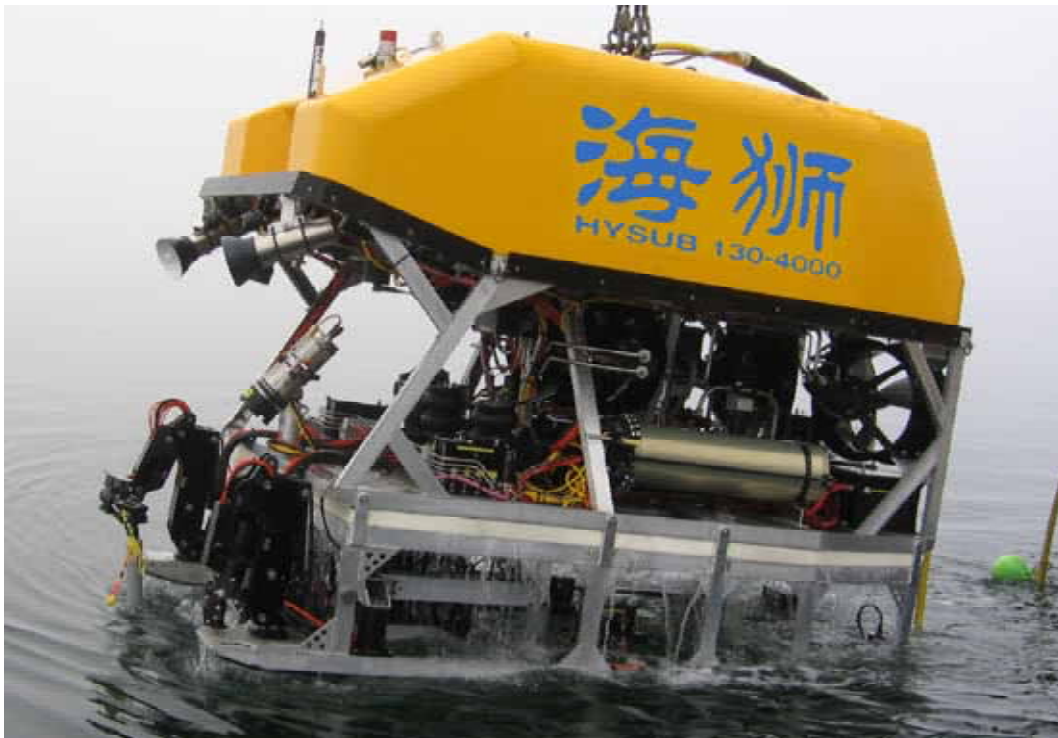


HYSUB 130 HP Remotely Operated Vehicle



The ISE HYSUB 130HP “Sea Lion” ROV was delivered to Guangzhou Marine Geology Survey (GMGS), a division of China’s Ministry of Land and Resources, in 2009. It has a depth rating of 4000 metres, suitable for reaching the depths required for the mineral exploration the vehicle is designed to perform. The Sea Lion ROV comes equipped with eight hydraulic thrusters, two ISE Magnum manipulators, six cameras, and a full sensor package. Unique to the ROV is a 4000 metre rated hyperbaric clathrate bucket designed to collect hydrate cores containing methane gasses. The skid mounted bucket maintains pressure and temperature conditions similar to the hydrate’s geophysical environment.

Principal Characteristics:

Structure	6061-T6 Aluminum
Length	346 cm / 136 inches
Width	207 cm / 81 inches
Height	263 cm / 104 inches
Weight in Air	5,670 kg / 12,500 lb
Diving Depth	4000 m / 13,123 ft
Flotation	Syntactic Foam Pack 37 lb/ft3
Propulsion	Electro-Hydraulic: 2 X 65 HP Electric & 8 Hydraulic Thrusters
Power Requirements	690 VAC, 3-Phase, 50 Hz, 100 KVA 690 VAC, 3-Phase, 50 HZ, 100 KVA 380 VAC, 1-Phase, 50 HZ, 30 KVA 240 VAC, 1-Phase, 50 Hz, 5KVA
Controls	PC, Compact PCI, and Ethernet Distributed I/O Units
Cameras	Insite Atlas Color Zoom Insite Mercury Low Light Insite IT-1000 Insite Aurora (x2) Kongsberg Digital Still OE14-208-0016
Pan & Tilt	Tritech SAPT3636/HD x2 (Hydraulic) ROS PT-10 (Electric)
Sonar	Imagenex 881A
Lights	Deep Sea Power and Light: Halogen 250 Watt (x6) Nuytco: HMI 400 Watt (x2)
Payload	431 kg / 950 lb



International Submarine Engineering Ltd.

1734 Broadway Street, Port Coquitlam, British Columbia, V3C 2M8 Canada
T: +1.604.942.5223 F: +1.604.942.7577 W: www.ise.bc.ca E: info@ise.bc.ca