

OASIS METAL GRPTANK

www.oasis-metal.com

GRP TANK-FRP TANK-GLS TANK



INNOBIZ



ISO9001:2000



شركة الواحة المعدنية للصناعة

OMICO

Oasis Metal Industrial Co.

CR.2050204619

GRP SECTIONAL PANEL WATER TANK



OASISMETAL GRPTANK

www.oasis-metal.com

●● SPECIAL FEATURE

● The Special Feature of OASIS GRP Sectional Water Tank

Intensity and Durability

Glass fiber Reinforced Panel is molded under condition of high temperature and pressure to maintain the best endurance. Since using stainless steel for inside structure and HDG steel for outside, it shows best performance against erosion.

Excellent Hygiene

No corrosion from panels and prevent bacteria increasing by isolating outside light.

Watertightness

The joints are sealed with special sealing tape especially developed for water tank.

Heat Insulation and Dewdrops Prevention

The heat insulation panel with 3 layer structured improves heat insulation effect. Protects water from dewdrops and minimizes temperature variation of the stored water.

Best Size Stability

GRP Sectional water tank panels size are changeless from the outside condition so assemble it accurately.

Various Capacity Design

Various sized panels used limited space for its best using way so can satisfy your needs.

Easy to Assembly and Transporting

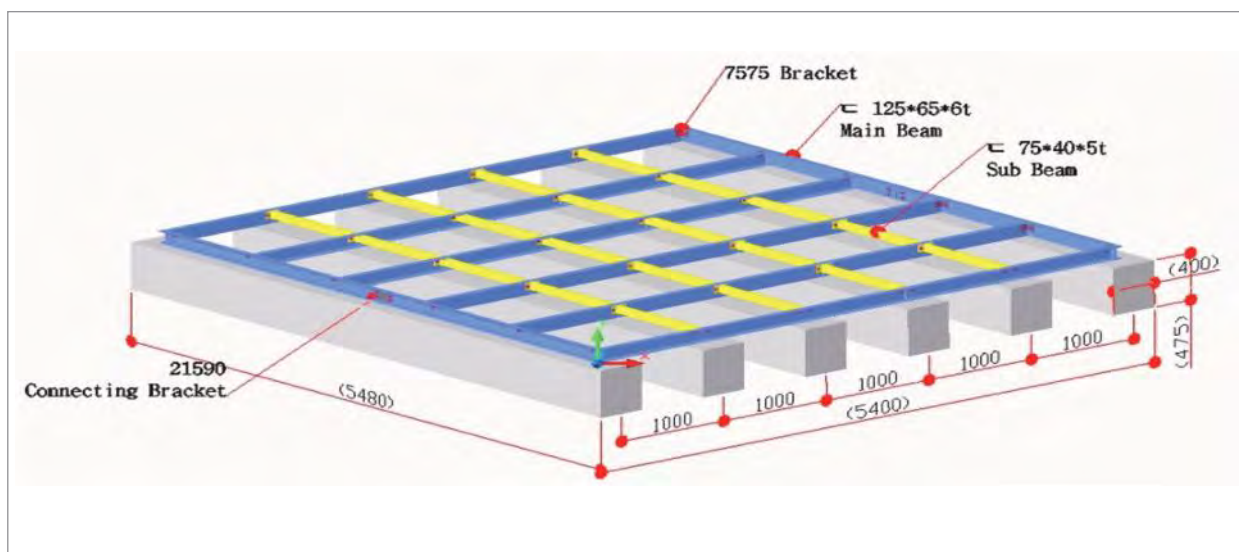
GRP Sectional panels make construction time shorter, standardization panels make easier to moving, carrying in and transfer.



SKID BASE INSTALLATION

SKID BASE Installation

OASIS reserves the right to provide alternate skid base designs. recommended ideal concrete plinth size of 400mm(W) x 475mm(H) with maximum variance in height of not more than 2mm



Dimensions of Steel Skid Base

Height of tanks	Main Beams	Sub Beams
1m	L angle(75x75x6T)	□ channel(75x40x5T)
1.5m		
2m		
2.5m		
3m	□ channel(125x65x6T)	
3.5m		
4m	□ channel(125x65x6T)	□ channel(10x50x5T)
4.5m		
5m		

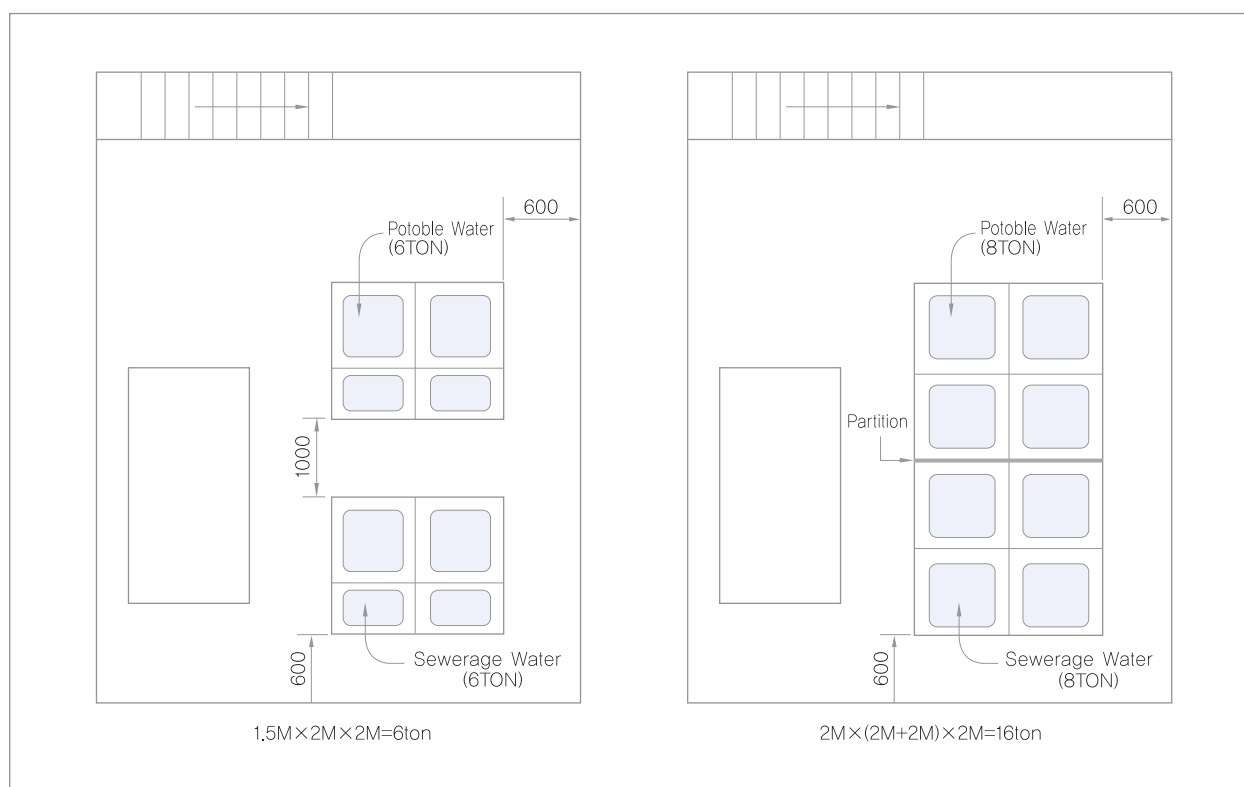
●● PARTITION TYPE WATER TANK

It is possible to eliminate unusable space, and utilize the maximum space by installing a partition type tank. Economical and effective maintenance.

Utilizing maximum capacity	In the basement or other confined areas, it is possible to eliminate unusable space and utilize the maximum space, by installing a partition type tank.
Various uses	If partition type tanks are installed, one section can be used for drinking water and the other section for service water (fire fighting etc).
Easy Maintenance	It is convenient for maintenance, because two tanks can be installed as one unit.
Cost effectiveness	The cost and installation of 1 partition tank is cheaper than 2 separate tanks.

● Example for Installation and using

If tanks for two different uses are needed in a confined area or boiler room, a 16 ton partition type tank can be installed to use half for drinking water, and half for service water. If separate tanks are installed, however, you have to installed two tanks with a maximum of 6 tons, because you need to have 1 meter distance between tanks for maintenance and operating space.



