

Certified to  
**NSF/ASNI/61**  
**NSF/ASNI/372**

**Alfa  $\approx$  Aerosol**<sup>®</sup>  
PRESSURE VESSELS

## FIBRE REINFORCED PLASTIC (FRP) PRESSURE VESSEL



# Alfa $\approx$ Aerosol<sup>®</sup>

PRESSURE VESSELS

ANU ADVANCE COMPOSITE PRODUCT PVT LTD was established in the year 2005 and Leading manufacturing company in FRP Pressure Vessels, Membrane Housing and Multi Cartridge Filter.

All the manufacturing processes are housed in a state of the art factory facility located in Toopran, Telangana with an area of 1,74,240 sq ft and Constructed Seven Factory shed's and Corporate Office.

We are Equipped With Latest Machinery In Our Factory with Seven Filament winding machine's, Blow Moulding machine, Injection Moulding Machine, CNC, Auto Surface Grinding machine, Semi Auto Painting machine and Many more.

Quality does not mean "Pay More" remains our key motto and we at AACP strive to achieve the same without compromise on the quality factory.

## The Product

Today, we lead the industry with highly advanced manufacturing facilities and dedicated sales personnel located around the world. Alfa Aerosol high performance pressure vessels are guaranteed to provide years of dependable service. It also provides cost-effective solutions for the most challenging applications. Our pressure vessels are accepted globally as a superior solutions for water treatment.

## Technology & Manufacturing Process

Our exclusive patented manufacturing process creates a seamless polyethylene shell that is wound continuously with fiberglass reinforcements and sealed with epoxy resins. This process makes the vessels non-corrosive and there is no chance of any leakage. Computer aided winding machine and other customised equipment are to create a product that offers outstanding performance and durability.

## Product Features

- Full choice of vessels available upto 63" diameter with 86" height
- Diameter with capacities from 33 to 2500 liters
- Outstanding performance and durability in harsh chemical environment
- Unmatched strength with rust free guarantee
- Alfa Aerosol pressure vessels comes with an unmatched 3 years warranty

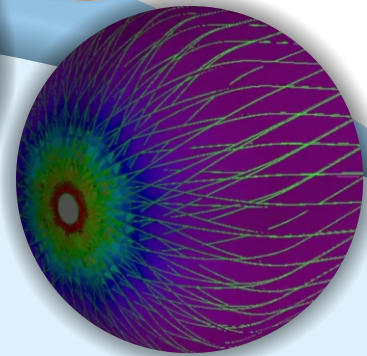
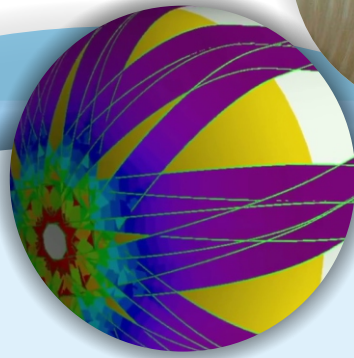
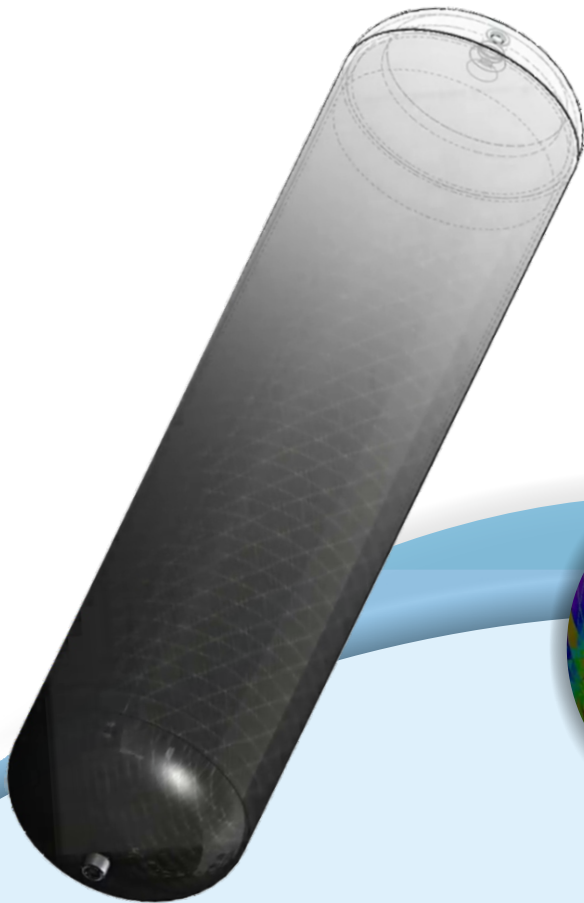


