



ABACUS 78'

TECHNICAL SPECIFICATIONS

ABACUS MARINE S.p.A.

CANTIERE NAUTICO

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OVERALL DIMENSIONS AND MAIN CHARACTERISTICS

Overall length	23,80 mt.
Boat length	22,11 mt.
Waterline length	18,58 mt.
Beam	5,80 mt.
Draft under propellers level (at max. load displacement).....	1,75 mt.
Max. load displacement	50,00 ton.
Top speed estimated	33 nodi*
Cruising speed estimated	29 nodi*
Fuel tanks capacity	5.500 lt.
Fresh water tank capacity	900 lt.
Staterooms	4 + 1 ¹
Berth accommodations	8 + 2 ¹
Heads	4 + 1 ¹
Design category	CE "A"
Maximum number of passengers.....	20 persons

CONSTRUCTION TECH. AND HULL DESIGN

Construction material.....	Infusion of hand laid reinforced fiberglass using vinyl ester resins
Technology and hull design.....	"V" shape bottomed, pad keel and positive lift hull

*** Performance:** medium load, 4 persons on board, sea condition calm. Subject to possible variations upon cargo load, boat maintenance and environmental conditions.

⁽¹⁾**Crew cabin.**

PROPULSION

Main engines N. 2x1550 HP-MAN

Marine transmission ZF 2050V

Drive system "V" drive

➤ Propellers NiAlBr alloy, five blades

Shafts "Marinox 17" steel, diameter 90 mm,
supported by trestle and PSS brass holders

➤ Rudders NiAlBr alloy

➤ Bow propeller Hydraulic, Kgm. 350

➤ Stern propeller..... Hydraulic, Kgm. 350

STANDARD EQUIPMENT

OUTSIDES

➤ Fly - bridge

- Access to the Fly bridge through an external fiberglass stair and teak staircase with courtesy lights, in the cockpit;
- Fly bridge stairs shutter in stainless steel and Plexiglas;
- Antiskid bottom boards in teak;
- Front windshield made of dark-grey Plexiglas in a stainless steel frame assy;
- Pilot double seating made of FRP, with cushions covered in outdoor;
- Co-pilot double seating made of FRP, with cushions covered in outdoor;
- Teak table with stainless steel legs;
- FRP "U" couch to starboard, with cushions covered in out door
- FRP "U" couch to port, with cushions covered in out door
- FRP and crystal top shelf cocktail cabinet with refrigerator, ice maker, glass top cooker, barbecue, sink with water mixer and two bar stools
- Stern sunbath cushion covered with Out Door
- Reinforced fibreglass roll bar, fitted with Radar, GPS and VHF aerials, navigation lights, flag support, sat antenna, horns signal, LED spotlights and LED bar lights
- Stainless steel side and aft railing stand;
- Hard top with electric curtain;
- CD stereo player with two waterproof loudspeakers.
- **The helm console includes:**
 - *Navigation instruments system;*
 - *Analogical engines instrument system;*
 - *N. 1 "Raymarine G120" plotter"*
 - *N. 1 "Raymarine ST8002 series plus" autopilot;*
 - *N. 1 "Raymarine Tridata";*
 - *Engines remote control electronic monolever throttles;*
 - *Digital flaps indicator and flap control buttons;*
 - *Horn signal push-button;*
 - *Nav. Lights push-button (anchorage, running lights);*
 - *N. 2 Anchor windlass control button and chain digital counter;*

- *12V lighter socket;*
- *ON-OFF engines starter switches;*
- *VHF transceiver;*
- *Bow and Stern thrusters joystick ;*
- *Stainless steel rudder wheel;*
- *Compass.*

