

Job Title	Mechanical Engineer Mid-Senior	Date	8/15/2024
Department	Engineering	Manages Employees	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Reports To	Engineering Manager	FLSA Status (to be completed by HR)	<input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Non-Exempt
Revision	A		
Summary (Main Purpose)			
<p>Under the direction of the Engineering Manager, the Mechanical Engineer will design structures and bussing for switchgear, panel boards and electrical power distribution equipment for safe, effective, and efficient operation of States Mfg. products and processes while meeting and exceeding company quality and production standards and customer documentation and delivery requirements.</p>			
Job Duties and Responsibilities (Essential Functions)			
<ul style="list-style-type: none"> • Ideal candidate will have 5+ years designing, or capable of designing, mechanical structures and bussing for LV and MV switchgear assemblies, developing and implementing engineering standards, complying with applicable codes and customer specifications within a project management structure to ensure workflow remains within schedule and budget requirements. • Review and interpret customer specifications and sales agreements and receive direction from mentors to create designs. • Experience using 3D modeling software such as AutoCAD, PDM and SolidWorks mechanical tools and libraries. • Improve the design process using standardized practices, tools and systems, improve the quality and productivity of the design and support process while reducing schedule and budget. • Evaluate and select mechanical components and fabrication parts for bussing systems, switchgear, panelboards and control panels. • Maintain a working knowledge of our factory equipment, its capabilities and performance criteria, including forming, punching, welding, milling, coating and finishing. • Participate in cross-functional teams to address and resolve manufacturing, design and quality problems, and pursue continuous improvement of design and manufacturing and installation processes and methods. • Attend training, review documentation, procedures and work instructions related to mentorship and growth of technical competencies within the engineering team. • Support new product development initiatives by remaining up to date with new industry products, technologies and trends. • Preserve and grow strong relationships with States Mfg suppliers, manufacturers and vendors. • Provide onsite technical field support with up to 10% local regional day trips to customers and suppliers, including a small number of occasional domestic trips. • Follow all housekeeping procedures and rules, comply with all quality and safety regulations. • Able to stand or sit for extended periods of time, and safely lift 40 lbs. 			
Required Skills and Experience (Minimum requirements in terms of educational background, work experience, licenses/certifications or other knowledge, skills, and abilities).			
<ul style="list-style-type: none"> • Experience designing multi-phase and DC switchgear, switchboards, panelboards in accordance with customer's functional requirements for LV and MV equipment. • Support product assembly, manufacturing, testing and field service. • Provide project coordination and management for customer orders. • Support the creation of product and project quotes. • Establish and maintain internal, customer, and supplier relationships. • Experience using Microsoft Office products, including Outlook, Excel, Word, PowerPoint. • Experience using PDM, SolidWorks, AutoCAD or other 3D design tools. 			

- Experience using mechanical test equipment related to LV and MV product fabrication, structures and manufacturing processes.

Additional Skills and Experience *(Preferred or helpful)*

- BS in relevant engineering discipline.
- Experience in sheet metal design, fabrication, machine design, GD&T, welding and coatings.
- 5+ years of engineering experience.
- Specify and design structures and bussing related to electrical power equipment.
- Understand and develop competencies across electrical, mechanical and software design and commissioning functions.
- Must be self-motivated, have good interpersonal skills, capable of analyzing and solving complex problems through collaboration, innovative thought and experience.
- Experience with AutoCAD, SolidWorks PDM or other 3D CAD design tools required.
- Experience related to renewables, emerging energy markets, data centers, battery systems, stored energy and charging stations a plus.

This description covers the primary purpose and principal duties of the job. It is not designed to be a complete list of all the duties and responsibilities required of this position. Duties, responsibilities, and activities may change at any time with or without notice.

Demands and Conditions Analysis: Mechanical Engineer

Working Conditions

The **essential functions** of this job involve the following working conditions.

(Place an "x" in the appropriate box.)

- C = Continuously** 75%-100% of time
- F = Frequently** 50%-74% of time
- O = Occasionally** 10%-49% of time
- R = Rarely** 1%-9% of time
- N = Never** 0% of time

	C	F	O	R	N		C	F	O	R	N
Environmental						Physical Factors					
Works alone			X			Sitting		X			
Works with others	X					Standing		X			
Customer contact			X			Walking		X			
Shift Work					X	Bending/stooping		X			
Extended Day			X			Squatting/Kneeling		X			
Keeping work pace/deadlines	X					Crouching/Crawling			X		
Performing repetitive tasks	X					Twisting at waist		X			
Noise (decibels) 91				X		Reaching above shoulders			X		
Vibration				X		Reaching below knees				X	
Abrupt temperature changes				X		Lift/carry up to 40 lbs.		X			
Heat (above 85 F)			X			Push/pull to 100 (force)			X		
Cold (below 65 F)				X		Climbing ladders			X		
Wetness				X		Climbing stairs			X		
Dampness				X		Sweeping/mopping				X	
Dryness				X		Operating foot controls					X
Odors & dusts				X		Manual Tasks					
Work with solvents					X	Grasping with one hand	X				
Work acids, bases					X	Grasping with both hands	X				
Work with oils					X	Manipulating with one hand	X				
Work with toxins					X	Manipulating with two hands		X			
Poor ventilation					X	Handwritten communication		X			
Fumes					X	Using keyboard	X				
Mechanical hazards			X			Using hand tools		X			
Electrical hazards			X			Twisting/wringing			X		
Sensory Tasks						Scrubbing/washing/polishing				X	
Seeing close (reading)	X					Scraping				X	
Seeing far (observation)			X			Equipment Operation					
Peripheral vision			X			Driving car / light truck					X
Seeing colors			X			Driving heavy truck / van					X
Verbal communication	X					Operating forklifts, stackers					X
Hearing speech		X				Operating hoist equipment			X		
Hearing mechanical sounds			X			Operating shop machinery			X		
Sensing odors					X	Operating power tools	X				
Sensing by touch					X	Operating torch					X