

# **WING** 100

A dramatically innovative Royal Huisman concept that redefines supersized sailing yachts – delivering unprecedented performance, amenity, easy handling and energy efficiency.



WING 100 celebrates the arrival of an entirely new megayacht category, say its creators, Royal Huisman, Dykstra Naval Architects and Mark Whiteley Design. This 100m / 330ft ground-breaking concept expressly focuses on the highest standards of environmental sustainability with proven technology for worldwide reliability. Its advanced systems platform easily accommodates future technological advances and regulatory requirements.

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WING 100 AND A 7M / 23FT SPORTSBOAT: ONE PICTURE WORTH A THOUSAND WORDS

The innovative, aluminum-hulled WING 100 is a true sailing yacht – not a heavy sail assisted motor yacht – yet one with an important difference. She can be easily and securely handled and quickly deployed without the least fuss or drama. WING 100 has been conceived not only to appeal to sailing yacht owners, but to provide the perfect cross-over for motor yacht owners who want to minimize their environmental footprint by reducing the weight of their yacht, but retain the highest standards of amenity and comfort.



These benefits – and many others – arise because WING 100 is no 'normal' supersized sailing yacht: she has a highly advanced rig by Rondal. The wing masts have airfoil profiles; are free standing, and rotate to provide very powerful, integrated airfoils with the sails. The shape of the airfoil can easily and remotely be adjusted to maximize or reduce power. Being free-standing, the wing masts have no standing rigging or associated deck clutter, maximizing safe, clean amenity space on deck. The wing masts are easily and safely remote-controlled to ensure fast, energy-efficient sailing, providing a comfortable experience for all onboard.

To put the WING 100 concept into perspective: she is a true sailing yacht that will properly earn her ranking among the world's top ten sailing yachts, along with Royal Huisman builds Athena and Sea Eagle II; soon to be joined by the exciting new 85m / 280ft New World Sloop, Project 410, currently under construction in Vollenhove. The supersized and highly innovative WING 100 would not only be a top-tier yacht in this elite group, but would also become the acknowledged pioneer among the even more prestigious 'true' supersized sailing yachts.

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ROYAL HUISMAN SUPERSIZED SAILING YACHTS:

SEA EAGLE II (81M / 266FT), PROJECT 410 (85M / 280FT) AND ATHENA (90M / 295FT) - WING 100 (100M / 330FT) WOULD BE A TOP-TIER YACHT IN THIS ELITE GROUP.

Royal Huisman is the only shipyard in the world with the expertise, infrastructure and continued technological evolution required to build the largest and most advanced of the top ten true sailing yachts. The range of new technologies applied by the shipyard to maximize the energy efficiency of WING 100 will bring substantial advantages to the owner – and not just while exploring the outer corners of our vulnerable planet.

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The combination of the concept's pioneering board systems and advanced wing mast rig, alone, qualifies WING 100 as a defining breakthrough in mega yacht design. A host of additional smart refinements ensure that WING 100 can also claim distinction as the world's most innovative sailing yacht – a role model for the industry. "Watch this space" to see these technologies develop through the mega yacht and superyacht sectors and, almost certainly, be embraced by wind-assisted cargo sailing ships, too. And that is why this significant project stands to benefit the whole planet.

WING 100 offers the perfect platform for a visionary owner looking to minimize footprint. The concept is well advanced towards fully sustainable technology and Royal Huisman expertise is on hand to ensure the owner realizes the full potential of his or her dreams.

"The emergence of sailing yachts on this scale, with the level of energy efficiency and ecoresponsibility offered by WING 100, would have been unthinkable just a decade ago", comments Royal Huisman CEO Jan Timmerman. "The team is incredibly excited to be at the forefront of this conceptual revolution. We look forward to applying our renowned innovation and engineering skills to the realization of this highly ambitious project – creating the fourth and largest Royal Huisman build yet in the global top 10 of supersized sailing yachts."

