VISHAL BABUBHAI PATEL
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MECHANICAL ENGINEER WITH 2.8 YEARS OF INDUSTRIAL EXPERIENCE

Seeking a challenging opportunity with an organization of repute which recognizes & utilizes my true potential while nurturing my analytical and technical skills

PROFILE

- Master of Engineering in cryogenic discipline from L.D College of Engineering backed by Bachelor of Engineering in Mechanical discipline from R.K College of Engineering**,** accented with the latest trends and techniques of the field, having an inborn quantitative aptitude & determined to carve a successful and satisfying career in the industry
- Abilities of designing various mechanical components with latest analysis and modelling tools
- Enriched with the ability to learn new concepts & technology within a short span of time.
- Possess special interest in cryogenic engineering, heat transfer analysis, stress analysis, mechanical functions, planning and operations

INDUSTRIAL EXPERIENCE

Company: Institute for Plasma Research, Gandhinagar, Gujarat.
Duration: June 2014 to Current
Position: Mechanical Engineer
Synopsis: I have been working on following project,

- Design and Analysis of Turbo-expander Test Facility for Liquid Helium Plant. It involves 3D piping layout, stress analysis of piping and support structure, calculation of heat load etc.
- Procurement work related to Cryogenic Turbines, Helium gas compressor, Control Valves, Safety Valve etc.

Company: Institute for Plasma Research, Gandhinagar, Gujarat.
Duration: June 2013 to March 2014
Position: Mechanical Engineer
Synopsis: I was involved on following two projects,

- Design of Turbine Cartridge Peripherals Elements. It involves 3D modeling of components, made video in CATIA V5 software about assembly sequence of components of turbine.
- Design of Compressor and Oil Removal System (CORS) for the Helium Liquefier. It involves calculations of oil separator system from helium gas, design of high efficient oil coalescer, helium and oil coolers, control and safety valves.

TECHNICAL SKILLS

- Material selection for cryogenic application
- 3-dimensional modeling, drafting and assembly of components with latest CAD softwares
- Animation of assembly sequence of components by CATIA V5 software
- 3D Piping layout by CAD software like CATIA V5 and Solid Works
- Thermal and structure analysis of heat exchanger
- Process and structure analysis of oil separator and oil coalescer
- Design and pressure drop analysis of micron size filters used in purification system
- Sizing of safety valve, flow control valve and pressure reducing valve
- Sizing and stress analysis of piping system
- Stress analysis of support structures for various components
- Design and analysis of vacuum vessel & pressure vessel
- Calculation of heat load on cryogenic system due to conduction, convection and radiation
- Sizing of vacuum pumping system to create vacuum environment in vacuum chamber
- Design of automatic liquid drainer
- Generation of detailed specifications of mechanical components for the procurement
- Generation of detailed reports of all above mentioned works.

EDUCATIONAL CREDENTIALS

- Master of Engineering in Cryogenic (Mechanical) - 2013
  L.D. College of Engineering, Ahmedabad, (Board-GTU); 8.54CPI
- Bachelor of Engineering in Mechanical - 2011
  R.K College of Engineering, Rajkot, (Board-Saurashtra University); 69.21 %
- Diploma Engineering in Mechanical – 2007
  N.G Patel Polytechnic, Bardoli, (Board-T.E.B, Gandhinagar); 70.57 %

SOFTWARE SKILLS

Modelling & Drafting Tool:	CATIA V5, Solid Edge, Solid Works, Autocad
Piping Analysis Tool:	CAE PIPE, CAESAR II
Pressure Vessel Analysis Tool:	PVElite
Other Analysis Tool:	ANSYS Workbench: Structure and Thermal Module

PROJECT UNDERTAKEN

Title:	Design and Analysis of Turboexpander Test Facility for the Liquid Helium Plant
Location:	Institute for Plasma Research, Gandhinagar, Gujarat
Duration:	Nov 2012 to May 2013 (M.E Dissertation)
Synopsis:	Project work includes equivalence performance process parameter, layout of components inside of cryostat, flexibility analysis of piping, design of cryostat, and design of thermal shield etc.

PAPER/POSTER PRESNTED

- 'Design Considerations for the Test Facility of Turboexpander of Helium Refrigerator/Liquefier' at NSC-24 at Nirma University.
- 'Study of Welding Aspects for Liquid Nitrogen Cooled Thermal shield' at International conference on emerging trends in mechanical engineering (ICETME-2013) held by GCET, V.V Nagar. Gujarat. ISBN No for e-proceeding: 978-1-61233-6244. E- Proceeding Published by Universal Publishers, Brown Walker Press, USA.

REFERENCE

Mr. A.K. Sahu
Engineer/Scientist SF, Division Head of Large Cryogenic Plant
Institute for Plasma Research,
Bhat, Gandhinagar
Contact No: +91-8980487464

PERSONAL DETAIL

Date of Birth:	June 24, 1987
Permanent Add:	B-156, Parsottam Nagar, Bhatar-Althan Road, Bhatar, Surat-395017, Gujarat.
Present Add:	B-403, Akshar Habitat, Near Koteshwar Gam, Motera, Ahmedabad-380005, Gujarat.
Languages Known:	English, Hindi, and Gujarati

DECLARATION

I certify that the information furnished above is factually correct

DATE: **SIGNATURE**: