

HARDSUIT™ QUANTUM

Military

Overview

Physical

Depth Capacity

- ▶ 1200 FSW (365m) – Q1200
- ▶ 2000 FSW (610m) – Q2000

Height

- ▶ 81.2 in (206cm) – adjustable to fit operator 5'2"– 6'6" (157 cm –199 cm)

Width

- ▶ 44 in (112 cm) – Q1200
- ▶ 48 in (122 cm) – Q2000

Hull Material

- ▶ A356 Cast Aluminum – Q1200
- ▶ 6061 T651 Forged Al – Q2000

Communication

Hard Wire

- ▶ Digital voice over data

Thru Water

- ▶ 8 or 27 kHz acoustic

Features

Life Support

- ▶ Oxygen re-circulation with fan powered CO2 scrubbing capability
- ▶ Back-up oral/nasal lung powered scrubber
- ▶ Dual independent Oxygen systems – port and starboard

Life Support Duration

- ▶ 6-8 hrs normal dive time
- ▶ 30 to 40 hrs reserve

Sensor and Tooling Interface

- ▶ Data interface in expansion can for:
 - o CP, UT, additional video, ACFM.
 - o Digital stills camera, 2nd video camera and ther tools and sensors

Propulsion System

Power

- ▶ 4 x 2.4 HP (1.8 kw) each
- ▶ DC Brushless - variable speed
- ▶ 214 lb (97 kg) vertical thrust
- ▶ 219 lb (99 kg) horizontal thrust

Control

- ▶ Foot Controls
- ▶ Left Foot – vertical control
- ▶ Right Foot – lateral control



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Tool Packages

Quantum uses standard tools modified for ADS interface:

- ▶ Hydraulic tools – impact, drill, chipper, concrete breaker, chop saw and other standard diver tools
- ▶ Flange connection tools – standard bolt tension, pull in and alignment systems
- ▶ Rigging and lifting
- ▶ Torque tools
- ▶ Sub sea HPU
- ▶ Dredge and jetting systems
- ▶ Hot stabs, gasket carriers
- ▶ Custom tools and adapters

Safety / Emergency Equipment

- ▶ Thruster Jettison capability
- ▶ Tether Cut / Jettison Capability
- ▶ VHF Radio direction finder
- ▶ 37.5 kHz pinger

Specifications

Surface Monitoring & Control

- ▶ AMS (Atmospheric Monitoring System)
- ▶ Provides surface monitoring and recording of:
 - o HPO₂ supply
 - o CO₂%
 - o Cabin Pressure
 - o Depth
 - o Temperature
 - o System status and built in test
 - o Software based adjustment and switching

Navigation Equipment

- ▶ High resolution Pan, Tilt, Zoom, Focus video camera
- ▶ Digital compass with tilt sensor and turns counter
- ▶ Depth
- ▶ Acoustic tracking beacon (option)
- ▶ Color imaging sonar Altimeter (option)

Launch & Recovery System

Configurations to suit operation including:

Surface tended, crane based, full A-frame and TMS, fly away configuration, built in and custom configurations.

