

# USS accession

The USS Accession is a unique modular Unmanned Surface Vessel (USV) for coastal and offshore applications.

**USS**  
unmanned  
SURVEY SOLUTIONS



*'Built by surveyors, for surveyors'*

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## Unmanned Survey Solutions (USS)

USS designs and builds Unmanned Surface Vessels (USV's) for purchase or rent. At the heart of USS is a desire to make surveying easier, safer and cost effective compared to manned vessel solutions. Our designs are created from in-depth knowledge and experience of using sonars and other sensors for survey operations. We then incorporate ease of installation, calibration and operation of the payload equipment. Finally, the safety of operation and robustness when working in the marine environment, all form key aspects in how we create reliable products and solutions which we are proud to offer to the international market.

## The Accession USV:

- Is a unique modular design which offers three variable boat lengths depending on the desired configuration and additional hull sections
- Incorporates a reverse bow design and stabilisation fins for operating in challenging offshore environments
- Can operate in both coastal and offshore environments and is ideal for 'force multiplier' applications with a mothership
- Standard Remote Control (RC) capability for close proximity works and a semi-autonomous waypoint routing module for enhanced efficiency
- Direct vessel control via Hypack and QINSy for easier work flow solutions by allowing the data acquisition software to drive manual or autonomous lines
- Uses long-range Wi-Fi or 4G networks for running the survey operation through a remote terminal access to the onboard PC
- Is payload agnostic so can carry a wide variety of sensors bespoke to customer requirements including underway profiling and sensor towing
- Offers Unmanned Airborne Vehicle (UAV) drone and Remotely Operated Vehicle (ROV) deployment and recovery

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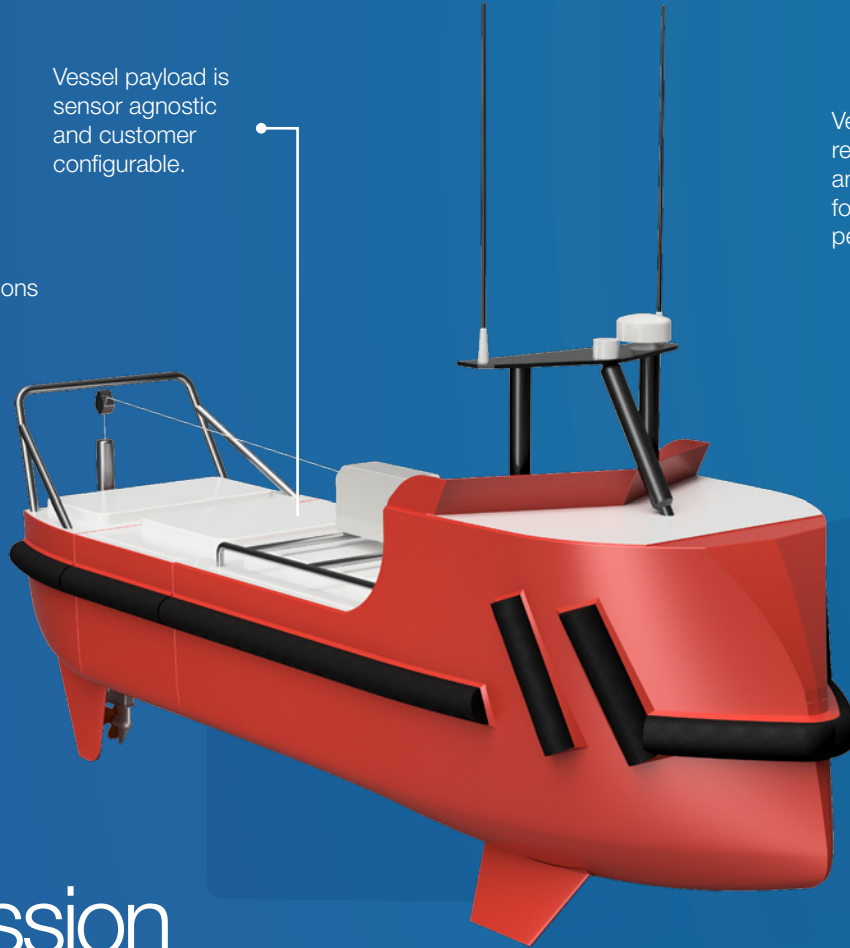
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Vessel payload is sensor agnostic and customer configurable.