Bow Deck

- Side-power Bow thrusters (hydraulic), Kgm 350;
- N. 2 X 3000 W , 24V anchor windlass;
- Double stainless steel anchors bow roller;
- N. 1 X 50 Kg anchor with 100 Mt. chain and 12 mm swivel link.;
- N. 1 X 30 Kg anchor with 100 Mt. chain and 12 mm swivel link.;
- N. 2 stainless steel hawse;
- N. 4 stainless steel bollards;
- N. 2 peaks with wing opening;
- Bow dinette with teak bottom boards;
- Teak on side passageways ;
- Stringer Teak deck;
- N.1 deck access electrically operated watertight pantograph door from Galley and helm station;
- Reflecting safety glass windows embedded in the FRP;
- Fore peak chains locker with water drainage and safety chain stopper, fresh and salt water wash down plug, peak spot light;
- Reflecting safety glass windscreen embedded in the FRP;
- N. 2 electric windscreen wipers;
- Bow couch with cushion covered in Out Door;
- Bow sunbathing cushions covered in Out Door;
- Telescopic Coffee table;
- N. 2 stereo waterproof loudspeakers;
- Hatch-way.

Central Deck

- Teak on deck side passageways;
- N. 2 central broadsides bollards;
- Stainless steel side and aft railing stand and accessories;

- N. 2 diesel bunkering fillers with teak protection cover;
- Navigation lights;
- Reflecting safety glass windows embedded in the FRP;
- Step lights on the steps for access to the lazarette and along the deck passageways.

Stern Deck

- Stainless steel saloon door, with 4 reflecting safety glass wings, electrically operated;
- FRP couch with cushion covered with Out Door;
- Teak and stainless steel table for eight persons;
- N. 4 armchairs;
- N. 2 waterproof loudspeakers;
- N. 2 stern chocks recessed in the reinforced fiber-glass each one with two stainless steel bollards, rollers cleats, electric stern warp winches with pedal control, electro-hydraulic gangway, swim ladder, shower tap, tender lift control panel;
- Lazarette overhead LED spotlights;
- Access, from the cockpit, to the fly-bridge through an external FRP staircase, teak steps with Led step lights and stairs top shutter in stainless steel and Plexiglas;
- FRP swim platform with teak tramp electrically reclining for tender towage/launch;
- Electro-hydraulic boarding swim ladder with retractable stanchions;
- N. 1 Shower tap with cold and hot water;
- Swim platform LED lights system;
- Electro-hydraulic, vanishing gangway;
- Hydraulic Stern thrusters,. 350;
- N. 2 shore power outlet 230V;
- N. 2 stainless steel cleats recessed in the reinforced fiber-glass;
- N. 2 stainless steel bollards on both sides;
- N. 1 vanishing stainless steel bollards on both sides;
- N. 1 electric stern warp winches, 24V on both sides;
- N. 2 lockers under the stern warp winches on both sides;
- Wickets made in stainless steel and dark grey Plexiglas;
- Lazarette teak bottom boards;
- Machine room safety escape door in the lazarette;

INTERIORS

- All the rooms have: wooden milled walls and stainless steel recessed contours, ceiling sky panels, cabins curtains made in listed fabric, **Venetian** blinds in the heads;
- Parquet bottom boards in the saloon, dinette and helm station, moquette bouclé in all the cabins;
- The furniture are made in wood with woven leather top, wood doors with crystal handles;
- All the heads have: walls trimmed with "Trend" mosaic, wenghè bottom boards, "Fantini" water mixer, crystal washbasins ;
- All the lamps and the appliqués are by "Venini", the mattresses are made in "Memory";
- The fabrics, upholstery and wood quality to be chosen accordingly to Abacus catalogue.

Deck Bridge

Saloon

- "L" shape couch fabric covered seating six persons, to starboard accordingly to Abacus catalogue;
- Furniture with four doors to port, with wine canteen;
- Coffee table;
- Ceiling with recess and LED soft lighting system;
- Spotlights, halogen/led;
- General purpose touch screen;
- TV entertainment box with electric vanishing lift;
- TV LCD 46" with DVD player, decoder and Home Theater;
- Upholstery and bottom board accordingly to Abacus catalogue;
- Saloon entry door curtain accordingly to Abacus catalogue;
- Parquet flooring;
- Side windows curtains accordingly to Abacus catalogue;

➤ Dinette

- Stainless steel and crystal dining table with N. 6 chairs;
- Wooden cupboards;
- Stowage closets;
- Ceiling with recess and LED soft lighting system;
- Spotlights, halogen/led;
- Staircase to lower deck bridge;
- Side windows curtains accordingly to Abacus stock.

