NOVA *Super*/Elite

High Speed Laser Engraving and Cutting Machine
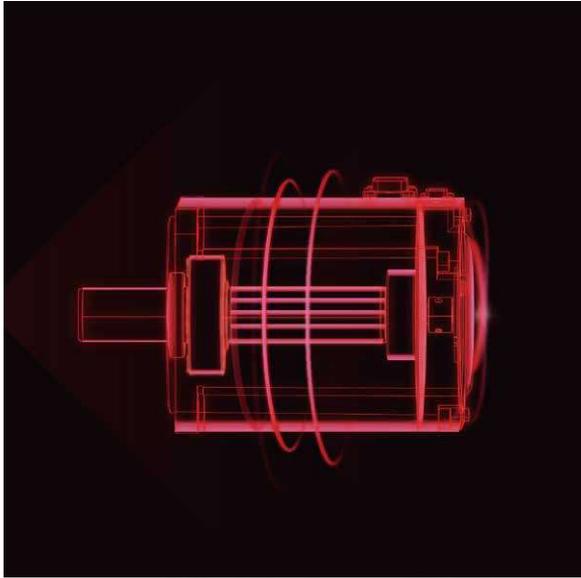
TÜVRheinland® CERTIFIED

CE

FDA APPROVED

CLASS 1 LASER

MAXIMUM EFFICIENCY FOR YOUR BUSINESS

Why Nova Super?

Because they are super-fast beasts – Nova Super can achieve 4200 mm/s engraving speed with a high-quality RF tube and AC Servo Motors.

Because they are large and packed with the newest technology – intelligent diagnostic system, clean pack design, and align-free solutions.
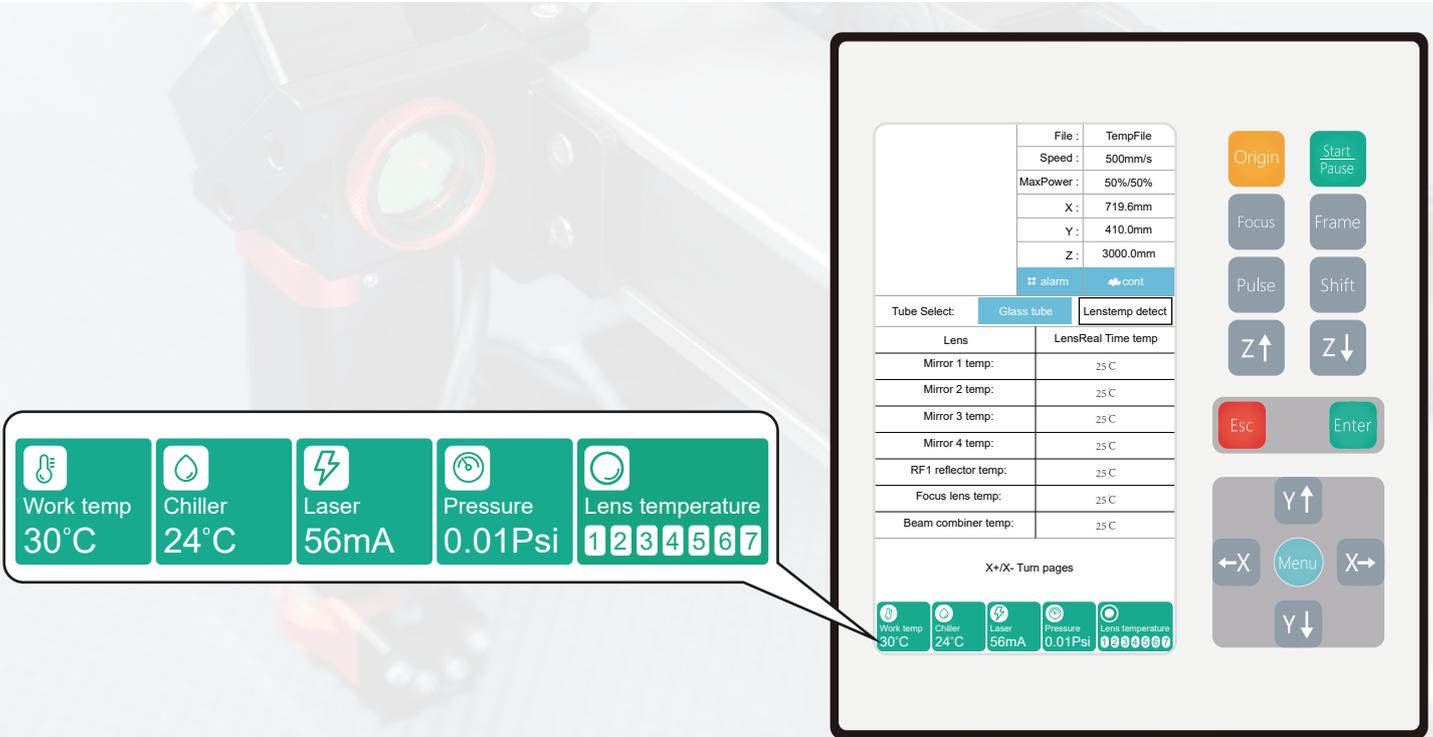
All of this enables you to work quickly and stay reliable for your clients. A perfect solution for artists, creative businesses, DIY makers, and schools.
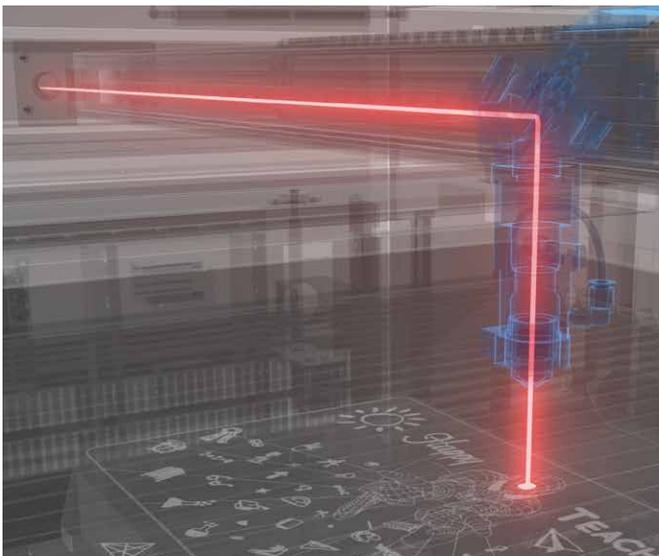
INNOVATIVE DESIGN

