



**LOTUS**  
LASER SYSTEMS

## BLU Series

LASER CUTTING & ENGRAVING SYSTEM



[alfex.com.au](http://alfex.com.au)

## STANDARD FEATURES

*What makes a Blu laser cutter so special?*

*Let us tell you...*

## UK DESIGNED & MANUFACTURED

Most competing machines at this price point will be direct Chinese imports.

All Lotus Laser Systems are designed, assembled and tested in the UK to ISO9001 standards. We design our own electronics and manufacture all wiring in house to ensure that our systems are built to the highest quality and can be relied upon for years of trouble free service.



## EXCELLENT CAD/CAM SOFTWARE

All Blu model laser cutters come with easy to use, feature enriched Lotus Cut CAD/CAM software.

Unlike alternative print driver type machines, our software provides far greater compatibility with common industry artwork formats, extra functionality to alter drawings at the laser machine without having to open an expensive graphics package and powerful optimisation tools to minimise process times, reduce errors and enhance output quality.



## UK GRADED DC LASER SYSTEM

Lotus Laser Systems carefully select the suppliers and technology that we use for our DC lasers.

We test all of the lasers that we receive in the UK before they are integrated, scrapping any that do not meet our high quality standards.

As a consequence this adds some time and cost to our process, however, we feel that this grading process is the main reason why DC lasers fitted to a Lotus Laser System often outperform and far outlast DC lasers from alternative providers.



## AIR ASSISTED NOSECONE

---

When users switch from other brands to ours one of the main comments made is the lens in a Blu laser cutter requires far less cleaning and lasts much longer.

This is primarily because of the extra large bore air assist tube that we use combined with a different sized nosecone for each lens option we provide.

As a result, Blu lasers deliver far higher rates of air flow through the nosecone protecting the lens and in combination with underside extraction also enhances the cut quality.



## UNDERSIDE EXTRACTION

---

To maximise edge quality and cutting speed fumes should be extracted underneath the material.

All Blu model laser cutters come with underside extraction table designed to deliver a well balanced degree of vacuum and air flow. This underside extraction table can also be used to hold flat thin materials that might otherwise warp.

Drawing fumes from underneath the material significantly reduces system maintenance, increasing component life while minimising the risk of flaming.



## LAMELLA BAR CUTTING TABLE

---

All Blu model laser cutters are manufactured with a lamella bar cutting table.

Cutting rigid sheet materials on lamella bars is far superior to using a honeycomb table.

The lamellas can hold a far heavier weight, do not suffer distortion or cause as much flash back as a honeycomb table does. They can be removed, cleaned and very cheaply replaced if necessary.



