

## Used throughout the World

Reef Ball Australia is the licensed manufacturer of 'Reef Balls', the US patented, and most widely used artificial reef unit in the world.

Reef Balls have proven to be effective in over 56 countries and have been selected by the **Queensland, New South Wales** and **Victorian Government** for construction of fishing reefs in Australia.

## Marine Friendly Concrete

Reef Balls are manufactured using a very high strength (60+ MPA) marine grade concrete with no potentially toxic additives or steel rebar. Expected lifespan of such concrete in seawater exceeds 500 years.

The concrete mix and construction technique creates a very rough surface texture that maximises colonisation and primary productivity. CO2e emissions from the manufacture of the concrete are offset via accredited carbon credits.

## Designed for Maximum Productivity

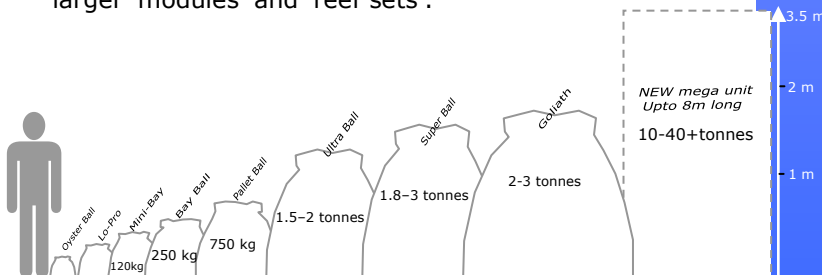
The standard single Reef Ball unit is hemispherical with a hollow centre and a varying number of holes through the side walls as well as the top.

This design provides:

- Maximum surface area for fouling organisms
- Large and small voids
- Maximum stability due to majority of weight in bottom third of the unit
- Wave and current attenuation which increases stability and creates numerous eddies inside and around the unit that entrain plankton and larvae
- Aesthetically pleasing and suitable for tourist applications
- Demonstrated to achieve similar assemblages as natural reefs

## Off the Shelf or Custom Designs

Custom designs and weights are available including units over 2m in height. Individual Reef Balls can also be cast together or piled on top of each other to create larger 'modules' and 'reef sets'.



See over for applications and projects....

# Artificial Reef Units

Goliath units for offshore fishing reefs and breakwaters



Natural 'rocky' looking units for habitat restoration



Variety of holes and ledges can be created for lobsters, corals and other species



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ReefBall  
AUSTRALIA



SMALL BUSINESS  
CHAMPION  
AWARDS  
STATE WINNER 2015

## Applications

- Recreational fishing reefs
- General fisheries enhancement
- Impact mitigation
- Coral reef restoration
- Enhancement of coastal structures, canal estates, jetties
- Lobster enhancement / aquaculture
- Trawl zone protection
- Diving and snorkelling reefs/trails
- Shoreline protection - multipurpose breakwaters for resorts/tourism
- Mangrove restoration

## Examples of Projects

### Industry and Investment New South Wales

**Objective:** Enhancement of recreational fishing in estuaries.

**Status:** Over 3,000 Reef Balls have been deployed in Lake Macquarie, Lake Conjola, Botany Bay, Merrimbula Lake, and St Georges Basin. Results have exceeded expectations.

<http://www.dpi.nsw.gov.au/fisheries/recreational/saltwater/artificial-reefs>

### Victorian Department of Primary Industries

**Objective:** Creation of three recreational fishing reefs in Port Phillip Bay as part of the enhanced recreational fishing program. Target species is snapper.

**Status:** Completed May 2009 and monitoring has confirmed the reefs are supporting large numbers of snappers and many other species.

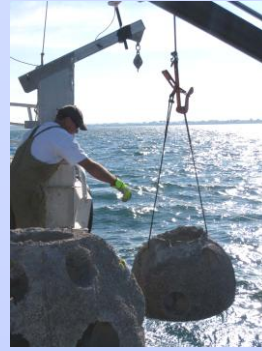
<http://new.dpi.vic.gov.au/fisheries>

View more projects at: [www.reefballaustralia.com.au](http://www.reefballaustralia.com.au)

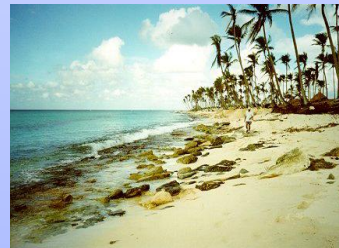
## Reef Ball Australia Services

- Professional international project management.
- Delivery of units nationwide or we manufacture at the project site, including overseas.
- Assistance with habitat equivalency analysis, reef design, site selection, permit applications and value adding features such as webcams, educational plaques, school and volunteer programs.
- Coral reef and mangrove restoration.
- Multipurpose breakwaters - design and construction.

*Australian owned and operated since 1997*



L: Deployment of snapper reefs, Port Phillip Bay (VIC DPI)  
R: Corals transplanted onto Reef Balls, North Sulawesi to replace reef lost due to blast fishing. Photo: J. Kojansow



Gran Dominicus Resort, Dominican Republic. Before and after construction of Reef Ball Breakwater, 1998 and 2001. Sand accreted at a rate of 26-44 m<sup>3</sup>/m from 1998-2001. Photo: Lee Harris



Estuary breakwaters to reduce erosion from boat wash and provide structure for oysters. Photo: Reef Ball Foundation



'Better design below the waterline' – increasing the value of canal estates, docks and retaining walls by increasing habitat complexity

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