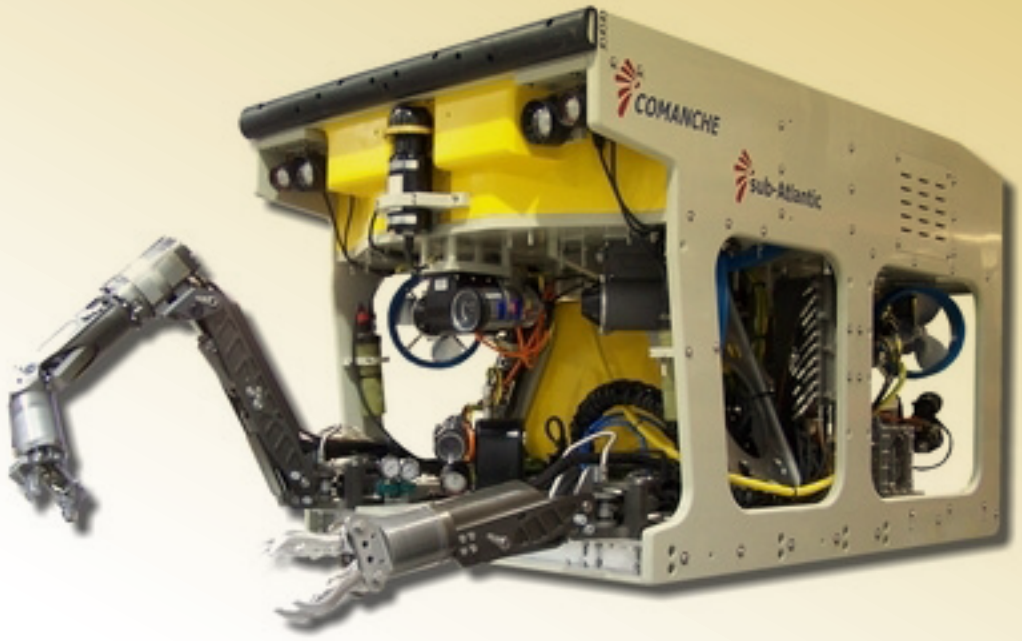
Comanche Small Work ROV System

Our Comanche Work-Class electric ROV benefits from enhanced capabilities provided by a powerful control system, proportional workclass manipulator arms, tooling hydraulic system, survey interfaces and generous payload capacity.

Comanche incorporates a fully electric, seven thruster propulsion system, confi gured to provide high thrust and lifting capability. It uses a 3000 Volt, 400 Hz power transmission system from surface to ROV resulting in a small tether, main lift cable and launch/recovery system. This transmission system makes it particularly suited for long tether excursions and deep live-boating operations. Comanche is equipped with additional power sources to allow the use of a 15 kW / 20 hp hydraulic power unit for running tools and work skids and for rig support intervention tasks. When compared with hydraulic work-class systems, the Comanche provides important customer benefi ts with regard to capital and operational expenditure, simplicity of use and requires less deck space.

- **Two 7 Function Work-Class Manipulator Capability**
- **2,000 / 3,000 / 6,000 Metre (6,500 / 10,000 / 20,000 Feet) Depth Ratings**
- **3000 Volt, 400 Hz Power System**
- **Long, Small Diameter, Low Drag Tether Capability**
- **15 kW / 20 HP Hydraulic Power Unit**
- **12 or 16 Station GFVP**
- **Seven 100 kgf / 220 lbf Brushless DC Thrusters using Statorshield™ Technology**
- **Auto-Functions**
- **Up to 250 kg / 550 lbs Payload**
- **Multiple Video Channels**
- **Multi-Sensor Interface**
- **Deep Live Boat or TMS Operation**
- **New SubCan™ Control System**



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sub-Atlantic

COMANCHE ROV System

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www.sub-atlantic.co.uk

Comanche System Specification

ROV GENERAL SPECIFICATION

Depth Rating .....2000 msw (6560 fsw) standard (deeper options)
Payload (2000msw exc. manipulators) 185 kg (410 lb) standard to 250kg (551 lbs) lead ballast
Height .....1250 mm (49.2 in.)
Length .....2100 mm (82.7 in.)
Width .....1300 mm (51.2 in.)
Mass in Air (2000msw).....based on 185 kg (410 lb) payload - 1130 kg (2490 lb)

Max. Thrust @ 0 Knots with zero voltage losses:

Forward .....225 kgf (496 lbf)
Reverse..... 225 kgf (496 lbf)
Lateral ..... 225 kgf (496 lbf)
Vertical.....up to 225 kgf (496 lbf)

Max.Velocity/Operational Current (zero tether excursion):

Forward.....1.5 m/s (3.0 Kt)
Reverse.....1.5 m/s (3.0 Kt)
Lateral ..... 1.25 m/s (2.5 Kt)
Vertical..... 0.75 m/s (1.5 Kt)
Turning Rate .....120 Degrees per Second (approx)
ROV Power Requirements ..... 440 Vac 3ph 50/60 Hz 35 kVA
Thrusters..... 7 Total, 4 vectored horizonals and 3 verticals
Pan & Tilt Unit ..... 1 x Electric Heavy Duty
Tilt Unit ..... 1 x Electric Heavy Duty
Auxillary Hydraulic System .....4 kW (5.3 HP) or 15 kW (20 HP) options
Valve Pack ..... 12 or 16 Station General Function Valve Pack
Manipulator 1 .....Orion 7-Function with Rate or Proportional Control
Manipulator 2 .....Orion 4 or 7-Function Rate Control
ROV Control System .....SubCan
Frame .....Polypropylene with aluminium alloy central load frame

Surface Equipment General Specification

SCU

Height .....355 mm (14.0 in.)
Width .....483 mm (19.0 In.)
Depth.....450 mm (17.7 In.)
Mass.....12 kg (27 lb)
SCU Power Requirements.....220/240 Vac 50/60 Hz 2 kVA

HCU

Height .....160 mm (6.3 in.)
Width .....480 mm (18.9 In.)
Depth.....230 mm (9.1 In.)
Mass.....1.5 kg (3 lb)

TPU

Height .....650 mm (25.6 in.)
Width .....630 mm (24.8 In.)
Depth.....505 mm (19.9 In.)
Mass.....(approx.)50 kg (330 lb)

TETHER AND MAIN LIFT CABLE DIMENSIONS

Tether (standard) ..... 25.5 mm / 1.0 in. diameter
Main Lift Umbilical (standard 3000 Volt system) .....25.5 mm / 1.0 in. diameter

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Live Boat or TMS Operation

The Comanche can be free-flown in 'live boating' mode or with our cage type TMS systems (see TMS data sheet). The small diameter tether allows long cable excursions.

Compact Control

Surface equipment consists 3 units

- **Surface Control Unit (SCU)**
- **Hand Control Unit (HCU)**
- **PDU (Power Distribution Unit)**

The SCU is generally supplied as a portable fl ight case system. Alternatively, the 8U x 19" rack mount control module can be supplied loose for fi tting into customers own control rack.

The HCU (top), SCU (left) and PDU (right) are compact for operation in small control spaces. The three units are linked by interconnecting cables with plugs and sockets