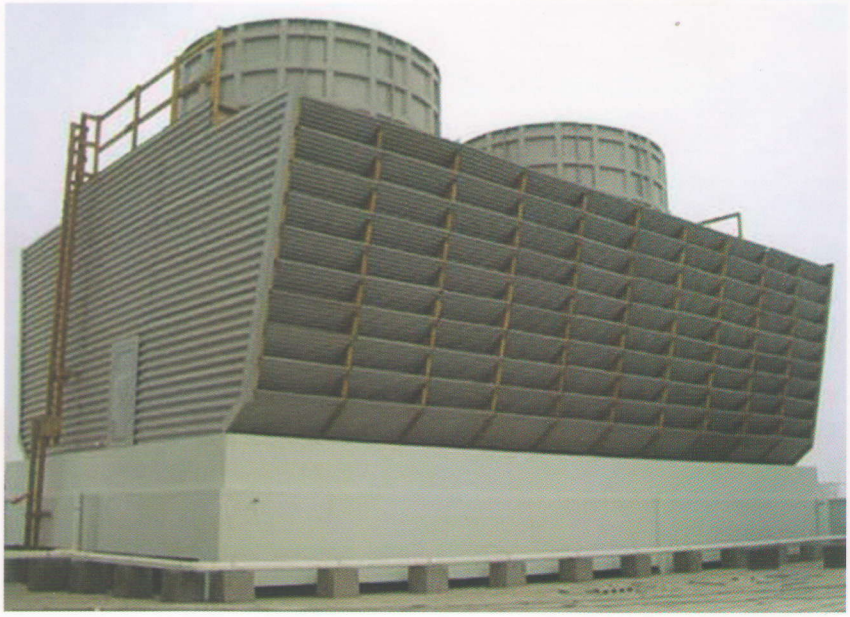
WETPOINT®

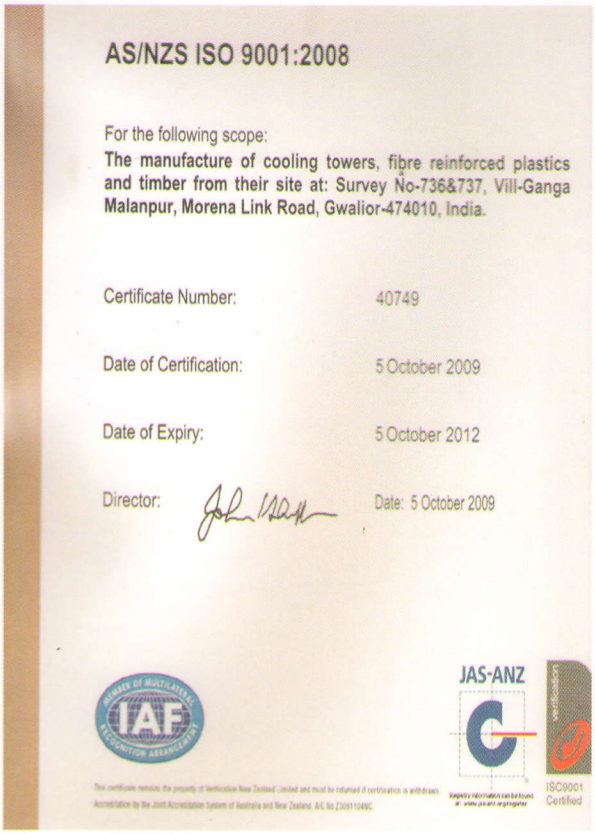
TIMBER AND FRP
CROSSFLOW & COUNTERFLOW
INDUCED DRAUGHT COOLING TOWERS

www.wetpointcoolingtowers.com



- Designed for maximum service life dependability and performance
- Readily adaptable for industrial processes, DG sets & Air conditioning
- Designed for uniform water distribution and optimal heat transfer
- Consumes minimum power due to high efficiency of Axial flow FRP fan sets.

COMPANY PROFILE



AS/NZS ISO 9001:2008

For the following scope:
The manufacture of cooling towers, fibre reinforced plastics and timber from their site at: Survey No-736&737, Vill-Ganga Malanpur, Morena Link Road, Gwalior-474010, India.

