072E         5909         ATC-322E         7633         ATC-667E         9937         ATC-8168E         12613         ATC-1162E         17163         ATC-2228           ATC-										1				26394
ATC-21IE         3102         ATC-M380E         5586         ATC-50IE         7365         ATC-XC64IE         9423         ATC-842E         12374         ATC-1077E         15838         ATC-185IE           ATC-218E         3199         ATC-338E         5630         ATC-503E         7394         ATC-647E         9504         ATC-844E         12302         ATC-107E         15847         ATC-185IE           ATC-221E         3242         ATC-387E         5689         ATC-X024E         7409         ATC-647E         9504         ATC-844E         12407         ATC-102E         1640         ATC-1925           ATC-221E         3242         ATC-387E         5689         ATC-XC54E         7409         ATC-666E         9746         ATC-854E         12533         ATC-XC111E         1643         ATC-1925           ATC-222E         3308         ATC-X238E         550         ATC-521E         7659         ATC-4665E         9776         ATC-851E         12592         ATC-110E         1643         ATC-2022           ATC-232E         3428         ATC-379E         5909         ATC-522E         7673         ATC-667E         9925         ATC-867E         1279         ATC-1164E         1711         ATC-2256           ATC-23										1				26527
ATC-218E         319         ATC-383E         5630         ATC-503E         7394         ATC-642E         9437         ATC-843E         12392         ATC-107E         15847         ATC-1861E           ATC-220E         3234         ATC-385E         5663         ATC-504E         7409         ATC-467E         9504         ATC-844E         12407         ATC-1078E         15942         ATC-1079E           ATC-222E         3308         ATC-X238F         5689         ATC-508E         7462         ATC-X665E         9776         ATC-857E         12592         ATC-1117E         16420         ATC-1925E           ATC-222E         3308         ATC-X238E         5704         ATC-521E         759         ATC-666E         9793         ATC-857E         12592         ATC-1117E         16420         ATC-2158E           ATC-232E         3428         ATC-378E         5850         ATC-522E         7673         ATC-667E         9908         ATC-867E         12592         ATC-1157E         1709         ATC-223E           ATC-232E         3428         ATC-402E         5909         ATC-522E         7763         ATC-667E         9937         ATC-807E         1271         ATC-166E         1713         ATC-2320           ATC-242										1				27216
ATC-220E         3234         ATC-385E         5663         ATC-504E         7409         ATC-647E         9504         ATC-844E         12407         ATC-1085E         15942         ATC-1075E           ATC-221E         3242         ATC-387E         5689         ATC-302E         7409         ATC-M663E         9746         ATC-857E         1253         ATC-XCIII2E         16346         ATC-1025E           ATC-222E         3308         ATC-XC388E         5689         ATC-302E         759         ATC-6665E         9776         ATC-857E         12592         ATC-1118E         16420         ATC-2022           ATC-232E         3308         ATC-XC388E         5709         ATC-521E         7659         ATC-6669E         9834         ATC-857E         12592         ATC-1118E         16494         ATC-2022           ATC-232E         3425         ATC-302E         5909         ATC-522E         769         ATC-675E         9925         ATC-805E         1270         ATC-164E         17108         ATC-2223           ATC-232E         349         ATC-407E         5983         ATC-522E         7733         ATC-805E         12709         ATC-1162E         1703         ATC-2223           ATC-242E         3407         ATC														27354
ATC-22IE         3242         ATC-387E         5689         ATC-XCS04E         7409         ATC-M663E         9746         ATC-854E         1253         ATC-XC1112E         16346         ATC-195E           ATC-222E         3308         ATC-XC388E         504         ATC-508E         742         ATC-M2665E         9776         ATC-875E         12592         ATC-1117E         16420         ATC-922E           ATC-222E         3337         ATC-372E         5759         ATC-521E         7659         ATC-666E         9793         ATC-857E         12592         ATC-1117E         16430         ATC-902E           ATC-323E         3425         ATC-379E         5850         ATC-522E         7673         ATC-675E         9925         ATC-865E         1271         ATC-81157E         17008         ATC-225E           ATC-323E         3428         ATC-X402E         5908         ATC-522E         7718         ATC-675E         9925         ATC-867E         12921         ATC-1166E         1711         ATC-225C           ATC-242E         3497         ATC-402E         5983         ATC-522E         7753         ATC-676E         1007         ATC-166E         17136         ATC-2320           ATC-242E         3619         ATC														27628
ATC-225E         3308         ATC-XE37E         5689         ATC-S08E         7462         ATC-XE655E         9776         ATC-XC855E         12599         ATC-1117E         16420         ATC-9251           ATC-M225E         3308         ATC-XC388E         5704         ATC-XE516E         7585         ATC-666E         9793         ATC-857E         12592         ATC-1117E         16420         ATC-9028           ATC-M225E         3337         ATC-302E         5759         ATC-521E         7659         ATC-XC669E         9834         ATC-857E         12592         ATC-1117E         16420         ATC-9028           ATC-323E         3425         ATC-398E         5800         ATC-522E         7673         ATC-675E         9925         ATC-809E         1279         ATC-164E         17118         ATC-2226           ATC-242E         3469         ATC-XC402E         5983         ATC-526E         7712         ATC-667E         9937         ATC-809E         12921         ATC-164E         17116         ATC-2320           ATC-241E         3543         ATC-407E         5983         ATC-527E         7753         ATC-680E         1007         ATC-892E         1307         ATC-1197E         1753         ATC-404 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>28152</td></t<>										1				28152
ATC-M225E       3308       ATC-XC388E       5704       ATC-XE516E       7585       ATC-666E       9793       ATC-857E       12592       ATC-1118E       16435       ATC-2020         ATC-227E       3337       ATC-392E       5759       ATC-521E       7659       ATC-M2669E       9834       ATC-858E       12613       ATC-K113E       16435       ATC-2028         ATC-323E       3425       ATC-302E       5909       ATC-322E       7673       ATC-675E       9908       ATC-869E       12721       ATC-164E       17093       ATC-2238         ATC-233E       3469       ATC-402E       5909       ATC-322E       7773       ATC-662E       10027       ATC-808E       12921       ATC-164E       1711       ATC-2326         ATC-241E       5543       ATC-409E       5988       ATC-52E       7732       ATC-682E       1007       ATC-808E       12936       ATC-166E       1715       ATC-3224         ATC-2426       3619       ATC-409E       598       ATC-52E       7752       ATC-687E       10097       ATC-808E       12936       ATC-167E       17155       ATC-324         ATC-2426       3619       ATC-409E       6101       ATC-52EE       7762       ATC-701E														28294
ATC-227E         3337         ATC-392E         5759         ATC-521E         7659         ATC-XC669E         9834         ATC-858E         12613         ATC-XC1153E         16949         ATC-2028           ATC-M233E         3425         ATC-398E         5850         ATC-522E         7673         ATC-M674E         9908         ATC-865E         1271         ATC-XE1157E         17008         ATC-2238           ATC-232E         3469         ATC-XE406E         5968         ATC-522E         778         ATC-67E         9925         ATC-807E         1221         ATC-1164E         1711         ATC-2238           ATC-232E         3497         ATC-407E         5983         ATC-522E         7773         ATC-682E         10027         ATC-807E         12936         ATC-1164E         1711         ATC-2320           ATC-241E         3543         ATC-408E         5998         ATC-522E         7753         ATC-687E         1007         ATC-810E         1307         ATC-1167E         1753         ATC-404           ATC-242E         3619         ATC-410E         6115         ATC-532E         7762         ATC-701E         10305         ATC-8195E         1317         ATC-1202E         1764         ATC-2404           ATC-2														29430
ATC-M233E       3425       ATC-398E       5850       ATC-522E       7673       ATC-M674E       9908       ATC-865E       1271       ATC-XE1157E       1708       ATC-2158E         ATC-233E       3428       ATC-XC402E       5909       ATC-523E       7689       ATC-675E       9925       ATC-869E       12769       ATC-1163E       17093       ATC-2231         ATC-238E       3469       ATC-407E       5983       ATC-525E       7718       ATC-676E       9937       ATC-879E       1291       ATC-1164E       1711       ATC-2320         ATC-241E       3543       ATC-407E       5983       ATC-52E       7753       ATC-682E       10027       ATC-879E       1293       ATC-116E       17155       ATC-3224         ATC-242E       3633       ATC-409E       6006       ATC-52EE       7762       ATC-701E       10305       ATC-879E       1310       ATC-117E       1752       ATC-4040         ATC-253E       370       ATC-416E       6115       ATC-532E       7767       ATC-701E       10305       ATC-489E       1317       ATC-120E       1752       ATC-470         ATC-253E       3721       ATC-412E       6189       ATC-4552E       7067       ATC-702E       103										1				30604
ATC-233E         3428         ATC-XC402E         5909         ATC-523E         7689         ATC-675E         9925         ATC-867E         12769         ATC-1163E         17093         ATC-2223           ATC-236E         3469         ATC-XE406E         5968         ATC-XC525E         7718         ATC-676E         9937         ATC-877E         12921         ATC-1164E         17111         ATC-2236           ATC-238E         3497         ATC-407E         5983         ATC-526E         7732         ATC-682E         10027         ATC-880E         12936         ATC-1164E         17116         ATC-3220           ATC-241E         3543         ATC-408E         5998         ATC-528E         7762         ATC-687E         10077         ATC-8192E         13107         ATC-1167E         1753         ATC-4044           ATC-247E         3633         ATC-415E         6101         ATC-528E         7762         ATC-701E         10305         ATC-892E         13107         ATC-102E         1752         ATC-4049           ATC-253E         3721         ATC-412E         6189         ATC-542E         7967         ATC-702E         10319         ATC-897E         13166         ATC-120E         17697         ATC-2509										1				31725
ATC-236E       3469       ATC-XE406E       5968       ATC-XC525E       7718       ATC-676E       9937       ATC-879E       12921       ATC-1164E       17111       ATC-2526         ATC-238E       3497       ATC-407E       5983       ATC-526E       7732       ATC-682E       10027       ATC-880E       12936       ATC-116E       17136       ATC-3220         ATC-241E       3543       ATC-408E       5998       ATC-527E       7753       ATC-687E       1007       ATC-880E       12936       ATC-116E       17155       ATC-3224         ATC-246E       3619       ATC-409E       6006       ATC-528E       7762       ATC-701E       10305       ATC-892E       13107       ATC-119E       17503       ATC-4040         ATC-251E       3690       ATC-416E       6115       ATC-539E       7919       ATC-701E       10305       ATC-897E       13160       ATC-1192E       17522       ATC-4040         ATC-2528E       3721       ATC-412E       6189       ATC-452E       7967       ATC-702E       10319       ATC-897E       13186       ATC-1202E       17697       ATC-2565         ATC-2526       3795       ATC-422E       6204       ATC-555E       8109       ATC-702E										1				32676
ATC-238E       3497       ATC-407E       5983       ATC-526E       7732       ATC-682E       10027       ATC-880E       12936       ATC-116E       17136       ATC-3220         ATC-241E       3543       ATC-408E       5998       ATC-527E       7753       ATC-687E       10070       ATC-880E       12935       ATC-116E       17155       ATC-3224         ATC-242E       3619       ATC-409E       6006       ATC-528E       7762       ATC-701E       10305       ATC-892E       13107       ATC-1192E       17522       ATC-4090         ATC-251E       3690       ATC-416E       6115       ATC-537E       7919       ATC-701E       10305       ATC-895E       13160       ATC-1192E       17522       ATC-2019         ATC-252E       3721       ATC-412E       6189       ATC-454E       7967       ATC-702E       10319       ATC-897E       1316       ATC-1204E       17699       ATC-2647         ATC-252E       3721       ATC-422E       6203       ATC-455E       8009       ATC-702E       10319       ATC-897E       1316       ATC-1204E       1787       ATC-2655         ATC-261E       3837       ATC-422E       6224       ATC-545E       8009       ATC-702E <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>33161</td></t<>										1				33161
ATC-24IE       3543       ATC-408E       5998       ATC-527E       7753       ATC-M685E       10070       ATC-X284E       12955       ATC-1167E       17155       ATC-2244         ATC-246E       3619       ATC-409E       6006       ATC-528E       7762       ATC-687E       10097       ATC-892E       13107       ATC-1191E       17503       ATC-2404         ATC-247E       3633       ATC-415E       6101       ATC-528E       7762       ATC-701E       10305       ATC-892E       13100       ATC-1192E       17522       ATC-2404         ATC-251E       3690       ATC-415E       6115       ATC-539E       7919       ATC-701E       10305       ATC-X287E       13160       ATC-1202E       17694       ATC-2509         ATC-2528E       3721       ATC-412E       6189       ATC-545E       7967       ATC-702E       10319       ATC-897E       1316       ATC-1204E       1769       ATC-2647         ATC-258E       3795       ATC-422E       6203       ATC-545E       8009       ATC-703E       10339       ATC-897E       13215       ATC-3012E       1767       ATC-2502E       ATC-2647         ATC-264E       3881       ATC-432E       6224       ATC-545E       8009														34100
ATC-246E       3619       ATC-409E       6006       ATC-528E       7762       ATC-687E       10097       ATC-892E       13107       ATC-1191E       17503       ATC-2404         ATC-247E       3633       ATC-415E       6101       ATC-528E       7762       ATC-701E       10305       ATC-895E       13160       ATC-1192E       17522       ATC-2404         ATC-251E       3690       ATC-416E       6115       ATC-539E       7919       ATC-701E       10305       ATC-XE95E       13171       ATC-1203E       17644       ATC-2509         ATC-253E       3721       ATC-421E       6189       ATC-M541E       7953       ATC-702E       10319       ATC-897E       13186       ATC-1204E       17699       ATC-2647         ATC-258E       3795       ATC-422E       6203       ATC-852E       7967       ATC-702E       10319       ATC-809E       1320       ATC-XC1204E       1769       ATC-2647         ATC-264E       3831       ATC-422E       6204       ATC-545E       8009       ATC-702E       10380       ATC-900E       13230       ATC-1239E       1821       ATC-2647         ATC-264E       3881       ATC-422E       6204       ATC-555E       8109       ATC-712E										1				34100
ATC-247E       3633       ATC-415E       6101       ATC-XE528E       7762       ATC-701E       10305       ATC-895E       13160       ATC-1192E       17522       ATC-2490         ATC-251E       3690       ATC-416E       6115       ATC-539E       7919       ATC-701E       10305       ATC-895E       13171       ATC-1203E       17684       ATC-2509         ATC-253E       3721       ATC-421E       6189       ATC-M541E       7953       ATC-702E       10319       ATC-XE896E       13171       ATC-1204E       17699       ATC-2647         ATC-258E       3795       ATC-422E       6203       ATC-X542E       7967       ATC-703E       10339       ATC-899E       1325       ATC-XC120E       17787       ATC-2647         ATC-261E       3837       ATC-422E       6203       ATC-545E       8009       ATC-706E       10380       ATC-90E       1320       ATC-XC120E       17787       ATC-2655         ATC-264E       3881       ATC-422E       6262       ATC-555E       8169       ATC-713E       10425       ATC-90E       1330       ATC-1240E       1828       ATC-3209         ATC-264E       3897       ATC-428E       6266       ATC-555E       8169       ATC-713E														35335
ATC-251E       3690       ATC-416E       6115       ATC-539E       7919       ATC-M701E       10305       ATC-XE896E       13171       ATC-1203E       17684       ATC-2509         ATC-253E       3721       ATC-421E       6189       ATC-M541E       7953       ATC-702E       10319       ATC-XC897E       13186       ATC-1204E       17699       ATC-2647         ATC-258E       3795       ATC-422E       6203       ATC-XE542E       7967       ATC-702E       10339       ATC-899E       13215       ATC-XC1210E       17787       ATC-2647         ATC-261E       3837       ATC-422E       6224       ATC-545E       8009       ATC-702E       10380       ATC-900E       13320       ATC-XC122E       1763       ATC-2656         ATC-264E       3881       ATC-M426E       6262       ATC-555E       8129       ATC-707E       10380       ATC-907E       13330       ATC-1204E       18214       ATC-2090         ATC-280E       3957       ATC-XC477E       6277       ATC-555E       8169       ATC-713E       10475       ATC-912E       13413       ATC-1204E       18248       ATC-3029         ATC-282E       4119       ATC-442E       6296       ATC-5557E       8188       ATC														36603
ATC-253E       3721       ATC-421E       6189       ATC-M541E       7953       ATC-702E       10319       ATC-XC897E       13186       ATC-1204E       17699       ATC-2647         ATC-258E       3795       ATC-422E       6203       ATC-XE542E       7967       ATC-703E       10339       ATC-899E       13215       ATC-XC1210E       17787       ATC-2647         ATC-261E       3837       ATC-423E       6224       ATC-545E       8009       ATC-706E       10380       ATC-900E       13230       ATC-XC1222E       17963       ATC-2805         ATC-264E       3881       ATC-M426E       6262       ATC-555E       8129       ATC-713E       10475       ATC-912E       13413       ATC-1204E       1828       ATC-3029         ATC-280E       4119       ATC-428E       6296       ATC-557E       8188       ATC-722E       10584       ATC-912E       13413       ATC-XC120E       1828       ATC-3209         ATC-282E       4145       ATC-442E       6493       ATC-557E       8188       ATC-722E       10628       ATC-919E       13509       ATC-XC128E       1885       ATC-32029         ATC-282E       4145       ATC-442E       6493       ATC-557E       8188       ATC-722										1				36877
ATC-258E       3795       ATC-422E       6203       ATC-XE542E       7967       ATC-703E       10339       ATC-899E       13215       ATC-XC1210E       17787       ATC-2765E         ATC-261E       3837       ATC-423E       6224       ATC-545E       8009       ATC-706E       10380       ATC-900E       13230       ATC-XC1210E       17787       ATC-28551         ATC-264E       3881       ATC-M426E       6262       ATC-XE553E       8129       ATC-XE709E       10422       ATC-907E       13330       ATC-1239E       18214       ATC-2090         ATC-266E       3957       ATC-XC427E       6277       ATC-556E       8169       ATC-713E       10475       ATC-912E       13413       ATC-1240E       18228       ATC-3029         ATC-280E       4119       ATC-428E       6296       ATC-557E       8188       ATC-723E       10628       ATC-912E       13413       ATC-1240E       1828       ATC-3220         ATC-282E       4145       ATC-441E       6483       ATC-559E       8203       ATC-723E       10628       ATC-912E       13509       ATC-1204E       18860       ATC-333E         ATC-282E       4145       ATC-442E       6490       ATC-559E       8210       ATC														38904
ATC-261E       3837       ATC-423E       6224       ATC-545E       8009       ATC-706E       10380       ATC-900E       13230       ATC-XC1222E       17963       ATC-2855         ATC-264E       3881       ATC-M426E       6262       ATC-XE553E       8129       ATC-XE709E       10422       ATC-907E       13330       ATC-1239E       18214       ATC-2900         ATC-264E       3881       ATC-XC427E       6277       ATC-556E       8169       ATC-713E       10475       ATC-912E       13413       ATC-1240E       18228       ATC-3029         ATC-280E       4119       ATC-428E       6296       ATC-557E       8188       ATC-7272E       10584       ATC-912E       13421       ATC-XC122E       1828       ATC-3209         ATC-280E       4119       ATC-444E       6453       ATC-557E       8188       ATC-722E       10584       ATC-919E       13509       ATC-XC128E       18860       ATC-3230         ATC-294E       4326       ATC-441E       6483       ATC-559E       8203       ATC-722E       10643       ATC-920E       13524       ATC-1283E       18860       ATC-3331E         ATC-X294E       4381       ATC-442E       6490       ATC-563E       8276       ATC-														40644
ATC-264E       3881       ATC-M426E       6262       ATC-XE553E       8129       ATC-XE709E       10422       ATC-907E       13330       ATC-1239E       18214       ATC-3009         ATC-269E       3957       ATC-XC427E       6277       ATC-556E       8169       ATC-713E       10475       ATC-912E       13413       ATC-1240E       18228       ATC-3029         ATC-280E       4119       ATC-428E       6296       ATC-557E       8188       ATC-XC720E       10584       ATC-913E       13421       ATC-XC1264E       18581       ATC-3210         ATC-282E       4145       ATC-441E       6433       ATC-559E       8203       ATC-723E       10628       ATC-910E       13509       ATC-1282E       18850       ATC-3232         ATC-294E       4326       ATC-441E       6483       ATC-559E       8210       ATC-722E       10643       ATC-920E       13524       ATC-1282E       18860       ATC-3336         ATC-XE298E       4381       ATC-442E       6490       ATC-563E       8276       ATC-725E       10660       ATC-920E       13598       ATC-1284E       18875       ATC-3336         ATC-304E       4469       ATC-XE448E       6512       ATC-578E       8291       AT														40044
ATC-269E       3957       ATC-XC427E       6277       ATC-556E       8169       ATC-713E       10475       ATC-912E       13413       ATC-1240E       18228       ATC-3209         ATC-280E       4119       ATC-428E       6296       ATC-557E       8188       ATC-XC720E       10584       ATC-913E       13421       ATC-XC1264E       18581       ATC-3210         ATC-282E       4145       ATC-441E       6433       ATC-XC558E       8203       ATC-723E       10628       ATC-919E       13509       ATC-XC1282E       18865       ATC-3232         ATC-294E       4326       ATC-441E       6483       ATC-559E       8210       ATC-722E       10643       ATC-920E       13524       ATC-1283E       18860       ATC-3332E         ATC-XE298E       4381       ATC-442E       6490       ATC-563E       8276       ATC-725E       10660       ATC-920E       13598       ATC-1284E       18875       ATC-3336E         ATC-304E       4425       ATC-XC443E       6512       ATC-578E       8203       ATC-742E       10907       ATC-926E       13619       ATC-1294E       18875       ATC-3336E         ATC-304E       4469       ATC-XC443E       6512       ATC-578E       8503 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>41904</td></t<>										1				41904
ATC-280E       4119       ATC-428E       6296       ATC-557E       8188       ATC-XC720E       10584       ATC-913E       13421       ATC-XC1264E       18581       ATC-3210         ATC-282E       4145       ATC-M439E       6453       ATC-XC558E       8203       ATC-723E       10628       ATC-919E       13509       ATC-XC1264E       18845       ATC-3232         ATC-294E       4326       ATC-441E       6483       ATC-559E       8210       ATC-724E       10643       ATC-920E       13524       ATC-1283E       18860       ATC-3332E         ATC-XE298E       4381       ATC-442E       6490       ATC-563E       8276       ATC-725E       10660       ATC-920E       13598       ATC-1284E       18875       ATC-3366         ATC-304E       4425       ATC-XC443E       6512       ATC-564E       8291       ATC-725E       10907       ATC-926E       13619       ATC-1293E       19009       ATC-3459E         ATC-304E       4469       ATC-450E       6515       ATC-578E       8503       ATC-746E       10973       ATC-935E       1364       ATC-XC1340E       1902       ATC-3459E         ATC-304E       4469       ATC-450E       6615       ATC-5778E       8511														42030
ATC-282E       4145       ATC-M439E       6453       ATC-XC558E       8203       ATC-723E       10628       ATC-919E       13509       ATC-XC1282E       18845       ATC-3232         ATC-294E       4326       ATC-441E       6483       ATC-559E       8210       ATC-724E       10643       ATC-920E       13524       ATC-1283E       18860       ATC-331E         ATC-X2294E       4381       ATC-442E       6490       ATC-563E       8276       ATC-725E       10660       ATC-920E       13598       ATC-1283E       18860       ATC-331E         ATC-M301E       4425       ATC-XC443E       6512       ATC-564E       8291       ATC-XE742E       10907       ATC-926E       13619       ATC-1293E       19009       ATC-3459E         ATC-304E       4469       ATC-X5448E       6586       ATC-578E       8503       ATC-746E       10973       ATC-935E       13746       ATC-1294E       1902       ATC-3482E         ATC-M304E       4469       ATC-450E       6615       ATC-5778E       8503       ATC-747E       10987       ATC-943E       1362       ATC-XC1340E       1902       ATC-359E         ATC-305E       4489       ATC-450E       6615       ATC-5778E       8511 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>44551</td></td<>										1				44551
ATC-294E         4326         ATC-441E         6483         ATC-559E         8210         ATC-724E         10643         ATC-920E         13524         ATC-1283E         18860         ATC-3313E           ATC-XE298E         4381         ATC-442E         6490         ATC-563E         8276         ATC-725E         10660         ATC-XC925E         13598         ATC-1283E         18870         ATC-3336E           ATC-M301E         4425         ATC-XC443E         6512         ATC-564E         8291         ATC-XE742E         10907         ATC-926E         13619         ATC-1293E         19009         ATC-3459E           ATC-304E         4469         ATC-XE448E         6586         ATC-578E         8503         ATC-746E         10973         ATC-935E         13746         ATC-1294E         19022         ATC-3482E           ATC-M304E         4469         ATC-450E         6615         ATC-XC579E         8511         ATC-747E         10987         ATC-943E         13862         ATC-XC1340E         19698         ATC-3591E           ATC-305E         4489         ATC-453E         6659         ATC-581E         8547         ATC-755E         10919         ATC-944E         13877         ATC-3164E         20054         ATC-3714E										1				
ATC-XE298E       4381       ATC-442E       6490       ATC-563E       8276       ATC-725E       10660       ATC-XC925E       13598       ATC-1284E       18875       ATC-33360         ATC-M301E       4425       ATC-XC443E       6512       ATC-564E       8291       ATC-XE742E       10907       ATC-926E       13619       ATC-1293E       19009       ATC-3459         ATC-304E       4469       ATC-XE448E       6586       ATC-578E       8503       ATC-746E       10973       ATC-935E       13746       ATC-1294E       19022       ATC-3482         ATC-M304E       4469       ATC-450E       6615       ATC-XC579E       8511       ATC-747E       10987       ATC-943E       13862       ATC-XC1340E       19698       ATC-3591E         ATC-305E       4489       ATC-453E       6659       ATC-581E       8547       ATC-755E       11091       ATC-944E       13877       ATC-3164E       20054       ATC-3714E														47518
ATC-M301E         4425         ATC-XC443E         6512         ATC-564E         8291         ATC-XE742E         10907         ATC-926E         13619         ATC-1293E         19009         ATC-3459I           ATC-304E         4469         ATC-X52448E         6586         ATC-578E         8503         ATC-746E         10973         ATC-935E         13746         ATC-1294E         19022         ATC-3459I           ATC-M304E         4469         ATC-450E         6615         ATC-XC579E         8511         ATC-747E         10987         ATC-943E         13862         ATC-XC1340E         19698         ATC-359IE           ATC-305E         4489         ATC-453E         6659         ATC-581E         8547         ATC-755E         11091         ATC-944E         13877         ATC-1364E         20054         ATC-374E														48706
ATC-304E         4469         ATC-XE448E         6586         ATC-578E         8503         ATC-746E         10973         ATC-935E         13746         ATC-1294E         19022         ATC-3482           ATC-M304E         4469         ATC-450E         6615         ATC-XC579E         8511         ATC-747E         10987         ATC-943E         13862         ATC-XC1340E         19698         ATC-3591E           ATC-305E         4489         ATC-453E         6659         ATC-581E         8547         ATC-755E         11091         ATC-944E         13877         ATC-1364E         20054         ATC-374E														49032
ATC-M304E         4469         ATC-450E         6615         ATC-XC579E         8511         ATC-747E         10987         ATC-943E         13862         ATC-XC1340E         19698         ATC-3591E           ATC-305E         4489         ATC-453E         6659         ATC-581E         8547         ATC-755E         11091         ATC-944E         13877         ATC-1364E         20054         ATC-3591E														50855 51100
ATC-305E 4489 ATC-453E 6659 ATC-581E 8547 ATC-755E 11091 ATC-944E 13877 ATC-1364E 20054 ATC-3714E														51188
														52783
													AIC-3/14E	54597
ATC-M314E 4616 ATC-M456E 6703 ATC-583E 8568 ATC-M755E 11099 ATC-XE947E 13921 ATC-1365E 20066														
ATC-316E 4645 ATC-456E 6706 ATC-M591E 8688 ATC-771E 11334 ATC-949E 13950 ATC-1425E 20950	41C-316E	4645	AIC-456E	6/06	AIC-M591E	8088	AIC-//IE	11334	AIC-949E	13950	ATC-1425E	20950		

