



SUPPLY FAN CONTROL

Modulate the supply fan VFD to maintain the discharge plenum or supply duct static pressure required to satisfy the design air volume when all VAV boxes are fully opened.

OUTSIDE AIR AND BUILDING PRESSURE CONTROL – MIN OA , NO RELIEF AT AHU

Modulate the return fan, outside air damper and return air damper, in sequence, to maintain the minimum outside airflow rate required to meet requirements for a.) dilution ventilation based on critical zone supply airflow rates and occupancy in accordance with ASHRAE Standard 62-2004 Ventilation Rate Procedure using actual zone supply flow and occupancy conditions [not worst-case] or b.) building pressure, whichever is greater.

Startup the system with the outside air damper set to a predetermined minimum position and the return air damper opened.

Use the return fan first to reach setpoint. If the return fan reaches its maximum speed, begin to modulate the outside air damper closed until the setpoint is maintained. If the return fan reaches its minimum speed, modulate that outside air damper open. If the outside air damper reaches its fully opened position, begin to modulate the return air damper closed until the setpoint is maintained.

OUTSIDE AIR AND BUILDING PRESSURE CONTROL – ECONOMIZER or OA w/AHU RELIEF

Modulate the outside air damper and return air damper, in sequence, to maintain the mixed air temperature setpoint by resetting the outside airflow setpoint. OVERRIDE ECONOMIZER TEMPERATURE CONTROL AND MAINTAIN THE MINIMUM OA FLOW RATE IF THE OA FLOW RATE FALLS BELOW THE VENTILATION REQUIREMENTS FOR DILUTION OR PRESSURIZATION.

Modulate the return fan VFD to maintain the differential setpoint between the supply and return flow rates. The setpoint should equal the differential measured during minimum outside air mode.

Open the relief air damper when the bleed flow across the damper is greater than 0 fpm.