Certificate Number: 40749

Date of Certification: 5 October 2009

Date of Expiry: 5 October 2012

Director: Date: 5 October 2009

JAS-ANZ

ISC9001 Certified

Background

Wetpoint Aqua Equipments Pvt Ltd has been in the cooling tower business since 1996 when company started its journey in trading of cooling tower & spare parts; gradually company started manufacturing in 27th June 2004 by the name of "Wetpoint Cooling Towers" in Gwalior (MP) & further converted into Wetpoint Aqua Equipments Pvt Ltd with additional product range of water purifiers, coolers & circulating pumps.

Status

WAEPL is now the largest cooling tower manufacturer in central part of India and has been awarded the ISO 9001:2008 certification for approach towards system & documentation.

Range

WAEPL offers a wide range of cooling towers & spares for various applications like Air conditioning, DG sets, Compressors, Induction Furnace, Injection Molding Machines & various industrial processes as per following:

- Timber Induced Draught Cross Flow Cooling Towers series WSF & WDF.
- FRP Induced Draught Counter Flow Cooling Towers series WRT & WST.
- FRP Natural Draught Jet Type Cooling Towers series WJT.

Manufacturing

WAEPL has the most of manufacturing facilities at its premises as under:

R&D

WAEPL R&D Section is equipped with experienced engineers with advantage of AutoCAD & Pro-E. They are having experience in cooling tower technology, engineering assistance on basin construction, wiring piping and special cooling tower applications. Our experienced engineers has specialized knowledge to ensure a cooling tower selection that will produce optimum performance & economy for your exact need.

Production

WAEPL production has the best of production facility as per following:

Pattern Shop : WAEPL equipped with its own pattern shop to develop mould for various contour & design of cooling towers. Each contour & design is a result of long experience & study in this field. These designs enable the product to survive at the last of its life.

Molding Shop : WAEPL molding shop has best of molders with finest quality of row material guided by the technology from CIPET Bhopal, which results into best of molded profile of cooling towers.

Fabrication Shop: WAEPL fabrication shop equipped with templates of various contour fabricated parts to enable them to produce accurate & exact dimension fabricated parts.

Galvanizing Shop: WAEPL has its own galvanizing shop to ensure the long life of fabricated components in the water. A layer of 25 microns is applied on each part to ensure optimum life & performance.

Machine Shop: WAEPL has its own machine shop to produce metal sprinklers & axial fan sets to ensure the best of quality & fitment at affordable prices.

Installation Rig: WAEPL has an installation rig inside the plant to ensure the correct fitment of each cooling tower part, marked & dismantled to the dispatch department.

Quality

WAEPL products are subjected to severe testing & quality checks before dispatch under various stages as:

Raw material Inspection: Inspection of raw material has been done for FRP raw material, mild steel, aluminum castings & PVC items, electric motors as per requirement & schedule fixed.

Inspection during production: Inspection of the molding, fabrication, galvanizing & machining has been done to minimize the rejection & quality production.

Pre dispatch Inspection: A pre dispatch inspection is done after assembly or production of the products to ensure proper fitment of all the cooling tower parts.

Infrastructure

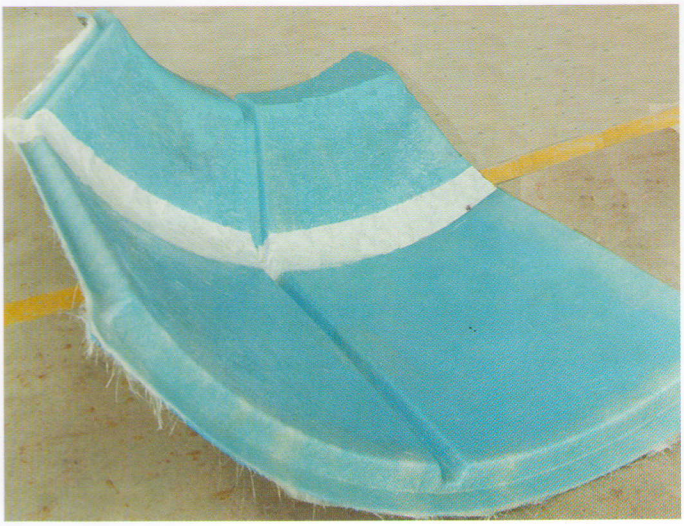
The company has sufficient infrastructure to execute the customer order up to their satisfaction level. The Factory spread in 12000 sq ft area with working sheds & administrative block. In the total staff about 30% are mechanical engineers & others are MBA including sales & service persons. The company has the good network of associates to assist the sales & service function at various locations of the country.

