

ITS ALL ABOUT THE PEOPLE



MECHANICAL ERECTION AND
CONSTRUCTION COMPANY

*Trust is just one of the things we
build well* ”

www.mecc.pk



PERFORMANCE



SERVICES



TEAM WORK

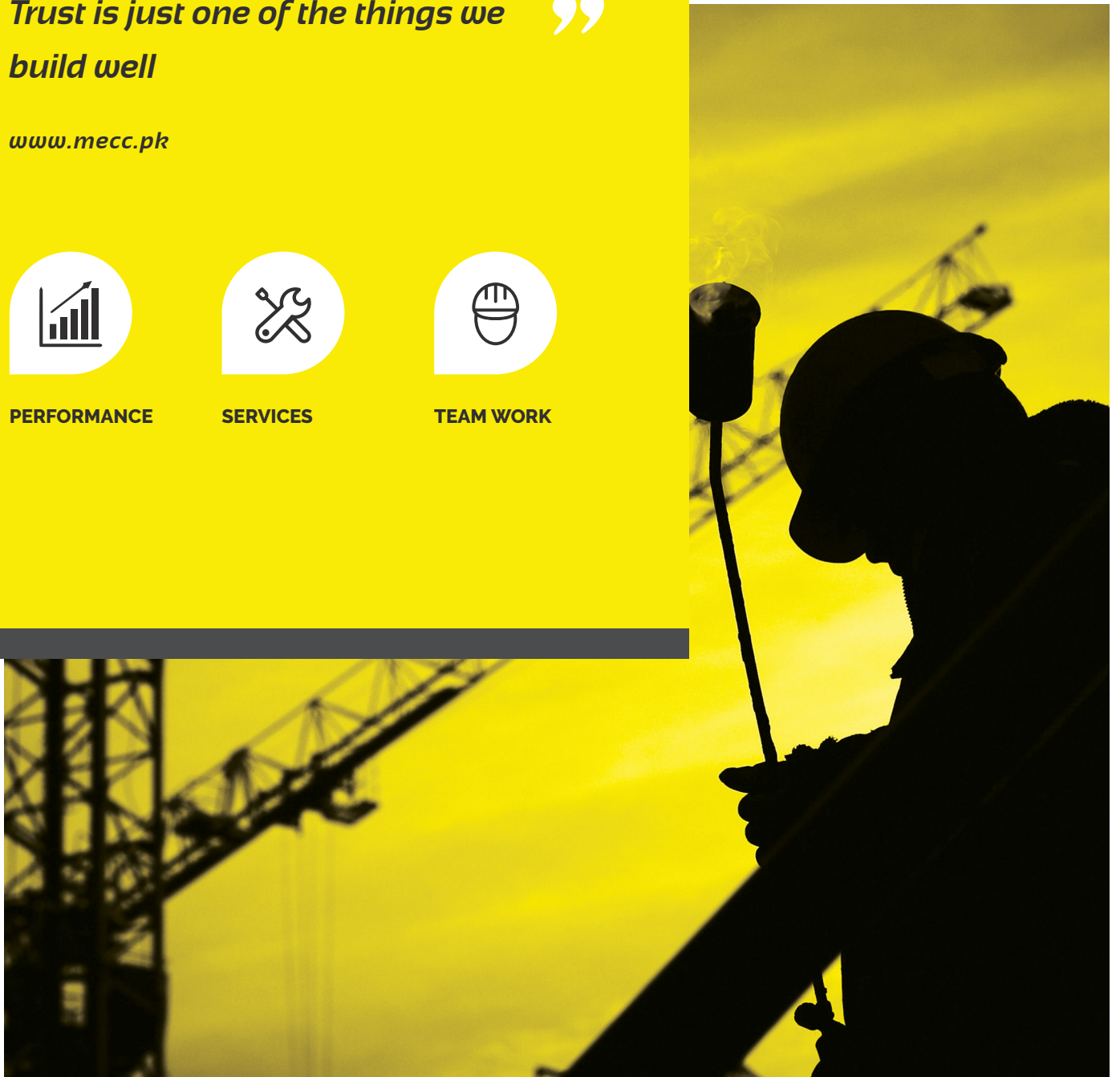




TABLE OF CONTENTS

ABOUT US

COMPANY STRATEGY

PURPOSE
VISION
MISSION

COMPANY STRATEGY

SCOPE OF WORK

SERVICE QUALITY
SENIOR MANAGEMENT TEAM
SKILLED WORKFORCE
APPROACH
STANDARDIZATION

QUALITY POLICY

ENVIRONMENTAL POLICY

HEALTH AND SAFETY POLICY STATEMENT

SERVICES

CIVIL
MECHANICAL
OUTAGES / TURNAROUNDS / SHUTDOWNS
COMMISSIONING
PLANT MAINTENANCE
RIGGING
SCAFFOLDING
STACK REHABILITATION
TELECOM TOWERS
CORROSION PREVENTION
STAFF TRAINING
MAN POWER

INTRODUCTION

Mechanical Erection and Construction Company (MECC) is an engineering services organization operating in Pakistan. We have been in the business of delivering client-specific solutions for projects related to energy, power, oil and gas and telecom sectors.

The company is renowned for its quality, safety and on-time delivery of projects. The unique strength of our organization enables us to provide multiple trade service solutions in engineering, procurement and construction.

ABOUT US

MECC has been established as an engineering services company since 1972 providing construction and maintenance services to the energy, power, oil and gas and telecommunications sectors. We have earned the recognition as one of Pakistan's foremost independent construction and maintenance contractors. Our business ethics and practices are primarily based on the past four decades of accomplishments. They apply to all the aspects of our business conduct and are relevant to the conduct of all the individuals of our entire company.


We have applied consistently high standards in everything we do and unwaveringly deliver a constructive role in the sectors in which we operate. We take pride in everything we do; our business ethics and practices reside at the heart of every assignment we embark upon. Those who know us experience a cohesive company culture that targets delivering top-notch services. These ethics embrace leadership and integrity, ensuring that we always operate openly, transparently and honestly.

We have applied consistently high standards
in everything we do and unwaveringly
deliver a constructive role

The construction environment in the faster growing city of Karachi and in general Pakistan has become challenging over the years with clients asking for strikingly new, unusual or different construction projects from time to time. And with that comes maintaining such structures or infrastructures. This has motivated us to revise and better our traditional business model periodically.

