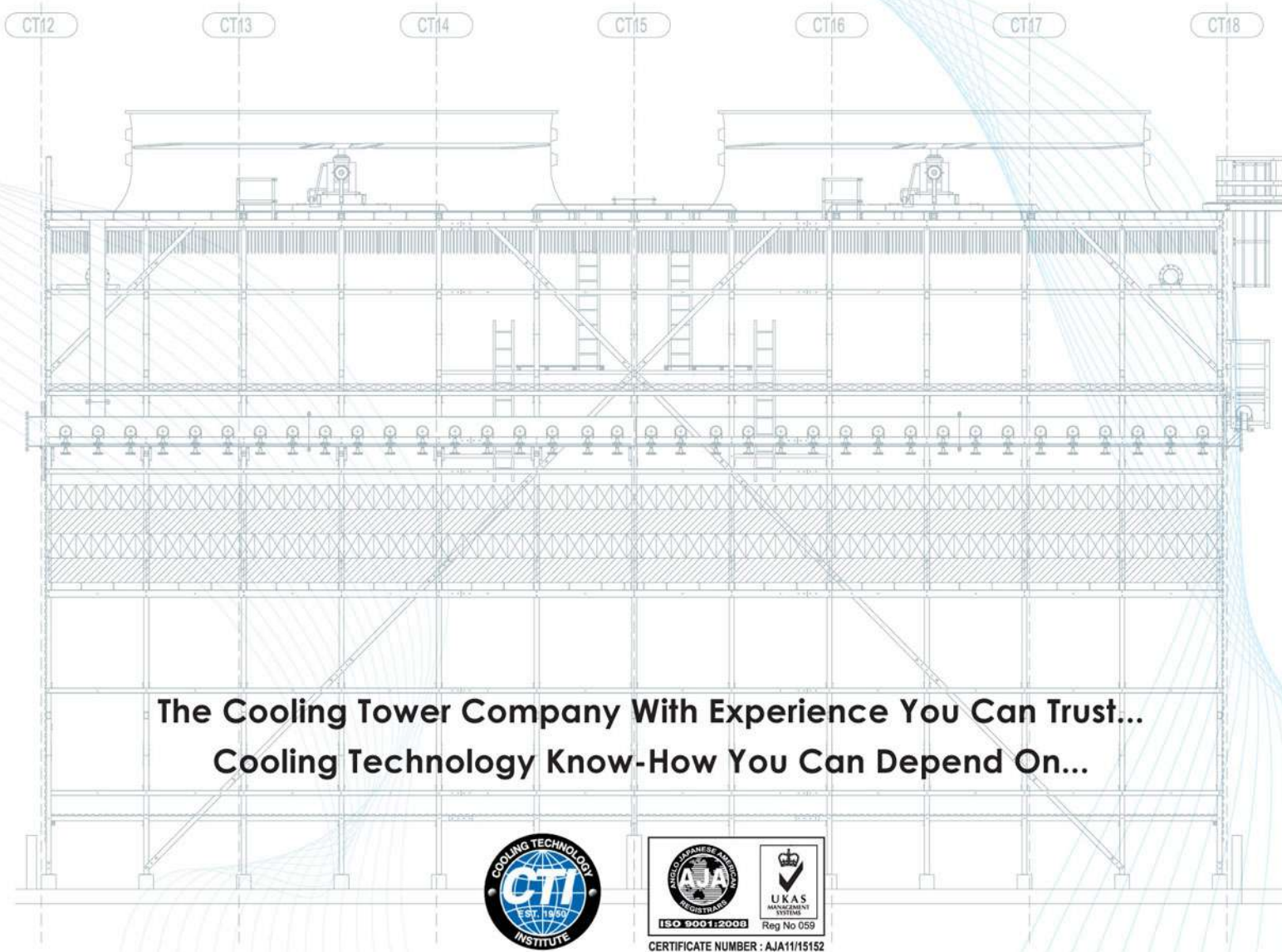




COMPANY PROFILE



**The Cooling Tower Company With Experience You Can Trust...
Cooling Technology Know-How You Can Depend On...**



CERTIFICATE NUMBER : AJA11/15152



INTRODUCTION

For more than 25 years, Truwater has been supplying cooling towers to meet the cooling demands of the world. Spread across a vast array of applications, Truwater cooling towers are now providing the cooling needs to many industries from Power Generation, Petrochemical, Biomass Power, Co-Generation, District Cooling Plants, Oil & Gas, Industrial & Process, HVAC, Precision Cooling.....etc.

