



**SMART ENGINEERING FOR YOUR** 

# STORAGE APPLICATIONS

# INTRODUCTION



### **Novarius Global**

is an ISO 9001:2015 certified company having it's headoffice in UAE and Indian offices in Delhi and Mumbai.

The company believes in supply and installation of premium quality prefabricated Steel Bolted Tanks with the team of skilled workers and experienced technicians.

We Provide comprehensive liquid and dry bulk tank storage solutions across India, Middle East, Africa & Worldwide.

From design to installation and commissioning, we deliver tailored solutions for various sectors including water storage, firefighting, and industrial needs.

Our commitment to quality, efficiency and continuous improvement sets us apart, with a strong focus on research and technology advancements.

With over 1200+ installations in India and Globally, our flawless project management and client satisfaction speak for themselves.



# **OUR EXPERTISE**

### Tailor-made to turnkey tank solutions

that are trusted by industry giants and global players.



### Modular design

with premier coating technology that ensures speed of installation low maintenance and economics of value.



### **Superior quality**

that ensure high performing solutions for both liquid and bulk dry storage



# **OUR PRODUCTS**



✓ Zinc Alume Tanks



✓ Grain Storage Silos



✓ Glass Fused Steel Tanks



Fusion Bond Epoxy Tanks

# OUR **CLIENTS**



























AFPA FIRE FIGHTING & SAFETY



أرامكو السعودية saudi aramco









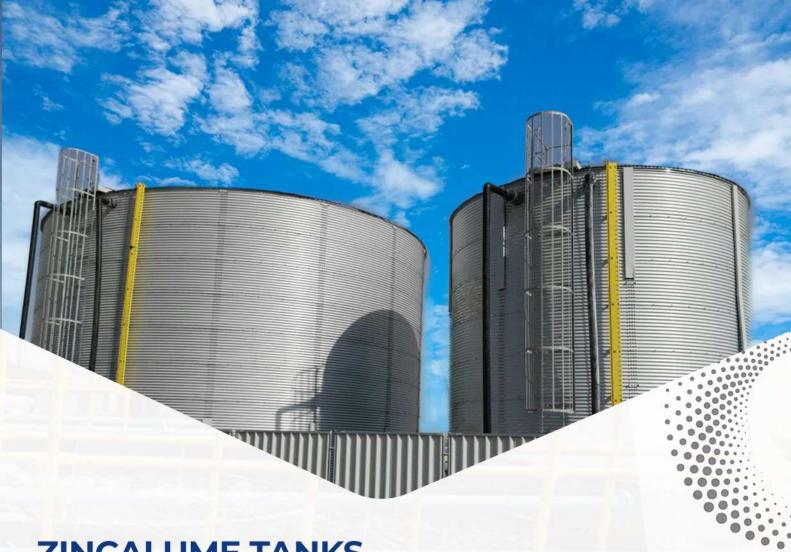












# **ZINCALUME TANKS**

ZincAlume Tanks are Bolted, Panelled and Liner Tanks having a sacrificial coating of ZincAlume with Al- 55%, Zn-43.5% and Si-1.5% which lasts upto 4 times longer than Galvanized Steel. ZincAlume is new cutting edge technology that gives the best enhanced and aesthetic features to our ZincAlume Tanks.

### **TECHNICAL SPECIFICATIONS:**

Design Life -

Design Standard -

» Shape -

Coating Thickness -

Colour of Sheet -

Liner inside the Tank -

>> Thickness of Liner -

» PH range -

25+ years

AS2304 (Australian Standard), NFPA 22 (Compliance)

Cylindrical

150 GSM

Natural Zinc Colour

Reinforced PVC/ PE LINERS, UV STABLIZED,

ALGAE PROOF, FOOD GRADE LINER

760 GSM/890 GSM

3 to 11



# **GLASS FUSED STEEL TANKS**

Glass Fused Steel is a leading solution combines the advantages of both materials – the strength of and flexibility of the steel and high corrosion resistance of the Glass. The tank panels are fused with Glass enamel coating at 800 to 900 degree Celsius with perfect anti-corrosion performance which is ideal to use for Water, Waste Water Storage Tanks and BioGas Digesters.

