Nicholas J. Powers

Optics Manufacturing Engineer
Rochester, NY

Job Description:

Hiring Requirements:

Assists and/or drives the manufacture of precision optical components for a wide variety of customers by performing the following duties:

**Quoting**

- Works closely with customers to gain an understanding of their technical and schedule needs, the details of their application, and any cost / performance trades.
- Creates an engineering estimate for pricing and lead time that will be used to generate a quotation.

**Process Engineering**

- Creates work instructions and monitors their execution by technician staff during optical component fabrication
- Independently executes production work instructions from start to finish
- Drives polishing process efficiencies through process parameter optimization
- Designs metrology setups to support full aperture metrology of optical components, including fixturing and tooling that may be required
- Analyzes surface/wavefront data acquired from various metrology setups to optimize process decisions.
- Designs fixturing and tooling to support subaperture polishing processes
- Trains others on the proper use and application of metrology and subaperture polishing equipment
Project-based Activities

- Interacts with other engineering groups (software, systems, optical, mechanical, applications, etc) as needed to support project goals.
- Prepares written technical reports and new technical proposals as needed for projects.
- Takes part in authoring technical papers and presenting at conferences.
- Independently executes small projects as well as individual tasks on larger projects.
- Optimizes use of ERP system to maximize efficiency of Manufacturing and Business processes.
- Generates required ERP system reports for management review.

Education and/or Experience

- Bachelor's degree in Optics, Optical Engineering, Mechanical Engineering or Manufacturing Engineering or related field is preferred ; 1 to 2 years of related experience in the aforementioned areas is desired*.

(* An equivalent combination of education and experience will be considered.)

Computer Skills

- To perform this job successfully, an individual should have knowledge of the Microsoft Office Suite and Database software. Experience with CAD software to support fixture and tooling design is desired. The manufacturing engineer will be expected to become proficient with QED’s manufacturing and analysis software tools.

Other Skills and Abilities

- Experience in optical fabrication is a plus.
- Solid hands on capabilities with hand tools, measurement devices (calipers, micrometers, etc) is required.
- Draft work procedures and clearly communicate them to technicians
- Knowledge of metrology principles and equipment is desired
- Ability to independently design, perform and analyze the results of experiments.
- Clear and concise communication of key results of experiments and projects.
- Some experience in data analysis, experimental design, statistical analysis, and frequency analysis is desired.

Travel - Occasional domestic and international travel (5-10%) may be required to perform the functions of this position.