



Edwards Vacuum Inc.

www.edwardsvacuum.com

Job Title: **Mechanical Engineer**

Location: **Chelmsford, MA**

Manager's Job Title: **Technical Support Manager**

<https://career5.successfactors.eu/sfcareer/jobreqcareer?jobId=40079&company=atlascoP>

Job Description:

This mechanical product engineer role will be responsible for the sustaining engineering design activities of cryopumps and cryochillers as part of the technical support team. You will support and improve legacy products across CTI & PolyCold to resolve issues around quality and manufacturability.

The role will encompass design and/or process changes to eliminate production and field failure modes, reduce costs and address component end of life issues. Failure mode & root cause analysis, risk assessment and mitigation, and rapid data-based decision making skills are all required.

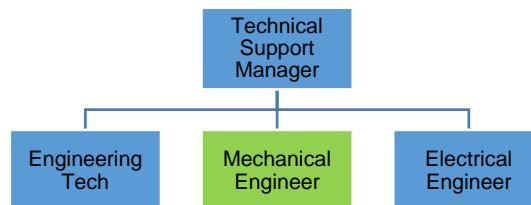
The mechanical product engineer will interface with all levels and functions in the organization, and must develop strong working relationships with both technical and non-technical colleagues. While the individual will be expected to be self-directed and highly motivated, s/he should be willing to collaborate with mid- and senior-level peers in engineering and other functions.

Main Responsibilities:

Primary responsibilities:

- As a member of Product Engineering team—modeling and design of cryocooler & cryochiller subsystems. Through sensitivity analysis, identify components & properties critical to performance
- Design mechanical components and systems to meet product requirements
- Direct laboratory efforts (including documentation of test procedures, creation of test plans, data analysis, reports) to evaluate performance of new products. Analyze design options for cost, quality and reliability trade-offs.
- Determine root cause for failures of products in the field and develop effective containment and corrective actions.
- As required, identify / develop / qualify alternative components or designs to address End of Life components
- Specify and co-ordinate qualification testing to evaluate new suppliers, new parts, and/or new processes
- Propose, develop, and qualify value engineering changes to ensure the products remain cost competitive.
- Critically evaluate proposed changes to the design of released product, and take responsibility for approving changes and keeping design documentation current

Organization Chart



Requirements:

- BS in Mechanical Engineering
- 5+ years design experience in electromechanical systems or components, ideally involving precisely toleranced parts and properties
- 5+ years ProE / Solidworks Modeling for subassembly and system design
- Demonstrated problem solving skills, and practitioner of statistical methods & disciplines (e.g. Six Sigma tools)
- Track record of having driven work assignments to completion, with accuracy and timeliness
- Excellent verbal and written communication skills.
- Demonstrated ability to work in a team environment
- 3+ years of experience in a lab environment
- 1+ years of structural and/or fluids experience in ANSYS
- Experience in the selection of components such as motors, valves, pumps, compressors
- Experience in material selection to achieve specialized functions such as low friction, sealing, and extreme temperatures
- Experience in Design for Six Sigma or comfort with statistical methods such as hypothesis testing, DOE, and SPC
- Strong problem solving skills, utilizing fishbone diagrams and other quality tools to guide investigation
- Intellectual curiosity for vacuum and/or refrigeration systems



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