

AHMED KHALAWY

MANUFACTURING QUALITY | QC LEADERSHIP | PROCESS IMPROVEMENT

Riyadh, Saudi Arabia | Notice period: 60 days | +966 59 776 6864

ahmed.hosny.helmy@gmail.com | ahmedkhalawy.com

linkedin.com/in/ahmed-khalawy-513a271a1

PROFESSIONAL SUMMARY

Mechanical engineer and quality leader with 8+ years of engineering experience since May 2018, including independent mechanical engineering work, appliance manufacturing, electrical-panel production and construction QMS. Quality roles since 2020; Saudi Arabia experience since Aug 2023. Combines factory QC leadership, practical inspection, statistical analysis and team development to improve acceptance controls, traceability and operational excellence.

KEY ACHIEVEMENTS

ELARABY: led a **50+ person** quality workforce; reduced outgoing nonconformity from **more than 100,000 PPM to below 10,000 PPM**. **Eibla:** coordinated actions supporting Schneider Electric panel-builder recognition within **6 months** of joining.

TECHNICAL SKILLS

Quality systems and standards: QMS; TQM; ISO 9001; ISO 14001 / ISO 45001 readiness; Internal audits; Document control; Quality plans; Risk assessment; Change management.

Inspection and product engineering: Incoming / in-process / final QC; ITPs; Acceptance criteria; Test planning; LV testing; IEC 61439; Product testing; Specifications; Calibration; Automatic transfer panels (ATS); BOM control; Engineering changes; Shop drawings; CE-marking readiness.

Improvement and statistical methods: NCR; RCA; CAPA; 8D; SPC; Gage R&R; Process capability; DOE; Lean; Kaizen; 5S; Cost of poor quality; Process improvement.

Digital tools, design and documentation: SolidWorks; AutoCAD; ANSYS Fluent; Power BI; Power Query; Excel; Minitab; SAP S/4HANA quality key user; Microsoft Office; Databases; Traceability; User documentation; GS1; Trademark registration.

WORK EXPERIENCE

YUKSEL SAUDIA

Senior QA/QC Engineer - Head Office, Riyadh | 20 Mar 2025 - Present

- Prepared **controlled quality manuals** defining leadership responsibilities, risk-based planning, supplier oversight, operational controls and release. Maintained clear organizational responsibilities, controlled versions and formal review/approval routes.
- Coordinated cross-functional readiness for **ISO 9001, ISO 14001 and ISO 45001**. Connected gap reviews, process-owner responsibilities, audit evidence and management coordination to a structured quality-system implementation and review process.
- Consolidated tender quality plans, **inspection and test plans (ITPs)**, subcontractor controls and prequalification inputs. Coordinated cross-functional procedure review and controlled document coding, revisions, distribution, retention and change requests.
- Co-authored head-office **QHSE reports across infrastructure projects**. Reviewed action ownership, NCR close-out information, project allocation and supporting evidence to improve reporting consistency and distinguish verified information from open actions.
- Developed compliance workflows and **Power BI reporting** connecting project ownership, findings, corrective actions and supporting records. Reviewed refresh status and separated monthly snapshots from current registers; supported procurement, administration and HR reporting needs.
- Coached teams in **Excel, Power Query, Power BI and OneDrive** using practical work examples. Delivered site-compliance awareness training connecting inspection observations with requirements, corrective action and prevention.

WORK EXPERIENCE (CONTINUED)

EIBLA FOR ENERGY

Senior QA/QC Engineer - Al Madinah | Aug 2023 - Mar 2025

Quality Management

- Led quality across **3 operating areas: the mechanical factory, electrical factory and warehouse**. Established the quality manual, inspection plans and acceptance criteria for incoming materials, manufacturing, assembly and final release.
- Directed manufacturing-quality, incoming-quality and electrical/control supervision, with an **occupational health and safety engineer** also under my responsibility. Developed skills matrices and coached inspectors to train colleagues, investigate causes and contain defects promptly.
- Coordinated engineering and operations actions supporting **Schneider Electric Registered-Riser panel-builder recognition within 6 months of joining**. Managed company-registration readiness and review follow-up across functions.
- Supported **ISO 9001, ISO 14001 and ISO 45001** readiness and monthly process, 5S, quality and safety reviews. Assigned follow-up responsibilities and maintained corrective-action evidence and controlled records.