➤ **Galley**

- White lacquered finish;
- Gaggenau fridge;
- Gaggenau freezer;
- Four burner glass top cooker "Gaggenau";
- Extractor hood;
- Electric oven "Gaggenau";
- Stainless steel sink Franke;
- Water mixer Franke;
- Corian work top;
- Teak bottom boards;
- Ceiling spotlights, halogen/led.

Helm station

- Leather covered dashboard with visible seams and carbon fibers paneling;
- Pilot leather bucket helm post;
- **The main helm console includes:**
 - *Leather and stainless steel rudder wheel;*
 - *Access stairs to crew quarters;*
 - *Navigation instruments;*
 - *Digital engines instruments;*
 - *Electronic motor ignition keys with start/stop push-buttons;*
 - *Engines monolever electronic throttles;*
 - *Digital anchor windlass control buttons and chain counters;*
 - *Joystick bow thrusters;*
 - *Joystick stern thrusters;*
 - *Digital button beacon joystick;*
 - *Digital control button and flaps indicator;*
 - *Windscreen wash wipers digital switch;*
 - *Digital instruments lights switches;*
 - *Digital push buttons for: horns signal, navigation lights, anchorage lights, etc;*
 - *Bilge control pumps switch;*
 - *Alarms for: bilge water, maximum grey waters tank level, maximum black waters tank level, navigation lights, low fresh water tank level;*
 - *N. 1 12V lighter socket;*
 - *VHF transceiver;*
 - *Compass.*

- Hauling locker for engines emergency controls, remote control panels for air conditioning, water maker and parallel batteries;
- Spotlights halogen/led;
- Night navigation courtesy light;
- Access door to galley.

Lower deck Bridge

Master stateroom

- Double bed with peak for luggage, complete of mattress in memory, pillows, pillows covers, sheets, and bedspread accordingly to Abacus catalogue;
- N. 2 night tables with drawer and remote controls for lights and air conditioning;
- Furniture with four doors to starboard;
- N. 2 appliqués;
- Bed head with woven leather cover;
- Couch fabric covered;
- Wall LCD TV 32" with DVD player and decoder;
- Large dimensions portholes with electro-hydraulic opening;
- Doors and door-posts in quality wood;
- Upholstery and moquette accordingly to Abacus catalogue;
- Spotlights halogen/led;
- Curtains electrically operated accordingly to Abacus catalogue;
- Cabin closet with drawers, shoe cupboard and clothes-hangers;
- 230V socket.

Master head

- Direct access from the master stateroom;
- N. 1 Crystal washbasin;
- Water mixer;
- Wooden locker under washbasin;
- Separated shower with shower column equipped;
- Stainless steel porthole;
- Spotlights halogen/led;
- Manually operated sliding curtains accordingly to Abacus catalogue;
- Door and door-post in quality wood;
- Electric WC;
- Bidet;
- 230V Socket.

Guest stateroom to starboard to port

- N. 2 beds complete with mattress in memory, pillows, pillows covers, sheets, and bedspread accordingly to Abacus catalogue;
- Night tables with drawer and remote controls for lights and air conditioning;
- Closet with clothes-hangers;
- Hanging Wall closet;
- LCD TV 19" with decoder;
- Spotlights, halogen/led;
- N. 2 applique;
- Stainless steel portholes;
- Upholstery and moquette accordingly to Abacus catalogue;
- Curtain at the windows accordingly to Abacus catalogue;
- Door and door-post in quality wood;
- 230V Sockets.

Guest stateroom head to starboard to port

- Access from the Guest Staterooms;
- Crystal washbasins;
- Water mixer;
- Wooden locker under washbasin and to broadside;
- Shower with crystal door, central shower head and led lights;
- Stainless steel portholes;
- Spotlights, halogen/led;
- Sliding curtain accordingly to Abacus catalogue;
- Door and door-post in quality wood;
- Electric WC;
- Bidet;
- 230V Sockets.