PREPARING FOR INSTALLATION

Base Concrete Installation Standard

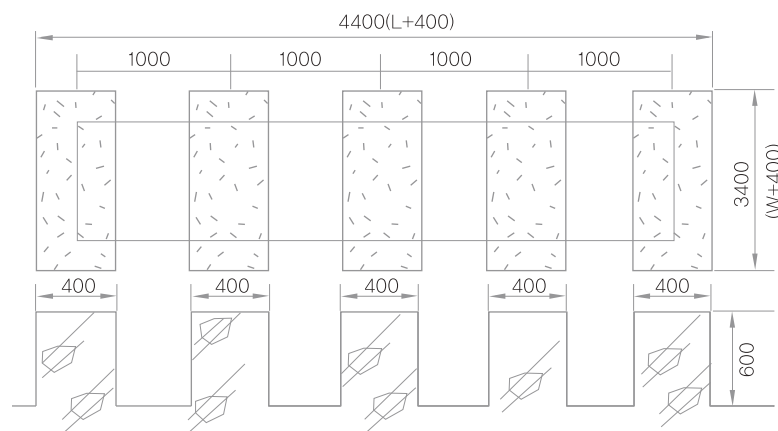
Width : 300~400mm

Outer Dimension : Width, Length +400mm

Height : over 600mm (Base frame included)

Space : less than 1m

Horizontal Degree : less than 1/500 (Surface has to be horizon flat)

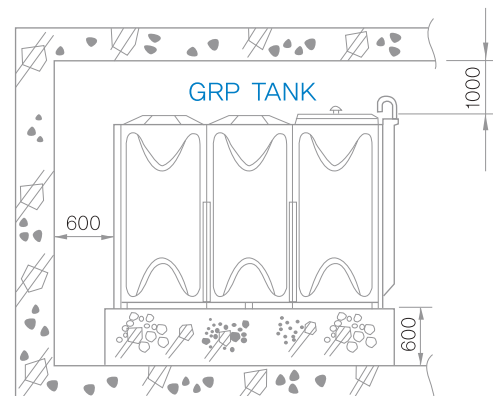
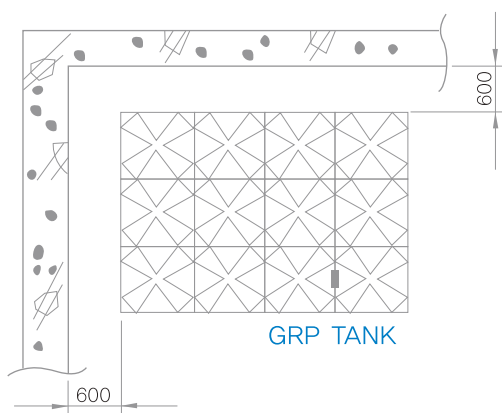


ex) 3W×4L×2H

GRP Water Tank Installation Space

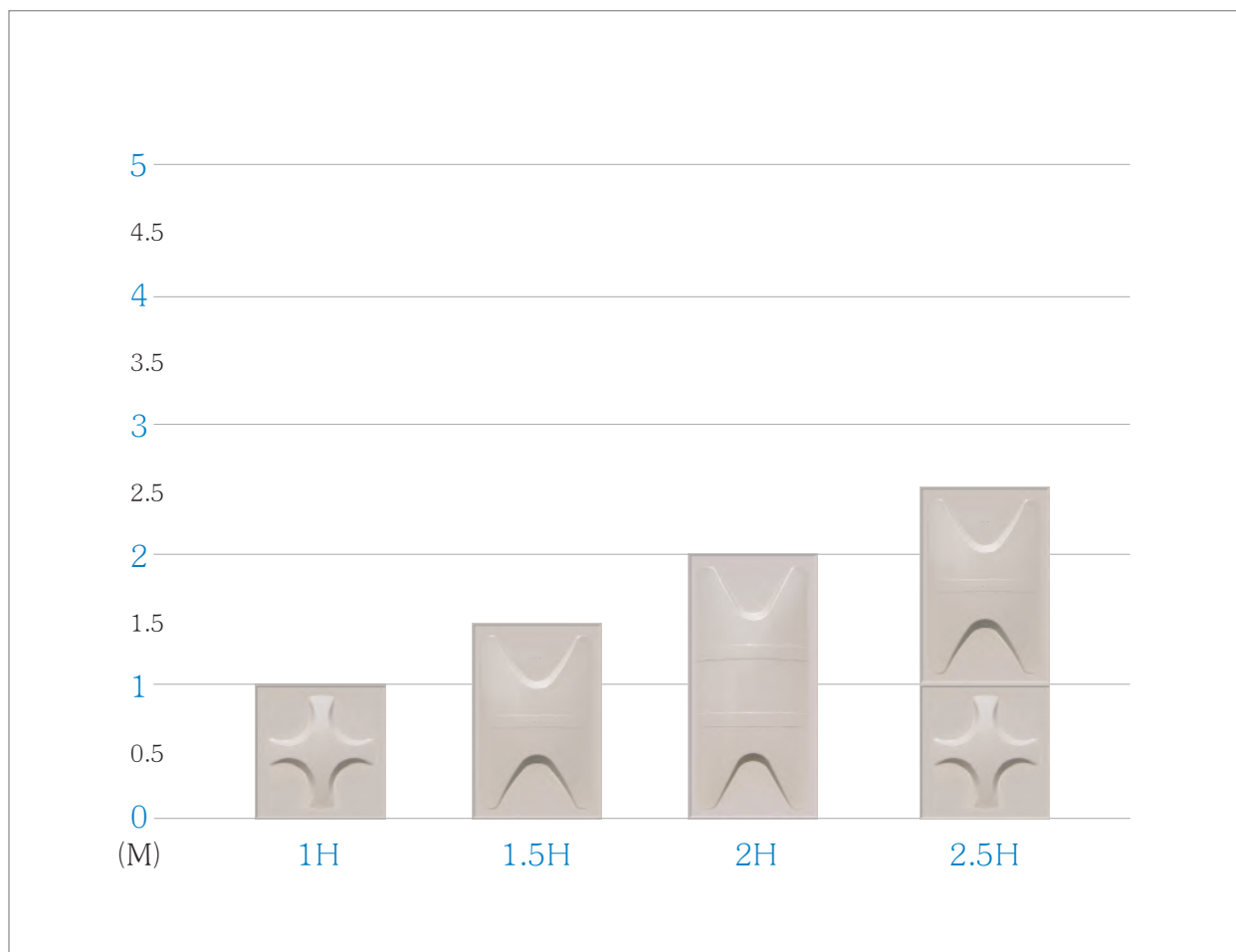
For maintenance and repairing, it is recommended to leave at least 600mm and 1,000mm extra space from wall and ceiling.

