

Creating the Best Environment for Little Swimmers



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Goldfish Swim School was founded in the belief that toddlers and children learn to swim best in a pool facility that is designed and dedicated specifically for teaching them. The company opened its first location in Birmingham, Mich. and soon began franchising the concept across the Midwest. In addition to certified teachers and small class sizes, Goldfish facilities feature heated indoor swimming pools kept at 90°F, an air temperature of 92°F, a state-of-the-art pool water purification system, and an air-conditioned viewing gallery for parents to watch lessons.

When a new 9,000-square-foot Goldfish Swim School location in Burr Ridge, Il. was being planned, the designers and constructors knew that the evaporation off the warm pool would create high levels of humidity within the facility. Given the extreme variation in seasonal temperatures outside, condensation would be a concern. The facility is located in the exterior corner of its building and features two adjacent walls of windows to the outside. Not only could the condensation collect on these exterior windows, it could also cloud up the windows of the parents' viewing gallery, making it impossible to see their children.

Simplicity and efficiency were of paramount importance to Steve Karapetian, owner of this Goldfish Swim School location. "I wanted an HVAC system that would manage multiple factors: pool temperature, humidity, and air temperature," says Karapetian. "One that does it all."

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Paul Joliat, President of Michigan Air Products

Michigan Air Products, which has represented Dectron in the state of Michigan for many years, took an early initiative in meeting with Goldfish Swim School's senior management at its corporate offices in Birmingham, Mich., to review the superior design characteristics associated with the Dry-O-Tron® line of dehumidifiers. Paul Joliat, President of Michigan Air Products, recalls that "Goldfish was particularly keen on the Dectron methodology of rejecting compressor heat (energy) into the pool water as well as into the airstream." Franchise owner Steve Karapetian worked with architect Jeff Klatt of Krieger Klatt Architects, based in Royal Oak, and engineer William Barrett of Van Dyken Mechanical in Grandville to examine a few HVAC systems that featured the Dry-O-Tron® at other Goldfish locations. Klatt had not worked with Dectron products before, but like Goldfish's senior management, he became convinced that a Dectron Dry-O-Tron® dehumidifier was the way to go.

A further consideration was the fact that the pool loses an average of ninety-five percent of its heat through evaporation, so a system that returns that heat to the pools would be essential in order to minimize heating costs, particularly in winter. The 28- by 75-foot pool holds 56,600 gallons of water, but is only four feet deep — resulting in a large surface area from which warm water can evaporate quickly.

Barrett designed the HVAC system so that it would have sufficient capacity to manage the high humidity loads that would be generated by the large warm-water pool. Fortunately the Van Dyken team, including start-up technician Peter D. Nordquist, had been involved in five other successful installations at other Goldfish Swim School locations and had learned a great deal about how to optimize design for this type of a facility.

The most essential component of the HVAC system is the dehumidifier, and for this component Barrett chose the Dry-O-Tron® DS-082, manufactured by Dectron. The unit was supplied by Michigan Air Products. "We were most impressed by the Dectron system," says Karapetian. "It was the one that best met our requirements."

The Dry-O-Tron® DS-082 is an indoor vertical-airflow dehumidifier that features two refrigeration circuits and is rated for 80 pounds of moisture removal per hour. The internal hot gas reheat coil, along with a unit-mounted hot water coil, can handle the extreme weather conditions that winter in the Midwest will bring.

The Dry-O-Tron® is designed to minimize heat loss caused by evaporation. It captures this heat as a by-product of the dehumidification process and returns it to the pool. Any leftover heat, including part of the electrical energy equivalent to the captured heat, is available to warm the room air simultaneously. If the room air needs cooling, leftover heat is rejected outdoors.

The Dry-O-Tron® is part of a comprehensive air quality system that also includes the building's piping, electrical components, and ductwork;

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HVAC installer,
Van Dyken Mechanical*

the pool operation; and most importantly, the people overseeing its installation and operation.

Each part of the system must function together to produce optimum savings. The building must be suitably constructed for the application, the ductwork must deliver air to the right places in the right amounts, and the pool operation must limit evaporation and control oxidation by-products. These things will not happen unless the people are informed and dedicated to success.

Dectron's Dry-O-Tron® units have some of the best ratings in the industry when it comes to energy efficiency. This was important to ensure that the system delivers cost savings for the owner, both on an ongoing operating basis and in the long term.

Units in this size range save thousands of dollars per year in pool-heating and space-heating costs. There are also intangible benefits, such as improved comfort for the children at the swim school and their parents. In the long term, the facility benefits from the protection against condensation that the system offers, avoiding damage to the building that would result in additional costs to the owner.

The system was installed under the supervision of general contractor Rockford Construction of Grand Rapids. Van Dyken Mechanical's Peter Nordquist was charged with starting it up. "Peter is truly a wizard when it comes to getting Dectrons up and running efficiently," says Karapetian.

A veteran of HVAC installations, Nordquist is confident about the Dry-O-Tron®'s performance. "The Dectron units are designed to perform efficiently for 15 years, however I have seen Dectrons that have lasted 30 years and are still going strong," said Nordquist. "As long as the installation and maintenance guidelines are properly followed, they will work with very little customer intervention."

Another important consideration is after-sales customer service, and in Nordquist's experience, Dectron is second to none in this regard. "The customer service and support is excellent," he says.

Shortly after the construction was completed, the Burr Ridge Goldfish Swim School opened its doors and introduced its first classes of little swimmers to the joys of the water. As the temperature outside cools down and winter approaches, they are set to splash and have fun in safety and comfort for many years to come. ■



Dectron is a Dehumidified Air Solutions company and member of Dehumidified Air Services, a coast-to-coast service network of local customer support specialists. Backed by real-time remote monitoring of Vision 2.0 technology and direct access to the engineers who designed and built your dehumidifier, Dehumidified Air Services is the only organization in North America that has the scale and expertise to deliver trouble-free pool dehumidification and unparalleled customer service.



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