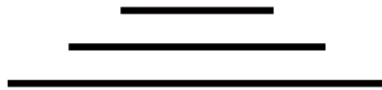


24 M ROCK - TECHNICAL SPECIFICATION



E V A D N E

**S.U.V.**  
CLASS YACHT



**TUFAN AND BROTHERS**

BUILDING - REFIT - CONSULTING

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## 24 M ROCK – TECHNICAL SPECIFICATION

### 1. MAIN CHARACTERISTICS

Builder	Evadne Yachts
Designer	Vripack
Naval Architecture	Vripack
Interior Concept	Vripack
Project Management	Tufan and Brothers
Mechanical Engineering	Tufan and Brothers
Structural Engineering	Tufan and Brothers
Guests	8
Crew	4
Type	S.U.V. Class Motor Yacht
Name	ROCK
LOA	24 m
LWL	23.5 m
Draft	1.8 m
Beam	6.5 m
Full Load Displacement	102 tonnes
Hull Type	Fast Displacement
Hull Material	Steel
Superstructure Material	Aluminium
Engine(s)	2 x CAT C12.9 1000 HP
Cruising Speed	12 kts
Max. Speed	16 kts
Economic Speed	9 kts
Fuel Capacity	12.000 ltrs

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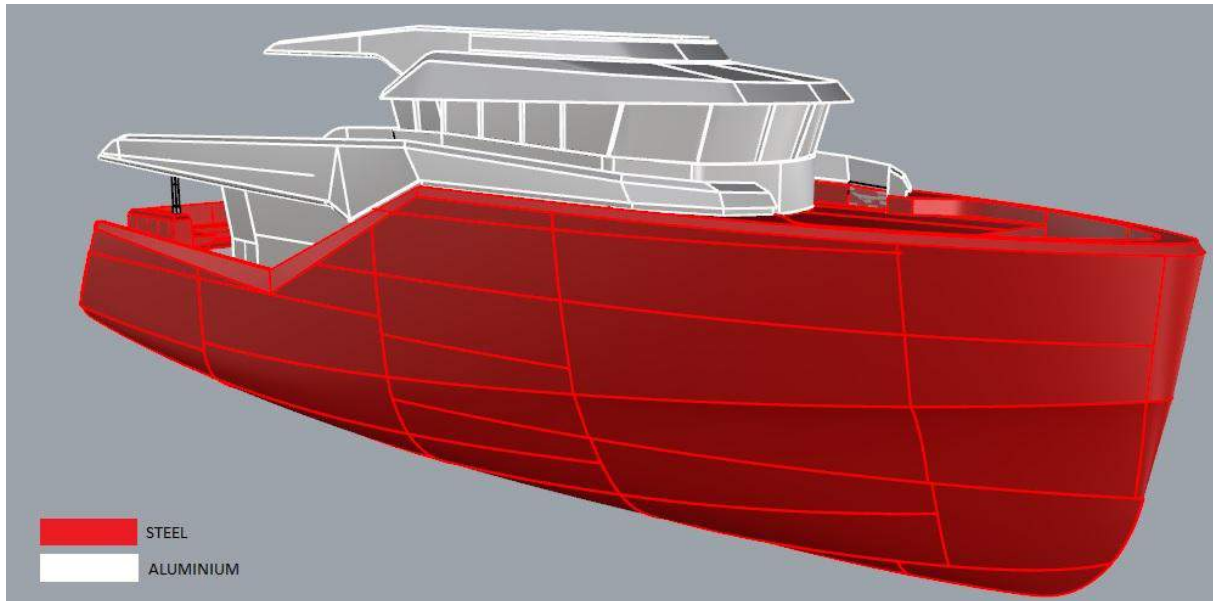
Range @ Economic Speed

3.000 nm

Classification

CE Category A

### 2. HULL STRUCTURE AND MATERIALS



Steel

Marine Grade “A”

Aluminium

Marine Grade – H111

Stainless Steel

AISI 316 L

#### SCANTLINGS

Hull below waterline	8 mm
Hull above waterline	5 mm
Deck & side decks	5 mm
Superstructure	5 mm
Bulkheads	5 mm
Cut longitudinal stiffener	10 mm

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Roof profiles	T50x50x5 mm
Floor & deck profiles	T50x50x5 mm

### WELDING

The yacht will be of all-welded construction whereby utmost care will be taken to ensure welding strength as well as welding appearance.

Hull seams and butts are welded from in and outside.

