FRP TANKS

2025

EDITION FOR SNOWATE CATALOG

Snowate

Hengshui Snowate Environmental Technology Co., Ltd.

www.snowate.com

HENGSHUI SNOWATE ENVIRONMENTAL TECHNOLOGY CO., LTD.

A TRUSTWORTHY SOURCING EXPERT ON WATER TREATMENT FACILITIES

As a senior sourcing expert on water treatment facilities and accessories, Hengshui Snowate Environmental Technology Co., Ltd. has extensive water treatment expertise, profound water treatment industry experience and a deep understanding of the water treatment industry purchasing demands. As a consequence, we are capable of providing one-stop purchase and technical support on water treatment facilities and accessories according to our customers' applications, thereby helping our customers to shorten the procurement cycle, reduce procurement costs and maximize economic benefits.

We integrate upstream supply chain products of the water treatment industry. In addition, we work with renowned suppliers and manufacturers. As a result, we can continuously supply high-quality water treatment components and systems for customers across the world to meet the needs of a Wide Range of Applications, Thereby Optimizing Water Resources and Promoting The Sustainable Development of The Global Environment.

Snowate

Contents

FRP Tanks

FRP tanks are a kind of non-metallic composite tank reinforced by winding resin and glass fiber together through microcomputer controlled machine.

FRP tanks can load filter materials such as ion exchange resins, quartz sand and activated carbon to remove calcium ions, magnesium ions, suspended solids, sediment, color, odor, etc. compared With the traditional water treatment tanks, FRP tanks feature light weight, high strength, good corrosion resistance, thermal performance, good electrical performance, leakage free, easy shipping and installation, etc. It is widely used in petroleum, food, pharmaceutical, printing and dyeing industries.

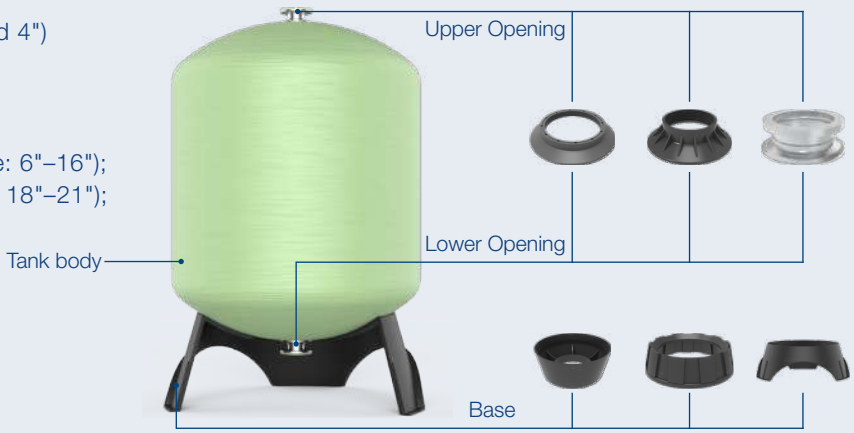
Our products come in a wide range of models and are both NSF and CE certified.

Universal FRP Tanks Structure

Universal FRP tanks are generally composed of upper opening, lower opening (except for 2.5" and part of 4"), tank body and a base.

- Opening
  - PPO material, thread connection (2.5" and 4")
  - Aviation aluminum, flange connection (6")

- Base
  - Standard base: reinforce plastic (tank size: 6"–16");
  - Round base: reinforced plastic (tank size: 18"–21");
  - Tripod base: FRP (tank size: 24"–80")



Material

Liner

It is made of food grade PE material with excellent chemical resistance and is integrally molded by rotational molding and blow molding. The finished product features seamless connection, high pressure resistance and leakage free.

FRP Tank Body

The FRP tank body outside the linear is made of reinforced glass fiber and high performance epoxy resin by 3D winding.

Opening & Port



Size	2.5"	4"	6"
Material	PPO		Aviation aluminum
Structure	Thread		Flange
Features	Enhanced PPO modified plastic material complies with general international thread standards, featuring high strength, good pressure resistance, low thermal deformation, abrasion resistance, fouling resistance, etc.		Aviation aluminum modified material can be applied to various complex media conditions. It has a more stable pressure bearing capacity and a longer service life.

The port size varies, so does the port material.

