

## **DXAIR INDOOR POOL DESIGN GUIDELINES OUTSIDE AIR REQUIREMENTS PER ASHRAE**



For complete information on Outside Air Requirements, please refer to the ASHRAE 2012 HVAC Applications Manual for commercial and residential projects where these requirements must be met.

### **ASHRAE:**

“Outdoor air delivery rates may be constant or variable, depending on design. Minimum rates, however, must provide adequate dilution of contaminants generated by pool water and must maintain acceptable ventilation for occupancy. Where a minimum outdoor air ventilation rate is established to protect against condensation in a building’s structural elements, the rates are typically used for 100% outdoor air systems. These rates usually result in excessive humidity levels under most operating conditions and are generally not adequate to produce acceptable indoor air quality, especially in public facilities subject to heavy use.”

Follow all codes, (state, local, etc.) for complying with outside air requirements.

Note that in colder geographic areas, a tempering device may be needed to heat the incoming air (i.e.—a small electric duct heater). This will depend upon your location, size of system, and design temperatures.

Note: Outside Air used as “Dilution for the Solution” of dealing with chloramines and off-gassing of pool chemicals will not resolve this issue. This is a water quality issue, not a mechanical hvac system issue. Introducing more outside air to control the water quality is ineffective and can increase equipment and operating costs for all clients. Proper pool balancing procedures, patrons showering before entering pools, along with the properly installed & sized air delivery system that exceeds ASHRAE minimum air turnover rates can alleviate much of this problem.