The Opportunity for DOAS Units in “Mini-Split” Ductless Systems

What is one of the hottest, and fastest growing, systems for conditioning commercial buildings? It is the variable refrigerant, “mini-split” ductless system as shown below. Each of those gray boxes shown above a room is actually a small fan-coil unit, mounted in the ceiling space, but using a DX R-410a refrigerant coil instead of a water coil for heat transfer. These systems have many advantages: individual zoning, lots of load diversity, very high efficiency, no ductwork to fabricate or install, small copper pipe connections from unit to unit, and quiet operation. However, “mini-splits” do lack one very important thing: none of them provide the ventilation air to the space as required by ASHRAE Standard 62.1 and virtually every building code in the United States.

The only way that one of these systems can comply with local building codes is to add some form of Dedicated Outdoor Air System (“DOAS”) and you happen to have one to sell them. In fact, they could even be matched with your TFL split system unit using one of their condensing units and achieve high efficiency cooling and heating (with the DHTD burner) of the mandatory ventilation air for the building. Your system will probably even be able to “talk” to their system via our standard DDC control system.

Have you talked to the local Daikin, LG, Sanyo, or Mitsubishi rep? If not, you should reach out to them and show them how your TFL or CHP can complete their package with highly filtered, temperature controlled ventilation air.

Good luck and good selling!