Example : 3W X 4L X 2H

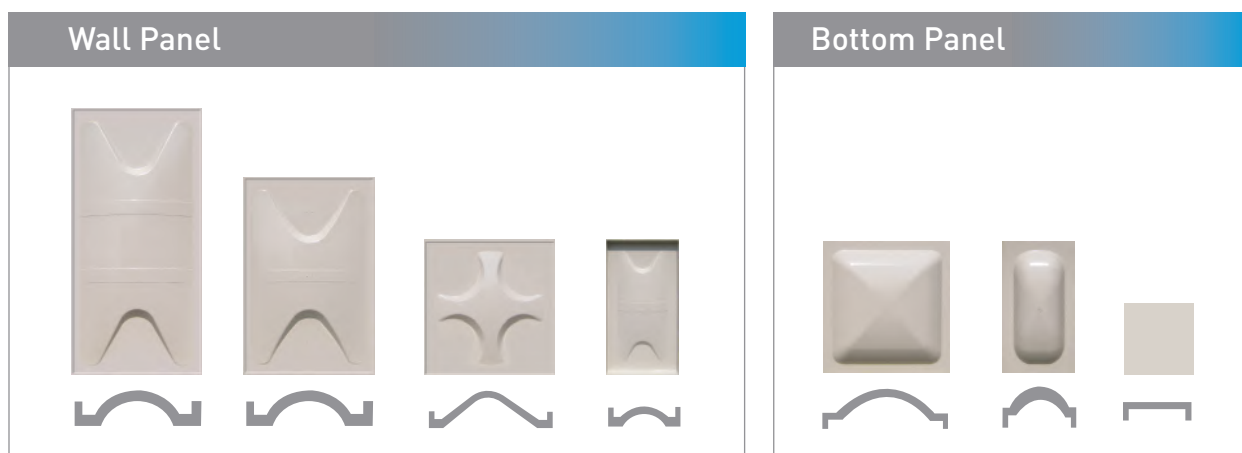


PANEL COMPOSITION

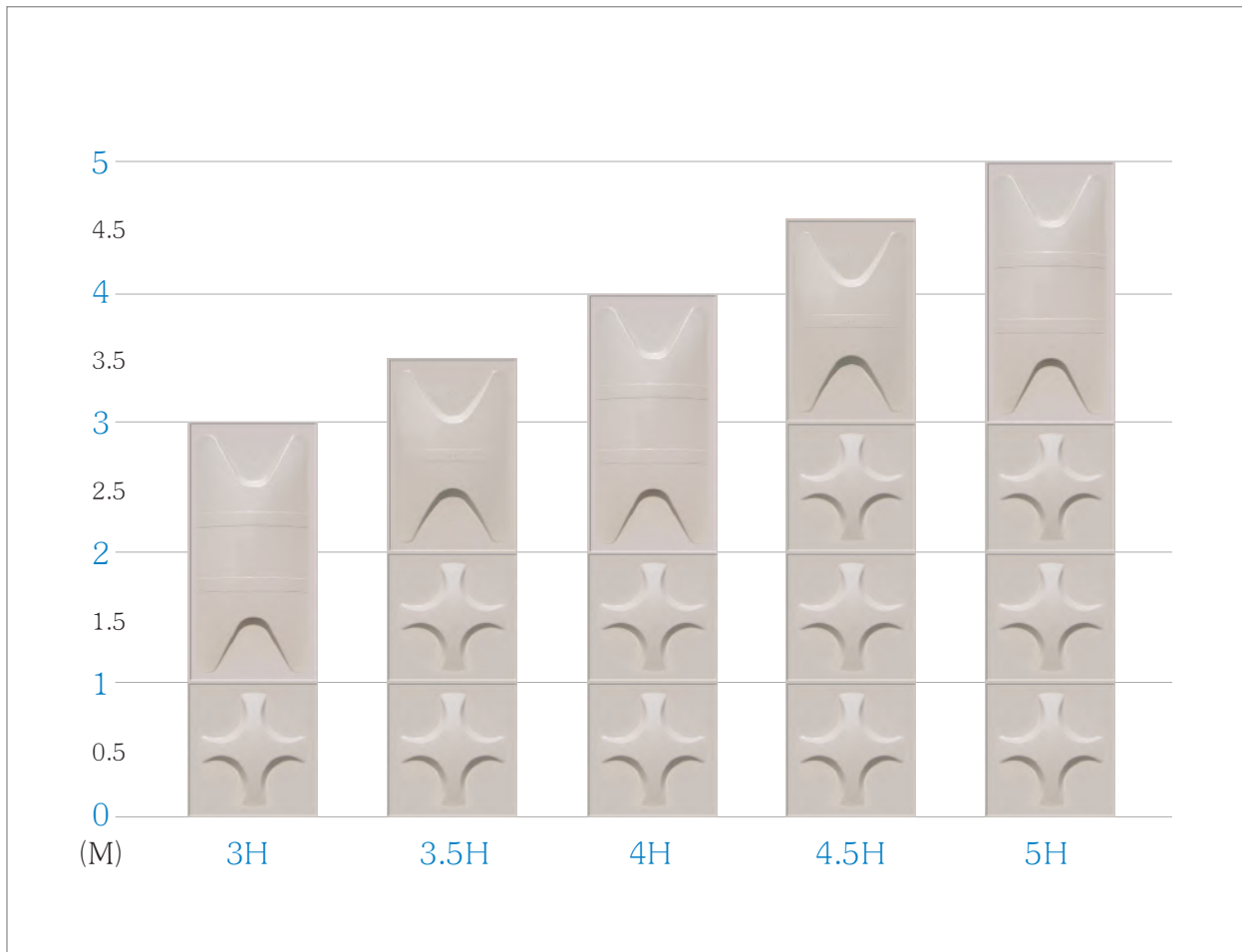
Wall Panel Composition By Height



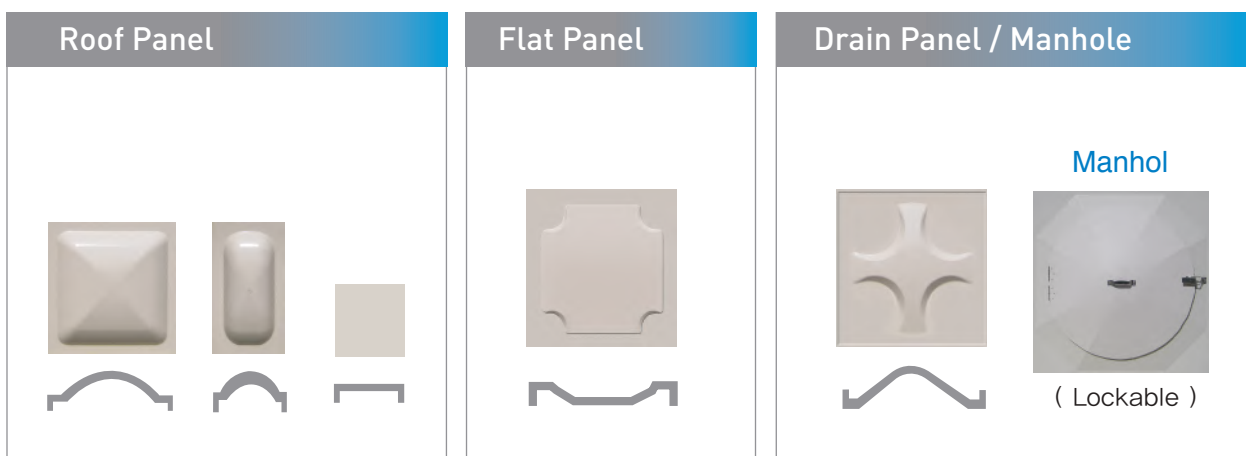
Type and Shape



TANKS GRP SECTIONAL WATER TANKS



Type and Shape



GENERAL FEATURE OF TANK

Ideal For Clean Portable Water

Long Life

Clean &
Hygienic

Non
Leakage

Easy
Assembly

Perfect strength and Durability

The glass fiber reinforced panels are molded at temperatures up to 150 deg.C using isophthalic unsaturated polyester resins and are pressed under hot press moulding process to realize optimum condition for maintain the best endurance.

Panel Design

GRP water tank panels are designed using computer aided design technology and suitable for ambient temperature of 50 deg.C(drybulb) and humid condition of up to 31°C saturated. Also GRP water tanks are suitable for water temperature up to 50°C.

Hygiene

Using non-toxic materials and stainless steel. So it is suitable for used in contact with potable water.

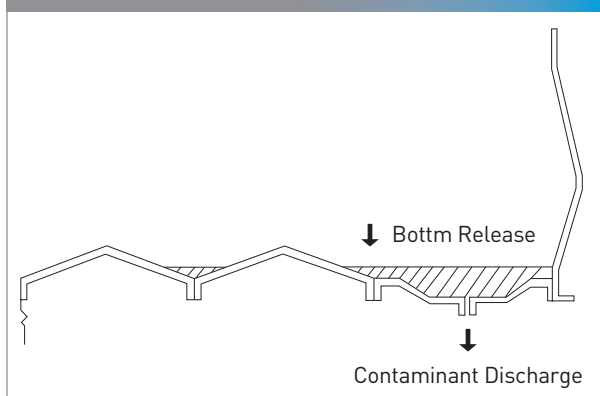
Sizes adaptable to any needs

From small tanks to large, GRP water tank panels can fit any dimensions. Tank dimensions can be select by customers as they want.

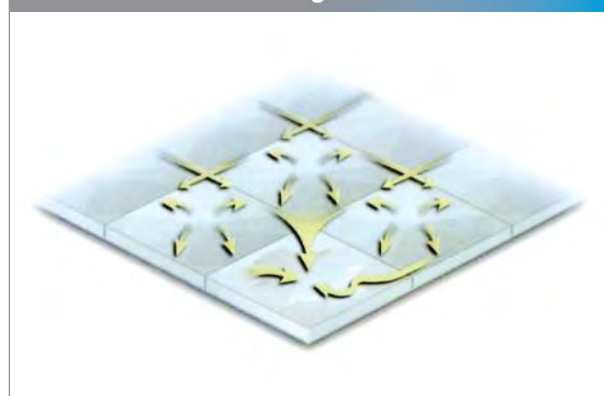
Complete drainage

The dome shaped bottom panel with a concave drain panel facilitated complete and fast drainage. The concave drain panel has been designed to ensure the periodic cleaning and inspection of the tank.

GRP Water Tank Floor



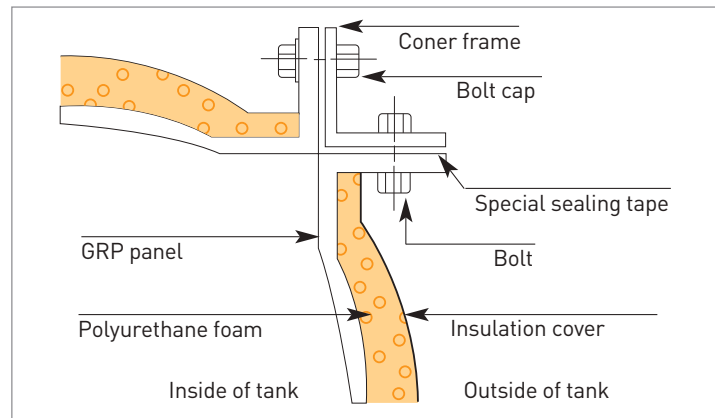
Detaled Flow Diagram



. ASIS WATER TANKS GRP SECTIONAL WATER TANKS

● Watertightness

The joints are sealed with special sealing tape specially developed for water tanks.

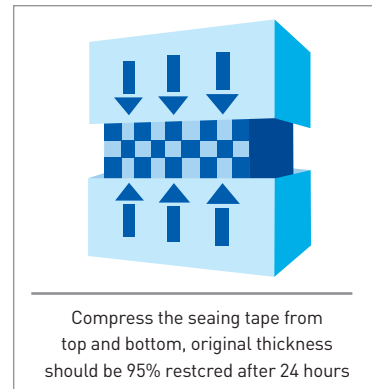


Special sealing tape is approved by water quality **PSB** Certification.

G21489 / SGP
PSB Singapore
 Sealing Tape Test Report



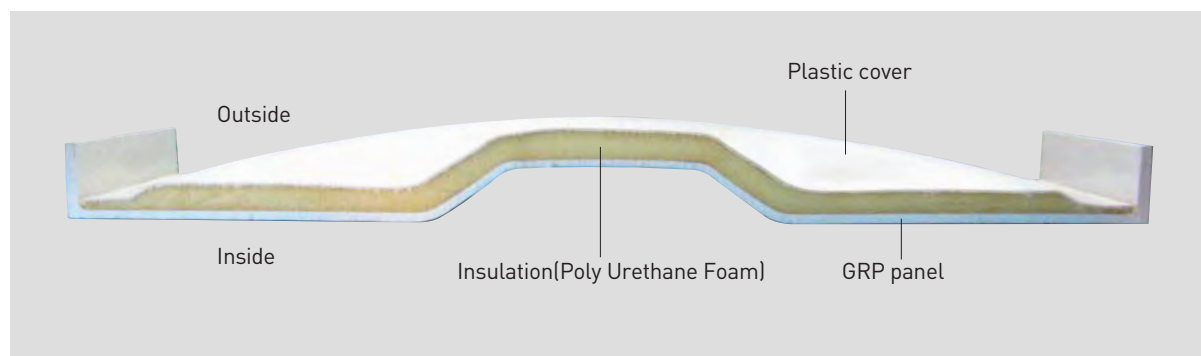
PSB SINGAPORE Water Quality Test Report Test Temperature: 25 degrees Celsius Humidity: 65%					
Sample	Material	Thickness	Test place	Test date	Test result
1	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
2	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
3	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
4	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
5	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
6	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
7	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
8	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
9	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass
10	PSB SINGAPORE	1.5mm	PSB SINGAPORE	2018/10/10	Pass



● Insulation and Dew-Proofing

Insulation panel with its three-layer structure improves the insulation effect.
 Maximizes dew-proofing, and minimizes temperature variation of the stored water.

