

Title	Mechanical Design Engineer
Job Opportunity Code	GR-R&D002-18
Department	R&D / Manufacturing
Reporting to	Department Manager
Main Location	Elefsina, Greece
Form of Employment	Full time
Final Submission Date	07/12/2018, 17:00 GMT+2

Job Description and Purpose

The position requires creativity and alternative thinking to design and develop new ideas for and answers to work-related problems. The candidate will be responsible for providing efficient solutions to the design & development of products, ranging from small component designs to extremely large plant, machinery or vehicles. He / She can work on all stages of a product, from research and development to design and manufacture, through to installation and final commissioning. The goal is to design and manufacture mechanical components of excellence & innovation.

Important Note

As part of your role, you will be handling sensitive information in terms of technology private information and thus you will be granted a higher user security clearance. Please be aware that because of these critical duties, you will be subject to system monitoring, and supervisory evaluation to ensure continuous adherence to security clearance processes and procedures. Higher security clearance users are subject to a zero tolerance policy for security violations.

Major Responsibilities

- Assists in the design, development and evaluation of new and existing products;
- Conducts on-site measurements;
- Carries out detailed mechanical design work including 3D modelling, as required.
- Assures the specification compliance of designs;
- Carries out design validation and verification, which includes analyses and tests as required (load analysis, stress analysis using hand calculations or finite element analysis, part & assembly tolerance analysis, functional/environmental/static load/robustness testing);
- Conducts all necessary calculations and highlights all mechanical/technical risks to the Department's Manager;
- Agrees on the mechanical design approach with the Department's Manager;
- Prepares and presents mechanical designs at technical reviews of requirements, specifications, designs and codes;
- Carries out design change requests in a timely manner;
- Assists in the evaluation and troubleshooting of products;
- Checks regularly that drawing/parts libraries are up to date and correct;
- Checks and validates mechanical designs and drawings when required;
- Develops manufacturing processes by designing and modifying equipment for fabricating, building, assembling and installing components;
- Works closely with manufacturing and production engineers to ensure products are designed for manufacture;
- Creates technical reports and documentation as required for Company's Projects;
- Follows departmental processes relating to management of designs;
- Ensures design files and information are kept up to date, and stored in accordance with departmental procedures;
- Keeps up to date with the latest manufacturing techniques and drawing standards;
- Reviews regularly the departmental design processes and identifies any updates required;
- Liaises with other departments to ensure that the required information is available when needed;

- Possibility of traveling to employer sites (domestically and globally) as required to carry out job responsibilities;

Position Requirements

Education & Training

(The extent or level of knowledge or training obtained by formal education or outside study that is necessary to achieve normal job performance and proficiency. Such knowledge is to be considered the minimum education required for performing the position responsibilities.)

- Degree in Mechanical Engineering or equivalent. Advance training in mechanical design such as one would receive at a university, technical trade schools etc. or even by multiple years of on the job training;
- Excellent knowledge of 2D or 3D Mechanical design and manufacturing software such as but not limited to Autodesk Inventor and Autodesk AutoCAD;
- Familiarity with graphic designer techniques (Photoshop) and/or 3D animation and modelling software (3DS MAX or Maya);
- Adequate knowledge of engineering analysis tools (ANSYS, ProMechanica or similar);
- Solid understanding of core concepts including mechanics, kinematics, thermodynamics, materials science etc.;
- Clear and effective oral and written communication skills in English language;
- Additional working knowledge of foreign languages (e.g. Italian, German, etc.) are to be considered as extra skills;
- Proficient knowledge of Microsoft Office required;
- In the event the candidate is a male, he must have completed military services;
- Possession of driving license is desired;

Experience

(The minimum experience required to perform the job. This experience can be gained in previous employment in a similar job and/or on the job with the current employer. Experience in this factor is measured in time periods e.g. 3-6 months, 3-5 years, 10-15 years etc.)

- Minimum 3 years working experience in mechanical design. Other working experience is under consideration as well;
- Working experience with product lifecycle management (PLM), finite element analysis (FEA) and computational fluid dynamics (CFD);

Skills & Personal Qualities

(The minimum set of skills and personal qualities required to perform the job. Skills required are presenting the expertise or talent to do a job or task. Personal qualities describe the life skills need to be used to communicate and interact with other people, both individually and in groups. Both indicate the candidate's qualifications as they relate to the job and how they fit in the company culture.)

- Ability to communicate technical knowledge in a clear and understandable manner;
- Ability to quickly assimilate new information;
- Ability and willingness to learn new skills;
- Creativity and analytical skills
- Technical writing skills
- Must be able to work both as part of a team or independently;
- Must possess problem solving skills, strong digital and design skills, ability to troubleshoot in a logical manner;
- Must be able to exercises judgment within procedures and practices to determine appropriate action;

- Strong interpersonal and analytical skills operating with high level of responsibility and independency;
- Must be flexible in work habits and work schedule;
- Must have the ability to maintain good working relationships with other employees;

Decision Making & Problem Solving

(The mental skills and mental effort required to perform the job. The complexity of decisions and ingenuity required describes the variety and routine involved with assigned tasks and responsibilities, the frequency of problems and the extent to which the work requires analytical ability and exercise of judgement.)

