

DeltaT
SYSTEMS PVT LTD

Your Trusted Partner for Optimal Climate Solutions

Product Catalogue

ABOUT US |

Established in 2011, we offer comprehensive commercial solutions for heating, ventilation, and air conditioning. Our experts are involved in every stage of your project, from design and material supply to installation, commissioning, and handover of the systems.

Climate change is real!! We understand the challenges of scorching heat and pollution being faced by all major cities across the globe. Our team of HVAC specialists ensures optimal, effective, and Price competitive products at every stage of the project.

We've successfully executed projects in various sectors, including pharmaceuticals, hospitality, and healthcare, and our products are suitable for factories, production spaces, commercial spaces, and warehouses.



Mission

Our goal is to be the most trusted and customer-focused brand in the HVAC industry, and to be a leading organization in the field. We are committed to delivering high-quality products, along with prompt, reliable, and timely service.



Vision

We strive to provide the best for our clients across all segments, and our focus is on delivering top-notch HVAC products. Our objectives include maintaining expertise in the field and staying up-to-date with the latest technology. We work with a competent team that shares our customer-centric approach and our vision to become a leading innovator in HVAC field.



Spatial Comfort Redesigned

- DeltaT specializes in HVAC systems for hot and dry climates, providing controlled environments that enhance air quality, save electricity, and boost productivity.
- Our range of temperature control systems can reduce electricity consumption compared to traditional air conditioners.
- We offer tailor-made HVAC products and turnkey solutions for diverse sectors, with a dynamic and adaptive approach to meet sector-specific requirements.
- With 10+ years of experience, we have delivered technically and aesthetically optimized energy-efficient products.
- Our team of experienced engineers ensures your spatial comfort and ideal indoor conditions to help you achieve your business goals.



Quality Policy

We prioritize uncompromised attention to quality and deliver highly suitable, versatile, and efficient HVAC products while fully conforming to our clients' needs. We identify and work through potential technical challenges to deliver the most efficient HVAC systems according to provided technical specifications.

Floor Mounted Horizontal / Vertical Air Handling Unit

- Horizontal floor mounted Air Handling Units (AHUs) are the most common type of units used for supplying Treated & filtered air to the conditioned area.
- Air treatment can be any process from Cooling/ Heating/ Humidification / Dehumidification / Combination of above.



Applications



Treated Fresh Air Unit

- Treated Fresh Air units are used to suffice the requirement of fresh air to the conditioned space making sure to maintain the degree of comfort for human living as per ISHRAI / ASHRAE standards.

Applications



Ceiling Suspended Air Handling Units

- Ceiling Suspended AHUs are most commonly used for supplying the treated air to individual or small space where dedicated floor space is a constrained.



Applications

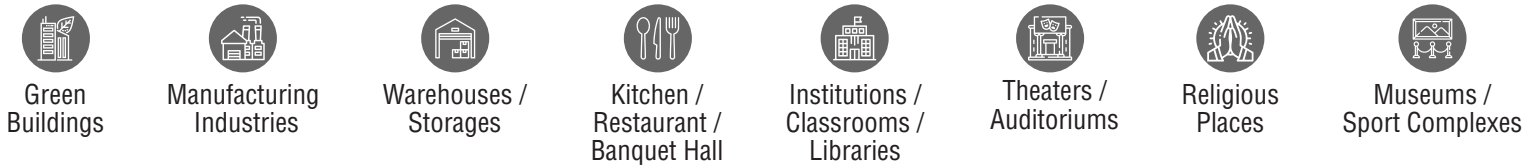


DUO-DEL Two-Stage Cooling Unit

- DUO-DEL Two-Stage evaporative cooling unit - a combination of our specialised Sensible heat exchanger (CT-SHX / PT-SHX) and Adiabatic heat exchanger (AHX), provides better efficiency over conventional (single stage) evaporative cooling. Supply air stream is first pre-cooled by Indirect Evaporative Cooling which reduces the DBT & WBT of air without addition of moisture. It is then passed through Adiabatic Heat Exchanger (cellulose pad), further reducing the temperature of air even below the ambient WBT.



