



Permaboss Laser Series

Decoration Alternatives your Competition Can't Touch

CC40iC Laser

35% Savings. All of the Capability.

Internally we call this our customers Cash Cow laser, not ours! Why? Because it's basically all the same components and electronics as the NGL laser but about 35% less in price!

The real cost savings comes from the new design and less labor required to build it. Basically a totally new way of building the laser on our end based on really understanding how cars are made in today's world. We stole as many ideas and concepts as we could from some tours we took and implemented them into the CC30 build.

The second cost reduction comes from using a lower power laser (unfortunately for both of us the 30W is not 50% of the price of 60 watts! We only wish, but it's a savings nonetheless.)

Same for the scanner head. We use a German brand that is smaller than the American one and we also use smaller optics which is a big savings and because of the volume of lasers we are building we can now custom manufacture parts by subcontracting to companies that we were too small for just a few years ago. They have better facilities and technology than we have and can create a better product at a lower cost and that is passed onto you.



Features



- ✦ GALVO/SCANNING: Cutting by vaporization of material.
- ✦ Comes Standard with 40W Ceramic CO2 laser source includes red laser scanner beam for visual confirmation.
- ✦ Available with optional (plug and play) 40W, 60W, 80W, 100W, and 200W Iradion Ceramic laser source.
- ✦ Stand alone laser can be added to a gantry system at any time and used with any embroidery machine brand.
- ✦ Standard Cutting and engraving Area 250mm x 250mm Optional 360mm by 360mm with higher power laser source.
- ✦ 24 months unlimited use warranty. Laser tube included.
- ✦ Spot size 390 micrometers 0.39mm or 0.015” (Higher wattage models come with smaller spot sizes.)
- ✦ The head moves through an aluminum structure. It is controlled by a BOSCH servo motor and stops just in front of each embroidery head to perform the corresponding cutting or engraving process.
- ✦ Includes touch screen PC, Picture based control software, and includes Permaboss “Laser-Worx®” Design software.
- ✦ Meets or exceeds CSA, UL, CE, FDA, and OSHA regulations.

Specs

Power Requirements

16A 22v 1ph 50/60 Hz

Aspiration Turbo Blower

Included (customer to supply plumbing to exterior vent)

Head Speed Capable

Capable up to 3000 mm/s. 980 mm/s. Practical for OSHA safety compliance

System Repeatability

+/- 0.013 mm

Laser Body Weight

70 kb (156 lbs)

Working Area

*250 x 250 mm
OR upto 360mmx360mm(14x15in)*

Laser Power Source Options

*Universal 50W or 100W,
Synrad 65W, 100W or
200W optional*

Galvo Mark/Cutting Speed

Up to 5000 mm/s

Profile Precision

*+/- 0.038 mm over 12m span
(Remember that felt layers over
more than 1mm!)*



Laser Frequently Asked Questions

What is a Bridge Laser?

A Bridge Laser is essentially a metal bridge that can install over and above the existing Embroidery Machine. It works independent but 100% in harmony with the Embroidery Machine. The Embroidery Machine still does all the stitching, the laser head itself moves along the bridge of the gantry and stops at each individual head, and can cut and engrave/etch or do both.

What Specifically is a “Bridge Laser Alternative”?

Bridge Laser Alternative does the exact same thing as ALL the bridge lasers do but for a fraction of the price!

Instead of the laser moving in a straight line (as in the above demo) to a limited number of embroidery heads below it, your operator can bring ANY and ALL embroidery hoops to the laser!

It is essentially the exact same laser without the bridge or gantry.

This is an Industry First by Permaboss.

It's the first true dedicated scanning/galvo laser that works with your brand of embroidery machines. Here is the principle below:

Whatever your layout on the production floor, you don't need to alter or move machines just to get the laser bridge in. You don't need to move machines in order to install the beams. There are none.

You simply choose a spot on the floor and set up the laser right there close to embroidery machines so that all machines possible have the best access to the NGL.

The entire principle of the laser is to reduce stitch time. 65% of your work will typically be in 1 color applique. Doing your running stitch on the embroidery machine and then removing the hoops frees up the embroidery machine sooner than if you have to wait for the bridge to go and cut on the embroidery heads.

