

Over ProZero & Van Dyke Marine

De ProZero-serie van Tuco Marine staat voor toonaangevende kwaliteit en maatwerk in high-performance werkboden en crew transfer vessels. Elke boot wordt ontworpen op basis van uw operationele eisen, met een doordacht design en bewezen technologie. Het resultaat: maximale snelheid, brandstofefficiëntie en veiligheid, zelfs onder de zwaarste omstandigheden.

Van Dyke Marine is vertegenwoordiger van ProZero in de BeNeLux en begeleidt klanten volledig: van eerste advies en ontwerp tot levering, onderhoud en service.



VAN DYKE MARINE

Vertegenwoordiging in de
BeNeLux van

PROZERO
WORK BOATS

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PRO:ZERO
Fast Boats for Professionals



PROVEN TECHNOLOGY

FISHFARM BOOKLET



PRO:ZERO

The ProZero series is a range of fast boats designed specifically for professional use. They are built to endure the harsh conditions of operations on open sea while providing the operator with an ideal work environment.

With advanced design and sophisticated application of composites materials, the ProZero series offers the customer significant commercial benefits and enhance overall vessel performance and energy efficiency. The ProZero range covers Offshore, Workboats and vessels for Security & Defense.

#weloveworkboats

PRO:ZERO



HISTORY OF TUCO'S FISHFARM SERVICE BOATS

CONSTANTLY EVOLVING

The ProZero vessels represent the cutting edge of a development process that constantly aims to balance technology innovation, customer demands and industry trends.

This process took flight in 2002 when Tuco launched the first vessels of the now superseded AluGuard series. These vessels have proven themselves over years of service and have benefitted many satisfied customers. Furthermore, our key proficiencies have been tried, perfected and validated through contributions to several large-scale, both national and international, development projects. The technical, empirical and commercial insights and accomplishments gained during many years in the business have been condensed and applied in our state-of-the-art ProZero vessels.



PROVEN TECHNOLOGY

The ProZero series of workboats is the quintessence of years of experience. Building on well-consolidated technology and Tuco's long and productive history in the industry, the ProZero workboats provide unrivaled safety, performance and comfort.

We are the trusted supplier of many customers and have delivered vessels to both private organizations, shipyards and governmental institutions.



Efficient and proven hull
Matchless strenght-to-weight and seaworthiness. Shaping first-class hulls with precision technique and cost-effective production.



PRO:ZERO



PROVEN TECHNOLOGY

PRO:ZERO



HIGH PRESSURE CLEANING BOATS

15M HPC VESSEL

15M HPC VESSEL

The 15m ProZero HPC boat has been developed in cooperation with leading aquaculture experts. It is built from composite materials which reduce the structural weight of the vessel and ensure low maintenance and superior durability.

Thanks to the low weight and the twin inboard diesel engines connected to the distinctive Volvo Penta IPS propulsion system with forward-facing, counter-rotating propellers, the vessel is capable of operating at more than 33 knots. Other propulsion systems available on request.

The union of low weight and efficient hull lines result in impeccable control and handling, world-class fuel efficiency and minimal environmental impact.

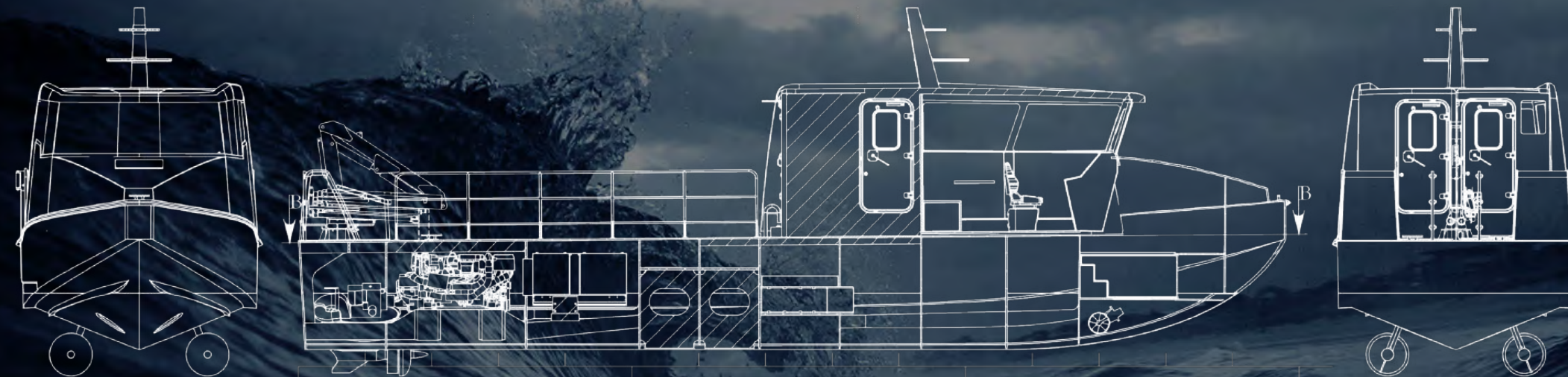
The hull has special features and reinforcements that make it ideal for fish farm operations. The ProZero hull is highly efficient and provides for a stable ride, even in rough seas where most vessels must surrender.

The cockpit layout in the 15m Prozero is arranged to fully exploit the latest monitoring systems and the most reliable and accurate navigation technology available.

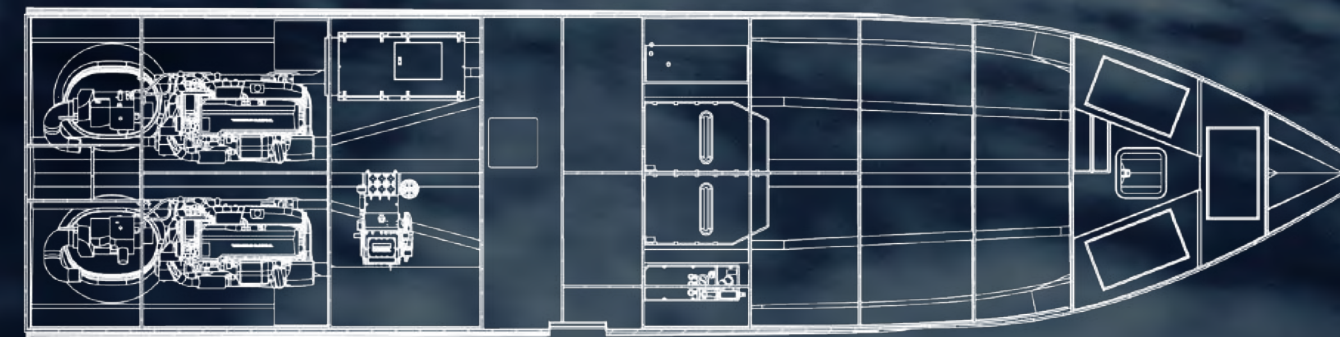
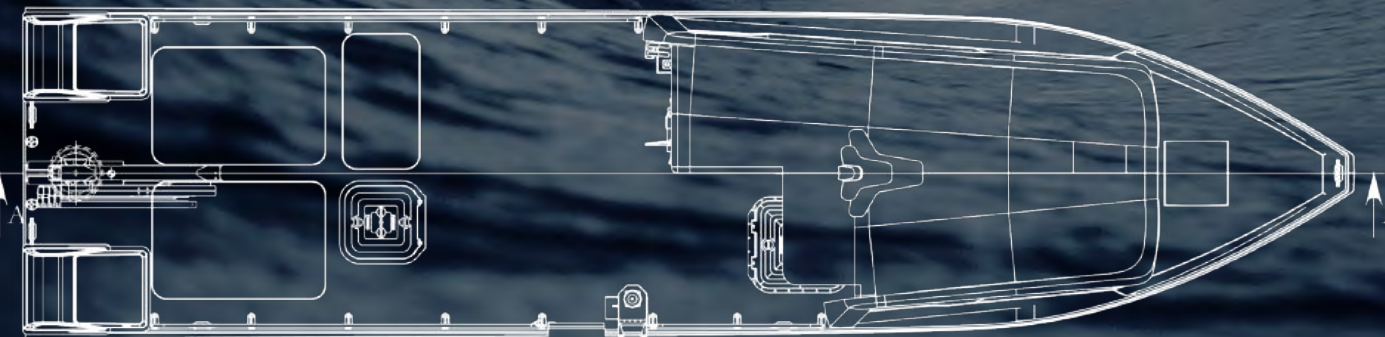


Flexible construction

Construction with a purpose. Know-how and expert engineering at the service of unique client demands.



SECTION A-A



SECTION B-B



PRO:ZERO 15M HPC VESSEL



Design: 2016 | 5000-03-51
Length overall, approx.: 14,96 m
Beam overall, approx.: 3,85 m
Draft (full load), approx.: 1,08 m
Capacity: 4 persons
Maximum Load: 3.000 kg
Engines: 2 x inboard diesel
Drive: 2 x IPS

BENEFITS:

This boat is developed for fish farm service. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort.

OPERATIONAL FEATURES:

Speed (max, lightweight): 35 kts.
Fuel capacity: 2.500 l.

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:

The fender is built from a hard rubber holed D profile fender, running all around the sides and the bow. Additionally, on the starboard side a fender is situated underwater to protect the hull when working on the farm rings.

