

FRP Supply /
Exhaust Fans



Bottle Type
Cooling
Towers



Cross-Flow,
Induced Draft
Cooling
Towers



Counter Flow,
Induced Draft
Cooling Towers



Plate Type
Heat
Exchangers



Fiberglass
Storage
Tanks & Vessels



- Design
- Consultancy
- Fabrication
- Spares & Services
- Manufacturing
- Turnkey Projects
- Engineering
- Contracting

Company Profile

FRP Engineers, a registered firm by some name, has been serving the national and international market since 1993. The professionally qualified engineers have formed a group to design, manufacture and deliver HVACR and other engineering solutions with a vast experience of Fiberglass as a Material of Constructions. The excellent properties of Fiberglass Material allow replacing many others that get corroded, lose strength or deteriorate.

With a combined experience of more than 80 years in product design, fabrication & engineering, we believe that our skills have matured enough to take up challenges in problems resolution of any degree of complexity in the Industrial and Commercial Sectors.

Our commitment is to give our customers the confidence on product selection and educate them on its use. We invite you to visit our platform for a demonstration of our potentials and a variety of products we have designed, fabricated and delivered. This opportunity enables to instantiate confidence building measures and finding common business areas to share with.

Your confidence is our asset!

Mission and Strategy

We shall provide efficient, long-term solutions and designs by offering materials and concepts that are not limited to conventional thinking.

- As your business partner, our objective is a fair business.
- We will deliver outstanding quality and best value for your money.
- We will provide customer service, following safety rules, to exceed your expectations.
- We will pursue this mission, maintaining the integrity with vendors and customers.

▷ **Customers**

We want to be our customers' best partner. Their requirements drive our actions.

▷ **Competency**

We are committed to excellence in innovation, total quality, direct customer relationships and effective marketing.

▷ **Concentration**

We focus on products and markets where we can achieve and sustain leadership positions.

No compromise on quality, your satisfaction is guaranteed!

Why is FRP Engineers preferred over others?

- Provides you a "Complete Solution" using best available resources.
- Has an engineering team with a vast experience profile.
- Quality of materials & workmanship.
- Continued Research & Development in light of customers' valuable feedbacks.
- Flexibility in design to suit client's requirements.
- Total backup, backup help wins back customers!
- After sales services - parts, overhauling, reconditioning etc.

RCT-Series, Rectangular, Cross-Flow Cooling Towers

Working Principle

In cross-flow cooling tower systems the water vertically flows through the fill media while the air horizontally flows across the falling water. That's why they call it "cross-flow" because the air and water cross paths or flows. Because of the crossing of flows, the air doesn't need to pass through the distribution system. This permits the use of hot water flow via gravity through showering tray on the top of the tower right above the fill media. The trays are a standard of cross-flow cooling towers and are installed on all units.



Unique Selling Features of RCT-Series, Rectangular, Cross-Flow, Induced Draft Cooling Towers by FRP Engineers

FANS: FRP RCT-Series Cooling Towers use Fiberglass Hollow Blade Blades which are post-cure heat treated for longer service life. The Fans are energy efficient, and can also be prepared in Corrosion Resistant FRP Material also for special applications. Fiberglass Blades are fail-safe, and resistant to pitting by the chemically treated

IN-FILLS: High Quality Rigid PVC In-fills with Integrated Drift eliminators are used. For high-temperature applications, Infills are used in Polypropylene Material.

STRUCTURE: Structural Components are in FRP Material, whereas the internal supports are in HDGI or AISI 304.

WATER DISTRIBUTION: Water Distribution is open gravity type, and is done through FRP Perforated Showering Trays. The trays have Water Diffusers installed on downside for even distribution of water on the In-Fills.

ELECTRICAL MOTORS: Energy Efficient IE2 and IE3 Motors of well-reputed brands are used in all FRP RCT-Series Cooling Towers.

HARDWARE AND FIXTURES: All internal fixtures and hardware are in AISI 304 Material for longer life against rust and corrosion.

