



**ZENITH**™ INDUSTRIAL RUBBER  
PRODUCTS PVT. LTD.

*Quality Rubber Solutions*



# RUBBER INFLATABLES

# CONTENT

Introduction	1
Aircell	2-3
Gas Holder Balloon	4
Inflatable Work Boat	5-6
Life Raft	7
Storage Tank	8
Surge Bladder	9
Oil Boom	10
Aircraft Lifting Bag	11
Air Caster	12
Achievements & Membership	13

# INTRODUCTION

Zenith Industrial Rubber Products Private Limited, has been a leading manufacturer and exporter of high-quality industrial rubber sheeting products since its **establishment in 1965**. Over the years, Zenith has achieved remarkable success in the global market and has become recognized as a trusted supplier.

Supported by advanced infrastructure, Zenith boasts an impressive production capacity with 4 Intermix, 4 calendar, 30 Rotocure lines and 8 press lines. This infrastructure investment allows the company to meet the demands of the market effectively and efficiently. With an installed capacity of **90 tons of rubber compound per day**, Zenith continues to strengthen its position in both domestic and international markets.

Building upon its rich legacy as a leader in the rubber industry spanning numerous decades, Zenith has ventured into the market of inflatable sectors. This expansion has brought forth an impressive array of offerings, encompassing Air Cells, Gas Holder Balloons, Inflatable Work Boats, Life Rafts etc

The cornerstone of Zenith's prowess in manufacturing inflatable products lies in its state-of-the-art infrastructure. From compounding to the dispatch of finished goods, our inflatable products undergo meticulous and controlled manufacturing processes. Our unwavering commitment to extensive research and development provides Zenith with a distinct competitive advantage in the market.

Zenith's commitment to quality and manufacturing excellence is underscored by its adherence to internationally recognized standards. Our procedures align meticulously with ISO 9001:2015 and ISO 14001:2015. Furthermore, Zenith's dedicated research and development facilities empower us to explore novel products and materials that cater to the evolving needs of our esteemed customers.

Our certifications and awards stand as testament to Zenith's dedication to delivering the highest quality products that align with our customers' business requirements and preferences.



# INFLATABLE AIRCELL

The AirCell (Flexible Separator) is fitted inside a conservator tank, isolating insulating oil from the atmosphere, and thus preventing contamination of gas and/or moisture from coming into contact with the transformer oil due to oxidation and hydrolysis. The bag is vented on the transformer through flange type mounting such that it inflates or deflates to accommodate oil volume displacements due to changes in the transformer temperature.

The Air Cells are manufactured using time tested combination of Nylon (Polyamide) fabric and a thick coating of Elastomers i.e. Acrylonitrile Butadiene Rubber (NBR), Polychloroprene (CR) and Hypalon (CSM). The rubber compounds are so formulated, so as to minimize separator degradation and resist leakage of air through membranes thus reducing the amount of air in the transformer oil. Over a period of time these air/gases can reduce dielectric strength and thereby accelerate the aging of the insulation system.



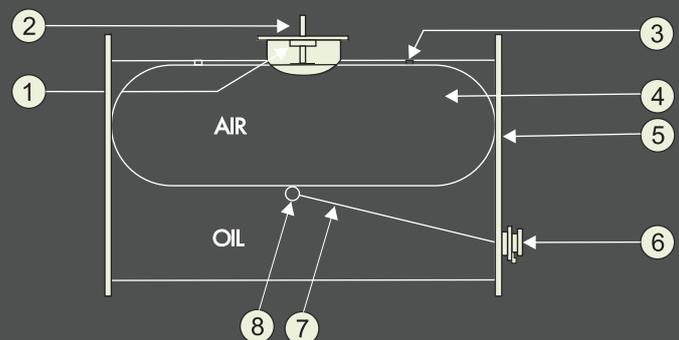
## ADVANTAGES OF INFLATABLE AIRCELL

- Simple design with no expandable parts.
- Needs negligible man hours for inspection.
- Extended service life.
- Economical.
- Prevents corrosion.
- Oil can be filled into the transformer tank without being exposed to the air
- Air cell isolation ensures no oxygen or moisture contamination.
- Preserves high dielectric strength
- Maintains consistent pressure and preventing oil Supersaturation