DECK:

Deck and cabin are self-bailing.
Large working aft deck.
1 x 2,5 Tm Hydraulic crane.
1 x 1,0 Tn Hydraulic capstan.
2 x Door openings with ladder to waterline on the sides.
6 mooring bites.
Black anodized detachable aluminium railings.

CABIN & FORECASTLE:

Toilet with WC and washbasin.
Pantry with sink, fridge and microwave.
Hinged door in the aft of the cabin.
Ladder from cabin to forecastle.
4 x Comfort seats for crew.
2 x Bunks in the forecastle (3rd bunk optional).
Defrost system for windows with hot air blowers.
All windows are glued into the structure.
LED lights in cabin, cockpit and forecastle.
Comfort insulation in the cabin.
Diesel heater.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.:

2 x 625 hp inboard diesel engine.
2 x IPS pods.
1 x hydraulic pump coupled to the SB engine.
1 x flushing pump coupled to the PS engine with outlet in the main deck.

TANKS:

Structural diesel tanks with 2.500 l capacity.
Structural fresh water tanks with 500 l capacity.
1 x 100 l fresh water tank for consumption.
1 x 100 l dark water tank with odourless filter.
1 x 20 l hot water thermos.
1 x hydraulic tanks.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable, power with control lamp, marked fuses, earth connection. Insulation transformer with earth plate for protection of galvanic corrosion.
24V DC, 240V 2-phase AC electrical system.
El, DC and AC outlets in, cabin, forecastle and main deck (protected).
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
1 x searchlight on cabin roof, manually operated.
Navigational lights.
Multiple floodlights on the working deck.

NAVIGATION & ELECTRONIC EQUIPMENT:

Complete engine instruments supplied by engine manufacturer.
Control panel for all lighting and other electronic equipment.
1 x fixed VHF.
1 x magnetic compass.

SECURITY EQUIPMENT:

Bilge pumps.
Automatic fire extinguisher system in engine room.



PRO:ZERO



HIGH PRESSURE CLEANING BOATS
15M HPC VESSEL

CRANE

The vessel is equipped with a hydraulic crane and capstans to optimize operations and easy handling of the aquaculture equipment and ROVs. Different onboard cranes are available to ensure compliance with local regulations and statutes.

IMPROVED RAILING

Sturdy railings are installed around work areas to ensure the safety of the personnel. The railings can be removed to accommodate oversized cargo and to provide easy access and transfer.

CARGO ZONES

Dedicated cargo zones with lashing points are installed on deck to secure cargo during operations. The deck has been reinforced to accommodate the added load.



INTERIOR DESIGN

The interior has been designed to provide the user with maximal comfort and spacious working conditions. Ergonomic seats ensure a comfortable ride, noise insulation eases communication and large windshields afford ample light and great visibility.



Comfortable cabin
Attending to the human factor. Functional, bright and ergonomic working conditions with noise insulation for ease of communication.



PRO:ZERO



INTERIOR
DESIGN

PRO:ZERO

WORKBOATS

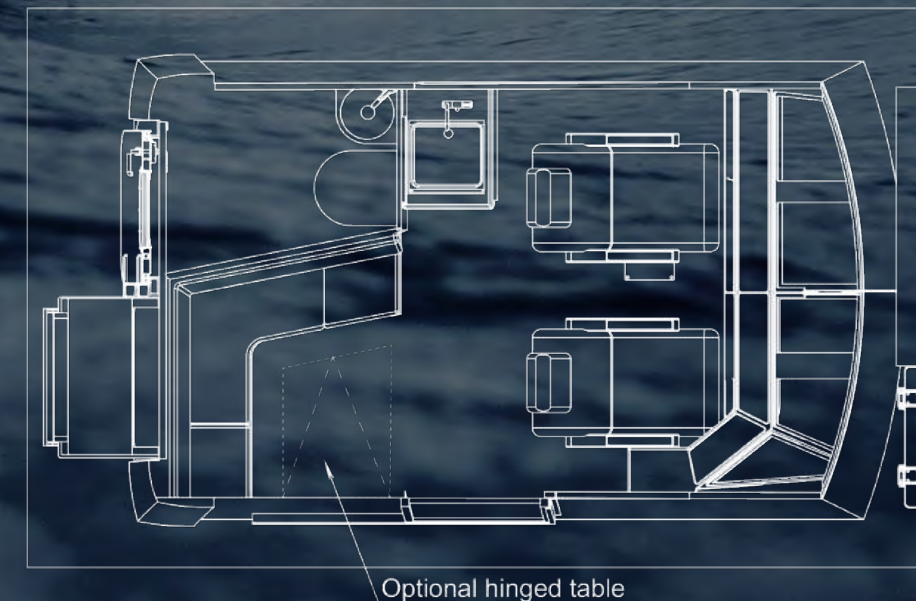
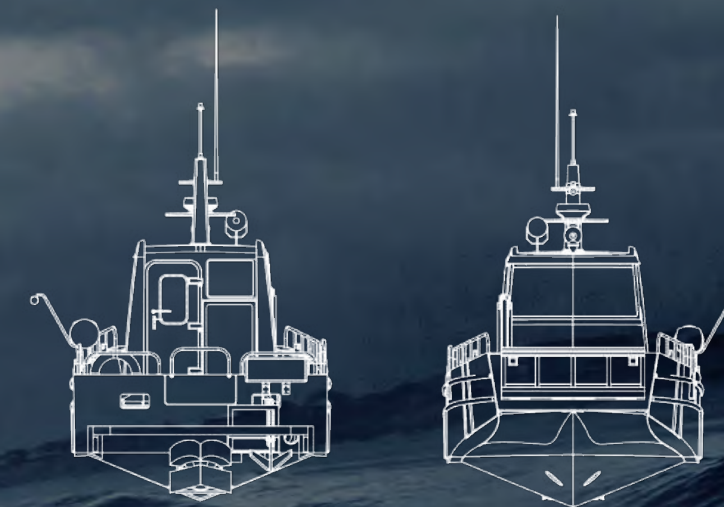
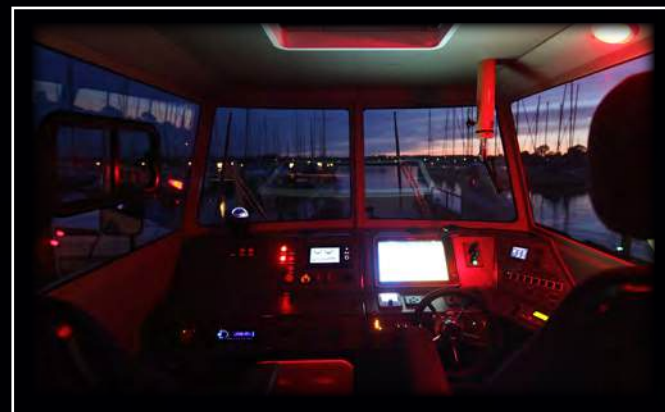
11M MULTI-PURPOSE WORKBOAT



11M WBW ARCHIPELAGO JET

The ProZero WBW Archipelago workboat is a fast and light multipurpose workboat that features a hydraulic bow gate and a deck crane for handling cargo. To inhibit noise and enhance crew comfort in the cabin, the vessel is fitted with a flexible, hung cabin mounted on rubber shocks. Two suspended seats, a passenger sofa and a toilet are installed to afford the very best travelling experience for the crew and passengers. Large windows provide ample light and great visibility and a sliding door secures access to and from the cabin. The boat is equipped with state-of-the-art communication equipment and a heated locker is mounted on the aft deck where it serves as a dry locker for clothes and tools.

The ProZero workboat is equipped with an inboard diesel engine that secures speeds of more than 25 knots. - Multiple engine and propulsion choices are available. - The handling characteristics are excellent and the low weight which distinguishes all vessels in the ProZero series ensures outstanding fuel efficiency.





PRO:ZERO 11M MULTI-PURPOSE WORKBOAT



Design: 2015 | 5000-05-04
Length overall, approx.: 10,80 m
Beam overall, approx.: 3,60 m
Draft (full load), approx.: 0,75 m
Displacement (full load), approx.: 8.500 kg
Capacity: 5 persons
Maximum load: 1.500 kg
Engines: 1 x Inboard Diesel

BENEFITS:

This vessel has been designed for multipurpose with a hydraulic wide bow door and a crane for lifting equipment. The unique ProZero system with a flexible attached cabin reduces both noise and vibrations from hull and engines. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort. The boat is significantly lighter than the market average which benefits fuel consumption and adds to the already proven seaworthiness.

OPERATIONAL FEATURES:

Speed (max): +24 kt.
Range: 12 hours.
Fuel capacity: 600 l .

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made from a combination of glass- and carbon fibre as sandwich construction with PVC as core material. The core material acts as a natural buoyancy reserve, due to its lightweight and zero water absorption. The sandwich construction avoids the use of internal stiffeners, increasing exploitation of internal space while working as insulation, improving comfort in the cabin.

FENDER:

The fender has a D profile of 50 x 50 mm. It is made of hard rubber and bolted to the hull.

DECK:

Decks are self-bailing, both interior and aft deck. Large working area. Access hatch to engine room in front of the cabin. Wide bow hinged door, with hydraulic opening system.
1 x hydraulic crane.
1 x horizontal hydraulic winch.
1 x towing bollard.
6 x mooring bites.
Storage for mooring equipment.
Watertight storage cabinet for rainwear.