Section of insulated panel



Sectional GRP Water Tank Installation and Caution

Installation scope

Base Concrete

Customers are requested to make base concrete according to the designed specifications and the strength of the site.

Anchor bolts are to be fixed by our agents.

The required strength of the base concrete must be at least 180Kg/cm².

The thickness of mortar on the base concrete must not exceed 20mm.

The Extent of Installation Work

If the customer designates the size of sockets for plumbing, our agents will install the sockets.

After the sockets are in place, the plumbing and heat insulation must be done by customer.

Caution

Transportation

Do not place heavy loads or force on the panels during the transportation. Those parts that are touched with rope or other cargo must be cushioned.

Pipe Installation

Be careful not to put any heavy weight on the pipes that are connected to the fitting.

Pipe installation must be started from the water tank side and be careful not to put unbalanced weight on the fitting.

Take precautions to avoid fire or other occurrences / accidents while welding.

Maintenance

If it is not used for a long time, be sure to drain the water from the tank.

As the tank is a reservoir of water for consumption by people, regular inspection should be done for safety (more than twice a year)

FIBERGLASS

CYLINDER TANKS

Installation Procedure

Excavation

- Select the site with good sub-soil drainage.
- Excavate to a depth that will provide a minimum of 20cm of cover over the top of the tank. This will avoid possible damage on the tank.
- Allow 45 to 60 cm on all sides of the tank. Failure to comply with allowance ranges could cause tank to collapse.
- Provide a minimum of 15cm selected bedding material over the concrete bed. Place the tank in level position.

Backfilling Exterior

1. Sand Bags may be place on bottom side of the tank to prevent it from rolling.
2. Backfill should be carried out in 15cm per level and should be done carefully to ensure no voids are left under the tank. If necessary compact each laver individually.
3. Maximum back fill over the top of the tank is 20cm.
4. Top of the back fill provides concrete slab of 15 to 20 cm to avoid any external load on the top of the tank.

Backfill Materials

The preferred material for backfill surrounding and covering the tank in a sand / gravel mixture is required .

- The sand/gravel mixture should be a mixture of sand and gravel, 100% smaller than 1-1/2' and about 50% smaller than 1/4".
- All fill should be free of any wood, masonry debris, silt or clay.



CAUTION

- Do not install any tank in a water-saturated clay or in high water table. The tank may collapse and its content will escape.
- Tank is not fire resistant Do not store it near an open flame or heat the excess more than 140 C.
- Do not install any tank under the path of vehicle or heavy equipment.
- If the tank is pumped for normal maintenance, it should be refilled immediately.
- The tank may collapse if it is left empty underground for long time. Water should not be allowed to be less than 25% of capacity.
- Protect the tank from sharp object, which could puncture it and cause leakage.

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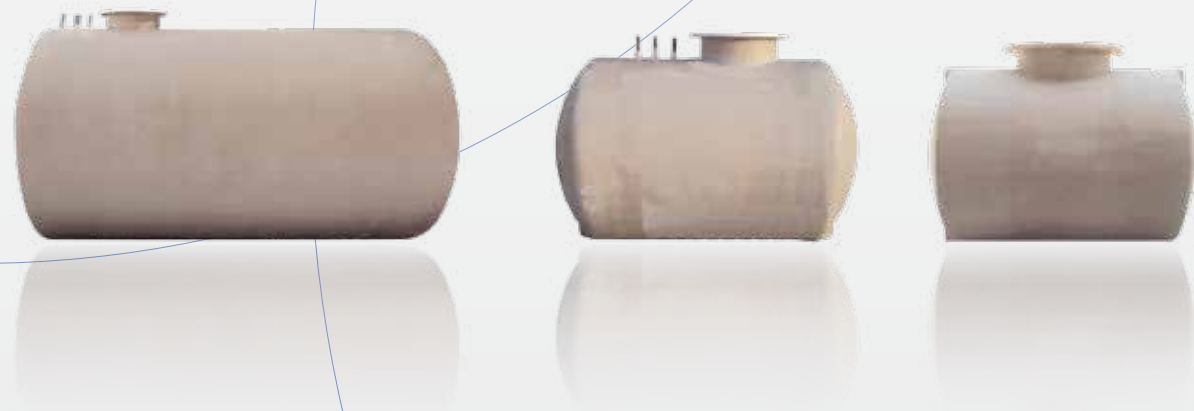
CYLINDER TANKS

- Variety of sizes and measurements are available.
- The tank is one piece without joints to ensure no leaking.
- Soft inner surface.
- Sunlight and fungi proof.
- Above & underground tanks (according to order)
- Different kind of tanks are available (sweet water, chemical liquids, fuel (gasoline & diesel), septic & fertilizers.)
- Pre-tested and inspected.
- Prepared with sufficient fittings.

Above Ground Tanks



Underground Tanks



Basic Cylindrical Tank

Consists of 2 layers

- 1 Variety of sizes and measurements are available.
- 2 The tank is one piece without joints to ensure no leaking.



Classic Cylindrical Tank

Consists of 3 layers

- 1 Smooth white fiberglass inner layer
- 2 Black layer from fiberglass to prevent light to prevent fungi and moss
- 3 Fiberglass semi-smooth outer layer



Insulated Cylindrical Tank

Consists of 3 layers

- 1 Smooth white fiberglass inner layer
- 2 Polyurethane (PU) foam layer
- 3 Fiberglass outer layer.



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CYLINDER TANKS

Specifications

Ø95H-CT

95cm Diameter



Capacity (US Gal.)	Diameter (cm)	Length (cm)	Height (cm)	
			Aboveground	Underground
200	95	120	118	115
250	95	150	118	115
300	95	175	118	115
350	95	200	118	115
400	95	225	118	115
450	95	250	118	115
500	95	280	118	115
550	95	310	118	115
600	95	335	118	115
650	95	360	118	115
700	95	390	118	115
750	95	415	118	115
800	95	440	118	115
850	95	470	118	115
900	95	495	118	115
950	95	525	118	115
1000	95	550	118	115
1200	95	655	118	115

Ø125H-CT

125cm Diameter



Capacity (US Gal.)	Diameter (cm)	Length (cm)	Height (cm)	
			Aboveground	Underground
550	125	185	153	145
600	125	200	153	145
650	125	220	153	145
700	125	235	153	145
750	125	250	153	145
800	125	265	153	145
850	125	280	153	145
900	125	295	153	145
1000	125	330	153	145
1100	125	360	153	145
1200	125	390	153	145
1250	125	405	153	145
1300	125	420	153	145
1500	125	480	153	145
1600	125	515	153	145
1750	125	560	153	145
1800	125	575	153	145
2000	125	635	153	145
2500	125	790	153	145

Ø150H-CT

150cm Diameter



Capacity (US Gal.)	Diameter (cm)	Length (cm)	Height (cm)	
			Aboveground	Underground
1000	150	250	185	170
1125	150	278	185	170
1250	150	307	185	170
1375	150	335	185	170
1500	150	363	185	170
1625	150	390	185	170
1750	150	419	185	170
1875	150	448	185	170
2000	150	476	185	170
2125	150	504	185	170
2250	150	533	185	170
2375	150	560	185	170
2500	150	589	185	170

Ø200H-CT

200cm Diameter



Capacity (US Gal.)	Diameter (cm)	Length (cm)	Height (cm)	
			Aboveground	Underground
2000	200	270	240	220
2500	200	335	240	220
2750	200	365	240	220
3000	200	395	240	220
3500	200	455	240	220
4000	200	515	240	220
4500	200	575	240	220
5000	200	635	240	220
5500	200	695	240	220
6000	200	750	240	220
6500	200	815	240	N/A
7000	200	875	240	N/A
7500	200	930	240	N/A

Ø300H-CT

300cm Diameter

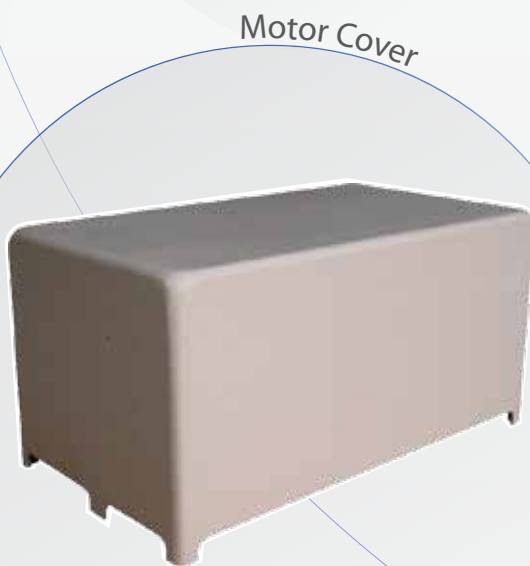
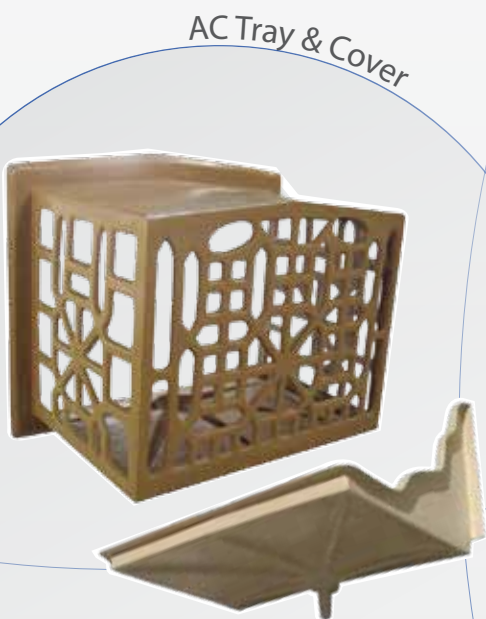
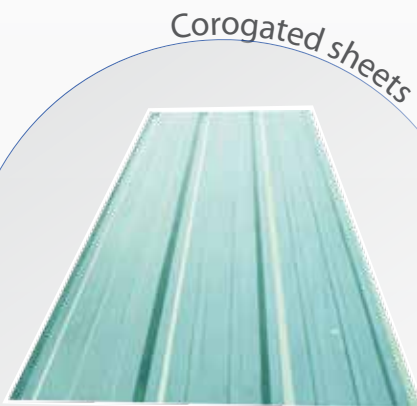


