

NORTH STREET COOLING TOWERS PVT. LTD.

Integrated Cooling Tower Solutions



An ISO 9001:2015 (QMS), 14001:2015 (EMS) & OHSAS 45001:2018 Certified Company



www.nsctpl.com



About Us

North Street Cooling Towers Private Limited has been at the forefront of the cooling tower industry since its inception in 1989. This has been possible only due to great commitment, dedication to deliver cooling solutions to our customers for their applications with ensured availability of products for better business values and customer satisfaction.

North Street was founded as a specialist in custom designed cooling tower for commercial and industrial use. We are a dynamic company with an ever-expanding product range. We are located in the National Capital Region (NCR) of India with modern design, manufacturing and testing facilities. Our facilities span a total area of 10,000 sq. meters. Our dedicated workforce has a strong work ethic to supply our customers with the best cooling solutions as per the local prevalent conditions. We extensively focus on developing the latest technology through continuous investment on R&D. Our facilities include the latest machines and equipment with a highly trained workforce.

We believe environmental sustainable should be at the forefront in any industrial sector. For this reason, we continuously develop products that not only last longer, but also require lower operating power while operating at high efficiencies. We have a presence in the all the major industrial sectors, in India and abroad.

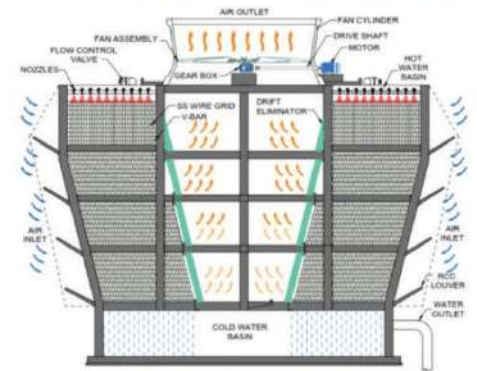
North Street renders the following services to it's customers in the domestic and overseas markets.

- Designing and proposal of optimum size of cooling towers.
- Manufacture, supply and erection of induced draft- double and single cross flow and counter flow cooling towers in treated timber, RCC (Reinforced Cement Concrete), FRP (Fiber Reinforced Plastic) and FRP pultrusions.
- Retrofitting and supply of inter-changeable spares.
- Mechanical spares.
- Overhauling, up-gradation and refurbishment.
- Inspection.
- Annual maintenance contract.



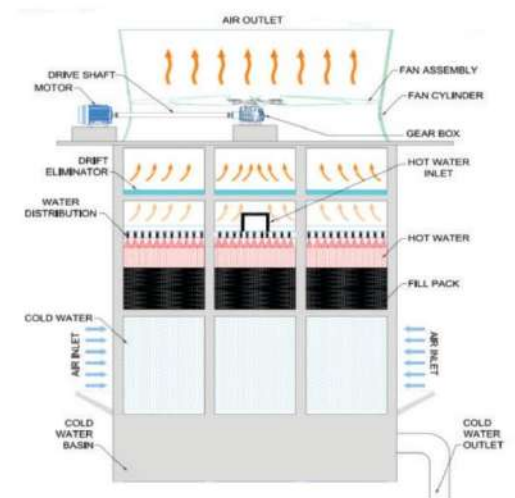
Cross Flow Cooling Towers

In a cross flow cooling tower the induced air moves horizontally while the water fall vertically. Water falls through the media which increases the contact surface area and contact time between air and water for better heat transfer.



Counter Flow Cooling Towers

In a counter flow cooling tower, the direction of the induced air is opposite to that of the water flow. Air is drawn into an open area beneath the fill media which then moves vertically upwards.





Manufacturing

Mechanical Workshop: Our mechanical workshop is equipped with all the latest machinery required. We have installed a 24ft. center lathe, radial drilling machine of 60mm dia, hydraulic press, compressors, pneumatic wrenches, boring machines, grinder etc.

Timber Fabrication Workshop: Our timber fabrication workshop includes a timber treatment plant, wood cutting machines, trenching machines, pillar drills, auto grooving machines, profile cutting machines etc.

FRP Fabrication: We have an in-house FRP fabrication workshop with tooling for FRP fan blades, fan cylinder and panels. The rest of the equipment like hydraulic presses, curing ovens, resin mixers etc help ensure superior product quality.

Steel Fabrication: Our steel fabrication facility consists of plasma cutting machines, argon welding machine, welding rectifier, gas cutting machines etc.

Filament Winding Machine: Our multi axis filament winding machine is used for the manufacture of superior quality composite parts for advanced applications.

Testing

Stringent quality control and superior technology measures are adhered to at every stage, which makes North Street a leader in cooling tower industry. Equipped with all the latest testing equipments our testing laboratory, which is required to maintain the quality and standard of spares and components consists of Chemical Penetration Test Kits, Drive Shaft Dynamic Balancing Machine, Fan Static Balancing Station, Torque Loader for Gear Box Testing, Ultrasonic Testing Machine, Universal Testing Machine, Hardness Tester, Bore Gauge up to 300mm, Micrometer up to 300mm, Vernier Callipers up to 600mm, DB Meter, Vibration Measuring Instrument, Anemometer, Height Gauge, Surface Plate, DP Test Kit, Psychrometer etc.

Drive Shaft Balancing: Each drive shaft is tested on the latest computer operated dynamic balancing machine. This ensures a smooth and extended service life. Each drive shaft is balanced as per ISO 1940 G 6.3.

Drive Shaft Torque Testing Machine: Advanced testing machines, have enabled us to optimize our product designs, increasing their performance. Each drive shaft is tested at its peak load before dispatch, for any manufacturing defects product designs and increase their performance. This helps us maintain our product quality and a confidence in our ever expanding market.