In all weather exposed areas and water or oil tight boundaries, continuous fillet welding shall be applied.

Intermittent welding may be applied in other areas, insofar as the welding pattern as provided for in the welding list is maintained.

### HULL STRUCTURE

The entire yacht will be of rigid construction and in general in compliance with class requirements.

### HULL

In principal a single bottom structure will be used except where a double bottom is formed by integral tanks.

Fuel oil tanks are integrated in the hull structure and are provided with baffle plates.

The engine foundation consists of heavy girders extending throughout the length of the engine room.

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### 3. MAIN ENGINES AND SHAFT LINE

Main Engines	2 x CATERPILLAR C12.9 1000 HP
Gearbox	ZF 665 – 1:3.042
Thrust Bearing	CENTA CX-70
Flexible Coupling	CENTA CX-70
Engine Mounts	Vulkan
Shafts	80 mm dia – Duplex 4462
Sterntube	Blokland EasyStern
Propellers	1100 mm dia – Ni.Al. Br. High Skew 5 Bladed
Seal	Blokland AxiSeal

### 4. ELECTRIC AND NAVIGATION INSTALLATION

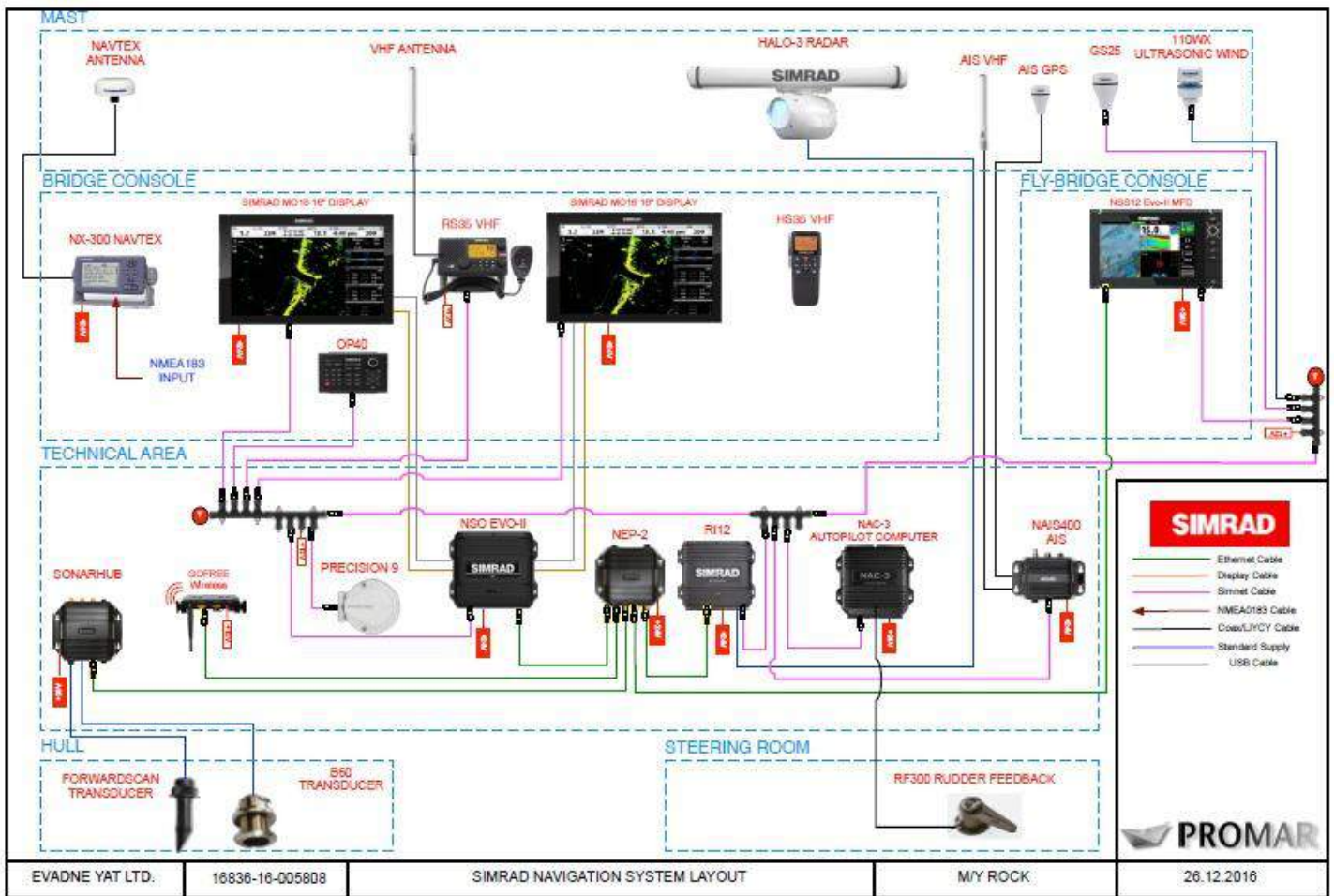
ROCK will be equipped with 2 x KOHLER 19.5 kW gensets which have automatic synch system. She will have 8 x Mastervolt Lithium Ion batteries for 40 kW battery power. 6 quantity of Mastervolt Combi Pro 24/3500-100 will be fix for electrical system which gives in total 21 kW inverter capacity and 600 A charger capacity. Mastervolt battery management system will be responsible about monitoring of whole battery system

