



## JOB DESCRIPTION

### JOB TITLE: Mechanical Design Engineer

|                        |                                |                           |
|------------------------|--------------------------------|---------------------------|
| <b>JOB CODE:</b>       |                                | <b>EXEMPT/NON-EXEMPT:</b> |
|                        |                                | <b>EXEMPT</b>             |
| <b>REPORTS TO:</b>     | <b>Engineering<br/>Manager</b> | <b>DEPT.:</b>             |
|                        |                                | <b>Engineering</b>        |
| <b>DEPT. APPROVAL:</b> | <b>VP-GM</b>                   | <b>DATE: 03/16/2020</b>   |
| <b>MANAGER LEVEL:</b>  |                                | <b>EEO CODE:</b>          |

#### BRIEF POSITION SUMMARY:

Researches and develops ideas for new products and systems. 4 to 8 years in the aerospace industry with both commercial (Part 23 and 25) and defense programs. Manufacturing exposure a must. Must have experience designing with composite material.

#### DUTIES and RESPONSIBILITIES:

- Design of primary aircraft structure with emphasis on composite material.
- First order structural calculations.
- Design of tooling for composite part manufacturing.
- Design of assembly fixtures to accurately locate structure.
- Mid-level knowledge of GD&T.
- Fit and tolerance analysis of design.
- Responsible for the specification compliance of designs.
- Responsible for preparing and presenting mechanical designs at design reviews.
- Creates drawings using computer-aided design (CAD).
- Calculate factors like tolerance, dimension, and thermal and structural analysis.
- Create designs in line with company procedure, regulations and client standards.
- Provide support during the building and installation process, ensuring that the aircraft is built properly and according to the design specifications.
- Highlights all mechanical technical risks to the Engineering Manager.
- Liaises with other departments to ensure that the required information is available when needed and customer requests are dealt with in a timely manner.
- Finalize designs and send prints to the production department.
- The company reserves the right to add or change duties at any time.

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**EDUCATION, EXPERIENCE & QUALIFICATIONS:**

- College education and exposure to specific area of interest to include manufacturing or mechanical Design engineering fields.
- Degree, Mechanical Engineering with equivalent experience.
- 4 to 8 years of related experience.
- Must pass pre-placement drug screen and background investigation.
- Ability to obtain and maintain a U.S. Security Clearance at the appropriate level (requires a U.S. Citizenship)
- Excellent verbal and written communication skills.
- Effective problem solving capabilities.
- Critical thinking along with Active listening.
- Committed to undertaking professional development.
- CATIA V5 / Solidworks (7,000 hours minimum).
- NASTRAN/FEMAP
- GD&T experience.
- Self-starting team player with the ability to work tight deadlines.

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**PHYSICAL REQUIREMENTS:**

- Must be able to sit/stand for extended periods – 8 hours min.
- Must be able to stoop, kneel, climb, bend and be able to reach overhead and below the shoulder.
- Continuous use of both hands; including grasping, pulling and pushing.
- May be exposed to high level noise, dust, vibration and chemical fumes (within OSHA limits).