

# TECHNICAL SPECIFICATIONS



PROJECT NAME – VIRIDUS

PROJECT NUMBER – MY12019

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## CONTENTS

VESSEL PARTICULARS: .....	3
CONSTRUCTION: .....	3
HULL CONSTRUCTION: .....	3
SUPERSTRUCTURE CONSTRUCTION: .....	3
TANK CONSTRUCTION: .....	3
TANK CAPACITIES: .....	3
DECK EQUIPMENT: .....	4
MACHINERY: .....	4
PROPULSION SYSTEM: .....	4
STEERING: .....	4
FUEL SYSTEM: .....	4
LUBE OIL SYSTEM: .....	4
SLUDGE SYSTEM: .....	4
FRESH WATER SYSTEM: .....	4
DIRTY WATER SYSTEM: .....	5
BILGE/FIRE SYSTEM: .....	5
FIXED FIRE FIGHTING SYSTEM: .....	5
HVAC SYSTEM: .....	5
ELECTRICAL SYSTEMS: .....	5
ELECTRONICS: .....	6
NAVIGATION/COMMUNICATION EQUIPMENT: .....	6
AUTOMATION, CONTROL & MONITORING SYSTEM: .....	6
ENTERTAINMENT SYSTEMS: .....	7
INTERIORS: .....	7
TENDER & SPORTS EQUIPMENT: .....	8
PAINT SYSTEM: .....	8



## VESSEL PARTICULARS:

VESSEL TYPE – TWIN PROPELLER EXPEDITION MOTOR YACHT  
LAUNCH DATE –  
CLASSIFICATION – RINA C  $\boxtimes$  HULL • MACH Y; UNRESTRICTED NAVIGATION  
SHIPYARD – MURAL YACHTS  
NAVAL ARCHITECTURE – MURAL YACHTS  
EXTERIOR DESIGN – MURAL YACHTS  
INTERIOR DESIGN – MURAL YACHTS  
LOA – 33.78M, (110.8`)  
LH – 33.78M, (110.8`)  
LWL – 32.17M, (105.5`)  
BMAX – 7.98M, (26.2`)  
DRAFT – 2.00M, (6.6`)  
DEPTH – 3.80M, (12.49`)  
DISPLACEMENT (HALF LOAD) – 180MT  
SPEED (MAX/CRUISING) – 13.5/10KTS  
RANGE – 4500 NM @ 10KTS (APPROXIMATE)  
NUMBER OF GUESTS -10  
NUMBER OF CREW – 5 OR 6

## CONSTRUCTION:

### HULL CONSTRUCTION:

SHELL – STRIP PLANKING, 1 LAYER 32MM MAHOGANY + 5 LAYER OF 4MM MAHOGANY, SHEATHED WITH 2 LAYERS OF 300GR/M<sup>2</sup> WOVEN ROWING.  
FRAMES – LAMINATED MAHOGANY  
LONGITUDINALS – IROKO  
DECKS – BURMA TEAK ON TOP OF MARINE PLYWOOD

### SUPERSTRUCTURE CONSTRUCTION:

SIDES – MARINE PLYWOOD  
DECKS – TEAK ON TOP OF MARINE PLYWOOD  
FRAMES – MAHOGANY  
LONGITUDINALS – MAHOGANY  
EPOXY – WEST SYSTEMS (HULL & SUPERSTRUCTURE)

### TANK CONSTRUCTION:

FUEL OIL TANKS – A GRADE STEEL  
FRESH WATER TANKS – POLYETHYLENE  
GREY WATER TANKS - POLYETHYLENE  
BLACK WATER TANKS - POLYETHYLENE

### TANK CAPACITIES:

FUEL OIL TANKS – 26500TR (APPROXIMATE)  
LUB OIL TANK – 300LTR (APPROXIMATE)  
SLUDGE TANK – 300LTR (APPROXIMATE)  
FRESH WATER TANKS – 8500LTR (APPROXIMATE)  
GREY WATER TANKS – 3400LTR (APPROXIMATE)  
BLACK WATER TANKS – 3200LTR (APPROXIMATE)

