=Press release=

Sinot Yacht Architecture & Design presents:

AQUA

The Balance of Design & Technology

Eemnes/ Monaco, September 20, 2019 - Sinot Yacht Architecture & Design presents yet another groundbreaking concept at this year's edition of the Monaco Yacht Show. With AQUA, a 112-meter fully operational, on liquid hydrogen and fuel cell technology powered concept Superyacht, Sinot shows once more to be able to fuse groundbreaking technology with cutting-edge design. Sinot Yacht Architecture & Design will reveal a detailed, over 2 meter (80 inch) long scale model of AQUA at the Monaco Yacht Show 2019 (Parvis Piscine PP55).

True Superyacht

Hydrogen, which has been labelled as the fuel of the future for the last decades, finally found its way to the world of Superyachts. The designers at Sinot Yacht Architecture & Design created in collaboration with Lateral Naval Architects, the design for the first 112m LOA superyacht based on liquid hydrogen and fuel cell technology. Now a fully operational 112m concept Superyacht with a speed of 17 knots and a range of 3750 nautical miles is realized, placing AQUA solidly among Superyacht peers in terms of size, performance and usability. Simultaneously meeting and exceeding current superyacht standards, AQUA optimizes hull, energy and space efficiency while providing a maximal superyacht experience at the highest comfort level for discerning owners.

Mindset

Designer Sander Sinot explains how he and his team managed to integrate the hydrogen-electric system capable of catering for all onboard energy needs without having to compromise on esthetics, comfort or usability: "With every project, I challenge my team and myself to surpass ourselves. For development of AQUA we took inspiration from the lifestyle of a discerning, forward-looking owner, the fluid versatility of water and cutting-edge technology to combine this in a 112m superyacht with truly innovative features." Sinot soon realized they had set themselves an extraordinary goal, so started working on an extraordinary design: "Our challenge was to implement fully operational liquid hydrogen and fuel cells in a true superyacht that is not only groundbreaking in technology, but also in design and esthetics."

Nature and technology

AQUA is fueled by hydrogen, a unique concept which represents a significant progression towards achieving a new balance between nature and technology. The system is based on the use of liquified hydrogen, stored at -253°C in two 28-ton vacuum isolated tanks. The liquified hydrogen is converted into electrical energy by proton exchange membrane (PEM) fuel cells, with water being the only by-product. All parameters in terms of output, system layout, range and physical dimensions where translated to a complete hydrogen / electric based system. The generated electrical energy is transmitted to AQUA's switchboards, where it is distributed to provide power for propulsion, auxiliary systems and hotel services. Large batteries buffer the generated electricity to ensure power demands are always met. And thanks to the electric propulsion AQUA is a very quiet superyacht, with very little noise or vibrations. After five months of extensive development, the team of designers and naval architects came up with a design with physical dimensions and operational characteristics that even strengthen the superyacht experience. Sander Sinot: "Reliability and safety are essential in our world. That's is why we emphasize that we implemented proven technology in a new appliance. Imagine AQUA at open sea, moving water with water?! At 17knots with a range of 3750 nautical miles, which places AQUA solidly in the forefront of its Supervacht peers!"

Privacy and Space

Entering AQUA is entering a world of privacy and space. The spectacular, extremely spacious and beam-wide owner's pavilion, occupying the front half of the upper deck, offers an abundance of privacy. The pavilion is arranged in a vast open-plan area of interlinked spaces, divided by finely crafted wooden screens providing intimacy and subdued lighting. Both at the starboard and port sides, floor-to-ceiling band windows supply an amazing impression of openness and freedom. The ceiling, at a height that varies from an ample 280cm to an impressive 380cm at the large central skylight, is supported by an intricately crafted wooden structure. The bedroom section is located at the yacht's axis and offers an endless sightline all the way up to the AQUA room at the bow. The owner's pavilion is completed with a large bathroom, dressing room and an intimate private spa section. The AQUA room, located at the bow, at the far end of the owner's pavilion, offers a top-of-the-world feeling and endless views from the best position on board.

Located on AQUA's beach deck, close to the waterline, the expansive and naturally outfitted VIP state rooms stand out by virtue of their spacious design and highly elaborate furniture. The VIP cabin and other state rooms are focused on openness, luxury and comfort, providing a maximum sense of freedom in a highly detailed minimalist Japanese beach-style setting.

The indoor health & wellness center is a water-world of serenity, where the reflecting waves of the water feature complement the onboard environment with their soft, vibrating motion. With an exclusive hydro massage room, a yoga space and workout floor and a massive, gym-wide hatch which opens to reveal the ocean's surface at water level, creating the perception of exercising and relaxing on an island in the sea.

Situated at AQUA's core, the spectacular circular staircase is one of the yacht's defining features, winding down from the top deck to the lower deck. A true spectacle manifests itself at the lowest level, facing aft, where two vast liquified hydrogen tanks reveal their hexagonal textured surface structure behind a giant façade of strengthened glass.

Curved

The flowing exterior lines of AQUA are inspired by ocean swells – the surge of energy induced by winds and currents, boosted by the gravitational forces that control the ocean's tides. The curved top deck culminates in a sensational bow with integrated front bow observatory, the AQUA room, as part of the Owners pavilion. The hull is a sculpted overall double curved volume, intersected by the glass band windows, which subdivide approaching the aft stepping down to the water. The raised front profile with a strong forward direction in the design, provides ample space for accommodating all Owner's, guests and technical facilities. AQUA is configured with a five-deck set up, utilizing forward interior space through the high sheer line which subtly descends from bow to aft. The yacht has been designed to provide those on board with the closest possible proximity to the water. The aft deck features a unique and innovative series of platforms cascading down towards the sea, while a large swim platform allows all AQUA passengers to enjoy the optimal experience of accessing the water at sea level.

Technical feasibility

Many concepts Sinot Yacht Architecture & Design has presented over the years are in different stages of realization. AQUA is designed for owners who want to take yachting to a next level, with a pioneering design that clearly prefigures the superyachts of tomorrow. AQUA: a new way of yachting.

SPECIFICATIONS AQUA

CREATION

Exterior & Interior Design: Sinot Yacht Architecture & Design

Hydrogen Technology & Naval Architecture: Lateral Naval Architects

GENERAL

Length waterline:112mBeam molded:15.4mEstimated GT:3,530Draught half load:3.95m

PERFORMANCE

Maximum speed: 17 knots
Cruise speed: 10-12 knots

Range: 3,750 nautical miles

Electrical power generation: 4.0 MW

Power source: PEM fuel cells

Fuel: Liquified hydrogen

ACCOMMODATION

Guest capacity: 14 persons

4 guest state rooms, 2 VIP state rooms, 1 owner pavilion

Crew capacity: 31 persons

14 double crew cabins, 2 officer cabins, 1 captain's cabin

TENDERS AND TOYS

1x 10m limo tender 1x 10m sort tender 3x wave runners Water toys

=End press release=

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