



SEAHORSE 3 WROV 100 HP

Seahorse 3 remotely operated vehicle is a 100 HP Work Class ROV, high performance professional ROV system with Top-hat TMS which can be used for a variety of underwater tasks such as drilling support, observation, survey and NDT inspections, construction, intervention, IRM, etc. The stainless steel 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

| | | |
|--|---------|-------------------------|
| Horse Power | : | 100 HP. |
| Depth Rating | : | 600 MSW. |
| | : | 1,000 MSW. (Optional) |
| Payload | : | 250 Kg. |
| Dimensions | | |
| Height | : | 1,900 mm. |
| Length | : | 2,500 mm. |
| Width | : | 1,200 mm. |
| Mass in Air | : | 2,800 Kg. |
| Bollard Pull @ 0 Knots | | |
| Forward | : | 400 Kgf. |
| Reverse | : | 330 Kgf. |
| Lateral | : | 300 Kgf. |
| Vertical | : | 350 Kgf. |
| Maximum Velocity/ Operational current | | |
| Forward | : | < 1.54 m/s. < 3.0 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. |
| Turning Rate | : | 150 Degrees Per Second. |
| ROV Spread power requirements: | | |
| 440VAC | 3phases | 60Hz 250KVA. |

Features

- High Reliability.
- 600 MSW. Version.
- High Thrust Capability.
- 250 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

6 off 120 VAC, 125 watts halogen lamps, dimmer controlled, 2 off 120 VAC, 70 Watts Sea arc light mounted on frame and camera pan and tilt unit.

Frame

The SEAHORSE 3 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 color monitors.
- Pilot's control panel & joystick.
- Light dimmers.
- Automatic depth & heading control.
- Video overlay system.
- Earth leakage protection system (LIMs).

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:

- 4 off propeller thrusters for horizontal.
- 3 off propeller thrusters for vertical.

Tether Management System

| | |
|---------------------|-------------------------|
| Type | : Triton Top-hat TMS. |
| Operating Condition | : Sea state 5. |
| Depth Rating | : 600 MSW. |
| | : 1,000 MSW. (Optional) |
| Dimensions | : Ø1,83 x 1,83 M. |
| Weight in Air | : 1,860 Kg. |
| Tether | : 230 M. |
| Lighting capability | : 4 x 150 W. |
| Video capability | : 4 channel composite. |

Optional Equipment

The SEA HORSE 3 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 Oceanographic Sensors.
- Torque tool.
- CP probe.
- Water jet.
- Cleaning brushes.
- Cable cutter.
- Pipe Tracker.
- GPS navigator.

Standard Equipment

- Umbilical System.
- A-Frame, 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.

