



HAOHANG

昊航



ADD: Jinyuan 2nd Road, Jinkou Industrial Park,
Jimo District, Qingdao City, China

Tel.: 0086-13969673788

Whatsapp: 15806273885

Email: ella@qdhaohang.com

Website: www.qdhaohang.com

qdhaohang.en.alibaba.com

Qingdao Haohang Fender Airbag Co., Ltd.

公司介绍

Company Introduction >>>



ENTERPRISE STRENGTH

Qingdao Haohang Fender Airbag Co., Ltd.



Qingdao Haohang Fender Airbag Co., Ltd. was established in 2014 and is located in the beautiful Jimo District of Qingdao. It covers an area of 10000 square meters and is a high-tech enterprise that integrates design, research and development, manufacturing, sales, and service. We specialize in the production and supply of marine launch airbags, inflatable rubber fenders, solid filled fenders, and inflatable water blocking airbags.

Our company has strong technical strength, advanced manufacturing technology, and a team of more than 50 experienced and highly professional employees. In terms of raw material supply, we have achieved self-sufficiency. The main raw materials, natural rubber and curtain fabric, are processed by ourselves, which greatly reduces production costs. At the same time, we also pay attention to the quality control of raw materials to ensure that the produced airbag fenders have high strength, durability, and safety.

The "Haohang" brand high-strength inner liner wrapped airbag is known for its excellent performance and wide range of applications. They are widely used in the fields of ship launching, grounding rescue, and large object handling, providing strong support for water operations. Our inflatable rubber fenders are widely used in marine platforms, large shipyards, and port terminals, providing effective collision protection for these important facilities.

In terms of quality management, we always adhere to a rigorous attitude. Our factory has been the first to pass multiple domestic and international certifications such as ISO9001:2009 international quality management system, and our products have also received quality recognition from authoritative organizations such as China Classification Society (CCS). At the same time, our "Haohang" products are also exported to overseas markets such as Southeast Asia, North America, and Europe, highly winning widespread praise and recognition.

Looking into the future, we will continue to uphold the principle of "customer-centric, quality guaranteed" and provide customers with higher cost-effectiveness products. We will continue to strive for innovation and excellence, create more value for our customers, and realize the vision of mutual benefit and win-win cooperation to create a better future together.

目录

<<<Content



MARINE AIRBAG

03

A. Inflatable Airbag



PNEUMATIC RUBBER FENDER

08

B. Pneumatic Rubber Fender



HIGH PRESSURE BLOCKING INFLATABLE PIPE PLUGS

13

C. High Pressure Blocking Pipe Plug



EVA FOAM FILLED FENDER

16

D. Eva Foam filled Fender



PIPELINE REPAIR AIRBAGS

20

E. Pipeline Repair Airbag

A. Inflatable Airbag

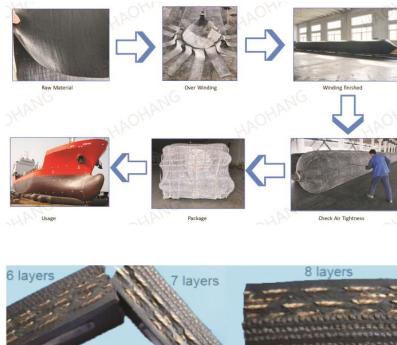
Introduction

Marine launching airbags are inflatable devices used for ship launching operations, primarily assisting ships to smoothly slide into the water from shipyards or docks. Made from high-strength rubber and fiber materials, they offer excellent compression, tensile, and wear resistance properties. They are widely used in shipbuilding, repair, and launching operations.



Product Features

- High-Strength Materials:** Composed of multiple layers of rubber and fiber reinforcement, ensuring high load-bearing capacity and durability.
- High Flexibility:** Customizable in different specifications based on ship size and weight to meet various launching needs.
- Easy Operation:** Simple inflation and deflation processes, requiring no complex equipment, saving labor and time costs.
- Cost-Effective:** More economical compared to traditional launching slipways, with reusable capabilities.
- High Safety:** Excellent cushioning performance reduces impact forces during ship launching, protecting the hull structure.
- Eco-Friendly and Durable:** Made from environmentally friendly materials, resistant to corrosion and wear, suitable for various water environments.



