Mechanical Engineer (HVAC, Fire Fighting, Plumbing) **Construction Engineering**

PERSONAL DATA



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OBJECTIVE

A dedicated and results-driven Mechanical Engineer with 10 years of experience, specializing in HVAC, Fire Fighting, and Plumbing systems. Seeking a challenging role in Construction Engineering to leverage my expertise in system design, installation, project management, and adherence to international standards.

Proven ability to collaborate effectively with contractors, consultants, and cross-disciplinary teams to deliver efficient and innovative mechanical systems. Committed to optimizing performance, ensuring quality, and driving efficiency across all project phases.

Educational

Sept 2009 - July 2014

Bachelor Degree in Mechanical Engineering.

- Faculty of engineering, Alexandria University.
- Grade: Good

Skills

- HVAC System Installation (Ducting, Air Handling Units, Chillers)
- Fire Fighting Systems (Sprinklers, Standpipes, Fire Pumps)
- Plumbing Systems (Water Supply, Drainage, Sanitary Systems)
- Site Supervision & Project Execution
- **Project Management & Team Coordination**
- Testing, Commissioning, and Troubleshooting
- Load Calculations & Pressure Drop Calculations
- Knowledge of Local and International Codes (ASHRAE, NFPA, IPC)

- Carrier HAP
- Ductsizer
- Elite Fire
- WaterCAD
- **AutoCAD**
- Revit
- Primavera P6
- **MS Office Programs**
- **MS Project**
- Office Timeline Microsoft Visio Drawings

Summary of Skills

Technical Expertise

- HVAC System Installation: Proficient in installing and overseeing ducting, air handling units, and chillers using industry tools like Carrier HAP and Ductsizer.
- Fire Fighting Systems: Skilled in the implementation of sprinklers, standpipes, and fire pumps, with experience using software like Elite Fire.
- Plumbing Systems: Expertise in the design and installation of water supply, drainage, and sanitary systems, leveraging tools like WaterCAD.

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Construction Engineering

- Engineering Calculations: Advanced proficiency in load calculations, pressure drop calculations, and system optimization.
- **Testing, Commissioning, and Troubleshooting**: Hands-on experience in evaluating and resolving performance issues across mechanical systems.

Software Proficiency

- Drafting and modeling with AutoCAD and Revit .
- Engineering analysis tools: Carrier HAP, Ductsizer, Elite Fire, and WaterCAD.
- Project management tools: Primavera P6, MS Project, MS Office Programs, Office Timeline, and Microsoft Visio.
- Enterprise systems: Familiarity with Oracle and SAP for resource and project management.

Project Management & Execution

- Proven expertise in site supervision, project execution, and coordinating multi-disciplinary teams.
- Strong project scheduling and resource allocation skills, ensuring on-time and within-budget delivery.

Standards and Codes

• In-depth knowledge of local and international codes, including ASHRAE, NFPA, and IPC.

Professional Experience

Mechanical Engineer – Construction – (HVAC, Fire Fighting, Plumbing), EL-Mashreq Development.



Feh-21 to Present

- Supervised the installation of HVAC, Fire Fighting, and Plumbing systems on-site, ensuring compliance with design specifications, safety regulations (ASHRAE, NFPA, IPC), and project timelines.
- Conducted on-site inspections to ensure proper installation of mechanical systems, including ductwork, piping, and fire protection equipment.
- Coordinated with project managers, architects, and subcontractors to resolve technical issues and optimize system performance.
- Prepared and reviewed shop drawings, technical submittals, and material approvals, ensuring alignment with the project's scope.
- Managed testing and commissioning of HVAC, Fire Fighting, and plumbing systems, troubleshooting issues and ensuring functionality before handover.
- Monitored the installation and construction of infrastructure networks, including water supply, drainage, fire-fighting systems, and electrical distribution.
- Ensured on-site activities adhered to design specifications, project plans, and quality standards.
- Coordinated with contractors, subcontractors, and suppliers to ensure the smooth execution of infrastructure works.
- Managed material procurement and inventory to ensure project progress.
- Reviewed engineering drawings, blueprints, and specifications to identify discrepancies and solutions.
- Supervised hydraulic and pressure testing for water and drainage systems to ensure operational integrity.

