



## SEAHORSE 1 WROV 100 HP

Seahorse 1 remotely operated vehicle is a 100 HP Work Class ROV, small foot print, high performance professional ROV system which can be used for a variety of underwater tasks such as drilling support, observation, survey and NDT inspections, construction, intervention, IRM, etc. The aluminum open-frame design, the abundance of space and the generous payload capability provide a versatile solution for the fitting of additional equipment and sensors.

### Performance/Dimensions

<b>Horse Power</b>	:	100 HP.
<b>Depth Rating</b>	:	600 MSW.
	:	1,000 MSW. (Optional)
<b>Payload</b>	:	200 Kg.
<b>Dimensions</b>		
Height	:	1,900 mm.
Length	:	2,800 mm.
Width	:	1,600 mm.
<b>Mass in Air</b>	:	3,000 Kg.
<b>Bollard Pull @ 0 Knots</b>		
Forward	:	400 Kgf.
Reverse	:	330 Kgf.
Lateral	:	250 Kgf.
Vertical	:	300 Kgf.
<b>Maximum Velocity/ Operational current</b>		
Forward:	:	< 1.54 m/s < 3 Kt.
Reverse:	:	< 1.28 m/s < 2.5 Kt.
Lateral:	:	< 1.03 m/s < 2.0 Kt.
Vertical:	:	< 1.13 m/s < 2.2 Kt.
<b>Turning Rate</b>	:	150 Degrees Per Second.
<b>ROV Spread power requirements:</b>		
440 VAC	3 phases	60 Hz 250 KVA.

### Features

- High Reliability.
- 600 MSW. Version.
- High Thrust Capability.
- 200 kg Payload Capacity.
- Multiple Camera & Sensor Interfaces.
- 5F manipulator.
- Optional 7F manipulator.
- Auto-Heading, Depth.
- Optional Auto Altitude.
- Fiber Optic Gyro.
- Aluminum Open Frame Design.
- Compact Surface Control Unit.

### Lighting

7 off 120 VAC, 250 watts halogen lamps, dimmer controlled, camera pan and tilt unit

### Frame

The SEAHORSE 1 frame is manufactured from T6 aluminum.

- Aluminum load frame and Stainless Steel fasteners.
- Lift point.



## Control System

The system incorporates a Surface *Control Unit* (SCU) which communicates with the vehicle electronics which are housed in one-atmosphere E-pod located on the vehicle.

The SCU incorporates:

- 6 off 32" color monitors.
- Pilot's control panel & joystick.
- Light dimmers.
- Automatic depth & heading control (altitude optional).
- Video overlay system.
- Earth leakage protection system (LIMs).

SCU power requirements:

440 VAC 3 phases 60 Hz 10 KVA

ROV E-pod consists of the thruster system, light dimmers, telemetry system, compass, depth transducer, pan and tilt camera controls. The housing also has spare electrical connectors to provide power and control for extra equipment interfaces.

## Vehicle Functions/ Integral Sensor

- TRITECH fluxgate compass.
- Hydraulic pressure sensor.
- Depth sensor and auto depth function.
- Auto heading function.
- Pitch and roll sensors.
- 64 channel analogue data multiplexer.
- Thruster control (servo valves).
- Valve pack control (solenoid valves).
- Turns counter.
- 5F manipulator.
- 7F manipulator.

## Propulsion System

The vehicle is propelled by six hydraulic motors, propellers and nozzles, arranged in the following configuration:

- 2 off propeller thrusters for forward/ reverse.
- 2 off propeller thrusters for lateral.
- 2 off propeller thrusters for vertical.

## Optional Equipment

The SEAHORSE 1 ROV system will support the following additional equipment which is available as options to the standard specification:

- High definition cameras.
- Boom arm camera.
- High Definition Sonar System.
- Profiling Sonar.
- Side Scan Sonar.
- Bathymetric and Oceanographic Sensors.
- Torque tool.
- CP probe.
- Water jet.
- Cleaning brushes.
- Cable cutter.
- Pipe Tracker.
- GPS navigator.
- 19' display for bridge.
- 7F manipulator.

## Standard Equipment

- Umbilical System.
- Winch
- Crane, Sheave, Lock-latch and Bullet.
- SIT (Silicon Intensified Transistor) Camera.
- Color zoom video camera.
- Sonar system.
- 5F manipulator.
- 16 channels video matrix switcher.
- 4 channels audio communication.
- DVD recorder and black box.
- Control room with 6 x 32" display.

