



Optimize

## Machine Shop Productivity Mishaps

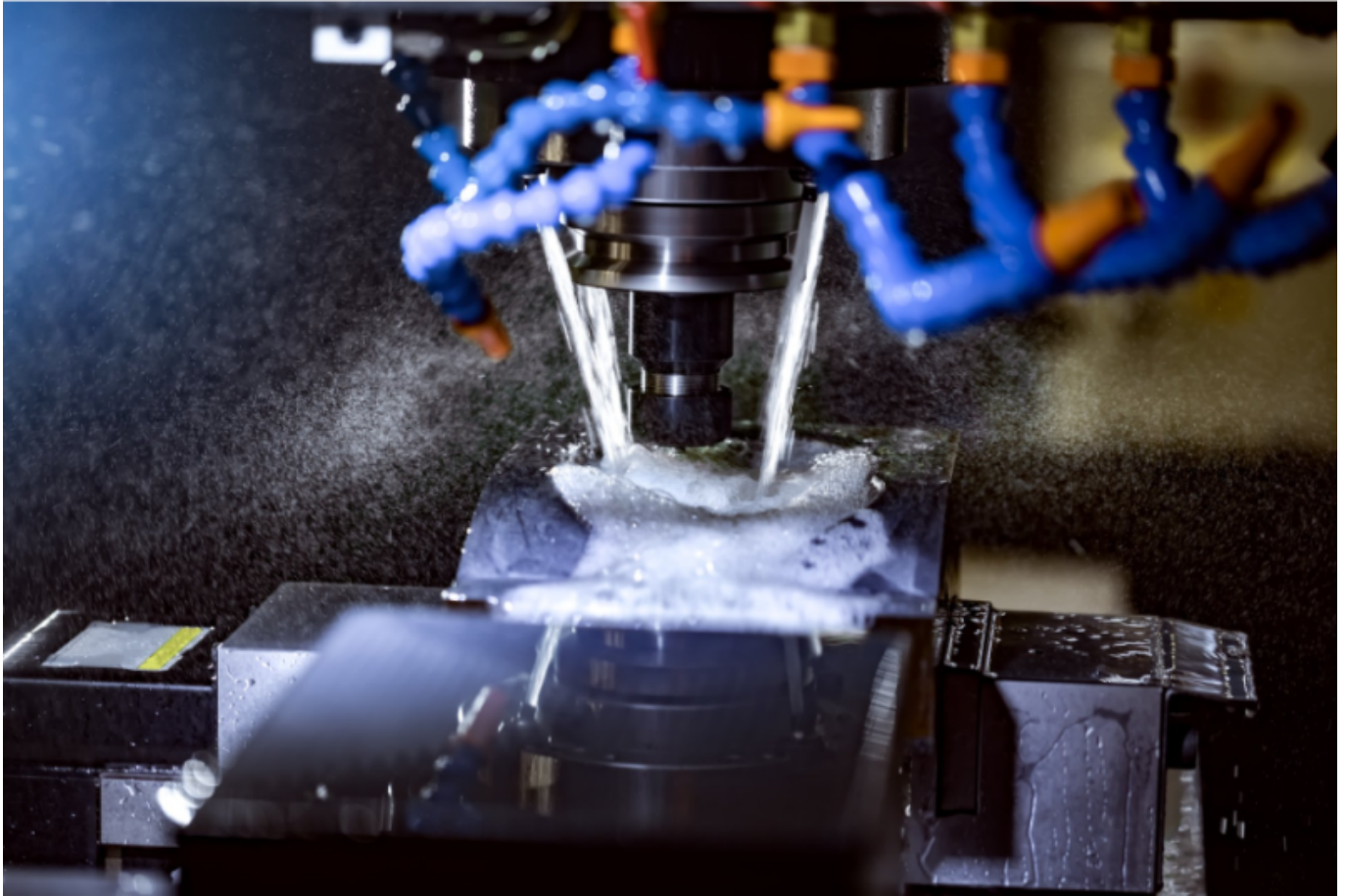
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***Are you harnessing the full potential of your machine shop, or could common productivity misconceptions be holding your shop back?***

In the ever-evolving landscape of CNC machining, staying ahead of the curve is crucial to your shop's survival. Yet, it's astonishing how often we encounter common roadblocks that stifle efficiency and profitability. From the tempting allure of selecting tools based solely on price, to the misconception that slowing down tools may extend their life, there are numerous myths that you can avoid to drive productivity forward on your shop floor. To thrive in this fast-paced industry, it's essential to embrace innovation and fine-tune your machining strategies. Understand these 5 roadblocks that can kill your shop's productivity and set your shop on the path to greater profitability today.

