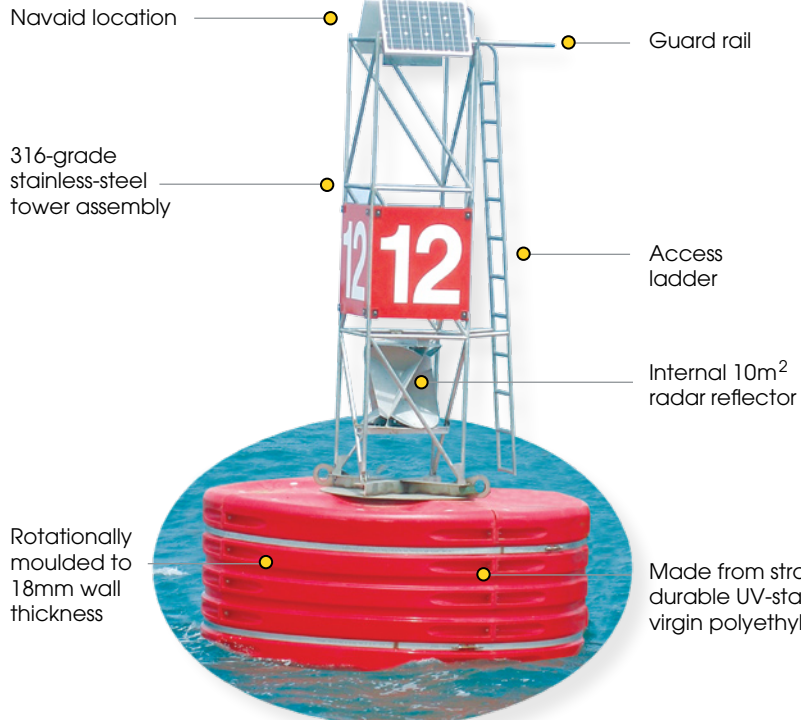


# TRIDENT-3000

## 3000mm dia. Ocean Buoy

### New Feature

Now available with poly-tower section and day marks for increased visibility



### The Sealite Advantage

- High visibility red, green, white or yellow as per IALA recommendations
- 3mtr diameter
- 5mtr focal height
- Robust construction of 4 quadrant hull sections
- Lightweight
- Large battery & payload section
- Excellent buoyancy & stability
- Easy to deploy & service
- 100% recyclable
- No painting, ever
- Cost effective & environmentally friendly
- Convenient forklift access points to safely maneuver the buoy assembly

**The Trident-3000 is one of the largest rotationally-moulded buoys available, with a float diameter of 3 meters and lantern focal height of up to 5 meters.**

The float section of the Trident-3000 is built from four (4) roto-moulded quadrants, which fasten together to form an incredibly robust 3 meter wide float section standing 1.8m tall. Each quadrant is moulded from UV-stabilised virgin polyethylene, and has an 18mm wall thickness. In addition, each section is filled with closed-cell polyurethane, which prevents the ingress of moisture in the unlikely event of damage.

A 316-grade stainless-steel mooring pole runs through the centre of the assembly, to which the tower section is fastened. Two large lifting eyes aid in buoy mooring and periodic servicing.

The four-sided tower section of the Trident-3000 provides unsurpassed strength, and is fabricated from 316-grade stainless-steel – providing an estimated lifespan in excess of 20 years.

Rotationally moulded paneling is fitted to the outside of the tower section to create a large, coloured visual area for marking. The replaceable paneling also simplifies cardinal marking, and gives operators flexibility in stocking spare components. No part of the structure requires painting at any stage of the products lifespan.

An integrated ladder with harness attachment points runs vertically up the tower to the top platform. The internal top operational platform is designed to provide a safe working area for contractors.

The buoy is lightweight, and can be rested upright on the vessel deck for ease of deployment and final inspection.

A large counterweight offers exceptional stability in a variety of exposed regions.