Gear Box Load Testing: Each Gear Box is tested under load before dispatch. Data including vibrations, noise, temperature, RPM in and out (ratio check) are documented and analyzed by our quality department for it's long trouble free service life.



Spares & Services

We believe that after sale service is the backbone of every business and has been the primary facet of our success. Our service and spares have a proven track record of availability and. We offer a full line of replacement parts for any and all make and models of cooling towers. These parts are available at the most competitive prices in the industry.

Structure: We manufacture large capacity cooling towers in RCC , Timber and FRP. The standard structural design is based on wind loadings of 1.65KN/sq. m. RCC structures are designed as per IS-456 and cold water basin, IS-3370. Structural timber is treated as per CTI STD-112 (97).

Fans: Designed, tested and manufactured by our company, the axial flow fans are available in both, aluminum and FRP. The material is selected according to the individual application requirements. Each fan assembly is dynamically balanced prior to dispatch. The fan hubs are available in cast iron, hot dipped galvanized mild steel and stainless steel.

FRP Fan Cylinder: FRP fan cylinders are available for all cooling tower types and sizes. These are manufactured as per CTI STD-131 (86). Fire retardant FRP fan cylinders can also be supplied on request.

Water Distribution System: All piping is made from corrosion resistant PVC that provides low frictional loss to reduce pump head requirements. All our non clog nozzles are made from inert polypropylene, capable of withstanding severe water conditions. They are available in various designs and sizes to meet the water distribution needs.

Non- Clogging: The system is designed to minimize silt or debris collection.

Self- Draining: The nozzle outlets are designed to be at the lowest elevations in the whole water distribution system. This provides for self-draining of the system when the water supply is shut off.

High Operational Efficiency: The entire system is designed for optimum thermal efficiencies. This is achieved through uniform water distribution, while reducing the pump head.

Quick Assembly and Dismantling: The simplicity and modular design of each component enables the assembly and dismantling to be carried out, using only a few hand tools.

Drive Shafts: Our drive shafts are available in galvanized steel, stainless steel 304, 316 and carbon fiber, designed to transmit high torque ratings for cooling tower applications. They are tubular, single span and flexible to compensate for any misalignment. All drive shafts and their components are completely inter-changeable and designed as per ANSI/AGMA 9000--D11.

Drift Eliminators: Our drift eliminators are available in both PVC and treated timber. They are designed to keep the drift losses below 0.005% in case of PVC and 0.05% in treated timber. The isokinetic drift loss is measured as per the CTI test code: ATC-140. The flame spread rate is tested according to ASTM E-84.

Gear Boxes: Our gear boxes are heavy duty, right angled, available in both spiral bevel and spiral bevel cum helical type designs. They are specially designed for rugged cooling tower conditions. The rating practice and operation considerations are as per the CTI STD-111 (86) with a factor of safety of over 2. For more information please refer to our 'Gear Box Catalog'.

Fills: A variety of fills including PVC V bars, timber splash bars and cross corrugated film fill packs are available which are chosen on the basis of the application. Splash bars are used for contaminated water applications, while film fill packs are used to attain higher efficiencies in cooling tower.

* For further information, please refer to our Spares and Services catalog.



Market Segments

North Street enjoys a large footprint in the global cooling tower industry. Our expertise has already been proven in the following sectors:

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| <ul style="list-style-type: none"> • Breweries • Cement Plants • Chemical Plants • Dairies • DG Power Plants • Distilleries • Fertilizer Plants | <ul style="list-style-type: none"> • Gas Based Power Plants • Nuclear Power Plant • Oil Refineries • Oxygen Plants • Paper Industry • Petrochemical Plants • Pharmaceutical Plants | <ul style="list-style-type: none"> • Solvent Extraction Plants • Steel Plants • Sugar plants • Synthetic Polyester Plants • Thermal Power Plants • Tyre Plants • Vanaspati Plants |
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Overseas Operations

Since its inception, North Street has been building trust with almost all industrial segments not only in India, but globally. Continuing its journey of tradition, commitment and challenging ever advancing technologies, today North Street is in an excellent position to provide world class integrated cooling tower solutions to nations around the globe.

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| <ul style="list-style-type: none"> • Algeria • Australia • Bahrain • Bangladesh • Canada • Costa Rica • Dubai • Indonesia | <ul style="list-style-type: none"> • Iran • Iraq • Italy • Kuwait • Kenya • Malaysia • Madagascar • Myanmar | <ul style="list-style-type: none"> • Nepal • New Zealand • Philippine • Saudi Arabia • South Africa • Thailand • Turkey • Vietnam |
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Our clients include:

- Adani Wilmar Limited
- Adani Birla Group
- Ambuja Cement
- Amul
- Arcelor Mittal Group
- Bilt Graphics
- Braj Binani
- Burrup Fertilisers
- Century Pulp & Paper Corporation Ltd.
- Essar Group
- GEA Cooling Technologies
- Indian Oil Corporation Ltd.
- India Farmers Fertilizer Cooperative Ltd.
- India Glycol Ltd
- Jindal Group
- JSW Group
- Jindal Steel & Power Ltd.
- Jk Group
- Kribhco
- Mother Dairy
- National Building Construction Corporation
- National Fertilizers Ltd
- National Thermal Power Corporation
- Nuclear Power Corporation of India Ltd.
- Nestle
- Oil and Natural Gas Corporation
- Ranbaxy Laboratories Ltd.
- Reliance Industries
- Steel Authority of India Ltd
- SPIG Italy
- Tata Group
- Triveni Engineering & Industries Ltd.
- Ultra Tech Cement



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