Intelligent Detection and Diagnosis System

Different parameters that are crucial for seamless work are now clearly visible and signaled on the screen panel.

File :	TempFile	
Speed :	500mm/s	
MaxPower :	50%/50%	
X :	719.6mm	
Y :	410.0mm	
Z :	3000.0mm	
alarm	cont	

Tube Select:	Glass tube	Lenstemp detect
Lens	LensReal Time temp	
Mirror 1 temp:	25 C	
Mirror 2 temp:	25 C	
Mirror 3 temp:	25 C	
Mirror 4 temp:	25 C	
RF1 reflector temp:	25 C	
Focus lens temp:	25 C	
Beam combiner temp:	25 C	
X+/X- Turn pages		

Work temp 30°C | Chiller 24°C | Laser 56mA | Pressure 0.01Psi | Lens temperature 1234567

Origin | Start Pause | Focus | Frame | Pulse | Shift | Z↑ | Z↓ | Esc | Enter | Y↑ | ←X | Menu | X→ | Y↓

Alignment-Free Optical Path Design

Fast and easy replacement of all optical accessories (glass tube, mirrors, and lens) without the need for constant alignments of the optical path - a comfortable solution unique for Aeon Lasers.

Indicator lights

AEON Laser	AEON Laser	**AEON Laser**
Running	Idle	Failure/Pause

MULTIPLE CHOICE OPTIONS

Dual laser source

Nova Super is equipped with both high-quality glass tubes that ensure fast and deep cutting and with an RF tube for super-fine engraving (maximum speed up to 4200mm/s with 5G acceleration). If you mostly need a powerful cut , trust our Nova Elite with the higher wattage quality glass tubes.
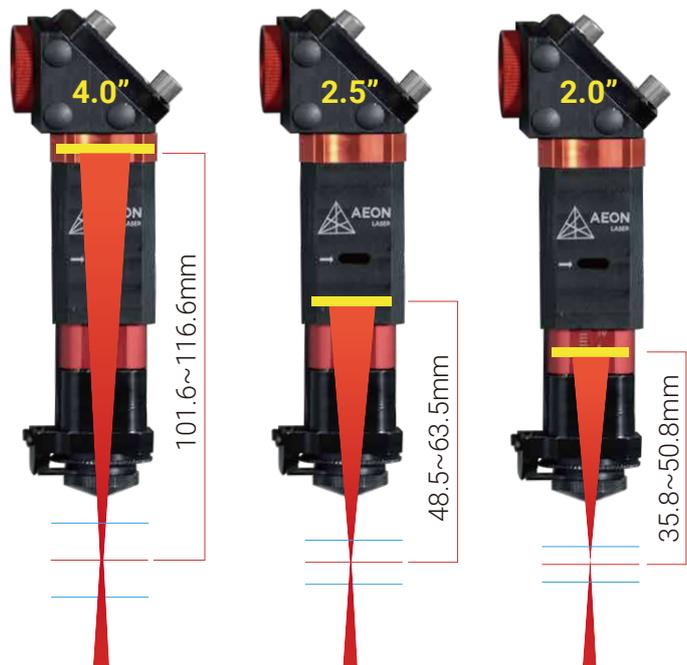
Anything you need for laser cutting and engraving

Easily cope with a wide range of materials, smooth cutting edge and better quality output.

Various Focal Lengths Adaptation

Nova series offers multiple lenses that could bring more benefit to improve specific applications.2-inch, 2.5-inch,4-inch,these lenses are all commonly used with laser systems.

4.0"

101.6~116.6mm

2.5"

48.5~63.5mm
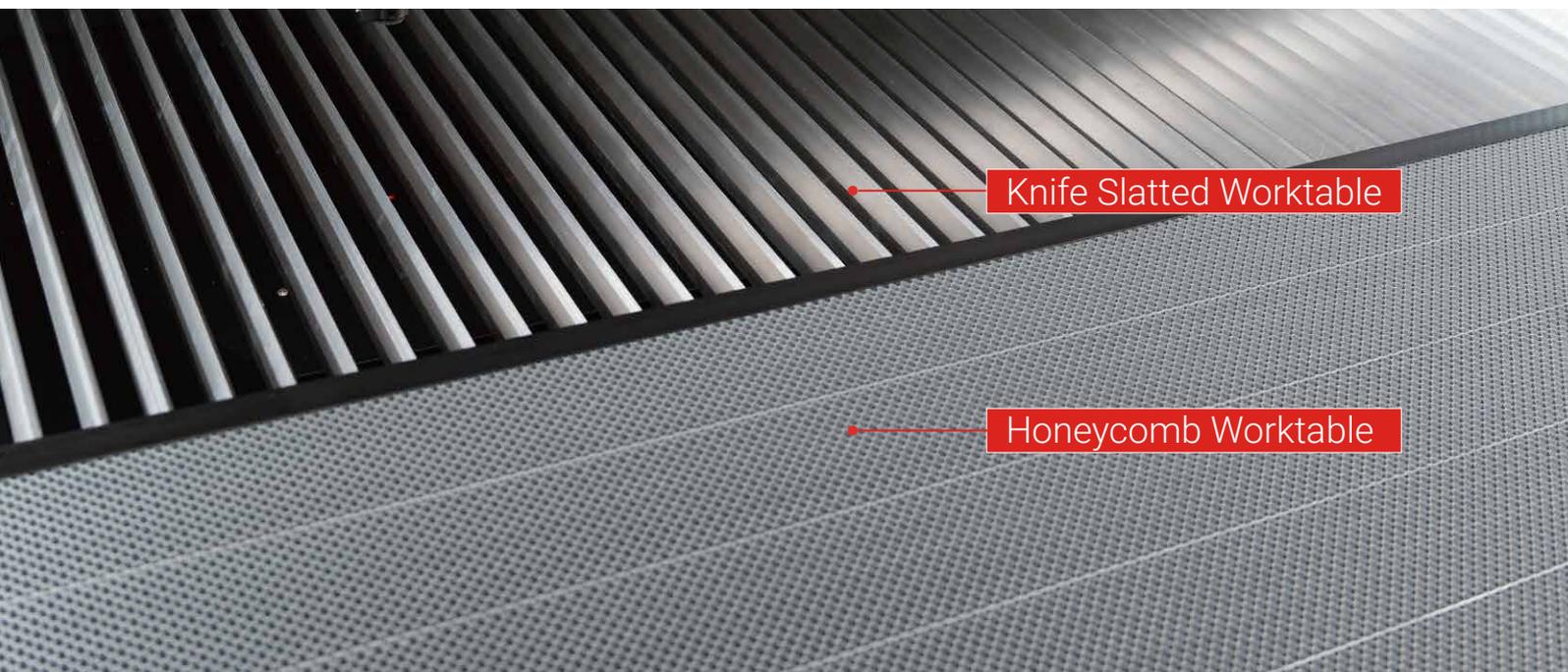
2.0"