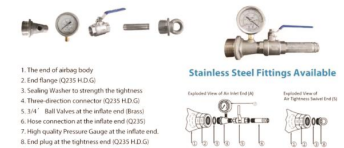
Main Applications

- Shipbuilding:** Used for launching newly built ships, helping them slide smoothly into the water from shipyards.
- Ship Repair:** Used for relaunching ships after repair, avoiding damage to the hull.
- Small Vessels:** Suitable for launching small boats such as fishing vessels and yachts.
- Special Water Operations:** More flexible and convenient for launching in narrow or complex water areas.
- Emergency Rescue:** Used for ship grounding or salvage operations, helping ships refloat.



Product Parameters

- Diameter Range: 0.8m to 3m (customizable)
- Length Range: 5m to 26m (customizable)
- Working Pressure: 0.08–0.12 MPa
- Load Capacity: 50 to 2000 tons (single airbag)
- Temperature Resistance: -30°C to +70°C
- Color: Black
- Service Life: 5–10 years (depending on usage frequency and maintenance)



Product Structure

1. Outer Rubber

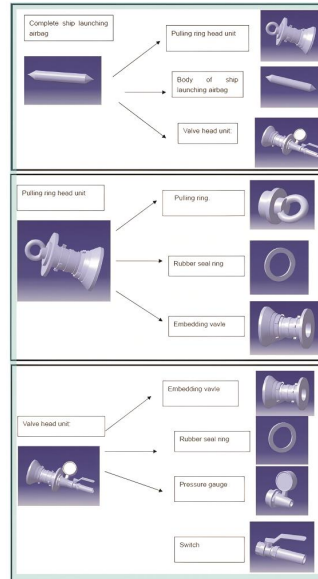
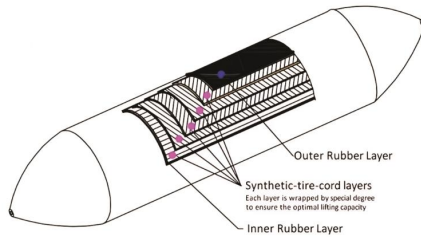
The outer rubber layer that covers the outside of ship launching airbags protects the cord layers from abrasion and other external forces. This compound has sufficient tensile and tear strength to withstand any weather condition and hard usage.

2. Synthetic-Tyre-cord layer for reinforcement

The reinforcement cord layers are composed of synthetic-tyre-cords commonly used in tires and modified rubbers. Cords are arranged at ideal angles to hold the internal pressure and to distribute the stress evenly providing strong efficient reinforcement.

There are two types of synthetic-tyre-cords used in Zhonghaihang ship launching airbags to achieve best performance

3. Inner Rubber Layer



Usage Scenarios

1. Shipbuilding Yards: Used for launching large ships.
2. Dock Repair Stations: Used for relaunching ships after repair.
3. Small Shipyards: Suitable for launching small boats like fishing vessels and yachts.
4. Emergency Rescue: Used for grounding or salvage operations to help ships refloat.



Conclusion

Marine launching airbags, with their efficiency, safety, and cost-effectiveness, have become essential tools in ship launching operations. Whether for large shipbuilding or small vessel repair, they provide reliable solutions and are indispensable auxiliary equipment in the shipbuilding industry.

Specification List

Specification of launching rubber airbag

Following are the standard sizes of airbags, and other customized sizes are also applicable.

