



FUGRO BLUE VOLTA

An advanced remotely operated vehicle (ROV) designed specifically to be integrated and deployed from an uncrewed surface vessel (USV). Fugro Blue Volta applies the latest electronic hardware, software and flight control to carry out a range of remote inspection and light intervention tasks for your offshore project.

OUR APPROACH

The Blue Volta is designed to enhance offshore operations through its remote and autonomous capabilities. The Blue Volta whilst retaining the capability to be operated conventionally onboard a remotely operated vehicle survey vessel (ROVSV), barge, platform or rig, is the first ROV in the world designed from the outset to operate via Fugro's global network of remote operations centres (ROC). It is a compact, highly flexible, and extremely powerful electric ROV capable of operating to a depth of 450 metres from a USV or with simple modification extendable to 1000 msw for conventional crewed operations.

KEY FEATURES

The Blue Volta is designed to withstand the conditions of a free-swimming ROV, remotely launched and recovered directly from a USV. The polypropylene frame ensures protection and accommodates very high specification level range of sensors for inspection and light intervention that is not normally seen in an ROV of it's size. These include: CP, INS, MBES, photogrammetry and 7 function manipulator.

BENEFITS

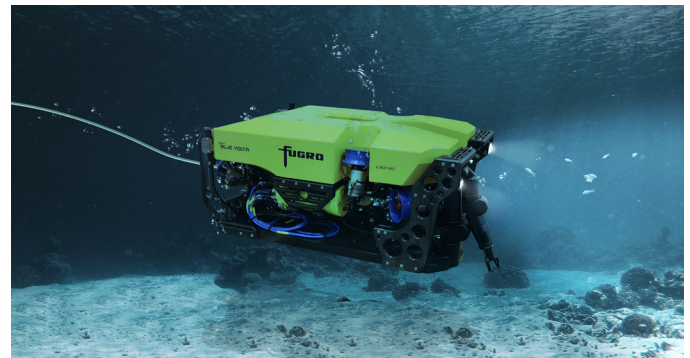
- Reduced HSSE exposure as the ROV can be operated through our global network of onshore remote operations centres
- Accelerated decision making through access to real-time visual, navigation and inspection data
- Access to higher quality Geo-data through improved ROV design and flight stability
- Increased productivity as the ROV focuses on it's specific scope of work

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ENHANCED VISUAL INSPECTIONS

Embedded within the ROV is Fugro's latest 4K smart vision system featuring embedded processing power and a motion reference unit (MRU). This high-fidelity vision system enables visual localisation, point cloud generation, target tracking, augmented reality and will aid in future ROV autonomous navigation.

The ROV can be deployed from an USV with a dedicated launch sled and umbilical management system (UMS) or conventionally from a ROV support vessel with or without a side entry tether management system (TMS) using a crane or a-frame launch and recovery system (LARS) and controlled from an ergonomically designed containerised control room.



Fugro Blue Volta eROV

Technical Specifications

Vehicle dimensions

Length	1500 mm
Height	650 mm
Width	880 mm
Weight (std config)	300 kg
Weight (pipeline)	350 kg
Payload	30 kg

Depth

Depth Rating (USV)	450 msw
Depth Rating (conventional)	1000 msw

Power

Propulsion	10 kW
Tooling	1.5 kW

Thrust

Forward / Aft	52 kgF
Lateral	45 kgF
Vertical	48 kgF

For / Aft Speed	2 knots (std config)
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Layout

Thrusters	4 x vectored horizontal 3 x vertical
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Tilt

1 x Sidus SS309 with position feedback
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Camera

1 x HD Colour Zoom	Imenco Subvis Pilot
1 x Rear Facing Colour	Imenco Pygmy Shark
1 x Tooling (optional)	Imenco Pygmy Shark
Fugro Proprietary Computer Vision	

Computer vision system

QV pattern tracking
High Fidelity Stills Imagery
Image acquisition for 3D reconstruction

Auto functions

Depth, altitude, heading control pitch, roll
Dynamic positioning (future release)
INS stabilised flight

Sensors

Heading	IxBlue ROVINS Nano
Doppler velocity log	Nortek DVL1000
Depth	Nortek DVL1000
Multibeam scanning sonar	Blueview M900-130
Multibeam echosounder	Norbit WBMS (optional)
Depth in Burial	TSS660E Pipetracker (optional)
CP	Project Specific
Bathymetric system	Valeport SV / Temp / Pressure

Manipulator

Blueprint lab	Reach 7
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12m Uncrewed Surface Vessel (USV)

Umbilical management system and launch sled	
Depth rating	450 msw
Drum capacity	540 m

Conventional operations

A-Frame / crane launch	1100m cable capacity
Tether Management System	250m tether capacity
16 ft control container	Complete with pilot chair / video wall
10 ft control container	