### DECK EQUIPMENT:

WINDLASS - 2 X MAXWELL VWC 8000 OR SIMILAR  
ANCHOR - 2 X 200KG HHP, DANFORTH ANCHOR  
CHAIN - 16MM SHORTLINK, 200M + 200M  
BOLLARDS - 316L STAINLESS STEEL, CUSTOM MADE  
FAIRLEADS - 316L STAINLESS STEEL, CUSTOM MADE  
CLEATS - 316L STAINLESS STEEL, CUSTOM MADE  
STANCHIONS - 316L STAINLESS STEEL  
PORTLIGHTS - 12 X SCM APPROX 400MM DIAMETER WITH STORM SHUTTER  
PASSARELLA - CUSTOM OR OPACMARE TRANSFORMER 3382 5 STEPS  
SIDE BOARDING LADDER - OPACMARE 3602  
SWIMMING LADDER - OPACMARE 3225  
PANTOGRAPH DOOR - OPACMARE 2357.07  
LAZARETTE HYDRAULIC DOOR - CUSTOM  
SLIDING SALON DOOR - OPACMARE 2177 OR CUSTOM

### MACHINERY:

#### PROPULSION SYSTEM:

ENGINES - 2 X SCANIA D113071M 450HP @ 1800 RPM  
GEARBOX - ZF 360 (2.917:1) OR TWINDISC 5114DC (3.28:1)  
FLEXIBLE COUPLING/THRUST BEARING - PYTHON DRIVE P1000G  
PROPELLER SHAFT - AQUAMET, 70MM DIAMETER  
SHAFT SEAL - TIDES MARINE SHAFT SEAL KIT  
STERN TUBE - GRP 100MM OD  
SHAFT BEARINGS - NITRILE RUBBER BEARINGS  
SHAFT BRACKETS - P-BRACKET, CAST NIBRAL  
PROPELLERS - FIXED PITCH 43" DIAMETER, 37" PITCH (PRELIMINARY)  
EXHAUST TYPE - WET EXHAUST WITH BYPASS SYSTEM  
EXHAUST HOSES - TRIDENT OR SCAMO  
SILENCERS - CENTEK OR HALYARD GRP UNDERWATER MUFFLER & SEPERATORS FOR GENSETS

#### STEERING:

STEERING SYSTEM - MARSILI ELECTRO-HYDRAULIC SYSTEM  
RUDDER - 2 X COMPOSITE SEMI BALANCED RUDDER  
BOW THRUSTER - SIDE POWER SH1000  
STABILIZER - TRAC 440 ZERO SPEED

#### FUEL SYSTEM:

FUEL TRANSFER - FEIT TSL24-40 380V  
MANUAL FUEL TRANSFER - FEIT EXCELSIOR 2B  
FUEL FILTER - SEPAR OR RACOR (FOR ENGINES AND GENSETS)  
PIPING/VALVE MATERIAL - 304 STAINLESS STEEL  
FUEL FILTRATION - ALGEA-X, FPS LX-F, 2271 LPH

#### LUBE OIL SYSTEM:

LUBE OIL PUMP - FEIT GR15+ACCESSORIES

#### SLUDGE SYSTEM:

TRANSFER PUMP - FEIT MS5B 380V

#### FRESH WATER SYSTEM:

HYDROPHORE - FEIT AM995B 24-380V  
WATER MAKER - 2 X HRO HORIZON SEAFARI 1400-2, 221 LTR/HR



JACUZZI TRANSFER PUMP – FEIT TSL 23/1  
BOILER – 2 X FEIT TR100 380V, 100LTR EACH  
HOT WATER CIRCULATION PUMP – FEIT LC 35B  
PIPING/VALVE MATERIAL – PPP-R

#### **DIRTY WATER SYSTEM:**

MAGERATOR PUMPS – FEIT MS20-380V  
TANK WASH PUMP – FEIT TSL 23/1  
SEWAGE TREATMENT – TEMPO SW2 5500LTR/DAY, 380V  
TOILETS – TECMA SILENCE PLUS, SOFT CLOSE  
PIPING/VALVE MATERIAL - PVC

#### **BILGE/FIRE SYSTEM:**

BILGE PUMP – FEIT AT 5/1BTM 380V  
FIRE PUMP – FEIT AT 5/1BTM, 24V, 4KW  
HAND PUMP – FEITI EXCELSIOR 3B  
AUTOMATIC BILGE PUMPS – RULE  
PIPING/VALVE MATERIAL – 304 STAINLESS STEEL

