



for LIFE

# ATC-DC

The NEW Family of Evaporative Condensers



**NEW!**

**ARID** *fin Pak*™

**Ellipti-fin**® coil

**CROSSCOOL**™  
Technology

**Advanced Technology Condenser with Dry Coil for Hybrid operation**  
Providing Maximum Water Savings & Higher Dry Switchover Temperatures

RESEARCH POWERED SOLUTIONS!

CERTIFIED EN ISO 9001



IARW International Association of Refrigerated Warehouses



# ATC-DC



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 on five continents around the world and distributed through hundreds of factory authorized sales representatives.

## Design and Construction Features

The ATC-DC line of evaporative condensers represents EVAPCO's newest advancement in thermal heat transfer research and development. Utilizing the **NEW ARID-fin Pak™** heat transfer coil, the ATC-DC offers improved heat transfer during dry operation and significant water savings due to extended periods of dry operation.

The ATC-DC is the latest example in EVAPCO's on-going commitment to quality, environmentally friendly products.

### Water Saver Drift Eliminators

- New patented design reduces drift rate to < 0.001%
- Saves water and reduces water treatment cost
- Greater structural integrity vs. old style blade-type
- Recessed into casing for greater protection

### PVC Spray Distribution Header with ZM II™ Nozzles

- Large orifice nozzles prevent clogging (no moving parts)
- Nozzles are threaded into header at proper orientation
- Fixed position nozzles require zero maintenance
- Guaranteed for life



### "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
- Optional: full stainless steel welded basin



### Stainless Steel Strainers

- Resists corrosion better than other materials

### Totally Enclosed Pump Motors

- Help assure long, trouble-free operation



## 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



IBC Compliant Design  
Refer to page 25

## Low Sound Options available Refer to page 19



## 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

## Ellipti-fin® Heat Transfer Technology

Features EVAPCO's exclusive **CROSScool™** tube enhancement for greater internal heat transfer.

- Thermal Pak® coil with extended surface.
  - Water savings through extended periods of dry operation.
  - High heat transfer efficiency.
  - Low refrigerant charge.
- Patent Pending



## ARID fin Pak™ Heat Transfer Technology

### Dry Cooling Coil

Featuring Stainless Steel 304 Tubing with Aluminum Magnesium Fins

- Maximizes Water Efficiency
- Higher Dry Switchover Temperatures
- Plume Elimination in Dry Mode
- Plume Abatement in Evaporative Mode
- Increases Evaporative and Dry Cooling Efficiency



## 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



## Louver Access Door

- Hinged access panel with quick release mechanism
- Allows easy access to perform routine maintenance and inspection of the makeup assembly, strainer screen and basin
- Available on larger models



## Easy Field Assembly

- A new field assembly seam design which ensures easier assembly and reduced potential for field seam leaks
- Self-guided channels guide the fan casing section into position improving the quality of the field seam
- Eliminates up to 66% of fasteners (Patent Pending)



## WST Air Inlet Louvers (Water and Sight Tight)

- Easily removable for access
  - Patented design to keep sunlight out—preventing biological growth
  - Keeps water in while keeping dirt and debris out
- U.S. Patent No. 7927196



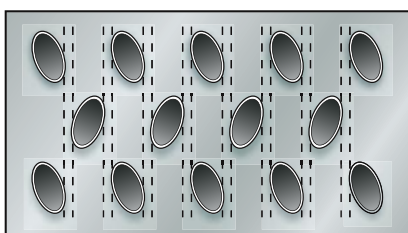
# ATC-DC

## ATC-DC Dry Performance

### EVAPCO Water Systems Solutions

EVAPCO has a long standing commitment to heat transfer research and development. This commitment has resulted in a number of advancements in heat transfer coil design. Up until the mid-1980's, evaporative condensers were manufactured with tightly packed round tube coils. Through thousands of hours of testing and research, EVAPCO developed the Thermal Pak® coil. The Thermal Pak® coil was patented in 1987, (now expired), and changed the thinking of system design engineers by changing the shape of the coil tubes. The elliptical tube design maximized the effective tube surface area while lowering airside pressure drop and allowing for higher water loading. The combination of the elliptical shape tube with the Thermal Pak® orientation increased heat transfer efficiency and resulted in one of the highest capacities per plan area of evaporative condensers available today.

Throughout the late 1980's and into the 1990's EVAPCO was continuously looking for ways to improve heat transfer efficiency. This research resulted in the development of the Thermal Pak® II heat transfer coil. The Thermal Pak® II coil utilized the same elliptical shape tube introduced in the original Thermal Pak coil, but changed the orientation of the tubes to improve the tubes air to water interface for increased heat transfer efficiency.



Thermal-Pak® Coil II by EVAPCO

Research and development is an on-going process at EVAPCO. Through the success of the Thermal Pak II coil, EVAPCO saw the potential for new coil configurations and the need for new manufacturing technology to improve processes and efficiency. During this same time, it became evident that a need exists for more environmentally conscious cooling products.

The combination of EVAPCO's R&D, manufacturing and environmental commitment has resulted in the development of **Ellipti-fin**® Coil Heat Transfer Technology.

The **Ellipti-fin**® coil utilizes elliptical shape tube with extended surface fins for maximum heat transfer efficiency. The extended surface increases the heat transfer efficiency in the evaporative or wet mode as well as the dry mode of operation.

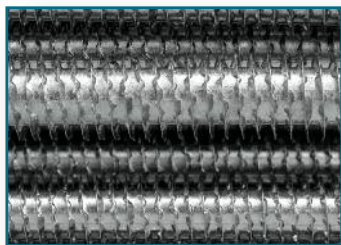


## Powered by Innovative Coil Technology

## ATC-DC

**Ellipti-fin®**

## Heat Transfer Coil



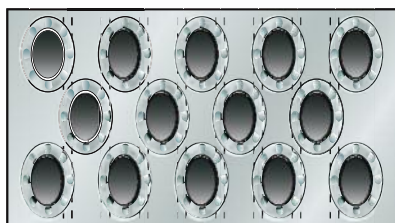
- Elliptical Tubes with Spiral Wound Fins
- Improved Dry and Wet Operation
- All Rows Finned
- Hot-Dip Galvanized Steel
- Nitrogen Charged Before Shipment

**ARID fin Pak™**

## Dry Cooling Coil



- Superior Dry Heat Transfer
- 5/8" Type 304L Stainless Steel Tubes
- Marine Grade Aluminum Fins
- Hydraulically Expanded
- Nitrogen Charged Before Shipment



**Ellipti-fin™** Finned Elliptical Tube by EVAPCO  
(Patent pending)

The **Ellipti-fin®** coil incorporates features of both the Thermal Pak and Thermal Pak II coils as the tubes are oriented vertically yet spaced so as not to increase the airside pressure drop. As such, ATC-DC condensers are not subject to the performance penalties normally associated with round tube extended surface coils.

**Ellipti-fin®** coils are manufactured from high quality internally enhanced **CROSSCOOL™** carbon steel tubing following the most stringent quality control procedures and in accordance with the PED 97/23 EC. Each circuit is inspected to assure the material quality and tested before fins are wound onto the surface of the tube. Each circuit is then assembled into a complete coil. Finally, the assembled coil is pressure tested under water to make sure it is leak free. To protect the coil against corrosion, and complete the bond between tube and fin, the entire assembly is dipped in molten zinc (hot dip galvanized) at a temperature of approximately 430°C.

**Ellipti-fin®** coil design utilizes counterflow heat transfer. The rows of the finned elliptical tubes are positioned vertically in the direction of airflow to enhance turbulence, which increases heat transfer while minimizing airside pressure drop. The design features of EVAPCO's **Ellipti-fin®** condensing coils ensure the end-user will receive maximized evaporative heat transfer efficiency wet or dry.

**NEW**

**ARID fin Pak™** Dry Cooling Coil

**ARID-fin Pak™** Dry Cooling Coils are constructed with 15 mm diameter type AISI 304L stainless steel tubing and marinegrade aluminum fins. The stainless steel tubing meets the requirements of PED 97/23 EC. The standard **ARID-fin Pak™** Dry Cooling Coils are designed with a fin spacing of 2.5 mm for maximum heat transfer efficiency in the smallest plan area. Optional fin densities are available (Consult the factory for selections and pricing).

The AISI 304L round tubes are fit into the aluminum fin plate and hydraulically expanded. EVAPCO's precisely controlled hydraulic expansion process results in more consistent contact between the tube and fin plate than conventional mechanical expansion methods. The entire **ARID-fin Pak™** Dry Cooling Coil is pressure tested to 2689 kPa, evacuated and nitrogen charged prior to final assembly and shipment.

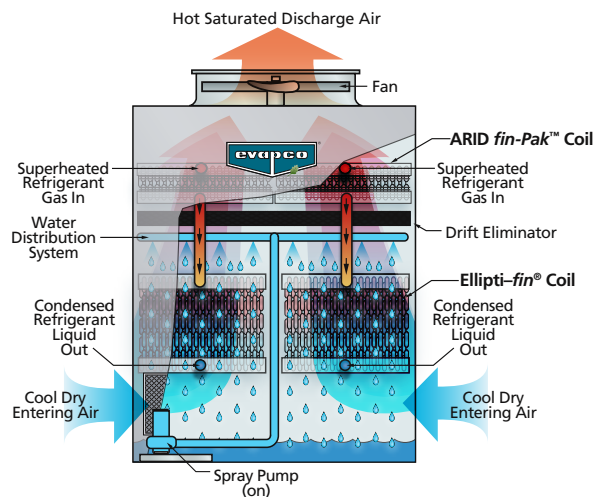
# ATC-DC

## DESIGN FEATURES

### Principle of Operation

#### Evaporative (Wet) Mode - Spray Pump(s) Energized

The refrigerant gas is discharged from the compressor into the inlet of **ARID-fin Pak™** coil through the top coil connections. Dry Coil which is positioned in the discharge air stream above the unit's drift eliminators and below the fan section. Ambient air is drawn into the unit, by the condenser's fans, through inlet louvers located in the lower section above the water basin. The air is drawn upward through the wet coil into the drift eliminators (which remove entrained water droplets from the air stream) and into the **ARID-fin Pak™** Dry Coil. Heat from the refrigerant gas is transferred to the air as it comes into contact with the tubes and densely packed fins of the **ARID-fin Pak™** Dry Coil. The refrigerant gas exits the **ARID-fin Pak™** Dry Coil and travels via inter-connecting piping (by others) to the inlet of the **Ellipti-fin®** Coil located in the lower section of the ATC-DC Condenser. Water from the condenser's sump is circulated over the wet coil as the ambient air is simultaneously drawn into the unit and travels up through the **Ellipti-fin®**. A portion of the spray water is evaporated into the air stream as it travels through the wet coil. This evaporative process cools the spray water, which in turn cools the coil tubes and extended surface fins. The cool tube walls and extended surface fins cause the refrigerant gas to give up heat and condense into a liquid. The condensed liquid flows out of the **Ellipti-fin®** to the high pressure receiver for return to the system. The water which has not evaporated falls into the sump and is recirculated by the spray pump to the water distribution system located above the **Ellipti-fin®**.



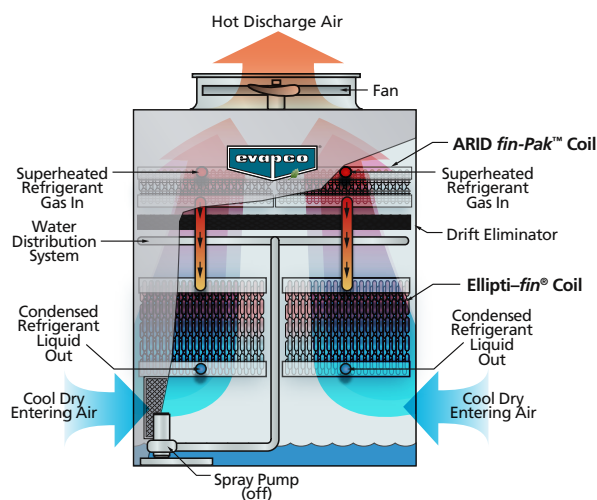
ATC-DC Evaporative Mode

The amount of water consumed during this mode of operation is a function of the amount of heat rejected. Water consumption includes the volume of water which is evaporated during the cooling process and the amount of water which is discharged (referred to as "blow-down") to maintain the required cycles of concentration in order to meet water quality guidelines.

#### Dry Mode - Spray Pump De-energized

The refrigerant gas is discharged from the compressor into the inlet of the **ARID-fin Pak™** Dry Coil which is positioned in the dry air stream above the unit's drift eliminators and below the fan section. Ambient air is drawn into the unit by the condenser's fans, through inlet louvers located in the lower section above the water basin. The air is drawn upward through the **Ellipti-fin®** into the ARID fin Pak™ Dry Coil above. Heat from the refrigerant gas is transferred to the air as it comes into contact with the tubes and densely packed fins of the ARID fin Pak™ Dry Coil. The refrigerant gas exits the ARID fin Pak™ Dry Coil and travels via the inter-connecting piping to the inlet of the Ellipti-fin®. The ambient air entering the unit travels upward through the Ellipti-fin® Coil which in turn cools the coil tubes and extended surface fins. The cool tube walls and extended surface fins cause the refrigerant gas to give up heat and condense into a liquid. The condensed liquid flows out of the Ellipti-fin® to the high pressure receiver for return to the system.

There is **NO WATER** consumed during this mode of operation.



ATC-DC Dry Mode



## DESIGN FEATURES

# ATC-DC

### EVAPCOAT Corrosion Protection System

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.

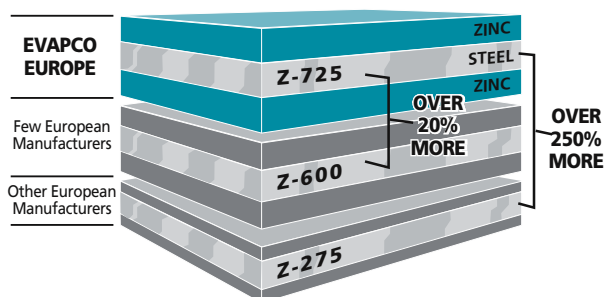
The Evapcoat Corrosion Protection System consist of:

- **Z-725 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 Z-600 mill hot-dip galvanized steel. Now, EVAPCO is, once again, increasing the level of corrosion protection by being the first manufacturer in Europe to use Z-725 mill hot-dip galvanized steel.

Z-725 designation means there is a minimum of 725 g of zinc per m<sup>2</sup> of surface area present on the steel. Z-725 is the heaviest level of galvanizing available for manufacturing evaporative condensers and has over 2.5 times more zinc protection than competitive designs using Z-275 steel. With Z-725 mill hot-dip galvanized steel construction, EVAPCO provides galvanized steel panels with corrosion protection that approaches the level of the hot-dip galvanized heat exchanger coils.

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 condensers. EVAPCO uses only stainless steel for this very important component.

- **PVC Air Inlet Louvers**

The innovative design uses corrosion free materials while effectively eliminating splash out and reducing the potential for algae formation inside the cooler.

- **PVC Drift Eliminators**

The final elements in the upper part of the condenser are moisture eliminators which strip the entrained water droplets from the leaving air stream.

EVAPCO eliminators are constructed entirely of inert, corrosion-free PVC. This PVC material has been specially treated to resist damaging ultraviolet light. The eliminators are assembled in easily handled sections to facilitate removal thereby exposing the upper portion of the unit and water distribution system for periodic inspection.

- **PVC Water Distribution System, ZM II™ Spray Nozzle**

The fixed position ZM II™ Spray Nozzles are mounted in corrosion-free PVC water distribution pipes. Together, these elements combine to provide unequalled coil coverage, scale prevention and make the industries best performing non-corrosive, maintenance-free water distribution system.

- **Totally Enclosed Motors**

EVAPCO uses totally enclosed motors for all fan and pump motors as standard. These superior motors help to assure longer equipment life without motor failures, which result in costly downtime.

- **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 coolers are available with Stainless Steel construction for the basin, casing and/or coil.

- **Stainless Steel Welded Basin**

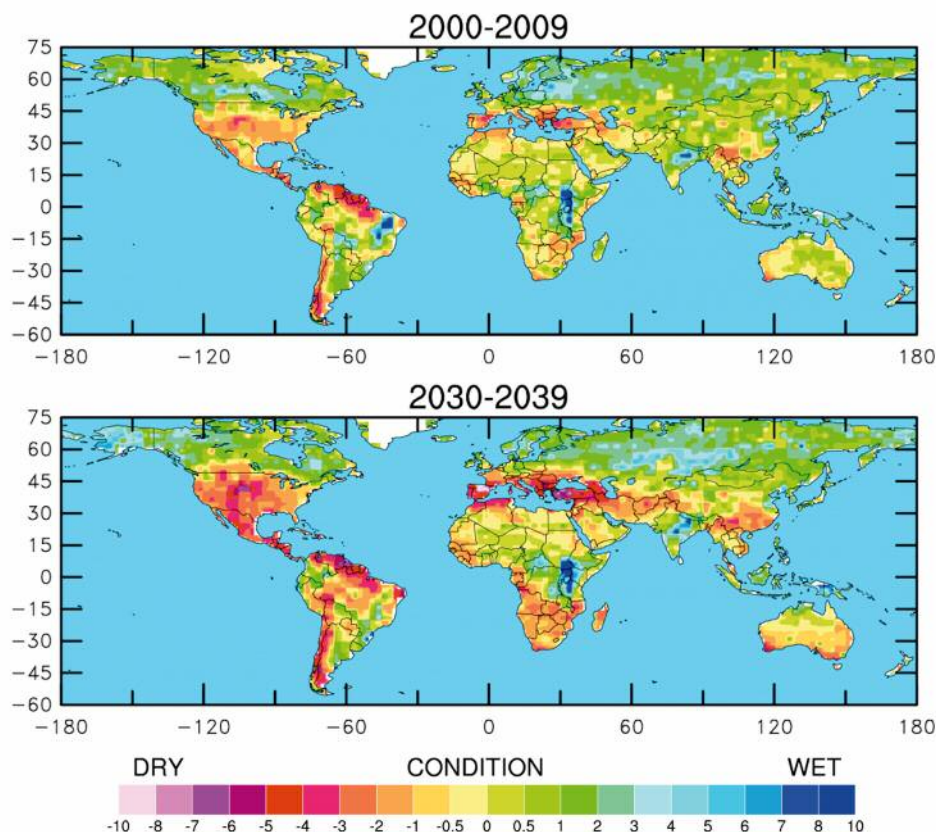
The basin area of a condenser is often subjected to high concentrations of impurities and silt. In addition to the EVAPCOAT Corrosion Protection System, EVAPCO offers optional stainless steel construction for superior corrosion resistance. This option provides Type 304 or Type 316 stainless steel for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

# ATC-DC

## DESIGN FEATURES

### Future Drought Projections Worldwide

The frequency and persistence of global drought conditions is not expected to change with current climatic conditions. The maps below illustrate the potential for future drought worldwide over the decades indicated, based on current projections of future greenhouse gas emissions <sup>1</sup>. It is quite clear that by 2030 drought conditions will be severe if no action is taken NOW to reduce water use.



Maps are not intended as forecasts, since the actual course of projected greenhouse gas emissions as well as natural climate variations could alter the drought patterns <sup>2</sup>.

**ATC-DC Industrial Condensers are an example of EVAPCO's corporate commitment to protect the world's valuable potable water resources. The ATC-DC product line incorporates the latest research and development in heat transfer technologies.**

- 1 Based on a study released by the National Center for Atmospheric Research (NCAR) titled "Drought under Global Warming: A Review", by Aiguo Dai, a leading climatologist.
- 2 The scale used to measure drought on these maps is the Palmer Drought Severity Index, which assigns positive numbers when conditions are unusually wet for a particular region, and negative numbers when conditions are unusually dry. A reading of -4 or below is considered extreme drought. Regions that are blue or green will likely be at lower risk of drought, while those in the red and purple spectrum could face more unusually extreme drought conditions.



## DESIGN FEATURES

## ATC-DC

## Engineered for Efficient Dry Performance to Meet Future Global Climate Change and Water Use Restrictions

### Significant Water Savings

The **ARID-fin Pak™** Dry Coil combined with EVAPCO's **Ellipti-fin®** coil technology enables the ATC-DC to be operated in a 100% Dry Mode at a significantly higher switchover temperature than that of a typical bare tube coil evaporative condenser. This leads to a much higher number of hours per year the condenser can operate in dry mode (spray pumps off), thus significantly reducing annual water consumption. This combination of heat transfer technologies makes the ATC-DC the most water efficient EVAPCO condenser.

Consider a dairy processing plant application near Zaventem (Brussels airport), Belgium - where a condenser is required to reject a constant heat load of approximately 1400 kW of refrigeration at a 32°C condensing temperature and a summer design wet bulb temperature of 22°C (an approach of 10°C). The load profile is shown on the next page. The process operates 24 hours a day, 5 days a week. The ATC-E evaporative condenser, the eco-ATC-A and the new ATC-DC evaporative condenser are compared as follows:

Model Comparison

| Model      | ATC-XC525E  | eco-ATC-606A | ATC-DC-1018M-35-2EF |
|------------|-------------|--------------|---------------------|
| Plan Area  | 3 m x 5,5 m | 3 m x 5,5 m  | 3 m x 5,5 m         |
| Fan Motor  | 22 kW       | 22 kW        | 22 kW               |
| Pump Motor | 4 kW        | 5,5 kW       | 5,5 kW              |

Dry Operation Performance Comparison at 32°C condensing

| Model No.           | Dry Bulb Switch Point (°C)<br>(% Design kW for R-717) |         |        |
|---------------------|---|---------|--------|
|                     | 100%  | 75%     | 50%    |
|                     | 1400 kW   | 1050 kW | 700 kW |
| ATC-XC525E          | -46,6   | -26,9   | -7,3   |
| eco-ATC-606A        | -8,1  | 1,7     | 11,7   |
| ATC-DC-1018M-35-2EF | 4,2   | 11,2    | 18,1   |

Every model in the ATC-DC product line has been engineered to provide a minimum of 50% of the design heat rejection (kW) at 15,6°C ambient dry bulb temperature or higher, based on maintaining 35,7°C condensing temperature.

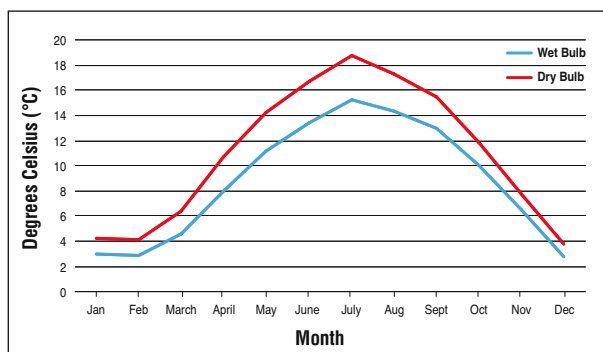
# ATC-DC

## DESIGN FEATURES

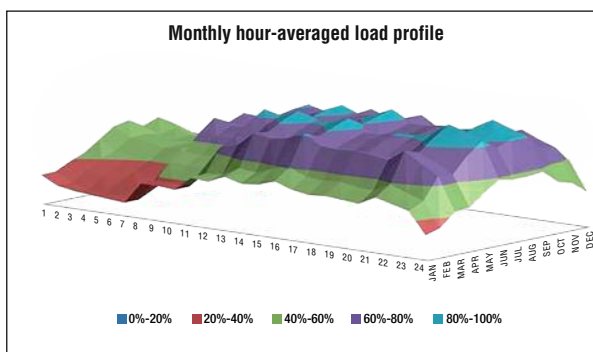
### ATC-DC Water Saving Analysis

Utilizing the Water & Energy Savings Calculator in evapSelect with required key inputs:

Monthly Average Ambient Temperature  
Brussels airport, Belgium



Load Profile: Dairy Processing



**Weather Station:** for Brussels airport, the selected weather station is **Bruxelles National**

The Temperature Profile generated to estimate water and energy usage is based on 5 year weather data from the National Climatic Data Center (NCDC). The weather data shown above was collected from **BRUXELLES NATIONAL, BE**

For more information visit: <http://www.ncdc.noaa.gov/oa/ncdc.html>

**Dairy Processing**

Profile Provided Courtesy of Cascade Energy

**Cycles of Concentration :** ..... Historical water analysis is on average 3 cycles  
**Profile Days :** ..... 5 Week Days, and 2 Weekend Days  
**Potable Water Cost :** ..... Estimated at 1,58 €/m<sup>3</sup>  
**Waste Water Sewer Charge:** ..... Estimated at 1,55 €/m<sup>3</sup>  
**Waste Water Treatment Costs:** ..... Estimated at 1,19 €/m<sup>3</sup>  
**Power Costs:** ..... Estimated at 0,10 €/kwh

#### Water and Energy Analysis \*

Selected Weather Station: **Bruxelles National, BE**  
 Condensing Temperature: 32°C  
 Wet Bulb: 22°C  
 Refrigerant: NH<sub>3</sub>

Load Profile: Dairy  
 Week Days: 5  
 Weekend Days: 2  
 Cycles of Concentration: 3

| Model Description:                           | ATC-XC525E    | eco-ATC-606A  | ATC-DC-1018M-35-2EF |
|--|---------------|---------------|---------------------|
| Quantity:                                    | 1             | 1             | 1                   |
| Dry Bulb Switchover (°C)                     | -44,6         | -8.1          | 4,2                 |
| Total Water Usage per year (m <sup>3</sup> ) | 12.015        | 9.191         | 6.046               |
| Total Water Cost per year (€)                | 23.670        | 18.107        | 11.911              |
| Total Energy Usage per year (kWh)            | 59.678        | 55.709        | 56.048              |
| Total Energy Cost per year (€)               | 5.968         | 5.571         | 5.605               |
| <b>Total Estimated Operating Cost (€)</b>    | <b>29.638</b> | <b>23.678</b> | <b>17.516</b>       |

\* Water and energy use and costs are estimates only and are provided for the purpose of comparing the performance of evaporative condensers. Actual water/energy usage and costs will vary depending on weather, load profile, cycles of concentration and the control logic used to optimize system performance. Also, power, water and sewer costs are subject to local rates. The water and energy usage is calculated assuming a fixed condensing temperature and the use of variable frequency drives. Projected energy use is for evaporative condensers only, NOT total refrigeration system energy use. The Temperature Profile generated to estimate water and energy usage is based on 5 Year weather data from the National Climatic Data Center (NCDC). Load profiles utilized in the program are based on industrial refrigeration applications and have been provided courtesy of Cascade Energy- Portland, OR.



## DESIGN FEATURES

# ATC-DC

### Axial Fan Drive System Belt Drive Units

#### 2.4 m and 4.9 m Wide ATC-DC Models

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



*External Motor Mount (with optional ladder)*

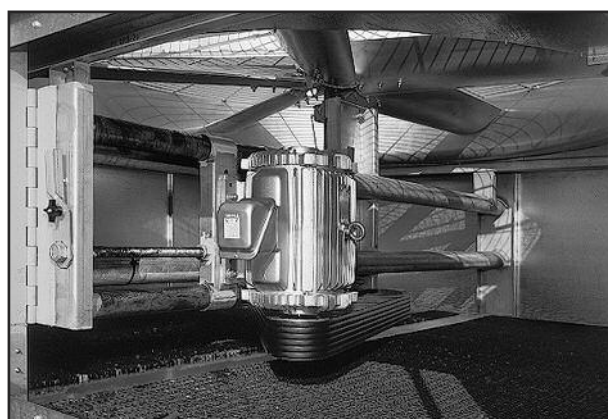
A large hinged access door with a "quick release" latch provide access to the fan section for maintenance.

**NOTE:** the sloped access ladder is available on all ATC-DC models. Please check conformity with local legislation before application.

