

Teledyne SeaBotix

vLBV and vLBC

vectored Little Benthic Vehicles and Crawlers



vLBV300 Mini ROV System

Oceanengineering can provide services using the Teledyne SeaBotix vLBV® 300 and vectored MiniROV systems. The vehicles include four manually-adjustable horizontal thrusters, arranged in a vector format, that deliver nearly equal horizontal thrust in 360-degrees of flight. The MiniROVs are ideally suited for work scopes including internal pipe inspections and in areas where there are high forward currents. Both systems benefit from high resolution cameras and sensors and include SeaBotix's low drag tether. Also available with SmartFlight™ automated navigation.

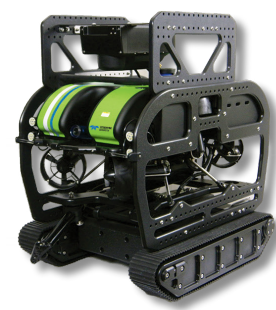
surface and the sensors, output data is the highest quality possible and operator fatigue is greatly reduced.

The patented Crawler Skid is attached to a standard vLBV300 MiniROV in minutes, converting it from a 4-axis ROV to a 5-axis hull and infrastructure crawler. No other system provides such a complete solution for quality underwater inspection and light work.

vLBC Crawler Systems

We can also offer the SeaBotix vLBC to enable ship hull and infrastructure inspections to meet the requirements of various military and commercial applications.

The system does not include magnets or thrusters and include a patented Vortex Generator capable of attaching to any relatively flat, hard surface. With no relative motion between the inspection



FEATURES

Optional USBL Tracking System

Optional Grabber

Optional Multi-Beam Imaging Sonar System

Features

- » 300 Meter Depth Rating
- » 6X Vectored Brushless DC Thrusters
- » 4X Lateral Thrusters (Adjustable)
- » 2X Vertical Thrusters
- » Versatile Sensor Platform
- » Low Drag Tether - 8.9 mm (0.35 in)
- » High Resolution Sensors
- » High Intensity LED Lights that Track with Camera
- » Optional Hull & Infrastructure Crawler

Standard features include a high resolution color camera, powerful LED lighting, depth, heading and temperature sensors, auto-depth, auto-heading and thruster trim, low-drag neutrally buoyant tether, and fully Integrated Control Console (ICC) with daylight-readable monitor. For operations using multiple sensors, upgrading the ICC to an Integrated Navigation/Control Console (INC) is recommended.

vLBV MiniROV systems

General	
Depth rating	300 m (1,000 ft)
Length	625 mm (24.6 in)
Width	390 mm (15.4 in)
Height	390 mm (15.4 in)
Weight in air	18 kg (39.9 lbs)

Thrusters/Performance	
Configuration	4 horizontal vectored, 2 vertical
Vector Angle	Adjustable 45°/35°, 35°, 18° or combination
Motor type	Brushless DC direct drive
Prop Diameter	100 mm (4.0 in)
Bollard Thrust	See matrix below
Speed at Surface	3 knots (1.54 m/sec)

Cameras/Lighting	
Camera	650 TVL high resolution color
Camera Tilt	180 Degrees
Sensitivity	.01 lux @ f2.0
Format	NTSC or PAL
Lighting	2,160 lumen LED tracking camera. 1080 per head
Focus	Fixed 100 mm (4.0 in) - infinity

Control system	
Configuration	Dual rugged cases, with monitor, OCU & SPS
Monitor	Color LCD, daylight readable
Power requirements	3300 W, 85-265 VAC (vLBV300) - typical
Safety	Isolated power, circuit breaker, LIM, leak monitor
Auto functions	Depth, heading, trim (speed)
Video overlay	Depth, heading, lights, thruster gain, turns counter, camera angle, time, date & user programmable characteristics, options status

Tether reel	
Diameter	8.9 mm (0.35 in) nominal
Length	250 m (820 ft) standard
Working load	100 kgf (220 lbf)
Breaking strength	700 kgf (1,543 lbf)
Buoyancy	Neutral in fresh water Slightly positive in salt water
Reel	Heavy duty with slip ring

Options	
Tether Lengths	250 - 2,000 m (820 - 6,562 ft)
Cameras	Low light b/w, zoom, rear facing, HD

Grabber	Three jaw, interlocking small, interlocking large, parallel and cutter
Sonar	Scanning sonar, multi-beam sonar, profiling sonar
Tracking	USBL positioning system

Console	Integrated Navigation and Control Console (INC)
Other	Additional lighting, thickness gauge, CP and more
Automated navigation	Also available with SmartFlight™ automated navigation

vLBC Crawler systems

General	
Length	625 mm (24.6 in)
Width	390 mm (15.4 in)
Height	500 mm (19.7 in)
Diagonal	634 mm (25 in)
Weight in air	35 kg (70 lbs)

Drive mechanism	
Drive Train	Tracked drive with single axle, dual motor/gearbox
Pulling Force	Up to 12 kgf (26 lbf)
Speed	35 m/min (115 ft/min)
Tracks	75 mm (3 in) wide 30.6 cm ² (4.75 in ²) contact area

Attraction device	
Type	SeaBotix Vortex Generator
Attraction	22+ kgf (48+ lbf)
Surface Capability	Any relatively flat, hard surface
Clearance	25 mm (1 in)

vLBV300 Bollard Thrust | 100 mm Props

45°/35° Vector	
Forward	18.1 kgf
Lateral	15.2 kgf

35° Vector	
Forward	19.4 kgf
Lateral	13.6 kgf

18° Vector	
Forward	22.5 kgf
Lateral	7.3 kgf

Crawler Skid Attachment (CSA) Contains	
Crawler Skid Assembly	
SeaBotix Vortex Generator	
Dual track, single axle system	
Connection cables	
Transit case	
Operator manual for vLBC	





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