Base



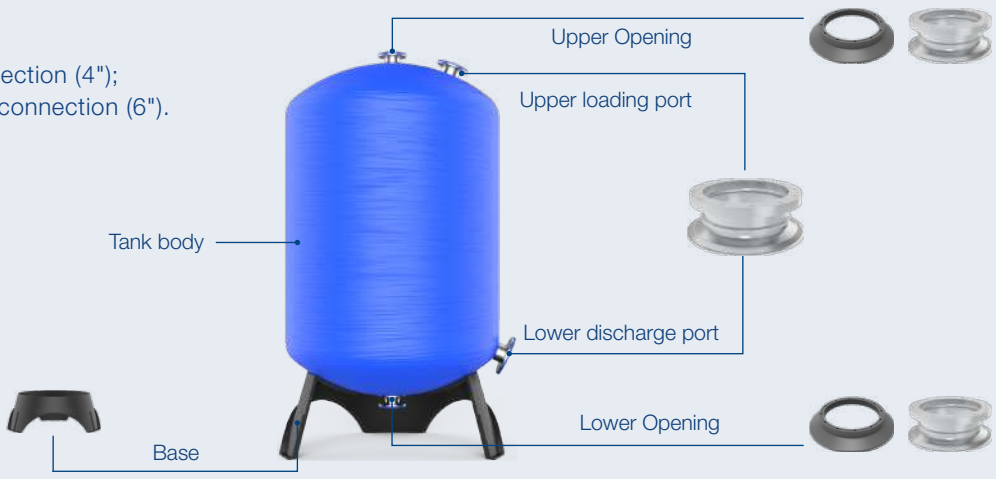
Base	Standard Base	Round Base	Tripod Base
Material	Reinforced plastics	Reinforced plastics	Reinforced glass fiber
Applicable range	6"–16"	18"–21"	24"–80"

Some models will have adjustments.

FRP Tanks with Upper Loading / Lower Discharge Part Structure

FRP tanks with upper loading / lower discharge port are typically composed of upper and lower openings, tank body, (upper loading port), lower discharge port and a base.

- Opening & Port
  - PPO material, thread connection (4");
  - Aviation aluminum, flange connection (6").
- Base
  FRP tripod base



Universal FRP Tanks

Universal FRP tanks are generally available in original and blue colors; It comes in a full range of sizes with a diameter of 6"–80" and a height of 10"–79"; It is both NSF and CE certified. Both colors and models can be customized upon request.

Universal FRP tanks are provided with an upper opening and a lower opening to facilitate medium loading and unloading.

Coding Rules

2162–4"–4"

Body size	Upper opening size	Lower opening size
Diameter: 21"; height: 62"	4"	4" (if there is blank, it indicates that the FRP tank is not provided with a lower opening)