- Tasks are diversified and follow a wide range of standardized slightly complex procedures;
- Tasks are considered semi-routine and may be of several varieties;
- Judgement exercise within procedures and practices to determine appropriate action; (common sense)
- Analysis of data generally applied to the solution of specific problems;
- Problems may occur as a regular part of the job;
- Incumbent works on assigned objectives and may work occasionally independently on special projects;
- Candidate must possess problem solving skills and ability to troubleshoot in a logical manner;

Supervisory & Management Responsibility

(Job responsibilities in regards to directing, controlling and coordinating the efforts of employees' e.g. supervisory, training, management and advisory responsibilities. Describes the responsibilities for advising management, providing functional advice and control for coordinating activities or groups. Indicates the number of direct and indirect reports and their position(s).)

- No direct or indirect reports;

Independence of Action

(Describes the extent and closeness of supervision required and received, as well as the availability and involvement of the immediate supervisor. Consideration should be given to standard practices, instruction and procedures, as well as built in checks and reports that provide the employees with controls and restricts independence of action.)

- Occasional supervision required. Candidate would work along on routine work and checks with supervisor only when in doubt. Production generally precedes a check on the quality of work. Established methods and procedures are clearly established and general instructions provided.

Consequence of Error & Budget Responsibilities

(Describes the responsibility for loss to the organization due to any single error resulting from actions or decisions involving the work function. Includes financial and material responsibility, responsibility for accuracy, and the safety of other. Describes the responsibility for establishing a budget and final accountability for its control. In some cases, budget responsibility may be indirect or influential.)

- Errors usually discovered during manufacturing as well as actual testing of the designed products.
- The effect is usually affecting manufacturing departments and may cause a significant impact to Company's project executions in terms of time and income;

Confidentiality

(Describes the integrity and discretion necessary to safeguard confidential data handled or obtained as a regular part of the job.)

Frequent contact with confidential data or information where disclosure will have a potent adverse internal and/or external effect;

Contacts-Internal and External

(Describes the responsibility for meeting, dealing with and influencing others. Contacts may be internal and external. The nature, purpose, frequency and level of contacts should be described. The level of difficulty and importance of the contacts should be described.)

- Contacts of importance are a regular part of the responsibilities of the position;
- Tact and judgement are required when dealing with others;
- Excellent communication skills are required, both written & oral, when dealing with others;
- Clear and effective oral and written communication skills in English language;
- Ability to react well at all communication levels is important;
- Internal Contacts – Presenting information where tact and judgement is required to obtain approval of action, cooperation or secure a decision;
- External Contacts – Regular contact when dealing with outside contacts however, procedures and standards are established and are to be followed;

Standard Job Requirements

- All individuals are expected to be flexible in undertaking the duties and responsibilities attached to their job and may be asked to perform other duties which reasonably correspond to the general character of their job and their level of responsibility;
- All individuals are expected to maintain personal and professional development to meet the changing demands of the job and participate in appropriate learning and development activities;
- To recognize health and safety is a responsibility of every individual, to take reasonable care of self and others and to comply with Health, Safety and Environmental policies and procedures and compliance with all audits and inspections;
- To promote equality as part of the job and to treat everyone with fairness and dignity;
- All individuals are expected to carry out their duties and responsibilities by adhering to all compliance and auditing requirements for the conduct of ethical and transparent operations including the compliance to all Assodivers policies, guidelines and procedures;

Work Schedule

- The Mechanical Design Engineer has a schedule that flexes around the need but typically is based on a Monday-Friday 08:00 to 16:00 availability;
- It is common for the Mechanical Design Engineer to work in a flexible basis to meet with deadlines;
- Travelling and overseas stays may be required in the line of business duties;

Working Conditions

Physical Demands

(The nature of physical effort leading to physical fatigue)

Regular physical effort may be required such as walking, crouching, transporting equipment up to 20 kg and working in awkward positions with periods of accurate hand-eye coordination in repairing equipment.

Generally, the job requires 70% sitting, 10% walking and 20% standing.

Environmental Conditions

(The nature of adverse environmental conditions affecting the person)

The Mechanical Design Engineer may have to manage a number of projects at one time and may be interrupted frequently to meet the needs and requests of other employees or the Department Manager. The candidate may find the environment to be busy, noisy and will need serious organizational and time and stress management skills to complete the required tasks. The job is performed in a generally clean and healthy environment.

Sensory Demands

(The nature of demands on the person's senses)

Sensory demands include use of the computer, which may cause eyestrain and occasional headaches. The areas of work may be noisy and busy making it difficult for the person to concentrate. Regular sensory effort may be requested in testing and repairing delicate equipment, listening to staff describing symptoms of equipment problems.

Mental Demands

(Conditions that may lead to mental or emotional fatigue)

The Mechanical Design Engineer may have to deal with a moderate stressful environment as there are times were is possible the colleagues/ department managers/ co-operators are acting under pressure and require immediate services.

	Minimal	Moderate	Extreme
Physical Effort	X		
Health Risk	X		
Sensory Required		x	
Mental Stress		X	

This job description is intended to convey information essential to understand the scope of the job and the general nature and level of work performed by job holders within this job. However, this job description is not intended to be an exhaustive list of qualifications, skills, efforts, duties and responsibilities or working conditions associated with the position. All the above are illustrative duties and the post holder will be expected to become involved in a range of work to enable the department to respond effectively to the requirements of the Company.