



DYNAMIC AIR TECHNOLOGY, INC.



**MANUFACTURERS
OF CUSTOM
AIR-HANDLING
EQUIPMENT**



Since opening in 2002, Dynamic Air Technology strives to manufacture air handling units of excellence by improving what other manufactured units lack.

Stationed in Southern California and employed with engineers of all ages, Dynamic Air Technology contains a crew of people with over 40 years of experience in the HVAC business as well as newly graduated engineers with a desire for innovation. Each unit is custom



built to fit your desired application. Every component in the unit is chosen in such a manner that will provide the maximum efficiency for the job. Because of our “can do” attitude, some customers have given Dynamic Air Technology the slogan “nothing is impossible.”

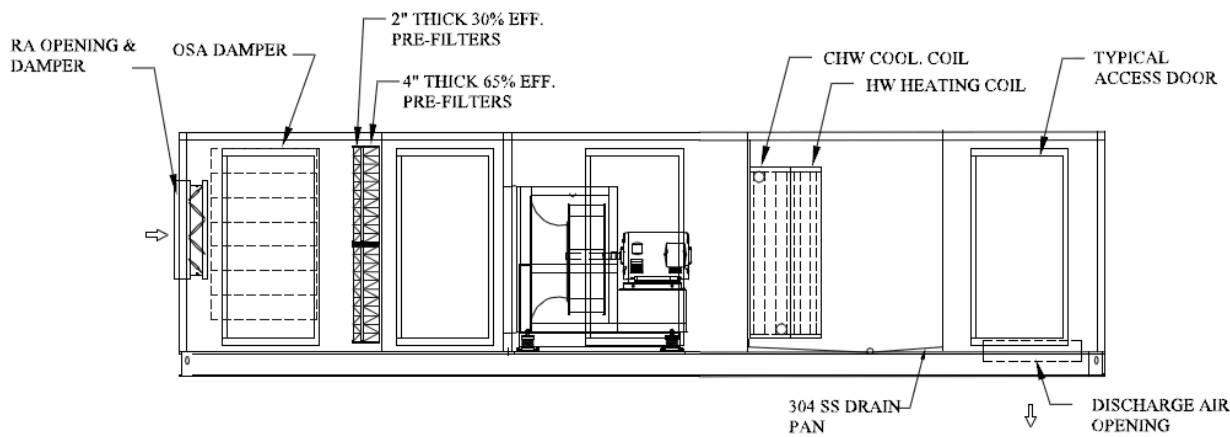
All of Dynamic Air Technology's units are ETL Certified



AHU

Air Handling Unit

Air Handling Units are designed for cooling, ventilation, and/or heating applications.



The typical AHU consists of a fan in draw through/blow through configuration with filters, coils, and other applications.

Notes

- * DAT's AHUs range anywhere from 200 CFM to 150,000 CFM
- * Fully customizable to meet the particular application and specifications such as adding economizer sections, multiple coils, filter efficiency, etc.