Quality Policy

We at WETPOINT AQUA EQUIPMENTS PRIVATE LIMITED are committed to design & manufacture the product to meet the requirement of the customer which would be able to delight him by good quality and better services.

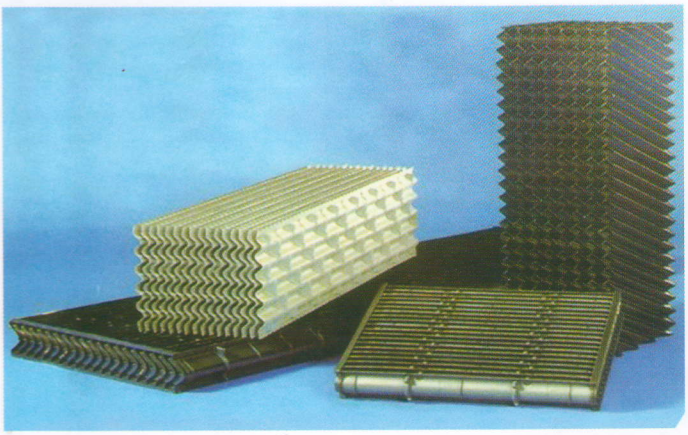
AN ISO 9001:2008 Certified Company

SERIES WRT & WST FRP



Casing

The tower casing is made of tough fiber-glass reinforced plastic (FRP) and has sufficient structural strength to withstand high wind velocities and vibrations. UV stabilized resin is used with gel coat for longer life. It is resistant to the local impact and even if slight damage occurs, local repairs can easily be done. The portion of casing housing fill and eliminator has a round cross section in WRT series & square in WST series. The water collection sump (optional), also of FRP, is leak proof and avoids water spillage.

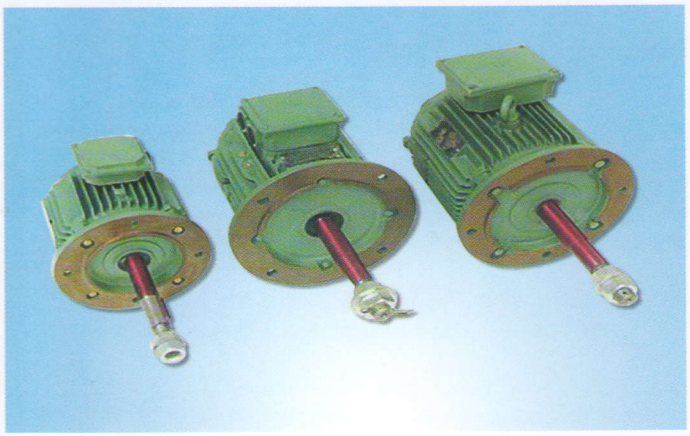


Fills

The fill is rigid Polyvinyl Chloride (PVC) and is of honey comb design with very large contact surface area. The fill splits the air and water in to several streams, increasing the time of contact and also transfer the heat between water and air. The fill is in modules form and packed in the tower casing without any curves. The air pressure drop through the fill is negligible. The fills are available with flute height of 12mm and 19mm with sheet thickness of 0.15mm to 0.2mm

Axial Fans

Specially designed energy efficient fans are of induced draught axial type with adjustable pitch. Materials chosen are non corrosive type like plastic, FRP or aluminum alloy. The high efficiency design ensures low running cost and the lowest possible noise level. Fan blade pitch is adjustable and dynamically balanced.



Motors

The special purpose induction motors used in the cooling towers are totally enclosed, flange mounted with extended shaft. They are for 415V, 50Hz, 3phase with 'F' class insulation.

