



Exosuit ADS™



Developed and built in North Vancouver by **Nuytco Research Ltd**, this hard metal dive suit allows divers to operate safely down to a depth of 1000 feet (305m) and yet still have exceptional dexterity and flexibility to perform delicate work. The amazing technology of the **EXOSUIT ADS™** (atmospheric diving system) maintains a cabin pressure of the surface and still allows the suit to bend due to a unique rotary joint invented by Dr. Phil Nuytten. **Nuytco Research Ltd.** also offers a 2000-foot (610m) version of the **EXOSUIT ADS™** with the same innovative features as our 1000-foot **EXOSUIT ADS™**. Contact us at the numbers below for details or to purchase.

Exosuit ADS™ Specifications

General:

- 1000-foot (305m) depth rated
- A536 Aluminum Alloy
- Weight 500-600lbs depending on configuration

Life support:

- 2 Redundant oxygen systems, total capacity 50 hours
- 50 hour Carbon Dioxide scrubber
 - Back up battery with automatic change over on power failure
 - Lung powered scrubber back-up

Propulsion:

- 4 x 1.6 HP thrusters (expandable to 8)
- Direct drive, magnetically coupled thrusters
 - Quiet operation
 - Responsive (quick windup)

Telemetry/Control System:

- Distributed control system (Omron PLC) allows for uninterrupted operation in case of telemetry failure
- Gigabit Ethernet over Fiber optic
 - Network attached High definition camera
 - Network attached Imagenex 882 Gyro Stabilized SONAR
 - Easy integration of IP and POE (Power Over Ethernet) devices
- Remote (topside) control of: thrusters, thruster trim, lights and tooling
 - Lightens pilot workload
- AMS (Atmospheric Monitoring System)
 - Real time monitoring topside of cabin pressure, CO2 and Oxygen %
 - Lightens pilot workload
 - Enhances safety

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Exosuit ADS™

Communication:

- Full duplex intercom - over copper
- 6 intercom stations (pilot +5)
- Highly reliable
- No subsea power required
- Excellent voice quality (low noise)
- Aux In and Out jacks (topside)
- IP intercom out
- Allows audio to be recorded synchronously with project video
- Acoustic thru water communications
- Backup in case of hardwire communications failure
- Compatible with communications hardware used commonly by manned submersibles

Umbilical:

- 1250 feet long nominal
- OD 0.980" nominal
- Minimum bend radius 27"
- Breaking strength 7200lbs
- Neutrally buoyant

Power Requirement:

- 208-240 3 phase, 50 A, 50-60 HZ

Emergency Equipment:

- Umbilical jettison capability
- Thruster jettison capability
- Emergency battery
- Powers thru water comms, O2 analyzer and carbon dioxide scrubber

Ancillary Equipment:

- HD 180° Camera
- H.264, H.265
- 12MP Resolution
- Virtual Pan, Tilt, Zoom
- SONAR
- Imagenex miniature 882 gyro stabilized scanning sonar
- Newtsun NS150 LED lights
- 2 x 150 W LED lights
- 9,600 lumens (each)
- 4500 deg K (cool white)



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