

## Ali Baqar

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Passport # AE3321622 | DOB: 07-Nov-1988

**Mechanical Engineer | Total Experience: 10 Years**

**Project Management | Engineering Management**



## Professional Experience

**DESCON Engineering Limited. Lahore – Pakistan**

**Sep 2012 to Till Date**

**HVAC Design Engineer in Engineering & Technology Division**

DESCON is an EPCC (Engineering, procurement, Construction and Commissioning) Services provider to national and international clients for projects related to energy, Oil & Gas, infrastructure and process industry. I am working as a Lead Engineer / Senior Design Engineer for HVAC Section. Following are my key responsibilities and capabilities.

- Review ITB (invitation to Bid) documents during the proposals stage, issue inquiry requisitions,
- Preparation of Design Concept Reports.
- Coordination Drawings to incorporate HVAC System requirements in Architectural Design.
- Data Take off from Architectural Drawings
- Cooling and Heating Load Calculations on HAP software.
- Preparation of HVAC Design Drawings i.e. Air Flow Diagram. Ducting Layout, Equipment Layout, Shop & As-Built Drawings.
- Pump Head Calculation
- External Static Pressure Calculation
- System Volume Calculation
- Preparation of Equipment Schedules / Data Sheets.
- Preparation of Bill of Quantities / Material Take off (BOQ/MTO).
- Engineer's Cost Estimate preparation.
- Verification of Contractor's Bills
- Preparation of Equipment Purchase specifications, coordinating with various discipline Engineers.
- Follow-up with vendors and preparing/summarizing technical bid evaluation.
- Reviewing post order vendor documents by internal technical coordination between various disciplines to ensure vendor equipment design in accordance with system detail design.
- Assessing Customer requirements, by review and interpretation from the Client's Technical Specification.
- Preparation of Request for Quotation (RFQ), Technical Bid Evaluation (TBE), engineering schedule and man hour's estimation.
- Defining and distribution of interface information.
- Familiar with various codes and standard like ASHARE, NFPA, and Shell DEP Standards.
- FAT/SAT (Factory Acceptance test / Site Acceptance test) commissioning and installation supervision.
- People development through mentoring, preparation of training material, conducting training seminars, and performance appraisal and counseling.

### Projects Accomplished:

- **BAPCO MODERNIZATION PROGRAM-BUILDING WORKS FOR MEP PACKAGE - BAHRAIN.** Worked as a Senior Design Engineer. My responsibilities were evaluation of HVAC Load

Calculations, Design Drawings, BOQ, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications.

- **Hi-Tech Alloy Rim Plant - HAWL.** Worked as a Senior Design Engineer. In this Project, HVAC Design Capacity was calculated as 250 TR based on VRF System by myself. HAWL was an EPC project. HVAC Load Calculations, Design Drawings, BOQ, RFQ, TBE Preparation, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications were my responsibilities.
- **ICI-NutriCo Morinaga Private Limited** Worked as a Senior Design Engineer. In this Project, HVAC Design Capacity was calculated as 1460 TR capacity based on Chilled water system (Central Plant). This was a detailed Engineering Project. Design Drawings, BOQ, RFQ, TBE Preparation, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications were my responsibilities.
- **FERTIL Bagging facility-UAE** Worked as a Design Engineer. In this Project, HVAC Design Capacity was calculated as 100 TR capacity based on VRF System by myself. This was an EPC Project. HVAC Load Calculations, Design Drawings, BOQ, RFQ, TBE Preparation, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications were my responsibilities.
- **PABCL– Pakistan Aluminum Beverages Can Manufacturing Co. Ltd.** Worked as a Design Engineer. In this Project, HVAC Design Capacity was calculated as 500 TR capacity based on Roof Top Packaged Type Air Conditioner & DX Coil units & Plant Ventilation) System by myself. PABCL was an EPC project, comprising total cost of 18 Million USD. HVAC Load Calculations, Design Drawings, BOQ, RFQ, TBE Preparation, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications.
- **National Refinery Ltd. (NRL) Pakistan** for OSBL. Worked as a Design Engineer for **FEED** Preparation. In this Project, HVAC Design Capacity was calculated 300 TR capacity based on AHU with matching condensing unit System by myself. HVAC Load Calculations, Design Drawings, BOQ, RFQ, TBE Preparation, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications were my responsibilities.
- **UCH II 400 MW Combined Cycle Power Plant.** Worked as a Design Engineer. HVAC Design of Central Control Room, Electronic Room, Switch Gear and MCC Room, Switch Yard Control Building, Substations, Battery Rooms, Panel Rooms, Pre-fabricated Shelters and Administration building. UCH II was an EPC project, comprising total cost of 250 Million USD. In this Project, HVAC Design Capacity was calculated 600 TR capacity based on Roof Top packaged Type Air Conditioners. HVAC Load Calculations, Design Drawings, BOQ, RFQ, TBE Preparation, inter-discipline coordination and vendor document review with extensive follow-ups and clarifications were my responsibilities.

