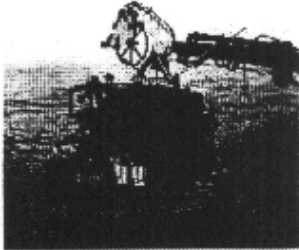


APPENDIX XXI

MBARI Facilities Report



ROV Ventana

Structure & Ballast

Dry Weight 5150 lbs
Benthic Sled Dry 346 lbs
Coring Sled 700 lbs

Power & Propulsion

40 Hp Franklin Electric Motor 2300 VAC
1 Rexroth A10V-25 Hydraulic Pump
6 Thrusters, 2 Rexroth A2F/ISE Nozzle
4 Volvo F11-10/ISE Nozzle
2x5 Servo Valve Manifolds
8KW Hotel Power
2100 Meter Umbilical
8 Multimode Fibers

Navigation Instrumentation

Altimeter Mesotech Echo Sounder 807
Depth Sensor Paroscientific 8B2000

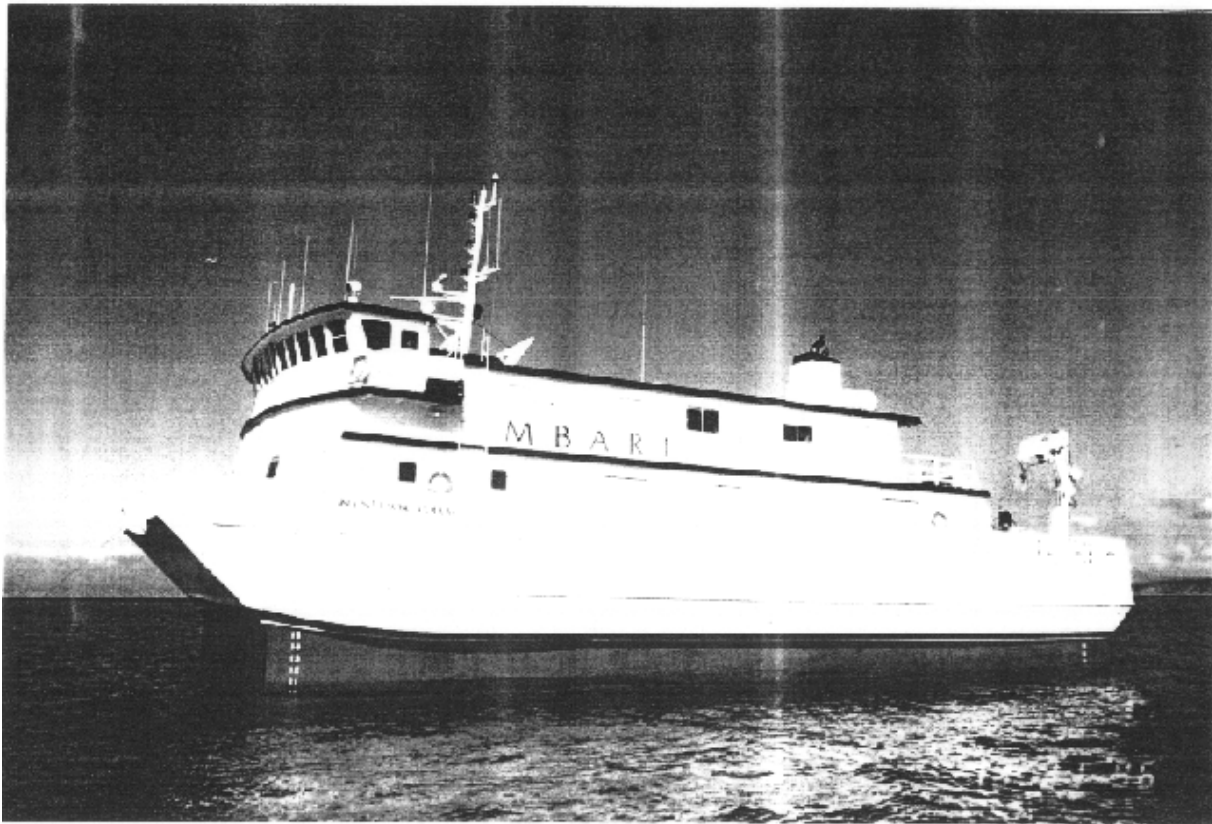
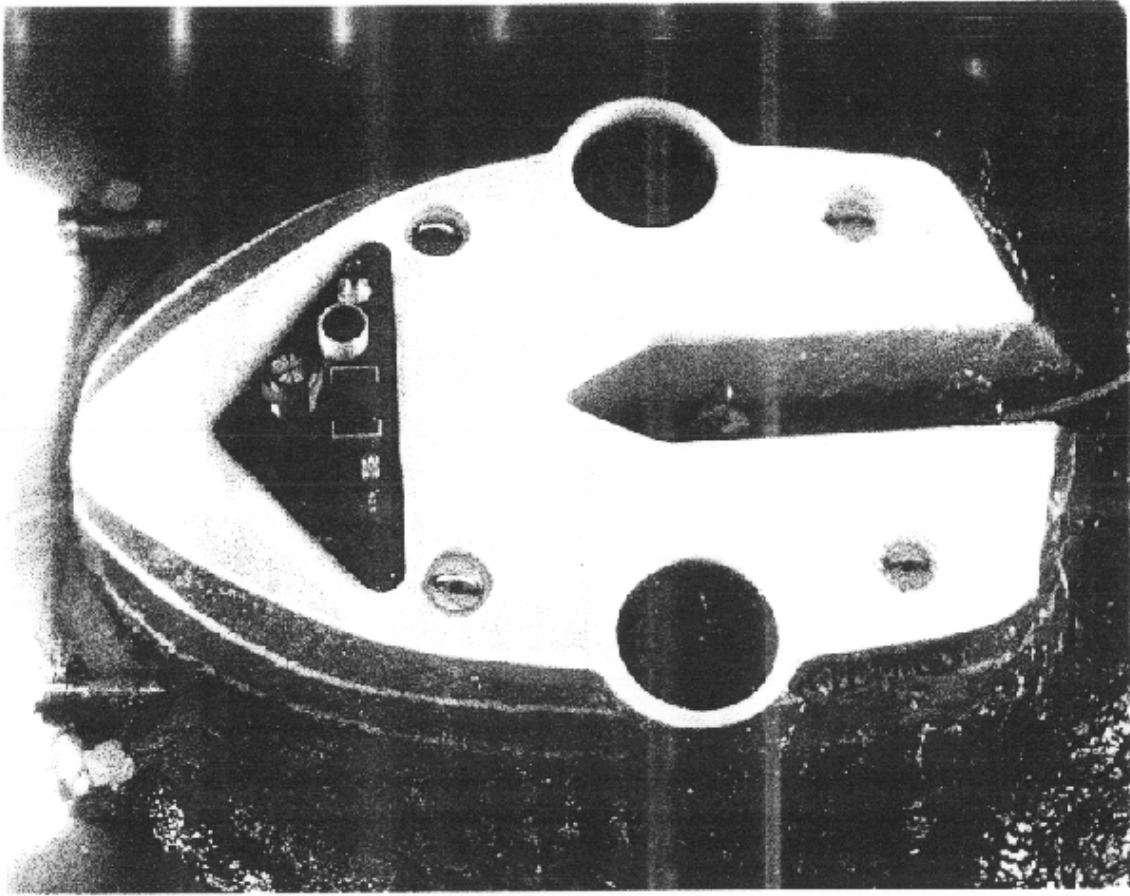
Pitch & Roll Sperry Accustar