Engineering and Product Quality

- Controlled **engineering-change approval before implementation**, drawing/form revisions, BOM inputs and assembly quantities. Managed development samples, first-piece release and configuration checks before production proceeded.
- Reverse-engineered **RMU components in SolidWorks** to clarify assembly fit and governing dimensions. Coordinated technical acceptance decisions with customer quality and used verification jigs, fixtures and reference samples for repeatable inspection.
- Coordinated readiness for **distribution-panel projects** and separate ATS, DC and synchronization-panel work. Connected drawings, mechanical assembly, wiring, inspection points and test records with customer handover requirements.
- Coordinated **type-testing preparation, conformity documentation and measurement control**. Addressed mechanical, coating and electrical inspection requirements, including insulation, continuity and withstand tests.

Supplier Quality and Continuous Improvement

- Established supplier approval/evaluation through **site visits and online audits**. Led customer **8D** follow-up, connecting containment, root-cause analysis, corrective action and production lessons.
- Connected **Microsoft Forms and live Power BI dashboards** to production records and internal quality escalation. Created illustrated one-point lessons, interdepartmental packaging guidance and 5S controls; coordinated GS1 coding and trademark requirements.

Manufacturing context: Metal fabrication, electrostatic powder coating, mechanical assembly, electrical/control assembly and warehouse acceptance.

WORK EXPERIENCE (CONTINUED)

ELARABY GROUP - COOKING APPLIANCES

QC Engineer / Quality Control Assistant Manager | 2020 - 1 Aug 2023

Leadership and Key Achievements

- **Built the cooking-appliance factory QC system and advanced to Assistant Manager after 2 years.** Led a **50+ person quality workforce**. Its specialist/support structure comprised **2 QC engineers, 3 supervisors, 6 patrol inspectors and 3 data-entry staff**; patrols covered cooker, oven/microwave and manufacturing operations.
- Led actions reducing outgoing nonconformity from **more than 100,000 PPM to below 10,000 PPM**, achieving the stated target. Connected containment, fast repair with retesting, customer-return analysis and **cost of poor quality (COPQ)** reviews to improvement priorities.
- Directed quality coverage for **3 cooker lines reaching 240 units per shift per line** and **2 oven/microwave lines reaching 700 units per shift per line**. Supported new-line establishment, R&D know-how transfer, trials, pre-mass production and release.
- Established **product/process quality plans, skills matrices and risk controls**. Initially managed repair and customer complaints/returns before those functions were separated; coordinated with incoming quality, production, engineering and partner teams.
- Led quality-system work supporting the factory's **first ISO 9001 certification and CE-marking/export readiness**. Coordinated supplier improvement and inspection specifications; completed a Korn Ferry competency assessment during management progression.

Manufacturing Quality Control

- **Pressing:** controlled first-piece release, in-process inspection and operating parameters on **300-ton progressive, 800-ton mechanical and 1,000-ton hydraulic presses**. Developed governing dimensions, custom jigs and intermediate-stage checks for stainless, low-carbon and galvanized parts.
- **Reference samples:** achieved **90% coverage in pressing, 98% in coating and 95% in tubing**. Linked part-specific acceptance criteria with ANSI-based minimum sampling, continuous inspection, patrol checks and stored-work-in-progress controls.
- **Enamel coating:** supported Wagner spray-equipment acceptance and process trials. Used Elcometer thickness readings, acid-resistance/impact checks, external laboratory tests and historical data to set zone-specific limits and separate repair routes.
- **Doors:** controlled glass, silicone bonding, curing, dimensions and adhesion. Applied experiments with production to stabilize parameters when suppliers changed; improved handling and storage with incoming quality and engineering-planning teams.
- **Gas tubing and screen printing:** controlled forming, end-forming, fittings and torque. Introduced **100% ATEQ leak testing in tube manufacturing** alongside assembly tests and reading limits; qualified printing templates and adhesion, alcohol-resistance and dimensional checks.