## COMPONENTS

1. Connecting Flange
2. Pipe Connecting Breather
3. Straps
4. Zena-Cell (Air Cell)
5. Conservator
6. Oil Level Indicator
7. Float Arm
8. Float



# Technical Specification

Sr No.	Conservator Size		Separator Size		
	Dia	Length	Width	Length	Loop Dist
	A (mm)	B (mm)	W (mm)	L (mm)	G (mm)
1	500	2710	825	3035	2010
2	600	1970	982	2352	1170
3	600	2850	982	3232	2050
4	700	2180	1140	2620	1480
5	700	2830	1140	2620	1480
6	800	2167	1290	2657	1167
7	800	2260	1297	2757	2060
8	800	3250	1297	3747	2250
9	900	2660	1454	3214	1560
10	900	3440	1454	3994	3240
11	1000	2400	1610	3010	1200
12	1000	2990	1610	3600	1790
13	1000	3300	1610	3600	1790
14	1000	3400	1610	4010	2200
15	1000	3540	1610	4410	2340
16	1000	3800	1610	4410	2600
17	1000	2880	1611	3491	1680
18	1000	3520	1611	4131	2320
19	1000	4740	1611	5351	3540
20	1100	3000	1768	3668	1700
21	1100	3250	1768	4188	2220
22	1200	3050	1925	3775	1650
23	1200	3940	1925	4665	2540
24	1300	2800	2082	3582	1300
25	1300	3450	2082	4232	1950
26	1300	3600	2082	4382	2100
27	1300	4000	2082	4782	2500
28	1300	4200	2082	4982	2700
29	1300	4770	2082	5552	3270
30	1300	6520	2082	7302	5020
31	1300	2512	2100	3300	1110
32	1400	3710	2239	4549	2110
33	1400	4360	2239	5199	2760
34	1400	5000	2440	5840	3400
35	1500	3900	2396	4796	2200
36	630	1200	1030	1600	370
37	630	1500	1030	1900	670
38	800	1900	1298	2398	900
39	1000	2300	1612	2912	1100
40	1600	3400	2555	4355	1600
41	1600	3900	2555	4855	2100
42	1600	4800	2555	5755	3000
43	1600	5000	2555	5955	3200

# GAS HOLDER BALLOON

A Gas Holder Rubber Balloon is a flexible and durable containment structure fabricated out of high tenacity polyamide fabric matrix, impregnated with compatible rubber polymer on the inside for the gas stored and on the outside with chloroprene for weather abrasion and UV resistance. This specialized balloon is designed to store and contain gases, typically in industrial, municipal, or biogas applications.

The Gas Holder Rubber Balloon is used to hold and manage the storage of various gases, such as biogas produced from organic waste in wastewater treatment plants or landfills. It functions by expanding and contracting as the gas volume fluctuates due to production, consumption, or other factors. This flexibility prevents the gas from escaping into the atmosphere while maintaining a consistent pressure within the tank.

The use of high quality rubber materials in the balloon construction ensures gas-tight sealing and allows for the necessary expansion and contraction without compromising the integrity of the containment. This technology is crucial in biogas plants, where captured methane gas is stored, preventing its release into the environment and allowing it to be utilized as an energy source.

Gas Holder Rubber Balloon play a vital role in sustainable waste management and energy production, providing a controlled and efficient way to store and utilize gases while minimizing environmental impact.

