

# ADVA-TECH

## FRP COOLING TOWER

PURE ENGINEERING PERFECT DESIGN

COOL WATER  
KEEPS PROCESS COOL  
HELPS BETTER PRODUCTIVITY - PERFORMANCE.



ADVA-TECH offer **FRP** Induced Draft Round Bottle Type, Square Type, Cross Flow Type and Natural Draft Type Cooling Towers are designed for **Sturdy, Durable, Reliable** and **Efficient** to meet high standards demanded by users.

An ISO 9001 : 2008 Certified Co.



**Capacity :**

5 Cub. Mt. / Hr. to 600 Cub. Mt. / Hr. in single cell  
and as per requirement in multi cell.





## Company Profile

**ADVA-TECH ENGINEERS** is one of the leading FRP (Fiber Glass Plastics) Cooling Tower manufacturers in India with a reputation for reliability.

The company was incorporated in 2007 to manufacture FRP induced draft bottle shaped Cooling Towers, ranging from 5 TR to 600 TR capacities, rectangular type towers ranging from 20 to 1200 TR in each cell and FRP cross flow type cooling tower ranging from 20 to 1000 TR in single cell. Ever since its inception, the company has had an excellent track record because of its emphasis on quality and customer service. It is these two strengths that have laid the foundation for the company's remarkable growth, to emerge as one of the leading manufacturers of FRP Induced Draft Cooling Towers in India, manufacturing approximately 500 cooling towers per annum.

The company serves a wide spectrum of all types of industries. Future plans of the company include Research and Development work to manufacture as many non-corrosive components as possible in the cooling towers and setting up of additional quality control measures. In today's competitive market, the company's dedication to quality, workmanship and design has set it apart as a leader in its industry.

**ADVA-TECH ENGINEERS** is having well trained technicians and engineers who are involved in engineering, planning procurement, quality control, and production functions augmented by consultants to keep with the advancement in the field of technology.

## Quality Policy

"Our Quality Policy is to manufacture FRP Cooling Tower and FRP Components, in the best quality and at competitive prices, and to the fullest satisfaction of our customers.

Our goal is to maintain the enviable status of being one of the most trusted name in **ADVA-TECH** products and bring in continuous improvement to our products and services by constantly monitoring all the aspects of the quality management system."



## FRP Induced Draft Counter Flow

# ROUND BOTTLE Type & SQUARE Type Cooling Tower



Round Bottle Type



Square Type

### Design Specifications

The "ADVA-TECH" FRP Round Bottle Type and Square Type Cooling Towers operate on the counter flow principle which gives the best performances. The air flow through the tower infill is opposed to the water flow. The cold air meets the cooled water at the bottom of the infills providing maximum evaporation and heat transfer in the fills.

### Casing & Basin

The tower casing is made of tough fiberglass reinforced plastic (FRP) and has sufficient structural strength to withstand high wind velocities and vibrations the portion of casing housing. The water collection sump, also of FRP, is leak - proof and avoids water spillage.

### Fills

The fill is of rigid PVC and is of honeycomb design with large contact area. The fills splits the air and water into several streams, increasing the time of contact and also heat transfer between water and air. We can supply HIPS and ABS material fills for high temperature applications.

### Water Distribution System

The water distribution system is fixed type and it is made of GI Pipes with multiple branches and plastic spray nozzles. It is designed for very low pressure drop and uniform distribution of water over fill area. We can supply automatic rotary sprinkler system for Round Bottle Type Cooling Towers.

### Fan

The Fans is of aero Dynamic Design, Energy Efficient, Axial Type Directly Driven Propeller Type. It is made of Cast Aluminium Alloy / FRP or Engineering Plastic. It is specially designed for low running cost and low noise level.

### Electric Motor

Special totally enclosed TENC Type flange mounted motors, with extended threaded shaft and sealed top is supplied with cooling tower. The motor is having totally weather proof IP-55 degree of protection, suitable for hot and humid atmosphere and it is covered by FRP motor cover.

### Supporting Structure

All supporting steel members are hot-dip galvanized to minimize rusting and corrosion ensuring long service life even in corrosive atmosphere.

FRP Induced Draft

# CROSS FLOW Type Cooling Tower



Single Flow



Double Flow

Backed with a strong background of research, design and commitment to quality, our company offers well tested range of FRP Cross Flow Type Cooling Towers. These cooling towers are manufactured using quality material like FRP, PVC, MS HDG and Stainless Steel supporting structure. Readily adaptable for any types of water cooling applications, these cooling towers are specially designed Hard Water, Ceramic Industries, Steel Industries, Oil Refineries and Dusty Atmosphere, our offered FRP Cross Flow Type Cooling Tower is highly acclaimed by clients for its chemical and corrosion resistance, maximum service life and high performance.

## Design Specifications

ADVA-TECH Cross Flow Cooling Tower operates according to Cross Flow Principle. The hot water is fed in to a FRP splash box, having target nozzles in the bottom to equally distribute water over PVC perforated 'V' bar fill. By evaporation and direct contact the water transfers heat to the air, which is sucked in by propeller type fan. The cold water is collected in a basin at the bottom of the tower for re-circulation.

## Casing

Casting is made of tough FRP panels and has sufficient structural strength to withstand high wind velocities and vibrations.