A wireless alarm monitoring system will work for control and monitoring of below items

- Engine room fans on-off
- Hatches open-close
- Portholes open-close
- Bilge pump on-off
- Bilge valves on-off
- Fire pump on-off
- Tank levels
- Exterior lights on-off

Simrad navigation equipments are listed below

## 24 M ROCK – TECHNICAL SPECIFICATION



### 5. FIRE FIGHTING APPLIANCES AND SAFETY

Engine room will be equipped with FM200 automatic system which will also control when activated fire dampers, fuel valves, engine room fans, engines and gensets.

Interior area will be protected by automatic Sprinkler system for all cabins. Also portable foam fire extinguishers will be fix to all cabins

2 x 8 persons life rafts will be settled onto flybridge

Siemens fire dedection system will be fix all cabins and engine room

Central bilge system able to suck from 5 points of ROCK with a 400 lt/min capacity Gianneschi or eq type of bilge pump

With a 400 lt/min fire pump, ROCK will be protected from 3 point of fire hose station

Life jackets, life buoys and other safety equipments will be arranged referring CE regulations

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### 6. COMFORT ONBOARD AND INSULATION

Humphree electrical fin stabilizer and interceptors are fix onto ROCK to make her more stable. These equipments will work together during underway and anchor position to increase comfort for guests. Lithium ion batteries directly support Humphree system so they can work without gensets.

Whole engine room area surfaces will be insulated with 60 mm rockwools with a density of 110 kg/m<sup>3</sup>.

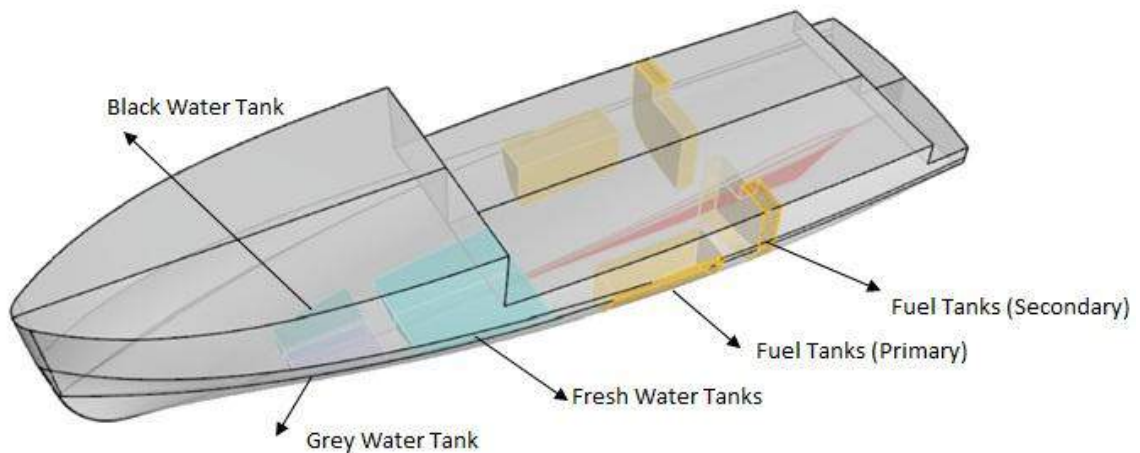
All steel and aluminium interior areas also insulated with Rockwool with a density of 50 kg/m<sup>3</sup>

Engine room bulkheads from the interior cabine sides will be insulated also high density rockwools with a density of 110 kg/m<sup>3</sup>

Vibradamp insulation for reducing the vibration levels will be applied onto engine foundations, engine room bulkheads, bow-thruster area and propellers area.