CABIN & COCKPIT:

Cabin fixed through anti vibration blocks to hull.
1 x bench for 3 passengers in the aft bulkhead.
2 x pilot seats for the crew.
Sliding door in the starboard side of the cabin.
Windshield wiper.
All windows are glued into the structure.
Lights in cockpit with dual mode white / red light.
Heating system.
Access to toilet from aft deck.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.:

1 x inboard diesel engine.
1 x bow thruster.
1 x stern thruster.
1 x water jet.
1 x hydraulic pump coupled to the main engine.

TANKS:

2 x diesel tank with hatch and filling protection. All fuel systems are pressure tested.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable. Shore power with control lamp, marked fuses, earth connection and 20 m shore cable. 24-volt electrical system. Main switches with separate battery systems for start, navigation and consumption. Battery charger with indicator. 220 V-outlets in cabin. 1 x searchlight on cabin roof, manually operated. Navigational lights. 1 x floodlight on the working aft deck.

NAVIGATION & ELECTRONIC EQUIPMENT:

Electric engine controls. Complete engine instruments with RPM, temperature, oil pressure and voltmeter for start batteries supplied by engine manufacturer. Fuel gauge. Control panel for all lighting and other electrical equipment. 1 x magnetic compass.

SECURITY EQUIPMENT:

1 x manual bilge pump.
1 x electrical emergency pump in bilge, manual start.
1 x electrical emergency pump in engine room, manual start.
1 x fire extinguisher at helmsman station.

PRO:ZERO



WORKBOATS
11M CREWBOAT

11M CREWBOAT

The 11m ProZero crew boat is a fast transfer vessel designed specifically for speed, agility and comfort. With a top speed of more than 35 knots, the 11m crew boat wastes no time. This means that resources can be put to use where they create real value; with reduced travel time comes more dynamic mission planning and organization. More missions can be carried out in shorter time and the flexible design of the vessel makes it suitable for any type of mission that can benefit from the speed and agility.

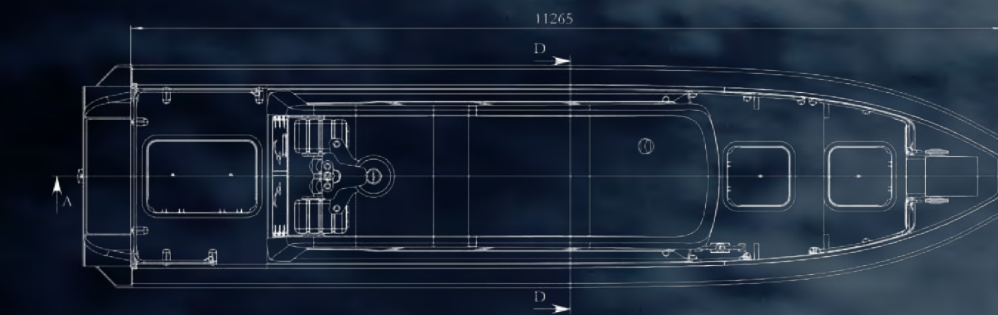
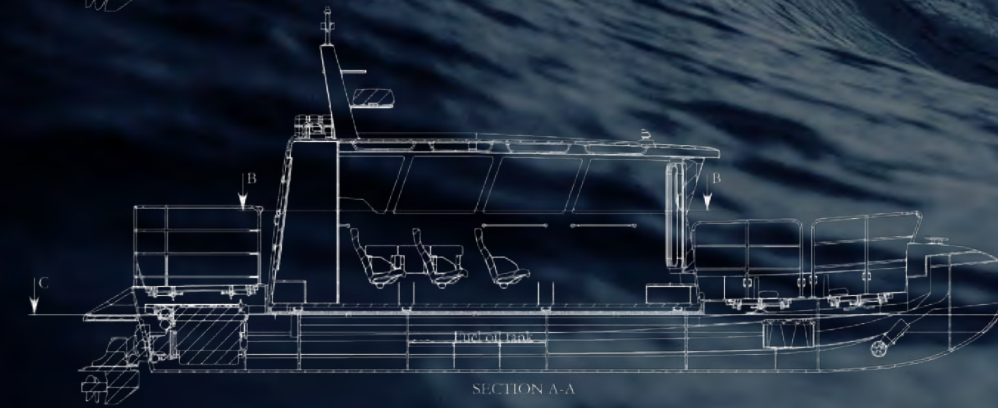
The design of the fore and aft deck ensures quick and safe accommodation of passengers in the cabin and cargo on the foredeck.

The sleek and deep v-bottom of the boat secures a stable ride and provides the boat with exceptional seakeeping capabilities which contributes even further to crew comfort.

The vessel is made from composite materials and is equipped with aluminium railing. Smart material selection contributes to significant weight reductions and the low weight translates directly into impressive reductions in fuel consumption and emissions. In addition, the strong and durable composite materials are non-corrosive and virtually maintenance-free which cuts the cost of ownership.



Low weight
Cutting weight and adding value.
Low weight design lifts the value chain.



SECTION D D



PRO:ZERO 11M CREWBOAT



Design: 2018 | 5000-02-23
Length overall, approx.: 11,9 m
Beam overall, approx.: 2,7 m
Draft, approx. (without sterndrive): 0,6 m
Crew: 1 persons
Persons: 6 persons
Engine: 1 x Inboard Diesel
Drive: Z-Drive

BENEFITS:

This daughter craft is designed to fulfil requirements as Crew transfers at fish farms. The unique ProZero system with a flexible attached cabin reducing both noise and vibrations from hull and engines. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort. Benefits by being significantly lighter than market average are lower fuel consumption. Supporting the great and proven sailing capabilities.

OPERATIONAL FEATURES:

Design Speed, approx.: + 35 kt (lightweight condition).
Fuel capacity, approx.: 400 l.

DESCRIPTION:

The boat has been built to meet the requirements from Norwegian Maritime Authorities, rule (FOR-2014-12-19-1853).

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:

The fender is constructed of closed cell polyethylene foam. Not deflating with solid core that cannot lose buoyancy or absorb water. Damage is strictly cosmetic keeping crew safe.

DECK:

Railings.
Decks are self-bailing.
Engine room cover with easy access for engine maintains.
Storage for mooring equipment.
Mooring bites.
Storage in forward compartments.
Benches in both sides forward deck.
Deck lights on aft and fore deck.

CABIN & COCKPIT:

Cabin fixed through anti vibration blocks to hull.
Seats for crew and persons.
Sliding door at the starboard.
Windshield wiper.
All windows are glued into the structure.
Comfort insulation in the cabin.
Heating system.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.

1 x Inboard diesel engine, 400 Hp.
1 x Sterndrive.
1 x Bow thruster.

FUEL TANKS:

Diesel tank with hatch and filling protection.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
Navigational lights.
2 x floodlights on the working aft deck.
2 x floodlights on the working foredeck.

NAVIGATION & ELECTRONIC EQUIPMENT:

Fuel gauge.
1 x magnetic compass.

SECURITY EQUIPMENT:

Manual bilge pump.
Electrical emergency pump in bilge, manual start.
Fire extinguisher at helmsman station.

PRO:ZERO



WORKBOATS
11M CREWBOAT



INTERIOR DESIGN

Great comfort in the cabin is achieved with a heating system to regulate the temperature, comfortable seats, an air-suspended driver's seat and state-of-the-art electronic equipment.



Comfortable cabin
Attending to the human factor.
Functional, bright and ergonomic
working conditions with noise insulation for ease of communication.



PRO:ZERO



INTERIOR
DESIGN

PRO:ZERO



8M FULL CABIN

8M FULL CABIN

The boat is designed and optimized to serve as a platform for service and subsea operations. Operations include transport of personnel, underwater inspection and research, repair and maintenance of machinery and structures and recovery of sunken assets.

In addition to the spacious driver and control cabin that has room for up to 6 extra passengers, the boat is equipped with a well-organized working deck. The cabin protects the crew against the surrounding environment, enhances comfort and provides ideal work conditions for the operators. Powerful light projectors on the aft deck provide ample light when operations can't benefit from the luxury of daylight.

The 8-meter ProZero vessel comes as standard with a single inboard diesel engine and Z-drive.

Sturdy railings and well-designed bow access are vital parts of the deck layout which also features a raised aft deck that functions as a full beam work platform for the crew.

The ProZero 8m hull provides for a stable ride, even in rough seas where most vessels must surrender. Fast operations in rough seas are only limited by human constraints.

The ProZero boats are available in multiple versions, all of which are carefully tailored to suit particular user requirements. The cockpit layout in the work-boats is arranged to maximize the use of state-of-the-art operations management and situational awareness electronic aids.



PRO:ZERO 8M FULL CABIN DC - INBOARD



Design: 2017 | 5000-02-21
Length overall, approx.: 7,95 m
Breadth overall, approx.: 2,84 m
Draft, approx. (sterndrive): 0,7 m
Crew: 2 persons
Capacity: 6 persons
Payload: 750 kg (incl. persons)
Engine: 1 x inboard diesel

BENEFITS:

The boat is specially designed for transport of up to 6 passengers at high speeds. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort. The boat is significantly lighter than the market average which benefits fuel consumption and adds to the already proven seaworthiness.

OPERATIONAL FEATURES:

Speed, approx.: +25 kt (lightweight condition).
Range: 4 hours at cruise speed.

