

Ramsey Student Center (1690)

The Ramsey Student Center is the student recreational and athletic facility located on the University of Georgia's East Campus. The facility is one of the largest student athletic recreation facilities in the United States. The campus's eight-acre Ramsey Student Center for Physical Activities has 3 gyms, 3 pools (one Olympic-sized, a 17-foot diving well, and a lap pool), a 1/8 mile indoor suspended rubberized track, a 44 feet-high climbing wall, 14-foot outdoor bouldering wall, 10 racquetball courts, 2 squash courts, bicycle repair stands, 8 full-length basketball courts, and 19,000 square feet of weight-training space.

There are a total of 31 air handling units (AHUs) serving various areas throughout the Ramsey Center. The AHUs consist primarily of three types: Constant Volume AHUs, Variable Air Volume AHUs and Single Zone Variable Volume AHUs.

The locker room areas have 100% outside air units and are completely exhausted to the exterior.

Offices, classrooms, circulation, racquetball, gymnastics, classrooms and corridor spaces are supplied by variable volume air handling units with variable volume terminal units. Variable volume terminal units modulate the flow of conditioned air to maintain space temperature.

The central gymnasium, volleyball courts and gymnastics weight room are served by single zone, variable volume AHUs that supply a variable volume of conditioned supply air to a single space, without need of variable volume terminal units.

The main weight room is served by a single constant volume air handling unit that provides a constant volume of conditioned supply air to the weight room which is either heated or cooled as required based on space temperatures.

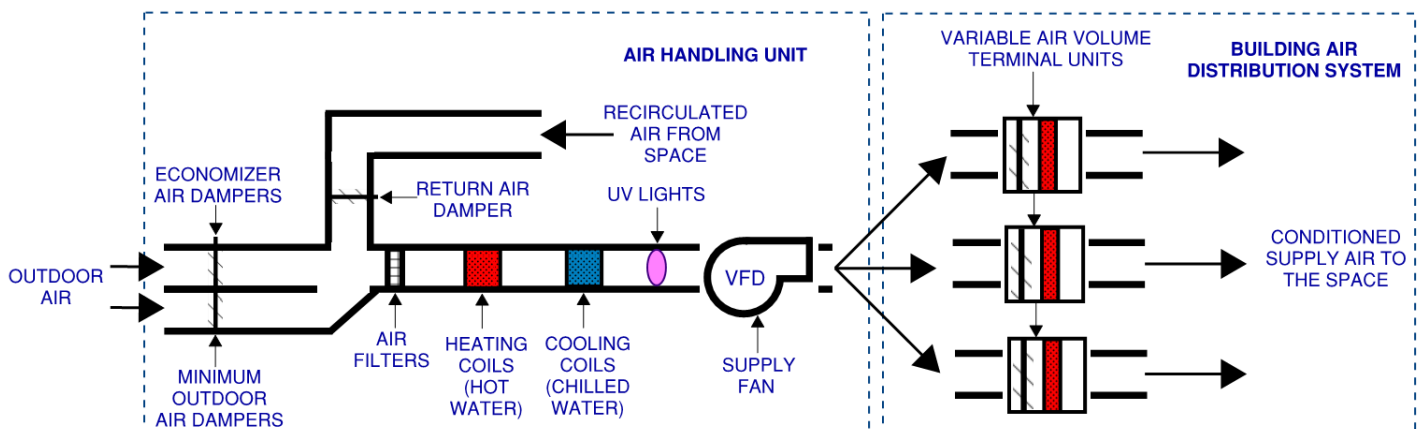
Some AHUs are equipped with UV lights that help to inhibit biological activity within the units. The AHUs are equipped with an air side economizer function that increases ventilation to provide free cooling when ambient weather conditions are appropriate. The AHUs are equipped with an occupancy schedule that disables the AHU during periods where the facility is unoccupied. Many of the occupancy schedules have been adjusted to operate the unit and ventilate the building continuously as part of FMD's COVID-19 response plan.

VARIABLE VOLUME AIR HANDLING UNITS

Variable volume air handling units (AHUs) deliver a variable volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside. The return air is filtered, mixed with outdoor air and cooled with chilled water coils in the air handling unit before being supplied to rooms throughout the building via above ceiling ductwork.

Space heating is provided by Variable Air Volume terminal units (VAVs) with hot water reheat coils located in supply ductwork throughout the building. The VAVs are equipped with an air damper to regulate the volume of air delivered from the central AHU to the space based on the current space temperatures and a hot water reheat coil to provide space heating when needed. The VAVs include a fan and a filter combination that will mix air from the above the ceiling with the conditioned air from the central AHU when the space requires heating.

Air is recirculated from the spaces back to the air handling units through ceiling mounted air return registers located in each space. Return air is pulled from a plenum space above the ceiling. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressurization.