Our supply chain is part of our integrated management system which is quality accredited.

We have a policy of only using sub-contractors and materials from companies that meet a certain criteria to become part of our approved subcontractor's list. All sub-contractors and suppliers are required to complete an assessment process. This is done so that we can establish their financial viability, quality procedures, performance, health and safety procedures, records, details of previous experience with references and more. Performance is monitored constantly throughout the delivery of their service



with evaluations carried out on completion of their works. Moreover we record their compliance with our quality systems including the extent of issues raised on the test and inspection sheets. If they fail to implement changes or respond to the concerns raised we remove them from our subcontractor's approved list.

There is a great need for some outstanding construction and maintenance services in the future to deal with challenging assignments in the healthcare / housing / retail / hospitality / power / oil and gas / telecom / infrastructure and leisure / public bodies and industrial and commercial sectors. We consider ourselves best suited for these challenges because of thousands of hours of work experience gained by our workforce over the past forty years. Over these years we ensured to reinforce the workmanship of our employees with rigorous discipline, tight security and stringent safety measures.

We believe that working with colleagues is a highly valuable development opportunity available for them to become better in their craftsmanship. Mentoring and on-the-job learning is and remains very much a part of the culture at our company. The culmination of all these endeavors efforts have resulted in a pool of highly skilled workforce who have realized their full potential whilst accommodating the changing needs of our business and the industry. Last but not least, periodic trainings for certifications and standardizations in various aspects of work have fine-tuned them for exacting roles in intractable assignments.

Every project comes with its own set of challenges, but with ***our extensive experience of thousands of man-hours*** we have dealt successfully with each of them. The commitment of our management and staff sees every project through to its desirable end.

COMPANY STRATEGY

PURPOSE

Significantly expand our construction and maintenance services contracting market to improve profit margins.

Goal to achieve:

To be a leader in the construction and maintenance industry by providing enhanced services, relationship and profitability

VISION

Expand services and decrease costs by creating a highly trained and experienced permanent workforce, as well as further increase our asset base of construction and maintenance service supply equipment.

Goal to achieve:

To provide quality services that exceed the expectations of our esteemed customers.



MISSION

Begin to market and offer our cutting-edge services in all the cities of Pakistan and prepare for an international expansion.

Goal to achieve:

To build lasting relationships with our customers and clients and provide exceptional customer services by pursuing business through innovation and advanced technology



CORE VALUES

With many players in the services industry, we set ourselves apart from our competitors by the way we treat our employees, clients, communities and others we do business with

- We offer comprehensive services that are designed to allow our company to do whatever it takes to finish a project.

- We are committed to finding solutions for our clients that best achieve their goals.

- As a service provider it is paramount for us that the people who work with us, employees or clients, have more reason to feel good about what they do and feel invested in a project.

- We build our credibility by successfully working on challenging projects across multiple platforms as we think this is the best way to show people that our company is the most versatile in the business.



SCOPE OF WORK

MECC prides itself in providing unique and high quality services to local and international clients.. A typical project may contain many aspects in its successful completion and our focus covers all aspects of construction and maintenance services.

SERVICE QUALITY

Regarding matters containing construction we initiate a project with general suggestions on monetary acquirements and design to the eventual construction and turning over the control to the client. Flexible approach as our business model and a heterogeneous range of projects as our milestones have resulted in long-term contract relationships with our clients in the power, energy, oil and gas and telecom sectors.

It is important to realize that early engagement with the client is vital for the preliminary phase of the project. This demystifies incorrect assumptions and paves way for the client's exact aspirations for the project. We have applied this strategic move consistently over the past decades resulting in on-time deliveries for the client.

SENIOR MANAGEMENT TEAM

For a plethora of services that we offer our clients are sure to discover a competent and well-experienced top senior management team. Our senior management team possesses extensive industry experience and has an average tenure of more than 15 years with our company. The managers are experienced not only in generating business but also in successfully managing and executing advisory and implementation assignments. They are also experienced in acquiring other businesses and integrating those operations with our own.

SKILLED WORKFORCE

The management team is backed by a directly employed skilled workforce. Skilled workforce performs complicated tasks that require specific skill sets, education, training and experience, and may involve abstract thinking. Thousands of hours under the belt of our skilled workforce, the employees have honed their skills over the decades. Not only gaining through experience with the work we kept them busy with, we have accentuated their learning through specialized trainings and workshops. With ever-increasing challenging problems occurring due to the complexity of modern structures and infrastructures, it is not only the management team that has to be troubleshooters but the workforce has to be adept as well to improvise, as they are in essence the hands-on force on the project.

MECC has been established as an engineering services company. Client expectations and meeting them in letter and spirit is the fuel driving us. A typical project may contain many aspects in its successful completion and our focus covers all aspects of construction and maintenance.

APPROACH

MECC comprises of three departments namely Civil, Mechanical and Telecommunication Towers. These departments cover all aspects of jobs that a project may require. We have undertaken projects ranging from small to large in public and private sectors. And we are proud of the range we have dealt with. Regardless of the scale of the assignment or the position of the client, we consider all assignments and all clients equally deserving the best from us. As mentioned before, flexible approach to all our undertakings (as per contracts) has gained us a market-wide reputation where we are now trusted to provide client-oriented solutions of all scales and sizes.

Our traits include wrapping ourselves around client's job specifications and delivering a satisfying execution of services using time-tested as well as latest contemporary methods of construction/maintenance. Flexible approach with personalized suggestions from our management experts have paved way for stronger bonding with our clients. This approach has subsequently manifested itself in progressively higher portion of repeat contracts.

Improvisation and innovation are ***necessary to cope*** with demanding and out-of-the-ordinary style projects.

We continuously attempt to devise creative yet economical methods to tackle the challenging requirements on a broad spectrum of projects put in front of our Civil, Mechanical and Telecommunication Towers departments for delivering services for various industries. We have provided construction and maintenance services for structures and infrastructures across an array

of developments. As an experienced design-build contractor our solutions are practical and aesthetically pleasing. We meticulously execute services from start to finish i.e., from planning to execution

STANDARDIZATION

We have a clearly defined philosophy regarding standardization. Adding real value to our client's business by providing world-class standardized solutions at cost effective levels is how we spell it out.