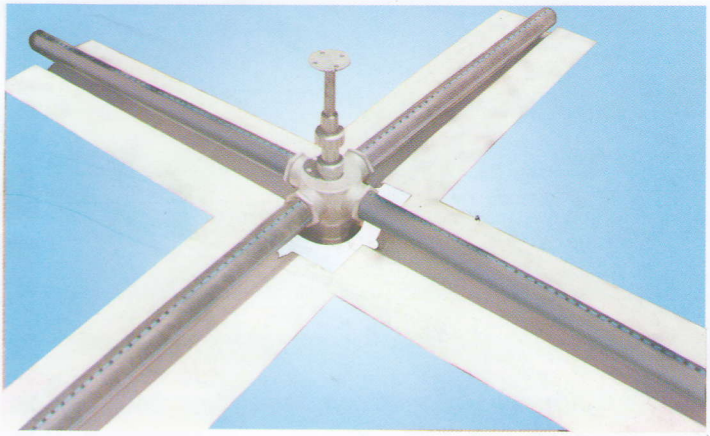
Inlet Mesh

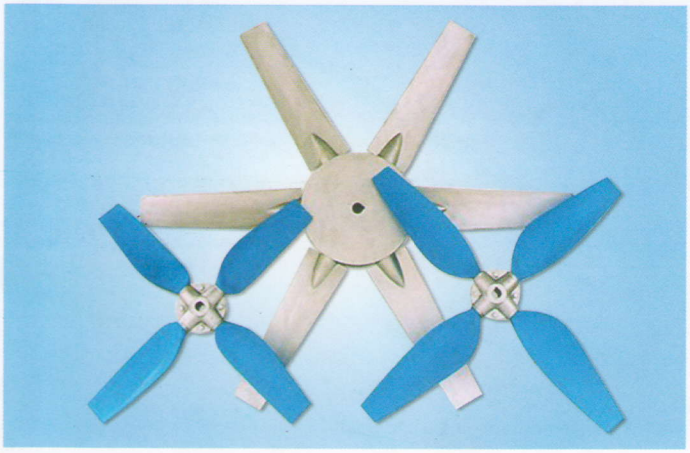
Inlet Mesh is of plastic hexagonal shape to prevent contaminants like leaves, birds etc. entering the cooling tower.

Auxilary Suction Tank

Auxilary suction tank is provided from Model no. WRT-11 onwards to facilitate the connections of inlet, outlet, drain & make up pipe connections.

SERIES WRT & WST FRP





Distribution System

The distribution system is uniform & even depends on type of cooling tower shape:

Sprinkler System

Automatic rotary sprinkler system made of aluminum alloy or cast steel (optional) material, with rotary head and non clog sprinkler pipes distributes the hot water over the entire space of fill area in WRT series. The FRP pipe eliminators attached to the sprinkler pipes are specifically designed for lower pressure drop and minimizes the drift loss of water

Fixed Header Pipe System

Fixed header system is made up of non clogging, thick PVC pipes further coated with FRP in WST series requires low pressure to operate and assure uniform water flow with minimal operating head through spray nozzles incorporated in the system which are made from best grade of polypropylene.

Drift Eliminators

Specially designed drift eliminators supported by galvanized frame are for minimizing the drift losses of the water as per shape

Round Type

It is round shape & made up of PVC sheets in WRT series

Fill Type

It is rectangle shape & made up in PVC module in WST series

Pipe Eliminators

Specially designed pipe eliminators are provided to minimise the possibility of drift losses supported by galvanised clamp and tension devices.

Supporting Structure

The tower supporting structure are fabricated from mild steel angles, channels, rods & pipes galvanized for corrosion protection & longer life

WetPoint

TECHNICAL DIMENSIONS FRP

Technical Dimensions: Square Series WST★

Model No	Length/Breadth	Height	Motor	Fan Dia
WST 01	750	1500	0.5	450
WST 02	750	1500	0.5	450
WST 03	900	1800	0.75	600
WST 04	900	1800	1	600
WST 05	900	1800	1	600
WST 06	1200	2200	1	900
WST 07	1200	2200	2	900
WST 08	1500	2400	2	1200
WST 09	1500	2400	3	1200
WST 10	1800	2800	3	1400
WST 11	1800	2800	5	1400
WST 12	2400	3200	5	1500
WST 13	2400	3200	5	1500
WST 14	2700	3500	7.5	1800
WST 15	2700	3500	7.5	1800
WST 16	3000	4000	7.5	2100
WST 17	3000	4000	10	2100
WST 18	3600	5000	10	2400
WST 19	3600	5000	12.5	2400
WST 20	3600	5000	15	2400
WST 21	4500	5800	15	2700
WST 22	4500	5800	20	2700

