

HAUV-2

Technical Specification

Modus is a world leader and first mover in the operation of hybrid AUV's. HAUV-1 is a Saab built double hulled Sabertooth, one of the most advanced AUV systems available in the market. This vehicle represents the very latest in merged AUV and ROV capability, operating as both a survey and inspection platform with the ability to operate tethered or untethered with 6 degrees of freedom in both AUV and ROV modes. The vehicle operates in deep and shallow water depths and has a long excursion/endurance range. The HAUV-1 also operates in a high speed ROV tethered configuration.

VEHICLE	
Operational Depth	3000m
Configuration	Double Hull
Dimensions (LxWxH)	3.73m x 1.64m x 0.56m
Launch Weight	1200kg Excl. Payload
Total Through Lift Capacity	2000kg
Battery Capacity	30kWh
Endurance	> 14 Hours
Operating Temperatures	Deck Operations: -20° to + 50°C In water: 0° to + 30°C Storage: -30° to + 60°C

PROPULSION / BOLLARD PULL	
Propulsion System	7x SM9 Electric Thrusters
Forward Speed	> 4 knots
Backwards Speed	2 knots
Lateral Speed	1.3 knots
Bollard Pull Forward	100 kfg (163 kgf with additional thruster)
Bollard Pull Vertical	160kgf
Bollard Pull Lateral	90kgf (132 kgf with additional thruster)

SURVEILLANCE EQUIPMENT	
Interfaces	Cameras, sonars, tooling motor, RS232/RS485, GB Ethernet, additional Saab Seeye intelligent devices
Standard Aux Voltages	24VDC, 48VDC & 250VDC (unreg)
Lights	4 Bowtech LED DDC 3200 Lumen Floodlights
Cameras	Axis Q1614 IPHD Camera Bowtech Pioneer Camera Bowtech Explorer Low Light Camera WSCA-A060 Fish Eye Camera

SURVEY PAYLOAD OPTIONS*	
Positioning	Novatel 638 GNSS Receiver with G5 Antenna IXBlue PHINS 3 INS c/w Teledyne 600kHz Workhorse DVL (1200m) Sonardyne SprintNav 500 c/w Syrinx DVL (3000m) Sonardyne AvTrak 6 comms/transducer Can mount additional USBL transponders at client request
Bathymetry	R2 Sonic MBES (2022, 2024 & 2026) Edgetech 2205 interferometric bathymetry Paroscientific DigiQuartz Depth Sensor Valeport MiniIPS Keller Depth Sensor

Sidescan Sonar	Edgetech 2205 230/540/1600 kHz triple frequency system
Sub Bottom Profiler	Edgetech 2205 2-16kHz system
2D Obstacle Avoidance Sonar	Imaginex 881L Obstacle Avoidance Sonar
Forward Looking Sonars	Norbit WBMS Teledyne Blueview M900/2250 Sound Metrics Aris 3000 Coda Octopus Echoscope Tritech Gemini 720is
Communications	Sonardyne AvTrak 6 Novatech iBCN Iridium Sat Com System WLAN and Bluetooth Communications Sonardyne BlueComm Blue Logic Subsea USB
Inspection	Force Technology FIGS CP CathX Scout Cable Tracker
Environmental	Valeport MiniSVS Valeport UV-SVP

ANCILLARY EQUIPMENT	
Novega PT9 Ninety Emergency Locator Pinger	
Power Winch with power/comms tether	
Fibre optic winch capable of 10,000m FO tether for ultra-long tethered excursion	
20ft Control cabin and workshop	
10ft Stores container	
Floating dock	
Subsea and seabed docking garage	

* Payload is not limited to sensors listed above. The Sabertooth can be easily tailored for project specifications.

Beaumont House, Beaumont Street, Darlington, County Durham, DL1 5RW, United Kingdom

Tel: +44 (0)1325 387 480 Email: enquiries@modus-ltd.com

Modus Ltd. accepts no responsibility for and disclaims all liability for any errors and/or omissions in this publication. Specification subject to change without notice. Feb 2019.



SMART SUBSEA SERVICES

