

Variable Ballast System

ISE's Variable Ballast System provides a unique capability for underwater vehicles: the ability to vary buoyancy by up to 60 kg at depths of up to 5000 meters. An innovative 3D printed titanium pressure sphere minimizes system weight and complexity while two custom made pump assemblies provide the power needed to operate at extreme depths. This system utilizes seawater as the working fluid, minimizing environmental impact in the event of a leak or spill.

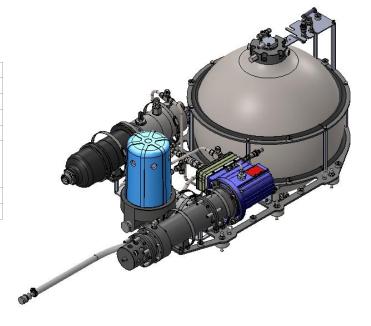
Specifications:

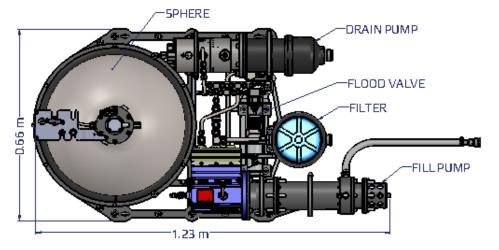
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Depth rating ¹	5000 m
Working fluid	Seawater
Working volume	60 L
Electrical power	48 VDC, 1500 W
Inlet filter	Pleated polyester, 20 micron
Feedback	Sphere volume, motor temp,
	motor speed, motor current,
	water ingress alarm
Weight (dry, empty)	135 kg
Weight (wet, empty)	40 kg

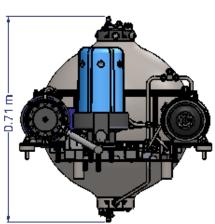
¹ Tested to 5500 msw.

Applications:

- AUVs
- ROVs
- Manned submersibles
- Buoys







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International Submarine Engineering is a world leader in the design and integration of underwater vehicles and terrestrial robotics. ISE has evolved a unique skill set for turning concepts into solutions. Integrating complex projects utilizes the company's resources from industrial design, real-time software engineering and embedded systems to prototyping, testing, and quality control.



HYSYUB family of work-class ROVs 50 – 250 hp / 1000 – 6000 m depth ratings



Pagoo – 10 passenger manned submersible



Aurora Active-Towfish: Improved data quality compared with traditional static towed sonar platforms



Explorer family of AUVs 3000 to 6000 m operational depths

Have a unique and challenging application?
We would love to hear about it.
Contact us now to customize a vehicle to your mission.