VAC\_060A\_Rocket\_Concept\_Design\_Engineer\_180814



Department	Structures
Position	Rocket Concept Design Engineer
Description	Trade-off and conceptual design of Rocket components and systems
Responsibilities	Under general supervision and following PLD Space established guidance, <u>the candidate will</u> <u>perform engineering investigation for specific subsystem design assignments</u> .
	Main job functions and conducts for this work will require:
	<ul> <li>Researching of innovative techniques or application of standard procedures and criteria.</li> <li>Judgment in the evaluation and selection of the proper design adaptation in accordance to the requirements.</li> </ul>
	All these assignments are requiring complete working knowledge of Aerospace best practices and CAD modeling and drawing standards.
	Other general design tasks:
	<ul> <li>Design of Aerospace metallic (small and medium size machined parts, sheet metal components, metallic pressure vessels and tanks, etc.) and composites structures (sandwich and monolithic parts, hand lay-up, RTM, etc.).</li> </ul>
	- Generation of Engineering documentation such as 3D models, Drawings, BOMs, and Eng. Change Notes for the complete definition of Detailed Parts, Assemblies of primary and
	secondary structures (brackets for rigid pipes, valves, avionics equipment, antennas,
	mechanism, electrical harness, etc).
	information to the Manufacturing area.
	- Participate in the periodic design reviews with suppliers dealing specifications, feasibility, lead
	- Continuous research to optimize design solutions.
	- Identify and recommend opportunities to reduce costs and improve efficiency.
	<ul> <li>An occasional need to travel with the role will be required.</li> <li>Complete the assigned tasks "on time, on quality, on cost".</li> </ul>
Required Competences	Aerospace or Mechanical Engineering Bachelor's degree and minimum 3 years of technical
competences	experience in Aerospace industry as structural Design Engineer or an equivalent combination of education and experience.
	- Competence in the design of Aerospace primary structure (metallic and composites parts) and
	secondary structure. - Knowledge in selection and application of design criteria and rules, aerospace standards
	materials, strengths and properties, according to the loading conditions, working environment,
	etc.
	<ul> <li>High degree of CAD competence and PDM tools.</li> </ul>
Desired	- Familiar with the main manufacturing technologies and capabilities (machining, sheet metal
competences	forming, composite hand lay-up, RTM, Filament winding, etc.), and most typical assembly's methods and processes (drilling operations, reaming, mechanical joints by means of fasteners
	bolts, screws and other standards, metallic welding, bonding, sealing, finish painting, marking).
	- Proven in the development of products from the original concept design, acc. to aerospace
	specifications, through to the delivery of detailed technical design packaging into final
	- Design focused to assembly line concerns, tooling and Jigs.
	<ul> <li>Knowledge of the corrosion prevention rules and surface protection.</li> </ul>
	- Familiar with Aerospace standard parts and typical light materials, metallic and non-metallic.



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	<ul> <li>Preferred software: Siemens NX and Teamcenter.</li> <li>Self-motivated and able to work under pressure to meet deadlines, dealing with situations that are constrained by time and managing different tasks at once.</li> <li>Able to work autonomously with little supervision.</li> <li>Fluent Spanish and English.</li> </ul>	
Experience	<ul> <li>- 3+ years' experience minimum in design of Aerospace structures with parametric modelling software.</li> <li>- Experience in Rockets design is desired.</li> </ul>	
Starting date	October 2018	
Vacancies	1	
Work place	Elche (Spain). Occasional travels to Teruel and Huelva.	
Contract	Full time (3 months trial)	
Salary	27 300 €	