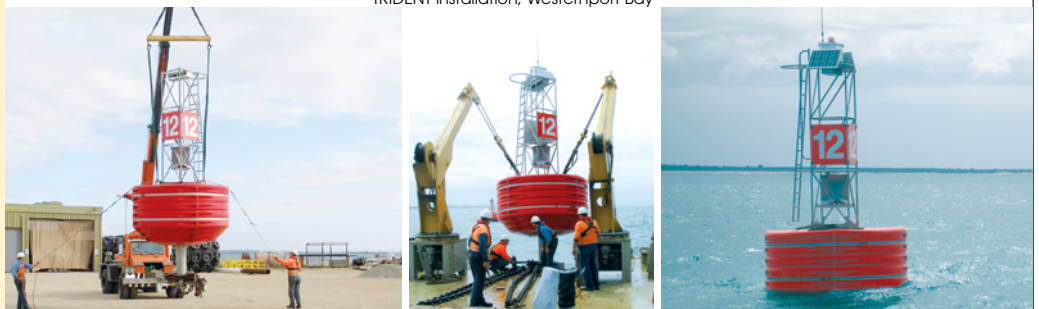
The Trident-3000 can be supplied in all IALA colours, and side-panelling is available to aid in clear lateral marking – creating a huge visual area.



**Environmentally Friendly & Completely Recyclable**

Sealite buoy products are made from 100% recyclable materials. As a service to customers, individual components and products at the end of their service life may be returned to Sealite for recycling.

TRIDENT installation, Westernport Bay



**Head Office:**  
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AUSTRALIA

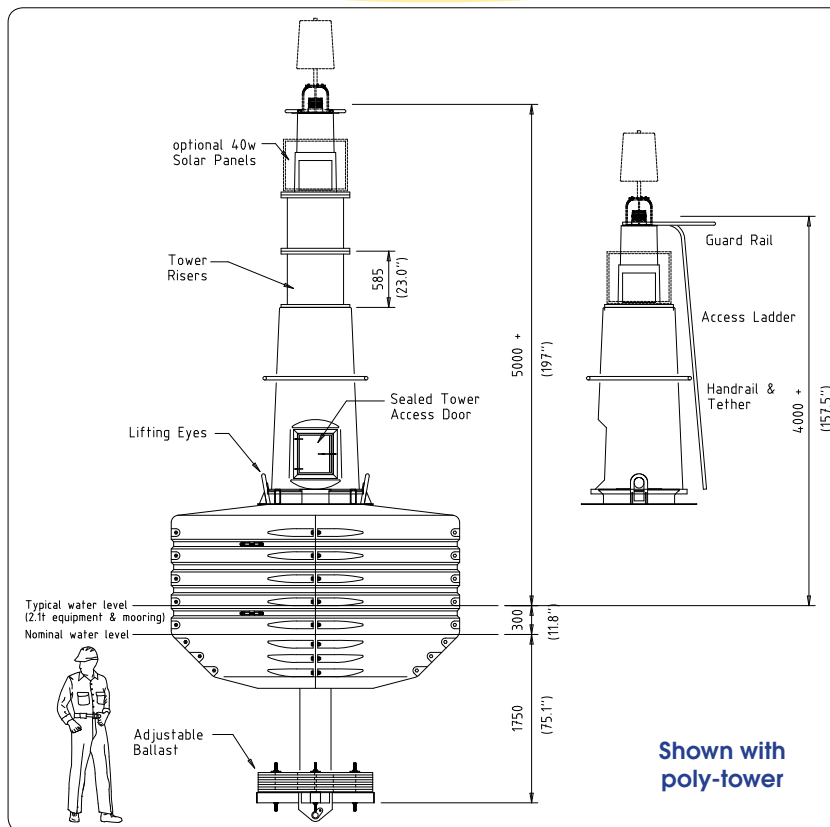
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# TRIDENT-3000

## 3000mm dia. Ocean Buoy



### SPECIFICATIONS •

#### General Characteristics

Available Colours  
Focal Plain Height (mm/inches)  
Total Reserve Buoyancy (kg/lbs)  
Draft, Typical (mm/inches)  
Freeboard (mm/inches)  
Maximum Mooring Load (kg/lbs)

