



## Features of COMANCHE ROV System

- Schilling Orion manipulators: 7-Function proportional or rate arm and 4-Function rate grabber
- 2,000 Metre Depth Rating
- 3000 Volt, 400 Hz Power System
- Long, Small Diameter, Low Drag Tether Capability
- Seven 100 kgf / 220 lbf Brushless DC Thrusters using Statorshield™ Technology
- Auto Depth and Auto Heading
- Up to 285 kg Payload
- Dedicated wheeled pipeline inspection skid with colour boom cameras
- Multiple Video Channels
- Multi-Sensor Interface
- TMS Operation
- SubCan™ Touch screen GUI Control System

## Comanche ROV System Specifications:

### ROV General Specification

Depth Rating	2000 msw as standard
Payload (2000 msw excl. manipulators)	285 kg
Height	1250 mm (49.2 in)
Length	2100 mm (82.7 in)
Width	300 mm (51.2 in)
Tether	1750 m - 21 mm dia.
Mass in Air (2000 msw) based on 285 kg payload	1230 kg

### Max Thrust @ 0 Knots with zero voltage losses:

Forward	225 kgf (496 lbf)
Reverse	225 kgf (496 lbf)
Lateral	225 kgf (496 lbf)
Vertical	225 kgf (496 lbf)

### Max. Velocity / Operational Current (zero tether excursions):

Forward	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)

Thrusters	7 total, 4 vectored horizontals and 3 verticals
Pan & Tilt Unit	1 x Electric Heavy Duty
Tilt Unit	1 x Electric Heavy Duty
Auxiliary Hydraulic System	4 kW (5.3 HP)
Valve Pack	12 stations
ROV Control System	SubCan™
Frame	Polypropylene with aluminium alloy central load frame
ROV Power Requirements:	440 Vac 3ph 50/60 Hz 35 kVA

### Surface Equipment General Specification

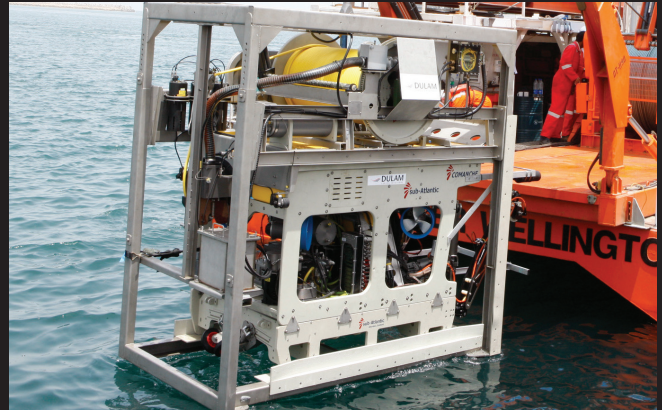
The Control Cabin footprint is 20 ft x 8 ft. The system is Zone 2 Certified, DNV classed with an A60 fire rating, and also contains a built-in emergency escape hatch. The system includes a 4-piece 7KW air conditioning system with wall and ceiling evaporators.

### LARS General Specification

- Launch A-Frame with 3 metre reach
- 3-phase electric hydraulic power pack
- Armoured deck lead

### Tether Management System

- 500 metres capacity of 21 mm diameter tether
- Stainless steel telescopic frame allowing under slung tool skids on ROV
- Fully electric, single drive motor
- TMS Gross Mass (Laden) 3500 Kg
- TMS Mass in air (Unladen) 1425 Kg
- TMS Mass in water (Unladen) 1050 Kg



### Pipeline Inspection Skid

- Shock mounted wheel assembly configurable for up to 40-inch pipeline inspection
- Two Kongsberg colour zoom cameras on pan and tilt housings
- Hydraulic ram for CP stabbing
- Left and right hydraulic boom arms
- Two 250-watt halogen lights
- Configured to accept a TSS440 pipe tracker frame

### Electronics Pod

Vehicle electronics are housed in a single 3,000 metre / 10,000 feet rated pressure pod with electrical and fibre connectors fitted on one of the end caps.

### Survey Pod

The survey pod allows easy interfacing of multiple sensors to the ROV and it includes multiple electrical connectors for RS232, RS485 and power. The pod contains a TSS440 interface and power supply.

### Additional Equipment

Hydrolek hydraulic ram wire cutter with force intensifier.  
 Force intensifier – for 1 inch wire rope and 0.5 inch steel bar  
 High Pressure Water jet lance – 120 bar.

Specifications subject to change at owner's discretion