Technical Dimensions: Round Series WRT★

Model No	Diameter	Height	Motor(hp)	Fan Dia
WRT 01	1120	1800	0.5	450
WRT 02	1120	1800	0.5	450
WRT 03	1350	2250	0.75	600
WRT 04	1550	2200	1.0	700
WRT 05	1550	2200	1.0	700
WRT 06	1870	2250	1.0	900
WRT 07	1870	2250	1.0	900
WRT 08	1950	2400	2.0	1200
WRT 09	2100	2550	2.0	1200
WRT 10	2100	2600	3.0	1200
WRT 11	2320	3150	3.0	1200
WRT 12	2800	3200	5	1500
WRT 13	2900	3200	5	1500
WRT 14	2900	3200	5	1500
WRT 15	3200	4200	5	1600
WRT 16	3200	4200	7.5	1600
WRT 17	3500	4300	7.5	1800
WRT 18	3500	4300	10	2100
WRT 19	4600	4800	10	2400
WRT 20	4600	5000	12.5	2400
WRT 21	5200	5300	15	2400
WRT 22	5200	5300	15	2400

★ ***Wetpoint reserves the right to change dimensions in the interest of product development at any time.***

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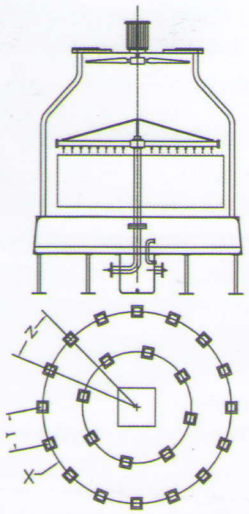
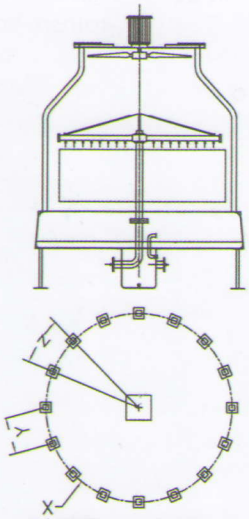
FOUNDATION DRAWING OF WRT SERIES

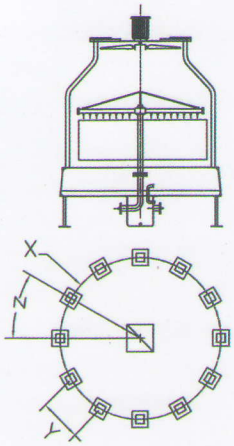


WRT - 21-22

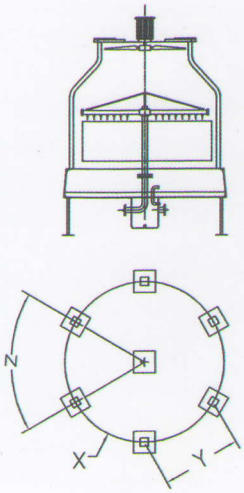


WRT - 19-20

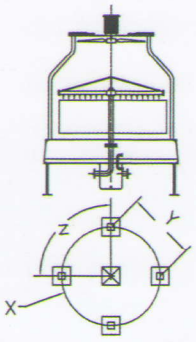
MODEL		X	Y	Z
WRT-1		720	630	120°
WRT-2		720	630	120°
WRT-3		1040	910	120°
WRT-4		1200	850	90°
WRT-5		1200	850	90°
WRT-6		1370	970	90°
WRT-7		1370	970	90°
WRT-8		1460	1033	90°
WRT-9		1680	1188	90°
WRT-10		1680	1188	90°
WRT-11		2240	1584	90°
WRT-12		2240	1584	90°
WRT-13		2900	1450	60°
WRT-14		2900	1450	60°
WRT-15		3100	1550	60°
WRT-16		3100	1550	60°
WRT-17		3560	921	30°
WRT-18		3560	921	30°
WRT-19		4460	871	23°
WRT-20		4460	871	23°
WRT-21	O	4500	875	23°
	I	2240	858	45°
WRT-22	O	4500	875	23°
	I	2240	858	45°



