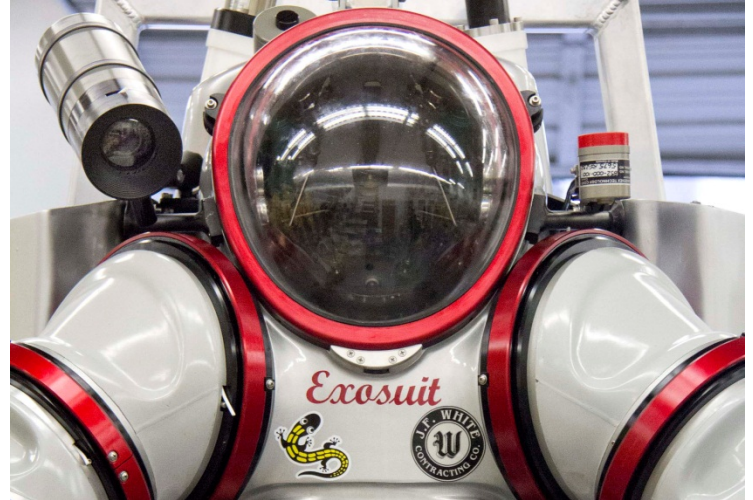




Exosuit ADS



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 and yet still have exceptional dexterity and flexibility to perform delicate work. The amazing technology of the **EXOSUIT** atmospheric diving system (ADS) 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.

ADS 'Exosuit' Specifications

General:

- 1000 Foot depth rated
- A536 Aluminum Alloy
- Weight 500-600 LBS depending on config

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 852 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 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 camera, H.264 (Blu-Ray Codec) camera
- SONAR
- Imagenex miniature 852 scanning sonar
- Newtsun LED lights
- 2 x 150 W LED lights
- 9,600 lumens (each)
- For comparison - a 250W quartz lamp produces 3,500 lumens
- 4500 deg K (cool white)



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