PLYS ALL your embroidery heads have access to the laser instead of it hanging there limited only to what you can run on those two or three machines under the bridge

Advantages

- 👉 Price, it costs a small fraction of the bridge laser.
- 👉 It takes up not much more space than a household kitchen refrigerator.
- 👉 There is no interruption of your embroidery production for 2 weeks or more like with the bridge laser installs.
- 👉 It costs less to ship and does not require a container, flatbed truck, or forklift to install!
- 👉 It installs and works in less than 2 hours from when delivered!
- 👉 ALL your embroidery heads are able to take advantage of the laser, not just the ones under the gantry or bridge!
- 👉 It can be upgraded to a bridge laser at any time and because the NGL is 3 times lighter than the 3 Italian companies it does not require those massive metal structures, we use aluminum beams in 3 meter (10") lengths that can be carried into ANY embroidery business by hand (They actually flex less than the metal beams!).

These are some of the reasons we call it NGL or "Next Generation Laser"! All the best things incorporated into the laser and made with the same great USA made laser sources for a fraction of the price. Includes a better warranty and no hefty shipping or import duties (NGL lasers for European markets are Made in Germany!).

One other HUGE advantage with all the NGL Bridge Laser Alternative is that you can use the entire center of the hoop, something you can't do with all the bridge/gantry lasers. With bridge lasers you can only use about 75% of the hoop because the hoop remains on the embroidery machine and can only come out so far under the "Frame Out" so your designs can't always be as tall as they are wide regardless of the laser field. This is NOT the case with the standalone NGL!

Who Invented it?

GMI, a company based in Italy, was one of the original inventors of the bridge laser. It was released in 1999 as the first Bridge Laser in the world, soon their local competition Proel added their version and later a former supplier called SEIT made yet another version.

These three companies are very close to each other and have had a long rich history of legal battles of who did what first, who stole whose proprietary info and who stole whose engineer and technicians. The point is that all three literally have the identical concept in terms of electronics and construction. Each laser head has become a big heavy monster that takes a lot of complex super duty motors and gears to move around.

Permaboss distributed the GMI laser and discontinued after becoming frustrated with the frequent technical service issues that always required factory intervention from Italy regardless of how smart a tech we had on hand. This is a common theme with products from Italy versus products from Germany. Think of a Ferrari and a Mercedes, one is super exotic but requires totally specialized technicians and expensive service from limited locations, the other is rock solid reliable and can be serviced in every corner of the planet!

The NGL is emulating the latter!

Why was the Bridge Laser Invented?

In the late 1990's, there was evidence of the embroidery industry being decimated by the cheap labor made in China. Their \$29/month labor rates changed everything.

Within two years, China took most everybody's juicy volume business, as well as India and Pakistan, where they were offering their services, in their part of the world for US \$21-29 a month, as labor cost per person.

So imagine, what we are spending in hourly US \$12-15 per person as an operator, they are spending only twice that per month, NOT even for an hour. So naturally, the only way to fight that is to take technology and use it to do what the human hand cannot do.

In 2009 during the recession, China had adopted these lasers so the "ante had been upped". Being an embroidery house and NOT having a laser was going to mean a lot more pain, even smaller margins, and a bleak outlook.

EMBROIDERY HAS NOT CHANGED IN 40 YEARS, the machines and pcs are better but the output is identical. The NGL laser changes all of that!

What is the Main Purpose of the Laser?

The main purpose of the laser is to be able to offer what no hand can do.

