

Inspection ROV



Super Mohawk Inspection ROV System

Sub-Atlantic's fully electric Super Mohawk remotely operated vehicle is an excellent general purpose professional ROV system suitable for observation, survey, pipelay support, light to medium work and NDT inspections.

Super Mohawk can carry out many of the tasks currently carried out by work class vehicles. An abundance of space, the rigid open-frame design and the generous payload capability provide a versatile solution for the fitting of manipulators, additional equipment and sensors. Two angled vertical thrusters allow an unhindered lower deck area for placement of equipment and attachment of tooling skids. Super-Mohawk provides high quality video for inspection work but also has the capabilities for running underslung tool packages such as tree valve torque tools, high pressure water jetting pumps and small hydraulic or electric manipulators.

Super-Mohawk is rated at 2000 metres / 6560 feet standard with deeper options available.

- High Reliability, Easy Maintenance
- Multiple Camera and Sensor Interfaces
- 2,000 metres / 3,280 feet Depth Rated
- Deeper Options Available
- Auto-Heading and Depth and Altitude
- Sub-Atlantic AC Propulsion Thrusters
- 2-Manipulator Capability
- Live Boat or TMS Operation
- 60 kg / 132 lb Payload with options
- Superb Work Skid Capability

Super Mohawk

Inspection ROV

Super Mohawk General Specification

| | |
|---|---------------------------------|
| Depth Rating | 2000 msw (6560 fsw) standard |
| Payload | 60 kg (141 lb) lead ballast |
| Height | 850 mm (33.5 in.) |
| Length | 1400 mm (55.1 in) |
| Width | 900 mm (35.4 in) |
| Mass in Air | 395 kg (870 lb) |
| Max. Thrust @ 0 Knots with zero voltage losses: | |
| Forward | 110 kgf (242 lbf) |
| Reverse | 77 kgf (170 lbf) |
| Lateral | 73 kgf (161 lbf) |
| Vertical | 45 kgf (99 lbf) |
| Max.Velocity/Operational Current (zero tether excursion): | |
| Forward | 1.5 m/s (3.0 Kt) |
| Reverse | 1.0 m/s (2.0 Kt) |
| Lateral | 0.75 m/s (1.5 Kt) |
| Vertical | 0.75 m/s (1.5 Kt) |
| Turning Rate | 120 Degrees per Second (approx) |
| ROV Power Requirements | 440 Vac 3 ph 50/60 Hz 15 kVA |

Compact Control

Surface equipment consists three basic units:

- Surface Control Unit (SCU) in an 8U x 19" rack mount configuration
- Transformer Power Unit (TPU) incorporating transformer in a floor mounted cabinet
- Hand Control Unit (HCU) which is lightweight and portable

The components are generally installed in a ISO control cabin supplied by customer or Sub-Atlantic.

Reliable Thrusters

Super-Mohawk is propelled by six Sub-Atlantic CTE02 thrusters incorporating AC electric motor arranged in the following configuration:

- 4 x CTE-02 thrusters in a vectored configuration producing high all round thrust & speed
- 2 x CTE-02 vertical thrusters vectored outward to clear the vehicle lower deck leaving it free of cut-outs in way of tools and skids
- Power to each thruster is through an integral lead and moulded plug for attachment to the power electronics pod

The specification details are illustrative for marketing purposes only. Actual equipment may be different as a result of product improvement or other reasons. Specific interface and performance information should be reconfirmed at time of order placement.

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Electronic Pod and Telemetry

- Fibre-Optic telemetry system providing 3 x video, 4 x RS232 & 2 x RS485. Capacity can be doubled using two FO telemetry cards.
- Vehicle Communication utilizes 1 x RS485 channel. Uplink/ Downlink includes 16 analogue channels and 32 digital switch channels all with 12 bit resolution.
- All electronics are located in 2 x aluminium alloy housings (power pod and telemetry pod) rated to 2000 msw / 6560 fsw with ample free space for additional devices.
- Pod end caps incorporates all the electrical connectors for the various ROV components and optional sensors
- Vacuum and water ingress alarms
- Deeper options to available

Lighting

- 3 off 250-Watt halogen lamps, dimmer controlled on 2 circuits

Camera Facilities

- Pan & Tilt unit on upper deck
- 3 simultaneous video channels

Junction Box

- An oil filled junction box is used for termination of the copper and fibres in the tether

Vehicle Power Outlet

- 440 / 220 Vac and various dc supply voltages are available to run tools and sensors. Additional power supplied can be added as required.

Frame

- High impact resistance & buoyant polypropylene
- Central load frame in aluminium alloy
- Optional bullet for live boating

Buoyancy

- Single module with closed cell micro-spheres
- Rated 2000 msw (6560 fsw)

Tether

- The Super-Mohawk uses an 25.5 mm / 1.0 in. diameter tether

Launch & Recovery Systems

Launch and recovery systems can be supplied to different depth requirements and formats such as A-frame or jib crane

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