Rubber Fender:

Rubber Fenders/Rubber Buffers are usually installed on dock or ship, which could absorb collision energy during ships are landing. This will protect both ship and dock.

Normally there are two types of rubber fenders: Solid rubber fender and floating rubber fender. Solid rubber feners has been used for a long history since it is easily to be made and long time life. Solid fenders include D type rubber fender, GD type rubber fender, DA type rubber fender, CY (Cylindrical) type rubber fender, SC (Super Cell) type rubber fender, CO (Cone) type rubber fender, etc.. Floating rubber fender has a short history but because their good property, now floating fenders are widely used in ship industry. Commonly there are two type floating rubber fender: Pneumatic rubber fender and Filled rubber fender.

In China, at present the standard of solid rubber fender is < HG/T 2866-2003>. The standard of floating rubber fender is < CB-T 3948> and ISO17357:2002 <High pressure Floating pneumatic rubber fenders>

Foam Filled Fenders

In order to enable safe ship-to-ship and ship-to-quay berthing operations and meet the most stringent quality and performance demands, OKIN RUBBER manufacturers and supplies the foam filled floating fenders as an alternative to the normal pneumatic, shock absorber (subject to quick deterioration) and rubber fenders (heavy and with a high reaction force). Based on its experienced polymer foam, OKIN RUBBER continues to lead the industry in reliability, quality and customer acceptance.

OKIN RUBBER foam filled fenders all share the same construction technology centred on a closed-cell PE (EVA) foam core and an outer skin of reinforced PU elastomer. OKIN RUBBER foam filled fenders absorbs the impacts whilst the skin resists wear and tear in use any tough conditions, providing tough heavy-duty fendering systems for harbor, offshore and ship-to-ship applications.

Features and Advantages:

1.High Energy, Low Reaction:

The high elasticity of expanded PE or EVA ensures high energy absorption

with low reaction force, which is essential to eliminate the risk of damage to the vessel hull.
To guarantee a good adhesion of the polyurethane cover to the expanded polyethylene or EVA, Evergreen studied a special type of expanded material with a polyethylene compound that presents a very good adhesion characteristic with elastomer polyurethanes.
The expanded PE is wrapped and welded around the steel core, and is covered by an high thickness of elastomer polyurethane that gives goods abrasion and breaking resistance, which ensure a long performance even under strenuous conditions.
2.Unsinkable

OKIN RUBBER foam fenders are entirely made of closed cell elastic expanded PE or EVA that guarantees unsinkability even in case of damage caused by breaking, rupturing or shearing when hitting rough vessel sides. Ever cell is separate and so water cannot migrate into the foam.

3.Strong Reinforcement:

In order enhance the performance of foam fenders, nylon fabric layers are individually applied at the optimum position. And skin and reinforcement are applied simultaneously. Meanwhile, multiple homogeneous layers increasing strength and additional reinforcement are applied as the transition layer. Special layers are applied to both ends where stresses are highest. This system enhances the ability of resisting to deflection and shearing force.

4.Wear Resistant:

The polyurethane or SUPA elastomer is spray applied. This creates a high quality and homogeneous skin matrix combining extreme wear resistance with non-marking properties and the option of high visibility colors.

5.Enhancing Port Ability:

The adoption of super size foam filled fenders enlarged the space between the ships and parapet of the wharf, and improves the depth of the berth, consequently improves the ability of loading/unloading, so as to create a new approach for upgrading the wharfs and improved the handling efficiency.

Construction Features:

