evapco

ATC & UBC

EVAPORATIVE CONDENSERS

Induced Draft, Axial Fan Models in Capacities from 35 to 2,637 Ammonia Tons!

Technology for the Future...Available Today!

U.S. GREEN BUILDING COUNCIL MEMBER

IARW International Association of Refrigerated Warehouses

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

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

- Industrial Refrigeration
- Commercial HVAC
- Industrial Process
- Power

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

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

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

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

EVAPCO products are manufactured in 16 locations in 7 countries around the world and supplied through a sales network consisting of over 170 offices.

ATC & UBC Design Features

Proven Performance and Design Flexibility

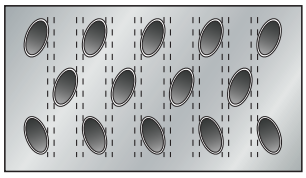
Patented Thermal-Pak® II Coil

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

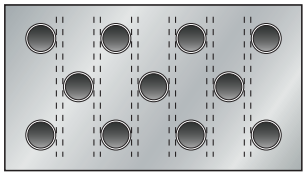
The design features of EVAPCO's Thermal-Pak® II condensing coils ensure the end user will receive the best evaporative heat transfer efficiency.

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

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



Thermal-Pak® II Coil by EVAPCO



Round Tube Coil by Others

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

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

Thermal-Pak® II Coil

ATC & UBC Design Features

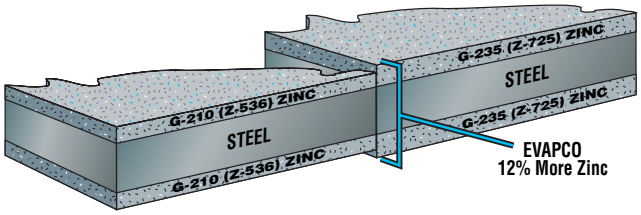
Construction Features

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

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



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

Type 304 Stainless Steel Strainers

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

Unique Seam Design–Eliminate Field Leaks

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

Improved Maintenance

ZM Spray Nozzle Water Distribution System

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


ZM Nozzle

The heavy-duty nylon ZM Spray nozzles have a 1 5/16" diameter opening and a 1-1/2" splash plate clearance, enabling EVAPCO to use 75% fewer nozzles. Furthermore, the fixed position ZM Spray Nozzles are mounted in corrosion-free PVC water distribution pipes that have threaded end caps. Together, these elements combine to provide unequaled coil coverage, scale prevention and make the industries best performing non-corrosive, 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 available with Stainless Steel construction for the basin, casing and/or coil.

Stainless Steel Basin

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

Stainless Steel Coils

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

ATC & UBC Design and Construction Features

The ATC and UBC line of evaporative condensers reflect EVAPCO's commitment to product development. Their advanced design provides owners with many operational and performance advantages.

These induced draft, counterflow condensers are designed for easy maintenance and long, trouble-free operation.

Thermal-Pak® II Heat Transfer Technology

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

U.S. Patent No. 4755331

PVC Spray Distribution Header with ZM Nozzles

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

Water Saver Drift Eliminators

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

U.S. Patent No. 6315804

Non-Chemical Water Treatment *(optional)*

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

Totally Enclosed Pump Motors

- Help assure long, trouble-free operation.

Stainless Steel Strainer

- Resists corrosion better than other materials.

Super Low Sound Fan *(optional)*

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

UBC Induced Draft Evaporative Condensers are designed with unique features for energy efficiency and ease of maintenance, and are also designed to withstand excessive seismic accelerations and high wind pressure. UBC Condensers are certified to withstand:

- 1g horizontal acceleration concurrent with
- 0.3 g orthogonal and
- ± 0.5 g vertical

or

- 125 psf minimum wind pressure

Advanced Design Smooth Flow Fans

- 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.

G-235 Heavy Mill-Dip Galvanized Steel Construction

(Stainless steel available as affordable option)

"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.

WST Air Inlet Louvers (Water and Sight Tight)

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

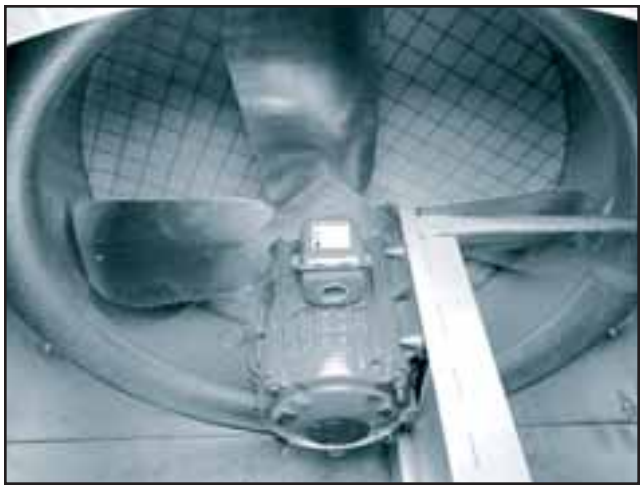
U.S. Patent No. 6923250

Induced Draft Axial Fan Design Features

Direct Drive Units - 4' Wide Models

ATC-50B to ATC-165B

The smaller size units are equipped with a direct drive fan system. The aluminum alloy fan is mounted on a totally enclosed motor for the ultimate in simplicity with the fewest moving parts.



Direct Drive Fan System

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

ATC-187B to ATC-926B
UBC-180 to UBC-535

The fan motor and drive assembly on these units is designed to allow easy servicing of the motor and **adjustment of the belt tension from the exterior of the unit**. A T.E.F.C. fan motor is mounted on the outside of these models. A protective cover swings away to allow servicing and belt adjustment.

External Motor Mount (with optional ladder)

A large hinged access door with a "quick release" latch provide access to the fan section for maintenance.

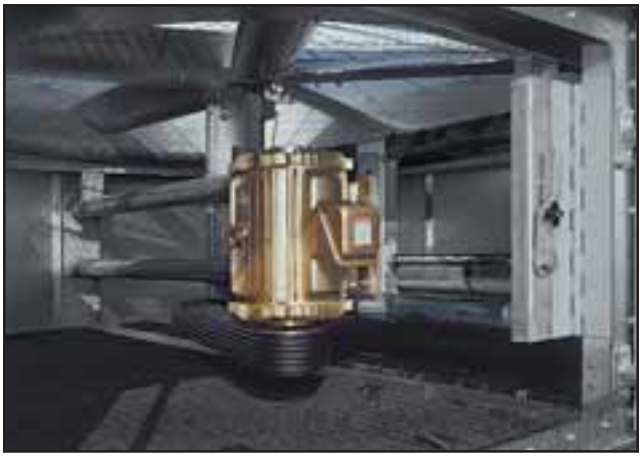
Belt Drive Units - 10', 12' & 24' Wide Models

ATC-XE298B to ATC-XC1340B

Designed as the ideal replacement condenser, these models provide both cost effective and energy efficient alternatives to obsolete centrifugal fan designs. The 10' wide plan areas are also well suited for new installations and provide more layout flexibility. The unique belt drive design features are detailed below.

ATC-428B to ATC-3714B
UBC-420 to UBC-3225

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



Motor Base Assembly

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

Motor Access

ATC & UBC Design Features

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 and UBC 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. The aluminum also helps belts last longer.

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

Superior Water Saver Drift Eliminators

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

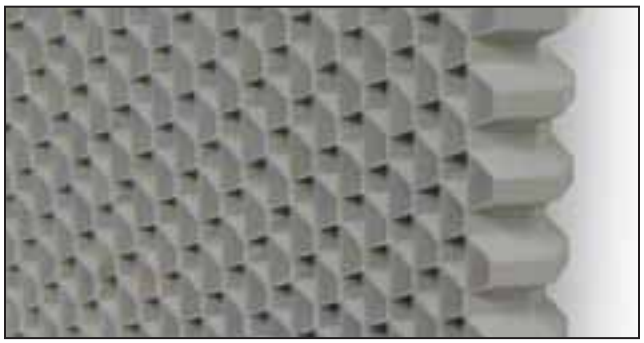
Water Saver Drift Eliminator

Superior WST Air Inlet Louver and Screen Design

EVAPCO'S patented 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.

Developed with computational fluid dynamics (CFD) software, 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.

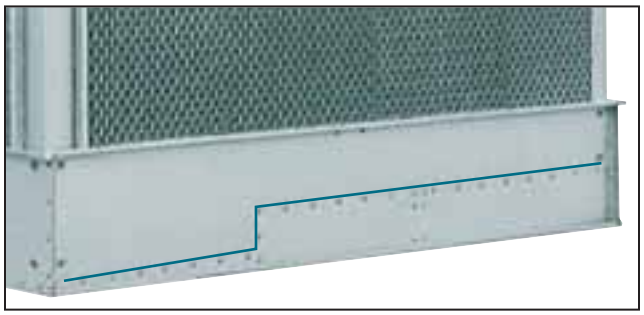
The combination of easy basin access, no splash-out and minimized algae growth saves the end user money on maintenance hours, water consumption and water treatment costs.



Inlet Louver Material

"Clean Pan" Basin Design

EVAPCO condensers features a completely 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.



Sloped Basin (Not available on UBC models)

Selection Procedure

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

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

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

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

Heat of Rejection Method

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

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

Open Compressors:

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

Hermetic Compressors:

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

EXAMPLE

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

Selection: Heat of Rejection

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

From Table 2 the capacity factor for 96.3° condensing and 78° W.B. = 1.37
6,672,500 x 1.37 = 9,141,325 BTU/Hr or 9142 MBH. Therefore, select a model ATC-639B, ATC-XC641B or UBC-630.

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

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

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

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

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

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

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

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

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

Table 3 - Unit Heat Rejection

ATC & ATC-X Models

Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base
ATC-50B	735	ATC-508B	7,462	ATC-806B	11,849	ATC-XC1222B	17,963
ATC-65B	956	ATC-XE516B	7,585	ATC-809B	11,891	ATC-1239B	18,214
ATC-80B	1,176	ATC-523B	7,689	ATC-XE812B	11,936	ATC-1240B	18,228
ATC-90B	1,323	ATC-XC525B	7,718	ATC-816B	12,001	ATC-XC1264B	18,581
ATC-105B	1,544	ATC-527B	7,753	ATC-827B	12,160	ATC-XC1282B	18,845
ATC-120B	1,764	ATC-XE528B	7,762	ATC-828B	12,172	ATC-1283B	18,860
ATC-135B	1,985	ATC-539B	7,919	ATC-830B	12,199	ATC-1284B	18,875
ATC-150B	2,205	ATC-XE542B	7,967	ATC-842B	12,374	ATC-1293B	19,009
ATC-165B	2,426	ATC-545B	8,009	ATC-851B	12,510	ATC-1294B	19,022
ATC-187B	2,751	ATC-XE553B	8,129	ATC-854B	12,553	ATC-XC1340B	19,698
ATC-199B	2,932	ATC-556B	8,169	ATC-XC855B	12,569	ATC-1364B	20,054
ATC-218B	3,199	ATC-557B	8,188	ATC-857B	12,592	ATC-1365B	20,066
ATC-221B	3,242	ATC-XC558B	8,203	ATC-858B	12,613	ATC-1425B	20,950
ATC-233B	3,428	ATC-559B	8,210	ATC-865B	12,721	ATC-1426B	20,962
ATC-238B	3,497	ATC-578B	8,503	ATC-869B	12,769	ATC-1495B	21,974
ATC-246B	3,619	ATC-XC579B	8,511	ATC-XC884B	12,995	ATC-1496B	21,991
ATC-247B	3,633	ATC-581B	8,547	ATC-887B	13,046	ATC-1561B	22,954
ATC-253B	3,721	ATC-583B	8,568	ATC-892B	13,107	ATC-1562B	22,961
ATC-258B	3,795	ATC-XE596B	8,761	ATC-895B	13,160	ATC-1616B	23,761
ATC-269B	3,957	ATC-598B	8,789	ATC-XE896B	13,171	ATC-1625B	23,881
ATC-280B	4,119	ATC-601B	8,842	ATC-XC897B	13,186	ATC-1654B	24,320
ATC-294B	4,326	ATC-XE608B	8,938	ATC-907B	13,330	ATC-1655B	24,329
ATC-XE298B	4,381	ATC-609B	8,947	ATC-912B	13,413	ATC-1708B	25,106
ATC-305B	4,489	ATC-XC611B	8,982	ATC-913B	13,421	ATC-1709B	25,122
ATC-325B	4,777	ATC-620B	9,107	ATC-918B	13,496	ATC-1720B	25,282
ATC-XE333B	4,895	ATC-630B	9,260	ATC-XC925B	13,598	ATC-1729B	25,410
ATC-XC346B	5,086	ATC-639B	9,392	ATC-926B	13,619	ATC-1783B	26,214
ATC-355B	5,219	ATC-XC641B	9,423	ATC-935B	13,746	ATC-1784B	26,225
ATC-XE356B	5,233	ATC-642B	9,437	ATC-XE947B	13,921	ATC-1795B	26,394
ATC-358B	5,269	ATC-643B	9,452	ATC-949B	13,950	ATC-1805B	26,527
ATC-XC360B	5,292	ATC-647B	9,504	ATC-950B	13,966	ATC-1851B	27,216
ATC-XE368B	5,410	ATC-XE665B	9,776	ATC-967B	14,218	ATC-1861B	27,354
ATC-369B	5,430	ATC-666B	9,793	ATC-979B	14,395	ATC-1879B	27,628
ATC-371B	5,454	ATC-XC669B	9,834	ATC-980B	14,406	ATC-1915B	28,152
ATC-379B	5,570	ATC-675B	9,925	ATC-XE984B	14,465	ATC-1925B	28,294
ATC-385B	5,663	ATC-679B	9,975	ATC-1006B	14,789	ATC-2002B	29,430
ATC-XE387B	5,689	ATC-682B	10,027	ATC-1007B	14,803	ATC-2082B	30,604
ATC-XC388B	5,704	ATC-687B	10,097	ATC-XC1011B	14,862	ATC-2158B	31,725
ATC-392B	5,759	ATC-703B	10,339	ATC-XE1032B	15,170	ATC-2223B	32,676
ATC-398B	5,850	ATC-706B	10,380	ATC-1046B	15,379	ATC-2256B	33,161
ATC-XC402B	5,909	ATC-XE709B	10,422	ATC-1047B	15,391	ATC-2320B	34,100
ATC-XE406B	5,968	ATC-710B	10,433	ATC-XC1049B	15,420	ATC-2324B	34,157
ATC-409B	6,006	ATC-713B	10,475	ATC-1077B	15,838	ATC-2404B	35,335
ATC-423B	6,224	ATC-XC720B	10,584	ATC-1078B	15,847	ATC-2490B	36,603
ATC-XC427B	6,277	ATC-725B	10,660	ATC-1085B	15,942	ATC-2509B	36,877
ATC-428B	6,296	ATC-XE742B	10,907	ATC-XC1112B	16,346	ATC-2647B	38,904
ATC-442B	6,490	ATC-746B	10,973	ATC-1117B	16,420	ATC-2765B	40,644
ATC-XC443B	6,512	ATC-747B	10,987	ATC-1118B	16,435	ATC-2855B	41,964
ATC-XE448B	6,586	ATC-750B	11,029	ATC-XC1153B	16,949	ATC-2900B	42,630
ATC-456B	6,706	ATC-755B	11,091	ATC-XE1157B	17,008	ATC-3029B	44,531
ATC-457B	6,715	ATC-XC775B	11,393	ATC-1163B	17,093	ATC-3210B	47,181
ATC-XC462B	6,791	ATC-778B	11,441	ATC-1164B	17,111	ATC-3232B	47,518
ATC-XE472B	6,938	ATC-780B	11,466	ATC-1166B	17,136	ATC-3313B	48,706
ATC-473B	6,948	ATC-781B	11,477	ATC-1167B	17,155	ATC-3336B	49,032
ATC-474B	6,973	ATC-782B	11,499	ATC-1191B	17,503	ATC-3459B	50,855
ATC-486B	7,140	ATC-791B	11,628	ATC-1192B	17,522	ATC-3482B	51,188
ATC-XE492B	7,232	ATC-800B	11,758	ATC-1203B	17,684	ATC-3591B	52,783
ATC-503B	7,394	ATC-XC804B	11,819	ATC-1204B	17,699	ATC-3714B	54,597
ATC-XC504B	7,409	ATC-805B	11,831	ATC-XC1210B	17,787		

UBC Models

Model	MBH Base	Model	MBH Base
180	2,646	1090	16,023
200	2,940	1110	16,317
210	3,087	1240	18,228
230	3,381	1265	18,596
260	3,822	1310	19,257
285	4,190	1335	19,625
320	4,704	1370	20,139
345	5,072	1395	20,507
370	5,439	1435	21,095
415	6,101	1460	21,462
420	6,174	1500	22,050
440	6,468	1530	22,491
460	6,762	1575	23,153
485	7,130	1605	23,594
490	7,203	1625	23,888
505	7,424	1655	24,329
520	7,644	1690	24,843
535	7,865	1720	25,284
540	7,938	1735	25,505
560	8,232	1800	26,460
580	8,526	1915	28,151
630	9,261	1980	29,106
670	9,849	2100	30,870
700	10,290	2370	34,839
730	10,731	2500	36,750
765	11,246	2615	38,441
800	11,760	2740	40,278
830	12,201	2860	42,042
860	12,642	3010	44,247
890	13,083	3225	47,408
920	13,524		
1010	14,847		
1075	15,803		

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

Evaporator Ton Method

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

EXAMPLE

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

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

300 X 1.38 X 1.03 = 426 corrected tons. Therefore, select a model ATC-442B, ATC-XC443B or UBC-440 depending on unit type desired, and any layout or horsepower considerations.