Designed and engineered from a myriad of materials available in Reinforced Concrete, Pultruded Composite FRP, PVC, Steel or Timber, Truwater's range of high efficiency wet and hybrid cooling towers come in both cross-flow and counter-flow variations with different configurations available best suited for the many different requirements of the wide and varied range of industries utilizing freshwater, seawater and brackish water.

In Truwater, we abide steadfastly by our proud Commitment as.....

The Cooling Tower Company with Experience You Can Trust

Cooling Technology Know-How You Can Depend On.

.....A Commitment we strive to deliver to all our valued clients



MISSION STATEMENT

The Environment – Mother Nature's most precious gift

H₂O – Mankind's most precious resource

Without it life itself will not exist..... without it the World as we know it ceases to function

In Truwater, we are committed to preserve and protect our so very fragile environment and its resources. Thus, Truwater has embarked on a long term perspective in our continuing quest to develop our cooling towers to conform to strict and stringent environmental standards.

DISTRICT COOLING SYSTEM

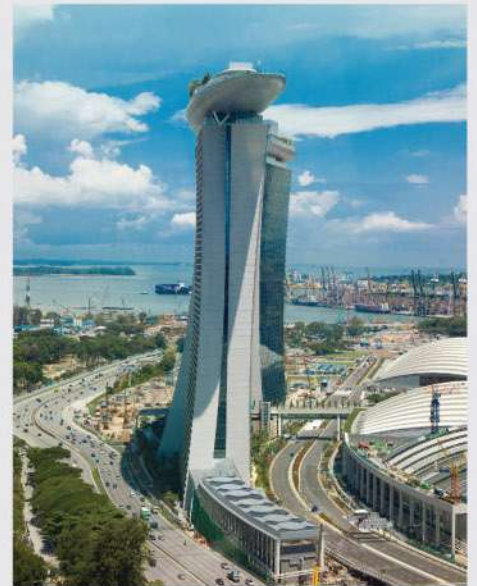
As society becomes more and more affluent with more and more people migrating to the urban townships, the need for better cooling solutions is necessary to maintain the comfort and well-being of the ever increasing population thus the emergence of District Cooling Systems....

District Cooling Systems besides its high operating efficiencies is also environmentally friendly as the operation of such systems are more regulated and better maintained..... thereby reducing energy requirements as compared to conventional "stand-alone" cooling systems.

With the advancement of technology, many new District Cooling Systems are becoming more energy efficient by re-harnessing waste heat in Co-generation and Tri-generation Plants.

Until recently, there is an increasing demand for "hybrid – plume abatement" type cooling towers to reduce plume dispersion emanating from the cooling tower.

Many District Cooling Plants in and around the Asia Pacific rim as well as in the Middle East are utilizing Truwater's range of highly efficient and "low-energy-compliant" cooling towers in their cooling systems.