#### **FIXED FIRE FIGHTING SYSTEM:**

SYSTEM TYPE – FM200 SYSTEM  
CAPACITY – TO BE CONFIRMED

#### **HVAC SYSTEM:**

BRAND – CRUISAIR  
CHILLER – 3 X TWC72, 72000BTU/HR, TOTAL 216000BTU/HR  
FANCOILS:  
OWNERS STATEROOM – AT18HVZ, 18000BTU/HR  
GUEST STATEROOM 1 – AT9HVZ, 9000BTU/HR  
GUEST STATEROOM 2 – AT9HVZ, 9000BTU/HR  
CAPTAINS CABIN – AT4HVZ, 4000BTU/HR  
CREW QUARTER 1 – AT4HVZ, 4000BTU/HR  
CREW QUARTER 2 – AT4HVZ, 4000BTU/HR  
MAIN SALOON – 4 X AT24HVZ, 24000BTU/HR  
CREW MESS – AT9HVZ, 9000BTU/HR  
WHEELHOUSE – 2 X AT18HVZ, 18000BTU/HR  
GALLEY – AT18HVZ, 18000BTU/HR  
VIP CABIN 1 – AT36HVZ, 36000BTU/HR  
VIP CABIN 2 – 2 X AT18HVZ, 18000BTU/HR  
FRESH AIR UNIT – 1 X AT24HVZ-2KW-MU 24000BTU/HR, SUPPLIES LOWERDECK  
OWNERS STATEROOM & GUEST CABINS  
ER FANS – 1 X FEIT FV560-380V WITH 24V FIRE DAMPER AND MIST ELIMINATOR

#### **ELECTRICAL SYSTEMS:**

ONBOARD ELECTRICITY – 380V, 230V, 24V, 12V  
GENERATORS – 2 X ONAN 50MDDCG, 50KW @ 1500RPM  
NIGHT GENERATOR – 1 X ONAN 27.5MDKBT, 27.5KW @ 1500RPM  
BATTERIES:

ENGINE STARTER BATTERIES – 4 X MASTERVOLT AGM 160AH  
GENERATOR STARTER BATTERIES – 4 X MASTERVOLT AGM 70AH  
NIGHT GENERATOR STARTER BATTERIES – 2 X MASTERVOLT AGM 70AH  
SERVICE BATTERIES – 12 X MASTERVOLT MVSV 1500AH 2V  
EMERGENCY BATTERIES – 2 X MASTERVOLT MVB 200AH  
EMERGENCY FIRE PUMP BATTERIES – 2 X MASTERVOLT AGM 160AH  
VHF BATTERIES – MASTERVOLT MVB 200AH



#### CHARGERS:

ENGINE STARTER – MASTERVOLT CHARGE MASTER 24V/30A  
GENERATOR STARTER – MASTERVOLT CHARGE MASTER 24V/30A  
SERVICE – 2 X MASTERVOLT MASS 24V/100A  
EMERGENCY – MASTERVOLT CHARGE MASTER 24V/20A  
EMERGENCY FIRE PUMP – MASTERVOLT CHARGE MASTER 24V/30A  
VHF – MASTERVOLT CHARGE MASTER 12V/35A  
FREQUENCY CONVERTOR – CUSTOM  
ISOLATION TRANSFORMER - CUSTOM  
CONVERTORS – NEWMAR & AGF  
INVERTORS – MASTERVOLT 2 X MASS SINUS 24V/5000W & 1 X 24V/2500W

#### ELECTRONICS:

##### NAVIGATION/COMMUNICATION EQUIPMENT:

###### NAV STATION:

WHEELHOUSE – HATTELAND X SERIES 19” MMD ACDC MULTIFUNCTIONAL TOUCHSCREEN DISPLAY  
CAPTAINS CABIN – SIMRAD NSS7 MULTIFUNCTION DISPLAY  
GPS – SIMRAD HS70 COMPASS  
ECHOSOUNDER – NAVICO BROADBAND SOUNDER MODULE BSM-1  
IMAGING MODULE – NAVICO LSS-2 STRUCTURE SCAN MODULE  
THRU HULL TRANSDUCER – NAVICO B260 BRONZE  
AUTOPILOT COMPUTER – SIMRAD AC12  
AUTOPILOT DISPLAY – SIMRAD AP28 CONTROL UNIT  
RATE COMPASS – SIMRAD RC42  
RUDDER INDICATOR – SIMRAD RF300  
RUDDER ANGLE DISPLAY – SIMRAD IS20  
INMARSAT – SAILOR 6110 MINI-C GMDSS SYSTEM  
PRINTER FOR GMDSS – SAILOR H1252B/TT-3608A  
ALARM PANEL – SAILOR 6101