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:

The fender is constructed of closed cell polyethylene foam. Not deflating with solid core that cannot lose buoyancy or absorb water. Damage is strictly cosmetic keeping crew safe. Fender system absorbs major impacts and retains integrity and shape. The ProZero fenders profile gives substantially more interior room than a comparable RIB.

DECK:

Deck and cabin are self-bailing.
Metallic mooring bollards.
Modular and easy detachable aluminium railings.
Lashing points on aft deck for equipment.
Aluminium frame on the aft with strong points for towing and equipment attachment.
Protection bar on the transom for engines protection.

CABIN & COCKPIT:

Hinged door in the aft of the cabin.
Windshield wiper.
LED lights in cabin and cockpit.
Seats for crew.
1 x Padded foldable bench for up to 3 persons.
1 x Padded deployed bench for 3 persons.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.:

1 x inboard diesel equipped with sterndrive.
1 x Mercruiser TDI-260PS, BR III, DTS Other engine configurations on request.

TANKS:

Petrol tank with hatch and filling protection.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable.
Shore power with control lamp, marked fuses, earth connection and shore cable.
24-volt DC system electrical system.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
Navigational lights.

NAVIGATION & ELECTRONIC EQUIPMENT:

Electric engine controls. Complete engine instruments with RPM, temperature, oil pressure and voltmeter for start batteries supplied by engine manufacturer.
Fuel gauge.
Control panel for all lighting and other electrical equipment.
1 x magnetic Compass.
1 x electric horn.

SECURITY EQUIPMENT:

Manual bilge pump, electrical emergency pump.
Portable fire extinguishers.

PRO:ZERO

WORKBOATS
8M FULL CABIN



INTERIOR DESIGN

The interior has been designed to provide the user with maximal comfort and spacious working conditions. Ergonomic seats ensure a comfortable ride, noise insulation eases communication and large windshields afford ample light and great visibility.



Comfortable cabin
Attending to the human factor. Functional, bright and ergonomic working conditions with noise insulation for ease of communication.



PRO:ZERO



INTERIOR
DESIGN

PRO:ZERO

FIBRE REINFORCED COMPOSITES

SUPERIOR MATERIALS

High strength, low maintenance

Clever choices of materials increase performance and productivity. Fiber reinforced composites have great strength-to-weight ratio, physical stability and molding flexibility. This makes them highly attractive for manufacturing the fast and durable ProZero vessels.

Safe and durable

Improved safety is also a benefit of using composites. Drop tests proves that the "sandwich"-type composite panels used in the ProZero series have better energy absorption capacity compared to for instance aluminium. This means that the structural integrity of the vessel is better preserved in the occasion of collision with objects. The sandwich panel acts as a closed cell, so that in the event of a collision where the outer skin is compromised, water intake is confined and obstructed whereas a similar aluminum panel will suffer full penetration which sets the vessel and crew at risk.

Working together

At Tuco, we carefully draw out all the potential inherent in these materials and we continuously work together with the Danish Technical University amongst others to verify the mechanical properties and advantages of composites.



Unmatched strenght
Confront the elements with confidence. Built for strenght, safety and durability.

WORKSHOP AND INSTRUCTIONS

Professional training – skilled instructors

We can provide a variety of operations and maintenance courses that can accommodate clients from a number of sectors including Wind, Maritime, Oil & Gas and Military. Teaching is performed by our expert instructors, who have trained more than 8000 people.

A selection of ProZero courses:

- Introduction to materials
- Introduction to basic techniques
- Safety
- STCW - Personal Survival Techniques
- STCW - Proficiency in Fast Rescue Boats
- STCW - Proficiency in Fast Rescue Boats Refresh

Contact us at mail@tuco.dk for more info.



PRO:ZERO

TWO DAY WORKSHOP INCLUDED



DROPTEST: COMPOSITE

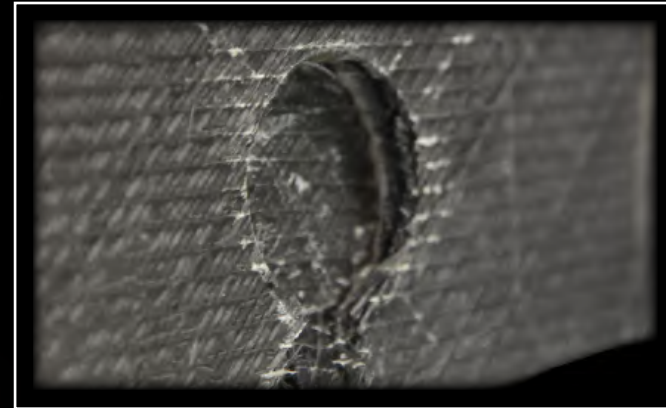
Composite hull structure

- Dropping a 12,5 kg load from 6 m height.
- 25mm sandwich panel with PVC core.
- A controlled release mechanism lets the load falls straight down and ensures reproducibility of results.

RESULT:

Absorbs the impact

- Only the outer skin of the hull structure is penetrated – **No water intake, no immediate risk** for boat and crew.
- The sandwich core absorbs the energy from the impact and the inner skin remains undamaged.
- The vessel can return safely to harbour with no risk for crew and vessel.



* Image shows penetration of only the frontside of the sandwich panel because the inner core absorbed the impact

DROPTEST: ALUMINIUM

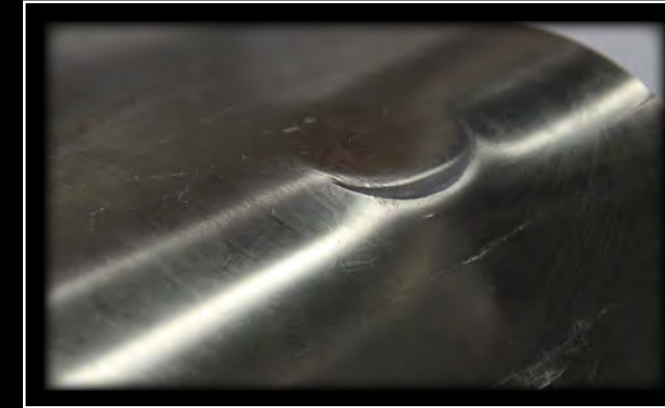
Aluminium hull plating

- Dropping a 12,5 kg load from 6 m height.
- 5 mm aluminium hull plate.
- A controlled release mechanism lets the load falls straight down and ensures reproducibility of results.

RESULT:

Water intake

- Impact on the aluminium hull plating results in **immediate water intake** with **crucial risk** for crew and boat.
- Damage like this requires instant attention.



* Image shows full penetration of the aluminiums plate

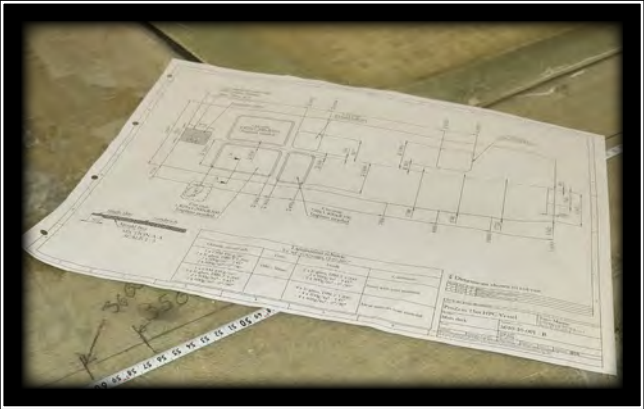
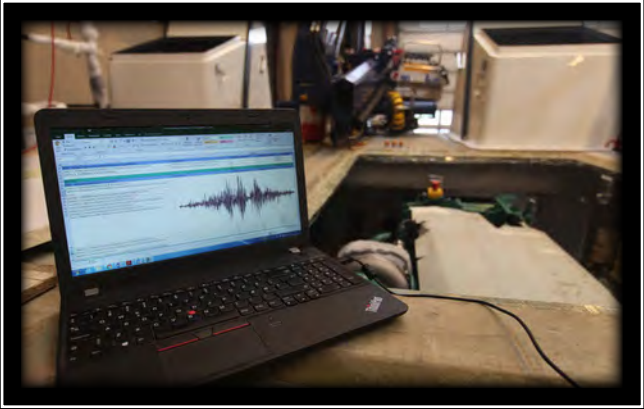


QUALITY
ASSURANCE

QUALITY ASSURANCE

Quality comes first

Quality is a keyword at Tuco Marine Group. In our pursuit of excellence, it is crucial that the quality is under complete control. We work nonstop to ensure that our products and services not only fulfill, but surpass quality requirements. Our skilled employees secure high quality at every step in the manufacturing process by performing systematic measurements and continuous monitoring of raw materials, components, assemblies and finished products.



WHY CARBONFIBRE COMPOSITES

Many people are not aware of the advantages of carbon fibre composites over aluminium, so here we will highlight some of them.

LIFE SPAN

Composite boats have longer life span due to their non-corrosive nature and the capacity of the materials to dampen vibrations and protect against structural degradation. Fast going aluminium boats have a maximum lifespan of 15 to 20 years before vibrations starts generating cracks in the welding/ plate connections. The relative difference in stiffness between welded connections and plating means that forces cannot be transferred to and from the plating without creating cracks over time.