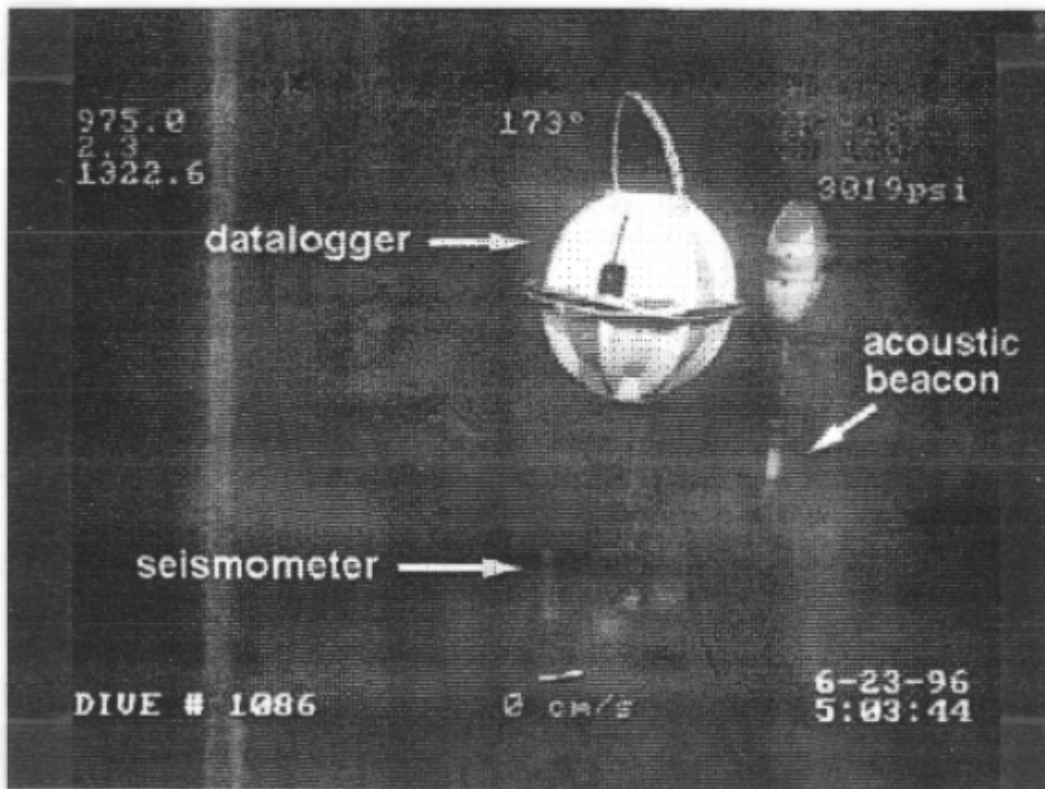
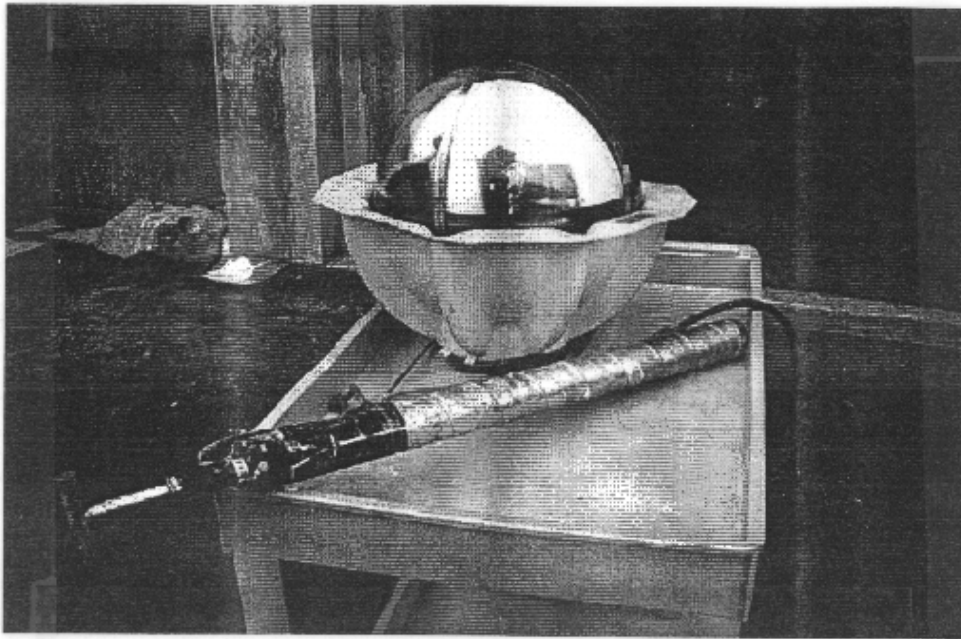
Lights 4x DSPL Daylight Lamps 400 watts
4x DSPL incandescent Lamps 500 watts
2x Aux Lights to 500 watts
Sonar UDI Sonarvision 4000 500khz/200khz
USBL Ferranti ORE Trackpoint II
(Ship to ROV) Responder to 3000m
USBL Sonardyne Homer Pro
(ROV to Beacon) 4000m capable, 400m range(LOS)
Speedometer Savonius Rotor/MBARI Electronics