**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.

# **ATC-E Selection Procedure**

#### **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  $+10^{\circ}$  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  $+10^{\circ}$  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 or ATC-XC443E depending on unit type desired, and any layout or horsepower considerations.

#### Table 4 - Unit Sizes

<sup>1</sup>**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.

Pres		Cond. Temp.							Wet	Bulb T	empera	ature, (	°F)							
HCFC- 22	HFC- 134a	°F	50	50 55 60 62 64 66 68 70 72 74 75 76 77 78 80 82 84 8														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

Table 5 - HCFC-22	and HFC-134a	<b>Capacity Factors</b>
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Suction Temp. °F		-20°	-10°	-0°	+10°	+20°	+30°	+40°	+50°
Suction Press.	HCFC-22	10.1	16.5	24.0	32.8	43.0	54.9	68.5	84.0
(psig)	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

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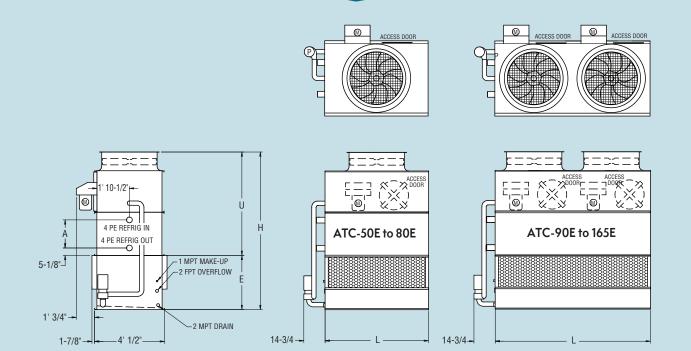
Condensing Pres.	Cond. Temp.							Wet	Bulb T	emper	ature,	(°F)							
psig	°F	50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
152	85	.99	1.09	1.25	1.34	1.44	1.57	1.73	1.91	2.17	2.49	2.71	2.95	3.26	3.59	-	-	-	-
166	90	.84	.93	1.03	1.10	1.16	1.23	1.32	1.42	1.55	1.71	1.81	1.92	2.04	2.16	2.59	3.17	-	-
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.

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## **Engineering Dimensions & Data** Models ATC-50E to 165E



### Table 7 Engineering Data

		F	ans		Weights†		Refrigerant	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-50E	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	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	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	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	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	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	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	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	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"

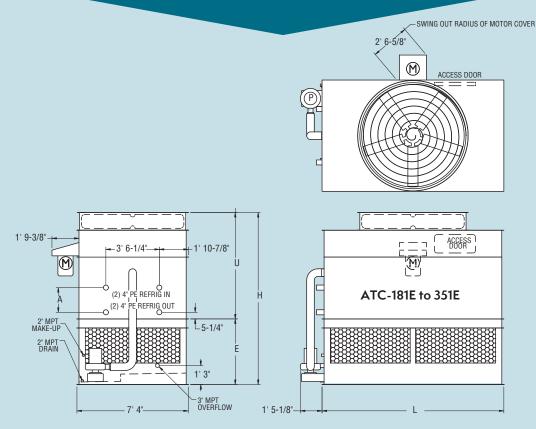
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

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.

Units are designed to fit into standard container for ease of transportation. 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-181E to 351E



### **Table 8 Engineering Data**

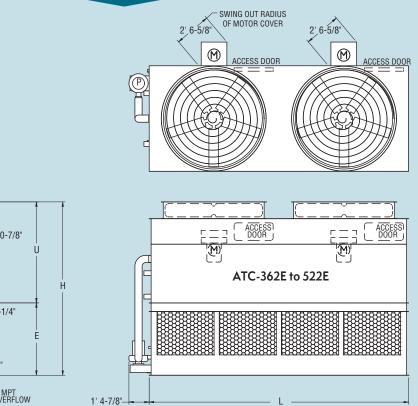
			Fans		Weights†		Refrigerant	Coil	Spray	Pump	Re	emote P	Pump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-181E	129	7.5	34,120	7,550	5,960	9,020	141	19	2	410	120	8"	7,850	11' 4"	7' 1/8"	4' 3-7/8"	19-1/2"	8' 11-1/2"
ATC-193E	137	10	37,420	7,570	5,980	9,040	141	19	2	410	120	8"	7,870	11' 4"	7' 1/8"	4' 3-7/8"	19-1/2"	8' 11-1/2"
ATC-204E	145	7.5	32,130	9,680	8,090	11,230	227	31	2	410	120	8"	10,060	12' 7"	8' 3-1/8"	4' 3-7/8"	34-1/2"	8' 11-1/2"
ATC-208E	148	10	36,330	8,600	7,010	10,110	184	25	2	410	120	8"	8,940	11' 11 1/2"	7'7-5/8"	4' 3-7/8"	27"	8' 11-1/2"
ATC-211E	150	7.5	31,140	10,740	9,150	12,340	270	37	2	410	120	8"	11,170	13' 2 1/2"	8'10-5/8"	4' 3-7/8"	42"	8' 11-1/2"
ATC-220E	157	10	35,240	9,700	8,110	11,250	227	31	2	410	120	8"	10,080	12' 7"	8' 3-1/8"	4' 3-7/8"	34-1/2"	8' 11-1/2"
ATC-225E	160	15	40,700	8,720	7,130	10,230	184	25	2	410	120	8"	9,060	11' 11 1/2"	7'7-5/8"	4' 3-7/8"	27"	8' 11-1/2"
ATC-227E	161	10	34,150	10,760	9,170	12,360	270	37	2	410	120	8"	11,190	13' 2 1/2"	8'10-5/8"	4' 3-7/8"	42"	8' 11-1/2"
ATC-236E	168	10	33,060	11,890	10,300	13,530	313	43	2	410	120	8"	12,360	13' 8 1/4"	9' 4-3/8"	4' 3-7/8"	47-3/4"	8' 11-1/2"
ATC-241E	171	15	39,470	9,820	8,230	11,370	227	31	2	410	120	8"	10,200	12' 7"	8' 3-1/8"	4' 3-7/8"	34-1/2"	8' 11-1/2"
ATC-251E	179	15	38,250	10,880	9,290	12,480	270	37	2	410	120	8"	11,310	13' 2 1/2"	8'10-5/8"	4' 3-7/8"	42"	8' 11-1/2"
ATC-261E	186	15	37,030	12,010	10,420	13,650	313	43	2	410	120	8"	12,480	13' 8 1/4"	9' 4-3/8"	4' 3-7/8"	47-3/4"	8' 11-1/2"
ATC-264E	188	15	51,680	9,270	7,370	11,370	185	25	3	550	160	10"	9,760	11' 4"	7' 1/8"	4' 3-7/8"	19-1/2"	11'11-3/4"
ATC-282E	200	15	50,180	10,670	8,770	12,830	243	33	3	550	160	10"	11,220	11' 11-1/2"	7'7-5/8"	4' 3-7/8"	27"	11' 11-3/4"
ATC-304E	216	15	48,670	12,050	10,150	14,270	301	41	3	550	160	10"	12,660	12' 7"	8' 3-1/8"	4' 3-7/8"	34-1/2"	11' 11-3/4"
ATC-316E	225	20	52,760	12,110	10,210	14,330	301	41	3	550	160	10"	12,720	12' 7"	8' 3-1/8"	4' 3-7/8"	34-1/2"	11'11-3/4"
ATC-338E	240	20	51,130	13,530	11,630	15,800	358	49	3	550	160	10"	14,190	13' 2-1/2"	8'10-5/8"	4' 3-7/8"	42"	11' 11-3/4"
ATC-351E	249	20	49,490	14,950	13,050	17,280	416	57	3	550	160	10"	15,670	13' 8-1/4"	9' 4-3/8"	4' 3-7/8"	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. Units are designed to fit into standard container for ease of transportation.

## Engineering Dimensions & Data Models ATC-362E to 522E



#### 1' 9-3/8' **⊷**3' 6-1/4"-1' 10-7/8" ${\mathbb M}$ (2) 4" PE REFRIG IN А (2) 4" PE REFRIG OUT 5-1/4" 2" MPT MAKE-UP 2" MPT DRAIN 1' 3" -3" MPT OVERFLOW 7' 4"

## **Table 9 Engineering Data**

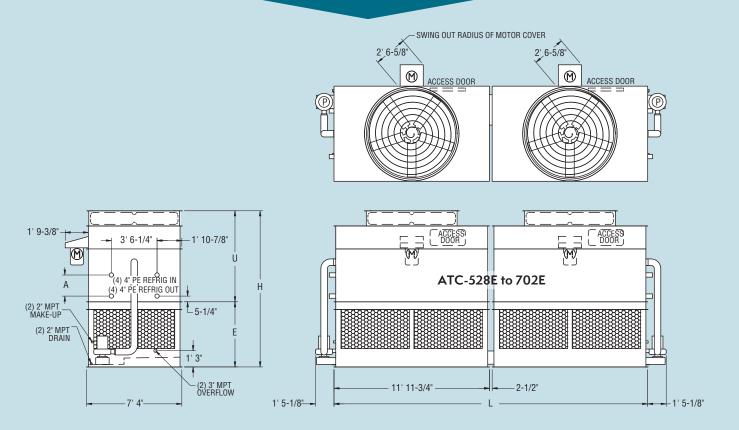
			Fans		<b>Weights</b> †		Refrigerant Operating	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-362E	257	(2) 7.5	68,480	13,970	10,950	17,210	274	37	5	800	240	12"	14,830	12' 3/8"	7' 1/8"	5'1/4"	19 1/2"	18' 0"
ATC-387E	275	(2) 10	75,120	14,000	10,980	17,240	274	37	5	800	240	12"	14,860	12' 3/8"	7' 1/8"	5'1/4"	19 1/2"	18' 0"
ATC-407E	289	(2) 7.5	64,490	18,180	15,160	21,590	448	61	5	800	240	12"	19,210	13' 3 3/8"	8' 3 1/8"	5'1/4"	341/2"	18' 0"
ATC-415E	295	(2) 10	72,930	16,100	13,080	19,430	361	49	5	800	240	12"	17,050	12'77/8"	7'75/8"	5'1/4"	27"	18' 0"
ATC-422E	300	(2) 7.5	62,500	20,350	17,330	23,850	535	73	5	800	240	12"	21,470	13' 10 7/8"	8' 10 5/8"	5'1/4"	42"	18' 0"
ATC-441E	313	(2) 10	70,740	18,210	15,190	21,620	448	61	5	800	240	12"	19,240	13' 3 3/8"	8'31/8"	5' 1/4"	341/2"	18' 0"
ATC-453E	322	(2) 15	81,700	16,350	13,330	19,680	361	49	5	800	240	12"	17,300	12'77/8"	7'75/8"	5'1/4"	27"	18' 0"
ATC-462E	328	(2) 10	68,560	20,380	17,360	23,880	535	73	5	800	240	12"	21,500	13' 10 7/8"	8' 10 5/8"	5'1/4"	42"	18' 0"
ATC-472E	335	(2) 10	66,370	22,540	19,520	26,130	622	85	5	800	240	12"	23,750	14' 4 5/8"	9' 4 3/8"	5'1/4"	47 3/4"	18' 0"
ATC-482E	342	(2) 15	79,250	18,460	15,440	21,870	448	61	5	800	240	12"	19,490	13' 3 3/8"	8'31/8"	5'1/4"	341/2"	18' 0"
ATC-504E	358	(2) 15	76,800	20,630	17,610	24,130	535	73	5	800	240	12"	21,750	13'107/8"	8'10 5/8"	5'1/4"	42"	18' 0"
ATC-522E	371	(2) 15	74,350	22,790	19,770	26,380	622	85	5	800	240	12"	24,000	14' 4 5/8"	9' 4 3/8"	5'1/4"	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. Units are designed to fit into standard container for ease of transportation.

## **Engineering Dimensions & Data** Models ATC-528E to 702E



### Table 10 Engineering Data

			Fans		<b>Weights</b> †		Refrigerant Operating	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Charge	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-528E	375	(2) 15	103,370	27,140	9,940	29,760	371	51	3	550	310	10"	26,460	12' 3/8"	7' 1/8"	5'1/4"	19 1/2"	24' 2"
ATC-564E	400	(2) 15	100,360	30,100	11,420	32,840	486	66	3	550	310	10"	29,540	12'77/8"	7'75/8"	5'1/4"	27"	24' 2"
ATC-608E	432	(2) 15	97,350	33,060	12,900	35,920	602	82	3	550	310	10"	32,620	13' 3 3/8"	8' 3 1/8"	5'1/4"	341/2"	24' 2"
ATC-632E	449	(2) 20	105,510	33,180	12,960	36,040	602	82	3	550	310	10"	32,740	13' 3 3/8"	8' 3 1/8"	5'1/4"	341/2"	24' 2"
ATC-676E	480	(2) 20	102,250	36,220	14,480	39,180	717	98	3	550	310	10"	35,880	13'10 7/8"	8'10 5/8"	5'1/4"	42"	24' 2"
ATC-702E	498	(2) 20	98,990	39,300	16,020	42,380	832	113	3	550	310	10"	39,080	14' 4 5/8"	9' 4 3/8"	5'1/4"	47 3/4"	24' 2"

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

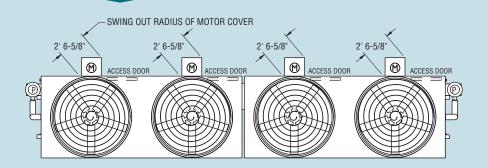
Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.) \*\*

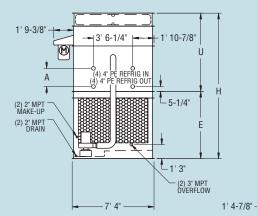
Heaviest section is the coil section. When 5.12g seismic design is required consult the factory for specific weights. † \*\*\*

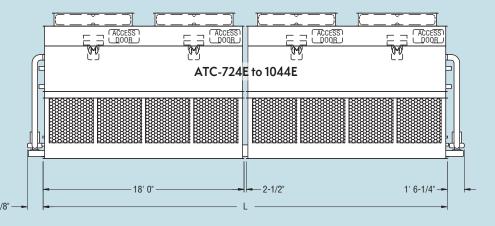
Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.

