

The TIDAL™ 0.60m diameter Spar buoy features significant reserve buoyancy, it is ideal for deeper locations and provides a large visual signature. This Spar buoy design has proven ability to withstand significant coastal storms. The mooring-lifting assembly is designed to allow the buoy to be easily retrieved using the large lifting eye.

KEY FEATURES

- Rugged Polyethylene Construction
- 316 Grade Stainless Steel Mooring Eye to Lifting Eye
- Easy to store in depot and on deck
- Threaded inserts for attaching solar powered lantern
- 100% Recyclable after a long service life

MANUFACTURED TO LAST

Virgin colour compounded UV-20 polyethylene designed and tested to provide long-lasting colour fade and impact resistance. Completely foam filled to prevent water ingress if the buoy is damaged.

INTERNAL RADAR REFLECTOR

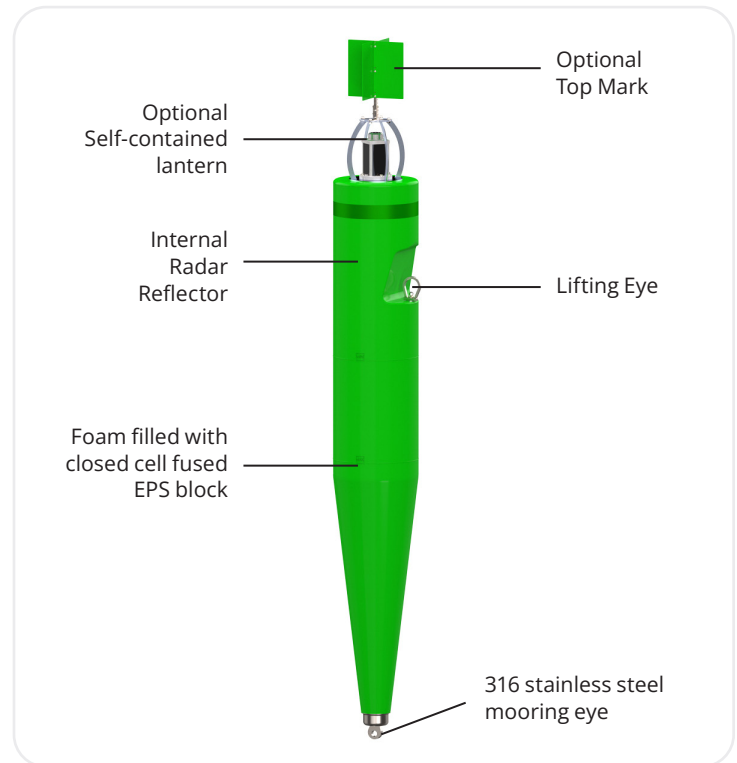
The upper daymark section of the buoy contains a 24m² RCS (avg) large internal radar reflector that Coast Guard clients have confirmed has a 1.25+ NM range.

RESILIENT DESIGN

The significant operational and reserve buoyancy allow the buoy to be deployed in deeper and more exposed waterways. The spar shape allows the buoy to perform in coastal swells and survive storms.

COLOUR CONFIGURATION

Available to meet the requirements of all IALA Colour / Configuration recommendations with top marks and self-contained lanterns.



RECYCLING AND REUSE

All TIDAL™ buoys are manufactured solely with materials that are readily recyclable; items like the radar reflector are designed and secured so they can be re-used. Call to discuss how you or TIDAL™ can recycle your buoys.



