# **CLUBSWAN 36**







# DESIGN Juan Kouyoumdjian

"A sailboat is unique in the way it transforms free energy into motion, the more efficient this transformation of energy is, the more one accesses sensations and emotions that can only be felt in a sailboat, nowhere else. The connection between man and machine is provided via the helm and therefore it is fundamental that the steering system is balanced and sensitive in a way that the helmsman perceives such feelings and emotions. This is a central part of my designs, without it a sailboat loses its magic"







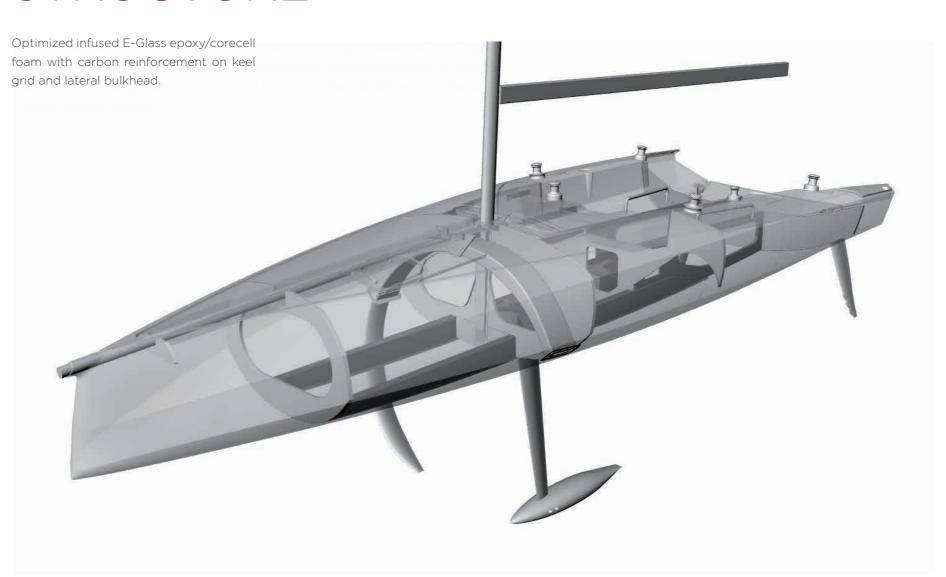
### HULL

The new ClubSwan 36 is an innovative high performance yacht that has been developed using all the experience of Nautor's ClubSwan Division and the detailed hydrodynamic and CFD studies of Juan Kouyoumdjian in a timeless authentic design. Working with the most qualified experts available and following a deep dedication to finding the edge between an incredibly fast hull, thanks to the latest available technology, and impeccable handling in every condition. The ClubSwan 36 is akin to a modern supercar, allowing you to reach exceptional limits in total control - the extraordinary sensation of surfing at over 20 knots in total safety needs to be experienced to be believed. The ClubSwan 36 allows an amateur sailor to reach extreme performances while racing strict One Design in tight competition.





