

Santhosh Kumar Resume for Mechanical Engineer - HVAC



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Current Location: Abu Dhabi - UAE (Available on Visit Visa till 23-07-2023)

An Overview

- Engineering professional with nearly 18 years of total experience including 18 years in execution of HVAC and Construction; Rich experience in project management and delivery activities with insightful knowledge of HVAC analysis, design, development, testing, MEP coordination, configuration management, vendor management, contractor coordination commercial operations, budgeting and training.
- Adept in planning, budgeting, progress tracking, negotiations, contractual management and tendering
- Domain expertise in managing HVAC, Plumbing & Fire Fighting Works for large scale MEP / EPC projects such as Airports, Industrials, Central Utility Plants, Multi-storied Buildings, Luxury Villas, Commercial & Residential Complexes, Palaces and Drainage, Water Supply & Fire Fighting Systems in Commercial & Residential Buildings.
- Flair for adopting modern construction methodologies / techniques in compliance with quality standards; deft in conducting quantity surveys for numerous construction projects and managing the entire gamut of techno-commercial activities including sub-contractor billing, tender assessment, engineering activities, etc.
- Deft in installation and commissioning of HVAC Equipment such as Chillers, District Cooling plants, Pumps, Heat Exchangers, AHUs, FCUs, Extract Fans, Specialty Equipment, Pressurization Units and Control Systems; skilled in calculation of ESP, Pump Head and Heat Load .
- Well versed with International Engineering and Construction codes & standards such as SMACNA, ASHRAE, CARRIER, ASME, ASTM, ANSI HVAC Technical & Design Manuals, Layouts, Schematics, Charts, Schedules, Design Software, Health & Safety Norms and ISO Quality Standards.
- Team Player with excellent planning, coordination, negotiation and interpersonal skills; demonstrated success at relationship building and cross functional coordination.



AREAS OF EXPERTISE

**Construction of JET A1 Fuel Farm
for Command of Military Works**

**Al Rawdha Palace of President of
UAE for Dept. of President Affairs**

**Mechanical Project with ADNOC
group of Companies and British
Embassy**

PROJECTS EXECUTED

Career Record

Since March 2021 till date with CSK Constructions as Project Engineer -Mechanical



- Review designs (A/C, Fire Fighting, Drainage, Water, LPG) submitted by the consultants and make sure that they are as per the latest standards
- Ensure that purposed designs are in compliance with the latest energy efficient design criteria.
- Propose alternative design solutions to render the projects viable and within allocated budget.
- Review material submittals.
- Review the payments related to mechanical works.
- Review the progress of the mechanical works at site.
- Inspect the quality of the works and make sure it is as per Client requirements.

Since April 2014 to March 2021 with Gulf Industrial Services Company, UAE as Project Engineer -Mechanical



Key Result Areas:

Project Handled:

Construction of Bulk Storage Tank Capacity of 600 Cubic Meters and Associated Pumps, Filter Water Separators, Oily Water separators, loading and Unloading Arms, Strainers, Plant Air Package Unit and Fire Fighting Tanks and Pumps (E+J+D) and all necessary piping works.

Client : Command of Military Works

Consultant : ADNOC

Responsibilities as a Engineer/Supervisor :

- Verify the MEP design for material & equipment selection.
- Co-ordinate for MEP drawing preparation and necessary site survey
- Co-ordinate TPI agency for material selection approvals.
- HVAC P&ID's and other drawings are produced in line with Construction requirements
- QS And order the materials and arrange to send to construction site prior to dispatch.
- MEP - FAT Procedures, Witness & Co-ordination, of all the Major equipment's as per the procedure
- Implementing project procedure for Document Numbering & Coding System in order to have effective documentation filing and retrieval systems in both Soft and Hard Copies.
- Maintaining discipline wise Document Transmittal Matrix with updating in each revision.
- Co-coordinating in issuance of IFA documents/drawings for approval of Client (including revision as necessary)
- Updating all correspondence obtained from HO in to the data base and marking to the relevant department heads.
- Handling and submission of TDMS (Technical Data Management Systems) as per QP Contractual Requirements
- Co-ordination of Engineering documents, material management documents and preparation of final documentation at Site Quality Department as per contractual requirement.
- Independent dealing of Final documentation e.g. such as Overall Plant Operation Instructions, Vendor Engineering Drawings / Operation and Maintenance Manuals (O & M) / Quality Assurance Records Books (QARB) / Spare Parts and Interchange ability Records (SPIR) / Purchase Requisitions / Orders / Design Documents (Specifications / Data Sheets / Procedures / Schedules / Risk Assessments etc.
- Making available in Electronic Format for Final Submission of final documentation
- HVAC Construction drawings, specifications and instructions and escalate any issues identified
- Deep Knowledge in HVAC Equipments and BMS - NAE,DDC,Field Devices and Commissioning.
- Daily Routine to Construction Sites to achieve day to day production and keep updating the Project planning schedule.
- Prepare the red mark up, if there is any changes in construction drawing
- Maintain primary contact and a good working relationship with Sub-Contractors / Vendors Management and site representatives. Be fully familiar with their methods of HVAC Construction, scheduling and procedures to resolve any apparent conflicts and ensure they are fully aware of their obligations and responsibilities
- Reporting daily, weekly about progress level to Client.
- Attending Meeting with Client and discuss with further requirements.
- Coordinate with representatives for punch item clearance.
- Submit data to Planner and claiming payments through progressive invoice.
- Coordinate with vendors while commissioning of Major Equipment's and related document submittals.
- Implementing quality procedures and safety awareness to site personnel.