Units are designed to fit into standard container for ease of transportation.

## Engineering Dimensions & Data Models ATC-724E to 1044E







## Table 11 Engineering Data

		F	ans		Weights		Refrigerant Operating	Coil	Spray	Pump	Re	emote P	omp			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-724E	514	(4) 7.5	136,960	41,440	14,920	45,680	548	75	5	800	480	12"	40,840	13' 3/8"	7' 1/8"	6'1/4"	19-1/2"	36' 2-1/2"
ATC-772E	548	(4) 10	150,240	41,500	14,950	45,740	548	75	5	800	480	12"	40,900	13' 3/8"	7' 1/8"	6'1/4"	19-1/2"	36' 2-1/2"
ATC-818E	581	(4) 7.5	128,980	50,480	19,440	55,060	896	122	5	800	480	12"	50,220	14' 3-3/8"	8' 3-1/8"	6'1/4"	34-1/2"	36' 2-1/2"
ATC-832E	591	(4) 10	145,860	45,900	17,150	50,320	722	98	5	800	480	12"	45,480	13' 7-7/8"	7'7-5/8"	6'1/4"	27"	36' 2-1/2"
ATC-844E	599	(4) 7.5	124,990	55,120	21,760	59,880	1070	146	5	800	480	12"	55,040	14' 10-7/8"	8'10-5/8"	6'1/4"	42"	36' 2-1/2"
ATC-880E	625	(4) 10	141,490	50,540	19,470	55,120	896	122	5	800	480	12"	50,280	14' 3-3/8"	8' 3-1/8"	6'1/4"	34-1/2"	36' 2-1/2"
ATC-900E	639	(4) 15	163,400	46,400	17,400	50,820	722	98	5	800	480	12"	45,980	13' 7-7/8"	7'7-5/8"	6'1/4"	27"	36' 2-1/2"
ATC-920E	653	(4) 10	137,110	55,180	21,790	59,940	1070	146	5	800	480	12"	55,100	14'10-7/8"	8'10-5/8"	6'1/4"	42"	36' 2-1/2"
ATC-944E	670	(4) 10	132,740	59,940	24,170	64,880	1245	170	5	800	480	12"	60,040	15' 4-5/8"	9' 4-3/8"	6'1/4"	47-3/4"	36' 2-1/2"
ATC-964E	684	(4) 15	158,500	51,040	19,720	55,620	896	122	5	800	480	12"	50,780	14' 3-3/8"	8' 3-1/8"	6'1/4"	34-1/2"	36' 2-1/2"
ATC-1004E	713	(4) 15	153,600	55,680	22,040	60,440	1070	146	5	800	480	12"	55,600	14'10-7/8"	8'10-5/8"	6'1/4"	42"	36' 2-1/2"
ATC-1044E	741	(4) 15	148,700	60,440	24,420	65,380	1245	170	5	800	480	12"	60,540	15' 4-5/8"	9' 4-3/8"	6'1/4"	47-3/4"	36' 2-1/2"

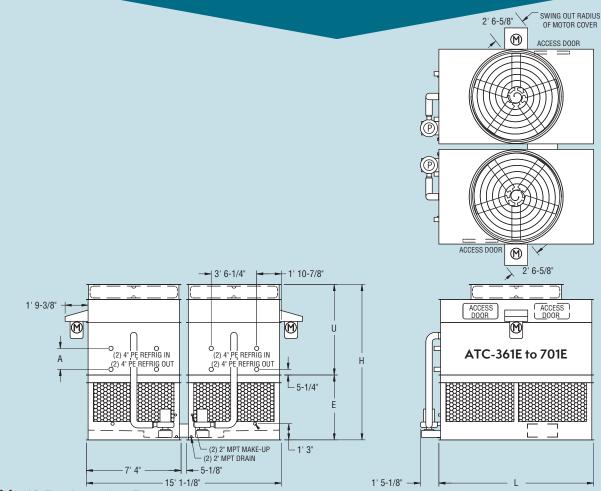
\* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

\*\* 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. Units are designed to fit into standard container for ease of transportation.

## Engineering Dimensions & Data Models ATC-361E to 701E



### Table 12 Engineering Data

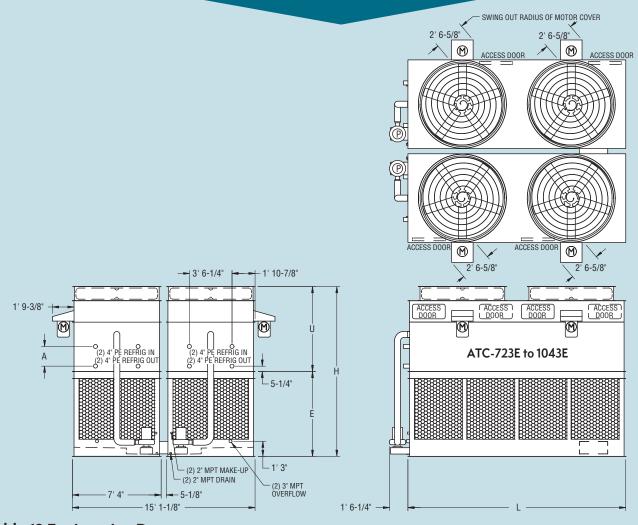
		Fa	ans		<b>Weights</b> †		Refrigerant Operating	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-361E	257	(2) 7.5	68,240	22,460	8,180	24,040	282	38	2	410	240	8"	21,620	12' 3/8"	7'1/8"	5'1/4"	19-1/2"	8' 11-1/2"
ATC-383E	272	(2) 10	74,830	22,500	8,200	24,080	282	38	2	410	240	8"	21,660	12' 3/8"	7'1/8"	5'1/4"	19-1/2"	8' 11-1/2"
ATC-408E	290	(2) 7.5	64,270	26,980	10,440	28,720	454	62	2	410	240	8"	26,300	13' 3 3/8"	8' 3-1/8"	5'1/4"	34-1/2"	8' 11-1/2"
ATC-416E	296	(2) 10	72,660	24,660	9,280	26,320	368	50	2	410	240	8"	23,900	12'77/8"	7'7-5/8"	5'1/4"	27"	8' 11-1/2"
ATC-421E	299	(2) 7.5	62,280	29,300	11,600	31,140	540	74	2	410	240	8"	28,720	13'10 7/8"	8'10-5/8"	5'1/4"	42"	8' 11-1/2"
ATC-439E	312	(2) 10	70,480	27,020	10,460	28,760	454	62	2	410	240	8"	26,340	13' 3 3/8"	8' 3-1/8"	5'1/4"	34-1/2"	8' 11-1/2"
ATC-450E	320	(2) 15	81,390	24,900	9,400	26,560	368	50	2	410	240	8"	24,140	12'77/8"	7'7-5/8"	5'1/4"	27"	8' 11-1/2"
ATC-460E	327	(2) 10	68,300	29,340	11,620	31,180	540	74	2	410	240	8"	28,760	13'10 7/8"	8'10-5/8"	5'1/4"	42"	8' 11-1/2"
ATC-471E	335	(2) 10	66,120	31,860	12,880	33,780	626	85	2	410	240	8"	31,360	14' 4 5/8"	9'4-3/8"	5'1/4"	47-3/4"	8' 11-1/2"
ATC-481E	342	(2) 15	78,950	27,260	10,580	29,000	454	62	2	410	240	8"	26,580	13' 3 3/8"	8' 3-1/8"	5'1/4"	34-1/2"	8' 11-1/2"
ATC-501E	356	(2) 15	76,510	29,580	11,740	31,420	540	74	2	410	240	8"	29,000	13'10 7/8"	8'10-5/8"	5'1/4"	42"	8' 11-1/2"
ATC-521E	370	(2) 15	74,070	32,100	13,000	34,020	626	85	2	410	240	8"	31,600	14' 4 5/8"	9' 4-3/8"	5'1/4"	47-3/4"	8' 11-1/2"
ATC-526E	374	(2) 15	103,370	27,140	9,940	29,760	371	51	3	550	310	10"	26,460	12' 3/8"	7'1/8"	5'1/4"	19-1/2"	11'11-3/4"
ATC-563E	400	(2) 15	100,360	30,100	11,420	32,840	486	66	3	550	310	10"	29,540	12'77/8"	7'7-5/8"	5'1/4"	27"	11'11-3/4"
ATC-607E	431	(2) 15	97,350	33,060	12,900	35,920	602	82	3	550	310	10"	32,620	13' 3 3/8"	8' 3-1/8"	5'1/4"	34-1/2"	11'11-3/4"
ATC-631E	448	(2) 20	105,510	33,180	12,960	36,040	602	82	3	550	310	10"	32,740	13' 3 3/8"	8' 3-1/8"	5'1/4"	34-1/2"	11' 11-3/4"
ATC-674E	479	(2) 20	102,250	36,220	14,480	39,180	717	98	3	550	310	10"	35,880	13' 10 7/8"	8'10-5/8"	5'1/4"	42"	11'11-3/4"
ATC-701E	498	(2) 20	98,990	39,300	16,020	42,380	832	113	3	550	310	10"	39,080	14' 4 5/8"	9' 4-3/8"	5'1/4"	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. Units are designed to fit into standard container for ease of transportation.

## **Engineering Dimensions & Data** Models ATC-723E to 1043E



#### **Table 13 Engineering Data**

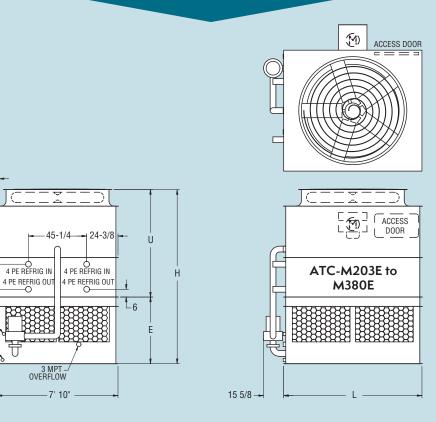
		F	ans		Weightst		Refrigerant	Call	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Coil Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-723E	513	(4) 7.5	136,960	41,440	14,920	45,680	548	75	5	800	480	12"	40,840	14' 3/8"	7' 1/8"	7'1/4"	19 1/2"	18' 0"
ATC-771E	547	(4) 10	150,240	41,500	14,950	45,740	548	75	5	800	480	12"	40,900	14' 3/8"	7' 1/8"	7'1/4"	19 1/2"	18' 0"
ATC-817E	580	(4) 7.5	128,980	50,480	19,440	55,060	896	122	5	800	480	12"	50,220	15' 3 3/8"	8'31/8"	7'1/4"	34 1/2"	18' 0"
ATC-831E	590	(4) 10	145,860	45,900	17,150	50,320	722	98	5	800	480	12"	45,480	14'77/8"	7'75/8"	7'1/4"	27"	18' 0"
ATC-843E	598	(4) 7.5	124,990	55,120	21,760	59,880	1070	146	5	800	480	12"	55,040	15' 10 7/8"	8'10 5/8"	7'1/4"	42"	18' 0"
ATC-879E	624	(4) 10	141,490	50,540	19,470	55,120	896	122	5	800	480	12"	50,280	15' 3 3/8"	8'31/8"	7'1/4"	34 1/2"	18' 0"
ATC-899E	638	(4) 15	163,400	46,400	17,400	50,820	722	98	5	800	480	12"	45,980	14'77/8"	7'75/8"	7'1/4"	27"	18' 0"
ATC-919E	652	(4) 10	137,110	55,180	21,790	59,940	1070	146	5	800	480	12"	55,100	15'107/8"	8'10 5/8"	7'1/4"	42"	18' 0"
ATC-943E	669	(4) 10	132,740	59,940	24,170	64,880	1245	170	5	800	480	12"	60,040	16' 4 5/8"	9'43/8"	7'1/4"	47 3/4"	18' 0"
ATC-963E	683	(4) 15	158,500	51,040	19,720	55,620	896	122	5	800	480	12"	50,780	15' 3 3/8"	8'31/8"	7'1/4"	34 1/2"	18' 0"
ATC-1003E	712	(4) 15	153,600	55,680	22,040	60,440	1070	146	5	800	480	12"	55,600	15'107/8"	8'10 5/8"	7'1/4"	42"	18' 0"
ATC-1043E	740	(4) 15	148,700	60,440	24,420	65,380	1245	170	5	800	480	12"	60,540	16' 4 5/8"	9' 4 3/8"	7'1/4"	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. Units are designed to fit into standard container for ease of transportation.

## **Engineering Dimensions & Data** Models ATC-M203E to M380E



### **Table 14 Engineering Data**

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2 MPT DRAIN

			Fans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-M203E	144	7.5	34,670	8,770	7,370	11,410	200	27	2	410	240	8"	10,180	11'10-7/8"	7' 7"	4' 3-7/8"	27"	8'11-1/2"
ATC-M225E	160	7.5	33,630	9,930	8,530	12,610	240	33	2	410	240	8"	11,380	12' 6-3/8"	8' 2-1/2"	4' 3-7/8"	34-1/2"	8' 11-1/2"
ATC-M233E	166	7.5	32,590	11,090	9,690	13,820	290	39	2	410	240	8"	12,590	13'1-7/8"	8'10"	4' 3-7/8"	42"	8'11-1/2"
ATC-M301E	214	15	52,710	11,150	9,380	14,800	260	35	3	550	320	10"	13,170	11'10-7/8"	7'7"	4' 3-7/8"	27"	11' 11-3/4"
ATC-M304E	216	10	44,940	12,500	10,730	16,210	320	44	3	550	320	10"	14,580	12' 6-3/8"	8' 2-1/2"	4' 3-7/8"	34-1/2"	11' 11-3/4"
ATC-M314E	223	10	43,550	14,050	12,280	17,820	380	52	3	550	320	10"	16,190	13' 1-7/8"	8'10"	4' 3-7/8"	42"	11' 11-3/4"
ATC-M344E	244	15	49,550	14,170	12,400	17,940	380	52	3	550	320	10"	16,310	13' 1-7/8"	8' 10"	4' 3-7/8"	42"	11'11-3/4"
ATC-M352E	250	20	55,420	12,680	10,910	16,390	320	44	3	550	320	10"	14,760	12' 6-3/8"	8' 2-1/2"	4' 3-7/8"	34-1/2"	11'11-3/4"
ATC-M380E	270	25	57,170	14,260	12,490	18,030	380	52	3	550	320	10"	16,400	13'1-7/8"	8' 10"	4' 3-7/8"	42"	11' 11-3/4"

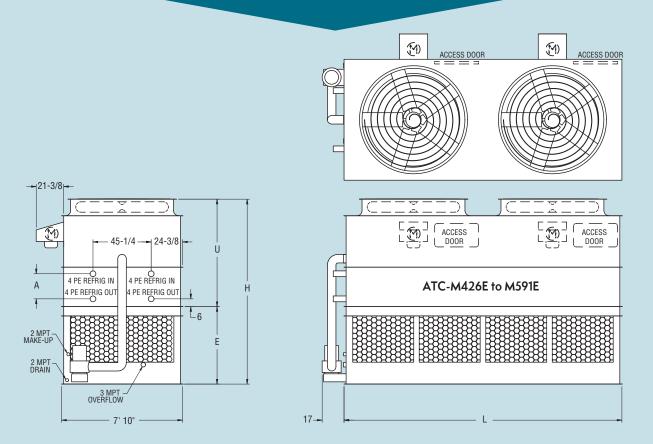
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B. Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

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.

