

VECTOR

FIBRE LASERS

Compact Vector FL90

**High Performance
Fibre Laser Cutters**

One of Europes Most Compact Yet Affordable Fibre Lasers

Revolutionise Your Metal Cutting with the **Vector FL90 Fibre Laser Cutter** - a compact build with impressive performance and versatility.

One of our **most popular fibre laser cutter** for a good reason, the T90 offers a compact yet powerful solution with a spacious 1300 x 900 mm cutting table. With cutting **capabilities up to 3kW**, the FL90 Fibre Laser Cutter is ideal for fabrication environments where space is limited, but a higher-powered system is essential.

Impressively built Fibre Laser Cutting System with a spacious cutting table of 1300 x 900 mm. The FL90 is used in a wide variety of applications, from custom component manufacture to universities and colleges.

Why not call us today and book your very own personalised demonstration?

- | | | | |
|------------------------|---------------------|----------------|-----------------------|
| + Automotive | + Signage | + Defence | + Mining |
| + Aerospace | + Furniture (metal) | + Agricultural | + Oil and Gas |
| + Medical Devices | + Construction | + HVAC | + General Fabrication |
| + Electronics industry | + Tool/Dies | + Catering | + Heavy Machinery |
| + Jewelry | + Shipbuilding | + Transport | + Renewable Energy |

Compact & Powerful
Fibre Laser Cutter!

Easy Control

Each Vector FL90 Fibre Laser features our user-friendly V-CUT control system, designed in-house with a modern touchscreen interface to meet the needs of Western manufacturers.

Powerful Cutting

A servo-driven system with powerful 1.5kW or 2kW power packs operating on a single-phase power supply. We also offer the FL90 with a 3kW 3-phase option for higher-powered applications.

Lower Running Costs

With efficient operation, the FL90 reduces costs over traditional metal-cutting machines by consuming less energy, needing less maintenance, and enhancing productivity.

Short Run Production

As the FL90 is smaller than its larger counterparts, it excels at short-run production, offering quick setup, efficient operation, and optimal performance for small batches.

Fast File Handling

Our powerful V-CUT control software processes DXF files, enabling cutting in seconds and significantly reducing programming time for prototyping, one-offs, and custom projects.

Dual Circuit Chiller

Each of our Fibre lasers comes standard with an S&A chiller equipped with dual temperature control, ensuring your power source and optics remain cool at all times during the cut process.

Handheld Remote

The wireless handheld remote offers a variety of functions, such as moving the head, controlling the shutter, adjusting the assist gas, changing speed settings, and much more.

Auto Focus

RayTools cutting heads, standard on our machines, feature built-in capacitance height sensor and autofocus, making it easy to switch between cutting different materials.

Fully Enclosed

Customer safety is paramount to us. Our fully enclosed Fibre Laser Cutters protect both operators and bystanders and allow safe and efficient extraction of all harmful vapours.

Laser Vision

All our Fibre Laser Cutters come with CE-rated laser viewing glass for safety, allowing clear observation of cutting process while protecting against harmful laser exposure.

Software

Our FL90 range comes complete with both the V-CUT control software and our CAD drawing package, providing you with a comprehensive set of tools for efficient design and precise cutting.

Cyclone Extraction

Our Cyclone extraction systems can be ordered with your package. These high-performance units can be installed internally or externally, with an optional cowling for enhanced safety.

Finance Options are available. Why not spread the cost of your machinery purchase? Our finance partner Percy Finance Ltd is an appointed representative of AFS Compliance Ltd which is authorised and regulated by the Financial Conduct Authority. Firm number 625035, Percy Finance Ltd is a franchisee of Asset Finance Solutions (UK) Ltd.

Data Sheet for the **Vector FL90 Fibre Laser**

Vector Fibre Lasers - Compact, an industrial cutting system with up to 3kW cutting power.

Model: FL90	
Power requirements	
Single and 3-phase Options	Single phase AC 240V 1.5-2kW or 3 Phase AC 380V 50HZ for 3kW
Main Specification	
Table Type	Low contact cutting table
Safety Enclosure	Yes – full safety enclosure to protect your operators from any stray beams and to aid in the safe extraction of cutting vapour
Laser Power Options	1.5kW / 2kW / 3kW options
Laser Cutting Head	Raytools - Autofocus
Servo Drives	High-accuracy servo-driven system
Drive System	Double Y axis ball screw transmission
Guide Rails	HIWIN guide rails
Ball Screw	TBI ball screw
Dual Channel Water Chiller	Yes - S&A CWFL Series (model is power dependant)

Weights & Dimensions	
Length (mm)	2700 mm (without PC control arm)
Height (mm)	2000
Width (mm)	2050
Weight (Approximately)	
Weight (kg)	1900
Control & Software	
CAD	Integrated CAD Package
CNC Control	V-CUT (Fully Developed in the UK)
Warranty	
Parts & Labour	24 Months
Consumables	
Supplied	Yes - set of protective lens, focus lens, and nozzle pack supplied (additional available to purchase)

A Compact Powerhouse
Highly Capable Metal Cutter

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Cut Capacity - Model FL90



Cut capacity for the **Vector FL90 Fibre Laser**

***Please note:** maximum cut thickness, expect burr and or dross, may differ due to material variation and or local environmental factors.