Table 4 - Unit Sizes

ATC & ATC-X Models [1]				
ATC-50B	ATC-XC443B	ATC-679B	ATC-913B	ATC-1365B
ATC-65B	ATC-XE448B	ATC-682B	ATC-918B	ATC-1425B
ATC-80B	ATC-456B	ATC-687B	ATC-XC925B	ATC-1426B
ATC-90B	ATC-457B	ATC-703B	ATC-926B	ATC-1495B
ATC-105B	ATC-XC462B	ATC-706B	ATC-935B	ATC-1496B
ATC-120B	ATC-XE472B	ATC-XE709B	ATC-XE947B	ATC-1561B
ATC-135B	ATC-473B	ATC-710B	ATC-949B	ATC-1562B
ATC-150B	ATC-474B	ATC-713B	ATC-950B	ATC-1616B
ATC-165B	ATC-486B	ATC-XC720B	ATC-967B	ATC-1625B
ATC-187B	ATC-XE492B	ATC-725B	ATC-979B	ATC-1654B
ATC-199B	ATC-503B	ATC-XE742B	ATC-980B	ATC-1655B
ATC-218B	ATC-XC504B	ATC-746B	ATC-XE984B	ATC-1708B
ATC-221B	ATC-508B	ATC-747B	ATC-1006B	ATC-1709B
ATC-233B	ATC-XE516B	ATC-750B	ATC-1007B	ATC-1720B
ATC-238B	ATC-523B	ATC-755B	ATC-XC1011B	ATC-1729B
ATC-246B	ATC-XC525B	ATC-XC775B	ATC-XE1032B	ATC-1783B
ATC-247B	ATC-527B	ATC-778B	ATC-1046B	ATC-1784B
ATC-253B	ATC-XE528B	ATC-780B	ATC-1047B	ATC-1795B
ATC-258B	ATC-539B	ATC-781B	ATC-XC1049B	ATC-1805B
ATC-269B	ATC-XE542B	ATC-782B	ATC-1077B	ATC-1851B
ATC-280B	ATC-545B	ATC-791B	ATC-1078B	ATC-1861B
ATC-294B	ATC-XE553B	ATC-800B	ATC-1085B	ATC-1879B
ATC-XE298B	ATC-556B	ATC-XC804B	ATC-XC1112B	ATC-1915B
ATC-305B	ATC-557B	ATC-805B	ATC-1117B	ATC-1925B
ATC-325B	ATC-XC558B	ATC-806B	ATC-1118B	ATC-2002B
ATC-XE333B	ATC-559B	ATC-809B	ATC-XC1153B	ATC-2082B
ATC-XC346B	ATC-578B	ATC-XE812B	ATC-XE1157B	ATC-2158B
ATC-355B	ATC-XC579B	ATC-816B	ATC-1163B	ATC-2223B
ATC-XE356B	ATC-581B	ATC-827B	ATC-1164B	ATC-2256B
ATC-358B	ATC-583B	ATC-828B	ATC-1166B	ATC-2320B
ATC-XC360B	ATC-XE596B	ATC-830B	ATC-1167B	ATC-2324B
ATC-XE368B	ATC-598B	ATC-842B	ATC-1191B	ATC-2404B
ATC-369B	ATC-601B	ATC-851B	ATC-1192B	ATC-2490B
ATC-371B	ATC-XE608B	ATC-854B	ATC-1203B	ATC-2509B
ATC-379B	ATC-609B	ATC-XC855B	ATC-1204B	ATC-2647B
ATC-385B	ATC-XC611B	ATC-857B	ATC-XC1210B	ATC-2765B
ATC-XE387B	ATC-620B	ATC-858B	ATC-XC1222B	ATC-2855B
ATC-XC388B	ATC-630B	ATC-865B	ATC-1239B	ATC-2900B
ATC-392B	ATC-639B	ATC-869B	ATC-1240B	ATC-3029B
ATC-398B	ATC-XC641B	ATC-XC884B	ATC-XC1264B	ATC-3210B
ATC-XC402B	ATC-642B	ATC-887B	ATC-XC1282B	ATC-3232B
ATC-XE406B	ATC-643B	ATC-892B	ATC-1283B	ATC-3313B
ATC-409B	ATC-647B	ATC-895B	ATC-1284B	ATC-3336B
ATC-423B	ATC-XE665B	ATC-XE896B	ATC-1293B	ATC-3459B
ATC-XC427B	ATC-666B	ATC-XC897B	ATC-1294B	ATC-3482B
ATC-428B	ATC-XC669B	ATC-907B	ATC-XC1340B	ATC-3591B
ATC-442B	ATC-675B	ATC-912B	ATC-1364B	ATC-3714B

UBC Models [1]		
180	630	1460
200	670	1500
210	700	1530
230	730	1575
260	765	1605
285	800	1625
320	830	1655
345	860	1690
370	890	1720
415	920	1735
420	1010	1800
440	1075	1915
460	1090	1980
485	1110	2100
490	1240	2370
505	1265	2500
520	1310	2615
535	1335	2740
540	1370	2860
560	1395	3010
580	1435	3225

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

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

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

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

Table 6 - Ammonia (R-717) Capacity Factors

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

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

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

Engineering Dimensions & Data

Models ATC 50B to 165B

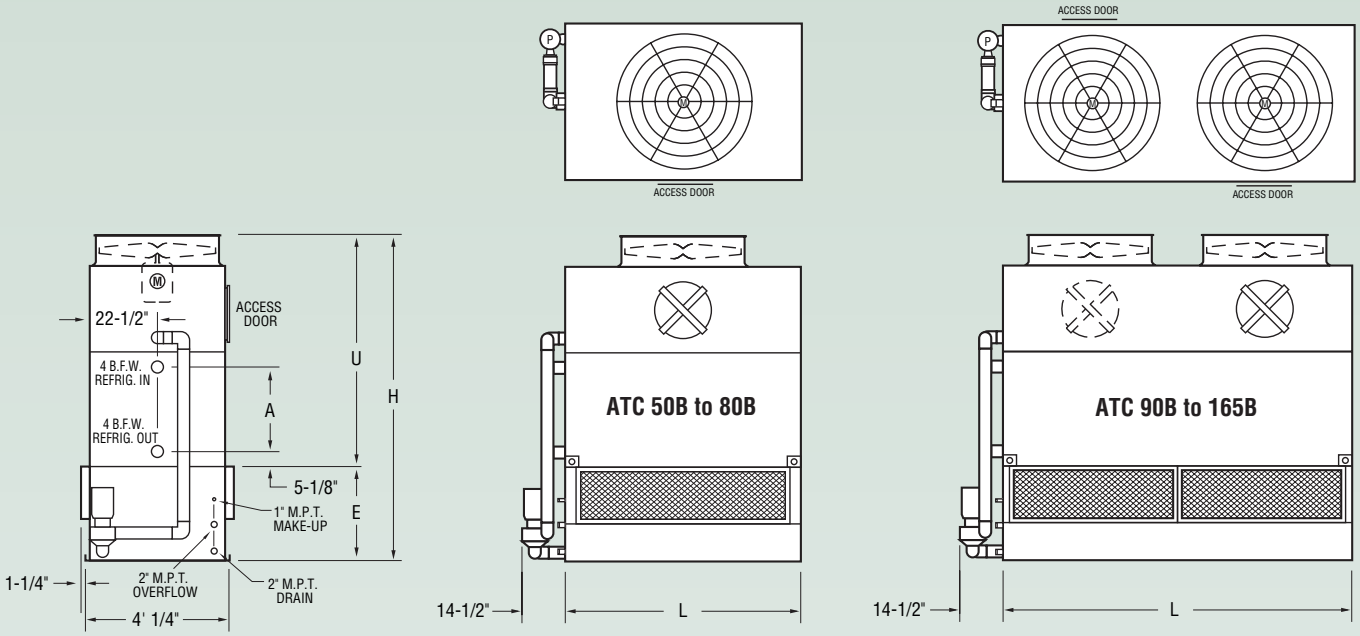


Table 7 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
50B	35	3	11,800	2,580	3,760	2,130	50	7	3/4	135	120	6"	3,370	8' 5-1/4"	5' 9-3/4"	2' 7-1/2"	19-1/2"	5' 11-7/8"
65B	46	5	12,600	2,970	4,180	2,520	65	9	3/4	135	120	6"	3,790	9' 3/4"	6' 5-1/4"	2' 7-1/2"	27"	5' 11-7/8"
80B	57	5	12,000	3,390	4,620	2,940	80	11	3/4	135	120	6"	4,230	9' 8-1/4"	7' 3/4"	2' 7-1/2"	34-1/2"	5' 11-7/8"
90B	64	(2) 3	21,200	3,810	5,510	3,190	75	10	1	200	180	6"	4,950	8' 5-1/4"	5' 9-3/4"	2' 7-1/2"	19-1/2"	8' 11-1/2"
105B	74	(2) 3	19,800	4,350	6,100	3,730	95	13	1	200	180	6"	5,540	9' 3/4"	6' 5-1/4"	2' 7-1/2"	27"	8' 11-1/2"
120B	85	(2) 3	19,100	4,950	6,740	4,330	120	16	1	200	180	6"	6,180	9' 8-1/4"	7' 3/4"	2' 7-1/2"	34-1/2"	8' 11-1/2"
135B	96	(2) 3	25,300	5,400	7,710	4,620	130	18	1-1/2	270	230	8"	6,980	9' 3/4"	5' 9-3/4"	2' 7-1/2"	27"	11' 11-3/4"
150B	106	(2) 3	23,800	6,200	8,570	5,420	160	22	1-1/2	270	230	8"	7,840	9' 8-1/4"	7' 3/4"	2' 7-1/2"	34-1/2"	11' 11-3/4"
165B	117	(2) 5	25,900	6,240	8,610	5,460	160	22	1-1/2	270	230	8"	7,880	9' 8-1/4"	7' 3/4"	2' 7-1/2"	34-1/2"	11' 11-3/4"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 187B to 238B

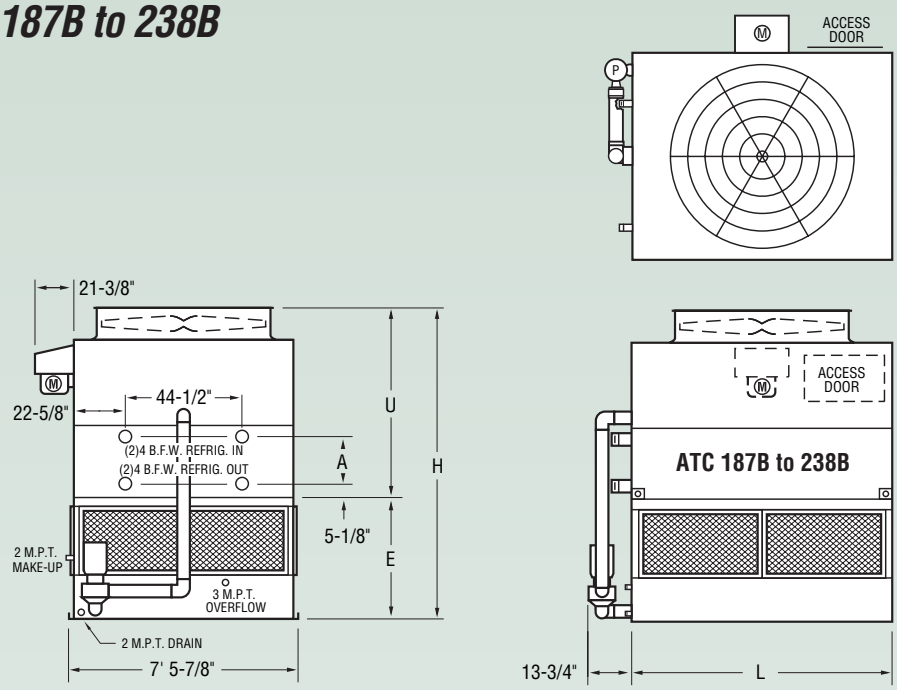


Table 8 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
187B	133	7-1/2	34,000	7,950	10,520	6,650	185	25	2	340	220	8"	9,440	11' 2"	7' 1-7/8"	4' 1/8"	27"	8' 5-1/2"
199B	142	10	37,200	7,980	10,550	6,680	185	25	2	340	220	8"	9,470	11' 2"	7' 1-7/8"	4' 1/8"	27"	8' 5-1/2"
221B	157	10	36,100	9,070	11,720	7,770	225	31	2	340	220	8"	10,640	11' 9-1/2"	7' 9-3/8"	4' 1/8"	34-1/2"	8' 5-1/2"
238B	169	15	40,500	9,130	11,780	7,830	225	31	2	340	220	8"	10,700	11' 9-1/2"	7' 9-3/8"	4' 1/8"	34-1/2"	8' 5-1/2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 218B to 755B