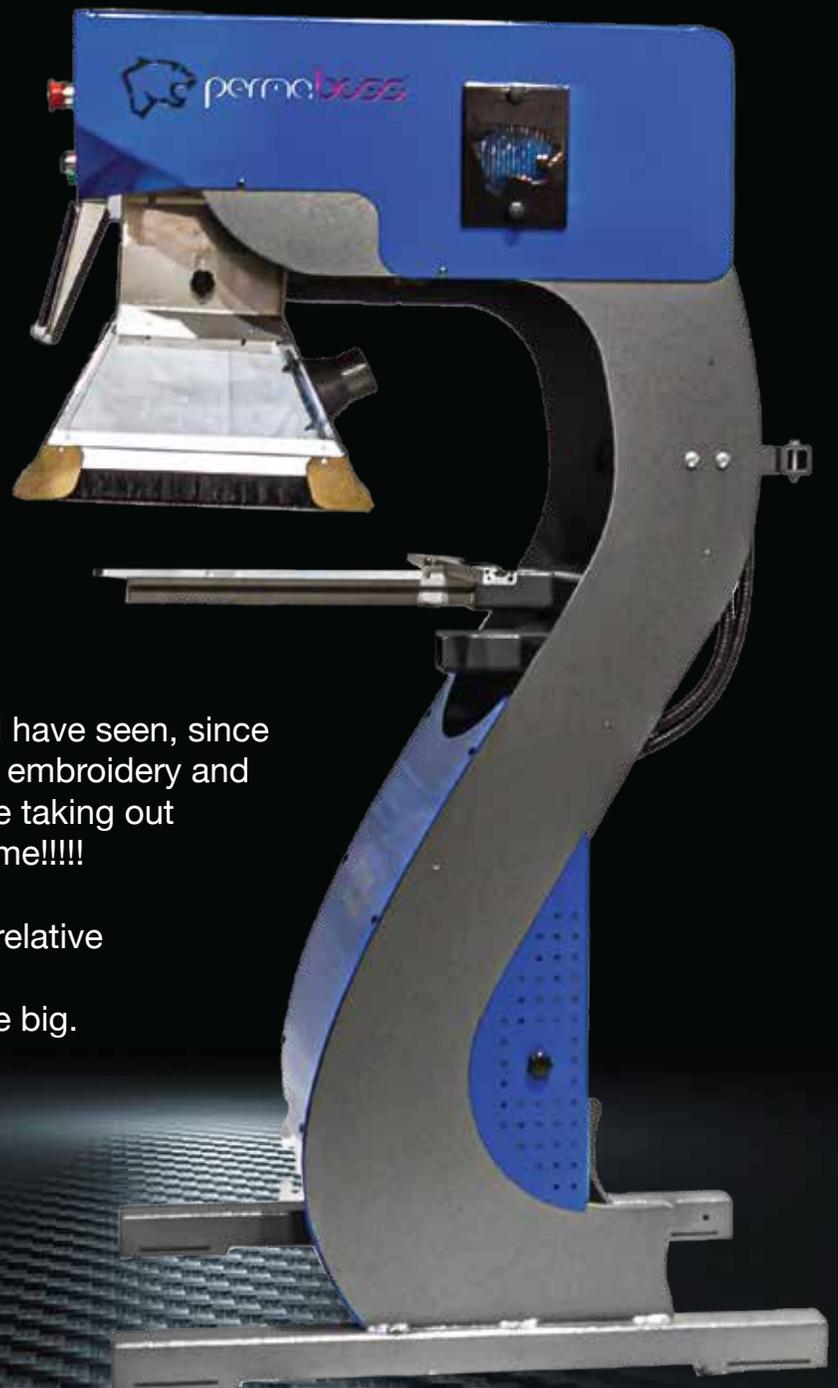
The markets in Canada and United States, and any other developed country, are small-medium run, custom work, quick turnover. You have to offer all these three elements in order to be competitive.

The next thing you have to do is differentiate yourself from the rest of your competitors.

In America, there are 17000-18000 embroidery businesses, 22000-23000 screen printers and the market is saturated. The vast majority, more than 70%, is a home-based market. Therefore, people with smaller machines, oftentimes 1-head, 2-head, 4-head, 6-head capacity, home based in garages, etc with very low overheads are able to offer lower pricing than the commercial or industrial shops. The price of embroidery has dropped dramatically, and unfortunately, when there is more competition, the price automatically goes down even more.

In the case of North America, it wrecked the margins totally, and very few, in relative terms, of those businesses are very healthy businesses. Again, of all the businesses I have seen, since 1999, (more than 2500 businesses doing embroidery and screen printing), very very few owners are taking out even US \$50,000-60,000 a year net income!!!!

There are a lot of big ones, but "lot" is a relative term. There are 17000-18000 embroidery businesses and less than one percent are big. That's the reality in America.



Who can use an Embroidery Laser?