WEIGHT

Generally, carbon fibre composite boats are 30% lighter than comparable aluminium boats. This translates into less fuel consumption and higher speeds. Carbon fibre itself is known for its impressive strength-to-weight ratio which is higher than all other materials used in boatbuilding. Although carbon fibre is four times stronger than high-grade steel, it weighs only 25% as much.

	Type	Density	Tensile Strenght	Young Modulus
		kg/m3	Mpa	Gpa
Steel	Low-grade	7750	150-1500	210
Steel	High-grade	7600-8000	200-2000	190-205
Aluminium	Alloy	2700-2800	34-500	
Glassfiber	E-glas	2540	2400	73
Carbon fibre	T700	1770	5300	235

IMPACTS/SAFETY

Composite boats are much safer than aluminium boats. When aluminium boats are subjected to impacts, the hull is often penetrated. A simple drop test clearly shows the improved safety of a sand-wich composite hull structure. By dropping a 12-kilo weight from 5 meters of height onto an aluminium hull plate, the hull plate will be penetrated. Consequently, there is a risk of water ingress and both crew and boat are exposed to danger. The same test performed on a sandwich panel shows that only the outer skin of the structure is penetrated while the core material absorbs the remaining energy, leaving the inner skin undamaged This means no risk of water ingress and less danger to boat and crew members.

PAINTS AND SURFACES

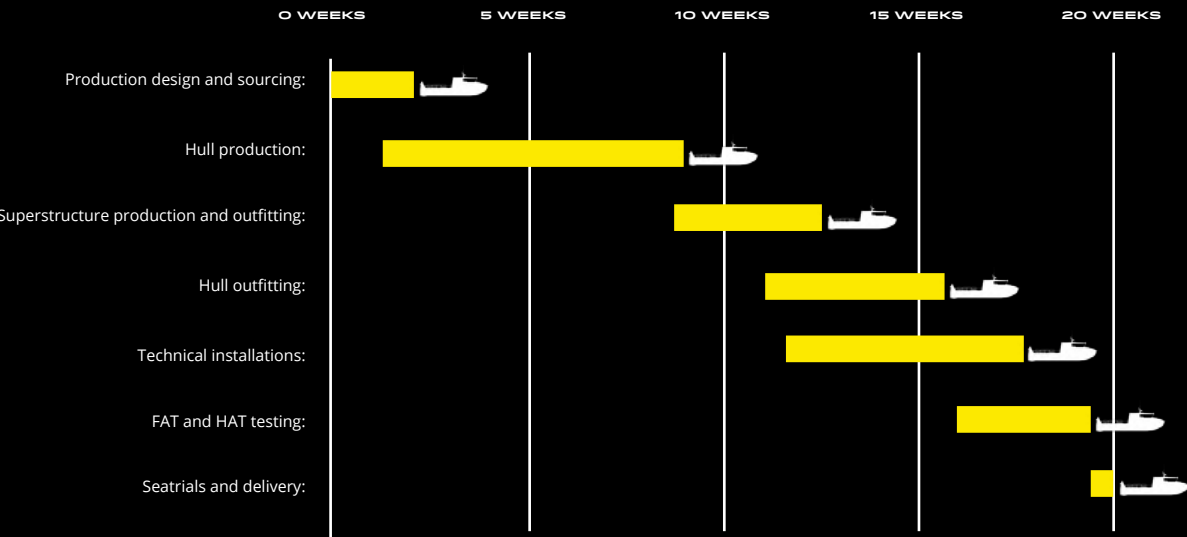
Aluminium surfaces need constant maintenance since any minor scratches or compromises to the paint will expose the aluminium. Under such circumstances the aluminium will start to oxidize, and more paint will start peeling off and result in further surface degradation. With composites, scratches are purely cosmetic and no repaint or maintenance is needed.

Applications

During the last century, carbon fibre has been the preferred material for any high-end application. Giant steps forward in the use of carbon fibres, not only in the space industry but also more generally in the commercial aerospace industry, has led to significant developments in carbon fibre production and lowering of prices. Better availability has led to an extended use of carbon fibre in more industrial applications – including high-speed marine applications which leaves aluminium in second place in the race for high-performing, durable maritime solutions.

PRO:ZERO

MATERIALS
COMPOSITES



SHORT LEAD TIME
EFFICIENT PRODUCTION PLATFORM

SERIAL PRODUCTION

Merging unparalleled quality with cost-efficiency and prompt delivery

Construction with fiber-reinforced composites is highly suited for serial production. Tuco has developed an exceptionally efficient modular production method to fully exploit the advantages inherent in composite materials. To guarantee product excellence and quality uniformity across our range of vessels, female moulds are applied in the production of all ProZero hulls. This permits a very high degree of accuracy and consistency in the manufacturing process so that every single hull lives up to our rigorous quality standards. Production using high quality moulds outperforms any other building technique in terms of cost-effectiveness.

Our modular production method enables us to integrate specific design requests and we cooperate closely with all involved stakeholders to deliver uncompromising quality and excellent products without sacrificing short delivery times.



SERVICE AND SUPPLY

Far and wide – support is always within reach

The reliability and speed of our products are echoed in our range of support services. We are committed to act fast whenever a customer needs us. We appreciate the significance of constant operational capacity, and Tuco Marine's Spare Parts and Service Team helps to intercept unexpected downtime and keep productivity at a maximum. The team is staffed by some of the most skilled technicians in the industry and they work to ensure the highest possible level of technical support for our clients.

Integrating the best equipment

Beyond that, we have long-lasting relationships with OEMs. We collaborate with key vendors from the early design phase to integrate the best features into the building process. This way we create a safer and more comfortable boat for the crew.

Our extensive product knowledge and our unique ties with the industry allows us to offer a high degree of availability and coverage – we extend our support far beyond what you might expect from a boat-builder.



Swift support
Rest assured and focus on the job.
Our skilled technicians are always prepared to offer support.



FULL SUPPORT
SKILLED SERVICE TEAM

PRO:ZERO



DAVIT
SPAREPARTS

LAUNCH AND RECOVERY

Not taking any risks

Launch and recovery of Daughter Crafts is an area that requires exceptional vigilance. The ProZero series is carefully designed to secure maximum safety and reliability for the users in these high-risk situations, and special care is taken in the design process to ensure accessibility to hooking points.

Lighter overall solution

Due to the lightweight construction of the ProZero Daughter Crafts, less stress is exerted on the lifting equipment. This allows fitting of lighter davit equipment which benefits the overall naval architecture and saves resources that enable clients to pursue their real goals. Light weight solutions lift the entire value chain.

We work closely with a number of leading equipment manufacturers and we are happy to include customized LARS solutions for individual clients.



Low weight
Cutting weight and adding value.
Low weight design lifts the value chain.



THE BEST TEAM

Expert team

Modern boat building requires more than the expert skill of a single artisan. To build boats that accommodate the demands of today's maritime infrastructure, it requires innovative thinking and careful coordination of a long range of complementary skills. That is why the team at Tuco Marine is represented by everything from traditional craftsmen to 3D animators and marine engineers, who work together to create the synergy and momentum that is essential for the company to succeed. The sense of mutual commitment and shared accountability amongst the members of our team is exactly what keeps Tuco Marine at the vanguard of maritime commerce and technology. Thus, the team at Tuco Marine is not just a collection of individual people, but a collective working toward a common goal and sharing the rewards.



PRO:ZERO



PRO:ZERO 9M P-TOP CREW TRANSFER



Design: 2018 | 5000-02-25
Length overall, approx.: 9.1 m
Beam overall, approx.: 7.5 m
Draft, approx. (sterndrive): 2.7 m
Crew: 2 persons
Capacity: 14 persons
Engines: 2 x outboard petrol

OPERATIONAL FEATURES:

Speed: + 30 kt
Cruise speed: + 25 kt

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities.

FENDER:

The fender is constructed of closed cell polyethylene foam. Not deflating with solid core that cannot lose buoyancy or absorb water. Damage is strictly cosmetic keeping crew safe. Fender system absorbs major impacts and retains integrity and shape. ProZero fender's profile gives substantially more interior room than a comparable RIB.

GENERAL:

The boat is built as a standard according to the technical specification and our general quality standard. The quality and the equipment standard, however, are equivalent at least to this specification.

HULL, DECK AND SUPERSTRUCTURE:

The fender is constructed of closed cell polyethylene foam. Not deflating with solid core that cannot lose buoyancy or absorb water. Damage is strictly cosmetic keeping crew safe. Fender system absorbs major impacts and retains integrity and shape. ProZero fender's profile gives substantially more interior room than a comparable RIB.

TANKS:

400 L fuel tank

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable. power with control lamp, marked fuses, earth connection.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
Shore power with control lamp, marked fuses, earth connection.
Floodlight

DECK:

Hand rails as needed Deck is painted with anti-skid finish. 4 mooring bites.

CABIN & COCKPIT:

Entrance to cabin: Aft
LED lights in the cabin.

NAVIGATION & ELECTRONIC EQUIPMENT:

Complete engine instruments supplied by engine manufacture.
Control panel for all lighting and other electrical equipment.
Portable VHF

SECURITY EQUIPMENT:

Fixed firehandling system
Manual bilge pump
Electric bilge pump
Portable fire extinguishers

PRO:ZERO 8M FULL CABIN DC - OUTBOARD



Design: 2017 | 5000-02-20
Length Overall, approx.: 7,95 m
Beam Overall, approx.: 2,84 m
Draft, approx. (sterndrive): 0,7 m
Crew: 2 persons
Capacity: 6 persons
Payload: 750 kg (including persons)
Engines: 2 x outboard petrol

BENEFITS:
The boat is specially designed for transport of up to 6 passengers at high speeds. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort. The boat is significantly lighter than the market average which benefits fuel consumption and adds to the already proven seaworthiness.