Red, Green, White, Yellow as per IALA Recommendations  
5000 / 196  
6500 / 14317  
1700 / 667<sup>1</sup>/<sub>8</sub>  
1200 47<sup>1</sup>/<sub>4</sub> to 300 / 11<sup>3</sup>/<sub>4</sub>  
2750 / 6063

#### Physical Characteristics

Material

Rotationally moulded UV-stabilised virgin polyethylene float section, 316-grade stainless-steel mooring pole, 316-grade stainless-steel tower assembly, rotationally moulded UV-stabilised virgin polyethylene top marks and panelling

Wall Thickness (mm/inches)  
Ballast (kg/lbs)  
Filling  
Height (mm/inches)  
Width (mm/inches)  
Mass (kg/lbs)  
Product Life Expectancy

18 <sup>3</sup>/<sub>4</sub>  
600 / 1322 external steel  
Closed-cell polyurethane foam  
6690 / 263<sup>2</sup>/<sub>8</sub>  
3000 / 118<sup>1</sup>/<sub>8</sub>  
2050 / 4515 (depending on payload)  
>20 years

#### Certifications

Quality Assurance

ISO9001:2000

#### Intellectual Property

Trademarks

SEALITE® is a registered trade mark of Sealite Pty Ltd

#### Warranty \*

1 year

#### Lantern Options

Sealite SL60, SL70, SLC310, SLC420 or SL125 series of lantern

#### Accessory Options

- Mould-in graphics
- Sealite IALA recommended top marks
- Rotationally moulded side-panelling
- Monitoring Systems (AIS, GSM cell-phone)

CE

• Specifications subject to change or variation without notice \* Subject to standard terms and conditions



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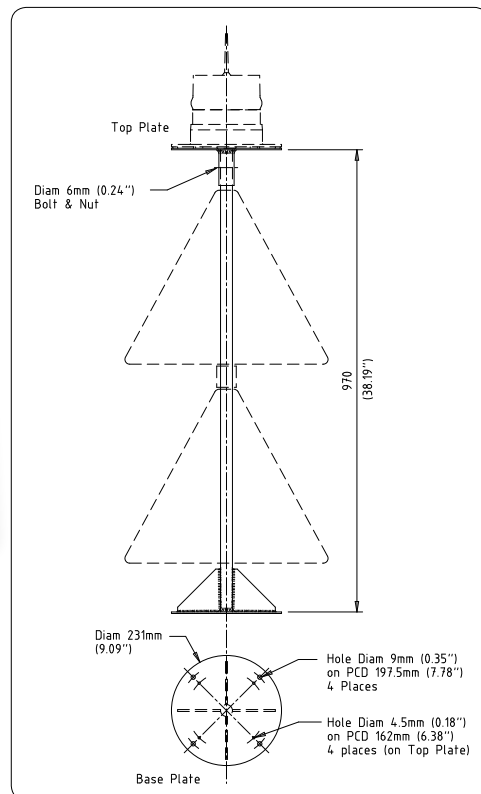
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# IALA Top Marks

Optional  
316-grade  
stainless-steel  
mounting plate  
for lantern  
installations

Rotationally-  
moulded to  
3mm wall  
thickness

Industry  
standard  
200mm OD  
base plate



**Designed and manufactured in accordance with IALA recommendations, Sealite's range of Top Marks offer flexibility and reliability, and are a low cost and maintenance, high visibility solution to marine navigation.**

The Top Marks are rotationally-moulded on-site from UV-stabilised virgin polyethylene with a wall thickness of 3mm, and are available in a range of IALA recommended colours and configurations to suit both IALA Regions A and B.

With a 26mm (1 inch) internal stainless-steel pole and industry standard 200mm OD mounting plate, Sealite's range of IALA Top Marks can be easily attached to any existing navigation aid.