Specification of Universal FRP Tanks

Model (inch)	Diameter × Height (mm)	Package Dimensions (m)	Capacity (L)	125 PSI Packed Weight (kg)	150 PSI Packed Weight (kg)
610-2.5"	166 × 259	0.166 × 0.166 × 0.259	3.2	0.9±0.1	1.0±0.1
613-2.5"	166 × 346	0.166 × 0.166 × 0.346	4.7	1.2±0.1	1.4±0.1
617-2.5"	166 × 437	0.166 × 0.166 × 0.437	6.5	1.5±0.2	1.7±0.2
618-2.5"	166 × 462	0.166 × 0.166 × 0.462	7.0	1.5±0.2	1.7±0.2
629-2.5"	166 × 741	0.166 × 0.166 × 0.741	12.0	2.0±0.2	2.2±0.2
635-2.5"	166 × 894	0.166 × 0.166 × 0.894	14.8	2.2±0.3	2.4±0.3
713-2.5"	188 × 335	0.188 × 0.188 × 0.335	5.9	1.4±0.1	1.5±0.1
717-2.5"	188 × 437	0.188 × 0.188 × 0.437	8.3	1.7±0.2	1.8±0.2
724-2.5"	188 × 625	0.188 × 0.188 × 0.625	12.4	2.1±0.2	2.2±0.2
730-2.5"	188 × 777	0.188 × 0.188 × 0.777	16.1	2.4±0.2	2.6±0.2
735-2.5"	188 × 894	0.188 × 0.188 × 0.894	18.8	2.7±0.3	3.0±0.3
744-2.5"	188 × 1124	0.188 × 0.188 × 1.124	24.2	3.2±0.3	3.4±0.3
813-2.5"	215 × 338	0.338 × 0.215 × 0.215	8.0	1.6±0.1	1.7±0.1
817-2.5"	215 × 437	0.437 × 0.215 × 0.215	11.0	1.8±0.2	1.9±0.2
824-2.5"	215 × 625	0.625 × 0.215 × 0.215	16.8	2.3±0.2	3.0±0.2
835-2.5"	215 × 895	0.895 × 0.215 × 0.215	25.2	3.0±0.3	3.2±0.3
844-2.5"	215 × 1125	1.125 × 0.215 × 0.215	32.5	3.7±0.3	4.0±0.3
917-2.5"	240 × 455	0.455 × 0.24 × 0.24	13.8	2.3±0.2	2.4±0.2
935-2.5"	240 × 900	0.9 × 0.24 × 0.24	31.1	3.6±0.3	3.7±0.3
942-2.5"	240 × 1073	1.073 × 0.24 × 0.24	37.8	4.5±0.4	4.6±0.4
948-2.5"	240 × 1225	1.225 × 0.24 × 0.24	43.7	4.9±0.4	5.1±0.4
1017-2.5"	266 × 429	0.429 × 0.266 × 0.266	16.4	2.7±0.2	2.8±0.2
1019-2.5"	266 × 494	0.494 × 0.266 × 0.266	18.8	3.0±0.3	3.2±0.2
1024-2.5"	266 × 622	0.622 × 0.266 × 0.266	25.0	3.5±0.3	3.5±0.3
1035-2.5"	266 × 896	0.896 × 0.266 × 0.266	38.8	4.2±0.4	4.4±0.4
1044-2.5"	266 × 1135	1.135 × 0.266 × 0.266	50.0	5.0±0.4	5.4±0.4
1054-2.5"	266 × 1380	1.38 × 0.266 × 0.266	62.5	6.0±0.4	6.2±0.4

