# Ocein ROV



## Powerful observation-class ROV system

### KEY FEATURES

A very powerful ROV for it's size. Designed for all kinds of inspections on a fish farm, especially long mooring lines. Smooth rounded edges also make it perfect for inspecting nets.

Lots of connections and tooling capabilities.

**MAIN CAMERA**
HD with 30x optical zoom and low light function
**TOOL CAMERA**
3x HD cameras
**PAN/TILT**
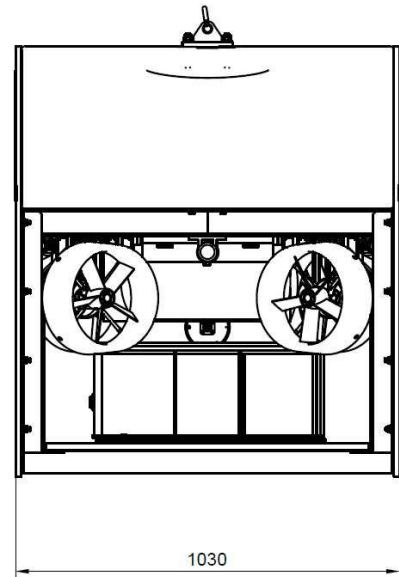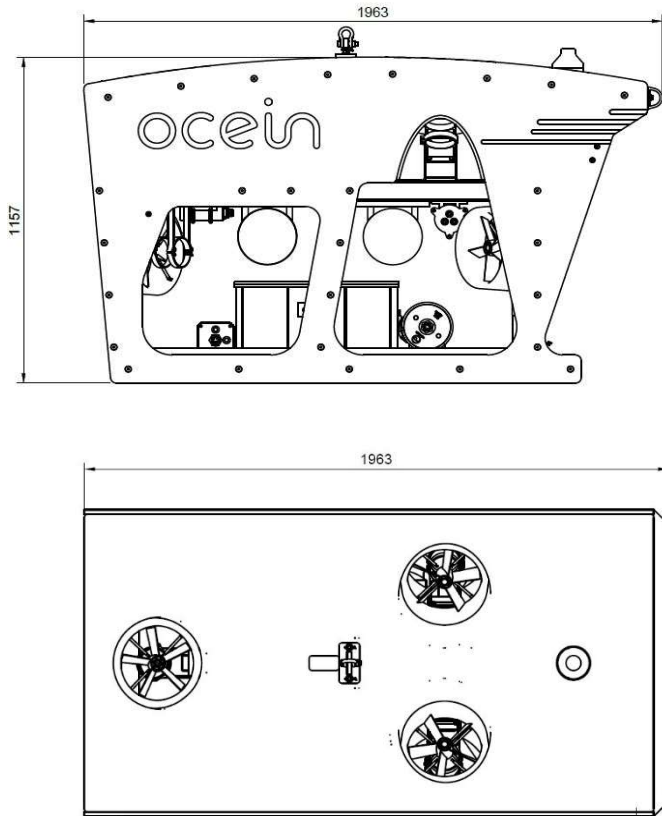Electric with absolute position feedback
**THRUSTERS**
7x Ocean Robotics LX thrusters, 3kW each
**POWERSUPPLY**
230V or 400V, 30kva

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### PHYSICAL

**Height:** apx 1150mm
**Length:** 1963mm
**Width:** 1030mm
**Weight:** apx 700kg
**Payload:** apx 100kg
**Standard depth rating:** 1000msw
**Bollard pull:** apx 150kgf forward, 110kgf lateral, 120kgf vertical

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# Specifications

## THRUSTERS
**Modell:** Ocean Robotics LX
**Type:** BLDC with internal driver
**Supply:** 300VDC
**Power:** apx 3kW
**Performance:** apx 50kgf

## MAIN CAMERA
**Modell:** iCsys Aleutian
**Type:** HD ethernet camera
**Zoom:** 30x optical
**Housing:** Titanium
**Latency:** apx 80ms
**FOV:** 88° in water

## SECONDARY CAMERAS
**Modell:** iCsys Tonga
**Type:** HD ethernet camera
**Housing:** Titanium
**Latency:** apx 80ms
**FOV:** 100° in water
**Quantity:** 3x standard