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WORK EXPERIENCE (CONTINUED)

ELARABY: Assembly, Measurement and Digital Quality (Continued)

- **Model-change release:** checked material identity, BOM-stage quantities, instructions, testing and packaging. Required the **first 3 conforming units** before critical line release, with patrol checks on process changes and hidden assembly features.
- **Cooker testing:** controlled ATEQ leak/flow tests, pre-closure wiring checks, **Volta electrical-safety tests**, gas performance, safety shutoff and final inspection. Reopened affected lots for containment; applied fast repair followed by retesting.
- **Oven/microwave testing:** covered connections, earth leakage, hipot, continuity, functional/radiation-leakage tests, noise-room inspection and final closure; supported seasonal operation across **3 shifts**.
- Applied **Minitab SPC, Gage R&R, capability, regression and DOE**; used pre-control where historical data was limited. Supported enamel microscopic studies, structured root-cause analysis and process-parameter improvement.
- Managed **factory-wide calibration** of QC and production instruments, special tools and pressure gauges. Coordinated internal/external calibration and ATEQ visits; controlled Mitutoyo equipment, reference devices and custom jigs.
- Served as a **group-wide SAP S/4HANA quality key user**. Built traceability with the systems developer, defined quality data/master-data requirements and trained users in SAP and **Power BI**; supported scrap/concession approvals, 5S and Kaizen.

ADDITIONAL EXPERIENCE

Freelance / Independent Mechanical Engineering | May 2018 - Jan 2020

Delivered SolidWorks training and engineering drawings. Worked on an ANSYS Fluent simulation project for an air ejector pump. Developed databases for local organizations.

PROJECTS

ProDigi Consult work: selected Power BI demonstrations connect manufacturing quality and construction compliance through source validation, traceable records and action ownership. Demo figures are illustrative, not employer results.

Implemented-workflow examples include project intake, purchase approval, protected reporting and multilingual support, tested with illustrative data.

ADDITIONAL SKILLS

Leadership and delivery: Team leadership; Coaching; Performance management; Organizational development; Project management; Production schedules; Supplier / customer coordination; Cost control; Communication; Time management.

Training / profile-listed exposure: Ansys / FEA; MATLAB; Revit; HVAC / VRF; Plumbing design; Firefighting; Electric vehicles / load estimation; Thermal power plants; Microsoft Dynamics; ASTM; PCCS training; Safety management.

EDUCATION

B.Eng., Mechanical Power Engineering | Menoufia University, May 2018

PROFESSIONAL TRAINING

ISO 9001:2015 Auditor/Lead Auditor training - SGS (CQI/IRCA-certified course); Certificate of Achievement, exam passed Jan 2026. **Internal Audit / QMS Requirements training** - OSS Middle East, attended Oct 2023.

Lean Six Sigma Green Belt course - Attic / ELARABY, completed Mar 2021. **Exercising Leadership course** - HarvardX, Sep 2025. **Organization Planning and Development for the 6 Sigma Black Belt** - single course completed, Kennesaw State University, Jul 2025.

Quality and Supply Chain course - University of Illinois, May 2025. **PMP exam preparation** - 36 contact hours, Jun 2022. **Supervised Machine Learning course** - Stanford / DeepLearning.AI, Jun 2025.

LANGUAGES

Arabic - native; English - CEFR B2+ conversation programme (SYE English Community).