



Your Engineering Consulting Partner

AMCO Profile



WHO WE ARE?

Since the inception of AMCO in 2008 by a team of senior management specialized in technical fields as a response to the growing demands for Metallurgical Services in the Kingdom of Saudi Arabia. AMCO has been extensively and rapidly accepted in the industry as a reliable testing, metallurgical consultants, mechanical testing, lifting equipment and inspection services. AMCO is ISO 9001 : 2015 and ISO 17025 accredited lab

We have teams of experts around the world available to provide specialized business solutions that align with client needs. The company works through a corporate model of core staff and a pool of internationally known technical experts with practical experience, background and expertise in plant. Major hub facilities are located in Saudi Arabia.

AMCO have always retained a uniqueness that has allowed us to truly understand the industry, encouraging innovation and an entrepreneurial spirit that creates strong links between our global business operations.

AMCO is the global benchmark for quality and integrity, and we have built our reputation on quality, client service, innovation, and technical excellence. Our commitment to systemization and standardization allows our people to focus on what is important.

AMCO's major business today is its international testing services business. In that business, we are focused on delivering superior services in our main divisions related to Oil and Gas, Processing, Petrochemical, Power Generation, Water, Manufacturing, Drilling, Mining, Defense, Cement, Food, Exploration, Space and Heavy Construction Industries. It is evident that AMCO has ongoing long-term contracts with major companies in Saudi Arabia and offering a broad range of technical services to our clients that is unrivalled.

We measure success by the satisfaction of our clients. We are committed to providing a level of service that provides our clients with the confidence to make timely, accurate and informed decisions. As our company continues to develop and grow, so do our systems that make it increasingly easier to partner with AMCO and receive data and reports that not only meet but exceed client expectations.

At AMCO, we are committed to the health and safety of our people, the environment and the communities in which we operate; allowing us to establish long-lasting relationships with clients and make positive contributions to the regions in which we live and work.

The reassurance to know you are working with a Winning Team. We are all working towards the same goal – our team is your team!

PRESIDENT MESSAGE

It is now easier to engage with us, for Metallurgical Services and latest tools to support our valuable customer on their plant issues.

We provide solutions and expertise to improve customer services on their plant issues and enhance the equipment efficiency. Our foundation of success has been built upon the commitment to our valuable customers. We owe our success to the outstanding AMCO management and talented workforce team who are committed to provide highest quality services to our customers in the region.

President



MISSION

Our mission is to consistently provide our clients the highest levels of Metallurgical Services, through qualified Metallurgist, Corrosion Specialist, Chemical Engineers Compliant Quality Management System, and without any compromise to quality, safety and to focus our workforce on mastering the essential Metallurgical Services of our valuable clients enhancing productivity, decreasing deficiencies, achieving and maintaining the highest level of their confidence.

VISION

AMCO vision is to be widely regarded as: a world-class “Metallurgical Services Company” by providing our clients the highest levels of Metallurgical Services, meeting their expectations, guaranteeing their satisfaction.

AMCO is recognized for its commitment in delivering its services in a timely manner and maintain quality output in meeting clients confidence and satisfaction at all times

VALUES

Client Centric: We are proud of always thinking in terms of what is best for our clients, offering solutions that are not only theoretical but workable and it reduce client plant issues and enhance the plant efficiency.

Professional Excellence: We offer services pf superb quality based on our accumulated, extensive and profound knowledge and experience.

Power of Diversity: We share a corporate culture of mutually respecting individuals abilities and in turn helping one another to grow. Our growth is our client growth.

Collaboration/ Collegiality: We have brought together all our team/consultant’s individual abilities into our corporate power. In working as a team that includes our clients, we also share a common goal with our clients and take full advantage of each other’s wisdom and experience.

New Global Dimensions: We know how to proceed with our business, absorbing all best practices in the world as our own while respecting the locally prevailing value systems.

WHAT WE DO?

