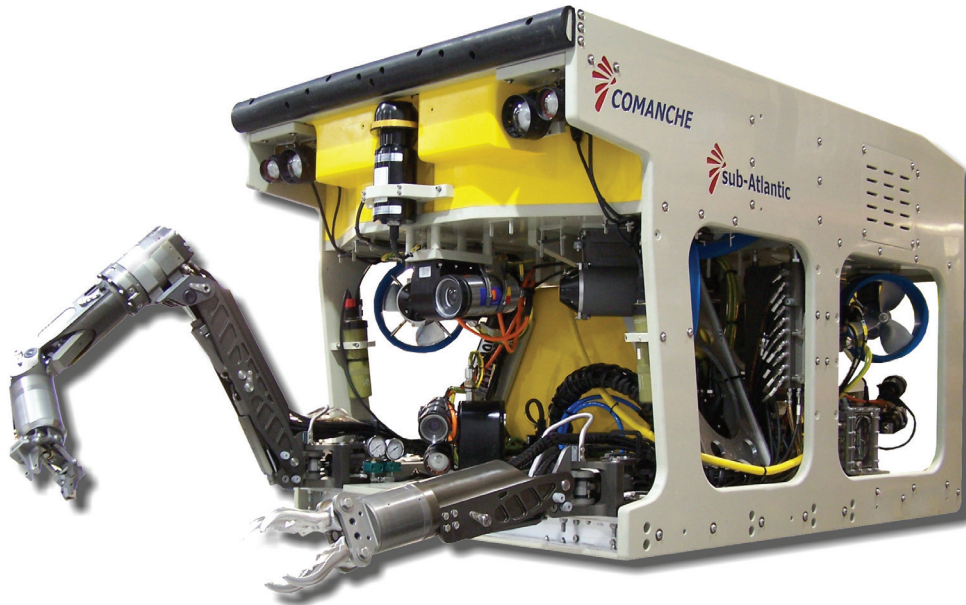


## Observation ROV



### Work Class Solutions - Observation Class Benefits

Comanche is the logical choice when seeking the ultimate 'all round' electric ROV. Offering a generous auxiliary hydraulic package for work class manipulation and tooling combined with an advanced and powerful control and diagnostics package for survey and other data collection missions, the Comanche offers high performance, high reliability and high adaptability combined with low capital & operational expenditure and reduced deck space - especially when compared to the alternatives. Comanche is currently at work globally in the Oil & Gas, Renewable Energy, Civil Engineering, Military, Scientific Research and Treasure Hunting sectors.

- 2 x 7 Function Proportional Work Class Manipulator capability
- Comprehensive Work Class Tooling options
- High Powered Dredging, Jetting, Pumping and Cutting capability
- 4 x Horizontal and 3 x Vertical 225lbf thrusters for tilt controlled lift capability
- Up to 285 Kg Payload and diverse skid options
- Garage TMS (long excursion) or Deep Live Boat operations
- 2000m/3000m/6000m depth rated versions
- subCAN control giving advanced diagnostics and set-up options on the fly
- Multiple GigaByte Ethernet options
- Full Survey/Mapping/Metrology Suite options
- Full Dynamic Positioning / Inertial Navigation capabilities
- Reduced Deck Footprint/ Air Transportable options

# Comanche

## Observation ROV

Comanche has been developed for the following missions and tasks: Construction IRM – cleaning, cutting, NDT drill/rig /completion support & well intervention, e.g. AX/VX gasket change out, BOP shut down, fluid injection., hot stabbing, drilling and tapping. Additionally, survey including pre/post pipe/cable lay and touch-down monitoring, diver support, renewable energy, submarine/ maritime rescue, munitions search and recovery, scientific research and data/ sample collection plus numerous other missions.

### Comanche System Specification

Length	2100 mm
Width	1300 mm
Height	1250 mm
Standard ROV Depth Rating	3000 m
Standard Buoyancy Depth	2000 m
Optional Buoyancy Depth	3000 m
Maximum Optional Depth	6000 m
Weight in Air	1130 Kg
Standard Payload	215 Kg
Optional Payload	285 Kg
Power	35 kW
Thrusters Horizontal (4)	250 mmØ
Thrusters Vertical (3)	250 mmØ
Forward Thrust	240 Kgf
Lateral Thrust	240 Kgf
Vertical Thrust	225 Kgf
Optimum Speed	3.0 Kts
Optimum Speed	1.5 m/s

### Standard System Equipment

- Electronics Pod c/w subCAN Control, Protection & Diagnostic System & 907 Plus Multiplexer & Single Mode Telemetry
- Low Mass 35kW / 3000V / 400Hz Transformer, Capacitor, HV Fuse & Thruster Power Box
- Pan & Tilt Unit
- High Torque Tilt Unit
- 2000m Rated 215 Kg Payload Buoyancy
- Space for Mounting User Equipment
- Aluminium Frame Supporting Internal & External User Equipment & Live Boat Launch & Recovery

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.

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### Operational Equipment

- 2000m rated 285Kgs Payload Buoyancy
- Survey Expansion Electronics Pod
- Choice of industry standard:
- Manipulators & Cutters
- Dredge Systems
- Cameras & Lights
- Live Download Digital Stills
- Obstacle Avoidance Sonars
- Motion & Navigation Reference Sensors
- Geophysical & Bathymetric Survey Sensors
- Non Destructive Test Sensors
- Cleaning Jets & Brushes
- Pipe and Cable Tracking & 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 & Graphical User Interface
- Power Management & Protection
- System Condition Monitoring & Diagnostics

### Telemetry

- Single Mode Fibre Integration of All Standard and Optional Data

### Additional System Options

- 3000m Rated Garage Tether Management System
- 3000m Rated 275Kgs Buoyancy option
- 300m Rated Higher Payload Options
- Digital Video & Survey Data Recording Systems

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