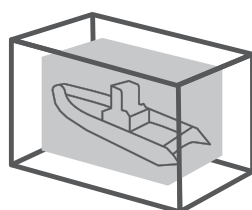


Launch and Recovery System with Integrated Painter Line

The Cube™



Multi-Mission Module

Complete Cube™ - ready launch and recovery system with integrated painter line for work/transfer boat. Fits in a 40' Cube-ready mission bay.

Reliable and safe deployment of work/transfer boat
Modern navy vessels must be capable of carrying out different missions in both peacetime and wartime. The SH Defence launch and recovery system (LARS) with integrated painter line is a versatile solution that can be used for the reliable and safe deployment of a variety of boat types. In this instance, the SH Defence LARS with integrated painter line is used in combination with a work/transfer boat manufactured by Tuco, enabling quick and safe deployment of boat crew or technicians.

The LARS consists of a Cube™ Engineered Frame, an SH Defence davit crane with integrated painter line and a Tuco work/transfer boat.

The SH Defence launch and recovery system with integrated painter line is designed according to DNV GL ST-0378 Offshore and platform lifting appliances and complies with the SOLAS Convention.

Cube™ - ready, easy connection
The system is Cube™ ready and only requires a 40' Cube™ ready mission bay including the fully automatic twist-lock system and the standard connection cabinet CubedIn™. The Cube™ Engineered Frame comes with compatible outlets allowing for easy connection to the mission bay connection cabinet CubedIn™.

Safe transport and controlled deployment
The work/transfer boat is secured in a cradle and connected to the davit boom during voyage. At deployment of the work/transfer boat, the vessel crew operates the davit from the mission bay control panel. The davit crane lifts the work/transfer boat out of the cradle and starts lowering the boat down the side of the vessel. When the davit boom is clear of the mission bay and vessel hull, the end of the boom, to which the painter line is attached, is extended to provide optimum angling of the painter line for safe deployment of the work/transfer boat when it reaches the water.

Cube™ Engineered Frame
The Cube™ Engineered Frame is provided with container corners enabling secure sea fastening by means of the fully automatic twist lock system developed by SH Defence. The frame is customised to withstand the loads

introduced by the davit system. The surface of the Cube™ Engineered Frame is made of glass-reinforced plastic (GRP) grating, which provides a very strong and anti-slip surface.

SH Defence davit
The SH Defence davit is a compact system supplied with hydraulic pump unit (HPU) and hydraulic control panel (HCP) mounted on the frame.

The hydraulic lowering of the davit structure reduces the height of the davit, and the base of the davit is embedded in the frame to reduce the structure height even further.

As an option, the system can be delivered in a NORSOK R-002 compliant setup, introducing gravity lowering with hydraulic braking. This eliminates wear on the system and enables use of stored mechanical power.

Work/transfer boat
The Tuco work/transfer boat is of the 10 m model. It is one of a variety of available models. For further information, please visit Tuco's website, www.tuco.dk.

Description	Value
Cube Engineered Frame	
Manufacturer	SH Defence
Dimensions (L x W x H)	12192 mm x 4901 mm x 5580 mm
Davit	
Manufacturer	SH Defence
Lifting capacity (SWL)	17 MT
Extension beyond Cube™ edge	3000 mm
Fast rescue boat	
Manufacturer	Tuco Marine Group
Boat length	10,8 m
Boat width	3,5 m



PRO:ZERO 10m WBW



Build year:	2014 5000-05-02
Length overall:	10,00 m
Beam overall:	3,50 m
Daft (full load)	0,75 m
Engines:	1 x Inboard Diesel

This vessel has been designed for multi purpose with a hydraulic wide bow door and a crane 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. Supporting the great and proven sailing capabilities.



PRO:ZERO

Tlf. +45 70203898 | [prozero.dk](mailto:mailto:prozero.dk) | mail@prozero.dk

PRO:ZERO - 10M WBW - SPECIFICATION

DIMENSIONS:

Length, Overall (without aft platform): 10,80 m
Beam Overall (with fender): 3,50 m
Draft (full load, hull): 0,75 m
Height above waterline (cabin): 2,67 m
Height above waterline (mast): 3,80 m
Displacement Light weight: 6.000 kg
Displacement Full load: 8.500 kg
Crew: 2
Capacity: 3 passengers.
Maximum Load: 1500 kg

OPERATIONAL FEATURES:

Speed (max): +27 kt
Range: 12 hours
Fuel capacity: 600 l

DESCRIPTION:

The boat has been built according to the Nordic boat Standard for boats with length below 15 m (NBSY 1990).

HULL, DECK AND SUPERSTRUCTURE:

The boat is unsinkable. It is made from a combination of glass- and carbon fiber as sandwich construction with PVC as core material. The core material act 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.
Easily removable deck sections.
Access hatch to engine room in front of the cabin.
Wide bow sliding door, with hydraulic opening system.
1 x hydraulic crane.
1 x horizontal hydraulic winch in the aft platform.
1 x towing bollard.
6 x mooring bites.
Foldable mast.
Storage for mooring equipment.
Watertight storage in front compartments.
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.

TECHNICAL:

ENGINES, PROPULSION, STEERING & MANOUVERING:

1 x inboard diesel engine
1 x bow Thruster
1 x stern Thruster
1 x hydraulic drive steering rudder.
1 x hydraulic Pump couple to the main engine.

FUEL TANK:

2 x 350 litre 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.
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.
220 V-outlets in cabin.
1 x searchlight on cabin roof, manual operated.
Navigational lights.
1 x floodlight on the working aft deck

NAVIGATION & ELECTRONIC EQUIPMENT

1 x chart plotter Ray Marine E165
1 x digital radar
1 x class B AIS.
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 VHF

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.

subject to change without notice, 04-05-2015

PRO:ZERO

Tlf. +45 70203898 | prozero.dk | mail@prozero.dk