Our core activity is general contracting and has led us to providing services for multinational companies, government sectors and EPC (Engineering, Procurement, and Construction) companies. All our operations are in complete compliance with ASME (American Society of Mechanical engineers) certifications, BSI (British Standards Institution), DIN (Deutsches Institut für Normung i.e., German Institute for Standardization) as well as HSE (Health and Safety Executive) and QMS (Quality Management System) standards. Any project undertaken requires an open relationship between the parties involved and we as the service provider heighten that by making the time spent on the project gratifying. We update our clients about the progress made on a daily basis ensuring they know the exact status of the project.

Quality considerations take the front seat and we are obsessed with designing structures and infrastructures that stay true to highest quality standards. Strictest measures are employed with client requirements reigning supreme. It doesn't end there as we persevere keeping a close contact with them after the project completion to be sure the deliverables matched if not outperformed the expectations.

HEALTH AND SAFETY POLICY

MECC maintains health and safety of all individuals as paramount and provides full support in Health and Safety matters as they relate to our business activities. The goal is to prepare an incident free environment and involves direct involvement and commitment from our top management team.

Achieving zero incident on every project is challenging but extensive experience of our skilled workforce and comprehensive trainings over many years of our operations have promoted and nurtured an injury-free environment.

And keeping with one of our core values of caring about the people we instill the belief of working incident and injury free. This promotion helps us better our safety culture preparing the environment for success. We take the following measures:

- **Specify how the safety and health of all employees be secured and managed**
- **Specify the hazards identified and risk assessed**
- **Give details of how we are going to manage his or her safety and health responsibility**
- **Give details of the commitment by the employer to comply with legal obligations and preventive measures for the employer**
- **Mention the resources provided for safety and health at the workplace and the arrangements used to fulfill these responsibilities by the employer**
- **Include the plans and procedures to be used in the event of an emergency or serious danger**
- **Include the names and job titles of people appointed responsible for safety and health or performing the task set out in the statement**
- **Contain the arrangements made for appointing safety representations**
- **Consult with as well as allow open discussions with the employees on safety and health matters including the names of the safety committee if appointed**

- **Ensure that everything is written in a form, manner and language understood by all**
- **Make a point to review the policy in a review mechanism**
- **Give highest level of importance to the relevant health and safety legislation**

MECC ensures that the subject matter of the safety statement which also includes the risk assessment is made available to all employees and others concerned at the workplace who are likely to be exposed to any risks covered by the safety statement. Especially, new employees are brought to attention of the health and safety policy statement when they start work. And as simple as it may sound it is written in a form and language that they all understand.

Other people may be exposed to specific risk dealt within the health and safety policy statement and we ensure that the statement is always brought to their attention.

These people could include building work/ maintenance/cleaning done by other contractors in addition to us, temporary workers, delivery people who stack their goods in the premises and come in contact with activities there and self-employed people who provide a service for the employer.



ENVIRONMENTAL POLICY

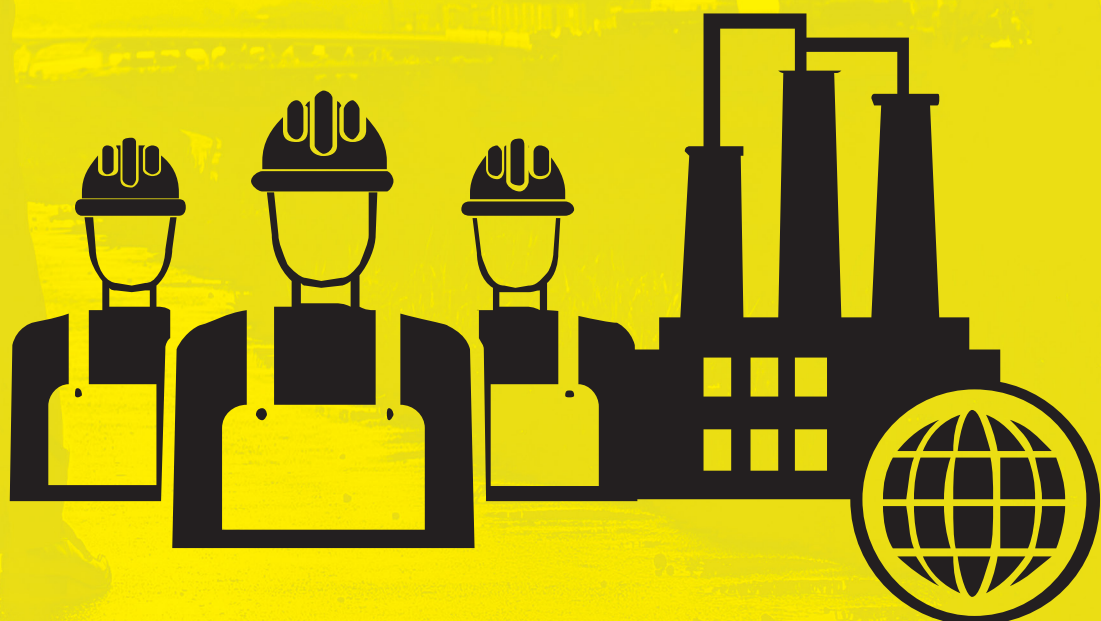
MECC's environmental policy stipulates that all activities be carried out in a manner that minimize environmental impacts. Further it realizes effective and responsible planning and management of resources of the environment as well as conserving natural resources. In this respect environmental management is an integral concern and vital part of MECC's business operations.

We take the following measures:

- Integrate environmental considerations into work practices at all levels
- Inform employees and associates of applicable environmental regulations in tandem with our company's requirements and make resources available to execute their work in line with those regulations.
- Promote prevention of environmental pollution, waste reduction and above all conservation
- Encourage the effective use of innovative environmental technologies and practices
- Stimulate a work environment in which employees and associates are encouraged to report and raise environmental issues without fear of retaliation
- Consistently improve the effectiveness and efficiency of the environmental management through assessments and performance and cost metrics
- Comply with applicable laws, regulations and other promulgated environmental requirements

It is important to note that all employees at MECC are ***bound to follow*** the before-mentioned environmental policy statement measures. Each individual in our company is accountable for the following:

- Conduct the assigned duty that complies with applicable environmental regulations in tandem with our company's requirements
- Consistently improve environmental performance in their work area
- Be vigilant of the likely environmental results of their actions at all times and make every effort to minimize and possibly eliminate such consequences
- Immediately and exactly report, if possible, the environmental incidents i.e., events in which a spill or release of hazardous material to the environment happened or could have happened
- Actively get involved in the inquiry of the incident investigations being carried out
- Seriously work on the shortcomings and take necessary steps to avoid incidents from happening



QUALITY POLICY

Quality is supreme to our business and is one of the three principal policies with Health, Safety and Environmental Policy being the other two that we have never compromised on.

