**Tridel Deep Water Buoy**

The Tridel TDB3000 is a 3.0-meter diameter deep water buoy, purpose-built from UV-stabilized, marine-grade polyethylene (PE) with a closed-cell polyurethane foam core. Designed for long-duration deployment in deep-sea and offshore environments, it offers exceptional buoyancy, structural integrity, and operational stability under extreme marine conditions.

**Key Features:**

* Diameter: 3.0 meters, optimized for high visibility and buoyancy
* Construction: Rotomolded PE outer shell with internal closed-cell PU foam, ensuring unsinkability and excellent impact resistance
* Corrosion-Free: 100% PE structure eliminates rusting, marine fouling, and degradation—no painting or recoating required
* High Freeboard: Maintains visibility in rough seas and supports top-mounted equipment
* Solar-Ready: Integrated mounts for solar panels and housing for battery banks to support autonomous operation
* Mooring System: Equipped with reinforced internal steel structure, mooring eyes, and lifting points, rated for deep water mooring (>1000m)
* Payload Mounting: Central platform accommodates sensors, telemetry units, compact winches, or acoustic equipment

**Typical Payload Options:**

* Marine lanterns (IALA-compliant)
* AIS transceivers
* Radar reflectors and day marks
* Environmental sensors (CTD, ADCP, weather)
* Satellite/GSM telemetry modules
* Meteorological sensors

**Technical Specifications:**

| **Parameter** | **Specification** |
| --- | --- |
| **Diameter** | 3.0 meters |
| **Height (above water)** | ~0.9–2.5 meters (adjustable) |
| **Material** | UV-stabilized polyethylene with foam core |
| **Net Buoyancy** | Up to 5000 kg |
| **Payload Capacity** | 1500–2000 kg (depending on configuration) |
| **Mooring Depth** | Suitable for depths over 1000 meters |
| **Power** | Solar panels with battery enclosure |
| **Maintenance** | Very low; corrosion- and UV-resistant |

**Applications:**

* Offshore oil & gas field marking
* Oceanographic and environmental monitoring
* Scientific instrument deployment in deep water
* Long-range navigation aid in open sea

The TDB3000 combines durability, simplicity, and adaptability, making it the ideal choice for clients requiring low-maintenance, high-performance buoys in deep water applications.