Model: FL90			
Materials	1.5kW	2kW	3kW
Carbon Steel	14 mm (max)	18 mm (max)	20 mm (max)
Stainless Steel (mm)	6 mm (max)	8 mm (max)	10 mm (max)
Aluminium (mm)	4 mm (max)	5 mm (max)	8 mm (max)
Brass (mm)	3 mm (max)	4 mm (max)	6 mm (max)
Copper (mm)	3 mm (max)	3 mm (max)	5 mm (max)

A Compact Powerhouse
Highly Capable Metal Cutter



FIBRE FL90FL92

Our **Vector FL90** range combines a range of features to allow you to fully control your machine with ease and the minimum of fuss, Here are a few of the main functions:

Easy Interface

With our easy-to-use touch screen control interface, the Vector FL60 has everything you need at your fingertips. V-CUT is our own internally developed software project.

CAD

With the included CAD package you can easily create projects directly from your machine. Need a second license for the office? no problem.

Control

Because V-CUT is our own developed software, we have full control over the whole system. Our fibre laser control is our own UK-based fibre laser control.

Fly Cutting

Fly cutting keeps the laser on during head movement, unlike standard toolpaths that shut it off. This continuous operation speeds up metal fabrication reduces downtime, and enhances efficiency for quicker task completion

Nesting

Nesting efficiently organises design elements, minimising wasted space on screen and workpieces. Laser nesting optimises material usage, reduces project durations, conserves resources, and streamlines production.

Auto Height Control

Our control features auto height sensing, compensating for any surface irregularities to better protect the head and offer improved cutting performance and reliability.

Real Time

Our robust CNC control system operates in real-time, which is critical for precise motion calculations, ensuring accurate and reliable performance during all cutting and fabrication processes.

Remote Support

Integrated remote support functions to allow our team to support you and your machine, helping to maintain minimal disruption for your manufacturing process.

CE/UKCA Standards

V-CUT control has been completely designed by our engineering team to meet all requirements of current CE/UKCA standards.

Multilingual Interface

Our multilingual language interface allows for the quick changing to a number of supported languages with more being added regularly.

And much more...

Our **V-CUT Fibre Laser Control System** is extremely easy to use with its streamlined interface and polished feature set. We have built in preset control, remote support and more!