### Belt Drive Units

#### 3 m, 3.6 m, 6.1 m & 7.3 m Wide ATC-DC Models

Designed as the ideal replacement cooler, these models provide both cost effective and energy efficient alternatives to obsolete centrifugal fan designs. The 3 m wide plan areas are also well suited for new installations and provide more layout flexibility. The unique belt drive design features are detailed below.



*Motor Base Assembly*

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.

The motor base is designed to swing out through a very large 1.3 m<sup>2</sup> access opening. This allows for easy servicing of the motor.



*Motor Access*

#### Power- Band Drive Belt:

The Power-Band is a solid-back, multigroove belt system that has high lateral rigidity. The belt is constructed of neoprene with polyester cords. The drive belt is designed for 150 percent of the motor nameplate kW for long life and durability.

**Fan Shaft Bearings:** The fan shaft bearings in ATC-DC 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 bearings available.

**Aluminum Alloy Pulleys:** Fan pulleys are constructed of corrosion free aluminum for long life. The aluminum

# ATC-DC

## DESIGN FEATURES

### Water Management High Efficient 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.

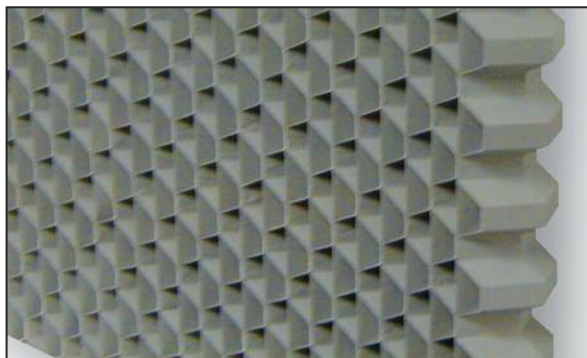


### Superior WST Air Inlet Louver and Screen Design

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 lightweight 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.

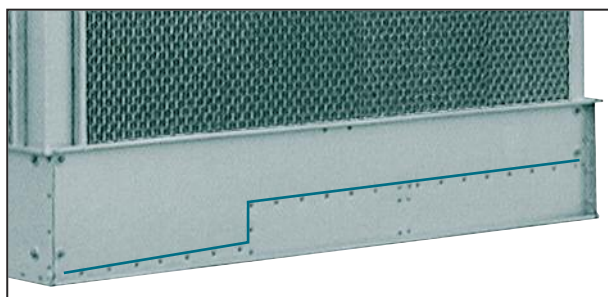
The combination of easy basin access, no splash-out and minimized algae growth saves the end user money on maintenance hours, water consumption and water treatment costs.



*Inlet Louver Material*

### "Clean Pan" Basin Design

EVAPCO condensers feature 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 basin 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*

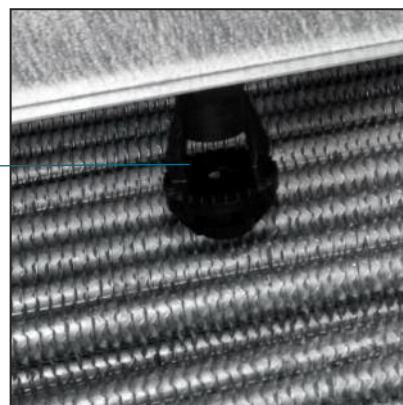
### Maintenance Free ZM II™ Spray Nozzle Water Distribution System

EVAPCO'S Zero Maintenance ZM II™ Spray Nozzle remains clog-free while providing even and constant water distribution for reliable, scale-free evaporative cooling under all operating conditions.

The heavy duty nylon ZM II™ Spray nozzles have a 33 mm diameter opening and a 38 mm splash plate clearance. Furthermore, the fixed position ZM II™ nozzles are mounted in corrosion-free PVC water distribution pipes. Together, these elements combine to provide unequalled coil coverage and scale prevention, and make the industry's best performing non-corrosive, maintenance-free water distribution system.



*ZM II™ Nozzle*





## OPTIONAL EQUIPMENT

# ATC-DC

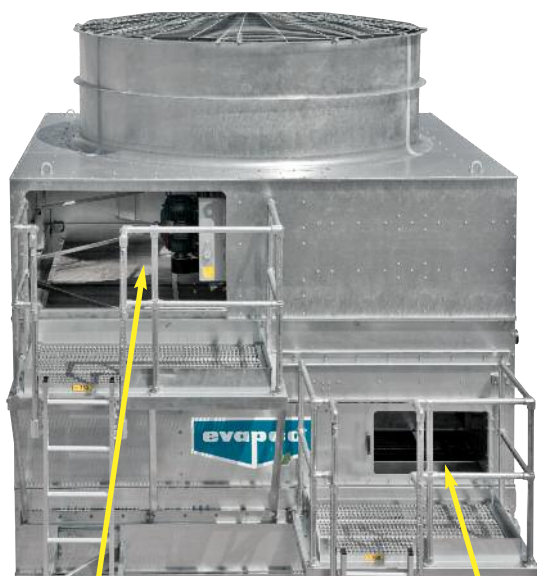
### Two Speed Motors

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 cooler 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.



### Working Platform & Ladder with Davit

ATC-DC units are available with self-supported external working platforms and ladders. Two separate platforms will allow easy access to the motor and drive system, water distribution system as well as the **ARID-fin Pak™** coil.

The working platforms are constructed of the heavy duty galvanized steel. The CE compliant working platform option uses a straight ladder with safety cage and ships in sections for easy installation.



*ATC-DC Hybrid with Working Platform and Ladder with Davit*

The optional davit eliminates crane rentals and facilitates the removal of motors and fans. The davit is constructed of aluminum for ease of use. When the davit is ordered, the galvanized steel bracket is mounted on the side of the unit. The Davit ships loose and is installed in the field.

# ATC-DC

## OPTIONAL EQUIPMENT



### EVAPCO Water Systems Solutions

The **ATC-DC** is available with EVAPCO's **Factory Mounted** water treatment systems. EVAPCO offers both a solid chemical and a hybrid solution for water treatment to maintain your heat transfer efficiency and extend the life of the equipment. Each system has been specifically designed for your hybrid condenser.

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

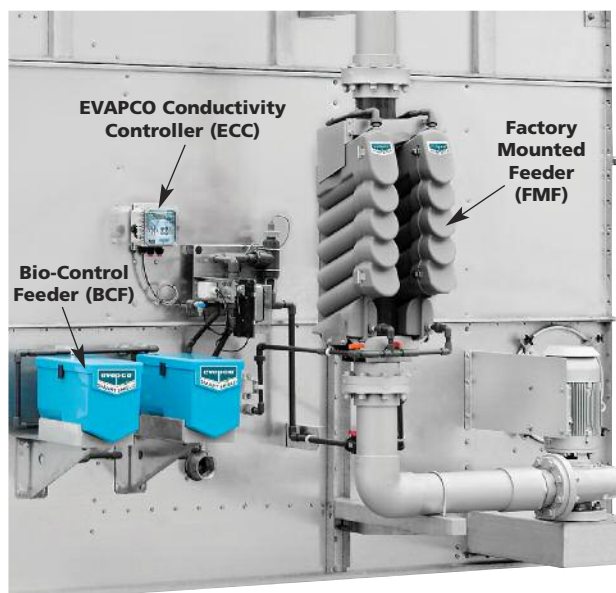
Benefits of adding an EVAPCO water treatment system include:

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

## OPTIONAL EQUIPMENT

## ATC-DC

## EVAPCO Water Systems Solutions


**Smart Shield® Solid Chemical Water Treatment System**


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

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

Watch a short product video at:  
[www.smartshield.evapco.com](http://www.smartshield.evapco.com)


**Pulse~Pure® PLUS Hybrid Water Treatment System**


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

- EVAPCO guarantees that total bacterial counts will not exceed 10,000 CFU/ml in the cooling water.
- Controls scale, corrosion, and microbiological growth.
- Compact design with no moving parts and low energy consumption.
- Safe and easy granular biocide eliminates the shipping, handling and storage concerns associated with liquid biocides.

Learn More about **Pulse~Pure® PLUS**  
 online at: [www.evapco.com](http://www.evapco.com)





# ATC-DC

## APPLICATION

### Design

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

### Air Circulation

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. Those condensers located in wells, enclosures or adjacent to high walls must be properly located to avoid the problems associated with recirculation.

Recirculation raises the wet bulb temperature of the entering air causing the water temperature to rise above the design. For these cases, the discharge of the fan should be located at a height even with the adjacent wall, thereby reducing the chance of recirculation. For additional information, see the Evapco Equipment Layout Manual.

Good engineering practice dictates that the condenser discharge air not be directed or located close to or in the vicinity of building air intakes.

### Recirculating Water System

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

Other freeze protection methods are available when a remote sump is not feasible. Electric pan heaters can be used to keep the pan water from freezing when the unit cycles off. Water lines to and from the unit, spray pump and related piping should be heat traced and insulated up to the overflow level in order to protect from freezing. The unit should not be operated dry (fans on, pump off) unless the basin is completely drained and the unit has been designed for dry operation. Consult the factory when dry operation is a requirement.

### Maintaining the Recirculated Water System

The heat rejection in a ATC-DC condenser is partly 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 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 to 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 140 and 340 kPa.

### Water Treatment

In some cases the make-up water will be so high in mineral content that a normal bleed-off will not prevent scaling. In this case, water treatment will be required and a reputable water treatment company familiar with the local water conditions should be consulted.

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".

Any chemical water treatment used must be compatible with the galvanized 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 7 and 8,8. 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.

### 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 is required. The water treatment program should be performed in accordance with local legislation and in conjunction with a qualified water treatment company. It is important that all internal surfaces be kept clean of accumulated dirt or sludge. In addition, the drift eliminators should be kept in good operating condition to minimize water from exiting the condenser unit in the discharge air. To minimize the risk of biological contamination, at initial start up or after an extended shut down, it is recommended that the condenser be properly treated. Clean all debris such as leaves and dirt from the unit. Completely fill the basin to the overflow level with fresh water. Initiate a biocide water treatment or shock treatment program prior to operating the unit. It is preferable that all such procedures be conducted or supervised by a water treatment specialist.

**See OPTION Section for EVAPCO's factory installed water treatment solutions.**

## APPLICATION

# ATC-DC

### Piping

Evaporative condensers are used in refrigeration systems as an efficient means of heat rejection. Their installation and specifically the installation of the piping to and from the evaporative condenser has a direct effect on their operation and the overall energy efficiency of the refrigeration system. In this manual, we will explore the principles of piping evaporative condensers, beginning with single condensers and exploring multiple condenser installations as well as thermosiphon and sub-cooling piping systems.

### Background

Evaporative condensers came into common use for nearly all refrigeration systems because of their operating advantages over the combination of cooling towers and condensers. They, of course, have also replaced the old "once through" water cooled condensing systems which are obsolete today because of the restrictions on the unlimited use of water coupled with its high cost.

Although, shell and tube condensing systems performed the same job of condensing the hot discharge gas into a saturated liquid as evaporative condensers; a small difference in the operating characteristics, namely pressure drop, requires some modification in the refrigerant piping hookup to and from the evaporative condenser. These changes are particularly important when dealing with multiple unit installations. In order to understand why the piping hookup is important, let's first take a brief look at the basic design differences of the two types of condensers to see why there is a difference in the pressure drop characteristics.

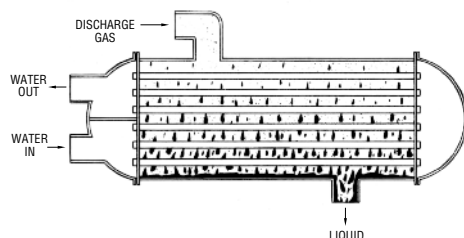


Figure 1

The shell type refrigerant condensers allow the refrigerant to flow around and condense on the outside of the water tubes. (See Figure 1) The refrigerant flow is almost entirely unimpeded resulting in a very low or nearly zero pressure drop through the condenser.

Other Useful Manuals  
available on EVAPCO  
[www.evapco.eu](http://www.evapco.eu)



### TYPICAL EVAPORATIVE CONDENSER COIL

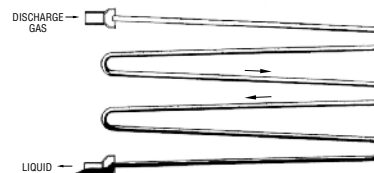
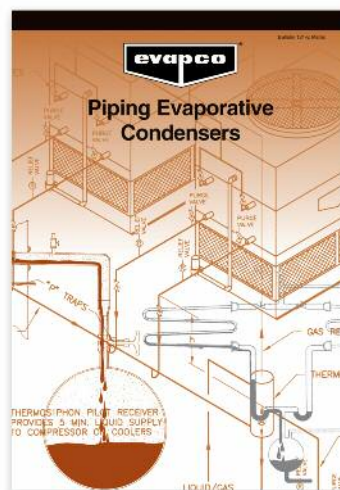


Figure 2

Contrasting, most evaporative condensers (See Figure 2) utilize some type of serpentine coil design where the hot refrigerant gas enters the top of the coil traveling back and forth through several rows as it is cooled and changed from a hot superheated gas to a saturated liquid. This longer travel path generally produces a small pressure drop which, though insignificant to the overall operation of the refrigeration system, does require proper attention be given to the condenser piping. Most of this attention needs to be focused on the liquid drain line from the outlet of the evaporative condenser to the high pressure receiver. The reason for this is described in the "Piping Brochure".

### Piping Brochure

For additional information refer to EVAPCO Bulletin 131-E "Piping Evaporative Condensers" or consult your nearest Representative.



# ATC-DC

## APPLICATION

### Technical Support Services

#### EVAPCO's evapSelect™ Equipment Selection Program

EvapSelect™ is a Web based computer selection program which allows the design engineer to choose EVAPCO models and optimize unit selections. The program allows the engineer to evaluate the equipment's thermal performance, space, energy requirements and water consumption. Once the model is selected and optional equipment features are inserted, the engineer may output a complete specification **AND** a unit drawing from this program.

The software is designed to provide the user with maximum flexibility in analyzing the various selection parameters while in a friendly and familiar Windows format.

The EvapSelect™ software is available to all consulting engineering offices and design-build contractors. The programs are distributed through the local EVAPCO sales representative or the EVAPCO offices.



### EVAPCO's Website

Log on to EVAPCO's new and improved website <http://www.evapco.eu> for expanded product information. Product literature, Rigging and Maintenance Instructions are all accessible online from your computer.

The EvapSelect™ Equipment Selection Software program may be accessed using Microsoft Internet Explorer after contacting your local EVAPCO sales representative. Users may make Requests for Quotation through the website or by e-mailing EVAPCO at this address:

**[evapco.europe@evapco.eu](mailto:evapco.europe@evapco.eu)**

With the EvapSelect™ program, equipment selections, written specifications, unit drawing files and EVAPCO on-line information are readily available from the comfort of your own office!



**ATC-DC**

The New EVAPCO ATC-DC condenser are now available with four (4) equipment options to reduce the overall sound generated from the side or top.

Each option provides various levels of sound reduction and can be used in combination to provide the lowest sound level.

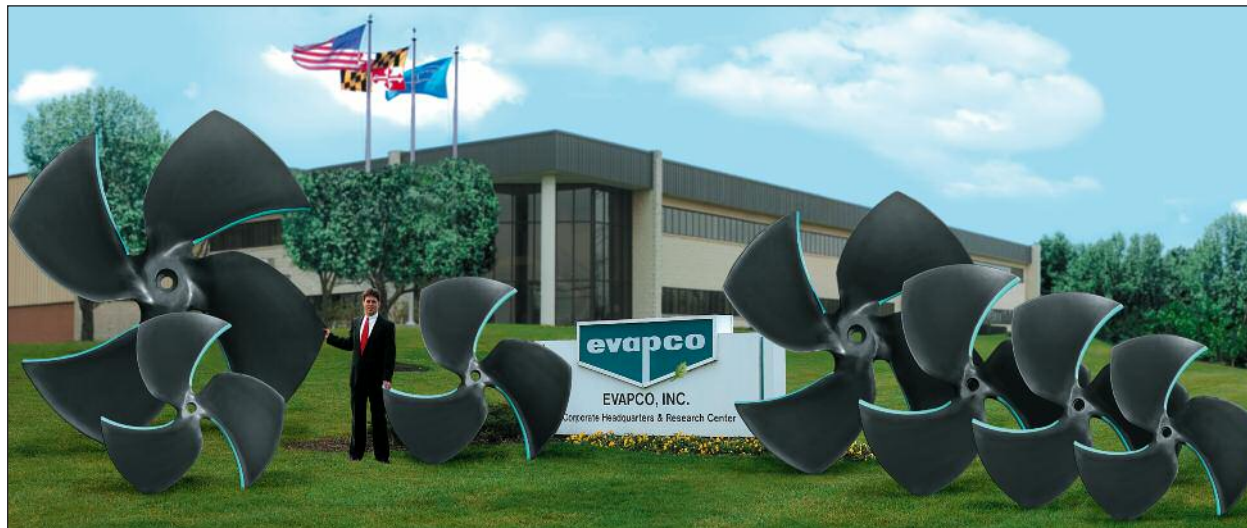


**Ultra Quiet operation  
for induced draft  
counterflow Hybrid  
Condensers**

# ATC-DC

## ADVANCED TECHNOLOGY LOW SOUND SOLUTIONS

### Super Low Sound Solution for Sound Sensitive Applications



Family of Super Low Sound Fans

### The Super Low Sound Fan

#### Reduced Sound Levels versus ATC-DC Standard Fan

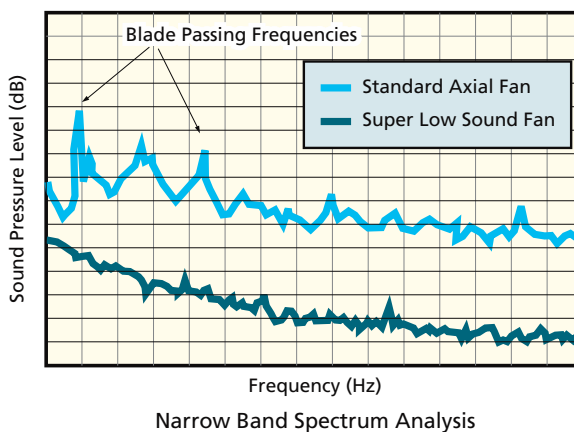
EVAPCO's Super Low Sound Fan on the ATC-DC Hybrid Condenser utilizes an extremely wide chord blade design applied for sound sensitive applications where the lowest sound levels are desired. The fan is one piece molded heavy duty FRP construction utilizing a forward swept blade design. The Super Low Sound Fan reduces sound levels 9 to 15 dB(A) compared to the Model ATC-DC standard fan.

#### Improved Sound Quality versus Model ATC-DC Standard Fan

The Super Low Sound Fan on the ATC-DC Hybrid Condenser reduces sound levels 9-15 dB(A) and eliminates audible blade passing frequencies indicative of straight bladed axial type fans.

Refer to the Narrow Band Spectrum graph which shows how straight bladed axial fans produce blade passing frequencies – the same phenomena that produce the signature pulsating helicopter noise.

The blade passing frequencies are audible spikes in sound pressure levels, but are not apparent in the octave band sound spectrum.



*The Super Low Sound Fan on the ATC-DC condenser reduces sound levels and betters the sound quality!*

**NOTE:** These low sound options may impact the overall installed dimensions of the ATC-DC condenser selected.

## ADVANCED TECHNOLOGY LOW SOUND SOLUTIONS

## ATC-DC

### Additional Solutions for Sound Sensitive Applications



#### Low Sound Fan 4 – 7 dB(A) Reduction!

The Low Sound Fan offered by EVAPCO is a wide chord blade design for sound sensitive applications where low sound levels are desired. The Low Sound Fan shall utilize a unique soft-connect blade-to-hub design that is compatible with Variable Speed Drives.

The Low Sound Fan is capable of reducing the unit sound pressure levels **4 dB(A) to 7 dB(A)**, depending upon specific unit selection and measurement location. The fans are high efficiency axial propeller type and are available on 2.4 m wide and larger ATC-DC condensers.



#### Water Silencer

*Reduces Water Noise in the Cold Water Basin up to 7 dB(A)!*

The water silencer option is available for all induced draft models and is located in the falling water area of the cold water basin. The water silencer will reduce the high frequency noise associated with the falling water and is capable of reducing overall sound levels **4 dB(A) to 7 dB(A)** measured at 1.5 m from the side or end of the unit. The water silencers reduce overall sound levels **9 dB(A) to 12 dB(A)** (depending on water loading and louver height) measured 1.5 m from the side or end of the unit when water is circulated with fans off.

The water silencers are constructed of lightweight PVC sections and can be easily removed for access to the basin area. *The water silencer will have no impact on unit thermal performance.*

*The Water Silencer is available on ALL ATC-DC condensers.*



#### Offset Sound Attenuation Walls

Offset Sound Attenuation Walls are EVAPCO's newest attenuation option for even greater levels of sound reduction when used in combination with the Super Low Sound Fan and Water Silencer options.

The addition of Offset Sound Attenuation Walls will reduce the 15 m free field sound level by an additional **3 dB(A)**. The walls are constructed of Z-725 galvanized steel (stainless steel construction also available) lined with acoustical padding on the inside of the walls.

This option requires external support by others.

Consult **EvapSelect™** software 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.



# ATC-DC

## SOUND BASIC

### Background in Sound Basics

#### Sound

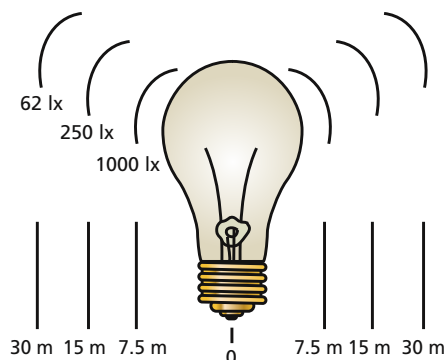
Sound is the alteration in pressure, stress, particle displacement and particle velocity, which is propagated in an elastic material. Audible sound is the sensation produced at the ear by very small pressure fluctuations in the air.

#### Sound Pressure

Sound pressure is the *intensity* of sound. Sound pressure,  $L_p$  in decibels is the ratio of measured pressure,  $P$  in the air to a reference sound pressure,  $P_0 = 2 \times 10^{-5}$  Pascal following the following formula:

$$L_p \text{ (dB)} = 10 \log_{10} (\Delta P^2 / \Delta P_0^2)$$

The most important point to understand about sound pressure level is that **sound pressure level is what is actually being measured when sound data is recorded.** Microphones that measure sound are pressure sensitive devices that are calibrated to convert the sound pressure waves into decibels.



"SOUND PRESSURE"

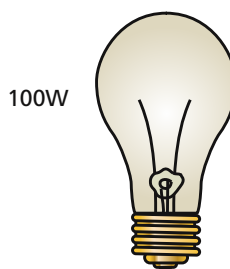
Similar to the intensity coming from a light bulb which gets dimmer as one gets further and further away, sound pressure decreases in decibels as your ear gets further from the sound source.

#### Sound Power

Sound Power is the *energy* of sound. Sound power,  $L_w$  in decibels is the ratio of the calculated sound power,  $W$  to a reference power,  $W_0 = 1$  picowatt, according to the following formula:

$$L_w \text{ (dB)} = 10 \log_{10} (W/W_0)$$

The most important point to remember about **sound power level is that sound power level is not a measured value, but is calculated based on the measured sound pressure.**



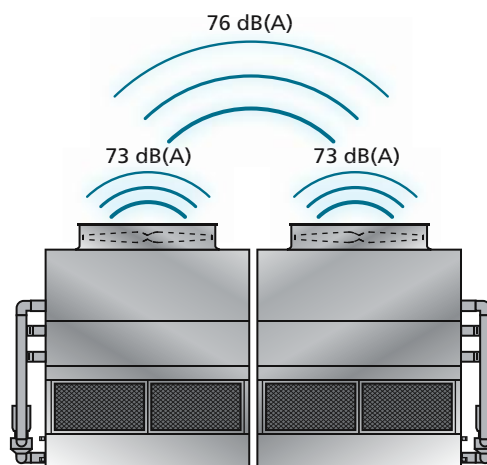
"SOUND POWER"

Similar to the wattage of a light bulb that does not change the farther one is away from the light bulb, sound power does not vary with distance.

#### Adding Multiple Sound Sources

Since the decibel is a logarithmic function, the numbers are not added linearly. Therefore, two 73 dB sound sources added together do not equal 146 dB. The resultant sound would actually be 76 dB. The following table shows how to add decibels from two sound sources.

| Difference in<br>dB Level | Add to the higher<br>dB Level |
|---------------------------|-------------------------------|
| 0 to 1                    | 3                             |
| 2 to 3                    | 2                             |
| 4 to 8                    | 1                             |
| 9 or greater              | 0                             |

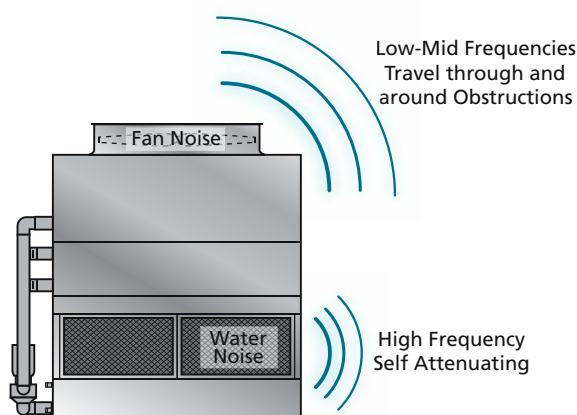


## SOUND BASIC

## ATC-DC

## Sound Science and Condensers

## Sound Frequency



## Fan Noise

- Low / Mid frequencies that travel long distances, through walls, and around obstructions.
- Very difficult to attenuate. Reduce fan noise by using Low Sound Fans.
- Dominates what is measured and heard at the condenser and at the sound sensitive location.

## Water Noise

- High frequencies that attenuate naturally with distance. Attenuated easily by walls, trees or other obstructions.
- Totally masked and drowned out by fan noise at a short distance away from the condenser.

## Sound Pressure – The A-Weighted Scale

The A-weighted scale, dB(A) is a means to translate what a sound meter microphone measures to how the human ear perceives the sound.

