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## POSITION DESCRIPTION

Job Title: Mechanical Designer II  Exempt  
Department name: Mechanical Engineering  Non-exempt  
Manager: Mechanical Engineering Manager  
Work location: Billerica, MA

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### **Job summary**

With a minimum of direction, designs major components of a system and layout complex electromechanical equipment and mechanisms in accordance with overall configurations and specifications from engineers. Will work on new product design and modifications to existing designs.

### **Essential duties and responsibilities**

- Responsible for the layout and detailed mechanical design and documentation of subsystems and sub-assemblies.
- Investigates pertinent design factors such as ease of manufacture, availability of materials, interchangeability, strength-weight efficiency, contractual specification and cost.
- Checks completed layouts and drawings for clarity, completeness and conformity to standard procedures and practices.
- Confers with engineers on design problems and recommends design process and procedure changes
- Recommends materials and components for inclusion in design specifications based on past experience and on catalogue reference data.
- Assures that complete, accurate parts lists are prepared.
- Strong understanding of preparing sub-system and detail drawings /models applying large CAD Model assembly management skills.
- Makes complex alterations to drawings/models that may involve the redesign of equipment, mechanisms, or plumbing schematics.
- Actively participate in design reviews.
- Work with Manufacturing Engineering to insure designs are optimized using DFMA.
- Duties are performed under moderate supervision by more senior engineering staff
- Work is performed in a timely manner according to schedule dates and commitments.
- Strictly adhere to all BTU safety policies.

### **Skills and knowledge**

- Knowledge of ISO, ASME Y14 'Drafting and Document' standards, and Geometric Dimensioning and Tolerancing required.
- Minimum of 10 years machine design and Solid Model CAD experience required. ProE experience highly preferred.

- Sheet metal & machine part design required.
- Capital equipment, machine automation, conveyor system design experience, highly desirable.
- Familiarity with Vantage or similar production control (MRP) software strongly preferred.
- Good interpersonal and communication skills are required

### **Education and experience**

- Vocational / technical education with courses in drafting and mechanical design, or equivalent training, and Associates Degree.
- Generally 10 years of related experience in mechanical design.