## MAIN LIGHTS
**Modell:** Bowtech LED-V
**Type:** 230V LED
**Lumens:** 20000 each
**Quantity:** 2

## SECONDARY LIGHTS
**Modell:** Lumens R2
**Type:** 24V LED
**Lumens:** 1500 each
**Quantity:** 6

## PAN/TILT UNIT
**Modell:** Actuade SPT115
**Type:** Electric with absolute position
**Supply:** 24VDC
**Max payload:** 20kg
**Pan/tilt range:** +/- 175°

## MOTION SENSOR
**Modell:** iCsys Subsea Motion Sensor
**Type:** AHRS
**Supply:** 24VDC
**Magnetic Heading accuracy**: +/- 1°
**Attitude accuracy**: +/- 0.5°
**Rate Gyro Range**: +/- 2000 °/s
**Accelerometer Range:** +/-16g

## THRUSTER POD
**Supply:** 230VAC
**Communication**: Ethernet
**No of thruster outputs**: 10
**Connectors**: CRE-Marine
**Housing:** Anodized aluminium

## CONTROL POD
**Supply:** 230VAC
**Communication**: Single mode fibre
**No of ethernet connectors**: 10
**No of analogue video connectors**: 2
**No of serial connectors**: 3
**No of 230V light connectors**: 2
**No of 24V light connectors**: 2
**Connectors**: CRE-Marine
**Housing:** Anodized aluminium

## SUBSEA TRANSFORMER
**Supply:** 990VAC
**Outputs:** 245VAC, 440VAC
**Power:** 30kva

## PDU
**Supply:** 230VAC or 400VAC 3ph standard
**Outputs:** 990VAC
**Ground fault detection:** Megacon
**Control:** Ethernet
**Power:** 30kva

### TOPSIDE UNIT
**Pilot Chair:** Aludesign OPL
**Touchscreen:** 13" capacitive
**Multiviewer:** PC based, HDMI output
**No of video screen outputs:** 2 as standard
**Communication:** Ethernet /single mode

### TETHER
**Modell:** Nexans RT 630
**Type:** Neutral ROV tether
**Outer diameter:** 22mm
**No of single mode fibres:** 4
**Wight in Air:** 380kg/km
**Other tethers on request**

### SKID INTERFACE
**Type:** Quick mount
**Max skid weight:** apx 700kg

# Options

### TETHER MANAGEMENT
**Modell:** Ocein dry TMS
**Type:** Dry TMS with backtension
**Supply:** 230VAC 3p or 400V+N
**Control:** Ethernet and remote control
**Max capacity**: 1000m of 22mm
**No of optical passes**: 2
**Speed:** Variable from 0-2m/s
**Material**: Aluminium and AISI 316
**Surface finish:** Powder coat

### HPU
**Supply:** 440VAC
**Max pressure**: 207bar
**Max flow**: 6lpm
**Housing:** Anodized aluminium

### GRABBER MANIPULATOR
**Model:** TitanRob G500
**Type**: 5 function grabber arm
**Material**: Titanium and AISI 316
**Max lift**: 100kg
**Max reach**: 800mm
**Jaw grip**: 250kgf

### 7F MANIPULATOR
**Model:** TitanRob M700
**Type**: 7 function manipulator
**Material**: Titanium and AISI 316
**Max lift**: 50kg
**Max reach**: 1200mm
**Jaw grip**: 80kgf
**Control options:** Position control,
proportional or rate.

### VAVLEPACK
**Several options available, servo,
proportional, rate and mix.**

# Advantages

## Effective

A-ROV has a vectored thruster layout enabling hight thrust power in all directions. The power supply is dimensioned for full utilization of all thrusters simultaneously in addition to tooling and lights.

## Reliable

All outputs have dual-pole relays and individual ground fault monitoring to simplify fault finding. Outputs are protected by software fuses resettable from GUI. There are also spare outputs that can be mapped to different functions. All connectors are metal-shell type, eliminating need for regular lubrication of connectors.

## User friendly

Open and accessible design for easy maintenance. Intuitive GUI with level reading from all compensators.

## Connections

ROV is based on Ethernet, and comes standard with 4 IP cameras, 12 ethernet ports in total. There is also 2 analogue camera inputs and 3 serial ports switchable in software between RS-232 and RS-485.

Light outputs for both 24V and 230V lamps, triac, 0-10V dimming or ethernet control.

Different manipulators and tooling can be implemented straight to the frame or in a underslung skid.