26,400 HRT, Marina Sands, Singapore



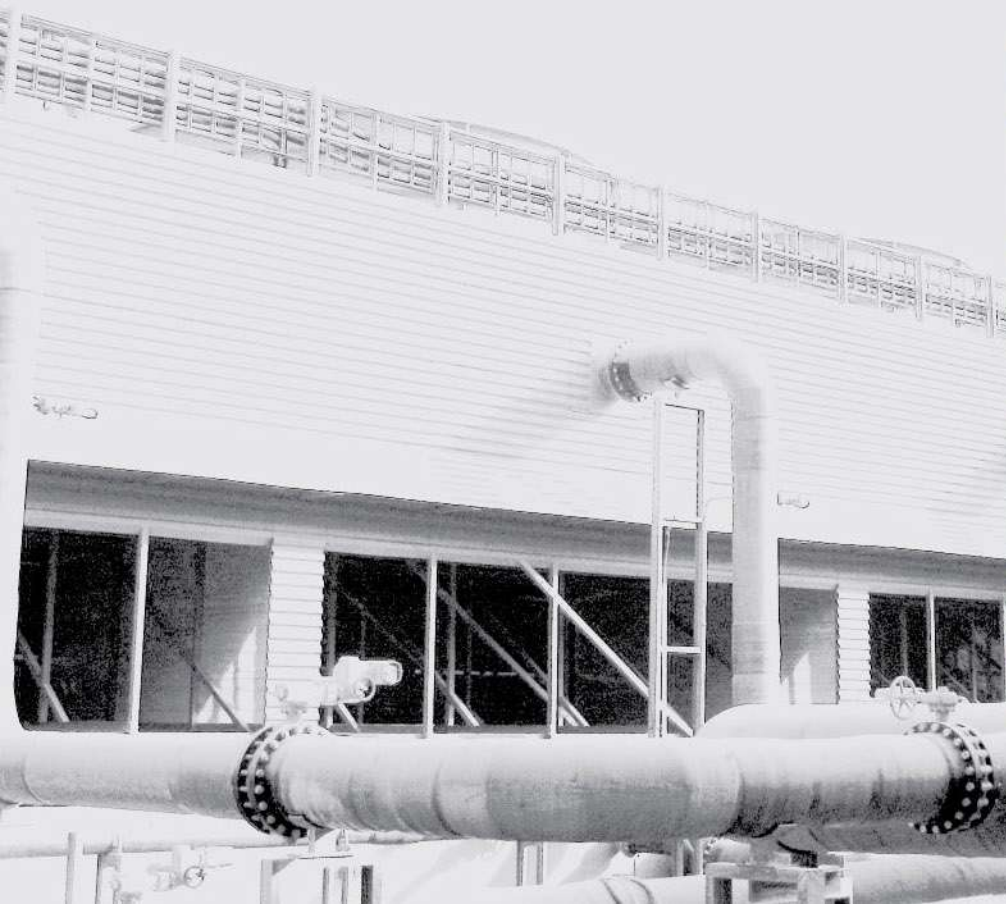
45,000 HRT, Palm Jumeirah, Dubai



25,000 HRT, Putrajaya, Malaysia



6,000HRT, Suvarnabhumi International Airport, Thailand





POWER GENERATION AND BIOMASS RENEWABLE ENERGY



100MW Co-generation Plant Rayong, Thailand



60MW Co-generation Plant Malacca, Malaysia

Power, an indispensable commodity without which industries will stop, communities will suffer and life itself would come to a standstill. Man's dependency on power has come to a point of no-return. Without power, life will evolve back to the dark-ages.

The presence of Power has enabled cities to develop and grow at an astronomical pace stringing along with it the rapid advancement of technology and machines.

The Kyoto Protocol, a protocol initiated by the United Nations Framework on Climate Change adopted in 1997 has brought about many guidelines to pursue more aggressively the usage of renewable energy through Biomass Power Plants in a global effort to reduce the carbon footprint.

Power generation plants have traditionally in the past very much a government-pushed initiative to develop the power grid infrastructure and cater to the needs of her people. Nowadays, more and more investments in the construction of power plants are coming from the private sectors. All across the globe, many Independent Power Producers (IPPs) and Small Power Producers (SPPs) plants are being installed and commissioned every-day.

Truwater's range of "CF" engineered cooling towers with its multi array of material selection flexibility of reinforced concrete, steel, FRP and timber makes it an ideal choice for such application.



700MW Combined Cycle Power Plant, Bangkok, Thailand



12,000m³/hr, Selangor, Malaysia

HEAVY INDUSTRIES

Ever since the industrial revolution began in the 18th century, millions of industries have sprung up changing the political, socioeconomic and cultural landscape sweeping across Europe, North America and eventually the world.

For hundreds of years, steel has been an important ingredient for the construction of our world's infrastructure from outer space explorations to the inner depths of our vast oceans. It has been the backbone of our world's constructions from the world's tallest buildings to the ordinary paper clip we use every-day.

The high demand for steel has resulted in many steel mills being built all over the world. This specific industry demands the workings of a strong and durable cooling tower. Truwater, with its highly durable range of TWI cooling towers are specifically designed for dirty water and high temperature applications, a perfect match for heavy industries.



3,500 m³/hr, Labuan Malaysia



2,000 m³/hr, Selangor Malaysia



PETROCHEMICAL PLANTS

Since the discovery of oil, the landscape of industry has changed tremendously and today, man's dependency on oil equals that if not more than man's dependency on power and water.

From the early days until today, many parallel petrochemical industries have risen up to harness the by-products of what oil can produce. Many petrochemical and process plants have been built to explore and develop new by-products derived from oil such as PVC, FRP, PP to our day-to-day essentials from soap, toothpaste, shampoo, detergent to candles, lubricants, insecticides, alcohol etc....

