QUANTUM 31 TECHNICAL SPECIFICATION



Deeplech

Part of the MCS Group deeptechoilservices.com

SYSTEM SUMMARY

The Quantum 31 is the ultimate subsea construction and survey tool, designed to cope with power intensive Deepwater tasks in the harshest environments up to 3000 m. These ROV systems offer a comprehensive combination of 1X7 Function Manipulator, 1X5 Function Manipulator. It's SMDs' largest work class ROV and utilizes the latest Curvetech™ multi-platform components. Access to these quick release components is fast and easy and decreases maintenance time while increasing availability. The vehicle offers class-leading performance and extensive free tool and instrument space for ultimate flexibility.



POWER

The Quantum 31 has industry leading payload, thrust and tooling power figures.



FLFXIBLF

Space within its frame for mounting tools and instruments is exceptional. This flexibility means better in-water performance and current holding capabilities



USER-FRIENDLY

It uses the DVECSII control system which can be mastered quickly helping reduce operational risk.

TECHNICAL OVERVIEW

200HP & 250HP Power Options

Up to 1100kg Bollard Pull

Isolated Tooling Hydraulics

350kg Payload

SMD DVECSII Digital Telemetry

HDTV & Gigabyte Capability

SMD AutoROV Advanced Control Modes

Option for DriROV built-in ROV Simulator

Latest Curvetech 'Multi-platform' ROV Building Blocks

SYSTEM SPECIFICATION

Depth Rating (Standard)	3000 msw
Depth Rating (Optional)	1000, 2000, 4000msw
Length	3678mm
Width	2000mm
Height	2144mm
Weight in air (std)	5000kg
Payload	350kg
Through Frame Lift	4000kg
Aft TDU mounting	1000kg

PERFORMANCE

1100kgf Forward/aft Bollard Pull

1100kgf Lateral Bollard Pull

900kgf Vertical (up) Bollard Pull

3.5kn Forward surface performance

2.8kn Lateral surface performance

2.2kn Vertical surface performance

Auto Functions: Heading, Depth, Altitude, ROV DP.

Horizontal Vectored Thruster – 4 x Curvetech HTE 420BA

Vertical Thruster - 4 x Curvetech HTE 300BA

250hp (186kW) Total Hydraulic Power (Standard)

200hp (110kW) Total Hydraulic Power (Optional)

82hp (61kW) Isolated Tooling Power (Standard)

58hp (43kW) Isolated Tooling Power (Optional)

CONTROL CABIN

Standard Control Cabin: 16ft/20ft, A60 ISO Zone II 3G

Standard Control System: SMD DVECSII ROV Control Hardware. Dual touchscreens. 8 x 19" TFT Video Wall

Optional Control System: Customer Choice. Dual or single joystick control. 1 x 32" HDTV + 6 x 19" TFT Video Wall

Incoming power supplies: 380V-480Vac

Optional power supplies: 690Vac, 3 phase 60Hz/50Hz

TMS Control/Interface: SMD Tophat, SMD Garage

INSTRUMENTS/TOOLING

Standard Hydraulic Channels: 24 x (15LPM), 2 x (35LPM), 2 x (95LPM)

Optional Hydraulic Channels: Torque tool control Zetechtics Jupiter 2 fitted as standard

8 x standard channels composite

2 x HDTV channels

Standard Gyro: FOG, Gyro Compass

Optional Gyro: NS FOG

Standard lighting: 12 x Halogen or LED

Optional lighting: 2 x 120Vac @ 400W HID

2 x Electric/HYD Standard camera pan/tilt

1 x Optional additional camera pan/tilt unit

1 x Electric/Hyd Camera Tilt

6.0kVA Instrument Power

Manipulator – $1 \times 7F$ (pos feedback heavy duty) Schilling Titan 74

1 x 5F (rate, heavy duty) Grabber Rigmaster

Teledyne Blueview Sonar

Novatech ST400A Xenon Flasher

Extending Tool Basket

DECK EQUIPMENT OPTIONS

SMD launch equipment including A-frames and winches

Options for up to Sea State 6 operations

Active or passive heave compensation

Aramid/SWA umbilical choices

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.