This is solely because we give value to our clients. We review our internal procedures frequently and update them where deemed necessary and are written in easy-to-comprehend form in a quality manual which is readily available to all employees.

The management team has the ultimate responsibility to look after the quality concerned issues; but the company policy states that all employees have an ethical and official responsibility within their respective work areas. Our long years of establishment as well as catering to a broad spectrum of sectors have contributed immensely to a periodically revised quality policy which is very comprehensive now. Overall the measures taken by our company are as follows:

- **Perform all jobs consistently to a desired standard**
- **Strive to continuously improve our systems**
- **Ensure that the client requirements and expectations are clearly determined and fulfilled where the goal is to achieve maximum customer satisfaction**
- **Ensure the availability of resources that may be required to achieve quality**

- **Make it known through the company the critical importance of meeting customer needs with all the satisfactory and regulatory requirements**

- **Ensure that the management reviews are set and review the quality objectives and reports**

- **Monitor and measure the processes and the effectiveness of the quality management principles To ensure total customer satisfaction and consistent improvement throughout our business we have formulated a proper system. Overall the system ensures the following:**

- **Tangible quality aims and objectives which reflect our company's goals**

- **A formal procedure for clients to register complaints**

- **Selection and performance studying of suppliers against set benchmarks**

- **Theoretical and practical development of our employees through specialized/standardized/certified trainings**

- **Periodic audit and review of the quality standards of our internal procedures**

- **Periodic accumulation and examining of customer feedbacks and complaints**

- **Top level management reviews of audit results, customer comments and feedback as well as complaints**

- **MECC's top level management ensures that the policy finds place in an appropriate location like the notice board as well as in the Staff Handbook. It is to be readily accessible to every employee regardless of his/her position in the company. And last but not least copies of the standardized quality procedures to be followed for any work assignment regardless of its size and scope are made available to each employee.**

As an additional measure copies of the minutes of the management reviews or extracts thereof are provided to individual employees of the company as well. This is distributed in accordance with their roles and responsibilities to ensure their proper understanding of the quality measures/procedures required to be followed in the assignment in question.

SERVICES

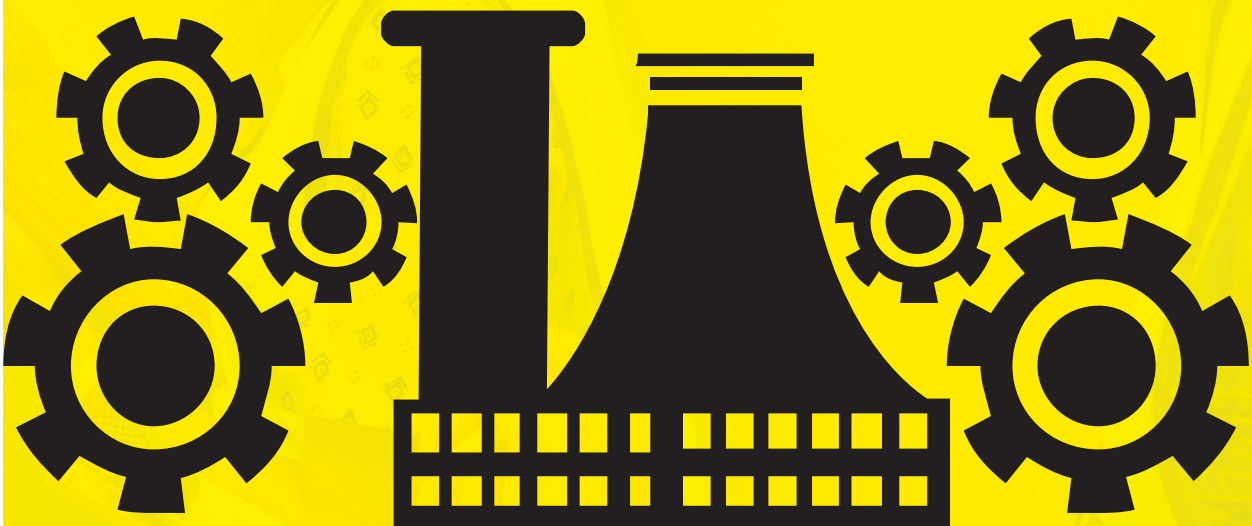
MECC is renowned for its exceptional construction and maintenance services. Needless to say, regardless of size, all our clients need to maintain a sharp public image. With more than four decades of experience under our belt we provide a wide array of construction and maintenance services so our client's business functions as intended. Our maintenance services workforce is adept in after-hour repairs for our clients so that their business runs seamlessly. We help supervise their maintenance issues before they turn into emergency repair solutions.

Ours is not the usual run-of-the-mill workforce. Not only are all of our service technicians trained with years of experience, they also have the necessary skills and expertise to provide our clients with the technical service necessary to keep their equipment/machinery running. Our clients are sure to benefit from our dedication to construction and maintenance services backed by more than forty years of experience.

The construction and maintenance services include generalized to specialized areas provided by our Civil, Mechanical and Telecommunication Towers departments. As a special note and certainly something we are proud to mention is our expertise in plant maintenance services; particularly services pertaining to huge power plants.

It is to be noted that MECC covers a wider field than this, including areas beyond building design and construction, such as; large-scale power generation and transmission, transportation systems, infrastructure controls, industrial installations and more. The wide varieties of activities performed for projects in these sectors by our Civil, Mechanical and Telecommunication Towers departments can be seen in our comprehensive list of works.