### 7. PIPING AND TANKS

Fuel Tanks (Steel)	12.000 ltrs
Fresh Water Tanks (Stainless Steel AISI 316L)	2.000 ltrs
Grey Tank (Steel)	1.200 ltrs
Black Water Tank (Steel)	1.200 ltrs



Fuel Piping	Geberit Mapress - SS
Seawater Piping	Geberit Mapress - CuNiFe



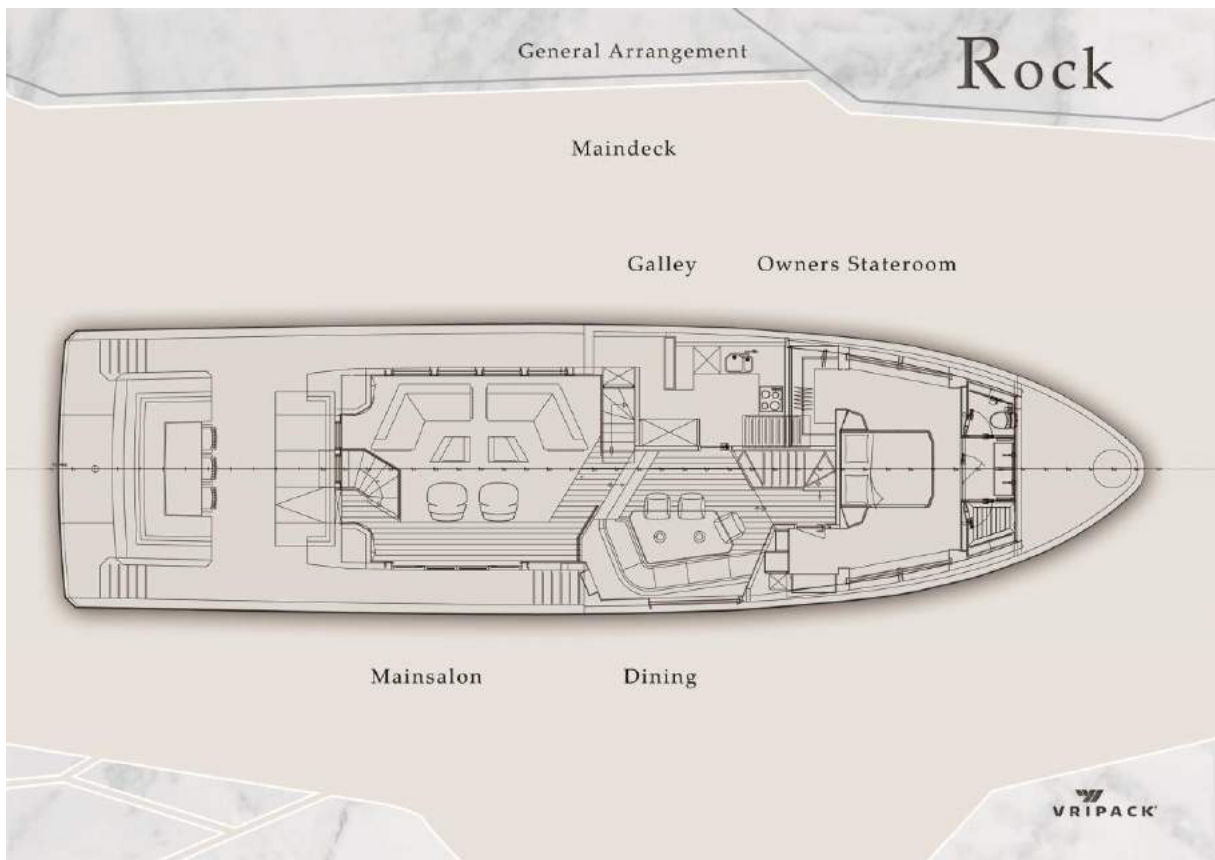
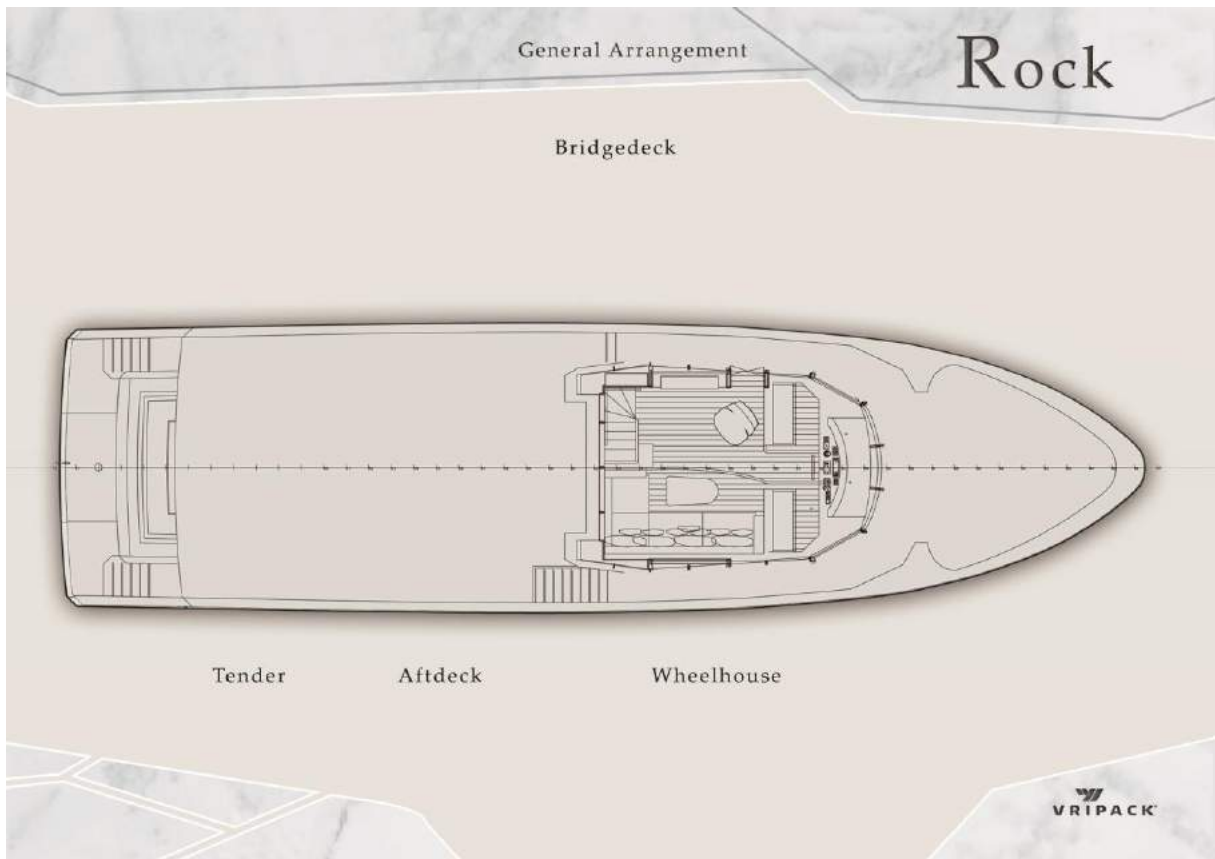
## 24 M ROCK – TECHNICAL SPECIFICATION

