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## PIPING DESIGN ENGINEER

### PROFILE SNAPSHOT

- ✦ A competent professional with nearly **10+ years** of experience in Preparation of piping layout based on P&ID and equipment GA drawings, Selection of Material as per ASME,DIN & IS Standards Preparation of Piping calculations, Preparation and checking of piping fabrication drawings (Isometric) , Spool drawings & Design and selection of the supports and spring hanger size based on the stress analysis report.
- ✦ Currently associated with **Rediflex AB** & working in **ESS- European Spallation Source** as **Pipe Design Engineer** using Aveva E3D software.
- ✦ Proficiency in preparation & checking of piping fabrication drawings along with pipe size, thickness and material specification based on velocity with rated flow, Pressure, Temperature.
- ✦ Effectively coordinating with Team Members, Contractors & Customers for smooth operation of project for achieving targets.
- ✦ An effective communicator with excellent relationship management skills and strong analytical, leadership, decision making, problem solving & organizational abilities.

### AREAS OF EXPERTISE

<b>Oil &amp; Gas Piping</b>	<b>Boiler Piping</b>	<b>Material List Documents</b>
<b>Pressure drop &amp; Strength cal</b>	<b>Water Piping</b>	<b>Engineering Proposals</b>

### MAJOR PROJECTS HANDLED

Presently working for **European Spallation Source (ESS) – Sweden** as *Piping Design Consultant Engineer (March 2018 – Till now)*

### Roles & Responsibility

- Responsible for Overall Piping & Electrical cable raceways inside Target area - Bunker by considering mandatory requirements like safety, space allocation ,operation, constructability & Economical solutions.
- Input Requirements gathering with various Instrument teams & other stackholders
- Responsible for Preparation of P&ID in AVEVA Diagrams.
- Responsible for Utility piping's inside Bunker & Vacuum piping for Neutron guides & choppers
- Choosing of Material considering pressure, temperature, medium, Climate factor & non-radiation.
- Planning of Quick dismantle of all the Piping & supporting structure, electrical raceways during maintenance.
- Coordinating with the Pipe stress analysis team to get the required Stress iso's and Reports of flexibility analysis and updating the required changes in the E3D Model.
- Setting up Meeting with Lead Engineer , Installation Team & other stackholders for PDR & CDR.
- Responsible for Preparation of Piping Isometrics, Spool piece drawings and Support detail drawings in AVEVA E3D after approval from the committee.
- Responsible for Preparation of all GA's like Piping, Electrical cable raceways & Equipment etc.
- Preparation & checking of Piping Material Take-Off (MTO) for piping components including all types of fittings, flanges, Gaskets, components.
- Preparation of Piping Support BOM list.
- Clash Check & Reviewing of 3D layouts using AUTODESK NAVISWORK.
- Documentation - Guidelines to use the E3D tool.

Successfully ongoing the following Projects in Tata Consultancy Services, Chennai (Jan, 2015-Jan2018) as **Piping Design Engineer**

### **Projects:**

- M/S GENERAL ELECTRICALS (GE)
  - ☐ Salof and IE&C Oil & Gas
  - ☐ LINDE & CGC Oil & Gas
  - ☐ EL-Hussein, Panama, Aconcagua completed
  - ☐ JEJU, IERNUT, LOTTE & JPS Gas Turbine outer pipings under progress.

### **Roles & Responsibility**

- Responsible for Overall Piping and plant layout by considering mandatory requirements like safety, operation, General arrangement of Equipment's for both Offshore and Onshore EPC projects using Smart Plant 3D
- Responsible for Preparation of all GA's like Piping, Equipment drawings & Preparation of Piping Isometrics and Support drawings drawn as per the Engineering standard and Client requirement.
- Coordinating with the Pipe stress analysis team to get the required Stress iso's and Reports of flexibility analysis and updating the required changes in the Smart Plant 3D Model.
- Calculation of Piping loads obtained from stress analysis reports and providing ISD Drawings (Information for structural Design) to Civil and Structural department.
- Preparation & checking of Piping & Support BOM List
- Monitoring and follow up on piping design progress & Conduct design reviews for finalizing of piping Deliverables.
- Reviewing Piping Material Specification & Valve Material Specification and updated according to the project requirement.
- Responsible & Ensuring for Preparation of Welding detail drawings for both SITE & SHOP welds.
- Preparation of calculations such as Pipe Sizing, Pipe wall thickness & Preparation of PMS etc.
- Coordinating with the Civil and structural team to get the required input Such as Pipe rack, Access Platform, Staircase, Foundation of the Equipment's & additional steel Members were required to place the supports.
- Collaborating with the senior management to maintain a continuous stream of information regarding the project status and progress.