Diameter(m)	Effective Length(m)	Layer	Pressure(MPa)
1	10	5~6	0.07~0.10
1	12	5~6	0.07~0.10
1	15	5~6	0.07~0.10
1.2	10	5~6	0.08~0.12
1.2	12	5~6	0.08~0.12
1.2	15	5~6	0.08~0.12
1.5	12	5~8	0.08~0.16
1.5	15	5~8	0.08~0.16
1.5	18	5~8	0.08~0.16
1.5	20	4~8	0.08~0.16
1.5	24	5~8	0.08~0.16
1.8	12	5~8	0.08~0.15
1.8	15	5~8	0.08~0.15
1.8	18	5~8	0.08~0.15
1.8	20	5~8	0.08~0.15
1.8	24	5~8	0.08~0.15
2	18	6~10	0.08~0.18
2	20	6~10	0.08~0.18
2	24	6~10	0.08~0.18
2.5	18	7~10	0.07~0.13
2.5	20	7~10	0.07~0.13
2.5	24	7~10	0.07~0.13

A.

Airbag number (Layer)	Diameter (D) (m)	Operating pressure (mpa)	Operating height			Capacity per meter		
			0.4*D	0.5*D	0.6*D	0.4*D	0.5*D	0.6*D
3 layers	0.8	0.2	0.32	0.4	0.48	15.1	12.6	10
	1	0.16	0.4	0.5	0.6	15.1	12.6	10.2
	1.2	0.14	0.48	0.6	0.72	15.8	13.2	10.6
	1.5	0.11	0.6	0.75	0.9	15.5	13	10.4
4 layers	0.8	0.19	0.32	0.4	0.48	14.3	11.9	9.5
	1	0.15	0.4	0.5	0.6	14.1	11.8	9.4
	1.2	0.13	0.48	0.6	0.72	14.7	12.2	9.8
	1.5	0.1	0.6	0.75	0.9	14.1	11.8	9.4
5 layers	0.8	0.24	0.32	0.4	0.48	18.1	15.1	12.1
	1	0.19	0.4	0.5	0.6	17.9	14.9	11.9
	1.2	0.16	0.48	0.6	0.72	18.1	15.1	12.1
	1.5	0.13	0.6	0.75	0.9	18.4	15.3	12.2
6 layers	1.8	0.1	0.72	0.9	1.08	17	14.1	11.3
	1	0.24	0.4	0.5	0.6	22.6	18.8	15.1
	1.2	0.2	0.48	0.6	0.72	22.6	18.8	15.1
	1.5	0.16	0.6	0.75	0.9	22.6	18.8	15.1
7 layers	1.8	0.13	0.72	0.9	1.08	22	18.4	14.7
	2	0.12	0.8	1	1.2	22.6	18.8	15.1
	1	0.27	0.4	0.5	0.6	25.4	21.2	17
	1.2	0.23	0.48	0.6	0.72	26	21.7	17.3
8 layers	1.5	0.18	0.6	0.75	0.9	25.4	21.2	17
	1.8	0.15	0.72	0.9	1.08	25.4	21.2	17
	2	0.14	0.8	1	1.2	26.4	22	17.6
	1	0.31	0.4	0.5	0.6	29.2	24.3	19.5
9 layers	1.2	0.26	0.48	0.6	0.72	29.4	24.5	19.6
	1.5	0.2	0.6	0.75	0.9	28.3	23.6	18.8
	1.8	0.17	0.72	0.9	1.08	28.8	24	19.2
	2	0.15	0.8	1	1.2	28.3	23.6	18.8
10 layers	2.5	0.12	1	1.25	1.5	28.3	23.6	18.8
	1	0.34	0.4	0.5	0.6	32.5	27.4	21
	1.2	0.29	0.48	0.6	0.72	33.1	27.2	21.1
	1.5	0.2	0.6	0.75	0.9	31.6	27	20.8
10 layers	1.8	0.18	0.72	0.9	1.08	31.2	27.4	21.4
	2	0.16	0.8	1	1.2	30.8	27	21.1
	1	0.35	0.4	0.5	0.6	34.8	30.3	23
	1.2	0.3	0.48	0.6	0.72	35	30	23.3
10 layers	1.5	0.22	0.6	0.75	0.9	33.8	29.6	23
	1.8	0.19	0.72	0.9	1.08	33.4	30.2	23.8
10 layers	2	0.16	0.8	1	1.2	33.1	29.7	23.6

B.