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## Engineering Dimensions & Data Models ATC-M426E to M591E



### Table 15 Engineering Data

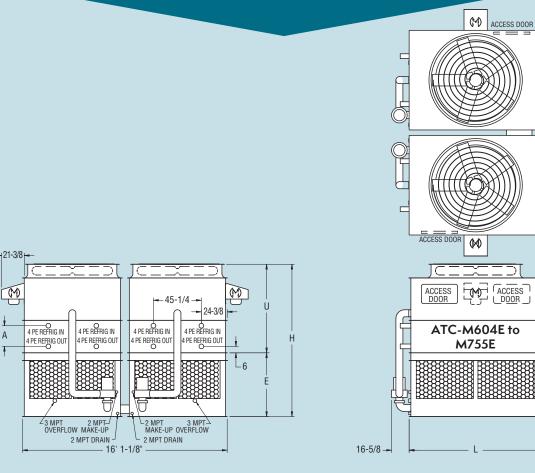
		F	ans		Weights		Refrigerant	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-M426E	303	(2) 7.5	69,350	16,800	14,070	22,330	390	52	5	800	480	12"	19,900	12'7-1/4"	7' 7"	5'1/4"	27"	18' 0"
ATC-M456E	324	(2) 10	76,330	16,830	14,100	22,360	390	52	5	800	480	12"	19,930	12'7-1/4"	7'7"	5'1/4"	27"	18' 0"
ATC-M467E	332	(2) 7.5	67,270	18,970	16,240	24,590	480	65	5	800	480	12"	22,160	13' 2-3/4"	8' 2-1/2"	5'1/4"	34-1/2"	18' 0"
ATC-M483E	343	(2) 7.5	65,190	21,300	18,570	27,010	570	78	5	800	480	12"	24,580	13'10-1/4"	8' 10"	5'1/4"	42"	18' 0"
ATC-M494E	351	(2) 15	85,500	17,080	14,350	22,610	390	52	5	800	480	12"	20,180	12' 7-1/4"	7'7"	5'1/4"	27"	18' 0"
ATC-M500E	355	(2) 10	74,040	19,000	16,270	24,620	480	65	5	800	480	12"	22,190	13' 2-3/4"	8' 2-1/2"	5'1/4"	34-1/2"	18' 0"
ATC-M541E	384	(2) 15	82,940	19,250	16,520	24,870	480	65	5	800	480	12"	22,440	13' 2-3/4"	8' 2-1/2"	5'1/4"	34-1/2"	18' 0"
ATC-M591E	420	(2) 20	87,120	21,700	18,970	27,410	570	78	5	800	480	12"	24,980	13' 10-1/4"	8' 10"	5'1/4"	42"	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.

## **Engineering Dimensions & Data** Models ATC-M604E to M755E



### **Table 16 Engineering Data**

		F	ans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	emote P	Pump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-M604E	429	(2) 10	89,880	25,000	10,730	32,420	640	87	3	550	640	10"	29,160	13' 2-3/4"	8' 2-1/2"	5'1/4"	34-1/2"	11'11-3/4"
ATC-M625E	444	(2) 10	87,100	28,100	12,280	35,640	760	104	3	550	640	10"	32,380	13'10-1/4"	8'10"	5'1/4"	42"	11' 11-3/4"
ATC-M634E	450	(2) 20	114,260	22,420	9,440	29,720	520	70	3	550	640	10"	26,460	12' 7-1/4"	7'7"	5'1/4"	27"	11' 11-3/4"
ATC-M663E	471	(2) 15	102,260	25,240	10,850	32,660	640	87	3	550	640	10"	29,400	13' 2-3/4"	8' 2-1/2"	5'1/4"	34-1/2"	11' 11-3/4"
ATC-M685E	486	(2) 15	99,100	28,340	12,400	35,880	760	104	3	550	640	10"	32,620	13'10-1/4"	8' 10"	5'1/4"	42"	11' 11-3/4"
ATC-M701E	498	(2) 20	110,840	25,360	10,910	32,780	640	87	3	550	640	10"	29,520	13' 2-3/4"	8' 2-1/2"	5'1/4"	34-1/2"	11' 11-3/4"
ATC-M755E	536	(2) 25	114,330	28,520	12,490	36,060	760	104	3	550	640	10"	32,800	13'10-1/4"	8'10"	5'1/4"	42"	11' 11-3/4"

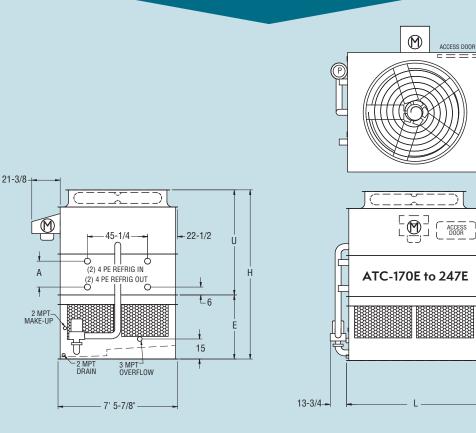
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

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-361E to 701E



## Table 17 Engineering Data

			Fans		Weights†		Refrigerant Operating	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Charge	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-170E	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	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	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	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	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	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"

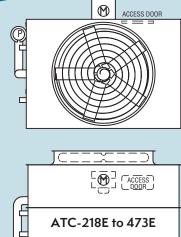
\* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

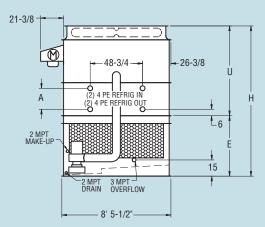
\*\* Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

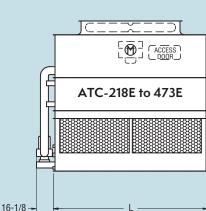
+ Heaviest section is the coil section. When 5.12g seismic design is required consult the factory for specific weights.

\*\*\* 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 to 473E







#### **Table 18 Engineering Data**

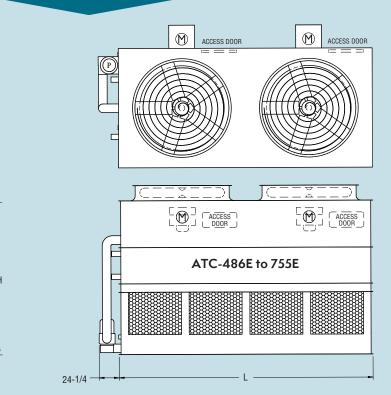
		F	ans		Weights†		Refrigerant	C-:I	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Coil Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-218E	155	7.5	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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"

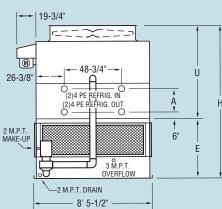
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

Callons 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 to 755E





## **Table 19 Engineering Data**

		F	ans		Weights†		Refrigerant	Coil	Spray	Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-486E	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	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	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	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	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	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	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	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	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	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	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	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	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"

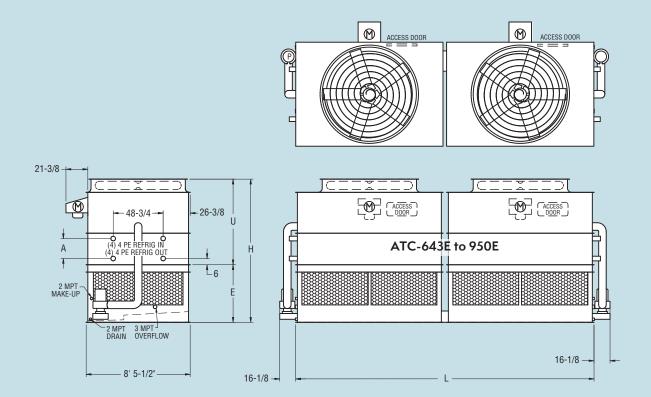
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

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 to 950E



### Table 20 Engineering Data

		F	ans		Weights†		Refrigerant	Coil	Spray	Pump	Re	emote Pu	Imp			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-643E	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	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	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	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	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	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	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	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	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	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	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	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"

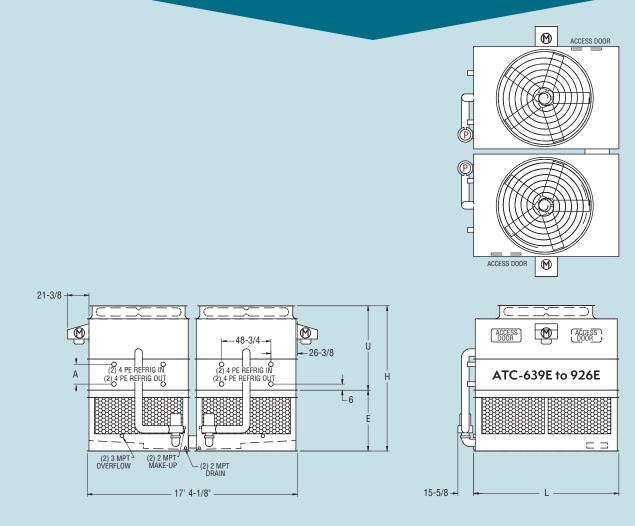
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

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.

## Engineering Dimensions & Data Models ATC-639E to 926E



### Table 21 Engineering Data

		F	ans		<b>Weights</b> †		Refrigerant Operating	Coil	Spray	Pump	Re	mote Pur	np		D	imensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Ċharge	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-639E	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	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	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	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	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	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	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	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	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	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	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"

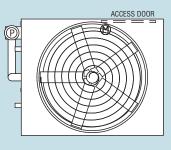
\* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

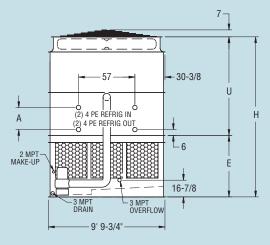
\*\* Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

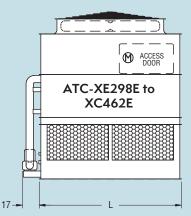
Heaviest section is the coil section. When 5.12g seismic design is required consult the factory for specific weights.
 \*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.

\*\*\* Refrigerant charge is shown for R-/1/. 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 to XC462E







### **Table 22 Engineering Data**

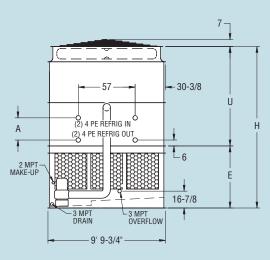
		F	ans		<b>Weights</b> †		Refrigerant	Coil	Spray	/ Pump	Re	emote P	ump		[	Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE298E	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	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	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	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	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	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	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	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	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	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	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	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"

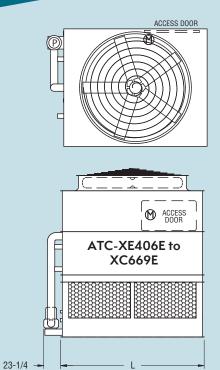
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B. Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12″ would normally be sufficient.)

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 to XC669E





# **Table 23 Engineering Data**

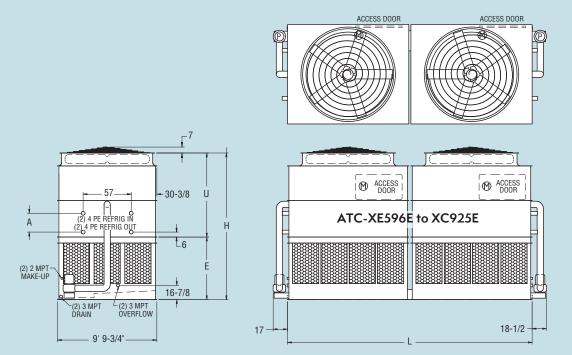
			Fans		Weights†		Refrigerant	Coil	Spray	Pump	Re	emote P	ump		Di	mensions		
Model No.	R-717 Tons <sup>*</sup>	HP	CFM	Shipping	Heaviest Section†	Shipping	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE406E	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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.

Callons 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.

+ Heaviest section is the coil section. **When 5.12g seisting design is required easient** \*\*\* 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. Optional Dual Fan units will have a "-DF" at the end of the model number. Fan horsepower and weights may vary.

## Engineering Dimensions & Data Models ATC-XE596E to XC925E



#### Table 24 Engineering Data

		F	ans		Weights†		Refrigerant	Coil	Spray	Pump	Rer	note Pur	np		Di	mensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE596E	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	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	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	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	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	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	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	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	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	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	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"

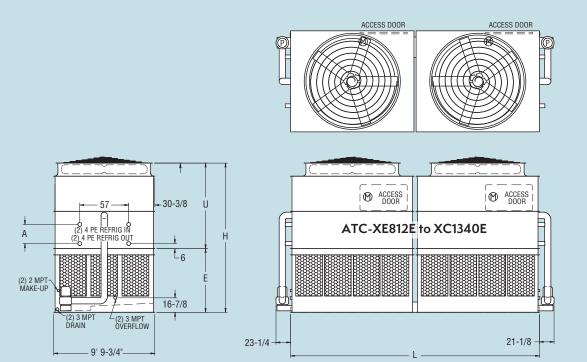
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

\*\* 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.
\*\*\* Petriagrant charge is shown for P. 717. Multiply by 193 for P. 22 and 198 for P. 134a

\*\*\* 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 to XC1340E



#### Table 25 Engineering Data

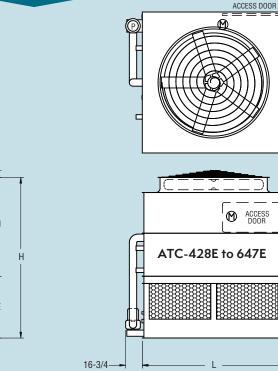
		F	ans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	emote P	ump		C	Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-XE812E	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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. Optional Dual Fan units will have a "-DF" at the end of the model number. Fan horsepower and weights may vary.

