

CUVIER DEEP

AUTONOMOUS UNDERWATER SYSTEM



TARGET CAMPAIGNS

- SUBSEA CLEARANCE SURVEYS
- ENVIRONMENTAL HABITAT MONITORING
- SCOUR MONITORING
- GEOPHYSICAL SURVEYS
- SUBSEA WELL SITE AND PIPELINE CONDITION MONITORING
 - LEAK DETECTION AND VIBRATION
 - SUBSIDENCE / MOVEMENT
- SEMI TO PERMANENT SUBSEA RESIDENT SOLUTIONS
- MARINE CABLE & SUBSEA PIPELINE ROUTE UXO AND DEPTH OF BURIAL
- DRILL SUPPORT

FULLY INTEGRATED SOLUTION

The Cuvier DEEP hovering unmanned underwater vehicle (H-UUV) offers a versatile and highly adaptable platform designed for the current and future needs of marine energy generation. Cuvier DEEP is built on the highly adaptable dual hull SAAB Sabertooth and then engineered to improve mission performance specific for the sensor payloads. The name Cuvier DEEP is inspired jointly from George Cuvier (1769-1832) and the Cuvier beaked whale.

This comprehensive inspection and survey solution incorporate a hovering supervised autonomous or tethered ROV package with 360° maneuverability with 6 degrees of freedom, inertial navigation tightly coupled with 3D at Depth's patented subsea LiDAR (SL) SL4 laser system, multiple HD video cameras, multibeam echosounder, side scan sonar and other available sensors to deliver high quality data.

HIGHLIGHTS

- Up to 3000 Meter Depth
- Integrated multi look angle Subsea LiDAR
- 6 DoF Maneuverability (Heading / Depth / Altitude)
- Autonomous endurance >36 hours (40kWh battery) upgrade
- Tethered Endurance - Unrestricted time from depths of 10m-3000m
- Hovering to forward speeds up to 4 Knots
- Mission planning & simulation
- Optional manipulator & underslung skid
- Multiple deployment and recovery solutions
- Fast mobilization ranging from dedicated vessels of opportunity





TYPICAL SENSOR PAYLOAD

- 3DD SL4 Subsea LiDAR
- Tilt HD Cameras and Lights
- UHR Multibeam
- 3D mapping Sonars / obstacle avoidance
- Sidescan Sonar
- Sub Bottom Profiler
- Ultrawide high altitude magnetic array (Depth of Burial / UXO)
- Level II Inspections (CP / NDT / FMD)
- Methane Detection
- Other devices available on request

GENERAL SPECIFICATIONS

FEATURE	DESCRIPTION
Type	Rapid Battery change out on deck
Motion Control	6 DOF, Station Keep Waypoints
Depth Rating	3,000 meters
Autonomy	Up to 18 hours depending on transit requirement and payload
LARS	Garage or Catch
Dimension	L = 4m, W= 1.4m, H = 0.7m
Weight	1700 kg in air

SYSTEM NAVIGATION

DESCRIPTION
Optical Gyro Inertial with DVL
USBL
USBL Pinger
GPS (Navatel OEM638)
Depth (interchangeable based on required operational depths)

SYSTEM PERCEPTION

DESCRIPTION	ORIENTATION	USE
LiDAR	Down	Measurement
Multibeam	Down	Measurement
Sidescan	Down	Measurement
Methane	N/A	Measurement
Tilt Camera	Forward on tilt stage	Measurement
Super Wide	Forward up and down	Awareness
Back Camera	Back	Awareness
Mech Sonar	Forward	Obstacle

SYSTEM COMMUNICATION OPTION

DESCRIPTION
Power/comms tether 600m (optional)
Fiber tether only 2000m
Multiple optical and modem solutions available offer 0.5m to 3000m optional ranges (depends on configuration requirements)



Contact sales@3datdepth.com for more information on our AUV/ROV survey services.



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