Capacity (US Gal.)	Diameter (cm)	Length (cm)	Height (cm)	
			Aboveground	Underground
5000	300	320	340	
5500	300	347	340	
6000	300	374	340	
6250	300	387	340	
6500	300	408	340	
7000	300	431	340	
7500	300	454	340	
10000	300	588	340	
12500	300	722	340	
15000	300	856	340	
17500	300	990	340	
20000	300	1124	340	
22500	300	1258	340	
25000	300	1391	340	
27500	300	1525	340	
30000	300	1659	340	

FIBERGLASS

PRODUCTS

Commercial products such as (bath tub, shower trays, kitchen sink, domes & pyramids, planter box, fiberglass rooms,A/C trays, heat cover, garbage bin, road barriers and more...



WE CAN PRODUCE
any kind of fiberglass products



OASIS METAL GRPTANK

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Global Bolted Tank and Cover Solutions





About Our Company



Center Enamel Glass-Fused-to-Steel Tanks

Shijiazhuang Zhengzhong Technology Co.,Ltd is a professional manufacturer dedicated to the design and fabrication of bolted storage tanks since 1989. Our products range includes Glass-Fused-to-Steel (GFS) tanks, fusion bonded epoxy tanks, stainless steel tanks, galvanized steel tanks and aluminum geodesic dome roofs. With professional enameling R&D team and more than 20 enameling patents, Shijiazhuang Zhengzhong Technology Co.,Ltd has become the leader in bolted tanks industry of Asia. Our products are certified to ISO 9001, NSF/ANSI 61, WRAS, ISO 28765, LFGB, BSCI, ISO 45001 and other international standards.

Main Applications

Drinking Water

Industrial Effluents

Municipal Sewage

Bio-energy

Landfill Leachate

Agriculture



Shijiazhuang Zhengzhong Technology Co., Ltd is not only the first manufacturer in China which produces Glass-Fused-to-Steel tanks, but also the most experienced professional bolted tanks manufacturer in Asia. The engineering & design, product testing and quality system of Center Enamel Glass-Fused-to-Steel tanks is in strict accordance with AWWA D103-09, OSHA, ISO 28765, NSF/ANSI 61, NFPA and other international standards. Center Enamel Glass-Fused-to-Steel tanks are widely used in drinking / potable water, industrial effluents, municipal sewage, bio-energy, landfill leachate, agriculture and other applications. Until 2022, Center Enamel bolted tanks have been exported to more than 80 countries including USA, Australia, Canada, Malaysia, Indonesia, Russia, UAE, Panama, Brazil and South Africa etc., the superior tank quality and prompt service gains us worldwide recognition.

As an outstanding containment and cover system provider with more than 30 years of experience, Shijiazhuang Zhengzhong Technology Co., Ltd sincerely expects to establish long-term cooperation with the local partners throughout the world and make continuous contribution to the development of the industry.



▶ Glass-Fused-to-Steel Tanks

Advantages:

- Short construction period, cost effective tank solution;
- Superior corrosion resistance, service life is more than 30 years;
- Easy to install, no need for big installation equipment and/or very skilled labors;
- Tank volume is easily expanded;
- It can be dismantled, removed and relocated;
- Elegant appearance, tank color can be customized;

Leader of GFS / Enamel Tanks Industry

▶ GFS Tanks Application Fields



Power and Energy

Biogas	Fly ash silo	Boiler feedwater
Biomass energy	DI water	Reverse osmosis water
Process water	Coal storage	Fermentation tank



Waste Water Treatment

Buffer pool	Aerobic reactor	Biological filter
Regulation tank	Anaerobic reactor	Leachate storage
Water purifying tank	Sedimentation container	Sludge tank
Effluent treatment	Irrigation water	Animal wastes



Water Supply and Treatment

Potable water	Bitter-brackish water	Biological filter
Water purifying tank	Disinfecting water	Sedimentation container
RO water	Sea water desalinization	Raw water/fresh water
Fire-fighting water	Irrigation water	Clarification pool
Lime silo	Saline water/brine water	Aeration tank



Industrial Dry Bulk Storage

Mineral	Wood product	Stone / clay / glass
Chemicals	Petrochemicals	Mining Industry
Foods	Plasthetics	Grain / seeds



► Center Technology Advantages

Why Choose Center Glass-Fused-to-Steel Tanks:

01

More than 30 years experience in Enameling Technology R&D

The only GFS tanks manufacturer which has ability to produce enamel frit as well

02

Our GFS tanks Strict Engineering Design Standard: AWWA D103, OSHA, NSF61, ISO28765 etc.

The only Asian GFS Tanks manufacturer which can be widely accepted in USA Market

03

Cooperate with Well-known International Corporations

Paques, Veolia, Coca-Cola, Sabesp, Wilmar, PetroChina, Heineken, AbInBev, Porsche, Sinopec etc.

04

Professional Experience with International Market

Successful GFS tanks projects references in more than 80 countries worldwide

Professional R&D team:

Technical consultant: 1 professor senior engineer, national famous expert with more than 50 years' experience in enamel researching.

Technical experts: 8 persons, more than 10 years' enamel researching experience

Technical researcher: 23 persons



1

Professor senior engineer
(person)

8

Technical experts
(persons)

23

Technical researchers
(persons)

Quality Control:

Raw Material Test: raw materials ingredient analysis, impurity test etc.

Enamel Formula Test: enamel fluidity test, color difference analysis, acid and alkali resistance test, adherence / impact test, slice microscope analysis

Inspection During Production: magnify experiment simulated operation environment

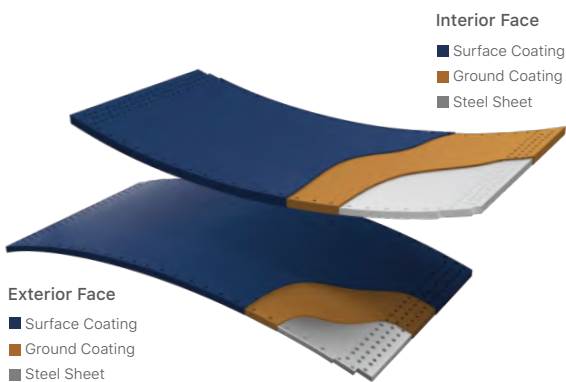
Final Quality Test: impact test, 1500V holiday test, coating thickness test





What is Glass-Fused-to-Steel Tanks?

After firing at 820 ° C-930 ° C high temperature, the molten glass reacts with the steel plate surface to form an inert and inorganic bond, which combines the strength & flexibility of steel and outstanding corrosion resistance of glass, therefore GFS tanks can provide many advantages over standard epoxy or welded painted storage tanks. Glass-Fused-to-Steel technology is the premium coating technology in the storage tanks market, and GFS tanks are widely used in bio-energy, municipal sewage, landfill leachate, industrial wastewater treatment and other applications.



GFS/Enamel Sheet Specifications

CATEGORY	SPECIFICATION
Coating Color	Black blue, Grey olive, Forest green, Cobalt blue, Desert tan etc.
Coating Thickness	10-18 mils, 250-450 microns
Acid and Alkalinity Proof	Standard PH: 3~11, Special PH: 1~14
Adhesion	3,450N / cm ²
Elastic	7.9*10 ⁴ MPA
Hardness	6.0 Mohs
Service Life	≥30 Years
Holiday Test	> 1500V
Easy to Clean	Smooth, Glossy, Inert, Anti-adhesion
Corrosion Resistance	Excellent, Suitable for harsh environment



Glass-Fused-to-Steel Tanks Production Introduction



Plate CNC Cutting

Inputting the confirmed drawing into the computer, bolt holes and openings will be cut by CNC laser cutting machine automatically.



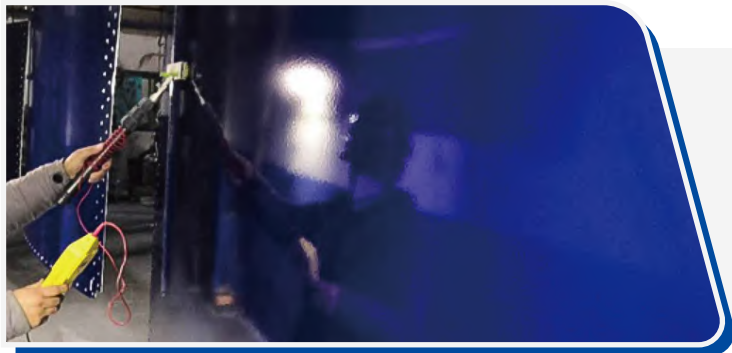
Automatic Enamel Spraying

Spray the glass coating on both sides of the steel panels automatically. Coating thickness is controlled within 250 microns to 450 microns.