#### END OF PRESS RELEASE



### EDITOR'S NOTES

#### MAIN SPECIFICATIONS

Type Length overall Exterior styling Naval architecture Interior layout and design Builder Accommodation Hull and superstructure Speed Rig and handling

# **WING** 100

Wing mast sailing yacht 100m / 330ft Dykstra Naval Architects and Mark Whiteley Design Dykstra Naval Architects Mark Whiteley Design Royal Huisman 12 guests + nanny / teacher + 16 crew Aluminum 24+ knots Rondal carbon rig and Integrated Sailing System (unstayed, rotating wing masts featuring 73m / 239ft air draft and carbon furling performance booms)

#### ECO-FOCUS AND FAST, EASY HANDLING: WING MAST RIG IS THE ANSWER

Hydrocarbon consumption and high greenhouse gas emissions are an unavoidable aspect of large motor yachts. Large sailing yachts are much more environmentally friendly and have rightly earned a "greener" image – especially when they are actually sailing. Conventional sail rigs can take time and crew effort to set up, manage and take down. Consequently, shorter passages are (too) often made under power. Although a sailing yacht's slender hull shape is much more easily driven under power, this reduces, but still not fully addresses, the environmental impact.

One of WING 100's most arresting features is surely its rig: two 73m / 239ft unstayed and rotating wing masts, manufactured by Rondal. It's based on a proven concept and features numerous advantages. Firstly, the twin mainsails can be hoisted in a few minutes, making sailing the easy choice. The staysails, when required, can equally easily be unfurled and trimmed. The rig ensures fast and efficient performance yet is comfortably managed by remote control. If the wind strength increases, the sail plan can be rapidly de-powered. This ensures that a modest angle of heel is effortlessly maintained to provide owners and guests with a calm, comfortable and confident experience.



Enhanced power control ensures that WING 100 is quickly readied for short passages as well as long voyages – offering a fuller and more rewarding experience to owners and guests aboard what will surely be the greenest mega yacht to date.

WING MAST ADVANTAGES: READY TO SAIL IN FEW MINUTES - IMPROVED AERODYNAMICS - MORE CLEAN DECKS - EASY HANDLING AND SAFER OPERATIONS - REDUCED HEEL ANGLE - HIGHER SPEED POTENTIAL



#### FRESH AND DRAMATIC LOOKS

Aside from its convention-challenging rig, exceptional performance and simple, secure sail controls, the concept's exterior design truly represents the future of smart, enlightened mega yacht ownership. No-one could fail to be excited by an encounter with this magnificent vessel. Especially so, when she appears over the horizon and surges past at 24+ knots, rapidly devouring the sea miles enroute to her next exotic landfall.



With her plumb bow – artfully enhanced by a 60-degree notch at deck level – and maximized waterline, WING 100 looks cool, sensuous and powerful. The absence of mast shrouds and spreaders emphasizes the aesthetic of minimalist, purposeful efficiency. The cabin deck and main deck are crowned by an elegant, sweeping flybridge providing informal relaxation and alfresco dining. Stairs just forward of the twin helm stations give access to the bridge deck – in fact a half-deck between main and flybridge decks – offering superlative operational visibility without impacting on the guest amenity below.

#### GENEROUS AND BESPOKE ACCOMMODATION

With a long waterline and wide beam across the cabin, main and flybridge decks, WING 100 offers extensive volume for guest accommodation and amenities, both above and below the expansive decks.



The interior is cleverly understated to provide bespoke and calm spaces for the owners and up to fourteen family / guests. The cabin deck accommodation includes the owner's suite, a VIP suite and a further five guest cabins as well as a cabin for a nanny / teacher. Ample, light and airy crew quarters are provided forward. The main deck features interior dining for sixteen, an inside / outside bar and lounge, further alfresco dining aft and a range of other amenities. There is extensive clear deck space aft with stairs leading to a large beach deck/swim platform. The magnificent flybridge adds stunning views to the attractions of informal, high-level dining and relaxation. All three decks are connected by a guest elevator as well as by stairs.

These deck layouts are just an indication of what is possible to paint on such a canvas. Obviously, tailored design and execution will be undertaken to suit the owner's preferences.



#### MORE ECO CREDENTIALS

WING 100's efficient and easily set rig allows sailing on even the shortest passages. Overall, the yacht's advanced sailing capabilities offer a substantial reduction in energy requirements compared with an equivalent-sized motor yacht. And that is just the start. The electric propulsion system ensures high efficiency under power and is easily adaptable to alternative power sources such as new fuels or hydrogen fuel cells.

