Summary

- MSME with 13+ years of experience in product development
- Designed a diaphragm compressor package for mobile refueler application for Nikola at PDC Machines
- Designed compressor package for rental applications for most economic manufacturing cost. Generating recurring revenue of over \$100M.
- Special project 1 Hydrogen compressor package for mobile refueler
- Special project 2 Xenon compressor package for propellant application for satellite
- Served as a judge for Stevie Awards and SIIA CODIE Awards for product development category
- Performed CFD simulation of lunar dust behavior on lunar environment for NASA
- Certifications: Situational Leadership II and Six-Sigma Green Belt
- Member of Project Management Institute
- Strong communication, critical thinking, teamwork and ethical practice

Education

DECEMBER 2010

Master of Science in Mechanical Engineering Lamar University, Texas

Thesis: Removal of Lunar Dust inside Confined Space and Effect of Shape Irregularity on Particle Migration.

JUNE 2007

Bachelor of Engineering in Mechanical Engineering Pillai's IIT, Maharashtra

Thesis: 'Design and Fabrication of Pancake Type Heat Exchanger'

Experience

OCT 2022 - PRESENT

Project Engineer Compass Energy Systems., Houston TX

- Designing natural gas compressor packages for gas lift, gas gathering and other pipeline applications
- Designing natural gas engine driven power generation packages
- Part of research projects for hydrogen compressor packaging

MAR 2021 - OCT 2022

Project Manager PDC Machines., Philadelphia PA

- Designed diaphragm compressor packages for various applications.
- High pressure equipment design for Hydrogen, Helium and other industrial gases.
- Some exposure to NFPA 2 containerize packages.

- Taking projects from purchase order to delivery of the product. Supported business development and estimation activities
- Special project 1 Hydrogen compressor package for mobile refueler
- Special project 2 Xenon compressor package for propellant application for satellite

JULY 2020 - MAR 2021

Project Manager Chemex Global Inc., Houston TX

- Managed project execution activities for Feasibility Studies, FEEDs, EPC, and design build projects.
- Managed a staff of personnel for engineering, administrative, project controls, subcontracts, and purchasing
- Assisted in development of effective project execution plans and critical path scheduling.
- Developed and maintained project master schedule using Primavera P6.
- Maintained Project Management Information System to provide necessary reporting and accounting.
- Reviewed and approved drawings and project related documentation.
- Identified and managed project risks to minimize exposure and provide guidance in project performance.
- Supported business development and estimation activities.

DECEMBER 2013 - MAY 2020

Project Engineer/Manager Enerflex, Houston TX

- Designed and manufactured of natural gas compressor packages and process equipment for gas processing facility
- Experience with motors, engine, reciprocating/screw compressors, pumps, various types of coolers and filters
- Procured and packaged API 610, 674 and 676 pumps with different seal plans
- Prepared sequence of operation, capacity control logic and alarm settings for PLC programming
- Ensured accuracy, completeness, timeliness and safety on the responsible projects
- Prepared data sheets for procuring pumps, vessels, control valves and instruments
- Performed technical and commercial bid evaluations for parts or vendor packages
- Released Bill of Material in SAP system, such that it should be received on time
- Worked with vendors and EPCs to ensure proper information flow
- Followed up on vendor packages order, drawing review, inspection and delivery
- Witnessed leak test, performance test and FAT at Enerflex shop and vendor shops
- Familiar with API, ASME Section VIII, ASME section IX, ANSI B31.3/31.8, TEMA, and IEC & OSHA
- Participated in HAZOP meeting, and Safety Integrity Level (SIL) meetings
- Provided support to sales and application teams to prepare quotations

Project Manager / Enerflex, Houston TX

- Set up an assembly flow line for mass manufacturing of compressor packages
- Led team of engineers, designers, supply chain, and manufacturing personnel
- Engineered compressor packages for Enerflex' rental business with large quantity
- Performed extensive upfront design efforts to minimize the assembly time and material cost
- Performed root cause analysis of failure and quick implementation of design changes

MAY 2011- DECEMBER 2013

Design Engineer / Atlas Copco Compressors LLC, Houston TX

- Designed instrument air packages which typically include a screw compressor, dryer, filtration and panel
- Designed industrial gas and natural gas compressor (reciprocating) packages which typically include components like a motor, a compressor, a pump, pulsation bottles, coolers and a control panel

- Performed as Lead Engineer for CNG Dispensers and CNG station layout
- Performed FEA analysis using SolidWorks
- Familiar with codes like ASME, ANSI and electrical codes such as UL, CSA, CE and NEC
- Troubleshooted of engineering problems occurred during and after production

AUGUST 2008-DECEMBER 2010

Research Assistant / Lamar University, Beaumont TX

- Performed CFD simulation of lunar dust behavior on lunar environment
- Designed 2D and 3D computational models of dust particles using different CAD tools
- Performed Grid Independence Study for the validity of the grid used for analysis
- Performed Fluid Flow Analysis, Thermal Analysis or Stress Analysis of models
- Developed User Defined Function (UDF) codes for the modification of CAE tools using C++

JUNE 2007-JULY 2008

Operations Engineer / INOX Air Products Ltd., Pen, India

- Operated 1260 TPD and 300 TPD Air Separation Unit (ASU) over Distributed Control System (DCS)
- Ensured the continuous supply of oxygen to a steel plant by maintaining reliability of the plant production
- Quality assurance of cryogenic products include liquid nitrogen, liquid oxygen and liquid argon
- Implementation of Environmental, Health and Safety Standards (EH&S)

OCTOBER 2006-JANUARY 2007

HVAC Intern / United Refrigeration, Pvt. Ltd., Mazagaon, India

- Learned fabrication and maintenance of commercial air conditioners and refrigerators
- Learned and performed HVAC load calculation for commercial buildings
- Got hands on experience of brazing, welding, gas cutting, drilling and different fabrication operations
- Witnessed design and fabrication of ventilation system for commercial complex

GOALS ACHIEVED

- Developed a Master Data for parts which engineers are using to building Bill of Material (BOM). This helped to reduce quotation time, increased accuracy and allowed company to have control over BOM and cost
- Used Adobe pdf and AutoCAD capabilities to create P&IDs quickly using Adobe. This allowed Application engineers to create and give P&IDs during bidding phase and engineer use it as go-by P&ID
- Developed folder structure to organize different files related to a project. This became company's standard structure and helped anybody in the company to locate files easily
- Developed a standard controls narrative for compression packages which became basis for all the packages

COMPUTER SKILLS

- Primavera P6
- Autodesk Inventor
- SAP
- C & C++

- InEight Project Management
- SolidWorks
- CFD Tool-Ansys Fluent
- Microsoft Visual Studio 2008
- Hysys
- AutoCAD
- FEA Ansys
- MATLAB