Applications



HY-DEL Hybrid Cooling Unit

- Hybrid unit is a system that combines Evaporative cooling & Refrigerated Air Conditioning for smooth year-round operation.
- It has all the benefits of DUO-DEL. It has additional Refrigerant (DX) coil.
- All the components in the system can be automatically operated using Smart Control based on ambient & indoor conditions.

Applications



Pre-Cooling Unit

- Pre-Cooling units are used to pre cool the entering air with the help of Sensible Heat Exchanger (CT-SHX / PT-SHX).
- After passing through CT-SHX / PT-SHX, air can either be supplied direct or further conditioned based on final requirement.
- This unit drastically reduces the load of Air Conditioner for areas operating with high fresh air.



Applications



Single Stage Air Washer Unit

- Single Stage Air Washer Units work on a principle of Adiabatic Cooling of air which is relatively economical & suitable cooling solution for the dry climate conditions.
- Cooling of air takes place due to the evaporation of water circulating through a medium (usually cooling pad) which comes in direct contact with the coming air.



Applications



Public Buildings



Food Courts



Hospitality Industry



Pharma Industry



Industrial Applications



Entertainment Centres



Wet Scrubber

- Wet Scrubbers are generally used to remove the suspended solid/liquid particles in air coming from the conditioned space.
- These unit scrubs/washes away the air suspended particles of oil/grease/ash, which is collected at the bottom of the section and air free from all those particles is exhausted to atmosphere.

Applications



Food Courts / Hotels



Restaurants



Pharma Industry



Hospitality Industry



Public Buildings



Shopping Mall



Commercial Buildings

Pressurization / Ventilation Unit

- Pressurization / Ventilation Units are used to add / remove air to / from conditioned area to meet the desired design requirements.



Applications



Public Buildings



Shopping Malls & Food Courts



Hospitality Industry



Pharma Industry



Entertainment Centres



Industrial Buildings etc.

Heat Recovery Unit

- Heat Recovery Units are basically used to recover the heat from return air stream and supply the same to supply air stream.
- Heat Recovery can be achieved either by steady component (Plate type heat exchanger) or rotating component (Heat recovery wheel).
- Ultimately reduces over-all air conditioning load of a building.



Applications



Office /
Public Buildings



IT Parks



Shopping
Malls



Healthcare &
Hospitality Industry



Educational
Institutes etc.



Fan Coil Units (FCUs)

- FCUs are most commonly used for supplying the recirculated air and are directly to conditioned room without the supply duct work.

Applications



Hotels /
Restaurants



Hospitals



Residential Buildings /
Auditoriums

SMART AHUs

- AHU with integrated control system to overcome the need of building management systems which can be controlled remotely and linked to automation systems with standard communication protocols support.



Applications



Office /
Public Buildings



Shopping
Malls



Healthcare &
Hospitality Industry



Educational
Institutes etc.

Air Intake Section

- Fresh Air Intake section with louvers.
- Return Air Intake section either with louvers or dampers.
- Mixing Box with Fresh & Return Air dampers.
- Cut-outs with Dampers which are suitable for manual as well as motorized operation.
- Only cut-outs



Filter Section

- Primary function of filter is to purify the air by arresting the suspended solid/gas particles present in the air. There can be multiple level of filtration depending upon the requirement and application to filter out the particles in the range from 20μ to 0.3μ
- Pre-Filter is having 20μ to 10μ filtration level. Fine Filter has 5μ to 1μ filtration level. And HEPA Filter has 0.3μ filtration level with different particle arrest efficiency. Filters can be of Box type, Flange type, Bag type or Combination of two based on the requirement.
- Special kind of filters such as activated carbon filter to remove odour from the air, chemical filter to remove dissolved chemical compounds and gases from air, Electronic air cleaners (EAC), Electro static precipitator (ESP) etc can also be use.