### **TECHNICAL SPECIFICATIONS:**

» Design Life -

» Design Standard -

» Shape -

» Coating Material-

» PH range -

» Coating Process -

Coating Thickness -

Colour of Sheet -

35+ years

AWWA-D-103, NFPA 22, EN ISO 28765:2016

Cylindrical

Glass Enamel

3 to 11

Doubly Coated & Doubly Fired

350 -400 micron (both sides)

Blue/Green/White





# **FUSION BOND EPOXY TANKS**

Fusion Bond Epoxy is an electrostatically applied coating system with superior coverage and uniform coating thickness. Thermoset resin fusion bonded epoxy used on the internal surface combined with the ultra durable polyester on external surface ensures high performance corrosion resistance for water and waste water storage tanks.

### **TECHNICAL SPECIFICATIONS:**

» Design Life - 30+ years

Design Standard - AWWA-D-103, NFPA 22, EN ISO 28765:2016

Shape - Cylindrical

» Coating Material - Epoxy Resin

Coating Thickness - 100 -150 micron (both sides)

» Colour of Sheet - Blue/Green/White

» PH range - 3 to 13





## **GRAIN STORAGE SILOS**

Novarius Global Novarius Global manufactures a wide range of grain storage Flat Bottom and Hopper Bottom Silos. Our Silos are recognized worldwide for their strength, durability, reliability and easy assembly. The cylinder is constructed from galvanized corrugated steel sheets/ZincAlume Sheet with profiled external galvanized vertical stiffeners. All components are manufactured using highly automated techniques, ensuring fast and accurate production.

### Hopper Bottom silos

capacity starting from 100 MT to 900 MT. ventilation, Ladders, Level Indicator & Grain unloading gates as required are all provided to the built hopper bottom silo. The grains will be discharged by gravity to the bucket elevator/belt conveyor for onward conveying. These silos can also be built on the top of the concrete conical hopper with beams and columns built in situ.



### Flat Bottom silos

capacity starting from 1000 MT to 12,500 MT. Flat bottom silos use for bulk and Long Time Dry Storage of large quantities of grain, seeds.



### APART FROM THIS WE CAN SUPPLY AND INSTALL:

- 1. Material Handling Equipments
- 2. Silo Accessories
- 3. Automation

# **NOVARIUS TANKS APPLICATIONS**

Municipal Wastewater



Biogas Digester



Sludge Storage



Industrial Wastewater



Potable Water



Liquid Leachate



Fire Protection Water



Dry Bulk Storage



Slurry Storage





# **NOVARIUS TANKS ADVANTAGES**

**Advantages** 

1,,,,,

Excellent anti-corrosion performance



Smooth, cohesion less, anti-bacteria



High-inertia, high acidity/alkalinity tolerance



Fast installation with better quality: design, production and quality control in factory



Less influenced by local weather



Safe, skill-free:
less working aloft,
no need for long
time worker training



Low maintenance cost and easy to repair



Possible to combine with other technologies



Possible to relocate, to expand or to reuse



Beautiful appearance



**CERTIFICATIONS** 







# **JAL JEEVAN MISSION**



Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India.

The programme will also implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting.





The Jal Jeevan Mission will be based on a community approach to water and will include extensive Information, Education and communication as a key component of the mission.

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JJM looks to create a jan andolan for water,

### **OUR CREDIBILITY IS BUILT ON CLIENTS** SUCCESS

# 1200+

### **DIVERSE INSTALLATIONS ACROSS INDIA AND WORLDWIDE**



### **Greater Noida**



Application: MBBR Tank Client: Steller One Capacity: 45 KL X 2



### Andheri, Mumbai, India



Client: Bisleri International Ltd.

Application: Raw Water Tank, Treated

Water Tank

Capacity: 200 KL X 1, 50 KL X 1



### **Qatar**

ZINCALUME TANK

FOR STP PROJECT

Client: Action Services International

Capacity: 200 KL







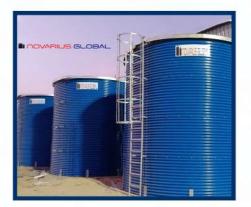


**FUSION BOND EPOXY** 

Client: City Diamond Contracting

Capacity: 100 KL X 2





### Nellore, India



Client: ANA OLEO PVT. LTD.

Application: ETP Project

MOC: Fusion Bond Epoxy

Capacity: 55 X7, 110 KL X 3



### Surat, India



Client: Condor Footwear Ltd.