Specification of Universal FRP Tanks					
Model (inch)	Diameter × Height (mm)	Package Dimensions (m)	Capacity (L)	125 PSI Packed Weight (kg)	150 PSI Packed Weight (kg)
1054-2.5"-2.5"	266 × 1522	1.522 × 0.266 × 0.266	62.5	6.6±0.4	7.0±0.4
1236-2.5"	318 × 920	0.92 × 0.318 × 0.318	55.6	5.0±0.5	5.7±0.5
1248-2.5"	318 × 1233	1.233 × 0.318 × 0.318	77.5	6.0±0.5	7.1±0.5
1252-2.5"	318 × 1333	1.333 × 0.318 × 0.318	85.3	7.5±0.5	7.9±0.5
1265-2.5"	318 × 1663	1.663 × 0.318 × 0.318	108.5	9.0±0.5	9.3±0.5
1344-2.5"	343 × 1100	1.1 × 0.343 × 0.343	81.1	7.0±0.6	8.9±0.6
1354-2.5"	343 × 1350	1.35 × 0.343 × 0.343	102.3	8.0±0.6	9.8±0.6
1452-2.5"	369 × 1336	1.336 × 0.369 × 0.369	115.3	9.4±0.8	11.0±0.8
1452-4"	369 × 1336	1.336 × 0.369 × 0.369	115.3	9.4±0.8	11.0±0.8
1465-2.5"	369 × 1661	1.661 × 0.369 × 0.369	146.8	10.6±0.8	13.4±0.8
1465-4"	369 × 1661	1.661 × 0.369 × 0.369	146.8	10.6±0.8	13.4±0.8
1465-4"-4"	359 × 1850	1.85 × 0.359 × 0.359	146.8	11.2±0.8	14.0±0.8
1652-2.5"	428 × 1325	1.325 × 0.428 × 0.428	150.1	11.3±1	13.2±1
1652-4"	428 × 1325	1.325 × 0.428 × 0.428	150.1	11.3±1	13.2±1
1665-2.5“	428 × 1668	1.668 × 0.428 × 0.428	191.7	13.8±1	15.9±1
1665-4"	428 × 1668	1.668 × 0.428 × 0.428	191.7	13.8±1	15.9±1
1665-4"-4"	418 × 1877	1.877 × 0.418 × 0.418	191.7	14.9±1	16.8±1
1836-4"	465 × 920	0.92 × 0.465 × 0.465	118.1	9.0±1.5	11.0±1.5
1853-4"	465 × 1350	1.35 × 0.465 × 0.465	186.5	14.0±1.5	17.0±1.5
1865-4"	465 × 1655	1.655 × 0.465 × 0.465	235.0	16.0±1.5	20.0±1.5
1865-4"-4"	465 × 1873	1.873 × 0.465 × 0.465	235.0	18.0±1.5	22.0±1.5
2069-4"	512 × 1770	1.77 × 0.512 × 0.512	307.0	20.0±2	27.0±2
2069-4"-4"	512 × 1955	1.955 × 0.512 × 0.512	307.0	22.0±2	29.0±2
2136-4"	543 × 940	0.94 × 0.543 × 0.543	164.4	13.0±2	17.0±2
2153-4"	543 × 1370	1.37 × 0.543 × 0.543	257.9	18.0±2	22.0±2
2162-4"	543 × 1600	1.6 × 0.543 × 0.543	307.8	21.0±2	27.0±2
2162-4"-4"	543 × 1750	1.750 × 0.543 × 0.543	307.8	23.0±2	29.0±2
2465-4"-4"	614 × 1920	1.92 × 0.614 × 0.614	409.4	32.0±3	39.0±3
2472-4"	614 × 1884	1.884 × 0.614 × 0.614	460.5	35.0±3	41.0±3
2472-4"-4"	614 × 2080	2.08 × 0.614 × 0.614	460.5	37.0±3	43.0±3
3065-4"-4"	765 × 1855	1.855 × 0.765 × 0.765	616.4	49.0±4	54.0±4
3072-4"	765 × 1844	1.844 × 0.765 × 0.765	696.1	56.0±4	55.0±4
3072-4"-4"	765 × 2035	2.035 × 0.765 × 0.765	696.1	58.0±4	57.0±4
3065-6"-6"	765 × 2060	2.06 × 0.765 × 0.765	616.4	57.0±4	61.0±4
3072-6"-6"	765 × 2240	2.24 × 0.765 × 0.765	718.9	65.0±4	64.0±4
3665-4"-4"	909 × 1910	1.91 × 0.909 × 0.909	860.0	63.0±5	78.0±5
3672-4"-4"	909 × 2090	2.09 × 0.909 × 0.909	969.2	69.0±5	84.0±5
3665-6"-6"	909 × 1980	1.98 × 0.909 × 0.909	860.0	68.0±5	83.0±5
3672-6"-6"	909 × 2160	2.16 × 0.909 × 0.909	969.2	74.0±5	89.0±5
4065-4"-4"	1000 × 1950	1.95 × 1 × 1	1087.1	83.0±7	97.0±7
4065-6"-6"	1000 × 2040	2.04 × 1 × 1	1087.1	88.0±7	102.0±7
4079-4"-4"	1000 × 2310	2.31 × 1 × 1	1257.5	100.0±7	113.0±7
4079-6"-6"	1000 × 2360	2.36 × 1 × 1	1257.5	105.0±7	118.0±7
4272-6"-6"	1070 × 2200	2.2 × 1.07 × 1.07	1387.5	96.0±8	112.0±8
4872-6"-6"	1217 × 2260	2.26 × 1.217 × 1.217	1751.3	122.0±10	137.0±10
4894-6"-6"	1217 × 2400	2.4 × 1.217 × 1.217	1910.0	–	–
6079-6"-6"	1500 × 2425	2.425 × 1.5 × 1.5	3011.5	197.0±13	227.0±13
6367-6"-6"	1609 × 2110	2.11 × 1.609 × 1.609	2629.8	194.0±15	223.0±15
6386-6"-6"	1609 × 2460	2.46 × 1.609 × 1.609	3424.5	220.0±15	265.0±15
7279-6"-6"	1800 × 2605	2.605 × 1.8 × 1.8	4610.3	310.0±18	407.0

FRP Tanks with Upper Loading / Lower Discharge Port

FRP tanks with upper loading / lower discharge port are generally available in original and blue colors. It comes in a broad range of sizes with a diameter of 30"– 80" and a height of 65"–79"; It is both NSF and CE certified. Both colors and models can be customized upon request.

It is provided with a positive and negative pressure protection device to make the pressure more stable and extend the lifespan of the tank; When loading and unloading filter materials, you do not need to open the upper and lower openings, and just load and unload filter materials from side ports, thus reducing the damage to valves and water distributors.