Petrochemical plants operate 24/7 non-stop year after year which requires very reliable and trouble free cooling towers. Truwater, with its full range of engineered cross-flow and counter-flow cooling towers is perfectly suited for this application.



3,000 m³/hr, Sandakan Malaysia



550 m³/hr, Palembang, Indonesia



4,000 m³/hr, Penang, Malaysia

CHEMICAL AND PROCESS



4,000m³/hr, Johor, Malaysia



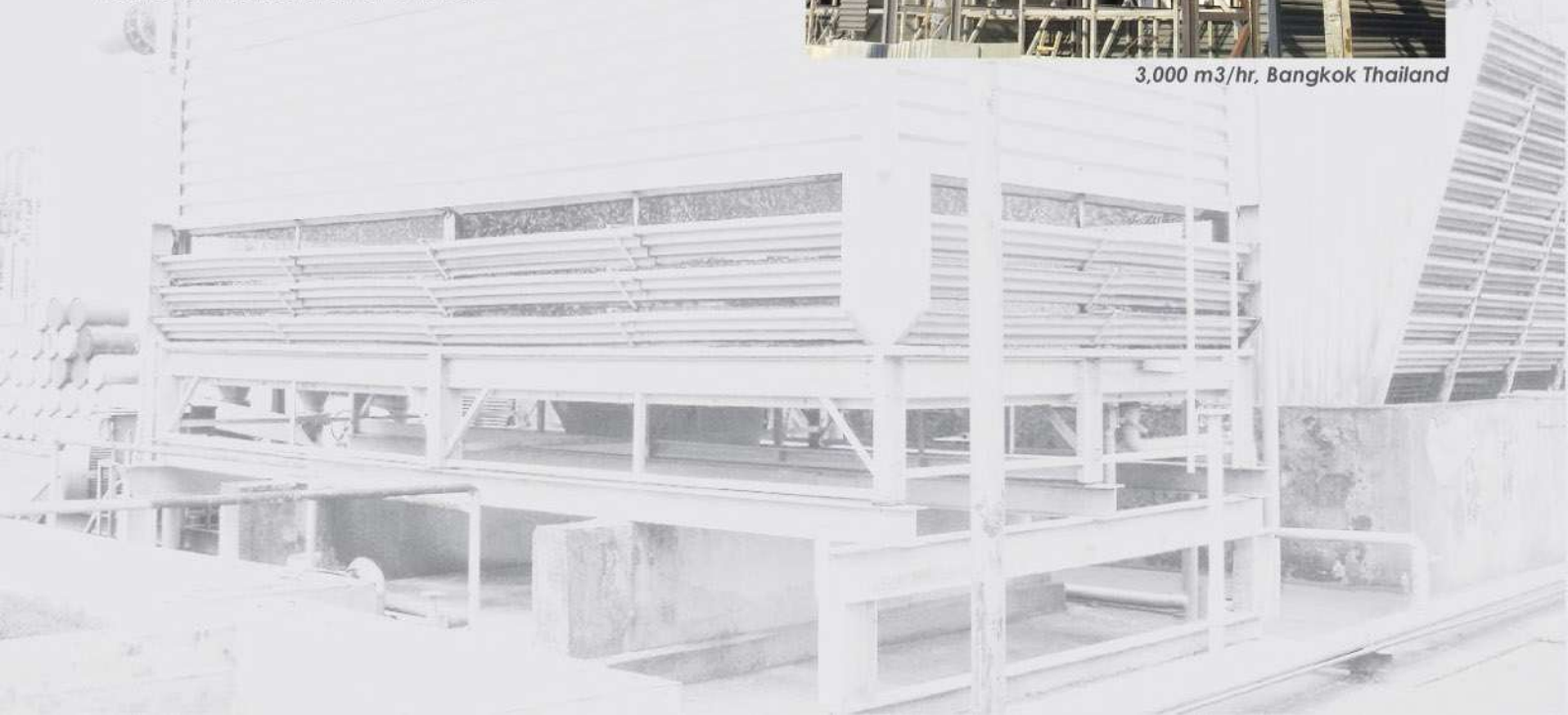
3,000m³/hr, Selangor, Malaysia

99.9% of the products we use today has undergone some form of process in its existence. For centuries, man has been experimenting on chemical and processes in a perpetual quest to develop better products of use. Scientists have spent un-ending hours laboring over the Periodic Table trying to understand the different and specific characteristics of each element, molecule or atom to harness its potential benefits.