High Temperature Firing

After enameling and drying, then firing steel panels in the oven at the temperatures ranging from 820 ° C -930 ° C , which facilitates the interfacial fusion reactions that combine the two materials.



Quality Inspection

Quality inspection is conducted during and after fabrication, including coating thickness test, 1500V holiday test, anti-acid test and color consistency test etc.



In Europe, USA and many other countries, enamel bolted tanks have been used for more than 100 years history, they are commonly used in waste water treatment, potable water, dry bulk storage, etc.

Anti-microbial Enamel Technology

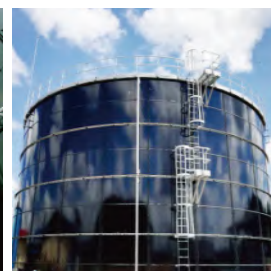
After years of research and development, the anti-microbial enamel produced by Center Enamel got approved by China building materials industry environmental testing center. The test report shows that the anti-microbial enamel steel has excellent performance with mold resistance. It suppresses all kinds of composite mold. The anti-microbial enamel steel conforms to standard JC / T897-2002 «antibacterial capabilities of antibacterial enamel» .

Composite mold includes: aspergillus niger (AS3. 4463), aspergillus (AS3. 3935), penicillium (AS3.4253), penicillium funiculosum (AS3. 3875), ureobasidium pullulans AS3. 3984), chaetomium globosum (AS3. 4254)

Glass-Fused-to-Steel Tanks Color Options



Grey Olive



Black Blue



White



Forest Green



Red



Sky Blue



Evening Haze



Cobalt Blue



Desert Tan



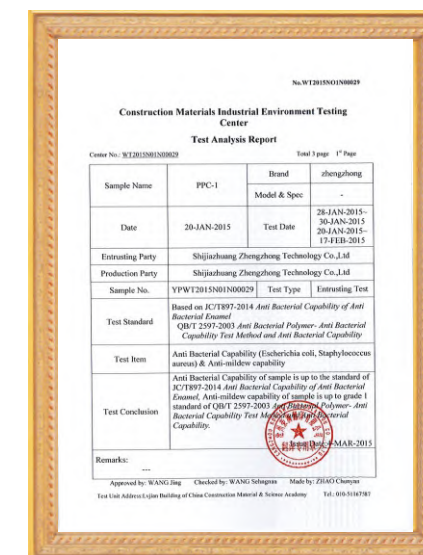
Mist Green

More optional colors can be customized according to project request

Anti-microbial Enamel Applications

Drinking water plant, medical enamel and commodity enamel, etc.

Test Report





▶ Stainless Steel Tanks



Center Enamel offers AISI 304/316 stainless steel tank as a good containment solution to meet the clients' special requirement with high purity pharmaceutical water or extremely harsh environments. Stainless steel tanks can be provided as complete tank kit, we can also design and engineer hybrid tank with glass fused to steel in the lower rings and stainless steel in the upper rings, which provides best cost effective combination of various materials according to the process design requirement.

Municipal Sewage	Anaerobic Digester	Industrial Wastewater	Pharmaceutical water
Biogas Tanks	Landfill leachate	Brine Water	Dry Bulk Storage

Advantages

01

Friendly to the environment, no painting, no rust, and no solvents

02

Natural corrosion resistance, provides longer service life

03

Virtually maintenance free, does not require coating / painting

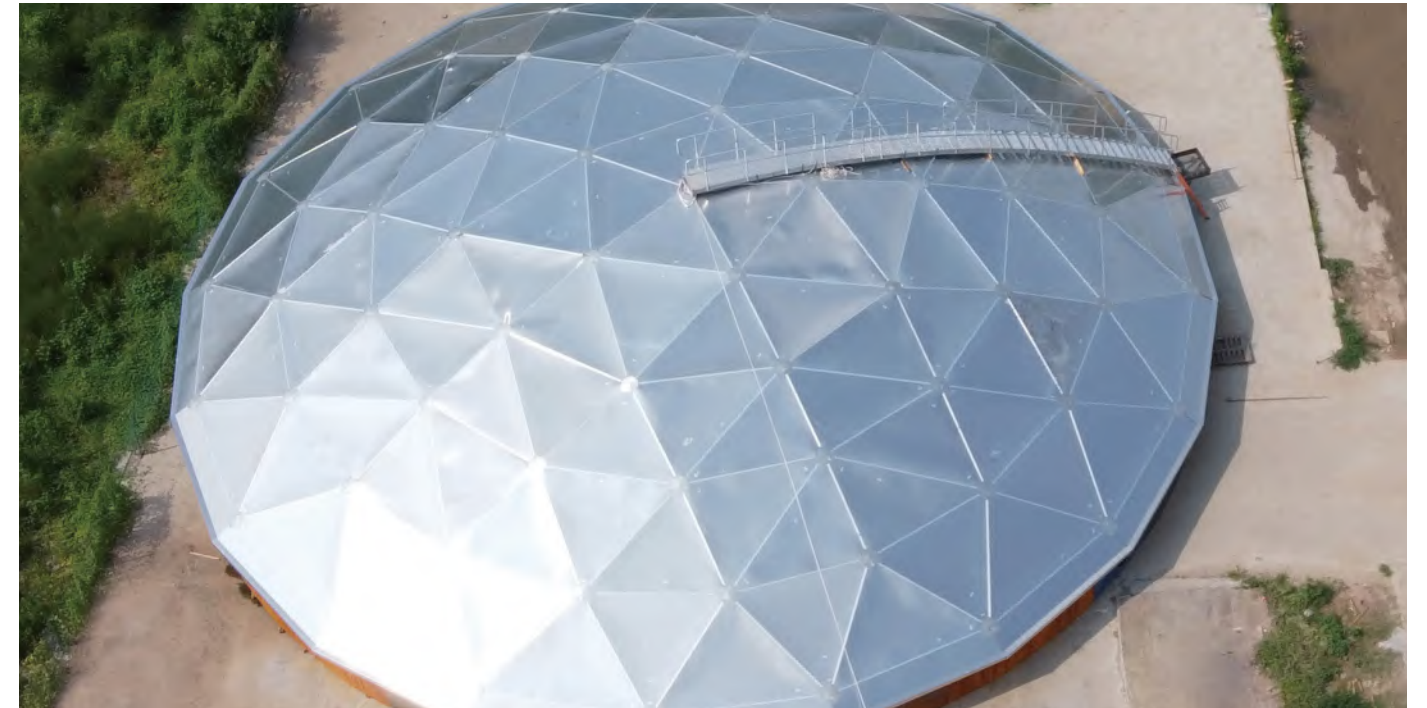
04

Green materials and can be recyclable

05

Hygienic materials - maintains drinking / food process water quality and purity

▶ Aluminum Geodesic Dome Roofs



Aluminum geodesic dome roof is an innovative self-supporting cover solution which is widely utilized on bolted, welded and concrete tanks. Manufactured in state of the art facilities and engineered with cutting-edge 3D computer modeling, Center Enamel domes have superior structure strength, fabrication precision and aluminum inherently corrosion resistance, no need to paint or repaint after construction, and its clear-span design, fast construction, little-to-no maintenance cost, making Center Enamel domes very popular choice in many project applications worldwide.

Design Standards

AWWA D108, API 650 Standards, ADM2015, ASCE7-10, IBC 2012

Unique Batten Bar Design

Our aluminum geodesic dome roofs beam are designed for maximum beam strength and the silicone gaskets will not deteriorate under ultra-violet light or elevated temperatures. The unique batten bar design of an aluminum dome is a real asset, which is not only the foundation of the leak-free dome structure, but also increases the structural strength of the dome roof.

Node Design

Note detail utilizes proprietary extrusion design.

Spun aluminum gusset cover provides precision seal.





► Fusion Bonded Epoxy Tanks



With more than 30 years engineering, fabrication and construction experiences of GFS modular tanks, Center Enamel have jointly developed innovative and optimum Fusion Bonded Epoxy coating technology with AkzoNobel, the world leading producer of paints and coatings. Center Enamel epoxy tanks quickly get the clients' acceptance after its launch because of its cost-effective performance and advanced electrostatic spraying technology. Same as our superior high-quality commitment to GFS tanks, Center Enamel also give the clients best quality assurance of Fusion Bonded Epoxy modular tanks, which meet or exceed the requirement of AWWA D103-09 and ISO 9227 / ASTM B117 etc.

