

ARCboat Lite



Key features

Light - weighs just 15.9 kg

Easy to transport - just 1.3 m long, with a detachable bow.

Clean and quiet - powered by electric motors

Fast - top speed of over 3 m/s

Efficient - continuous operation of up to four hours

Safe - easy deployment and operation by a single person

The ARCboat Lite has evolved from our award-winning ARCboat. This new, smaller lighter solution shares many of the features of the original vessel, but we have optimised it to carry out bathymetric and river current surveys in lower flow environments.

With a robust, lightweight hull, the ARCboat Lite has been specifically designed for use by a single person. Its detachable bow and grab rails make it easy and safe to handle, deploy and recover from survey sites.

High manoeuvrability and shallow draft combine to allow the ARCboat Lite to reach more of a survey site than has been previously possible.

The ARCboat Lite is built around a central moon-tube, which not only provides strength at the core of the vessel, but can also accommodate a wide range of sensors, such as SBES and ADCP, from a wide range of manufacturers. Other survey instrumentation, such as the top-box and communications equipment, is housed in the purpose designed hull recess.

The ARCboat Lite is a highly effective alternative to larger, more expensive survey vessels.



Specification

Dimensions

Overall length	1.33 m
Length without bow	0.98 m
Draft (with skids)	0.22 m
Beam	0.55 m
Sensor deployment depth	0.07 m

Weight

Total unladen weight	15.9 kg
Total unladen weight with batteries	16.9 kg
Largest sensor fitted	7.6 kg

Robust and reliable

The ARCboat Lite's strengthened fibreglass hull was designed by naval architects to minimise air entrainment and deliver consistent, high quality data collection.

The ARCboat Lite shares many features with the original ARCboat, from the bright yellow-green hull that makes it easy to spot on the water, to the detachable bow for easy transport. The lighter weight of the ARCboat Lite, however, has allowed us to fit a quick release catch, and a self-guiding and draining slot so even with cold, wet hands the bow is easy to attach.

Powerful, clean and quiet

The ARCboat Lite's thrusters are battery-powered so the vessel produces no emissions and is extremely quiet during operation.

The fixed external thrusters with aft mounted rudders make it highly manoeuvrable. Using differential thrust delivered by electric motors, it can turn in its own length. The rudders allow smooth ferry gliding with precise levels of control.

The externally mounted thrusters are easy to maintain or replace, and eliminating the propeller tubes means that the hull can be completely sealed.

The ARCboat Lite will be available with two thrusters designed for slower flow environments of up to 2 m/s, or with four thrusters optimised for faster flows of up to 3 m/s.

ARCboat Lite is supplied with a remote control with a range of up to 2 km, and displays the on-board battery voltage.

Innovative development

We continue to develop and enhance our range of ARCboats to meet the needs of our end users. The next phase of developments will include:

- > On-board cameras; to provide situational awareness and live feed back to the onshore surveyor
- > Autonomous control; plan a mission and the boat will drive its own survey, allowing the surveyor to concentrate on the data.
- > Water quality sensors; so users can sample water quality simultaneously with water flow data.

More information



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