35.8~50.8mm

COMPONENTS

Scrap Drawer

All of your cut pieces now fall into a conveniently located compartment below.

Flexible replacement of worktable

Aluminum Knife Slatted and honeycomb worktable, specialized for laser cutting and engraving.
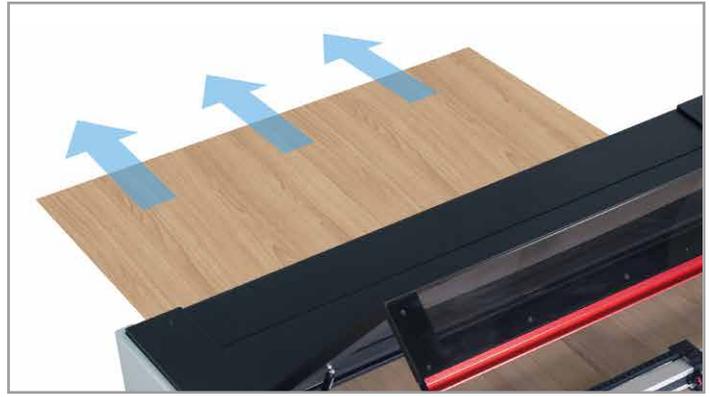

Knife Slatted Worktable
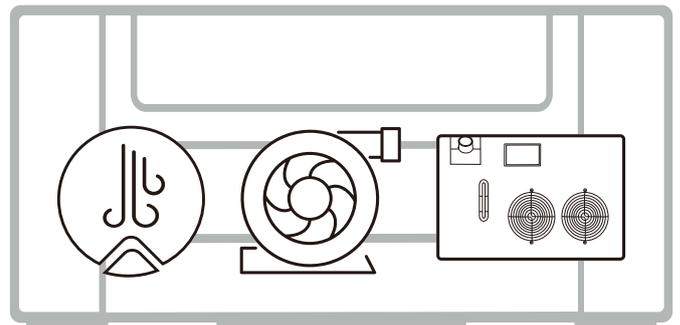
Honeycomb Worktable

Material Pass-through Door

Easily work even on bigger pieces!

Magnetic design

Effortless Lens Snap-On, Snap-Off!