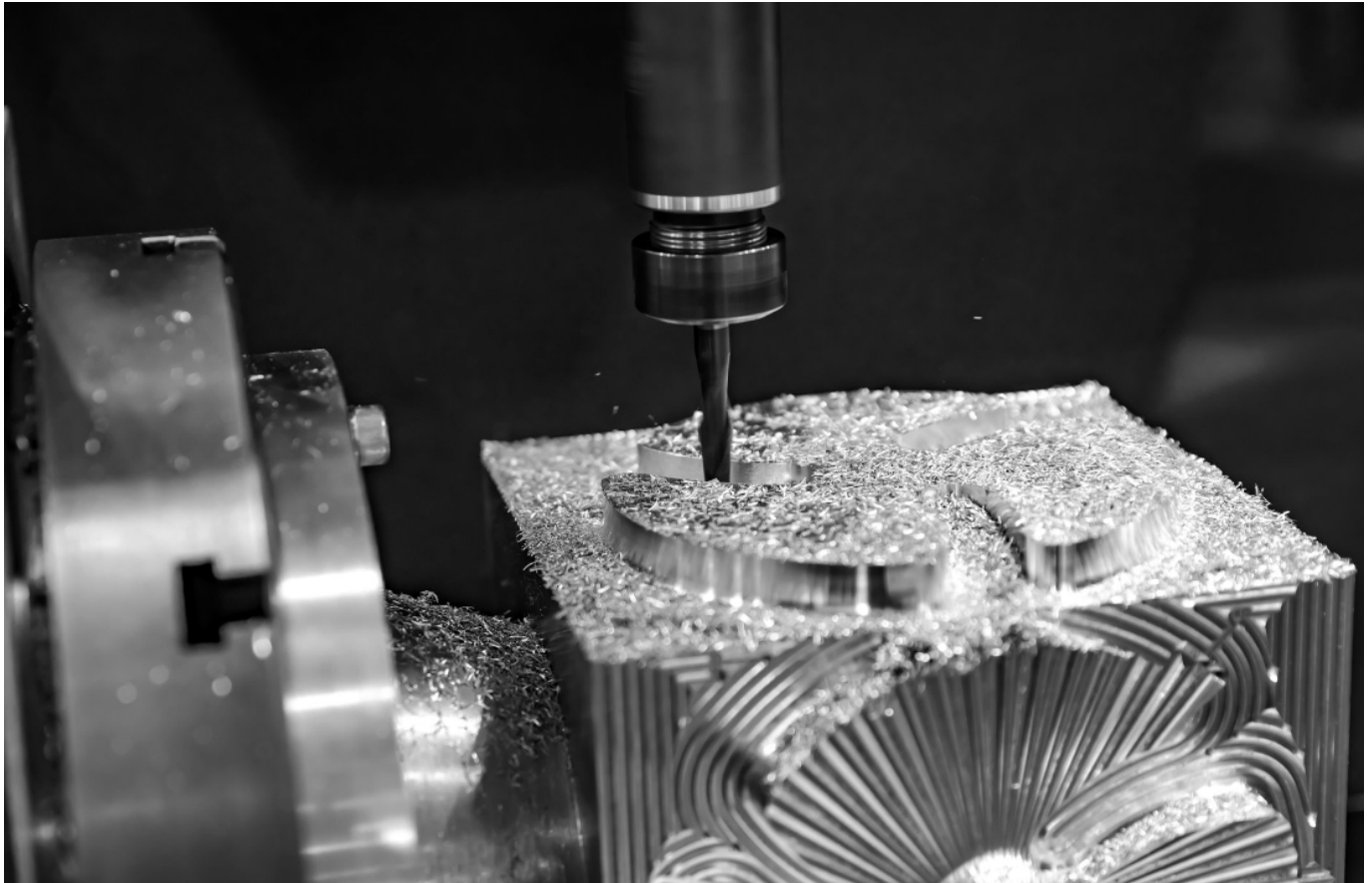
### 1. Selecting tools based on price

While cutting cost may be a main goal, focusing on minimizing the money spent up front, such as tool price, will likely cost more in the end. In this case, there is some validity in the saying "It takes money to make money". Focusing on ultimate cost savings through cutting cycle time and boosting productivity is where the real money is made. This includes using high performance tooling and larger or higher flute count tools (keeping in mind that adding flutes isn't optimal for every application). These factors will allow you to run the tools more aggressively and, when optimized, will be well worth the investment, especially in high volume production settings.



## 2. Slowing tools down to extend tool life

While *tool life* is important and should be strived for, slowing down your tool to achieve this will kill productivity. When running lower volume, tool cost tends to weigh a little more than higher volume, but in either case, tool life is not where you are going to make money. Money is made when parameters are optimized and cycle times are cut, allowing for higher throughput. It's also worth noting that if the tool isn't running fast enough, the coating may not be reaching its activation temperature, reducing the benefits of a coating.



### **3. Using one toolpath across the board**

There is not a “one size fits all” toolpath when it comes to productivity. Sure, you can use just about any toolpath to machine a part, but some shops tend to become so laser focused on one, that they forget another toolpath may better suit the application. The two main styles of toolpaths are trochoidal, which is constant cutting engagement, and standard, which varies engagement angles. Since trochoidal is newer, some people think it is best, but that isn’t always the case. Depending on material, machine, fixturing, tool, etc. a standard path may be more productive.

### **4. Using cheap or poorly maintained tool holders**

Holders having poor dimensional accuracy and open tolerances can destroy tools. These low-quality holders induce run out, setting tools up for failure before entering the machine. Using dirty or worn-out holders can also start things off on the wrong foot. Not cleaning them between uses can cause chips or other contaminants to compromise the grip strength or TIR of a holder assembly. Always make sure the assembly is broken down and cleaned between uses to maximize tool life and performance, increasing productivity.

### **5. Avoiding spending money on technological advancements**

Multi-axis machines, circle segment tools, and new more intuitive CAM software, are just a few example advancements on the front of CNC machining in recent years. “That’s how we’ve always done it” isn’t going to cut it anymore. If the goal is to make money, as mentioned earlier, money needs to be spent (responsibly). There is a reason for continuous improvements in this industry and when applied correctly, they increase productivity and save the customer money.

***Unlock your machine shop's full potential. Watch: Machine Shop Productivity: 5 Roadblocks to avoid***

To conquer these challenges in your shop, it's essential to embrace innovation and optimization. KYOCERA SGS Precision Tools has made it their mission to deliver "Value at the Spindle®" to all of their customers. They understand that the tool plays only a small role in your shop's productivity which is why their highly skilled sales engineers are capable of crafting full machining solutions for reducing setup and cycle times and ensuring part quality and process reliability. ***Contact your local SGS Sales Engineer*** today to experience the benefits of SGS's full-scale machining solutions.

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