To sum up we provide construction and maintenance services for a wide range of industries as mentioned before. In no particular order of importance the services that we provide through our three departments are as follows:



CIVIL

Mechanical Erection Construction Company has crafted highly qualified individuals with large collective skills capacity to properly oversee civil- and multi-disciplinary project as well as general building, housing and commercial development projects. This enables us to follow a strong integrated approach in order to ensure quality outcome. Furthermore, through the grapes of our integrated primary team we work in association with architect quality surveyors, civil and structural engineers, project managers and other specialists.

MECC has an extensive history of quality work in general contracting, construction management and community leadership. We pride ourselves on the knowledge, skill and expertise of our employees who work together as team delivering successful project. Valuing the importance of relationship, we have a collaborative approach that is flexible and can respond quickly to the needs of our client.

Our aim is to be our clients' first choice for construction related services. Customers and partners see us as integral to their success. We will anticipate their needs, and deliver on every commitment we make. Our people our track record for delivery presents a very strong case for choosing MECC as the preferred construction partner.

When you partner with MECC for efficient design/build services you benefit from a single point of contract for all aspects the project resulting in a streamlined, straightforward process.

We work closely with you to determine the specific needs for your commercial project, then provide a cost estimate before you've spent single dime we manage the architect, engineers, and subcontractor, many of them longtime partners, which help keep the project on time and on budget.

The first and foremost step towards delivering the best is to understand the needs of customer more precisely, the specific human needs involved. Once this understanding is gained, it is an automatic process for MECC to put to work the most effective combination of its resources. Technical and managerial concept and practices are so aligned with the requirement of the project that the end result is invariable a perfect execution.

We offer full site development preparation for commercial projects. Starting with our client's consultation, we answer questions, review proper permitting and regulations, and learn about their expectations. Their ideas are then translated to solid design plans for a successful project. With highly skilled personnel and an abundance of equipment resources, we are able to deliver unmatched quality of work to our clients through virtually every phase of a complex heavy civil construction project. Our completed projects will show premier contracting services offered for deep digs, earthwork, wet utility construction, environmental and specialty services as well as site work demolition amongst many more.

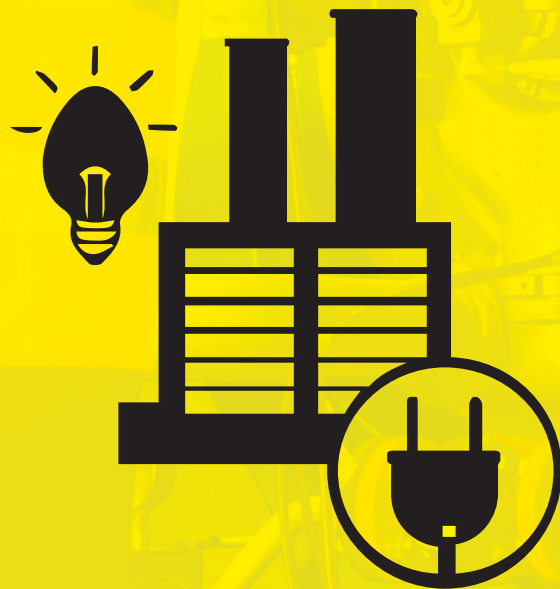
Regarding commercial entities, our teams are highly experienced in laying underground utilities, pipe work, drains, sewers, and can prep for hard surfacing, parking lots, prep for landscape areas, and provide total site development. We offer full site development preparation for commercial projects including demolition, grading and leveling, excavation, paving, footing excavation, and slab preparation, confidently laying the proper infrastructure for the project to succeed.

We translate your ideas to solid design plans for a successful residential project. . Our clients can make MECC a top choice for their projects utilizing our expertise. The process involves trenching, heavy-duty labor, conduit install, proofing, superior knowledge, teamwork, and high attention to quality, efficiency, and safety.

We are qualified to meet the electrical needs of commercial and *industrial companies providing electrical solutions in a safe, professional and timely manner.*

The services our civil department may provide can include any, several or all of the following works for a given project:

| Demolition | Grading and leveling | Excavation
| Paving | Footing excavation | Slab preparation
| Pipe work | Drains | Sewers | Prep for hard surfacing | Parking lots | Prep for landscape areas
| Curbs | Gutters | Striping| Trenching | Machine work | Sand filter installation | Pump installation | Water filtration systems | Conduit install | Proofing
| Ducts Laying | Jointing Chambers | Excavation
| Underground utilities | painting and laying of marble floors and walls | Granite/Marble fixing on façades, walls and floors | Fixing of joinery works like doors windows | Parquet Flooring | Painting | Tiling | Dry Partitions and False Ceiling |



MECHANICAL

MECC provides mechanical construction services for grass-root projects as well as for expansion/revamping of existing facilities comprising of erection of equipment including rigging, piping, pipe racks, steel structures, tanks, painting, insulation, testing and commissioning.

We have put together a team of mechanical construction professionals with extensive mechanical contracting management experience, including project managers, estimators, foremen, and superintendents who ensure the success of any construction project. We offer a total solution of programs from full-service, parts, labor, preventative maintenance and emergency labor to thorough preventative labor.

Our highly qualified project managers guide our clients through the entire process, from defining scope of work to project completion. Plant repairs and maintenance services mainly include works undertaken for maintaining proper condition of plant.

Our clients are sure to get the same state-of-the-art technology that has made us one of region's leading mechanical services contractors with a strong reputation for quality workmanship and meticulous attention to detail. We provide continued support with preventive maintenance agreements.

Our clients can benefit financially and strategically by making preventive maintenance service agreements on Mechanical equipment. Tangible and intangible benefits can be achieved through reduction of equipment failures, less equipment downtime, more efficient equipment operation, energy savings, prolonged equipment life, better

environment and safer working conditions. Strategically speaking this will improve their product quality especially for manufacturing sectors of all kinds, extend the life of their assets and they will be in a position to smartly forecast and budget-plan for future equipment outlays.