| Order Code | Description                                       | Dimensions (mm)<br>Height x Width* | Weight (kg/lbs)* |
|------------|---|------------------------------------|------------------|
| TM-PH.A    | Port Hand Mark- 1 red cylinder (IALA Region A)    | 500 x 390                          | 3.2 / 7          |
| TM-PH.B    | Port Hand Mark- 1 green cylinder (IALA Region B)  | 500 x 390                          | 3.2 / 7          |
| TM-SH.A    | Starboard Hand Mark- 1 green cone (IALA Region A) | 360 x 460                          | 2.2 / 4¾         |
| TM-SH.B    | Starboard Hand Mark- 1 red cone (IALA Region B)   | 360 x 460                          | 2.2 / 4¾         |
| TM-CARD-N  | North Cardinal Mark- 2 black cones                | 360 x 460                          | 2.2 / 4¾         |
| TM-CARD-S  | South Cardinal Mark- 2 black cones                | 360 x 460                          | 2.2 / 4¾         |
| TM-CARD-W  | West Cardinal Mark- 2 black cones                 | 360 x 460                          | 2.2 / 4¾         |
| TM-CARD-E  | East Cardinal Mark- 2 black cones                 | 360 x 460                          | 2.2 / 4¾         |
| TM-ISO     | Isolated Danger Mark- 2 black spheres             | 360 x 360                          | 2.2 / 4¾         |
| TM-SW      | Safe Water Mark- 1 red sphere                     | 360 x 360                          | 2.2 / 4¾         |

\* Specifications subject to change or variation without notice

**All Top Marks are manufactured with UV-stabilised virgin polyethylene, with a wall thickness of 3mm. Diameter of internal pole is 26mm.**



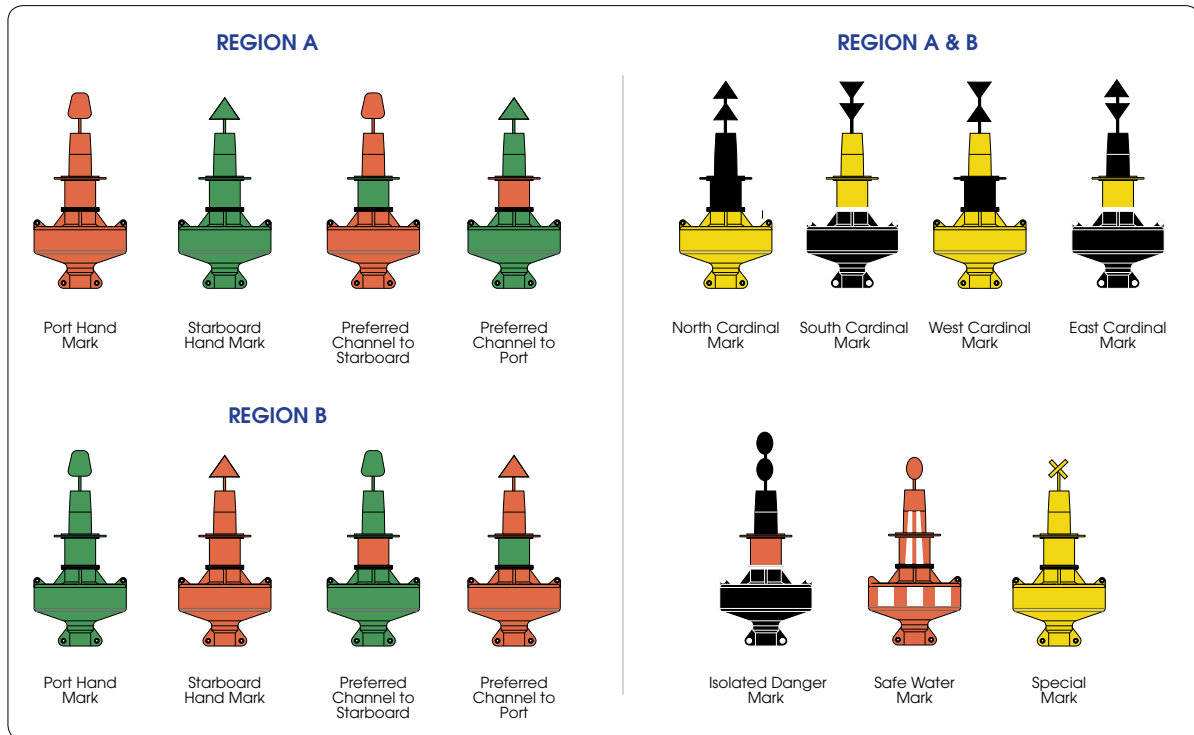
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# Buoy Configurations for IALA Regions A and B



**The Sealite buoy division provides turn-key production of navigation buoys from tooling development, raw material selection and production, to final testing and inspection.**

Keeping this entire process in-house allows Sealite to guarantee the superior quality of its products and ensures fast turnaround times.

