HARDSUIT™ QUANTUM

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:
  - CP, UT, additional video, ACFM.
  - Digital stills camera, 2nd video camera and their 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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Features

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:
  - HPO2 supply
  - CO2%
  - Cabin Pressure
  - Depth
  - Temperature
  - System status and built in test
  - 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.