Application: Fire Water Tank
Capacity: 100 KL X 2



### **Qatar**



Capacity: 3172 KL
Application: ZincAlume Sea Water Tank
Client: Synergy Vision Construction



### Noida, Uttar Pradesh



Client: SAMSUNG ELECTRONICS PVT. LTD,
Application: STP TANKS
Capacity: Multiple



### Saudi Arabia



Client: Saudi Aramco
Application: Fire Water Tank
Capacity: 100 KL



### Valsad, India



Client: Gujarat Housing Board

Application: **STP**Capacity: **Multiple** 



### Goa, India



Client: Airport Authority of India Application: Soft Water Tank

Capacity: 50 KL



### Dubai



Client: **DUBAI METRO** 

Application: FUSION BOND EPOXY FIRE WATER TANK,

POTABLE WATER TANK

Capacity: **500 KL, 400 KL** 



### Mumbai, India



### **Fire Water Tank**

Client: TATA POWER LIMITED

Capacity: 400 KL



### Faridabad, India



Client: Mann Frozen Foods Pvt. Ltd.
Application: Treated Water Tank

Capacity: 50 KL

# **COMPARISION**

Novarious Zincalume & Colorbond steel kit form storage Tanks with Liner	Bolted and welded Steel tanks without liner	Concrete Tanks	
High grade reinforced liner. Forcasted to last 50-60 years in a fully roofed tank. Using a liner ensures there is no contact between the steel structure and the stored water (no use of silicones or sealants required).	Water in direct contact with steel structure compromising longevity of the tank. Problems occur as a result of silicones used to seal bolt joins.	Concrete is porous in nature which allows seepage of water over time. Since water is directly in contact with concrete wall the eventually leads to cracking spalling, Scalling time deposition and contamination.	
Flexible steel wall with a unqiue and string corrugated profile. The internal liner and tank shell can move independently of each other.	Limited flexibility due to the use of silicones or selants over the lap points (these will break the tanks down over time).	Rigid, inflexible structure incapable of with slanding movement without cracking (movement as a result of heavy machinery, unstable ground, or soil subsidence).	
Modular kit-form structures that are easy to lift and handle can be installed on building roof tops and on project sites where space is restricted.	Tank wall panels are considerably heavier and therefore more difficult to transact. Limited or restricted lager tanks will require the use of a crame to lift the wall panels into position.	Concrete tanks are not suited for hilly regions and irregular terrains due to the difficulty of reaching locations or inaccessible sites.	
Tanks can be shipped or transported almost anywhere; each tank knocks down to only 1% of its fully assembled size, allowing us to pack between 15 and 25 units into a sea container. Tanks can be transported by sea, rail, or air if required.	Installation of these tanks is subject to site access or wight restrictions. Damage to the coatings used to seal the steel can occure transit.	These tanks have limitations as to where they can be transported and installed due to the lack of availability or local settlements near the site of a bataching plant.	
Completely modular Knock Down design. All components are of consistent quality as they are produced in a controlled factory environment and checked prior to dispatch (in accordance with ISO 9001).	Welded steel tanks require thorough labor-intensive checking to ensure all joints are adequately sealed or water-resistant.	Not all batches of concrete are of the same quality of consistency. Longer installation and curing times will result from the material being of inconsistent quality, and weaker areas will eventually cause cracking to appear in the wall structure.	
In the event of accidental damage, all components of the Novarius tanks are replaceable. This means that the customer does not need to buy new tank replacement parts; they can be air freighted if required.	Square and rectangular bolted steel tanks have a considerable amount of internal and external bracing. These bracings are in direct contact with the stored water and will comode after a period of time, causing discoloration of the water. Replacement and refurbishment costs are very high.	Repairs are not effective and will not last, and replacement costs are high. Novarius global tank liners are often used to repair cracked or leaking concrete tanks due to their economic cost.	
Novarius global kit form tanks are demointable and can be relocated to a new location if required.	Steel bolted tanks can be relocated; however, considerable work and expense are required to do this.	Permanently installed structure that cannot be moved to another location without a great deal of difficulty or expense.	
Full range of factory pre-coated colors is available. Tanks can also be painted it desired.	Limited colors available.	Limited colors available.	
Novarius global tanks can be purchased and use immediately after installation. No curing process is required. Tanks up to 248,000 liters in capacity can be installed in one or two days.	Construction time is considerably longer than the Novarius global kit form tank.	Concrete tanks may take several days to complete. Curing can take up to 28 days, depending on weather conditions at the time of installation.	
All Novarius global tanks contain a fully welded, one-piece liner! Like a giant bag, no sealing is required.	End Sealing bolted steel tanks without a liner is a difficult task. These tanks do not have a continuous seal.	-	
Tank liner is designeed to move with any flexing of the tank wall.	Steel floor have limited flexibility.	Concrete Floor has limited flexibility.	
Low cost for high quality product that is built to last, installation is simple and fast, and tanks can be filled immediately upon completion of construction.	High-cost construction time is moderate, but it can be labor intensive due to the weight of the steel panels.	Highly Labour intensive with considerable time required for construction.	