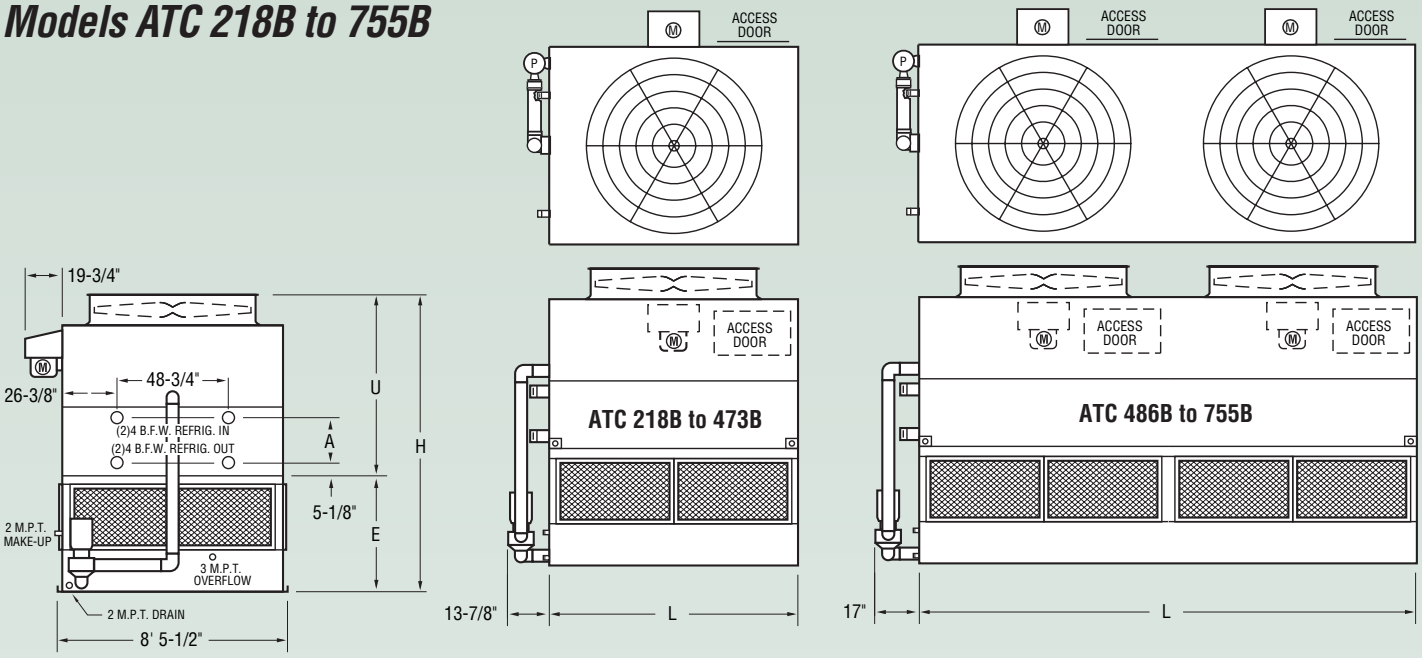


Table 9 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
218B	155	7-1/2	38,400	9,080	12,095	7,640	210	29	2	410	250	8"	10,835	11' 10-1/8"	7' 6-3/8"	4' 3-3/4"	27"	8' 11-1/2"
233B	166	10	42,200	9,110	12,125	7,670	210	29	2	410	250	8"	10,865	11' 10-1/8"	7' 6-3/8"	4' 3-3/4"	27"	8' 11-1/2"
253B	180	15	47,500	9,180	12,195	7,740	210	29	2	410	250	8"	10,935	11' 10-1/8"	7' 6-3/8"	4' 3-3/4"	27"	8' 11-1/2"
258B	183	10	40,900	10,380	13,490	8,940	260	35	2	410	250	8"	12,230	12' 5-5/8"	8' 1-7/8"	4' 3-3/4"	34-1/2"	8' 11-1/2"
280B	199	15	46,100	10,450	13,560	9,010	260	35	2	410	250	8"	12,300	12' 5-5/8"	8' 1-7/8"	4' 3-3/4"	34-1/2"	8' 11-1/2"
305B	217	20	48,400	11,730	14,935	10,290	309	42	2	410	250	8"	13,675	13' 1-1/8"	8' 9-3/8"	4' 3-3/4"	42"	8' 11-1/2"
246B	175	15	54,700	9,195	12,645	7,535	187	25	3	500	290	10"	11,135	11' 2-5/8"	6' 10-7/8"	4' 3-3/4"	19-1/2"	10' 5-1/2"
269B	191	10	46,800	10,475	14,035	8,815	244	33	3	500	290	10"	12,525	11' 10-1/8"	7' 6-3/8"	4' 3-3/4"	27"	10' 5-1/2"
294B	209	15	53,100	10,545	14,105	8,885	244	33	3	500	290	10"	12,595	11' 10-1/8"	7' 6-3/8"	4' 3-3/4"	27"	10' 5-1/2"
325B	231	15	51,500	12,035	15,705	10,375	302	41	3	500	290	10"	14,195	12' 5-5/8"	8' 1-7/8"	4' 3-3/4"	34-1/2"	10' 5-1/2"
355B	252	20	54,100	13,515	17,295	11,855	359	49	3	500	290	10"	15,785	13' 1-1/8"	8' 9-3/8"	4' 3-3/4"	42"	10' 5-1/2"
369B	262	25	57,600	13,545	17,325	11,885	359	49	3	500	290	10"	15,815	13' 1-1/8"	8' 9-3/8"	4' 3-3/4"	42"	10' 5-1/2"
358B	255	15	56,800	13,110	17,400	11,290	344	47	3	550	330	10"	15,690	12' 10"	8' 1-7/8"	4' 8-1/8"	34-1/2"	11' 11-3/4"
371B	263	15	55,000	14,750	19,165	12,930	410	56	3	550	330	10"	17,455	13' 5-1/2"	8' 9-3/8"	4' 8-1/8"	42"	11' 11-3/4"
379B	269	20	61,500	13,150	17,440	11,330	344	47	3	550	330	10"	15,730	12' 10"	8' 1-7/8"	4' 8-1/8"	34-1/2"	11' 11-3/4"
392B	278	20	59,700	14,790	19,205	12,970	410	56	3	550	330	10"	17,495	13' 5-1/2"	8' 9-3/8"	4' 8-1/8"	42"	11' 11-3/4"
409B	290	25	63,500	14,810	19,225	12,990	410	56	3	550	330	10"	17,515	13' 5-1/2"	8' 9-3/8"	4' 8-1/8"	42"	11' 11-3/4"
385B	274	20	71,000	13,105	17,945	11,075	323	44	3	600	380	10"	15,985	12' 2-1/2"	7' 6-3/8"	4' 8-1/8"	27"	13' 11-3/4"
398B	283	15	63,000	14,910	19,900	12,880	400	54	3	600	380	10"	17,940	12' 10"	8' 1-7/8"	4' 8-1/8"	34-1/2"	13' 11-3/4"
423B	301	20	68,800	14,950	19,940	12,920	400	54	3	600	380	10"	17,980	12' 10"	8' 1-7/8"	4' 8-1/8"	34-1/2"	13' 11-3/4"
442B	313	25	73,300	14,970	19,960	12,940	400	54	3	600	380	10"	18,000	12' 10"	8' 1-7/8"	4' 8-1/8"	34-1/2"	13' 11-3/4"
457B	324	25	71,000	16,865	22,000	14,835	477	65	3	600	380	10"	20,040	13' 5-1/2"	8' 9-3/8"	4' 8-1/8"	42"	13' 11-3/4"
473B	336	30	74,700	16,885	22,020	14,855	477	65	3	600	380	10"	20,060	13' 5-1/2"	8' 9-3/8"	4' 8-1/8"	42"	13' 11-3/4"
486B	345	(2)10	84,800	17,490	23,780	14,690	412	56	5	800	510	12"	21,240	12' 6-1/2"	7' 6-3/8"	5' 1/8"	27"	18' 0"
527B	374	(2)15	9,300	17,630	23,920	14,830	412	56	5	800	510	12"	21,380	12' 6-1/2"	7' 6-3/8"	5' 1/8"	27"	18' 0"
578B	411	(2)15	92,500	19,955	26,440	17,155	512	70	5	800	510	12"	23,900	13' 2"	8' 1-7/8"	5' 1/8"	34-1/2"	18' 0"
598B	425	(2)15	89,500	22,415	29,090	19,615	612	83	5	800	510	12"	26,550	13' 9-1/2"	8' 9-3/8"	5' 1/8"	42"	18' 0"
630B	447	(2)20	97,100	22,515	29,190	19,715	612	83	5	800	510	12"	26,650	13' 9-1/2"	8' 9-3/8"	5' 1/8"	42"	18' 0"
508B	360	(2)15	104,100	17,185	24,405	14,075	363	50	7-1/2	1,050	590	12"	21,445	11' 11"	6' 10-7/8"	5' 1/8"	19-1/2"	21' 0"
557B	395	(2)10	93,800	19,830	27,270	16,720	480	65	7-1/2	1,050	590	12"	24,310	12' 6-1/2"	7' 6-3/8"	5' 1/8"	27"	21' 0"
609B	432	(2)15	101,200	19,970	27,410	16,860	480	65	7-1/2	1,050	590	12"	24,450	12' 6-1/2"	7' 6-3/8"	5' 1/8"	27"	21' 0"
666B	473	(2)15	98,200	22,670	30,335	19,560	596	81	7-1/2	1,050	590	12"	27,375	13' 2"	8' 1-7/8"	5' 1/8"	34-1/2"	21' 0"
687B	488	(2)15	95,100	25,525	33,415	22,415	713	97	7-1/2	1,050	590	12"	30,455	13' 9-1/2"	8' 9-3/8"	5' 1/8"	42"	21' 0"
703B	499	(2)20	103,400	22,770	30,435	19,660	596	81	7-1/2	1,050	590	12"	27,475	13' 2"	8' 1-7/8"	5' 1/8"	34-1/2"	21' 0"
725B	515	(2)20	100,100	25,625	33,515	22,515	713	97	7-1/2	1,050	590	12"	30,555	13' 9-1/2"	8' 9-3/8"	5' 1/8"	42"	21' 0"
755B	536	(2)25	108,600	25,685	33,575	22,575	713	97	7-1/2	1,050	590	12"	30,615	13' 9-1/2"	8' 9-3/8"	5' 1/8"	42"	21' 0"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 639B to 926B

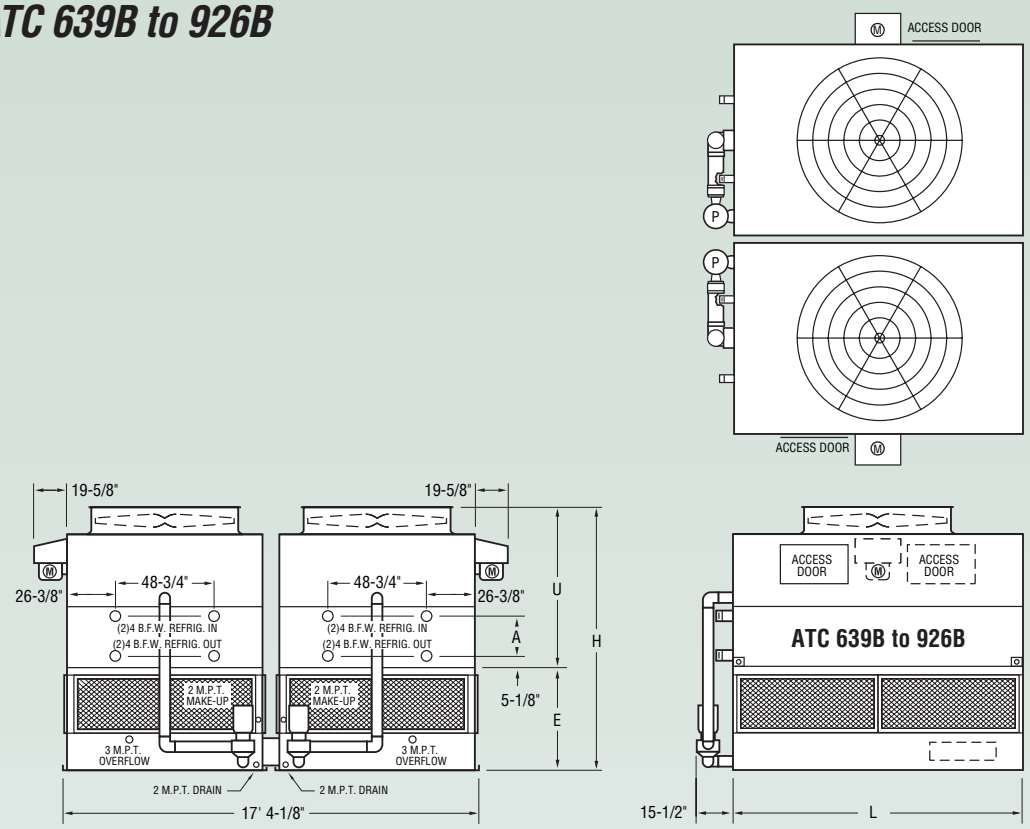


Table 10 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
639B	454	(2)15	115,900	23,040	31,370	9,710	556	76	(2)3	1,100	660	(2)10"	27,950	12' 6-1/2"	7' 6-3/8"	5' 1/8"	30-3/4"	11' 11-3/4"
675B	479	(2)20	125,700	23,120	31,450	9,750	556	76	(2)3	1,100	660	(2)10"	28,030	12' 6-1/2"	7' 6-3/8"	5' 1/8"	30-3/4"	11' 11-3/4"
706B	501	(2)15	112,500	26,200	34,780	11,290	688	94	(2)3	1,100	660	(2)10"	31,360	13' 2"	8' 1-7/8"	5' 1/8"	39-1/4"	11' 11-3/4"
746B	530	(2)20	121,800	26,280	34,860	11,330	688	94	(2)3	1,100	660	(2)10"	31,440	13' 2"	8' 1-7/8"	5' 1/8"	39-1/4"	11' 11-3/4"
778B	553	(2)25	129,800	26,320	34,900	11,350	688	94	(2)3	1,100	660	(2)10"	31,480	13' 2"	8' 1-7/8"	5' 1/8"	39-1/4"	11' 11-3/4"
805B	571	(2)25	125,700	29,600	38,430	12,990	819	112	(2)3	1,100	660	(2)10"	35,010	13' 9-1/2"	8' 9-3/8"	5' 1/8"	47-3/4"	11' 11-3/4"
780B	554	(2)15	124,800	27,920	37,900	11,940	800	109	(2)3	1,200	760	(2)10"	33,980	13' 8"	8' 1-7/8"	5' 6-1/8"	39-1/4"	13' 11-3/4"
830B	589	(2)20	136,200	28,000	37,980	11,980	800	109	(2)3	1,200	760	(2)10"	34,060	13' 8"	8' 1-7/8"	5' 6-1/8"	39-1/4"	13' 11-3/4"
865B	614	(2)25	145,000	28,040	38,020	12,000	800	109	(2)3	1,200	760	(2)10"	34,100	13' 8"	8' 1-7/8"	5' 6-1/8"	39-1/4"	13' 11-3/4"
895B	636	(2)25	140,500	33,710	43,980	14,835	954	130	(2)3	1,200	760	(2)10"	40,060	14' 3-1/2"	8' 9-3/8"	5' 6-1/8"	47-3/4"	13' 11-3/4"
926B	658	(2)30	147,900	33,750	44,020	14,855	954	130	(2)3	1,200	760	(2)10"	40,100	14' 3-1/2"	8' 9-3/8"	5' 6-1/8"	47-3/4"	13' 11-3/4"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 XE298B to XC462B

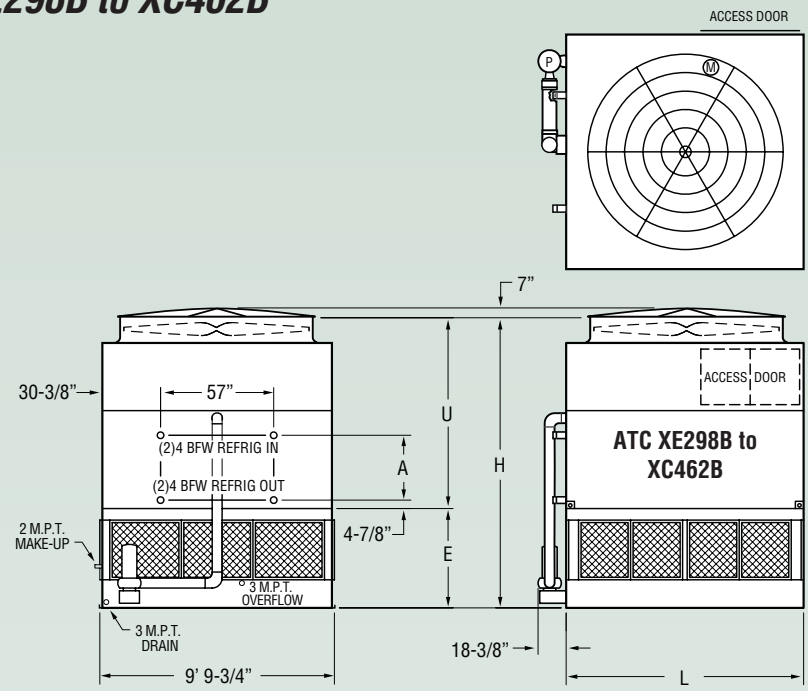


Table 11 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
XE298B	212	10	55,500	12,040	17,910	9,580	250	34	5	685	420	12"	14,380	13' 4-3/4"	8' 2-5/8"	5' 2-1/8"	22-1/4"	11' 11-3/4"
XE333B	236	10	54,700	13,920	19,940	11,460	328	44	5	685	420	12"	16,410	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	11' 11-3/4"
XC346B	246	20	70,000	12,260	18,130	98,00	250	34	5	685	420	12"	14,600	13' 4-3/4"	8' 2-5/8"	5' 2-1/8"	22-1/4"	11' 11-3/4"
XE356B	253	10	53,900	15,700	21,870	13,240	406	55	5	685	420	12"	18,340	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
XC360B	256	25	75,400	12,310	18,180	9,850	250	34	5	685	420	12"	14,650	13' 4-3/4"	8' 2-5/8"	5' 2-1/8"	22-1/4"	11' 11-3/4"
XE368B	261	10	53,100	17,620	23,930	15,160	478	66	5	685	420	12"	20,400	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	11' 11-3/4"
XE387B	275	15	61,700	15,870	22,040	13,410	406	55	5	685	420	12"	18,510	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
XC388B	275	20	68,900	14,140	20,160	11,680	328	44	5	685	420	12"	16,630	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	11' 11-3/4"
XC402B	285	25	74,200	14,190	20,210	11,730	328	44	5	685	420	12"	16,680	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	11' 11-3/4"
XC427B	303	25	73,100	15,970	22,140	13,510	406	55	5	685	420	12"	18,610	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
XC443B	315	30	77,700	16,070	22,240	13,610	406	55	5	685	420	12"	18,710	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
XC462B	328	30	76,600	17,990	24,300	15,530	478	66	5	685	420	12"	20,770	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	11' 11-3/4"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 XE406B to XC669B

