

**F&A
Engineering
Company**

Prequalification

April 2025



Table of Contents

1. Company Overview	3
2. Scope of Services	3
2.1. Project Development:	3
2.2. Engineering and Procurement Services:	3
2.3. Procurement Services	7
2.4. Construction Services	7
3. Company Main Organization Chart.....	7
4. Experience	8
5. Collaborations	11
5.1. Engineering:	11
5.2. Construction:	12
5.3. Fabrication:	12
6. Chairman and C.E.O Resume	13
7. Appendix (1) Engineering Organization Chart	14

1. Company Overview

Established in 2018, F&A Engineering is a dynamic Egyptian-based company specializing in delivering top-tier services within the realms of Oil & Gas, Energy, and Power sectors. Our core expertise revolves around offering comprehensive solutions spanning the entire spectrum of services associated with EPC (Engineering, Procurement, and Construction) projects.

F&A has a very Strong Business Network and Connections with Key Business Leaders, Decision Makers and Major Industry Contractors in both Private and Public Sectors, while supported by its own highly qualified personnel.

2. Scope of Services

2.1. Project Development:

- Opportunity Selection and Development
- Project Financing
- Selection of Subcontractors (Engineering, Procurement and Construction)
- Contract Development and Administration
- Managing Project Execution
- Project Close-out and Handover

2.2. Engineering and Procurement Services:

Process:

- Heat and Mass Balances
- Process Simulations
- Process Flow Diagrams
- Piping and Instrumentation Diagrams
- Cause and Effect diagram
- Equipment sizing calculation.
- Process Data sheets

Loss Prevention:

- Fire Protection Design Basis
- Fire and Gas Detection and Mapping
- Fire Water Network Layout
- Fire Water System P&ID's and Hydraulic Calculation
- Fire Zone Layouts
- Hazardous Area Classification Layouts
- Fire Alarm Cause and Effects
- Safety Studies

Piping:

- Developing Design Basis
- Pipe wall thickness calculations as per ASME B31.1, ASME B31.3, ASME B31.4 & ASME B 31.8
- Proposal and detail engineering activities.
- Piping Material Specifications and Valve datasheets.
- Piping bulk material estimation.
- Material Requisitions, Technical bid evaluation & Vendor drawing review.
- Design specification for special piping components, special pipe supports, spring hangers etc.
- 3D Modeling (PDS / PDMS / SmartPlant 3D)
- Plant / Piping Layouts & isometrics extraction from 3D models.
- Pipe Stress analysis (Dynamic & Static)
- Post Detail Engineering, Field engineering support and construction assistance.

Civil:

- Developing Design criteria, Specifications and Standard drawings
- Structural Design
- Structural GA Drawings & MTO
- Structural Fabrication drawings
- Connection details
- Foundation Design or Reaction forces on foundations
- Lifting, Transportation, Seismic, Wind, Fatigue, Vibration and In-place analysis reports for Modular constructions

- 3D Modelling

Electrical:

- Developing Design Basis
- Preparation of Datasheets and Material Requisitions
- Electrical Load Lists
- Bulk MTO
- Single line diagrams
- Electrical layouts (Lighting / Cable routing / Earthing)
- Schematics and wiring / interconnection wiring diagrams
- 3D Modeling.
- SPEL (SmartPlant Electrical)

Instrumentation and Control:

- Developing Design Basis
- Preparation of Datasheets and Material Requisitions
- I/O List
- Instrument Index
- Logic Diagrams
- Bulk MTO
- Specification for Field and Online instruments
- DCS, PLC, ESD Engineering
- Cable Tray Layouts
- 3D Modeling of Instrument, Junction box, Cable trays etc.
- SPI (SmartPlant Instrumentation)

Mechanical:

- Mechanical Equipment Datasheets and Specifications
- Static equipment Fabrication Drawings.
- Rotary and Static vendor document review.
- Vessel mounted platform details.
- Material Selection Guides.
- Cathodic Protection.