Capacity m <sup>3</sup>	A mm	B mm	C mm	D mm	E mm
5	1460	3000	750	90	1500
10	2200	3000	750	90	1500
15	2500	3200	750	100	1600
20	2800	3300	750	100	1650
25	3050	3600	750	115	1800
30	3200	3735	750	115	1850
35	3400	3900	750	115	1850
50	4000	4000	1000	205	2000
75	4500	4800	1000	205	2400
100	5000	5100	1500	205	2550

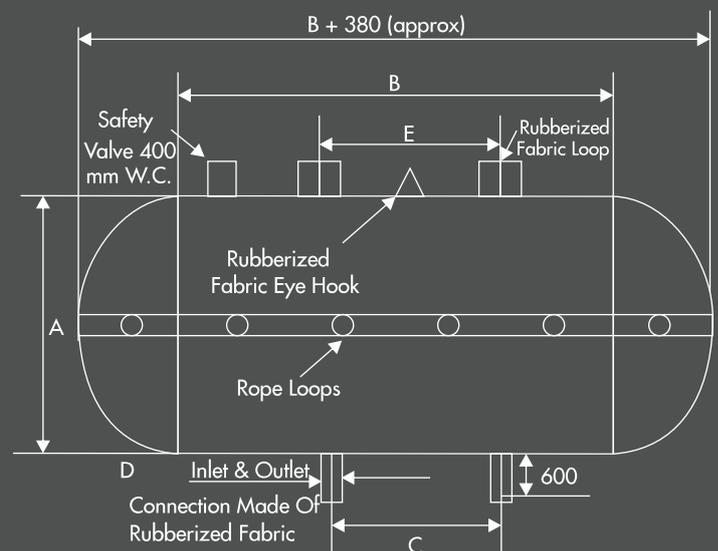


## USES OF GAS HOLDER BALLOON

1. Nitrogen (N<sub>2</sub>)
2. Oxygen (O<sub>2</sub>)
3. Carbon dioxide (CO<sub>2</sub>)
4. Biogas

## ADVANTAGES

1. Easy to install
2. light weight
3. Eliminates the use of conventional metal tank
4. It has long life as it does not corrode (like metal tank) because it is fabric made.
5. It saves floor space as it can be hung just below the ceiling.



 Note: Rope Loops Provided On All Four Sides

# INFLATABLE WORK BOATS

ZENITH specializes in crafting an extensive line-up of exceptionally robust and resilient Inflatable Work Boats, which have earned the top preference of countless customers due to their unmatched durability and reliability. The inflatable work boats are of international standard quality, prepared under the strict supervision of highly qualified professionals and with the help of the latest manufacturing techniques.

ZENITH Inflatable Work Boat's (WB) Hull performance is outstanding and the WB range is manufactured for the "no failure" zone applications where reliability and consistency are critical to the business whether the boat is close to the coast or in remote areas where access to repairs are not available.



## TYPES OF INFLATABLE WORK BOATS

- **Inflatable boats having capacity of 2+1 person (Marine)**  
(Manufactured and tested as per specification: DG Shipping Circular NT/LSA/Circular 01 of 2011 dated 25/02/2011. Subject: Work boats in lieu of rescue Boats for commercial Marine use)
- **Inflatable boats having capacity of 3+1 person (Marine)**  
(Manufactured and tested as per specification: DG Shipping Circular NT/LSA/Circular 01 of 2011 dated 25/02/2011. Subject: Work boats in lieu of rescue Boats for commercial Marine use)
- **Inflatable boats having capacity of 10+1 person (Marine)**  
(Manufactured and tested as per specification: DG Shipping Circular NT/LSA/Circular 01 of 2011 dated 25/02/2011. Subject: Work boats in lieu of rescue Boats for commercial Marine use)
- **Reece Boats (defence)**  
(Reconnaissance Boat of capacity 3 person, manufactured and tested as per specification: CQAE/1940/1520/ (b): 2006 for Naval/defence use)



## APPLICATIONS

- Geophysical industry.
- Oil spill recovery units.
- Offshore sectors.
- Rescue squads.
- Salvage and diving companies.
- Research and survey groups.
- Government operations-especially for Patrol and research

