

Beyond CO² Lasers

What's next and what are your options? Should you invest in a UV printer? or a Fiber Laser?

CO² Lasers have had a good run. Hundreds of entrepreneurs have been able to simultaneously pay their bills by starting a new business, or by expanding an existing one. Business skills have been learned and a variety of new skills such as the relationship between design, software and CO² Laser machine settings with differing substrates fine-tuned.

Additionally many money making formulas have been developed with niche products in addition to how time should be charged for and perhaps most importantly how to protect your IP (Intellectual property). These days many Laser entrepreneurs have 3 or more machines running.

But what about the future?

The growth options open to Laser entrepreneurs are varied and depend to some extent on your niche markets which in turn is often based upon your acquired design skills. There are however a few trends which are going to affect all CO² Laser entrepreneurs. These are :

- 1) Laser entrepreneurs are a resourceful tribe and they are forever looking for new opportunities and markets.
- 2) Skills learned from a CO² platform will assist when expanding your business to include more advanced technologies.
- 3) The accessibility to low-cost multi substrate colour printers will force changes on the market perception of laser gifting and promotional item manufacture. Put differently, the profit growth will now be in colour.
- 4) Whilst one machine may have been a good income generator in the past, it is not guaranteed in the future.
- 5) Access to or ownership of different types of machines will become the single biggest competitive edge by the end of 2018.
- 6) For the more adventurous type, CNC machines will add another layer of profitability.

So where does this leave the entrepreneur?

The quick summary is that the Laser entrepreneur will need access to additional machines.



What additional machines must you have - and why?

CO² Laser entrepreneurs fall under the category of micro manufacturers. The industrial revolution created the factory. That has now changed. In the world of customisation and personalisation in which most laser entrepreneurs operate, we now run our businesses from home or small business premises.

Let's start with the why :

Browse through any craft market and you will be overwhelmed with laser cut items. It has become boring. Rather use your experience, design skills, knowledge of markets, experience with substrates, and try something more adventurous. Use what you have as a platform and let your creativity blossom.

There are a number of extra machine combinations :

- Add a Fiber Laser Engraver, UV Printer, Metal Cutting Laser or more CO² Lasers or a CNC router to your small business machine portfolio – and, if you can afford it, a Fiber Laser Cutter or even a Waterjet - that can cut literally *anything*.
- Use our oscillating knife cutter at Perfect Laser's head office in Randburg – and a Fiber Laser at no charge on Saturdays.

Perfect Laser allows clients to use our oscillating knife cutter in Johannesburg and our Fiber lasers in our branches. We will even let you use our bigger machines if you have an urgent large order.

But even with access to our other machines, the real solution to your next level of business success lies with UV printing.

Consider these facts :

- 1) Whilst there are a few hundred or 1000 lasers in Gauteng, there are almost zero UV printers in small or home businesses. With past prices in excess of R500k for a standard UV machine, it just wasn't a proposition.
- 2) Colour offers so much more potential – and here's why:

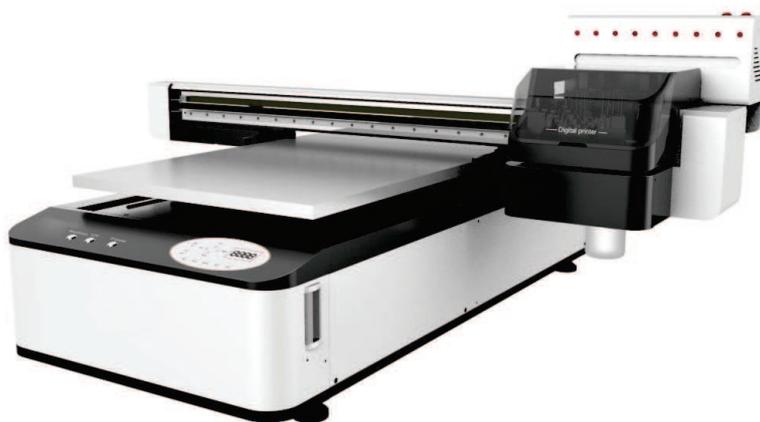
- You can charge much more.
- You can print on wood / glass / plastic / canvas / metal / concrete / tiles / paper board for both indoor and outdoor.
- You can print on pens, golf balls and other substrates.
- You can emboss print, which means a 3D raised effect.
- You can add varnish – for a gloss effect.
- The final product is resistant to rubbing, heat, moisture and fading. This is because it has already been exposed to maximum levels of UV light.
- It is suitable for long production runs.
- The head moves over the item - allowing a build up of ink creating a 3d effect.
- It is cheap to operate – less than R20/m² including VAT.
- UV Prints on magnetic fridge film.
- UV Ink dries instantly.
- It raises the selling price of your item from 3 to 5 times.
- You can combine your CO² Laser designs with colour.
- It prints beautifully on canvas photo frames.
- The varnish effect superimposed on colour is truly amazing.
- You can enter new markets such as signage and tile printing.



As with any capital outlay there are numerous questions that should be asked. Your UV printer will cost more than your Laser – but then it will add 3 to 5 times more revenue and more importantly, much more profit for the same amount of work.

So what must you ask for when looking for a UV printer?

- 1) Does the printer use ink tanks or cartridges? (Cartridges are less efficient and cost more).
- 2) If I phone on a Saturday will I get support – or even after 6:30 pm on weekdays?
- 3) If I have a file problem does the supplier have a printer installed where the image can be tested?
- 4) Can it do varnish printing?
- 5) What is the cost per square metre?
- 6) How much do the print heads cost?
- 7) Does it have one or two print heads?
- 8) If it needs service, what is the cost of a callout fee and how long will it take?
- 9) Does it have a Z-axis?
- 10) Does it have a vacuum bed? (For holding materials down when printing)
- 11) Can it use a rotary device for glasses / bottles?
- 12) Does it have a self cleaning mechanism?
- 13) Do I need to clean the machine before and after use?
- 14) What is the warranty?
- 15) Does the supplier carry spares and what are the costs – if they are available?
- 16) What is the lifespan and cost of the LED lamps?
- 17) Does it use a belt drive or screw mechanism?
- 18) What is the print head DPI (higher is better) and Ink droplet density in Picolitres (lower is better)?
- 19) Is the ink safe environmentally and for humans, animals and plants?
- 20) Does the UV print accurately and reliably on all substrates – or, what substrates are not recommended?
- 21) Does the UV printer have a white ink preparation system – which allows for more vibrant printing?
- 22) Can you allow for spot varnishing? (ie: varnishing a red apple in an image)
- 23) Is the ink supplied VOC-free? (Volatile Organic Compound)



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