Heat Exchange Coil Section

- Heat Exchanger coils are tube & fin type heat exchangers mostly used to suffice the requirement of cooling, heating and dehumidification depending upon the requirement.
- These are Chilled Water Coil, Hot Water Coil, Direct Expansion (DX) coils and Direct Expansion with variable refrigerant flow (DX+VRF) coils. Water coils are having water as a heat exchange medium and DX coils have suitable refrigerant fluid.
- In DX coil more than two circuits can be Intertwined to cover maximum face area.
- Generally, these Heat Exchanger Coils have copper tubes having either 1/2", 3/8" and 5/8" diameter and Aluminium Fins. Headers of the coil can be of Copper or MS.



Fan Section

- Fan is a heart of the unit. It facilitates the movement of air to the conditioned space through AHU. There are different type of fans available depending upon the blade, impeller, construction, application.
- Most commonly used fans are Centrifugal DIDW Forward / Backward curved belt-driven fan, SISW Forward / Backward curved belt-driven fan, Plenum (PLUG) type direct-driven fan with standard motor, Plenum fan with EC motor (EC Fan), DIDW Forward / Backward direct-driven fan, Axial Fan etc.

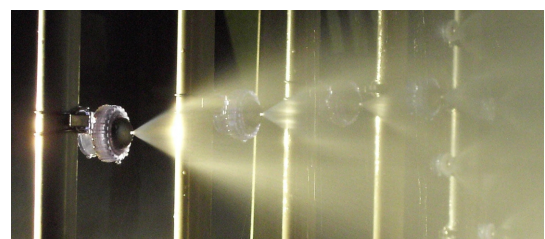


Heat Recovery Section

- Energy saving in AHU is possible with heat recovery components such as heat recovery wheel, plate type heat exchanger, heat pipe, run around coils.
- Heat recovery wheel is placed in such a way that 50% of the wheel area will be in return air stream and remaining 50% will be in fresh air stream. Return air will remove the heat from wheel, as the wheel is continuously rotating at slow pace this portion of wheel now come in fresh air stream and will removes the heat from fresh air. Thus, energy recovery from return air to fresh air happens, resulting in overall heat load requirement.
- Plate type heat exchanger works on the same principle as the heat recovery wheel. Return air stream & Fresh air stream will never come in direct contact with one another.

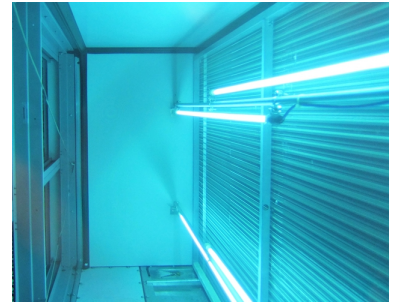
Humidification Section

- Humidification section is needed in the unit when there is a specific requirement to increase in humidity level or to obtain cooling in dry climate areas. To achieve this, we can use cellulose pads, pan type humidifier, spray type humidifier.
- Use of cellulose pads are most common way to increase the humidity with cooling. These are made of cellulose material on which water is sprayed which humidifies & cools the air passing over the wet pad and supplied to conditioned space.
- In Spray type humidifier water is sprayed through nozzles which comes in contact with the passing air and due to the evaporative cooling, air gets cooled & humidified and supplied to conditioned space.



Air Sterilization Section

- Microorganisms which are suspended in the air and cannot be captured by regular filtration, causes significant threat to human health and have their unwanted effect on conditioned space.
- These micro-organisms such as Bacteria, Viruses, Moulds, Funguses etc. accumulates on to AHU components (which are in contact with the water, such as Coil Heat Exchanger & Cooling Pad). This may lead to uncomfortable odour of the air supplied to the conditioned space.
- Ultraviolet (UV) systems prevent the growth of all these microbial organisms and sterilizes the supplied air.
- As the air passes through the UV-C purification device or the surface is exposed to germicidal UV light, the genetic material of microorganisms is deactivated, preventing them from reproducing and rendering them harmless.



Mist Eliminator

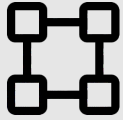
- Mist Eliminators are generally used to trap the water particles being carry forwarded by the air stream passing over a water component such as Chilled Water coil or cellulose Pad.-It can either be V-pass (2-bend) or W-pass (4-bend) type with PVC blade or Sheet metal blade depending upon the application.

