



## JOB DESCRIPTION

**JOB TITLE: Mechanical Design Engineer**

**JOB CODE:**

**EXEMPT/NON-EXEMPT: Exempt**

**REPORTS TO: Engineering Manager**

**DEPT.: Engineering**

**DEPT. APPROVAL: VP-GM**

**DATE: 05/22/2022**

**MANAGER LEVEL:**

**EEO CODE:**

### 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
- 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

### EDUCATION, EXPERIENCE & QUALIFICATIONS:

- B.S. in mechanical, or aeronautical engineering
- 4 to 8 years of related experience in manufacturing or mechanical design engineering
- Excellent verbal and written communication skills

- Effective problem solving capabilities
- Committed to undertaking professional development
- CATIA V5 / Solidworks (7,000 hours minimum)
- NASTRAN/FEMAP
- GD&T intermediate level experience
- Self-starting team player with the ability to work tight deadlines
- Must be a U.S. citizen
- Ability to obtain and maintain a U.S. Security Clearance at the appropriate level (requires U.S. Citizenship)
- Secret Clearance Active/Eligible Desired
- Holds and able to maintain a valid U.S. Driver's license
- Must pass pre-placement drug screen and background investigation

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**PHYSICAL REQUIREMENTS:**

- Must be able to sit/stand for extended periods – 9 hours minimum
- Physically able to handle items weighing up to 40lbs unassisted
- May be exposed to high level noise, dust, vibration and chemical fumes (within OSHA limits)
- Must be able to stoop, kneel, bend and be able to reach overhead and below the shoulder