Removable stern transom allows for additional hull sections to be added.

Vessel hull has reverse bow design and stabilisation fins for enhanced vessel performance.

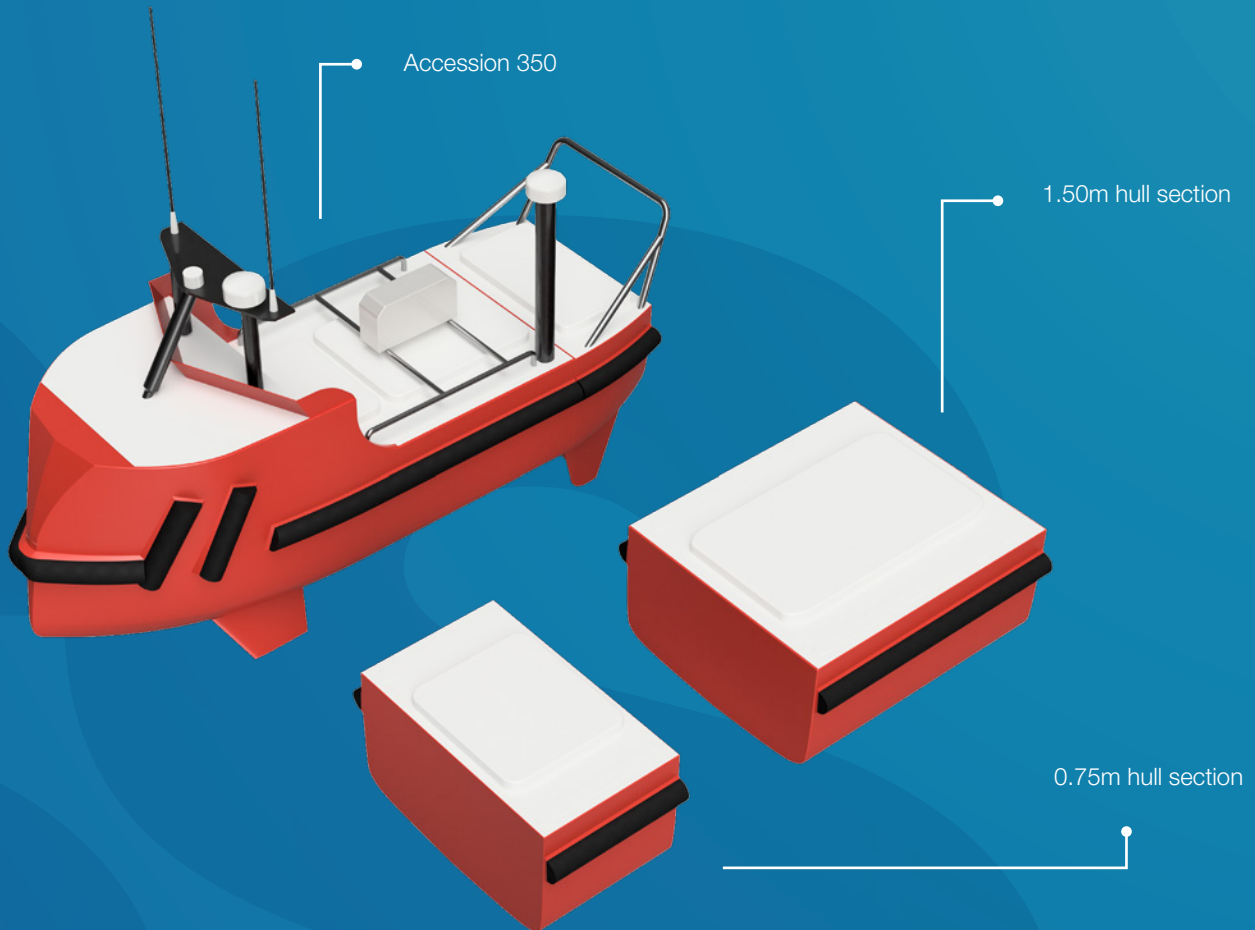


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The Unmanned Survey Solutions (USS) Accession Class Unmanned Surface Vessel (USV) is designed by surveyors, for surveyors. The modular design allows for base boat length of 3.50m to extend to 4.25m or 5.00m by adding additional hull sections. Payload agnostic and fully customer configurable the Accession USV offers unrivalled versatility for coastal and offshore deployments.

