

Super Scorpio 42 ROV System

SPECIFICATIONS (VEHICLE)

| | | | |
|--------|---------|---------|-------------|
| Length | :2450mm | Weight | :1225 kg |
| Width | :2000mm | Payload | :100 kg |
| Height | :1500mm | Depth | :800 meters |

CONSTRUCTION

Multiple electronics pressure vessels
Aluminium alloy welded beam frame
Buoyancy material

POWER PACK

120HP HP @ 3000 psi.

PERFORMANCE

Forward :>3 Knots
Vertical :>1 Knot
Lateral :>1.7 Knots All vehicle speeds $\pm 10\%$,
based upon bare vehicle

PROPULSION

2 axial thrusters, 1 lateral thruster, 1 vertical thruster.
Each capable of 295 kgf (650lbf thrust)

MANIPULATOR/TOOLS (OPTIONAL)

1 x 5 function joystick controlled rate manipulator (gripper type)
1 x 7 function spatially correspondent manipulator

SPARE HYDRAULIC CONTROL

High flow (Up to 30 GPM) Pilot operated control valves on main pressure and return lines.

POWER DISTRIBUTION

Ground fault monitoring and protection system
Surface transformers
Overload, undervoltage protection & phase line monitoring
GFI/GFD - Monitors (3) mounted flush with front door on PDU

PAN AND TILT

Type :Two units, Hydraulic and Electric
Range :+/- 80 degrees;Tilt +/- 180 degrees Pan

SONAR

Type :Mesotech 971 or equivalent
Range 5-100m selectable
High resolution color
Sector or 360° scan selectable
Scan rate selectable
Mounted on pop-up for 360° sonar capability or equivalent



CONTROL CONSOLE

- Dual bay 19 inch rack system
- VDU graphic information display monitor
- 2 x 14 inch color monitors
- Sonar display
- Joystick control for vehicle
- Video character generator
- 2 x VHS recorders
- 10 Channel video switcher
- Manipulator controllers

PILOT'S CONTROL SHELF

Contains dual aerospace type joysticks with ROV motion control thumb switches (2), main thumb switch for ROV pan and tilt control, still camera trigger. Also includes on/off switches, pots or push buttons for: HPU, instrumentation power, TMS HPU, camera controls on/off and focus (5), TMS latch open/close with caged latched indicator lights, video annotation on/off, gyro on/off, vehicle and altitude sonar on/off, switches for hydraulic manifold solenoids (12), main joystick forward/ reverse, graphics page select, joystick sensitivity, console local/remote, resets (5), light controls (4), ROV trim pots (8), additional pan and tilt joystick, auto depth, auto altitude, auto heading and auto heading park.

LAUNCH & RECOVERY SYSTEM : (CRANE)

Type :HIAB crane

Dimensions

| | | | |
|-----------------|----------|--------|-----------|
| Length | :2.372 m | Height | :3.80m |
| Width | :1.222m | Speed | :0.65m/s |
| Height (folded) | :3.670m | Weight | :7 000 kg |

MAIN WINCH

Storage for 1100 m (3,600ft) of umbilical
Electro - Hydraulic operation
Self-adjusting level wind to suit cable
Purgeable slip rings, fail-safe brakes
Designed for Zone 1 operation

Dimensions

Length :2.71m Width :2.44m Weight :4500kg with 900m umbilical
Connectors for intercom, pilot's remote console unit, and for remote winch control if required.

SPARE HYDRAULIC OUTPUTS

Five spare solenoid valves, fitted with 3000psi, 4 way, 3 position with dual crossover relief and pilot checks. All optional solenoid valves are pre-wired to the pilot's control console.

AUTO FUNCTIONS

- Heading from gyro compass +/- 2°
- Depth from pressure transducer +/- 1° fsk
- Heading park from inertial rate transducer
- Pitch and roll via Sperry Inclinerometer +/- 0.5°

VIDEO, LIGHTS AND PINGER

- Silicon intensified Target (SIT), monochrome video camera
- Color CCD video camera (Inspection use)
- 4 x 250W lights, flood or spot, individually dimmable, additional 500W light circuits available as an option
- Submersible flashing beacon
- 27kHz Pinger

CONTROL CABIN

Dimensions

| | | | |
|--------|--------|--------|---------|
| Length | :3.9m | Height | :2.44m |
| Width | :2.70m | Weight | :4500kg |

Houses power distribution system and Control console

CLIENT REPRESENTATIVE VIEWING AREA

The control van can be fitted with a dedicated viewing area for the client to monitor all ROV operations subsea. It will include a 14 inch color monitor with outputs from the control console's video switching unit.

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