

## **RESUME**

### **DHAIVAT THAKAR**

#### **MECHANICAL ENGINEER - STATIC**

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#### **Career Objective**

To be in an engineering team of an established organization executing large scale projects which offers an individual a technical platform to expose their skills and be a part of company's success by meeting the schedule & cost targets.

#### **Experience**

I have 3 years' experience in the field of Static equipment design. I have experience in the design of Pressure Vessels, Shell & Tube Heat exchangers and Air Cooled Heat Exchangers based on ASME, TEMA & API codes. I am conversant with Ansys, Code Calc, PV Elite, FE661 & Nozzle PRO.

#### **Nature of job / Responsibilities**

- Mechanical design of heat exchangers (shell & tube and air cooled) and pressure vessels
- Responsible for obtaining approval of design & drawings from Clients and TPI
- Preparation of purchase specifications based on Client's specifications & codes for material procurement
- Allotment & follow up of jobs with draughtsman to meet the engineering schedule
- Checking of fabrication drawings
- Preliminary design of equipments for making proposals to Clients
- Monitoring & controlling engineering activities to keep it in the track of overall project schedule & reporting the engineering status to the Management & Clients
- Coordinating with production & QC departments on any technical issues for smooth running of the project
- Coordinating with Subcontractors and material suppliers on technical issues
- Participate in discussions with Client & TPI to resolve any technical hurdles and ensure smooth running of the project

## Projects Handled

- Shell & Tube Heat Exchangers : U tube , Fixed tube sheet & floating type exchangers for BPCL and Aishwarya Project, IOCL Haldia.
- Air Cool Heat Exchanger for Aishwarya Project, IOCL Haldia.
- Shell & Tube heat exchangers for Dangote Refinery.
- Shell & Tube heat exchangers for Koerting Ltd.
- Air Cooled Heat Exchangers for KPCL Kochi & Mumbai.
- Air Cooled Heat Exchangers for Essar , BORL & Reliance

**Employer: Patels Airtemp India Ltd**

**Period: Sept'13 to date continued**

## Technical Activities / Skills

- \* design of Pressure Vessels, Shell & Tube heat exchangers and Air Cooled Heat Exchangers based on ASME Sec VIII Div 1, API 661, TEMA & IBR regulations.
- \* design of AES, AKT, AHS, AEM, BEM type heat exchangers (for IOCL).
- \* expansion bellow design as per TEMA and Sec VIII Div 1, Appendix 26
- \* design of floating head and fixed tube sheet heat exchangers as per TEMA and ASME, part UHX
- \* design of plug type, inner plug type and cover type headers for Air Cooled Heat Exchangers using API 661 and App. 13 of ASME Sec VIII Div 1
- \* carrying out saddle calculations as per Dennis Moss and ASME Sec VIII Div 2
- \* Checking of Structure detailed Drawings of Air cooled Heat Exchangers w.r.t Structure design ( STAAD ) and General Arrangement Drawing
- \* Header leg shear stress calculations for bundles inclined at 15 deg.
- \* leg support design, lifting lug calculations, seismic and wind design as per IS 1893 and IS 1875
- \* preparation / review of fabrication drawings.
- \* selection of belt drives for air coolers
- \* preparation / review of various drawings for air coolers such as structure details , tube bundle, bundle frame, motor suspension, plenum chamber, fan drive assembly bearing block, general arrangement drawing
- \* preparation of technical purchase specifications for vessels and heat exchangers as per ASME Sec II, NACE MR 0103 & MR 0175 & consultant's standards. Preparation of technical purchase specifications for vibration switch, fans, belt drive, vibration transmitter, junction box, VFD ,motors, louvers, local control system for air coolers.

- \* nozzle local load calculations as per WRC 297
- \* review of STAAD calculations
- \* stress classification per ASME Sec VIII Div. 2
- \* carrying out FEA using FE 661 software for nozzle loads on header plates
- \* finding out principal stresses for internal pressure and static head for nuclear vessels and principal stresses during hydrotest using in-house developed excel based programs
- \* preparation of technical purchase specifications for nuclear vessels as per ASME Sec II part A and ASME Sec III NB 2000 requirements
- \* nuclear vessels - design by analysis as per Sec 3 Div. 1 NB 3200
- \* calculating bolt torque required for flange

### Computer Skills

Operating Systems: Windows XP / Windows 7.

Software packages: MS Office, AutoCAD, Ansys, CodeCalc, PV Elite, FE661, Nozzle PRO

### Professional Qualification

#### (1) Bachelor of Engineering (Mechanical) Aug 2010

College: Saphthagiri College of Engineering, Bangalore  
University: Visveswaraiah Technological University

#### (2) Master of Engineering (CAD / CAM) Aug 2013

College: Indus Institute of Technology & Engineering  
University: Gujarat Technological University

Dissertation on 'Analysis of Catalyst Support Ring and Head to Skirt Junction in a pressure vessel based on ASME Section VIII Division 2 using ANSYS software' at **L&T-Chiyoda Limited** from Jul 2012 to Jun 2013

### Paper published

*Analysis of Catalyst Support Ring in a pressure vessel based on ASME Section VIII Division 2 using ANSYS software*

### Project undertaken

Title: Pneumatic powered pick and place equipment

### Seminar

Dhaivat Thakar

Carried out literature review and prepared a report on various types of heat exchangers including the Compact type heat exchangers. Amongst the Compact heat exchangers, carried out extensive study of [Printed Circuit Heat Exchangers \(PCHE\)](#) used in the oil & gas industry. Presented the report in a university seminar.

## Reference

References will be provided if required.

## Personal Profile

Date of Birth :	Dec 21, 1987
Sex :	Male
Marital Status :	Single
Languages known :	English, Hindi, Gujarati
Hobbies :	Reading, music & cricket
Passport Number :	F7217858, date of expiry - 30/03/2016
Permanent address :	4 Kapil Corner, Opp. Rajesh Tower, Gotri Road Baroda 390021 <i>Alternate:</i> 7, Aishwarya Appt., Opposite Jalaram mandir, Juna sharda mandir, Paldi, Ahmedabad-380006
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**Place:** Ahmedabad

**DHAIVAT THAKAR**

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