VIPs stateroom

- Double Bed with peak for luggage, complete with mattress in memory, pillows, pillows covers, sheets, and bedspread accordingly to Abacus catalogue;
- N. 2 Night tables with drawer and remote controls for lights and air conditioning;
- LCD TV 21" with decoder;
- Spotlights, halogen/led;

- N. 2 applique;
- Stainless steel porthole;
- Upholstery and moquette accordingly to Abacus catalogue;
- Curtain at the windows accordingly to Abacus catalogue;
- 230V Sockets.

VIPs head

- Access from the VIPs stateroom;
- Crystal washbasin;
- Water mixer;
- Wooden locker under washbasin and to broadside;
- Shower with central head spray and waterfalls, crystal door;
- Stainless steel porthole;
- Spotlights, halogen/led;
- Curtain at the windows accordingly to Abacus catalogue;
- Door and door-post in quality wood;
- Electric WC;
- Bidet;
- 230V socket.

Crew quarters

Dinette

- Couch covered with fabric accordingly to Abacus catalogue;
- LCD TV 19" with decoder;
- Spotlights, halogen/led;
- Furniture for washing/drier machine and fridge;
- Storage peaks;
- Access thermo-acoustic door to engine room.

Crew cabin to starboard to port

- Single bed, peaks underneath it, mattress in memory, bedspreads, sheets and pillows covers accordingly to Abacus catalogue;
- Spotlights, halogen/led;
- Bed head reading lights;
- Stainless steel porthole;
- Sliding curtain at the window accordingly to Abacus catalogue.

Crew head

- Stainless steel washbasin with corian countertop;
- Water mixer;
- Separated shower with shower column;
- Spotlights, halogen/led;
- Hanging wall wooden locker;
- Electric WC;
- 230 V socket.

ELECTRIC SYSTEM**The system comply with the latest rules**

- On board tensions:
 - 230VA.C, 50 Hz;
 - 24V D.C.;
 - 12V D.C. for the VHF transceiver, CD-DVD players, etc;
 - N. 2, 230V 50A quay socket;
 - N. 8, 225Ah batteries plus AGM for the service users;
 - N. 4, 225Ah batteries for the engines starters;
 - N. 2, 100Ah batteries for the generator;

All the batteries sets are operated by relays actuators.

- N. 2, 24V 75A electronic battery charger, for the services pack;
 - N. 1, 24V 40A electronic battery charger, for the engine starter pack;
 - N. 1 ,12V 35A electronic battery charger, for the two Genset;
 - N. 1 , 24V 2500W inverter, for the fridge and audio/video system;
 - N. 1 , 24V 1500W inverter, for the sockets.
- One main power system control board fitted in the machine room.
 - N. 1 remote control sub panel fitted in all the rooms.
- Spotlights system, halogen/led;
- LED lighting system;
- Underwater watertight spotlights underneath swim platform.

Genset

- N. 2 Generators 18 Kw, 230V, 50 Hz, installed in the engine room.

ELECTRONIC INSTRUMENTATIONS SYSTEM

- N. 1 VHF in the helm station and fly-bridge;
- N. 1 Plotter 120" plotter with remote control, GPS chart plotter, 48MIs Radar, deep sounder, camera vision in the helm station;
- N. 1 Plotter 120" plotter with remote control, GPS chart plotter, 48MIs Radar, deep sounder, camera vision in the fly-bridge;
- N. 1 autopilot in the helm station and repeater in the fly-bridge;
- N. 1 Tridata in the helm station and repeater in the fly-bridge;
- N. 1 GPS antenna;
- N. 1 Aerial Radar;
- N. 1 Radome with satellite antenna;
- N. 2 digital anchor windlass in the helm station and repeater in the fly-bridge;
- Flaps indicator in the helm station and repeater in the fly-bridge;
- Rudder indicator in the helm station and repeater in the fly-bridge;
- Digital instruments panel in the helm station;
- Analogical instruments panel in the fly-bridge;
- Touch screen utilities remote control panel of 15" in the helm station, of 7" in the dinette and of 7" crew quarters;
- " bow and stern thrust joystick control in the helm station and repeater in the fly-bridge;;

A causa delle continue evoluzioni delle apparecchiature elettroniche sopracitate, il sistema installato sulla Vostra imbarcazione può essere cambiato senza preavviso

