

the UK's leading supplier of aids to navigation

# PRODUCT SUMMARY

ROBUST AND RELIABLE SOLUTIONS & SOLAR POWER SUPPLIES & HDPE MOUNTING PLATES SELF CONTAINED LIGHTS FOR SITES AND BARGES & MARKER POSTS FOR CAGES RADAR REFLECTORS & IALA COMPLIANT BUOYS WITH TOPMARKS







# world-leading aquaculture solutions

As the UK's leading supplier of aids to navigation, Hydrosphere have been providing robust and reliable aquaculture solutions to the marine industry for over 20 years. We provide a range of world-leading navigation lights and buoys for marking sites, as well as radar reflectors and mooring buoys.

In addition, Hydrosphere design and manufacture ancillary equipment including: solar and mains power supplies, monitoring and control systems, masts and moorings, and back these up with a full installation and maintenance service.

#### navigation lights

A range of solar powered, marine LED navigation lights for use on fixed and floating structures. All lights are able to exhibit all IALA flash characters.



#### VLB-1

A high capacity marine beacon with a range of 1NM at 0.74T. It is fitted with 0.96W solar panels rated at 6V and a 4.5Ah 4Volt GEL or AGM battery to provide a solar power system able to support the beacon in a variety of locations and flash characters.



#### VLB-2

An easy-to-program, high capacity marine beacon with up to 2NM performance at 0.74T and long-lasting battery. Available in red, green, white, yellow and blue, and compliant with IALA chromaticity requirements.



#### **VLB-67**

A high-energy efficient beacon designed for applications requiring a 2 to 4NM range at 0.74T. Available as standalone, self contained and large self contained models, with optional GPS synchronisation and leading, range, and wreck options.

#### features

- Self contained for single compact package
- High performance precision optics
- Cost-effective and easy to install
- Low power consumption for long-lasting, consistent operation
- Widespread application
- Low maintenance

#### navigation buoys

A choice of 1.2m diameter buoys designed to comply with NLB and CIL recommendations and suitable for various locations from inshore mussel farms to offshore deepwater finfish sites.



#### M 1200

A lightweight, multipurpose buoy. Particularly suited for channel marking of smaller harbours, fish farms, outfalls and as special marks for marking underwater scientific instrumentation. The steel keel hull gives good stability in tidal flows and is available in several different configurations depending on site conditions.



#### T 1200

A medium-buoyancy, tailtube buoy with an integral daymark shape containing an internal radar reflector. Highly suited for use in coastal locations where conditions may be too extreme for a small, skirted buoy. A short galvanised steel tailtube and adjustable ballast weights provide a stable platform for a small self contained solar powered light.



#### moorings and shackles

The mooring is an integral part of the system that will affect the performance and reliability of the buoy. On problematic locations we recommend a detailed mooring study be carried out to maximise reliability and minimise future maintenance costs. A range of chain and shackle supplies are available.

#### eatures:

- Moulded polyethylene flotation with UV stabilisation equivalent to 15 year's life
- Suitable for a range of self contained solar lights and radar reflectors
- Designed for ease of installation / maintenance
- Modular system to reduce spares holding
- M 1200 available with standard, upright storage, low draft and high current keel options

#### radar reflectors

A range of active-passive radar reflectors and target enhancers for marine use.



ECHOMAX 230 Midi Basemount

Suitable for navigation buoys and displacement hulls with speeds up to 15 knots. Features four integrally moulded fixing points for stability and reliability.



ECHOMAX 305 FPMS

High response radar reflector particularly suitable for navigation buoys. Built with a robust 3mm thick case with a flat top and base with customised fittings at either end.



Active-X Band and XS Dual Band Radar Target Enhancers

Receives a signal from transmitting radar, amplifies it and returns a stronger signal to help alert oncoming vessels of its position.

#### marker posts and crosses

The VLB-2 and VLB-67 can be easily fixed onto a 2.4m tall marker post mounted to a fish cage.



Available with 3 sizes of St Andrew's Cross topmark or with a Herikon Polyurethane topmark.

#### **HDPE mounting plate**

Designed for rail, pole and wall mounting including aquaculture farms, masts and poles, and wind farm harbour walls.



Available as standard or with U bolts, nuts and washers to suit either 50mm or 76mm diameter tubing.

#### barge light

 $\mathsf{VLB-2}$  navigation light customised for Port, Starboard and Stern lighting.





VLB-2 Available in Green (Starboard), Red (Port) and White (Stern).

The products illustrated in this summary are a sample of the range and variations available. All aquaculture solutions can be tailored to meet user requirements. Please contact us and we will be happy to guide you to the best specification for your need.

Compliant with all IALA recommendations.

Royal Institute of Navigation



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# specifications and applications

## navigation lights

Light	Max Night Range (NM at 0.74T)	Solar Powered	Input Power 12v dc	110 2101 40	Optional Synchronisation	Buoy/Cage	Barge	
Vega VLB-1	1	$\checkmark$			$\checkmark$	$\checkmark$		
Vega VLB-2	2	$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$	
Vega VLB-67	4	V	V	V	V	V	V	

### navigation buoys

Виоу	Diameter m	Mass Kg	Max Ballast Kg	Max Kg	Gross Buoyancy Kg	Reserve Buoyancy Kg	Inshore	Estuary	Coastal	Focal Plane m	Chain mm	Sinker Kg
T 1200	1.2	100	50	150	835	610	$\checkmark$	V	$\checkmark$	1.5	10 - 20	1000 - 1500
M 1200	1.2	85	N/A	85	380	295	$\checkmark$	$\checkmark$		1.5	10 - 20	500 - 1000

# the right product for the job

To make sure you get the right solution for your requirements consider all the factors that will affect the visibility and stability of the mark including: depth of water; sea conditions and current; lighting and range of light required; shape and topmarks; and focal plane.

## about Hydrosphere

Hydrosphere is the UK's leading supplier of aids to navigation and has been providing cost-effective solutions to the marine industry for more than 20 years. We offer a wide range of navigation and mooring buoys, LED navigation lights, sector lights, rotating beacons, leading lights, jetty masts, beach and zone marking products and associated moorings. Rental, installation and maintenance services are also available for all our products and systems.

#### For more information please contact us.



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