## Why customers Specify Alfa Aerosol Pressure Vessels?

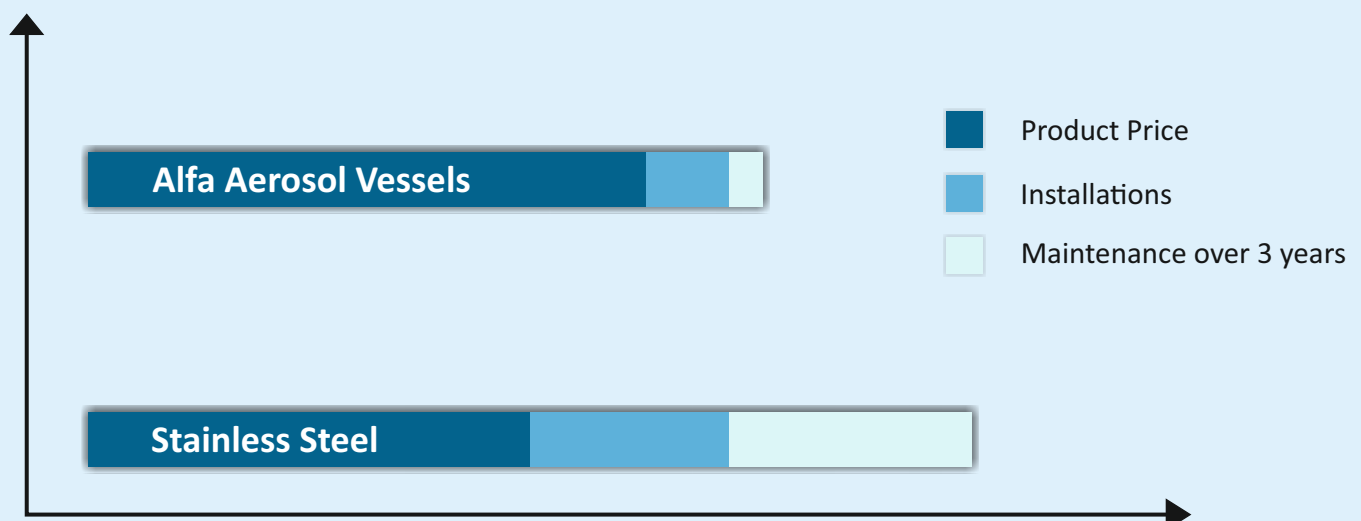
- High-quality products
- Unparalleled customer support
- On-time delivery
- The best warranties in the business
- Raw material used are from best Multinational suppliers

## ADVANCE COMPOSITE DESIGN AND SIMULATION

Our team of qualified engineers design and simulate the composite vessels in the 3D and solid works before approving the product to the production line. This allows us to make any changes in any product and avoid any error in the finished product. The designing of the composite vessels are done in such a way that it allow us to go through many parameters such as bursting pressure point, minimum and maximum winding, thickness of the liner etc so that the final product matches the actual requirement of the client.