AFTER-SALE SERVICE: Nationwide installations and presence of service network ensures quick support to our customers.



SCT-Series, Counter-Flow Cooling Towers

Working Principle

In counter-flow cooling tower system processes, the air vertically flows upwards, counter to the water flow in the fill media. Due to the air flowing vertically, it's not possible to use the basin's gravity-flow like in cross-flow towers. As a substitute, these towers use pressurized spray systems, usually pipe-type, to spray the water on top of the fill media. The pipes and cooling tower nozzles are usually spread farther apart so they will not restrict any air flow. Counter-Flow Cooling Towers use lesser foot-print area as compared to Cross-Flow Cooling Towers



Unique Selling Features of SCT-Series, Counter-Flow, Induced Draft Cooling Towers by FRP Engineers

FANS: FRP SCT-Series Cooling Towers use Fiberglass Hollow Blade Blades which are post-cure heat treated for longer service life. The Fans are energy efficient, and can be prepared in Corrosion Resistant FRP Material also for special applications. Fiberglass Blades are fail safe, and resistant to pitting by the chemically treated water used in Cooling systems.

IN-FILLS: High Quality Rigid PVC In-fills are used in FRP-SCT Series Cooling Towers. Optional PP-Splash Type In-fills or PP Bigudi Rings are used in dirty-water applications

STRUCTURE: Structural Components are in FRP Material, whereas the internal supports are in HDGI or AISI 304.

DRIFT ELIMINATORS: High Efficiency PVC or PP Extruded Drift Eliminators with AISI 304 Rods and Hardware are used in SCT Series. Water Losses are reduced to 0.02% of circulating water flow rate.

WATER DISTRIBUTION: Water Distribution Systems are provided in UPVC Pipes for clean water and Open-Tray Channels for Dirty Water Applications.

ELECTRICAL MOTORS: Energy Efficient IE2 and IE3 Motors of well-reputed brands are used in all FRP SCT-Series Cooling Towers.

HARDWARE AND FIXTURES All internal fixtures and hardware are in AISI 304 Material for longer life against rust and corrosion.

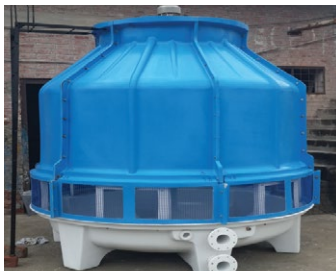
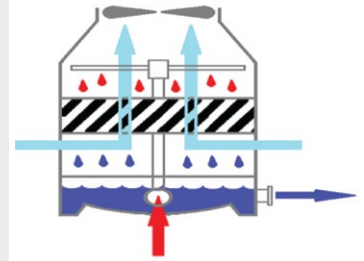
AFTER-SALE SERVICE: Nationwide installations and presence of Service network ensures quick support to our customers.



BCT-Series, Bottle-Type, Counter-Flow, Cooling Towers

Working Principle

Bottle-Type Cooling Towers are induced draft, which means the Fan is placed on the top of the Unit and the air/water flow arrangement is counter-flow. The hot water coming from heat load enters the Cooling Tower from its bottom and reaches the Rotating Water-Sprinkling Device through the riser Pipe. Even distribution of water over the PVC In-Fills is ensured by carefully designed water-distributor pipes. The heat-exchange takes place on the In-Fills, where hot water meets the cold dry air entering from the louvers and water is cooled and collected in the Fiberglass Sump from where it is transferred back to the heat-load.



Unique Selling Features of BCT-Series, Bottle -Type, Counter-Flow, Induced Draft Cooling Towers by FRP Engineers

FANS: FRP BCT-Series Cooling Towers use Fiberglass Hollow Blade Blades which are post-cure heat treated for longer service life. The Fans are energy efficient, and can be prepared in Corrosion Resistant FRP Material also for special applications. Fiberglass Blades are fail-safe, and resistant to pitting by the chemically treated water used in cooling systems.