Coding Rules

3065–4"–4"–U–D

Body size	Upper opening size	Lower opening size	upper loading / lower discharge port type
Diameter: 30"; height: 65".	4"	4"	-D：only lower discharge port -U-D：upper loading and lower discharge port

Specification of FRP Tanks with Upper Loading / Lower Discharge Port (125/150 PSI)

Model (inch)	Diameter × Height (mm)	Upper Loading Port (inch)	Lower Discharge Port (inch)
3065-4"-4"-D	763 × 1855	–	4"
3072-4"-4"-D	763 × 2035	–	4"
3065-6"-6"-D	763 × 2060	–	4"
3072-6"-6"-D	763 × 2240	–	4"
3665-4"-4"-D	909 × 1910	–	4"
3672-4"-4"-D	909 × 2090	–	4"
3665-6"-6"-D	909 × 1980	–	4"
3672-6"-6"-D	909 × 2160	–	4"
4065-4"-4"-D	1000 × 1950	–	4"
4079-4"-4"-D	1000 × 2310	–	4"
4065-6"-6"-D	1000 × 2040	–	4"
4079-6"-6"-D	1000 × 2360	–	4"
4272-6"-6"-D	1070 × 2200	–	4"
4872-6"-6"-D	1217 × 2260	–	4"
4894-6"-6"-D	1217 × 2400	–	4"
6079-6"-6"-D	1500 × 2425	–	4"
6367-6"-6"-D	1609 × 2110	–	4"
6386-6"-6"-D	1609 × 2460	–	4"
7279-6"-6"-D	1800 × 2500	–	6"
8079-6"-6"-D	2010 × 2450 / 2010 × 2620	–	6"
3665-4"-4"-U-D	909 × 1910	4"	4"
3672-4"-4"-U-D	909 × 2090	4"	4"
3665-6"-6"-U-D	909 × 1980	4"	4"
3672-6"-6"-U-D	909 × 2160	4"	4"
4065-4"-4"-U-D	1000 × 1950	4"	4"
4079-4"-4"-U-D	1000 × 2310	4"	4"
4065-6"-6"-U-D	1000 × 2040	4"	4"
4079-6"-6"-U-D	1000 × 2360	4"	4"
4272-6"-6"-U-D	1070 × 2200	4"	4"
4872-6"-6"-U-D	1217 × 2260	4"	4"
4894-6"-6"-U-D	1217 × 2400	4"	4"
6079-6"-6"-U-D	1500 × 2425	4"	4"
6367-6"-6"-U-D	1609 × 2110	4"	4"
6386-6"-6"-U-D	1609 × 2460	4"	4"
7279-6"-6"-U-D	1800 × 2500	6"	6"

PE Filler for Softener Tank

PE filler for softener tank is a kind of white funnel made of food grade PE raw material that have excellent corrosion resistance. It is designed into funnels with a large diameter and thickened walls. Besides, its smooth inner surface helps filling material moving into the FRP softener tanks easily without clogging the center pipe of the FRP vessel or causing filling material run-off. It is widely used in water treatment, wasterwater treatment, etc.




Specifications

Specifications of PE Filler for Softener			
Model	Compatible Central Tube Size	Diameter	Color
PEFS-01	26.7/32 mm	224 mm	black
PEFS-02	40/50/63 mm	300 mm	black






Water Purification System

Pre–Filter Systems

Water Softener System

Water softener tanks will load ion exchange resins as filter material to mainly remove calcium and magnesium ions from water without lowering the salt content of water. It often works with water distributors, brine tanks and multiport control valves.

Multimedia Filter System

The filter materials in the FRP tank are generally 2 kinds and more, and common filter materials include quartz sand, activated carbon, manganese sand, etc. It is mainly used to remove impurities such as sediments, suspended solids, colloids as well as organism like algae, and lower the mechanical damage and fouling of RO membrane elements.

Activated Carbon Filter System

The filter material in the FRP tank is activated carbon. It is mainly used to remove color and odor from water and absorb organics, bacteria, microorganism, colloidal particles as well as metal ions in water.

Manganese Sand Filter System

The filter material in the FRP tank is natural manganese sand. It is mainly used to remove iron and manganese ions.

Quartz Sand Filter System

The filter material in the FRP tank is quartz sand. It is mainly used to remove suspended solids, colloids, sediments and rust.

