**Purchase Specifications for a
3000mm diameter Ocean Buoy
with Polyethylene Tower Assembly**

**Overview**

This specification is for a 3000mm diameter ocean buoy.

The buoy shall have a 3.0 meter float diameter.

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

The buoy shall be constructed using a four (4) quadrant hull section.

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

**1.0 General Characteristics**

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

The buoy shall have a focal plane height up to 5100mm (200¾ inches).

The buoy shall have a total float volume of 11000 litres (2906 US gallons).

The buoy shall have a nominal freeboard of 1240mm (48¾ inches).

The buoy shall have a nominal draft of 1945mm (76½ inches).

The buoy shall have a reserve buoyancy of 3170kgs (6990lbs).

The maximum mooring load of the buoy shall be 2750kgs (6063lbs).

The buoy shall have a maximum draft of 2400mm (94½ inches).

The buoy shall have a minimum freeboard of 800mm (31½ inches).

The buoy shall have a safe working load of 6000kgs (13228lbs) at one (1) point and 8630kgs (19025lbs) for two (2) points.

The buoy shall have a submergence of 72.0kg/cm (403lb/inch).

The visual area of the buoy shall be 7.1m² (76.4ft²) with daymark and 6.4m² (68.9ft²) without daymark .

The water area of the buoy shall be 2.1m² (22.6ft²).

**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 16mm (⅝ inch).

The buoy shall have 316-grade stainless steel fixtures.

The buoy shall have a ballast of external steel with a weight of 765kg (1687lbs).

The float section of the buoy shall be filled with closed-cell polyurethane foam.

The buoy shall have a height of 7900mm (311 inches).

The buoy shall have a width of 3000mm (118⅛ inches).

The buoy shall have a mass of 2580kgs (5688lbs) depending on payload.

The buoy shall come with a radar reflector.

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

**3.0 Options**

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

* Mould-in graphics
* Day marks
* Top marks
* Rotationally-moulded side-panelling
* Unfilled float section
* AIS monitoring system
* GSM monitoring system
* Suitable marine lanterns

**4.0 Certifications**

The manufacturer shall be ISO9001:2008 certified.

The manufacturer must be a current IALA Industrial Member.

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.