Like petrochemical plants, chemical and process industries operate 24/7 non-stop and because of this demanding nature, these industries in turn requires highly durable and reliable cooling towers to provide non-stop and trouble-free operations in their plants and Truwater cooling towers has been their solution of choice.



3,000 m³/hr, Bangkok Thailand





BUILDING SERVICES

The American Society of Heating, Refrigerating Air-Conditioning Engineers Inc (ASHRAE) research shows that by 2030, commercial building floor space is expected to reach 109 billion square feet, a 51% increase to what it is now and that is a lot of space that needs cooling.

Many environmental scientists predicted that within the next 30 years or so, the average global temperature will rise approximately 3°C due to global warming. This greatly affects the lives and comfort of everyday living. More pleasant "comfort" conditions will have to be achieved through technological means at the same time non-detrimental to the environment.

Of late, many commercial buildings in the marketplace are subscribing to the "Green Environmental Index" certification programs such as LEED of USA, Green Mark of Singapore, Green Building Council of Hong Kong, Thailand, Philippines and Indonesia, Green Building Index of Malaysia etc.

Truwater's range of ASHRAE 90.1 "Energy Efficient" designed range of cross-flow and counter-flow cooling tower with low drift loss and high thermal efficiency transfer would be the ideal cooling tower of choice.



1,800 HRT, Kuala Lumpur, Malaysia



5,000 HRT Melaka, Malaysia



1,200 HRT, Nilai, Malaysia



3,000 HRT, Johor, Malaysia

PRECISION COOLING

Today's society revolves very much around megabytes and gigabytes. Computers, servers, main frames and electronic equipment touch our everyday lives. Each and every electronic device we own today functions on the information data in which it feeds on for instructions and function capability.

The cooling infrastructure system plays an intrinsically significant role in effectively regulating sensitive variations in temperature and humidity that can cause system failure, degrade performance and shorten equipment life. Data centres with its multi array of processors and

servers emit an enormous amount of dry heat which requires a precision cooling system to ensure a consistent and effective cooling as 85-100% of its energy usage is utilized to remove heat unlike a conventional air-conditioning system for comfort cooling where only 60-70% of its energy usage is devoted to remove heat while the remaining 30-40% of its energy usage to remove humidity and moisture generated by human beings.

Truwater's versatile range of packaged cross-flow (TX-S Series) and counter-flow (TC-ES Series) cooling towers are perfectly suited for the job.



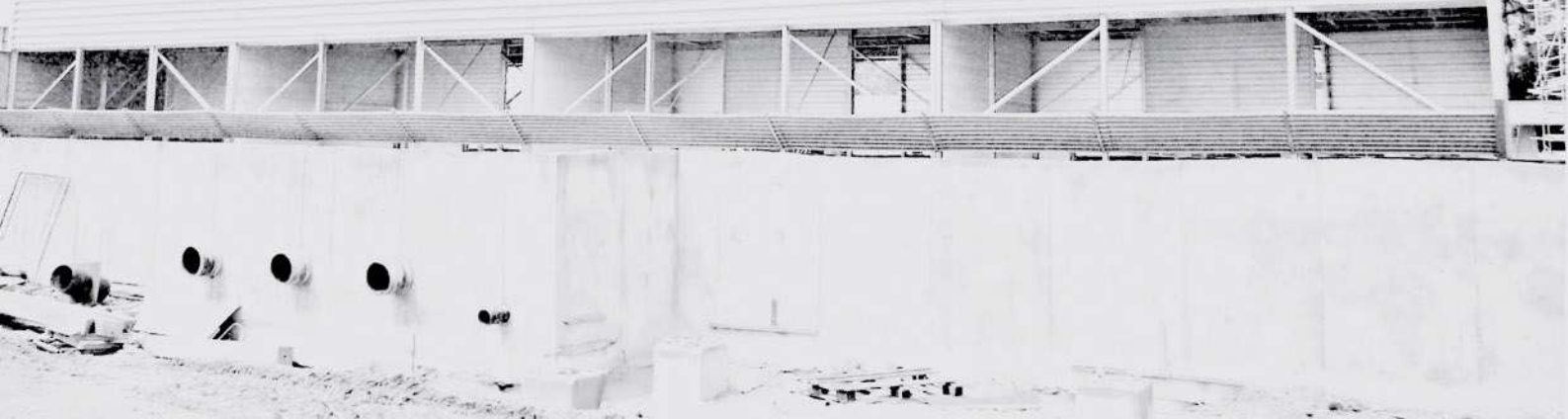
3,000 HRT, Cyberjaya, Malaysia



3,600 HRT, Woodlands, Singapore



4,800 HRT, Kuala Lumpur, Malaysia





RECONSTRUCTION, RETROFITTING AND REPAIR (3R)