Easy Interface

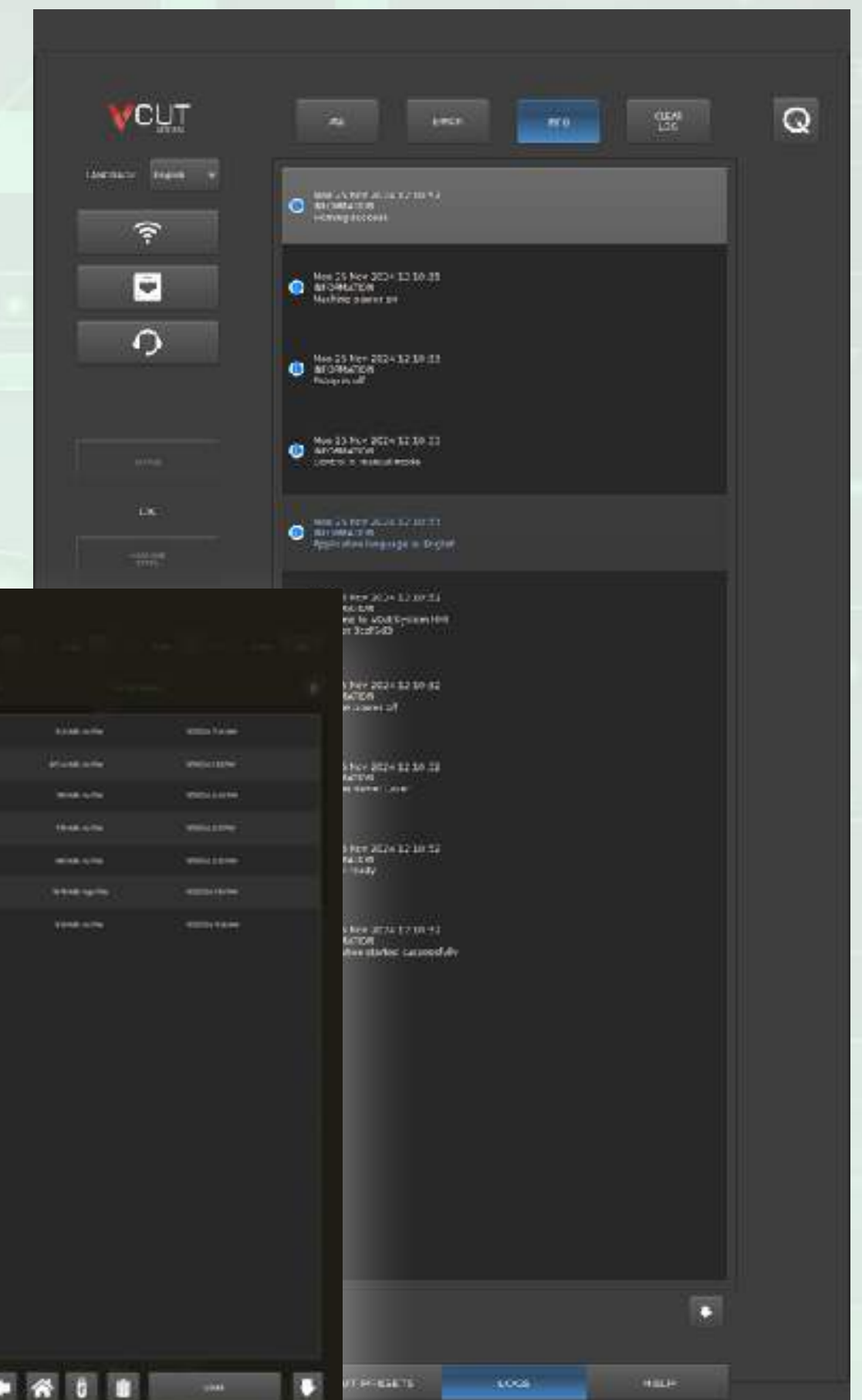
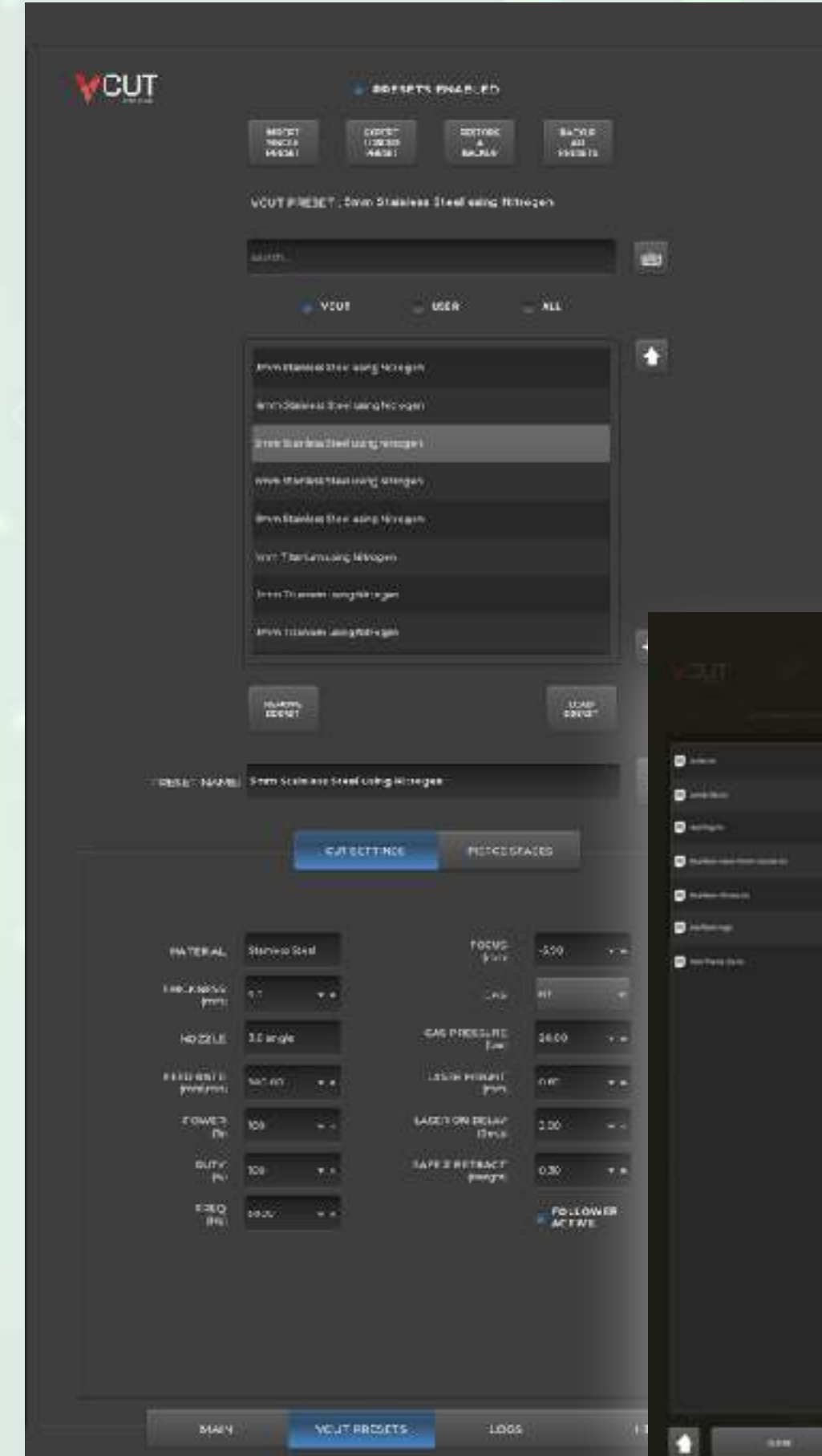
With our easy-to-use touch screen control interface, it has everything you need at your fingertips. **V-CUT is our own internally developed software project.** with thousands of man-hours invested our V-CUT software is perfect for any industry.