## **Engineering Dimensions & Data** Models ATC-428E to 647E



#### 7-- 36-3/8 69-1/4 İ ò (2) 4 PE REFRIG IN А (2) 4 PE REFRIG OUT 7 6 2 MPT MAKE-UP 3 MP 3 MPT OVERFLOW DRAIN 11' 10"

### Table 26 Engineering Data

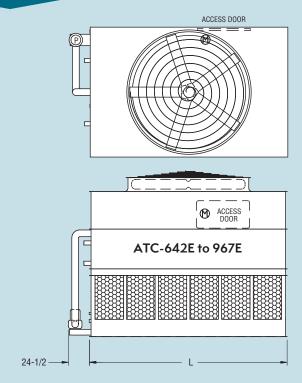
			Fans		<b>Weights</b> †		Refrigerant	Coil	Spray	' Pump	Re	emote P	ump			Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-428E	304	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	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	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	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	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	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	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	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	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	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	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	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	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	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"

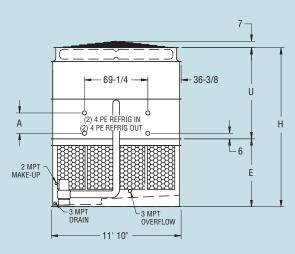
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B. Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. [12″ would normally be sufficient.]

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.

## Engineering Dimensions & Data Models ATC-642E to 967E





### Table 27 Engineering Data

			Fans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	mote F	Pump		D	imensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-642E	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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"

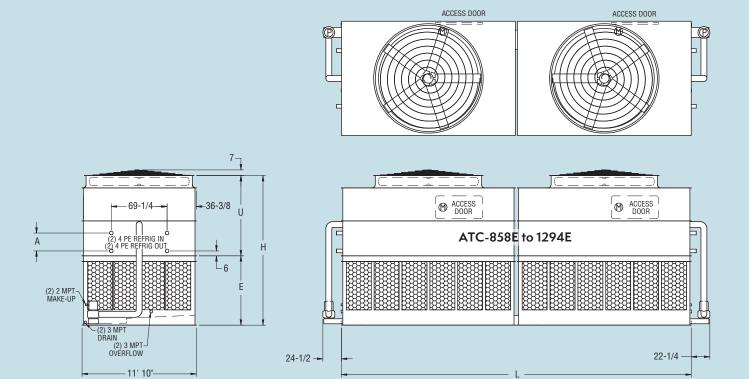
\* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

\*\* 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. Optional Dual Fan units will have a "-DF" at the end of the model number. Fan horsepower and weights may vary.

## Engineering Dimensions & Data Models ATC-858E to 1294E



### Table 28 Engineering Data

		F	ans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	emote P	Jmp		D	imensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-858E	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	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	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	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	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	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	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	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	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	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	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	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	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	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"

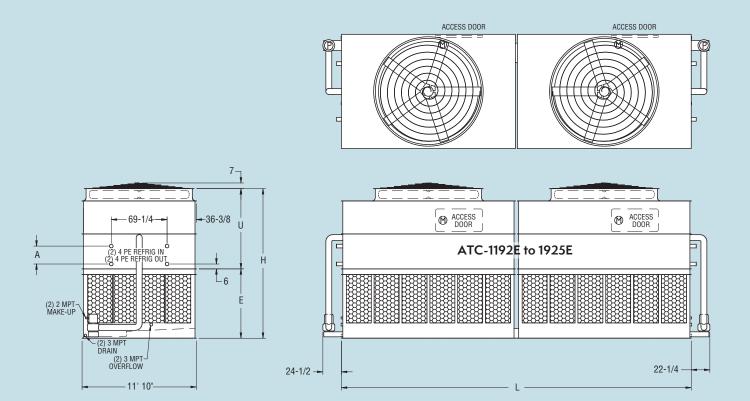
\* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

\*\* 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.

## Engineering Dimensions & Data Models ATC-1192E to 1925E



### **Table 29 Engineering Data**

		I	Fans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	emote Pu	Jmp		D	imensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-1192E	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	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	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	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	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	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	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	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	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	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	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	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	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	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"

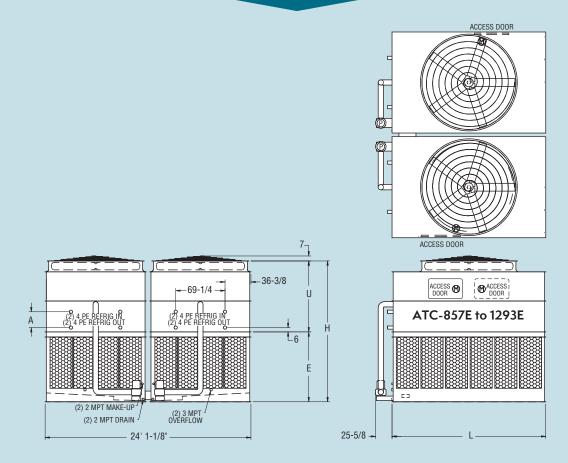
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

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.

Optional Dual Fan units will have a "-DF" at the end of the model number. Fan horsepower and weights may vary.

## Engineering Dimensions & Data Models ATC-857E to 1293E



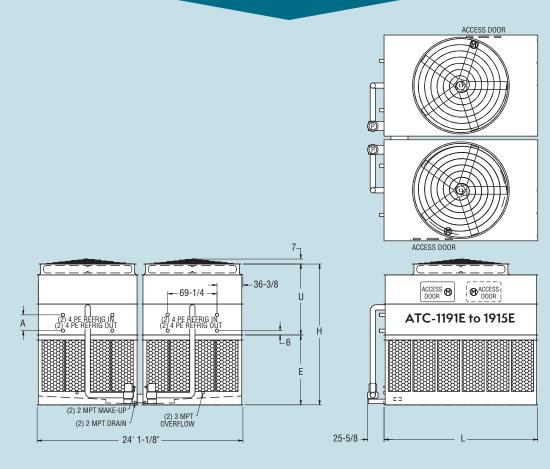
### **Table 30 Engineering Data**

		I	ans		<b>Weights</b> †		Refrigerant	Coil	Spray	Pump	Re	emote P	Jmp			Dimension	5	
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-857E	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	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	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	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	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	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	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	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	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	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	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	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. † \*\*\*

## Engineering Dimensions & Data Models ATC-1191E to 1915E



### **Table 31 Engineering Data**

		I	Fans		Weights†		Refrigerant	Coil	Spray	Pump	Re	emote Pi	Jmp			Dimensions	5	
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-1191E	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	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	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	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	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	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	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	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	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	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	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	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	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	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"

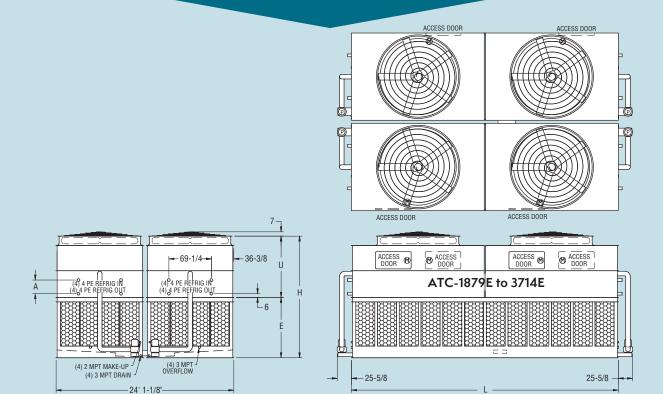
Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

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.

Heaviest section is the coil section. When 5.12g seismic design is required conson and reference of the section is the coil section. When 5.12g seismic design is required conson and reference of the section is reference of the section is reference of the model number. Fan horsepower and weights may vary.

## **Engineering Dimensions & Data** Models ATC-1879E to 3714E



### Table 32 Engineering Data

			ans		Weights†		Refrigerant	C-:1	Spray	Pump	Re	emote P	ump		[	Dimensions		
Model No.	R-717 Tons*	HP	CFM	Shipping	Heaviest Section†	Operating	Operating Charge Ibs.***	Coil Volume ft <sup>3</sup>	HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
ATC-1879E	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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. + Heaviest section is the coll section. When 5.12g setsing educing the section is the coll section. When 5.12g setsing educing the section is the coll section is the coll section is the coll section is the section is the coll section. When 5.12g setsing educing the section is the coll section is the co

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions. Optional Dual Fan units will have a "-DF" at the end of the model number. Fan horsepower and weights may vary.

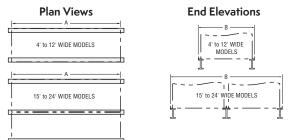
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EVAPCO ATC-E condensers are designed to be supported with structural "I" beams located under the outer flanges and running the entire length of the unit. Mounting holes, 3/4" in diameter are located in the bottom channels of the pan section to provide 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