IN-FILLS: High Quality Rigid PVC In-fills are used in Honey-Comb Pattern. For high-temperature applications, In-fills are used in Polypropylene Material.



STRUCTURE: Internal Structures are in FRP Profile.

DRIFT ELIMINATORS: FRP Sheet type Drift Eliminators are installed on Showering pipes to reduce the water carry over.

WATER DISTRIBUTION: Water is distributed using self-rotating water Sprinkling Device with PVC Pipes. The Sprinkling Device is in Aluminum / AISI 304 casting. Water-Distribution Pipes have drift eliminator plates attached to them.



ELECTRICAL MOTORS: Energy Efficient IE2 and IE3 Motors of well-reputed brands are used in all FRP BCT-Series Cooling Towers.

HARDWARE AND FIXTURES All internal fixtures and hardware are in AISI 304 Material for longer life against rust and corrosion.

AFTER-SALE SERVICE: Nationwide installations and Service network ensures quick support to our customers.



Fiberglass Storage Tanks & Vessels

FRP Engineers has a complete in-house fabrication & testing facility for fabrication of FRP Tanks and Vessels.



Applications: Water, Chemicals & Fuels

Capacity Range: 100 L to 150,000 L

Configuration:

- Vertical / Cylindrical
- Horizontal / Cylindrical (with optional cradles)

Additional accessories such as Internal / External Ladders, Safety Railing, Top Platform, Level Glass, Level transmitter, anchoring lugs, lifting lugs, baffles can also be provided.

Fiberglass Storage Tanks are a preferred choice for the storage of Various Industrials Chemical, Fuels or water storage. FRP Engineers fiberglass tanks are built from premium quality fiberglass composites for the media you intend to store.

Advantages:

- Corrosion Resistance against a broad spectrum of Chemicals and Liquids.
- Excellent for outdoor, above-ground, under-ground applications.
- Light Weight and easy installation.
- Flexibility of Design to suit your area limitations.
- Longer Service Life as compared to Concrete and Steel Tanks.



Fiberglass Industrial Supply / Exhaust Fans

The FRP axial flow fans are widely used for providing the required airflow for heat & mass transfer operations in various industrial equipment and processes.

These include cooling towers for air-conditioning & ventilation, humidifiers in textile mills, air-heat exchangers for various chemical processes, ventilation & exhaust as in mining industry etc.

All the major industries use large number of axial flow fans for operations.

Hollow FRP blades reduce material & installation costs and possibility of damage to the fan & drive during sudden stops. Composite structural design can be tailor made by using glass fibers in various forms (woven mat & rovings) in right direction while moulding the impeller with resin thus imparting the desired mechanical strength by improving its structural stability and enhanced mechanical properties.



Aerofoil design of FRP fan impellers ensures higher efficiency, lower noise levels & less power consumption. The aerodynamically designed impellers of fans, fabricated by composite material can be an excellent alternative to ensure enhanced efficiency & appropriate energy savings apart from a wide gamut of critical advantages.

The potential of FRP composite for various applications is very wide. In view of the crucial need for developing indigenous capability in composite technology the main advantage of FRP fans is their utilization and application of composite as an important performance material in various sectors and to improve upon the laboratory-industry linkages towards development & commercialization.

APPLICATION SECTORS:

- Power Generation Facilities
- Petroleum Refining & Petrochemicals
- Cement Industry
- Chemicals & Pharmaceuticals
- Fertilizer Production
- Mining Industries
- Institutional Ventilation, etc.

