



Waterco Case Study

Aquarium Encounters (USA)

Interactive exhibits inspire marine conservationism

Florida Keys Aquarium Encounters (USA)

- 15 WATERCO MICRON SIDE MOUNT FILTERS TREAT THOUSANDS OF GALLONS OF WATER
- LATERAL DESIGN REDUCES “DEAD LEGS” BY DRAMATICALLY IMPROVING WATER FLOW
- THE PREFERRED CHOICE FOR LARGE-SCALE AQUARIUM LIFE SUPPORT SYSTEMS (LSS)

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Setting: Interactive aquarium mirroring local ecosystems

Florida Keys Aquarium Encounters and its sister company, Dynasty Marine Associates Inc., in the US is an industry leader in the field of capture, transport and relocation of sharks, tropical fish, and other marine sea life for aquariums and private businesses around the world.



Florida Keys Aquarium Encounters lets the public get a closer look at (and feel of) its diverse collection of aquatic animals.

Unlike traditional aquariums that separate visitors and animals between panels of glass, Florida Keys Aquarium Encounters lets the public get a closer look at (and feel of) its diverse collection of fish, stingrays, and sharks, and even invites visitors into many of the tanks.

The entire park is set up as one massive interactive learning center, which aims to cultivate a better understanding of the conservation of the unique marine environment found in the Florida Keys. This coral cay archipelago located off the southern coast of Florida serves as a boundary between the Gulf of Mexico to the north, and the powerful Gulfstream and Caribbean Sea to the south-east.

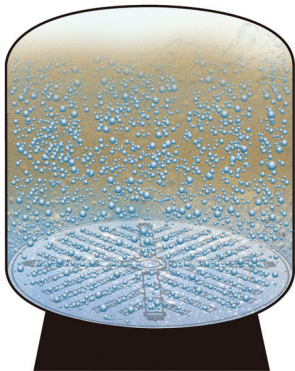
This is all part of the Aquarium's vision to educate the public and inspire a new generation of passionate marine conservationists.



40-plus people per day swim and interact with species including sharks, Caribbean stingrays, and fish.



Waterco's Micron Commercial Fibreglass Filters are made from continuous strands of high quality fibreglass filament wound under controlled tension to create a seamless, impervious vessel.



Waterco's unique "fish tail" lateral configuration eliminates this problem by providing effective coverage of the filter bed and balanced water flow.

Challenge: Maintaining clean water for marine life and people

Aquarium technicians were faced with the challenge of maintaining clean, healthy water for its diverse marine life and the 40-plus people per day who pay to swim and interact with species including sharks, Caribbean stingrays, and fish.

"Having crystal clear, sparkling water was imperative for our guests to have a great, authentic experience, so we knew we needed to go with the best sand filter we could find that would work within our specifications – that is why we chose Waterco," says Director Ben Daughtry.

Solution: Waterco's high-performance Micron Side Mount Filters

Impressed by the lateral design of Waterco's Micron Side Mount Filters, which eliminate "dead legs" by improving water flow distribution through the filter bed, Florida Keys Aquarium Encounters installed 15 Micron Side Mount SM900 Filters with valves, including:

- 1 x SM900 in the fresh water snapping turtle holding tank
- 2 x SM900s in the 3,000-gallon fresh water exhibits, which connect different areas including Alligator Alley, Turtle and Tortoise Territory.
- 12 x SM900s in the 230,000-gallon salt water exhibits, which connect different areas including the Coral Reef Tank, Predator Tank, Lionfish tank, Stingray Cove, Big Shark Bay Encounter, Tide Pool Touch Tank, Lagoon Snorkel Encounter, and a nursery tank for baby stingrays.

Manufactured from the highest grade of non-corrosive materials and applying the latest in fibreglass winding technology, Waterco's Micron fibreglass filters also feature optional sight glasses and lateral man holes. This enables Andy and his team of LSS technicians to easily inspect the filtration and backwash processes.

Conclusion: Enhancing the physical health and wellbeing of Aquarium species

Since Waterco installed the system in 2014, Ben and Andy have been able to maintain fantastic water clarity, and keep the time it takes to maintain the system to a minimum.

"Waterco's filters have really helped us to maintain the best water clarity in our systems and with their high performance, it keeps our time dealing with life support systems to a minimum," explains Husbandry and LSS manager Andy Dobrowolski.

"Waterco fibreglass filters are perfectly suited to the constant increases and decreases in pressure experienced by sand filters," explains Kristina Macias, Waterco USA Marketing Manager and Life Support Development. "Accelerated cyclic testing has shown that even after simulating 20 years of use, Waterco fibreglass filters withstood cyclic wear and tear better than most other filters in its class."