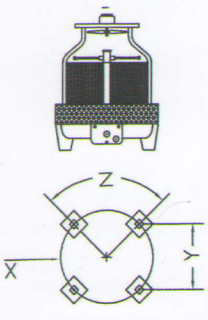
WRT - 17-18



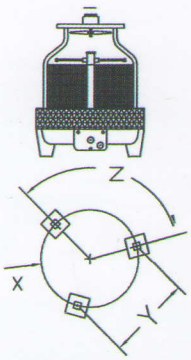
WRT - 13-16



WRT - 11-12



WRT - 4-10



WRT - 1-3

KEY WORDS

X=PCD

Y=Centre Distance

Z=Angle

WetPoint

SERIES WSF & WDF TIMBER

Structure

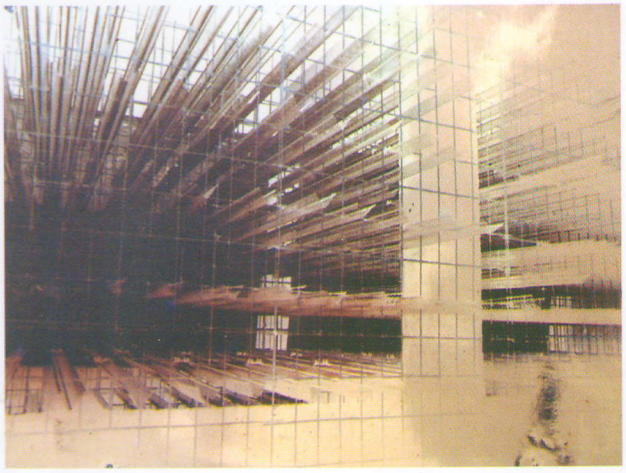
The structure of the cooling tower made of the best grade of pinewood pressure impregnated by chromate copper arsenate to prevent it from any bacterial attack. It is bolted and designed for 30 pounds/Sq ft wind load.

Louvers & Casing

Corrugated asbestos cement board casing is applied vertically. Joints are lapped and sealed for water tightness. Corners are covered with FRP corner rolls. Corrugated asbestos louvers are located on wide centers on the sloping louvered walls. They are supported by tower columns and louver support.(FRP casing and louvers can be provided if desired)

Internal Fills

Splash bars are made of preservative-treated wood with a choice of PVC 'V' type of 'C' type bars.



Fills Support System

Grid system

Fill splash bars are supported on SS-304 grids which assure positive and permanent positioning and allows splash bars to expand and contract without cracking, warping or sagging. Close-packed fill provides maximum wetted surface and water breakup.

Tray system

Our cooling towers also fitted with "Foster-Wheelers" stack type fills arrangement, comprising of splash bars fixed with transverse stringers making the fill in to removable trays. This system makes an excess to wet surface area and eliminate any chance of fill collapse.

Drift Eliminators

Specially designed eliminators are made in replaceable modules. Each module can be taken out easily, cleaned and put back into position in no time. Eliminates drift loss to less than 0.1%.

Hot Water Distribution System

The hot water distribution system is of open gravity type and is constructed from boiling water proof marine plywood with poly-propylene target nozzles.