Specialized Services:

- Value Engineering
- Risk Assessment Studies
- Risk Management

- HAZID, HAZOP and SIL Studies
- Design Review
- QRA (Quantitative Risk Assessment)
- Quality Study and Plan
- Ergonomics Study
- Customized Training Services

Manpower Supply:

- Specialized Technical Personnel
- Remote Engineering Support
- Project Management Teams
- PMC Team

Engineering Softwares:

- Process software:
 - Aspen Hysys
 - Aspen Plus
 - SP&ID
- Mechanical Software:
 - AutoCad
 - 3D Modeling (PDS – PDMS – SmartPlant 3D)
 - Navis Works
 - Mach calc
 - Cesar II (Stress Analysis)
 - Bentley
- E&I:
 - SPI
 - SPEL
 - Inst calc
 - Suppliers Software (on need basis)
- Management software:
 - Primavera
 - MS projects
- Document control System:
 - Transmittal / Revision Control System

2.3. Procurement Services

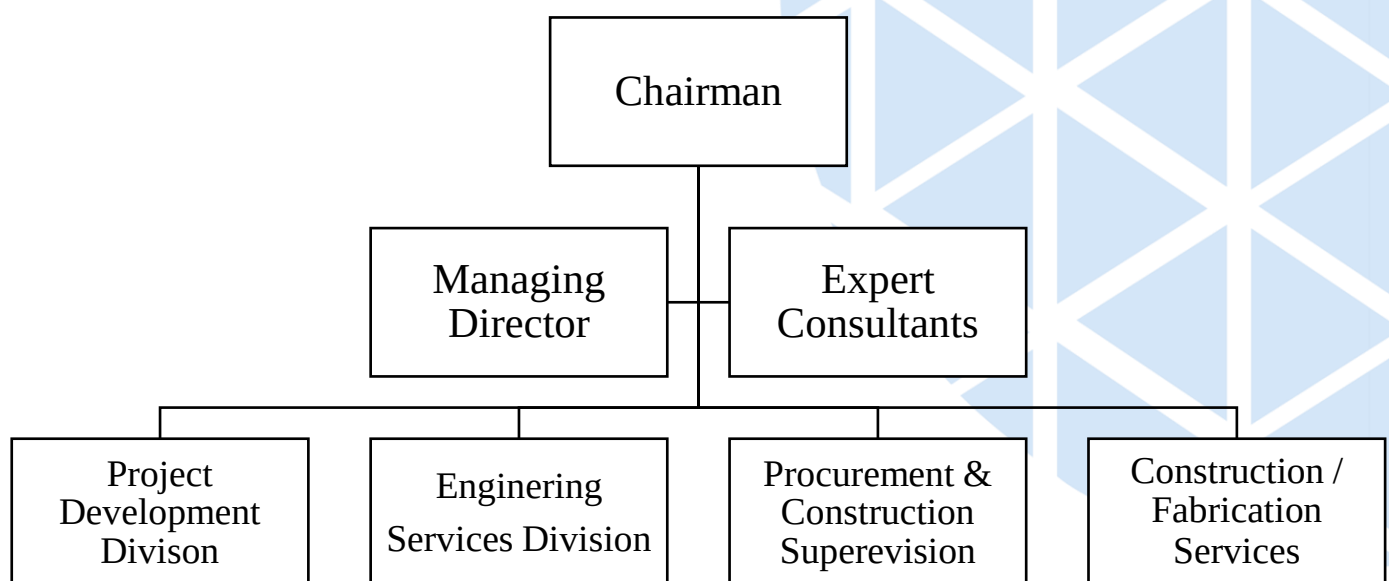
- Material Requisition Preparation
- Technical Bid Tabulation
- Commercial Bid Tabulation
- Purchasing
- Expediting
- Inspection
- Logistics

2.4. Construction Services

We provide, through our Construction/Fabrication Affiliates and Local Resources the following:

- Civil and Steel Works
- Piping Fabrication and Erection
- Equipment Installation
- E&I Construction
- Steel Structure and Equipment Fabrication
- Precommissioning, Commissioning and Start-Up

3. Company Main Organization Chart



See Appendix (1) for Detailed Engineering Organization Chart

4. Experience

- Project: SONKER Tank Farm, Development of 150,000m³ of Storage for Propane/Butane/LPG
Scope:
 1. Tender Document Preparation
 2. Manpower Supply; PMC Team
 3. Engineering Review on Behalf of the Client
- Project: Early Production Facility by EXPRO
Scope:
Detailed Engineering for the following activities:
Electrical, Instrumentation, Loss prevention and Fire & Gas Detection
- Project: Water Hammer and Stress Analysis for New Water Intake (Mahsama Strategic Water Treatment Plant)
Scope: Static and Dynamic Stress Analysis and Complete Water Hammer Study
- Project: HAZOP study for Utilization of New Propylene Tank
Scope: Perform HAZOP Session through our Certified HAZOP Chairman, Issue HAZOP Recommendation and HAZOP Close out Reports
- Project: Utilization of New Propylene Tank (EPC)
Full Engineering and Construction Scope including the following activities:
 - Detailed Engineering (Process, Piping, Mechanical and Instrumentation) for New 24 Tie-in Point in order for the Propane Tank to ready to receive and store Propylene
 - Construction Supervision and follow-up
 - Construction and Precommissioning Activities
- Project: Agiba Heaters Stress Analysis
 - Perform Stress Analysis Study on behalf of EMC for AGIBA New Heater Lines
 - Perform Piping Supports Selection in addition to the Supporting Civil activities.