## WHAT IS A BLU70

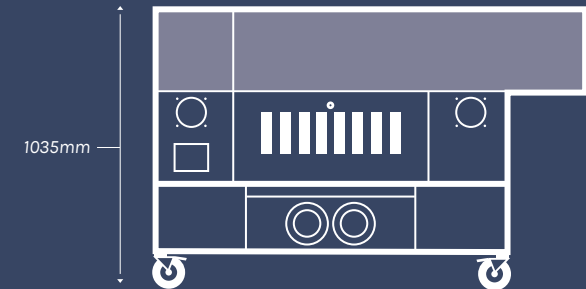
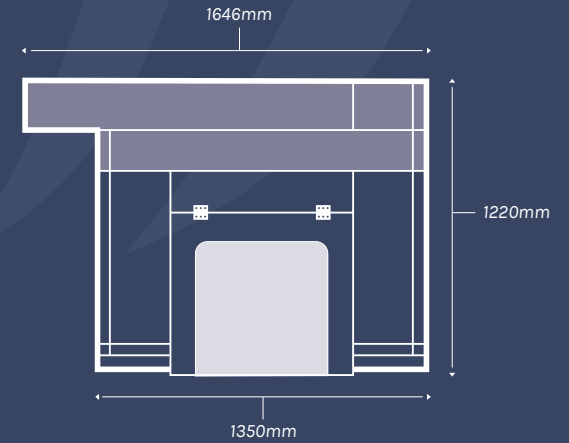
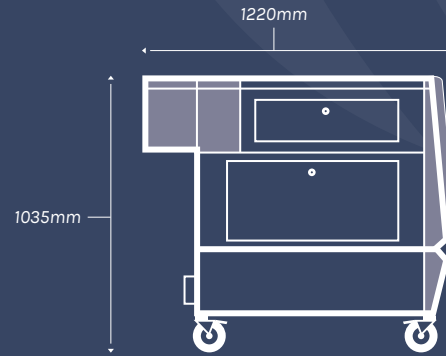
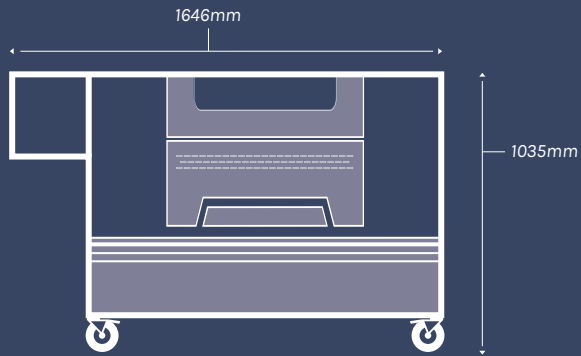
*Blu70-DC is an enclosed (Class 2), plotter based, flying optic CO2 laser cutting and engraving system.*

This model is powered by a 60w DC excited, watercooled CO2 laser operating at the 10.6 $\mu$ m wavelength. A professional grade recirculating chiller unit is supplied as a part of the package. The laser source is further protected by a flow sensor that's not commonly found on alternative machines at this price point.

At 700x500mm the working area of Blu70-DC is considerably larger than a typical entry level machine and offers great value for money combining a high output power with a very low entry level price point. Blu70 is therefore one of our best systems where the user requires flexibility of application.

LASER SYSTEMS

# GENERAL TECHNICAL DATA



## Weight & Dimensions

Width	1646mm
Depth	1220mm
Height	1035mm
Weight	248kg approx

## Crated Weight & Dimensions

Width	1770mm
Depth	1350mm
Height	1280mm
Weight	360kg approx

## Exhaust Requirements

It is mandatory to operate a correctly configured exhaust

Performance variable according to application - seek our advice

Number of exhaust ports: 2 Port OD: 100mm

## Chiller Unit

Gross	420mm W x 690mm D x 570mm H @ 25kg
Net	280mm W x 580mm D x 470mm H @ 20kg

## Computer

Operating System	Windows
Connection	USB max 3m

## Performance

Scanning mode	1000mm/sec
Vector mode	50mm/sec

## Table Configuration

47X lamella bar cutting table	Lamellas at 15mm centres
Z axis max travel 100mm	Centralised underside exhaust

## Safety & Security

Laser class 2 interlocked	CE
Emergency stop	RoHS
Keyswitch power on/off	

## Power Requirement

All systems single phase 230v 50/60Hz

## Miscellaneous

LED cabinet lights	Buffer with 99 file capacity
Controller with LCD display	PC Connection by 3m USB cable
Direct connection by USB stick	Coaxial air assist
Cutting nosecone (1 per lens)	Air assist pump

## Maximum Part Load

X 700mm	Y 500mm	
Z 1.5" lens 165mm	Z 2.0" lens 140mm	
Z 2.5" lens 125mm	Z 4.0" lens 90mm	Weight 12kg

## Laser Source

DC excited, water-cooled, minimum 60w output @ 10.6µm  
Positioning (red dot) pointer 655mm

## Environmental Requirements

Ambient temp. within 15-30c	300mm min clearance at sides
Do not store above or box in	Rest on floor level within 3mm
Ventilate the room well	Comply with local regulations
Do not power by a generator	Direct data cable connection
Keep away from: vibration, high humidity, dampness, unstable power supply, direct sunlight, equipment making dust particles, drafts, corrosive substances, combustible substances etc.	