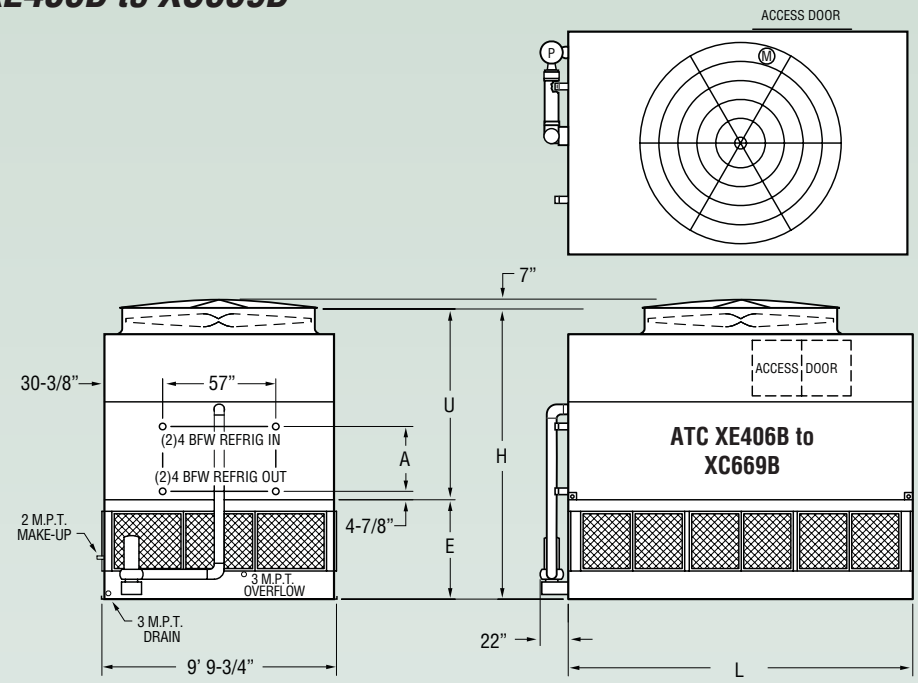


Table 12 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
XE406B	288	10	74,400	17,290	26,150	13670	369	50	7-1/2	1,030	630	12"	20,840	13' 4-3/4"	8' 2-5/8"	5' 2-1/8"	22-1/4"	18'
XE448B	318	10	73,300	20,090	29,170	16470	484	66	7-1/2	1,030	630	12"	23,860	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	18'
XE472B	335	10	72,200	22,800	32,110	19180	603	82	7-1/2	1,030	630	12"	26,800	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	18'
XE492B	349	15	83,900	20,260	29,340	16640	484	66	7-1/2	1,030	630	12"	24,030	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	18'
XC504B	358	25	100,900	17,560	26,420	13940	369	50	7-1/2	1,030	630	12"	21,110	13' 4-3/4"	8' 2-5/8"	5' 2-1/8"	22-1/4"	18'
XE516B	366	15	82,600	22,970	32,280	19350	603	82	7-1/2	1,030	630	12"	26,970	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	18'
XC525B	373	30	107,200	17,660	26,520	14040	369	50	7-1/2	1,030	630	12"	21,210	13' 4-3/4"	8' 2-5/8"	5' 2-1/8"	22-1/4"	18'
XE528B	375	20	92,300	20,310	29,390	16690	484	66	7-1/2	1,030	630	12"	24,080	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	18'
XE542B	385	15	81,400	25,820	35,350	22200	718	98	7-1/2	1,030	630	12"	30,040	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	18'
XE553B	393	20	90,900	23,020	32,330	19400	603	82	7-1/2	1,030	630	12"	27,020	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	18'
XC558B	396	25	99,400	20,360	29,440	16740	484	66	7-1/2	1,030	630	12"	24,130	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	18'
XC579B	411	25	98,000	23,070	32,380	19450	603	82	7-1/2	1,030	630	12"	27,070	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	18'
XE608B	432	25	96,500	25,920	35,450	22300	718	98	7-1/2	1,030	630	12"	30,140	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	18'
XC611B	434	40	116,300	20,710	29,790	17090	484	66	7-1/2	1,030	630	12"	24,480	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	18'
XC641B	455	40	114,600	23,420	32,730	19800	603	82	7-1/2	1,030	630	12"	27,420	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	18'
XC669B	475	40	112,900	26,270	35,800	22650	718	98	7-1/2	1,030	630	12"	30,490	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	18'

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 XE596B to XC925B

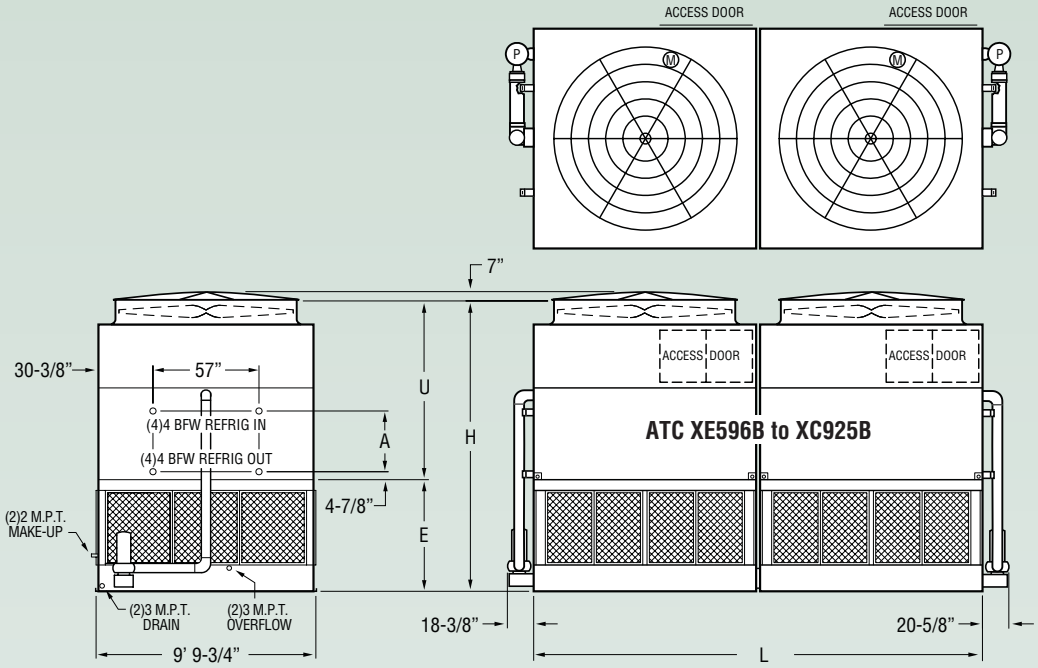


Table 13 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
XE596B	423	(2)10	111,000	24,360	36,090	9,580	494	68	(2)5	1,370	840	(2)12"	29,030	14' 4-3/4"	8' 2-5/8"	6' 2-1/8"	22-1/4"	24' 2"
XE665B	472	(2)10	109,400	28,120	40,150	11,460	650	89	(2)5	1,370	840	(2)12"	33,090	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	24' 2"
XE709B	503	(2)10	107,800	31,680	44,010	13,240	806	110	(2)5	1,370	840	(2)12"	36,950	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	24' 2"
XC720B	511	(2)25	150,700	24,900	36,630	9,850	494	68	(2)5	1,370	840	(2)12"	29,570	14' 4-3/4"	8' 2-5/8"	6' 2-1/8"	22-1/4"	24' 2"
XE742B	527	(2)10	106,200	35,520	48,150	15,160	962	131	(2)5	1,370	840	(2)12"	41,090	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"
XC775B	550	(2)20	137,800	28,560	40,590	11,680	650	89	(2)5	1,370	840	(2)12"	33,530	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	24' 2"
XC804B	571	(2)25	148,500	28,660	40,690	11,730	650	89	(2)5	1,370	840	(2)12"	33,630	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	24' 2"
XC855B	607	(2)25	146,300	32,220	44,550	13,510	806	110	(2)5	1,370	840	(2)12"	37,490	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	24' 2"
XC884B	628	(2)30	155,500	32,420	44,750	13,610	806	110	(2)5	1,370	840	(2)12"	37,690	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	24' 2"
XC897B	637	(2)25	144,100	36,060	48,690	15,430	962	131	(2)5	1,370	840	(2)12"	41,630	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"
XC925B	657	(2)30	153,200	36,260	48,890	15,530	962	131	(2)5	1,370	840	(2)12"	41,830	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 XE812B to XC1340B

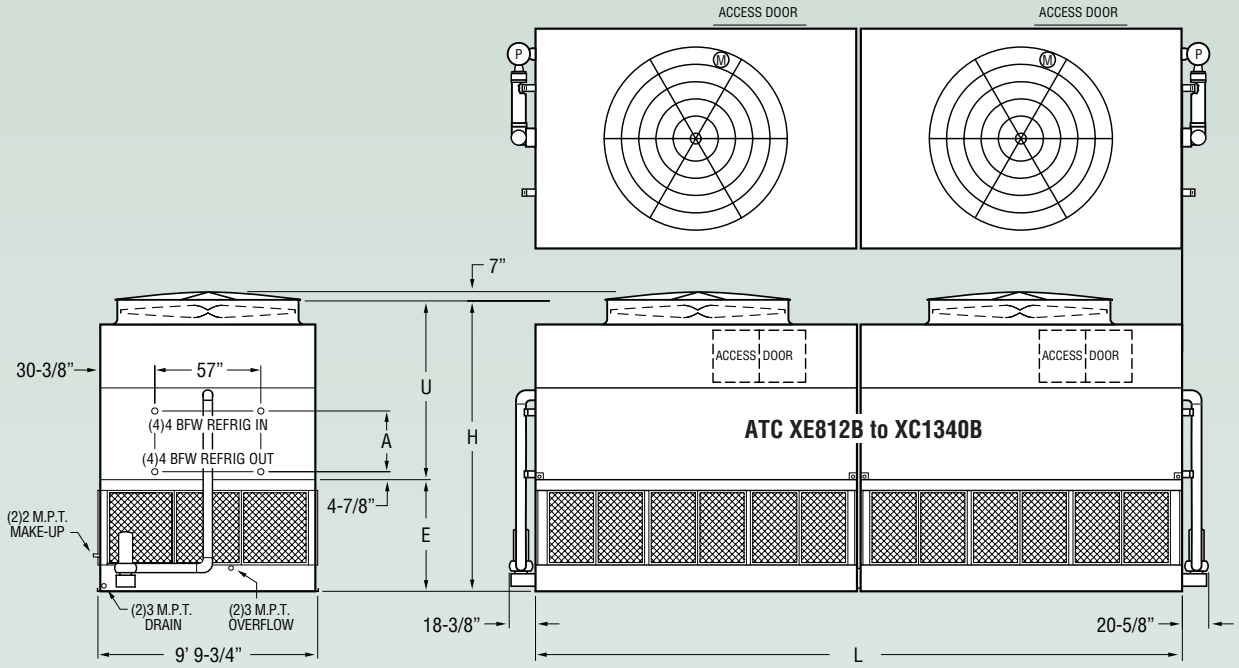


Table 14 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP††	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
XE812B	577	(2)10	148,700	34,740	52,440	13,670	733	100	(2)7-1/2	2,060	1,260	(2)12"	41,830	14' 4-3/4"	8' 2-5/8"	6' 2-1/8"	22-1/4"	36' 2-1/2"
XE896B	636	(2)10	146,500	40,340	58,490	16,470	967	132	(2)7-1/2	2,060	1,260	(2)12"	47,880	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	36' 2-1/2"
XE947B	672	(2)10	144,400	45,760	64,360	19,180	1,201	164	(2)7-1/2	2,060	1,260	(2)12"	53,750	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	36' 2-1/2"
XE984B	699	(2)15	167,700	40,680	58,830	16,640	967	132	(2)7-1/2	2,060	1,260	(2)12"	48,220	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	36' 2-1/2"
XC1011B	718	(2)25	201,900	35,280	52,980	13,940	733	100	(2)7-1/2	2,060	1,260	(2)12"	42,370	14' 4-3/4"	8' 2-5/8"	6' 2-1/8"	22-1/4"	36' 2-1/2"
XE1032B	733	(2)15	165,300	46,100	64,700	19,350	1,201	164	(2)7-1/2	2,060	1,260	(2)12"	54,090	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	36' 2-1/2"
XC1049B	745	(2)30	214,500	35,480	53,180	14,040	733	100	(2)7-1/2	2,060	1,260	(2)12"	42,570	14' 4-3/4"	8' 2-5/8"	6' 2-1/8"	22-1/4"	36' 2-1/2"
XC1112B	790	(2)25	198,900	40,880	59,030	16,740	967	132	(2)7-1/2	2,060	1,260	(2)12"	48,420	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	36' 2-1/2"
XC1153B	819	(2)30	211,300	41,080	59,230	16,840	967	132	(2)7-1/2	2,060	1,260	(2)12"	48,620	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	36' 2-1/2"
XE1157B	821	(2)20	179,200	51,900	70,950	22,250	1,435	196	(2)7-1/2	2,060	1,260	(2)12"	60,340	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	36' 2-1/2"
XC1210B	859	(2)30	208,200	46,500	65,100	19,550	1201	164	(2)7-1/2	2,060	1,260	(2)12"	54,490	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	36' 2-1/2"
XC1222B	868	(2)40	232,600	41,580	59,730	17,090	967	132	(2)7-1/2	2,060	1,260	(2)12"	49,120	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	36' 2-1/2"
XC1264B	897	(2)30	205,100	52,200	71,250	22,400	1,435	196	(2)7-1/2	2,060	1,260	(2)12"	60,640	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	36' 2-1/2"
XC1282B	910	(2)40	229,200	47,000	65,600	19,800	1,201	164	(2)7-1/2	2,060	1,260	(2)12"	54,990	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	36' 2-1/2"
XC1340B	951	(2)40	225,800	52,700	71,750	22,650	1,435	196	(2)7-1/2	2,060	1,260	(2)12"	61,140	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	36' 2-1/2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 428B to 647B

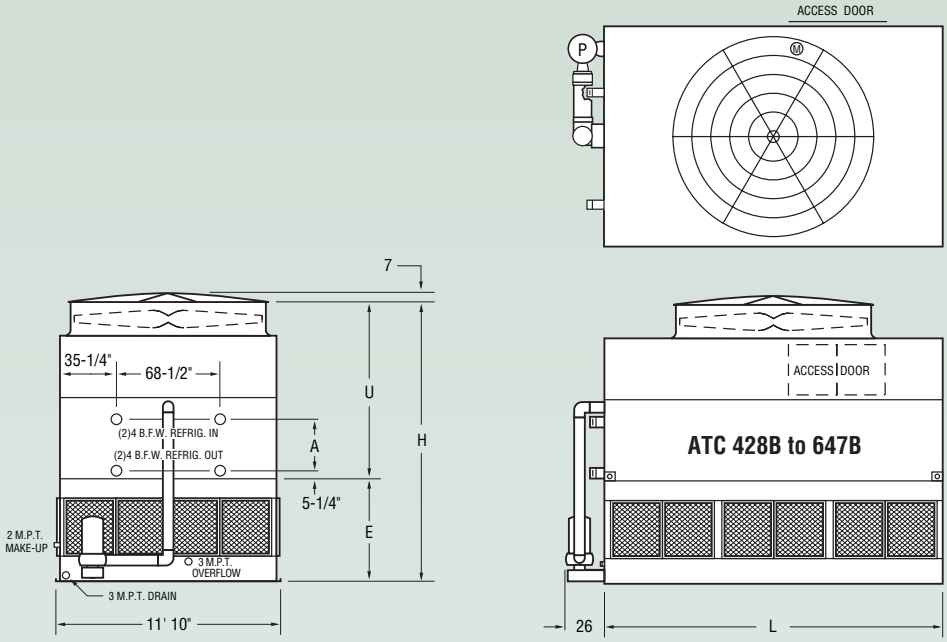


Table 15 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
428B	304	15	73,800	16,310	23,100	13,740	401	55	5	800	490	12"	19,190	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	11' 11-3/4"
456B	324	20	81,200	16,360	23,150	13,790	401	55	5	800	490	12"	19,240	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	11' 11-3/4"
474B	337	25	86,600	16,410	23,200	13,840	401	55	5	800	490	12"	19,290	14' 1-1/4"	8' 11-1/8"	5' 2-1/8"	30-3/4"	11' 11-3/4"
503B	357	20	78,900	18,505	25,480	15,935	497	68	5	800	490	12"	21,570	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
523B	371	25	84,000	18,555	25,530	15,985	497	68	5	800	490	12"	21,620	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
539B	382	30	88,500	18,655	25,630	16,085	497	68	5	800	490	12"	21,720	14' 9-3/4"	9' 7-5/8"	5' 2-1/8"	39-1/4"	11' 11-3/4"
559B	397	30	85,700	20,985	28,145	18,415	593	81	5	800	490	12"	24,235	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	11' 11-3/4"
583B	414	40	92,900	21,235	28,395	18,665	593	81	5	800	490	12"	24,485	15' 6-1/4"	10' 4-1/8"	5' 2-1/8"	47-3/4"	11' 11-3/4"
545B	387	30	101,900	18,715	26,710	15,795	466	64	5	900	570	12"	22,180	14' 7-1/4"	8' 11-1/8"	5' 8-1/8"	30-3/4"	13' 11-3/4"
556B	395	20	87,300	21,050	29,260	18,130	578	79	5	900	570	12"	24,730	15' 3-3/4"	9' 7-5/8"	5' 8-1/8"	39-1/4"	13' 11-3/4"
581B	413	25	94,000	21,110	29,320	18,190	578	79	5	900	570	12"	24,790	15' 3-3/4"	9' 7-5/8"	5' 8-1/8"	39-1/4"	13' 11-3/4"
601B	427	25	91,100	24,070	32,495	21,150	690	94	5	900	570	12"	27,965	16' 1/4"	10' 4-1/8"	5' 8-1/8"	47-3/4"	13' 11-3/4"
620B	440	30	95,800	24,140	32,565	21,220	690	94	5	900	570	12"	28,035	16' 1/4"	10' 4-1/8"	5' 8-1/8"	47-3/4"	13' 11-3/4"
647B	459	40	103,800	24,400	32,825	21,480	690	94	5	900	570	12"	28,295	16' 1/4"	10' 4-1/8"	5' 8-1/8"	47-3/4"	13' 11-3/4"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 642B to 967B

