

Job Description Manufacturing Engineer II

Type of Job: Full Time – Salaried/Exempt
Location: Bridgeport, CT

Job Summary

This position reports to the Vice President of Engineering and is responsible for process validation and assembly of complex machine configurations with highly precise tolerances. The Manufacturing Engineer II supports the development of machine tool processes. The Manufacturing Engineer II will play a major role in supporting the daily requirements in the operation and maintenance of precision machine tools, as well as manufacturing and metrology development in fabrication of precision components. This position could also require installation, training of customers and engineering oversight in the field with customer-specific applications.

The Manufacturing Engineer II will work closely with, and be directed on a day-to-day basis by, the Assembly Manager in Bridgeport, CT.

Core Responsibilities

- Become highly knowledgeable with all the Nanotech assemblies built in Bridgeport.
 - 450 Frame, 650 Frame, B-axis, Counterbalance, HDL Components and Spindles. New M400 launching in 2021.
- Learn and fully understand from an Engineering standpoint how these assemblies work and why. Be able to troubleshoot any issues that may come up during the assembly or manufacturing process.
 - Part geometry.
 - Surface finish.
 - Pocket pressures, flows.
 - Gaps.
 - Restrictor diameter and length.
- Have the ability to fully assemble and be of complete understanding of the assembly. This would require on average 50% hands on assembly and more at times when production schedule requires.
 - Create and maintain highly documented work instructions.
 - Look for cost cutting measures via assembly technics, fixturing etc. (think long-term). Continuous process improvement.
 - Setup work cells that are highly organized and have the tools required to assemble these items, removing anything not needed. This would include master machine improvements and other machines, and equipment used during the process.
 - Work with other departments in Bridgeport on how parts come to assembly to ensure that part quality is achieved, and parts are ready for assembly.
 - Work closely with Moore and Nanotech Assembly and Engineering teams on products being built in Bridgeport and any new projects that are moved to Bridgeport.

- Machine inspection using various metrology equipment including Renishaw Laser; uses Geometric Dimensioning and Tolerancing (GD&T) to ensure form, fit and function. Maintain final inspection documentation including updates for product conformity. Make improvements to the metrology where needed.
- Hands on assembly work would range between 50% to 75%. The balance would be manufacturing engineering responsibilities, process improvement, documentation. Over time, this position will be the product expert from a hands-on assembly standpoint and understand the engineering behind the product.
- Institute data gathering techniques to be utilized via DMAIC/Six Sigma methodologies to increase assembly effectiveness.
- Design, build, and maintain various test setups.
- Implement statistical process control, including control charts and process capability analysis to improve process capability over time.
- Create troubleshooting guides for Assembly.
- Aid in the implementation of Engineering Changes (ECs)
- Participate in product design reviews and work directly with Engineering staff to ensure a smooth transition of products from Engineering to Assembly.
- Travel will be required as necessary to NH.
- Ensures safe work practices are followed.
- Complies with safety regulations.
- Performs other duties as assigned by management.

Required Education and Experience

- 4-year mechanical engineering degree and 5-years related experience, or equivalent combination of education and experience.
- Knowledge of computer-aided drafting techniques, CAD modeling and design, and high-level three-dimensional parametric CAD systems.
- Knowledge of mathematical formulas and computations (e.g. algebraic, geometric, shop math).
- Builds effective relationships with customers by identifying customer expectations.
- Teamwork and cooperation.
- Problem solving skills; gathers and analyzes information, offers practical solutions; strong computer skills.
- Writes clearly and informatively; edits work for spelling and grammar; presents numerical data effectively; reads and interprets written technical information.

Preferred Experience

- Knowledge of precision mechanical, electrical/electronic, pneumatic and hydraulics assembly and the operation of CNC controls.
- Experience with CAM software and programming CNC machine tools.
- Innovative; identifies new ideas and approaches not readily apparent or previously tried that enhance the organization's systems or products.
- Knowledge of GD&T, American Society of Mechanical Engineers, American National Standards Institute, and other appropriate standards for dimensioning and tolerancing – preferred.

To apply for this position, please send your resume to: careers@nanotechsys.com