

Position:

Mechanical Engineering Internship

Overview:

PET Systems (PTS) is currently recruiting a Mechanical Engineering Intern to join our team. We are seeking an engineering student who is motivated, well organized, collaborative, and eager to learn mechanical, utility, and process system design in the food and beverage industry.

Resume Submittal:

All resumes should be submitted to <u>careers@petsystems.com</u> with the subject line: "Mechanical Engineering Intern".

Skills & Qualifications:

- Must be willing and able to travel as necessary for project requirements during internship.
- Must maintain professional competence, ethical integrity, knowledge, and skills. Handles sensitive and proprietary information in a confidential manner.
- Ability to work independently within parameters set by management. Assignments may be self initiated. Determines and pursues courses of action necessary to obtain desired results.
- Excellent verbal and written communication skills. Strong presentation skills. Leads group discussions.
- Listening. Practices attentive and active listening; has the patience to hear people out; can accurately restate the opinions of others even when he/she disagrees.
- Priority Setting. Spends his/her time and the time of others on what is important; quickly zeros in
 on the critical few and puts the trivial many aside; can quickly sense what will help or hinder
 accomplishing a goal; eliminates roadblocks; creates focus.
- Dealing with Ambiguity. Can effectively cope with change; can shift gears comfortably; can decide and act without having the total picture; is not upset when things are up in the air; does not have to finish things before moving on; can comfortably handle risk and uncertainty.
- Problem Solving. Uses rigorous logic and methods to solve difficult problems with effective solutions; probes all fruitful sources for answers; can see hidden problems; is excellent at honest analysis; looks beyond the obvious and does not stop at the first answers.
- Decision Quality. Makes good decisions (without considering how much time it takes) based upon a mixture of analysis, wisdom, experience, and judgment; most of his/her solutions and suggestions turn out to be correct and accurate when judged over time.
- Integrity and Trust. Is seen as a direct, truthful individual; can present the truth in an appropriate
 and helpful manner; keeps confidence; admits mistakes; does not misrepresent him/herself for
 personal gain.
- Customer Focus. Is dedicated to meeting the expectations and requirements of internal and external customers.



Technical Skills & Responsibilities: The below skills & requires are examples of what a Mechanical Engineering Intern should expect to learn and preform at PTS. It is not expected that the candidate currently possesses these skills. The only requirement is an eagerness to learn.

A Mechanical Engineer at PTS will typically complete:

- In-depth knowledge of Plant Infrastructure and Process Systems and demonstrate the ability to work independently as well as within a project team role to meet and/or exceed expectations related to his roles and responsibilities.
- Complete Detailed Layout, Process Flow diagrams, Piping and Instrumentation Diagrams and BOM development related to Preliminary and Detailed Design of Mechanical Systems
- Hydraulic system analysis, pump selection.
- Generate water/mass/utility balances
- Generation of Scope of Work and installation Bid Documentation
- Develop "Request for Proposal" documents for procurement of Industrial/ Utility/Process Equipment
- Develop Controls Narratives and Maintenance Manuals for Utility and Process Systems
- Support System Start-ups and Optimization
- Generation of Project Budgets and Schedules
- Project and/or Construction Management
- Participation in Existing Facility Audits
- Equally comfortable crossing between systems design in the office and hands-on troubleshooting/systems start up in the field
- Working directly with contractors, equipment vendors, and customers to assure quality of installation and successful start-up and operation.
- Experience with Pumping Systems, Compressed Air Systems, Water Treatment Systems, Refrigeration Systems, Process Tower Water Systems and Conceptual Structural Design
- Proficient in 2D/3D AutoCAD to the level where drawings can be created, manipulated, printed, interpreted, and measurements taken to effectively provide/communicate guidance to contractors.
- Ability to coordinate multiple projects in multiple stages of design, installation, and startup.

Education:

Working towards a Bachelor's degree in Mechanical Engineering, Chemical Engineering, Industrial Engineering, Engineering Technology. Other related degrees or experience will be considered.

Company Overview:

PTS is a multi-discipline engineering firm well established in the Food & Beverage and Bulk Material Handling (Industrial) Industries. We are a close-knit group of like-minded engineers and designers who



value our unique culture where everyone "rows the boat." We keep overhead low and focus on small, tactical teams of engineers solving problems for our clients while completing all sizes of projects. We are an employee-owned company who can offer a path to ownership for outstanding contributors. PTS prides itself for being on the cutting edge of design technology using the latest software and design techniques to become more efficient and accurate. Our quality and flexibility have elevated us with our ever-growing existing customers. This has generated strong repeat business and an expanding customer base which has contributed to our continued growth.

WORKING CONDITIONS

Vision & Hearing	Yes	No
Close Vision	\boxtimes	
Distant Vision	\boxtimes	
Peripheral Vision	\boxtimes	
Color Vision	\boxtimes	
Ability to Adjust Focus	\boxtimes	
Depth Perception	\boxtimes	
In-Person Speaking	\boxtimes	
Telephone Communication	\boxtimes	
Other Sounds	\boxtimes	

Physical Requirements	0% Never	1 – 33% Occasionally	34 – 66% Frequently	67 – 100% Continuously	Floor to Waist	Waist to Shoulder	Above Shoulder
Lift 1 – 20 lbs.		Х			Х	Х	Х
Lift 21 – 50 lbs.		X			Х	Х	
Lift 50+ lbs.		X			Х		
Carry 1 – 20 lbs.		X			Х	Х	Х
Carry 21 – 50 lbs.		X			Х	X	
Carry 50+ lbs.		X			Х		
Push/Pull 1 – 20 lbs.		X			Х	Х	X
Push/Pull 21 – 50 lbs.		Х			Х	Х	
Push/Pull 50+ lbs.		X			Х		



Other Physical Requirements for the Job

Physical Activity	0% Never	1 – 33% Occasionally	34 – 66% Frequently	67 – 100% Continuously
Walking/Standing	11010.	X	110440111119	Commutation
Bending		X		
Stooping		X		
Twisting		X		
Squatting		X		
Kneeling		X		
Crouching		X		
Crawling		X		
Climbing Ladders & Stairs		X		
Climbing Ropes & Scaffolding		X		
Gross Manipulation		X		
Fine Manipulation			Χ	
Keyboarding			Χ	

Work Environment: Exposure to the Following Conditions

Conditions	0%	1 – 33%	34 – 66%	67 – 100%
	Never	Occasionally	Frequently	Continuously
Outdoor Weather Conditions		X		
Extreme Cold (Non-Weather)		X		
Work in High/Precarious Places		X		
Risk of Electrical Shock		X		
Flammable, Explosive Gas		X		
Toxic or Caustic Chemicals		X		
Dust or Other Irritants		X		
Grease or Oils		X		
Cleaning Agents/Chemicals		X		
Hot or Noisy Equipment		X		
Humid/Wet Conditions (Non-Weather)		X		
Exposure to Nuts or Peanuts		X		

Safety Equipment Used When Performing this Job

Safety Equipment	0%	1 – 33%	34 – 66%	67 – 100%
	Never	Occasionally	Frequently	Continuously
Safety Glasses		X		
Filter Lens	X			
Gloves		X		
Face Shields		X		
Ear Plug/Muffler		X		
Dust Mask		X		



Steel Toe Boots	Х	
Hard Hat	Χ	
Coveralls	Χ	