
RCT
RAI COOLING TOWER

30+ Years of Manufacturing excellence

Heritage

Built on decades of proven industrial experience.

Quality

Engineered for durability, precision, and long-term reliability.



Innovation

Continuously improving designs for real-world performance.

Customer Focus

Focused on delivering solutions that perform in your operations.

COMPANY OVERVIEW

Built on Three Decades of Engineering Expertise

Rai Cooling Tower Industries has spent over 30 years designing and manufacturing cooling tower systems that perform under the most demanding industrial conditions. Our expertise is focused, our engineering is practical, and our track record speaks for itself.

30+ Years Manufacturing Experience

Decades of refinement in cooling tower design and production

Specialised in FRP Cooling Tower Systems

Fibre-reinforced polymer technology at the core of every build

Industrial & Process Cooling Focus

Tailored solutions for OEM and heavy industrial applications

Engineering-Driven for Long-Term Performance

Every design decision grounded in real operational requirements







OUR APPROACH

Engineering Philosophy

At Rai Cooling Tower Industries, engineering decisions are driven by the realities of the field — not idealised laboratory conditions. We design for the environments our equipment will actually operate in, ensuring stability, reliability, and performance that holds up over years of continuous use.



Designed for Real Operating Conditions

Systems engineered to handle ambient variability, load fluctuations, and harsh site environments

Focus on Performance Stability

Consistent thermal output across seasonal and operational cycles

Practical Over Theoretical

Field-proven design choices over assumptions drawn from controlled models

Field-Driven Design Approach

Continuous feedback from installed systems informs every new product generation



> *"Performance in real conditions matters more than theoretical output."*

PRODUCTS & OEM SUPPORT

Product Range & OEM Support

Our cooling tower portfolio spans a broad capacity range, enabling us to serve both compact OEM machinery packages and large-scale industrial process cooling requirements — all from a single, specialised manufacturer.

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Full capacity range to match any OEM or industrial cooling requirement

Counterflow Design

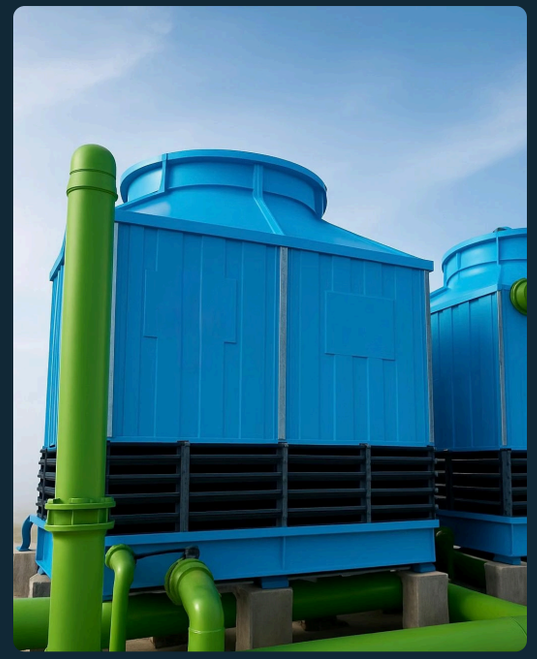
Compact footprint — ideal for space-constrained OEM system integration

Crossflow Design

Large-volume airflow for heavy industrial process cooling applications

Flexible OEM Integration

Custom configurations to suit varying machine layouts and duty cycles





Supporting both compact systems and large-scale cooling requirements.

TECHNOLOGY DEEP-DIVE

Crossflow Cooling Tower Expertise

Crossflow cooling towers are the preferred configuration for high-capacity industrial applications where airflow volume, thermal stability, and long-term mechanical reliability are paramount. Rai's crossflow designs are engineered with these priorities at every stage.

Large Air-Water Contact Area

Maximised fill exposure ensures superior heat transfer efficiency at scale

Gravity-Based Water Distribution

Passive distribution system reduces mechanical complexity and failure points

Low Air Resistance

Horizontal airflow path minimises pressure drop and reduces fan motor load

Stable Long-Term Performance

Consistent thermal output maintained across years of continuous operation

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Supporting both compact systems and large-scale cooling requirements.





MATERIALS & CONSTRUCTION

Structural Advantage — Pultruded FRP

Fibre-reinforced polymer (FRP) manufactured through the pultrusion process forms the structural backbone of every Rai cooling tower. This material choice is not cosmetic — it delivers measurable performance advantages over traditional steel or timber construction, particularly in chemically aggressive environments.



