



Along with routine maintenance & cleaning procedures, the operator must know how to avoid common operating errors that may cause damage to himself or the machine.

A few examples of errors that can be avoided include:

- Pieces flipping up while cutting, causing damage to the nozzle and subsequent wasting of material.
- Lack of Z-Axis clearance while jogging the head, causing head crashes and possible autofocus pen breakage.
- Neglecting to monitor the cooling water temperature and quality, causing damage to the laser tube.
- Neglecting to monitor air-assist pressure, possibly causing flames and subsequent fire damage to the machine.

Without the proper training on how to avoid these incidents, the odds of a mistake happening are much higher.



Ensuring workplace safety when operating capital equipment is critically important.

No-one should be permitted to operate a laser without knowing the safety basics. In general, lasers are very safe machines, but it is often due to negligence or poor initial training that accidents happen.

To protect the safety of the operator and all those in the vicinity of the machine, ensure that the proper safety procedures are in place, and adhered to.

Create a safety checklist that must be completed before each operation of the machine. Ensure that the operator knows not to take shortcuts; no amount of time saved is worth the risk of injury.

Operator training is paramount in keeping your machine profitable, your employees safe, and your overhead low.

## The Importance of Laser Operator Training

### *A Tool is Only as Good as its User*

Manufacturers are constantly innovating. There is a perpetual push to develop machines that are more efficient, more capable, and more productive. As advanced as these machines become, however, their performance is ultimately determined by one variable: the operator.

The most amazing laser machine can be rendered useless if manned by an operator unequipped to use it. This is why proper operator training is one of the most important aspects of commissioning a new machine. An educated operator can mean the difference between simply breaking even or netting large profits. They can and will have an effect on the efficiency, throughput, and longevity of your capital equipment investment.

### *Getting the Most out of Your Laser*

Lasers are capable of cutting or engraving virtually anything, but they are not designed to be fully autonomous – they need human input to function. While our machines are designed to make the lasering process as straightforward as possible, it is the operator rather than the machine that will determine the overall efficiency of the laser. A well-trained operator will be able to optimize the cutting process through the implementation of an effective workflow.

Operator knowledge of common cutting and engraving methods and techniques is also useful when trying to squeeze the most profit out of your laser. Nesting and common (single) line cutting are easy ways to reduce material waste and maximize total output of your machine.

### *Reducing Maintenance Costs*

Laser operators must also be well-versed in routine maintenance procedures. Failure to complete these procedures within the suggested timeline can result in damage to critical machine components, resulting in costly repairs and machine downtime.

Be sure that your laser operator also knows the signs of a failing part. Catching potential problems before they happen will always be cheaper than replacing a broken component after the fact. A well-prepared and trained operator will be able to get the most uptime out of your machine.