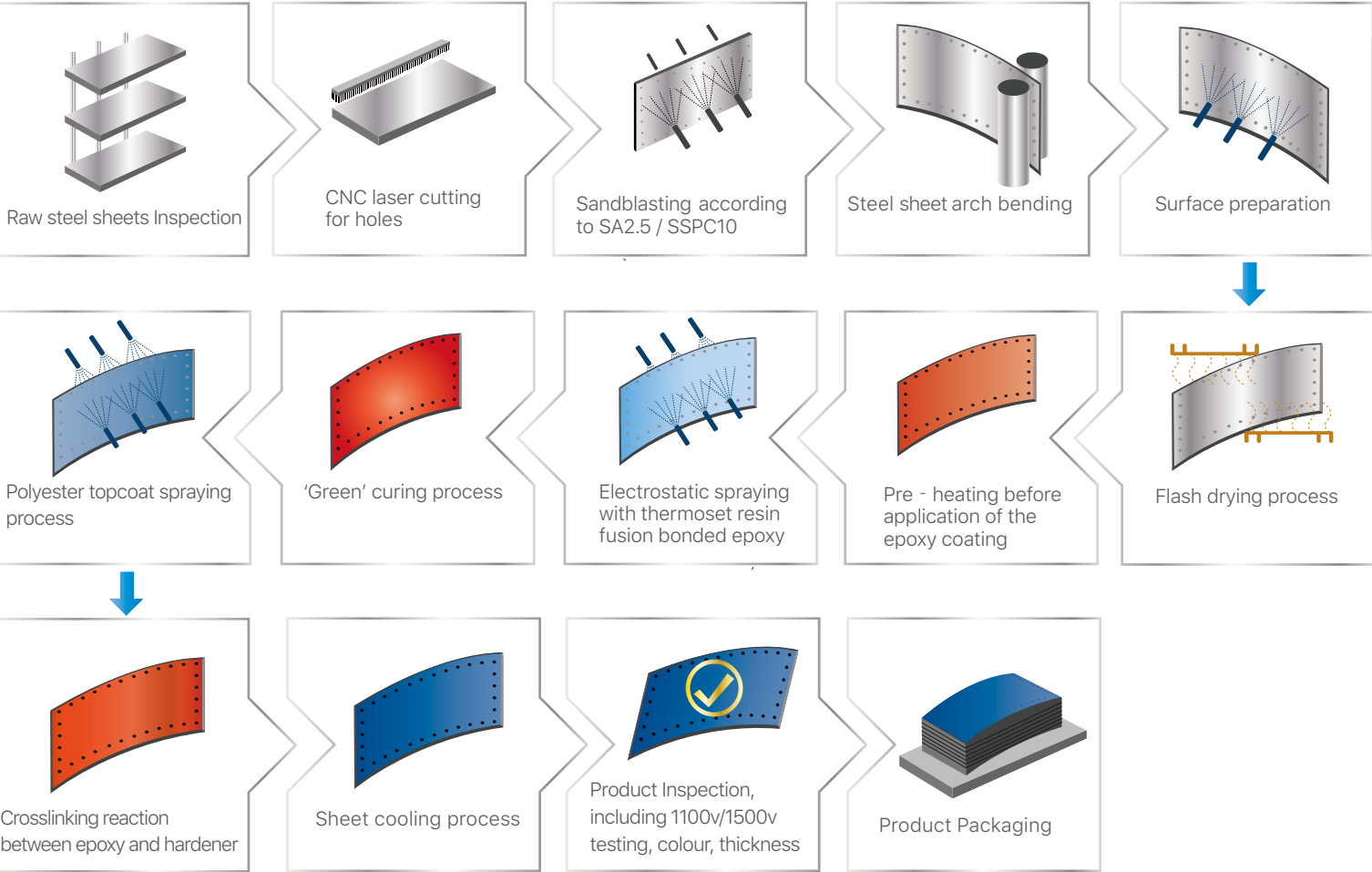
Fusion Bonded Epoxy Tanks Advantages

- Installation requires less field equipment and less labor
- No cathodic protection required due to excellent edge coverage of panel edges and bolt holes
- Provides excellent corrosion resistance and long-term performance due to leak-free coating
- Can be repainted after service life to extend the life of the product
- Better mechanical resistance (shock and flexibility), which helps reduce damage to the coating during shipping and handling
- Easily repaired in the field if damaged
- UV resistance in the harshest sun conditions and durability and consistency of color and gloss.

Applications

Epoxy bolted steel tanks are excellent in many applications
Drinking water storage, fire water, wastewater, crude oil, refinery distillates, drilling fluids, brines, acids, alkalis, ethanol, biofuels, vegetable oils, harvested rainwater, etc.

Fusion-Boned Epoxy Coating Process



Properties of Center Enamel Fusion-Boned Epoxy Steel Tanks

Application	Test Standard	Result
Coating Color	Standard RAL 5015 sky blue	Other colors are available
Dry Film Thickness	Average Dry Thickness	5~10 miles /125 ~250 microns(internal) 5~10 miles /125 ~250 microns(epoxy primer+ topcoat)
Holiday Test	≥1100V (all panels)	Zero-discontinuity at test voltage
Hot water immersion 90 days, 70°	AWWA C550-05	Meets/exceeds standard
Corrosion Resistance	Salt Spray ISO 9227/ASTM B117	Pass
Impact Resistance	ASTM D2794	Pass 160 in-ibs direct & reverse impact
PH Range	3~12	
Abrasion Resistance	Adhesion ASTM D3359	Adhesion ASTM D3359
Hardness	ISO15184 / ASTM D3363	2H
Chemical Immersion test	50% NaOH, 50% H2SO4	Meets/exceeds industry standard
UV Resistance	outdoor exposure testing	5 years
Color Stability	outdoor exposure testing	5 years

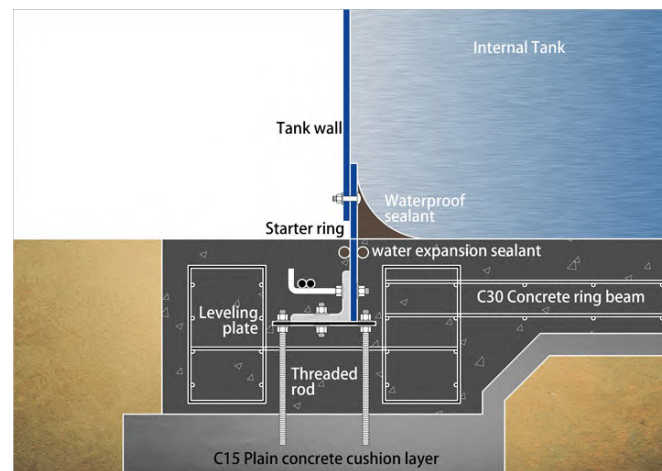


▶ Galvanized Steel Tanks

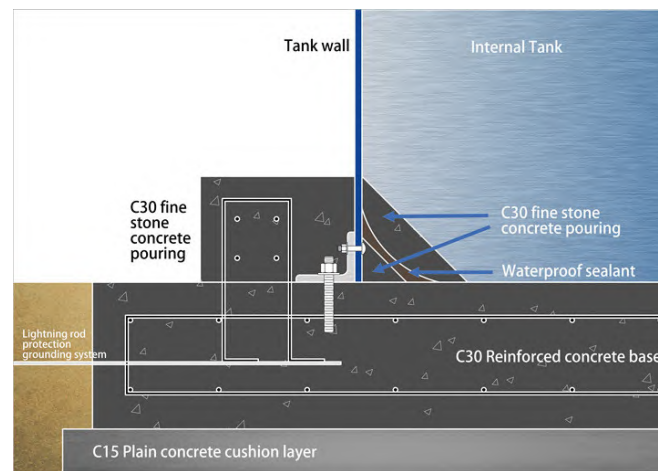
Galvanized steel tanks are an economical way of storing liquids and are primarily used for the storage of fire water, drinking water, and irrigation water applications. These tanks are designed strictly to comply with AWWA D103-09 standards and galvanized according to GBT13912-2020 standards. Meanwhile, it is fabricated with galvanized steel panels bolted together making them economical, easy to transport to the project site, easy to erect, and have a long-lasting interior and exterior finish.



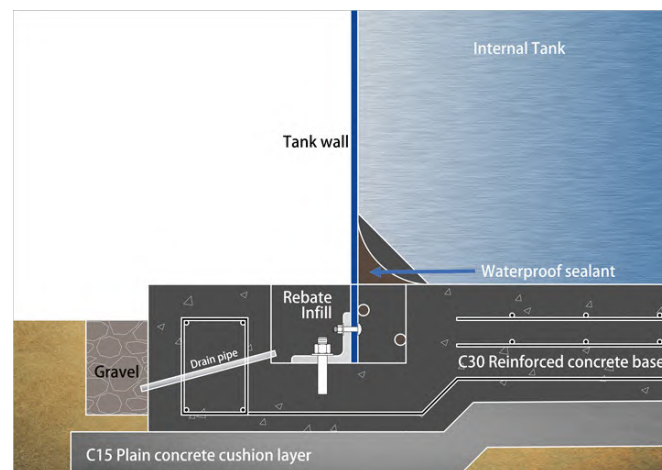
▶ Tank Foundations



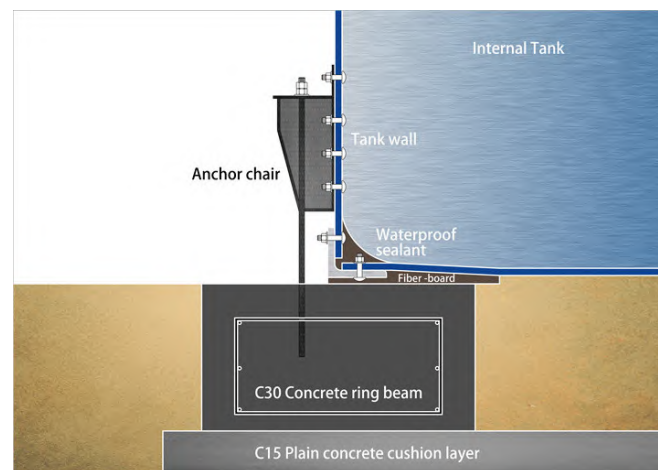
Starter Ring Foundation



Above-Floor Foundation



Embedded Foundation



Enamel Floor Foundation

▶ GFS / SS Tank Roof Options



Glass-Fused-to-Steel Roof

- air-tightness, often utilized for pressurized structures and provide a suitable option for odour control
- cone shape roof with external / internal beams
- viable solution for demanding applications



Aluminum Alloy Trough Deck Roof

- economical option for potable water, waste water, and fire water storage etc.
- keep out rain and wind, odour control
- without air-tightness



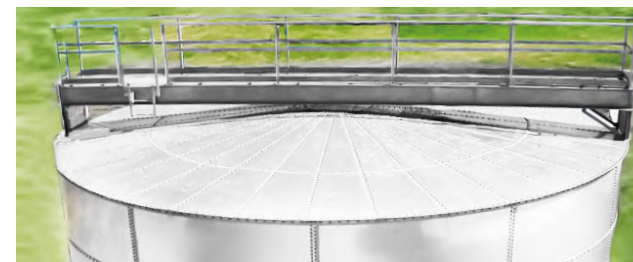
Single and Double Membrane Roof

- superior option for anaerobic digestion processes and biogas applications
- air tightness, utilized for biogas collection and odour control
- integrated AD tank with the cover on top, cost effective



FRP Roof

- suitable for no air-tightness required situation such as drinking water, agriculture, fire water, and wastewater storage
- the shape of FRP roof can be dome or flat



Stainless Steel Roof

- air-tightness, often utilized for pressurized structures and provides a suitable option for odour control
- super anti-corrosion performance and long service life
- viable solution for harsh environments



▶ Accessories

Roof Handrails

Full perimeter / partial roof handrails can be constructed on tanks according to related safety regulation.

