



Job Description

Job Title:	Mechanical Design Engineer Apprentice
Department:	Design Engineering
Reports to:	Quality – Team leader
Location:	West Bromwich
Job Code:	
Salary Grade	NMW – according to age

SUMMARY/JOB PURPOSE

To undertake an advanced apprenticeship as a mechanical engineering technician leading to a nationally recognised qualification and accreditation. In agreement with Jacopa Ltd, the job holder will be required to attend and complete required national recognised training courses. This will involve attendance at local educational establishments, on a “day release”, and attend classes as appropriate.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following.

1. To complete a programme of training to be conducted within the Mechanical Engineering Apprentice workshops and programme.
2. Reviewing all applicable job data, including POs, project plans and specifications to determine characteristics of order and establishing product development objectives.
3. Preparing and updating layouts, detailed drawings, calculations, specifications, and documenting instructions necessary.
4. Work closely with all functions of the business to ensure that the most economic, safe and suitable design is achieved.
5. Produce CAD drawings for equipment, civil work layouts and mechanical design details to specific requirements.
6. Review of detail drawings and bills of materials during and prior to being issued for manufacture.
7. Apply and supervise the application of safety standards to those products and services.
8. Advising management of development project status while adhering to all company and corporate policies;

LOCAL DUTIES AND RESPONSIBILITIES

1. Creating layouts & equipment general assembly's (3D Inventor and 2D AutoCAD).
2. Reviewing and adhering to specifications & applicable standards.
3. Development planning to adhere to submission requirements.
4. Perform detailed engineering calculations (including utilising Mathcad).
5. Detailed design for outsourced manufacturing, installation, maintenance & decommissioning of equipment.
6. Creating detailed Parts lists/Bills of Manufacture with applicable software.
7. Liaising with suppliers - obtaining quotations for equipment/services.

8. Knowledge & application of Hazop, design risk matrix, risk assessments, CDM risk matrix/assessments, Machinery Directive, CE marking, Atex requirements & respective collating & filing of all data.
9. Detailed checking of all drawings, documentation & calculations.
10. Able to work with own initiative and take responsibility / ownership of workload
11. Performs all work in accordance with established safety procedures
12. Other duties may be assigned as required.

LEADERSHIP/ SUPERVISORY RESPONSIBILITIES

None.

EDUCATION, TRAINING AND EXPERIENCE

- Ability to read, analyse, and interpret industry related documents.
- Ability to understand English, at advanced level via written and verbal communication
- Ability to apply principles of logical or scientific thinking to a range of intellectual and practical problems.
- Ability to make decisions requiring the use of a variety of variables in standard situations.
- Computer Skills: Competency in Word, Excel, and other MS Office programs;
- Mathematical Skills: Ability to apply advanced mathematical equations to a variety of standard situations.
- Ability to read and understand specification, fabrication, erection, and standard engineering drawings;
- Knowledge of machining, fabrication, and assembly techniques;
- Knowledge of drafting standard for both structural and mechanical design;

A minimum of 4 GCSE's, or equivalent, at Grade A* to C including English, Maths and a science related subject.

No prerequisite experience required but a demonstrable interest in mechanical engineering through school or hobby interests.

COMMUNICATION SKILLS

Ability to understand, read, write and converse in English.

INDEPENDENT JUDGEMENT, DECISION MAKING & PROBLEM SOLVING:

Able to follow directions and make decisions based on specific directions and outlines.
Able to use basic judgment in the performance of job duties with supervisor support.

OTHER SKILLS AND ABILITIES

Computer skills: Basic understanding of Word and Excel or equivalent software.
Demonstrable interest in an engineering discipline with the ability to work efficiently and accurately with high motivation. Also have aptitude for practical science or engineering skills



Ability to work as a team member and possess good interpersonal, communication and literacy skills.

Ability to work with efficiently, good attention to detail and to be able to meet deadlines.

Ability to prioritise workload and work under own initiative.

High level of flexibility and dependability

Mathematical skills: Ability to understand and apply basic mathematical concepts such as addition, subtraction, multiplication, division and geometry.

Travel: Travel required to college and training workshops.

Other: None

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is occasionally exposed to moving mechanical parts. The noise level in the work environment is usually moderate.

Date Prepared 18.09.2018

Approved by Line Manager Date

Signed by Employee Date