Pneumatic Rubber Fender



Introduction

Pneumatic rubber fenders are essential equipment used to protect ship hulls and docks during vessel mooring. They provide cushioning through inflation, reducing direct collisions between ships and docks, thereby safeguarding both the ship hull and dock structure.

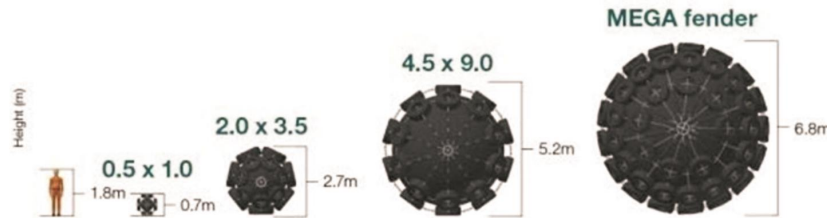
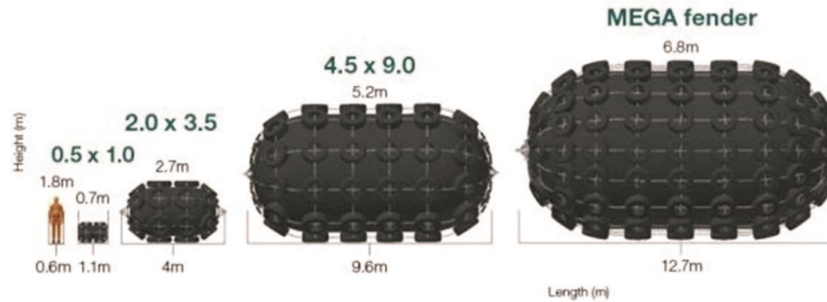
Product Structure

- Outer Rubber Layer:** Made of high-strength, wear-resistant, and corrosion-resistant rubber material, capable of withstanding erosion from seawater, oil, UV rays, and other environmental factors.
- Inner Air Chamber:** Composed of multiple layers of high-strength fiber-reinforced rubber air chambers, providing excellent elasticity and compression resistance.
- Inflation Valve:** Used for inflating and deflating, usually equipped with a leak-proof design to ensure air-tightness.
- Fixing Devices:** Including bolts, chains, or ropes, used to secure the fender to the ship hull or dock.



Product Features

1. **High Elasticity:** Pneumatic rubber fenders have excellent elasticity, effectively absorbing impact forces during ship mooring.
2. **Corrosion Resistance:** Made with special rubber formulations, they resist corrosion from seawater, oil, and UV rays.
3. **Lightweight and Easy to Install:** Compared to traditional fenders, Pneumatic rubber fenders are lightweight and easy to install and remove.
4. **Adjust-ability:** The hardness and cushioning performance can be flexibly controlled by adjusting the inflation level.
5. **Durability:** They have a long service life and can maintain stable performance in harsh environments.
6. **Eco-Friendliness:** Made from environmentally friendly materials, they do not pollute water bodies.



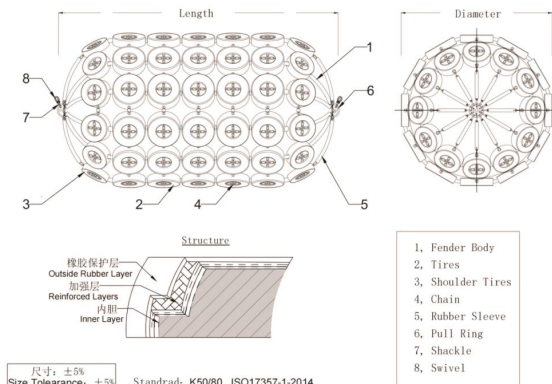
Main Applications

1. **Ports and Docks:** Used to protect dock structures and ships, reducing impact forces during mooring.
2. **Ship Mooring:** Used for mooring between ships to prevent hull collisions.
3. **Offshore Platforms:** Used for protecting offshore oil platforms, wind power platforms, and other facilities.
4. **Inland River Docks:** Suitable for inland river docks, locks, and other locations.
5. **Temporary Mooring:** Suitable for temporary mooring of ships or floating facilities.



