

## Job Description



**Title:** Industrial Engineer - Portland  
**Department:** Portland Manufacturing  
**Reports to:** Staff Manager  
**Date:** November 10, 2021  
**FLSA Status:** Exempt  
**Location:** Portland, Oregon  
**Created by:** Human Resources  
**Approved by:** Plant Manager

### **SUMMARY**

The Industrial Engineer will lead equipment and process projects that drive enhanced productivity and quality. Functions may include process flow analysis, statistical data analysis & correlation, alternative layout generation, equipment evaluation, and cost analysis. Interface with Engineering and set up manufacturing Bills of Material and Product Structure.

### **ESSENTIAL JOB FUNCTIONS**

- Develop ways to increase productivity, maximize efficiency, and manage human capital more effectively, via people, machines, materials, and information.
- Study product requirements and design manufacturing systems. Perform mathematical calculations to determine manufacturing processes and the effects of product design changes.
- Conduct root-cause analysis to troubleshoot manufacturing and assembly issues, material flow, production capacity, and facility design.
- Perform cost/benefit analysis for make vs. buy decisions, equipment purchases, efficiency improvements, and facility re-layouts.
- Continually review productivity and quality metrics. Establish new KPIs where necessary and maintains current KPIs. Create process documentation.
- Work with supervisors and managers to develop and implement comprehensive continuous improvement plans for areas within the production facility.
- Process Engineering Change Orders, set up and/or update MFG Bills of Material, notify suppliers and internal support staff of engineering changes.
- Troubleshoot and provide support for manufacturing production problems. Design or update production fixturing projects.
- May be required to provide research support on technologies and strategic issues.
- Leverage spreadsheets, reports, and other analysis to determine optimal location assignments for items in the warehouse. Document, analyze, and recommend improvements to various warehouse processes and systems.

### **JOB SCOPE**

This position serves as a professional industrial engineer reporting directly to a Production Supervisor or Manager. The position has no direct reports or supervisory responsibility but does serve as a coach and mentor for manufacturing personnel.

General discretion and judgement are exercised routinely in the execution of job duties. If errors in judgement or professional execution of responsibilities are made, the consequences to the company can be serious.

## **INTERPERSONAL CONTACTS**

The position interacts daily with company employees on all levels. Externally the position interacts with local suppliers, regulatory authorities, contractors, and Cascade employees at other facilities.

## **EDUCATION**

- Bachelor's degree in Engineering, operations, or similar field.

## **EXPERIENCE**

- 5 years' + experience in an operations environment, preferably an industrial manufacturing facility in the transportation or heavy equipment market.

## **QUALIFICATIONS**

- Strong attention to detail.
- Knowledge of the elements of lean production system such as 5S, work standard, cycle time, lean material flow, error proofing, and autonomous maintenance.
- Ability to interpret engineering drawings, specifications, and schematics. Proficiency to edit/generate technical drawings a plus.
- Strong Excel skills with demonstrated ability to perform analysis, generate reports, and manipulate data.
- Establish and maintain cooperative and effective working relationships.
- Comfortable working against established goals and metrics.
- Ability to spend majority of time walking on hard floors.
- Ability to lift, push, pull and carry up to 50 lbs. on a frequent basis.

## **WORKING CONDITIONS**

The working conditions, physical demands, and environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work is performed primarily in an office environment that is climate controlled. Periodic work outside the office and shop areas that may or may not have climate controls will be required. This is a full-time position. Days and hours worked will mirror the business operations which typically runs Monday -Friday. May work more than eight consecutive hours at a time or more than 40 hours in a seven-day work period depending on work demands. Occasional evening and weekend work might be necessary. Travel may be required to other locations, company events, professional development, and industry conferences. Must possess a valid motor vehicle operator's license, have access to reliable transportation and must be able to travel via most efficient mode for work related travel i.e., airplane.

The individual may encounter pressure in meeting customer needs, balancing competing deadlines and resource constraints, although guidance is available from leaders at the site. Situations must be handled in a manner that meets customer needs and does not negatively impact customer satisfaction. Customers are primarily internal.

## **PHYSICAL DEMANDS**

While performing the duties of this job, the employee is required to sit roughly 50% and is required to stand; walk roughly 50%. Must be able to use hands to manipulate keyboards and reach with hands and arms in the course of picking up and moving materials. The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, and color vision.

Physical Demands		Amount of Time		
Activity	None	Under 1/3	1/3 to 2/3	Over 2/3
Standing			X	
Walking			X	
Sitting			X	
Using hands or fingers to handle/feel objects			X	
Reaching with hands / arms			X	
Climbing or balancing		X		
Stoop, kneel, crouch, or crawl		X		
Talking or hearing				X
Lifting Requirements		Amount of Time		
Physical Demand	None	Under 1/3	1/3 to 2/3	Over 2/3
Up to ten pounds				X
Up to 25 pounds			X	
Up to 50 pounds		X		
Up to 100 pounds		X		
More than 100 pounds		X		

Vision Requirements		
	Yes	No
Close	X	
Distance	X	
Color Vision	X	
Peripheral	X	
Depth & Perception	X	
Ability to Adjust Focus	X	

## **WORK ENVIRONMENT**

Most work performed is in a shop environment without climate or noise controls. Exposure to heat, noise, dust, fumes when working in field or shop environments will occur.

Work Environment	Amount of Time			
Environmental Condition	None	Under 1/3	1/3 to 2/3	Over 2/3
Wet or humid conditions (non-weather)		X		
Work near moving mechanical parts			X	
Work in high, precarious places	X			
Fumes or airborne particles			X	
Toxic or caustic chemicals		X		
Outdoor weather conditions		X		
Extreme cold (non-weather)	X			
Extreme heat (non-weather)		X		
Risk of electrical shock	X			
Work with explosives	X			
Risk of radiation	X			
Vibration	X			

*This description describes only the general nature and level of work encompassed by this job. This description is not a comprehensive listing of all responsibilities, duties, and skills of employees at this level. Cascade is an Equal Opportunity Employer.*