

## Dependable ball



Marine dependable ball is a kind of protection facility suitable to be installed on the wharf. It can be absorbed the energy upon ship alongside and reducing the impact strength to ensure the structure of vessel and wharf harmless.

### **Feature:**

- 1.Sound Floating performance which can be positioned at ideal waterline.
- 2.Easy and fast for installation.
- 3.Applicable for pier and dock with large tide scope,ships and emergency purpose.

### **Application:**

- 1.It is installed in the dock or port, it is used when ships berth.
- 2.It is installed on shipboard, it is used when berthing in the sea.
- 3.Other applications of Pneumatic Rubber Fender:
  - a.Can be used as a buoy;
  - b.Can be used for carrying goods;
  - c.Can be used as sealing material of pipes.

Specification for Small and Medium Size Vessel:

Shipping tonnage	Size of floating ball (DiameterxLength)m	Remarks
50	0.5x1.0	Fisher
100	0.7x1.5, 1.0x1.5	Fisher
200	1.0x1.8, 1.0x2.0	Fisher, Tugboat
300-500	1.2x2.0, 1.5x2.5	Fisher, Tugboat
1000	1.5x2.5, 1.5x3.0	Tugboat, Transport vessel
3000	2.0x3.0, 2.0x3.5	Ocean dragnet vessel, Transport vessel
10000	2.0x3.5, 2.5x5.0	Transport vessel

Specification for Large Size Vessel:

A Vessel(DWT)	B Vessel(DWT)	Assumed string meeting velocity(m/s)	Effective movement energy(KJ)	Size of floating ball(D×L)
300,000	200,000	0.15	1230	3.3×6.5
	150,000	0.15	1030	3.3×6.5
	100,000	0.15	781	3.3×6.5
200,000	150,000	0.15	882	3.3×6.5
	100,000	0.15	693	3.0×6.0
	85,000	0.15	618	3.0×5.0
100,000	85,000	0.17	617	3.0×5.0
	50,000	0.18	511	3.0×5.0
	40,000	0.20	544	3.0×5.0
50,000	40,000	0.20	425	2.5×5.5
	30,000	0.22	437	2.5×5.5
	20,000	0.25	443	2.5×5.5
20,000	15,000	0.27	318	2.5×4.0
	10,000	0.30	309	2.0×3.5
	5,000	0.35	253	2.0×3.5
10,000	5,000	0.35	212	2.0×3.5
	3,000	0.40	196	2.0×3.5
	1,000	0.50	127	2.0×3.0