Add to that a hydro generator to power the board systems and to charge the batteries; 480m2 / 5167ft2 of solar panels integrated in both masts, the aerodynamic efficiency of the wing masts and state-of-the art power management, and you have the main ingredients of WING 100's game-changing green energy system. A system that is calculated to save a very substantial amount of fuel compared with similar sized, conventional engine-powered mega yachts. A system that eliminates the associated greenhouse gases.

This is what real future proofing looks like.



#### ENERGY-SAVING AND GREEN ENERGY FEATURES IN MORE DETAIL

- Thanks to her efficient and easy to deploy rig, WING 100 will consume less than 20% of the energy required by an equivalent-sized conventionally powered motor yacht on passage.
- Under sail, 200kW can be produced by the hydro generator equivalent to over 40,000 liters / year fuel saving.
- 480m2 / 5167ft2 of solar panels are integrated on the carbon Rondal masts to generate 250kW / day equivalent to a further savings of over 20,000 liters / year.
- The main sails and staysails of the wing mast rig can be set in few minutes making sailing the easy choice. This results in 750kW average power saving, equivalent to over 166,000 liters of fuel / year.
- The electrical system provides for flexible and economical electric propulsion when under power, saving more energy.
- In addition, a large state-of-the-art battery bank ensures that none of the green energy generated goes to waste. Its power substitutes generator use and provides extended silent mode at anchor or under sail.
- The system of WING 100 is calculated to save in total over 225,000 liters of fuel per year compared with similar sized, conventional engine-powered mega yachts.
- The system enables the generators to be converted to other fuels or replaced by a hydrogen fuel cell

#### WHO COULD BUILD SUCH A GROUND-BREAKING SUPERYACHT?

There is only one shipyard capable of delivering a break-through sailing yacht on this scale with such advanced green technologies. Royal Huisman has pioneered and developed energy-saving and green energy systems over many years and projects. Royal Huisman built the world's first truly hybrid sailing yacht in 2009.

From that industry milestone onwards, energy efficiency and hybrid systems have defined the way the shipyard thinks, investing in each new project with valuable new advances. These "technology investments" aren't limited to new constructions: yachts built by the shipyard twenty or even thirty years ago are now returning for next-generation, energy-efficient, refits.

Is the rig a challenge? Not for Royal Huisman, whose sister company Rondal is the world's leading manufacturer of very large composite masts and integrated sail management systems.



The Royal Huisman group's ambition, innovation power, and expertise in meeting the exciting challenges of building very large sailing yachts has already secured global top ten rankings for Athena and Sea Eagle II, with Project 410 soon to follow. In the capable hands of the Royal Huisman team, the successful completion and delivery of WING 100, as their fourth and largest contribution to the global sailing mega yacht elite, is not in question.

Supersized sailing yachts by Royal Huisman: an attractive (and possibly even better) alternative to motor yachts. In general, the comfort of motor yachts is enjoyed by their owners while "on location" – in a pretty marina or at an idyllic anchorage.



Sailing yachts provide the same enjoyment, but are also much (more) fun while travelling from "A" to "B" or even to remote corners of our beautiful planet. They offer the stimulating experience of seeing the sails hoisted and catching the wind, and the slender bow cutting through the waves to pick up speed. Those who are not keen on heeling angles, will be pleased to discover that new technologies exist to reduce lateral movement and heeling angle substantially. In addition to the thrill of sailing and the satisfaction of bespoke craftsmanship onboard a Royal Huisman-built yacht, future owners will also enjoy the "green footprint" of their yacht.



Jan Timmerman, CEO of Royal Huisman, adds: "Sustainability is crucially important for all of us and for future generations. Yacht owners and the yachting industry obviously want to contribute by reducing environmental impact and by limiting the use of valuable natural resources. It is a fact that the level of achievement resulting from these efforts can vary greatly.



At Royal Huisman, we know that some owners positively encourage their design and build teams to make a difference. For example, by making their superyachts more efficient, or by applying renewable energy sources."

"Sometimes the obvious is not so obvious at all, such as this unlimited supply of free energy: wind. Propulsion by wind will always beat energy consumption onboard motor yachts, even when great reductions in fuel consumption and other efficiency gains are achieved. Wind energy is free – of charge, of fumes, and of noise. And driving is great fun, too."

— Jan Timmerman, Royal Huisman CEO

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