## Warranty (T&C Apply)

Main system: 2 years	Labour: Variable by territory
Laser source: 2 year	Optics: 3 months
Warranty upgradable to 5 years at extra cost	
Service contracts available at extra cost	



## WHAT IS A BLU100

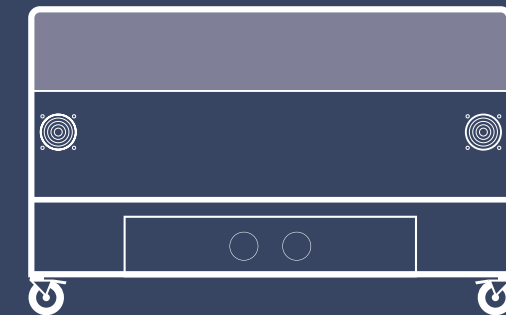
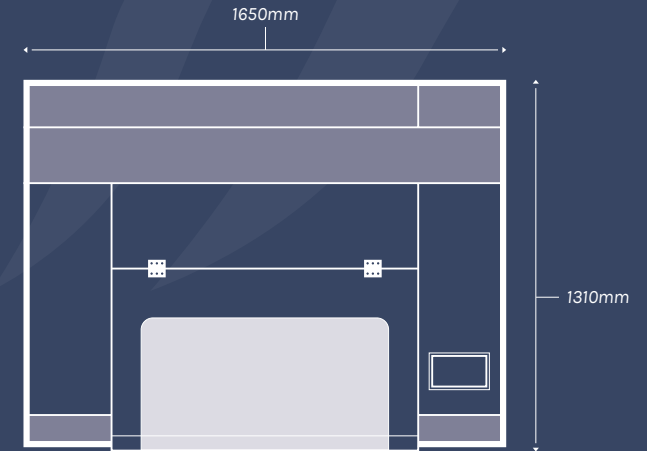
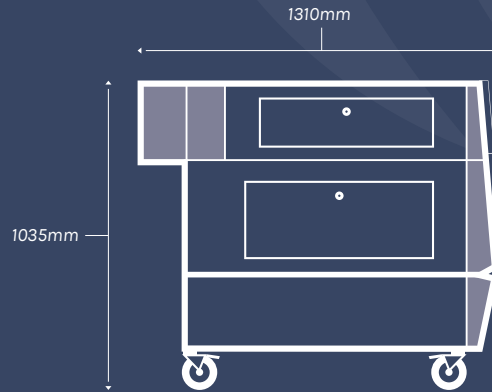
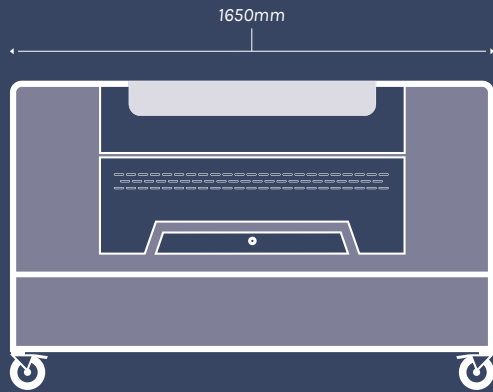
*The combination of high power and large bed size makes Blu100 our most versatile laser cutter, well suited to the majority of sheet material cutting applications.*

Acrylic is a perfect material for laser cutting. However, over recent years acrylic has become an expensive material. At 1000x600mm the working area of Blu100 is sized to minimise material waste. This is just one of the reasons why Blu100 is our best selling CO2 laser cutter.

Blu100 is powered by an 80w DC excited, water-cooled CO2 laser operating at the 10.6µm wavelength. This level of power is very good for most cutting applications but it's also good for power intensive engraving applications such as laser engraving wood.