Mechanical Engineer (HVAC, Fire Fighting, Plumbing)

Construction Engineering

Mechanical Site Engineer, MEGA for Construction & Industries



Oct-18 to Jan-21

- Oversaw mechanical construction activities for HVAC, plumbing, and Fire Fighting systems, ensuring compliance with design, safety, and quality standards.
- Liaised with procurement teams to ensure timely delivery of materials and equipment for the project.
- Led daily site coordination meetings, reporting progress to senior management and addressing any construction challenges.
- Ensured all mechanical installations met local codes and regulations and handled any necessary on-site modifications.
- Managed contractor teams for mechanical installations, conducting regular safety audits and inspections.
- Revise piping drawing (isometric and P&ID) to check compliance with client specifications and codes.
- Piping and its supports material take-off, inspection, quantity surveying and requesting.
- Shortage material status with main contractor and suppliers.
- Making AS-BUILT drawing according to site mandatory conditions.
- Preparing pressure test packages documentations.
- Supervise the construction and erection of piping works.
- Piping insulation material surveying, requesting and installation.
- Inspection and witnessing piping installations to verify completion to piping isometric drawings and P&IDs.
- Supervise hydro test and chemical cleaning activities.
- Supervising post hydro-testing activities and reinstatement works.
- Performs a walkthrough on the different systems through P&IDs then clearing the system punch items.
- Supervise the piping alignment on pumps.
- Supervise the construction and erection of temporary piping, valves and supports required for hydro test and steam blow works.

Commissioning Engineer, SAPESCO - Sahara Petroleum Services



Aug-2017 to Sept-18

- Check piping drawing (isometric and P&ID) revision to check compliance with client specifications and codes to the constructed piping.
- Preparing pressure test packages documentations.
- Piping insulation material surveying, requesting and installation.
- Supervise the construction and erection of temporary piping, valves and supports required for hydro test and steam blow works.
- Making AS-BUILT drawing according to site mandatory conditions.
- Supervise hydro test and steam blow activities till successful completion.
- Supervising post hydro-testing and steam blow activities and reinstatement works.
- Perform a walkthrough on the different systems through P&IDs then clearing the system punch items.

Mechanical Engineer (HVAC, Fire Fighting, Plumbing) Construction Engineering

Mechanical Engineer, Dar For Engineering Company (DFE)

Feb -2016 to Jul-17

- Supervision and responsibility of MEP construction works.
- Review and Prepare Shop drawings, Technical Submittals, Material Q.S and purchasing orders.
- Monitor and control project resources and progress of works.
- Follow up with supplier for materials delivery based on projects time schedules.
- Prepare Invoices and review subcontractor invoices.
- Prepare and update time schedule and resources plan for execution of works.

Construction Engineer, SPIG S.P.A.



Sept -2014 to Jan -16

- Revise received drawing and prepare material requests.
- Inspection of material received quantities and qualities.
- Supervision of ACC steel structure assembly and erection works.
- Supervision duct construction and erection activities.
- Control received material in material yard.
- General Control of Construction activities (Mechanical).
- Prepare Lifting plans for the parts with heavy weights and critical Positions.
- Performing Visual Inspection for the erected parts to check compliance with valid drawing.

Projects

- Aswan Dialysis Center
- Laparoscopic surgery building at Ain Shams University Hospitals
- Al Galaa Military Medical Complex
- Military Hospital In Aswan.
- Port Said Eye Hospital, Port Said.
- Elburullus Combined Cycle Power Plant 4800MW
- 6th October Power Plant
- ASSIUT SUPERCRITICAL POWER PLANT 1×650 MW
- Beni Suef combined cycle power plant 4800 M

- South Valley National University.
- Faculty of Pharmacy and Science, New Mansoura University
- Faculty of Engineering AL- Ahram Canadian University, 6th October City).
- Banque Misr The Main branch.
- Capital Business Park 6th October City.
- New Capital Project.
- Industrial Zone In Luxor
- Aswan waste water Lifting plants.
- Assuit waste water treatment Plant 125,000 m3/day.

Languages

Arabic: NativeEnglish: Fluent