



## Job Description: CNC Programmer

### Classification

Nonexempt

### Salary Range

As posted

### Reports to

Shop Manager

## JOB DESCRIPTION

### Summary

Under the supervision of the Shop Manager, develop programs by writing code to produce machined parts on computer numerical control CNC mills, routers, and lasers. Set up, and operate CNC machines while maintaining quality and safety standards.

### Essential Functions

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

1. Plan machining operations by reviewing work orders, blueprints, engineering plans, materials, specifications, orthographic drawings, reference planes, locations of surfaces, and machining parameters; interpreting geometric dimensions and tolerances (GD&T).
2. Programming mills and lathes by entering instructions, including zero and reference points; setting tool registers, offsets, compensation, and conditional switches; calculating requirements, including basic math, geometry, and trigonometry; proving part programs.
3. Analyze drawings, blueprints, and design data in order to calculate correct part dimension for machines, tool selection, machine speeds, and feed rates.
4. Occasionally set up and operate CNC equipment as needed.
5. Maintain specifications by observing drilling, grooving, and cutting, including turning, facing, knurling and thread chasing operations; taking measurements; detecting malfunctions; troubleshooting processes; adjusting and reprogramming controls; sharpening and replacing worn tools; adhering to quality assurance procedures and processes.
6. Use precision measuring instruments including micrometers and calipers, and fixtures and gauges to check work and perform detailed inspection of parts produced
7. Read Instrumentation and gauges to accurately measure dimensions on parts being machined within specified tolerance.
8. Wear proper safety equipment and comply with company safety rules at all times

## **Competencies**

1. Good problem solving and conceptual skills.
2. Excellent communication skills to convey detailed instructions to the machine operators, and to communicate with customers and engineers regarding designs and drawings.
3. Must have a proficient understanding of G-code and M-code programming.
4. Experience setting up and troubleshooting CNC machines.
5. Mathematical Skills.
6. Mechanical and technical Capacity.
7. Proven ability to successful multiple task in a fast paced, high throughput environment.
8. Make a positive contribution to maintaining a workplace that is healthy, safe, neat and tidy.

## **Supervisory Responsibility**

This position has no supervisory responsibilities.

## **Work Environment**

While performing the duties of this job, the employee may be exposed to fumes, vapors, or airborne particles, moving mechanical parts and vibration. The noise level in the work environment can be loud.

## **Physical Demands**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

While performing the duties of this job, the employee is regularly required to talk or hear. The employee is frequently required to sit, stand, and walk; use hands to finger, handle or feel; and reach with hands and arms. The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and ability to adjust focus.

## **Position Type and Expected Hours of Work**

Days and hours of work depend on part-time or full-time status, but are generally Monday through Friday during business hours of 7:00am-3:30pm.

## **Travel**

No travel is expected for this position.

## **Required Education and Experience**

1. High school diploma or GED, or equivalent years of experience.
2. Three years' experience as a CNC Programmer programming with 2D/3D CAM/CAD software in a shop environment for multi-axis machining 2D & 3D projects.
3. Experience programming for and operating Vertical Milling Centers (FADAL preferred) and 3-Axis CNC Routing.
4. Experience creating and mounting fixtures.
5. Ability to read and interpret blueprints.
6. Training in general safety awareness and practices.
7. Working knowledge of using calipers & micrometers.
8. Ability to fluently read and write English, comprehend and follow verbal and written instructions.
9. Intermediate to advanced shop math.
10. Proficient using a PC in a Windows environment

**Preferred Education and Experience**

1. Associate's degree in CNC programming, a computer-related field or a mechanical field.
2. Experience with CAMWorks and/or SurfCam a plus.
3. Knowledge of fabricating and machining plastics a plus.
4. Quality system awareness.
5. Experience with the properties of common plastics used in manufacturing.
6. Design experience

**Additional Eligibility Qualifications**

None required for this position.

**Other Duties**

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.