## dB(A) Formula and Conversions:

$$\text{dB(A)} = 10 \log_{10} \sum_{f=63}^{f=8000} 10^{((\text{dB} + \text{Cf}) / 10)}$$

where:  $\text{Cf}$  = correction factor per band  
 $\text{dB}$  = measured sound pressure  
 let:  $\text{Zf} = (\text{dB} + \text{Cf}) / 10$

| Band | Center Freq. (Hz) | Frequency Range (Hz) | Sample Data (dB) | Cf (dB) | Zf   |
|------|-------------------|----------------------|------------------|---------|------|
| 1    | 63                | 44-88                | 68               | -26.2   | 4.18 |
| 2    | 125               | 89-175               | 76               | -16.1   | 5.99 |
| 3    | 250               | 176-350              | 77               | -8.6    | 6.84 |
| 4    | 500               | 351-700              | 73               | -3.2    | 6.98 |
| 5    | 1000              | 701-1400             | 70               | 0       | 7.00 |
| 6    | 2000              | 1401-2800            | 68               | +1.2    | 6.92 |
| 7    | 4000              | 2801-5600            | 71               | +1.0    | 7.20 |
| 8    | 8000              | 5601-11200           | 73               | -1.1    | 7.19 |

## Typical Sound Pressure Levels of Well Known Noises:

|                                |           |
|--------------------------------|-----------|
| Jet Airplane, 45 meters away   | 140 dB(A) |
| Painful                        | 130 dB(A) |
| Very Uncomfortable             | 120 dB(A) |
| Circular Saw                   | 110 dB(A) |
| Nightclub                      | 100 dB(A) |
| Semi Truck                     | 90 dB(A)  |
| Sidewalk of a Busy Road        | 80 dB(A)  |
| Household Vacuum, 1 meter away | 70 dB(A)  |
| Normal Conversation            | 60 dB(A)  |
| Inside Average Home            | 50 dB(A)  |
| Quiet Library                  | 40 dB(A)  |
| Bedroom at Night               | 30 dB(A)  |

## Notable Facts about Sound:

- +/- 1 dB(A) is inaudible to the human ear
- Decreasing a noise source by 10 dB(A) sounds half as loud to the human ear

Example calculation of the dB(A) formula using the Sample Data above.

$$\begin{aligned} \text{dB(A)} &= 10 \log_{10} \sum 10^{(\text{Zf})} = 10^{(\text{Z1})} + 10^{(\text{Z2})} + 10^{(\text{Z3})} + 10^{(\text{Z4})} + 10^{(\text{Z5})} + 10^{(\text{Z6})} + 10^{(\text{Z7})} + 10^{(\text{Z8})} \\ &= 10 \log_{10} (67114245.2) = 78.3 \text{ dB(A)} \end{aligned}$$

# ATC-DC

## SPECIFYING SOUND

### Sound Verifications

**Specify sound pressure in dB(A) measured 1,5 m above the fan discharge during full speed operation.**

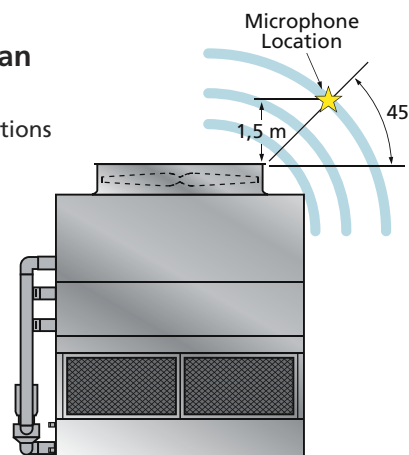
- All manufacturers can meet a performance specification with Low Sound Options
- Fan noise is what matters. 1,5 m above the fan is where it matters.

#### Measurement Location

Per Cooling Technology Institute Standard ATC-128

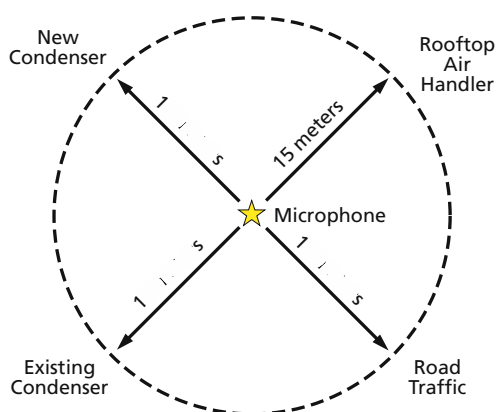
Sound Microphone location 1,5 m above the condenser fan cowl edge at a 45° angle.

This position assures accurate sound measurements by eliminating a source of uncertainty by taking the microphone out of the high velocity fan discharge air.



#### Easy Verification

At 1,5 m from the condenser, a sound meter records only condenser noise. Interested parties can easily verify the actual noise coming from the condenser against the specified sound data with good certainty.



If sound were specified at 15 meters or some greater distance from the sound sensitive location, there is increased uncertainty in the measured data due to other possible sound sources within the 15 meters radius of the sound microphone.

#### Sound Quality

Sound coming from the top of the condenser is comprised of low- and mid-frequency fan noise. Low- and mid-frequency fan "rumble" is very difficult to attenuate. Fan rumble travels through everything and around everything and what is audible at any sound sensitive location.

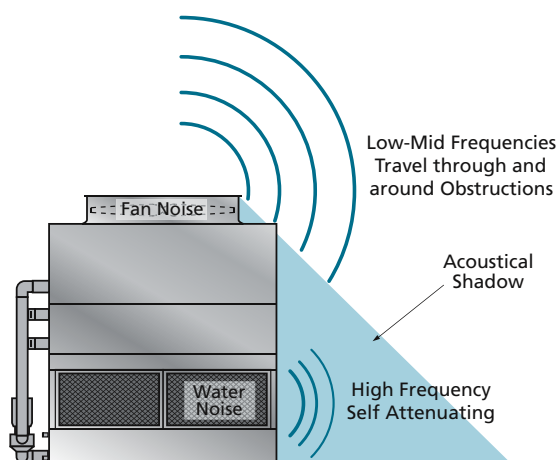
Sound coming from the sides of the condenser is comprised of high frequency water noise, is much less objectionable than fan noise and attenuates naturally with distance.

#### Acoustical Shadow\*

"Subjective reactions to the overall noise generated by condensers indicate that as one walks away from a condenser intake, a point is reached where the water noise is masked by the fan noise. The point coincides with the point at which one emerges from the acoustical shadow of the condenser structure, which shields intake water noise from discharge fan noise."

\*Seelbach & Oran, "What To Do About Cooling Tower Noise", Industrial Acoustics Company.

Sound measured at the side of a condenser is inside the acoustical shadow of the noise emitted from the top. Outside the acoustical shadow, the low- and mid-frequency fan noise completely masks the high frequency water noise.



***Specify fan noise because it matters! Specify fan noise where it matters!***



**ATC-DC**

## **We Stand Tall Through it All!**

### **Wind, Rain, Earthquake and Hurricane**

The International Building Code (IBC) is a comprehensive set of regulations addressing the structural design and installation requirements for building systems – including HVAC and industrial refrigeration equipment.

With the advent of the IBC, EVAPCO is proud to introduce the new and improved line of ATC-DC Condensers with IBC 2012 compliance standard.

***EVAPCO Condensers...  
designed to withstand seismic  
or wind load forces.***

# ATC-DC

## IBC COMPLIANCE

In its continuing commitment to be the leaders in evaporative cooling equipment design and services, EVAPCO ATC-DC Hybrid Condensers are now **Independently Certified** to withstand Seismic and Wind Loads in accordance with IBC 2012.

### What is IBC?

#### International Building Code

The International Building Code (IBC) is a comprehensive set of regulations addressing both the structural design and the installation requirements for building systems – including HVAC and industrial refrigeration equipment. Compared to previous building codes that considered only the building structure and component anchorage, the requirements contained within the IBC address anchorage, structural integrity, and the operational capability of a component following either a seismic or wind load event. **Simply stated, the IBC code provisions require that evaporative cooling equipment, and all other components permanently installed on a structure, must be designed to meet the same seismic or wind load forces as the building to which they are attached.**

#### How Does IBC 2012 Apply to Condensers?

Based on site design factors, calculations are made to determine the equivalent seismic “g force” and wind load (kilo-Newton per square meter, kN/m<sup>2</sup>) on the unit. The closed circuit cooler must be designed to withstand the greater of either the seismic or wind load.

The New ATC-DC is offered with a choice of TWO structural design packages:

- **Standard Structural Design** – For projects with ≤1.0g seismic or 6,94 kN/m<sup>2</sup> wind loads
- **Upgraded Structural Design** – Required for projects with >1.0 g seismic or 6,94 kN/m<sup>2</sup> wind loads

All locations with design criteria resulting in a seismic design force of up to 1.0g or a wind load of 6,94 kN/m<sup>2</sup> or below will be provided with the standard ATC-DC structural design. An upgraded structural design is available for installations with design criteria resulting in “g forces” greater than 1.0g. The highest “g force” location in North America is 5.12g. The highest wind load shown on the maps is 273 km/h, which is approximately equal to 6,94 kN/m<sup>2</sup> velocity pressure. **Therefore, the upgraded structural design package option for the new ATC-DC is designed for 5.12 g and 6,94 kN/m<sup>2</sup> making it applicable to most building locations worldwide.**

#### Design Implementation

EVAPCO applies the seismic design and wind load information provided for the project to determine the equipment design necessary to meet IBC requirements. This process ensures that the mechanical equipment and its components are compliant per the provisions of the IBC as given in the plans and specifications for the project.

### Independent Certification

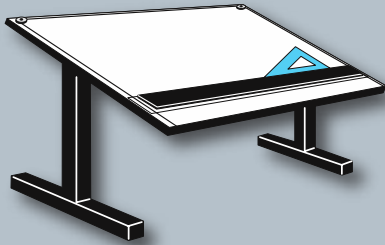
Although the IBC references and is based on the structural building code ASCE 7, many chapters and paragraphs of ASCE 7 are superseded by the IBC, independent certification and methods of analysis are such paragraphs. Per the most recent edition of the code, the EVAPCO compliance process included an exhaustive analysis by an independent approval agency. As required by the International Building Code, EVAPCO supplies a certificate of compliance as part of its submittal documents. The certificate of compliance demonstrates that the equipment has been independently tested and analyzed in accordance with the IBC seismic and wind load requirements. Evapco has worked closely with the independent approval agency, The VMC Group, to complete the independent equipment testing and analysis.

If the seismic “g force” or wind load kN/m<sup>2</sup> requirements for the project site are known, EVAPCO’s online equipment selection software, **EvapSelect™**, will allow you to choose the required structural design package – either standard construction or upgraded construction.

For further questions regarding IBC compliance, please contact your local EVAPCO Representative.



# ATC-DC



## Engineering Data & Dimensions



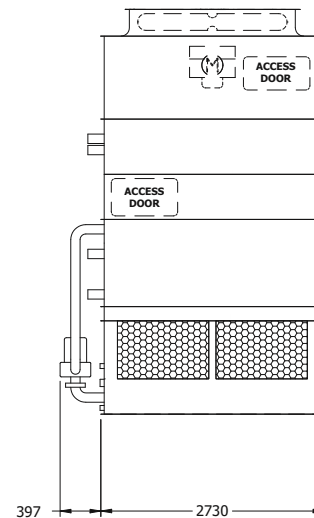
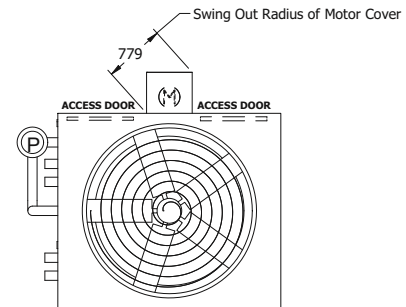
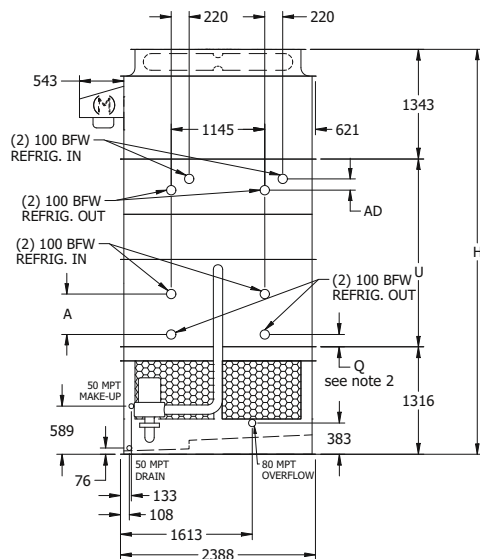
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 89G-25 to 89J-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.         | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump †      |                 |                  | Dimensions (mm) ▲ |          |            |             |
|-------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|-------------------|----------|------------|-------------|
|                   | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H          | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-89G-25-1EF | 351           | 17,2                  | 23,4             | 4    | 15   | 2820         | 1250             | 3920      | 516             | 32                                       | 1,5             | 910                | 200             | 3330             | 4610              | 1951     | 140        | 140         |
| ATC-DC-89G-35-1EF | 358           | 18,6                  | 24,3             | 4    | 14,9 | 2820         | 1250             | 3920      | 666             | 34                                       | 1,5             | 910                | 200             | 3330             | 4610              | 1951     | 140        | 175         |
| ATC-DC-89H-25-1EF | 387           | 17,0                  | 23,2             | 5,5  | 17,2 | 2850         | 1250             | 3940      | 516             | 32                                       | 1,5             | 910                | 200             | 3350             | 4610              | 1951     | 140        | 140         |
| ATC-DC-89H-35-1EF | 395           | 18,7                  | 24,4             | 5,5  | 17   | 2850         | 1250             | 3940      | 666             | 34                                       | 1,5             | 910                | 200             | 3350             | 4610              | 1951     | 140        | 175         |
| ATC-DC-89I-25-1EF | 415           | 16,8                  | 23,1             | 7,5  | 18,9 | 2850         | 1250             | 3940      | 516             | 32                                       | 1,5             | 910                | 200             | 3360             | 4610              | 1951     | 140        | 140         |
| ATC-DC-89I-35-1EF | 423           | 18,7                  | 24,4             | 7,5  | 18,7 | 2850         | 1250             | 3940      | 666             | 34                                       | 1,5             | 910                | 200             | 3360             | 4610              | 1951     | 140        | 175         |
| ATC-DC-89J-25-1EF | 451           | 16,7                  | 23,0             | 11   | 21,6 | 2910         | 1250             | 4010      | 516             | 32                                       | 1,5             | 910                | 200             | 3420             | 4610              | 1951     | 140        | 140         |
| ATC-DC-89J-35-1EF | 459           | 18,9                  | 24,5             | 11   | 21,4 | 2910         | 1250             | 4010      | 666             | 34                                       | 1,5             | 910                | 200             | 3420             | 4610              | 1951     | 140        | 175         |
| ATC-DC-89G-25-2EF | 464           | 12,4                  | 20,2             | 4    | 14,7 | 3650         | 2080             | 4770      | 718             | 54                                       | 1,5             | 910                | 200             | 4180             | 4775              | 2116     | 305        | 140         |
| ATC-DC-89G-35-2EF | 472           | 13,4                  | 20,8             | 4    | 14,6 | 3650         | 2080             | 4770      | 861             | 57                                       | 1,5             | 910                | 200             | 4180             | 4775              | 2116     | 305        | 175         |
| ATC-DC-89H-25-2EF | 511           | 12,4                  | 20,2             | 5,5  | 16,8 | 3680         | 2080             | 4800      | 718             | 54                                       | 1,5             | 910                | 200             | 4210             | 4775              | 2116     | 305        | 140         |
| ATC-DC-89H-35-2EF | 521           | 13,7                  | 21,0             | 5,5  | 16,7 | 3680         | 2080             | 4800      | 861             | 57                                       | 1,5             | 910                | 200             | 4210             | 4775              | 2116     | 305        | 175         |
| ATC-DC-89I-25-2EF | 546           | 12,4                  | 20,2             | 7,5  | 18,5 | 3680         | 2080             | 4800      | 718             | 54                                       | 1,5             | 910                | 200             | 4220             | 4775              | 2116     | 305        | 140         |
| ATC-DC-89I-35-2EF | 556           | 13,9                  | 21,2             | 7,5  | 18,3 | 3680         | 2080             | 4800      | 861             | 57                                       | 1,5             | 910                | 200             | 4220             | 4775              | 2116     | 305        | 175         |
| ATC-DC-89J-25-2EF | 594           | 12,4                  | 20,2             | 11   | 21,2 | 3740         | 2080             | 4860      | 718             | 54                                       | 1,5             | 910                | 200             | 4280             | 4775              | 2116     | 305        | 140         |
| ATC-DC-89J-35-2EF | 605           | 14,3                  | 21,4             | 11   | 21   | 3740         | 2080             | 4860      | 861             | 57                                       | 1,5             | 910                | 200             | 4280             | 4775              | 2116     | 305        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

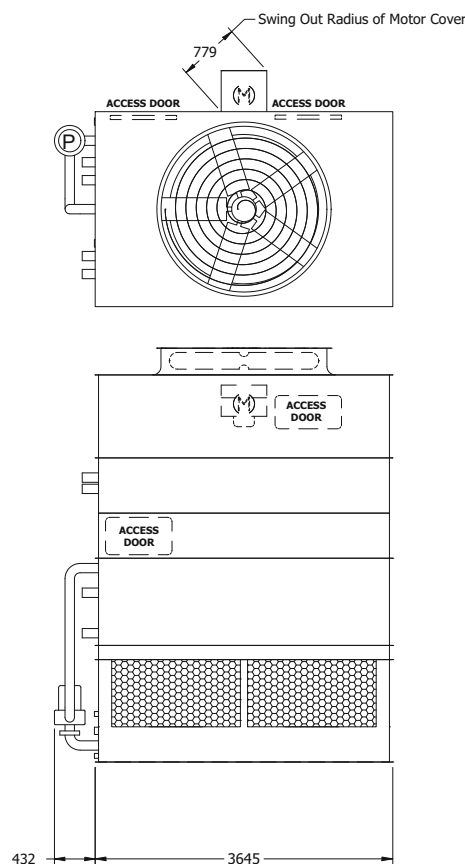
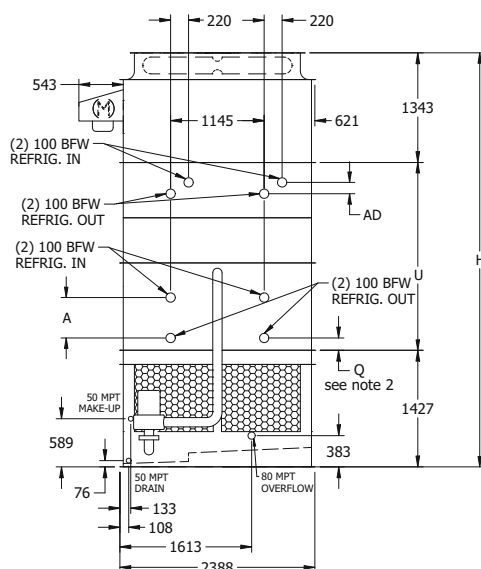
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 812H-25 to 812K-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.          | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump <sup>✦</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |             |
|--------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|-------------|
|                    | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-812H-25-1EF | 491           | 16,8                  | 23,1             | 5,5  | 20,7 | 3510         | 1540             | 5040      | 703             | 43                                       | 2,2             | 1210                     | 250             | 4260             | 4721                         | 1951     | 140        | 140         |
| ATC-DC-812H-35-1EF | 501           | 18,3                  | 24,1             | 5,5  | 20,5 | 3510         | 1540             | 5040      | 891             | 46                                       | 2,2             | 1210                     | 250             | 4260             | 4721                         | 1951     | 140        | 175         |
| ATC-DC-812L-25-1EF | 529           | 16,6                  | 23,0             | 7,5  | 22,8 | 3520         | 1540             | 5050      | 703             | 43                                       | 2,2             | 1210                     | 250             | 4270             | 4721                         | 1951     | 140        | 140         |
| ATC-DC-812L-35-1EF | 539           | 18,3                  | 24,1             | 7,5  | 22,6 | 3520         | 1540             | 5050      | 891             | 46                                       | 2,2             | 1210                     | 250             | 4270             | 4721                         | 1951     | 140        | 175         |
| ATC-DC-812J-25-1EF | 576           | 16,5                  | 22,9             | 11   | 26   | 3580         | 1540             | 5110      | 703             | 43                                       | 2,2             | 1210                     | 250             | 4330             | 4721                         | 1951     | 140        | 140         |
| ATC-DC-812J-35-1EF | 587           | 18,5                  | 24,2             | 11   | 25,8 | 3580         | 1540             | 5110      | 891             | 46                                       | 2,2             | 1210                     | 250             | 4330             | 4721                         | 1951     | 140        | 175         |
| ATC-DC-812K-25-1EF | 608           | 16,5                  | 22,9             | 15   | 28,7 | 3610         | 1540             | 5130      | 703             | 43                                       | 2,2             | 1210                     | 250             | 4360             | 4721                         | 1951     | 140        | 140         |
| ATC-DC-812K-35-1EF | 619           | 18,8                  | 24,4             | 15   | 28,5 | 3610         | 1540             | 5130      | 891             | 46                                       | 2,2             | 1210                     | 250             | 4360             | 4721                         | 1951     | 140        | 175         |
| ATC-DC-812H-25-2EF | 646           | 12,1                  | 20,0             | 5,5  | 20,3 | 4570         | 2600             | 6130      | 935             | 70                                       | 2,2             | 1210                     | 250             | 5350             | 4886                         | 2116     | 305        | 140         |
| ATC-DC-812H-35-2EF | 658           | 13,1                  | 20,6             | 5,5  | 20,1 | 4570         | 2600             | 6130      | 1122            | 73                                       | 2,2             | 1210                     | 250             | 5350             | 4886                         | 2116     | 305        | 175         |
| ATC-DC-812L-25-2EF | 698           | 11,9                  | 19,8             | 7,5  | 22,4 | 4580         | 2600             | 6130      | 935             | 70                                       | 2,2             | 1210                     | 250             | 5360             | 4886                         | 2116     | 305        | 140         |
| ATC-DC-812L-35-2EF | 711           | 13,2                  | 20,7             | 7,5  | 22,2 | 4580         | 2600             | 6130      | 1122            | 73                                       | 2,2             | 1210                     | 250             | 5360             | 4886                         | 2116     | 305        | 175         |
| ATC-DC-812J-25-2EF | 754           | 12,2                  | 20,0             | 11   | 25,5 | 4640         | 2600             | 6190      | 935             | 70                                       | 2,2             | 1210                     | 250             | 5410             | 4886                         | 2116     | 305        | 140         |
| ATC-DC-812J-35-2EF | 768           | 13,7                  | 21,1             | 11   | 25,3 | 4640         | 2600             | 6190      | 1122            | 73                                       | 2,2             | 1210                     | 250             | 5410             | 4886                         | 2116     | 305        | 175         |
| ATC-DC-812K-25-2EF | 802           | 12,2                  | 20,1             | 15   | 28,2 | 4660         | 2600             | 6220      | 935             | 70                                       | 2,2             | 1210                     | 250             | 5440             | 4886                         | 2116     | 305        | 140         |
| ATC-DC-812K-35-2EF | 817           | 14,0                  | 21,3             | 15   | 27,9 | 4660         | 2600             | 6220      | 1122            | 73                                       | 2,2             | 1210                     | 250             | 5440             | 4886                         | 2116     | 305        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

## ENGINEERING DATA & DIMENSIONS



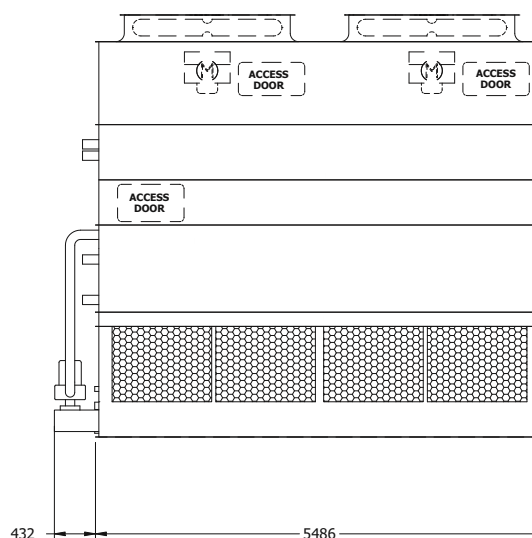
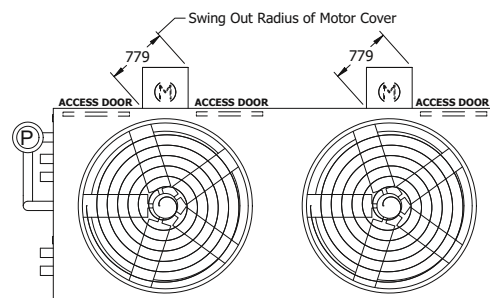
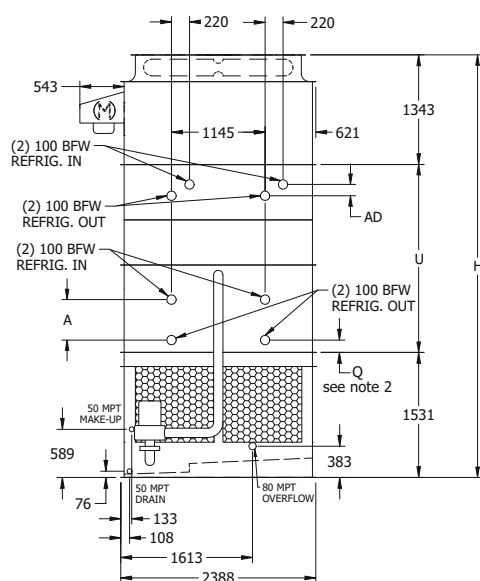
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 818G-25 to 818J-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.          | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans    |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|--------------------|---------------|-----------------------|------------------|---------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                    | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW      | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-818G-25-1EF | 737           | 16,4                  | 22,8             | (2) 4   | 30         | 5360         | 2240             | 7690      | 1010            | 59                                       | 4               | 1815               | 300             | 6530             | 4823             | 1949     | 140        | 140         |
| ATC-DC-818G-35-1EF | 750           | 17,8                  | 23,8             | (2) 4   | 29,7       | 5360         | 2240             | 7690      | 1317            | 64                                       | 4               | 1815               | 300             | 6530             | 4823             | 1949     | 140        | 175         |
| ATC-DC-818H-25-1EF | 810           | 16,2                  | 22,7             | (2) 5.5 | 34,3       | 5410         | 2240             | 7730      | 1010            | 59                                       | 4               | 1815               | 300             | 6580             | 4823             | 1949     | 140        | 140         |
| ATC-DC-818H-35-1EF | 825           | 18,0                  | 23,9             | (2) 5.5 | 34         | 5410         | 2240             | 7730      | 1317            | 64                                       | 4               | 1815               | 300             | 6580             | 4823             | 1949     | 140        | 175         |
| ATC-DC-818I-25-1EF | 871           | 16,0                  | 22,6             | (2) 7.5 | 37,7       | 5420         | 2240             | 7750      | 1010            | 59                                       | 4               | 1815               | 300             | 6590             | 4823             | 1949     | 140        | 140         |
| ATC-DC-818I-35-1EF | 887           | 17,9                  | 23,9             | (2) 7.5 | 37,4       | 5420         | 2240             | 7750      | 1317            | 64                                       | 4               | 1815               | 300             | 6590             | 4823             | 1949     | 140        | 175         |
| ATC-DC-818J-25-1EF | 940           | 16,0                  | 22,5             | (2) 11  | 43         | 5540         | 2240             | 7870      | 1010            | 59                                       | 4               | 1815               | 300             | 6710             | 4823             | 1949     | 140        | 140         |
| ATC-DC-818J-35-1EF | 958           | 18,2                  | 24,0             | (2) 11  | 42,6       | 5540         | 2240             | 7870      | 1317            | 64                                       | 4               | 1815               | 300             | 6710             | 4823             | 1949     | 140        | 175         |
| ATC-DC-818G-25-2EF | 970           | 15,4                  | 22,2             | (2) 4   | 29,4       | 6910         | 3790             | 9280      | 1347            | 100                                      | 4               | 815                | 300             | 8130             | 4988             | 2114     | 305        | 140         |
| ATC-DC-818G-35-2EF | 989           | 16,5                  | 22,9             | (2) 4   | 29,1       | 6910         | 3790             | 9280      | 105             | 1661                                     | 4               | 1815               | 300             | 8130             | 4988             | 2114     | 305        | 175         |
| ATC-DC-818H-25-2EF | 1070          | 15,0                  | 21,9             | (2) 5.5 | 33,6       | 6960         | 3790             | 9330      | 1347            | 100                                      | 4               | 1815               | 300             | 8170             | 4988             | 2114     | 305        | 140         |
| ATC-DC-818H-35-2EF | 1090          | 16,4                  | 22,9             | (2) 5.5 | 33,3       | 6960         | 3790             | 9330      | 1661            | 105                                      | 4               | 1815               | 300             | 8170             | 4988             | 2114     | 305        | 175         |
| ATC-DC-818I-25-2EF | 1144          | 14,9                  | 21,9             | (2) 7.5 | 37         | 6980         | 3790             | 9350      | 1347            | 100                                      | 4               | 1815               | 300             | 8180             | 4988             | 2114     | 305        | 140         |
| ATC-DC-818I-35-2EF | 1165          | 16,5                  | 22,9             | (2) 7.5 | 36,6       | 6980         | 3790             | 9350      | 1661            | 105                                      | 4               | 1815               | 300             | 8180             | 4988             | 2114     | 305        | 175         |
| ATC-DC-818J-25-2EF | 1239          | 14,7                  | 21,7             | (2) 11  | 42,1       | 7100         | 3790             | 9470      | 1347            | 100                                      | 4               | 1815               | 300             | 8310             | 4988             | 2114     | 305        | 140         |
| ATC-DC-818J-35-2EF | 1262          | 16,5                  | 22,9             | (2) 11  | 41,7       | 7100         | 3790             | 9470      | 1661            | 105                                      | 4               | 1815               | 300             | 8310             | 4988             | 2114     | 305        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