## Cost effective graph of Alfa Aerosol Vessels



## Benefits & Advantages over Conventional Vessels

Alfa Aerosol Pressure Vessels	Steel Water Tanks
<b>Durability</b>	
<p>Excellent ultra violet (UV) resistant characteristics and performance. Vacuum test of 5" of Hg at 120°F</p> <p>100% vessels are hydrotested at 1.1times the operating pressure.</p> <p>Design to qualify for One Lakh Cycle Test (Hot, Ambient and Cold) and Burst factor of 4 times the operating pressure</p>	<p>Exposure to weather variations such as cold and heat as well as varying water levels on the tank walls results in expansion and contraction creating cracks on the laminated surfaces which leads to a shorter life due to corrosion.</p> <p>Lack of regular maintenance results in a short life for steel water tanks.</p> <p>Freezing results in deformation and possible cracking.</p>
<b>Water Quality</b>	
<p>Light proof to prevent algae growth.</p> <p>Alfa Aerosol Pressure Vessels are completely sealed, manhole covers and air vents are by design dust and insect proof. No metal components need to be in contact with water. Reinforcement bolts and nuts for assembly are on the outside.</p>	<p>Residual chlorides causes chlorine gas when water pours into tank through inlet, this degrades both metal and water quality.</p> <p>Bottom slope will not allow complete drainage of hose pressure water with chemicals used for cleaning resulting in contamination of incoming water.</p>
<b>Leakage</b>	
<p>Long life UV protection prevents the tank from leakage.</p> <p>Seamless design except Manholes &amp; side ports.</p>	<p>Weak points at welded joints lead to leakage problems with welded tanks.</p> <p>Bolted steel tanks are susceptible to high expansion and contraction due to thermal properties, which will over time affect sealant causing leakage.</p> <p>If corrosion is not corrected regularly it will eventually cause leakage.</p> <p>Freezing will result is leaks at the joints.</p>
<b>Repairs &amp; Maintenance</b>	
<p>Maintenance limited to outside bolt tightening/ and internal hose water pressure wash down without chemicals.</p>	<p>Needs frequent maintenance due to corrosion. Maintenance is often done with paint &amp; lining which contains toxic chemicals.</p> <p>Heavily corroded sections may need to be cut out and replaced which is a costly and time consuming exercise with long interrupted water supply periods.</p> <p>Maintenance results in interruption of water supply.</p>



## Raw Material Incoming

The first process of manufacturing any product is procuring raw material. and that we make sure to get the raw material from standardize vendors who maintain quality of the material upto the mark.



## Collection Chamber

The material is then brought to the collection chamber where a team of QC individuals check and approve the raw material for further processing of manufacture like Blow Molding, Injection Molding, Filament Winding etc.

## Blow Molding

Our advance fully autonomous series of Blow Molding & Rota Molding machines which can produce vessels and tanks from 20 Liters to 1200 Liters produce the high quality liner of vessels with maximum strength and durability within short space of time.



## Checking of Liner

The liner which is produced by blow molding machines are then move forward for testing where the liner is process through several test like leakage test, Puncture test, stretch test etc.

## Fiberglass Filament Winding

The liners are then further processed to filament winding. A process which is an intelligently automated controlled that covers the entire vessel with high quality fibre glass which provides tensile strength to the vessel.



## Base Jointing

The strong FRP Pressure Vessel requires even stronger BASE. The base of the pressure vessel is made up of complete FRP to uphold the strength of 10 times than it actual strength holding capacity.

## Hydro Testing

The complete FRP Pressure vessel will now be tested and push beyond the limits by testing the pressure vessel 10 times more than its actual pressure holding capacity to be ensured about the quality of the pressure vessel.



## QC Inspection

A team of qualified engineer inspect the vessel for any kind of error that can comes in the manufacturing. Once inspected the pressure vessels are moved to the labeling section.

## Labeling & Packing

The pressure vessel will now be labeled and packed with specially made corrugated boxes to prevent any damage in transportation.



## Forwarding To The Clients

A complete furnished FRP Pressure Vessel with extreme fine quality will now be ready to be dispatch to our respected clients.

# M

anufacturing

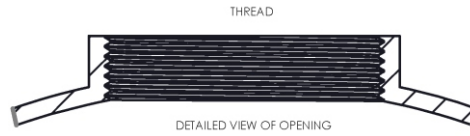
# FRP

# Pressure

# Vessel



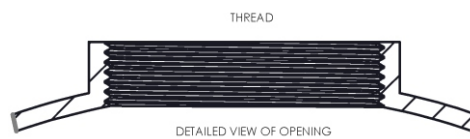
# Residential/Mini Vessels



Connection Type: 2.5" Thread - Base: SMC - Opening: Top

Pressure Vessel Model	Height (mm)	External Diameter (mm)	Volume of Vessel
635 T	902	166	15
735 T	902	191	20
835 T	875	200	20
844 T	1100	200	35
1054 T	1350	250	67
1248 T	1219	300	83
1354 T	1350	325	110