###### VHF DSC:

WHEELHOUSE – SAILOR 6222 CLASS A  
CONTROL UNIT – SAILOR 6208

###### VHF RADIO:

WHEELHOUSE – SIMRAD RS25 WITH AHK05E WIRELESS HANDSET  
HANDHELD – SIMRAD AX50 AXIS50 GMDSS X 2

###### VHF ANTENNA – AC MARINE CX4

###### WEATHER STATION – AIRMAR 150WX

###### LOUDHAILER – SIMRAD

###### AIS – SIMRAD NAIS 400 CLASS B

###### SART – SIMRAD SA70 SART

###### EPIRB – SIMRAD EG70 AUTO GPS EPIRB

###### RADAR 1 – SIMRAD TX06S-1 OPEN ARRAY 6KW

###### RADAR 2 – SIMRAD BROADBAND 4G RADAR CLOSED DOME

###### NAVTEX – FURUNO NX-300

###### GYRO COMPASS – SIMRAD

###### CCTV SYSTEM CAMERAS – 4 X NAVICO MINI CAMERA WITH IR

###### CCTV SWITCH – DAYLINE DL104

###### CCTV VIDEO BUFFER – DAYLINE SL-18AV

###### INTERCOM SYSTEM – ZENITEL ETB-5 PACK

##### AUTOMATION, CONTROL & MONITORING SYSTEM:

###### AUTOMATION SYSTEM: CRESTRON

LIGHTING CONTROL

ELECTRIC BLINDS



VESSEL CAMERA MONITORING  
DIGITAL MEDIA A/V AUTOMATION

**ONBOARD SYSTEM MONITORING – MARETRON:**

FUEL LEVEL INDICATORS  
FUEL FLOW MONITORING  
BILGE ALARMS  
AC/DC SYSTEM MONITORING  
ALARM SYSTEM  
FLUID PRESSURE MONITORING  
ENGINE MONITORING

**ENTERTAINMENT SYSTEMS:**

SATELLITE TV ANTENNA – INTELLIAN I9  
MULTISWITCH – EMP MULTISWITCH 5X12  
TV'S:

OWNERS STATEROOM 1 – 32" (CEILING LIFT)  
GUEST STATEROOM 1 – 32" (CEILING LIFT)  
GUEST STATEROOM 2 – 32" (CEILING LIFT)  
VIP CABIN 1 – 32" (CEILING LIFT)  
VIP CABIN 2 – 32" (ELEVATOR LIFT)  
MAIN SALOON – 65" (ELEVATOR LIFT)  
CREW MESS – 32" (CEILING LIFT)  
AFT DECK – 50" (CEILING LIFT)

DECODERS – 9 X NEXT HD SATELLITE RECEIVER  
IPOD DOCKS – 2 X MODE BASE IPOD DOCKS IN SALON  
DVD –

MAIN SALON – BLUE RAY  
CREW MESS – BLUE RAY

**MEDIA CENTER – MOSAEX:**

SERVER – RAID 16TB  
PLAYER – PLAYER 3 3D IN 9 ZONES

**SPEAKERS:**

INTERIORS – SPEAKERCRAFT  
EXTERIORS – BOSE

**INTERIORS:**

FLOORS – TEAK PARQUE, COVERED IN TEAK OIL  
CEILINGS – WHITE LACQUER  
WALLS – VENEER VARNISH, LACQUER AND FABRIC  
FURNITURE – VENEER & LACQUER  
TRIM – TEAK  
BATHROOM COUNTERS – GRANITE OR BELENCO  
BATHROOM SHOWERS – GRANITE  
LIGHTING – BCM LED LIGHTING  
FRIDGE – 2 X SIEMENS KD70NA40NE  
OVEN – 2 X SIEMENS HB933R51  
STOVE – SIEMENS EH 875ML11E  
ASPIRATOR – SIEMENS LC958BA90  
DISHWASHER – SIEMENS SN56U593EU  
WASHING MACHINE – 2 X SIEMENS WM12S765TR  
DRYER – 2 X SIEMENS WT 46Y860TR



### **TENDER & SPORTS EQUIPMENT:**

TENDER – 1 X CASTOLDI JET TENDER 16 + 1 X ZAR 43 (60HP)

LAZARETTE CRANE – OPACMARE 3160, CAPACITY 1500KG

UPPER DECK CRANE – OPACMARE 3080/50, CAPACITY 1000KG

### **PAINT SYSTEM:**

HULL – INTERNATIONAL PERFECTION SYSTEM

SUPERSTRUCTURE – INTERNATIONAL PERFECTION SYSTEM

ANTI FOULING – INTERNATIONAL MICRON 77