All in all we specialize in commercial and industrial contracting across a broad range of applications including power plants, oil and gas pipelines, telecom towers, infrastructure, government buildings, hospitals and healthcare facilities, commercial and industrial buildings, institutional facilities, pharmaceutical cleanrooms and more. The services our mechanical department may provide can include any, several or all of the following works for a given project:

Fabrication / Prefabrication | Industrial & Process Piping | Sheet Metal | Ceiling repair and replacement | Grout repairs and replacement | Complete re-paint | Paint | Graffiti control | Concrete replacement and grinding | Concrete stair replacement | Interior and exterior door repair and adjustments | Structural repairs | Fence repairs and installation | Pipelines | Boilers | Insulation | Cladding | Welding | Vessels | Ducts | Galvanizing | Add pipelines, boilers, insulation, cladding, welding, vessels, ducts, galvanizing etc



OUTAGES / TURNAROUNDS / SHUTDOWNS

We have repeatedly demonstrated our ability to mobilize expeditiously for the most demanding turnaround and shutdown projects. A large resource base of manpower and equipment allow us to execute challenging projects in a live plant environment.

COMMISSIONING

MECC has an extensive experience of bringing items into operations and ensuring that everything is in good working order.

MECC routinely assists its clients with commissioning and start-up activities. Typical services include generation of check-lists, development and compilation of pre-commissioning procedures and test-runs prior to start-up.

A commissioning team is appointed to offer suggestions during design, construction, planning and installation through to the management of commissioning, testing and handover. One or more activities are carried out by our crew depending on the nature and scope of the project.



This may include:

- Ensuring client access and providing the client training and demonstrations
- Completing operating and maintenance manuals, record drawings, software and test certification
- Obtaining statutory approvals and insurance approvals
- Performing manufacturers work testing
- Set to work; which basically means looking at whole systems rather than individual components to ensure they are properly balanced
- Commissioning checks and performance testing
- Post commissioning checks and fine tuning during occupancy

A commissioning plan is also prepared that may include:

- Gathering general information about the project
- Identifying the commissioning team members for each stage of the commissioning process
- Defining roles and responsibilities for each commissioning team member
- Identifying the systems to be commissioned
- Creating a schedule of commissioning activities for each stage of the process
- Establishing documentation requirements associated with the commissioning process

Other contract documents are also prepared which may specify:

- Who will be responsible for commission different building services
- What methods, standards, and codes of practice are to be used
- What should happen to test results
- Whether commissioning is to be witnessed and if so, by whom
- The documentation that is required

PLANT MAINTENANCE

MECC has been doing plant maintenance services continuously for more than two decades now and our crew is well aware of every minute detail involved. Plant maintenance services demand planned and scheduled work. The terms plant turnaround/shutdown/outage translate to a lengthy stoppage of the whole operation to do maintenance. While the terms maintenance turnaround/shutdown/outage translate to a lengthy stoppage to do maintenance on a major equipment in the plant.

Turnarounds/shutdowns/outages are known to be performed as periodic events and MECC's designated management team plans way ahead of time during which one or more processing/production units are removed from service temporarily. A turnaround can be an overwhelming undertaking if managed as a single, stand-alone

event. However, we break it down into various phases with detailed, formal processes in each phase, so that our crew can manage it successfully each and every time. We have successfully handled challenging situations of forced maintenance outages a number of times. This proves our ability to mobilize expeditiously for any demanding turnaround projects.

A large resource base of manpower and equipment allow us to execute challenges in a live plant environment. We believe that the measurement of the shutdown is gauged against the achievement of the goals. Therefore we aim for zero harm, on budget on time, handovers to schedule, proportion of planned work versus unplanned, equipment commissioned to procedure, speed that the plant returns to full rate in-spec production and other useful key performance indicators.



Amongst the different kinds of plants we have provided services for (and are still engaged with many) are gas processing plants, power plants, fertilizer plants, refineries, chemical/petrochemical and complexes etc.

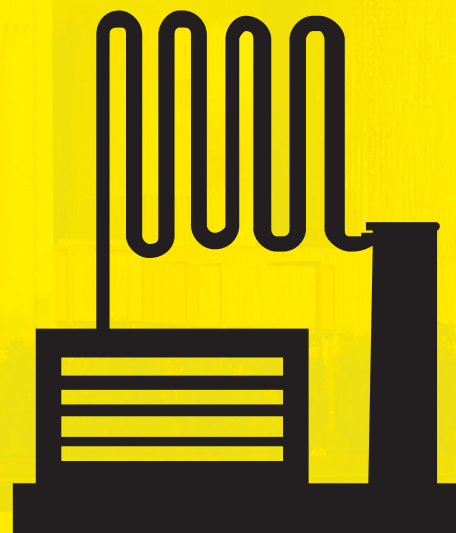
We have performed comprehensive service work on boilers utilizing the crafts of fabrication,, millwrights, pipe fitters, code welder and insulators. Boiler services are our forte and we have been providing services for a well-known power station company HUBCO in Pakistan continuously for almost more than two decades now.

The maintenance includes:

Waterwall and buckstay replacement | Ductwork repairs and replacement | Bottom ash hopper repairs and replacement | Installation of LoNOx systems | Fuel pipe replacement | Tube repairs and replacement | Burner repairs | BWCP inspection and repairs | Fan inspection and repairs | Motor

alignment | Replacement and regrouting of sole plates | Diaphragm replacement | Seal repair and replacement | Basket removal, cleaning and replacement | Rotor repairs | Structural repairs |

Tubing replacement | Insulation repairs and replacement | Structural repairs | Internals repairs and replacement | Collector plate replacement and alignment | Plate and tube sheet repairs | Piping installations | Tubing replacement | Insulation and metal lagging repairs | Support for NDE of welds | Adjustment of support hangers and replacement of support hangers | Replacement of piping | Supervision and labor support for overhauls | Conveyor repairs | Piping repairs and replacement | Storage bin and hopper repairs and installation | Outage planning and support | Staff augmentation for routine maintenance | Plant maintenance and support | Development of third party "R" stamp



RIGGING

With a large base of skilled employees in this area of service, rigging is an area we are very proficient in. Our team of riggers expertly lift, move and transport, position, pull and secure heavy equipment, machines and oversized loads. They can handle manufacturing machines in factories. Routinely used in service are cranes, overhead lifting gear, pulleys, load moving dollies, hydraulic jacks, and flatbed trucks.

The riggers at our company have gained substantial experience through working in large-scale domains such as industrial and commercial industries like oil, gas, mining, ship building, construction, manufacturing, power and telecommunication, hospitals, etc.

