



PULLEN AQUATIC CENTER

Innovative Air Dispersion Solutions for Open Ceiling Architecture.

FOR MOST PUBLIC FACILITIES, A DAY OF DOWNTIME IS BAD AND A WEEK IS WORSE. The people at the *Pullen Aquatic Center* had to endure a full month of closed doors in the process of learning a basic fact: corrosive chemicals, water and traditional steel ductwork don't mix.

Application features 2 Comfort Flow DuctSox units each 50" in diameter x 161' in length. Each DuctSox diffuses 25,000 CFM at .5 ESP through porous fabric and linear mesh vents 1/2" wide. Vents can be seen in the picture above diffusing air toward pool.

case study

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FABRIC DUNKS METAL IN POOL ENVIRONMENT.

Original metal duct.



DuctSox.



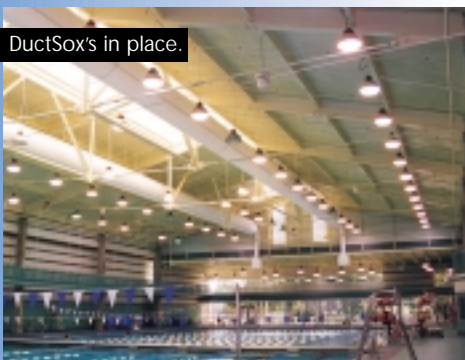
Double-elbow offset.



Three-story network of scaffolds with flooring in place.



DuctSox's in place.



Only six years after the city of Raleigh North Carolina built *Pullen*, the rust flakes falling from stainless steel ceiling ducts made a shutdown and complete duct removal necessary. "Every morning we would have more flakes in the pool," recalled Terri Stroupe, Aquatic Facilities Supervisor at the center. "It builds up. We had to polish the pool and the deck frequently just to keep the tile from staining red."

The problem was solved by replacing the old network of ducts with a new Comfort Flow DuctSox fabric air dispersion system. The porous polyester fabric construction of DuctSox is virtually unaffected by pool chemicals in the air, which corroded the original stainless steel. Even though a recreational pool doesn't seem like a chemically hazardous environment, it can be torturous to metal of all types. "We have to work on our railings constantly to keep the rust down," said Stroupe. "In a chlorine environment, you need something resistant like the fabric of the DuctSox."

Finding an effective solution was only half the battle for the Pullen staff. The larger challenge was enduring the difficult process of removing the old ductwork.

A two-story network of scaffolds was needed to enclose most of the building's exposed ceiling before beginning the three-week process of cutting down and hauling out the rusted metal. By contrast, the bulk of the DuctSox installation was completed in two days.

Stroupe added that the finished DuctSox system does a better job handling the tricky climate control conditions inside a pool. Aquatic centers need plenty of fresh air to offset the odor of pool chemicals, she explained, while at the same time maintaining a constant temperature near 80° F. "We've seen a much more even distribution of air," she said.

"People don't seem to feel a 'breeze' as much, which means more comfort for a person with wet, exposed skin." The bright white DuctSox also interact well with ceiling skylights, creating a clean, bright appearance.

DuctSox's best feature of all, Stroupe added, will come into play when the removable, washable fabric ducts are taken down and cleaned. "We won't even have to drain the pool," she said. "After what we've been through, that will really be nice." ■