- Project: SWM Condensate Handling Project
 - Detailed Engineering Services (Process, Piping, Mechanical, Electrical, Instrumentation, ...) rendered to EMC for AGIBA SWM Condensate Handling Project

- Project: COOP Tank Farm Upgrade
 - Detailed Engineering Services Process and Piping (Basis of Design, PFD P&ID, Process Data Sheets, Piping Design, 3D Modeling and MTO's) Scope for 13 Tanks (7 Revamp and 6 New) in addition to Loading and Offloading Pumps and Loading Arms rendered to Petrojet for Cooperation Petroleum Company in Suez

- Project: COOP (Suez) Fire Fighting Network Upgrade
 - Scope:
 - Detailed Engineering for Fire Fighting Network of the whole Plant (Fire Fighting Philosophy, Hydraulic Calculations, FF Network P&ID's, FF Equipment Layout and 3D Modeling rendered to Petrojet for Cooperation Petroleum Company in Suez

- Project: Ancillaries and Interconnection Piping for Desalter Package
 - Scope:
 - Detailed Engineering Services for Ancillaries (Process, Mechanical, Electrical, Instrumentation, ...) and Interconnection Piping for Desalter Package

- Project: APRC Tank Farm Upgrade (Alexandria)
 - Scope:
 - Detailed Engineering for Process and Piping (Basis of Design, PFD P&ID, Process Data Sheets, Piping Design, 3D Modeling and MTO's) for 12 Tanks rendered to Petrojet for Ameria Petroleum Company in Suez

- Project: Supply and Fabrication of SOPC Coker Guide Rails
Scope:
 - Supply, Fabrication, Sandblasting and Painting of Coker Guide Rails – Client: Flowserve USA

- Project: Stress Analysis and Dynamic Analysis for Existing Piping and Equipment – Client: ERC
Scope:
 - Stress Analysis Study for 3 Heat Exchangers Connections
 - Stress Analysis for New Basket Strainers
 - Stress Analysis for New Valves Replacements
 - Dynamic / Vibration Analysis for Drum Line Vibration
 - Piping Support Design

- Project: Stress Analysis and Piping Support Design for Sea Water Desalination Plant (300,000m³/d) in Algeria – Client: Metito
Scope:
 - Piping Stress Analysis for Super Duplex S. Steel and GRP up to 2000mm Diameters
 - Stress Analysis Isometric Drawings
 - Piping Supports Details Drawings and MTO.
 - Nozzle Loads Report
 - Wall Thickness Calculation Report

- Project: Ethane Handling, Cryogenic Storage and Gasification Marine Terminal – Client: Consortium; GAMA, ECHEM, GASCO, ETHYDCO, SIDPEC
Scope:
 - Technical Study and Total Investment Cost for the Following Packages:
 - Package 1: Cryogenic Interconnecting pipeline.
 - Package 2: Cryogenic storage facility.
 - Package 3: Interconnecting gas Pipeline.
 - Package 4: Utilities

- Project: Suez Methanol Derivatives Project – Client: SMD, PMC: Enppi

Scope:

- Process Simulation and Hydraulic Calculations using ASPEN Plus and Updating Control Valve Datasheets

- Project: PETROGULF, Engineering for New Crude Oil Transfer Pump at Gaisum Star Platform and 2 New Onshore RO Pumps at SUCO Site

Scope:

- Process Design (Including HAZOP/HAZID)
- Piping
- Mechanical
- Electrical (including ETAP Studies for Motor Starting and Voltage Drop)
- Instrumentation and Control
- Civil Works

- Project: SUCO Pipeline Modification between ZB T-2006 and T-2005

Scope:

- Material Selection Report
- Stress Analysis Report
- Cathodic Protection Design and MTO

- Project: ERC - TAR25 MOCs Stress Analysis

Scope:

- Stress Analysis Report
- Wall Thickness Calculation
- Nozzle Loads
- Stress Isometrics

5. Collaborations

5.1. Engineering:

- Registered at EGPC Under Engineering Services, Committee Number (5) for 31/12/2024