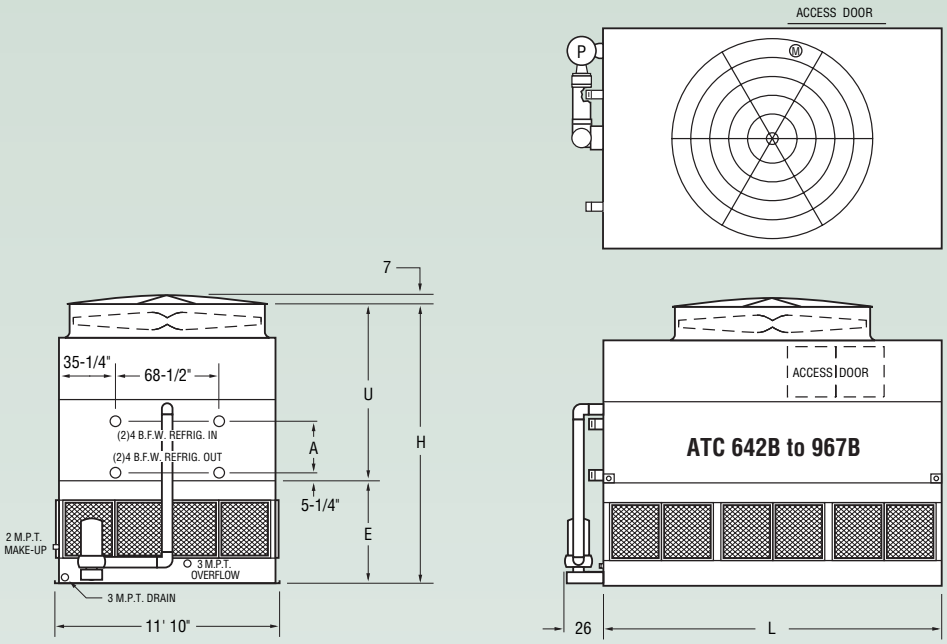


Table 16 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
642B	456	20	110,100	23,400	33,635	19,600	597	81	7-1/2	1,200	720	12"	27,725	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	18'
682B	484	25	118,400	23,450	33,685	19,650	597	81	7-1/2	1,200	720	12"	27,775	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	18'
713B	506	30	126,000	23,560	33,795	19,760	597	81	7-1/2	1,200	720	12"	27,885	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	18'
747B	531	25	114,900	26,700	37,215	22,900	741	101	7-1/2	1,200	720	12"	31,305	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	18'
781B	554	30	122,100	26,810	37,325	23,010	741	101	7-1/2	1,200	720	12"	31,415	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	18'
806B	572	30	118,400	30,150	40,940	26,350	885	121	7-1/2	1,200	720	12"	35,030	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	18'
827B	587	40	132,600	27,070	37,585	23,270	741	101	7-1/2	1,200	720	12"	31,675	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	18'
854B	606	40	128,400	30,410	41,200	26,610	885	121	7-1/2	1,200	720	12"	35,290	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	18'
892B	633	50	136,700	30,470	41,260	26,670	885	121	7-1/2	1,200	720	12"	35,350	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	18'
791B	562	40	147,600	26,245	37,725	21,945	662	90	10	1,400	800	14"	30,955	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	20'
816B	580	30	131,100	29,610	41,400	25,310	822	112	10	1,400	800	14"	34,630	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	20'
842B	598	30	126,900	33,715	45,815	29,415	983	134	10	1,400	800	14"	39,045	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	20'
869B	617	40	143,200	29,870	41,660	25,570	822	112	10	1,400	800	14"	34,890	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	20'
907B	644	50	152,400	29,930	41,720	25,630	822	112	10	1,400	800	14"	34,950	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	20'
935B	664	50	147,600	34,035	46,135	29,735	983	134	10	1,400	800	14"	39,365	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	20'
967B	687	60	155,300	34,145	46,245	29,845	983	134	10	1,400	800	14"	39,475	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	20'

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 858B to 1925B

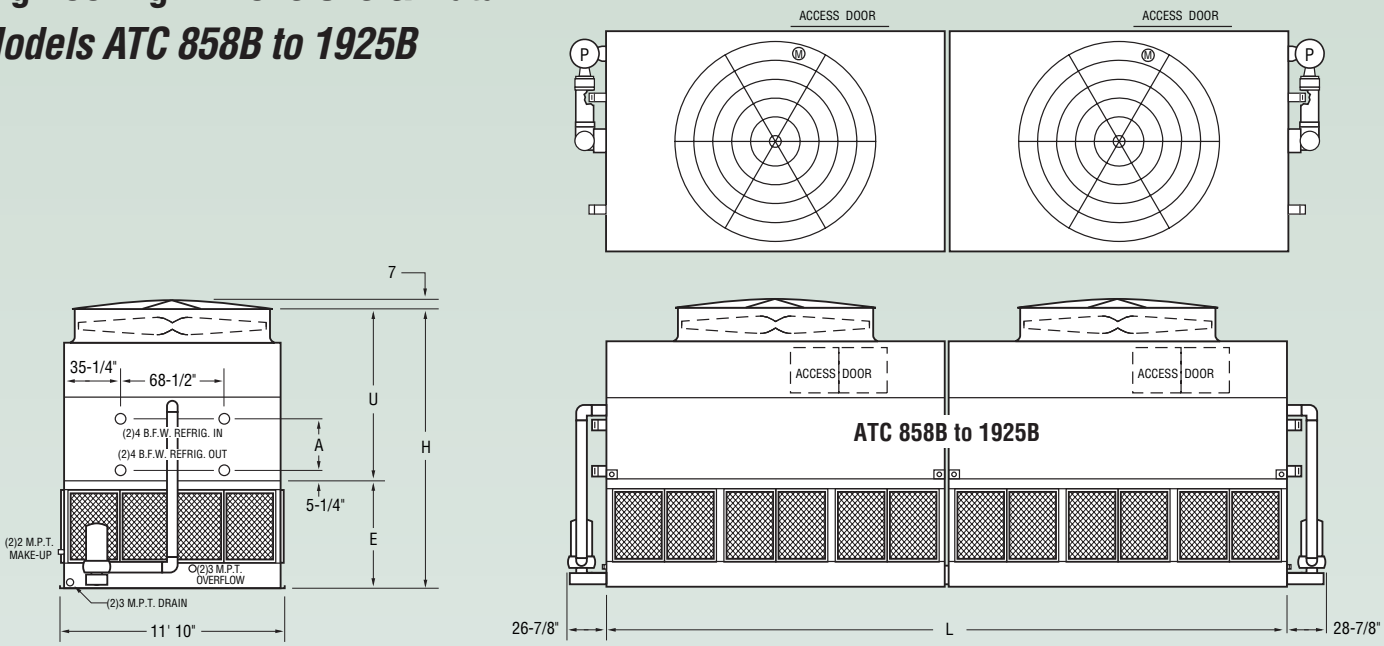


Table 17 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
858B	608	(2)15	147600	32,580	46,160	13,740	792	108	(2)5	1600	980	(2)12"	38,340	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	24' 2"
913B	648	(2)20	162500	32,680	46,260	13,790	792	108	(2)5	1600	980	(2)12"	38,440	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	24' 2"
949B	674	(2)25	173200	32,780	46,360	13,840	792	108	(2)5	1600	980	(2)12"	38,540	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	24' 2"
980B	695	(2)15	138900	41,530	55,850	18,215	1178	161	(2)5	1600	980	(2)12"	48,030	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"
1007B	714	(2)20	157800	36,970	50,920	15,935	985	134	(2)5	1600	980	(2)12"	43,100	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	24' 2"
1047B	743	(2)25	168000	37,070	51,020	15,985	985	134	(2)5	1600	980	(2)12"	43,200	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	24' 2"
1078B	765	(2)30	177000	37,270	51,220	16,085	985	134	(2)5	1600	980	(2)12"	43,400	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	24' 2"
1085B	770	(2)25	162700	41,730	56,050	18,315	1178	161	(2)5	1600	980	(2)12"	48,230	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"
1118B	793	(2)30	171500	41,930	56,250	18,415	1178	161	(2)5	1600	980	(2)12"	48,430	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"
1167B	828	(2)40	185700	42,430	56,750	18,665	1178	161	(2)5	1600	980	(2)12"	48,930	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	24' 2"
1164B	826	(2)25	187900	42,260	58,680	18,190	1157	158	(2)5	1800	1140	(2)12"	49,620	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	28' 2"
1204B	854	(2)25	182100	48,180	65,030	21,150	1380	188	(2)5	1800	1140	(2)12"	55,970	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	28' 2"
1240B	880	(2)30	191600	48,320	65,170	21,220	1380	188	(2)5	1800	1140	(2)12"	56,110	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	28' 2"
1294B	918	(2)40	207600	48,840	65,690	21,480	1380	188	(2)5	1800	1140	(2)12"	56,630	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	28' 2"
1192B	845	(2)30	259500	40,590	60,510	16,365	904	123	(2)7-1/2	2400	1440	(2)12"	48,690	15' 4-3/4"	8' 2-5/8"	7' 2-1/8"	22-1/4"	36' 2-1/2"
1284B	911	(2)20	220100	47,060	67,530	19,600	1193	163	(2)7-1/2	2400	1440	(2)12"	55,710	16' 1-1/4"	8' 11-1/8"	7' 2-1/8"	30-3/4"	36' 2-1/2"
1365B	969	(2)25	236700	47,160	67,630	19,650	1193	163	(2)7-1/2	2400	1440	(2)12"	55,810	16' 1-1/4"	8' 11-1/8"	7' 2-1/8"	30-3/4"	36' 2-1/2"
1426B	1012	(2)30	252000	47,380	67,850	19,760	1193	163	(2)7-1/2	2400	1440	(2)12"	56,030	16' 1-1/4"	8' 11-1/8"	7' 2-1/8"	30-3/4"	36' 2-1/2"
1496B	1061	(2)25	229800	53,660	74,690	22,900	1482	202	(2)7-1/2	2400	1440	(2)12"	62,870	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	36' 2-1/2"
1562B	1109	(2)30	244200	53,880	74,910	23,010	1482	202	(2)7-1/2	2400	1440	(2)12"	63,090	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	36' 2-1/2"
1655B	1175	(2)40	265100	54,400	75,430	23,270	1482	202	(2)7-1/2	2400	1440	(2)12"	63,610	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	36' 2-1/2"
1709B	1213	(2)40	256800	61,080	82,660	26,610	1771	241	(2)7-1/2	2400	1440	(2)12"	70,840	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	36' 2-1/2"
1784B	1266	(2)50	273400	61,200	82,780	26,670	1771	241	(2)7-1/2	2400	1440	(2)12"	70,960	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	36' 2-1/2"
1625B	1153	(2)30	262100	59,440	83,020	25,310	1645	224	(2)5	2800	1600	(2)14"	69,480	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	40' 2-1/2"
1729B	1227	(2)40	286400	59,960	83,540	25,570	1645	224	(2)5	2800	1600	(2)14"	70,000	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	40' 2-1/2"
1805B	1281	(2)50	304800	60,080	83,660	25,630	1645	224	(2)5	2800	1600	(2)14"	70,120	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	40' 2-1/2"
1861B	1321	(2)50	295100	68,290	92,490	29,735	1966	268	(2)5	2800	1600	(2)14"	78,950	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	40' 2-1/2"
1925B	1367	(2)60	310600	68,510	92,710	29,845	1966	268	(2)5	2800	1600	(2)14"	79,170	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	40' 2-1/2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.)

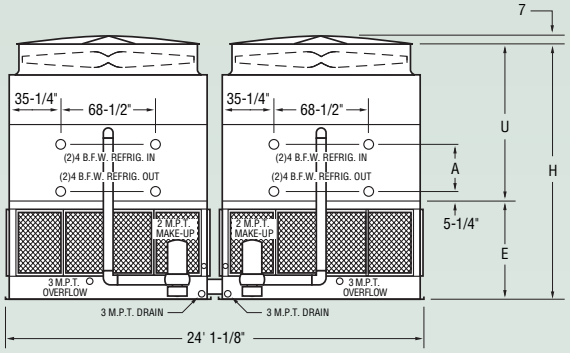
† Heaviest section is the coil section.

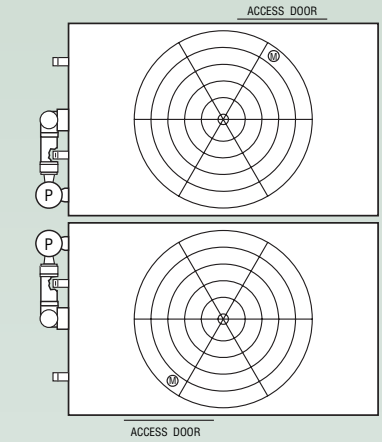
*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.

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 857B to 1915B





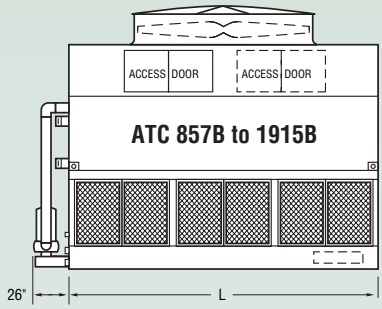


Table 18 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
857B	608	(2)15	147,600	32,560	46,140	13,740	803	109	(2)5	1,600	980	(2)12"	38,320	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	11' 11-3/4"
912B	648	(2)20	162,500	32,660	46,240	13,790	803	109	(2)5	1,600	980	(2)12"	38,420	15' 1-1/4"	8' 11-1/8"	6' 2-1/8"	30-3/4"	11' 11-3/4"
979B	695	(2)15	138,900	41,510	55,830	18,215	1,185	161	(2)5	1,600	980	(2)12"	48,010	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	11' 11-3/4"
1006B	714	(2)20	157,800	36,950	50,900	15,935	994	135	(2)5	1,600	980	(2)12"	43,080	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	11' 11-3/4"
1046B	743	(2)25	168,000	37,050	51,000	15,985	994	135	(2)5	1,600	980	(2)12"	43,180	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	11' 11-3/4"
1077B	765	(2)30	177,000	37,250	51,200	16,085	994	135	(2)5	1,600	980	(2)12"	43,380	15' 9-3/4"	9' 7-5/8"	6' 2-1/8"	39-1/4"	11' 11-3/4"
1117B	793	(2)30	171,500	41,910	56,230	18,415	1,185	161	(2)5	1,600	980	(2)12"	48,410	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	11' 11-3/4"
1166B	828	(2)40	185,700	42,410	56,730	18,665	1,185	161	(2)5	1,600	980	(2)12"	48,910	16' 6-1/4"	10' 4-1/8"	6' 2-1/8"	47-3/4"	11' 11-3/4"
1163B	826	(2)25	187,900	42,300	58,720	18,190	1,157	158	(2)5	1,800	1,140	(2)12"	49,660	16' 9-3/4"	9' 7-5/8"	7' 2-1/8"	39-1/4"	13' 11-3/4"
1203B	854	(2)25	182,100	48,220	65,070	21,150	1,380	188	(2)5	1,800	1,140	(2)12"	56,010	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	13' 11-3/4"
1239B	880	(2)30	191,600	48,360	65,210	21,220	1,380	188	(2)5	1,800	1,140	(2)12"	56,150	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	13' 11-3/4"
1293B	918	(2)40	207,600	48,880	65,730	21,480	1,380	188	(2)5	1,800	1,140	(2)12"	56,670	17' 6-1/4"	10' 4-1/8"	7' 2-1/8"	47-3/4"	13' 11-3/4"
1191B	845	(2)30	259,500	40,630	60,550	16,365	904	123	(2)7-1/2	2,400	1,440	(2)12"	48,730	16' 4-3/4"	8' 2-5/8"	8' 2-1/8"	22-1/4"	18'
1283B	911	(2)20	220,100	47,100	67,570	19,600	1,193	163	(2)7-1/2	2,400	1,440	(2)12"	55,750	17' 1-1/4"	8' 11-1/8"	8' 2-1/8"	30-3/4"	18'
1364B	969	(2)25	236,700	47,200	67,670	19,650	1,193	163	(2)7-1/2	2,400	1,440	(2)12"	55,850	17' 1-1/4"	8' 11-1/8"	8' 2-1/8"	30-3/4"	18'
1425B	1012	(2)30	252,000	47,420	67,890	19,760	1,193	163	(2)7-1/2	2,400	1,440	(2)12"	56,070	17' 1-1/4"	8' 11-1/8"	8' 2-1/8"	30-3/4"	18'
1495B	1061	(2)25	229,800	53,700	74,730	22,900	1,482	202	(2)7-1/2	2,400	1,440	(2)12"	62,910	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	18'
1561B	1109	(2)30	244,200	53,920	74,950	23,010	1,482	202	(2)7-1/2	2,400	1,440	(2)12"	63,130	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	18'
1654B	1175	(2)40	265,100	54,440	75,470	23,270	1,482	202	(2)7-1/2	2,400	1,440	(2)12"	63,650	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	18'
1708B	1213	(2)40	256,800	61,120	82,700	26,610	1,771	241	(2)7-1/2	2,400	1,440	(2)12"	70,880	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	18'
1783B	1266	(2)50	273,400	61,240	82,820	26,670	1,771	241	(2)7-1/2	2,400	1,440	(2)12"	71,000	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	18'
1616B	1148	(2)30	260,800	59,260	82,840	25,310	1,645	224	(2)10	2,800	1,600	(2)14"	69,300	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	20'
1720B	1221	(2)40	284,900	59,780	83,360	25,570	1,645	224	(2)10	2,800	1,600	(2)14"	69,820	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	20'
1795B	1275	(2)50	303,300	59,900	83,480	25,630	1,645	224	(2)10	2,800	1,600	(2)14"	69,940	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	20'
1851B	1315	(2)50	293,600	68,110	92,310	29,735	1,966	268	(2)10	2,800	1,600	(2)14"	78,770	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	20'
1915B	1360	(2)60	309,100	68,330	92,530	29,845	1,966	268	(2)10	2,800	1,600	(2)14"	78,990	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	20'

