



Compressor Wall Technology

Description

Our dream was to develop truly incomparable innovation that would become the future of natatorium dehumidification.

Imagine

- The security of up to 15 compressor modules in an array provides independent redundancy. Losing one compressor does not mean your facility is out of service.
- The extraordinary efficiency of each compressor to provide up to 6 stages of scalable capacity.
- The savings and security of a ridiculously small refrigerant charge that's a mere 10% of traditional equipment to completely eliminate expensive refrigerant recharging.
- The convenience of easy, fast, inexpensive plug and play replacement of individual compressor modules with minimal down time.
- The confidence of an eco-friendly dry cooler without any of the issues of outdoor condensers.
- The flexibility of multiple stages that are required to match the dehumidification and air conditioning demands of an indoor pool as it transitions through the seasons.
- The energy savings of pool water heating with the security of titanium. Titanium pool water heaters are rugged and can survive some of the worst chemistry out there.

Here's how we did it.



Pool Dehumidifier Units

Designed from the ground up to meet the demands of the

indoor pool environment, our revolutionary Compressor Wall Technology sets entirely new industry standards for performance, reliability, energy efficiency, environmental friendliness, and flexibility to deliver a truly incomparable innovation.

Revolutionary Design for Indoor Pool Dehumidification

Unlike anything else before it, our ground-breaking Compressor Wall Technology takes a modular, scalable and redundant approach to dehumidification, heating and cooling in a unitary solution that utilizes multiple small compressor modules in a powerful Compressor Wall array.

This ingenious innovation creates the ultimate solution for owners because it outperforms every other large capacity offering for every critical consideration.

Combine that with our proprietary high performance Dry Cooler heat exchange system that is also totally eco-friendly, incredibly reliable, energy efficient and extremely flexible, and you get the ultimate HVAC solution for owners.

Quite simply, there is nothing else in the industry that even comes close in any way!

The Future of Natatorium Design

- The Compressor Wall utilizes on average **95% less** refrigerant compared to traditional split DX units.
- In 2021 alone, Seresco's Compressor Wall saved over **10,000 lbs of refrigerant** from being released into the environment.
- Provides the confidence of an **eco-friendly** dry cooler without any of the issues associated with outdoor condensers.
- Additional energy savings with pool water heating.

Additional Insights

• [Downloads](#)



[Seresco Compressor Wall Technology](#)

 TECHNICAL BULLETIN

Advanced Control Strategy

VENTILATION FORWARD

OVERVIEW

Seresco delivers enhanced performance, efficiency, and control by integrating active airflow monitoring and control with Ventilation Forward technology, now standard across all Seresco machines.

This upgrade provides smarter air management for optimized building environments by actively monitoring and modulating airflow to maintain consistent performance under varying conditions.

KEY TECHNICAL ENHANCEMENTS

Active CFM Monitoring & Control

2-15 Tons [VAV Systems]:

- Transition from percentage based control to direct CFM control for supply air blowers, **improving room stability and indoor air quality while maintaining efficiency.**
- **consistent airflow, even as conditions change.** A built-in sensor on the fan continuously monitors and adjusts speed to maintain target CFM, even as filters load with dust or coils become dirty. This ensures steady ventilation performance without manual recalibration.
- User-activated energy savings during downtime. When enabled, the unoccupied setback mode **significantly reduces blower power during periods of no occupancy**, helping save energy without compromising future system readiness. This feature is available on both NE and CAT systems.

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[Ventilation Forward Technical Bulletin](#)

 TECHNICAL BULLETIN

Choosing between

SMART & FULL PURGE

Codes require outside air to be introduced into the natatorium to help maintain the air quality and dilute airborne chemical levels. Sometimes, this code minimum is not enough, and a boost of outside air is needed. Several options are available to deliver more outside air when needed, such as Purge Mode.

1. WHAT IS PURGE MODE AND WHY YOU SHOULD CONSIDER IT

Purge mode is a timed emergency mode that introduces more outside air than the code-required minimum for the removal of contaminated air when chemicals, such as trichloroethylene, reach critical levels and immediate removal is required. By introducing more outside air and purging the natatorium of chemicals, Purge Mode clears the air and allows normal operations to resume. There are a few options for how quickly you want to purge the space with one full outside air change.

Seresco offers the best options in the industry, which are considerably more effective than options from some other manufacturers.

2. THE DIFFERENCE BETWEEN SERESCO'S SMART AND FULL PURGE

Full Purge (100% OA/EA) is the fastest way to purge all the air in the room. Delivering a full volumetric outside air change only takes 10 minutes, assuming six air changes per hour. Full Purge offers the quickest turnaround back to regular operation.

Smart Purge (50% OA/EA) is a new Seresco release that offers a lower first cost and a more compact unit that helps deliver a full volumetric air change in 20 minutes, assuming six air changes per hour. The Smart Purge is an excellent option for facilities with limited heating capabilities or mechanical room space.

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[Seresco Smart Purge Technical Bulletin](#)

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