## Basin

It is generally a RCC/ Brick Wall basin and is to be designed and constructed by the client, in accordance with our drawing.

## Fills & Drift Eliminator

PVC Perforated V Bar type fill is supplied, to provide maximum wetted surface, longer air water contact and more efficient water cooling. Drift Eliminators are made of PVC and positioned between fill and fan cylinder.

## Water Distribution System

Hot water distribution splash box is open gravity type, will be made of FRP with HDPE gravity target nozzles.

## Fan

The Fans is of aero Dynamic Design, Energy Efficient, Axial Type Directly Driven Propeller Type. It is made of Cast Alluminium Alloy / FRP or Engineering Plastic. It is specially designed for low running cost and low noise level.

## Electric Motor

Special totally enclosed TENC Type flange mounted motors, with extended threaded shaft and sealed top is supplied with cooling tower. The motor is having totally weather proof IP-55 degree of protection, suitable for hot and humid atmosphere and it is covered by FRP motor cover.

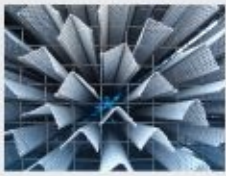
## Supporting Structure

All supporting steel members are heavy duty hot-dip galvanised to minimize rusting and corrosion ensuring long service life even in corrosive atmosphere. Fill support grill and all hardware are of stainless steel.

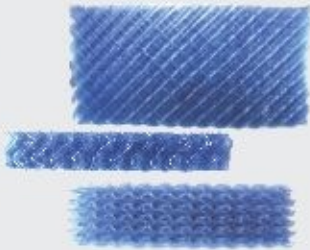


# SPARES

## PVC 'V' Bar



## PVC Fills



## PVC Fills

A wide range of edge folded PVC fill products to meet specific applications. Our standard fill products meet the requirements used in counterflow cooling towers. Our fills are with both edges folded and achieve high surface area for given volume. PVC Fills are made by continuous forming and offer minimum resistance to airflow, providing more cooling by lower power consumption. They have uniform thickness throughout. Durable folded edges provide strength at critical locations on the fill.

## Perforated PVC 'V' Bar and Strip

We supply PVC Perforated 'V' Bar and strip in the size of 4', 6' and 8' long for Cross Flow cooling Towers.

## Nozzles

We have all type of nozzles for all designed cooling towers. We are supplying heavy duty Jet Spray Type Nozzles in the size of 1/2", 3/4" and 1" in Nylon-6 and HDPE material. We also supplying Deck Spray Type Nozzles in the size of 1 1/2" to 3" in ABS and PP material and Flower Type Nozzels for cross flow cooling tower.

## Water Distribution



## Sprinkler



## Sprinkler

Rotary sprinkler is available in the size of 2" to 6" size, made from cast Alluminium Alloy, Stainless Steel and PVC material.

We also supply Sprinkler Parts like PVC Branch Pipe, Lock Nut, Tension Bar, Turn Buckle, PVC and FRP Eliminator, Pipe Clamp, End Cap, etc.

## Fan



FRP / Cast Allu. / Eng. Plastic

## Energy Efficient Fan Assembly

It is Aerodynamically designed to give maximum fan efficiency and a long life when handling saturated air at high velocity. Fan is of the adjustable multi blade design. The fan is balanced statically and dynamically to make it completely vibration and noise free. The fan is direct driven by motor, eliminating maintenance problems of V Belt / Gear Drive Mechanism.

We are supplying Fan Assembly in various materials like FRP, Alluminium and Engineering Plastic as per customer's requirement.

## Electric Motor



## Fan Motor

Special type totally enclosed flange mounted motors, with extended threaded shaft and sealed top is supplied with cooling tower. The motor is having totally weather proof IP-55 degree of protection, suitable for hot and humid atmosphere. Motor HP will be determined by the calculated thermal requirements.

***We also dealing in Water Treatment Chemicals, Water Softening Plant and Cooling Tower Power Saving Panel.***

## Salient Future

- ♦ Compact design and light weight. ♦ Corrosion resistant, since parts are made of FRP. ♦ Minimum drift losses.
- ♦ High efficient honeycomb PVC fills or 'V' bar with large surface area with negligible resistance to airflow.
- ♦ Low maintenance cost and long service life. ♦ No hot air recirculation. ♦ Light in weight and modular construction.
- ♦ High efficient direct driven axial fan. ♦ Low maintenance down time. ♦ Versatile application

## Applications

- ♦ A.C. and Chilling Plant ♦ Process Cooling ♦ Induction Furnace ♦ Induction Heating Machine ♦ D.G. Set
- ♦ Plastic Injection Moulding Machine ♦ Extruder & Blow Moulding Machine ♦ Air & Gas Compressor
- ♦ Hydraulic Systems ♦ Vacuum Pump ♦ Rubber mill....etc.

## Request when making inquiries

- ♦ Water Circulation Rate ♦ Water Inlet Temperature ♦ Water Outlet Temperature ♦ Design Wet Bulb Temperature
- ♦ Water Quality ♦ Site Condition

*We also undertake service job for every types of and any make of FRP Cooling towers*

## SOME OF OUR VALUED SATISFIED CUSTOMERS



**ADVA-TECH**  
Engineers

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