

FRP TANKS

2025

EDITION FOR
REDAWATER GROUP



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.

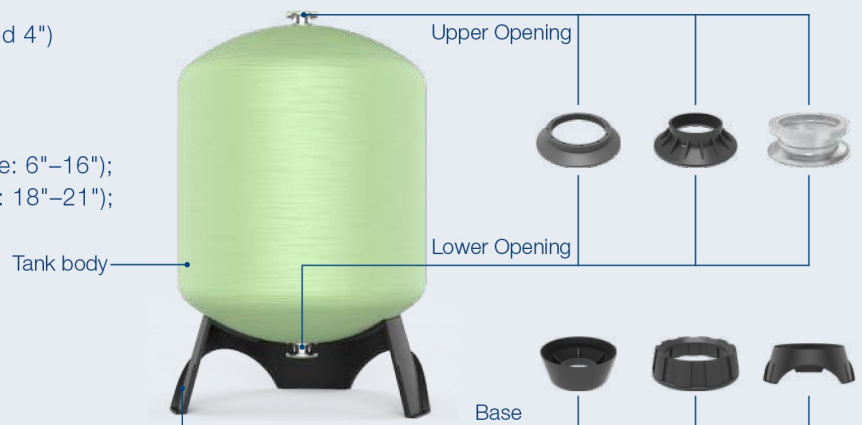
Our products come in a wide range of models and are both NSF and CE certified.



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")



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

Diameter: 21"; height: 62"

Upper opening size

4"

Lower opening size

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)	100 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)	100 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



www.redawatergroup.com - info@redawatergroup.com



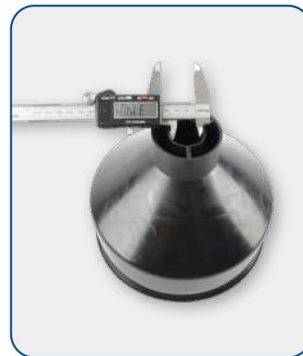
PE Filler for Softener Tank

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, wastewater 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



Production Process



Inner liner production & inspection



Winding & reinforcement



Temperature Curing



Labeling & Packing



Hydrostatic pressure test



Trimming
(Appearance Inspection)

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.



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 a 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.



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 a 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.

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.

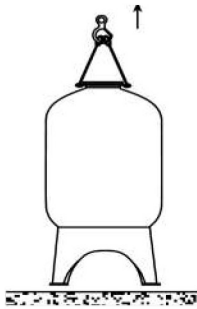
Notes: The FRP tanks shall be stored with package before installation. Do not unfold the package before installation.

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 .

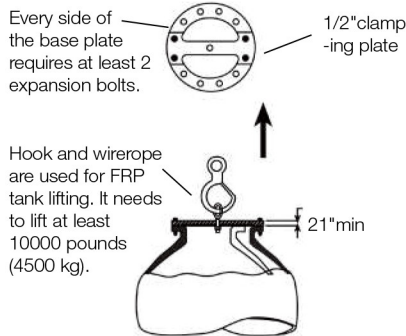
For 24" FRP Tanks Loading

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

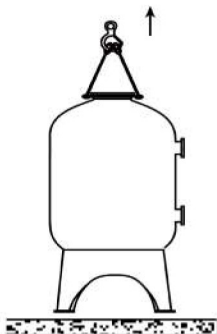
Prepare a 1/2" steel strap to connect with flanges and every side requires at least 2 bolts. Hook and steel cable need to lift at least 10,000 pounds (4,500 kg).



Handle with a forklift

Use a forklift to lift and handle FRP tanks.

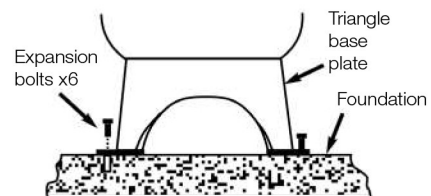
For 40" FRP Tanks Installation



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).

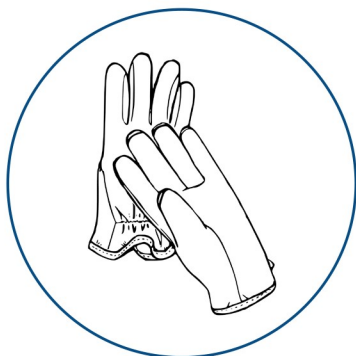


Fix the FRP tank

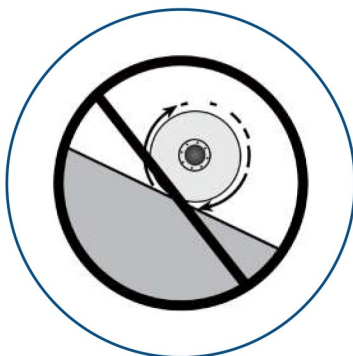
After installing the tanks and filling materials, the FRP tanks should be fixed on the ground with pressing plate and expansion bolts.



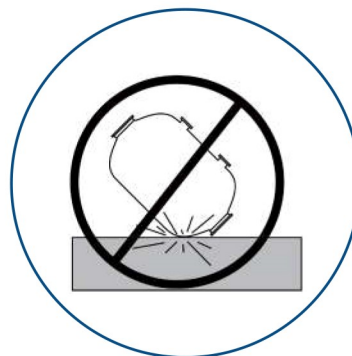
Precautions



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



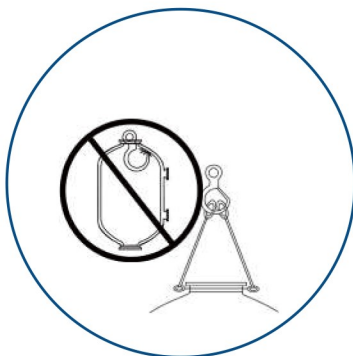
Do not roll or slide the FRP tank.



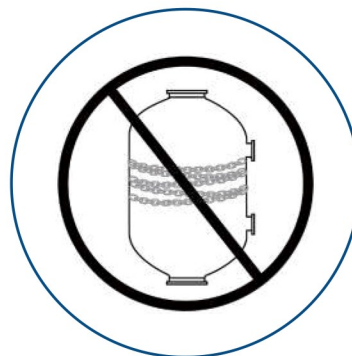
Do not drop or knock against FRP tank. Do not allow the FRP tank collide with wall or other equipment.



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.