### **COMPARISION BETWEEN VARIOUS TYPES OF TANKS**

Features	Our Tank	MS Tank	RCC Tank	SS Tank	PVC Tank
Cost (Rs./Litre)	2.00 to 10.00	3.00 to 12.00	5.00 to 15.00	17.00 to 35.00	3.00 to 12.00
Maintenance	Not Required	Highly Required	Required	Not Required	Highly Required
Food Grade	<b>Ø</b>	8	<b>(S)</b>		<b>Ø</b>
Algae Formation	8	<b>Ø</b>	<b>(</b>	<b>8</b>	<b>Ø</b>
Corrosion	8	<b>Ø</b>	Negligible	8	8
Relocation	Easy	Difficult	Not Possible	Difficult	Easy
Weight	Light	Heavy	Very Heavy	Heavy	Light
Expandable			<b>&amp;</b>	8	<b>8</b>
Liquid Temperature	Negligible	Increase	Increase	Increase	Increase
Life of complete tank	4-60 Yrs	7-15 Yrs	30-80 Yrs	60-80 Yrs	5-10 Yrs
Need Painting Coating	<b>(X)</b>			<b>(S</b> )	

# AT NOVARIUS, WE HAVE THE RIGHT SOLUTION FOR YOU

# **SMART** ENGINEERING FOR YOUR STORAGE APPLICATIONS

S imple solutions that are high on quality and competitive on costs.

odular system that ensures ease of transportation, speed of assembly, and dismantling.

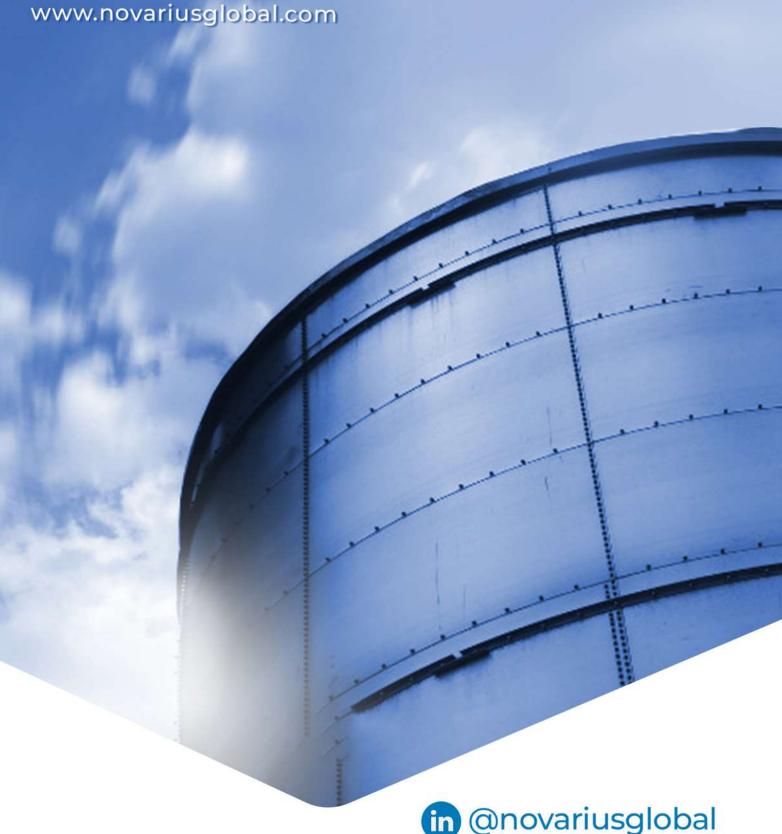
daptable fabrication to meet your specific needs and site restrictions.

eliable design with factory finish coatings that are consistent and low on maintenance.

ailor-made to turnkey tank solutions that are trusted by industry giants and global players.

# Our innovative technology and methodology help deliver value everyday, and to every client.





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