During the pre-treatment process, depending the feed water quality, water softener systems and filters may work together to meet the feed water requirements in the membrane treatment process.

After–Treatment System

Polishing System

FRP tanks also can loading polishing resin. It is generally used at the end of the process to further improve the water quality. Generally, effluent quality reaches up to 18 MΩ, and factory ions are H+ and OH- types that can't regeneration after using.

Production Process

Inner liner production & inspection

Winding & reinforcement

Temperature Curing

Trimming (Appearance Inspection)

Hydrostatic pressure test

Labeling & Packing

Unique Design

Every 2.5"/4" opening FRP tank is provided with a EPE pearl cotton dust cover to prevent the port surface and thread port damage during transportation or human handling as well as keep dust and bacteria from entering the tank, making it more hygienic and safer.

Every 6" FRP tank is provided with a dust cover to prevent the port surface and thread opening damage during transportation or human handling as well as keep dust and bacteria from entering the tank, making it more sanitary and safer.

Positive & negative pressure protection device. The positive & negative pressure valve design can prevent the tanks damage caused by vacuum negative pressure or over pressure.

FRP Tank Quality Test

A series of tests is proven that our products have good quality stability, exceptional durability and high compressive strength.

1.2 Times of Hydrostatic Pressure Test — Ensuring the Stability of Tank Quality.

- Test standard: Every FRP tank goes through hydrostatic pressure test before leaving the factory.
- Test requirements: 1.2 times and above test pressure; 0.4 MPa/s pressure rise rate.
- Test result requirements: FRP tank is free from seepage/ leakage.

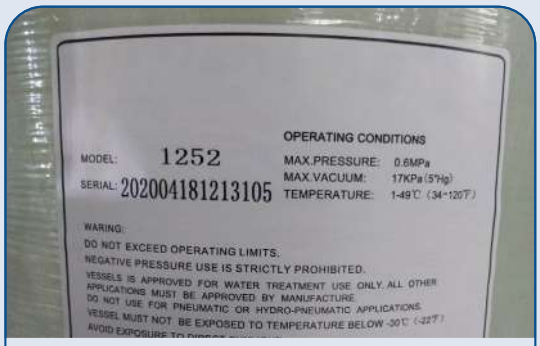
More than 4 times burst pressure test — Ensuring Tank Quality.

- Test standard
  8"–10", sample a tank every 600 tanks for testing;
  12"–16", sample a tank every 400 tanks for testing;
  18"–24", sample s tank every 250 tanks for testing;
  Larger than 30", sample a tank every 200 tanks for testing.
- Test requirements:
  Test pressure is 4 times the work pressure ;
  0.4 MPa/s pressure rise rate.
- Test result requirements: FRP tank is free from seepage.

100,000 fatigue tests — Ensuring the Durability of the Tank.

- Test standard
  8"–10", sample a tank every 1000 tanks for testing;
  12"–16", sample a tank every 750 tanks for testing;
  18"–24", sample s tank every 400 tanks for testing;
  Larger than 30", sample a tank every 300 tanks for testing.
- Test requirements:
  Test pressure is 1.1 times the work pressure;
  6–16 times/minutes pressure rise rate;
  100,000 fatigue tests, ensuring the durability of the tank.
- Test result requirements: FRP tank is free from seepage.

Packing



Each our product is attached with a label indicating its model, pressure and attention.

Packaging of small diameter FRP tanks in cartons.

We will use a ruler to measure the levelness of the FRP tank and then pack the tank after confirming the tank levelness is correct.

Packaging for the larger diameter FRP tanks is plastic bubble wrap.

The maximum space is utilized and the product is put into the container in perfect condition.

Notes: The FRP tanks shall be stored with package before installation. Do not unfold the package before installation.

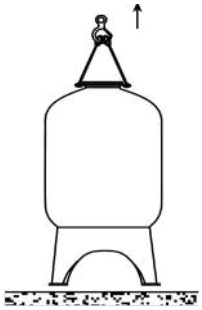
Loading and Installation

For 21” FRP Tanks Loading

FRP tanks with a diameter of 21" and below shall be handled manually. Please handle with care to prevent falling and collision .

