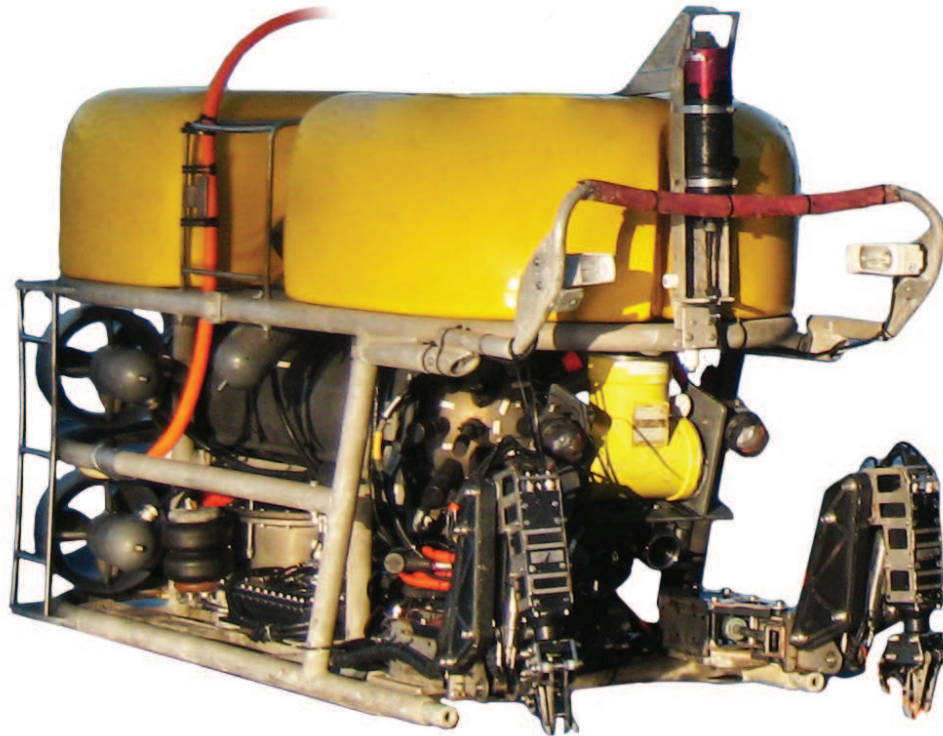




SeaTrepid MaxRover MK-1



The SeaTrepid MaxRover provides a versatile platform to perform observation and light intervention work in a variety of environments. Its size provides for larger payloads than other SeaTrepid ROV systems while still providing a stable platform for high quality video and sonar surveys. The solid construction helps this ROV system excel in the underwater environment.

The MaxRover ROV system comprises all the standard components and features that enable the performance of many types of underwater tasks, including offshore drill rig support, military mine counter measures, search and salvage work, science and research, film and video productions, long tunnel inspection, and many other operations - economically.

With four horizontal brushless DC thrusters and two more thrusters providing lift, this ROV is capable of lifting and then transporting more than 150 lbs to the work site with ease. Combined with the ability to integrate a variety of state of the art sensor packages, this ROV system can provide clients with the capabilities of larger systems while remaining in a manageable and mobile size.



SeaTrepid MaxRover MK-1

PERFORMANCE / DIMENSIONS:

Depth Rating:	3000 fsw (1000 msw) standard
Payload:	150 lb (68 kg) lead ballast
Height:	48 in (140 mm)
Length:	88 in (2200 mm)
Width:	38 in (100 mm)
Mass in air:	1650 lb (748 kg)
Turning Rate:	30 degrees per second

Thrust@ 0 Knots (bollard pull)	
Forward:	380 lbf (172 kgf)
Reverse:	380 lbf (172 kgf)
Lateral:	65 lbf (30 kgf)
Vertical:	60 lbf (27 kgf)

CONTROL SYSTEM:

This system incorporates a Surface Power Unit (SPU) which communicates with the vehicle's electronics housed in a one-atmosphere enclosure located on the vehicle.

- The SCU incorporates:
- Pilot's control console and joystick
 - Light controls
 - Automatic depth and heading control
 - Video overlay system
 - Earth leakage protection system

SCU power requirements: 208 / 260 VAC, 50 / 60 Hz, 12 - 14 kW

The MaxRover vehicle electronics are housed in an aluminum one-atmosphere enclosure, incorporating the thruster drive systems, transformers, light controls, telemetry system, compass, depth transducer, tilt, and camera controls. The housing also has spare electrical connectors to provide power and control for user interfaced equipment.

ROV power requirements: 1500 VAC; 10 KW @ 50/60 Hz
120 VAC @ 90 amps

BUOYANCY:

The MaxRover buoyancy is manufactured from molded syntactic foam, 3000 fsw (1000 m) rated.

TELEMETRY SYSTEM:

RS-422 with an optically isolated long line modem. 8 Analog Input and 10 Analog Output channels.

Telemetry baud rate - 19.2 kbps

1 - Spare twisted pair configurable for client integration

PROPULSION SYSTEM:

The vehicle is propelled by six DSSI thrusters incorporating DC brushless motors, arranged for maximum efficiency:

- 4 x THL-404 longitudinal thrusters mounted to provide maximum thrust
- 2 x THL-408 vertical thrusters vectored to clear the vehicle's lower deck and provide lateral thrust.

The DSSI THL 404 thrusters provide 95 lbs (43 kg) thrust in either direction with proven life spans of over 18,000 working hours.

CAMERAS AND SONAR:

- Pan and Tilt mechanism supporting the camera system
- 1 x Compact color - Zoom high resolution camera
- 1 x General Purpose mono low - lux high resolution CCD camera
- 1 x Kongsberg MS-1000 mechanically scanning sonar

LIGHTING:

- 2 x 120 VAC, 150 Watt halogen lamps mounted on the Pan / Tilt System
- 2 x 120 VAC, 150 Watt halogen lamps mounted for forward operations

FREE SWIMMING ROV SYSTEM:

This ROV system is a fully electric, high performance, professional system which can be used for a variety of underwater tasks including observation, survey, and diver monitoring to name a few.

CONTAINERS:

The two containers utilized in the standard setup provide operations (pilot/copilot operations), separated workshop, and ample room for spare equipment. Comprehensive spares kits are included as part of SeaTrepid's standard package.

Control / Operations Van:

Height:	10.0 ft (3.0 m)	Length:	20.0 ft (6.1 m)
Width:	8.0 ft (2.4 m)	Weight:	10,500 lb (4,670 kg)

Workshop:

Height:	10.0 ft (3.0 m)	Length:	14.0 ft (4.3 m)
Width:	8.0 ft (2.6 m)	Weight:	12,500 lb (5,560 kg)

Workshop utilizes an attached 4 function maintenance jib to assist with launch and recovery of the ROV system.

OPTIONAL EQUIPMENT:

The MaxRover ROV system will support equipment, available as options to the standard specification, including tooling skids, side scan sonar, bathymetric, and oceanographic sensors, CP and wall thickness probes, High pressure water jet, electro hydraulic manipulators, and FMD (flooded member detection).