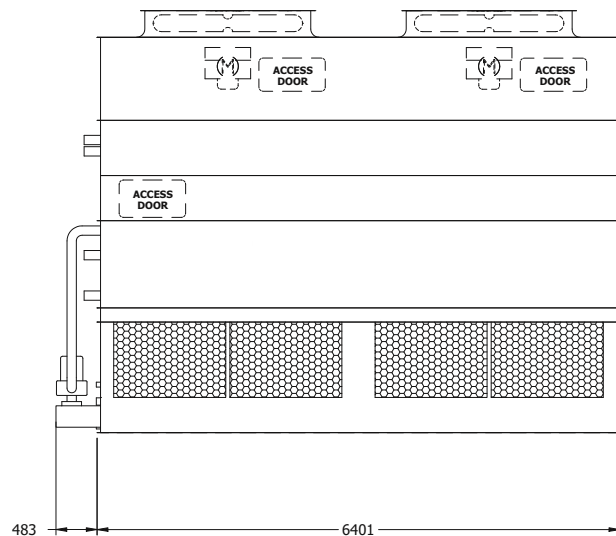
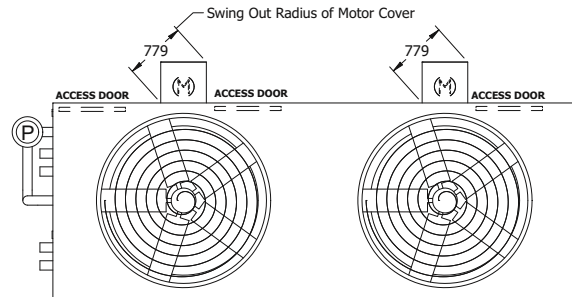
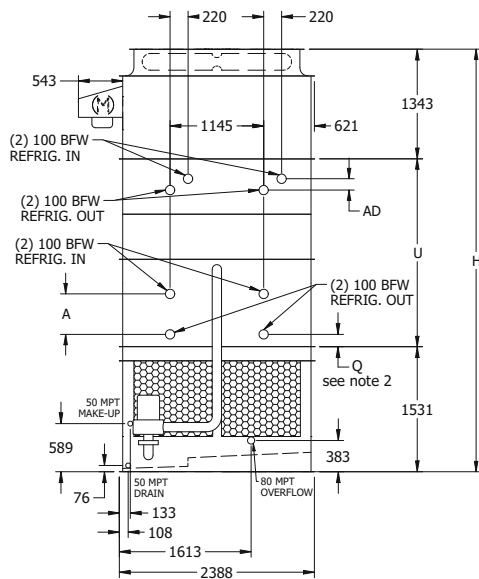
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 821H-25 to 821I-35

**Notes:**

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.          | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans    |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump†       |                 |                  | Dimensions (mm)▲ |          |            |             |
|--------------------|---------------|-----------------------|------------------|---------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                    | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW      | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-821H-25-1EF | 996           | 15,2                  | 22,0             | (2) 5.5 | 40         | 6060         | 2560             | 8840      | 1167            | 70                                       | 5,5             | 2120               | 300             | 7480             | 4823             | 1949     | 140        | 140         |
| ATC-DC-821H-35-1EF | 1015          | 17,0                  | 23,2             | (2) 5.5 | 39,6       | 6060         | 2560             | 8840      | 1519            | 76                                       | 5,5             | 2120               | 300             | 7480             | 4823             | 1949     | 140        | 175         |
| ATC-DC-821I-25-1EF | 1083          | 15,0                  | 21,9             | (2) 7.5 | 45,3       | 6080         | 2560             | 8850      | 1167            | 70                                       | 5,5             | 2120               | 300             | 7500             | 4823             | 1949     | 140        | 140         |
| ATC-DC-821I-35-1EF | 1104          | 17,1                  | 23,3             | (2) 7.5 | 44,8       | 6080         | 2560             | 8850      | 1519            | 76                                       | 5,5             | 2120               | 300             | 7500             | 4823             | 1949     | 140        | 175         |
| ATC-DC-821J-25-1EF | 1079          | 15,8                  | 22,4             | (2) 11  | 48,1       | 6200         | 2560             | 8970      | 1167            | 70                                       | 5,5             | 2120               | 300             | 7620             | 4823             | 1949     | 140        | 140         |
| ATC-DC-821J-35-1EF | 1099          | 17,9                  | 23,9             | (2) 11  | 47,6       | 6200         | 2560             | 8970      | 1519            | 76                                       | 5,5             | 2120               | 300             | 7620             | 4823             | 1949     | 140        | 175         |
| ATC-DC-821H-25-2EF | 1313          | 10,2                  | 18,7             | (2) 5.5 | 39,3       | 7780         | 4280             | 10600     | 1594            | 115                                      | 5,5             | 2120               | 300             | 9250             | 4988             | 2114     | 305        | 140         |
| ATC-DC-821H-35-2EF | 1338          | 11,5                  | 19,6             | (2) 5.5 | 38,9       | 7780         | 4280             | 10600     | 1946            | 121                                      | 5,5             | 2120               | 300             | 9250             | 4988             | 2114     | 305        | 175         |
| ATC-DC-821I-25-2EF | 1430          | 10,2                  | 18,7             | (2) 7.5 | 44,4       | 7800         | 4280             | 10620     | 1594            | 115                                      | 5,5             | 2120               | 300             | 9260             | 4988             | 2114     | 305        | 140         |
| ATC-DC-821I-35-2EF | 1457          | 11,8                  | 19,8             | (2) 7.5 | 44         | 7800         | 4280             | 10620     | 1946            | 121                                      | 5,5             | 2120               | 300             | 9260             | 4988             | 2114     | 305        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

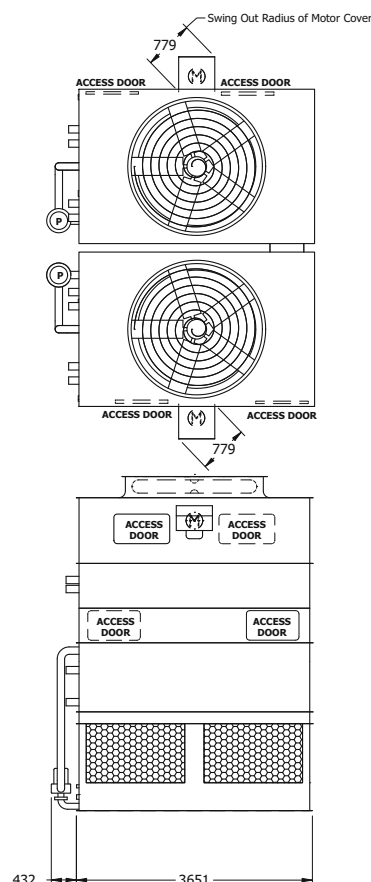
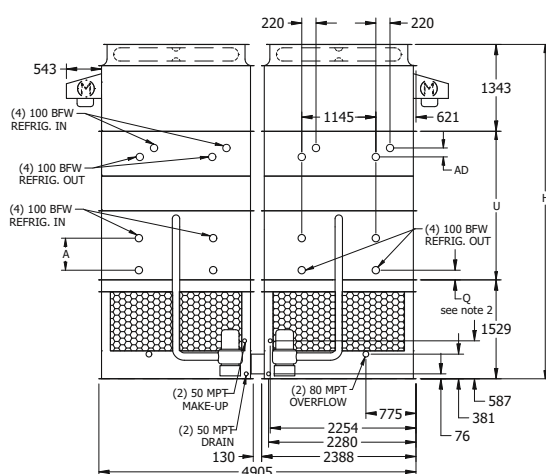
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1612H-25 to 1612K-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temper. (°C) |                  | Fans    |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-------------------------|------------------|---------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity        | 50% Wet Capacity | kW      | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1612H-25-1EF | 983           | 16,8                    | 23,1             | (2) 5.5 | 41,4       | 6960         | 1510             | 10510     | 988             | 85                                       | (2) 2.2         | 2425               | (2) 250         | 8960             | 4823             | 1951     | 140        | 140         |
| ATC-DC-1612H-35-1EF | 1001          | 18,3                    | 24,1             | (2) 5.5 | 41,8       | 6960         | 1510             | 10510     | 1175            | 91                                       | (2) 2.2         | 2425               | (2) 250         | 8960             | 4823             | 1951     | 140        | 175         |
| ATC-DC-1612J-25-1EF | 1152          | 16,5                    | 22,9             | (2) 11  | 52,1       | 7100         | 1510             | 10650     | 988             | 85                                       | (2) 2.2         | 2425               | (2) 250         | 9090             | 4823             | 1951     | 140        | 140         |
| ATC-DC-1612J-35-1EF | 1174          | 18,5                    | 24,2             | (2) 11  | 51,6       | 7100         | 1510             | 10650     | 1175            | 91                                       | (2) 2.2         | 2425               | (2) 250         | 9090             | 4823             | 1951     | 140        | 175         |
| ATC-DC-1612K-25-1EF | 1216          | 16,5                    | 22,9             | (2) 15  | 57,5       | 7160         | 1510             | 10700     | 988             | 85                                       | (2) 2.2         | 2425               | (2) 250         | 9150             | 4823             | 1951     | 140        | 140         |
| ATC-DC-1612K-35-1EF | 1239          | 18,8                    | 24,4             | (2) 15  | 56,9       | 7160         | 1510             | 10700     | 1175            | 91                                       | (2) 2.2         | 2425               | (2) 250         | 9150             | 4823             | 1951     | 140        | 175         |
| ATC-DC-1612H-25-2EF | 1282          | 12,2                    | 20,1             | (2) 5.5 | 40,6       | 9110         | 2590             | 12710     | 1444            | 140                                      | (2) 2.2         | 2425               | (2) 250         | 11160            | 4988             | 2116     | 305        | 140         |
| ATC-DC-1612H-35-2EF | 1307          | 13,3                    | 20,7             | (2) 5.5 | 40,2       | 9110         | 2590             | 12710     | 1631            | 146                                      | (2) 2.2         | 2425               | (2) 250         | 11160            | 4988             | 2116     | 305        | 175         |
| ATC-DC-1612J-25-2EF | 1378          | 12,2                    | 20,0             | (2) 7.5 | 44,8       | 9120         | 2590             | 12730     | 1444            | 140                                      | (2) 2.2         | 2425               | (2) 250         | 11180            | 4988             | 2116     | 305        | 140         |
| ATC-DC-1612J-35-2EF | 1404          | 13,4                    | 20,9             | (2) 7.5 | 44,3       | 9120         | 2590             | 12730     | 1631            | 146                                      | (2) 2.2         | 2425               | (2) 250         | 11180            | 4988             | 2116     | 305        | 175         |
| ATC-DC-1612J-25-2EF | 1512          | 12,1                    | 20,0             | (2) 11  | 51,1       | 9240         | 2590             | 12850     | 1444            | 140                                      | (2) 2.2         | 2425               | (2) 250         | 11290            | 4988             | 2116     | 305        | 140         |
| ATC-DC-1612J-35-2EF | 1541          | 13,7                    | 21,0             | (2) 11  | 50,5       | 9240         | 2590             | 12850     | 1631            | 146                                      | (2) 2.2         | 2425               | (2) 250         | 11290            | 4988             | 2116     | 305        | 175         |
| ATC-DC-1612K-25-2EF | 1590          | 12,4                    | 20,2             | (2) 15  | 56,4       | 9300         | 2590             | 12900     | 1444            | 140                                      | (2) 2.2         | 2425               | (2) 250         | 11350            | 4988             | 2116     | 305        | 140         |
| ATC-DC-1612K-35-2EF | 1620          | 14,2                    | 21,4             | (2) 15  | 55,8       | 9300         | 2590             | 12900     | 1631            | 146                                      | (2) 2.2         | 2425               | (2) 250         | 11350            | 4988             | 2116     | 305        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



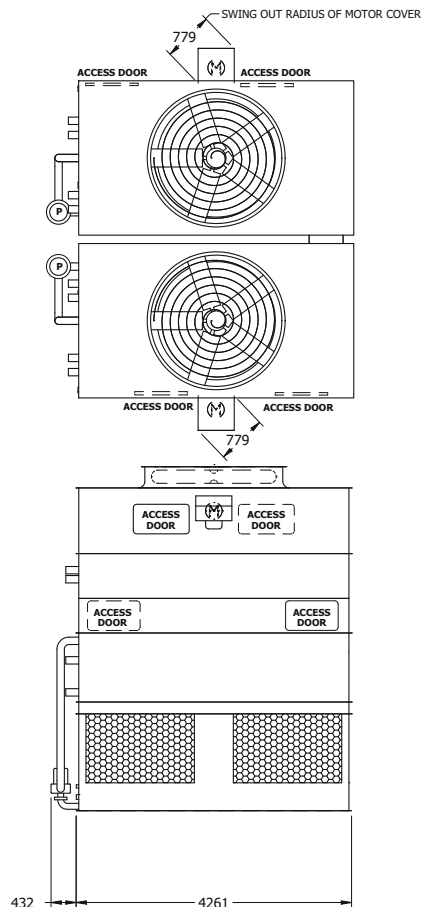
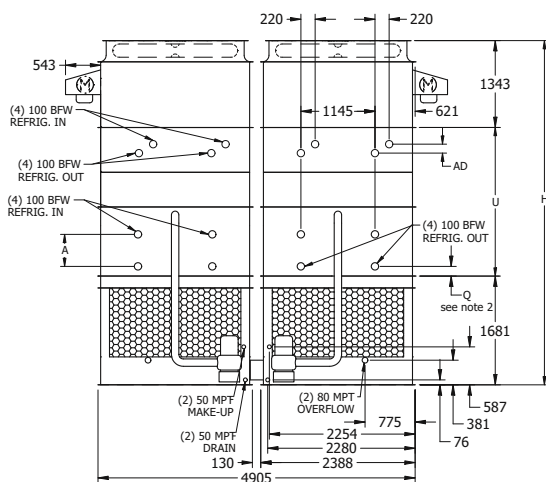
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 1614I-25 to 1614K-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans    |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump <sup>♦</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |             |
|---------------------|---------------|-----------------------|------------------|---------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW      | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1614I-25-1EF | 1178          | 17,0                  | 23,2             | (2) 7.5 | 51,1       | 7780         | 1750             | 11920     | 1108            | 96                                       | (2) 4           | 2725                     | (2) 250         | 10070            | 4975                         | 1951     | 140        | 140         |
| ATC-DC-1614I-35-1EF | 1201          | 18,6                  | 24,3             | (2) 7.5 | 50,6       | 7780         | 1750             | 11920     | 1340            | 103                                      | (2) 4           | 2725                     | (2) 250         | 10070            | 4975                         | 1951     | 140        | 175         |
| ATC-DC-1614J-25-1EF | 1284          | 16,9                  | 23,2             | (2) 11  | 58,5       | 7890         | 1750             | 12030     | 1108            | 96                                       | (2) 4           | 2725                     | (2) 250         | 10190            | 4975                         | 1951     | 140        | 140         |
| ATC-DC-1614J-35-1EF | 1308          | 18,8                  | 24,4             | (2) 11  | 57,9       | 7890         | 1750             | 12030     | 1340            | 103                                      | (2) 4           | 2725                     | (2) 250         | 10190            | 4975                         | 1951     | 140        | 175         |
| ATC-DC-1614K-25-1EF | 1365          | 16,8                  | 23,1             | (2) 15  | 64         | 7940         | 1750             | 12090     | 1108            | 96                                       | (2) 4           | 2725                     | (2) 250         | 10240            | 4975                         | 1951     | 140        | 140         |
| ATC-DC-1614K-35-1EF | 1390          | 18,9                  | 24,5             | (2) 15  | 63,4       | 7940         | 1750             | 12090     | 1340            | 103                                      | (2) 4           | 2725                     | (2) 250         | 10240            | 4975                         | 1951     | 140        | 175         |
| ATC-DC-1614I-25-2EF | 1534          | 12,6                  | 20,3             | (2) 7.5 | 50,1       | 10160        | 2950             | 14370     | 1676            | 160                                      | (2) 4           | 2725                     | (2) 250         | 12530            | 5140                         | 2116     | 305        | 140         |
| ATC-DC-1614I-35-2EF | 1563          | 13,7                  | 21,1             | (2) 7.5 | 49,6       | 10160        | 2950             | 14370     | 1901            | 167                                      | (2) 4           | 2725                     | (2) 250         | 12530            | 5140                         | 2116     | 305        | 175         |
| ATC-DC-1614J-25-2EF | 1677          | 12,7                  | 20,4             | (2) 11  | 57,3       | 10280        | 2950             | 14490     | 1676            | 160                                      | (2) 4           | 2725                     | (2) 250         | 12640            | 5140                         | 2116     | 305        | 140         |
| ATC-DC-1614J-35-2EF | 1708          | 14,1                  | 21,3             | (2) 11  | 56,8       | 10280        | 2950             | 14490     | 1901            | 167                                      | (2) 4           | 2725                     | (2) 250         | 12640            | 5140                         | 2116     | 305        | 175         |
| ATC-DC-1614K-25-2EF | 1789          | 12,6                  | 20,3             | (2) 15  | 62,7       | 10340        | 2950             | 14550     | 1676            | 160                                      | (2) 4           | 2725                     | (2) 250         | 12700            | 5140                         | 2116     | 305        | 140         |
| ATC-DC-1614K-35-2EF | 1823          | 14,2                  | 21,4             | (2) 15  | 62,1       | 10340        | 2950             | 14550     | 1901            | 167                                      | (2) 4           | 2725                     | (2) 250         | 12700            | 5140                         | 2116     | 305        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

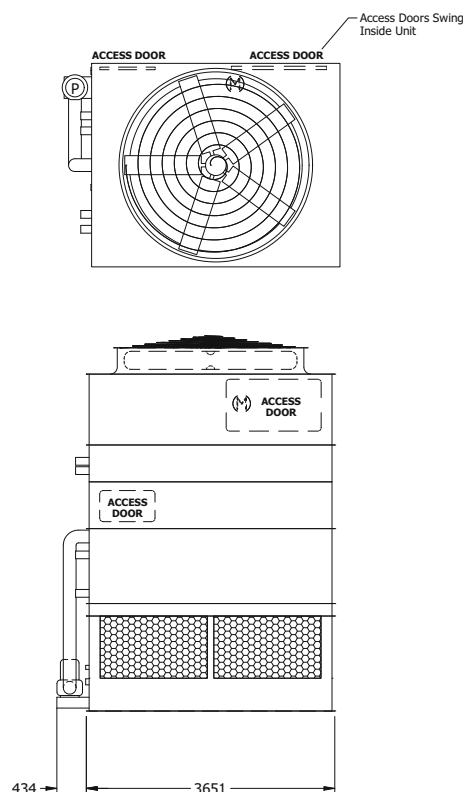
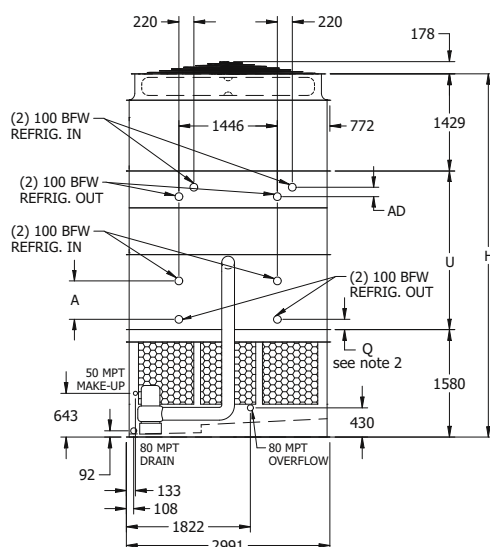
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1012I-25 to 1012L-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Reg'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1012I-25-1EF | 819           | 10,4                  | 18,9             | 7,5  | 25,5 | 4710         | 2340             | 7050      | 868             | 54                                       | 4               | 1590               | 300             | 5350             | 4918             | 1909     | 140        | 140         |
| ATC-DC-1012I-35-1EF | 834           | 12,3                  | 20,1             | 7,5  | 25,2 | 4710         | 2340             | 7050      | 1137            | 58                                       | 4               | 1590               | 300             | 5350             | 4918             | 1909     | 140        | 175         |
| ATC-DC-1012J-25-1EF | 901           | 10,3                  | 18,8             | 11   | 29,2 | 4770         | 2340             | 7110      | 868             | 54                                       | 4               | 1590               | 300             | 5410             | 4918             | 1909     | 140        | 140         |
| ATC-DC-1012J-35-1EF | 918           | 12,6                  | 20,3             | 11   | 28,9 | 4770         | 2340             | 7110      | 1137            | 58                                       | 4               | 1590               | 300             | 5410             | 4918             | 1909     | 140        | 175         |
| ATC-DC-1012K-25-1EF | 953           | 10,4                  | 18,8             | 15   | 32,1 | 4800         | 2340             | 7140      | 868             | 54                                       | 4               | 1590               | 300             | 5440             | 4918             | 1909     | 140        | 140         |
| ATC-DC-1012K-35-1EF | 971           | 12,9                  | 20,5             | 15   | 31,8 | 4800         | 2340             | 7140      | 1137            | 58                                       | 4               | 1590               | 300             | 5440             | 4918             | 1909     | 140        | 175         |
| ATC-DC-1012L-25-1EF | 992           | 10,4                  | 18,9             | 18,5 | 34,6 | 4810         | 2340             | 7160      | 868             | 54                                       | 4               | 1590               | 300             | 5450             | 4918             | 1909     | 140        | 140         |
| ATC-DC-1012L-35-1EF | 1011          | 13,2                  | 20,7             | 18,5 | 34,2 | 4810         | 2340             | 7160      | 1137            | 58                                       | 4               | 1590               | 300             | 5450             | 4918             | 1909     | 140        | 175         |
| ATC-DC-1012I-25-2EF | 992           | 6,5                   | 16,2             | 7,5  | 25   | 6050         | 3680             | 8430      | 1182            | 90                                       | 4               | 1590               | 300             | 6730             | 5128             | 2119     | 349        | 140         |
| ATC-DC-1012J-35-2EF | 1011          | 7,6                   | 17,0             | 7,5  | 24,7 | 6050         | 3680             | 8430      | 1452            | 94                                       | 4               | 1590               | 300             | 6730             | 5128             | 2119     | 349        | 175         |
| ATC-DC-1012J-25-2EF | 1087          | 6,7                   | 16,4             | 11   | 28,6 | 6120         | 3680             | 8490      | 1182            | 90                                       | 4               | 1590               | 300             | 6790             | 5128             | 2119     | 349        | 140         |
| ATC-DC-1012J-35-2EF | 1108          | 8,2                   | 17,4             | 11   | 28,3 | 6120         | 3680             | 8490      | 1452            | 94                                       | 4               | 1590               | 300             | 6790             | 5128             | 2119     | 349        | 175         |
| ATC-DC-1012K-25-2EF | 1148          | 7,0                   | 16,6             | 15   | 31,5 | 6140         | 3680             | 8520      | 1182            | 90                                       | 4               | 1590               | 300             | 6820             | 5128             | 2119     | 349        | 140         |
| ATC-DC-1012K-35-2EF | 1170          | 8,8                   | 17,8             | 15   | 31,1 | 6140         | 3680             | 8520      | 1452            | 94                                       | 4               | 1590               | 300             | 6820             | 5128             | 2119     | 349        | 175         |
| ATC-DC-1012L-25-2EF | 1196          | 7,3                   | 16,7             | 18,5 | 33,9 | 6160         | 3680             | 8540      | 1182            | 90                                       | 4               | 1590               | 300             | 6840             | 5128             | 2119     | 349        | 140         |
| ATC-DC-1012L-35-2EF | 1218          | 9,3                   | 18,1             | 18,5 | 33,5 | 6160         | 3680             | 8540      | 1452            | 94                                       | 4               | 1590               | 300             | 6840             | 5128             | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

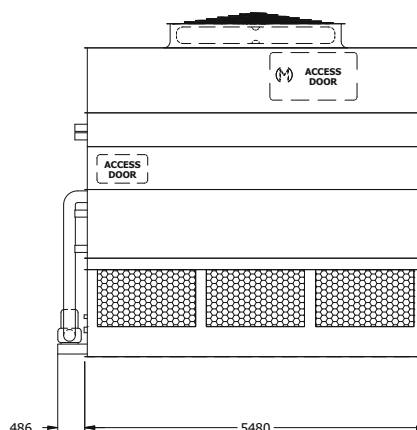
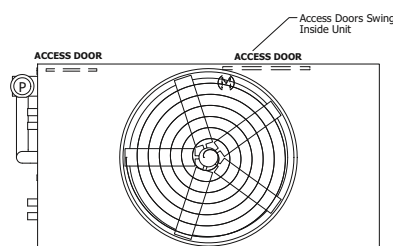
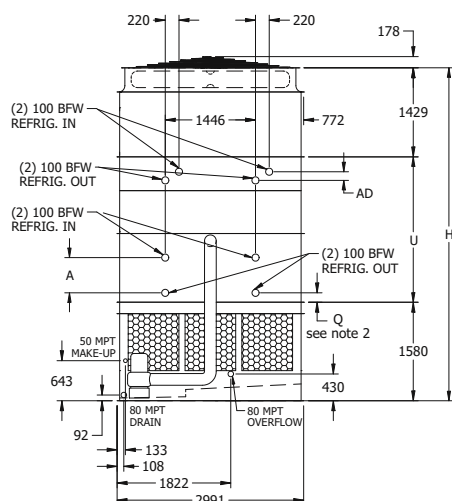
# ATC-DC