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

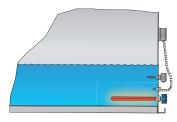


4' Wide Models         A         B           ATC-50E to 165E         5' 11-7/8"         4' 1/4"           90E to 120E         8' 11-1/2"         4' 1/4"           7' 4''' Wide Models         A         B           ATC-181 to 261         8' 11-1/2"         7' 4"           264 to 351         11' 11-3/4"         7' 4"           362 to 522         18'         7' 4"           528 to 702         24' 2"         7' 4"           361 to 521         8' 11-1/2"         15' 1-1/8"           724 to 1044         36' 2-1/2"         7' 4"           361 to 521         8' 11-1/2"         15' 1-1/8"           7'10"'Wide Models         A         B           M203 to M233         8' 11-1/2"         7' 10"           M301 to M380         11' 11-3/4"         7' 10"           M426 to M591         18         7' 10"           M426 to 369E         10' 5-1/2"         8' 5-1/2"           218E to 305E         8' 11-1/2"         8' 5-1/2"           218E to 305E         8' 11-1/2"         8' 5-1/2"           358E to 473E         13' 11-3/4"         8' 5-1/2"           358E to 473E         13' 11-3/4"         8' 5-1/2"           36' 62-1/2"         9'	Steel Dimensions				
ATC-50E to 165E       5' 11-7/8"       4' 1/4"         90E to 120E       8' 11-1/2"       4' 1/4"         135E to 165E       11' 11-3/4"       4' 1/4"         7' 4"'Wide Models       A       B         ATC-181 to 261       8' 11-1/2"       7' 4"         362 to 522       18'       7' 4"         528 to 702       24' 2'       7' 4"         724 to 1044       36' 2-1/2"       7' 4"         361 to 521       8' 11-1/2"       15' 1-1/8"         723 to 1043       18'       15' 1-1/8"         723 to 1043       18'       7' 10"         M203 to M233       8' 11-1/2"       7' 10"         M426 to M591       18'       7' 10"         M426 to M591       18'       7' 10"         M426 to 305E       8' 11-1/2"       8' 5-1/2"         218E to 305E       8' 11-1/2"       8' 5-1/2"         246E to 369E       10' 5-1/2"       8' 5-1/2"         358E to 473E       13' 11-3/4"       8' 5-1/2"         366E to 755E       21'       8' 5-1/2"         366E to 755E       21'       8' 5-1/2"         366E to 755E       21'       8' 5-1/2"         37       8' 5-1/2"       8' 5-1/2"     <	4' Wide Models	Α	В		
135E to 165E         11' 11-3/4"         4' 1/4"           7' 4'' Wide Models         A         B           ATC-181 to 261         8' 11-1/2"         7' 4"           362 to 522         18'         7' 4"           528 to 702         24' 2"         7' 4"           361 to 521         8' 11-1/2"         7' 4"           361 to 521         8' 11-1/2"         7' 4"           361 to 521         8' 11-1/2"         15' 1-1/8"           723 to 1043         18'         15' 1-1/8"           723 to 1043         18'         15' 1-1/8"           7' 10" Wide Models         A         B           M203 to M233         8' 11-1/2"         7' 10"           M301 to M380         11' 11-3/4"         7' 10"           M426 to M591         18'         7' 10"           M634 to M755         13' 11-3/4"         16' 1-1/8"           218E to 305E         8' 5-1/2"         7' 5-7/8"           218E to 305E         8' 5-1/2"         8' 5-1/2"           358E to 473E         13' 11-3/4"         8' 5-1/2"           466 to 755E         21'         8' 5-1/2"           666E to 755E         21'         8' 5-1/2"           666E to 755E         18'	ATC-50E to 165E	5' 11-7/8"	4'1/4"		
7' 4''' Wide Models         A         B           ATC-181 to 261         8' 11-1/2'''         7' 4"           264 to 351         11' 11-3/4''         7' 4"           362 to 522         18'         7' 4"           528 to 702         24' 2''         7' 4"           724 to 1044         36' 2-1/2''         7' 4"           361 to 521         8' 11-1/2''         15' 1-1/8''           526 to 701         11' 11-3/4''         15' 1-1/8''           7' 10''' Wide Models         A         B           M203 to M233         8' 11-1/2'''         7' 10''           M301 to M380         11' 11-3/4''         7' 10''           M426 to M591         18''         7' 10''           M426 to M591         18''         7' 10'''           M426 to M591         18''         7' 10'''           M426 to M591         18''         8' 5-1/2'''           218 to 305E         8' 11-1/2''         7' 5-7/8"           218 to 305E         8' 11-1/2'''         8' 5-1/2'''           346 to 630E         18''         8' 5-1/2'''           246 to 369E         10' 5-1/2'''         8' 5-1/2'''           385 to 409E         11' 11-3/4'''         8' 5-1/2'''           385 to 40		8' 11-1/2" 11' 11-3 /4"	4'1/4"		
ATC-181 to 261       8' 11-1/2''       7' 4"         264 to 351       11' 11-3/4''       7' 4"         362 to 522       18'       7' 4"         528 to 702       24' 2''       7' 4"         528 to 702       24' 2''       7' 4"         361 to 521       8' 11-1/2'''       15' 1-1/8"         526 to 701       11' 11-3/4''       15' 1-1/8"         7' 10''' Wide Models       A       B         M203 to M233       8' 11-1/2'''       7' 10"         M301 to M380       11' 11-3/4''       7' 10"         M426 to M591       18'       7' 10"         M426 to M591       18'       7' 10"         M426 to 369E       10' 5-1/2"       8' 5-1/2"         218E to 305E       8' 11-1/2"       8' 5-1/2"         246E to 369E       10' 5-1/2"       8' 5-1/2"         358E to 409E       11' 11-3/4"       8' 5-1/2"         346E to 630E       18'       8' 5-1/2"         486 to 630E       18'       8' 5-1/2"         486 to 630E       18'       9' 9-3/4"         XE596E to XC925E       24' 2"       9' 9-3/4"         XE806E to XC662E       11' 11-3/4"       9' 9-3/4"         XE812E to XC1340E       36' 2	7' 4"' Wide Models		/ .		
528 to 702 $24'2''$ $7'4"$ 724 to 1044 $36'2-1/2"$ $7'4"$ 361 to 521 $8'11-1/2"'$ $15'1-1/8"$ 526 to 701 $11'11-3/4"$ $15'1-1/8"$ 723 to 1043 $18''$ $15'1-1/8"$ 723 to 1043 $18''$ $15'1-1/8"$ 710" Wide Models <b>A B</b> M203 to M233 $8'11-1/2"''$ $7'10"'''''''''''''''''''''''''''''''''''$	ATC-181 to 261	8′ 11-1/2″'			
528 to 702 $24'2''$ $7'4"$ 724 to 1044 $36'2-1/2"$ $7'4"$ 361 to 521 $8'11-1/2"'$ $15'1-1/8"$ 526 to 701 $11'11-3/4"$ $15'1-1/8"$ 723 to 1043 $18''$ $15'1-1/8"$ 723 to 1043 $18''$ $15'1-1/8"$ 710" Wide Models <b>A B</b> M203 to M233 $8'11-1/2"''$ $7'10"'''''''''''''''''''''''''''''''''''$	264 to 351	11' 11-3/4"			
724 to 1044 $36' 2-1/2"$ $7' 4"$ 361 to 521       8' 11-1/2"       15' 1-1/8"         526 to 701       11' 11-3/4"       15' 1-1/8"         723 to 1043       18'       15' 1-1/8"         7' 10" Wide Models       A       B         M203 to M233       8' 11-1/2"       7' 10"         M301 to M380       11' 11-3/4"       7' 10"         M426 to M591       18'       7' 10"         M424 to M755       13' 11-3/4"       16' 1-1/8"         8-1/2' Wide Models       A       B         ATC-170E to 247E       8' 5-1/2"       7' 5-7/8"         218E to 305E       8' 11-1/2"       8' 5-1/2"         218E to 305E       13' 11-3/4"       8' 5-1/2"         358 to 409E       11' 11-3/4"       8' 5-1/2"         358 to 473E       13' 11-3/4"       8' 5-1/2"         486E to 630E       18'       9' 9-3/4"         XE406E to XC669E       18'       9' 9-3/4"         XE406E to XC669E       18'       9' 9-3/4"         XE406E to XC669E       18'       9' 9-3/4"         XE596 to XC925E       24' 2"       9' 9-3/4"         XE406E to 805E       11' 11-3/4"       17' 4-1/8"         780E to 9	362 to 522 528 to 702	18 2 <i>A'</i> 2″			
361 to 521       8' 11-1/2"       15' 1-1/8"         526 to 701       11' 11-3/4"       15' 1-1/8"         723 to 1043       18''       15' 1-1/8"         M203 to M233       8' 11-1/2"'       7' 10"         M301 to M380       11' 11-3/4"       7' 10"         M426 to M591       18''       7' 10"         M426 to M591       18''       7' 10"         M634 to M755       13' 11-3/4"       16' 1-1/8"         8-1/2' Wide Models       A       B         ATC-170E to 247E       8' 5-1/2"       7' 5-7/8"         218E to 305E       8' 11-1/2"       8' 5-1/2"         358E to 409E       10' 5-1/2"       8' 5-1/2"         358E to 473E       13' 11-3/4"       8' 5-1/2"         358E to 473E       13' 11-3/4"       8' 5-1/2"         486 to 630E       18''       8' 5-1/2"         666E to 755E       21'       8' 5-1/2"         10' Wide Models       A       B         ATC-XE298E to XC462E       11' 11-3/4"       9' 9-3/4"         XE806 to XC925E       24' 2"       9' 9-3/4"         XE812E to XC1340E       36' 2-1/2"       9' 9-3/4"         XE812E to XC1340E       A       B         ATC-428E to 583E	724 to 1044	36' 2-1/2"	7' /"		
/23 to 1043         18'         15' 1-1/8'' $7'$ 10''' Wide Models         A         B           M203 to M233         8' 11-1/2''         7' 10''           M301 to M380         11' 11-3/4''         7' 10''           M426 to M591         18'         7' 10''           M426 to M591         18'         7' 10''           M634 to M755         13' 11-3/4''         16' 1-1/8''           8-1/2' Wide Models         A         B           ATC-170E to 247E         8' 5-1/2''         8' 5-1/2''           218E to 305E         8' 11-1/2''         8' 5-1/2''           358E to 409E         11' 11-3/4''         8' 5-1/2''           358E to 473E         13' 11-3/4''         8' 5-1/2''           385E to 473E         13' 11-3/4''         8' 5-1/2''           486E to 630E         18'         8' 5-1/2''           666E to 755E         21'         8' 5-1/2''           10' Wide Models         A         B           ATC-XE298E to XC462E         11' 11-3/4''         9' 9-3/4''           XE406E to XC692E         18''         9' 9-3/4''           XE812E to XC1340E         36' 2-1/2''         9' 9-3/4''           ATC-639E to 805E         11' 11-3/4'''         17' 4-1/8''	361 to 521	8′ 11-1/2″'	15′ 1-1/8″		
7' 10"'' Wide ModelsABM203 to M2338' 11-1/2"'7' 10"M301 to M38011' 11-3/4"7' 10"M426 to M59118'7' 10"M634 to M75513' 11-3/4"16' 1-1/8"8-1/2' Wide ModelsABATC-170E to 247E8' 5-1/2"7' 5-7/8"218E to 305E8' 11-1/2"8' 5-1/2"246E to 369E10' 5-1/2"8' 5-1/2"358E to 409E11' 11-3/4"8' 5-1/2"358E to 473E13' 11-3/4"8' 5-1/2"385E to 473E13' 11-3/4"8' 5-1/2"666E to 755E21'8' 5-1/2"666E to 755E21'8' 5-1/2"70' Wide ModelsABATC-XE298E to XC462E11' 11-3/4"9' 9-3/4"XE596E to XC925E24' 2"9' 9-3/4"XE812E to XC1340E36' 2-1/2"9' 9-3/4"XE812E to 805E11' 11-3/4"17' 4-1/8"780E to 926E13' 11-3/4"11' 10"642E to 892E18'11' 10"642E to 892E18'11' 10"791E to 967E20'11' 10"858E to 1167E24' 2"11' 10"164E to 1294E36' 2-1/2"11' 10"1625E to 1925E40' 2-1/2"11' 10"1635E to 1293E13' 11-3/4"11' 10"1635E to 1293E13' 11-3/4"24' 1-1/8"1191E to 1783E18'24' 1-1/8"1191E to 1783E18'24' 1-1/8"1191E to 1783E18'24' 1-1/8"1192E to 1782E13' 11	526 to /01	11' 11-3/4"	15'1-1/8"		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		8′ 11-1/2″'	7' 10"		
M634 to M755         13' 11-3/4"         16' 1-1/8" <b>A</b> TC-170E to 247E <b>8'</b> 5-1/2"         7' 5-7/8"           218E to 305E         8' 11-1/2"         8' 5-1/2"           246E to 369E         10' 5-1/2"         8' 5-1/2"           358E to 409E         11' 11-3/4"         8' 5-1/2"           358E to 473E         13' 11-3/4"         8' 5-1/2"           385E to 473E         13' 11-3/4"         8' 5-1/2"           486E to 630E         18"         8' 5-1/2"           666E to 755E         21'         8' 5-1/2"           70' Wide Models <b>A B</b> ATC-639E to XC462E         11' 11-3/4"         9' 9-3/4"           XE812E to XC1340E         36' 2-1/2"         9' 9-3/4"           XE812E to XC1340E <b>A B</b> ATC-639E to 805E         11' 11-3/4"         17' 4-1/8"           780E to 926E         13' 11-3/4"         11' 10"           642E to 892E         18'         11' 10"		11′ 11-3/4″	7' 10"		
8-1/2' Wide Models         A         B           ATC -170E to 247E         8' 5-1/2"         7' 5-7/8"           218E to 305E         8' 11-1/2"         8' 5-1/2"           246E to 369E         10' 5-1/2"         8' 5-1/2"           358E to 409E         11' 11-3/4"         8' 5-1/2"           358E to 409E         11' 11-3/4"         8' 5-1/2"           358E to 409E         11' 11-3/4"         8' 5-1/2"           486 to 6 30E         18'         8' 5-1/2"           666E to 755E         21'         8' 5-1/2"           70'Wide Models         A         B           ATC-XE298E to XC462E         11' 11-3/4"         9' 9-3/4"           XE596E to XC6925E         24' 2"         9' 9-3/4"           XE812E to XC1340E         36' 2-1/2"         9' 9-3/4"           XE812E to XC1340E         36' 2-1/2"         9' 9-3/4"           780E to 926E         11' 11-3/4"         17' 4-1/8"           780E to 926E         11' 11-3/4"         17' 4-1/8"           780E to 926E         18'         11' 10"		18'	/'10"		