Each buoy product is rotationally-moulded from UV stabilised virgin polyethylene, with individual components of Sealite's larger buoy products moulded in various colours to suit a range of IALA recommended configurations.

## Why Choose Polyethylene Buoys?

- No Painting
- Inhibits Growth
- Increased interval between servicing
- Routine maintenance on location
- Easily repaired in the unlikely event of damage
- Lightweight for ease of deployment and maintenance
- Environment friendly - no use of toxic antifouling paint



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*"Our experience  
for your convenience"*



**Sealite can provide turn-key mooring solutions for the range of buoy products, enabling complete systems to be containerised and delivered to customer sites around the world.**

As a service to valued customers, Sealite has developed an advanced mooring calculator based on IALA guidelines and experience from major users.

Known as SeaMoor™, this facility is available free of charge by contacting Sealite.

The system simulates site mooring based on the following easy steps:

#### **Step 1. Select Buoy Model**

Customers select which Sealite buoy they're planning to use in their installation.

#### **Step 2. Select Water Depth**

Customers select the water depth of their proposed installation.

#### **Step 3. Confirm Recommended Chain Size**

The calculator will recommend a chain size at this point, which the customer can confirm or choose a larger or smaller size. The calculator will perform simulations based on this data.

#### **Step 4. Set Maximum Wind Speed**

Users enter the likely maximum wind speed. Wind speed will affect the buoy performance in different ways, depending on the exposed wind area of the navaid.

#### **Step 5. Set Maximum Current**

Customers enter the maximum water speed, which will affect both the buoy and chain.

#### **Step 6. Simulate Chain Length**

The calculator will recommend a chain length at this point, based on the available information entered. Customers can adhere to this information, or select their own length. The calculator will perform simulations based on this data.

#### **Step 7. Simulate Sinker Mass**

The calculator will recommend a sinker mass, based on the available information entered. Customers can adhere to this information, or select their own mass. The calculator will perform simulations based on this data.

The calculator will then simulate navaid mooring using all of this available data, and produce a parts list of required components.

## The Sealite Advantage

- Complete range of mooring chain & accessories to compliment Sealite buoy products
- IALA recommended mooring solutions calculated with Sealite advanced SeaMoor™ mooring calculator
- Flexibility in manufacture to meet various installation requirements & local conditions
- One-stop for all marine AtoN equipment



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## Sealite Mooring Calculator

Select buoy type and installation parameters to view mooring simulation

Buoy Location indicates an approximate watch circle given the mooring chain length and total water depth

Buoy Depth indicates how deep the buoy will float in the water (draft)

| Code    | Description       | Size           | Quantity |
|---------|-------------------|----------------|----------|
| SLB2000 | Buoy Assembly -04 | 30mm, 11mm Pin | 1        |
| SLB2000 | Buoy Assembly     | 40mm           | 1        |
| SL122   | 30mm, 11mm Pin    | 30mm, 11mm Pin | 2        |
| SL122   | 30mm, 11mm Pin    | 40mm           | 10       |
| SL122   | 30mm, 11mm Pin    | 30mm, 11mm Pin | 2        |
| SL122   | 30mm, 11mm Pin    | 40mm           | 12       |
| SL122   | 30mm, 11mm Pin    | 30mm           | 1        |
| SL122   | 30mm, 11mm Pin    | 40mm           | 1        |
| SL122   | 30mm, 11mm Pin    | Chain          | 1        |
| SL122   | 30mm, 11mm Pin    | Setter         | 1        |

By changing the various mooring parameters (eg. chain length) users can visualise the affect on the installation

Shows a list of recommended parts for mooring Sealite's buoy

Users can check that the Proof Load listed in Step 3 is greater than the Minimum Proof Load. Heavier chain may be required to ensure this



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