## OBM MOTORS SPECIFICATION

Portable OBM of various HP and corresponding weights-

- Highly reliable and durable with light weight compact design
- 4 stroke engine
- Superior fuel efficiency
- Available with power thrust design
- Reverse exhaust relief
- Large displacement
- Positive lubrication

# Technical Specification

IRS TYPE approved fabric and works approval for Inflatable Boats, As per technical Specification ISO:6185 Type - 3

<b>THICKNESS TOLERANCES</b>				
<b>DIMENSION</b>	<b>2+1 PERSON (MARINE)</b>	<b>3+1 PERSON (MARINE)</b>	<b>10 PERSON (MARINE)</b>	<b>REECEE (DEFENSE)</b>
Insertion Fabric	2400	3400	4500	3450
Overall Beam(mm)	1200	1500	1900	1250
Internal length(mm)	1800	2000	3200	2150
Internal Beam(mm)	500	700	1000	700
Buoyancy diameter(mm)	350	400	500	400
Weight(Kgs)	65	75	130	65
Max. no. of Persons	3	4	10	3
Chamber	3	3	5 including keel	3
OBM Motors (Mercury Marine)	15 HP - 25 HP	25 HP - 40 HP (4 Stroke, 3 Cylinder)	25 HP - 40 HP (4 Stroke, 3 Cylinder)	15 HP - 25 HP

<b>SAFETY / INFLATION</b>	<b>2+1 PERSON (MARINE)</b>	<b>3+1 PERSON (MARINE)</b>	<b>10 PERSON (MARINE)</b>	<b>REECEE (DEFENSE)</b>
No. of Chambers (Nos)	3	3	5 including keel	3
Inflation Pressure (Bar)	0.16	0.16	0.16	0.16
Pressure Release V/V(Nos)	NA	NA	NA	NA
<b>Buoyancy Tube</b>				
Fabrics	Hypalon & Chloroprene Coated Fabric			
Standard colors	Orange	Orange	Orange	Black
Safety valve (Nos)	NA	NA	NA	NA
Internal chamber (Nos)	3	3	4	3
All round rubbing strake	Yes	Yes	Yes	Yes
Grab rope	Yes	Yes	Yes	Yes
<b>Accessories</b>				
Foot Pump (Nos)	1	1	2	1
Repair kit (Nos)	1	1	1	1
Paddles (Nos)	2	2	4	2
Valise	NA	NA	Yes	Yes

- Custom width and length is available on request
- Custom colors available on request

# LIFE RAFT

A life raft is a small inflatable boat carried for emergency evacuation in the event of a disaster to aboard a ship. Throw overboard life rafts are designed to be used as independent units or as part of evacuation systems. Throw over board life rafts are stored in containers on deck and are inflated in the water when the painter line is pulled.

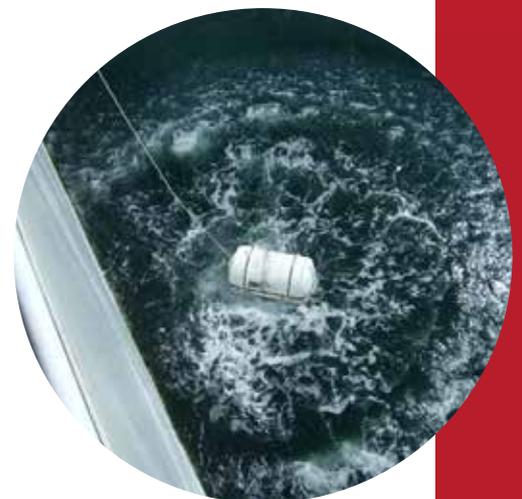
Once thrown overboard, the life raft will open and inflate automatically, the Hydrostatic Release Unit will ensure the life raft floats on the surface after inflation. Life rafts are used by the Navy and all other shipping companies.



## ADVANTAGES OF THE PRODUCT

- They can be stored anywhere on racks and ramps, saving valuable deck space and causing minimal disruption to sea views which is important for passenger ships.
- Equipped with emergency packs and life raft equipment according to SOLAS and flag requirements, the coated Fabric used for manufacturing Life Raft is IRS India approved.