Anybody looking to distinguish themselves from the rest of the embroiders, in their area - their direct competitors. If you look at any major city's Yellow Pages, like Chicago, Toronto, New York, Vancouver, Calgary, L.A., Kansas City, etc. you will see dozens of embroidery businesses and very few have anything different to offer. They are all competing for the same thing, which is based on price.

By offering the laser, you upgrade the ability of your output, options of decorations, ability to offer multimedia decorations and you completely eliminate virtually all small embroidery shops and relegate them to doing high-stitch count and low-profit jobs, which they can very happily do, given the fact that they have very little overheads. At the end of the day, people still need excellent service and they need a healthy business.

Embroidery businesses are going bankrupt in record numbers more than the restaurant industry. How many times have you as an embroiderer been asked, "how come you don't offer the same price as Joe?" Then when you say "well, go to Joe, because we can't afford to do it like Joe", and they say, "well, Joe is out of business".

So, it is an old running joke... but it's true! If you offer what everyone else is offering then you will get +/- 10% of their results. If you do something different and upgrade your embroidery to the internet age then you can have the lion's share of the market.

The early adopters virtually always make all their money back and huge profit before all the others enter the market, and then the early adopters are already onto something new!

It is proven in history, in business books! It's actually more risky to enter the market too late. Right now, all the big companies who purchased bridge lasers have mostly made all their money back!

It's time for the smaller ones to jump in!



Why do you Need it?

You need it because embroidery is an industrial age technology. It is from World War I and II time and it is stitching. What you're doing is trading your capacity for money. Making \$45/hr is NOT PROFITABLE, it needs to be more like \$100/hr in today's market!

NO embroidery house is making that. However, embroidery houses with the lasers are making far more than that!

You're saying, "I have embroidery capacity and I am willing to do it at this price". Unfortunately, you're only getting 2-3 turns per hour on a great day. So, that limits your ability to earn income. That was one of the benefits of having a multi-head machine, but a multi-head machine requires 2 operators to keep it running at capacity. They are upgrading the turns per hour, but they have 2 people hooping it.

Take a look at the hoping device and find a way to hoop faster than ever before and never ever wait for your capacity. Take a close look at what the laser can do and consider it carefully!

You need to make more profit in less time with less labor, only technology can do that for you!

Is the NGL Laser Affordable for me?

The questions that I have for you are:

1-Can you afford to hire another person for US \$13-14 per hour?

2-Are you willing to let go of one person in your company who is not pulling his weight and replace him with a machine that literally translates into US \$13-14 an hour?

Right now, I can guarantee you that there is NO other laser company in the world that can be offered at this price range.

No other laser company in the world, that I know, is willing to offer you the laser on rentals so that it can prove to you what it can do.

The bottom line is that an NGL laser will cost you around \$5 US per hour, based on 21 days in a month and 8 hours a day. If you use a laser in a second shift, cost is exactly half. Add a third shift and it's like buying a coffee every hour!

By the way, the NGL laser is guaranteed for 24 months UNLIMITED USE!

So the question is - "How can you not afford it?" That's a reality and we can show you those numbers very clearly.

What are the Differences in the Types of Lasers?

The number one difference between lasers is whether they are “air-cooled” or “water-cooled”.

Air-Cooled Lasers

An air-cooled laser is like the old Porsche or Volkswagen Beetles when they used air to cool the engine. Same thing here! Because they did not have a radiator and when you drove the car, it always had problems because it would literally get too hot. When you drove it on the highway, it was ok, for the most part.

With the air cooled laser, it takes a little longer to warm up, the laser beam is not quite as tight and small. That’s okay because you are not making parts for NASA, you are cutting t-shirts.

Water-Cooled Lasers

Water cooled lasers cost more as they require a dedicated cooling system and regardless of the room temperature they operate extremely well, but it adds many thousands of dollars in cost to the laser.

The smaller the laser beam the more energy is concentrated into a small area, the quicker the material is vaporized and the less smoke and residue. You can get a similar effect if you simply get a higher power laser.

ALL NGL lasers are PLUG AND PLAY. No other laser in the market has that feature. You can upgrade without an entire rebuild of the laser. You can choose from Universal or Synrad laser, you can switch in a few years if you want!

ONLY PERMABOSS OFFERS THIS!



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