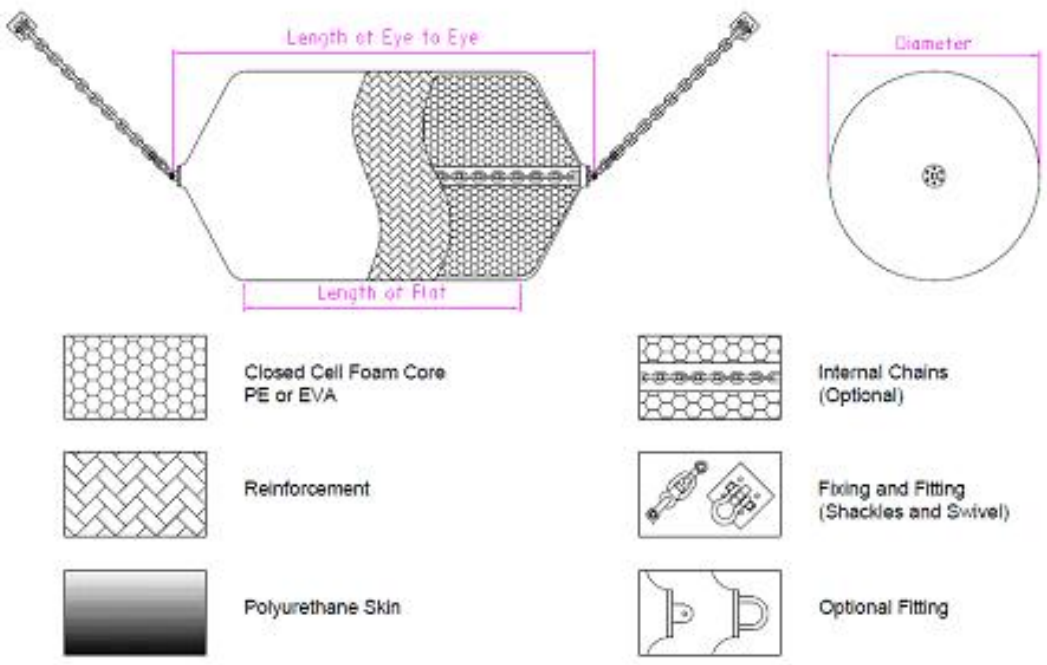
The foam fenders construction consists of:

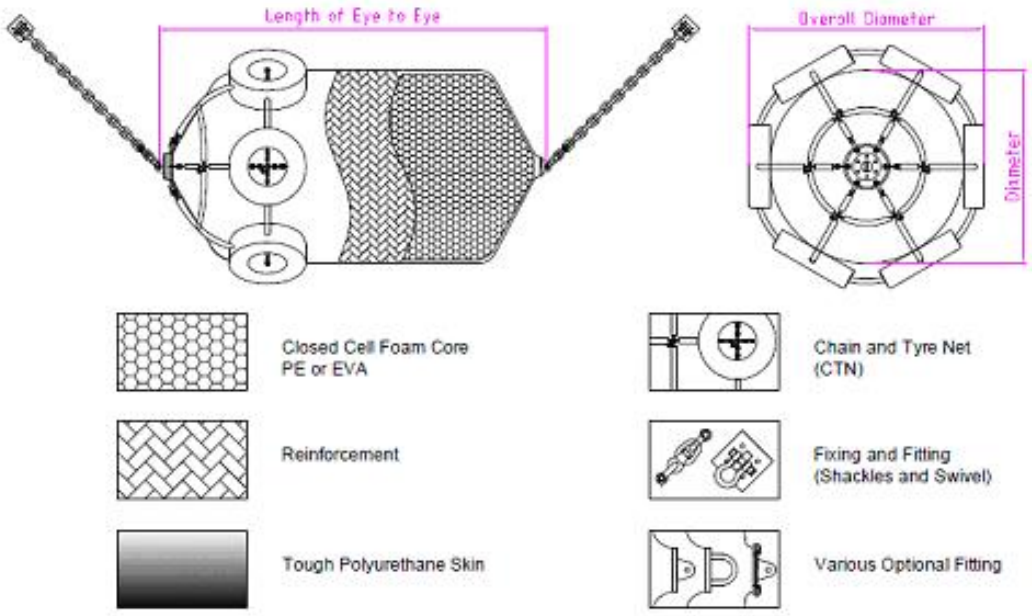
A. A heat laminated 100% closed cell and resilient foam core that is high energy absorbing, with a low reaction force and cannot be ruptured. This fabrication process uses no adhesives, which decomposes after time therefore making the Ever Guard™ superior in quality, durability and function. This resilient foam-filled construction provides an unsinkable fender body that permits high energy absorption with a relatively low reaction force compared to most other fendering systems.

B. In order enhance the performance of foam fenders; the Ever-Guard foam fenders¡¯ skin is constructed of a urethane elastomer which is reinforced with nylon filament in a continuous winding process. Meanwhile, multiple homogeneous layers increasing strength and additional reinforcement are applied as the transition layer. Special layers are applied to both ends where stresses are highest. This system enhances the ability of resisting to deflection and shearing force.

C. Heavy duty internal chain connecting the end fittings is applied to transmit tensile loads through the fenders. (This will be equipped as per clients¡¯ requirement.)

D. The integral swivel end fittings provide secure point of attachment without obstructing, even when the fender is compressed. The fittings are constructed of top quality steel.




Length of Eye to Eye
Overall Diameter
Diameter
Closed Cell Foam Core
PE or EVA
Chain and Tyre Net
(CTN)
Reinforcement
Fixing and Fitting
(Shackles and Swivel)
Tough Polyurethane Skin
Various Optional Fitting

Remark: For more information such as drawings and installing instruction, please email us at sales@okinrubber.com.