- Failure Analysis/Investigation
- Risk Based Inspection/ Maintenance
- Fitness for services (FFS) Services
- Probabilistic Life Assessment
- Life & Remaining Life Assessment
- On-Site (Field) Replica Services
- Boiler Life Assessment
- Steam Turbine Services
- High-temperature Defect Assessment
- Reliability Centered Maintenance (RCM)

- Asset Integrity Services
- Condition Assessment
- QA/QC Services
- Corrosion Analysis
- Single Point of Failure Analysis/Services
- Outage Services
- Benchmarking & Cost Analysis
- Training and Technology Transfer
- Microbiological Induced Corrosion (MIC)
- Conditional Monitoring & Vibration Analysis
- Lifting Equipment Inspection
- Finite Element & Stress Analysis
- Mechanical Testing



WE DEAL WITH

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|------------------|----------------------------------|---------------|
| ▪ Petrochemicals | ▪ Chemical and Processing Plants | ▪ Food |
| ▪ Oil and Gas | ▪ Mining and Metal | ▪ Defense |
| ▪ Power Sectors | ▪ Manufacturing Industry | ▪ Railway |
| ▪ Fertilizers | ▪ Waste Incineration | ▪ Shipping |
| ▪ Refineries | ▪ Automobile | ▪ Drilling |
| ▪ Pharmaceutical | ▪ Aerospace | ▪ Exploration |
| ▪ Construction | ▪ Cement | ▪ Pulping |



Metallurgical Consultant

The company works through a corporate model of core staff and a pool of internationally known technical experts with practical experience, background and expertise in power, petrochemical, refining, fertilizer, oil & gas and process plant.

FAILURE ANALYSIS/ INVESTIGATION

AMCO offers a comprehensive failure analysis service aimed at the identification of the damage and failure mechanisms (creep, fatigue, corrosion, metal dusting etc.), diagnosis of the root cause of failure, and making recommendations that will minimize the risk of repeat failures.

AMCO's team of specialists have the expertise to understand the interactions between the failure mechanism(s) and the material, design, operation and maintenance issues, to identify the root cause of failure and thus to make recommendations.

LIFE ASSESSMENT

AMCO can assess the remaining life of plant under operating conditions, offering real increases in safe operating life at little expense. Advanced warning of creep, creep/corrosion and creep fatigue failures can avoid expensive unplanned outages while avoiding undue maintenance or premature replication surveys. Improved repair welds can reduce the delay in returning plant to service and may be suitable for long term service avoiding replacement at the next scheduled outage.

FITNESS FOR SERVICES (FFS)

AMCO assesses the fitness for service of plant under operating conditions which can give advanced warning of in-service failures. This can help the plant operators in reducing cost by avoiding costly unplanned outages and at the same time minimize excessive maintenance or premature inspection.

AMCO has experience of using standardized approaches such as those outlined in API 579. Furthermore, we have initiated and led the development of some of the European approaches to fitness-for-service in addition to its extensive experience in life assessment.

RISK BASED INSPECTION

We provide Risk-Based Inspection services to refineries, oil & gas processing, petrochemical and power plants. Our RBI programme is designed to both qualitative and quantitative criteria and is based on the American Petroleum Institute RP 580/581 inspection methodologies.

The main objective of Risk Based Maintenance is to allow a framework to identify and measure the risk areas and thereby allow optimized focusing of available resources.



Innovation

We are committed to be innovative it is part of our name. Our work embodies innovation in everything we do.

IN-SITU (FIELD) METALLOGRAPHY

AMCO is pleased to announce its on-site life assessment capabilities including replication, hardness testing, and field metallography. These services are complimentary to our plant integrity and life assessment services as well as other capabilities, utilizes the extensive knowledge & experience of AMCO's in-house & international technical experts. Metallography provide the early warnings of onset of many damages to the process and engineering industries.

ENGINEERING DESIGN ANALYSIS

AMCO offers in-house engineering (finite element (FE) & stress analysis) modelling of plant components. FE modelling can help in a number of circumstances – at the design phase, when looking for stress concentrations and deciding the placement of welds; in remaining life assessment, when evaluating the effect of thinning on stress distribution; in maintenance planning, when locating areas for inspection etc. Our engineers have experience modelling complex components and interpreting the results to provide you with the best recommendations.

BOILER INSPECTION SERVICES

AMCO has established expertise in the life assessment of components from boilers operating in the creep and fatigue conditions. The viability of future operation can be called in to question when a boiler begins experiencing failures, reducing production, increasing forced shutdowns and low efficiency. Today, plants are being operated to meet new financial expectations, and that combined with limited financial resources, reduced maintenance budgets, staff reductions, and fewer, shorter outages, makes managing these plants a difficult challenge.

CONDITION MONITORING

Condition monitoring & Predictive Maintenance Misalignment, unbalanced bearings, vibration etc are the hidden root cause of the machine failure. Condition monitoring enable us to check operating condition of machine periodically to prevent these factors causing failure of the machine.

VIBRATIONS ANALYSIS

The vibrations your product may experience can reduce performance, shorten product life, or even cause a catastrophic failure. Plant and equipment vibrations can be hazardous for employees and damaging to your facilities and business collateral. If you are operating on a construction site, vibrations can be extremely dangerous for you as well as nearby businesses and sites. Through our vibrations monitoring services, we can identify the source of any concerns and help you with innovative suggestions to improve the situation.



