



CNC MACHINIST [Level 1]

OVERVIEW OF THE JOB

Prime Responsibilities

In this job, you would be responsible for setting up and operating a Computer Numerically Controlled (CNC) machine. These machines produce parts/components – mostly metallic parts, but also plastics or other materials – by removing or shaping material to produce a precise configuration.

CNC machines can produce one part in high volume or a unique, one-at-a time part. There are a variety of types of CNC machines – mills, lathes, drills, grinders, and others.

As a CNC Machinist [Level 1], you would perform the following duties or tasks:

- At the beginning of the production run, you would review the instructions for the product or part to be produced; typically, your supervisor will give you your work assignments – which CNC machine(s), which orders – at the beginning of each work day.
- You would ensure the right computer program is in place, perhaps downloading it if it's a new job; this program controls the machine's functions and instructs the machine to perform the correct machining operations.
- You would obtain the correct tools/tool holders that need to be inserted into your CNC machine to produce the items described in your work orders.
- You would then position the material to be machined on the CNC machine; this may be a semi-finished part, a casting or a forging, a piece of raw material, or other material.
- After starting the machining cycle, you monitor the operation of the CNC machine to ensure there are no problems during the operation
- If there is an issue, you have to respond – once you have sufficient experience, you will know whether the program needs to be modified. Another option might be to change the tooling. Of course, you can consult with your supervisor. The point is you are responsible for correcting the issue.
- When the item or part has been produced, you will be responsible for ensuring that it was produced to the requirements specified on the work order, part drawings, etc., and taking appropriate action per the specified quality assurance process.

Working Environment

Many advanced manufacturing firms use CNC machines. Firms may be small and very specialized or much larger and produce a wide variety of items in long production runs.

No matter which type of shop you are employed in, safety is an important value you must practice at all times. You will be required to wear safety protective gear such as safety glasses and safety boots; earplugs or other safety equipment may also be required, depending on the work environment.

It is a physical job; you will be on your feet all day. You may have to lift moderately heavy materials during the day, consistent with workplace health and safety standards.

Often manufacturing environments are noisy and during the summer they may be hot if the facility is not air conditioned.

You will be busy all the time. The equipment you will be using is very expensive. Firms attempt to schedule work to keep this equipment in operation producing items as much as they can. This allows the firm to satisfy customer requirements and make a profit, thereby paying you and your fellow employees. It is therefore important to protect it from malfunction and undue wear at all times.

Will I Like This Job + Be Good At It?

If you can answer 'YES' to most of the following statements, then this job might be an excellent choice for you:

- Do you like creating, making, and building things?
- Do you like working with your hands?
- Do you like tinkering with mechanical things? Do your friends call you when they need help in fixing mechanical things?
- Are you good with details and precision?
- Do you like using your brain and thinking?
- Are you OK with basic math – addition, subtraction, etc.?
- Do you enjoy working mostly independently?
- Do you want to have responsibility and be accountable for the things you produce at work?
- Would you like to have a job where you can be busy all the time?
- Would you prefer to be on your feet – moving around, rather than sitting at a desk all day?

Videos of CNC Machining

Below are three short YouTube videos about CNC machines and machining that demonstrate most of points described above and provide a job preview for you:

- [Watch a CNC machine cutting a part](#), duration 5:43
- [See all the parts of a CNC machine](#), duration 3:33
- [Life as a Machinist](#) multiple videos, various times

What Do I Get Out Of The Job?

The job pays reasonably well. Your starting wage will likely be between \$20 and \$ 22 per hour. At the end of the training program, you can expect a wage increase, assuming you meet the certification standards. After one year, you could be earning between \$24 and \$26 per hour. You may also be receiving incentive or bonus income in addition to your wages, if the company has an incentive system in place. Incentive systems, in general, pay out to employees if the company is having a good year financially.

You can support a family at this level of income.

What Else Do I Get?

This can be a positive, life altering opportunity. Becoming a CNC Machinist can be an excellent decision for you. The job is interesting and pays reasonably well. Once you are fully qualified, you could be making between \$30 and \$35 per hour. This job is in demand and is unlikely to be eliminated as advanced manufacturing processes change and evolve. The long-term employment and stability it brings is a very good thing to have in a job.

Even better – it can provide a career for you in advanced manufacturing. By learning more about CNC machine programming, you could become a CNC programmer. Having multiple skills will provide you with additional job options. If you demonstrate other skills and knowledge, you could become a quality assurance specialist or a production supervisor.

It is interesting to note that most owners of shops and factories in the tooling and machining sector started on the shop floor. Can you visualize your name on the company?