Heater Section

- Electric heaters are used in air handling units as either a primary or secondary source of heating to achieve the sensible heat transfer / control humidification.
- The heating elements are in direct contact with the airstream. Which increases the temperature of the air passing over it.
- There are two types of electric heaters used in AHUs. Strip type heaters & Tubular type heaters. MOC can be either GI or SS.

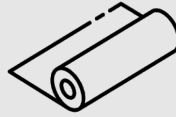


STANDARD STRUCTURE SPECIFICATIONS



Frame Work:

Extruded Aluminum Profile
with/ without Thermal Break



Sheet Metal:

Galvanized Metal Sheet with different
thicknesses (0.6, 0.8, 1.0, 1.2, 1.4, 1.6)



Panel:

46mm / 25mm
double skin panels



Insulation:

PUF ($38 \pm 2 \text{ kg/m}^3$) /
Mineral-wool (96 kg/m^3) for FLP application



Mounting Frame:

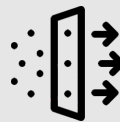
galvanized Metal Sheet

STANDARD COMPONENTS



Air Inlet:

Mixing chamber with Dampers,
without Dampers (with flange)/
Pre-filter on face / Louvers on face



Filter:

Pre-filter, Fine-filter, HEPA-filter,
Combination filter Box type,
Flange type or Bag type



Cooling Coil:

4/6/8 Row Deep, Chilled Water /
Hot Water / DX Coil / DX-VRF Coils
with insulated drain tray



Fan:

Forward / Backward Curved, DIDW,
Plenum, EC, SISW, Direct-Driven Fan



Motor:

Standard IE2 / IE3 / IE4 / IE5
Motor with IP55 protection



Damper:

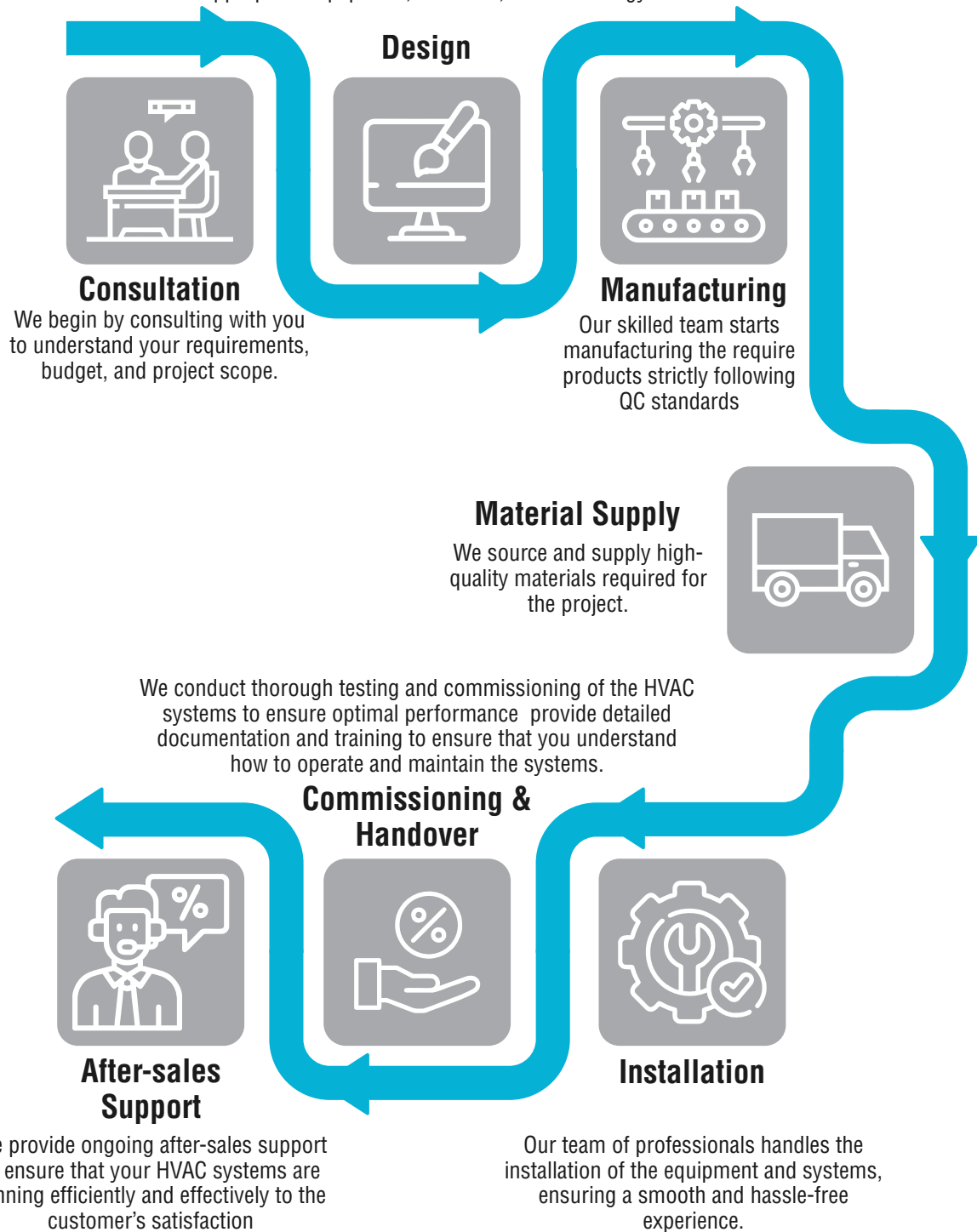
Opposed type Aluminum
Blade with aero-foil design