## ATC-DC Models

### 1018I-25 to 1018M-35

**Notes:**

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |           |                  | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** | Spray Pump (kW) | Remote Pump <sup>♦</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |             |
|---------------------|---------------|-----------------------|------------------|------|------|--------------|-----------|------------------|-----------------|-------------------------------------|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Operating | Heaviest Section |                 |                                     |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1018I-25-1EF | 1066          | 12,1                  | 19,9             | 7,5  | 34,1 | 6580         | 3360      | 10130            | 1310            | 76                                  | 5,5             | 2385                     | 300             | 7620             | 4918                         | 1909     | 140        | 140         |
| ATC-DC-1018I-35-1EF | 1086          | 13,4                  | 20,9             | 7,5  | 33,8 | 6580         | 3360      | 10130            | 1684            | 82                                  | 5,5             | 2385                     | 300             | 7620             | 4918                         | 1909     | 140        | 175         |
| ATC-DC-1018J-25-1EF | 1174          | 12,0                  | 19,9             | 11   | 39   | 6650         | 3360      | 10190            | 1310            | 76                                  | 5,5             | 2385                     | 300             | 7690             | 4918                         | 1909     | 140        | 140         |
| ATC-DC-1018J-35-1EF | 1196          | 13,7                  | 21,1             | 11   | 38,7 | 6650         | 3360      | 10190            | 1684            | 82                                  | 5,5             | 2385                     | 300             | 7690             | 4918                         | 1909     | 140        | 175         |
| ATC-DC-1018K-25-1EF | 1256          | 11,9                  | 19,9             | 15   | 43   | 6670         | 3360      | 10220            | 1310            | 76                                  | 5,5             | 2385                     | 300             | 7720             | 4918                         | 1909     | 140        | 140         |
| ATC-DC-1018K-35-1EF | 1280          | 13,9                  | 21,2             | 15   | 42,5 | 6670         | 3360      | 10220            | 1684            | 82                                  | 5,5             | 2385                     | 300             | 7720             | 4918                         | 1909     | 140        | 175         |
| ATC-DC-1018L-25-1EF | 1326          | 11,7                  | 19,7             | 18,5 | 46,3 | 6690         | 3360      | 10230            | 1310            | 76                                  | 5,5             | 2385                     | 300             | 7730             | 4918                         | 1909     | 140        | 140         |
| ATC-DC-1018L-35-1EF | 1351          | 14,0                  | 21,2             | 18,5 | 45,8 | 6690         | 3360      | 10230            | 1684            | 82                                  | 5,5             | 2385                     | 300             | 7730             | 4918                         | 1909     | 140        | 175         |
| ATC-DC-1018M-25-1EF | 1378          | 11,7                  | 19,7             | 22   | 49,2 | 6710         | 3360      | 10250            | 1310            | 76                                  | 5,5             | 2385                     | 300             | 7750             | 4918                         | 1909     | 140        | 140         |
| ATC-DC-1018M-35-1EF | 1404          | 14,1                  | 21,3             | 22   | 48,7 | 6710         | 3360      | 10250            | 1684            | 82                                  | 5,5             | 2385                     | 300             | 7750             | 4918                         | 1909     | 140        | 175         |
| ATC-DC-1018I-25-2EF | 1282          | 8,3                   | 17,4             | 7,5  | 33,4 | 8590         | 5380      | 12190            | 1759            | 126                                 | 5,5             | 2385                     | 300             | 9690             | 5128                         | 2119     | 349        | 140         |
| ATC-DC-1018I-35-2EF | 1307          | 9,0                   | 17,9             | 7,5  | 33,1 | 8590         | 5380      | 12190            | 2133            | 132                                 | 5,5             | 2385                     | 300             | 9690             | 5128                         | 2119     | 349        | 175         |
| ATC-DC-1018J-25-2EF | 1412          | 8,5                   | 17,6             | 11   | 38,3 | 8660         | 5380      | 12250            | 1759            | 126                                 | 5,5             | 2385                     | 300             | 9750             | 5128                         | 2119     | 349        | 140         |
| ATC-DC-1018J-35-2EF | 1439          | 9,6                   | 18,3             | 11   | 37,9 | 8660         | 5380      | 12250            | 2133            | 132                                 | 5,5             | 2385                     | 300             | 9750             | 5128                         | 2119     | 349        | 175         |
| ATC-DC-1018K-25-2EF | 1516          | 8,5                   | 17,6             | 15   | 42,1 | 8690         | 5380      | 12290            | 1759            | 126                                 | 5,5             | 2385                     | 300             | 9780             | 5128                         | 2119     | 349        | 140         |
| ATC-DC-1018K-35-2EF | 1545          | 9,8                   | 18,5             | 15   | 41,7 | 8690         | 5380      | 12290            | 2133            | 132                                 | 5,5             | 2385                     | 300             | 9780             | 5128                         | 2119     | 349        | 175         |
| ATC-DC-1018L-25-2EF | 1599          | 8,5                   | 17,6             | 18,5 | 45,4 | 8700         | 5380      | 12300            | 1759            | 126                                 | 5,5             | 2385                     | 300             | 9800             | 5128                         | 2119     | 349        | 140         |
| ATC-DC-1018L-35-2EF | 1629          | 10,0                  | 18,6             | 18,5 | 44,9 | 8700         | 5380      | 12300            | 2133            | 132                                 | 5,5             | 2385                     | 300             | 9800             | 5128                         | 2119     | 349        | 175         |
| ATC-DC-1018M-25-2EF | 1659          | 8,5                   | 17,6             | 22   | 48,2 | 8730         | 5380      | 12320            | 1759            | 126                                 | 5,5             | 2385                     | 300             | 9820             | 5128                         | 2119     | 349        | 140         |
| ATC-DC-1018M-35-2EF | 1691          | 10,3                  | 18,7             | 22   | 47,7 | 8730         | 5380      | 12320            | 2133            | 132                                 | 5,5             | 2385                     | 300             | 9820             | 5128                         | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



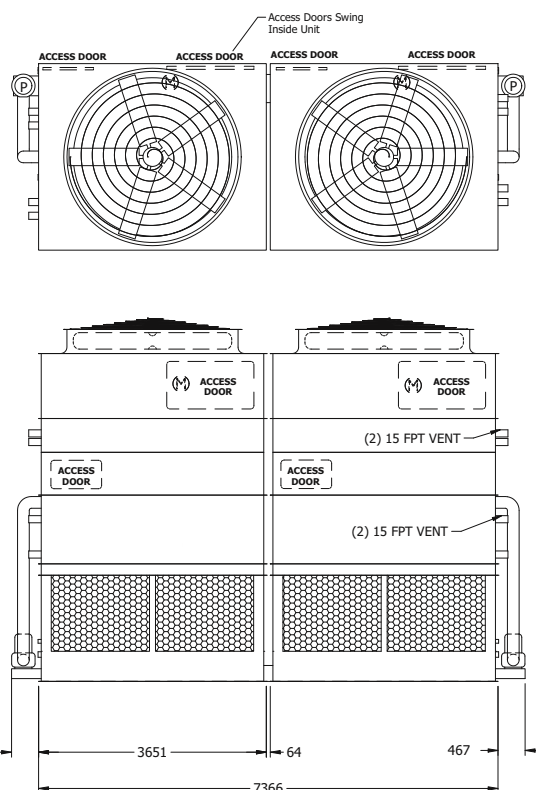
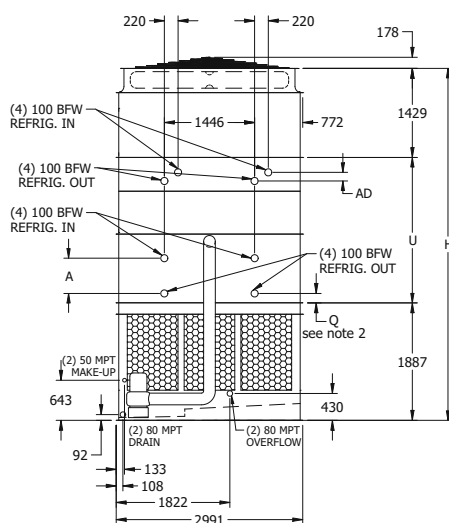
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1024I-25 to 1024L-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1024I-25-1EF | 1638          | 10,4                  | 18,9             | (2) 7.5  | 50,9       | 9330         | 2290             | 14950     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11540            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1024I-35-1EF | 1669          | 12,3                  | 20,1             | (2) 7.5  | 50,4       | 9330         | 2290             | 14950     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11540            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1024I-25-1EF | 1802          | 10,3                  | 18,8             | (2) 11   | 58,3       | 9460         | 2290             | 15070     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11670            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1024I-35-1EF | 1836          | 12,6                  | 20,3             | (2) 11   | 57,7       | 9460         | 2290             | 15070     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11670            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1024K-25-1EF | 1906          | 10,4                  | 18,8             | (2) 15   | 64,2       | 9520         | 2290             | 15130     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11720            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1024K-35-1EF | 1942          | 12,9                  | 20,5             | (2) 15   | 63,5       | 9520         | 2290             | 15130     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11720            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1024L-25-1EF | 1984          | 10,4                  | 18,9             | (2) 18.5 | 69,1       | 9540         | 2290             | 15160     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11750            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1024L-35-1EF | 2022          | 13,2                  | 20,7             | (2) 18.5 | 68,4       | 9540         | 2290             | 15160     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11750            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1024I-25-2EF | 1976          | 6,5                   | 16,2             | (2) 7.5  | 49,9       | 12070        | 3660             | 17760     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14350            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1024I-35-2EF | 2013          | 7,6                   | 17,0             | (2) 7.5  | 49,4       | 12070        | 3660             | 17760     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14350            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1024I-25-2EF | 1976          | 6,7                   | 16,4             | (2) 11   | 57,2       | 12190        | 3660             | 17880     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14480            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1024I-35-2EF | 2013          | 8,2                   | 17,4             | (2) 11   | 56,6       | 12190        | 3660             | 17880     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14480            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1024K-25-2EF | 2296          | 7,0                   | 16,6             | (2) 15   | 62,9       | 12250        | 3660             | 17930     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14540            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1024K-35-2EF | 2340          | 8,8                   | 17,8             | (2) 15   | 62,3       | 12250        | 3660             | 17930     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14540            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1024L-25-2EF | 2392          | 7,3                   | 16,7             | (2) 18.5 | 67,8       | 12280        | 3660             | 17970     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14560            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1024L-35-2EF | 2437          | 9,3                   | 18,1             | (2) 18.5 | 67,1       | 12280        | 3660             | 17970     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14560            | 5432             | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

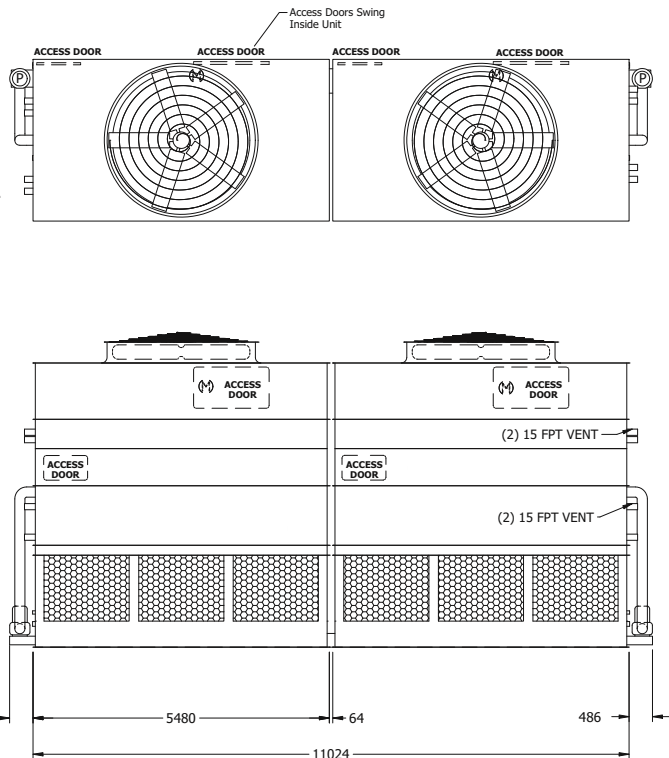
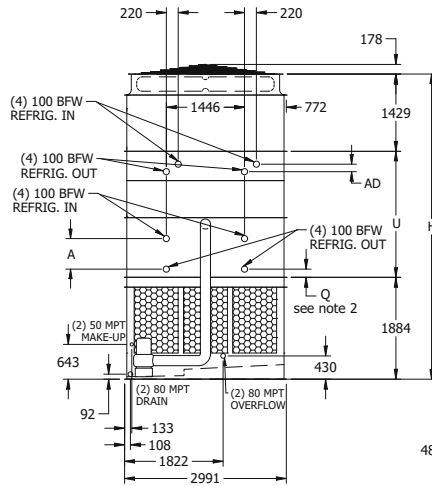
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 1036L-25 to 1036M-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1036L-25-1EF | 2132          | 12,1                  | 19,9             | (2) 7.5  | 68,2       | 13050        | 3310             | 21510     | 1818            | 151                                      | (2) 5.5         | 4770               | (2) 300         | 16510            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1036L-35-1EF | 2172          | 13,4                  | 20,9             | (2) 7.5  | 67,5       | 13050        | 3310             | 21510     | 2193            | 164                                      | (2) 5.5         | 4770               | (2) 300         | 16510            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1036L-25-1EF | 2348          | 12,0                  | 19,9             | (2) 11   | 78,1       | 13170        | 3310             | 21630     | 1818            | 151                                      | (2) 5.5         | 4770               | (2) 300         | 16630            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1036L-35-1EF | 2392          | 13,7                  | 21,1             | (2) 11   | 77,3       | 13170        | 3310             | 21630     | 2193            | 164                                      | (2) 5.5         | 4770               | (2) 300         | 16630            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1036K-25-1EF | 2513          | 11,9                  | 19,9             | (2) 15   | 85,9       | 13230        | 3310             | 21690     | 1818            | 151                                      | (2) 5.5         | 4770               | (2) 300         | 16690            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1036K-35-1EF | 2560          | 13,9                  | 21,2             | (2) 15   | 85,1       | 13230        | 3310             | 21690     | 2193            | 164                                      | (2) 5.5         | 4770               | (2) 300         | 16690            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1036L-25-1EF | 2651          | 11,7                  | 19,7             | (2) 18.5 | 92,6       | 13260        | 3310             | 21720     | 1818            | 151                                      | (2) 5.5         | 4770               | (2) 300         | 16720            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1036L-35-1EF | 2701          | 14,0                  | 21,2             | (2) 18.5 | 91,7       | 13260        | 3310             | 21720     | 2193            | 164                                      | (2) 5.5         | 4770               | (2) 300         | 16720            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1036M-25-1EF | 2755          | 11,7                  | 19,7             | (2) 22   | 98,4       | 13310        | 3310             | 21770     | 1818            | 151                                      | (2) 5.5         | 4770               | (2) 300         | 16760            | 5223             | 1910     | 140        | 140         |
| ATC-DC-1036M-35-1EF | 2807          | 14,1                  | 21,3             | (2) 22   | 97,4       | 13310        | 3310             | 21770     | 2193            | 164                                      | (2) 5.5         | 4770               | (2) 300         | 16760            | 5223             | 1910     | 140        | 175         |
| ATC-DC-1036L-25-2EF | 2565          | 9,5                   | 18,2             | (2) 7.5  | 66,9       | 17130        | 5340             | 25690     | 2724            | 251                                      | (2) 5.5         | 4770               | (2) 300         | 20690            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1036L-35-2EF | 2613          | 9,3                   | 18,1             | (2) 7.5  | 66,2       | 17130        | 5340             | 25690     | 3098            | 263                                      | (2) 5.5         | 4770               | (2) 300         | 20690            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1036L-25-2EF | 2825          | 10,0                  | 18,6             | (2) 11   | 76,6       | 17250        | 5340             | 25810     | 2724            | 251                                      | (2) 5.5         | 4770               | (2) 300         | 20810            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1036L-35-2EF | 2878          | 10,0                  | 18,6             | (2) 11   | 75,8       | 17250        | 5340             | 25810     | 3098            | 263                                      | (2) 5.5         | 4770               | (2) 300         | 20810            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1036K-25-2EF | 3033          | 10,3                  | 18,8             | (2) 15   | 84,3       | 17310        | 5340             | 25870     | 2724            | 251                                      | (2) 5.5         | 4770               | (2) 300         | 20870            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1036K-35-2EF | 3090          | 10,4                  | 18,8             | (2) 15   | 83,4       | 17310        | 5340             | 25870     | 3098            | 263                                      | (2) 5.5         | 4770               | (2) 300         | 20870            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1036L-25-2EF | 3202          | 10,4                  | 18,9             | (2) 18.5 | 90,8       | 17340        | 5340             | 25900     | 2724            | 251                                      | (2) 5.5         | 4770               | (2) 300         | 20900            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1036L-35-2EF | 3262          | 10,7                  | 19,0             | (2) 18.5 | 89,9       | 17340        | 5340             | 25900     | 3098            | 263                                      | (2) 5.5         | 4770               | (2) 300         | 20900            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1036M-25-2EF | 3323          | 10,7                  | 19,0             | (2) 22   | 96,5       | 17380        | 5340             | 25950     | 2724            | 251                                      | (2) 5.5         | 4770               | (2) 300         | 20950            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1036M-35-2EF | 3386          | 11,0                  | 19,2             | (2) 22   | 95,5       | 17380        | 5340             | 25950     | 3098            | 263                                      | (2) 5.5         | 4770               | (2) 300         | 20950            | 5432             | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

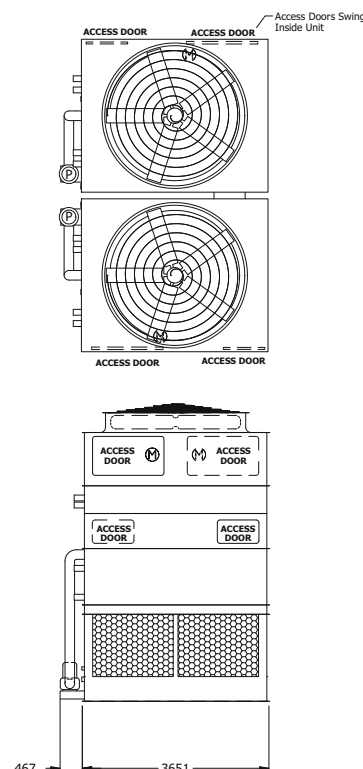
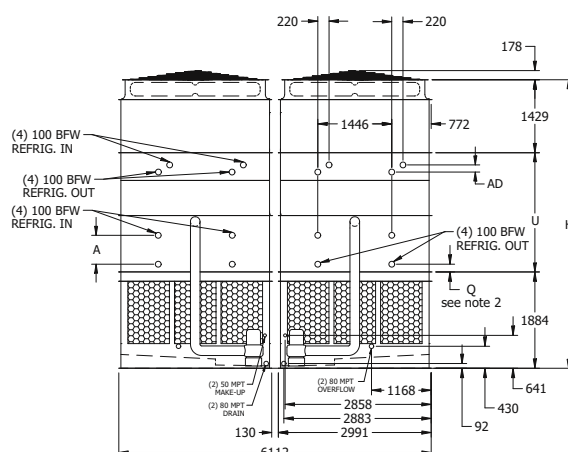
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 2012I-25 to 2012L-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-2012I-25-1EF | 1638          | 12,7                  | 20,4             | (2) 7.5  | 50,9       | 9430         | 2340             | 15040     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11640            | 5223             | 1910     | 140        | 140         |
| ATC-DC-2012I-35-1EF | 1669          | 12,9                  | 20,5             | (2) 7.5  | 50,4       | 9430         | 2340             | 15040     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11640            | 5223             | 1910     | 140        | 175         |
| ATC-DC-2012J-25-1EF | 1802          | 13,0                  | 20,6             | (2) 11   | 58,3       | 9560         | 2340             | 15160     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11770            | 5223             | 1910     | 140        | 140         |
| ATC-DC-2012J-35-1EF | 1836          | 13,4                  | 20,9             | (2) 11   | 57,7       | 9560         | 2340             | 15160     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11770            | 5223             | 1910     | 140        | 175         |
| ATC-DC-2012K-25-1EF | 1906          | 13,3                  | 20,8             | (2) 15   | 64,2       | 9610         | 2340             | 15220     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11820            | 5223             | 1910     | 140        | 140         |
| ATC-DC-2012K-35-1EF | 1942          | 14,0                  | 21,2             | (2) 15   | 63,5       | 9610         | 2340             | 15220     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11820            | 5223             | 1910     | 140        | 175         |
| ATC-DC-2012L-25-1EF | 1984          | 13,6                  | 21,0             | (2) 18.5 | 69,1       | 9640         | 2340             | 15250     | 1235            | 107                                      | (2) 4           | 3180               | (2) 300         | 11850            | 5223             | 1910     | 140        | 140         |
| ATC-DC-2012L-35-1EF | 2022          | 14,4                  | 21,5             | (2) 18.5 | 68,4       | 9640         | 2340             | 15250     | 1504            | 115                                      | (2) 4           | 3180               | (2) 300         | 11850            | 5223             | 1910     | 140        | 175         |
| ATC-DC-2012I-25-2EF | 1976          | 8,2                   | 17,4             | (2) 7.5  | 49,9       | 12120        | 3680             | 17800     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14400            | 5432             | 2119     | 349        | 140         |
| ATC-DC-2012I-35-2EF | 2013          | 8,2                   | 17,4             | (2) 7.5  | 49,4       | 12120        | 3680             | 17800     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14400            | 5432             | 2119     | 349        | 175         |
| ATC-DC-2012J-25-2EF | 1976          | 11,2                  | 19,4             | (2) 11   | 57,2       | 12240        | 3680             | 17930     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14530            | 5432             | 2119     | 349        | 140         |
| ATC-DC-2012J-35-2EF | 2013          | 11,3                  | 19,5             | (2) 11   | 56,6       | 12240        | 3680             | 17930     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14530            | 5432             | 2119     | 349        | 175         |
| ATC-DC-2012K-25-2EF | 2296          | 9,3                   | 18,1             | (2) 15   | 62,9       | 12300        | 3680             | 17990     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14580            | 5432             | 2119     | 349        | 140         |
| ATC-DC-2012K-35-2EF | 2340          | 9,7                   | 18,3             | (2) 15   | 62,3       | 12300        | 3680             | 17990     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14580            | 5432             | 2119     | 349        | 175         |
| ATC-DC-2012L-25-2EF | 2392          | 9,7                   | 18,4             | (2) 18.5 | 67,8       | 12330        | 3680             | 18010     | 1833            | 179                                      | (2) 4           | 3180               | (2) 300         | 14610            | 5432             | 2119     | 349        | 140         |
| ATC-DC-2012L-35-2EF | 2437          | 10,2                  | 18,7             | (2) 18.5 | 67,1       | 12330        | 3680             | 18010     | 2103            | 188                                      | (2) 4           | 3180               | (2) 300         | 14610            | 5432             | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



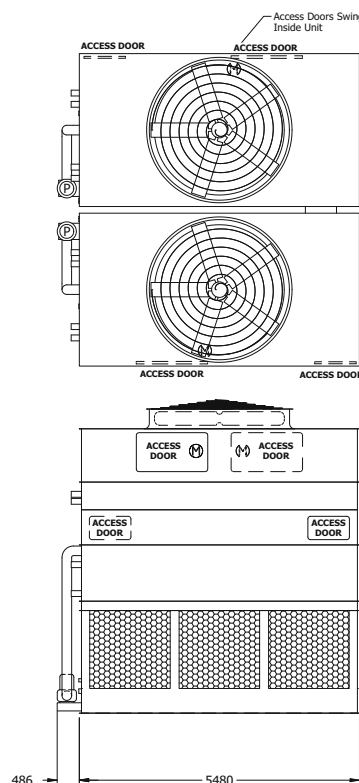
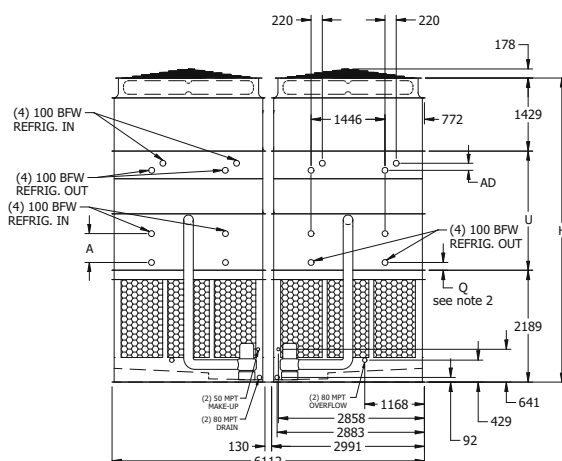
# ATC-DC

## ATC-DC Models

### 2018I-25 to 2018L-35

**Notes:**

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump <sup>♦</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-2018I-25-1EF | 2132          | 12,1                  | 19,9             | (2) 7.5  | 68,2       | 13130        | 3330             | 21580     | 1818            | 151                                      | (2) 5.5         | 4770                     | (2) 300         | 16580            | 5528                         | 1910     | 140        | 140         |
| ATC-DC-2018I-35-1EF | 2172          | 13,4                  | 20,9             | (2) 7.5  | 67,5       | 13130        | 3330             | 21580     | 2193            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 16580            | 5528                         | 1910     | 140        | 175         |
| ATC-DC-2018J-25-1EF | 2348          | 12,0                  | 19,9             | (2) 11   | 78,1       | 13250        | 3330             | 21710     | 1818            | 151                                      | (2) 5.5         | 4770                     | (2) 300         | 16710            | 5528                         | 1910     | 140        | 140         |
| ATC-DC-2018J-35-1EF | 2392          | 13,7                  | 21,1             | (2) 11   | 77,3       | 13250        | 3330             | 21710     | 2193            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 16710            | 5528                         | 1910     | 140        | 175         |
| ATC-DC-2018K-25-1EF | 2513          | 11,9                  | 19,9             | (2) 15   | 85,9       | 13310        | 3330             | 21770     | 1818            | 151                                      | (2) 5.5         | 4770                     | (2) 300         | 16760            | 5528                         | 1910     | 140        | 140         |
| ATC-DC-2018K-35-1EF | 2560          | 13,9                  | 21,2             | (2) 15   | 85,1       | 13310        | 3330             | 21770     | 2193            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 16760            | 5528                         | 1910     | 140        | 175         |
| ATC-DC-2018L-25-1EF | 2651          | 11,7                  | 19,7             | (2) 18.5 | 92,6       | 13340        | 3330             | 21790     | 1818            | 151                                      | (2) 5.5         | 4770                     | (2) 300         | 16790            | 5528                         | 1910     | 140        | 140         |
| ATC-DC-2018L-35-1EF | 2701          | 14,0                  | 21,2             | (2) 18.5 | 91,7       | 13340        | 3330             | 21790     | 2193            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 16790            | 5528                         | 1910     | 140        | 175         |
| ATC-DC-2018M-25-1EF | 2755          | 11,7                  | 19,7             | (2) 22   | 98,4       | 13380        | 3330             | 21840     | 1818            | 151                                      | (2) 5.5         | 4770                     | (2) 300         | 16840            | 5528                         | 1910     | 140        | 140         |
| ATC-DC-2018M-35-1EF | 2807          | 14,1                  | 21,3             | (2) 22   | 97,4       | 13380        | 3330             | 21840     | 2193            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 16840            | 5528                         | 1910     | 140        | 175         |
| ATC-DC-2018I-25-2EF | 2565          | 9,5                   | 18,2             | (2) 7.5  | 66,9       | 17170        | 5360             | 25740     | 2724            | 251                                      | (2) 5.5         | 4770                     | (2) 300         | 20740            | 5737                         | 2119     | 349        | 140         |
| ATC-DC-2018I-35-2EF | 2613          | 9,3                   | 18,1             | (2) 7.5  | 66,2       | 17170        | 5360             | 25740     | 3098            | 263                                      | (2) 5.5         | 4770                     | (2) 300         | 20740            | 5737                         | 2119     | 349        | 175         |
| ATC-DC-2018J-25-2EF | 2825          | 10,0                  | 18,6             | (2) 11   | 76,6       | 17300        | 5360             | 25860     | 2724            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 20860            | 5737                         | 2119     | 349        | 140         |
| ATC-DC-2018J-35-2EF | 2878          | 10,0                  | 18,6             | (2) 11   | 75,8       | 17300        | 5360             | 25860     | 3098            | 263                                      | (2) 5.5         | 4770                     | (2) 300         | 20860            | 5737                         | 2119     | 349        | 175         |
| ATC-DC-2018K-25-2EF | 3033          | 10,3                  | 18,8             | (2) 15   | 84,3       | 17360        | 5360             | 25920     | 2724            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 20920            | 5737                         | 2119     | 349        | 140         |
| ATC-DC-2018K-35-2EF | 3090          | 10,4                  | 18,8             | (2) 15   | 83,4       | 17360        | 5360             | 25920     | 3098            | 263                                      | (2) 5.5         | 4770                     | (2) 300         | 20920            | 5737                         | 2119     | 349        | 175         |
| ATC-DC-2018L-25-2EF | 3202          | 10,4                  | 18,9             | (2) 18.5 | 90,8       | 17380        | 5360             | 25950     | 2724            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 20950            | 5737                         | 2119     | 349        | 140         |
| ATC-DC-2018L-35-2EF | 3262          | 10,7                  | 19,0             | (2) 18.5 | 89,9       | 17380        | 5360             | 25950     | 3098            | 263                                      | (2) 5.5         | 4770                     | (2) 300         | 20950            | 5737                         | 2119     | 349        | 175         |
| ATC-DC-2018M-25-2EF | 3323          | 10,7                  | 19,0             | (2) 22   | 96,5       | 17430        | 5360             | 25990     | 2724            | 164                                      | (2) 5.5         | 4770                     | (2) 300         | 20990            | 5737                         | 2119     | 349        | 140         |
| ATC-DC-2018M-35-2EF | 3386          | 11,0                  | 19,2             | (2) 22   | 95,5       | 17430        | 5360             | 25990     | 3098            | 263                                      | (2) 5.5         | 4770                     | (2) 300         | 20990            | 5737                         | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

