

Small Craft Advisory: *Oasis Of The Seas*, Part 5, The Aqua Theatre

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One of the most dramatic venues on the *Oasis of the Seas*, the Aqua Theatre, takes over the stern of the ship. Almost 18' deep and 52' wide, it is the largest freshwater pool on any ship. During the day, passengers swim in the pool, but at night the *Oasis of Dreams* acrobatic water ballet, featuring synchronized swimming and diving stunts from spring boards and a trampoline, is performed. The sound system was designed by JaffeHolden Acoustics, and lighting for the show was designed by LD Simon Harry.

Rose Brand, Inc. supplied the theatre's digitally printed drapes and pool cover.

The show is broadcast on two giant Barco Olite 612 LED walls flanking the pool, at 7.6m wide and 4m high, making them the largest screens on a ship.

Christopher Vlassopoulos, head of entertainment technology and technical design for Royal Caribbean, calls the equipment requirements for the Aqua Theatre and surrounding area, "a classic example of all the horrors," including inaccessible fixtures in areas exposed to the public 24 hours a day, where technicians on ladders changing lamps would create a hazard. On top of this, the fixtures are subjected to salty air, constant vibrations, soaring temperatures, and water. "We didn't want to sacrifice a large amount of real estate to a black cave with lighting fixtures in it," says Vlassopoulos, adding that the fact that LEDs can remain exposed and are relatively maintenance-free is a huge advantage over conventionals.

LED Source, which also provided some of the LED lighting for the themed neighborhoods, worked with FUNA to incorporate the LEDs in the Aqua Theatre, including 40 Philips Color Kinetics ColorReach Powercore units. Vlassopoulos notes another bonus of using LED units is that they "come in white, which is very helpful because, generally, cruise ships come in white too."

The Aqua Theatre pool also contains three lifts to vary the depth during shows, and the middle lift rises up to create a baffle at non-performance times to restrict wave action and prevent water loss in rough seas. The ship sails at around 19 or 20 knots, and although it is designed to live in Caribbean waters, the trip from Finland, where it was built, across the Atlantic was rough enough to damage the guidance rails for the lifts.

Handling Specialty of Niagara Falls, NY, designed and built the lifts. **Thomas Beach**, president of Handling Specialty, notes that the problem arose because the pool is fabricated out of steel and attached to the steel in the ship, "so all that weight is flexing, and some of that energy altered the state of the guides, which had to be reset." Lift guides have to be flexible but not loose. **Handling Specialty** had previously worked on 'O' and *Le Rêve in Las Vegas*, but there were additional challenges to engineering the lifts onboard *Oasis*. The pool is bromine-based, but if the water becomes contaminated, the structure has to be able to cope with replacement water straight from the sea.

Hydraulic fluids in the lifts are vegetable-based, so that nothing toxic can leak into the swimming pool. Above the pool are two diving boards that **Handling Specialty** designed so that they could be hidden in an arc for safe storage when the pool is open to the public. Another section of the floor houses an Olympic-sized trampoline that can rotate 180° to poolside for performances. "On a vessel, every inch counts, and so we were able to install the diving boards inside a pre-existing column and rotate the trampoline to save space," Beach says. He sums up the amphitheatre's impact, noting, "There's something about water. It's magical and mystical. Water adds a whole other dimension." It's a moving experience all around.