ATC-170E to 247E $8' 5-1/2"$ $7' 5-7/8"$ 218E to 305E $8' 11-1/2"$ $8' 5-1/2"$ 246E to 369E $10' 5-1/2"$ $8' 5-1/2"$ 358E to 409E $11' 11-3/4"$ $8' 5-1/2"$ 358E to 473E $13' 11-3/4"$ $8' 5-1/2"$ 486E to 630E $18'$ $8' 5-1/2"$ 486E to 630E $18'$ $8' 5-1/2"$ 666E to 755E $21'$ $8' 5-1/2"$ <b>10' Wide Models A B</b> ATC-XE298E to XC462E $11' 11-3/4"$ $9' 9-3/4"$ XE406E to XC669E $18'$ $9' 9-3/4"$ XE596E to XC1340E $36' 2-1/2"$ $9' 9-3/4"$ XE812E to XC1340E $36' 2-1/2"$ $9' 9-3/4"$ <b>17' Wide Models A B</b> ATC-428E to 583E $11' 11-3/4"$ $17' 4-1/8"$ 780E to 926E $13' 11-3/4"$ $11' 10''$ 545E to 647E $13' 11-3/4"$ $11' 10'''$ 642E to 892E $18''$ $11' 10'''''''''''''''''''''''''''''''''$	8-1/2' Wide Models				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ATC-170E to 247E		7' 5-7/8"		
486E to 630E       18'       8' 5-1/2"         666E to 755E       21'       8' 5-1/2"         10' Wide Models       A       B         ATC-XE298E to XC462E       11' 11-3/4"       9' 9-3/4"         XE406E to XC669E       18'       9' 9-3/4"         XE596E to XC1340E       36' 2-1/2"       9' 9-3/4"         XE12E to XC1340E       36' 2-1/2"       9' 9-3/4"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       11' 10"         545E to 647E       13' 11-3/4"       11' 10"         642E to 892E       18'       11' 10"         642E to 892E       18'       11' 10"         1164E to 1294E       24' 2"       11' 10"         1625E to 1784E       36' 2-1/2"       11' 10"         163E to 1293E       13' 11-3/4"       24' 1-1/8"         110''       164E to 1294E       24' 2"       11' 10"         163E to 1293E       13' 11-3/4"       24' 1-1/8"         110''       164E to 1293E       18'       24' 1-1/8"         110''       164E to 19	218E to 305E	8' 11-1/2"	Q'51/2"		
486E to 630E       18'       8' 5-1/2"         666E to 755E       21'       8' 5-1/2"         10' Wide Models       A       B         ATC-XE298E to XC462E       11' 11-3/4"       9' 9-3/4"         XE406E to XC669E       18'       9' 9-3/4"         XE596E to XC1340E       36' 2-1/2"       9' 9-3/4"         XE596E to XC1340E       36' 2-1/2"       9' 9-3/4"         TC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         T2' Wide Models       A       B         ATC-428E to 583E       11' 11-3/4"       11' 10"         545E to 647E       13' 11-3/4"       11' 10"         642E to 892E       18'       11' 10"         791E to 967E       20'       11' 10"         1164E to 1294E       28' 2"       11' 10"         1625E to 1784E       36' 2-1/2"       11' 10"         1625E to 1925E       40' 2-1/2"       11' 10"         163E to 1293E       13' 11-3/4"       24' 1-1/8"         110'16E       12' 34"       24' 1-1/8"         1191E to 1783E       18'       24' 1-1/8"	246E to 369E	10' 5-1/2"	8' 5-1/2"		
486E to 630E       18'       8' 5-1/2"         666E to 755E       21'       8' 5-1/2"         10' Wide Models       A       B         ATC-XE298E to XC462E       11' 11-3/4"       9' 9-3/4"         XE406E to XC669E       18'       9' 9-3/4"         XE596E to XC1340E       36' 2-1/2"       9' 9-3/4"         XE12E to XC1340E       36' 2-1/2"       9' 9-3/4"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       17' 4-1/8"         ATC-639E to 805E       11' 11-3/4"       11' 10"         545E to 647E       13' 11-3/4"       11' 10"         642E to 892E       18'       11' 10"         642E to 892E       18'       11' 10"         1164E to 1294E       24' 2"       11' 10"         1625E to 1784E       36' 2-1/2"       11' 10"         163E to 1293E       13' 11-3/4"       24' 1-1/8"         110''       164E to 1294E       24' 2"       11' 10"         163E to 1293E       13' 11-3/4"       24' 1-1/8"         110''       164E to 1293E       18'       24' 1-1/8"         110''       164E to 19	358E TO 409E 385E to 473E	11'11-3/4 13'11-3/4"	8 5-1/2 8 5-1/2"		
666E to 755E         21'         8' 5-1/2"           10' Wide Models         A         B           ATC-XE298E to XC462E         11' 11-3/4"         9' 9-3/4"           XE406E to XC669E         18''         9' 9-3/4"           XE596E to XC925E         24' 2"         9' 9-3/4"           XE812E to XC1340E         36' 2-1/2"         9' 9-3/4"           XE812E to XC1340E         36' 2-1/2"         9' 9-3/4"           T' Wide Models         A         B           ATC-639E to 805E         11' 11-3/4"         17' 4-1/8"           T2' Wide Models         A         B           ATC-428E to 583E         11' 11-3/4"         11' 10"           545E to 647E         13' 11-3/4"         11' 10"           642E to 892E         18''         11' 10"           642E to 892E         18''         11' 10"           1164E to 1294E         28' 2"''         11' 10"           1625E to 167E         24' 2"'''         11' 10"           1625E to 1294E         36' 2-1/2"'''         11' 10"'''''''''''''''''''''''''''''''''	486E to 630E	18'	8'5-1/2"		
ATC-XE298E to XC462E         11' 11-3/4"         9' 9-3/4"           XE406E to XC669E         18'         9' 9-3/4"           XE596E to XC925E         24' 2"         9' 9-3/4"           XE812E to XC1340E         36' 2-1/2"         9' 9-3/4" <b>17' Wide Models A B</b> ATC-639E to 805E         11' 11-3/4"         17' 4-1/8" <b>12' Wide Models A B</b> ATC-639E to 805E         11' 11-3/4"         17' 4-1/8" <b>12' Wide Models A B</b> ATC-428E to 583E         11' 11-3/4"         17' 4-1/8"           545E to 647E         13' 11-3/4"         11' 10"           642E to 892E         18''         11' 10"           642E to 892E         18''         11' 10"           791E to 967E         20'         11' 10"           1164E to 1294E         28' 2"         11' 10"           11625E to 1784E         36' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           1625E to 1925E         10' 2-1/2"         11' 10"           163E to 1293E         13' 11-3/4"         24' 1-1/8"           1191E to 1783E         18'         24' 1-1/8" <th>666E to 755E</th> <th>21'</th> <th>8' 5-1/2"</th>	666E to 755E	21'	8' 5-1/2"		
XE596E to XC925E $24'2"$ $9'9-3/4"$ XE812E to XC1340E $36'2-1/2"$ $9'9-3/4"$ <b>17' Wide Models A B</b> ATC-639E to 805E $11' 11-3/4"$ $17' 4-1/8"$ <b>780E</b> to 926E $13' 11-3/4"$ $17' 4-1/8"$ <b>12' Wide Models A B</b> ATC-649E to 583E $11' 11-3/4"$ $17' 4-1/8"$ <b>12' Wide Models A B</b> ATC-428E to 583E $11' 11-3/4"$ $11' 10"$ 545E to 647E $13' 11-3/4"$ $11' 10"$ 642E to 892E $18'$ $11' 10"$ 791E to 967E $20'$ $11' 10"$ 858E to 1167E $24' 2"$ $11' 10"$ 1164E to 1294E $28' 2"$ $11' 10"$ 1625E to 1925E $40' 2-1/2"$ $11' 10"$ 1625E to 1925E $40' 2-1/2"$ $11' 10"$ 1625E to 1925E $13' 11-3/4"$ $24' 1-1/8"$ ATC-857E to 1166E $11' 11-3/4"$ $24' 1-1/8"$ 1163E to 1293E $13' 11-3/4"$ $24' 1-1/8"$ <th< th=""><th></th><th>A</th><th></th></th<>		A			
XE596E to XC925E $24'2"$ $9'9-3/4"$ XE812E to XC1340E $36'2-1/2"$ $9'9-3/4"$ <b>17' Wide Models A B</b> ATC-639E to 805E $11' 11-3/4"$ $17' 4-1/8"$ <b>780E</b> to 926E $13' 11-3/4"$ $17' 4-1/8"$ <b>12' Wide Models A B</b> ATC-649E to 583E $11' 11-3/4"$ $17' 4-1/8"$ <b>12' Wide Models A B</b> ATC-428E to 583E $11' 11-3/4"$ $11' 10"$ 545E to 647E $13' 11-3/4"$ $11' 10"$ 642E to 892E $18'$ $11' 10"$ 791E to 967E $20'$ $11' 10"$ 858E to 1167E $24' 2"$ $11' 10"$ 1164E to 1294E $28' 2"$ $11' 10"$ 1625E to 1925E $40' 2-1/2"$ $11' 10"$ 1625E to 1925E $40' 2-1/2"$ $11' 10"$ 1625E to 1925E $13' 11-3/4"$ $24' 1-1/8"$ ATC-857E to 1166E $11' 11-3/4"$ $24' 1-1/8"$ 1163E to 1293E $13' 11-3/4"$ $24' 1-1/8"$ <th< td=""><td></td><td>18'</td><td>9'9-3/4"</td></th<>		18'	9'9-3/4"		
XE812E to XC1340E         36' 2-1/2"         9' 9-3/4"           T7' Wide Models         A         B           ATC-639E to 805E         11' 11-3/4"         17' 4-1/8"           780E to 926E         13' 11-3/4"         17' 4-1/8"           12' Wide Models         A         B           ATC-639E to 583E         11' 11-3/4"         17' 4-1/8"           12' Wide Models         A         B           ATC-428E to 583E         11' 11-3/4"         11' 10"           545E to 647E         13' 11-3/4"         11' 10"           642E to 892E         18'         11' 10"           791E to 967E         20'         11' 10"           791E to 167E         24' 2"         11' 10"           1164E to 1294E         28' 2"         11' 10"           11625E to 1784E         36' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           163E to 1293E         13' 11-3/4"         24' 1-1/8"           1163E to 1293E         13' 11-3/4"         24' 1-1/8"           1191E to 1783E         18'         24' 1-1/8"           1191E to 1783E         18'         24' 1-1/8"	XE596E to XC925E	24'2"	9'9-3/4"		
ATC-639E to 805E         11' 11-3/4"         17' 4-1/8"           780E to 926E         13' 11-3/4"         17' 4-1/8"           12' Wide Models         A         B           ATC-428E to 583E         11' 11-3/4"         11' 10"           545E to 647E         13' 11-3/4"         11' 10"           642E to 892E         18'         11' 10"           791E to 967E         20'         11' 10"           858E to 1167E         24' 2"         11' 10"           1164E to 1294E         28' 2"         11' 10"           1625E to 1784E         36' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           1625E to 1925E         13' 11-3/4"         24' 1-1/8"           ATC-857E to 1166E         11' 11-3/4"         24' 1-1/8"           1163E to 1293E         13' 11-3/4"         24' 1-1/8"           1164E to 1915E         20'         24' 1-1/8"           1616E to 1915E         20'         24' 1-1/8"           1879E to 2320F         24' 2"         24' 1-1/8"		36' 2-1/2"	9'9-3/4"		
T80Ē to 926Ē         13' 11-3/4"         17' 4-1/8"           12' Wide Models         A         B           ATC-428E to 583E         11' 11-3/4"         11' 10"           545E to 647E         13' 11-3/4"         11' 10"           642E to 892E         18'         11' 10"           791E to 967E         20'         11' 10"           858E to 1167E         24' 2"         11' 10"           1164E to 1294E         28' 2"         11' 10"           1625E to 1294E         36' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           1625E to 1925E         11' 11-3/4"         24' 1-1/8"           1163E to 1293E         13' 11-3/4"         24' 1-1/8"           1163E to 1293E         13' 11-3/4"         24' 1-1/8"           1164E to 1915E         20'         24' 1-1/8"           1167E         20'         24' 1-1/8"					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	780E to 926E		17' 4-1/8" 17' 4-1/8"		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		A			
791E to 967E         20'         11' 10"           858E to 1167E         24' 2"         11' 10"           1164E to 1294E         28' 2"         11' 10"           1192E to 1784E         36' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           24' Wide Models         A         B           ATC-857E to 1166E         11' 11-3/4"         24' 1-1/8"           1163E to 1293E         13' 11-3/4"         24' 1-1/8"           1164E to 1915E         20'         24' 1-1/8"           1616E to 1915E         20'         24' 1-1/8"           1879E to 2320F         24' 2"         24' 1-1/8"		11' 11-3/4"			
791E to 967E         20'         11' 10"           858E to 1167E         24' 2"         11' 10"           1164E to 1294E         28' 2"         11' 10"           1192E to 1784E         36' 2-1/2"         11' 10"           1625E to 1925E         40' 2-1/2"         11' 10"           24' Wide Models         A         B           ATC-857E to 1166E         11' 11-3/4"         24' 1-1/8"           1163E to 1293E         13' 11-3/4"         24' 1-1/8"           1164E to 1915E         20'         24' 1-1/8"           1616E to 1915E         20'         24' 1-1/8"           1879E to 2320F         24' 2"         24' 1-1/8"	642F to 892F	13 11-3/4	11' 10"		
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2250E to 2509E 28 2" 24' 1-1/8" 2490E to 3459E 36' 2-1/2" 24' 1-1/8"	1879E to 2320E	24'2"	24'1-1/8"		
	2256E to 2509E 2490E to 3459E	28' 2" 36' 2-1/2"	∠4' I-I/8" 2⊿' 1-1/8"		
2855E to 3/14E 40°2-1/2° 24°1-1/8°	2855E to 3714E	ĂŎ' Ź-1/Ź"	24' 1-1/8"		