OPERATIONAL FEATURES:
Speed, approx.: +25 kt (lightweight condition).
Range: 4 hours at cruise speed.

DESCRIPTION:
The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:
The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:
The fender is constructed of closed cell polyethylene foam. Not deflating with solid core that cannot lose buoyancy or absorb water. Damage is strictly cosmetic keeping crew safe. Fender system absorbs major impacts and retains integrity and shape. ProZero fender's profile gives substantially more interior room than a comparable RIB.

DECK:
Deck and cabin are self-bailing.
Metallic mooring bollards.
Modular and easy detachable aluminium railings.
Lashing points on aft deck for equipment.
Aluminium frame on the aft with strong points for towing and equipment attachment.
Protection bar on the transom for engines protection.

CABIN & COCKPIT:
Hinged door in the aft of the cabin.
Windshield wiper.
LED lights in cabin and cockpit.
Seats for crew.
1 x Padded foldable bench for up to 3 persons.
1 x Padded deployed bench for 3 persons.

TECHNICAL:
ENGINES, PROPULSION, STEERING etc.:
2 x outboard petrol engines.

TANKS:
Petrol tank with hatch and filling protection.

ELECTRICAL SYSTEM & LIGHTING:
All electrical wiring in marine cable.
Shore power with control lamp, marked fuses, earth connection and shore cable.
24-volt DC system electrical system.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
Navigational lights.

NAVIGATION & ELECTRONIC EQUIPMENT:
Electric engine controls. Complete engine instruments with RPM, temperature, oil pressure and voltmeter for start batteries supplied by engine manufacturer.
Fuel gauge.
Control panel for all lighting and other electrical equipment.
1 x magnetic Compass.
1 x electric horn.

SECURITY EQUIPMENT:
Manual bilge pump, electrical emergency pump.
Portable fire extinguishers.



PRO:ZERO 10M WBW WORKBOAT



Design: 2019 | 5000-05-019
Length overall, approx.: 995 m
Beam overall, approx.: 3.53 m
Draft: 0.8 m
Engine: 1 x Inboard diesel
Capacity: 3 persons
Maximum Load: 1.500 kg

BENEFITS:

This 10m workboat is designed for operations along the coast and transport of small cargo. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort. The boat is significantly lighter than the market average which benefits fuel consumption and adds to the already proven seaworthiness. retains integrity and shape. The ProZero fenders profile gives substantially more interior room than a comparable RIB.

OPERATIONAL FEATURES:

Speed: 25+ kt (with 2 persons).
Speed (cruise): 25+ kt.
Fuel capacity: 1 x 800 l.

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:

The fender is constructed in EPDM Rubber. The solid construction of the fender ensures the safety of the vessel and its crew. The fender system absorbs impacts and retains integrity and shape.

DECK:

Deck and cabin are self-bailing.
6 mooring bites.
Aluminium railings in aft and fore deck.
Aft platform
Winch on portside

CABIN & COCKPIT:

Toilet with WC and washbasin.
1 pilot seat.
2 Hinged doors in the aft of the cabin.
Pantry with sink and refrigerator.
Raised dining area with benches and a table.
Hinged hatch leading to sleeping accommodations beneath the cabin, as well as sleeping cabin below deck in front of cabin.
Defrosting system for windows with hot air blowers.
All windows are glued into the structure.
LED lights in cabin and cockpit.
Comfort insulation in the cabin.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.

1 x Volvo Penta DPH
1x Bowthruster

TANKS:

Structural diesel tank with hatch and filling protection.
Independent fresh water tank.
Independent black water tank with odourless filter.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable.
Shore power with control lamp, marked fuses, earth connection.
Isolation transformer with earth plate for protection of galvanic corrosion.
24-volt electrical system.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
1 x searchlight on cabin roof, manually operated.
Navigational lights.
2 x floodlight on the working foredeck.

NAVIGATION & ELECTRONIC EQUIPMENT:

Complete engine instruments supplied by engine manufacturer.
Fuel gauge.
Control panel for all lighting and other electrical equipment.
1 x magnetic compass.
1 x Chart plotter
1 x Echosounder

SECURITY EQUIPMENT:

Bilge pumps.
Fire extinguisher at helmsman station.
Automatic fire extinguisher system in engine room.



PRO:ZERO 11.5M WBW PATROL VESSEL



Design: 2019 | 5000-05-16
Length overall, approx.: 11.5 m
Beam overall, approx.: 3.74 m
Capacity: 6 persons
Engines: 2 x inboard diesel

OPERATIONAL FEATURES:

Maximum speed: +32 kts.
Speed (cruise): 30 kts with 2 persons and full tanks.

DESCRIPTION:

The boat has been built to meet the requirements from the pertinent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass and carbon fibre as a sandwich construction with PVC as core material. This core material act as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

DECK:

Deck is spacious for walking around the cabin and is self-bailing. A platform is mounted on the transom to work as storage for a small light boat. A dive ladder is installed on the platform for man-overboard recovery operations. A hydraulic operated line hauler with a 300 kg traction is installed on the portside of the aft deck. An 8 persons life raft is mounted on the ventilation shaft on the aft deck. An anchor with remote control and free fall function is mounted at the bow.

CABIN & COCKPIT:

Toilet with WC, shower and washbasin. Pantry with cold/warm water and cooking facilities. 2 air suspended comfort seats for crew personnel and a bench with space for 4 passengers. Sliding door on the starboard side of cabin. Sleeping cabin with 2 bunk beds and closets for clothes and equipment. Defreeze system for windows with hot air blowers. All windows are glued into the structure. Comfort insulation in the cabin. The cabin rests on cabin shock absorbers for improved comfort.

FENDER:

The fender is constructed in EPDM Rubber. The solid construction of the fender ensures the safety of the vessel and its crew. The fender system absorbs impacts and retains integrity and shape.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.
2 x Inboard diesel engine.
2 x Waterjets.
1 x Bow thruster
Steering console on the starboard side of cabin.

TANKS:

2 x Structural diesel tanks with hatch and filling protection with a capacity of 750 L. Independent 200 L fresh water tank. Independent black water tank with odourless filter. Hydraulic tank.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable. Shore power with control lamp, marked fuses, earth connection. Isolation transformer with earth plate for protection of galvanic corrosion.

24-volt electrical system.

2 x start batteries and 1 x consumption battery. Main switches with separate battery systems for start and consumption. Battery charger with indicator. Navigational lights.

NAVIGATION & ELECTRONIC EQUIPMENT:

Complete engine instruments supplied by engine manufacturer. Control panel for all lighting and other electrical equipment. 1 x Magnetic compass
1 x Navigation package

SECURITY EQUIPMENT:

Electric bilge pumps & manual bilge pumps
Fire extinguisher at doorway into cabin

DELIVERY:

All boats are launched, tested and calibrated and has gone through a scrupulous quality control at the yard in Denmark. Delivery, hand over, test drive and technical review with customer at yard in Denmark. All boats are delivered with a complete owner's manual.



PRO:ZERO SEL



Design: 2017 | 5000-05-12
Length overall: 14.92 m
Beam overall: 3.76 m
Draft, approx: 0.70 m
Capacity: 8 pax. + 2 crew
Maximum load: 2.000 kg
Engines: 1 x inboard diesel
Drive: 1 x FPP

BENEFITS:

This vessel has been designed for multipurpose with a hydraulic wide bow door, a crane in the foredeck and an A-Frame on the aft deck for lifting equipment. The unique ProZero system with a flexible attached cabin reducing both noise and vibrations from hull and engines. The design of the ProZero cabin ensure a huge amount of daylight, this also improve the personal comfort. Benefits by being significantly lighter than market average is lower fuel consumption.

OPERATIONAL FEATURES:

Speed: 17+ kt (lightweight)
Speed (cruise): 17+ kt
Fuel capacity: 700 l

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material act as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:

The fender is disposed all around the hull in a double line with some vertical stripes on the sides for additional protection. The fender has a D profile of 100 x 100 mm. It is made of hard rubber and glued to the hull.

DECK:

Deck is self-bailing.
Large working area in the fore deck and the aft deck.
Flush deck with multiple lashing points.
Hydraulic crane on the starboard side in the fore deck.
A-Frame on the aft deck with open transom.
Aluminium railings, detachable in the aft.
1 x Diving ladder, detachable.

CABIN & COCKPIT:

Cabin fixed through anti vibration blocks to hull to improve acoustical insulation inside the cabin.
2 x pilot seats for the crew.
4 x comfort seat for passengers.
1 x Couch with removeable backrest to accommodate sleeping.
1 x Fold out bed mounted on the cabin wall.
1 x Hinged door in the starboard side of the cabin.
1 x Glazed hatch on the roof, for improved visibility.
Windshield wiper and defrosting system.
All windows are glued into the structure.
Lights in cockpit with dual mode white / red light.
Heating system.
Toilet with WC and sink.
Pantry, with sink, microwave and fridge.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.

1 x inboard diesel engine.
1 x FPP.
1 x hydraulic pump couple to one of the main engines.