# STRUCTURE







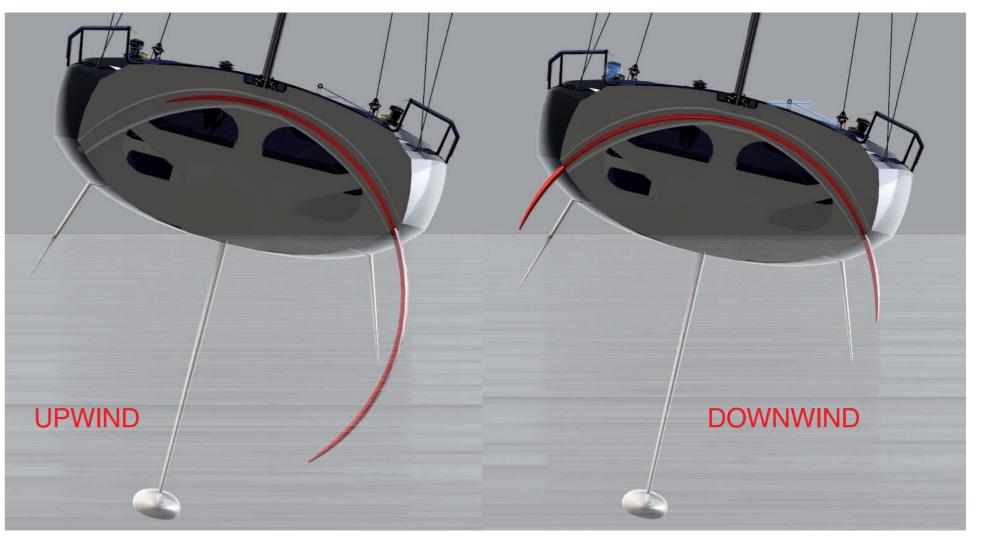
# C FOIL

The unique C-foil will generate a combination of side and vertical forces related to the boat speed and heel angle:

Upwind, mostly side force resulting in negative leeway equal to improving VMG.

Downwind, with the foil in the middle creating just enough side force and simplifying the gybe with no rotation needed during the manoeuvre.

Reaching, up to 40% of the boat displacement above 15 knots of boat speed, resulting in "skimming" or "planing".





### NAUTOR SWAN

### DECK

The ClubSwan 36 features a modern deck layout, the design comes from the evolution of a concept, tested with various scale models, the shape is clean with well-defined ergonomics.

The design is based on how the deck will be used: all that is superfluous has been removed, adding back only what is nedeed for efficient crew placement and how the crew moves together. There has been a deep investigation in order to optimize the arrangement of control lines with correct leads and placement occasionally crossing the hull but also with neat solutions where conduits double up as a foot step. The deck is equipped with seven Harken winches, two for the runners, two for the mainsail and two for the jibs or kite, the seventh is positioned centrally and is used to control the C-board, halyards and other lines. Functionality is key when positioning the winches in the right place with the correct angle, in order to achieve the best efficiency and performance. Similar to a dinghy, all the cleats for the deflector, cunningham and vang are placed on both sides of the yacht to be easily accessed by the mainsail trimmer. The line systems are covered by two removable panels, light and durable thanks to some unidirectional reinforcements. The panel on the foredeck covers the retractable bowsprit and the retriever circuit, while the second carter aft of the mast covers all the other circuits and restrictors that replace the stoppers. The main idea behind the removable panels comes from the desire to have a clean deck and keeping most of the controls outside the boat, leaving a dryer interior; guaranteeing Nautor's Swan traditional safety philosophy whilst also having easy access for maintenance.













# DECK

### RUNNERS

TWO RUNNING BACKSTAYS WITH DEFLECTORS. DSK, SPECTRA AND OTHER HI-TECH MATERIAL RUNNING RIGGING SHEETS 2 WINCHES HARKEN 35.2 STP 2 SPEED MANUAL

#### MAIN

MAINSHEET TRACK WITH A ROLLER BEARING CAR ON THE STERN COCKPIT AREA CONTROLLED WITH MANUAL PURCHASE SYSTEM, LEAD TO THE MAIN TRIMMER'S POSITION FORWARD OF THE HELMSMAN. TWO MAINSHEET WINCHES HARKEN 40.2 STP 2 SPEED MANUAL. PORT WINCH IS COUNTER ROTATING.