Fresh Water Piping	C-PVC
Bilge Piping	Geberit Mapress - CuNiFe
Fire Piping	Geberit Mapress - CuNiFe
Sprinkler Piping	C-PVC
Grey Water Piping	C-PVC
Black Water Piping	C-PVC
AC Piping	C-PVC

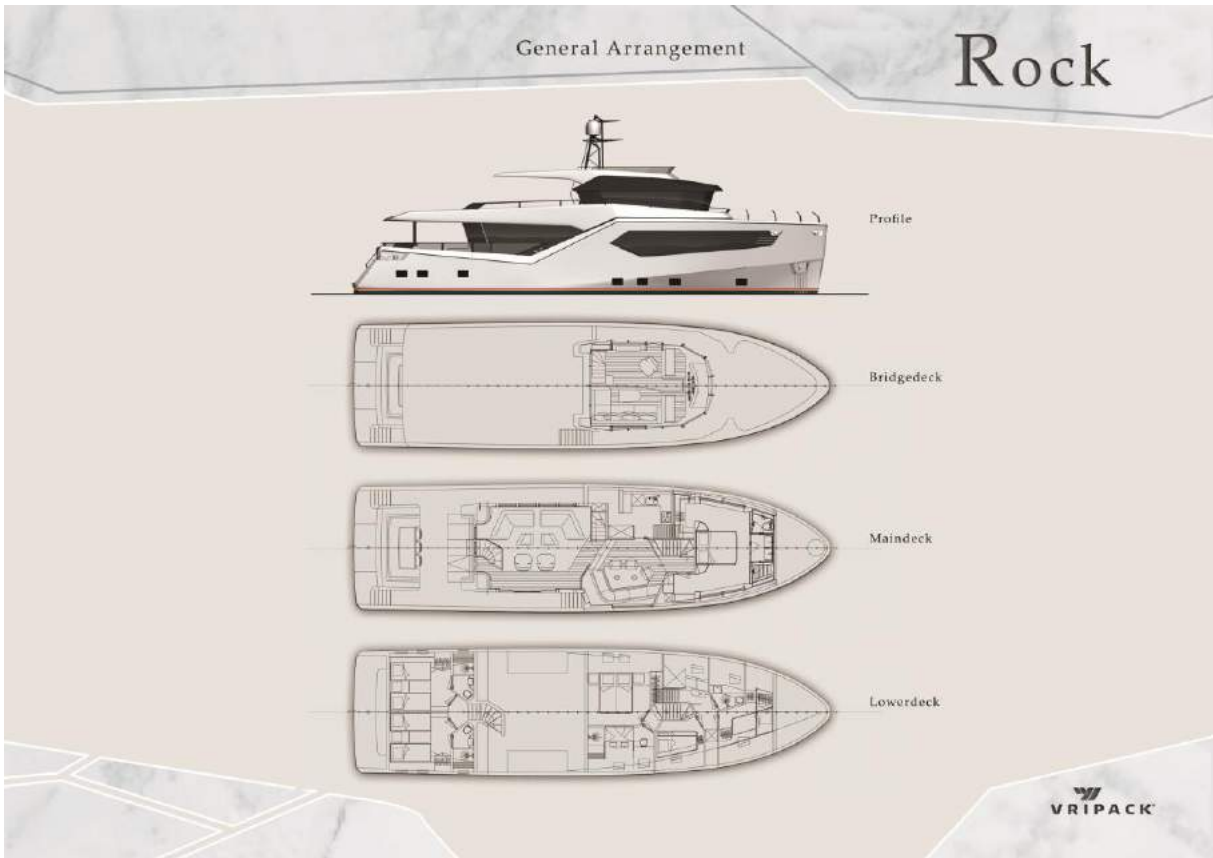
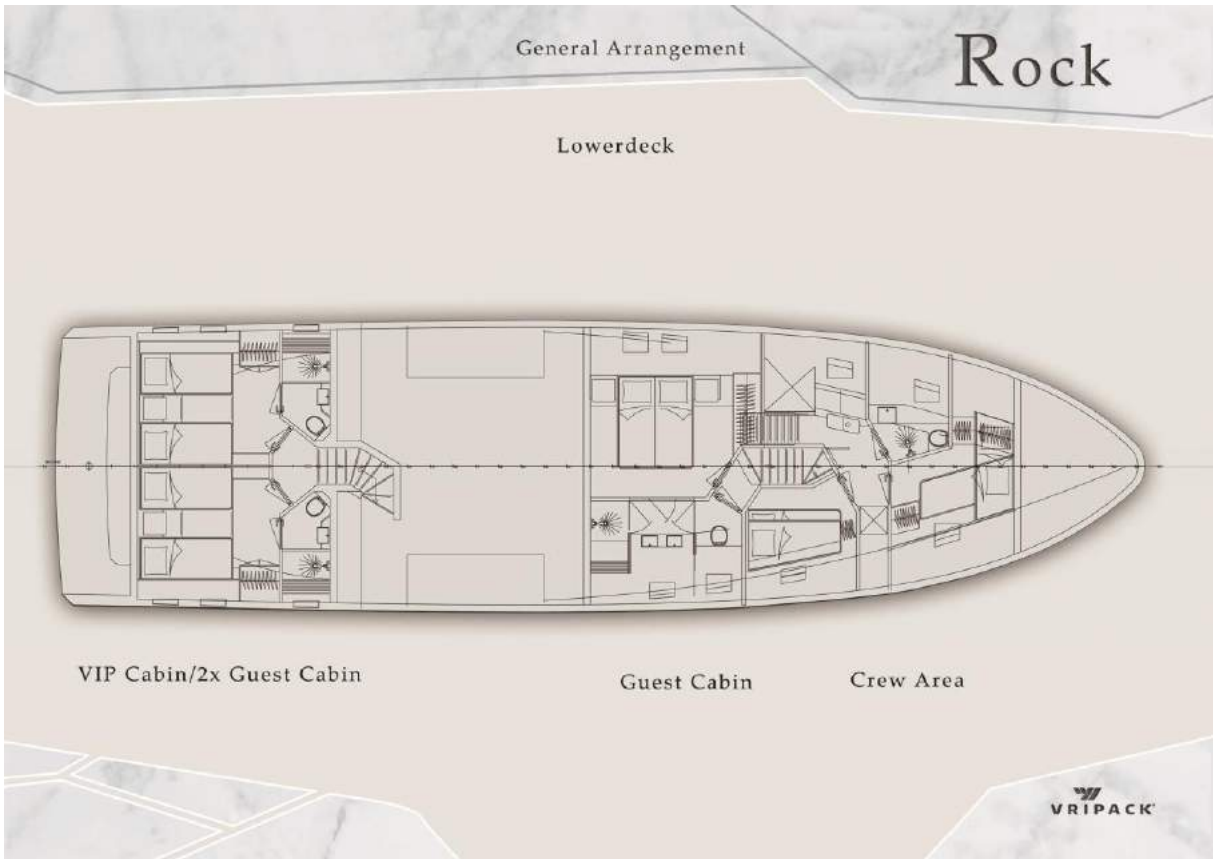
### 8. GENERAL ARRANGEMENT AND INTERIOR DETAILS



