



## OCEAN PEARL 2 PERSON MODEL

150m to 1000 Depth Rated, ABS Classed, CISR Approval



The Ocean Pearl is a robust, safe, and practical 2 person (1 pilot + 1 Passenger) submersible that offers excellent field of views to the occupants. The cabin opens as a clamshell and allows for easy entry and exit.

In surface mode, the patented flotation system permits the craft to float high above the water line with a high freeboard. When submerged, the Ocean Pearl is positively buoyant at all times and if the thrusters are stopped the craft will always gently rise back to the surface. Underwater, the submersible remains horizontal at all times and does not roll nor pitch..

At the end of the dive the flotation bladders are re-inflated such that the craft floats back on the water's surface at which point the cabin can be opened.



### EASY & COMFORTABLE BOARDING

The Ocean Pearl acrylic cabin is a clam shell design that fully opens in half for comfortable boarding and exit. The submersible is launched unmanned and floats high above the water line when on surface. The external joystick system allows the crew to drive the submersible at surface without requiring the cabin to be opened until it is securely docked to the swim deck or support topside tender. Once launched, the submersible can perform multiple dives in a day without the need to hoist it back on deck. Between dives a regular scuba tank is replaced on the submersible to replenish its flotation air ballast system. The submersible's cabin life support system is a large rebreather system with scrubbers removing the CO<sub>2</sub> and oxygen being replenished that maintains a 1 atmosphere pressure inside the cabin at all times with normal breathing air levels. The cabin's clam shell design is robust and it can be opened from the outside as well as from the inside.



## TECHNICAL SPECIFICATIONS

### GENERAL SPECIFICATIONS

Designer / Manufacturer	SEAmagine Hydrospace Corporation
Model	OCEAN PEARL
Number of Occupants	2 (1 Pilot + 1 Passenger)
Maximum Operating Depth	150m – 1000m (650ft – 3300ft)
Classification	American Bureau of Shipping (ABS)
Additional Approval	Cayman Island Shipping Registry

### DIMENSIONS & WEIGHT

Length	4.67 m (184 in)
Width	2.67 m (105 in)
Height	2.31 m (91 in)
Dry Weight	3250Kg – 5000Kg (7165-11,000lbs)
Cabin Payload	227 Kg (500 lbs)
Hoist Arrangement	4 Point Hoist

### PROPULSION

Standard Maximum Speed	3 Knots
Propulsion Type	Brushless DC Electric
Standard Horizontal Propulsion	2 X 10 HP Thrusters
Vertical Propulsion	1 X 10 HP Thrusters
Mission Time;	6 Hours

### LIFE SUPPORT SYSTEM

Mission Time	6 Hours
Reserve Capacity	96 Hours
Oxygen Monitoring	Dual O <sub>2</sub> Sensors
CO <sub>2</sub> Monitoring	Dual CO <sub>2</sub> Sensors
Oxygen Delivery System	Flow Control
Emergency Breathing System	Standalone Independent Units

### POWER CAPACITY

Battery Type	AGM Lead Acid
Total Power Capacity	28 KWH
Propulsion Power Capacity	23 KWH
Instrumentation Power Capacity	5 KWH
Charging Time	5 – 7 Hours



**POWERFUL PROPULSION, HIGH PAYLOAD RECOVERY, & HIGH MANEUVERABILITY**

The Ocean Pearl maintains positive buoyancy at all times underwater and the vertical propulsion is what keeps the vessel underwater. If the vertical propulsion is stopped the submarine will always gently rise back to surface. The Ocean Pearl can readily hover at a specific location and maintain accurate positioning ideal for filming and underwater intervention work. The submersible has considerable spare buoyancy ballast that permits high payload recovery. The Ocean Pearl has great field of views in all directions from inside the cabin including directly below which is important for up close observation filming, or handling a robotic manipulator.



**TECHNICAL SPECIFICATIONS (Continued)**

**SAFETY SYSTEMS**

Emergency Drop Weight System	YES
Fire Extinguisher	YES
Emergency Buoy Release System	YES
Constant Positive Buoyancy	YES
Water Leak Detection System	YES
Automatic Cabin Power Change Over	YES
Life Support Alarm Systems	YES
Ground Leak Detection System	YES
Stalled Motor Over Current Protection	YES
Automatic Emergency Strobe Light System	YES
Boarding Hand Rails	YES

**COMFORT**

Cooling System	YES
Seats for Passengers	Leather
Internal Lighting	YES

**INCLUDED TOPSIDE SUPPORT EQUIPMENT**

Wireless Underwater Communication System	YES
Topside Submersible GPS Tracking System	YES
Topside Depth Tracking of Submersible	YES
Wireless Underwater Text Messaging	Optional

**INCLUDED WITH SUBMERSIBLE**

- Full ABS (American Bureau of Shipping) Classification
- Underwater Communication System for Submersible & Topside
- Topside USBL (Ultra Short Baseline) Tracking Hand Carry Console
- Dual Frequency Forward Looking Sonar
- 2 X LED Flood Lights + 6 X LED Spot Lights
- Doppler Velocity Log (DVL) Navigation on Submersible
- USBL GPS Navigation Software on Submersible
- External Wet Joystick for Surface Handling
- Submersible Battery Charger
- Color Customized to Client's Request

**OPTIONAL ADDITIONAL EQUIPMENT**

- Robotic Manipulators Arms 5 to 7 Axis Models
- Underwater HD Video Systems with Pan & Tilt Units
- Fly-Out Mini ROV System with HD Camera, Cutter, & Grabber
- SEAmagine 360 Degree Underwater HD Camera System
- ...More Additional Subsea Equipment Available Upon request