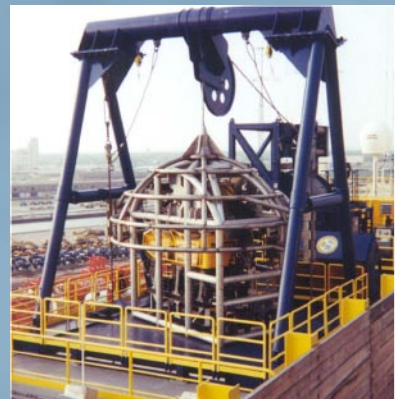
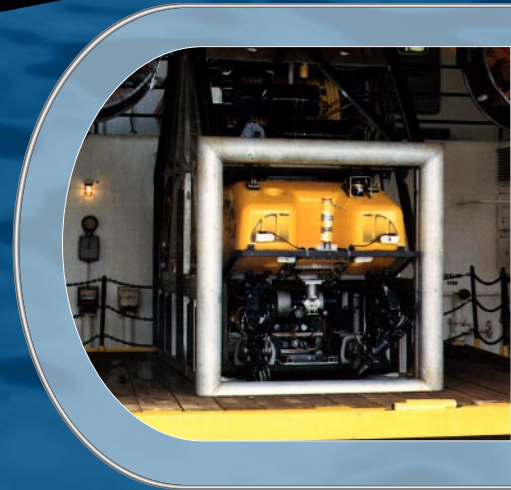
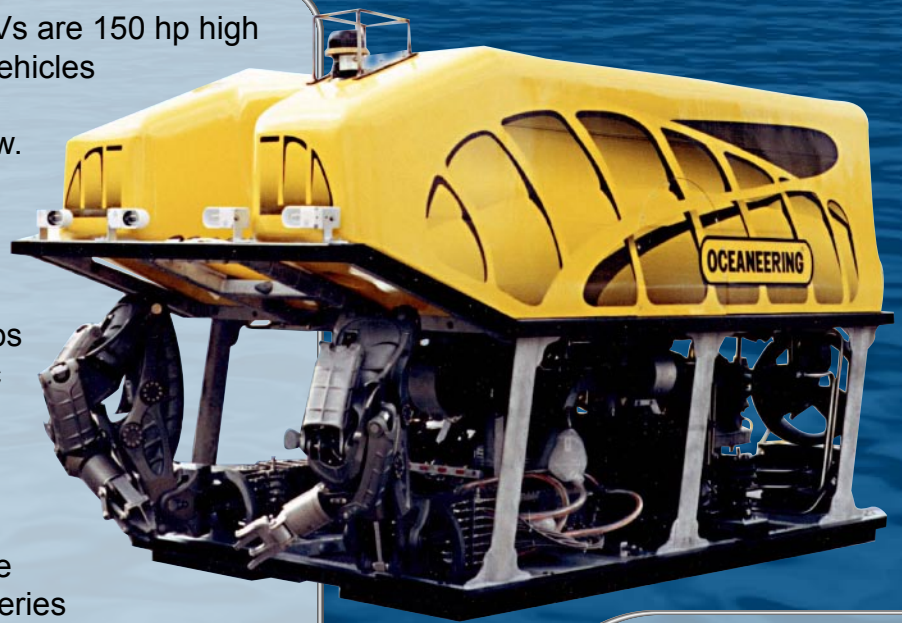


Hydra® Millennium ROVs are 150 hp high performance work class vehicles developed to operate in water depths to 10,000 fsw. The ROV's specialized work capabilities include the ability to run and operate tools, such as large dredge and jet pumps that require high hydraulic fluid flow.

With a strong emphasis on reliability and standardization, the Millennium is based on the proven Hydra® Magnum series design, but features higher horsepower and capabilities for increased water depths and larger payloads. The Millennium utilizes the Magnum cage design, which allows vehicles of either series to carry and operate work packages of any shape and size suitable for ROV deployment.

The Millennium design evolved in response to extensive discussions with Customers who were looking for enhanced performance and work capabilities to support their deepwater drilling and field development programs worldwide.



Vehicle

Length:	10 ft 7½ in (11 ft 6½ in w/ push bracket)
Width:	5 ft 4½ in
Height:	6 ft
Weight in air:	8,000 lbs
Frame:	6061 T6 aluminum
Fittings:	316 Stainless Steel
Depth Rating:	10,000 ft (standard)
Payload:	700 lbs
Horsepower:	2 ea 75 hp Hydraulic Power Units (150 hp)
Propulsion:	2 x Fore/Aft 2 x Lateral 4 x Vertical
Thrust:	
Fore/Aft	1,300 lbs
Lateral	1,100 lbs
Vertical	1,700 lbs
Required Power:	480 VAC, 3 phase, 60 Hz
Telemetry/Control:	Asynchronous serial data transmission microprocessor control
Lighting:	6 x 250 watts
Cameras:	1 x Low Light 1 x Color 14:1 zoom 1 x B&W CCD Aft 2 x Spare Camera Ports

Navigation:

- Mesotech MS900 color imaging sonar
- KVH digital gyrocompass
- Paroscientific Digiquartz Depth Transducer
- Auto Depth/auto heading/auto altitude with full-time bathymetry display 3 - Spare valves for tooling support

Manipulators:

- 2 x 7 function Schilling Conan Rate Controlled

Sensors:

- Simrad/Mesotech Altimeter
- TSS Meridian Gyro Optional

Standard Tooling Packages

- 1.25 in diameter Wire rope cutter, 1 in fiber rope cutter
- Ring gasket replacement tool package
- TP03 dredge/jet pump, rotary grinder/cutter/buffer
- 1 x 2,500 psi @ 3.5 gpm Intervention Pump w/2.5 gal reservoir
- High pressure (5,000 psi) intervention package with 5 gal reservoir (Optional)

Control & Work Vans

Length:	14 / 16 ft
Width:	8 ft
Height:	8 ft
Weight:	9,960 / 14,000 lbs
Constructed of Aluminum	
Fiber Optic Video & Data Transmission	
DVD & SVHS Recorders	

Umbilical

- 10,000 ft - High-strength, Armored Opto-electro-mechanical

Deployment System

Dynacon 521XL Winch	
Length:	16 ft 7 in
Width:	10 ft 4 in
Weight (w/cable):	70,200 lbs
Dynacon 6021 Docking Head A-frame	
Length:	38 ft
Width:	11.5 ft
Weight:	65,000 lbs

Subsea Deployment Cage

75 hp Hydraulic Power Unit	
Tether:	600 ft standard 1,000 ft optional

Digital Gyro Compass

Camera:	2 x B&W CCD
Lighting:	2 x 250 watts
Cage Dual Thruster Package	
Optional add-on tooling packages	

