

Abdul Samad Khan

MECHANICAL ENGINEER (QA/QC)

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Saudi Council of Engineering: Membership # 1120877

Career Synopsis

Mechanical Engineer (QC) with six years of expertise in quality control, HVAC, firefighting, piping supports, fluid losses in pipes, bends, and fittings, as well as pre-commissioning training, inspection, team coordination, testing, and documentation for mechanical systems in large-scale projects. I ensure that products meet quality standards and comply with industry regulations. I am highly proficient in developing and implementing QA/QC procedures, with strong problem-solving abilities and a deep commitment to continuous improvement. My expertise ensures compliance with national and international standards. Additionally, I excel at identifying non-conformities, resolving quality issues, and facilitating successful project handovers.

Experience

- 1. Saudi Pakistani Advanced Construction Company (SPACCO) Feb 2025 - Present**
 - **Position:** Mechanical Engineer
 - **Project:** Riyadh Metro Substations 3N1, 3N2, 3N3, 3N4, 3N5.
 - **Consultant:** Riyadh Metro Transit Consultants (RMTTC)
 - **Client:** Royal Commission for Riyadh City.
- 2. Advanced Construction Solutions Company. July 2022 - Jan 2025**
 - **Position:** Mechanical QC Engineer
 - **Project:** VIA, Al Hada, Riyadh
 - **Consultant:** Sela, Riyadh
 - **Client:** Dar Al Omran
- 3. Arail Construction & Industrial Co. Ltd. Jan 2021-Jun 2022**
 - **Position:** Mechanical QC Engineer
 - **Project:** Riyadh Metro, Station 3J1, 2B2, Riyadh
 - **Consultant:** Riyadh Metro Transit Consultants (RMTTC)
 - **Client:** Royal Commission for Riyadh City
- 4. Al-Arab Contracting Company. Aug 2019-Nov 2020**
 - **Position:** Mechanical Site Engineer & QC Inspector
 - **Project:** King Abdullah Project 4, KAP-4/118, Riyadh
 - **Consultant:** PROGER Engineering & Management

Key deliverables

- Conduct inspections at different production stages (incoming, in-process, and final)
- Performed standard operating procedures (SOPs) & quality standards.
- Performed non-conformance reports (NCRs) & corrective actions (CAs)
- Monitor process control & continuous improvement plans
- Issue quality certificates if required by customers or regulations.
- Promote a culture of quality awareness within the organization.

- Ensuring safety protocols and quality control measures are in place.
- Installation and commissioning of mechanical systems.
- Coordinating with contractors, architects, and other stakeholders.
- Managing and supervising mechanical engineering teams.
- Ensuring compliance with design specifications and regulations.
- Conducting site inspections and monitoring progress.

Role & Responsibilities

Project Quality Plan and Formulation. Assisted in developing a Project Quality Plan (PQP) tailored to the specifications and requirements of the project. Developed ITPs, Firefighting, and HVAC equipment's based on project specifications, method statements, and local codes.

Quality Inspections and Testing. I have supervised and conducted QC inspections and tests of piping (PVC, PPR, HDPE, UPVC, GI, and MS), Firefighting equipment, HVAC equipment's and ducts, Piping and plumbing equipment, and other mechanical systems.

Quality Audits and Reporting. Carried out internal audits and reviews to assess the effectiveness of quality control processes and identify areas for improvement. Prepared and communicated quality reports, including inspection findings, test results, compliance status, and quality performance indicators to project stakeholders and management.

Continuous Monitoring and Improvement. Continuously monitored and evaluated quality performance metrics to identify opportunities for improvement, and took initiatives to enhance quality control processes, increase efficiency, and reduce costs. Monitored project activities to ensure compliance with project plans, specifications, regulatory requirements, and industry standards.

Documentation Management. Maintained accurate and detailed records of inspections, tests, and quality control activities. Also, documented non-conformities, deviations, and corrective actions taken to address quality issues.

Supplier and Contractor Management. Evaluated the quality performance of suppliers/subcontractors to ensure the quality of purchased materials and subcontracted work complied with project specifications.

Quality Training and Awareness. Provided training and guidance to construction teams on quality standards, procedures, and best practices, and promoted a culture of quality awareness and accountability among project stakeholders.

Safety Integration. Collaborated with safety professionals to integrate quality control measures with safety protocols and procedures to ensure construction activities complied with health, safety, and environmental regulations.

Site Engineer (Mechanical)

Site Supervision. Ensure all work complies with technical drawings, engineering specifications, and project timelines.

Project Execution. Oversee the installation, fabrication, and assembly of mechanical systems, including piping, HVAC, fire protection, and structural equipment

Coordination & Communication. Collaborate with civil, electrical, and other engineering teams to ensure smooth integration of mechanical systems. Communicating with subcontractors, vendors, and site workers, ensuring efficiency and adherence to safety protocols.

Quality Assurance & Compliance. Ensure proper material selection and quality checks before installation. Conduct site tests, inspections, and commissioning activities to verify system functionality. Maintain documentation for QA/QC, safety compliance, and as-built drawings.

Problem-Solving & Technical Support. Identify and resolve mechanical issues related to fabrication, installation, and equipment functionality. Recommend improvements in design, materials, or work methods to enhance efficiency and durability.

Health, Safety & Environment (HSE) Compliance. Implement and enforce site safety protocols to minimize risks and ensure worker safety. Conduct toolbox talks and safety briefings for site teams.

Education

MS Mechanical Engineering (3.37/4.0) **2019**
Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Swabi, Peshawar.

BE Mechanical Engineering (3.5/4.0) **2016**
Sarhad University of Science and Information Technology, Peshawar, Pakistan.

Research & Project

- i. An Experimental Study on Interfacial Fracture Toughness of 3D Printed ABS/CF-PLA Hybrid Composite. (*Publication in Journal of Thermoplastics Composite I. F= 1.3*)
<https://doi.org/10.1177/0892705719874860>
- ii. Desalination of Water through Stepped Solar Stills. (Project)
- iii. Design of Selective Laser Sintering (SLS). (Project)
- iv. Human Powered Water Purification Through Reverse Osmosis (RO) System.

Certifications & Professional Membership

- Total Quality Management (TQM)
- ISO 9001:2015 Quality Management System (QMS)
- ISO 14001:2015 Environment Management System (EMS)
- OSHAS, 30 hours General Industry Standards
- ISO 45001:2018 Occupational Health and Safety Management System (OHSMS),
- Environmental Engineering Safety, Fire Safety, First Aid

Professional Membership

- Saudi Council of Engineers (SCE), Mechanical Engineer, Membership ID: 1120877
- Pakistan Engineering Council (PEC), Membership ID: MECH/33908

Soft Skills

Strong Communication

Leadership & Team work

Problem Solving

Adaptability and Flexibility

Negotiation and Conflict Resolution

Multi-tasking

Creativity and Innovation

Time Management

Skills & Abilities

Skills

Competent in Mechanical System

Cooling System Maintenance

Destructive and Non-Destructive Testing

Hydrostatic and Pneumatic Testing

Knowledge of SAP

Competent in AutoCAD and SOLIDWORKS

Competent in HVAC, Plumbing & Firefighting

CNC Programming

Competent in MATLAB

CNC Programming

Microsoft Office (word, excel, power point)

Abilities

Interpersonal Skills

Presentation and Communication Skills

Liaising with clients and contractor

Quick Learner

Team Supervision

Data Analysis

Decision Making

Risk Analysis and Mitigation

Team Coordination

Risk Analysis and Mitigation

Vendor Management

Additional Information

IQAMA: Transferable, immediately available.