

COOLING TOWER SERVICES

Execution Pioneers Co. is a Saudi industrial contractor specializing in cooling tower supply, installation, retrofit, refurbishment, and performance enhancement for refineries, petrochemical complexes, power generation, district cooling, and process-critical facilities across the Kingdom.

With a strong foundation in technical expertise, field experience, and quality assurance, we partner with our clients to ensure that every cooling system performs at its best under all operating conditions.

DESIGN & TECHNICAL ADVISORY / CONSULTING

Our **Design and Technical Advisory Division** offers a complete range of performance audits, system assessments, and engineering consultations.

We work closely with clients to understand their operational goals, constraints, and performance challenges, and then provide practical, data-driven solutions that deliver measurable results.



Our consulting services include:

01

Comprehensive system performance audits and diagnostics

02

Feasibility studies for capacity enhancement and redundancy planning

03

Design optimization for improved thermal efficiency

04

Design optimization for improved thermal efficiency

05

Sound and vibration reduction strategies

06

Safety system integration and compliance upgrades

07

Evaluation of mechanical, electrical, and structural components



REFURBISHMENT / RETROFITS

Cooling towers are critical assets that deteriorate over time due to continuous operation and environmental exposure.

Our **Refurbishment and Retrofit Services** are designed to bring your equipment back to peak condition, meeting or exceeding its original performance levels.



Scope of Services:

01

Structural and mechanical restoration of aging cooling towers.

02

Replacement of deteriorated fill media, drift eliminators, fans, gearboxes, and nozzles.

03

Upgrading to high-efficiency components and materials.

04

Strengthening and anti-corrosion treatment of frameworks.

04

Retrofitting for enhanced thermal and mechanical performance.

THERMAL PERFORMANCE TESTING

Performance testing is essential to evaluate cooling tower efficiency and identify opportunities for improvement.

We provide **onsite, impartial thermal performance testing** in accordance with **Cooling Technology Institute (CTI) Standard ATC-105** guidelines.



What We Offer:

01

Onsite measurement of cooling water flow rate, air velocity, and thermal gradients

02

Evaluation of approach, range, and effectiveness parameters.

03

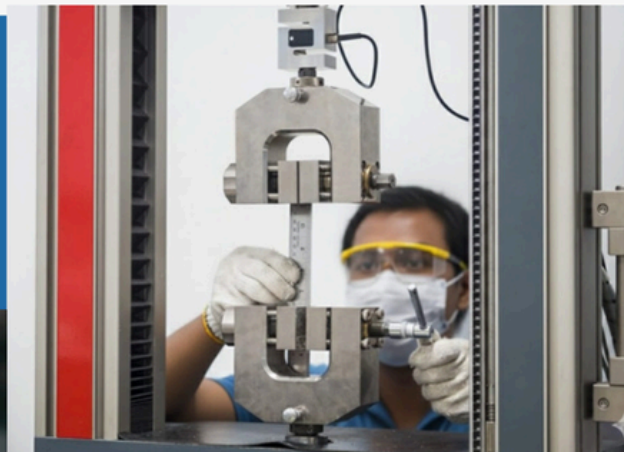
Analysis of fan and pump performance

04

Identification of system bottlenecks and inefficiencies.

05

Detailed performance reports with actionable recommendations.



MATERIAL TESTING

The long-term reliability of a cooling tower depends heavily on the quality of its materials and components.

Our **in-house Material Testing Laboratory** provides detailed analyses to ensure that every component meets the required mechanical, chemical, and thermal standards.



Benefits

- Verified material quality for longer service life
- Prevention of premature component failure
- Improved structural safety and operational integrity



Testing Capabilities:

- ✓ Mechanical strength and stress testing
- ✓ Corrosion and chemical resistance evaluation
- ✓ Thermal degradation analysis
- ✓ Polymer and composite quality testing
- ✓ Metallurgical and coating inspection



By combining laboratory analysis with field expertise, we provide clients with the confidence that their systems are built to last.





FREE ONSITE INSPECTIONS

At Execution Pioneers ,customer satisfaction continues beyond project completion.

We offer **free onsite inspections** conducted by our experienced service engineers to ensure that your cooling tower operates at peak efficiency throughout its service life.



Inspection Scope:



Visual inspection of structural, mechanical, and electrical systems



Checking of fan assemblies, motors, and drift eliminators



Identification of corrosion, scaling, or biological growth



Operational performance verification and noise evaluation



Preventive maintenance recommendations



Why We Offer It:

This proactive service allows our clients to detect potential issues early, plan maintenance effectively, and reduce unplanned shutdowns — all at no additional cost.



GLIMPSE OF PROJECTS



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**EXECUTION
PIONEERS**



**روائد
التنفيد**

Contact us



+966 55 377 3015 | +966 55 518 3543



www.pioneersa.com



info@pioneersa.net | epsales@pioneersa.net



Execution Pioneers



Execution Pioneers
Al-Khobar, Eastern Province, Saudi Arabia

