

JOHN PATRICK A. AMBAY

SENIOR MECHANICAL ENGINEER

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PROFESSIONAL PROFILE

Mechanical Engineer with over 12 years of expertise designing static equipment such pressure vessels, tanks, and heat exchangers. Has practical experience with standards and specifications for the oil and gas and food industries. Extensive usage of CAD software to create 3D models and fabrication drawings for equipment.

Having worked for multinational corporations and on large-scale projects, I am conversant with engineering methods in equipment design. Responsibility involves ensuring that the design materials and strength calculations meet the project requirements. Have prior knowledge of process simulation and calculation software.

CORE SKILLS

Software:

- ANSYS Mechanical
- HTRI
- ASPENTECH EDR
- Codeware Compress
- AutoDesk, AutoCAD
- AutoDesk Inventor
- AutoDesk Fusion 360
- Intergraph PVElite

Research and Design:

- ASME Boiler and Pressure Vessel Code
- American Petroleum Institute (API)
- Process Industry Practices (PIP)
- Tubular Exchanger Manufacturer Association (TEMA Standards)
- Shell design, engineering and practice

CAREER SUMMARY

MECHANICAL ENGINEER, INDEPENDENT CONTRACTOR

September 2012 – Present

<https://www.upwork.com/freelancers/johnambay>

- Work independently to create static equipment designs in accordance with the ASME Code and PED.
- Utilized PVElite software to produced strength calculation.
- Prepared 3D models and 2D fabrication drawings for static equipment using Autodesk Inventor.
- Utilized Ansys workbench for the linear static analysis.

Related Projects:

- Marinegenic – LNG Tank Design
- Stk-Squared Consulting, LLC – ASME Pressure Vessel Design
- TPS Pte Ltd – High Shear Mixer and Tank design
- Linde, LLC - Ethylene Recovery Unit
- ISO and DNV Tank design
- Newsand, LLC – ASME Pressure Vessel Design

August 2022 - Present
December 2017 – Present
August 2019 - Present
February 2018 – January 2019
August 2015 – June 2016
July 2014 – July 2015

MECHANICAL ENGINEER
Saudi Manpower Solutions Company

September 2017 – September 2019

Projects:

YANPET – ExxonMobil and SABIC JV

- Using SAP ERP, manages operation and maintenance spares for the whole plant area, including pressure vessels, boilers, heat exchangers, pipelines and valves, relief devices, rotating and packaging equipment.
- Created requisition specification based on business and industry standards to be utilized for equipment maintenance and modification.
- Examined fabrication drawings and related materials.
- Performed bid review and technical clarification with vendor.
- Participated in material reception and inspection of equipment and equipment spares for final acceptance, including essential documents such as Material Test Certificate (MTC) and Non-Destructive Examination (NDE).

STATIC EQUIPMENT ENGINEER/THERMAL RATING ENGINEER
Fluor Corporation

October 2014 – September 2016

- Worked independently to prepare static equipment basic engineering and detailed engineering designs.
- Created documentation such mechanical datasheets, engineering drawings, and specifications
- Prepared request for quotations, as well as evaluated and analyzed technical bids.
- Reviewed and approved vendor drawings, calculations, and quality control documentation.
- Participated in the examination of 3D models to resolve structural interferences.
- Calculated the thermal and strength of a shell and tube heat exchanger and an air-cooled heat exchanger using HTRI and ASPEN EDR
- Utilized Codeware Compress to produced the strength calculations

Projects:

- | | |
|---|---------------------------------|
| ○ Marathon Petroleum Company, LP - ROUX Project (FEED) | October 2014 - February 2015 |
| ○ Marathon Petroleum Company LP - Garyville FAR (EP) | March 2015 - September 2016 |
| ○ Marathon Petroleum Company LP - Tier 3 ULSG Project - Unit 55 GDU (EP) | September 2015 - September 2016 |
| ○ Blanchard Refining Company LLC - Tier 3 ULSG Project - Unit 55 GDU (FEED) | December 2015 - September 2016 |

STATIC EQUIPMENT ENGINEER
Chiyoda Corporation

February 2010 - October 2014

- Developed a project execution strategy and oversaw man-hour consumption and progress.
- Has been assigned in a manufacturing plant environment to solve technical difficulties and monitor progress.
- Developed calculations, mechanical datasheets, technical drawings, and specifications.
- Prepared quotation requests, and performed technical bid review and analysis.
- Reviewed and approved vendor drawings, calculations, and quality control documentation.

Projects:

- | | |
|---|--------------------------------|
| ○ Tokuyama Malaysia Sdn. Bhd - Polycrystalline Silicon Plant (EPC) | November 2010 - February 2012 |
| ○ Tokuyama Malaysia Sdn. Bhd - Second-Stage Polycrystalline Silicon Plant (EPC) | February 2012 - January 2013 |
| ○ Shell Tabangao Asset Renewal – Tabangao Refinery Euro IV Compliance. (FEED) | February 2013 - September 2013 |
| ○ Shell Tabangao Asset Renewal – Tabangao Refinery Euro IV Compliance. (EPC) | September 2013 - January 2014 |
| ○ Nghi Son Refinery and Petrochemical LLC - Nghi Son Refinery Project (EPC) | January 2014 - April 2014 |
| ○ Golden Pass Products LLC - Golden Pass LNG Export Terminal (FEED) | August 2014 - October 2014 |

EDUCATION

Bachelor of Science in Mechanical Engineering

- Polytechnic University of the Philippines, 2004-2009

CERTIFICATIONS

Registered Mechanical Engineer

Professional Regulation Commission - Manila

License No. 73022

Issued: November 2009

Basic Finite Element Analysis (FEA) course using MSC Nastran/Patran training

Hexagon/Department of Science and Technology

May 14 to June 25, 2022

Introduction to Finite Element Analysis

Principia Engineering & Technology Center

July 9, 2022

Autodesk Inventor Training

Muntinlupa City-Philippines

June 2008