FITTINGS AND EQUIPMENT ON-BOARD

- Electro-hydraulic steering rudder at the two helm stations;
- N. 2 electro-hydraulic flaps;
- "Besenzoni" Electro-hydraulic telescopic vanishing boarding gangway;
- "Besenzoni" Electro-hydraulic boarding swim ladder with retractable stanchions;
- N. 2 warp winches;
- N. 2 anchor windlass;
- Tenderlift "Besenzoni";
- Hydraulic bow thrusters; 35 Hp, Kgm. 350;
- Hydraulic stern thrusters; 35 Hp, Kgm. 350;

AIR CONDITIONING SYSTEM

- N. 1 cooling group "Condaria" air conditioning system at 90.000 Btu with digital remote controls in all the cabins;

IMPIANTO OLEODINAMICO

- Electro-hydraulic steering rudder at the two helm stations;
- N. 2 electro-hydraulic flaps;
- Hydraulic bow thrusters; 35 Hp, Kgm. 350;
- Hydraulic stern thrusters; 35 Hp, Kgm. 350;

BILGE PUMPS SYSTEM

- N. 1 Centralized emergency bilge system installed in the engine room composed of a central pump in engine room with a clarinet to draft in all surroundings;
- N. 4 automatic electro-immersion pumps;
- N. 1 manual bilge pump;
- By-pass aspirazione motori con succhiarle in sala macchine.

FIRE FIGHTING SYSTEM

- Powder system, with one manually operated lever fitted in a dedicated control panel fitted in the entry machine room.

The panel also includes:

- *device closing fuel system electro-valves.*
- N. 4, 12 kg each, automatic fire extinguishers in the machine room;
- N. 1 manual fire extinguisher in each room.

FUEL SYSTEM

- N. 1 structural tank, maximum capacity: 6.000 lt.;
- N. 2 diesel bunkering fillers on deck broadsides passageways;
- Engines water/fuel separator filters;
- Gen-set fuel filter;
- Feeding manifold.

FRESH WATER SYSTEM

- The system can use either the stainless steel tank system, than a quay-plug;
- Fresh water system with twin surge tank;
- Digital level indicator in stainless steel tank;
- N. 1, 100 lt. boiler;
- N. 1 bunkering plug on the deck passage way;
- N. 1 stern quay plug;
- Hot and cold water pipe line in all the heads, galley, crew cabin and shower in the swim platform;
- Cold water pipe line on the flying-bridge, in the lazarette and in the forepeak;
- Water-maker of 180 lt/h.

GREY WATERS SYSTEM

- N. 2 self-priming Electric-pump for lifting the liquids to be dumped into the sea or through a stern quay plug, stainless steel tank.

BLACK WATERS SYSTEM

- Fresh water WC washing system with stainless steel black water tank;
- N. 2 soaking pump for direct outboard dumping feasibility or through a stern quay plug.

SEA WATER SYSTEM

- N. 1 fire fighting pump in the machine room with bow and stern plugs;
- N. 1 anchor chain washing pump with a plug in the forepeak.

MACHINE ROOM

- Standard housing for engines, inverters, genset and batteries groups;
- N. 2 underwater engines gas exhaust with FRP structural ducts and stern idling exhaust pipes for stationary boat or reduced speed cruising;
- Stainless steel exhaust manifolds;
- Water-exhaust smoke strainer for the generator with side drainage exhaust pipe;
- N 4, 24V extractor fans;
- Sound proofing panelling;
- FRP dunnage with antiskid.

STANDARD EQUIPMENT

- Ship owner manual;
- Instruction manuals for all the apparatus;
- Dinner, glasses and cutlery for 8 persons accordingly to Abacus catalogue;
- Boathook;
- N. 8 fenders;
- Mooring ropes;
- Stainless steel logo.

Delivery and navigation tests at Milazzo (ME) Port

L'ABACUS MARINE S.p.A. si riserva il diritto di modificare in qualsiasi momento e senza preavviso alcuno la specifica tecnica dei materiali e del progetto delle sue imbarcazioni, equipaggiamenti, prezzi ed accessori e/o optional.

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