TANKS:

2 x diesel tank with hatch and filling protection.
1 x 100 l fresh water tank.
1 x 100 l black water tank.
1 x 20l hot water thermo bottle.
All fuel systems are pressure tested.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable.
Shore power with control lamp, marked fuses, earth connection and 20 m shore cable.
24-volt electrical system.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
220 V-outlets in cabin.
1 x searchlight on cabin roof, manual operated.
Navigational lights.
Multiple floodlights on the foredeck, aft deck, dive support frame and A-Frame.
2 x bow lights.
NAVIGATION & ELECTRONIC EQUIPMENT:
Electric engine controls. Complete engine instruments with RPM, temperature, oil pressure and voltmeter for start batteries supplied by engine manufacturer.
Fuel gauge.
Control panel for all lighting and other electrical equipment.
1 x magnetic compass.

SECURITY EQUIPMENT:

1 x manual bilge pump.
1 x electrical emergency pump in bilge, manual start.
1 x electrical emergency pump in engine room, manual start.
1 x fire extinguisher at helmsman station.
1 x fixed fire extinguishing system on the engine room.



PRO:ZERO 15M DCW ROV SUPPORT VESSEL



Design: 2015 | 5000-03-22
Length overall, approx.: 15,00 m
Beam overall, approx.: 3,95 m
Draft, approx.: 1,00 m
Engines: 2 x inboard diesel engines
Drive: 2 x water jets

OPERATIONAL FEATURES

Speed (max): 20 kt.
Range: 10 hours cruise speed.

DESCRIPTION

The boat has been built to meet the requirements from the pertinent authorities.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fiber as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

DECK:

Black anodized aluminium railings.
Deck and cabin are self bailing.
1 composite Mast.
Stowage for mooring equipment.
4 Mooring bites.
2 Reinforced area on deck for installation of the systems for launching and recovery of the ROVs.

CABIN:

2 Comfort seats for crew.
Hinged door in the aft of the cabin.
Windshield wiper with interval relay.
All windows are glued into the structure.
Lights in cockpit with dual mode white/red light.
Comfort insulation in the cabin.
Mess area with L sofa and table.
Pantry with sink and cooking facilities.
Multiple storage spaces.
Dark Control Room for ROV operation.
Ladder down to forecastle.

FORECASTLE:

2 x Cabins with room for a bunk, desk board and wardrobe.
1 x Toilet with WC, shower and sink.
1 x Staircase to access foredeck with enclosed lobby.

TECHNICAL:

ENGINES, PROPULSION, STEERING & MANOUEVERING

2 x Inboard diesel engines.
2 x Water jets.

FUEL TANK:

2 x Structural diesel tank with hatch and filling protection.
1 x Independent fresh water tank.
1 x Independent black water tank.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable.
Shore power with control lamp, marked fuses, earth connection and 20 m shore cable.
24-volt electrical system.
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
220 V-outlets in cabin.

NAVIGATION & ELECTRONIC EQUIPMENT

Electronic engine controls. Complete engine instruments with RPM, temperature, oil pressure and voltmeter for start batteries supplied by engine manufacturer.
Fuel gauge.
Control panel for all lighting and other electrical equipment.
1 x Magnetic Compass.

SECURITY EQUIPMENT:

1 x Manual bilge pump.
2 x Electrical emergency pump in bilge, manual start, in the bilge and in the engine room.
1 x Fire extinguisher at helmsman station.
1 x Automatic Fire fighting system in the engine room

DELIVERY:

All boats are launched, tested and calibrated and has gone through a scrupulous quality control at the yard in Denmark.
Delivery, hand over, test drive and technical review with customer at yard in Denmark. All boats are delivered with a complete owner's manual.



PRO:ZERO 15M DCW SPULEBÅT FPP



Design: 2017 | 5000-03-59
Length overall, approx.: 14,97 m
Beam overall, approx.: 3,85 m
Draft, approx.: 0,80 m
Capacity: 4 persons
Maximum load: 3.000 kg
Engines: 2 x inboard diesel
Drive: 2 x Fixed pitch propeller

BENEFITS:
This boat is developed for fish farm service. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort.

OPERATIONAL FEATURES:
Speed (max, lightweight): 35 kts.
Fuel capacity: 5.00 l.

DESCRIPTION:
The boat has been built to meet the requirements from the competent authorities.

HULL, DECK AND SUPERSTRUCTURE:
The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:
The fender is built from a hard rubber holed D profile fender, running all around the sides and the bow.

Additionally, there is on the starboard side a fender underwater to protect the hull when working on the farm rings.

DECK:
Deck is self-bailing.
Large working aft deck.
1 x 5 Tm Hydraulic crane.
1 x 1,0 Tn Hydraulic capstan.
1 x Door openings with ladder to waterline on sb side.
6 mooring cleats.
Black anodized detachable aluminium railings.
Storage compartment below deck in the aft for high pressure cleaning machine and hoses.

CABIN & FORECASTLE:
Toilet with WC and washbasin.
Pantry with sink, fridge and microwave.
Mess area.
Dressing room.
Locker with access from main deck.
2 x Watertight hinged doors in the aft of the cabin.
Ladder from cabin to forecastle.
3 x Comfort seats for crew.
1 x Bench for 2 persons.
2 x Bunks in the forecastle (3rd bunk optional).
Defrost system for windows with hot air blowers.
All windows are glued into the structure.
LED lights in cabin, cockpit and forecastle.
Comfort insulation in the cabin.
Diesel heater.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.:
2 x 625 hp inboard diesel engine.
2 x Fixed pitch propeller.
1 x 15 kVA diesel generator.
1 x hydraulic pump coupled to the SB engine.
1 x high pressure pump coupled to the SB engine.
1 x flushing pump coupled to the PS engine with outlet in the main deck.

TANKS:
Structural diesel tanks with 5.000 l capacity.
Structural fresh water tanks with 500 l capacity.
1 x 100 l fresh water tank for consumption.
1 x 100 l dark water tank with odourless filter.
1 x 20 l hot water thermos.
1 x hydraulic tanks.

ELECTRICAL SYSTEM & LIGHTING:
All electrical wiring in marine cable. Power with control lamp, marked fuses, earth connection. Insulation transformer with earth plate for protection of galvanic corrosion.
24V DC, 240V 2-phase AC electrical system.
El. DC and AC outlets in, cabin, forecastle and main deck (protected)
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
1 x searchlight on cabin roof, manual operated.
Navigational lights.
Multiple floodlights on the working deck.

NAVIGATION & ELECTRONIC EQUIPMENT:
Complete engine instruments supplied by engine manufacturer.
Control panel for all lighting and other electronic equipment.
1 x fixed VHF.
1 x magnetic compass.

SECURITY EQUIPMENT:
Bilge pumps.
Automatic fire extinguisher system in engine room.



PRO:ZERO 14M FISH FARM CATAMARAN



Design: 2016 | 5000-06-05
Length overall, approx.: 13,60 m
Beam overall, approx.: 6,81 m
Capacity: 4 persons
Maximum load: 5.000 kg
Engines: 2 x inboard diesel

BENEFITS:

This catamaran is developed for fish farm service. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort.

OPERATIONAL FEATURES:

Speed (cruise): 10 kt.
Fuel capacity: 2.500 l.

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities, and features a redundant propulsion and redundant hydraulic system.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material. This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability, improving the comfort in the cabin and manned compartments.

FENDER:

The fender is built from a hard rubber D profile fender forming a double line in boat sides with several vertical stripes in between. There is also several vertical stripes protecting the transom and a single line in the bow.

Additionally, there is on the starboard side a fender underwater to protect the hull when working on the farm rings.

DECK:

Equipped for single point lifting hook. Deck and cabin are self-bailing.
Large working aft deck.
Wet forecastle for main deck weather protection.
1 x 23 Tm Hydraulic knuckle crane.
1 x Hydraulic winch.
2 x Hydraulic capstans in starboard side.
2 x Door openings with ladder to waterline in sb side.
1 x Towing hook with automatic release mechanism.
Secondary steering station in aft deck console.
8 mooring bites.
Black anodized aluminium railings.

CABIN & FORECASTLE:

Toilet with WC and washbasin.
Workshop with direct access from deck.
Mess table and benches for 4 persons.
Pantry with sink, fridge and microwave.
1 x pilot seat.
Hinged door in the aft of the cabin.
Defrost system for windows with hot air blowers.
All windows are glued into the structure.
LED lights in cabin and cockpit.
Comfort insulation in the cabin.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.:

2 x 330 hp inboard diesel engines.
2 x fixed pitch propellers.
2 x hydraulic bow thrusters.
2 x hydraulic pumps coupled to main engines
1 x independent 20 KVA genset in PS hull.
1 x high pressure water pump coupled to main engine and with outlet in main deck.
1 x hydraulic compressor with outlet in workshop.

TANKS:

Structural diesel tanks with 2.500 l capacity.
Structural fresh water tanks with 3.000 l capacity.
1 x 100 l fresh water tank for consumption.
1 x 100 l dark water tank with odourless filter.
1 x 20 l hot water thermos.
2 x hydraulic tanks (1 in each hull).

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable. power with control lamp, marked fuses, earth connection.
Insulation transformer with earth plate for protection of galvanic corrosion.
24V DC, 240V 2-phase and 400V 3-phase AC electrical system.
El. DC and AC outlets in workshop, cabin and main deck (protected)
Main switches with separate battery systems for start, navigation and consumption.
Battery charger with indicator.
1 x searchlight on cabin roof, manually operated.
Navigational lights.
Multiple floodlights on the working deck and sides.