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 1879B to 3714B

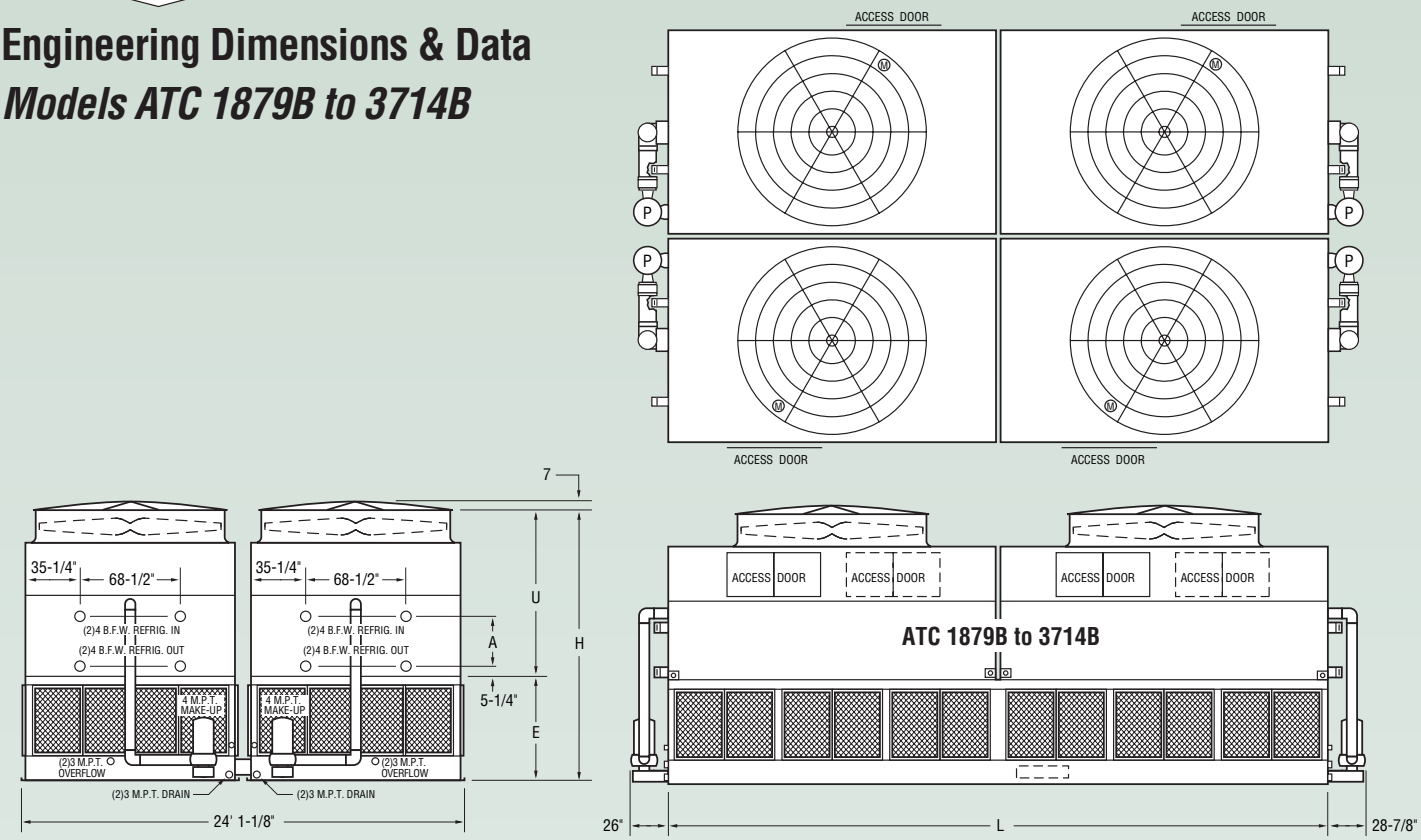


Table 19 Engineering Data

ATC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
1879B	1,334	(4)15	28,6600	74,260	102,180	15,885	1,970	268	(4)5	3,200	1,960	(4)12"	86,280	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	24' 2"
2002B	1,421	(4)20	31,5600	74,460	102,380	15,935	1,970	268	(4)5	3,200	1,960	(4)12"	86,480	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	24' 2"
2082B	1,478	(4)25	33,6000	74,660	102,580	15,985	1,970	268	(4)5	3,200	1,960	(4)12"	86,680	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	24' 2"
2158B	1,532	(4)25	32,5500	83,980	112,640	18,315	2,357	321	(4)5	3,200	1,960	(4)12"	96,740	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	24' 2"
2223B	1,578	(4)30	34,2900	84,380	113,040	18,415	2,357	321	(4)5	3,200	1,960	(4)12"	97,140	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	24' 2"
2320B	1,647	(4)40	37,1400	85,380	114,040	18,665	2,357	321	(4)5	3,200	1,960	(4)12"	98,140	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	24' 2"
2256B	1,602	(4)25	37,0200	84,980	117,960	18,190	2,313	315	(4)5	3,600	2,280	(4)12"	99,560	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	28' 2"
2324B	1,650	(4)30	38,9500	85,260	118,240	18,260	2,313	315	(4)5	3,600	2,280	(4)12"	99,840	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	28' 2"
2404B	1,707	(4)30	37,7500	97,100	130,940	21,220	2,761	376	(4)5	3,600	2,280	(4)12"	112,540	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	28' 2"
2509B	1,781	(4)40	40,8900	98,140	131,980	21,480	2,761	376	(4)5	3,600	2,280	(4)12"	113,580	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	28' 2"
2490B	1,768	(4)20	43,3700	94,480	135,620	19,600	2,386	325	(4)7-1/2	4,800	2,880	(4)12"	111,680	17' 1-1/4"	8' 11-7/8"	8' 2-1/8"	30-3/4"	36' 2-1/2"
2647B	1,879	(4)25	46,6400	94,680	135,820	19,650	2,386	325	(4)7-1/2	4,800	2,880	(4)12"	111,880	17' 1-1/4"	8' 11-7/8"	8' 2-1/8"	30-3/4"	36' 2-1/2"
2765B	1,963	(4)30	49,6500	95,120	136,260	19,760	2,386	325	(4)7-1/2	4,800	2,880	(4)12"	112,320	17' 1-1/4"	8' 11-7/8"	8' 2-1/8"	30-3/4"	36' 2-1/2"
2900B	2,059	(4)25	45,2600	107,680	149,940	22,900	2,964	404	(4)7-1/2	4,800	2,880	(4)12"	126,000	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	36' 2-1/2"
3029B	2,151	(4)30	48,1000	108,120	150,380	23,010	2,964	404	(4)7-1/2	4,800	2,880	(4)12"	126,440	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	36' 2-1/2"
3210B	2,279	(4)40	52,2300	109,160	151,420	23,270	2,964	404	(4)7-1/2	4,800	2,880	(4)12"	127,480	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	36' 2-1/2"
3313B	2,352	(4)40	50,6000	122,520	165,880	26,610	3,542	482	(4)7-1/2	4,800	2,880	(4)12"	141,940	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	36' 2-1/2"
3459B	2,456	(4)50	53,8700	122,760	166,120	26,670	3,542	482	(4)7-1/2	4,800	2,880	(4)12"	142,180	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	36' 2-1/2"
2855B	2,027	(4)30	52,9900	104,240	150,340	21,685	2,647	361	(4)10	5,600	3,200	(4)14"	122,960	17' 1-1/4"	8' 11-7/8"	8' 2-1/8"	30-3/4"	40' 2-1/2"
3232B	2,295	(4)30	49,7500	135,160	183,740	29,415	3,932	536	(4)10	5,600	3,200	(4)14"	156,360	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	40' 2-1/2"
3336B	2,368	(4)40	56,1300	119,780	167,120	25,570	3,290	448	(4)10	5,600	3,200	(4)14"	139,740	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	40' 2-1/2"
3482B	2,472	(4)50	59,7400	120,020	167,360	25,630	3,290	448	(4)10	5,600	3,200	(4)14"	139,980	17' 9-3/4"	9' 7-5/8"	8' 2-1/8"	39-1/4"	40' 2-1/2"
3591B	2,549	(4)50	57,8400	136,440	185,020	29,735	3,932	536	(4)10	5,600	3,200	(4)14"	157,640	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	40' 2-1/2"
3714B	2,637	(4)60	60,8900	136,880	185,460	29,845	3,932	536	(4)10	5,600	3,200	(4)14"	158,080	18' 6-1/4"	10' 4-1/8"	8' 2-1/8"	47-3/4"	40' 2-1/2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 UBC 180 to 535

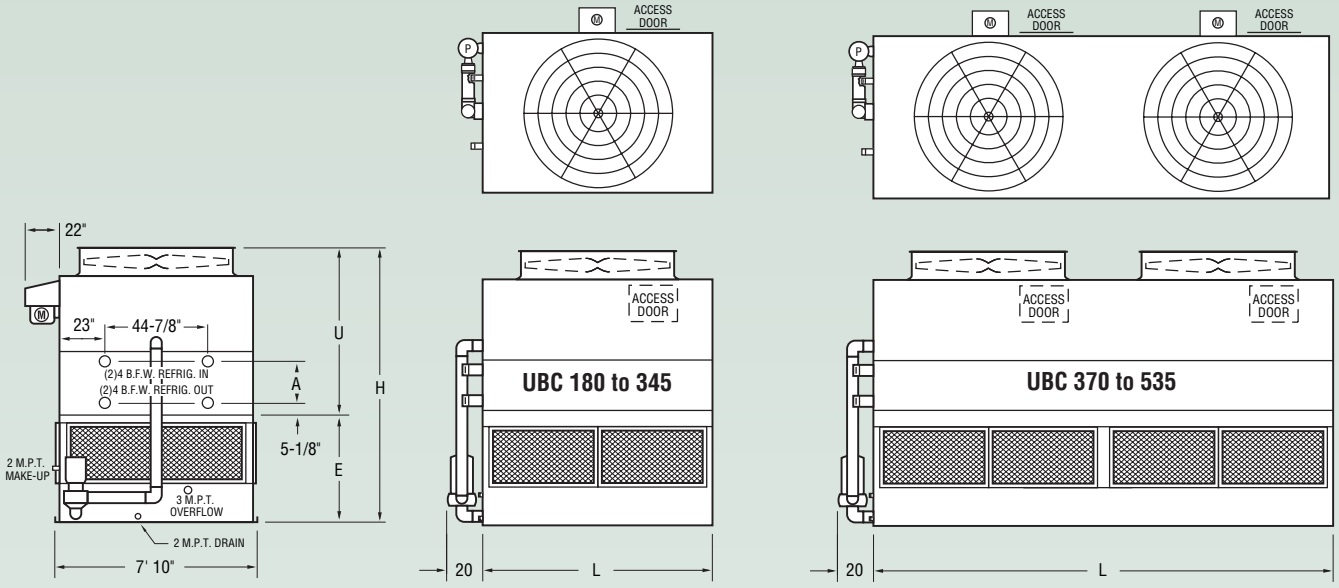


Table 20 Engineering Data

UBC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
180	128	10	40,500	7,380	10,300	5,760	150	20	2	405	250	8"	9,350	11' 1-3/4"	6' 10-1/16"	4' 3-11/16"	19-1/2"	8' 11-1/2"
200	142	7-1/2	36,500	8,480	11,490	6,860	195	27	2	405	250	8"	10,540	11' 9-1/4"	7' 5-9/16"	4' 3-11/16"	27"	8' 11-1/2"
210	149	10	38,500	8,510	11,520	6,890	195	27	2	405	250	8"	10,570	11' 9-1/4"	7' 5-9/16"	4' 3-11/16"	27"	8' 11-1/2"
230	163	10	37,100	9,720	12,830	8,100	240	33	2	405	250	8"	11,880	12' 4-3/4"	8' 1-1/16"	4' 3-11/16"	34-1/2"	8' 11-1/2"
260	184	10	46,500	11,300	15,380	8,840	260	35	3	545	340	10"	14,090	11' 9-1/4"	7' 5-9/16"	4' 3-11/16"	27"	11' 11-3/4"
285	202	15	52,500	11,350	15,430	8,890	260	35	3	545	340	10"	14,140	11' 9-1/4"	7' 5-9/16"	4' 3-11/16"	27"	11' 11-3/4"
320	227	15	51,000	12,850	17,060	10,390	320	43	3	545	340	10"	15,770	12' 4-3/4"	8' 1-1/16"	4' 3-11/16"	34-1/2"	11' 11-3/4"
345	245	20	52,900	14,400	18,550	11,940	380	52	3	545	340	10"	17,260	13' 1/4"	8' 8-9/16"	4' 3-11/16"	42"	11' 11-3/4"
370	262	(2)10	81,800	13,830	19,940	10,730	190	39	5	800	490	12"	18,060	11' 10-1/8"	6' 10-1/16"	5' 1/16"	19-1/2"	18' 0"
415	294	(2) 7-1/2	73,600	16,060	22,410	12,960	280	52	5	800	490	12"	20,530	12' 5-5/8"	7' 5-9/16"	5' 1/16"	27"	18' 0"
440	312	(2)10	78,000	16,120	22,470	13,020	280	52	5	800	490	12"	20,590	12' 5-5/8"	7' 5-9/16"	5' 1/16"	27"	18' 0"
485	344	(2)10	74,900	18,370	24,960	15,270	475	65	5	800	490	12"	23,080	13' 1-1/8"	8' 1-1/16"	5' 1/16"	34-1/2"	18' 0"
535	379	(2)15	80,900	20,600	27,440	17,500	565	77	5	800	490	12"	25,560	13' 8-5/8"	8' 8-9/16"	5' 1/16"	42"	18' 0"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 UBC 420 to 860

