Seresco Design Checklist for Traditional* Pools

Having a checklist comes in handy when designing complex jobs. Seresco is pleased to provide this dehumidification design checklist for your convenience. We also provide our complete Natatorium Design Guide online, along with extensive specification and design resources, including load calculation software.

Please visit: **www.SerescoDehumidifiers.com/engineers.html**

Key Design concerns for traditional* pools:

1. Operating conditions in writing from end user. (pool water temperature, room air temperature)

2. System supply CFM delivers 4-6 air changes per hour. The room volume dictates the supply CFM.
   - ☐ Supply air gets to the 'breathing zone'.
   - ☐ Return duct location compliments supply duct.
   - ☐ No short circuiting.

3. Outdoor air CFM per Standard 62
   - ☐ Baseline: 0.48 CFM/ft² of water and wet deck for regular pool.
   - ☐ Add 7.5 CFM per spectator (swimmers are not considered spectators and are covered in the baseline OA CFM).

4. Exhaust Air
   - ☐ Room is at slight negative pressure (0.05 to 0.15 inches of water column)
   - ☐ 110% the outdoor air CFM is generally recommended
   - ☐ Source capture contaminants – Exhaust air drawn from the whirlpool or any other warm or highly active water area.

5. Load Calculation
   - ☐ Latent load (pools, OA and spectators)
   - ☐ Sensible cooling load has been calculated for the space design temperature.
   - ☐ Heating load has been calculated for the space design temperature and includes OA.

6. Condensation and Vapor Migration
   - ☐ Vapor barrier on the warm side of the dew point temperature in all walls, ceiling and floors.
   - ☐ All exterior windows, doors and skylights are fully blanketed with supply air (3-5 cfm per sq ft).

7. Energy & LEEDs Considerations
   - ☐ Energy Standard 90.1 – pool water heating option
   - ☐ Heat recovery between the minimum OA and minimum EA
   - ☐ Condensate reclaim
   - ☐ System refrigerant charge reduction – Protocol Design

8. Swim Meet Mode
   - ☐ Number of spectators and competitors expected?
   - ☐ Spectator areas
     - ○ Airflow to spectator seating areas
     - ○ Micro climate via separate air handler for larger spectator areas

9. Service and Maintenance
   - ☐ Internet monitoring
   - ☐ Unit is accessible
   - ☐ Unit has adequate service clearance

* Please contact factory for Waterparks and pools heavy with water features. Design standards have been established for 'traditional' bodies of water and do not adequately address the special needs of these facilities.

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