We use thorough procedures when it comes to calculating, staging, lifting and initial movement of the load. Our well-tuned riggers use cranes to make rigging loads more efficient and in many cases safer as well. This is the culmination of team work, years of dedication, practice and safety passed on from the past generation of riggers to the current. Our trained riggers expertly use long and short boom cranes, monorails and chain blocks. All the jobs are done in compliance with the stringent HSE (Health and Safety Executive) standards.



SCAFFOLDING

Individual components, for example tubes, couplers or frames and materials that when assembled form a scaffold. MECC's scaffolding work is undertaken by accomplished and specialized team of scaffolding crew with years of training and work experience who hold the appropriate class of high-risk work license.

Temporary safe working platforms are provided for erection, maintenance, construction, repair, access and inspection. Thus the crew carries out the erecting, dismantling, altering, inspecting and supervising scaffolding operations laboriously to ensure that the workers have a safe, stable work platform when work cannot be done at ground level or on a finished floor.

Techniques involve tying the scaffolding to a building thereby using the permanent structure of the building to provide stability. Another way we employ is of bracing it laterally using façade and ledger bracing. We ascertain the relevant information to ensure an accurate and proper design process is followed. This may include:

- Site location
- Period of time the scaffold is required to be in place
- Intended use
- Height and length and any critical dimensions that may affect the scaffold
- Number of boarded lifts
- Maximum working loads to be imposed and maximum number using the scaffold at any time
- Type of access to the scaffold e.g., staircase, ladder bay, external ladders
- Whether there is a requirement for sheeting, netting or brickguards

- Any specific requirements or provisions e.g., pedestrian walkway, restrictions on the locations, inclusion/provision for mechanical handling plant e.g., hoist

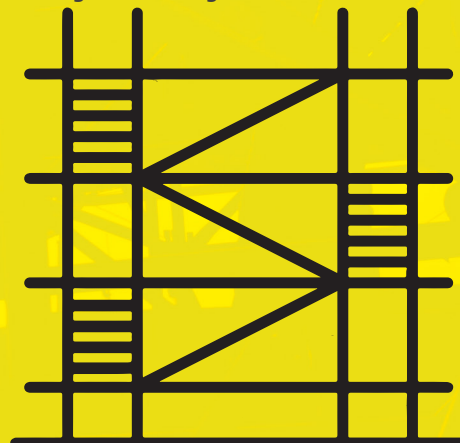
- Nature of the ground conditions or support structure

- Information on the structure/building the scaffold will be erected against together with any relevant information and drawings

- Any restrictions that may affect the erection, alteration or dismantling process

We collect the following information prior to installation:

- Type of scaffold required (tube and fitting system or system)
- Maximum bay lengths
- Maximum lift heights
- Platform boarding arrangement (i.e., 5 +2) and the number of boarded lifts that can be used at any one time
- Safe working load/load class
- Maximum leg loads
- Maximum tie spacing both horizontal and vertical and tie duty
- Details of additional elements such as beamed bridges, fans, loading bays etc., which may be a standard configuration or specifically designed
- Information can be included in relevant drawings if appropriate
- Any other information relevant to the design, installation or use of the scaffold
- Reference number, date, etc. to enable recording, referencing and checking



STACK REHABILITATION

MECC comprises of engineers and craftsmen who have been called upon to build some of the country's largest and most complex stack structures. They have the working knowledge of integrating sophisticated design technology with modern fabrication and erection techniques to deliver the optimum levels of quality. The qualified engineers of our company facilitate the construction crew comprised of skilled workers/craftsmen through the challenging aspects of the entire project. They regulate the enforcement of the comprehensive quality control and safety program we have in place for stack rehabilitation. Stacks are wind sensitive structures. They are designed and maintained to survive a complex array of challenging conditions in order to operate every day without failure. Therefore the reconstruction, rehabilitation and refurbishment of stacks involve a number of mechanical, fabrication, welding, insulation and cladding jobs working at different altitudes. It is the rehabilitation of stacks we are mainly concerned with; but given the nature and scope of the project at times we re-evaluate the standing structure for exposure to severe static and dynamic winds, seismic events, sound attenuation, thermal stress and chemical corrosion.

The activities are high risk and involve working at heights. Steeplejack is the trade used to provide services on Stack/Chimney jobs. MECC has gained an industry-wide reputation of providing reliable stack rehabilitation services and have completed a long list of jobs on 200 meter stacks at different elevations.

We have also worked with the highly esteemed international firm Baily Steeplejack from the UK and have earned credentials and extensive trainings covering the following jobs:

- Internal inspection (wire rope)
- External inspection (wire rope)
- Gas tightening of shell with plates, fabrication and seal welds on hanging platform
- Fabrication, rigging, welding, insulation and cladding jobs on hanging platform
- HP (High Pressure) Jet wash
- Welding of shell
- Karcher wash
- Modifications as per specifications
- Manholes fabrication
- NDT (Non-destructive testing)



TELECOM TOWERS

MECC provides a wide range of services regarding towers for cellular communications, radio and TV stations and microwave links. A pioneer company in the field of telecom towers we have a huge portfolio and expertise in the field of complete tower jobs such as design, fabrication, galvanizing, painting, installations and commissioning. Our teams specialize in telecommunications installation with self-supporting and guyed towers that offer a universal free-standing solution. The towers we erect meet the most stringent global building and safety standards and include standard microwave antennas, wireless internet, cellular radio antenna platforms, mobile or LPTV antenna, PCS/GSM radio towers and more.

We cater to standard erected designs or customized designs to meet their precise telecom implementation needs. Our clients are sure to find exceptional durability due to a higher-grade galvanized coating that prevents corrosion and ensures longevity. The demanding weather conditions in the remote areas of our country require rugged, durable and reliable installations. Our teams have worked for long periods during different intervals of the past decade against challenging terrains and inhospitable weather. Our development of safe and professional tower crews has gained us an industry-wide reputation. Only when our tower crew is prepared with the proper equipment, materials, safety training and insurance, we deploy them. The operating principles by which we have achieved our reputation is worth seeing and can be observed by the number of projects we have done in this sector and each project executed with satisfaction guaranteed attitude in mind.

Since tower erections are a serious matter we take the safety of our crew and all our site personnel, safety of all the client's assets, reliability of installations and personnel, knowledge of proper installation methods and meeting deadlines, very seriously. Every task is carried out professionally with open communication and follow through. As mentioned before, our professionals have installed telecom towers all over the country. We have a huge portfolio and expertise in the field of successfully completed tower jobs that include design, fabrication, galvanizing, painting, installations and commissioning.