Flexible Cost

Our affordable cost sets us apart from our competitor. We provide cost effective comprehensive solutions.

PLANT MECHANICAL IMPROVEMENT STUDIES

AMCO help clients cost effectively and safely manage the integrity, performance and reliability of their assets at every stage of the lifecycle, from design to operating and maintenance through to late life and decommissioning. Improve safety, maximize operability, improve profitability process support, corrosion, metallurgy, risk analysis and increase the life expectancy of plant asset.

PLANT ASSET INTEGRITY SERVICES

AMCO's Asset Integrity Services assist clients in making informed decisions on the operation and maintenance of their plant and to manage the risks their operations place upon the assets they own or operate.

AMCO provides information on the condition of a component under 'current' and 'planned' future operating conditions enabling the operator to plan for the remaining life of that component.

MICROBIOLOGICAL INDUCED CORROSION (MIC) ANALYSIS

AMCO's engineers, consultants and technical experts collaborate to offer microbiologically influenced corrosion (MIC) testing/analysis of oil & gas, processing, petrochemicals, power, residential, commercial and fire protection water systems. By offering testing and analysis experts under one roof, AMCO's services are low cost with quick turnaround times.

INTERGRANULAR CORROSION (IGC) TESTING

Intergranular corrosion (IGC) is a selective attack in the vicinity of the grain boundaries of a stainless steel. It is as a result of chromium depletion, mainly due to the precipitation of chromium carbides in the grain boundaries.

AMCO is providing IGC services in Saudi Arabia. Below are the tests which AMCO is doing in Saudi Arabia as per the ASTM A262 standard.



Our Results

We are not satisfied until we solve our clients engineering problem.
We are driven by success and accurate results .

ENGINEERING RISK ASSESSMENT

Engineering systems are almost always designed, constructed, and operated under unavoidable conditions of risk and uncertainty. Risks are future events with a probability of occurrence and a potential for loss. Caught in time, risks can be avoided, negated or have their impacts reduced. Risk analysis is a technique applied for identifying, characterizing, quantifying, and evaluating hazards. Risk assessment is performed to estimate the value of a risk.

CORROSION CONTROL & CONSULTING SERVICES

The best background for corrosion consulting is to have practical field experience in identifying and solving corrosion problems. No other company in Middle East has the breadth and depth of experience that AMCO offers in research, analysis and practical solutions for corrosion control.

AMCO has built a Worldwide reputation for the quality of its corrosion and failure-analysis services and its cost-effective solutions.

AMCO has been providing corrosion consulting, corrosion prevention, and corrosion-control services for more than few years

MECHANICAL TESTING

AMCO is an accredited mechanical testing lab that provides mechanical testing of metals, polymers, ceramics, and other materials. Our state-of-the-art test lab and dedicated machine shop allows us to provide the most accurate and reliable results possible.

AMCO's highly trained experts use a wide range of methods and devices to run comprehensive mechanical testing programs for our clients in Petrochemicals, Power, Refinery, Fertilizer, Automotive, Oil & Gas, Construction, as well as other industry sectors.

PLANT RELIABILITY ANALYSIS

Availability, reliability and maintainability are key considerations in most product development. With recognition that in-service failure cost can far exceed initial purchase cost, companies are required to pay as much attention to reliability as to performance. Performance is optimized by integrating reliability into product development from its earliest stages and by considering the appropriate trade off.





+966 (0) 13 890 7501



+966 (0) 13 890 7502



sales@amco-consult.com
manager@amco-consult.com



www.amco-consult.com



امكو
AMCO
Metallurgical Services

Al- Khobar

Aziziyah, Al-Khobar,
Kingdom of Saudi Arabia
Tel: +966 (0) 13 890 7501
Cell: +966 (0) 59 5566007
Fax: +966 (0) 13 890 7502
Web: www.amco-consult.com
e-mail: sales@amco-consult.com

Al- Jubail

Support Services Area
Jubail-Dammam Highway
Jubail, Kingdom of Saudi Arabia
Phone: +966 (0) 59 55 66 007
Web: www.amco-consult.com
e-mail: sales@amco-consult.com

Yanbu

New Airport road crossing
with King Khalid road, Al Usaylai
District Yanbu Al Bhar City
Yanbu, Kingdom of Saudi Arabia
Phone: +966 (0) 59 55 66 007
Web: www.amco-consult.com
e-mail: sales@amco-consult.com