ADVANTAGES OF FRP FANS:

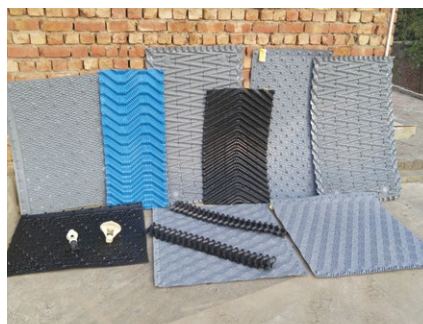
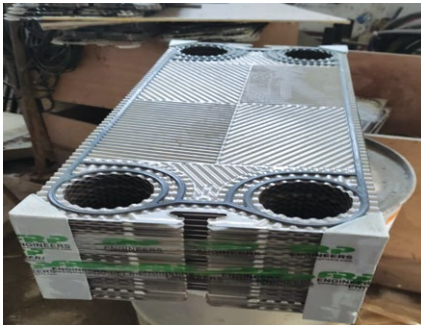
- Optimal aerodynamic design of fan impellers to provide higher efficiency for any specific application.
- Reduction in overall weight of the fan, thereby extending the life of mechanical drive systems.
- Require lower drive motor rating and light duty bearing system.
- Low power consumption resulting in appreciable energy savings.
- Lower flow noise and mechanical noise levels compared to the conventional metallic fans.
- Longer life of fans due to improved mechanical strength.



Quality Spares

FRP Engineers is your first choice for sourcing of Cooling Tower spares of well-reputed local and international brands.

Feel free to contact our sales department for a Quotation.



Get quality spares in time, to spare your quality time!

Professional Services

For over 20 years we have been installing, maintaining and refurbishing cooling towers across Pakistan. Our experienced, fully trained and well equipped team is available 24/7 to handle all your Cooling Tower problems.



Definitely, we can serve you better!

Our Nationwide Clientele



Multiple Vacant Positions | Apply Now



HUNZA GROUP OF COMPANIES



Light years ahead...



ITTEHAD CHEMICALS LIMITED



Striving to Serve Humanity



ISO 9001 : 2000 Certified



"...and many more!"

Our Foreign Principals

NIBA Cooling Towers

Niba Water Cooling Towers Industry and Trade Co. (Niba Su Soğutma Kuleleri Sanayi ve Ticaret A.Ş.), is manufacturing GRP (Glass Reinforced Polyester) PACKAGE TYPE WATER COOLING TOWERS in its own manufacturing plant; doing the marketing of water cooling towers and spare parts, sale, assembly, maintenance, engineering and contracting. More to this, Niba is giving service of maintenance, repair and checking for present working cooling towers.

Manufacturing Facility: Istanbul, Turkey

More than 100 Niba Cooling Towers are successfully operational in Pakistan!



ARES Plate Heat Exchangers

ARES PHE was founded in 2002 and has been serving successfully in plate heat exchanger market globally. Its 25 Years experience in Plate Heat Exchanger market and its experienced staff makes it one of the top heat exchanger manufacturers in the world. Discovered markets are Chemicals, Power, Textile, Sugar, Pharmaceuticals, Marine, HVAC.

Manufacturing Facility: Adana, Turkey

Several successful industrial & commercial projects in Pakistan are using ARES Plates Heat Exchangers!

SEMPA Pumps

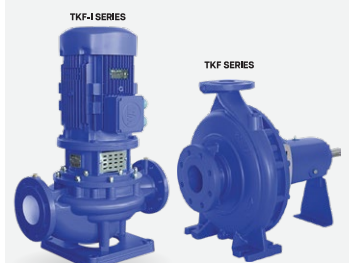
SEMPATECH, is one of Turkey's largest Pump manufacturers, with a 30,000 m2 Production Area and a market experience of 48 Years of providing fully integrated pump technology. Complete range of Water Transfer Pumps for HVAC, Fire-Fighting, Sanitation, irrigation, boosting systems etc.

Manufacturing Facility: Konya, Turkey



High Efficiency With Environmentalist Pump Meet!

For Cities and Industries...



Serving Across Pakistan 



Sectors we Serve

- | | | | |
|-----------|--------------------|--------------|-------------------------|
| - Power | - Food | - Sugar | - Pharmaceuticals |
| - Textile | - Glass | - Chemicals | - Steel Plants |
| - Cement | - Plastic Industry | - Commerical | - Waste Water Treatment |

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