DIMENSION	
Elastomers	Chloroprene / Chloroprene
Textile And Substrates	Nylon
Color	Fluorescent / Black
Product Volume Range	20 men /1500 Kgs
Ancillary Services	All shipping companies and NAVY



## SOME OF THE ITEMS INCLUDED IN LIFE RAFT

- Rations
- Drinking Water
- Orange Smoke Signals
- Red Hand Flares
- Red Parachute Flares
- First Aid Kit
- Torch
- Thermal Protective Aids
- Radar Reflector
- Others

# STORAGE TANKS

## CLOSED TYPE VERTEX (PILLOW TANK)

Zenith produces a wide range of collapsible fabric tanks also known as pillow tanks both for temporary and long-term liquid storage. These tanks not only can store water but also various chemicals, oil, gases, effluents and slurries available in capacities of 300 liters to 300,000 liters. Zenith's Pillow tanks can be easily transported and installed quickly with little or no on-site preparation. These are typically used for military operations, relief efforts, rural construction sites and many commercial areas. Specialized materials are available for a variety of applications.

Zenith's Pillow Tanks are capable to store diesel, jet A-1 fuel, oils, kerosene and various types of chemicals. Zenith is a proud supplier to Indian Military.



### ADVANTAGES OF PILLOW TANK

- Preserves the quality of water.
- UV / Ozone resistant
- Closed system as to keep it clean and disinfect
- Collapsible and Compact
- Easy Installation & Durable
- Passes rigorous quality control tests
- Withstands extreme weather conditions
- Delivered as a complete kit with all accessories in one box

### OPEN TOP VERTEX

Open top design allows for easy filling of liquids and protects the water source from outside contamination. The open top reservoirs are low profile circular shaped tanks. As the tank begins to fill, its unique design allows it to rise automatically.

These tanks are used for spill recovery, firefighting, and storage of potable water, and many other types of industrial liquids.

Typical applications include fish hatcheries, watering, rainwater accumulation, drilling and also as a portable pool in your house. Zenith® Vertex is the farmer's best friend. It can be used as a water reservoir for irrigation of agricultural fields. UPVC valves are durable and long lasting.

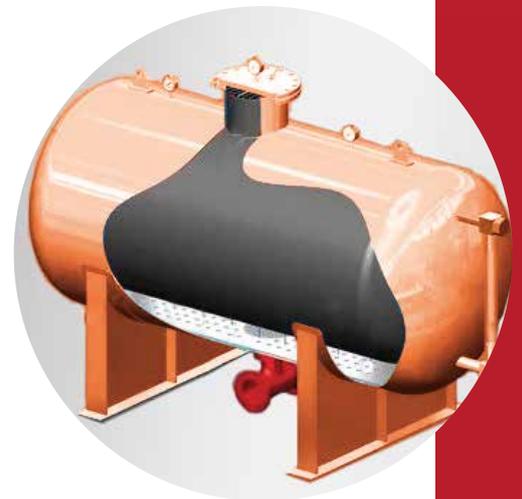


# SURGE BLADDER

Surge bladders are used to prevent pressure surges which can occur in a hydraulic system when the flow in a pipeline is stopped too quickly. When a valve closes or a pump stops the water or oil or other fluid in a hydraulic system, it will attempt to continue the flow, this will cause an increase in pressure which can damage the pipe. Surge control devices absorb and limit this pressure increase and prevent damage to the pipe work.

Controlling hydraulic surges can increase the life of hydraulic systems by effectively managing these destructive forces. A bladder surge tank is an effective solution to control the surges.

The Compressible Bladders are made from specially formulated Rubber with Heavy Duty Double textured Nylon fabric reinforcements and are fitted with Standard Flanges. These types of Bladders are normally used for Surge Tanks, which are filled with Water and the Bladder contains charged Nitrogen. The Bladder can be compressed up to zero levels during surge operations. Each vessel is manufactured under the guidance of experts in the respective field, which assures maximum safety and high quality at a minimal cost.



