

CASE STUDY

PurePak™ 18 Module (PP18)

Revolutionizing Air Quality
at SeaWorld Abu Dhabi

Ammonia Control and Air Quality Management –PP18 Modules with Ammoniasorb® Chemisorbant Media

In 2023, SeaWorld Abu Dhabi opened a groundbreaking marine-life theme park on Yas Island through a collaboration between SeaWorld Entertainment and Miral. As the first SeaWorld park in the Middle East, it sets a global benchmark, blending world-class entertainment with a bold mission: championing marine conservation, education, and sustainability.

The operational challenge faced by SeaWorld Abu Dhabi is to maintain environmentally safe air in cold, enclosed habitats specifically for species like penguins and birds, whose waste generates ammonia at levels that can compromise their health and comfort.

The Invisible Threat: Ammonia Buildup:

At SeaWorld Abu Dhabi, maintaining low ammonia levels (below 5 ppm) in indoor habitats is a primary concern. When ammonia levels rise above 5 ppm, animals are at risk of respiratory issues, eye irritation, and long-term



health problems. The challenge is further compounded in cold habitats where ammonia is less volatile and lingers longer.

THE SOLUTION

To address this challenge, SeaWorld Abu Dhabi partnered with PureAir Filtration to implement a reliable and proven solution: **PureAir's PP18 Modules filled with Ammoniasorb® chemisorbant media**. Seamlessly integrated into their existing Air Handling Units, these modules control and maintain safe ammonia levels in their animal habitats.

Why did SeaWorld Abu Dhabi choose PureAir:

- **Proven Performance:** Ammoniasorb® media is engineered to **chemically neutralize ammonia**, not just mask it.
- **Tight Tolerances:** Our solution helps maintain ammonia levels **consistently below 5 ppm**—exceeding animal welfare standards.
- **Tailored Design:** The PP18 modules were optimized to handle the high demands of continuous recirculation in cold, enclosed environments.

Ongoing Partnership, Continuous Excellence

Since the PP18 Modules were installed in the park's Air Handling Units, SeaWorld Abu Dhabi has seen a dramatic and sustained reduction in ammonia levels. By maintaining low ammonia levels, the park ensures a cleaner and healthier environment for its feathered residents. SeaWorld Abu Dhabi highlights how advanced filtration is not just about compliance; it is about care.