Notable Customers for AHU Jobs Include

- Boeing
- Allergan Pharmaceutical
- Hyperion Waste Water Treatment Plant

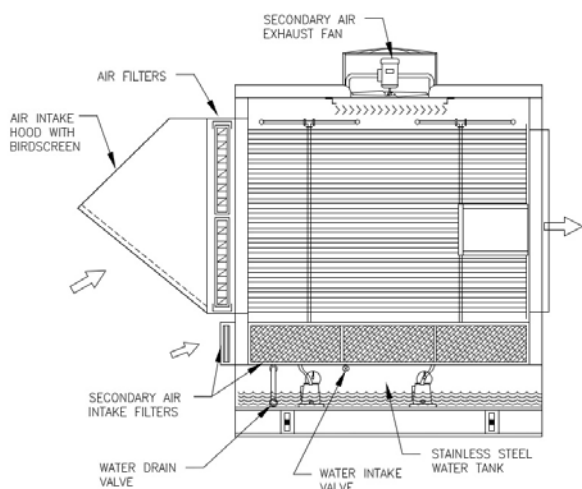


Aerospace BLDG.D1 17,000 CFM@ 4.5" TSP

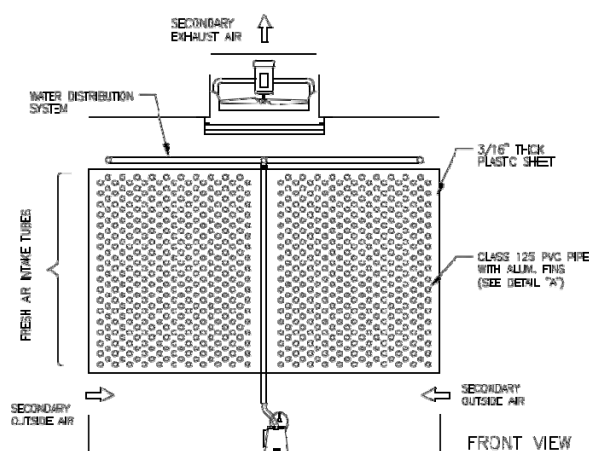
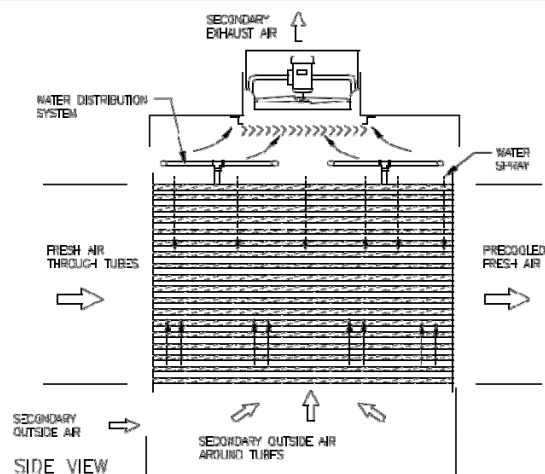
ICU

Indirect Cooling Unit

Indirect Cooling units consists of a tube type heat exchanger using PVC tubes and water. This section is built completely with 304 stainless steel casing and water tank to prevent rust. The unit typically consists of a water distribution system, moisture eliminator, pump, secondary air intake filters, and a secondary exhaust propeller fan.



Note: These drawings are only that of the indirect section and not to be confused with the ICU which can include fan/motors, coils, heaters, etc.



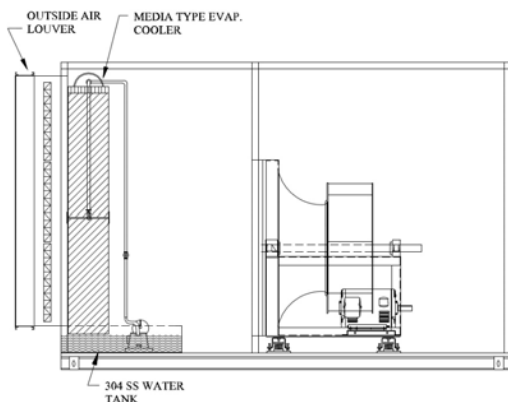
The typical ICU draws air through the PVC tubes while water falls from the top of the tubes to the bottom. During this process, the secondary exhaust fan discharges the internal air outside for evaporative purposes. This process cools the air in the tubes without producing moisture in the supplied air stream.

Notes

- * DAT's ICUs use special PVC tubes which are more resistant to cracking than standard tubes.
- * Each PVC tube has a "W" shaped aluminum fin inserted into it to further cool air and add further resistance to cracking.

Media Evaporative Cooling

MEC units use high efficiency, 12" deep Munters CELdek® or GLASdek® media. Because of its material, CELdek® is used in cooling only applications while GLASdek® is used in units for a combination of heating and cooling. The section is built with a complete 304 S.S. casing and water tank.

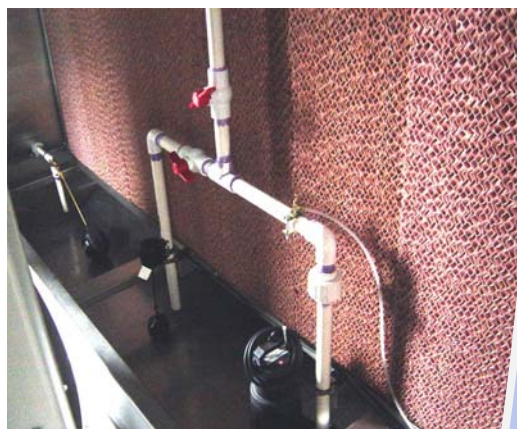


Carson City Middle School 50,000 CFM @ 1.4" TSP

The MEC unit provides for excellent comfort cooling by using the principles of water in direct contact with a moving air stream. The air, being moved by the fan, will eventually evaporate the water and cool the air in contact.