NAVIGATION & ELECTRONIC EQUIPMENT:

Complete engine instruments supplied by engine manufacturer.
Control panel for all lighting and other electronic equipment.
1 x fixed VHF.
1 x magnetic compass.

SECURITY EQUIPMENT:

Bilge pumps.
Automatic fire extinguisher system in engine rooms.



PRO:ZERO 14,95M FISHFARM CATAMARAN



Design: rev. 25-04-17 | 5000-06-11
Length overall, approx.: 14,95 m
Beam overall, approx.: 7,80 m
Draft (full load), approx.: 1,40 m
Capacity: 6 persons
Engines: 2 x inboard diesel
Speed: + 25 kts

BENEFITS:

This catamaran is developed for fish farm service. The design of the ProZero cabin ensures a huge amount of daylight, this also improves the personal comfort.

OPERATIONAL FEATURES:

Speed (max): +25 kt.
Speed (cruise): 15 kt.

DESCRIPTION:

The boat has been built to meet the requirements from the competent authorities, and features a redundant propulsion and redundant hydraulic system.

HULL, DECK AND SUPERSTRUCTURE:

The boat is made of a combination of glass- and carbon fibre as sandwich construction with PVC as core material.

This core material acts as a natural buoyancy reserve material, due to its lightweight and zero water-absorption. Moreover, the sandwich construction avoids the use of internal stiffeners, increasing the usable internal space and offers a natural insulation capability.

FENDER:

The fender is built from a hard PUR rubber and has a D profile with a dimension of approx. 150 x 150 mm.

The fender is laid in a double line on the sides plus a single line in the front plus several vertical stripes in the transom.

Additionally, there is on the starboard side a fender underwater to protect the hull when working on the farm rings.

DECK:

Deck and cabin are self-bailing.

Large working aft deck.

Wet forecabin for main deck weather protection.

1 x 36,5 Tm Hydraulic knuckle crane

2 x 2 Tonnes Hydraulic capstans in starboard side.

2 x Door openings with ladder to waterline in each side.

8 mooring cleats.

Black anodized aluminium railings.

CABIN & SUPERSTRUCTURE

1 x Toilet with WC and washbasin with access from both main deck and from accommodation.

1 x Workshop.

1 x Changing room.

1 x Storage compartment.

Pantry with sink, fridge and microwave in the cabin.

1 Mess area and couch for 4 persons in the cabin.

1 x pilot comfort seat.

Defrost system for windows with hot air blowers.

All windows are glued into the structure.

LED lights in cabin and cockpit.

Comfort insulation in the cabin.

TECHNICAL:

ENGINES, PROPULSION, STEERING etc.

2 x Inboard diesel engines.

2 x Fixed pitch propellers.

2 x Hydraulic bow thrusters.

2 x Hydraulic pumps coupled to main engines.

1 x Flushing pump coupled to one ps engine.

TANKS:

4 Ballast tanks with a combined capacity of 20m³ used for higher crane capacity operations.

Structural diesel tanks with 2.500 l capacity.

1 x 1.500 l fresh water tank for consumption.

1 x 200 l dark water tank with odourless filter.

1 x 100 l hot water thermos.

1 x hydraulic tank.

ELECTRICAL SYSTEM & LIGHTING:

All electrical wiring in marine cable. power with control lamp, marked fuses, earth connection.

Insulation transformer with earth plate for protection of galvanic corrosion.

24V DC and 240V 2-phase El. System.

1 x searchlight on cabin roof, manually operated.

Navigational lights.

Multiple floodlights on the working deck and sides.

NAVIGATION & ELECTRONIC EQUIPMENT:

Complete engine instruments supplied by engine manufacturer.

Control panel for all lighting and other electronic equipment.

1 x fixed VHF.

1 x magnetic compass.

SECURITY EQUIPMENT:

Bilge pumps.

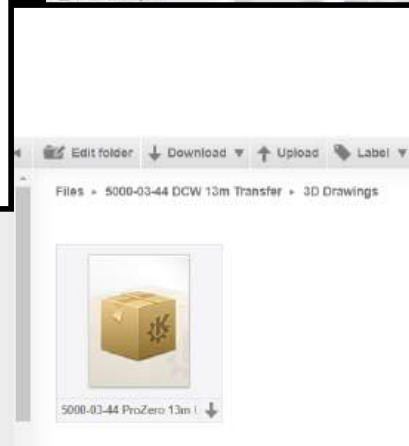
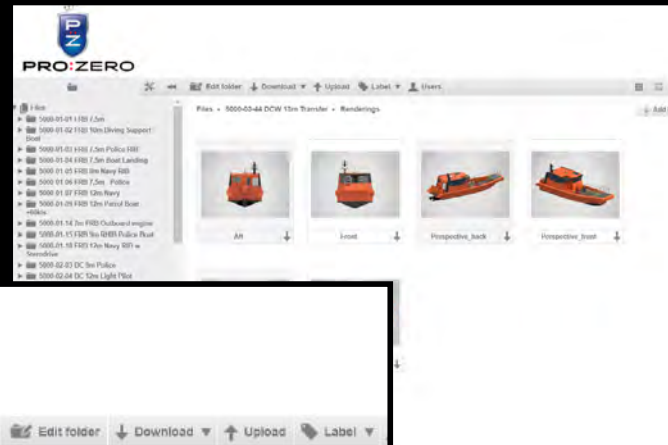
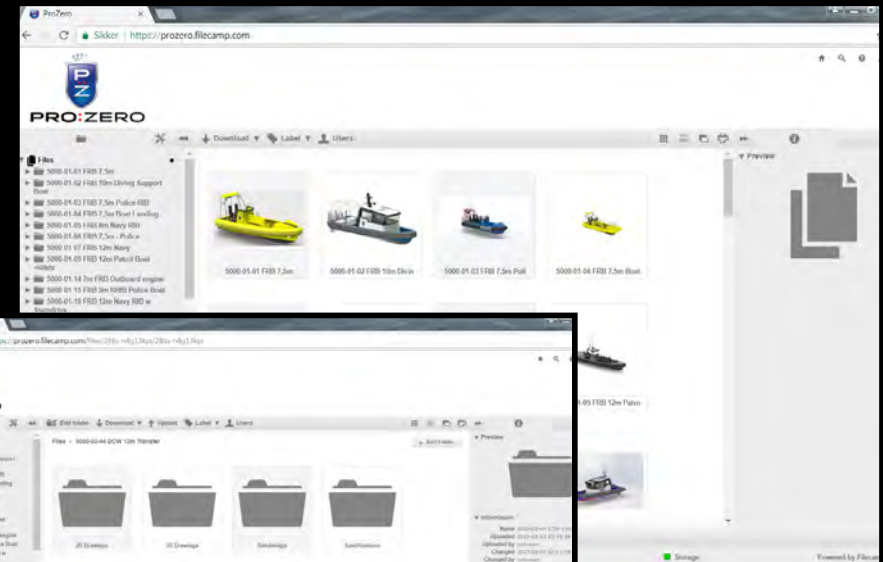
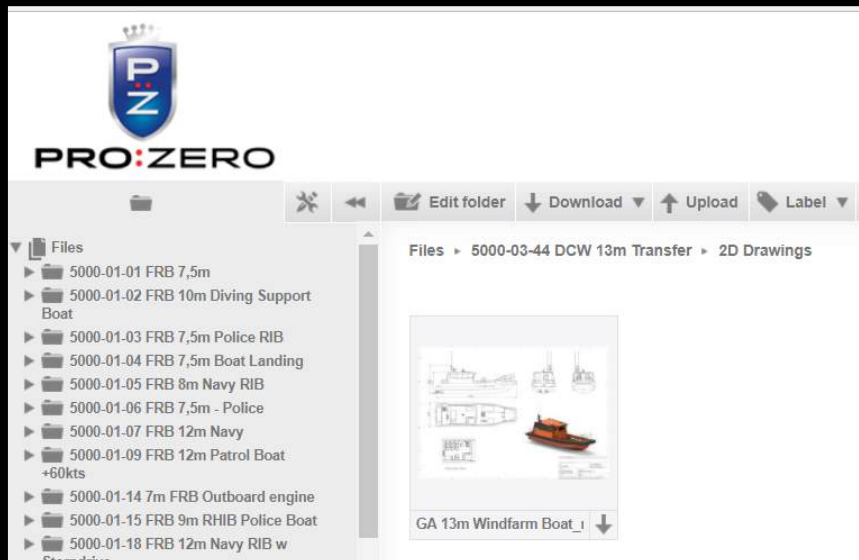
Automatic fire extinguisher system in engine rooms.

ACCESS TO DRAWINGS AND 3D FILES

Easy decisions – exploit our design library and save time

As a service for naval architects and users, Tuco has launched a design library containing drawings and renderings for our range of ProZero vessels. The Filecamp library provides an efficient and convenient way for naval architects to access the ProZero designs. The comprehensive Filecamp data can support and facilitate planning, eliminate superfluous procedures and help in reaching informed design choices.

PRO:ZERO



FILECAMP

EASY INTEGRATION

REFERENCES



*To the above comes a large number of businesses within Renewable Energy and Offshore that are covered by Non-Disclosure agreements