Specifications and Models

- Diameter: Ranging from 300mm to 2000mm.
- Length: Customizable based on customer requirements, typically from 1 meter to 10 meters.
- Working Pressure: Generally 0.1–0.3MPa, with specific pressure adjustable according to the usage environment.



Product Advantages

1. **Cost-Effectiveness:** Compared to traditional fenders, Pneumatic rubber fenders have lower costs and maintenance expenses.
2. **Safety:** Effectively reduces impact forces during ship mooring, protecting both the ship hull and dock.
3. **Flexibility:** Different specifications can be selected based on ship size and mooring requirements.
4. **Eco-Friendliness:** Made from environmentally friendly materials, they do not pollute water bodies.

Conclusion

Pneumatic rubber fenders have become essential equipment for modern port and ship protection due to their excellent performance and wide range of applications.

Specification List

Pneumatic Fender 50KPA Size and Performance

Normal Size Diameter x Length (mm)	Initial Internal Pressure (Kpa)	GEA	RF	PR
		Guaranteed Energy Absorption (KN-m)	Reaction Force at GEA (KN)	Hull Pressure at GEA (Kpa)
500x1000	50	6	64	132
600x1000	50	8	74	126
700x1500	50	17	137	135
1000x1500	50	32	182	122
1000x2000	50	45	257	132
1200x2000	50	63	297	126
1350x2500	50	102	427	130
1500x3000	50	152	579	132
1700x3000	50	191	639	128
2000x3500	50	308	875	128
2500x4000	50	663	1381	137
2500x5500	50	943	2019	148
3300x4500	50	1175	1884	130
3300x6500	50	1814	3015	146
3300x10600	50	3090	5121	171
4500x7000	50	3816	4660	186
4500x9000	50	4752	5747	146
4500x12000	50	6473	7984	154

Pneumatic Fender 80KPA Size and Performance

Normal Size Diameterx Length (mm)	Initial Internal Pressure(Kpa)	GEA	RF	PR
		Guaranteed Energy Absorption (KN-m)	Reaction Force at GEA (KN)	Hull Pressure at GEA (Kpa)
500x1000	80	8	85	132
600x1000	80	11	98	126
700x1500	80	24	180	135
1000x1500	80	45	239	122
1000x2000	80	63	338	132
1200x2000	80	88	390	126
1350x2500	80	142	561	130
1500x3000	80	214	731	132
1700x3000	80	267	840	128
2000x3500	80	430	1150	128
2500x4000	80	925	1815	137
2500x5500	80	1317	2653	148
3300x4500	80	1640	2476	130
3300x6500	80	2532	3961	146
3300x10600	80	4294	6612	171
4500x7000	80	4945	5866	186
4500x9000	80	6633	7551	146
4500x12000	80	9037	10490	154



C. High Pressure Blocking Pipe Plug

Introduction

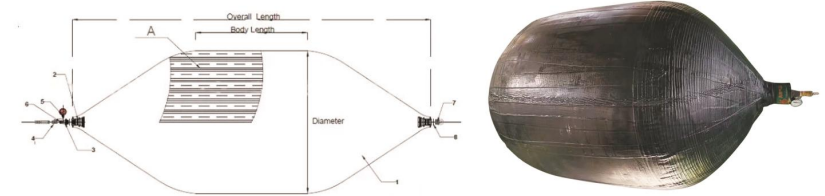
High-pressure water blocking airbags are specialized devices used for temporary water blocking, pressure testing, maintenance, and inspection in pipelines, culverts, tunnels, and other engineering projects. They achieve sealing through inflation, effectively stopping water flow and are suitable for various complex working conditions.