#### **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 to 165E	3	4	5
90E to 120E	4	5 7	7
135E to 165E	5		9
181 to 261 264 to 351	6 8	8 (2) 6	(2) 6
362 to 522	8	(2) 8	(2) 8 (2) 8
528 to 702	(2) 8	(4) 6	(4) 8
724 to 1044	(2) 8	(4) 6	(4) 8
361 to 521	(2) 6	(2) 8	(4) 6
526 to 701	(2) 8	(4) 6	(4) 8
723 to 1043	(2) 8	(4) 6	(4) 8
M203 to M233	6	9	12
M301 to M380 M426 to M591	(2) 4 (2) 6	(2) 6 (2) 9	(2) 8 (2) 12
M634 to M755	(4) 5	(4) 7	(4) 9
170E to 247E	6	8	12
218E to 305E	7	10	15
246E to 369E	8	12	15
358E to 409E	(2) 4	(2) 7	(2) 9
385E to 473E	(2) 5	(2) 7	(2) 10
486E to 630E 666E to 755E	(2) 6 (2) 7	(2) 9 (2) 12	(2) 12 (2) 15
639E to 805E	(4) 4	(4) 7	(4) 9
780E to 926E	(4) 5	(4) 7	(4) 10
XE298E to XC462E	(2) 5	(2) 8	(2) 10
XE406E to XC669E	(2) 7	(2) 12	(2) 15
XE596E to XC925E	(4) 5	(4) 8	(4) 10
XE812E to XC1340E 428E to 583E	(4) 7	(4) 12	(4) 15 (2) 12
428E to 583E 545E to 647E	(2) 6 (2) 7	(2) 9 (2) 10	(2) 12
642E to 892E	(2) 9	(2) 10	(2) 13
791E to 967E	(2) 10	(2) 15	(3) 15
858E to 1167E	(4) 6	(4) 9	(4) 12
1164E to 1294E	(4) 7	(4) 10	(4) 15
1192E to 1784E	(4) 9	(4) 15	(4) 18
1625E to 1925E	(4) 10	(4) 15	(6) 15
857E to 1166E 1163E to 1293E	(4) 6 (4) 7	(4) 9 (4) 10	(4) 12 (4) 15
1191E to 1783E	(4) 7	(4) 10	(4) 13
1616E to 1915E	(4) 10	(4) 15	(4) 20
1879E to 2320E	(4) 12	(4) 18	(6) 15
2256E to 2509E	(4) 15	(4) 20	(6) 18
2490E to 3459E	(4) 18	(6) 18	(8) 18
2855E to 3714E	(4) 20	(6) 20	(8) 20

# **Optional Equipment**



**Pulse**~*Pure*<sup>®</sup> is an environmentally sensitive non-chemical water treatment system for

evaporative condensers. Developed by EVAPCO, **Pulse**~*Pure*<sup>®</sup> offers an alternative to chemical water treatment programs. Utilizing pulse-power technology **Pulse**~*Pure*<sup>®</sup> provides chemical-free treatment that is environmentally safe.



### Smart Shield<sup>®</sup> Solid Chemistry Water Treatment System



EVAPCO's SmartShield® solid chemistry water treatment system is an innovative solution to conventional liquid chemical programs. SmartSheild® was developed

specifically for evaporative condensers and closed circuit coolers. The system comes factory mounted and includes all the components required for an effective water treatment system. Solid products eliminate the potential for liquid spills making it easier and safer to use. Controlled release chemistry provides uniform treatment over a 30 day period.



## **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 options of Type 304L or Type 316L stainless steel construction using the Thermal Pak® II coil design. Highly efficient heat transfer coils with the ultimate corrosion protection.



## **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.

## 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.

# **Optional Equipment**

## 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.



## **Dual Fan Option**

Evapco now offers a Dual Fan arrangement on 10x18, 12x18 and 12x20 nominal box sizes. The Dual Fan option gives users redundancy in large box sizes by providing independant motors, fans, and drives that previously only had a single fan and motor.



### 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.



## **Motor Davit**

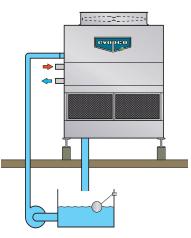
In the event that a fan motor should need to be replaced, a lightweight motor davit is available from which a chain fall can be mounted to easily lower the motor to the ground.



ATC-E Condenser with Optional Service Platform and Motor Davit

## 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 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 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. 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** 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 to ATC-926E

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 to ATC-XC1340E, ATC-428E to ATC-3714E

#### 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 \_\_\_\_\_ 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.



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