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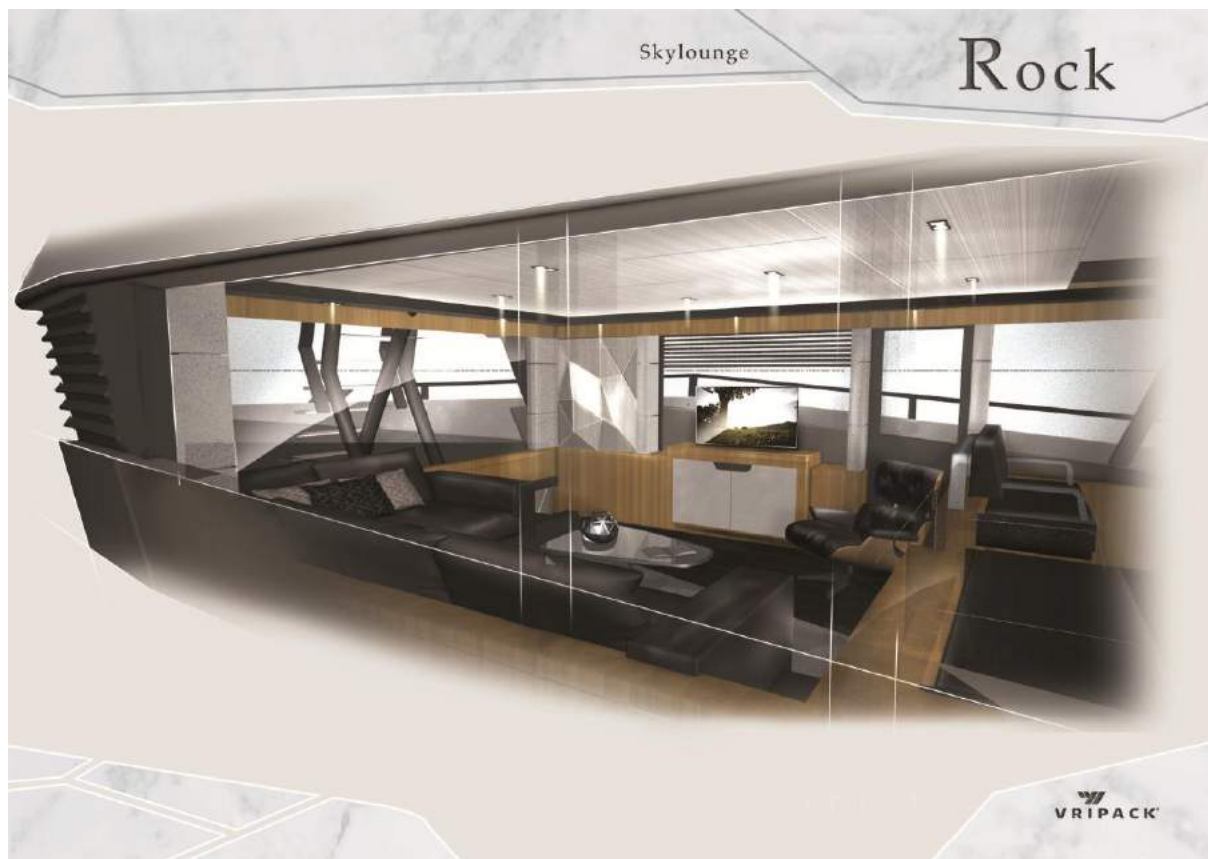


**24 M ROCK – TECHNICAL SPECIFICATION**



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## **9. PAINT**

Prior to cutting and assembling, all structural steel will be shot blasted to SAE 2 ½ standard. After assembling and welding, all exterior welds from approx. 0.30m under the construction waterline upwards of the hull and deck house are ground smooth to ambient plate surface.

