



*Kalahari Resort
Aquatics Center*

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Redefining Air Dispersion

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CASE STUDY

Aquatic Center Kalahari Resort

Fabric Ductwork Helps Resort Maintain “Always 84 and Sunny”

Sandusky, OH- Kalahari Resort and Convention Center offers guests a controlled inside alternative to traditional outside waterpark attractions.

Just minutes from Cedar Point Amusement Park, Kalahari has become a major destination

for vacationers in Ohio and the surrounding states who are seeking a family-oriented atmosphere.

Kalahari has helped make Sandusky an even greater travel location, especially during the winter months, when other

outdoor attractions close due to cold weather. Kalahari, however, is always “84 and sunny” (a promise from the resort) thanks to their intricate HVAC system and roof makeup that allows penetrating sunlight.

Problem: Current Ductwork Needed Replacement

At over 173,000 square-feet, Kalahari is one of the biggest indoor waterparks in the United States. Sandusky’s resort features over 884 rooms, making it the largest hotel in the state of Ohio. Its waterpark portion is only trumped in size by the more recently opened Kalahari resort in Pennsylvania.

Kalahari’s waterpark opened in 2005 at 80,000 square-feet and was quickly expanded another 93,000 square feet in 2008.

Due to the harsh environment presented by an indoor pool, the metal support structure for air distribution ductwork began to erode and required replacement in 2018.

Challenges: Restraining Environment and Hours

When Kalahari needed to make significant upgrades to their ductwork after an unexpected failure, they didn’t want to spend days or even weeks closed to the public. That type of downtime wasn’t in the plans, and another solution needed to be worked through to fix issues.

Kalahari wanted their contractor on the project, Gundlach Metal Works, to work during off-hours. This presented a unique challenge to the contractors’ team and would increase the time needed to complete the project.

Installation of the new system was also a challenge due to the waterpark’s intricate layout and its tight restrictions. Gundlach’s team had to use special work lifts with weight restrictions to complete the job.

DuctSox, a fabric alternative to traditional metal ductwork, was pegged as the right solution for Kalahari’s massive air distribution needs.



Kalahari's visual aesthetics are important and a big part of its brand. The highly themed resort is designed to give guests the feeling that they are spending their time on the African Savanna. To match their visual presentation, Kalahari preferred the less intrusive and easier to hide DuctSox system instead of more traditional metal ductwork.

Solution: DuctSox and Specified Pool Environment Supports

Although the project was challenging, open communication between supplier and contractor lead to a successful solution.

"When Kalahari asked us to provide a replacement DuctSox system for their indoor waterpark,

we were relieved that Air Control Products would be our supplier, and Joe Charnigo would see it through," said Terry Kette, Project Manager at Gundlach. "Given the enormity and complexity of the project, it was comforting to work with a trusted partner on this job."

Results: A safer, Longer-Lasting Air Distribution System

Gundlach Metal Works team installed the new system for over three months. When the project was complete, their feedback on DuctSox and its ease of installation were positive. Kalahari ownership was also pleased with the project's execution and the look presented by DuctSox.



Pool-Grade Components

DuctSox specifically configured with suspension and retention components to stand up to the harsh environments of indoor aquatic facilities. This pool-safe hardware options include:

- Impregnated coated cable
- Special clamps and turnbuckles
- Anodized aluminum U-Track
- Baked enamel coated IHS hoops
- Special clips and zippers

The IHS also significantly eased installation, as larger diameter DuctSox would require two rows of support. With the rings, IHS only requires one row of suspension above top center on each segment.

DuctSox Representative, Air Control Products, prides itself on its "easy to do business with" mentality and did all it could to ensure on-time completion and a lack of complexity for the installer.

"Air Control Products worked closely with us in ensuring timely delivery of each phase of a very complicated project," said Terry Gundlach, Project Superintendent. "DuctSox shipped the duct segments packaged on pallets in the correct order required for hanging. Thanks to Air Control Products, DuctSox, and Joe Charnigo, everything went much smoother than we expected."

For more information about how a DuctSox system could improve your aquatic center go to: www.ductsox.com/applications/aquatic-centers

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