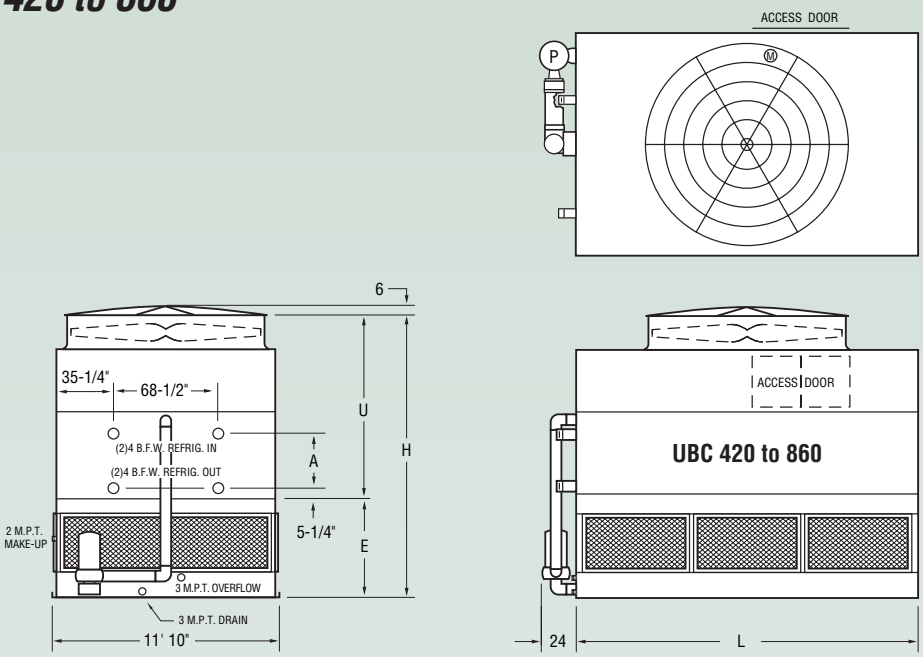


Table 21 Engineering Data

UBC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
420	298	15	75,400	16,740	22,710	13,810	400	55	5	800	500	12"	19,970	13' 11-1/8"	8' 11"	5' 1/8"	30-3/4"	11' 11-3/4"
460	326	25	84,200	16,860	22,830	13,930	400	55	5	800	500	12"	20,090	13' 11-1/8"	8' 11"	5' 1/8"	30-3/4"	11' 11-3/4"
490	348	20	79,700	18,980	25,140	16,050	495	68	5	800	500	12"	22,400	14' 7-5/8"	9' 7-1/2"	5' 1/8"	39-1/4"	11' 11-3/4"
505	358	25	82,000	19,060	25,220	16,130	495	68	5	800	500	12"	22,480	14' 7-5/8"	9' 7-1/2"	5' 1/8"	39-1/4"	11' 11-3/4"
520	369	25	80,000	21,300	27,650	18,370	590	81	5	800	500	12"	24,910	15' 4-1/8"	10' 4"	5' 1/8"	47-3/4"	11' 11-3/4"
540	383	30	82,700	21,420	27,770	18,490	590	81	5	800	500	12"	25,030	15' 4-1/8"	10' 4"	5' 1/8"	47-3/4"	11' 11-3/4"
560	397	25	122,000	21,130	29,720	16,460	450	62	7-1/2	1,200	720	12"	25,600	14' 2-5/8"	8' 2-1/2"	6' 1/8"	22-1/4"	18' 0"
580	411	30	128,900	21,250	29,840	16,580	450	62	7-1/2	1,200	720	12"	25,720	14' 2-5/8"	8' 2-1/2"	6' 1/8"	22-1/4"	18' 0"
630	447	20	115,600	24,550	33,440	19,880	595	81	7-1/2	1,200	720	12"	29,320	14' 11-1/8"	8' 11"	6' 1/8"	30-3/4"	18' 0"
670	475	25	120,900	24,630	33,520	19,960	595	81	7-1/2	1,200	720	12"	29,400	14' 11-1/8"	8' 11"	6' 1/8"	30-3/4"	18' 0"
700	496	30	124,600	24,750	33,640	20,080	595	81	7-1/2	1,200	720	12"	29,520	14' 11-1/8"	8' 11"	6' 1/8"	30-3/4"	18' 0"
730	518	25	115,000	27,960	37,220	23,350	740	101	7-1/2	1,200	720	12"	33,100	15' 7-5/8"	9' 7-1/2"	6' 1/8"	39-1/4"	18' 0"
765	543	30	120,900	28,080	37,340	23,470	740	101	7-1/2	1,200	720	12"	33,220	15' 7-5/8"	9' 7-1/2"	6' 1/8"	39-1/4"	18' 0"
800	567	40	129,000	28,360	37,620	23,750	740	101	7-1/2	1,200	720	12"	33,500	15' 7-5/8"	9' 7-1/2"	6' 1/8"	39-1/4"	18' 0"
830	589	40	125,100	31,750	41,370	27,140	885	121	7-1/2	1,200	720	12"	37,250	16' 4-1/8"	10' 4"	6' 1/8"	47-3/4"	18' 0"
860	610	50	131,400	32,050	41,670	27,440	885	121	7 1/2	1,200	720	12"	37,550	16' 4-1/8"	10' 4"	6' 1/8"	47-3/4"	18' 0"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 UBC 890 to 1720

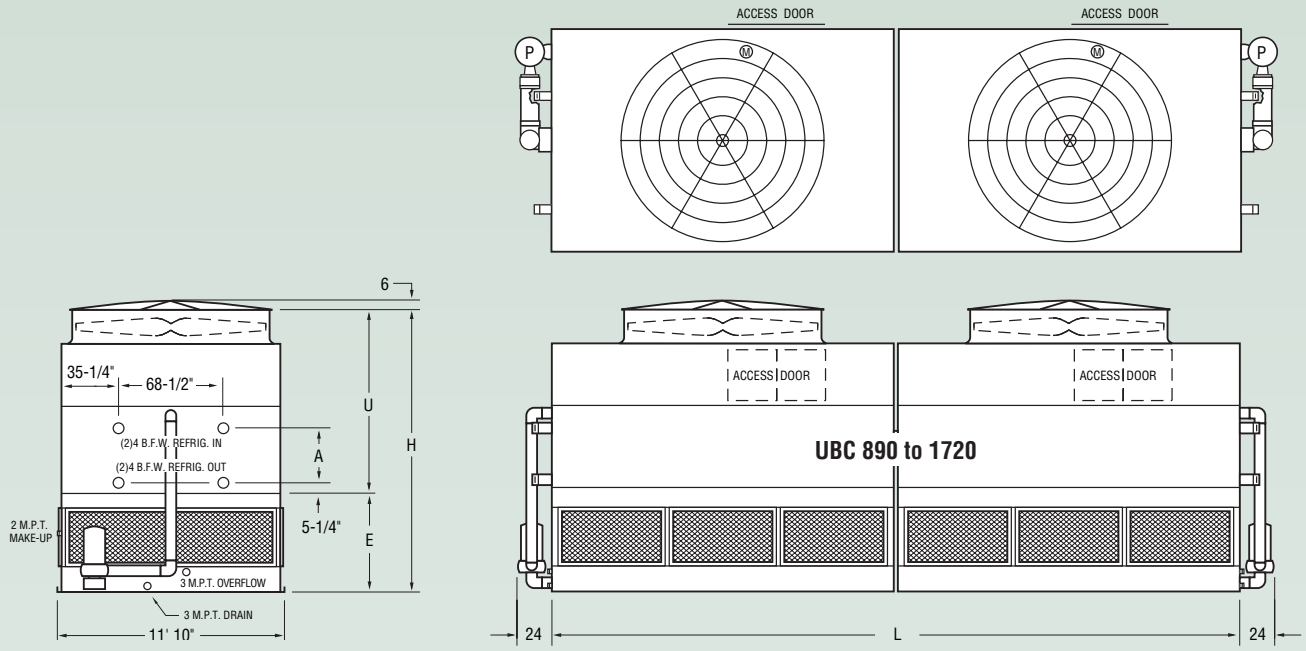


Table 22 Engineering Data

UBC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
890	631	(2)20	165,200	33,480	45,420	13,010	805	109	(2)5	1,600	1,000	(2)12"	39,940	14' 11-1/8"	8' 11"	6' 1/8"	30-3/4"	24' 2"
920	652	(2)15	146,200	37,800	50,120	14,960	990	135	(2)5	1,600	1,000	(2)12"	44,640	15' 7-5/8"	9' 7-1/2"	6' 1/8"	39-1/4"	24' 2"
1010	716	(2)25	165,000	38,040	50,360	15,080	990	135	(2)5	1,600	1,000	(2)12"	44,880	15' 7-5/8"	9' 7-1/2"	6' 1/8"	39-1/4"	24' 2"
1075	762	(2)30	165,400	42,750	55,460	17,220	1,185	161	(2)5	1,600	1,000	(2)12"	49,980	16' 4-1/8"	10' 4"	6' 1/8"	47-3/4"	24' 2"
1110	787	(2)25	244,000	42,350	59,540	15,500	905	123	(2)7-1/2	2,400	1,440	(2)12"	51,300	15' 2-5/8"	8' 2-1/2"	7' 1/8"	22-1/4"	36' 2-1/2"
1265	897	(2)20	234,800	49,200	66,980	18,610	1,190	163	(2)7-1/2	2,400	1,440	(2)12"	58,740	15' 11-1/8"	8' 11"	7' 1/8"	30-3/4"	36' 2-1/2"
1335	947	(2)25	241,300	49,360	67,140	18,690	1,190	163	(2)7-1/2	2,400	1,440	(2)12"	58,900	15' 11-1/8"	8' 11"	7' 1/8"	30-3/4"	36' 2-1/2"
1395	989	(2)30	249,300	49,600	67,380	18,810	1,190	163	(2)7-1/2	2,400	1,440	(2)12"	59,140	15' 11-1/8"	8' 11"	7' 1/8"	30-3/4"	36' 2-1/2"
1460	1035	(2)25	230,500	56,020	74,530	21,760	1,485	202	(2)7-1/2	2,400	1,440	(2)12"	66,290	16' 7-5/8"	9' 7-1/2"	7' 1/8"	39-1/4"	36' 2-1/2"
1530	1085	(2)30	241,800	56,260	74,770	21,880	1,485	202	(2)7-1/2	2,400	1,440	(2)12"	66,530	16' 7-5/8"	9' 7-1/2"	7' 1/8"	39-1/4"	36' 2-1/2"
1605	1138	(2)40	257,000	56,820	75,330	22,160	1,485	202	(2)7-1/2	2,400	1,440	(2)12"	67,090	16' 7-5/8"	9' 7-1/2"	7' 1/8"	39-1/4"	36' 2-1/2"
1655	1174	(2)40	250,100	63,600	82,840	25,230	1,770	241	(2)7-1/2	2,400	1,440	(2)12"	74,600	17' 4-1/8"	10' 4"	7' 1/8"	47-3/4"	36' 2-1/2"
1720	1220	(2)50	262,700	64,200	83,440	25,530	1,770	241	(2)7-1/2	2,400	1,440	(2)12"	75,200	17' 4-1/8"	10' 4"	7' 1/8"	47-3/4"	36' 2-1/2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

*** 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 UBC 1090 to 1690

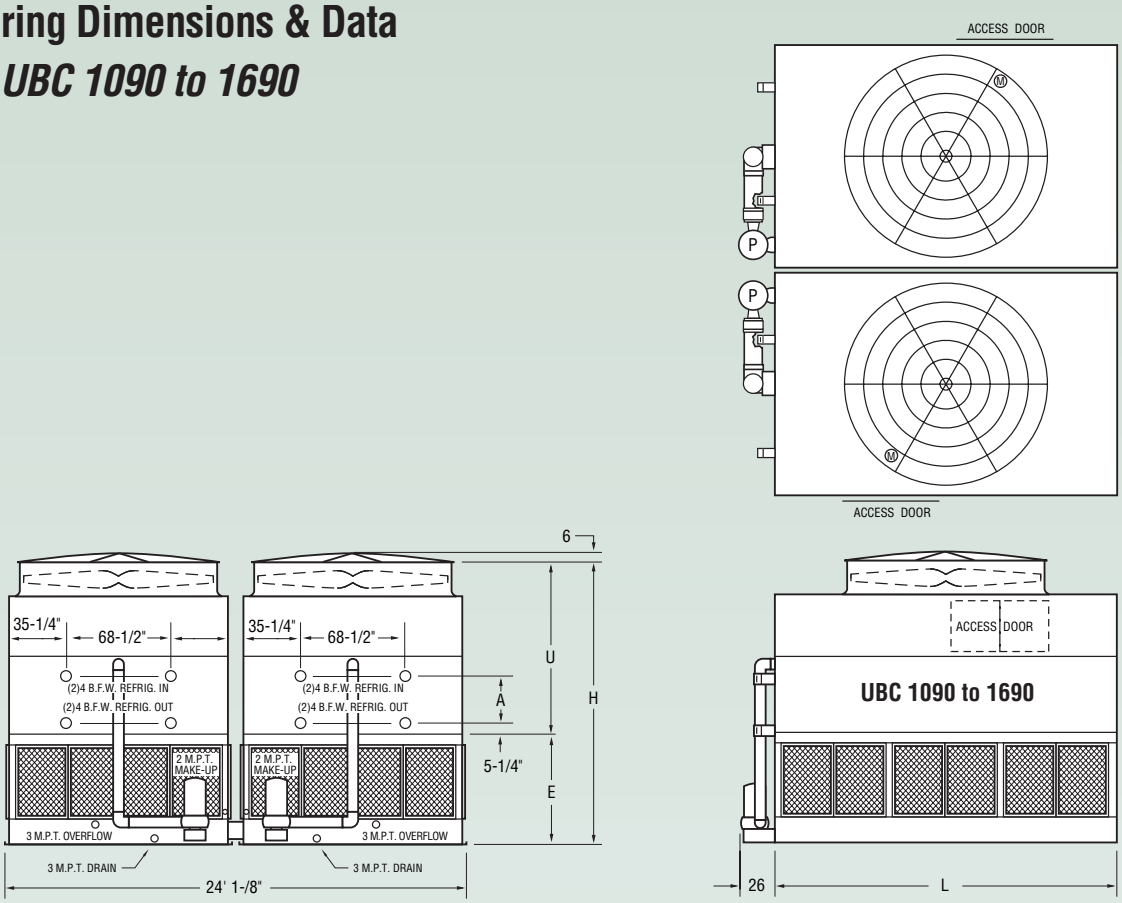


Table 23 Engineering Data

UBC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
1090	773	(2)25	243,000	42,310	59,500	15,500	905	123	(2) 7-1/2	2,400	1,440	(2)12"	51,260	15' 2-5/8"	8' 2-1/2"	7' 1/8"	22-1/4"	18' 0"
1240	879	(2)20	231,900	49,160	66,940	18,610	1,190	163	(2) 7-1/2	2,400	1,440	(2)12"	58,700	15' 11-1/8"	8' 11"	7' 1/8"	30-3/4"	18' 0"
1310	929	(2)25	239,000	49,320	67,100	18,690	1,190	163	(2) 7-1/2	2,400	1,440	(2)12"	58,860	15' 11-1/8"	8' 11"	7' 1/8"	30-3/4"	18' 0"
1370	972	(2)30	248,300	49,560	67,340	18,810	1,190	163	(2) 7-1/2	2,400	1,440	(2)12"	59,100	15' 11-1/8"	8' 11"	7' 1/8"	30-3/4"	18' 0"
1435	1018	(2)25	230,000	55,980	74,490	21,760	1,485	202	(2) 7-1/2	2,400	1,440	(2)12"	66,250	16' 7-5/8"	9' 7-1/2"	7' 1/8"	39-1/4"	18' 0"
1500	1064	(2)30	239,600	56,220	74,730	21,880	1,485	202	(2) 7-1/2	2,400	1,440	(2)12"	66,490	16' 7-5/8"	9' 7-1/2"	7' 1/8"	39-1/4"	18' 0"
1575	1117	(2)40	256,700	56,780	75,290	22,160	1,485	202	(2) 7-1/2	2,400	1,440	(2)12"	67,050	16' 7-5/8"	9' 7-1/2"	7' 1/8"	39-1/4"	18' 0"
1625	1152	(2)40	249,500	63,560	82,800	25,230	1,770	241	(2) 7-1/2	2,400	1,440	(2)12"	74,560	17' 4-1/8"	10' 4"	7' 1/8"	47-3/4"	18' 0"
1690	1199	(2)50	260,000	64,160	83,400	25,530	1,770	241	(2) 7-1/2	2,400	1,440	(2)12"	75,160	17' 4-1/8"	10' 4"	7' 1/8"	47-3/4"	18' 0"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 96.3°F condensing, 20°F suction and 78°F W.B.

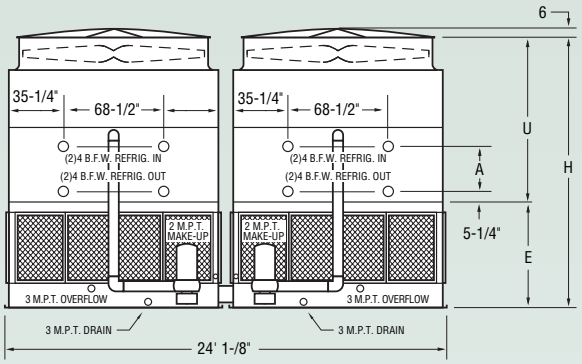
** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

† Heaviest section is the coil section.