Notes

- * Many accessories are installed as options in MEC units such as low water protection for water pumps, freeze protections, and automatic flush cycle systems



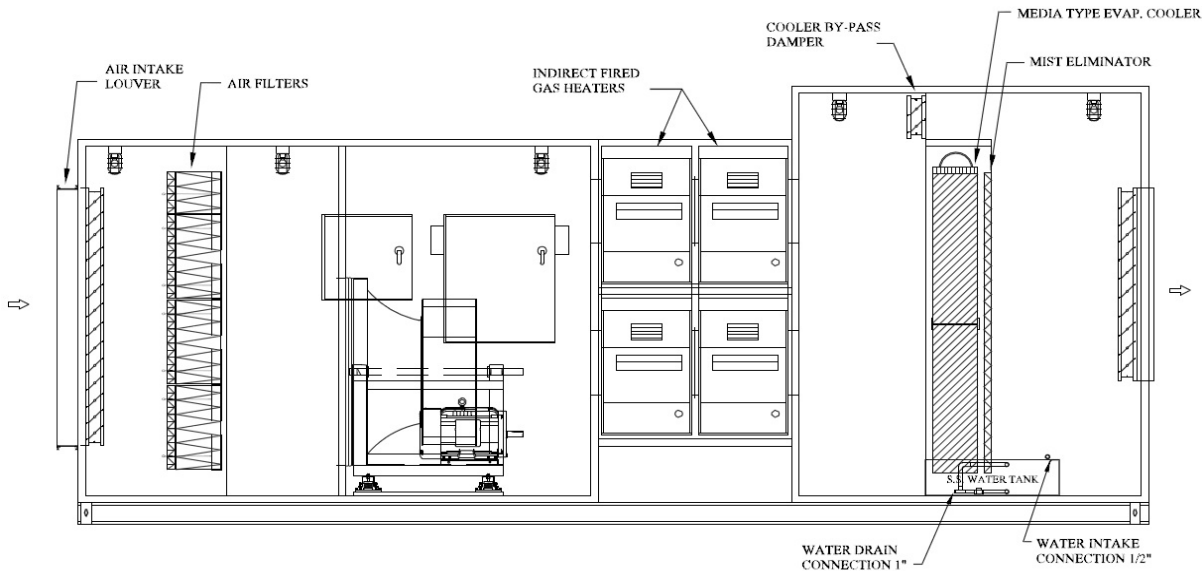
Notable Customers for MEC Projects Include

- Northrop Grumman
- Ridgecrest Regional Hospital
- Corcoran State Prison

MAU

Make-Up Air Unit

MAUs are units meant for cooling, ventilation, and single or multiple stage heating that does not recirculate air.



This particular MAU filters the outside air and sends it through several gas heaters and an evaporative cooling section before making its way to the building. If heating is required, the gas heaters would be on and the evaporative cooling section would be off. For cooling, the opposite would be true.

Notes

- * All of DAT's units are custom built and can have any type of cooling or heating applications in any combination.



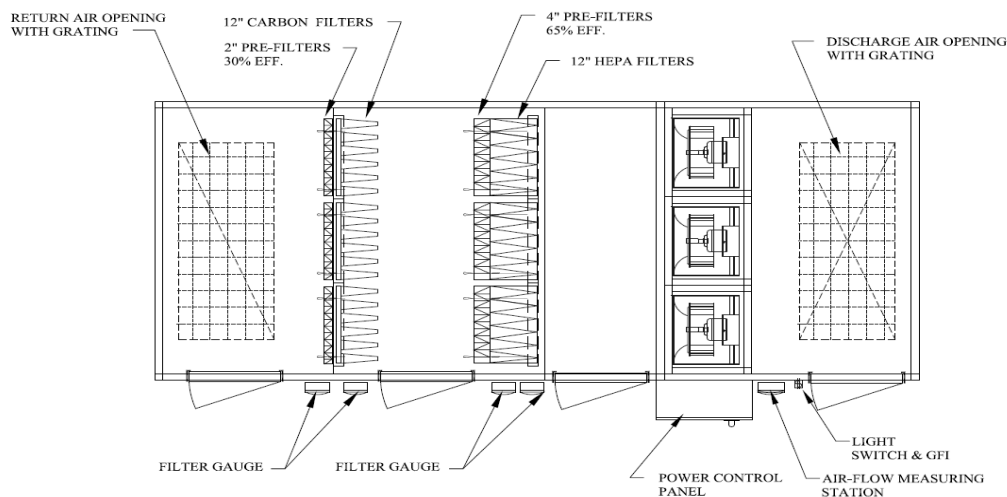
Notable Customers for MAU Projects Include

- Bakersfield Courthouse
- Cal State San Bernardino

MFU

Multi Fan Unit

Multi Fan technology replaces the idea of having one large AC motor/fan combination with multiple small EC motor/fan combinations in a cube casing stacked together. DAT builds their own housing for each fan/motor using 12 gauge galvanized steel with a 22 gauge perforated liner covering a 2" thick fiberglass insulation.