Under the waterline, only excessive parts of welds are ground down in such a way that welding beads will have smooth appearance.

All steel surfaces are freed from spot welds and welding spatters; superficial damage to plate surfaces are welded up and ground smooth; sharp plate edges are ground smooth (edge-braking).

Prior to paint application, all steel work of the entire hull inside and outside (with the exception of tanks and other fully enclosed parts) will be swiped-blasted to clean the

## 24 M ROCK – TECHNICAL SPECIFICATION

steelwork from burning and welding residues, rust and other fouling and moreover to obtain a proper paint anchoring surface.

Steel piping in general will be painted with the same system as the ambient steel structure.

ROCK will be painted with AkzoNobel – International products referring to ICOMIA Superyacht Paint standarts

### 10. EQUIPMENT LIST

No	MATERIAL/EQUIPMENT	DETAILS
1	Main Engines	2 X CAT C12.9 1000 HP
2	Gerboxes	2 X ZF 665 3,042:1
3	Main Engine Controls	CAT
4	Generators	2 X KOHLER 19.5 kW 50 Hz 3 Phz
5	Electrical Cables	Untel CE Certified
6	Propulsion System	Blokland
7	Thrust Bearing & Flexible Coupling	2 X CENTA CX-70-LFSM-TB6
8	Bow-Thruster	Side Power SH 420 Hydraulic
9	WC	Tecma
10	Watermaker	Parker - 225 lt/h
11	Waste Water Treatment	Ecomar 20
12	Chain	14 mm, 200 m
13	Steering System	Data
14	Windlass & Capstans	Data
15	Pumps and Fans	Gianneschi or eq.
16	Searchlights	Jabsco 24 v
17	Steering Wheels	Local
18	Stabilizer	Humphree - 1 m <sup>2</sup> fins
19	Interceptors	Humphree - 1 m
20	Tender	Zodiac Yachtline 380
21	Horn	Kahlenberg
22	Compressor	220 V / Bosch
23	Window Wipers	Speich
24	Saloon Doors	Bofor or eq.
25	E/R Watertight Hatches	Bofor or eq.
26	Insulation Materials	Rockwool
27	Pipes & Hose & Fittings	Geberit or eq.
28	Sprinkler System	Marsis
29	E/R FM 200 System	Seafire
30	Liferaft	Eurovinil
31	Fire Dedection	Siemens
32	CCTV Cameras	LG
33	Gangway	Opacmare or eq
34	Craine	Opacmare or eq - 500 kg



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35	<b>Electrical Equipments</b>	<b>Mastervolt</b>
36	<b>Batteries</b>	<b>8 x Mastervolt Lithium Ion</b>
37	<b>Alarm Monitoring System</b>	<b>Medmarine</b>
38	<b>Paint System Materials</b>	<b>International</b>
39	<b>Navigation Equipments</b>	<b>Simrad</b>
40	<b>Satellite TV Antenna</b>	<b>Intellian i 60 p</b>
41	<b>Air Condition System</b>	<b>Cruisair - 144.000 BTU Chiller System</b>
42	<b>Hatches</b>	<b>Bofor</b>
43	<b>Glass</b>	<b>Chemically Tempered - Maringlass</b>
44	<b>Stainless Steel Equipments</b>	<b>Bilgin Denizcilik</b>
45	<b>Galley Equipments</b>	<b>Siemens or eq.</b>
46	<b>Bathroom Accessories</b>	<b>Hafele or eq.</b>
47	<b>TV &amp; Entertainment Equip.</b>	<b>LG or eq.</b>
48	<b>Navigation Lighths</b>	<b>Aqua Signal or eq.</b>
49	<b>Interior and Exterior Lights</b>	<b>Cantaluppi or BCM</b>
50	<b>Teak</b>	<b>Birmanya 1st quality</b>