## DIMENSION

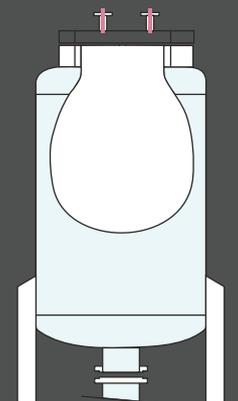
Elastomers	Nitrile /Chloroprene /Butyl
Textile And Substrates	Nylon 6 / polyester
Color	Black
Product Volume Range	50 Ltr – 60000 Ltr
Ply Layer	Single lamilate ply with chloroprene on both side
Size	Supplied to customers requirements dependent on gauge and weight.
Surface Finish	Smooth

## ADVANTAGES

- Product Efficiency
- Strong and Durable Bladders
- UV & Ozone Resistant
- Suitable for Potable Water applications
- Easy Handling
- Compact
- Flexible & Light Weight

## APPLICATION

- Fire Protection Systems
- Construction
- Industrial Automation
- Energy and Power Generation
- Aerospace and Aviation
- Oil and Gas Industry
- Automotive Industry



# OIL BOOM

An oil boom is a temporary, buoyant barrier meticulously designed to confine oil spills, significantly mitigating the risk of pollution along coastlines, rivers, and oceans. Its primary purpose is to gather and contain oil within thick surface layers, ensuring convenient retrieval for clean-up operations. This essential tool comprises a floating containment partition that remains above the water's surface, coupled with a submerged curtain.

Zenith Oil booms possess remarkable versatility, effectively functioning across a range of wind conditions. Their deployment serves a crucial role in safeguarding shorelines, preserving valuable resources, and facilitating efficient recovery efforts. By concentrating oil into denser surface layers, they optimize the effectiveness of oil collection methods, such as skimmers and vacuums.

These booms come in various configurations, tailored to different water conditions and operational requirements, providing varying levels of effectiveness. In essence, oil booms stand as a pivotal defence against oil spills, offering a means to protect vulnerable ecosystems and streamline the clean-up process.

## DIMENSION

Insertion Fabric	Nylon / Polyester
Polymer	Chloroprene / Chloroprene , Chloroprene / CSM Rubber
Color	Black/ Grey/ Orange / Red / Blue
Breaking Strength (Min)	Warp-200 kgs, Weft-200 Kgs
Thickness (Min)	2.40mm ± 0.05mm, 0.094 inch ±0.002"
Width Available	1.0 Mtr (39.37") to 2.0 Mtr (78.74")
Coated Fabric Weight (Min)	500 (min) to 5000 (max) ± 200 GSM



## CONSTRUCTION

Zenith Oil boom is manufactured with two layers of synthetic fabric vulcanized with four layers of heavy-duty oil and UV resistance chloroprene rubber. Stiffeners, anchoring points, and fixing plates are vulcanized between fabric layers, ensuring a robust structure that's easy to clean and maintain.

The boom features stripes and reflectors for enhanced visibility. Its ballast comprises hot-dip galvanized steel chain, providing strength and skirt support.



## APPLICATION

- Suitable for Marine
- Harbours
- Offshore Operations
- Permanent Installations
- Oil Sweeping Activities

## FEATURES

- Preferred product for marine application.
- Highly resistant with Oil, Water, Air
- Basic fabric for oil boom, double texture ply give extra strength to the fabric & make it more durable & Flexible.

# AIRCRAFT LIFTING BAG

A Rubber Air Lifting Bag is a specialized device used in heavy lifting and rescue operations. It is constructed from durable rubber materials and is designed to be inflated with compressed air. When inflated, the bag expands in size, creating a lifting force that can be used to raise heavy objects, create gaps in tight spaces, or provide stabilization.

The primary application of Rubber Air Lifting Bags is in emergency scenarios, such as extricating trapped individuals from vehicles after accidents or lifting heavy objects during search and rescue operations. They are also commonly used in construction and industrial settings where there's a need to lift heavy machinery or components.