Successfully executed the following Projects during employment with Uni Produire Engineering (P) Ltd., Trichy (2012-2015) as **Design Engineer**

### **Projects:**

- M/S JK PAPER LIMITED - CHEMICAL RECOVERY BOILER
  - ☐ 1x1400 tds/day - M/s. ENMAS ANDRITZ PVT LTD.,
- M/S TNEB project - WALCHANDNAGAR INDUSTRIES LTD.,
  - ☐ (1 x 12, 15, 18 Mwe Co-Gen Power Plant)
- M/S OTV ENGINEERING - FRANCE.
  - ☐ Estimation of WTP piping fabrication & Erection cost for prebiding.
- M/s D F POWER SYSTEMS PVT. LTD (TN)
  - ☐ 3 x 25TPH Smoke tube boiler for 1 MTPA coke oven project. (Amba River Coke - Dolvi, INDIA)

- M/s. THERMAX LTD., POWER DIVISION
- 1 x 6.1MW Cogen power plant (Coal Handling System) Hetro Infrastructure Sez Ltd.

## EMPLOYMENT SCAN

### Key Deliverables: -

#### OIL & GAS TURBINE PIPING

- ↳ Nozzle orientation fixing in SP3D based on Equipment GA.
- ↳ Preparation of piping model based on Customer inputs.
- ↳ Piping Isometric generation in SP3D.
- ↳ Interference Check.
- ↳ Preparation of Piping MTO list.
- ↳ Modelling piping supports in SP3D.
- ↳ Preparation Piping General arrangement drawing in SP3D.

#### BOILER PIPING

- ↳ Complete study of basic Inputs from the customer & coordination with the team members about the project schedules & deliverables.
- ↳ Preparation of piping layout based on boiler GA, TG building drawing, P&ID and equipment GA in Auto plant 3D tool.
- ↳ Determination of Diameter and thickness (based on flow and strength).
- ↳ Preparation of Pressure drop calculation and pipe thickness calculation.
- ↳ Selection of flange, fittings and its size, material, rating and end connection as per the ASME B16.5, B16.9 and B16.11.
- ↳ Preparation of Piping isometric sketches for the Layout.
- ↳ Knowledge in Material standards related to ASME sections, DIN & IS sections.
- ↳ Stiffness and Flexibility analysis.
- ↳ Selection of Valve as per ASME -16.34.
- ↳ Preparation of input sketch for support drawings for various IBR & Non - IBR piping's.

## ACADEMIC & PROFESSIONAL CREDENTIALS

- ↳ **Bachelor of Engineering (Mechanical)** from Mookambigai college of Engineering, Trichy. (Anna University affiliated) in 2011 with 66 % having zeal to excel in Design sphere.

## PROFESSIONAL CERTIFICATIONS/ ENHANCEMENTS

- ↳ Executed academic Project in "**Finite Element Analysis & Optimization of design parameters of Composite Leaf Spring**" in heavy duty vehicles (study project) our aim of this project is to replace steel material with composite leaf spring to increase its lifetime, withstand load carrying capacity & cost reduction.
- ↳ Certification in **AutoCAD (ALL Levels)**.
- ↳ Certification in **AVEVA E3D (Piping,Draw,Diagram user, 3D support)**
- ↳ Certification in **Piping Technology and Stress Analysis** in 2010 (CAP PIPING)
- ↳ Well trained in the **Smart Plant 3D, AutoCAD, Plant 3D**
- ↳ Capable of working in **Autodesk Navisworks, Micro station & Stress Analysis software (CESEAR-II)**

## IT SKILLS

- ↳ Well versed with PLM end user, Windows Application, MS office & Open office.

## PERSONAL DOSSIER

Date of Birth	05 <sup>th</sup> July 1989
Languages Known	English , Tamil & Swedish (Basic level)
Passport Details	Passport Number: U2974065
	Expiry Date: 26 <sup>th</sup> November 2030