#### **Achievement:**

- Vendor design for HVAC System at UCH II Power Plant Buildings was reviewed and optimized the system capacity. Resulting in cost saving of **100,000 USD**.

**MECATECH Pvt. Limited. Lahore – Pakistan**  
**HVAC Engineer in Project Division**

**May 2009 to Aug 2012**

MECATECH is a leader in the development of Engineering Services in Pakistan Providing Internationally Recognized HVAC/MEP/Civil/Power Generation/Mechanical Equipment and Services. Following were my key responsibilities and capabilities.

- Ducting, Chilled and Cooling water Piping Design as per ASHRAE Preparation of HVAC Design Drawings, Equipment Schedule along with BOQ and Cost Estimate.

- HVAC Equipment sizing including Chiller, Cooling Tower, Air Handling Unit, Packaged Type AC Unit and Fan Coil Unit. External Static Pressure, Pump Head and System Volume Calculation.
- Ventilation Fan sizing as per required Air Changes. Sizing of Air Devices and Dampers including Fire and Volume Control Dampers, Supply and Return Air Diffusers and grills.
- Coordination with other disciplines (Architecture, Structure, Civil, and Electrical) during design phase to avoid any conflict.
- Coordination with client, project manager, vendors, sub-contractors during complete project cycle. Technical support to site team for MEP execution work.
- Review of bill of quantities bases in line with scope of work, specifications and drawings.

### **Projects Accomplished:**

- **PTET Telecom Tower, Islamabad.** Worked as a HVAC Project Engineer. In this Project, HVAC Design Capacity was 2240 TR capacity based on Chilled water system (Central Plant). This was an EPC project, comprising total cost of 8.2 Million USD. Prepared HVAC Shop Drawings, BOQ, inter-discipline coordination and vendor document review and clarifications. Installation and commissioning supervision was also my scope of work in this project.
- **THE CENTAURUS TOWER, Islamabad.** Worked as a HVAC Project Engineer. In this Project, HVAC Design Capacity was 3600 TR capacity based on Chilled water system (Central Plant). This was an EPC project, comprising total cost of 12 Million USD. Prepared HVAC Shop Drawings, BOQ, inter-discipline coordination and vendor document review and clarifications.
- **SUPARCO Lahore** Worked as a HVAC Project Engineer. In this Project, HVAC Design Capacity was 320 TR capacity based on Chilled water system (Central Plant). This was an EPC project. Prepared HVAC Shop Drawings, BOQ, inter-discipline coordination and vendor document review and clarifications. Installation and commissioning supervision was also my scope of work in this project.
- **Jinnah Burn Center Lahore** Worked as a HVAC Project Engineer. In this Project, HVAC Design Capacity was 1010 TR capacity based on Chilled water system (Central Plant). This was an EPC project. Prepared HVAC Shop Drawings, BOQ, inter-discipline coordination and vendor document review and clarifications. Installation and commissioning supervision was also my scope of work in this project.

**Zahid Brothers Pvt. Limited. Lahore – Pakistan**  
**HVAC Site Engineer in Project Division**

**October 2008 to April 2009**

### **Job Descriptions:**

- Fabrication supervise of HVAC Duct of different thickness with duct joints according Codes & Standards (SMACNA).
- HVAC Design Review.
- Check the HVAC Duct Leakage during execution with the help of smoke testing duct method and electric light detection method.
- Supervise the execution work of HVAC Chiller, Cooling Tower, Pumps, Air Handling Units, and Fan Coil Units as per Construction Drawings.

### **Projects Accomplished:**

- **JS Bank (Formerly: Barclays Bank The Mall Road Lahore)** Worked as a HVAC Site Engineer In this Project, HVAC Design Capacity was 250 TR capacity based on Roof top packaged type Air Conditioner. This was an EPC project. Preparation of HVAC Shop Drawings, BOQ, inter-discipline

coordination and vendor document review and clarifications. Installation and commissioning supervision was also my scope of work in this project.

- **HBL Bank (Formerly: Barclays Bank Gulberg III Lahore).** Worked as a HVAC Site Engineer. In this Project, HVAC Design Capacity was 70 TR capacity based on Roof top packaged type Air Conditioner. This was an EPC project. Prepared HVAC Shop Drawings, BOQ, inter-discipline coordination and vendor document review and clarifications. Installation and commissioning supervision was also my scope of work in this project.

## Skills

- Microsoft Office
- Auto CAD
- Hourly Analysis Program (HAP)
- VariTrane Duct Designer Software
- Adobe Acrobat

## Language

- English  
Fluent (Reading, Writing, Speaking)
- Urdu  
Fluent (Reading, Writing, Speaking)

## Reference

Name: Mr. Amir Bin Munawar  
Designation: Principal Engineer  
Contact Number: +92 333 4502 078