Key features of Rubber Air Lifting Bags include their ability to generate a significant amount of force, their compact and portable design, and the ease of use. They are especially valuable in situations where traditional lifting equipment may be challenging to deploy or less effective.

Overall, Rubber Air Lifting Bags play a crucial role in various emergency response and heavy lifting situations, providing a versatile and reliable solution for lifting and moving heavy loads.



DIMENSION	
Insertion Fabric	Nylon
Polymer	Chloroprene / Chloroprene
Color	Black / Grey / Orange / Red / Blue
Fabric Specification	Nylon fabric with coating with synthetic rubber as per IS 11326-1985
Coated Fabric	Fabric must be strong enough to lift load 12 Tons (min) when inflated & bag pressure 0.75 kg/cm <sup>2</sup>
Coated Fabric Burst Pressure	Coated Fabric Burst Pressure at 2 kg/cm <sup>2</sup> min.
Temperature Test	Coated Fabric withstand -20°C for 24 hrs & 70°C for 6 hrs, fabric No Crack, No Leakage

# AIR CASTER

A Rubber Air Caster, also known as an Air Bearing or Pneumatic Air Caster, is a specialized device designed for moving heavy loads with minimal friction and effort. It utilizes compressed air to create a thin, low-friction cushion between the load and the floor, enabling easy and precise movement of even extremely heavy objects.

The primary components of a Rubber Air Caster include a flexible rubber membrane or bladder and a network of air channels. When air is pumped into the caster, the rubber bladder inflates, creating a lifting force and lifting the load slightly off the ground. This air cushion allows the load to move with very little resistance, making it possible to maneuver heavy items in any direction, including sideways.

Rubber Air Casters are commonly used in industrial applications where moving heavy equipment, machinery, or large components is required. They are especially valuable in settings where traditional methods of lifting, such as cranes or forklifts, may not be suitable or practical. These casters are also gentle on the floor, reducing the risk of damage to sensitive surfaces.

The versatility, ease of use, and efficiency of Rubber Air Casters make them a popular choice for companies dealing with heavy loads and looking for safe and efficient material handling solutions.

DIMENSION	
Insertion Fabric	Polyamide
Polymer	Polychloroprene
Color	Orange / Black
Fabric Specification	Polyamide fabric coating with synthetic Polychloroprene rubber
Operating Pressure	4 to 6 Kgs
Load capacity	350 Tons - 10 Nos
Lifting Height	5 mm



# ACHIEVEMENTS & MEMBERSHIP

- AIRIA Highest Export Award - 2022-2023.
- Best Exporter Gold Trophy Award - FIEO.
- Special Export Award - Capexil.
- State Export Award - Directorate of Industries
- Certificate of Merit Maharashtra Government.
- Membership with AIRIA (All India Rubber Industries Association)
- Membership with CAPEXIL (Chemical and Allied Export Promotion Council of India Limited)
- Membership with FIEO (Federation of Indian Export Organisations)
- Membership with IMC (Indian Merchant Chamber)
- Certificate of Government Recognized Export House



ISO 14001 : 2015



ISO 9001 : 2015



45001:2018



सत्यमेव जयते  
DSIR



NABL

## SYSTEM CERTIFICATE

ISO 9001:2015

ISO 14001:2015

ISO 45001: 2018

DSIR CERTIFICATION

NABL ISO 17025

## PRODUCT CERTIFICATION

CE Certificate

RoHS Intertek Compliance

RoHS - TUV

PAH Compliance

REACH Compliance

US-FDA Certification

WRAS Certificate

WQC Certificate

SVHC Compliance

Chemours Genuine Viton Distributor



**FRAS**



**Zenith Rubber** enjoys the leadership status  
with their wide Presence & Network  
across the globe



**ZENITH**™ **ZENITH** INDUSTRIAL RUBBER  
PRODUCTS PVT. LTD.  
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