LASER SYSTEMS

# GENERAL TECHNICAL DATA



## Weight & Dimensions

Width	1650mm
Depth	1310mm
Height	1035mm
Weight	292kg approx

## Crated Weight & Dimensions

Width	1790mm
Depth	1420mm
Height	1250mm
Weight	440kg approx

## Safety & Security

Laser class 2 interlocked	CE
Emergency stop	RoHS
Keyswitch power on/off	

## Power Requirement

All systems single phase	230v 50/60Hz
--------------------------	--------------

## Miscellaneous

LED cabinet lights	Buffer with 99 file capacity
Controller with LCD display	PC Connection by 3m USB cable
Direct connection by USB stick	Coaxial air assist
Cutting nosecone (1 per lens)	Air assist pump

## Maximum Part Load

X 1000mm	Y 600mm	
Z 1.5" lens 165mm	Z 2.0" lens 140mm	
Z 2.5" lens 125mm	Z 4.0" lens 90mm	Weight 20kg

## Laser Source

DC excited, water-cooled, minimum 80w output @ 10.6µm  
Positioning (red dot) pointer 655nm

## Exhaust Requirements

It is mandatory to operate a correctly configured exhaust

Performance variable according to application - seek our advice

Number of exhaust ports: 2 Port OD: 100mm

## Chiller Unit

Gross	420mm W x 690mm D x 570mm H @ 25kg
Net	280mm W x 580mm D x 470mm H @ 20kg

## Computer

Operating System	Windows
Connection	USB max 3m

## Performance

Scanning mode	1000mm/sec
Vector mode	50mm/sec

## Table Configuration

67X lamella bar cutting table	Lamellas at 15mm centres
Z axis max travel 100mm	Centralised underside exhaust

## Environmental Requirements

Ambient temp. within 15-30c	300mm min clearance at sides
Do not store above or box in	Rest on floor level within 3mm
Ventilate the room well	Comply with local regulations
Do not power by a generator	Direct data cable connection
Keep away from: vibration, high humidity, dampness, unstable power supply, direct sunlight, equipment making dust particles, drafts, corrosive substances, combustible substances etc.	

## Warranty (T&C Apply)

Main system: 2 years	Labour: Variable by territory
Laser source: 2 year	Optics: 3 months
Warranty upgradable to 5 years at extra cost	
Service contracts available at extra cost	



## WHAT IS A BLU125

*Blu125 is the ideal laser cutter to ensure that almost no job is too large or too long in process time.*

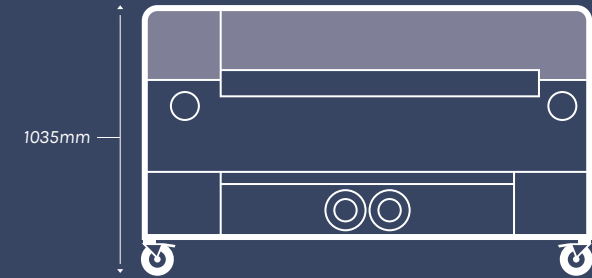
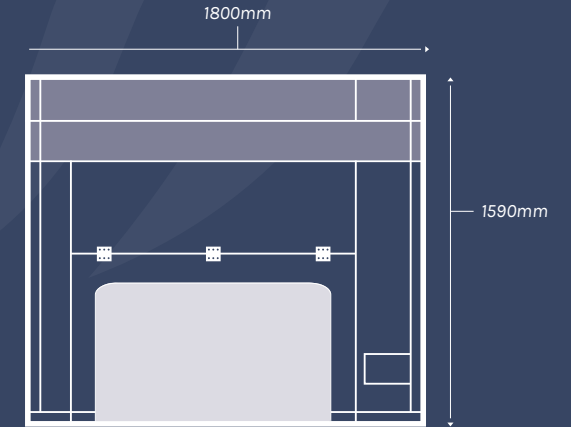
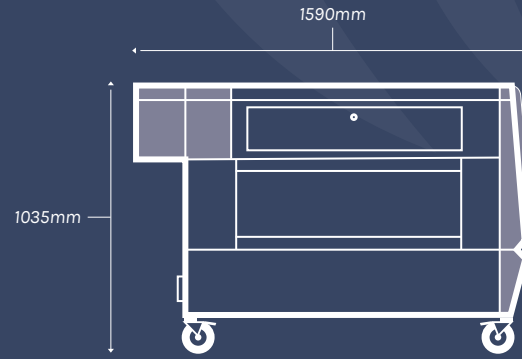
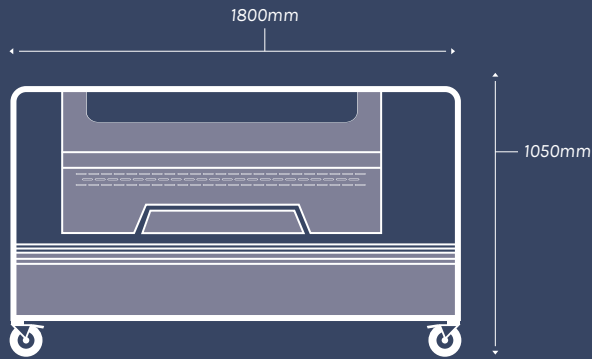
Blu125 maximises margins and gives the freedom to create more challenging designs as well as increasing the number of users that can gain access to the laser cutter during a single day.

