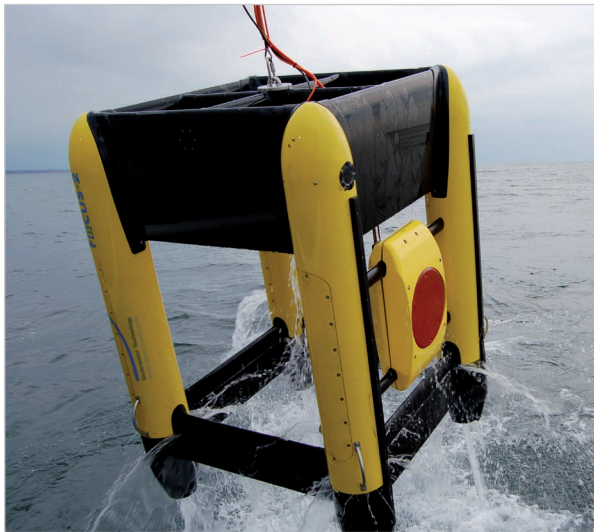


FOCUS 2

ROTV based survey system



FOCUS 2 is the 2nd generation ROTV in the FOCUS and TRIAXUS families.

The vehicle is constructed using carbon fibre technology and is based on the successful TRIAXUS vehicle design. FOCUS 2 uses state-of-the-art computer technology and fibre optic telemetry for vehicle and sensor communication providing high data capacity in a very efficient package.

A powerful industrial PC controls the vehicle based on inputs from the onboard vehicle control sensors according to the pre-programmed flight path. The tow cable is a small diameter, low drag electro-optic cable. It also supplies the power and control data to the vehicle. The high volume of data generated by the onboard instrumentation and sensors is transmitted to the surface via the NEXUS based fibre optic multiplexer system.

FOCUS 2 operates with a number of acoustic survey sensors and instruments simultaneously ensuring maximum usage of ship time. The system comprises the towed platform together with a user selected instrumentation package.

An electro-optic tow cable and a winch with a combined fibre optic and electrical slip ring. A user-friendly control and display unit with input and output for user selected sensors and instruments.

The system operates in depths of up to 400 metres at 2-10 knots with a controllable horizontal movement of +/- 80 metres. The cable layback ratio is a function of tow speed i.e. 1:5 at 5 knots and 1:3 at 3 knots.

The man machine interface (MMI) is an easy-to-use Windows based software package. The system is designed to carry a broad range of sensor packages from the leading manufacturers of underwater equipment including:

Survey equipment

- Side scan sonar (analogue and digital)
- Multibeam sonar
- Synthetic aperture sonar
- Mechanical, forward-looking sonar
- Mechanical, scanning profiling sonar
- Subbottom profiler
- Video camera
- Laser line scan camera
- Fibre optic gyro
- Motion sensor
- Bottom tracking doppler log
- Responder for USBL

Features and benefits

- Steerable towed data collection platform
- Highly stable in all planes
- Operating depth of 400 metres at 2-10 knots
- High data transmission rates
- Software controlled steering functions
- Built-in standard control sensors
- User-friendly controls and displays
- Modular, rugged and streamlined design
- Low noise magnetic and acoustic signatures
- High payload for multiple peripheral equipment
- Quick-change custom buoyancy packs
- Electro-optic tow-cable

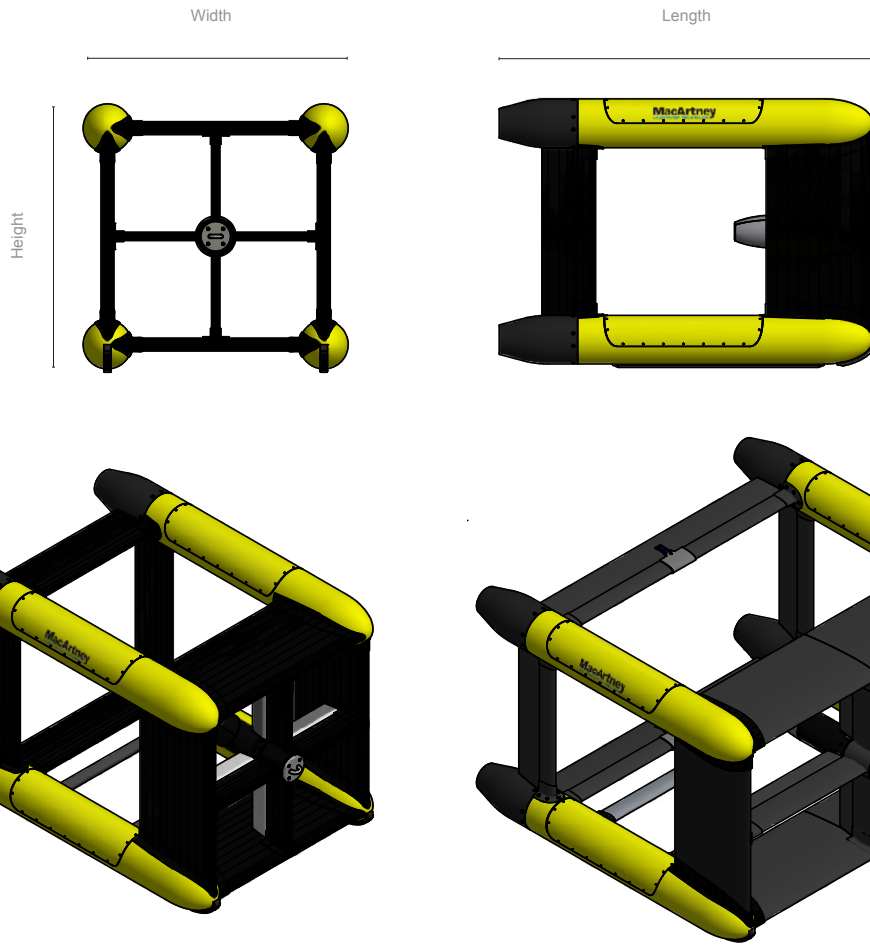
Applications

- Pipeline inspection
- Large area searches and MCM
- Site surveys and sea floor mapping
- Cable route surveys
- UXO detection

Standard vehicle control sensors

- Attitude sensor
- Depth sensor (Digiquartz)
- Altimeter





FOCUS
ROUV

Data Acquisition

Specifications

FOCUS 2 (standard version)

Depth:	400 m
Tow speed:	2-10 knots
Vertical speed:	5-100 cm/s
Payload:	40-50 kg
Dimensions:	(W x H x L) 1,250 x 1,250 x 1,850 mm
Weight:	120-160 kg* (depending on sensor configuration)
Materials:	Syntactic foam, carbon fibre

FOCUS 2E (extended version)

Depth:	400 m
Tow speed:	2-10 knots
Vertical speed:	5-100 cm/s
Payload:	50-80 kg
Dimensions:	(W x H x L) 1,950 x 1,250 x 1,850 mm
Weight:	130-170 kg* (depending on sensor configuration)
Materials:	Syntactic foam, carbon fibre

Power and data (both versions):

10 off full duplex serial data, channels RS 232, RS 422, TTL data formats, 10/100 Mb and 1 Gb Ethernet channels, 12/24/48 V DC power supply switchable from the topside unit

* Depending on sensor configuration