The MFU is excellent for lowering power consumption, noise, and maintenance required. The MFU also increases unit efficiency by applying an equally distributed airflow throughout the unit increasing coil efficiency. The Multi Fan technology is outstanding in that if one or more fan/motors fail, the rest are sped up to compensate for the lost CFM.



A 3x1 MFU made specifically for Data Centers



A 3x3 Multi Fan Unit designed to cool at 12,600 CFM

Note

- * The EC motors that DAT uses in their units have been tested to be more energy efficient than those which competitors use.

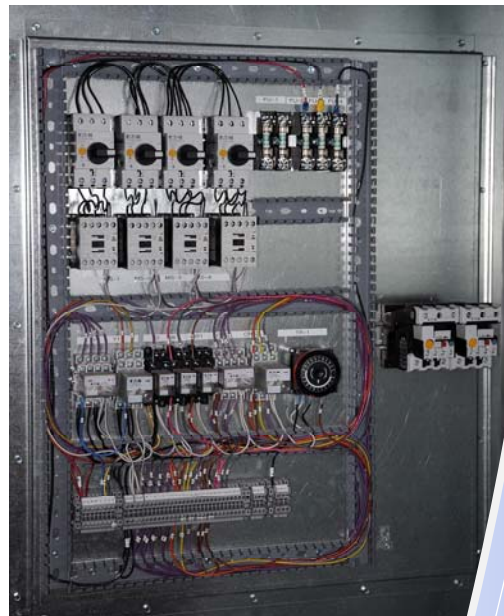
Casing Construction

The base of the unit is constructed with hot rolled structural steel “C” channels that are welded together. “C” channels are also welded across the plane of the perimeter where heavier components such as coils are to be resting for outstanding support.



DAT makes sure that the unit is built to last. Standard casing construction is G-90 galvanized steel. For double wall construction, G-90 galvanized steel solid or perforated liner will be used to cover up the insulation. If required, the unit can be built using 304 or 316 type stainless steel or even aluminum as well.

Electrical controls required to operate components are assembled at the DAT plant. An externally mounted NEMA 3R or NEMA 4 weatherproof enclosure will house the electrical components. Some of these components may include a disconnect switch, step-down transformer, circuit breakers, motor starters, overload protection, control relays, etc.



Internal Components

There are many components that go into a HVAC unit. The following are common components you will see in some of DAT's units.

Fans

- Plenum (Belt & Direct Drive)
- DWDI



Filters

- 2" Pleated 30%
- 4" Mini Pleated 65-95%
- 12" Rigid 65-95%
- HEPA Filters 99.99%
- Aluminum Washable



Motors

- ODP Premium
- TEFC Premium
- Explosion Proof
- Wash Down
- ECM



Cooling

- Chilled Water Coil
- Direct Expansion Coil
- Direct Evaporative Cooling
- Indirect Evaporative Cooling



Heating

- Hot Water Coil
- Steam Coil
- Electric Heater
- Direct Fired Gas Heaters
- Indirect Fired Gas Heaters



PS *Problem Solutions*

When thinking about buying a commercial HVAC unit, people may face many issues. The following are some solutions to common problems many face.

Weight issues?	DAT can build all aluminum units reducing the weight of a regularly built unit by up to 60% all while keeping a strong support and durability.
Corrosion problems?	Units can be built using 304 or 316 type stainless steel to provide the best corrosion resistance.
Unit too large to move in place or ship?	Units can be shipped in sections and simply reassembled at its desired location.
Tight spaces?	These are common in historical buildings or schools. In these cases, DAT builds the units fully, disassembles them at the job site, takes the pieces to the desired location and then reassembles it there..
Condensation an issue?	DAT can use all types of insulation as well as foam injected panels that can meet the needs of the customer. DAT has capabilities of manufacturing complete thermal break units..
Need a new section on an existing unit or a retrofit?	DAT can build the section you require in such a way that it would work with your existing unit. This application would be most common in the motor/fan section by replacing the current motor/fan with energy efficient fan/motors
Replacing an existing unit but want to keep the roof curb?	No problem! DAT is known to go to the job site and measure exactly what is needed so that the built unit sits perfectly on top of the existing roof curb.
Have a budget?	Let the sales team know. DAT will give you some alternate options that would cut on costs and give you a budget price for those units.
Need it fast?	One of the thing that makes DAT so popular is the lead time. Expediting options are available. Contact DAT to see what can be done.