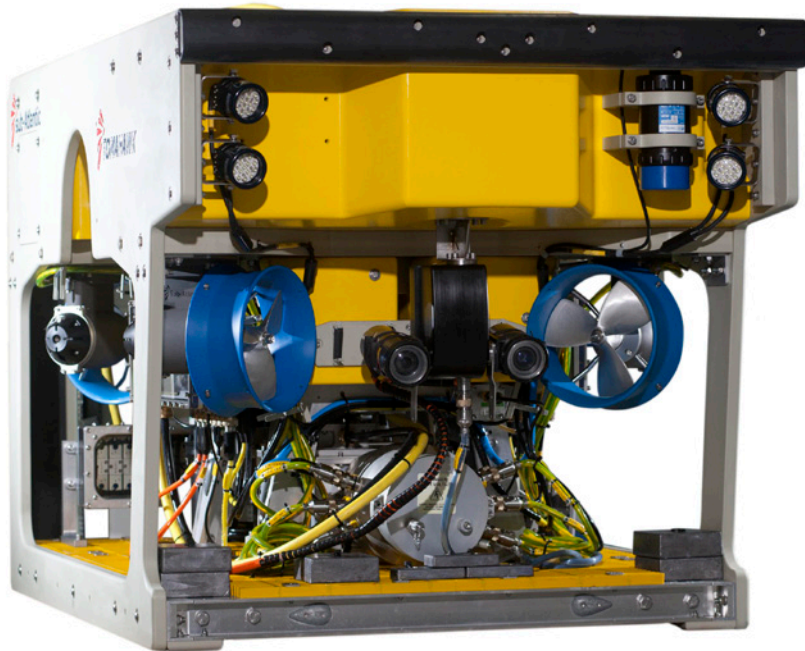


everything remotely possible™

FORUM[™]
SUBSEA TECHNOLOGIES



Tomahawk™

Observation ROV

The 'Cutting Edge' Technology of Tomorrow - Delivered Today

Tomahawk is the 'next generation' of sub-Atlantic Observation ROV and platform for a range of new 'intelligent' components. The ideal solution for fast but stable integrated missions. Its advanced and powerful subCAN control and diagnostics system aids and enhances survey capabilities plus other data collection. Tomahawk offers high reliability and adaptability within a small footprint for reduced deck space plus low capital and operational costs.

- Designed for maximum payload, ease of access and maintenance
- High power to weight ratio
- 225 Kg Thrust / 3.5 Kt (nominal)
- 175 Kg Payload with generous open deck space & access
- subCAN control for power management & advanced diagnostics
- Compact transformer /capacitor/fuse/thruster pod
- Oil filled survey/comms JB for rapid expansion of options
- Dual Port GigaByte Ethernet, CWDM, HD solutions
- Full Inertial Navigation / Autoposition/ Station Keeping Capability
- 12 or 16 Station General Function Valve Pack
- Twin 5 Function heavy Duty Manipulator option
- Cutting/Jetting/ intervention and work skid options
- Garage TMS Option with rear or top entry tether
- Forward or reverse entry / exit from TMS
- Deep and long excursion live boat missions

Tomahawk

Observation ROV

Tomahawk has been developed for the following missions: high speed survey & geophysics, Inspection Repair & Maintenance (IRM), Drill and completion support / well intervention including fluid injection, AX/VX and torque tool capability. Light Intervention & construction, pre/post pipe & cable lay survey, touch-down monitoring and diver support tasks plus many other oil & gas, renewable Energy, civil engineering, military or scientific missions.

TOMAHAWK SYSTEM SPECIFICATION

Length	1860 mm
Width	1210 mm
Height	1200 mm
ROV Depth Rating	3000 m
Standard Buoyancy Depth	2000 m
Optional Buoyancy Depth	3000 m
Weight in Air	1000 Kg
Standard Payload	160 Kg
Optional Payload	175 Kg
Power	35 kW
Thrusters Horizontal	250 mmØ
Thrusters Vertical	250 mmØ
Forward Thrust	240 Kgf
Lateral Thrust	240 Kgf
Vertical Thrust	160 Kgf
Optimum Speed	3.5 Kts
Optimum Speed	1.75 m/s

FORUM SUBSEA TECHNOLOGIES

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STANDARD SYSTEM EQUIPMENT

- Electronics Pod c/w SubCAN Control, Protection & Diagnostic System
- Communication Junction Box c/w 907Plus Multiplexer & Single Fibre Telemetry CWDM Module
- Low Mass 35kW / 3000V / 400Hz Transformer
- Single Atmosphere Capacitor, HV Fuse & Thruster Power Pod
- Pan & Tilt Unit
- 2000m Rated 160 Kg Payload Buoyancy
- Open Lower Deck c/w Removable Grilles for Mounting User Equipment
- Aluminium Frame Supporting Internal / External User Equipment & Live Boat Launch & Recovery

OPERATIONAL EQUIPMENT

- 2000m rated 175Kgs Payload Buoyancy
- Choice of industry standard:
- Manipulators & Cutters
- Cameras & Lights
- Live Download Digital Stills
- Obstacle Avoidance Sonars
- Motion & Navigation Reference Sensors
- Geophysical and Bathymetric Survey Sensors
- Non Destructive Test Sensors
- Cleaning Jets & Brushes
- Pipe and Cable Tracking and inspection systems
- Drill Support & Well Intervention Tooling
- Threat Detection. Imaging and Intervention Systems

CONTROL SYSTEM AND FEATURES

- Hands Free Navigation / Station Keeping
- Hand Control Unit and Graphical User Interface
- Power Management and Protection
- System Monitoring and Diagnostics

TELEMETRY

- Single Fibre integration of all standard and optional data

ADDITIONAL SYSTEM OPTIONS

- 3000m Rated Buoyancy with various high payload options
- 3000m rated garage Tether Management System c/w dual entry options
- Digital Video & Survey Data Recording Systems

The specification details are illustrative for marketing purposes only. Actual equipment may be different as a result of product improvement or other reasons. Specific interface and performance information should be reconfirmed at time of order placement.