QUANTUM 6 TECHNICAL SPECIFICATION



Deeplech

Part of the MCS Group deeptechoilservices.com

SYSTEM SUMMARY

The Quantum 6 work class ROV combines high performance with a rugged construction and powerful tooling capability. The system has a payload capacity of up to 350kg for transporting or recovering equipment subsea and a through frame lift of 3000kg. It uses the DVECS Control System package which is powerful, simple and extremely stable. DVECS offers true distributed control for a reduction in subsea control hardware and cabling complexity while offering increased diagnostic monitoring. Utilizing the latest generation of Curvtech™ components, the Quantum provides high performance propulsion and tooling power.



POWER

The Quantum 6 has industry leading payload, thrust and tooling power figures.



CONTROL

The DVECS Control System package is powerful, simple and extremely stable and offers increased diagnostic monitoring.



FLEXIBILITY

The system is fully configurable for survey and heavy construction tasks.

TECHNICAL OVERVIEW

Depth Rating	3000msw
Tether Management System Power	TMS C/w 350m tether 150HP hydraulic power system
Through Frame Lift	3000kg
Control System	SMDH Distributed Vehicle/ Control System (DVECS)
Payload Capacity	350kg
Manipulators	Schilling T4/ Whittaker M5

DIMENSIONS

Length	3350mm
Width	2100mm
Height	2100mm
Depth Rating	3000msw
Weight in Air	4000kg
Payload Capacity	350kg
Through frame lift	3000kg

AUTO FUNCTIONS

Auto Depth Control	± 0.01%
Auto Altitude Control	± 0.025%
Auto Heading Control	± 1.0 degree
Pitch and Roll Control	± 1.0 degree

SENSORS

Heading, Pitch and Roll	Tritech iFG Fibre Optic Gyro/Tritech iGC Grypcompass
Depth	Tritech Bathy
Altimeter	Trtetch 500kHz
Sonar	Tritech Super Seaking DFS

HYDRAULIC SYSTEM

Motor	3000VAC, 5060/Hz, 150HP
Main hyd output pressure	250bar
Main hyd output flow	300Lt/min
Auxiliary hyd output pressure	210bar
Auxiliary hyd output flow	110Lt/min

PROPULSION SYSTEM

Thrusters Horizontal	4 x Curvetech HTE380 c/w
Thrusters Vertical	380mmØ propellors
Bollard Pull (Nominal) - Forward - Lateral - Vertical	300Lt/min 890kgf 820kgf 650kgf

CAMERAS

Camera Interface	2 x Junction Boxes
Standard fitted	2 x Simrad OE 14366- Colour Zoom Simrad OE 15102- Near SIT Simrad OE 15108- Mini mono
Maximum Capacity	8 cameras

LIGHTING SYSTEM

Circuit Configuration	8 x 250W, 110Vac lamps/ 2 x 400W, HID
Total Lighting Capacity	3000 Watts

MANIPULATORS

Right Hand Mounted	Schilling T4 manipulator c/w intermeshing jaws
Left Hand Mounted	Schilling Rigmaster c/w intermeshing jaws

LARS

Winch Capacity	3300m of 35mm NSW Umbilical
Winch Line Pull	15.0Te
Winch Speed	50m/min
A-frame Outreach	4.0m
Winch/A-frame Controls	Local deck mounted control stand and remote from operations
Zone Rating	Class I DIV 2 (Zone II)

TETHER MANAGEMENT SYSTEM

Depth Rating	3000m
Dimensions	2200mm diameter, 2250mm height
Weight – In Air	3500kg
Weight - In Seawater	3100kg
Load Capacity	12000kg at Seastate 6
Tether Capacity	500m of 35mmØ tether OR 900m of 27mmØ tether
Tether Length	350m of 35mm neutral tether

CONTROL ROOM

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Туре	Vessel Integrated
Incoming Power Supplies	380Vac – 480Vac, 60Hz supply
Power Distribution	Transformer for ROV hydraulics / Transformer for ROV electronics Transformer for TMS HPU / Transformer for TMS electronics Ground fault detection circuits Deck cable interface
Control Console	8x 19" flat screen monitors (4x video, 4x control/diagnostics) 2x free standing floor to ceiling 19" racks 1x DVECS free standing ergonomic control console for flat wall install DVD Recorders , Surface communications , Manipulator control
DECK POWER PACK	
Zone Rating	Class I DIV 2 (Zone II)
Power Output	15kW charge cart

Safe area rated

CJC oil reclaim unit fitted

^{*}All of our ROVs can be customized and integrated with the MCS product-line including the 3D Photo Realistic Cloud (3D PRC) and the Platform and Pipeline Commander systems for fast and accurate data which is easy to access and share.



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