Preset Controls

Built in standard presets and the ability to customise them to your liking make cutting standard materials very easy. Make a mistake and you can fully recover our default presets with ease. Full backup and restore enabled!

Remote Support

V-CUT control has been designed with our built in remote support features to allow for quick and easy diagnosis of faults allowing our technical support team to help you get back to manufacturing in no time.



And much more...

Our typical delivery, installation and training process.

Delivery

Your Vector includes delivery to the UK mainland; however, offloading and siting are the customer's responsibility, and a suitable forklift is required to remove the machine from the wagon. Note that we will advise you on the method of offloading, such as the correctly rated forklift, and how to move the machine into place. Upgraded delivery methods are available if you have no means to offload the machinery.

Installation

Our professional installation team will promptly arrive on the agreed installation date. Typically, the commissioning of the machine will take up to two days (Cyclone option dependent), with the first half of the day being the commissioning and the second part of the day being dedicated to your training (the next day if Cyclone is opted for. Our engineer will take care of everything for you in getting the machine commissioned and ready for operation; the main requirement is to ensure the machine is connected to your electrical supply.

Finance Options

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All quotes are subject to status - minimum trading of 2 years.

Machine Training

Our installation engineers are not only highly skilled professionals but also approachable and patient, dedicated to making your experience seamless. They provide comprehensive machinery training in a relaxed and supportive atmosphere, ensuring you feel confident and comfortable every step of the way. With their expertise and commitment to excellence, you can trust that your installation and training will be a smooth, stress-free process, setting you up for long-term success.

Software Training

We include software with all our fibre lasers and provide training for up to four operators in a calm, supportive setting. Our expert engineers tailor the training to each person's skill level, ensuring everyone can safely import designs, set up tool paths, and prepare files for production.

Our goal is to equip your team with the basic knowledge and skills necessary to safely use your new machine.

Mantech's Aftersales and Support are founded on over 25 years of experience providing machinery tools to businesses across the UK, Ireland, and Europe. We offer comprehensive support through our fully staffed 6-person service desk and a team of 15 skilled road engineers, dedicated to delivering prompt and professional assistance. All customers benefit from access to our service portal, enabling them to easily track communications, book services, and stay informed every step of the way. At Mantech, service isn't just a priority—it's the foundation of our business.

Service Desk

Our dedicated 6-person service desk is always ready to assist you with any inquiries or technical issues. With a fully staffed, office-based team, we ensure you receive prompt and reliable support whenever you need it.

Fully Manned Team

Our robust support network includes 15 skilled road engineers who are strategically positioned to provide on-site assistance across the UK, Ireland, and Europe. Whether it's installation, maintenance, or repairs, our expert team is equipped to deliver fast, professional service.

Extended Warranty

For added peace of mind, we offer extended warranty options of up to 5 years, providing you with comprehensive coverage and minimising downtime. Our warranties are designed to keep your equipment running smoothly, ensuring long-term reliability and performance.

Service Portal

Our online service portal offers convenient access for tracking communications, booking services, and monitoring the progress of your requests. It also provides a wealth of resources, including hints, tips, and guides to help you get the most out of your machinery.



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LIBRE D'ESPRESSO