Corrosion-Resistant Structure

Unaffected by water treatment chemicals, saline air, and humid industrial atmospheres

High Strength-to-Weight Ratio

Structural integrity without excess mass — simplifies installation and foundation requirements

40–50 Year Service Life

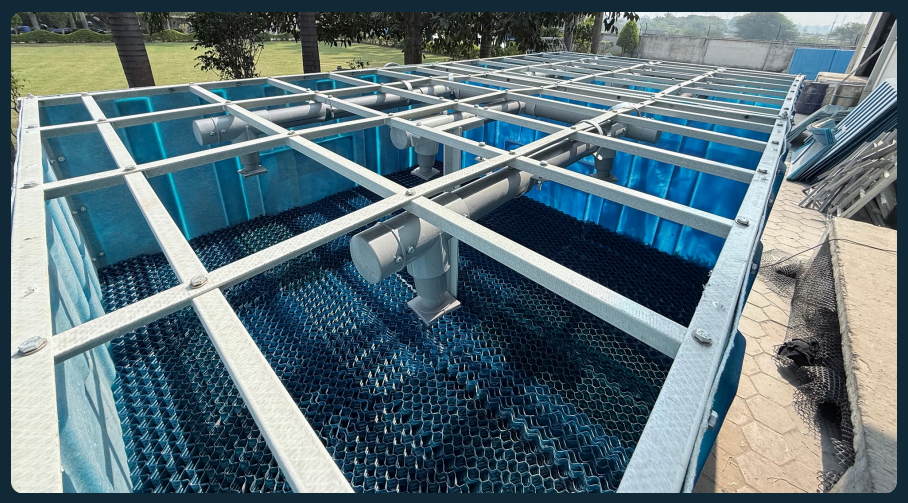
Extended operational lifespan significantly reduces total cost of ownership

Minimal Maintenance Required

No painting, rust treatment, or structural reinforcement needed over service life



⚠ Pultruded FRP manufacturing requires specialised tooling, process expertise, and quality control — not a commodity capability.



EFFICIENCY & CONTROLS

Energy Efficiency & Automation

Energy consumption in cooling tower operation is a significant and recurring cost for any industrial facility. Rai's engineering approach targets efficiency at multiple levels — from hydraulic design through to intelligent fan control — reducing both power draw and operational overhead.



Low Pressure Drop Design

Optimised fill and airflow geometry reduces system resistance throughout

Reduced Motor Load & Amperage

Lower fan resistance translates directly to reduced motor operating current

Temperature-Based Fan Control

Automated control system modulates fan speed in response to real-time thermal demand

Optimised Energy Consumption

Combined design and control measures deliver meaningful reductions in site power usage



Operational Reliability

For OEM equipment manufacturers and industrial operators alike, unplanned downtime carries significant financial and operational consequences. Rai cooling towers are designed from the ground up to minimise maintenance intervention and maximise continuous uptime across the full service life of the equipment.





Simple & Robust Design

Fewer moving parts and straightforward architecture reduce potential failure modes

Easy Maintenance Access

Component layout designed for rapid inspection, cleaning, and servicing

Long-Lasting Components

Material selection prioritises durability over initial cost savings

Consistent Performance Over Time

Thermal output remains stable year after year without performance degradation

OEM Value Proposition

Selecting the right cooling tower supplier directly affects the performance, reliability, and total cost profile of the OEM system you deliver to your end customers. Rai is structured to support that responsibility — not simply to fulfil a purchase order.





1

Reliable System Integration

Engineered to interface precisely with your machinery specifications and duty requirements

2

Lower Lifecycle Operating Cost

Energy efficiency and durability combine to reduce the total cost burden on end users

3

Reduced Maintenance Dependency

Fewer service calls and lower spares consumption protect your OEM reputation

4

Long-Term Performance Stability

Consistent thermal performance preserves the rated output of your complete system

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> *"Designed to support system performance, not just supply equipment."*

Not just a cooling tower supplier — a long-term engineering partner.

Rai Cooling Tower Industries brings 30+ years of focused expertise, field-proven engineering, and a genuine commitment to the long-term performance of your systems. When you specify Rai, you are specifying reliability built in.

Rai Cooling Tower Industries | 30+ Years of Manufacturing Excellence | Engineering Reliable Cooling Solutions