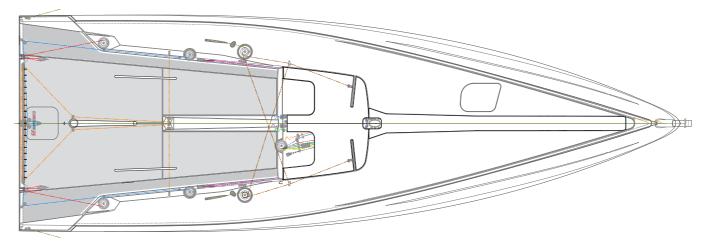
### JIB AND KITE

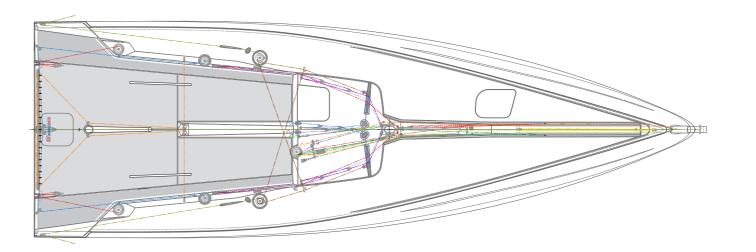
TWO PRIMARY WINCHES HARKEN 46.2 STP 2 SPEED MANUAL FOR JIB AND KITE TRIMMING









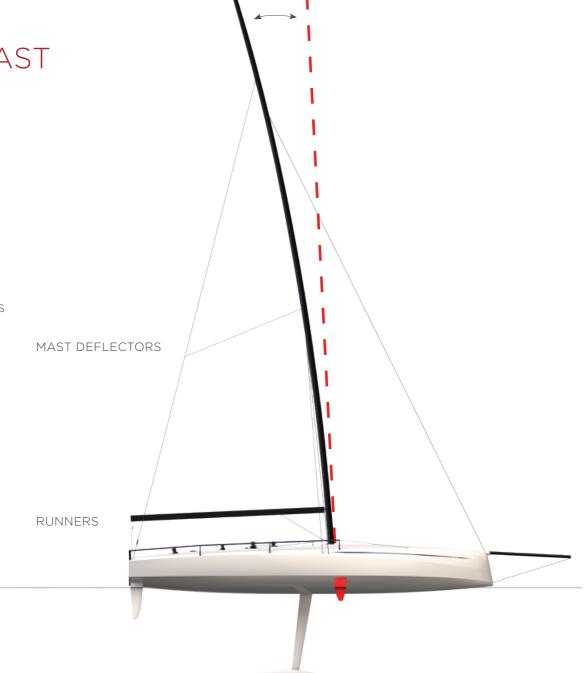




### FLEXIBLE CARBON MAST

### DECK STEP MAST 16 m

- LOCK FOR MAINSAIL FULL HOIST AND REEF
- LOCK FOR JIB.
- TWO RUNNING BACKSTAYS WITH DEFLECTORS
- HR40 CARBON MAST WITH SINGLE SET OF SPREADERS
   SWEPT-BACK, DECK-STEPPED
- ADJUSTABLE MAST STEP TO CONTROL PRE-BEND
- RACING CARBON BOOM
- REEFING LINE WITH CLUTCHES IN THE BOOM
- DOUBLE-ENDED MAINSHEET SYSTEM
- MANUAL VANG





### RIG

The hull, the rig, and the appendages, have been studied in CFD and by experts in each department. The result is a unique yacht that, while taking inspiration from tradition, will bring an interesting step forward combining a fully controllable dinghy-style mast with the latest carbon rig design. Aiming to bring the original spirit of yachting together with a modern fast yacht, a modern carbon flexible mast has been developed by Juan K and rig expert Hervé Devaux.

Hervé Devaux was a forerunner in the introduction of software for rig design, with a track record of working with top offshore racing yachts. With the cooperation between Enrico Chieffi and Juan K, both Olympic Star sailors, Hervé developed a mast inspired by this mighty One-design. The flexible carbon mast is highly adjustable allowing for a very active tune-up of the sails in different wind conditions. It is regulated by the deflectors and runners which will make the management of the ClubSwan 36 similar to a dinghy, with the controls easy to access on both sides of the yacht. Standing rigging: Lateral rod stainless steel standing rigging. PBO forestay and runners. Running rigging: DSK and Spectra.









# INTERIOR

The ClubSwan 36 is a yacht completely optimized for performance, infact it does not have any interior in the Swan tradition but it is considered a "Protected Shelter".