Product Features

- 1. High-Strength Material**
 - Made from high-strength rubber and reinforced cord fabric, offering excellent pressure resistance, tensile strength, and wear resistance.
 - The outer rubber layer is corrosion-resistant and aging-resistant, suitable for various environments (e.g., sewage, chemicals).
- 2. High-Pressure Performance**
 - Wide working pressure range, capable of withstanding high internal pressure, usually 0.15 Mpa and 0.2 Mpa, 0.15 Mpa can be blocked within 5 meters of water depth, 0.2 Mpa can be blocked within 10 meters of water depth..
 - Burst pressure is significantly higher than working pressure, ensuring safe use.
- 3. High Flexibility**
 - The airbag is foldable, making it easy to transport and install.
 - Suitable for pipelines or holes of different diameters, with good adaptability.
- 4. Excellent Sealing Effect**
 - After inflation, it tightly adheres to the pipe wall, achieving efficient sealing and preventing water leakage.
 - Suitable for pipelines with circular, oval, and other cross-sectional shapes.

- 5. Easy Operation**
 - Inflated quickly using an air pump, saving time and labor.
 - Equipped with a pressure gauge and safety valve for easy monitoring and control of internal pressure.
- 6. High Durability**
 - Reusable, cost-effective.
 - Suitable for various environments, including high temperature, low temperature, and humidity.



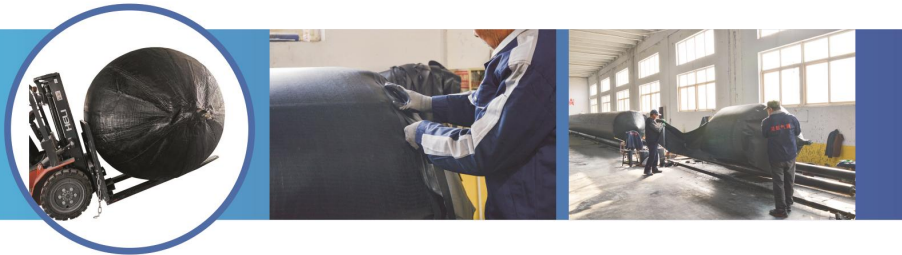
Main Applications

- 1. Pipeline Water Blocking**
 - Used for temporary water blocking in municipal drainage pipelines, sewage pipelines, and rainwater pipelines.
 - Suitable for water flow interruption during pipeline maintenance, renovation, or inspection.
- 2. Pressure Testing**
 - Used for pipeline pressure testing to check the sealing and pressure-bearing capacity of pipelines.
- 3. Culvert and Tunnel Construction**
 - Used for temporary water blocking during culvert and tunnel construction to ensure a dry working area.
- 4. Emergency Rescue**
 - Used for rapid water blocking in emergencies, such as pipeline bursts or flood backflow.
- 5. Industrial Applications**
 - Suitable for water blocking and maintenance in industrial pipelines, such as those in chemical plants and power plants.



Technical Data

Diameter Range: 100 mm – 3000 mm (customizable)
 Working Pressure: 0.5 bar – 2 bar (customizable for higher pressure)
 Burst Pressure ≥ 2 times working pressure
 Material: High-strength rubber + reinforced cord fabric
 Temperature Range: -20°C – $+60^{\circ}\text{C}$
 Elongation $\leq 15\%$
 Compression Deformation $\leq 2\%$
 Inflation Method: Air pump inflation
 Color: Typically black



Specification List

No	DIA. (MM)	Total Length (CM)	Effective length (CM)	Weight(KGS)
1	300	75	40	7
2	400	95	45	10
3	500	100	50	12.5
4	600	128	56	17.5
5	800	160	65	30
6	1000	190	75	42
7	1200	225	95	58.5
8	1350	245	95	70
9	1400	250	95	75
10	1500	270	105	88
11	1600	285	110	112
12	1650	295	115	122
13	1800	335	130	147
14	2000	348	130	156
15	2200	375	140	201
16	2400	445	170	274
17	2500	465	180	303