We have been privileged to install the highest and heaviest structure in Pakistan which stands at an impressive height of 850 feet in Lawrencepur, Punjab. Apart from this feat, MECC installed telecom towers dot all over the country. Some of them have been installed in such remote areas as Khuzdar, Uthal, Lasbela, Gharo, Dera Bugti, Loralai, Muzzafarabad, Dheer Kot, Rawlakot, Naudero, Lakhi, Hala, Jahanian to not-so-remote areas of urban Azad Kashmir, Balochistan and remote areas of Punjab.



CORROSION PREVENTION

Having worked across the length and breadth of the energy, power, oil and gas and telecom sectors, our engineers and technicians are well-aware of the corrosion failures. To prevent the deterioration and loss of materials and their critical properties due to chemical, electrochemical and other reactions, we manage a team of qualified, certified and expert engineers and workers/craftsmen. Our operating procedures follow the standards NACE (National Association of Corrosion Engineers), SSPC (The Society for Protective Coatings), and ISO (International Organization for Standardization). The corrosion inspectors at our company are NACE certified with Level 1 and Level 2 certifications.

We have prepared surfaces ranging from steel, concrete, wood, plastic and aluminum. Done mechanically or chemically, the processes employed are grits, shots, or abrasive blasting. It is widely known that abrasive blasting cleaning is the most thorough and widely used method of surface preparation in the shipbuilding and repair industry. This is by far the most effective method for removal of mill scale, rust and old coatings using abrasives such as sand, grit, or shots under high pressure.

Our certified inspectors carefully inspect surfaces for any pre-existing coatings, surface imperfections, residue, organic matter, oxidation and other contaminants. Being experts in corrosion prevention, our teams make use of white blasting where an optimal protective coating performance is required due to severe conditions like continuous immersion in water or liquid chemicals. Near white metal blasting is used for cleaning metal surfaces with abrasives to prepare the surface for corrosion proofing by the

application of paintings and coatings.

Next step is the coating application to the surface that has been prepared. The method of application is governed by the coating manufacturer's recommendation for the particular coating being applied and our coating team is well-versed with the exact steps to follow. Our team strives to achieve a steady brush operation so that a smooth coat, as uniform in thickness as possible is obtained. Skips, runs, sags, and drips are avoided. Maximum attention is paid that each coat remains free of pinholes, blisters and holidays as well as contamination of painted surfaces between coats are avoided. Airless spraying is known to be the quickest and most effective method used for coating application in the industry and we have provisions for a wide variety of spray painting solutions.

HDG (Hot Dip Galvanizing) requires degreasing/ caustic cleaning, pickling and fluxing as the initial surface preparation step. It is a critical step in the application of any coating otherwise the coating may fail before the end of its expected service life because of incorrect or inadequate surface preparation. We are proud to mention that MECC owns one of the biggest HDG (hot dip galvanizing) plant in the country with zinc baths of up to 30 feet. British standards to hot-dip galvanize mild steel with dry film thicknesses of 90-120 microns are adhered to.

During the actual galvanizing step of the process, the material is completely immersed in a bath of molten zinc. Once the fabricated item's coating growth is complete, it is withdrawn slowly from the galvanizing bath and the excess zinc is removed by draining, vibrating or centrifuging. And finally the inspection phase is reached where the coating

thickness and appearance/surface conditions are inspected to determine through simple physical tests the thickness, uniformity, adherence and appearance of the material.

MECC has been galvanizing various products/materials for many years according to long established, accepted and approved standards of the governing standardization bodies in this particular sector.

STAFF TRAINING

We support our staff with a number of different trainings:

Safety Passport Training

Fire Fighting Training

First Aid Training

Basic Rigging

Safe Driving

Electrical Safety

Hot Work Safety

General Safety

House Keeping

Working on Heights

Risk Assessments

Excavation and Trenching

Take -5

Lookout Man

Safety Inductions

MANPOWER

We as employers have always recognized and addressed the challenges when hiring and onboarding workers. Time and resources have been invested to develop a permanent skilled, experienced and qualified workforce. This meant organizing activities aimed at imparting information and instructions to improve the worker's performance to help him/her attain the required level of knowledge or skill needed by our company.

This commitment has manifested itself as periodic Training/Certification/Accreditation programs for our workers. The gains have provided a structured foundation for our young men and women into our tried and tested procedures that has enabled us to achieve and maintain our high quality standards. Some of our today's managers started their careers as apprentices and now form the bedrock of our competent workforce.

Our formidable management team consists of experienced managers in all disciplines. Most of them have Trainings & Certifications and hold the latest Health & Safety certifications relative to their positions. We encourage them as time permits to acquire memberships of professional bodies and foster an environment so they remain committed to continuous professional development.



CLIENT'S TESTIMONY



MECC has done again a very good job for the Extraction Pipe Work, the Gland Box Cone Modification and the LP Hood Spray System. In tough situation we made it. And even more important, nobody got hurt !

A pleasure to work with and thanks a lot for all MECC has put into the jobs to get it done!!

– Frank Maschong
General Electric GE

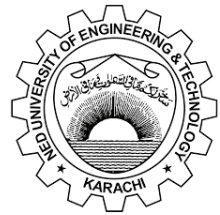


It really is great to see good safe work in progress and cleaing trouble some slag deposits from the furnace is necessary to the efficient operation of the station. The really good thing though is the care and the way this job has been done.

MECC together with their technical officers have certainly excelled themselves and when I did a surprise visit during furnace washing, I found the job being carried out with care and not a drop of spillage to be seen. So thanks MECC and well done!!!

– Tom Cracknell
International Power Hub

OUR CLIENTS



WAPDA



GET IN TOUCH



ADDRESS

2 Mezzanine, Plot No 34-C, Bukhari
Commercial lane 5, Phase 6 DHA,
Karachi, Pakistan



PHONE

+92 21 3524 1361
+92 21 3524 1362



EMAIL

info@mecc.pk
www.mecc.pk

EXPRENCE AND PERFECTION



MECHANICAL ERECTION AND
CONSTRUCTION COMPANY