

# LECTRODRYER

## JOB DESCRIPTION

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**TITLE:** Mechanical Project Engineer

**DEPARTMENT:** Engineering

**REPORTS TO:** Senior Mechanical Engineer, Chief Engineer, or Engineering Manager

**FLSA:** Exempt

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### Position Summary

Exercise primary responsibility for design, development, test, etc. of products and projects as assigned. Work directly with Lectrodryer Marketing to develop processes and concepts in connection with an order to hardware. Provides support functions to Marketing, Design, Purchasing, Manufacturing, and Quality Assurance departments as required. Require a bachelor's degree and 3-6 years of experience in the field or in a related area. Possess a broad knowledge of Lectrodryer standard concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Perform a variety of complicated tasks. Work under general supervision. A wide degree of creativity and latitude is expected. Report to Senior Mechanical Engineer or Engineering Manager.

### Essential Duties and Responsibilities

The essential functions include, but are not limited to the following:

- Possesses and applies a broad knowledge of principles, practices, and procedures.
- Specializes in completion of difficult assignments.
- Works with minimum supervision.
- Assignments are broad in nature, requiring originality and ingenuity.
- May be assigned level I engineers for assistance and training.
- Has appreciable latitude for un-reviewed action or decision.
- Primary responsibility for the design, performance, cost etc. of assigned products(s).
- Responsible for the accuracy of all communications. (i.e. verbal, written, drawings, diagrams, etc...)
- Independently develops structural, piping, & pressure vessels of standard and special products.
- Keep informed of manufacturing cost data and gross profits and initiate corrective action as needed.
- Plan and direct developmental programs to evaluate existing as well as conceptual designs.
- Review, plan and coordinate orders assigned as projects.
- Organize the project team and call project team meetings to coordinate information and responsibilities. Issue minutes.

- Work with Customer Service, Marketing, Design and Purchasing to establish the engineering project schedule to assure completion to meet promise shipping schedule.
- Responsible for meeting the established engineering schedule.
- Responsible for reviewing customer requests for design changes that are not included in the quotation and to establish cost adder to keep marketing informed.
- Prepare material requisitions for pre-requisition of material.
- Supervise the technical aspects of the project design.
- Support the design department with engineering calculations and component sizing.
- Responsible for checking and approving all drawings of electrical systems from a functional point of view.
- Assist the Q.C. department in trouble shooting of malfunctions during acceptance testing, evaluating and recommending corrective action of malfunctions requiring rejection of assemblies of components.
- Assist the engineering manager in preparing capital budget, departmental planning and objectives.
- Work with Field Service personnel to trouble shoot field installations and to develop corrective action.
- Consult with vendor representative to maintain up-to-date knowledge of technological developments and new products.
- Review trade journals to follow the state of art applicable technologies.
- Evaluate Field Service reports, rejection reports, custom complaints, etc., and recommend design changes as required.
- Work with application engineers in interpreting and evaluating specification with respect to cost and organization capabilities.
- Prepare cost estimates for special designs to be used for quotations.
- Develop standards for electrical systems.
- Attend project team and engineering staff meetings.
- Perform equipment field service and start up services. Domestic and foreign travel required.

#### **Minimum Qualifications (Education, Experience, Skills)**

- BS in Electrical Engineering preferred.
- Requires the consistent exercise of discretion and judgment
- Read and interpret blueprints, technical drawings, schematics, and computer-generated reports.
- Strong understanding of fluid flow and heat transfer.
- Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.
- Must have basic knowledge of current software packages (Autodesk, Microsoft Office)
- Refrigeration knowledge a plus.
- Ability to use variety of office equipment.
- Performs other work-related duties as assigned.

## Physical Demands and Work Environment

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this position. Reasonable accommodations may be made to enable individuals with disabilities to perform the functions.

While performing the duties of this position, the employee is regularly required to talk and hear. The noise level in the work environment is usually quiet. The employee may frequently be required to travel domestically and internationally. The employee frequently is required to use hands or fingers. Employee will also frequently sit. Employee will occasionally reach with hands and arms, climb or balance, and stoop, kneel or crouch. The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this position include close vision.

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This job description in no way states or implies that these are the only duties to be performed by the employee(s) incumbent in this position. Employees will be required to follow any other job-related instructions and to perform any other job-related duties requested by any person authorized to give instructions or assignments.

All duties and responsibilities are essential functions and requirements and are subject to possible modification to reasonably accommodate individuals with disabilities. To perform this job successfully, the incumbents will possess the skills aptitudes and abilities to perform each duty proficiently. Some requirements may exclude individuals who pose a direct threat or significant risk to the health or safety of themselves or others. The requirements listed in this document are the minimum levels of knowledge, skills or abilities.

This document does not create an employment contract, implied or otherwise, other than an "at will" relationship.

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Reviewed with employee by:

\_\_\_\_\_  
Manager's Name

\_\_\_\_\_  
Date

Received and accepted by:

\_\_\_\_\_  
Employee's Name

\_\_\_\_\_  
Date

## Job Physical Demands Analysis

<b>Job Title</b>	Mechanical Product Engineer
<b>Work Hours</b>	Monday – Friday 8:00am – 4:30pm

PHYSICAL EFFORT	ESSENTIAL (Y/N)	% of Time Performing Task			
		Rare	Occasional	Frequent	Constant
		0-30	30-60%	60-90%	90-100%
Hand Movement	Y				
• Repetitive Motion	Y		X		
• Grasping	Y		X		
• Holding	Y		X		
• Finger Dexterity	Y		X		
Reading	Y			X	
Writing	Y		X		
Eye-Hand Coordination	Y			X	
Vision	Y				X
• Color Distinction	Y			X	
• Precognize/Analyzing	Y			X	
• Visual Inspection	Y			X	
• Measuring/Assembling at distance close to eye	Y			X	
Hearing	Y			X	
Talking	Y			X	
Standing	Y		X		
Sitting	Y			X	
Walking	Y		X		
Lifting	Y				
• 0-30 lbs	Y		X		
• 30-60 lbs	N				
• 60-90 lbs	N				
• 90+ lbs	N				
Pushing/Pulling	Y		X		
Climbing	Y		X		
• Stairs	Y		X		
• Ladders	Y				
Bending	Y		X		
Squatting	Y		X		
Crawling	Y		X		
Reaching	Y		X		

WORK ENVIRONMENT	ESSENTIAL (Y/N)	% of Time Performing Task			
		Rare	Occasional	Frequent	Constant
		0-30%	30-60%	60-90%	90-100%
Driving	Y				
• Car/Truck	Y		X		
• Standard/Automatic	N				
• Mower/Forklift	Y		X		
Location	N				
• Trees					
• Air Vent					
• Roof					
Equipment/Machines	Y		X		
Heights	Y				
• Roofs	N				
• Ladders	Y		X		
• Step Stools	Y		X		
• Scaffolds	N				
Night/Dark	N				
Extreme Noise Levels	Y		X		
Extreme Temperatures	Y		X		
• Inside	Y		X		
• Outside	N				
Ventilation Conditions	Y				
• Dust	Y			X	
• Fumes	Y			X	
• Chemicals	Y		X		
• Gases	Y		X		
Exposure to Potential Hazardous Conditions	Y				
• Chemical Spills	Y	X			
• Gas Leaks	Y	X			
• Infectious Bacteria	N				
• Acidic Harsh or Oily Substances	Y	X			
Use of Respirator	Y	X			
Electrical Hazards	Y		X		
Overtime	Y		X		