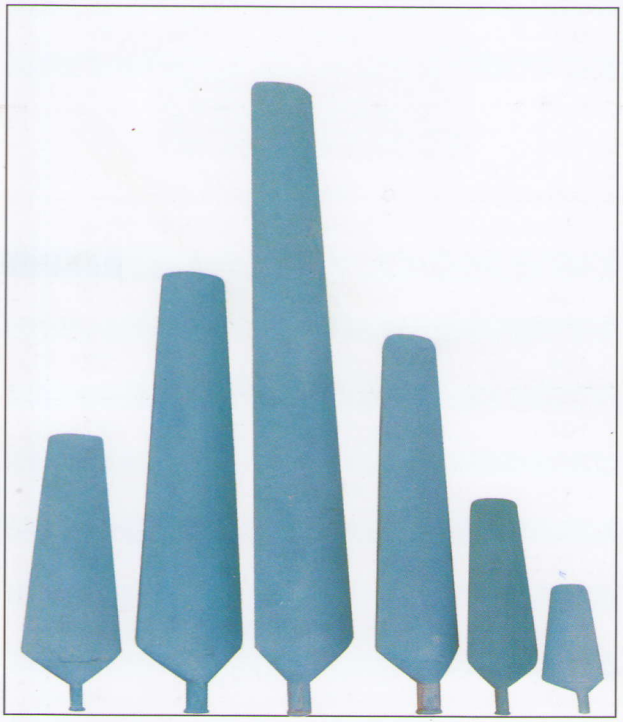
Target Nozzle

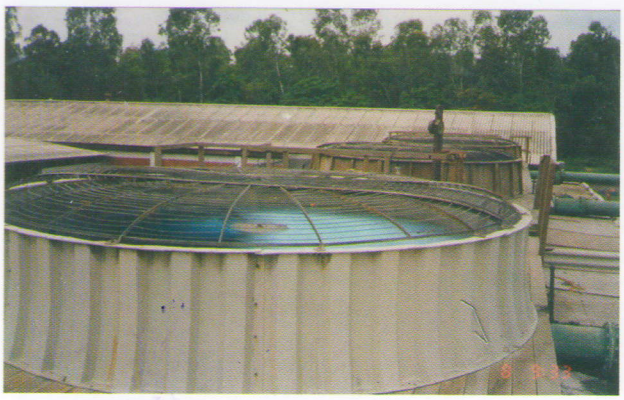
The target nozzles used in the hot water basin are specially designed to deliver required water distribution and are highly resistant to temperature and weathering damage. The use of target nozzles also eliminates the need for a separate diffusion deck to provide complete water distribution throughout the fill area. These nozzles operate under gravity.

Structural Plates & Fasteners

The whole cooling tower structure is hold by SS-304 U & L plates which is bolted through hot dip galvanized nut bolts & SS 304 screw shank nails.

SERIES WSF & WDF TIMBER





Mechanical Equipments & Accessories

All mechanical equipment used is specially designed and manufactured for cooling tower application. Multiblade fans are of FRP for smooth & energy efficient operation. Adjustable pitch blades allow maximum utilization of applied horsepower.

Fan

Our cooling towers are fitted with FRP Axial Flow fans with Aerodynamic efficiency and significant saving in higher operating cost.

Fan Blades

Fan Blades are made up of fiber glass reinforced epoxy resin. These blades are hollow in construction and have been designed with most efficient aerofoil section. Optimum aerofoil section thickness has been selected to achieve maximum lift and minimum drag coefficient. Twist is so designed that blade sections are maintained at most efficient angle of attack having the highest lift drag ratio. Light and strong blades increase the life of mechanical drive arrangement.

Fan Hub Assembly

Fan Hub assembly is simply designed for easy installation & minimum maintenance. It is dynamically balanced and made of stainless steel plates, aluminum clamp blocks, cast iron bush and all hardware in stainless steel for resistance against corrosion.

Fan Drive System

Direct Driven

Fans in smaller models are direct driven on lower rpm motors which are mounted on a MS galvanized Fan cylinder covered by FRP segments.

Gearbox Driven

Fans in Bigger models are driven by Spiral bevel gear boxes are of proven design with maximum efficiency, mounted on mechanical equipment support is specially designed hot tubular steel, hot-dipped galvanized

Fan Cylinder

Our cooling towers are fitted with elevated fan cylinder in HDG steel or FRP material which enhances the air movement, completely eliminating the chance of re-circulation of exhaust air and thereby increasing cooling tower efficiency.

Flow Control Value

Flow control valves are of heavy duty cast iron body and stainless steel valve stem ensure long life and low maintenance. Oversized valve body delivers best velocity dissipation for even water distribution.