- Registered at Enppi under Engineering, Reg. No. U-12001
- Registered at Petrojet under Engineering Services, Reg. No. SAP-01100024346
- Registered at EMC under Engineering Services, Reg. No.465
- Registered at ERC Under Engineering Services, Supplier Code. 2000777
- Registered at Petrogulf Misr Under Engineering Services Reg. No. 6800
- Registered at East Gas Company under Engineering Services
- ESTAVROS Engineering, UK
- ILF Engineering, Germany
- LAMBROS, India
- Tricom Controls, Egypt
- S.T.P Engineering, Italy
- DG Impianti, Italy
- Local Specialized Engineering Manpower

5.2. Construction:

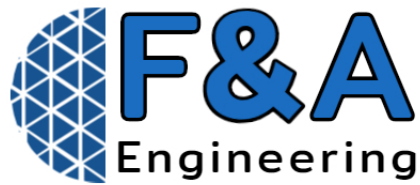
- GAMA Construction (Egypt)
- ADVANSYS Construction (Egypt)
- Local Specialized Construction Manpower
- Construction Equipment (Rental and Supply)

5.3. Fabrication:

- Advanced Vision (Steel and Equipment Fabrication – Egypt)
- INTOFABRICATION (Equipment Fabrication – Egypt)

6. Chairman and C.E.O Resume





FAKHRY ALY EID

F&A CHAIRMAN

Date of Birth : 8, January 1952
Nationality : Egyptian

EDUCATION

CLASS 1974
B.SC IN MECHANICAL (AVIATION) ENGINEERING,
CAIRO UNIVERSITY, FACULTY OF ENGINEERING

CLASS 1979
M.SC IN CONTROL ENGINEERING,
HEARTFORDSHIRE UNIVERSITY, ENGLAND

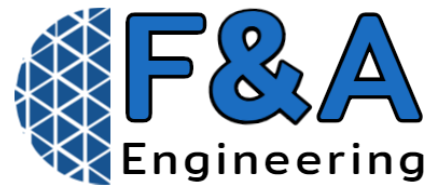
EXPERIENCE

- From 2017 to date, the Founder and Chairman of F&A Engineering (F&A), an Engineering Service Provider for the Oil and Gas Sector and executed multiple Projects in the field.
- March 2012 to 2017 C.E.O, EPC Division, Triangle Group (Private Company), responsible for; managing all works related to Oil & Gas, Fertilizers and Industrial Projects. In addition to C.E.O and Board Member of affiliated Company GAMA (Construction Company) and Board Member of TRICOM CONTROLS (Instrument and Control Company).
- From 2011 to 2012, Chairman and C.E.O Enppi (Engineering for the Petroleum and Process Industries), responsible for; management and execution of Local and International Mega Projects up to 750 million \$ in value.

- From 2010 to 2011, Chairman and C.E.O of Petrojet (The Petroleum Projects and Technical Consultations Company). A 27,000 employees Construction Company.
 - Achieved 1.25 Billion Egyptian Pounds Net Profit after TAX, the highest in the Company History.
 - Promoted the Company Business both in the Local Market and the Middles East Region.
 - Upgraded the Company policies and procedures.
- From 1982 to 2010 working with Enppi:
- 2006 to 2010, Chairman and C.E.O. Developed the Company Capabilities and Competence to participate in the International Market.
 - Increased Company Net Profit after TAX from 75 Million to 750 Million Egyptian Pounds
 - Expanded the Company Business and executed many projects in the Middle East and Venezuela
 - Upgraded the Company HR procedures and enhanced the salary structure to minimize expertise turnover.
- 2002 to 2006, C.E.O and Vice Chairman, restructured the Company to meet International Standards.
 - Increased Company Net Profit after TAX from 10 Million to 75 Million Egyptian Pounds
 - Established Enppi Academy for Technical and Professional Training, for the following purposes:
 - i) Advanced training for Enppi Employees
 - ii) Training for Fresh Graduate Engineers to qualify them to work in the various disciplines of the Company.
 - iii) Training Engineers from foreign countries as a way for Business Development (e.g., Venezuela).
- 2000 to 2001, Vice Chairman for Engineering
- 1999 to 2001, Assistant Chairman for Engineering
- 1998 to 1999, Engineering General Manager
- 1996 to 1998, Procurement Manager
- 1995 to 1996, U.A.E Branch Manager
- 1990 to 1995, Chairman Technical Office Manager / Piping Department Manager

7. Appendix (1) Engineering Organization Chart





F&A Engineering

Company Organization Chart

