

Job Description **Applications Engineer**

Type of Job – Full Time – Exempt

Location – Charlotte, NC

Job Summary

The Applications Engineer develops machine tool processes in collaboration with the Applications Team, while assisting sales functions by providing applications support through fabrication of customer-requested samples to specification 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.

Core Responsibilities

- Ultra-precision diamond turning/grinding on a wide variety 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 relevant manufacturing processes.
- 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, manufacturing, and variations of Ultra-precision CNC machining/grinding equipment and software.
- Reads and interprets blueprints, planning sheets, sketches, and related technical data to determine operating procedures, have knowledge of the manufacturing sequences and machining methods, and able to prove out part programs.
- Communicates effectively with current and potential customers on equipment & software questions, 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 troubleshooting procedures to provide detailed reporting of process solutions.
- Operates various optical metrology equipment (interferometers, SWLI, auto-collimators, microscopes, etc.) for qualification of machined parts. Uses Geometric Dimensioning and Tolerancing (GD&T) to ensure fit form and function.
- 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 newly developed processes.
- 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.
- Builds effective relationships with customers by identifying customer expectations.
- Teamwork and cooperation.
- Problem solving skills; gathers and analyzes information, offers 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

- Bachelor's degree or Master's degree from a university or technical school and/or ten years related experience and/or training; or equivalent combination of education and experience.
- Diamond turning or grinding optics experience.
- Effectively communicates and presents in large or small groups.
- General knowledge of optics and related formulas.

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