Material Options: HDG Carbon Steel / SS304 / SS316



Access Ladders

HDG / SS ladder with step off platform is available, all the design conform to OSHA and other international safety specification.

Types: Vertical / Spiral / Rotatory



Manways and Nozzles

Center Enamel tanks include manways and nozzles, which provide access for man / liquid to enter or get out of the tanks.

Material Options: HDG carbon steel / SS304 / SS316 / FRP / Epoxy



Three-Phase Separator (GLSS)

UASB reactors are commonly equipped with Three-Phase Separator (GLSS) to separate gas, liquid and solid, the structure materials can be PP, Stainless Steel, GRP, PVC and Carbon Steel.



Mixing System and Other Systems

CSTR / AD tanks are generally equipped with mixing system like mechanical agitator or hydraulic agitator. Furthermore, Pumping System, Insulation System, Cathodic Protection, Heating System, Biogas Purification System and other equipment can be provided as requested.



▶ Worldwide Projects Reference



Coca-Cola Plant Wastewater Treatment

Location: Seremban, Malaysia

Tank Quantity: 2 sets of GFS tanks

EGSB Tank: 7.64×17.4M

Adjusting Tank : 9.17×16.8M

Roof Type: Aluminum alloy deck roof / Enamel Roof

Installation: October 2016



Distillery Anaerobic Digestion Tanks

Location: Eswathni, Swaziland

Tanks Model: 56.56×8.4M

Tank Quantity: 2 sets of GFS tanks

Tank Colour: BL04

Roof Type: Floating roof by others

Installation: November 2019



Textile Industry Parks Wastewater Treatment

Location: Adama, Dire Dawa and Addis Ababa, Ethiopia

Tank Quantity: 23 sets of GFS tanks

Total Storage Capacity: 31,000m³ at 3 sites

Tanks Model: 25.22×4.8M, 28.28×7.2M, 23.69×7.2M etc.

Roof Type: Aluminum alloy deck roof

Installation: October 2018



Singapore Poultry Farm Biogas Project

Location: Singapore

Bioreactor with Open Roof: 18.34×8.4M

Bioreactor with Open Roof: 8.41×9.0M

Raw Material Buffer Tank: 11.46×7.2M

Roof Type: Aluminum alloy flat roof / Open roof

Installation: January 2021



Worldwide Projects Reference



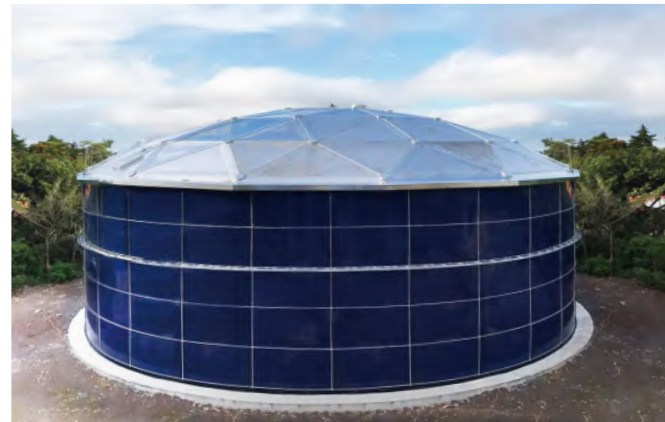
SINOPEC Petroleum WWTW

Location: Fujian, China
Tanks Model:
1 Set of GFS Tank: 13.75×20.4M
1 Set of GFS Tank: 13.75×21.6M
2 Sets of GFS Tanks: 19.11×20.4M
Roof Type: GFS Roof
Installation: June 2019



KuibyshevAzot Chemical Plant Wastewater Treatment

Location: Russia
Tank Model: 9.17*8.4M
Tank Quantity: 2 sets of GFS tanks
Roof Type: Aluminum alloy deck roof
Installation: September 2020



Drinking / Potable Water Tanks

Location: Panama
Tanks Model: 21.4×6.0M, 19.87×5.4M, 6.88×6.6M
Tank Quantity: 3 sets of GFS tanks
Tank Color: Interior white, exterior cobalt blue
Roof Type: Aluminum dome roof by others
Installation: November 2015



Potable Water Storage Tanks in Canada

Location: Yukon, Canada
GFS Tank with Enamel Floor: 12.23×5.4M
GFS Tank with Enamel Floor: 12.23×7.8M
Tank Quantity: 2 sets of GFS tanks
Roof Type: Enamel roofs
Installation: July 2018



Worldwide Projects Reference



Municipal Sewage Treatment Project

Location: Sichuan, China
4 Sets of GFS Tanks: 37.45×7.2M
2 Sets of GFS Tanks: 28.28×4.8M
2 Sets of GFS Tanks: 29.81×4.8M
4 Sets of Steel Tanks: 24.84×7.2M
4 Sets of Steel Tanks: 10.51×7.2 M
Installation: August 2022



Veolia Landfill Leachate Treatment Project

Location: Hong Kong China
2 sets EQ Tank with GFS roof: 15.29×6M
3 sets SBR Tank: 26.75×8.4M
SBR Effluent Tank with GFS roof: 15.29×6M
2 sets Sludge Holding Tank: 9.93×4.8M
Sludge Thickener Tank with GFS roof: 11.46×6M
Thickened Sludge Holding Tank: 4.59×4.8M
Treated Effluent Tank with GFS roof: 7.64×4.8M
Installation: October 2019



Inner Mongolia Biogas Project

Location: Inner Mongolia
Tank Quantity: 4 sets of GFS tanks
Tanks Model: 25.22×8.4M
Roof Type: Double membrane roof
Installation: December 2016



Coca Cola Plant Wastewater Treatment Plant

Location: Riyadh, Saudi Arabia
Equalization Tank: 15.29×7.2M
Calamity Tank: 8.4×9M
Anaerobic Digester Tank: 12.22×8.4M
Flash Aeration Tank: 7.64×7.2M
Holding Tank: 6.88×7.2M
Installation: June 2017



Worldwide Projects Reference



Colombia Drinking Water Project

Location: Colombia
Tanks Model: 14.51×7.20M
Application: Drinking Water Tank
Roof Type: Aluminum Alloy Deck Roof
Installation: August 2022



Rosing Uranium Mine Water Reservoirs

Location: Namibia
Tanks Model:
6 Sets of GFS Tanks: 41.26×8.4M
Application: Drinking Water Tank
Roof Type: Aluminum Alloy Deck Roof
Installation: February 2021



Melbourne Drinking Water Project

Location: Australia Melbourne
Tank Model: 22.17×6M
Tank Quantity: 2 sets of GFS tanks
Tank Foundation: Embedded
Roof Type: Aluminum alloy deck roof
Installation: April 2016



Dairy Wastewater Treatment Project

Location: Gansu, China
3 Sets of GFS Tanks: 17.58×3.6M
3 Sets of GFS Tanks: 12.99×5.4M
2 Sets of GFS Tanks: 12.23×12.0M
3 Sets of GFS Tanks: 28.27×5.4M
3 Sets of GFS Tanks: 12.23×24M
Installation: June 2020



Worldwide Projects Reference



Food Processing Wastewater Treatment

Location: Shaanxi, China
2 Sets of GFS Tanks: 20.63×20.4M
2 Sets of GFS Tanks: 12.22×13.2M
1 Set of GFS Tank: 12.22×20.4M
1 Set of SS Tank: 9.93×12.6M
1 Set of GFS Tank: 5.35×5.4M
1 Set of GFS Tank: 4.58×6M
1 Set of GFS Tank: 3.06×5.4M
1 Set of GFS Tank: 3.82×5.4M
Installation: October, 2022



Turkey Food Waste Biogas Project

Location: Istanbul, Turkey
Tank Model: 16.81×16.8M
Tank Quantity: 2 sets of GFS tanks
Roof & Freeboard: SS316
Installation: December 2020



Potable Water Storage GFS tanks

Location: Cirebon, West Java, Indonesia
Tank Model: 46.62×6M
Tank Colour: BL04
Roof Type: Aluminum alloy deck roof
Installation: February 2020



AB InBev WWTP Project in Mozambique

Location: Maputo, Mozambique
Applications: EQ tank, UASB tank, Buffer tank, Calamity Tank, Anoxic tank, Aeration tank and MBR permeate tank etc.
Tanks Model: 15.29×7.2M, 19.87×9M, 9.17×4.8M, 8.4×6.6M, 4.59×7.2M, 15.29×7.2M, 4.59×3.6M, 7.64×3.6M
Roof Type: GFS or Aluminum alloy deck roof
Installation: October 2019

OASIS METAL GRPTANK

The World Leader in
GRP Water Tank

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