*** 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 UBC 1735 to 3225



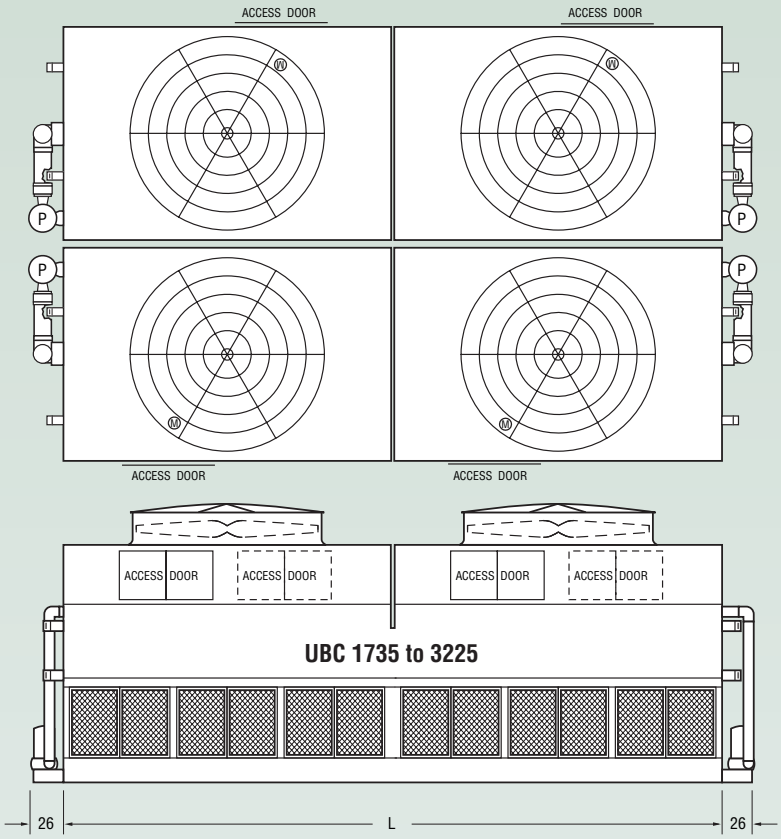


Table 24 Engineering Data

UBC Model No.*	R-717 Tons*	Fans		Weights			Refrigerant Operating Charge lbs.***	Coil Volume ft^3	Spray Pump		Remote Pump			Dimensions				
		HP	CFM	Shipping	Operating	Heaviest Section†			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Lower E	Coil A	Length L
1735	1230	(4)20	322,300	67,050	90,940	11,320	1,610	219	(4)5	3,200	2,000	(4)12"	79,980	17' 1-1/8"	8' 11"	8' 2-1/8"	30-3/4"	24' 2"
1800	1277	(4)15	290,800	75,690	100,340	12,850	1,985	271	(4)5	3,200	2,000	(4)12"	89,380	17' 9-5/8"	9' 7-1/2"	8' 2-1/8"	39-1/4"	24' 2"
1915	1358	(4)20	312,700	75,850	100,500	12,890	1,985	271	(4)5	3,200	2,000	(4)12"	89,540	17' 9-5/8"	9' 7-1/2"	8' 2-1/8"	39-1/4"	24' 2"
1980	1404	(4)25	328,900	76,170	100,820	12,970	1,985	271	(4)5	3,200	2,000	(4)12"	89,860	17' 9-5/8"	9' 7-1/2"	8' 2-1/8"	39-1/4"	24' 2"
2100	1489	(4)30	329,000	85,600	111,010	14,690	2,370	323	(4)5	3,200	2,000	(4)12"	100,050	18' 6-1/8"	10' 4"	8' 2-1/8"	47-3/4"	24' 2"
2370	1681	(4)20	445,600	98,230	133,790	16,060	2,385	325	(4) 7-1/2	4,800	2,880	(4)12"	117,310	17' 1-1/8"	8' 11"	8' 2-1/8"	30-3/4"	36' 2-1/2"
2500	1773	(4)25	457,500	98,550	134,110	16,140	2,385	325	(4) 7-1/2	4,800	2,880	(4)12"	117,630	17' 1-1/8"	8' 11"	8' 2-1/8"	30-3/4"	36' 2-1/2"
2615	1855	(4)30	473,000	99,030	134,590	16,260	2,385	325	(4) 7-1/2	4,800	2,880	(4)12"	118,110	17' 1-1/8"	8' 11"	8' 2-1/8"	30-3/4"	36' 2-1/2"
2740	1943	(4)25	435,700	111,880	148,900	18,580	2,970	404	(4) 7-1/2	4,800	2,880	(4)12"	132,420	17' 9-5/8"	9' 7-1/2"	8' 2-1/8"	39-1/4"	36' 2-1/2"
2860	2028	(4)30	454,900	112,360	149,380	18,700	2,970	404	(4) 7-1/2	4,800	2,880	(4)12"	132,900	17' 9-5/8"	9' 7-1/2"	8' 2-1/8"	39-1/4"	36' 2-1/2"
3010	2135	(4)40	484,600	113,480	150,500	18,980	2,970	404	(4) 7-1/2	4,800	2,880	(4)12"	134,020	17' 9-5/8"	9' 7-1/2"	8' 2-1/8"	39-1/4"	36' 2-1/2"
3225	2287	(4)50	490,600	128,250	166,720	21,720	3,545	483	(4) 7-1/2	4,800	2,880	(4)12"	150,240	18' 6-1/8"	10' 4"	8' 2-1/8"	47-3/4"	36' 2-1/2"

* Tons at standard conditions: HCFC-22 and HFC-134a. 105°F condensing, 40°F suction and 78°F W.B.; ammonia 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.

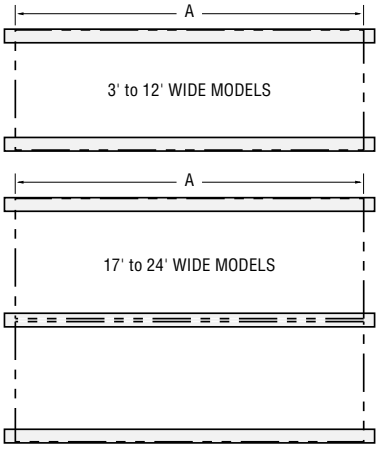
*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Steel Support

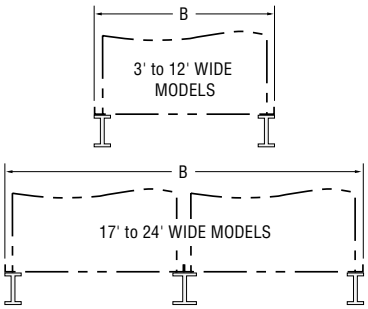
The recommended support for EVAPCO condensers is structural "I" beams located under the outer flanges and running the entire length of the unit. Mounting holes, 3/4" in diameter are located in the bottom channels of the pan section to provide for bolting to the structural steel. (Refer to certified drawings 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.

Plan Views



End Elevations



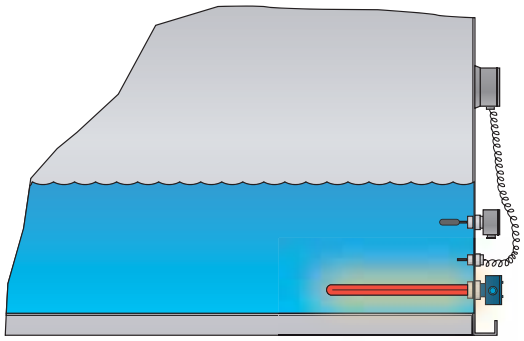
ATC DIMENSIONS		
4' Wide Models	**A**	**B**
ATC-50B to 165B	5' 11-7/8"	4' 1/4"
90B to 120B	8' 11-1/2"	4' 1/4"
135B to 165B	11' 11-3/4"	4' 1/4"
8-1/2' Wide Models	**A**	**B**
ATC-187B to 238B	8' 5-1/2"	7' 5-7/8"
218B to 305B	8' 11-1/2"	8' 5-1/2"
246B to 369B	10' 5-1/2"	8' 5-1/2"
358B to 409B	11' 11-3/4"	8' 5-1/2"
385B to 473B	13' 11-3/4"	8' 5-1/2"
486B to 630B	18'	8' 5-1/2"
666B to 755B	21'	8' 5-1/2"
10' Wide Models	**A**	**B**
ATC-XE298B to XC462B	11' 11-3/4"	9' 9-3/4"
XE406B to XC669B	18'	9' 9-3/4"
XE596B to XC925B	24' 2"	9' 9-3/4"
XE812B to XC1340B	36' 2-1/2"	9' 9-3/4"
17' Wide Models	**A**	**B**
ATC-639B to 805B	11' 11-3/4"	17' 4-1/8"
780B to 926B	13' 11-3/4"	17' 4-1/8"
12' Wide Models	**A**	**B**
ATC-428B to 583B	11' 11-3/4"	11' 10"
545B to 647B	13' 11-3/4"	11' 10"
642B to 892B	18'	11' 10"
791B to 967B	20'	11' 10"
858B to 1167B	24' 2"	11' 10"
1164B to 1294B	28' 2"	11' 10"
1192B to 1784B	36' 2-1/2"	11' 10"
1625B to 1925B	40' 2-1/2"	11' 10"
24' Wide Models	**A**	**B**
ATC-857B to 1166B	11' 11-3/4"	24' 1-1/8"
1163B to 1293B	13' 11-3/4"	24' 1-1/8"
1191B to 1783B	18'	24' 1-1/8"
1616B to 1915B	20'	24' 1-1/8"
1879B to 2320B	24' 2"	24' 1-1/8"
2256B to 2509B	28' 2"	24' 1-1/8"
2490B to 3459B	36' 2-1/2"	24' 1-1/8"
2855B to 3714B	40' 2-1/2"	24' 1-1/8"

UBC DIMENSIONS		
8' Wide Models	**A**	**B**
UBC-180 to 230	8' 11-1/2"	7' 10"
260 to 345	11' 11-3/4"	7' 10"
370 to 535	18'	7' 10"
12' Wide Models	**A**	**B**
UBC-420 to 540	11' 11-3/4"	11' 10"
560 to 860	18'	11' 10"
890 to 1075	24' 2"	11' 10"
1110 to 1720	36' 2-1/2"	11' 10"
24' Wide Models	**A**	**B**
UBC-1090 to 1690	18'	24' 1-1/8"
1735 to 2100	24' 2"	24' 1-1/8"
2370 to 3225	36' 2-1/2"	24' 1-1/8"

Optional Equipment

Electric Heaters

Electric immersion heaters are available factory installed in the basin of the condenser. They are sized to maintain a +40° F pan water temperature with the fans off and an ambient air temperature of 0°F. They are furnished with a combination thermostat/low water protection device to cycle the heater on when required and 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.



AT Heater Sizes (kW)			
Models	**0°F**	**-20°F**	**-40°F**
ATC-50B to 165B	3	4	5
90B to 120B	4	5	7
135B to 165B	5	7	9
187B to 238B	6	8	12
218B to 305B	7	10	15
246B to 369B	8	12	15
358B to 409B	(2) 4	(2) 7	(2) 9
385B to 473B	(2) 5	(2) 7	(2) 10
486B to 630B	(2) 6	(2) 9	(2) 12
666B to 755B	(2) 7	(2) 12	(2) 15
639B to 805B	(4) 4	(4) 7	(4) 9
780B to 926B	(4) 5	(4) 7	(4) 10
XE298B to XC462B	(2) 5	(2) 8	(2) 10
XE406B to XC669B	(2) 7	(2) 12	(2) 15
XE596B to XC925B	(4) 5	(4) 8	(4) 10
XE812B to XC1340B	(4) 7	(4) 12	(4) 15
428B to 583B	(2) 6	(2) 9	(2) 12
545B to 647B	(2) 7	(2) 10	(2) 15
642B to 892B	(2) 9	(2) 15	(2) 18
791B to 967B	(2) 10	(2) 15	(3) 15
858B to 1167B	(4) 6	(4) 9	(4) 12
1164B to 1294B	(4) 7	(4) 10	(4) 15
1192B to 1784B	(4) 9	(4) 15	(4) 18
1625B to 1925B	(4) 10	(4) 15	(6) 15
857B to 1166B	(4) 6	(4) 9	(4) 12
1163B to 1293B	(4) 7	(4) 10	(4) 15
1191B to 1783B	(4) 9	(4) 15	(4) 18
1616B to 1915B	(4) 10	(4) 15	(4) 20
1879B to 2320B	(4) 12	(4) 18	(6) 15
2256B to 2509B	(4) 15	(4) 20	(6) 18
2490B to 3459B	(4) 18	(6) 18	(8) 18
2855B to 3714B	(4) 20	(6) 20	(8) 20

UBC Heater Sizes (kW)			
Models	**0°F**	**-20°F**	**-40°F**
UBC 180 to 230	6	9	12
260 to 345	(2) 4	(2) 6	(2) 8
370 to 535	(2) 6	(2) 9	(2) 12
420 to 540	(2) 6	(2) 9	(2) 12
560 to 860	(2) 9	(2) 15	(2) 18
UBC 890 to 1075	(4) 6	(4) 9	(4) 12
1110 to 1720	(4) 9	(4) 15	(4) 18
1090 to 1690	(4) 9	(4) 15	(4) 18
1735 to 2100	(4) 12	(4) 18	(6) 15
2370 to 3225	(4) 18	(6) 15	(8) 18

Optional Equipment

Capacity Control

Two Speed Motors

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

Inverter Duty Motors

Inverter Duty motors are available for condenser applications which utilize variable frequency drive systems for capacity control. Inverter Duty motors offer totally enclosed premium efficiency construction which is designed for variable frequency drive applications.
Note: Other special motor configurations are available to meet specific proper requirements. Contact your local EVAPCO sales representative for application assistance and motor availability.

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

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.

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.

Extended Surface Coil

Condensers can be provided with spiral fins on the heat exchanger coil to increase the dry performance of the unit. Dry performance is accomplished by rejecting heat to the atmosphere without the use of the spray pump and the evaporation process. Dry operation can be practical in cold climates and/or when reduced winter loads exist. The number of fins per inch and quantity of rows finned can be varied to obtain different dry performances. Consult the factory for sizing.

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.

Stainless Steel Coils

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

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 may be installed on either side, or the end opposite the connections.

Motor Davit

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

ATC Condenser with Optional Service Platform and Motor Davit

Optional Equipment

Sound Reduction Options

Super-Low Sound Fan

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

Water Silencer

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

Fan Discharge

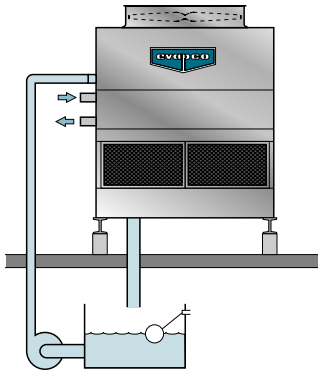
The fan discharge sound attenuator is a factory assembled, straight sided hood that will reduce overall discharge sound levels at full fan speed 5 dB(A) to 10 dB(A), depending on the specific unit selection and measurement location. Construction features include G-235 galvanized steel panels (optional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

Stainless Steel Basin

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

Remote Sump Configuration

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



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 recommended method or support for EVAPCO condensers is two structural "I" beams located under the outer flanges and running the entire length of the unit. Mounting holes 3/4" in diameter, are located in the bottom channels of the pan section to provide for bolting to the structural steel; refer to certified drawings from the factory for bolt hole locations.

Beams should be level to within1/8" in 6' before setting the unit in place. Do not level the unit by shimming between it and the "I" beams as this will not provide proper longitudinal support.

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

In some cases the make-up will be so high in mineral content that a normal bleed-off will not prevent scaling. In this case water treatment will be required. Contact your EVAPCO sales representative for information about water treatment.

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

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

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.

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.

Direct Drive Models ATC 50B to 165B

Fan Motor
_____ horsepower totally enclosed fan cooled fan motor(s), with 1.25 service factor shall be furnished suitable for outdoor service on _____ volts, _____ hertz, and _____ phase.

Drive
The fan shall be mounted on the motor in a direct drive configuration.

Belt Drive Models ATC 187B to 926B and UBC 180 to 535

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.

Belt Drive Models ATC XE298B to XC1340B, ATC 428B to 3714B and UBC 420 to 3225

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 blades, installed in a closely fitted cowl with venturi air inlet. Fan screens shall be galvanized steel mesh and frame, bolted to the fan cowl.

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

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

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

Water Distribution System
The system shall provide a water flow rate of 6 GPM over each square foot of unit face area to ensure proper flooding of the coil. The spray header shall be constructed of schedule 40 polyvinyl chloride pipe for corrosion resistance. All spray branches shall be removable for cleaning. Heavy-duty molded nylon ZM spray nozzles with large 1-5/16" 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.

UBC Seismic/Windload Specification
The equipment shall be designed and manufactured to withstand 1.0g horizontal acceleration concurrent with 0.3g horizontal orthogonal and 0.5g vertical acting through the center of gravity (wind pressure of 125 pounds per square foot applied at the center of pressure). This design shall have been analyzed and certified by a licensed structural engineer, independent of the manufacturer. The analysis shall include the principal members and joints of the unit as well as the mounting configuration and hardware. The use of external reinforced anchorage, supports and bracing to meet the design acceleration levels (wind pressure) shall not be accepted. The unit will not be expected to maintain operation during the seismic (high windload) event.

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