All in one design

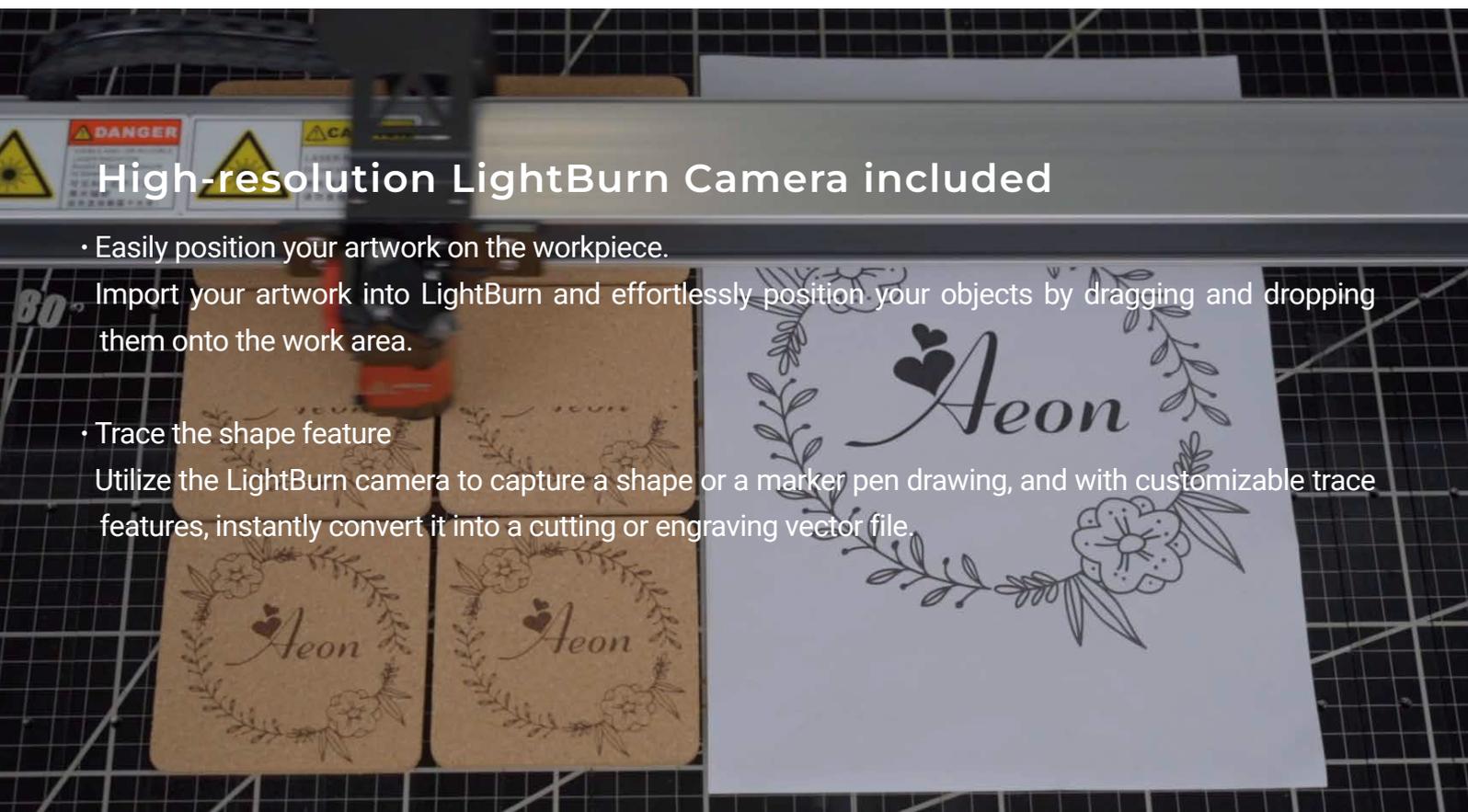All the external accessories(air compressor/chiller/air blower) are built-in.

High-resolution LightBurn Camera included

· Easily position your artwork on the workpiece.

Import your artwork into LightBurn and effortlessly position your objects by dragging and dropping them onto the work area.
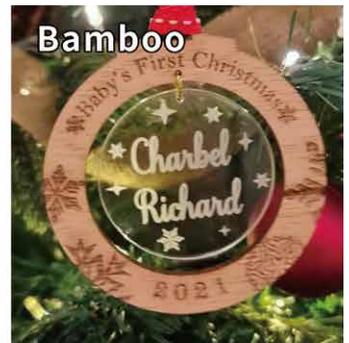
· Trace the shape feature

Utilize the LightBurn camera to capture a shape or a marker pen drawing, and with customizable trace features, instantly convert it into a cutting or engraving vector file.