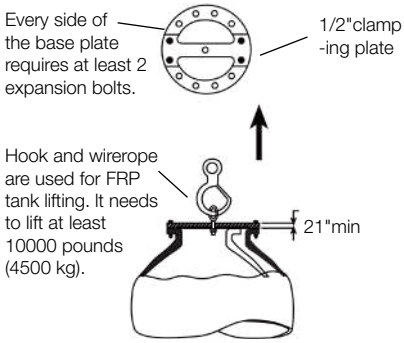
For 24” FRP Tanks Loading

FRP tanks with a diameter of 24" and above shall be handled with a forklift or a crane. If the FRP tank upper port is provided with a flange, it can be handled by hoisting. If the FRP tank upper port is not provided with a flange, it can be handled with a forklift .



Hoist with tank flanges

Empty FRP tanks can be hoisted with flanges on the tank body. It should prepare hoisting device or cable in advance. The cable shall carry at least 10,000 pounds (4,500 kg).



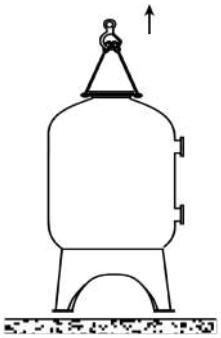
Hoist with a strap

Prepare a 1/2" steel strap to connect with flanges and every side requires at least 2 bolts. Hook and steel cable need to lift at least 10,000 pounds (4,500 kg).

Handle with a forklift

Use a forklift to lift and handle FRP tanks.

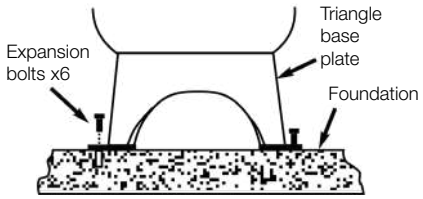
For 40” FRP Tanks Installation



Hoist

Hoist the FRP tanks in the same way of hoisting FRP tanks with a diameter of 24" and above and remove the outer package.

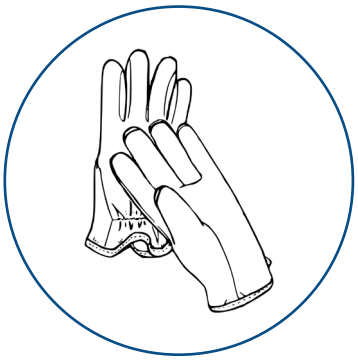
(It is recommended that the tank base shall be fixed on the ground when the tank body, filter materials and pipeline installation is finished).



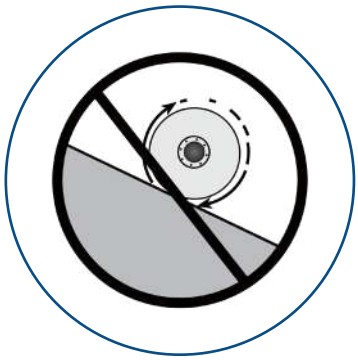
Fix the FRP tank

After installing the tanks and filling materials, the FRP tanks should be fixed on the ground with pressing plate and expansion bolts.

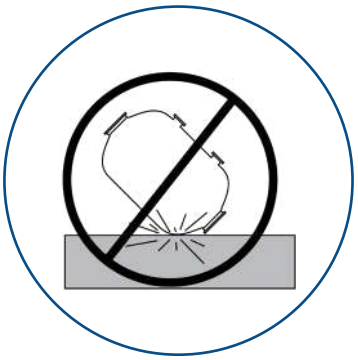
Precautions



Wear a pair of rubber gloves when handling or installing FRP tanks;

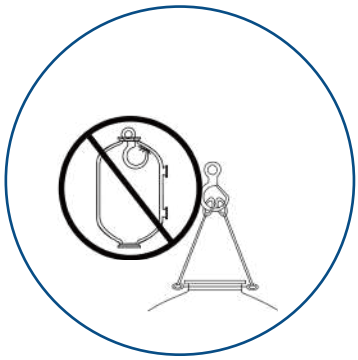


Do not roll or slide the FRP tank.



Do not drop or knock against FRP tank. Do not allow the FRP tank collide with wall or other equipment.

Use a forklift or a crane to hoist the FRP tank; compliant hoisting procedures must be followed.



Do not use hook to lift the FRP tank from inside. You may lift the FRP tank from the outside flanges, so that the inner lining is not damaged.

Do not use steel wire or chain to fix FRP tank. You may use canvas bag or nylon to prevent FRP tank from slipping off.

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