

# AHMED ADEL HASAN

## Mechanical Engineer

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### PROFESSIONAL SUMMARY

Mechanical Engineer with 10+ years of experience in equipment maintenance, hydraulic systems, and project supervision. Specialized in optimizing maintenance operations and improving equipment reliability. Proven track record in managing mechanical teams and implementing quality management systems in water infrastructure and construction projects.

### EXPERIENCE

#### Senior Consulting Engineer | Hydro. Envir. & Infra Str. Studies | Cairo, EGYPT | 08/2019 – Present

Supervised implementation of six lifting stations in series (capacity: 7.5M m<sup>3</sup>/day) as part of the New Delta Mega Project, ensuring seamless integration with large-scale water infrastructure. Oversaw mechanical design and execution of pumping systems, pipelines, and ancillary equipment, ensuring compliance with international engineering standards (ISO, EN, AWWA) and contract specifications Contract requirements.

- Follow-up, evaluate and supervise all mechanical works at all project sites in accordance with standards, tender technical specifications and bills of quantities (BOQ), while taking every technical, safety and occupational health provisions into consideration.
- Attend and evaluate factory, site operating tests and any other required tests.
- Study and analyze problems that hinder the work and find most suitable solutions
- Prepare required project work progress reports.
- Review contractor payment certificates & invoices.
- Coordinate with and maintain permanent, strong and continuous communication with the technical office head, project manager, contractors, sub-contractors, client and end user.

#### Maintenance Engineer | Alexandria Water Company | 2014 – 08/2019

Responsible for ensuring the reliability and efficiency of water treatment equipment and infrastructure

- Preventive Maintenance: Develop and implement maintenance schedules to minimize equipment downtime
- Troubleshooting & Repairs: Diagnose mechanical failures and perform corrective actions on pumps, motors, and hydraulic systems.
- Equipment Overhauls: Conduct periodic inspections and major repairs to extend the lifespan of water treatment machinery.
- Documentation & Reporting: Maintain detailed records of maintenance activities, equipment history, and performance metrics

#### Maintenance Engineer | Talaat Mustafa Group (TMG) | 2012 – 2014

Responsible for heavy equipment maintenance including Caterpillar, Komatsu, Hitachi, and Volvo machinery.

- Performed preventive and corrective maintenance on mechanical and electrical systems, ensuring optimal equipment performance and minimizing downtime
- Diagnosed and resolved faults in machinery and facility infrastructure, utilizing root cause analysis and technical troubleshooting skills
- Coordinated with cross-functional teams to implement maintenance schedules and process improvements, contributing to increased operational efficiency
- Maintained accurate records of maintenance activities using Computerized Maintenance Management Systems
- Ensured compliance with safety standards and company policies during all maintenance activities.
- Supported inventory management for spare parts and maintenance supplies.
- Trained junior staff on maintenance procedures and safety protocols

## EDUCATION

**Bachelor of Science in Mechanical Engineering | Alexandria University | July 2011**

## CERTIFICATIONS

- Advanced Hydraulics Certification - ITC & Ministry of Trade and Industry
- OSHA Construction Standard Certification
- Technical Sustainable Management Certification - TSM-Egypt
- Project Management Professional (PMP) Preparation - Arab Academy for Science, Technology & Maritime Transport
- Crisis and Emergency Management Certification - Alexandria Water Company

## TECHNICAL SKILLS

- Mechanical System Troubleshooting & Optimization
- Hydraulic and Pneumatic System Design
- Predictive and Preventive Maintenance Planning
- Reliability Engineering (RCM, RCFA)
- Nondestructive Testing (NDT) & QA/QC
- HSE Compliance and Risk Assessment
- Project Management and Scheduling (Microsoft Project)
- AutoCAD | Power BI | CMMS Software

## COMPUTER SKILLS

- Microsoft Office Suite (Word, Excel, PowerPoint)
- Microsoft Project for project management
- AutoCAD for technical drawings
- Data analysis using Excel and Power BI
- Maintenance management software

## LANGUAGES

- Arabic: Native
- English: Professional working proficiency (reading, writing, speaking)

## LEADERSHIP QUALITIES

- Results-driven approach to reliability and cost management
- Strong analytical and problem-solving abilities
- Excellent organizational and communication skills
- Initiative and innovation in process improvement
- Team leadership and personnel development