In today's economy, a cooling tower reconstruction is a lot more cost effective than replacing an existing unit. Reconstruction and retrofitting of a cooling tower is fast becoming popular as more and more industries choose to further extend the operating life of their existing plant equipment. Across the spectrum of industries, one can see old power generation plants being re-commissioned for power generation, old industrial plants being rejuvenated for increased production output, old abandoned buildings being restored for occupation among others.

This very same concept applies to cooling towers as well.

Not only are we able to extend the operating life of an existing cooling tower, we can also "upgrade" the thermal performance capability of the unit itself. Truwater engineers draw on the latest technological advances in the design of cooling tower parts and components to achieve it.

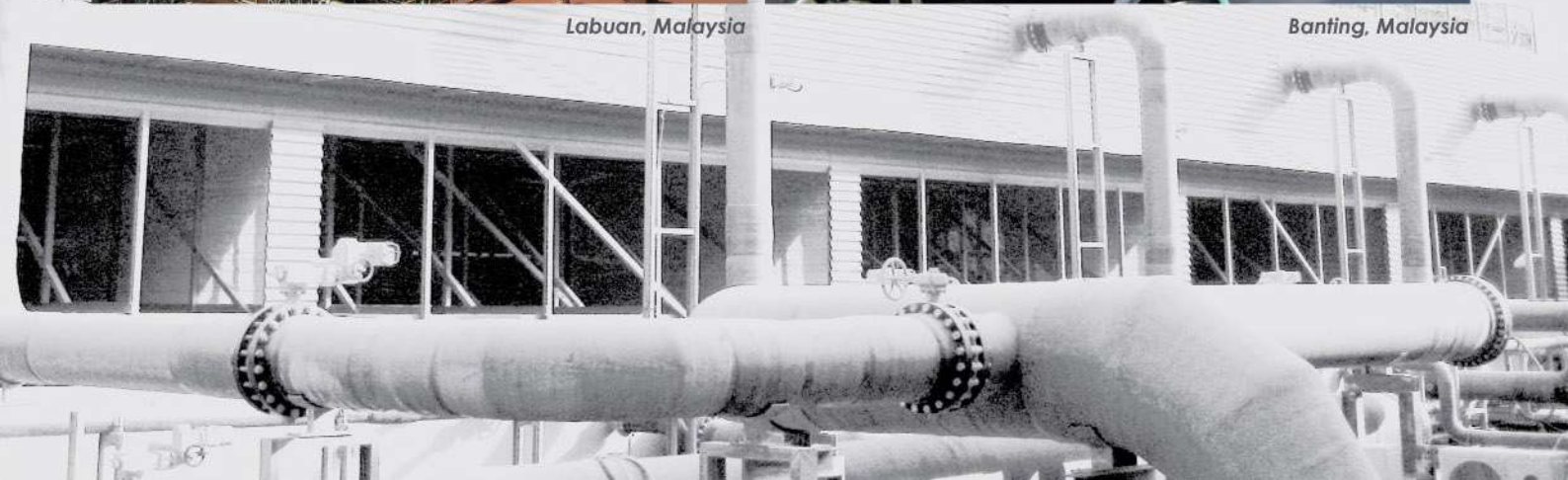
Regardless of whether a cooling tower is made of timber, FRP, steel or reinforced concrete, to reconstruct and retrofit an existing cooling tower requires technical expertise, years of field experience and a TRU-ly knowledgeable TEAM.



