# Marine Airbags

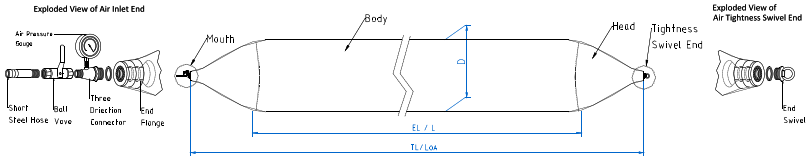
*Ship launching project by Mammoet*

**BUODER marine airbags can be used for ship launching/landing, marine salvage, and heavy lifting. All marine airbags are made by innovative holistic wrapping technology. Manufactured and tested comply with ISO 14409 standard.**

BUODER marine air bags used as ship launching air bags is a innovative ship launching technology. This ship launching technology overcomes the restrictions of fixed launching track of side-launch. The ship launching air bags are used by more shipyard world wide because of its advantages of saving time and investment, flexible, safety.

## Construction Features

Buoder marine airbags are to be constructed of out rubber layer, multilayer heavy-duty synthetic-tire-cord layers, and inner rubber layer vulcanized firmly. Marine air bags are cylindrical balloon body, with two conical head and end mouth. Air tightness swivel and air inlet kits are screwed with end mouth.




■ **Synthetic-tire-cord Layer** Reinforcement layer of marine air bags which are made of rubber coated synthetic-tire-cord fabrics. Many synthetic-tire-cord layers are twined at ideal angles by unique and patented "Holistic Wrapping Technology". To hold the internal pressure and to distribute the stress evenly. BUODER use the 1870dtex/2 type synthetic-tire-cord fabric. The warp is over 95 cords per 100mm in width, and the breaking strength is more than 310N per cord.

- ISO 14409:2011 Ships and marine technology – Ship launching air bags
- Iso 17682:2013 Ships and marine technology – Methodology for ship launching utilizing air bags



## Specification and Performance

Marine air bags are categorized by "Ordinary Airbags", "High-bearing Capacity Airbags", "Super-high-bearing capacity Airbags". Diameter is 0.8m ~ 3.0m. Effective length is 5 ~ 25m.

- QP Ordinary Airbags – the air bags with 3, 4 or 5 layers of cord fabric
- QG High-bearing Capacity Airbags – the air bags with 6, 7 or 8 layers of cord fabric
- QS Super-high-beraing Capacity Airbags – the air bags with 9, 10 or more layers of cord fabric

| Model | Diameter | Working Pressure | Working Hiehgt | Bearing Capacity | Model | Diameter | Working Pressure | Working Hiehgt | Bearing Capacity |
|---|---|---|---|---|---|---|---|---|---|
| QH6 High-bearing Capacity Airbags | D=1.0m | 0.21Mpa | 0.6m | 13.46 t/m | QH7 High-bearing Capacity Airbags | D=1.0m | 0.23Mpa | 0.6m | 14.45 t/m |
| | | | 0.5m | 16.83 t/m | | | | 0.5m | 18.06 t/m |
| | | | 0.4m | 20.20 t/m | | | | 0.4m | 21.68 t/m |
| | D=1.2m | 0.18Mpa | 0.7m | 14.43 t/m | | D=1.2m | 0.20Mpa | 0.7m | 15.71 t/m |
| | | | 0.6m | 17.31 t/m | | | | 0.6m | 18.85 t/m |
| | | | 0.5m | 20.20 t/m | | | | 0.5m | 22.00 t/m |
| | | | 0.4m | 23.08 t/m | | | | 0.4m | 25.13 t/m |
| | D=1.5m | 0.14Mpa | 0.9m | 13.46 t/m | | D=1.5m | 0.16Mpa | 0.9m | 15.08 t/m |
| | | | 0.8m | 15.71 t/m | | | | 0.8m | 17.60 t/m |
| | | | 0.7m | 17.95 t/m | | | | 0.7m | 20.11 t/m |
| | | | 0.6m | 20.20 t/m | | | | 0.6m | 22.62 t/m |
| | | | 0.5m | 22.44 t/m | | | | 0.5m | 25.13 t/m |
| | D=1.8m | 0.12Mpa | 1.1m | 13.46 t/m | | D=1.8m | 0.14Mpa | 1.1m | 15.39 t/m |
| | | | 1.0m | 15.39 t/m | | | | 1.0m | 17.59 t/m |
| | | | 0.9m | 17.31 t/m | | | | 0.9m | 19.79 t/m |
| | | | 0.8m | 19.23 t/m | | | | 0.8m | 22.00 t/m |
| | | | 0.7m | 21.16 t/m | | | | 0.7m | 24.19 t/m |
| | | | 0.6m | 23.08 t/m | | | | 0.6m | 26.39 t/m |
| | D=2.0m | 0.11Mpa | 1.2m | 13.82 t/m | | D=2.0m | 0.13Mpa | 1.2m | 16.34 t/m |
| | | | 1.1m | 15.87 t/m | | | | 1.1m | 18.38 t/m |
| | | | 1.0m | 17.63 t/m | | | | 1.0m | 20.42 t/m |
| | | | 0.9m | 19.39 t/m | | | | 0.9m | 22.46 t/m |
| | | | 0.8m | 21.16 t/m | | | | 0.8m | 24.50 t/m |
| | | | 0.7m | 22.92 t/m | | | | 0.7m | 26.55 t/m |
| | | | 0.6m | 24.68 t/m | | | | 0.6m | 28.59 t/m |

**Ship Launching Airbags**

**Marine Salvage Airbags**

**Heavy Lifting Airbags**