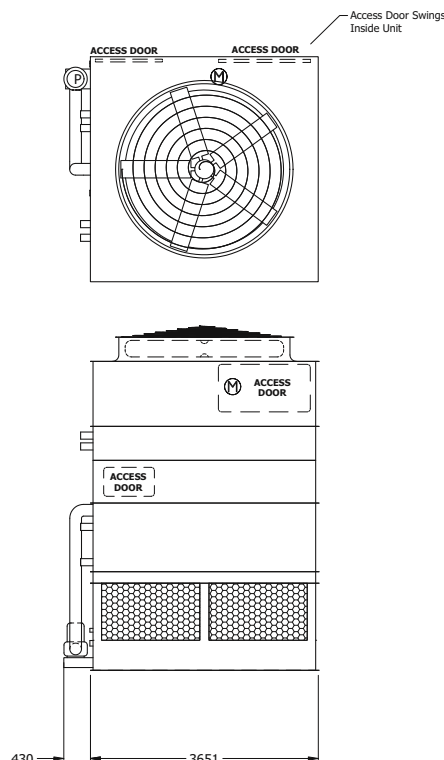
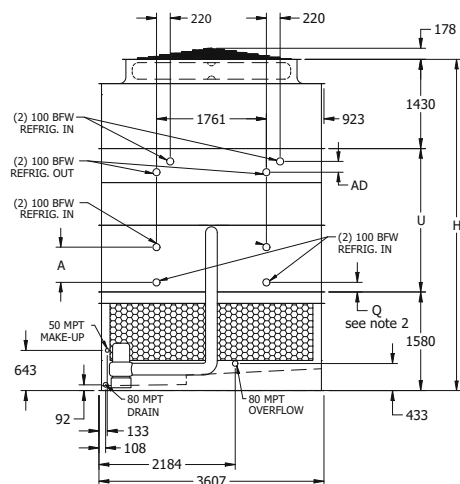
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1212J-25 to 1212L-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1212J-25-1EF | 830           | 16,4                  | 22,9             | 11   | 35   | 5210         | 2570             | 7930      | 1078            | 64                                       | 4               | 1855               | 300             | 6050             | 4918             | 1908     | 140        | 140         |
| ATC-DC-1212J-35-1EF | 845           | 18,1                  | 24,0             | 11   | 34,7 | 5210         | 2570             | 7930      | 1392            | 69                                       | 4               | 1855               | 300             | 6050             | 4918             | 1908     | 140        | 175         |
| ATC-DC-1212K-25-1EF | 884           | 16,3                  | 22,8             | 15   | 38,5 | 5240         | 2570             | 7960      | 1078            | 64                                       | 4               | 1855               | 300             | 6080             | 4918             | 1908     | 140        | 140         |
| ATC-DC-1212K-35-1EF | 900           | 18,2                  | 24,1             | 15   | 38,1 | 5240         | 2570             | 7960      | 1392            | 69                                       | 4               | 1855               | 300             | 6080             | 4918             | 1908     | 140        | 175         |
| ATC-DC-1212L-25-1EF | 918           | 16,4                  | 22,9             | 18,5 | 41,5 | 5260         | 2570             | 7970      | 1078            | 64                                       | 4               | 1855               | 300             | 6090             | 4918             | 1908     | 140        | 140         |
| ATC-DC-1212L-35-1EF | 936           | 18,5                  | 24,2             | 18,5 | 41,1 | 5260         | 2570             | 7970      | 1392            | 69                                       | 4               | 1855               | 300             | 6090             | 4918             | 1908     | 140        | 175         |
| ATC-DC-1212J-25-2EF | 1092          | 11,6                  | 19,7             | 11   | 34,3 | 6780         | 4140             | 9540      | 1444            | 105                                      | 4               | 1855               | 300             | 7660             | 5128             | 2118     | 349        | 140         |
| ATC-DC-1212J-35-2EF | 1112          | 12,8                  | 20,5             | 11   | 34   | 6780         | 4140             | 9540      | 1759            | 110                                      | 4               | 1855               | 300             | 7660             | 5128             | 2118     | 349        | 175         |
| ATC-DC-1212K-25-2EF | 1165          | 11,7                  | 19,7             | 15   | 37,8 | 6800         | 4140             | 9570      | 1444            | 105                                      | 4               | 1855               | 300             | 7690             | 5128             | 2118     | 349        | 140         |
| ATC-DC-1212K-35-2EF | 1187          | 13,1                  | 20,7             | 15   | 37,4 | 6800         | 4140             | 9570      | 1759            | 110                                      | 4               | 1855               | 300             | 7690             | 5128             | 2118     | 349        | 175         |
| ATC-DC-1212L-25-2EF | 1209          | 12,0                  | 19,9             | 18,5 | 40,7 | 6820         | 4140             | 9580      | 1444            | 105                                      | 4               | 1855               | 300             | 7700             | 5128             | 2118     | 349        | 140         |
| ATC-DC-1212L-35-2EF | 1232          | 13,6                  | 21,0             | 18,5 | 40,3 | 6820         | 4140             | 9580      | 1759            | 110                                      | 4               | 1855               | 300             | 7700             | 5128             | 2118     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

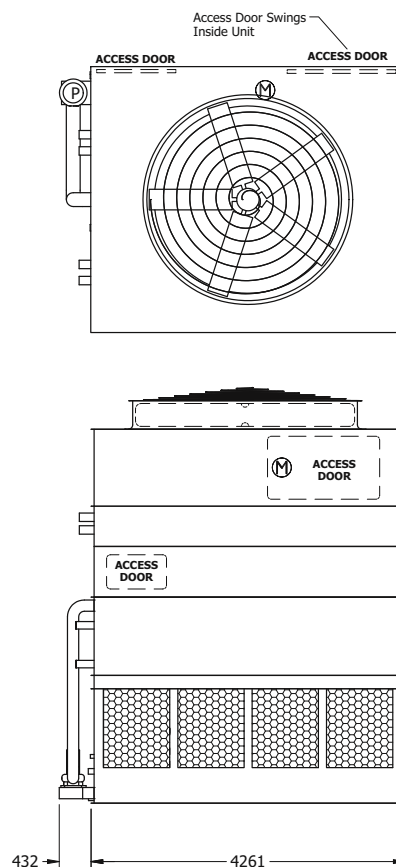
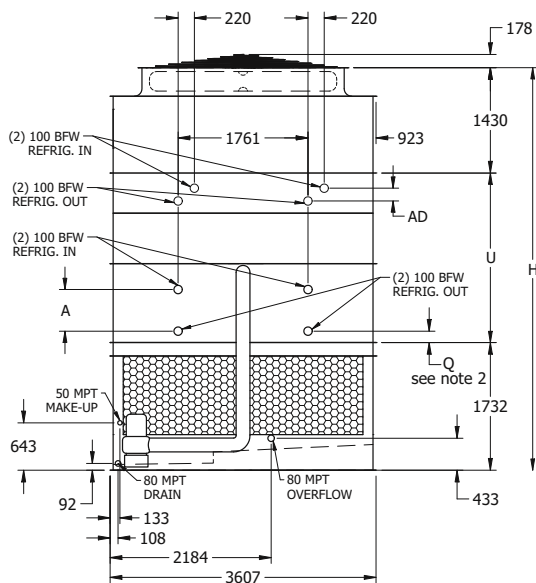
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 1214K-25 to 1214M-35

**Notes:**

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Reg'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1214K-25-1EF | 953           | 17,2                  | 23,4             | 15   | 42,7 | 5860         | 2920             | 9070      | 1235            | 75                                       | 4               | 2160               | 300             | 6900             | 5070             | 1908     | 140        | 140         |
| ATC-DC-1214K-35-1EF | 971           | 18,9                  | 24,5             | 15   | 42,2 | 5860         | 2920             | 9070      | 1609            | 81                                       | 4               | 2160               | 300             | 6900             | 5070             | 1908     | 140        | 175         |
| ATC-DC-1214L-25-1EF | 999           | 17,2                  | 23,4             | 18,5 | 45,9 | 5870         | 2920             | 9090      | 1235            | 75                                       | 4               | 2160               | 300             | 6910             | 5070             | 1908     | 140        | 140         |
| ATC-DC-1214L-35-1EF | 1017          | 19,0                  | 24,6             | 18,5 | 45,5 | 5870         | 2920             | 9090      | 1609            | 81                                       | 4               | 2160               | 300             | 6910             | 5070             | 1908     | 140        | 175         |
| ATC-DC-1214M-25-1EF | 1027          | 17,4                  | 23,5             | 22   | 48,8 | 5900         | 2920             | 9110      | 1235            | 75                                       | 4               | 2160               | 300             | 6940             | 5070             | 1908     | 140        | 140         |
| ATC-DC-1214M-35-1EF | 1046          | 19,3                  | 24,8             | 22   | 48,3 | 5900         | 2920             | 9110      | 1609            | 81                                       | 4               | 2160               | 300             | 6940             | 5070             | 1908     | 140        | 175         |
| ATC-DC-1214K-25-2EF | 1252          | 12,8                  | 20,5             | 15   | 41,8 | 7650         | 4710             | 10910     | 1691            | 125                                      | 4               | 2160               | 300             | 8740             | 5280             | 2118     | 349        | 140         |
| ATC-DC-1214K-35-2EF | 1276          | 14,0                  | 21,3             | 15   | 41,4 | 7650         | 4710             | 10910     | 2065            | 131                                      | 4               | 2160               | 300             | 8740             | 5280             | 2118     | 349        | 175         |
| ATC-DC-1214L-25-2EF | 1313          | 12,9                  | 20,5             | 18,5 | 45   | 7670         | 4710             | 10930     | 1691            | 125                                      | 4               | 2160               | 300             | 8750             | 5280             | 2118     | 349        | 140         |
| ATC-DC-1214L-35-2EF | 1338          | 14,3                  | 21,4             | 18,5 | 44,6 | 7670         | 4710             | 10930     | 2065            | 131                                      | 4               | 2160               | 300             | 8750             | 5280             | 2118     | 349        | 175         |
| ATC-DC-1214M-25-2EF | 1352          | 13,1                  | 20,7             | 22   | 47,9 | 7690         | 4710             | 10960     | 1691            | 125                                      | 4               | 2160               | 300             | 8780             | 5280             | 2118     | 349        | 140         |
| ATC-DC-1214M-35-2EF | 1377          | 14,7                  | 21,7             | 22   | 47,4 | 7690         | 4710             | 10960     | 2065            | 131                                      | 4               | 2160               | 300             | 8780             | 5280             | 2118     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

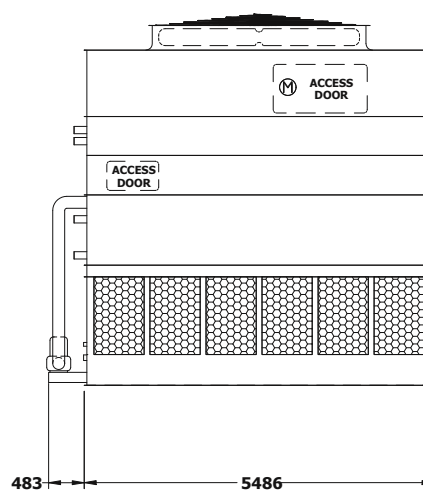
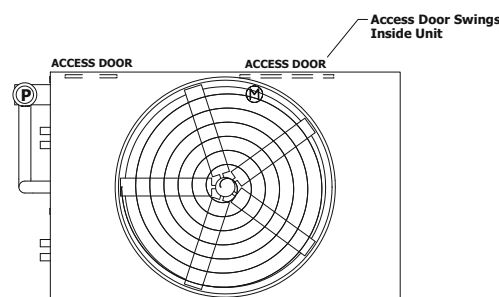
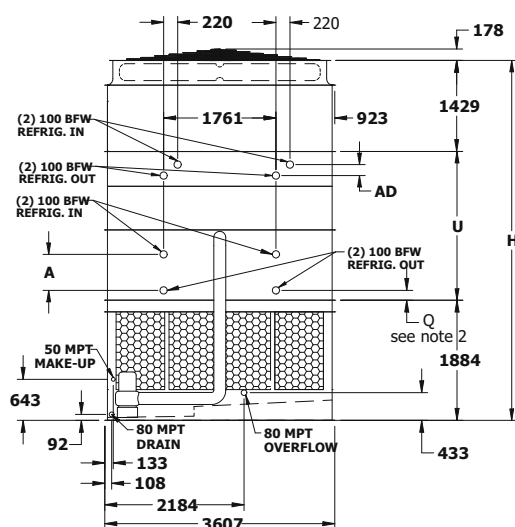
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1218K-25 to 1218M-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump†       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1218K-25-1EF | 1192          | 17,3                  | 23,4             | 15   | 52,7 | 7310         | 3700             | 11370     | 1586            | 92                                       | 5,5             | 2725               | 300             | 8570             | 5223             | 1910     | 140        | 140         |
| ATC-DC-1218K-35-1EF | 1215          | 18,8                  | 24,5             | 15   | 52,2 | 7310         | 3700             | 11370     | 2065            | 100                                      | 5,5             | 2725               | 300             | 8570             | 5223             | 1910     | 140        | 175         |
| ATC-DC-1218L-25-1EF | 1256          | 17,3                  | 23,4             | 18,5 | 56,8 | 7320         | 3700             | 11380     | 1586            | 92                                       | 5,5             | 2725               | 300             | 8590             | 5223             | 1910     | 140        | 140         |
| ATC-DC-1218L-35-1EF | 1280          | 18,9                  | 24,5             | 18,5 | 56,2 | 7320         | 3700             | 11380     | 2065            | 100                                      | 5,5             | 2725               | 300             | 8590             | 5223             | 1910     | 140        | 175         |
| ATC-DC-1218M-25-1EF | 1313          | 17,1                  | 23,3             | 22   | 60,3 | 7350         | 3700             | 11410     | 1586            | 92                                       | 5,5             | 2725               | 300             | 8610             | 5223             | 1910     | 140        | 140         |
| ATC-DC-1218M-35-1EF | 1338          | 18,9                  | 24,5             | 22   | 59,7 | 7350         | 3700             | 11410     | 2065            | 100                                      | 5,5             | 2725               | 300             | 8610             | 5223             | 1910     | 140        | 175         |
| ATC-DC-1218K-25-2EF | 1568          | 12,8                  | 20,4             | 15   | 51,7 | 9700         | 6080             | 13820     | 2125            | 156                                      | 5,5             | 2725               | 300             | 11030            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1218K-35-2EF | 1598          | 13,9                  | 21,2             | 15   | 51,1 | 9700         | 6080             | 13820     | 2604            | 163                                      | 5,5             | 2725               | 300             | 11030            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1218L-25-2EF | 1655          | 12,7                  | 20,4             | 18,5 | 55,6 | 9710         | 6080             | 13830     | 2125            | 156                                      | 5,5             | 2725               | 300             | 11040            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1218L-35-2EF | 1686          | 14,0                  | 21,2             | 18,5 | 55,1 | 9710         | 6080             | 13830     | 2604            | 163                                      | 5,5             | 2725               | 300             | 11040            | 5432             | 2119     | 349        | 175         |
| ATC-DC-1218M-25-2EF | 1729          | 12,7                  | 20,4             | 22   | 59,1 | 9730         | 6080             | 13860     | 2125            | 156                                      | 5,5             | 2725               | 300             | 11060            | 5432             | 2119     | 349        | 140         |
| ATC-DC-1218M-35-2EF | 1761          | 14,1                  | 21,3             | 22   | 58,5 | 9730         | 6080             | 13860     | 2604            | 163                                      | 5,5             | 2725               | 300             | 11060            | 5432             | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



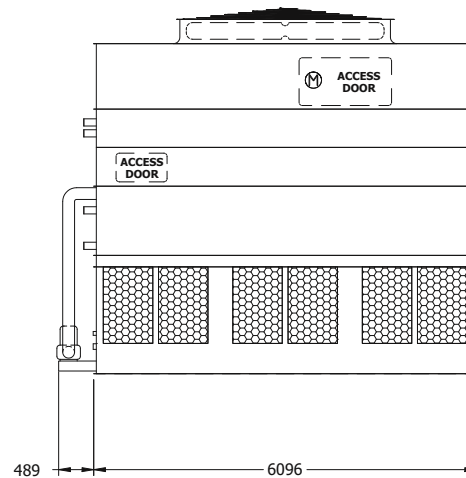
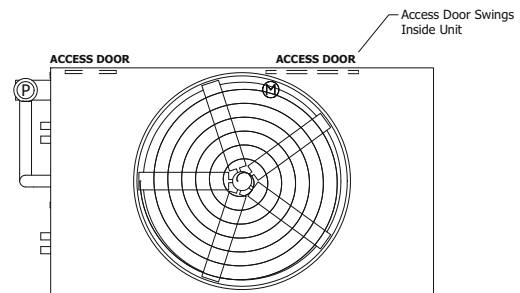
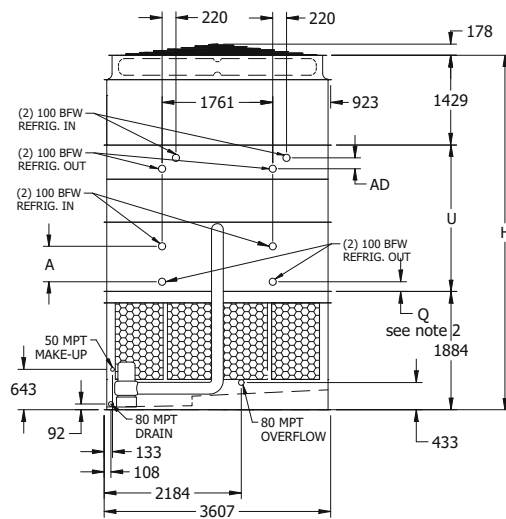
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 1220L-25 to 1220N-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans |      | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump <sup>◆</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |             |
|---------------------|---------------|-----------------------|------------------|------|------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW   | m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1220L-25-1EF | 1315          | 17,8                  | 23,8             | 18,5 | 60,4 | 8040         | 4040             | 12620     | 1766            | 98                                       | 7,5             | 3030                     | 350             | 9420             | 5223                         | 1910     | 140        | 140         |
| ATC-DC-1220L-35-1EF | 1340          | 19,4                  | 24,8             | 18,5 | 59,8 | 8040         | 4040             | 12620     | 2290            | 107                                      | 7,5             | 3030                     | 350             | 9420             | 5223                         | 1910     | 140        | 175         |
| ATC-DC-1220M-25-1EF | 1367          | 17,8                  | 23,8             | 22   | 64,2 | 8060         | 4040             | 12640     | 1766            | 98                                       | 7,5             | 3030                     | 350             | 9450             | 5223                         | 1910     | 140        | 140         |
| ATC-DC-1220M-35-1EF | 1393          | 19,4                  | 24,9             | 22   | 63,5 | 8060         | 4040             | 12640     | 2290            | 107                                      | 7,5             | 3030                     | 350             | 9450             | 5223                         | 1910     | 140        | 175         |
| ATC-DC-1220N-25-1EF | 1454          | 17,7                  | 23,7             | 30   | 70,6 | 8140         | 4040             | 12720     | 1766            | 98                                       | 7,5             | 3030                     | 350             | 9520             | 5223                         | 1910     | 140        | 140         |
| ATC-DC-1220N-35-1EF | 1481          | 19,6                  | 25,0             | 30   | 69,9 | 8140         | 4040             | 12720     | 2290            | 107                                      | 7,5             | 3030                     | 350             | 9520             | 5223                         | 1910     | 140        | 175         |
| ATC-DC-1220L-25-2EF | 1729          | 13,5                  | 20,9             | 18,5 | 59,2 | 10650        | 6650             | 15300     | 2395            | 176                                      | 7,5             | 3030                     | 350             | 12110            | 5432                         | 2119     | 349        | 140         |
| ATC-DC-1220L-35-2EF | 1761          | 14,6                  | 21,6             | 18,5 | 58,6 | 10650        | 6650             | 15300     | 2911            | 184                                      | 7,5             | 3030                     | 350             | 12110            | 5432                         | 2119     | 349        | 175         |
| ATC-DC-1220M-25-2EF | 1798          | 13,5                  | 20,9             | 22   | 62,9 | 10670        | 6650             | 15320     | 2395            | 176                                      | 7,5             | 3030                     | 350             | 12140            | 5432                         | 2119     | 349        | 140         |
| ATC-DC-1220M-35-2EF | 1832          | 14,8                  | 21,8             | 22   | 62,3 | 10670        | 6650             | 15320     | 2911            | 184                                      | 7,5             | 3030                     | 350             | 12140            | 5432                         | 2119     | 349        | 175         |
| ATC-DC-1220N-25-2EF | 1915          | 13,5                  | 20,9             | 30   | 69,3 | 10750        | 6650             | 15400     | 2395            | 176                                      | 7,5             | 3030                     | 350             | 12210            | 5432                         | 2119     | 349        | 140         |
| ATC-DC-1220N-35-2EF | 1951          | 15,0                  | 21,9             | 30   | 68,6 | 10750        | 6650             | 15400     | 2911            | 184                                      | 7,5             | 3030                     | 350             | 12210            | 5432                         | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

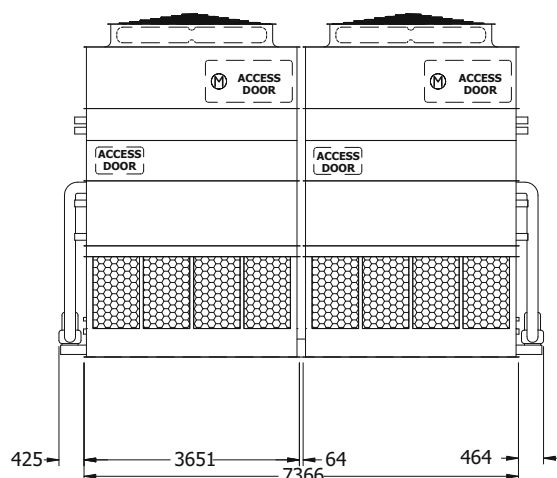
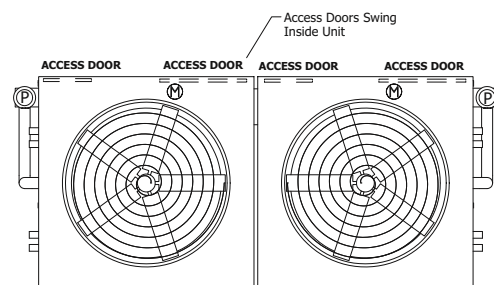
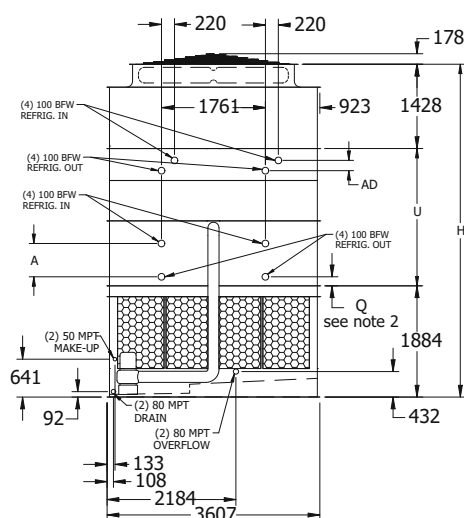
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1224K-25 to 1224L-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump†       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1224K-25-1EF | 1768          | 16,3                  | 22,8             | (2) 15   | 77,1       | 10400        | 2540             | 16580     | 1527            | 129                                      | (2) 4           | 3710               | (2) 300         | 12820            | 5223             | 1911     | 140        | 140         |
| ATC-DC-1224K-35-1EF | 1801          | 18,2                  | 24,1             | (2) 15   | 76,3       | 10400        | 2540             | 16580     | 1841            | 139                                      | (2) 4           | 3710               | (2) 300         | 12820            | 5223             | 1911     | 140        | 175         |
| ATC-DC-1224L-25-1EF | 1837          | 16,4                  | 22,9             | (2) 18.5 | 83         | 10430        | 2540             | 16610     | 1527            | 129                                      | (2) 4           | 3710               | (2) 300         | 12850            | 5223             | 1911     | 140        | 140         |
| ATC-DC-1224L-35-1EF | 1872          | 18,5                  | 24,2             | (2) 18.5 | 82,2       | 10430        | 2540             | 16610     | 1841            | 139                                      | (2) 4           | 3710               | (2) 300         | 12850            | 5223             | 1911     | 140        | 175         |
| ATC-DC-1224J-25-2EF | 2179          | 11,7                  | 19,7             | (2) 11   | 76         | 13520        | 4120             | 19780     | 2267            | 210                                      | (2) 4           | 3710               | (2) 300         | 16020            | 5432             | 2120     | 349        | 140         |
| ATC-DC-1224J-35-2EF | 2220          | 12,9                  | 20,5             | (2) 11   | 75,2       | 13520        | 4120             | 19780     | 2582            | 220                                      | (2) 4           | 3710               | (2) 300         | 16020            | 5432             | 2120     | 349        | 175         |
| ATC-DC-1224K-25-2EF | 2318          | 11,8                  | 19,8             | (2) 15   | 83,6       | 13570        | 4120             | 19840     | 2267            | 210                                      | (2) 4           | 3710               | (2) 300         | 16080            | 5432             | 2120     | 349        | 140         |
| ATC-DC-1224K-35-2EF | 2362          | 13,3                  | 20,7             | (2) 15   | 82,8       | 13570        | 4120             | 19840     | 2582            | 220                                      | (2) 4           | 3710               | (2) 300         | 16080            | 5432             | 2120     | 349        | 175         |
| ATC-DC-1224L-25-2EF | 2418          | 12,0                  | 19,9             | (2) 18.5 | 90,1       | 13600        | 4120             | 19870     | 2267            | 210                                      | (2) 4           | 3710               | (2) 300         | 16110            | 5432             | 2120     | 349        | 140         |
| ATC-DC-1224L-35-2EF | 2463          | 13,6                  | 21,0             | (2) 18.5 | 89,2       | 13600        | 4120             | 19870     | 2582            | 220                                      | (2) 4           | 3710               | (2) 300         | 16110            | 5432             | 2120     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

