



# Pneumatic rubber fender

Pneumatic fender is the advanced anti-collision device for marine applications in the world. It uses compressed air as medium to absorb the impact energy when ship-to-ship contact (STS) and ship-to-berthing (STB). The Larger fender are commonly fitted with chain net for added protection. For navy ships, grey body is also available.

## Type-I

Net type fenders

Pneumatic rubber fender is covered and protected by wire, fiber or steel chain with rubber sleeves or tires.



## Type-II

Type-II: Sling type fenders

Pneumatic rubber fender is not protected by tires-net. It's simple and light weight.



## Features:

1. Easy to install and maintain
2. Low reaction and hull pressure
3. More suitable for small and large tidal ranges
4. Lower maintenance cost
5. Maintains large clearances between hull and structure

## Applications

1. Oil and gas tankers
2. Fast ferries and aluminium vessels
3. LPG vessels, ocean platforms, large docks
4. Harbors and wharfs

## Specification

| Normal Size |        | inner pressure:50Kpa,60%deflection |                   |               | inner pressure:80Kpa,60%deflection |                   |               |
|-------------|--------|------------------------------------|-------------------|---------------|------------------------------------|-------------------|---------------|
| (mm)        | (mm)   | (KN)                               | (KN.M)            | (Kpa)         | (KN)                               | (KN.M)            | (Kpa)         |
| Diameter    | Length | Reaction force                     | energy absorption | hull pressure | Reaction force                     | energy absorption | hull pressure |
| 500         | 1000   | 64                                 | 6                 | 132           | 85                                 | 8                 | 174           |
| 600         | 1000   | 74                                 | 8                 | 126           | 98                                 | 11                | 166           |
| 700         | 1500   | 137                                | 17                | 135           | 180                                | 24                | 177           |
| 1000        | 1500   | 182                                | 32                | 122           | 239                                | 45                | 160           |
| 1000        | 2000   | 257                                | 45                | 132           | 338                                | 63                | 174           |
| 1200        | 2000   | 297                                | 63                | 126           | 390                                | 88                | 166           |
| 1350        | 2500   | 427                                | 102               | 130           | 561                                | 142               | 170           |
| 1500        | 3000   | 579                                | 153               | 132           | 731                                | 214               | 174           |
| 1700        | 3000   | 639                                | 191               | 128           | 840                                | 267               | 168           |
| 2000        | 3500   | 875                                | 308               | 128           | 1150                               | 430               | 168           |
| 2500        | 4000   | 1381                               | 663               | 137           | 1815                               | 925               | 180           |
| 2500        | 5500   | 2019                               | 943               | 148           | 2653                               | 1317              | 195           |
| 3300        | 4500   | 1884                               | 1175              | 130           | 2476                               | 1640              | 171           |
| 3300        | 6500   | 3015                               | 1814              | 146           | 3961                               | 2532              | 191           |
| 3300        | 10600  | 5121                               | 3090              | 171           | 6612                               | 4294              | 220           |
| 4500        | 7000   | 4660                               | 3816              | 186           | 5866                               | 4945              | 233           |
| 4500        | 9000   | 5747                               | 4752              | 146           | 7551                               | 6633              | 192           |
| 4500        | 12000  | 7984                               | 6473              | 154           | 10490                              | 9037              | 202           |

## Compression Test