The Protected Shelter is a dry space to rest between races or during longer delivery. Most of the controls are kept outside without intrusion, including the bowsprit which lays within a structural gutter covered by a panel.

Accessing the interiors with a sliding companionway hatch, you will see the bulk-heads and the longitudinal structure made with unidirectional reinforcements. Carbon is used on some capping to bring stiffness. The bulkheads in front of the rudders are watertight to provide greater safety whilst at sea. All the interior components are of lightweight construction and removable berths can be implemented on occasion. The engine is located centrally under the cockpit. Access is through a bulkhead aft of the companionway and from the sides.







# UNDER SAIL

#### UPWIND

TWS	TWA	BS	WMG	HEEL	FOIL
8	43	6.9	5.05	16	55 deg
16	37	8	6.39	22	40 deg

#### DOWNWIND

TWS	TWA	BS	WMG	HEEL	FOIL
10	140	9.1	7.3	12	0 deg
20	147	21	16.44	15	0 deg

### REACHING

TWS	TWA	BS	WMG	HEEL	FOIL
14	80	18,4	-	17	40 deg

The marriage between the sails and the rig will be very interesting to play with and understand. We welcome all the best sailmakers in the world to express their knowledge and find the right balance between stiff flying shape and a wide range of trimming capacity.

Thanks to a versitile rig, the One-design rule introduced, limits the sails inventory to one mainsail, two jibs and one kite, enough to cover the typical racing wind range up to 25 knots True Wind Speed. The mainsail offers a very powerful profile in light airs. The mast, designed to adapt to every wind speed increase, deflects at the very top, generating a twisted shape. The bigger jib will be used up to 15 knots True Wind Speed, taking advantage of the 3D clew control and headstay tension capacity.

The smaller jib will then take over to allow the leech to be further away from the depowered mainsail extrados. While this jib is used, you can expect to leave it up even downwind and trim from the stern of the boat, making mark rounding simpler. The all-purpose running kite will be needed in One-design racing to cover the wind range. It will be connected to the retrieving line running diagonally from the front port hatch directly inside the boat. The curved foil will allow for negative leeway upwind and will partially lift the yacht out of the water downwind and reaching. "Skimming" is a predefined condition resulting from a deeply radical and sophisticated design that allows a monohull to partially lift out of the water with a force that can reach easily 40% of the weight of the yacht thanks to the "Curved Dagger-board System" invented by Juan K.





### STANDARD SPECIFICATION

### DIMENSIONS

LOA	11,00 m	36 ft
LWL	10,59 m	34.74 ft
Beam Max	3,60 m	11.8 ft
Draft	2,75 m	9 ft
Displacement Measurement	2.590 kg	5709 lb
Displacement Sailing	3.140 kg	6922 lb
Ballast	1163 kg	1563 lb
Combustion engine by Nanni Diesel		10.3 kW @3600rpm [14 cv]
Electric engine by Torqeedo		10.0 KW powered by BMW

SAIL AREAS

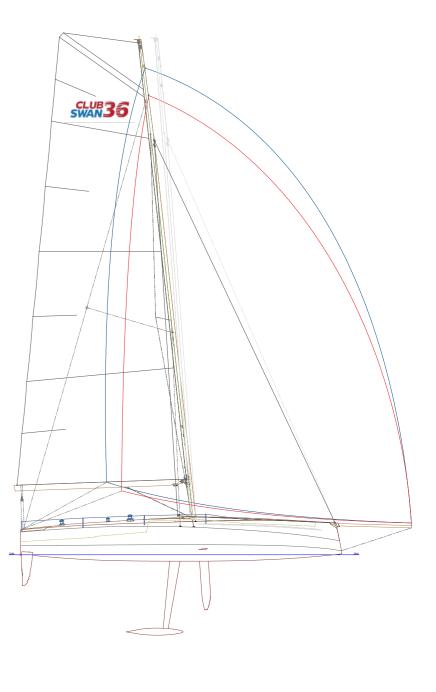
### RIG AND SAIL DIMENSIONS

Jib Max	34.5 m <sup>2</sup>	371 sq.ft
Mainsail	64.2 m <sup>2</sup>	691 sq.ft
Total Sail Area	98.7 m <sup>2</sup>	1062 sq.ft
Asymmetric kite	134 m²	1422 sq.ft
I	13.11 m	43.00 ft
J	4.77 m	15.65 ft
Р	15.00 m	49.21 ft
E	5.80 m	19.03 ft
ISP	16,47 m	54 ft
SPL	7,38 m	24.2 ft