Since Jan 2012 to April 2014 with Emirates Technical Associates, UAE as Engineer -MEP/HVAC



Key Result Areas:

HVAC Design & Development

- Developing the concept of HVAC (Ducting & Piping System) and combining it with architectural drawings to firm up working drawings aimed at executing projects within the right specifications; designing and preparing preliminary design layouts for estimating as well as deliverables & products such as calculations, drawings and specifications related to HVAC systems.
- Undertaking duct sizing as per constant friction method and drafting of single line duct routing; calculating Heat Load using latest software packages such as Carrier and Elite in adherence with ASHRAE & IMC codes; selecting equipment such as Pumps, Chillers, AHUs, FCUs and related HVAC equipment.

Project Execution

- Managing project activities and handling the complete cycle of the project management entailing requirement gathering and final execution of projects; undertaking various tasks including design review & coordination, construction progress & quality control, project completion, start-up, testing and acceptance, etc.
- Appraising project feasibility in terms of manpower, machinery and technology; coordinating with Plumbing, Firefighting, Electrical and other Services; submitting reports of day by day activities to the Project Manager; liaising with Consultants, Civil Contractors, Architects, Project Managers, Clients & Representatives, Internal Departments & Suppliers for all Contract, Billing, and Engineering related activities.

Techno-commercial Operations

- Supervise and Support the Day to day activities HVAC Activities.
- Managing the entire gamut of techno-commercial matters such as conducting drawing, specifications & enquiry study, handling vendor selection & finalization, preparing schedule for development, obtaining first sample & final part approval.
- Undertaking careful study of Tender Documents such as instruction to tenders, condition of contract, specifications, drawings, etc.; preparing Bill of Quantities for and queries/clarification to Consultants/Engineers; sending enquiries to Subcontractors, following up, obtaining quotations and preparing Comparison Statement; handling complete measurement of quantities from tender drawings within time schedule and with accuracy.
- Reviewing project contract documents and monitoring construction activities to ensure compliance.
- Monitoring and/or inspecting the installation and testing of all mechanical equipment, piping and control systems to include, but not be limited to, underground utilities, fire protection, above ground utilities (steam, water, and air), HVAC and process systems.
- Monitoring and confirming proper documentation of destructive and non destructive tests on equipment and piping system to include radiographic, hydrostatic and other testing as specified.
- Confirming documentation of welder qualification tests such as tension, bend, and radiographic in accordance with ASME, AWS.
- Performing surveillance and inspection of piping systems to ensure tightness, bedding, grade, location and supports. Compares piping installation against P&IDs, and detailed design drawings. Assuring compliance with approved submittals.
- Performing inspection of painting, insulation and jacketing, to ensure specified protective coverage, Permit to Work systems
- Providing general inspection on all contractor and subcontractor work to assure a safe and workmanlike operation.
- Verifying equipment setting, alignment, balancing, and commissioning operations.
- Monitoring contractors' compliance with approved Quality Control Plan.

Projects Involved in Design / Supervision:

- Alrawdha Palace -High Rise Luxury Villa-Client: DOPA, Consultant: IBA, Alain, From: Jan 2013 to Till now
- Utility Plant Client: DOPA ,Consultant : DEWAN ,Alain , From: Feb 2011 To Dec 2012
- Swimming Pool Villa Extension client : DOPA ,Jebel Hafeet-Alain From: Jan 2010 To Jan 2011

Engineer -MEP at ETA M & E Division, Abu Dhabi, - Jan 2012 to April 2014
Client: DOPA, Alrawdha Palace -Alain

- Responsible for Execution of HVAC, Plumbing and Fire Fighting, Electrical of Commercial and Residential projects
- Check Electrical, HVAC, Plumbing and Fire Fighting works concept reports and designs and drawings received from consultants.
- Check designs, drawings and cost estimates received from the consultants or Project Heads and see their conformity with government regulations.
- Coordinate with MEP Services consultant, Architects, Vendors, Contractors, Project Execution Team, etc.
- Check detailed estimates for various services.
- Prepare work schedules and carrying out resources planning and resource balancing.
- Track work progress with respect to work schedule.
- Prepare rate analysis for HVAC, Plumbing & Fire Fighting and internal and external electrical works.
- Discuss technical aspects of electrical system with consultants.
- Prepare electrical load details.
- Coordinate with Project heads/engineers deputed at site regarding services works.
- Site visit to check the quality and progress of the work if required.
- To check BOQ's and estimates for the internal and external electrical works.
- Check deviation statement (cost & quantity) for the material as per agreement against the actual executed material. . Worked with clients like DOPA (Department of Presidential Affairs),

