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The WaterNest: Timber and aluminum combine to create an eco-friendly floating house

Luxurious floating home sleeps a family of four and is completely powered by the sun



Image © Giancarlo Zema

Following years of research, the architect Giancarlo Zema, already famous for his water creations, has designed exclusively for British firm EcoFloLife, an eco-friendly floating housing unit - the WaterNest 100. The luxurious floating home, which has a 12m (39ft) diameter and is 4m (13ft) tall, offers a floor space of 100 sqm (1,076 sq.ft), large enough to accommodate a family of four with two bedrooms. Made entirely of recycled glued laminated timber and a recycled aluminum hull - all of which are completely water resistant - the home is powered by a 60 sqm (646 sq.ft) solar roof and can be placed on any lake or river.

Balconies are conveniently located on the sides and thanks to the large windows, allow for fascinating views over the water. Bathroom and kitchen skylights are located on the wooden roof, as well as 60 sqm of amorphous photovoltaic panels capable of generating 4 kWp, which is used for the internal needs of the residential unit. The interior of the circular pod-like structure can include a living room, dining area, bedroom, kitchen and bathroom or have other configurations according to

the different housing or working needs. As well as being used as a residential unit, it is possible to set up as an office, lounge bar, restaurant, shop or exhibition space. The selected furnishings in the EcoFloLife catalogue are well designed, eco-friendly and elegant, and thus meet the most demanding contemporary needs.

The WaterNest 100 can be positioned along river courses, lakes, bays, atolls and sea areas

““ *The interiors of the WaterNest 100 are characterized as being warm and welcoming, contemporary style and innovative*

with calm waters. Up to 98 percent of the structure is made of recycled materials, including a laminated wooden supporting frame, and curved wooden cladding and partition walls that are treated to be weather-resistant. In addition, thanks to a sophisticated system of internal natural micro-ventilation and air conditioning, it is classified as a low-consumption residential habitat. As such, the WaterNest 100 is the ideal solution for those

wishing to live independently, exclusively and in complete harmony with nature.

The interiors of the WaterNest 100 are characterized as being warm and welcoming, contemporary style and innovative. The scent of the wood structure invades the space. The large windows allow light to enter and illuminate the interiors. Further, the furnishings are made from a recycled and recyclable material - the result of a rigorous

selection of the most renowned and established eco-friendly contemporary design companies, thus meeting the trendiest style requirements.

Layout

The WaterNest 100 has a 100 sqm circular layout, 12m in diameter, with balconies conveniently located along the longer sides. The largest model measures 12m (39ft) in diameter and 4m (13ft) tall, with

100 sqm (1,076 sq. ft) of space plus balconies. However, other homes can be made to order with the company offering the option of 60 sqm (649 sq.ft) and 80 sqm (861 sq.ft) versions. The ability to configure the WaterNest 100 means that it can serve as a house/resort; office/lab; shop/exhibition space; or lounge bar/restaurant.

House/Resort

This version of WaterNest 100 is ideal to accommodate a young couple or a family of four, wishing to live in a new, eco-friendly and non-conformist manner, without sacrificing comfort, elegance or style. WaterNest 100 includes in its interior a living room, dining area, bedroom, kitchen and bathroom. The selected furnishings in the EcoFloLife catalogue allow one to embellish the space with a touch of color and joy.

Office/Lab

This version of WaterNest 100 is more suited for a young and dynamic work team wishing to communicate and work in a single, one-of-a-kind space, in close contact with nature. The





Image © Giancarlo Zema



Image © Giancarlo Zema

WaterNest 100 can fit separate or adjoining workstations, a bathroom, storage and archive. The EcoFloLife catalogue has refined furnishings such as desks, chairs and floor lamps, which are made entirely of recycled flame-retardant cardboard in different colors.

Shop/Exhibition

This version of WaterNest is best suited for those wishing to open an innovative floating business or exhibition gallery. A large open-space that can be modelled according to the various business needs with storage, dressing room and toilet. The EcoFloLife catalogue has refined furnishings such as reception, armchairs and floor lamps, made entirely of recycled flame-retardant cardboard.

“ The supporting frame of the WaterNest 100 superstructure is molded laminated wood, while the cladding and partition walls are curved wood

Lounge Bar/Restaurant

This version of WaterNest 100 is the ideal design to accommodate an innovative and charming, as well as entirely environmentally friendly restaurant for bio products or an intriguing floating bar. An open-space with bar, stools, tables, chairs, kitchen and toilets allow for a maximum capacity of 40 people.

Production

The WaterNest 100 spindle-shaped casing is entirely made of laminated wood, an innovative product, produced on an industrial scale

using a technological process where natural wood is pressure bonded, reducing the defects typical of solid wood. In addition to the exceptional sustainability, affordability and aesthetic characteristics of the product, there are several advantages such as a high ratio of mechanical resistance to weight. Furthermore, the laminated wood structures have an excellent fire resistance, in fact, combustion occurs slowly due to the good thermal insulation given by the carbon surface layer.

The supporting frame of the

WaterNest 100 superstructure is molded laminated wood, while the cladding and partition walls are curved wood, treated to resist weathering easily. In addition to the exceptional sustainability, affordability and aesthetic characteristics of this material, there are several advantages such as a high ratio between mechanical resistance and weight.

The WaterNest 100 hull is made entirely of aluminum, a light alloy, highly resistant to impact, corrosion and 100 percent recyclable, requiring no maintenance. The tapered shape is achieved by means of aluminum plates, which are cut using CNC machines supported with a CAD/CAM system and braced with reinforcing bulkheads. As well as ensuring excellent buoyancy, the

hull contains the technical facilities necessary for the residential unit.

The flooring and the spacious balconies of the WaterNest 100, which allow you to enjoy fascinating views over the water, are made entirely of high-quality teak to withstand temperature variations, humidity, saltiness and the attacks of atmospheric agents. Like yacht decks, the size of the slats is sufficient to reduce leakages while having the greatest visual impact.

Sustainability

60 sqm of amorphous photovoltaic panels capable of generating 4 kWp are installed on the wooden roof of the WaterNest 100 and are used for the internal needs of the residential unit. This type of panel differs from the conventional ones due to the low energy consumption required for their production, making them environmentally friendly. Moreover, from an aesthetic point of view, they can be curved to fit almost any type of roofing.

The WaterNest 100 also has a sophisticated integrated system for the purification and filtering of gray and black water (bathroom and kitchen waste, etc.), which can be partly reused for water or completely purified and admitted back into lakes, seas and rivers. The only maintenance required approximately every six months is the clearance of simple biological waste products from the internal filter. Naturally, only ecological detergents and soaps can be used on board. For fresh water, the tank capacity is a substantial 1,500 liters.

Zema is no stranger to designing innovative aquatic residences. His previous concepts have included the Trilobis 65 yacht-cum-home, a semi-submerged cliff-side dwelling and a five-level floating apartment block. Unlike these designs, however, the WaterNest 100 feels practical and like something you might actually live in one day. Commenting on his design, Zema says: "the inspiration came from observing the aquatic nests of water birds all over the world where they can live and grow their babies in total harmony with nature. So I thought of designing something similar that can help us to embrace life and allow us to live a floating experience in a natural and energy saving habitat."



Image © Giancarlo Zema



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