ank capacity	Battery & power sources
uel	40   10.5 USg
ngine starting battery	23 Ah 12 V
hore power	230 V 30 A
ervice battery	100 Ah 12 V

### CONSTRUCTION APPROVAL

CE Approved. ISO 12215 - 5 Category B (with Diesel Engine), Category C (with Electric Engine)



### **SWAN** *ONE DESIGN*

### THE TEAM BEHIND



#### NAUTOR'S SWAN

Enrico Chieffi, Senior Advisor and Brand Ambassador Nautor Swan, has been a key component in the Swan success story since 1998; Former Olympian and America's Cup sailor.



#### LEAD NAVAL ARCHITEC

Juan Koujoumdjian has a reputation for creating innovative designs, like the ClubSwan 50 and ClubSwan 125, that leverage technological change and opportunities into breakthrough performance.



#### PRODUCT LINE LEADER:

Philippe Oulhen, a highly-regarded project lead in the performance yachting arena, is working closely with Nautor's Swan and JYD on the ClubSwan 36 project and the ongoing development of the clubswan overall line.



#### CHIFF MEASURE

Andrew Yates, a consultant at the RORC Rating Office, is the chief measurer for the ClubSwan 50 among other performance classes.



#### STRUCTURE:

Giovanni Belgrano and his team at Pure will apply engineering rigor to develop and assess the technology suitable for this design; shaking out all issues before manufacturing, developing unproven technologies and testing https://www.pde.co.nz



#### RIG STUDY:

Hervé Devaux, a forerunner in the introduction of aeronautical computation software to design, has a track record of working with top offshore racing yachts; and, he is the developer of Ophelia, a calculation tool with dynamic simulation capabilities able to reproduce external phenomena https://www.gseadesign.com



#### DECK:

Juan Pablo Marcos is a professional sailor and qualified naval architect, experienced in the world of high performance sailing, including TP52s, Volvo 70s, Superyachts and J Class

# THE CLASS

After the great success of the ClubSwan 50, with 27 yachts sold, the recently launched ClubSwan 80 and the record breaker ClubSwan 125, Nautor Swan is taking the next step of bringing into the ClubSwan line an 'entry-level' model which will offer innovative solutions to controlling crew size, offering responsive, exhilarating sailing and providing a fresh, turn-key entry into the world of Swan One Design.

- STRICT SWAN ONE DESIGN
- I OWNER DRIVER RULE
- 50/50 PRO-AM
- DEDICATED CLUBSWAN ORGANIZATION













# ONE DESIGN SAIL & CREW

### MAX CREW WEIGHT 550 KG SAILS INVENTORY

MAINSAIL

LIGHT WEATHER JIB

HEAVY WEATHER JIB

AP SPINNAKER

HEAVY WEATHER SPINNAKER







# THE NATIONS TROPHY

In 2017, Nautor's Swan launched The Nations Trophy as a focal event in the world of Swan One Design activity.

The Nations Trophy is committed to revitalizing the concept of competition between nations. Following the success of the inaugural event, Nautor's Swan extended the concept by introducing a season long league in the Mediterranean to maintain the spirit of gentlemanly competition between countries engendered by the original event.

THE NATIONS LEAGUE see INDIVIDUAL CLASS LEAGUE WINNERS and the BEST-PLACED NATION awarded with special prizes.

On the other hand, the SWAN ONE DESIGN WORLDS represent an unique standalone event.











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