# Computer Numerical Control (CNC):

CNC is an automated manufacturing process that controls and operates machinery – such as lathes, mills, drills and more. Helps in doing complex tasks with precision and efficiency.

Example: CNC might cut a piece of material (such as metal or plastic) based on instructions from a computer, meeting the specifications pre-coded into the program – all without a manual machine operator.

CNC machining languages => G-code and M-code

# CNC Milling Machine:

Like all milling machines, a CNC mill produces a final piece by carving away from a block of material versus adding layers of a material to a blank state.

## Advantages of CNC Milling

Because CNC mills operate based on computer programs rather than with manual workers, the process creates several benefits to boost your business’s bottom line, including:

* Greater precision: With computer programs running the cuts, CNC mills allow you to reach a higher level of precision than you could with a manual machine. Because these machines don’t rely on human operators, they leave less room for human error.
* More consistency: Another advantage of not having a human operator and minimizing human error is that CNC mills can produce more consistent products. If you need pieces that align precisely, take advantage of CNC milling’s automated uniformity.
* Less waste: Fewer errors mean CNC mills produce less waste. CNC machines can achieve higher efficiency with their cuts than manual machines.
* Faster production: Because they’re more efficient and don’t require a human operator, CNC machines can also complete a product much more quickly than manual mills.
* Less labour-intensive: Save on labour costs by outsourcing to a company that offers CNC milling. Doing so will also free up your current employees to work on other critical tasks because they no longer have to spend time operating a manual machine.
* Simplified complexity: If your piece requires many different cuts, tools or materials, many large CNC machines can more seamlessly integrate these changes, further contributing to a quicker, more efficient production process.

While CNC milling machines can be a costly investment, outsourcing your production to a company like Astro Machine Works allows you to take advantage of each of these benefits without paying the upfront cost of owning a CNC mill yourself.

Additionally, our operators have experience working with the software, which means you can trust us to produce high-quality products. By relying on our expertise, you benefit from the efficiency of CNC milling without dedicating the time and resources to learn the software yourself.