Sales Engineer - Voltas Ltd/Universal Voltas LLC, Abu Dhabi from June 2006 - Jan 2012

Client: ADNOC Group of Companies and British Embassy Revamping Projects

Mechanical HVAC Execution, lead a team of Mechanical Engineers, draughtsman and site supervisors in quantity estimation. Tender Quotation, Follow up with the client to get project awarded, Planning and execution on the electrical side for large MEP projects closely monitoring the construction activities, effective team management, attending site meetings. Material supply, confirmation to specifications, trouble shooting on electrical site problems. Quality control and relationship management with consultants / customers. Understanding the Tender/contracts and consider deviation, getting the drawing/documents from the consultant. / review to client.

Preparing the bill of material & getting approval from Branch head and updating it based on engineering and supply.

Clearance giving to the vendors for manufacturing.

Meeting with vendors, clients, consultant and action plan to complete the price in time.



Expediting with vendor, arrangement for inspection and responsible for timely delivery, Inventory identification.
Preparation of scope of work for the contractors, enquiry floating & finalization of contract demobilization of contractor at site
Certification of bill of quantities & payment processing of the Collection of O & M manual from vendors.
Providing all supports for site in terms of drawings, material, and short supply if any Standardization of documents.
Informing the branch head/Project Manager of there is any deviation in cost & maintaining the record.

JOB Handled:

- Installation and testing and Commissioning of Air Cooled Chiller Total Capacity of 800 TR at GASCO - Ruwais Project as an Asst. HVAC Manager.
- NPCC - Design, supply installation of HVAC systems and site Supervision
- YAS Island - 'K' Race track project Plant room equipment Installation and Testing, Commissioning and Final event coordination.
- GASCO RUWAIS - Replacement of Ex. Proof HVAC Units for Sulphur Handling Terminals suitable for Zone II - Hazardous Area
- GASCO BUHASA - Replacement of HVAC System in Sub Station 1 to 7, De Hydration Room and Compressor Room.
- ZADCO Arzanah Island Hill Top Building New Package Unit (40 TR 2 Nos.) installation.
- TAKREER -Ruwais Sand trap Filter installation for turbine hall ventilation
- TAKREER - Ruwais HVAC unit installation for Substation 11 & 33 KVAR Substation.
- GASCO - Ruwais (6 TR x 4 Package Unit, including Design).
- ADCO BUHASA - Fire damper replacement (Gas turbine 4, 5 & 6).
- NPCC - Training room (100% treated fresh air 1 x 10 TR Package A/C, including Design).
- ESNAAD - Warehouse Project - TWH - 03, 10 & 12 (23 x 20.6 TR Package A/C).
- ZADCO Arzanah Island - Substation Package Unit (4 Nos.)
- ZADCO Arzanah Island - Kitchen Cold Storage (9 Nos.).
- ZADCO Umm All Dalkh Replacement of cold storage (Chiller + Freezer).

Project Details:

Al Rawda Palace Project:

4000 TR Cooling Load Capacity
Centrifugal Chillers (4 No's X 1000 TR)
Cooling Towers (4 Nos X 1250 TR)
Primary & Secondary (Treasury) Centrifugal Pumps
Heat Exchangers, AHU's, FCU's, Split Units,
Ex. Fans, Bi-Polarization units, Electro Static Filters,
HVAC Ducting (70000 Sq.mtr) and Control Accessories,
CHW Piping (8000 M) Systems with Valves & Controls
Generators Capacity 2500 KVA - 8 Nos
Transformers (HV to LV) - 2500 KVA -8 Nos
Gantry Crane

Qualification

- Bachelor Degree in Mechanical Engineer
- Diploma in Mechanical Engineer Specialized in HVAC

Training / Seminars attended:

- a) Safety Seminar on Construction Industry
- b) Excavation Safety
- c) Confined Space Entry
- d) Scaffolding and Working at Heights
- e) Fall and Ladder Safety
- f) Hazardous Material and Labeling
- g) Response to Emergency
- h) Sea survival safety (off shore) Training Course from GTSC, Abu Dhabi, UAE.
- i) H2S Awareness training by GASCO (HSEQ)
- j) Basic Safety Course Training - Personal Survival, Basic Firefighting, -Basic Training, Personal Safety and Social Responsibilities
- h) Permit to Work system in most of the ADNOC Sites as a originator.

Other Achievements / Distinctions:

- "Received the title for quality job completion from British embassy"
- ADNOC approved Facility Engineer
- GASCO HSEQ Certificate for Plant Safe Working Practice.

Computer skills

1. MS office, MS Word, MS Excel, 2. Windows XP,
3. AutoCAD (To read and analyze)
4. MS Project (To read and analyze)
5. Internet Interests: Reading, Yoga, New topics and would like to be professional