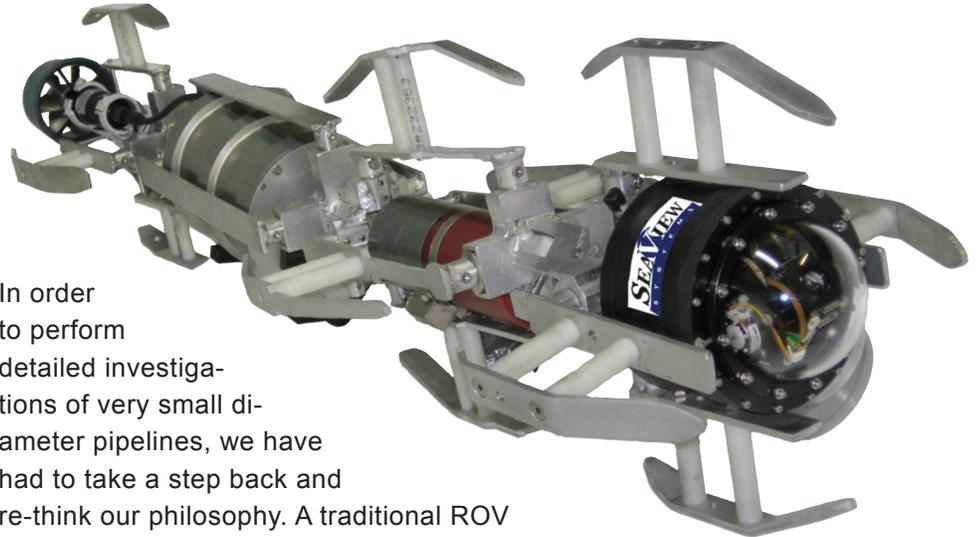


THE SERPENT ROV



Dimensions:
Height: 9"/230mm
Width: 9"/230mm
Length: 57"/1450mm

ROV weight: 70lbs/32kgs

Total system weight:
2000lbs/910kgs (shipped in
4 packages)

Umbilical : Up to
6000ft/1830m x 0.5"/13mm
neutrally buoyant fiber optic

Lighting: 2 x 70W high inten-
sity LED lamps

Thrust: 2 x Tecnydyne Model
300 brushless DC motors
Max Fwd thrust: 18lbs/8kgf

Cameras:

- 1x pan/orbit/zoom color camera (ca-
pable of 360° orbit)
- 2 DSPL color cameras
with internal LED lighting
- Sonar: Imagenex
881a profiler

Other Sensors:

- Heading
- Pitch and Roll
- Depth

Telemetry: Fiber optic
umbilical/telemetry system
capable of providing at a
minimum:

- 3 x video channels
- 4 x RS232 channels
- 2 x RS485 channels (one
used to control ROV and
one to operate sonar)

In order to perform detailed investigations of very small diameter pipelines, we have had to take a step back and re-think our philosophy. A traditional ROV based vehicle would not fit in some of the very small lines we are looking to investigate. Consequently, we are in final development of a vehicle capable of performing investigations of conduits as small as 9"/230mm diameter and with bends as tight as 27"/685mm radius. Though the vehicle is small it boasts a very strong capability.

OPTIONS

Data Playback Options

- 3rd party ODESSA MSX Video Viewer (allows for synchronous playback of up to 4 channels of video)
- SeaView 3D PipeWalk software. In house developed software allowing user to virtually "walk" through 3D model of pipeline while viewing 3 channels of recorded video.

Transport

- For operations within the US and Canada the equipment is generally hauled to the inspection location in a 10ft x 5ft covered trailer however the entire system is set up for air-freight as four packages with total weight of 2000lbs (910kgs).

Friction driven wheel line counter on umbilical

- Accurate to better than 0.2% of penetration distance.
- Penetration distance logged to disk for post processing and displayed on center tilt camera video

Video Overlay

- Configurable video overlay display showing such parameters as heading, depth, temperature, time and date, penetration distance, pipeline #, station #.

Recording

- All three video channels recorded independently to DVR
- Audio commentary recorded as required throughout
- Sonar/profiler data recorded continuously for report generation.