OPTIONAL FEATURES

- Heat Recovery Wheel
- Plate type Heat Exchanger
- Bag-in-Bag-out (BIBO) Filter
- Activated Carbon Filter
- Chemical Filter
- Electronic Air Cleaners / Electrostatic Precipitator
- Cooling Pad / Adiabatic Heat Exchangers / Wet-Scrubber
- Mist Eliminators
- Attenuator Section
- UVGI Lamps
- Electrical Heaters
- Run around Coils of 2 / 4 / 6 RD CHW Coils
- Heat Pipe
- Differential pressure Gauges
- Controls and Instrumentation
- Fan-Motor with Frequency Inverter
- Canopy for roof top installation
- FCU - single / double skin with PSC / BLDC motor

OUR PROCESS

Our experts then work on designing a custom solution that meets your specific needs. This includes selecting the appropriate equipment, materials, and technology.

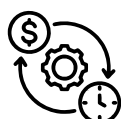


WHY US



Approachable

Our team is friendly and easy to approach, ensuring a comfortable and stress-free experience.



Efficient

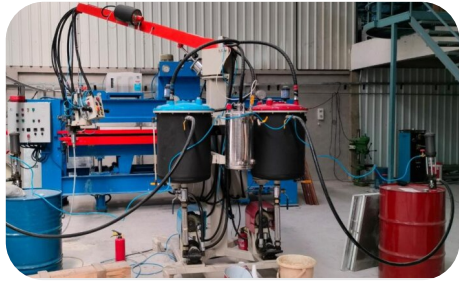
We work with speed and precision, delivering efficient solutions that meet your deadlines.



Customised Solutions

We understand that every project is unique and requires a custom approach. Our team is dedicated to providing tailored solutions that meet your specific needs.

OUR MACHINERY



**Polyurethane Foam (PUF)
Injection Machine**



**CNC Plasma
Cutting Machine**



**Sheet Shearing &
Bending Machine**

CLIENTELE



**Road & Building Department
Gandhinagar**



**Townhall
Gandhinagar**



CONTACT US



FACTORY ADDRESS

Plot No. 4/B, Survey No. 408, TD Industrial Estate B/H
Ashwamegh Estate, Village Changodar, Gujarat - 382213

CORPORATE ADDRESS

B1-1201, Westgate Business Bay, Opp. Andaz Party Plot,
S.G. Highway, Makarba, Ahmedabad, Gujarat -380051



sales@deltat.co.in



+91 99789 73094/ +91 76008 00283



www.deltat.co.in



Delta T
SYSTEMS PVT LTD

