Nanotech® Moore Tool® the PMT group

Applications & Training Engineer – Moore Nanotechnology Systems

Type of Job – Full Time – Exempt Location –
Charlotte, NC

Job Summary

Moore Nanotechnology Systems (Nanotech) offers an *exciting, fast-paced and dynamic environment for engineers who would like to learn ultraprecision machining*. Nanotech is a world leader in ultraprecision machining, the base technology behind optics manufacture with wide ranges of applications: cell phone camera modules, AR/VR, communications satellites, solar energy, telescopes, medical imaging, and numerous military applications. Nanotech has two locations, the original location in Keene New Hampshire and a new 50,000 square foot location Charlotte North Carolina only 20 minutes from UNC Charlotte. Applications and Training Engineering at Nanotech offers a dynamic environment for mechanical engineers with a love of hands-on work and interest in developing a new set of unique skills in ultra-precision technology and optics. The Applications Engineer develops machine tool processes in collaboration with the Applications Team, while assisting with sales functions by providing applications support through fabrication of customer- requested samples to specifications in a timely-manner. This position will require training of customers with customized agendas based on the customer application. The Applications Engineer will play a key role in supporting the daily requirements in the operation and maintenance of ultra-precision machine tools as well as manufacturing and metrology development in fabrication of optical components. This position will also support Engineering in new product development and testing. For engineers with a skill in teaching the Nanotech Global Training Center offers 1-2 week-long courses a month in everything from the Fundamentals of Ultraprecision Machining to the use of sophisticated NanoCAM4® multi-axis machining software for the manufacture and measurements of optical surfaces. Employment advancement potential includes increasing levels of Applications Engineering expertise up to the Master Level Applications Engineer, often recognized industry-wide for their highly valued skills, or branching into program management, management or sales.

Key Words: Ultraprecision machining, optics, ultraprecision metrology, CAD/CAM software.

Core Responsibilities

- Ultra-precision diamond turning/grinding of customer-specific, application driven, components.
- Maintains expertise in at least two core manufacturing processes (turning, synchronized slide servo, fast tool servo, grinding, glass molding, drum lathe operation, jig grinding, milling, on- machine metrology).
- Establishes clear and relevant plans for manufacturing components and completes them in a timely manner.
- Provides customer support and training relating to ultra-precision optical manufacturing equipment.
- Supports the technical aspects of the equipment/process quotation for the sales department.
- Understands the operations, programming, and variations of Ultraprecision equipment.
- Reads and interprets drawings, sketches, CAD models, and related technical data. Applies knowledge to the manufacturing procedures and machining methods, and able to prove out software.
- Communicates with current and potential customers on equipment, software, usage, and processes.
- Designs, builds, and assembles appropriate fixtures, programs, and processes necessary to demonstrate the manufacture of optical quality parts meeting customer specific applications.
- Documents procedures to provide detailed reporting of process solutions.
- Operates various optical metrology equipment (interferometers, scanning coherence interferometers) for qualification of machined parts. Uses Geometric Dimensioning and Tolerancing (GD&T) to ensure tolerances.
- Travels to customer facilities (domestic and international) to train customers in operation of the equipment and provide applications/process support. Occasional travel to conferences for presentation of new material.
- Ensures safe work practices are followed; complies with all safety regulations.
- Must be willing to travel between the NH and NC facilities as needed.
- Performs other duties as assigned by management.

Required Education and Experience

- Associate's degree or equivalent from two-year college or technical school and/or five years related experience and/or training; or equivalent combination of education and experience.
- Knowledge of GD&T, American Society of Mechanical Engineers, American National Standards Institute, and other appropriate standards for dimensioning and tolerancing.
- 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).
- Writes clearly and informatively; edits work for spelling and grammar; presents numerical data effectively; reads and interprets written technical information.
- Experience with CAM software.
- Experience programming CNC machine tools.
- Ability to build effective relationships with customers by identifying customer expectations.
- Demonstrated ability in teamwork and cooperation.
- Problem solving skills: ability to gather, analyze and interpret information and offer practical solutions.
- Innovative, identifies new ideas and approaches not readily apparent or previously tried that enhance the organization's systems or products.
- Strong computer skills.

Preferred Education and Experience

- Associate's degree, Batchelor's Degree or Master's degree from an accredited university, community college or technical school and/or ten years related experience and/or training; or equivalent combination of education and experience.
- CNC machining experience and demonstrated ability to learn ultraprecision machining and metrology.
- Diamond turning or grinding optics experience (preferred).
- Effective communication and presentation skills in large or small groups.
- Interest in classroom and on-machine teaching (preferred).
- General knowledge of optics is preferred with demonstrated ability to expand optics knowledge.

To apply for this position, please send your resume to careers@nanotechsys.com. See the link https://nanotechsys.com/careers/ for more information.