

SEAEYE FALCON



The Falcon is the world's most successful underwater electric robotic system of its class.

Powered by a single-phase 110/270 VAC supply, Falcon is lightweight and portable for easy deployment, and comes rated to a depth of 300m.

Umbilical winch - hand operated with umbilical cable of 16mm diameter with a maximum length of 450m, including 10m of decklead from winch to surface unit.

Vehicle unit with five SI-MCT01 brushless DC thrusters (4 vectored horizontals and 1 vertical)

SEAEYE colour video camera, tilt platform and tilt feedback system

Automatic heading & depth system

Navigational solid-state compass and integral solid-state rate sensor.

Surface Control Unit c/w a 22" colour High Brightness Removable Monitor

Surface power supply unit

Specifications

The Vehicle

Polypropylene frames were used in the construction of the Falcon. This material is robust, buoyant and is corrosion free. Custom designed under-slug modules can also be added for task specific tooling.

General

Depth Rating.....	300 msw
Max. Umbilical Length.....	450m
Length.....	1000 mm
Height.....	500 mm
Width.....	600 mm
Weight in Air.....	60 kg
Speed.....	>3 knots
Thrust Forward.....	50 kgf
Thrust Lateral.....	28 kgf
Thrust Vertical.....	13 kgf
Thruster Type	S1-MCT01
Horizontal Thrusters	4
Vertical Thrusters.....	1
Payload.....	14 kg



Camera System

A high-resolution fixed focus colour camera is fitted to a camera platform that can be tilted $\pm 90^\circ$. Panning the camera is achieved by turning the vehicle which it can do within its own length.

- iCoN Configurable Video Overlay system
- NMEA Output (data Export) now standard unlock software code
- Internal Recorder (20hrs standard video)
- Two forward facing variable intensity 3200 Lumen LED flood lights.
- Imagenex 881A Multi Frequency Imaging Sonar
- 881A Sonar Integration kit

Video

Video Channels	1
Video Transmission.....	STP/FO

Easytrak Alpha 2665 Topside hardware / software.

In-built GPS receiver, Cables & GPS antenna software and cables.

Multi element, Omni-Directional transceiver with Moulded to 20 Metre cable



System Power Requirements

Input.....	Single
Voltage	110/270 VAC at 2.8kW
Frequency.....	50/60Hz

Tooling Skid

Five-function manipulator system fitted with a rugged arm capable of lifting 10 kg at full reach. Manipulator system is fitted below the vehicle and is controlled by a dedicated hand control unit.

Single function 3-jaw manipulator, incl. soft rope cutter.



Generator

The EU70iS is equipped with an electronically controlled Fuel Injection system, which increases fuel efficiency by up to 15%. The introduction of a newly developed inverter assists by reducing power loss and raising maximum output

Supplying a maximum power of 7000W and a rated power of 5500W, it produces clean and smooth power

Generator Specification

Phase.....	Single Phase
Fuel Tank Capacity	19Lt
Frequency.....	50Hz
DC Rated Output	12V
Weight.....	118.1Kg
Extended Run Time.....	Up to 6.5 hrs at rate load on single tank.

ROV Container

Leask Marine Falcon ROV is transported in a 10ft container.

Fitted with:

- ☞ Two 5ft LED lights across central roof container.
- ☞ Consumer unit; 32 amp 3 pin
- ☞ External hook-up on outside of container
- ☞ Downflow heater plug.
- ☞ Heater installed

Steel multi-lock personnel door Left hand hinged and opening outwards. Installed 900mm from container corner so that it lies flat against wall when opened full.

- ☞ Galvanised Manual Roller Shutter End Door (inc. Internal shutter box).
- ☞ Corner casts fitted to each corner.
- ☞ Fork pockets included in build.



The container stores the ROV, HPU and Umbilical Spooler. It also contains a small workshop area and a control cabin.