Labuan, Malaysia



Banting, Malaysia



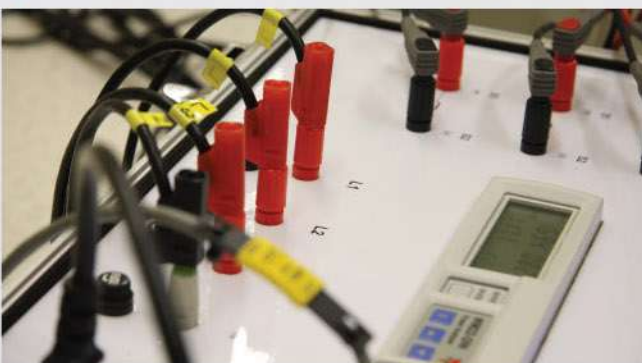
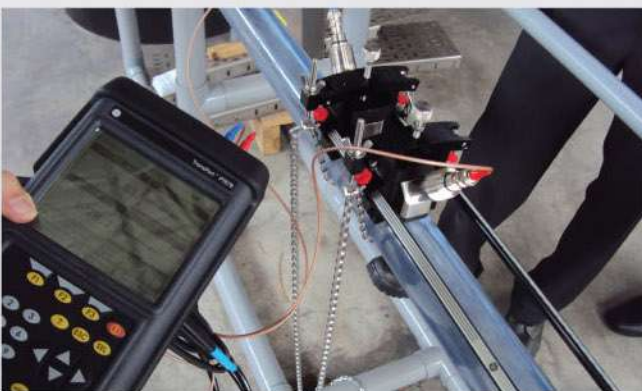
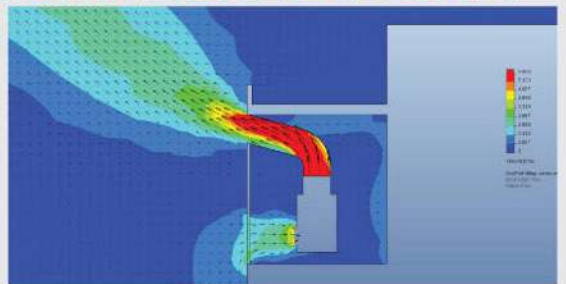
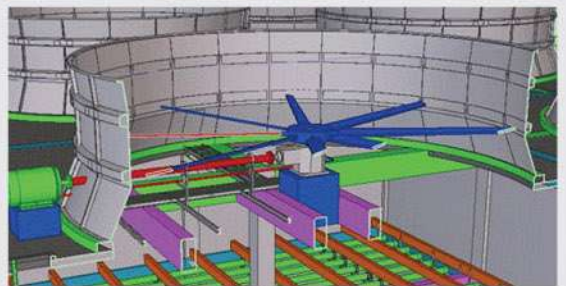
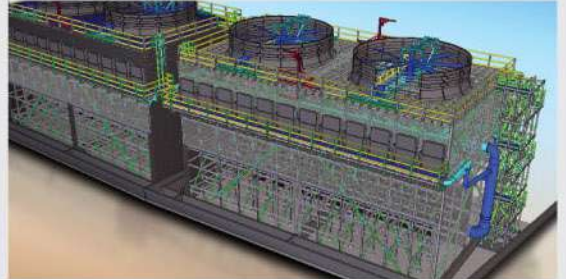


RESEARCH AND DEVELOPMENT

Truwater cooling tower design engineers administer the most stringent of standards in their cooling tower designs to conform to the strict performance parameters of the Cooling Technologies Institute (CTI) and ASHRAE 90.1. Our technical design capability is kept right on the cutting edge of technology not only with ongoing programs of research and development but also with continuous evaluation of new design concepts and materials.

Truwater's R&D program has developed a new line of cross-flow and counter-flow cooling towers that conforms to the Cooling Technologies Institute (CTI) standards with CTI STD-201 and 202 Certification.

Our latest development in 3-D modeling has enabled us and our clients to visualize in a better perspective their cooling towers even before the cooling tower physically takes shape on site.



FIELD TEST CAPABILITY

Truwater test engineers are trained to conduct "on-site" field thermal performance test on cooling towers in accordance to the requirements of CTI ATC-105, a benchmark for all cooling tower tests in the industry.

With our complete set of measuring instruments and devices comprising digital psychrometer, flowmeter, digital thermometers, barometers, wind-gauge to air-flow meter in sync with a state of the art data logger, our test engineers are able to log-in "real-time" data. Feeding these data into the CTI Toolkits software program, Truwater test engineers are able to instantaneously determine a cooling tower performance capability factor.

Many existing as well as new cooling tower owners and operators in the industry are engaging our cooling tower thermal services to test and determine the thermal capability of their cooling towers.



TRUWATER™

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Truwater Fillex Sdn Bhd
Truwater Asia Pacific Sdn Bhd
Truwater Singapore Pte Ltd
Truwater Indonesia Sdn Bhd**

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