## One vessel, three solutions, multiple applications.

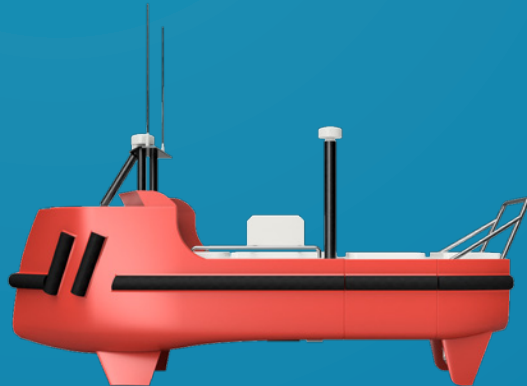
The design concept of the Accession USV gives the surveyor unprecedented versatility across many applications. By upgrading the base Accession 350 USV with additional hull sections, to 425 or 500 versions, each extra hull sections can have different payloads. For example, an extended endurance Geophysical survey could be undertaken from the Accession 500 then reconfigured on the back deck of the mothership with a different 1.5m hull section for the deployment of an ROV (through the hull) for visual inspection applications.





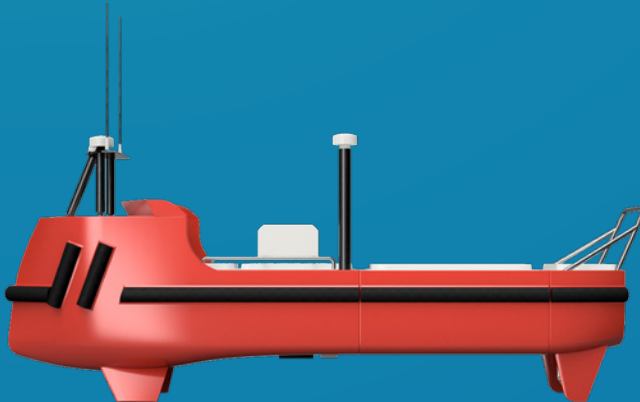
### **Accession 350**

This base design is optimised for MBES applications using DC power for up to 12-hour operations. Standard configuration includes RC and semi-autonomous waypoint following. Static or underway SVP deployment is also available.



### **Accession 425**

By adding a 0.75m section of hull to the base vessel, the longer 4.25m USV offers additional payload carrying capacity or extended endurance.



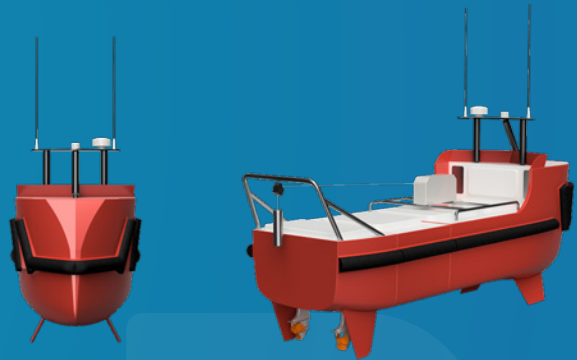
### **Accession 500**

By adding a 1.50m section of hull to the base vessel, the longer 5.00m USV offers additional payload carrying capacity and extended endurance of over 8 days

## SPECIFICATION

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|                          |   |
|--------------------------|---|
| <b>Length</b>            | 3.50 m, 4.25 m or 5.00 m  |
| <b>Width</b>             | 1.30 m  |
| <b>Height</b>            | 1.65 m  |
| <b>Weight</b>            | 250kg light ship  |
| <b>Hull Type</b>         | Mono hull with reverse bow design   |
| <b>Hull Composition</b>  | GRP   |
| <b>Power</b>             | DC powered thrusters as standard or diesel pods as required   |
| <b>Speed</b>             | Survey speed 5-6 knots, 8 knots max   |
| <b>Endurance</b>         | 12 hours to 8 days depending on configuration   |
| <b>Range</b>             | Long range Wi-Fi - 10-15km, 4G – unlimited with network coverage, over the horizon using INMARSAT                         |
| <b>Payload</b>           | Payload agnostic but optimised for Multi-Beam Echo-Sounders (MBES) and other Geophysical equipment                        |
| <b>Draft</b>             | 0.5m but depends on vessel configuration and payload weight   |
| <b>Launch / Recovery</b> | From a trailer on a slipway or beach, or from a quay wall or mothership using a bespoke Launch and Recovery System (LARS) |



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