Blu125 is the largest of our enclosed (Class 2), plotter based, flying optic CO2 laser cutting and engraving systems. At 1250x900mm the working area of Blu125 is significantly larger than competing models in this class and careful consideration of the motion system design, the optical arrangement and the extraction efficiency make Blu125 a very reliable, low maintenance machine.

LASER SYSTEM



# GENERAL TECHNICAL DATA



## Weight & Dimensions

Width	1800mm
Depth	1590mm
Height	1035mm
Weight	325kg approx

## Crated Weight & Dimensions

Width	1925mm
Depth	1760mm
Height	1250mm
Weight	470kg approx

## Exhaust Requirements

It is mandatory to operate a correctly configured exhaust

Performance variable according to application - seek our advice

Number of exhaust ports: 2

Port OD: 100mm

## Chiller Unit

Gross	420mm W x 690mm D x 570mm H @ 25kg
Net	280mm W x 580mm D x 470mm H @ 20kg

## Computer

Operating System	Windows
Connection	USB max 3m

## Performance

Scanning mode	1000mm/sec
Vector mode	50mm/sec

## Table Configuration

83X lamella bar cutting table	Lamellas at 15mm centres
Z axis max travel 100mm	Centralised underside exhaust

## Safety & Security

Laser class 2 interlocked	CE
Emergency stop	RoHS
Keyswitch power on/off	

## Power Requirement

All systems single phase 230v 50/60Hz

## Miscellaneous

LED cabinet lights	Buffer with 99 file capacity
Controller with LCD display	PC Connection by 3m USB cable
Direct connection by USB stick	Coaxial air assist
Cutting nosecone (1 per lens)	Air assist pump

## Maximum Part Load

X 1250mm	Y 900mm	
Z 1.5" lens 165mm	Z 2.0" lens 140mm	
Z 2.5" lens 125mm	Z 4.0" lens 90mm	Weight 30kg

## Laser Source

DC excited, water-cooled, min 100w or 200w output @ 10.6µm

Positioning (red dot) pointer 655mm

## Environmental Requirements

Ambient temp. within 15-30c	300mm min clearance at sides
Do not store above or box in	Rest on floor level within 3mm
Ventilate the room well	Comply with local regulations
Do not power by a generator	Direct data cable connection
Keep away from: vibration, high humidity, dampness, unstable power supply, direct sunlight, equipment making dust particles, drafts, corrosive substances, combustible substances etc.	

## Warranty (T&C Apply)

Main system: 2 years	Labour: Variable by territory
Laser source: 2 year	Optics: 3 months
Warranty upgradable to 5 years at extra cost	
Service contracts available at extra cost	