D. Eva Foam filled Fender

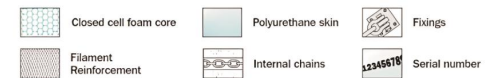
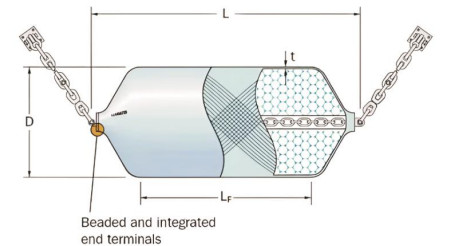
Introduction

Foam filled fender is a protective device used in water facilities such as ships, docks, and offshore platforms. It is primarily used to absorb the impact energy during ship berthing, protecting both the ship and dock structures from damage.



Product Structure

- Outer Rubber Layer:** Made of high-strength, wear-resistant, and corrosion-resistant rubber material, it exhibits good elasticity and impact resistance.
- Solid Filling Material:** Internally filled with high-density materials (such as polyurethane, EVA foam, etc.), it provides stable cushioning and support.
- Fixing Devices:** Including bolts, chains, or anchors, they are used to secure the fender to the dock or ship.



Product Features

1. **High Impact Resistance:** The solid-filled structure effectively absorbs impact energy during ship berthing, reducing damage to the dock and ship.
2. **Strong Durability:** Both the outer rubber and inner filling materials have excellent corrosion and wear resistance, suitable for various harsh aquatic environments.
3. **Easy Installation:** Designed reasonably, it is convenient to install and can flexibly adjust the fixing method according to needs.
4. **Low Maintenance Cost:** Structurally stable with a long service life and simple routine maintenance.
5. **Environmentally Safe:** Materials are non-toxic and harmless, complying with environmental protection requirements.



Main Types

1. **Cylindrical Fenders:** The most common type, suitable for various docks and ships.
2. **D-shaped Fenders:** With one flat side and one arcuate side, suitable for installation at the edge of docks.
3. **Square Fenders:** Suitable for special scenarios, such as narrow waters or small ships.
4. **Cone-shaped Fenders:** Used at the bow or stern of ships, providing better cushioning effects.

Application Scenarios

1. **Docks and Ports:** Protecting dock structures and reducing impact during ship berthing.
2. **Ships:** Installed on both sides of the hull to prevent collisions between ships and docks or other ships.
3. **Offshore Platforms:** For protection of offshore facilities such as oil drilling platforms and wind power platforms.
4. **Inland Waterway Channels:** Suitable for inland docks, navigation locks, and other aquatic facilities.



Technical Parameters

1. **Size:** Customizable according to customer requirements, with a common diameter range of 500mm to 3300mm.
2. **Impact Resistance Energy:** Depending on the model, impact resistance energy ranges from 8kJ to 2300kJ.
3. **Operating Temperature:** Typically suitable for environments from -40°C to $+60^{\circ}\text{C}$.
4. **Color:** Generally black, but other colors can be customized according to customer requirements.



Conclusion

With their excellent performance and wide range of application scenarios, solid-filled fenders have become an ideal choice for protection in aquatic facilities.

Specification List

PRODUCT SPECIFICATIONS

Size		Compression deflection at 60%	
Diameter/Meter	Length/Meter	Energy Absorption /KJ	Reaction Force /KN
0.5	1.0	8	71
0.7	1.5	27	161
1.0	1.5	49	205
1.0	2.0	64	274
1.2	2.0	93	337
1.2	2.4	110	390
1.35	2.5	145	463
1.5	3.0	216	624
1.7	3.0	273	696
2.0	3.5	456	990
2.0	4.0	505	1110
2.2	4.5	679	1396
2.5	4.0	781	1386
2.5	5.0	985	1750
3.0	5.0	1410	2050
3.0	6.0	1695	2460
3.3	6.5	2245	2950