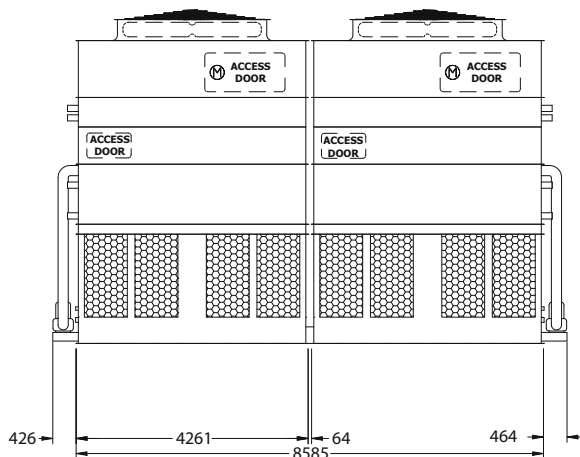
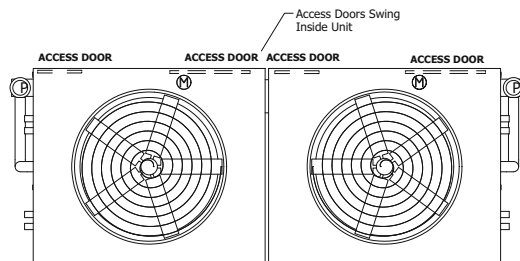
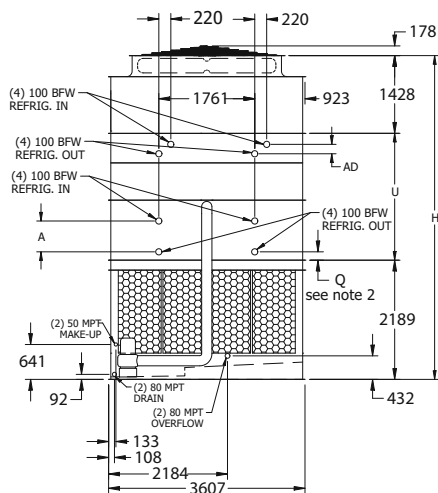
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 1228K-25 to 1228M-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) |                  |                  | Dry Switch Temp. (°C) |                  | Fans  |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump†       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|------------------|------------------|-----------------------|------------------|-------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity | 50% Wet Capacity | 75% Wet Capacity      | 50% Wet Capacity | kW    | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1228K-25-1EF | 1906          | 17,2             | 23,4             | (2) 15                | 85,3             | 11630 | 2870       | 18890        | 1751             | 150       | (2) 4           | 4315                                     | (2) 300         | 14540              | 5528            | 1911             | 140              | 140      |            |             |
| ATC-DC-1228K-35-1EF | 1942          | 18,9             | 24,5             | (2) 15                | 84,5             | 11630 | 2870       | 18890        | 2125             | 162       | (2) 4           | 4315                                     | (2) 300         | 14540              | 5528            | 1911             | 140              | 175      |            |             |
| ATC-DC-1228L-25-1EF | 1997          | 17,2             | 23,4             | (2) 18.5              | 91,9             | 11660 | 2870       | 18920        | 1751             | 150       | (2) 4           | 4315                                     | (2) 300         | 14570              | 5528            | 1911             | 140              | 140      |            |             |
| ATC-DC-1228L-35-1EF | 2035          | 19,0             | 24,6             | (2) 18.5              | 91               | 11660 | 2870       | 18920        | 2125             | 162       | (2) 4           | 4315                                     | (2) 300         | 14570              | 5528            | 1911             | 140              | 175      |            |             |
| ATC-DC-1228M-25-1EF | 2054          | 17,4             | 23,5             | (2) 22                | 97,7             | 11710 | 2870       | 18970        | 1751             | 150       | (2) 4           | 4315                                     | (2) 300         | 14620              | 5528            | 1911             | 140              | 140      |            |             |
| ATC-DC-1228M-35-1EF | 2092          | 19,3             | 24,8             | (2) 22                | 96,7             | 11710 | 2870       | 18970        | 2125             | 162       | (2) 4           | 4315                                     | (2) 300         | 14620              | 5528            | 1911             | 140              | 175      |            |             |
| ATC-DC-1228K-25-2EF | 2504          | 12,8             | 20,5             | (2) 15                | 83,6             | 15250 | 4680       | 22620        | 2627             | 250       | (2) 4           | 4315                                     | (2) 300         | 18260              | 5737            | 2120             | 349              | 140      |            |             |
| ATC-DC-1228K-35-2EF | 2551          | 14,0             | 21,3             | (2) 15                | 82,8             | 15250 | 4680       | 22620        | 3001             | 262       | (2) 4           | 4315                                     | (2) 300         | 18260              | 5737            | 2120             | 349              | 175      |            |             |
| ATC-DC-1228L-25-2EF | 2625          | 12,9             | 20,5             | (2) 18.5              | 90,1             | 15280 | 4680       | 22650        | 2627             | 250       | (2) 4           | 4315                                     | (2) 300         | 18290              | 5737            | 2120             | 349              | 140      |            |             |
| ATC-DC-1228L-35-2EF | 2675          | 14,3             | 21,4             | (2) 18.5              | 89,2             | 15280 | 4680       | 22650        | 3001             | 262       | (2) 4           | 4315                                     | (2) 300         | 18290              | 5737            | 2120             | 349              | 175      |            |             |
| ATC-DC-1228M-25-2EF | 2703          | 13,1             | 20,7             | (2) 22                | 95,7             | 15320 | 4680       | 22700        | 2627             | 250       | (2) 4           | 4315                                     | (2) 300         | 18340              | 5737            | 2120             | 349              | 140      |            |             |
| ATC-DC-1228M-35-2EF | 2754          | 14,7             | 21,7             | (2) 22                | 94,8             | 15320 | 4680       | 22700        | 3001             | 262       | (2) 4           | 4315                                     | (2) 300         | 18340              | 5737            | 2120             | 349              | 175      |            |             |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

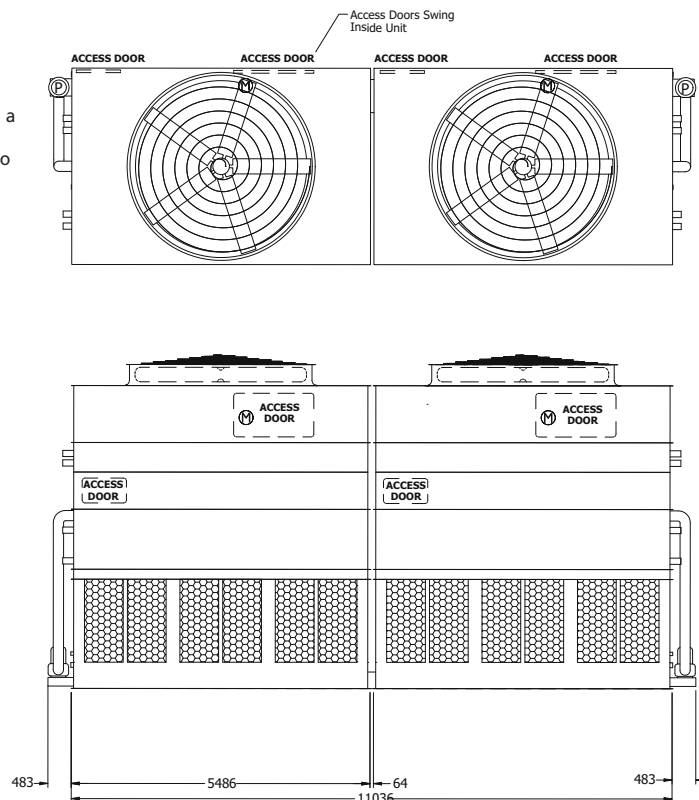
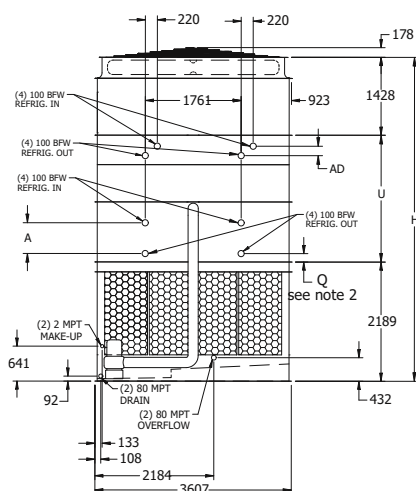
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 1236K-25 to 1236M-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  |          | Fans  |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump♦       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|-------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity |          | kW    | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1236K-25-1EF | 2385          | 17,3                  | 23,4             | (2) 15   | 105,4 | 14510      | 14510        | 3640             | 23800     | 2208            | 184                                      | (2) 5.5         | 5450               | (2) 300         | 18210            | 5528             | 1911     | 140        | 140         |
| ATC-DC-1236K-35-1EF | 2430          | 18,8                  | 24,5             | (2) 15   | 104,3 | 14510      | 14510        | 3640             | 23800     | 2687            | 200                                      | (2) 5.5         | 5450               | (2) 300         | 18210            | 5528             | 1911     | 140        | 175         |
| ATC-DC-1236L-25-1EF | 2513          | 17,3                  | 23,4             | (2) 18.5 | 113,5 | 14540      | 14540        | 3640             | 23830     | 2208            | 184                                      | (2) 5.5         | 5450               | (2) 300         | 18240            | 5528             | 1911     | 140        | 140         |
| ATC-DC-1236L-35-1EF | 2560          | 18,9                  | 24,5             | (2) 18.5 | 112,4 | 14540      | 14540        | 3640             | 23830     | 2687            | 200                                      | (2) 5.5         | 5450               | (2) 300         | 18240            | 5528             | 1911     | 140        | 175         |
| ATC-DC-1236M-25-1EF | 2625          | 17,1                  | 23,3             | (2) 22   | 120,6 | 14580      | 14580        | 3640             | 23880     | 2208            | 184                                      | (2) 5.5         | 5450               | (2) 300         | 18290            | 5528             | 1911     | 140        | 140         |
| ATC-DC-1236M-35-1EF | 2675          | 18,9                  | 24,5             | (2) 22   | 119,4 | 14580      | 14580        | 3640             | 23880     | 2687            | 200                                      | (2) 5.5         | 5450               | (2) 300         | 18290            | 5528             | 1911     | 140        | 175         |
| ATC-DC-1236K-25-2EF | 3137          | 12,8                  | 20,4             | (2) 15   | 103,3 | 19330      | 19330        | 6050             | 28750     | 3315            | 311                                      | (2) 5.5         | 5450               | (2) 300         | 23160            | 5737             | 2120     | 349        | 140         |
| ATC-DC-1236K-35-2EF | 3196          | 13,9                  | 21,2             | (2) 15   | 102,3 | 19330      | 19330        | 6050             | 28750     | 3794            | 327                                      | (2) 5.5         | 5450               | (2) 300         | 23160            | 5737             | 2120     | 349        | 175         |
| ATC-DC-1236L-25-2EF | 3310          | 12,7                  | 20,4             | (2) 18.5 | 111,3 | 19360      | 19360        | 6050             | 28780     | 3315            | 311                                      | (2) 5.5         | 5450               | (2) 300         | 23190            | 5737             | 2120     | 349        | 140         |
| ATC-DC-1236L-35-2EF | 3372          | 14,0                  | 21,2             | (2) 18.5 | 110,2 | 19360      | 19360        | 6050             | 28780     | 3794            | 327                                      | (2) 5.5         | 5450               | (2) 300         | 23190            | 5737             | 2120     | 349        | 175         |
| ATC-DC-1236M-25-2EF | 3457          | 12,7                  | 20,4             | (2) 22   | 118,3 | 19400      | 19400        | 6050             | 28830     | 3315            | 311                                      | (2) 5.5         | 5450               | (2) 300         | 23240            | 5737             | 2120     | 349        | 140         |
| ATC-DC-1236M-35-2EF | 3523          | 14,1                  | 21,3             | (2) 22   | 117,1 | 19400      | 19400        | 6050             | 28830     | 3794            | 327                                      | (2) 5.5         | 5450               | (2) 300         | 23240            | 5737             | 2120     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



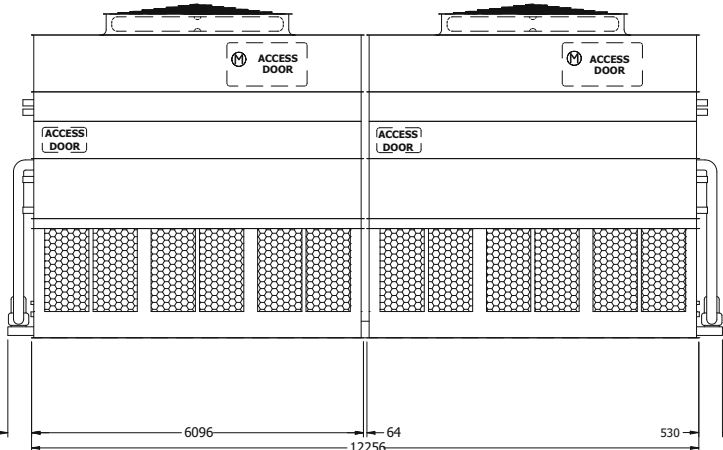
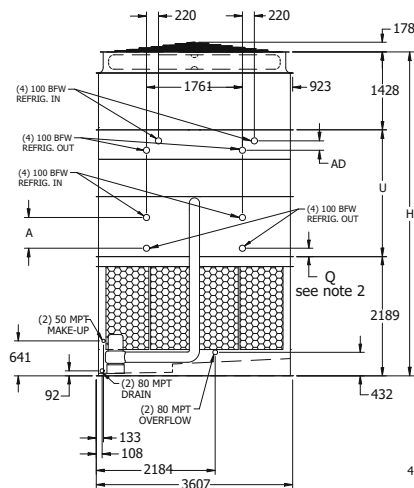
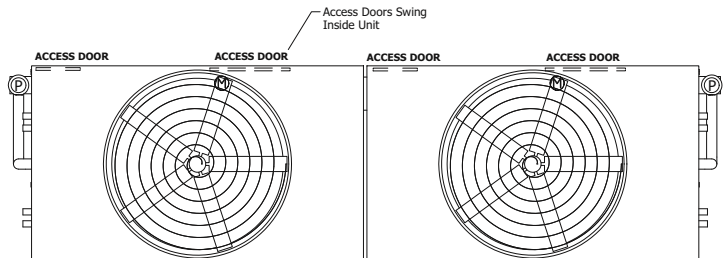
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 1240L-25 to 1240N-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump†       |                 |                  | Dimensions (mm)▲ |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H         | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-1240L-25-1EF | 2630          | 17,8                  | 23,8             | (2) 18,5 | 120,8      | 15940        | 3970             | 26340     | 2447            | 197                                      | (2) 7,5         | 6055               | (2) 350         | 19960            | 5528             | 1911     | 140        | 140         |
| ATC-DC-1240L-35-1EF | 2679          | 19,4                  | 24,8             | (2) 18,5 | 119,6      | 15940        | 3970             | 26340     | 2971            | 214                                      | (2) 7,5         | 6055               | (2) 350         | 19960            | 5528             | 1911     | 140        | 175         |
| ATC-DC-1240M-25-1EF | 2735          | 17,8                  | 23,8             | (2) 22   | 128,4      | 15990        | 3970             | 26390     | 2447            | 197                                      | (2) 7,5         | 6055               | (2) 350         | 20010            | 5528             | 1911     | 140        | 140         |
| ATC-DC-1240M-35-1EF | 2786          | 19,4                  | 24,9             | (2) 22   | 127,1      | 15990        | 3970             | 26390     | 2971            | 214                                      | (2) 7,5         | 6055               | (2) 350         | 20010            | 5528             | 1911     | 140        | 175         |
| ATC-DC-1240N-25-1EF | 2907          | 17,7                  | 23,7             | (2) 30   | 141,3      | 16140        | 3970             | 26540     | 2447            | 197                                      | (2) 7,5         | 6055               | (2) 350         | 20160            | 5528             | 1911     | 140        | 140         |
| ATC-DC-1240N-35-1EF | 2962          | 19,6                  | 25,0             | (2) 30   | 139,9      | 16140        | 3970             | 26540     | 2971            | 214                                      | (2) 7,5         | 6055               | (2) 350         | 20160            | 5528             | 1911     | 140        | 175         |
| ATC-DC-1240L-25-2EF | 3444          | 13,6                  | 20,9             | (2) 18,5 | 118,4      | 21220        | 6620             | 31780     | 3697            | 351                                      | (2) 7,5         | 6055               | (2) 350         | 25400            | 5737             | 2120     | 349        | 140         |
| ATC-DC-1240L-35-2EF | 3509          | 14,7                  | 21,7             | (2) 18,5 | 117,2      | 21220        | 6620             | 31780     | 4213            | 368                                      | (2) 7,5         | 6055               | (2) 350         | 25400            | 5737             | 2120     | 349        | 175         |
| ATC-DC-1240M-25-2EF | 3583          | 13,6                  | 21,0             | (2) 22   | 125,9      | 21270        | 6620             | 31830     | 3697            | 351                                      | (2) 7,5         | 6055               | (2) 350         | 25450            | 5737             | 2120     | 349        | 140         |
| ATC-DC-1240M-35-2EF | 3651          | 14,9                  | 21,8             | (2) 22   | 124,6      | 21270        | 6620             | 31830     | 4213            | 368                                      | (2) 7,5         | 6055               | (2) 350         | 25450            | 5737             | 2120     | 349        | 175         |
| ATC-DC-1240N-25-2EF | 3808          | 13,7                  | 21,0             | (2) 30   | 138,5      | 21430        | 6620             | 31980     | 3697            | 351                                      | (2) 7,5         | 6055               | (2) 350         | 25600            | 5737             | 2120     | 349        | 140         |
| ATC-DC-1240N-35-2EF | 3880          | 15,1                  | 22,0             | (2) 30   | 137,1      | 21430        | 6620             | 31980     | 4213            | 368                                      | (2) 7,5         | 6055               | (2) 350         | 25600            | 5737             | 2120     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

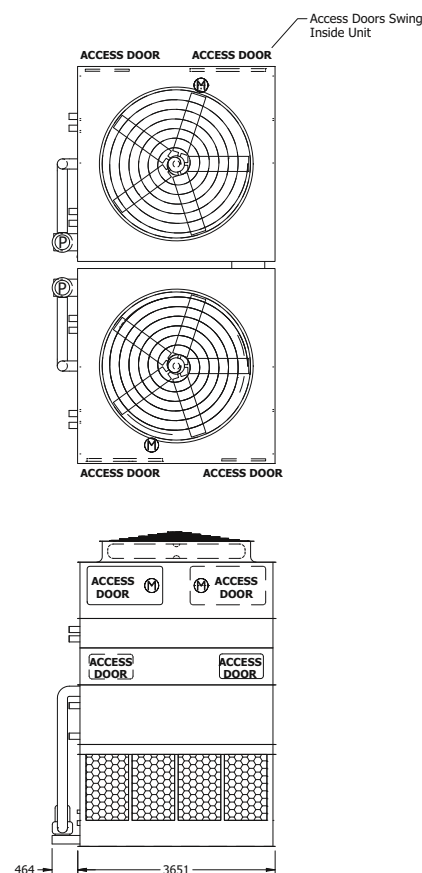
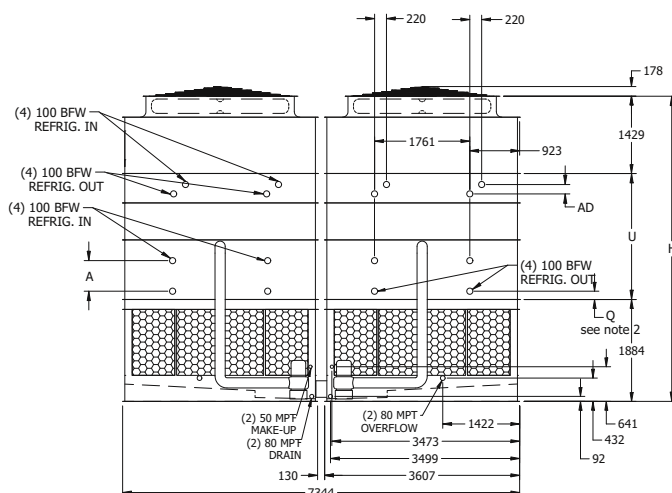
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 2412K-25 to 2412L-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump <sup>◆</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |            |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coi AD |
| ATC-DC-2412K-25-1EF | 1768          | 16,3                  | 22,8             | (2) 15   | 77,1       | 10400        | 2540             | 16580     | 1527            | 129                                      | (2) 4           | 3710                     | (2) 300         | 12820            | 5223                         | 1910     | 140        | 140        |
| ATC-DC-2412K-35-1EF | 1801          | 18,2                  | 24,1             | (2) 15   | 76,3       | 10400        | 2540             | 16580     | 1841            | 139                                      | (2) 4           | 3710                     | (2) 300         | 12820            | 5223                         | 1910     | 140        | 175        |
| ATC-DC-2412L-25-1EF | 1837          | 16,4                  | 22,9             | (2) 18.5 | 83         | 10430        | 2540             | 16610     | 1527            | 129                                      | (2) 4           | 3710                     | (2) 300         | 12850            | 5223                         | 1910     | 140        | 140        |
| ATC-DC-2412L-35-1EF | 1872          | 18,5                  | 24,2             | (2) 18.5 | 82,2       | 10430        | 2540             | 16610     | 1841            | 139                                      | (2) 4           | 3710                     | (2) 300         | 12850            | 5223                         | 1910     | 140        | 175        |
| ATC-DC-2412J-25-2EF | 2184          | 11,6                  | 19,7             | (2) 11   | 68,6       | 13520        | 4120             | 19780     | 2267            | 210                                      | (2) 4           | 3710                     | (2) 300         | 16020            | 5432                         | 2119     | 349        | 140        |
| ATC-DC-2412J-35-2EF | 2225          | 12,8                  | 20,5             | (2) 11   | 68         | 13520        | 4120             | 19780     | 2582            | 220                                      | (2) 4           | 3710                     | (2) 300         | 16020            | 5432                         | 2119     | 349        | 175        |
| ATC-DC-2412L-25-2EF | 2422          | 12,0                  | 19,9             | (2) 18.5 | 81,4       | 13600        | 4120             | 19870     | 2267            | 210                                      | (2) 4           | 3710                     | (2) 300         | 16110            | 5432                         | 2119     | 349        | 140        |
| ATC-DC-2412L-35-2EF | 2468          | 13,6                  | 21,0             | (2) 18.5 | 80,6       | 13600        | 4120             | 19870     | 2582            | 220                                      | (2) 4           | 3710                     | (2) 300         | 16110            | 5432                         | 2119     | 349        | 175        |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

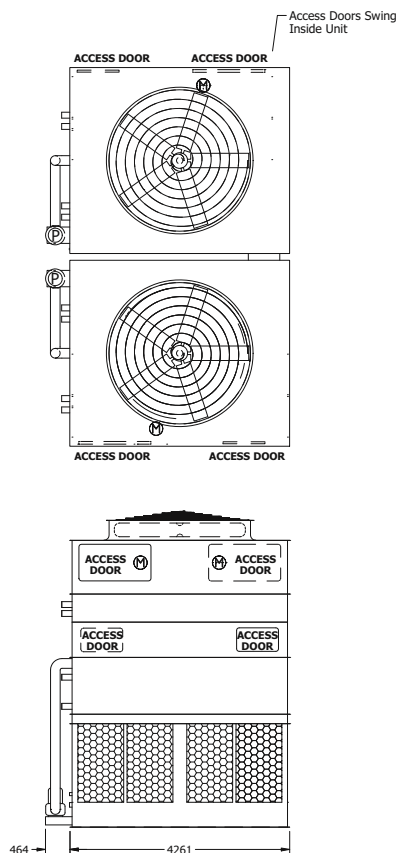
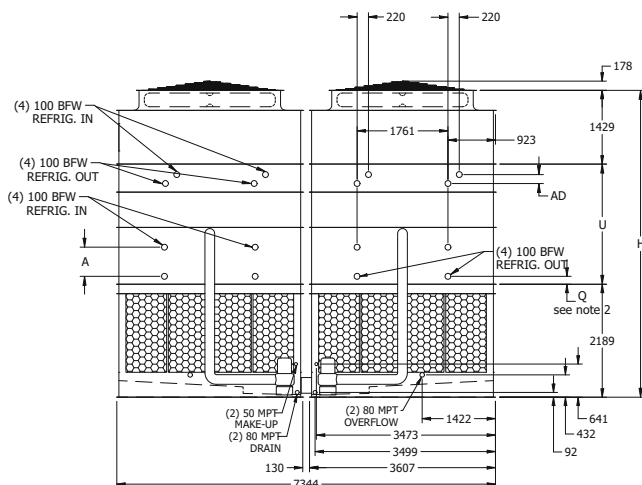
# ATC-DC

## ENGINEERING DATA & DIMENSIONS

### ATC-DC Models 2414K-25 to 2414M-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** (kg) | Spray Pump (kW) | Remote Pump†       |                 | Dimensions (mm)▲ |          |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|--|-----------------|--------------------|-----------------|------------------|----------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |  |                 | Liters** Req'd (4) | Conn. Size (DN) | Operating Weight | Height H | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-2414K-25-1EF | 1906          | 17,2                  | 23,4             | (2) 15   | 85,3       | 11650        | 2880             | 18910     | 1751            | 150                                      | (2) 4           | 4315               | (2) 300         | 14560            | 5528     | 1910     | 140        | 140         |
| ATC-DC-2414K-35-1EF | 1942          | 18,9                  | 24,5             | (2) 15   | 84,5       | 11650        | 2880             | 18910     | 2125            | 162                                      | (2) 4           | 4315               | (2) 300         | 14560            | 5528     | 1910     | 140        | 175         |
| ATC-DC-2414L-25-1EF | 1997          | 17,2                  | 23,4             | (2) 18.5 | 91,9       | 11680        | 2880             | 18940     | 1751            | 150                                      | (2) 4           | 4315               | (2) 300         | 14590            | 5528     | 1910     | 140        | 140         |
| ATC-DC-2414L-35-1EF | 2035          | 19,0                  | 24,6             | (2) 18.5 | 91         | 11680        | 2880             | 18940     | 2125            | 162                                      | (2) 4           | 4315               | (2) 300         | 14590            | 5528     | 1910     | 140        | 175         |
| ATC-DC-2414K-25-2EF | 2504          | 12,8                  | 20,5             | (2) 15   | 83,6       | 15260        | 4690             | 22630     | 2627            | 250                                      | (2) 4           | 4315               | (2) 300         | 18280            | 5737     | 2119     | 349        | 140         |
| ATC-DC-2414K-35-2EF | 2551          | 14,0                  | 21,3             | (2) 15   | 82,8       | 15260        | 4690             | 22630     | 3001            | 262                                      | (2) 4           | 4315               | (2) 300         | 18280            | 5737     | 2119     | 349        | 175         |
| ATC-DC-2414L-25-2EF | 2625          | 12,9                  | 20,5             | (2) 18.5 | 90,1       | 15290        | 4690             | 22650     | 2627            | 250                                      | (2) 4           | 4315               | (2) 300         | 18300            | 5737     | 2119     | 349        | 140         |
| ATC-DC-2414L-35-2EF | 2675          | 14,3                  | 21,4             | (2) 18.5 | 89,2       | 15290        | 4690             | 22650     | 3001            | 262                                      | (2) 4           | 4315               | (2) 300         | 18300            | 5737     | 2119     | 349        | 175         |
| ATC-DC-2414M-25-2EF | 2703          | 13,1                  | 20,7             | (2) 22   | 95,7       | 15340        | 4690             | 22710     | 2627            | 250                                      | (2) 4           | 4315               | (2) 300         | 18350            | 5737     | 2119     | 349        | 140         |
| ATC-DC-2414M-35-2EF | 2754          | 14,7                  | 21,7             | (2) 22   | 94,8       | 15340        | 4690             | 22710     | 3001            | 262                                      | (2) 4           | 4315               | (2) 300         | 18350            | 5737     | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.

