

Mina Tawfik Soliman

Menofia , Egypt

Mobile: +201279699832

[E-mail: minatawfirm@yahoo.com](mailto:minatawfirm@yahoo.com)

OBJECTIVE

Mechanical Engineer with 3 years of hands-on experience in MEP systems across design, technical office, and site execution phases. Seeking to leverage my technical expertise, problem-solving skills, and project coordination abilities to contribute to challenging projects in a dynamic and growth-oriented organization. Committed to delivering efficient, sustainable, and cost-effective engineering solutions aligned with industry standards.

EXPERIENCE

Hassan Allam Construction (HAC), Technical Office Engineer – MEP, El-Dabaa nuclear power plant (Egypt). (Aug 2025 – Present)

- Review mechanical designs, drawings, and specifications to verify conformance with applicable codes, standards, and project requirements.
- Provide accurate and detailed QS and Commercial estimates for MEP systems.
- Analyze project specifications, drawings, and other relevant documents to determine the scope of work and quantities of materials required.
- Collaborate with the project team to ensure that the quantity takeoff aligns with the project requirements and design specifications.
- Utilize industry-standard software and tools to develop accurate takeoff for MEP systems.
- Prepare subcontractor invoices.
- Collaborate with architects, engineers, contractors, and other project stakeholders to ensure clarity and accuracy in MEP Commercial related matters.
- Prepare comprehensive quantity takeoff reports, listing all the required materials, equipment, and labor for each MEP system.
- Prepare shop drawings for HVAC, Firefighting, Plumbing systems for warehouses and industrial workshops.
- Creation of purchasing requests using SAP software.
- Prepared Material submittals.
- Contributed to project management and execution at El-Dabaa nuclear power station, ensuring adherence to project timelines and safety standards.
- Handled documentation and prepared detailed technical reports that enhanced communication between cross-functional teams.

Concrete Plus, Mechanical Site Engineer – MEP , Yazaki Factory (Faiyum – Beni Suef Road). (Nov 2024 – July 2025).

1. Site Supervision & Execution

- Supervised execution of mechanical works for industrial project ensuring adherence to project specifications, quality standards, and timelines.
- Managed installation and testing of mechanical systems including:
 - Water supply and drainage systems.
 - Firefighting networks (wet risers, sprinklers, hose reels).
 - HVAC systems including VRF/VRV, ductwork, and chilled water piping.
- Oversaw sitewide infrastructure networks such as:
 - External water supply and sewage systems.
 - Irrigation systems for nature reserves.
 - Firefighting water supply networks.
- Conducted daily site inspections, resolved technical issues, and ensured work compliance with safety regulations and QA/QC procedures.

- Coordinated with subcontractors and suppliers to ensure timely material delivery and smooth workflow.
- Managed testing, commissioning, and balancing of HVAC and plumbing systems before final handover.
- Supported facility management and commissioning teams for smooth transition from construction to operation.
- Coordinated project construction phases with multiple disciplines and systems, ensuring seamless execution and timely completion of each stage.

2. Technical Office

- Reviewed and verified shop drawings, coordination drawings, and as-built drawings for mechanical systems.
- Coordinated with architectural, structural, and MEP disciplines to resolve design conflicts and ensure proper system integration.
- Prepared material submittals, method statements, and inspection requests (IRs/MIRs).
- Followed up with procurement for verification of BOQs, material quantities, and technical compliance of equipment.
- Monitored and recorded daily site progress, prepared progress reports, and maintained project documentation.
- Participated in cost control efforts by reviewing material consumption, variation orders, and tracking resource usage.
- Creation of purchasing requests using Odoo software.

Samcrete Engineers & Contractors, Mechanical Site Engineer – MEP , Bus Rapid Transit (BRT) (Ring Road - Cairo). (Feb 2024 – Oct 2024).

1- Site Supervision & Execution

- Supervised execution of mechanical works for bus stations ensuring adherence to project specifications, quality standards, and timelines.
- Managed installation and testing of mechanical systems including:
 - Water supply and drainage systems.
 - Firefighting networks (hose reels).
 - HVAC systems including ductwork, and split units.
- Oversaw sitewide infrastructure networks such as:
 - External water supply and sewage systems.
 - Firefighting water supply networks.
- Conducted daily site inspections, resolved technical issues, and ensured work compliance with safety regulations and QA/QC procedures.
- Coordinated with subcontractors and suppliers to ensure timely material delivery and smooth workflow.
- Managed testing, commissioning, and balancing of HVAC and plumbing systems before final handover.
- Supported facility management and commissioning teams for smooth transition from construction to operation.
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2- Technical Office

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- Participated in cost control efforts by reviewing material consumption, variation orders, and tracking resource usage.

Al-Fagr Medical – Mechanical Site & Technical Office Engineer (Aug 2023 – Jan 2024)

- Review and evaluate project design packages, including drawings, calculations, specifications, and related documentation.
- Assess and approve material submittals and shop drawings for medical gases pipeline systems.
- Assist in the design and development of medical gases systems, components, and products.
- Create detailed engineering drawings, models, and specifications using computer-aided design (CAD) software.
- Participate in design reviews and collaborate with cross-functional teams to refine design concepts and address technical challenges.
- Medical Gases Station Equipment Selection.
- Preparing Technical Reports.
- Making Quantity Surveys.
- Making Shop drawings and as-built drawings.
- Following up the Dismantling and Installation Works at Different Construction Sites in Egypt.
- Documents Handling.
- Projects Management and Dealing with Technicians.

EDUCATION

Menoufia University - Faculty of Engineering

2019 – 2023

Bachelor of Mechanical Power Engineering
GPA in percentage: 74 %

Notable Courses

Thermodynamics, Fluid Mechanics, HVAC Systems, Mechanical Vibration.

Graduation Project

Design of Air Conditioning System for Shebin El-Kom Hospital (Liver Institute)
Project Grade: Excellent

COURSES

- **Mechanical Systems Design:** HVAC Systems, Firefighting Systems, Plumbing Systems, Medical Gases Systems (Engineering House, 2021)

INTERNSHIPS

Samcrete engineers & contractors (Aug 2021 - Sep 2021)

- Learnt about the main components of asphalt mixture and the aim of each part.
- Theory of the asphalt mixture work and control.
- Trained at the site of machinery sector – asphalt mixture sector 3 – Regional Road , Mixer Aman.
- Wrote the final technical report.

SKILLS AND ABILITIES

- **Problem-Solving:** Identified and resolved system inefficiencies in HVAC designs, leading to energy savings.
- **Leadership:** Led a team of engineers in coordinating MEP systems design and installation for large-scale projects.
- **Project Management:** Managed timelines and resources across multiple projects, completing on time and within budget.

SOFTWARES SKILLS

- **Design & Modeling:** AutoCAD
- **MEP-Specific Tools:** McQuay Duct Sizer, HAP4.9, ASHRAE Duct Fitting Database, Cool Pack, Elite fire
- **Project Management:** SAP, Microsoft Office Suite

LANGUAGES

- **Arabic:** Native
- **English:** Conversationable