

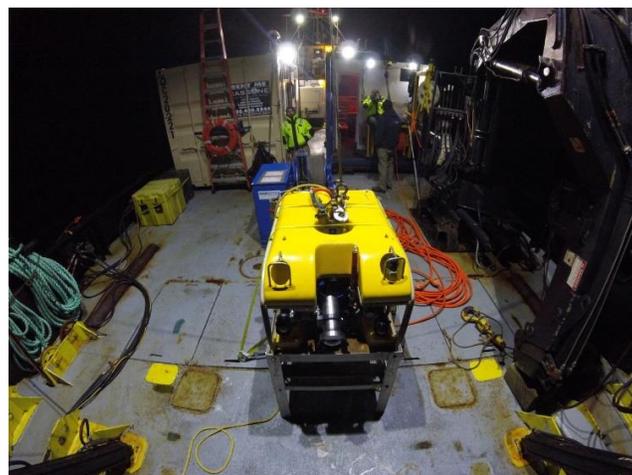


Subsea Services – Apache ROV



The OTS Apache Inspection Class ROV offers a truly versatile, professional ROV system suitable for offshore use. Its compact size provides a suitable platform for high quality video and sonar surveys all within a single lift container.

The ability to provide our clients with fast response times and quality video, makes the Apache ROV system a perfect fit for almost any inspection.



The inclusion of the Apache ROV system has helped to expand the OTS suite of subsea equipment to the offshore industry. This compact system offers a “single lift” solution to insure quick response time with quality results. The ROV, Recording suite, Spares, and Launch and Recovery System all come packed in a single 10' x 8' container ready to be lifted aboard and begin operations with minimal setup.

The five AC thrusters provide this 1000-meter capable system the power to get to the work site while the high-quality HD digital color zoom camera and 1F manipulator are perfectly suited for inspection, cable touchdown monitoring, J-tube pull-in, cable tracking, diver safety, and survey work.

The Apache ROV is fitted with a tooling skid containing an oil filled J-box for client sensors such as: 5F manipulator, Hi-resolution sonar imaging, cable and pipe trackers, sonar packages, and tooling skids to expand the versatility of this ROV solution.



PERFORMANCE / DIMENSIONS:

Depth Rating: 3280 fsw (1000 msw) standard
 Payload: 55 lb. (25 kg) lead ballast
 Height: 24.4 in (620 mm)
 Length: 35.4 in (900 mm)
 Width: 27.6 in (700 mm)
 Mass in air: 308.7 lb. (140 kg)
 Turning Rate: 120 degrees per second

Thrust@ 0 Knots (bollard pull)
 Forward: 110 lbf (50 kgf)
 Reverse: 87 lbf (40 kgf)
 Lateral: 65 lbf (30 kgf)
 Vertical: 65 lbf (30 kgf)

CONTROL SYSTEM:

This system incorporates a Surface Control Unit (SCU) 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 dimmers
 Automatic depth and heading control
 Video overlay system
 Earth leakage protection system

The Apache vehicle electronics are housed in an aluminum one-atmosphere enclosure, incorporating the thruster drive systems, light dimmers, 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: 440 VAC 3Φ, 50/ 60 Hz, 10 kVA

PROPULSION SYSTEM:

The vehicle is propelled by four Sub-Atlantic CTE-01 Mk2 electric thrusters incorporating AC electric motors, arranged in the following configuration:

2 x single propeller thrusters mounted longitudinally
 1 x double propeller thruster mounted laterally
 1 x double propeller thruster mounted vertically

Power to each thruster is through an integral lead and molded plug for attachment to the electronics enclosure.



TELEMETRY SYSTEM:

Fiber Optic Telemetry with Moog Focal 914-VDX and 914-HDE system delivering: 1 ch. HD/3G-SDI video, 1ch. Ethernet, 2 ch. SD video, 8 serial channels configurable to 232 or 485. Spare FO Telemetry Cards – 1 ea. 914-HDE remote card and 1 ea. 914-VDX remote card

LIGHTING:

3 x 220 VAC, 250 Watt halogen lamps, dimmer controlled, and mounted on the frame and camera tilt unit rated to 48 Nm torque.

CAMERAS, SONAR and DVR:

1 x ROS C600 SD/HD/SDI color zoom camera
 1 x DSP&L SeaCam Wide-i low light color camera
 1 x Tritech Micron Sonar
 1 x set Laser Sights
 1 x Kramer VS 5x5 Video/Audio matrix switcher

LAUNCH AND RECOVERY SYSTEM (LARS):

Integral Davit System:

Winch: 1,150 ft (350m) of free fly tether
 Safe Working Load: 440 lb. (200 kg)
 Operation: Electric Winch

The integrated davit Launch and Recovery System is purpose built into the container ensuring minimal setup time.

CONTAINER:

The container is designed to provide a safe and protected working environment during operations. Comprehensive spares kits are included as part of Ocean Techs standard package.

Height: 8.5 ft (2.6 m) Length: 10.0 ft (3.0 m)
 Width: 8.0 ft (2.4 m) Weight: 8,800 lb (4,000 kg)

Full Set of Spares:

This Apache ROV system comes with 100% redundancy in spares such as: complete set of Mk2 thrusters, telemetry system cards, thruster control cards, power supply cards, spare electronics bottle, and other system spares.