TECHNICAL DIMENSIONS TIMBER

Technical Dimensions: Timber WSF Series (Dimension Data in Inches)

Model No.(X)	Width at Fan Deck Level(*)	Width at Basin Level(**)	Length (†)	Height at Fan Cylinder (††)	Fan Dia.
WSF 011	156	134	104	96	60
WSF 021	168	146	104	96	60
WSF 031	156	126	104	120	60
WSF 041	168	138	104	120	60
WSF 051	180	150	104	120	60
WSF 061	168	146	152	98	72
WSF 071	180	158	152	98	72
WSF 081	168	134	152	122	72
WSF 091	204	174	152	124	84
WSF 101	216	186	152	124	84
WSF111	192	162	200	124	84
WSF121	204	174	200	124	84
WSF131	216	186	200	124	84
WSF141	192	162	248	124	96
WSF151	204	174	248	124	96
WSF161	216	186	248	124	96

Technical Dimensions: Timber WDF Series (Dimension Data in Inches)

Model No.(X)	Width at Fan Deck Level(*)	Width at Basin Level(**)	Length(†)	Height at Fan Cylinder(††)	Fan Dia.
WDF 011	216	180	104	126	72
WDF 021	240	204	104	126	72
WDF 031	216	168	104	150	72
WDF 041	240	192	104	150	72
WDF 051	264	216	104	150	72
WDF 061	240	204	152	126	96
WDF 071	264	228	152	126	96
WDF 081	240	192	152	150	96
WDF 091	276	216	152	150	96
WDF 101	288	240	152	150	96
WDF111	240	192	200	150	96
WDF121	264	216	200	150	96
WDF131	288	240	200	150	96
WDF141	264	216	248	150	120
WDF151	288	240	248	150	120
WDF161	324	264	248	150	120

X Models listed here are single cell; in multicell tower models last digit indicates the number of cells, where width & height remain same while length should be multiplied by number of cells.

* Out to out louvers at top of tower

** Out to out of basin

† Out to out of end wall casing

†† Dimensions from base of columns to top of fancylinder.

Wetpoint reserves the right to change dimensions in the interest of product development at any time.

SERIES WJT FRP

SERIES WJT FRP:

Natural draught jet type cooling tower works on water jet principal. In this system the required amount of water to be cooled is sprayed from top of the cooling tower through special jet nozzles. When water comes out of nozzles, it forces the air column in the downward direction of the cooling tower resulting in the low pressure zone inside of the cooling tower. Due to this process atmospheric air comes inside the cooling tower for the required heat transfer of the hot water to be cooled.

- Designed for operating economy & negligible maintenance.
- The special characteristics of Fiber-reinforced plastic provide excellent resistance to corrosion
- These cooling towers works on water jet principal.
- These Cooling towers offer low maintenance due to fan less-fill less construction

We also offer services like Renovations, Overhauling, Emergency repairs, modification work, re-design, up-gradation & schedule maintenance. Our skilled teams of technicians are always ready to cater these kinds of requirements to fulfill needs of the customers.

DATA REQUIRED FOR DESIGNING:

For your requirements of WETPOINT cooling towers always furnish the following specifications:

- Type of Application
- Water Flow rate
- Inlet Water Temperature
- Outlet Water Temperature
- Ambient Wet Bulb Temperature
- Space/ Site conditions
- Water quality reports

Battery Limits: Our scope of work is limited to supply of cooling tower equipment only. We do not undertake work of RCC foundation, electrical, Piping, tower foundation bolts, and water circulating pumps etc.

Warranty: Our supplied cooling towers/ replaced spares are warranted against any manufacturing defect or workmanship for the period of 18 months from the date of supply or 12 months from the date of erection whichever occur earlier

WETPOINT

Cooling Towers & Spares

WETPOINT AQUA EQUIPMENTS PVT. LTD.

Sales & Correspondence Office:

12, 2nd Floor, Rajeev Plaza, Jayendraganj,

Lashkar, Gwalior-474001 (MP) India

Telephone: +91-751-3290436, 3209922

Fax:+91-751-2457861

E-mail: sales@wetpointcoolingtowers.com

Website: www.wetpointcoolingtowers.com

Regd. Office & Works:

Survey No. 736, Vill. Ganga Malanpur,

Morena Link Road,

Gwalior-474010 (MP) India

Telephone : +91-751-3209911, 3209933

Wetpoint Associate :

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