# Industrial Composite Vessels

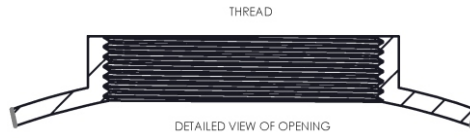


Connection Type: 4" Thread - Base: SMC - Opening: Top

Pressure Vessel Model	Height (mm)	External Diameter (mm)	Volume of Vessel
1465 T	1625	350	145
1665 T	1625	400	186





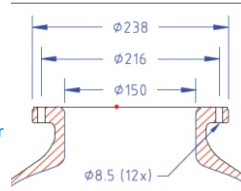


**Top Opening: 4" Thread - Base: Tripod - Opening: Top & Bottom**

Pressure Vessel Model	Height (mm)	External Diameter (mm)	Volume of Vessel
1465 TB	1625	350	145
1665 TB	1625	400	186
1865 TB	1925	450	236
2162 TB	1500	525	312
2472TB	1800	600	450
3072 TB	1800	750	750
3672 TB	1800	900	1000

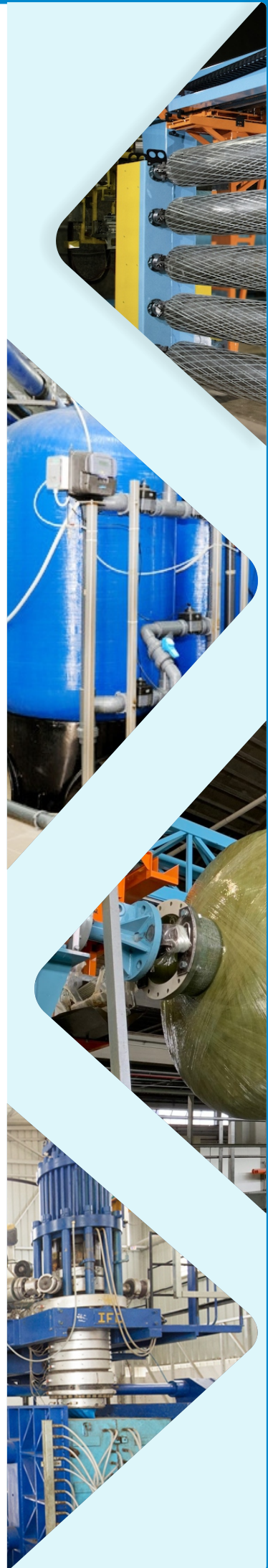
## Industrial Large Composite Vessels

Operating Pressure:  
Min 0 bar - Max 10 bar  
Operating Temp:  
Min 1 C - Max 65 C



**Top Opening: 6" Flange - Base: Tripod - Opening: Top & Bottom**

Pressure Vessel Model	Height (mm)	External Diameter (mm)	Volume of Vessel
3072 TBF	1800	750	765
3672 TBF	1800	900	1000
4272 TBF	1800	1050	1450
4872 TBF	1800	1200	1800





# Composite Industrial Side Hole Tanks

Top & Bottom Opening: 6" Flange - Side Opening: 4" or 6"

Pressure Vessel Model	Height (mm)	External Diameter (mm)	Volume of Vessel
3072 TBFS	1800	750	765
3672 TBFS	1800	900	1000
4272 TBFS	1800	1050	1450
4872 TBFS	1800	1200	1800

- Customize composite vessels with side top and bottom holes used for mixed bed resins are available from 1054 to 4872.

## Description

Alfa Aerosol offers premium and reliable quality of composite pressure vessels to use in any kind of water or waste water treatment plant. The vessels are made by the combination of specially made fibre glass and industrial plastic liner. The liner is reinforced with FRP outer shell to provide strength to withstand the high pressure upto 10kg/cm<sup>2</sup> without any damage. The vessel we made are both cost effective and reliable as well which withstand in any condition of water.

## Design Features

- The vessels perform extremely well in even worst conditions of water due to its inner HDPE/LDPE Liner with FRP filament outer shell.
- High Resistance to corrosion or leakage.
- Protection against UV and algae growth inside the vessel.
- Unmatched Warranty.
- Available in multiple colours.
- Customisation to the sizes of the vessel can be done due to our INHOUSE manufacturing capability.

## Operating Parameters

- Maximum operating pressure - 10KG/CM<sup>2</sup> (140 PSI).
- Maximum operating temperature is 60°C.
- Use of vacuum breaker is recommended.



# **Alfa $\approx$ Aerosol<sup>®</sup>**

PRESSURE VESSELS



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