E. Pipeline Repair Airbag

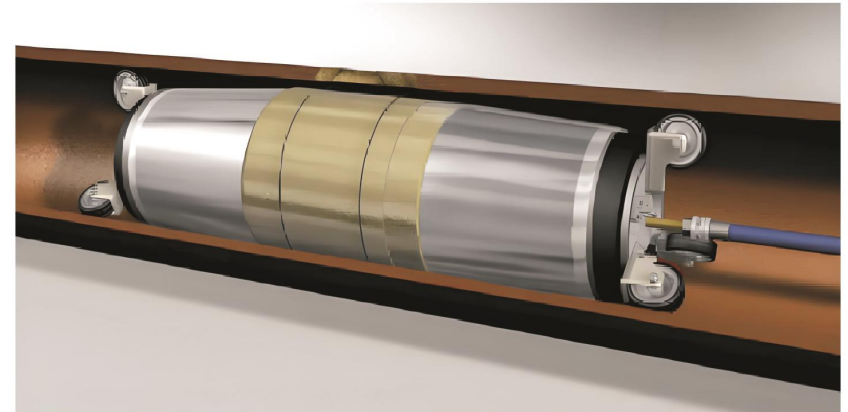
Introduction

Pipeline repair airbags are specialized tools used for pipeline repair and dredging operations, widely applied in municipal engineering, drainage pipeline maintenance, and other fields. They support the inner walls of pipelines by inflating and expanding, making it easier to repair damaged or clogged pipelines.



Functions of Pipeline Repair Airbags

- 1. Pipeline Repair**
 - Used for temporarily blocking pipelines to facilitate the repair of cracks, damages, or leaks.
 - In trench-less repair technologies, airbags can serve as inner lining support to assist in the curing of repair materials.
- 2. Pipeline Dredging**
 - By inflating to block pipelines, they enable sectional cleaning of sludge, debris, and other blockages.
 - Can be used for sectional pressure testing of pipelines to detect sealing integrity.
- 3. Emergency Repairs**
 - Quickly block pipelines in case of sudden bursts or blockages to prevent further damage.



Features of Pipeline Repair Airbags

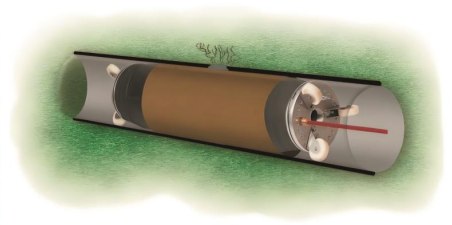
1. High-Strength Materials
 - Typically made of high-strength rubber or polyurethane, offering excellent wear resistance, corrosion resistance, and pressure resistance.
2. Strong Adaptability
 - Can be customized in different sizes according to pipeline diameters, suitable for pipelines of various sizes.
 - Applicable to circular, oval, and other pipeline shapes.
3. Easy Operation
 - Rapid inflation using equipment such as air compressors, making operation simple and efficient.
 - Reusable, cost-effective, and practical.
4. Safe and Reliable
 - Equipped with anti-burst devices to ensure safe use under high pressure.
 - Excellent sealing performance, effectively preventing water and air leakage.



Application

1. Municipal Drainage Pipelines
 - Used to repair cracks and damages in aging drainage pipelines.
 - Clean sludge and debris inside pipelines.
2. Industrial Pipelines
 - Used for maintenance and repair of pipelines in chemical plants, sewage treatment plants, and other industrial facilities.
3. Building Drainage Systems
 - Used for dredging and repairing underground drainage pipelines in buildings.
4. Emergency Repairs
 - Used for rapid blocking and repair of pipelines during sudden accidents.

Pipeline repair airbags are indispensable tools in municipal engineering and pipeline maintenance, significantly improving the efficiency of pipeline repair and dredging while reducing construction costs.



Specification List

Specification

Model	Dia*Length (mm)	Inflation Pressure (kg)	Weight (kg)
Dn150-Dn200	109*750	3	4
Dn200-Dn300	162*880	2	7
Dn300-Dn500	220*1080	2	15
Dn400-Dn600	320*1150	1.5	25
Dn600-Dn800	380*1350	1.2	40
Dn800-Dn1000	420*1650	0.8	52