GENERAL SPECIFICATIONS

Diameter	24 in	0.61 m
Height	158 in	4.00 m
Mass	234 lbs	106 kg
Hull Floatation Volume	30.0 ft ³	0.848 m ³
Submergence (Freshwater)	16.4 lbs/in	2.92 kg/cm
Max. Mooring Mass (Air Weight)	992 lbs	450 kg
Min. Mooring Mass (Air Weight)	441 lbs	200 kg
Draught (at Min. Mooring Mass)	79.1 in	2.01 m
Reserve Buoyancy (at Maximum Mooring Mass)	257 lbs	116 kg

PERFORMANCE SPECIFICATIONS

Focal Plane Height (at Min. Mooring Mass)	90.7 in	2.30 m
Visible Height (at Min. Mooring Mass)	117.6 in	2.99 m
Visual Area / Surface (at Max Visible Height)	14.3 ft ²	1.33 m ²
Distance of Recognition (at Max. Visible Height)	1.85 NM	3.42 Km
Radar Range	1.15 NM	2.13 Km
Internal Radar Reflector (RCS: Peak / Average over 360°)	24 m ²	

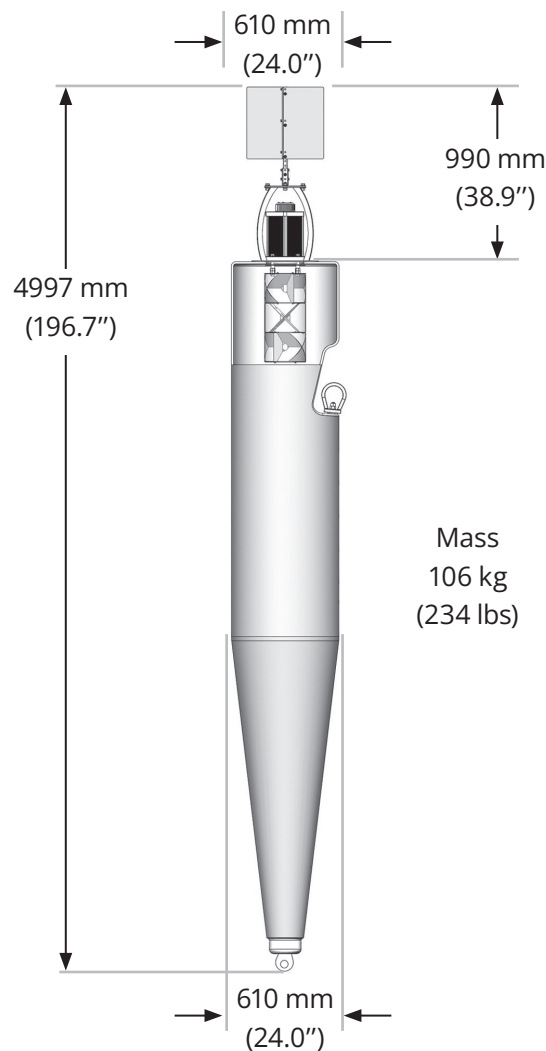
MATERIAL SPECIFICATIONS

Topmark	Conical topmark available
Buoy Hull	Virgin MDPE with UV20 protection package
Wall Thickness	3/8 in 10 mm
Foam Filling	Closed cell EPS fused in situ block
Mooring & Lifting Assembly	316 stainless steel
Safe Working Load (SWL)	1,433 lbs 650 kg
Colours	Compliance with IALA Recommendation R0108
IALA Compliance Testing	Independent laboratory test results available
Colourfastness Test Procedure	Xenon Arc Accelerated Weathering per ASTM D-2565
Colourfastness Testing	Independent test results available per ASTM D-2244
Product Life Expectancy	15 - 20 years
Warranty	5 years

Mooring Line Design

- Mooring design to optimize the performance of each buoy.
- Advanced 3D dynamic analysis of the mooring line and buoy.
- Supply of custom mooring lines with proven components.
- Catenary, inverse-catenary, chain, and synthetics.

Our advanced modelling software can perform dynamic analysis of the interaction between the mooring line and the buoy in normal "operating" conditions to assess and optimize buoy performance. Importantly, this dynamic analysis is also used to assess performance across a range of "survival" conditions.



We carry a wide range of self-contained and externally powered lights for navigation buoys from world leaders such as Sabik, Sealite, Ekta, and Vega.

Depending on the size and use of the buoy, we offer options such as AIS Type I or Type II, Remote Monitoring & control, and on-board solar power systems.

PERFORMANCE SUMMARY

