Air handling units (AHU) are the lungs of any HVAC system. An air handling unit is a device used to regulate and circulate air as part of the heating, ventilation and air conditioning system. The AHU takes in outside air, reconditions (filtered and either heated or cooled) it and supplies it as fresh air to the air conditioned room.

As “VENTECH” air handling units are used in harsh environments, it is essential that they are made of high-quality materials to withstand the extreme climate conditions. The AHU is made of galvanized steel or stainless steel and has an aluminium frame with double-walled panels made of galvanized steel (stainless steel as option). Explosion proof fan motors are available on request.

**The casing**

The air-handling unit has an aluminum frame with double-walled panels made of galvanized steel (stainless steel as option). The panels are internally insulated with thermal and acoustical insulation.

**Fan**

The air-handling unit has a direct-driven or belt-driven centrifugal fan, depending on the required air quantity and air pressure. The air-handling unit can be provided with a plug fan to save space.

**Air handling unit functions**

Installed on a common base frame, the single duct air handling unit has the following functions:​

* Filtering function with EU-class filter
* Heating function with electrical heater or hot-water heating coil
* Cooling function with air cooler for direct expansion or cooling with chilled water
* Humidifier function with steam nozzles for air humidification
* Droplet separator for removal of water drops from humidifier or air cooler
* Fan function with V-belt-driven centrifugal high-pressure fan
* Discharge panel box with zone-heating coils (optional)
* Filtering function for exhaust air (optional)
* Heat exchanger or enthalpy exchanger (optional)
* Exhaust fan (optional)
* Electrical connection box (optional)