VAC\_070A\_Rocket\_Design\_Engineer\_180815



Department	Structures
Position	Rocket Design Engineer
Description	Design of Rocket Structures
Responsibilities	<ul> <li>Design of Aerospace metallic (different size range of machined components, sheet metal parts, metallic pressure vessels and tanks, etc.) and composites primary structures (sandwich, monolithic or filament winding elements, hand lay-up and RTM parts, etc.).</li> <li>Design of Aerospace secondary structures as brackets or supports for rigid pipes, valves, avionics equipment, antennas, mechanism, electrical harness, etc.</li> <li>Generation of Engineering documentation such as 3D models, Drawings, BOMs, and Eng. Change Notes for the complete definition of Detailed Parts, Assemblies and Installation.</li> <li>Liaise with others Engineering departments (Stress, Propulsion, M&amp;P, Quality, etc.) and provide information to the Manufacturing area under request.</li> <li>Responsible to accomplish with specifications and requirements during the development of the assigned tasks or product design along the entire lifecycle and across all phases from Prototype, Testing and Series production.</li> <li>Participate in the periodic design reviews dealing with suppliers for the achievement of requirements, specifications, feasibility, lead time and prices.</li> <li>Continuous research to optimize design solutions, identify and recommend opportunities to reduce costs and improve efficiency.</li> <li>An occasional need to travel with the role will be required.</li> <li>Complete the assigned tasks "on time, on quality, on cost".</li> </ul>
Required Competences	<ul> <li>Aerospace or Mechanical Engineering Bachelor's degree and minimum 3 years of technical experience in Aerospace Industry as Structural Design Engineer or an equivalent combination of education and experience.</li> <li>Competence in the design of Aerospace primary structure (metallic and composites parts) and secondary structure.</li> <li>Knowledge in selection and application of design criteria and rules, Aerospace standards, materials, strengths, and other mechanical properties, according to the loading conditions, working environment, etc.</li> <li>Familiar with reading Aerospace normative, papers and documentation.</li> <li>High degree of CAD competence and PDM tools.</li> </ul>
Desired Competences	<ul> <li>Familiar with the main manufacturing technologies and capabilities (machining, sheet metal forming, composite hand lay-up, RTM, filament winding, etc.), and most typical assembly's methods and processes (drilling operations, reaming, mechanical joints by means of fasteners, bolts, screws and other standards, metallic welding, bonding, sealing, finish painting, marking).</li> <li>Knowledge of the most common corrosion prevention rules and surface protection.</li> <li>Proven in the development of products from the original concept design according to Aerospace normative and rules, through to the delivery of detailed technical design packaging into final production.</li> <li>Design focused to assembly line concerns, tooling and jigs.</li> <li>Familiar with Aerospace standard parts and typical light materials, metallic and non-metallic.</li> <li>Preferred software: Siemens NX and Teamcenter.</li> <li>Self-motivated and able to work under pressure to meet deadlines, dealing with situations that are constrained by time and managing different tasks at once.</li> <li>Able to work autonomously with little supervision.</li> <li>Fluent Spanish and English.</li> </ul>

VAC\_070A\_Rocket\_Design\_Engineer\_180815

Experience	<ul> <li>3+ years' experience minimum in design of Aerospace Structures.</li> <li>3+ years' experience in parametric modelling software.</li> <li>Experience in Rockets design is desired.</li> </ul>
Starting date	February 2019
Vacancies	+10
Work place	Elche (Spain). Occasional travels to Teruel and Huelva.
Contract	Permanent position. Full time (3 months trial)
Salary	27,300€

VAC\_080A\_Aerospace\_Stress Engineer\_180815



Department	Structures
Position	Rocket Stress Engineer
Description	Aerospace Stress Engineer
Responsibilities	<ul> <li>Performing analysis to demonstrate structural integrity and strength aspects associated with Aerospace primary and secondary structures, equipment systems, components and integration according to the technical requirements within the scope of the Project.</li> <li>Pre- and post-processing of components and assembly models. Meshing, advance load and boundary conditions definitions, material definitions.</li> <li>Perform Linear Static and Dynamic Analysis especially focused on metallic and composite materials behaviour and failure modes.</li> <li>Participate in technical reviews and configuration decisions as an expert in the structural strength discipline.</li> <li>Involved in all steps of the project, from the first theoretical analysis to the final ground testing.</li> <li>Participate in the release process of detail, sub-assembly, general assembly and installation drawings, preparing the necessary reports, memos and formal compliance documents (written in English) in order to demonstrate and check that the design satisfies all the stress requirements.</li> <li>Liaise with other functions when required to ensure stress requirements are fully integrated.</li> </ul>
Required Competencies	<ul> <li>Bachelor's or Master's degree in Aeronautical Engineering.</li> <li>Experience with hand calculations.</li> <li>In-depth knowledge of engineering principles and design techniques relation to composite materials, classical laminate theory and finite element modelling techniques applied to sandwich and monolithic parts.</li> <li>In-depth knowledge of aerospace structure sizing. Rockets and airframe design. Thin walled structures, metallic pressure vessels, large cylindrical shells, bolted joints analysis, lugs</li> <li>Good understanding of spacecraft manufacturing methods and processes.</li> <li>In-depth knowledge of Linear and Non-Linear Static analysis for metallic components.</li> <li>Good understanding of buckling studies and failure modes of thin walled structures.</li> <li>Knowledge in fatigue analysis.</li> <li>Proficient in using Finite Element Analysis principles and associated tools.</li> <li>Deep knowledge on implicit FEM analysis, Nastran solver is mandatory.</li> <li>Knowledge in thermal analysis.</li> <li>Self-motivated and able to work under pressure to meet deadlines, dealing with situations that are constrained by time and managing different tasks at once.</li> <li>Proactive and good team worker.</li> <li>Fluent Spanish and English.</li> </ul>

