

Laser Tube Life.

The CO2 laser tube is a consumable.

The Laser tube has CO2 Gas sealed inside. The CO2 gas is consumed to generate the Laser Beam.

The Laser power supply uses electricity to excite the CO2 laser tube, but also depletes the CO2 in the tube over time.

The Time is the Issue how long.

The China CO2 Laser Claim up to 1000hours.

The Reci CO2 Laser (Maybe 6 times the price of China Tube) Claim 10000 Hours.

These figures are based on the best results which is at low power eg: engraving or marking.

Cutting uses more power which consumes the CO2 at a faster rate.

The more power used the faster the CO2 is consumed and the quicker the tube is depleted.

The loss of CO2 over time will cause the Power output from the Laser to reduce most noticeable in cutting thick materials at higher Power % settings.

To get the most life out of your tube use the lowest power % setting required to do the job.

Keep power below 60% if possible.

Duty cycle: use the machine for max 2-3 Hours then turn off for 1 hour.

Keep Laser cooling water at low temperature, use a big volume of water.

If water is getting to hot performance can reduce.

If the water is not pumping when the tube is in use the tube can be damaged and will need replacement.

A new 50 watt tube will Cut 6mm MDF but this is at the top end of its performance and uses approx 65% power.

The Machines are capable of multiple cuts this option will allow to cut twice at the lower power setting .

If you wish to cut Thicker materials consider a more powerful Machine which can use lower power to do the same job (but note the more powerful tubes are more expensive to purchase and much larger to ship.)

The CO2 in the tube can also leak, so a tube sitting in a shelf or just not being used is slowly losing gas.

When you need to replace your first Laser tube this will indicate to you how long the Tube will last in your application and you can budget on an hourly rate for consumables.

Disclaimer.

This is my Opinion and for information only

I will not be liable for any mistakes or omissions