APPLICATION

Material		Engrave	Cutting
Composite Materials	Label film		🟢
	Brick tile	🟢	
	Carbon fiber/Fiberglass		🟢
	Ceramic	🟢	
	Foam board	🟢	🟢
Natural organic materials	Jewel		
	Abalone Shell		🟢
	Stone	🟢	
	Glass	🟢	
Natural organic materials	Leather		🟢
	Wood	🟢	🟢
Rubber	Silicone	🟢	🟢
Foam	EVA/Silicones	🟢	🟢
	Ceramic/Metal	🟢	
Paper base material		🟢	🟢
Plastic	PMMA/Acrylic	🟢	🟢
	ABS	🟢	🟢
	PDMS	🟢	🟢
	PEEK	🟢	🟢
	PLA	🟢	🟢
	PET		🟢
	POM		🟢
	PC/PA/PE/PP		🟢

Acrylic

Wood

MDF

Bamboo

Glass

Marble

Leather/PU

Paper

ABS double color sheet

Rubber

WHICH ONE SUITS YOU

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NOVA Super 16 / Elite 16 (1600mm*1000mm)
NOVA Super 14 / Elite 14 (1400mm*900mm)

NOVA Super 10 / Elite 10
(1000mm*700mm)




                              Working area (mm)
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Parameters	Model	Nova10 Super/Elite	Nova14 Super/Elite	Nova16 Super/Elite
Working Scope	Working Area (mm)	1000*700mm	1400*900mm	1600*1000mm
	Z Axis Lifting Space	200mm	200mm	200mm
	Max Lifting Capacity	120KG	120KG	120KG
Laser Tube	Laser Tube Power	Glass: 90W/100W RF: 30W/60W	Glass: 90W/100W/130W RF: 30W/60W	Glass: 90W/100W/130W/150W RF: 30W/60W
Motion system	Max Engraving Speed	4000mm/s (Super) 1200mm/s (Elite)	4200mm/s (Super) 1200mm/s (Elite)	4200mm/s (Super) 1200mm/s (Elite)
	Acceleration	8G (Super) 5G (Elite)	8G (Super) 5G (Elite)	8G (Super) 5G (Elite)
	Motor	AC Servo (Super) DC Stepper (Elite)	AC Servo (Super) DC Stepper (Elite)	AC Servo (Super) DC Stepper (Elite)
Accuracy	DPI	1000 CO2, 4000 RF	1000 CO2, 4000 R	1000 CO2, 4000 RF
	Positioning Accuracy	<=0.1mm	<=0.1mm	<=0.1mm
Configuration	Working Table	Honeycomb + Blade table	Honeycomb + Blade table	Honeycomb + Blade table
	Cooling system	Glass: Built-in 5000 chiller RF: Air-cooled	Glass: Built-in 5200 chiller RF: Air-cooled	Glass: Built-in 5200 chiller RF: Air-cooled
	Fume Exhaust Fan	Built-in 500W (Auto Start-stop)	Built-in 500W (Auto Start-stop)	Built-in 500W (Auto Start-stop)
	Air Assist	Built-in compressor 750W with 24L air tank (Auto Start-stop)	Built-in compressor 750W with 40L air tank (Auto Start-stop)	Built-in compressor 750W with 40L air tank (Auto Start-stop)
	XY axis fully dust-proof	√	√	√
	Auto Focus	√	√	√
	Wireless Connectivity	√	√	√
	Red Dot Positioning	√	√	√
	Material Pass Through Door	√	√	√
	Camera	100° 8 megapixel (3840x2160)	100° 8 megapixel (3840x2160)	100° 8 megapixel (3840x2160)
	Tooless optical system	√	√	√
	Internal Memory	1G	1G	1G
System	Smart Panel (monitoring function)	√	√	√
	Fault alarm and diagnosis	√	√	√
	Operation status light	√	√	√
	Water Flow Protection	√	√	√
	Water Temperature Alarm	√	√	√
	Operating Software	Rdworks/Lighburn(Optional)	Rdworks/Lighburn(Optional)	Rdworks/Lighburn(Optional)
	Compatible Design Software	CorelDraw/Illustrator/AutoCAD	CorelDraw/Illustrator/AutoCAD	CorelDraw/Illustrator/AutoCAD
Safety	Laser Class	Class 1 laser product	Class 1 laser product	Class 1 laser product
	Cover lid interlock	√	√	√
	Side panel lid interlock	√	√	√
	Key lock	√	√	√
Package	Machine Dimension(mm)	1500*1210*1125	1900*1410*1125	2100*1510*1125
	Net Weight (KG)	415KG	560KG	566KG
	Gross Weight(KG)	532KG	683KG	730KG
Optionals		Rotary Clamp/Lightburn Software /Air Purifier		