**Purchase Specifications for a
3000mm diameter Ocean Buoy**

**Overview**

This specification is for a 3000mm diameter ocean buoy.

The buoy shall have a 3 meter float diameter.

The buoy shall be rotationally-moulded using UV-stabilized, virgin polyethylene.

The buoy shall be constructed using a central float hull section with float collars.

The tower assembly of the buoy shall be constructed using rotationally-moulded using UV-stabilised, virgin polyethylene.

The buoy shall have forklift access points to safely manoeuvre the buoy assembly.

**1.0 General Characteristics**

The buoy shall be available in red, green, white or yellow as per IALA Recommendations.

The buoy shall not require a steel mooring post.

The buoy shall have a focal height up to 4.94 metres.

The buoy shall have a total float volume of up to 9587 litres (2532 US gallons).

The buoy shall have a nominal freeboard of 1095mm (43 $^{1}/\_{10}$ inches).

The buoy shall have a nominal draft of 845mm (33 $^{3}/\_{10}$ inches).

The buoy shall have a reserve buoyancy of 2650kgs (5842 lbs).

The maximum mooring load of the buoy shall be 2650kgs (5842 lbs).

The buoy shall have a maximum draft of 1240mm (48 $^{3}/\_{5}$ inches).

The buoy shall have a minimum freeboard of 700mm (27 $^{4}/\_{5} $inches).

The buoy shall have a safe working load of 5000kgs (11023 lbs) at one (1) point and 10000kgs (22046 lbs) for two (2) points.

The buoy shall have a submergence of 63kg/cm (352 $^{3}/\_{5}$ lb/inch).

The visual area of the buoy shall be up to 5.9m² (63 ½ ft²) without daymarks and up to 7.2m² (77 $^{7}/\_{10}$ ft²) with daymarks.

The water area of the buoy shall be 1.3m² (14ft²).

**2.0 Physical Characteristics**

The buoy shall be rotationally-moulded using UV-stabilized, virgin polyethylene.

The float section of the buoy shall have a wall thickness of 11mm (0.43 inch).

The buoy shall have 316-grade stainless steel fixtures.

The buoy shall have a ballast of external steel with a weight of 500kg (1102lbs).

The buoy shall have a height of 6010mm (236.6 inches).

The buoy shall have a width of 3000mm (118 $^{1}/\_{10}$ inches).

The buoy shall have a mass of 1825kgs (4023lbs) depending on payload.

The buoy shall come with a radar reflector.

The life expectancy of the buoy shall be >20 years.

The buoy shall have 9 chambers in the float, 1 core and 8 collars.

**3.0 Options**

The buoy shall be offered with the following options available from the manufacturer:

* Aluminium number signs
* Day marks
* AIS monitoring system
* GSM monitoring system
* Closed-cell polyurethane foam filled float section
* Suitable marine lanterns

**4.0 Certifications**

The manufacturer shall be ISO9001:2015 certified.

The manufacturer must be a current IALA Industrial Member of at least 15 years continuous membership.

The manufacturer must supply an independently certified Compliance Certificate complying with IALA Guidelines NO: 1006, on plastic Buoys.

**5.0 Warranty**

The buoy shall have a five (5) year warranty.