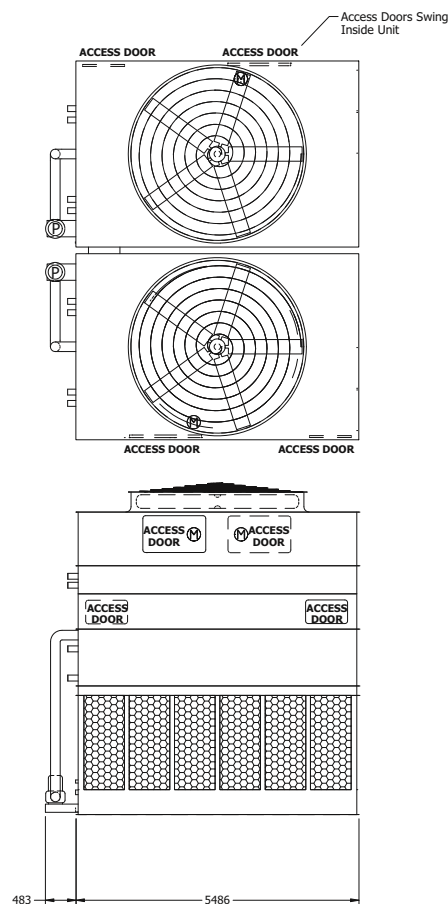
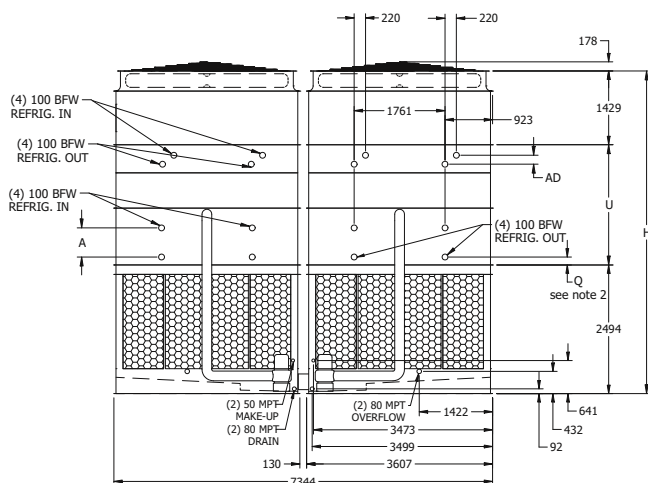
## ENGINEERING DATA & DIMENSIONS

# ATC-DC

### ATC-DC Models 2418K-25 to 2418M-35

#### Notes:

- 1) Interconnecting piping between **ARID-fin Pak™** Dry Coil outlets and **Ellipti-fin®** Coil inlets are field installed and tested (by others).
- 2) Coil connections as shown on drawing are for 4/6/8/10 row evaporative coils with a connection spacing A >140 mm, the corresponding dimension Q is 151 mm. For 2 row coils with a spacing A equal to 140 mm is dimension Q increased to 317 mm and coil connections are staggered.



| Model No.           | Capacity (kW) | Dry Switch Temp. (°C) |                  | Fans     |            | Weights (kg) |                  |           | Coil Volume (l) | NH <sub>3</sub> Operating Charge*** | Spray Pump (kW) | Remote Pump <sup>★</sup> |                 |                  | Dimensions (mm) <sup>▲</sup> |          |            |             |
|---------------------|---------------|-----------------------|------------------|----------|------------|--------------|------------------|-----------|-----------------|-------------------------------------|-----------------|--------------------------|-----------------|------------------|------------------------------|----------|------------|-------------|
|                     | Wet Capacity  | 75% Wet Capacity      | 50% Wet Capacity | kW       | Total m³/s | Shipping     | Heaviest Section | Operating |                 |                                     |                 | Liters** Req'd (4)       | Conn. Size (DN) | Operating Weight | Height H                     | Middle U | Wet Coil A | Dry Coil AD |
| ATC-DC-2418K-25-1EF | 2385          | 17,3                  | 23,4             | (2) 15   | 105,4      | 14550        | 3660             | 23840     | 2208            | 184                                 | (2) 5.5         | 5450                     | (2) 300         | 18240            | 5832                         | 1909     | 140        | 140         |
| ATC-DC-2418K-35-1EF | 2430          | 18,8                  | 24,5             | (2) 15   | 104,3      | 14550        | 3660             | 23840     | 2687            | 200                                 | (2) 5.5         | 5450                     | (2) 300         | 18240            | 5832                         | 1909     | 140        | 175         |
| ATC-DC-2418L-25-1EF | 2513          | 17,3                  | 23,4             | (2) 18.5 | 113,5      | 14570        | 3660             | 23870     | 2208            | 184                                 | (2) 5.5         | 5450                     | (2) 300         | 18280            | 5832                         | 1909     | 140        | 140         |
| ATC-DC-2418L-35-1EF | 2560          | 18,9                  | 24,5             | (2) 18.5 | 112,4      | 14570        | 3660             | 23870     | 2687            | 200                                 | (2) 5.5         | 5450                     | (2) 300         | 18280            | 5832                         | 1909     | 140        | 175         |
| ATC-DC-2418M-25-1EF | 2625          | 17,1                  | 23,3             | (2) 22   | 120,6      | 14620        | 3660             | 23910     | 2208            | 184                                 | (2) 5.5         | 5450                     | (2) 300         | 18320            | 5832                         | 1909     | 140        | 140         |
| ATC-DC-2418M-35-1EF | 2675          | 18,9                  | 24,5             | (2) 22   | 119,4      | 14620        | 3660             | 23910     | 2687            | 200                                 | (2) 5.5         | 5450                     | (2) 300         | 18320            | 5832                         | 1909     | 140        | 175         |
| ATC-DC-2418K-25-2EF | 3141          | 12,8                  | 20,4             | (2) 15   | 103,3      | 19360        | 6060             | 28780     | 3315            | 311                                 | (2) 5.5         | 5450                     | (2) 300         | 23190            | 6042                         | 2119     | 349        | 140         |
| ATC-DC-2418K-35-2EF | 3200          | 13,9                  | 21,1             | (2) 15   | 102,3      | 19360        | 6060             | 28780     | 3794            | 327                                 | (2) 5.5         | 5450                     | (2) 300         | 23190            | 6042                         | 2119     | 349        | 175         |
| ATC-DC-2418L-25-2EF | 3319          | 12,7                  | 20,4             | (2) 18.5 | 111,3      | 19380        | 6060             | 28810     | 3315            | 311                                 | (2) 5.5         | 5450                     | (2) 300         | 23220            | 6042                         | 2119     | 349        | 140         |
| ATC-DC-2418L-35-2EF | 3381          | 13,9                  | 21,2             | (2) 18.5 | 110,2      | 19380        | 6060             | 28810     | 3794            | 327                                 | (2) 5.5         | 5450                     | (2) 300         | 23220            | 6042                         | 2119     | 349        | 175         |
| ATC-DC-2418M-25-2EF | 3462          | 12,7                  | 20,4             | (2) 22   | 118,3      | 19430        | 6060             | 28860     | 3315            | 311                                 | (2) 5.5         | 5450                     | (2) 300         | 23270            | 6042                         | 2119     | 349        | 140         |
| ATC-DC-2418M-35-2EF | 3527          | 14,1                  | 21,3             | (2) 22   | 117,1      | 19430        | 6060             | 28860     | 3794            | 327                                 | (2) 5.5         | 5450                     | (2) 300         | 23270            | 6042                         | 2119     | 349        | 175         |

\* kW at standard conditions: 35,7°C condensing, -6,7°C suction and 25,6°C Twb.

\*\* Liters 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 (300 mm would normally be sufficient.)

\*\*\* Refrigerant charge is shown for R-717. Multiply by 1.93 for R22, 1.98 for R134A and 1.7 for R404A, R410A and R507A.

† Heaviest section is the coil section.

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

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

▲ Unit dimensions and coil connections may vary slightly from catalog. See factory certified prints for dimensions, quantity of coil connections, and piping configuration. Coil connections are 4" bevel for weld (BFW). Other connection types such as grooved for mechanical coupling or flanged are also available as options.



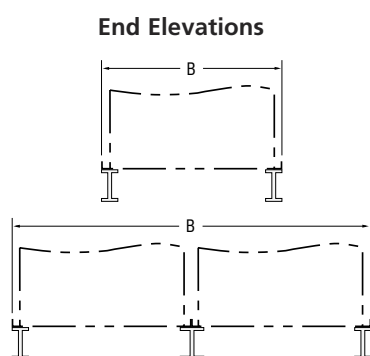
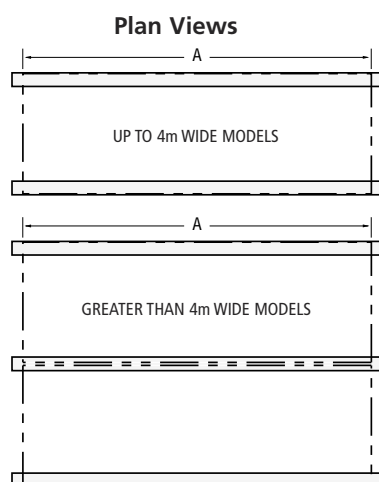


# ATC-DC

## RECOMMENDED STEEL SUPPORT

The recommended support for EVAPCO ATC-DC is structural "I" beams located under the outer flanges and running the entire length of the unit. The unit should be elevated to allow access underneath the unit and to the roof below. Mounting holes 19 mm in diameter are located in the bottom flanges of the pan section to provide for bolting to the structural steel. (Refer to certified drawings from the factory for bolt hole locations.)

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



**SUPPORTING STEEL DIMENSIONS**

| ATC-DC               | A     | B    |
|----------------------|-------|------|
| 89G-25 to 89J-35     | 2731  | 2388 |
| 812H-25 to 812K-35   | 3651  | 2388 |
| 814I-25 to 814K-35   | 4261  | 2388 |
| 818G-25 to 818J-35   | 5486  | 2388 |
| 821H-25 to 821I-35   | 6401  | 2388 |
|                      | A     | B    |
| 1024I-25 to 1024L-35 | 7366  | 2991 |
| 1036I-25 to 1036M-35 | 11036 | 2991 |
|                      | A     | B    |
| 1612H-25 to 1612K-35 | 3651  | 4906 |
| 1614I-25 to 1614K-35 | 4261  | 4906 |
|                      | A     | B    |
| 1012I-25 to 1012L-35 | 3651  | 2991 |
| 1018I-25 to 1018M-35 | 5486  | 2991 |
|                      | A     | B    |
| 2012I-25 to 2012L-35 | 3651  | 6112 |
| 2018I-25 to 2018L-35 | 5486  | 6112 |
|                      | A     | B    |
| 1212J-25 to 1212L-35 | 3651  | 3607 |
| 1214K-25 to 1214M-35 | 4261  | 3607 |
| 1218K-25 to 1218M-35 | 5486  | 3607 |
| 1220L-25 to 1220N-35 | 6096  | 3607 |
| 1224K-25 to 1224L-35 | 7366  | 3607 |
| 1228K-25 to 1228M-35 | 8585  | 3607 |
| 1236K-25 to 1236M-35 | 11036 | 3607 |
| 1240L-25 to 1240N-35 | 12256 | 3607 |
|                      | A     | B    |
| 2412K-25 to 2412L-35 | 3651  | 7344 |
| 2414K-25 to 2414M-35 | 4261  | 7344 |
| 2418K-25 to 2418M-35 | 5486  | 7344 |
| 2420L-25 to 2420N-35 | 6096  | 7344 |

# ATC-DC

## SPECIFICATIONS

### FACTORY FABRICATED INDUCED DRAFT ATC-DC EVAPORATIVE CONDENSER

#### GENERAL

Furnish and install factory assembled evaporative condenser of induced draft counterflow design with a horizontal multiple side air entry and a vertical air discharge. The unit shall be completely factory assembled and conform to the specifications and schedules.

The condenser shall reject \_\_\_\_\_ kW of heat with \_\_\_\_\_ as refrigerant and \_\_\_\_\_ °C condensation temperature at a wet bulb temperature of \_\_\_\_\_ °C.

**Optional:** (If dry operating conditions are different than the wet operating conditions)  
Each unit shall also reject \_\_\_\_\_ kW with \_\_\_\_\_ °C condensation temperature at a \_\_\_\_\_ °C entering dry bulb temperature.

The total fan power should not exceed \_\_\_\_\_ kW.  
The total pump power should not exceed \_\_\_\_\_ kW.

The total overall unit dimensions should not exceed the following:  
Length: \_\_\_\_\_ mm Width: \_\_\_\_\_ mm Height: \_\_\_\_\_ mm

The maximum operating weight should not exceed \_\_\_\_\_ kg.

The unit will be delivered in three parts: the bottom basin - louver section, the coil section and the fan section. The unit sections shall be joined together with elastic sealer and bolted together with corrosion resistant fasteners.

Approved manufacturer **Evapco** – model **ATC-DC** \_\_\_\_\_

#### Thermal Performance – Performance Warranty

The unit shall be capable of performing the thermal duties as shown in the schedule and on drawings and its design thermal rating shall be certified by the manufacturer.

#### Applicable Standards

CTI ATC 128 Test Code for Measurement of Sound from Water Cooling Towers

#### Submittals

- Shop drawings: submit shop drawings indicating dimensions, weight loadings and required clearances.
- Product data: submit manufacturers technical product data, original selection printouts and clearance requirements.
- Complete noise data sheet for the selected evaporative condenser(s).
- Maintenance data for the evaporative condenser(s).
- The manufacturer shall provide factory test run certificates of the fans and fan motor.

#### Product Delivery – Storage and Handling

- The contractor shall make the provisions for proper storage at site before installation and handle the product per the instructions of the manufacturer.
- Once installed provide the necessary measures to keep units clean and protected from any dust and mechanical damage.

#### Quality Assurance

- The manufacturer shall have a quality assurance system in place which is certified by an accredited registrar and complying with the requirements of ISO 9001. This is to guarantee a consistent level of product and service quality.
- Manufacturers without ISO 9001 certification are not acceptable.

#### Warranty

- The products will be warranted for a period of two years from the date of shipment.

#### PRODUCT

##### Construction – Corrosion Resistance

##### STANDARD EXECUTION – GALVANIZED STEEL Z-725

- The structure and all steel elements of the pan and casing shall be constructed of Z 725 hot dip galvanized steel for long life and durability. Alternatives with lower zinc layer thickness and external paint or coating are not accepted as equal.
- The strainer shall be made of stainless steel type 304L.
- During fabrication all panel edges shall be coated with a 95% pure zinc compound.
- Casing materials shall be of non flammable construction only.

##### OPTIONAL EXECUTION – BASIN IN STAINLESS STEEL AISI 304L

- The structure and all steel elements of the Basin and Louver section up to the water level shall be made of stainless steel AISI 304L. Cold water basin will be a welded stainless steel construction.
- Alternatives with hot dip galvanized steel and epoxy coatings in lieu of the stainless steel AISI 304L are not considered to be equal and are not accepted.
- All other steel components of the casing shall be constructed of Z 725 hot dip galvanized steel for long life and durability. Alternatives with lower zinc layer thickness and external paint or coating or FRP materials are not accepted as equal.
- The strainer shall be made of stainless steel AISI 304L.
- During fabrication all galvanized steel panel edges shall be coated with a 95% pure zinc compound.
- Casing materials shall be of non flammable construction only.

##### OPTIONAL EXECUTION – COMPLETE UNIT IN STAINLESS STEEL AISI 304L [except heat exchange coil(s)]

- The structure and all steel elements shall be made of AISI 304L. Cold water basin will be a welded stainless steel construction.
- Alternatives with hot dip galvanized steel and epoxy coatings in lieu of the AISI 304L are not considered to be equal and are not accepted.
- The strainer shall be made of stainless steel AISI 304L.
- Casing materials shall be of non flammable construction only.

##### Construction – Seismic and wind load resistance

- The structural design must withstand 1g seismic or 6.94 kN/m<sup>2</sup>
- Evaporative Condensers must be independently certified according to IBC 2012

##### Basin Section

##### Evaporative Condenser Basin

- Standard basin accessories include: overflow, drain, strainer and brass make up valve with plastic float ball.
- The strainer shall be made of AISI 304.
- The entire pan area shall incorporate a sloped and stepped basin design to prevent sediment built up, biological film and standing water.
- Upper and lower basin bottoms shall be sloped to provide drainage of the complete basin section.
- The basin can be inspected while the unit is in operation with the fan(s) and pump(s) running.

##### Air Inlet Louvers

- The air inlet louvers shall be constructed of UV inhibited polyvinyl chloride (PVC), mounted in easily removable frames for easy access to the basin.
- The louvers shall be at four sides to provide easy access to the basin interior.
- The louvers shall have a minimum of two changes in air direction to prevent splash out and block direct sunlight from entering the basin.
- The louvers will have a 19 mm opening to prevent debris from entering the basin.

## SPECIFICATIONS

# ATC-DC

### Water Circulation Pump(s)

- a) 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.
- b) A \_\_\_\_ kW totally enclosed motor(s) suitable for outdoor service shall be furnished.
- c) The motor shall be suitable for the following power supply: \_\_\_\_ volts, \_\_\_\_ hertz and \_\_\_\_ phase and \_\_\_\_ kW.

### Evaporative Coil Section

#### Evaporative Coil

- a) The condenser shall use internal enhanced heat exchange coils of an elliptical tube design to obtain lower air flow resistance and allow higher water loadings around the tubes. Each row of the heat exchanger coil shall be provided with elliptical spiral fins to increase the evaporative and dry thermal performance of the unit.
- b) The heat transfer coil(s) shall be made of all prime surface, encased in a steel framework and hot dip galvanized after fabrication as a complete assembly.
- c) The tubes shall be arranged in a self spacing, staggered pattern in the direction of air flow for maximum heat transfer efficiency and minimum pressure drop.
- d) The heat exchange coils shall be air pressure tested under water.
- e) The design and manufacturing process shall be approved and in accordance with the "Pressure Equipment Directive" – PED 97 / 23 EC.
- f) The manufacturer shall be responsible for the manufacturing and performance testing of the entire heat transfer coil. This is to assure single source responsibility.
- g) The casing shall totally encase the complete coil section to protect the complete coil from direct atmospheric contact.
- h) The pressure drop of the process fluid through the coil shall not exceed \_\_\_\_ kPa.

#### Sensible Heat Transfer Coil

- a) The sensible heat transfer coil is installed in the air discharge of the condenser and will be piped in series with the wet coil.
- b) The sensible heat transfer coil shall be constructed of stainless steel tubes.
- c) To maximize heat transfer, tubes shall be arranged in a staggered design and be equipped with fins.
- d) The fins should have fully drawn collars to maintain consistent fin spacing and continuous surface contact over the entire tube.
- e) The fins should be made of Aluminum / Magnesium to have good corrosion resistance and the distance between the fins should be 2,5 mm to avoid clogging.
- f) The coils should be placed in a heavy-duty galvanized Z-725 frame. The frame should have full collars to support the coil correctly and avoid damaging the tubes.
- g) The dry coil shall be pneumatically tested under water in according with PED 97/23 EC.

### Fan Section

#### Water Distribution

- a) The water distribution system shall be completely enclosed and protected from sunlight exposure, environmental elements and debris. Water distribution systems with direct exposure to the environment are not allowed.
- b) The spray header and branches shall be constructed of Schedule 40, Polyvinyl Chloride (PVC) pipe for corrosion resistance.
- c) The water shall be distributed over the coil by precision molded ZM II™ spray nozzles with large minimum orifice openings and integral sludge ring to eliminate clogging.
- d) The nozzles shall be threaded into the water distribution piping to assure positive positioning and easy removal for maintenance. Snap in or strapped on nozzles are not accepted.

### Drift Eliminators

- a) The drift eliminators shall be constructed of entirely inert polyvinyl (PVC) that has been specially treated to resist ultra violet light.
- b) Assembled in easily handled sections, the eliminator blades shall be spaced on 25 mm centers and shall incorporate three changes in air direction to assure efficient removal of entrained moisture from the discharge air stream.
- c) The maximum drift rate shall not exceed 0,001 % of the circulating water rate.
- d) The drift eliminators shall be Eurovent OM-14-2009.

### Access Door

- a) A large hinged access door shall provide access to the fan section for maintenance.
- b) A second access door shall provide access to the evaporative coil section.

### Mechanical Equipment

#### Axial Propeller Fan(s) (Standard)

- a) Fan shall be heavy duty wide chord axial propeller type, statically balanced and constructed of extruded aluminum alloy blades.
- b) Fans shall be installed in a closely fitted cowl with venturi air inlet for maximum fan efficiency.
- c) The fans shall utilize a soft connect blade to hub design, compatible with variable speed drives, to avoid transmission of vertical forces to the unit structure.
- d) Each fan blade shall be individually adjustable.
- e) The fan cowl shall be covered with a heavy gauge hot dip galvanized steel wire fan guard.
- f) The fan – drive system (fan – drive – motor) shall be factory mounted, adjusted and undergo a trial run in the factory before shipment.

#### Axial Propeller Fan(s) - Low Sound Fan (Optional)

- a) Fan shall be heavy duty wide chord axial propeller type, statically balanced and constructed of extruded aluminum alloy blades.
- b) Fans shall be installed in a closely fitted cowl with venturi air inlet for maximum fan efficiency.
- c) The fans shall utilize a soft connect blade to hub design, compatible with variable speed drives, to avoid transmission of vertical forces to the unit structure.
- d) Each fan blade shall be individually adjustable.
- e) The fan cowl shall be covered with a heavy gauge hot dip galvanized steel wire fan guard.
- f) The fan – drive system (fan – drive – motor) shall be factory mounted, adjusted and undergo a trial run in the factory before shipment.

#### Axial Propeller Fan(s) - Super Low Sound Fan (Optional)

- a) Fan shall be extremely wide chord axial, one piece heavy duty propeller type, statically balanced and made of FRP.
- b) Fans will be installed in a closely fitted cowl with venturi air inlet for maximum fan efficiency.
- c) The fan cowl shall be covered with a heavy gauge hot dip galvanized steel wire fan guard.
- d) The fan – drive system (fan – drive – motor) shall be factory mounted, adjusted and undergo a trial run in the factory before shipment.
- e) The fans are high efficiency and operate with no loss of thermal performance

### Bearings and Drive

- a) The fan shaft (s) shall be supported by heavy duty, self aligning ball type bearings with cast iron housings and lubrication fittings for maintenance.
- b) The bearings shall be rated for an L-10 life of 75000 to 135000 hours.
- c) The fan drive sheaves shall be aluminum alloy.
- d) The belt shall be a multigroove belt system, constructed of neoprene with polyester cords and designed for 150% of the motor nameplate horsepower.
- e) The grease fittings shall be extended to a location just inside the access door.



## ATC-DC

## SPECIFICATIONS

### Motor (2.4 and 4.9 meter wide Models)

- The fan motor shall be Totally Enclosed Fan Cooled (TEFC), squirrel cage, ball bearing type motor.
- The motor shall be specially designed for cooling tower use with moisture protection on the winding, shaft and bearings.
- The motor shall be minimum IP 55 degree of protection, Class F insulation, Service Factor 1 and selected for the appropriate cooling tower duty and the correct ambient temperature but minimum 40°C.
- Motors bearings shall be double sealed non-relubricable or external grease nipples shall be provided.
- The motor shall be mounted on an adjustable heavy duty steel motor base.
- A hinged protective cover shall shield the motor and sheave from the weather.
- The motor power supply shall be \_\_\_\_ volts, \_\_\_\_ hertz and \_\_\_\_ phase.

### Motor (3, 3.6, 6.1 and 7.3 meter wide Models)

- The fan motor shall be Totally Enclosed Air Over (TEAO), squirrel cage, ball bearing type motor.
- The motor shall be specially designed for cooling tower use with moisture protection on the windings, shaft and bearings.
- The motor shall be minimum IP 55 degree of protection, Class F insulation, Service Factor 1 and selected for the appropriate cooling tower duty and the correct ambient temperature but minimum 40°C.
- Motor bearings shall be double sealed non-relubricable or external grease nipples shall be provided.
- The motor shall be mounted on an adjustable heavy duty steel motor base.
- The motor base shall be able to swing to the outside of the unit for repair or removal.
- The motor power supply shall be \_\_\_\_ volts, \_\_\_\_ hertz and \_\_\_\_ phase.

### Sound Levels

The maximum sound pressure levels (dB) measured 1.5 m 45° from the top of the condenser operating at full fan speed shall not exceed the sound levels detailed below.

| Location       | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | dB(A) |
|----------------|-------|--------|--------|--------|---------|---------|---------|---------|-------|
| Fan discharge  |       |        |        |        |         |         |         |         |       |
| Air inlet /end |       |        |        |        |         |         |         |         |       |

### ACCESSORIES (Optional)

#### Electric Heaters

- The condenser cold water basin shall be provided with an electric heater package to prevent freezing of the water in the cold water basin, while the pump is shut down.
- The electric heater package includes: electric heater element(s), thermostat and low water level cutoff.
- The heaters shall be selected to maintain 4°C basin water temperature at \_\_\_\_°C ambient
- The heater(s) shall be \_\_\_\_V / \_\_\_\_ phase / \_\_\_\_ Hz electric power supply.

#### Three Probe Electric Water Level Control Package

- The coolig tower manufacturer shall provide an electric water level control package instead of the mechanical float valve arrangement.
- The package consist of the following elements :
  - Multiple heavy duty stainless steel 316 static sensors mounted in a stilling chamber outside the unit. Electrodes or sensors mounted inside the unit are not accepted as their operation will be disturbed by the moving water in the basin.
  - An ABS, IP 56 case contains all the contactors for the different level probes and will provide an output signal of two relays for automatic filling.
  - The power supply to the control package is 24 Vac / 230 Vac - \_\_\_\_ Hz.

- A weather protected solenoid valve (PN16) for the water make up ready for piping to a water supply with pressure between 140 kPa and 340 kPa.

#### Five Probe Electric Water Level Control Package

- The coolig tower manufacturer shall provide an electric water level control package instead of the mechanical float valve arrangement.
- The package consist of the following elements :
  - Multiple heavy duty stainless steel 316 static sensors mounted in a stilling chamber outside the unit. Electrodes or sensors mounted inside the unit are not accepted as their operation will be disturbed by the moving water in the basin.
  - An ABS, IP 56 case contains all the contactors for the different level probes and will provide an output signal of two relays for automatic filling and two relays for high and low alarm.
  - The power supply to the control package is 24 Vac / 230 Vac - \_\_\_\_ Hz.
  - A weather protected solenoid valve (PN16) for the water make up ready for piping to a water supply with pressure between 140 kPa and 340 kPa.

#### Vibration Switch

- A vibration limit switch shall be installed on the mechanical equipment support and wired into the control panel. The purpose of this switch is to interrupt power to the motor in the event of excessive vibration.
- The switch shall be adjustable for sensitivity and shall require manual reset.

#### Vertical Access Ladders

- Vertical ladder with safety cage which provide easy access to the water distribution system and drive components shall be provided with the condenser(s).
- The ladder will be completed with a safety cage for safety purposes.
- Ladder safety cage shall meet OSHA - CE - BS requirements.

#### Service Platforms

- The condenser shall be supplied with a double external service platform.
- The external service platforms will be self supporting and include access ladders to the platforms.
- The external service platforms will be installed in front of the all access doors.
- The platform shall meet OSHA - CE - BS requirements.

#### Motor Davit

- The condenser shall be supplied with a motor davit to facilitate the removal of fan motor(s) and fan(s).
- The davit and braket are constructed of aluminum and are mounted on the side of the unit.
- The fan motor davit ships loose with the unit and is installed in the field.

#### Water Silencer

- The water silencers are located in the falling water area of the cold water basin.
- The water silencers will reduce the overall sound levels 4 dB (A) to 7 dB (A) measured at 1.5 m from the side or end of the unit, when the fans are running, and 9 dB (A) to 12 dB (A) when fans are off.
- The water silencers are constructed of lightweight PVC sections and can be easily removed for access to the basin area.
- The water silencers will have no impact on the unit's thermal performance.

# ATC-DC

Notes:

# ATC-DC

Notes:

# ATC-DC

Notes:





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