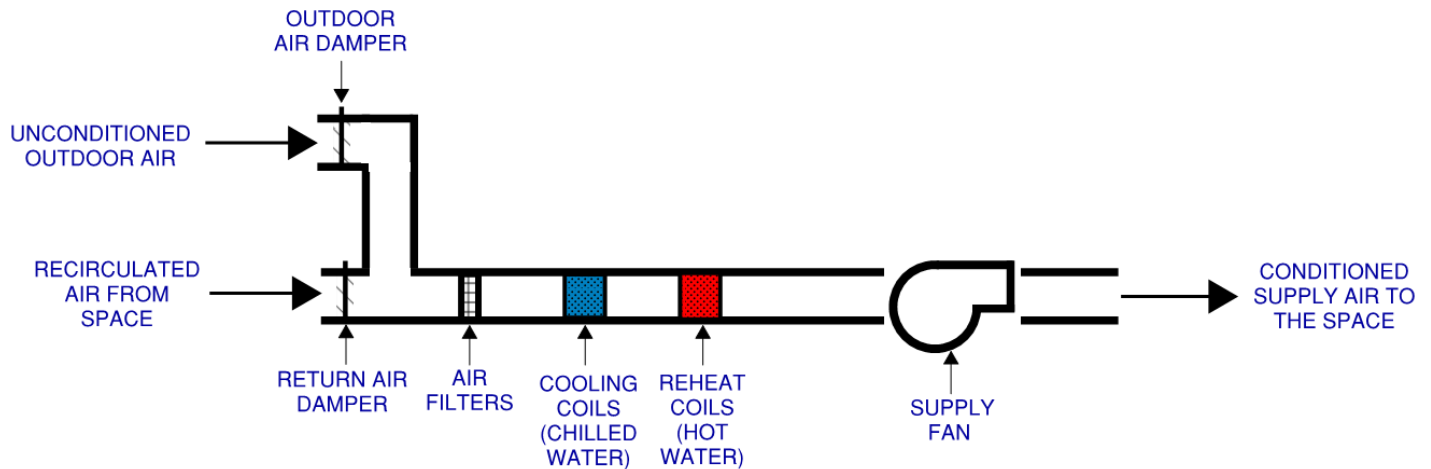


VARIABLE VOLUME AIR HANDLING UNIT SCHEMATIC

SINGLE ZONE CONSTANT VOLUME AIR HANDLING UNITS

Single zone, constant volume air handling units (AHUs) deliver a constant volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside. The building return air is filtered, mixed with outdoor air and cooled with chilled water coils and/or heated with hot water coils in the air handling unit before being supplied to the space(s) served via above ceiling ductwork.

Air is recirculated back to the air handling units through ceiling mounted air return registers located in the space(s) served. Return air is pulled from a plenum space above the ceiling. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressurization.

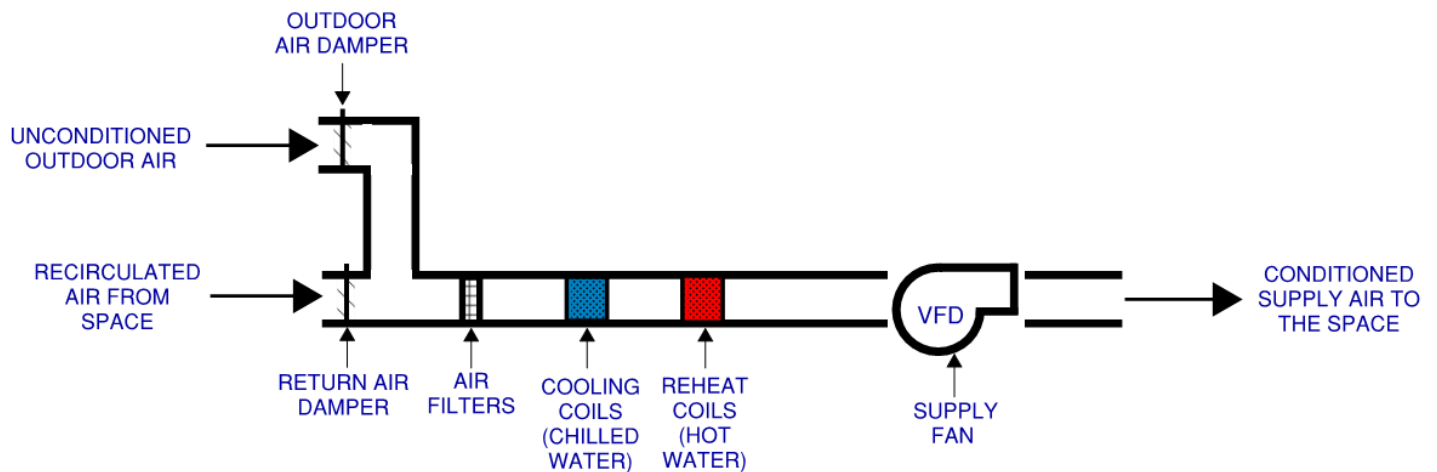


SINGLE ZONE AIR HANDLING UNIT SCHEMATIC

SINGLE ZONE VARIABLE VOLUME AIR HANDLING UNITS

Single zone, constant volume air handling units (AHUs) deliver a variable volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside. The air volume delivered to the space changes based on space temperatures. The building return air is filtered, mixed with outdoor air and cooled with chilled water coils and/or heated with hot water coils in the air handling unit before being supplied to the space(s) served via above ceiling ductwork.

Air is recirculated back to the air handling units through ceiling mounted air return registers located in the space(s) served. Return air is pulled from a plenum space above the ceiling. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressurization.



SINGLE ZONE VARIABLE VOLUME AIR HANDLING UNIT SCHEMATIC