Camera Systems

Video/Still Camera Systems

Sony DXC3000 3 chip Camera c/w Fujinon Zoom Lens f1.7 5.5 - 47mm
3 x Deep Sea Power & Light MSC2000 Pencil Cameras Lens f4 3,5mm
Stereo Graphics Crystal Eyes 3 Dimensional Viewing System cw 2 MSC2000
Photosea NDT4000 Stereo Macro Camera dual 28mm cw Video View Finder
Photosea 1500s 35mm Still Camera cw 28mm or 35 mm lens
SGI Video Capture System(direct from RGB Sony Feed)
Sony Betacam BVM30 Video Recording
Dynair 30 X 30 Video Switch (ROV Control Room)
MBARI/Maxim 8 X 4 Programmable Video Switch (subsea)
2 X 4 STC Analog Video to Laser Multiplexers





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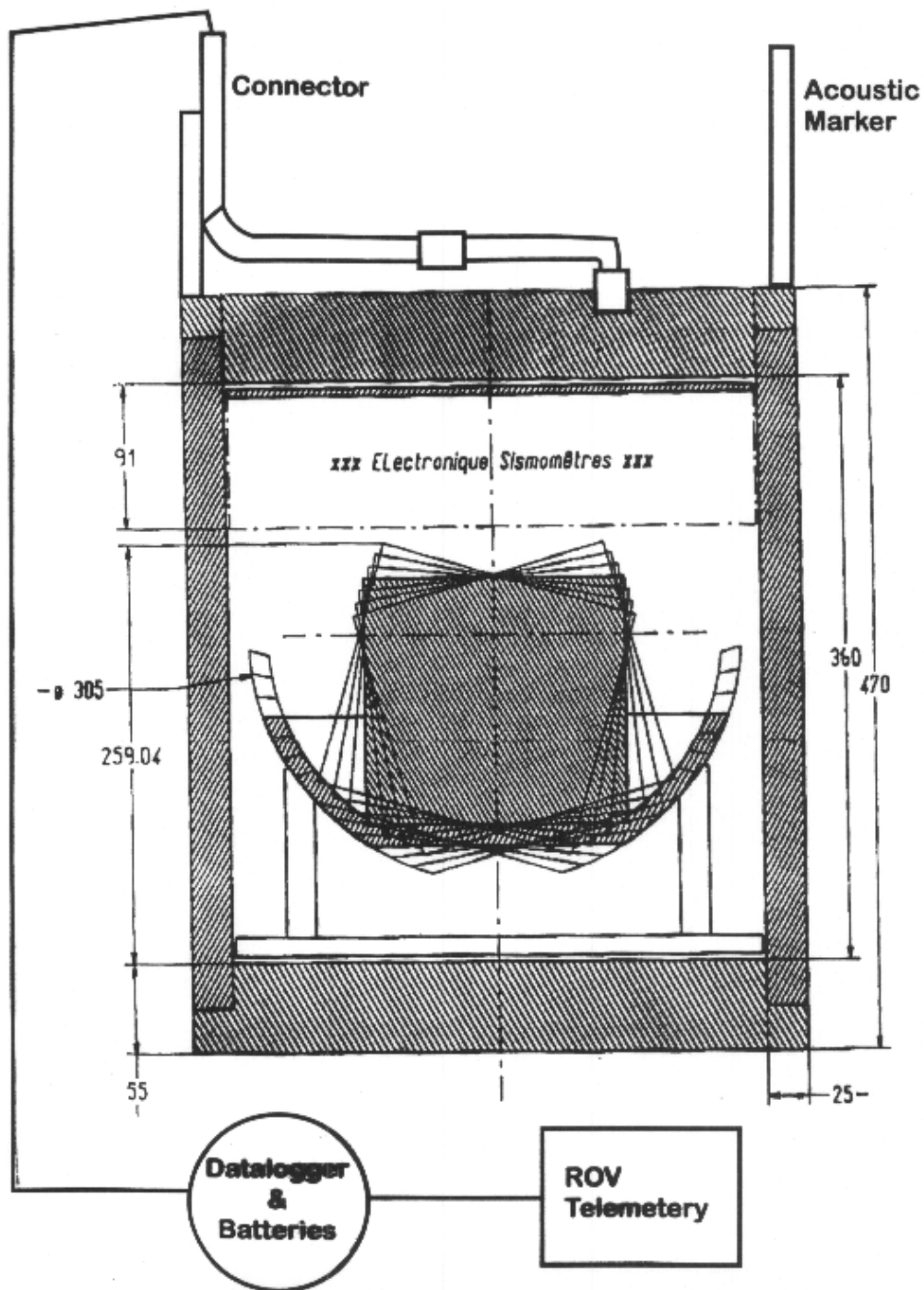
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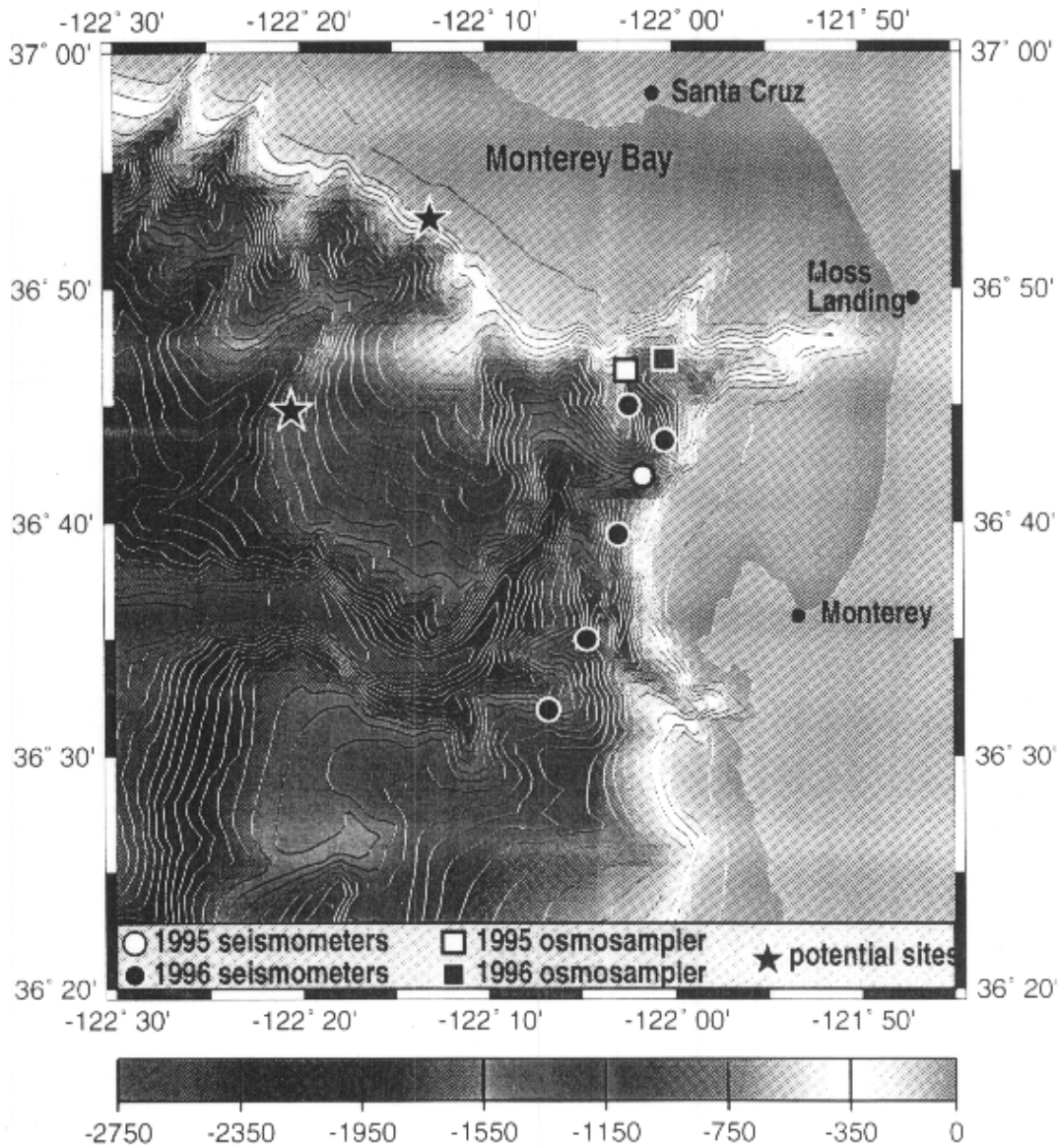
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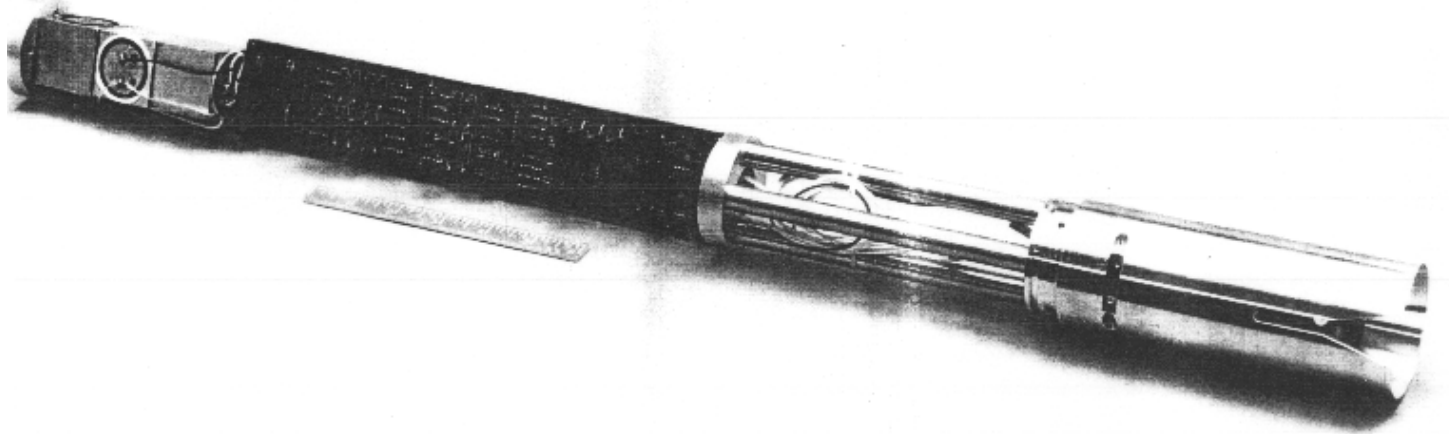
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Instrument_Deployment_Sites





