

That Fish Place / That Pet Place



- ▶ Commercial tropical fish and pet store
- ▶ Active desiccant system with natural gas-fired regeneration boiler
- ▶ 15,000-sq.-ft. fish room with more than 1,000 water tanks
- ▶ Lancaster, Pennsylvania

Natural Gas Desiccant Dehumidification Transforms Soggy Tropical Fish Store Into Comfortable Environment for Fish, Customers and Employees

Walking into the fish room at That Fish Place used to be like walking into a steaming tropical rainforest. The humidity in the room, which houses more than 1,000 large fish tanks full of colorful and exotic underwater creatures, was intense. But thanks to a desiccant dehumidification system that runs on natural gas, the 15,000-sq.-ft. room is now a comfortable place where customers linger to gaze at the finny inhabitants.

That Fish Place/That Pet Place, located in Lancaster, Pennsylvania, is the largest pet and pet supply house, and shipper of tropical fish, on the Eastern Seaboard. It was launched 32 years ago as a garage hobby, became the first aquatic mail order company, and now sells reptiles, birds and small animals as well as hundreds of varieties of fish, pet products and pond supplies.

Declining sales, crumbling structure

Several years ago, the fish store's owners noticed that retail fish sales were declining and customers were avoiding the fish rooms. Both customers and store employees felt extremely uncomfortable in the warm, moist conditions created by hot lights shining on hundreds of fish tanks open to the air. Some tanks hold up to 700 gallons of 78°F water.

"You used to go in that fish room and it was like a jungle," recalls Todd Christ, Industrial-Commercial Utilization Engineer at UGI, the gas utility serving the Lancaster area. Christ, a fish enthusiast, says moisture in the room was also damaging the building structure.

"We were able to dehumidify and cool that space to the point where lots of customers came back and their sales went up," says John Hayden, Director of Design-Build Services, Frey Lutz Corp.





“The walls were falling apart, the ceiling was sagging,” reports Christ, remembering that the store’s old electric desiccant system wasn’t doing its job.

“The worst part was the equipment, the electronics,” adds Joe Zikmund, head of maintenance at the store. He says humid air was rusting the electrical ballasts for the fish tank lights.

The owners of That Fish Place wanted the room kept at 75°F and 50% relative humidity year-round, but the electric packaged rooftop air conditioning system wasn’t up to the job, according to John Hayden, P.E., Director of Design-Build Services at Frey Lutz Corp., an HVAC contractor in Lancaster.



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“They had standard electric rooftop units that were undersized for the swimming pool’s amount of water surface area involved,” Hayden says.

Natural gas desiccant system addresses indoor issues

Solving the problem meant addressing the room’s temperature, humidity and ventilation issues. Hayden considered putting in a large electric dehumidifier, but found that the active desiccant system, which uses natural gas, was more economical. Gas, he says, is still a better buy than electricity.

“It’s a technology that does make sense,” Hayden maintains. “What we did was bring in outside air and dry it out, then deliver the air to the packaged rooftop units. They did the additional cooling. Now all that energy [used by the air-conditioners] could go to cooling instead of dehumidification.”

Sales up, structure intact

The end result, Hayden says, “is that we were able to dehumidify and cool the space to the point where lots of customers came back and their sales went up.”

“We can’t really operate without it,” says Zikmund. “It’s more comfortable, customers are willing to shop longer, and the equipment lasts longer.”



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