VAC\_080A\_Aerospace\_Stress Engineer\_180815

Desired	- Experience with HyperWorks/HyperMesh and OptiStruct is desirable.
Competencies	<ul> <li>Knowledge in welded joint analysis and fatigue is highly valued.</li> </ul>
	<ul> <li>Good Knowledge on MatLab and VBA Excel is desirable.</li> </ul>
	- Experience with static ground testing is desirable.
Experience	- Minimum of 4 years of advance structural analysis experience in static and
	dynamic load cases, metallic and composite materials.
	<ul> <li>Experience in Rockets structure analysis is highly valued.</li> </ul>
	<ul> <li>Knowledge in thermal analysis is desired.</li> </ul>
Starting date	February 2019
Open positions	+10
Work place	Elche (Spain). Occasional travels to Teruel and Huelva.
Type of contract	Full time (3-months trial)
Salary	27,300 €



VAC\_090A\_Aerospace\_Stress\_Dynamic\_Engineer\_180815



Department	Structures
Position	Structural Dynamic Engineer
Description	Aerospace Stress Engineer focused on Dynamic Analysis
Responsibilities	<ul> <li>Performing analysis to demonstrate structural integrity and strength aspects associated with Aerospace primary and secondary structures, equipment systems, components and integration according to the technical requirements within the scope of the Project.</li> <li>Pre- and post-processing of components and assembly models. Meshing, advance load and boundary conditions definitions, material definitions.</li> <li>Perform Linear Static and Dynamic Analysis especially focused on dynamic, normal modes, vibration, sine-random environment SRS analysis.</li> <li>Contributes to the proper development of the projects supporting the Design office providing specialized technical assistance and advices from the stress analysis point of view.</li> <li>Involved in all steps of the project, from the first numerical calculations to the final vibration testing.</li> <li>Participate in technical reviews and configuration decisions as an expert in the structural strength discipline.</li> <li>Participate in the release process of detail, sub-assembly, general assembly and installation drawings, preparing the necessary reports, memos and formal compliance documents (written in English) in order to demonstrate and check that the design satisfies all the stress requirements.</li> <li>Liaise with other functions when required to ensure stress requirements are fully integrated.</li> </ul>
Required Competencies	<ul> <li>Bachelor's or Master's degree in Aeronautical Engineering.</li> <li>Experience with hand calculations.</li> <li>In-depth knowledge of engineering principles and design techniques relation to vibration analysis, aerospace material science, structural design and reliability.</li> <li>Experience in vibration environment for rocket's structures, spacecraft or aerospace components is highly valued.</li> <li>Good understanding of spacecraft manufacturing methods and processes.</li> <li>Deep knowledge on Dynamic Analysis and Vibrations. Experience performing normal modes, sine-random analysis, SPL, shocks.</li> <li>Experience performing dynamic test on structural components is desirable.</li> <li>Proficient in using Finite Element Analysis principles and associated tools.</li> <li>Deep knowledge on implicit FEM analysis, Nastran solver is mandatory.</li> <li>Self-motivated and able to work under pressure to meet deadlines, dealing with situations that are constrained by time and managing different tasks at once.</li> <li>Proactive and good team worker.</li> <li>Fluent Spanish and English.</li> </ul>

VAC\_090A\_Aerospace\_Stress\_Dynamic\_Engineer\_180815

Desired	<ul> <li>Good knowledge on MatLab and VBA Excel is desirable.</li> </ul>
Competencies	<ul> <li>Experience with Impact and shock analysis is desirable.</li> </ul>
	- Knowledge in Ansys is desirable.
	- Experience with HyperWorks/HyperMesh and OptiStruct is desirable.
	- Knowledge in composite materials is desirable.
	<ul> <li>Experience in Rockets vibration environments is highly valued.</li> </ul>
Experience	<ul> <li>Minimum of 4 years of advance structural analysis experience in static and dynamic load cases, focused on vibration, sine-random environment and SRS analysis for metallic or composite materials</li> </ul>
	analysis for metallic or composite matchais.
Starting date	February 2019
Open positions	+3
Work place	Elche (Spain)
Contract	Full time (3-months trial)
Salary	27,300 €