Tiburon Specifications

Depth Capability

- 4000 meters (13,123 feet)

Forward Speed

- No tether drag: 1.5 knots
- Full system transit at: 0.75 knots

Vertical Speed

- 1.0 knots (100 feet/minute)

Payload

- Max. Toolsled weight: 750 lbs.
- Max. Toolsled weight in SW: 250 lbs
- Variable Buoyancy capability: 150 lbs
- Adjust buoyancy at: 5 lbs/minute

Power

- Thruster Motors
 - 6@3.7 KW (5HP) each
 - 220 lbs thrust each
- Distribution
 - 15 KW total
 - 240 VDC +/- 15%
 - 48 VDC +/- 15%

Toolsled Interfaces

- Electrical Power
 - 20 Amps @250 volts(5KW)
- Communications
 - RS485 serial bus, RS232
 - Ethernet (802.3)
- Hydraulic Power
 - 3.5 GPM @ 2500 psi

Tool	Weight (kg) Air/Water Test	Hydraulics	Power	Connectors	Deployment
Push Cores	13/5	none	none	none	Softball grip for manipulator
GeoCompass	2/1	none	+12V DC	19-pin female Mink connector	Strap on to manipulator
Heat Flow Probe	5/5	none	22-26V DC 1.5 amp during heat cycle <200 mA non-heat cycle	19-pin female Mink connector	T-handle for manipulator or insertion with hydraulic core
1 meter Hydraulic Push Core	30/23	up to 800 psi	none	1/4" bwegelok Parker Paraflex connector	mount vertically on vehicle frame (device is 2 meters in height)
Rock Hammer	18/16	1000+ psi @5 gpm Sun Systems reducer regulates to 1500 psi	none	Q18-315 Swagelok Quick Disconnect	T-handle for manipulator
Sub-bottom Probe	3/2	none	none	none	T-handle for manipulator
Benthic Barrel	35/23	none	none	none	T-handle for manipulator (Barrel is 60cm in diameter X 73cm high, including handle)
PISSPI		none	none		

