



Engraving

Versatility of CO2 laser Technology

CUTTING : Masks and stencils, architectural models, templates, membrane switch, card stock....



In partnership with **LTT , Thermoflan** can offer a wide range of CO2 laser equipment
Founded in 1987, **LTT** 's sole activities are the design and manufacture of industrial laser systems. LTT machines are divided in 2 series



- versatile and user-friendly **V and ILS series**, widely used for engraving and cutting purposes : plaques, rubber stamps, industrial marking, stencils, funeral plates, product customization...

- **I serie** designed for industrial applications with very fast movements and accelerations and the possibility of adding Ccd camera vision. The 4 openable doors reduce part size limits and allow to engrave / cut large materials.

All our lasers are equipped with RF laser tube of US origin and very precise mechanical and guiding system of Japanese origin.
They are designed for long durability, even in case of intensive use, and user friendly operation (driver, intuitive control touch panel)

Many possible applications :

	Engraving	Cutting
Acrylics	Yes	Yes
Anodized aluminum	Yes	No
Wood	Yes	Yes
Rubber	Yes	Yes
Tile	Yes	No
C�ramic	Yes	No
Leather	Yes	Yes
Delrin	Yes	Yes
Glass fiber	Yes	Yes
Stainless steel, Titanium, Brass (with themark)	Yes	No
Marble	Yes	No
Melamine	Yes	Yes
Painted metal (no bare metal)	Yes	No
Coated metal	Yes	No
Mylar	Yes	Yes
Paper – carton	Yes	Yes
Plastic (not containing chlorine)	Yes	Yes
Fabrics	Yes	Yes
Glass	Yes	No



SPECIFICATIONS	V2000 - 30 / 60	V3000 - 30 / 40 / 60 / 80 / 100	ILS III - 30 / 40 / 60 / 80 / 100	I3000 - 30 / 40 / 60 / 80 / 100	I4000 - 30 / 40 / 60 / 80 / 100
Laser source	US RF CO2 laser tube - 30/60 Watts - air cooled	US RF CO2 laser tube - 30/40/60/80/100 Watts air cooled	US RF CO2 laser tube - 30/40/60/80/100 Watts air cooled	US RF CO2 laser tube - 30/40/60/80/100 Watts air cooled	US RF CO2 laser tube - 30/40/60/80/100 Watts air cooled
Standards	Openable left / right doors for passage of large sized parts. Automatic focusing by mechanical probe. Red laser pointer to simulate work or define origin point. Honeycomb cutting table to reduce burning marks when cutting.	Openable left / right doors for passage of large sized parts. Automatic focusing by mechanical probe. Red laser pointer to simulate work or define origin point. Honeycomb cutting table to reduce burning marks when cutting.	Openable front/ back doors for passage of large sized parts. Automatic focusing by mechanical probe. Red laser pointer to simulate work or define origin point. Honeycomb cutting table to reduce burning marks when cutting.	Openable front/ back/right/left doors for passage of large sized parts. Automatic focusing by mechanical probe. Red laser pointer to simulate work or define origin point. Honeycomb cutting table to reduce burning marks when cutting.	Openable front/ back/right/left doors for passage of large sized parts. Automatic focusing by mechanical probe. Red laser pointer to simulate work or define origin point. Honeycomb cutting table to reduce burning marks when cutting.
Working area	450 x 310 mm	610 x 420 mm	660 x 495 mm	700 x 500 mm	1000 x 600 mm
Automatic motorized Z axis adjustment	from 0.03 mm to 150 mm max	from 0.03 mm to 150 mm max	from 0.03 mm to 210 mm max	from 0.03 mm to 230 mm max	from 0.03 mm to 230 mm max
Maximum processed part sizes	no limit x 310 mm x 150 mm	no limit x 420 mm x 150 mm	660 mm x no limit x 210 mm	700 mm x no limit x 230 mm	1000 mm x no limit x 230 mm
Working speed	adjustable from 0 to 100 % - 1524 mm / secs	adjustable from 0 to 100 % - 1524 mm / secs	adjustable from 0 to 100 % - 1524 mm / secs	adjustable from 0 to 100 % -- 3050 mm / secs 6 G acceleration	adjustable from 0 to 100 % - 3050 mm / secs - 6 G acceleration
Interface	USB or ethernet (optional)	USB or ethernet (optional)	USB or ethernet (optional)	USB or ethernet (optional)	USB or ethernet (optional)
Software	Compatible with most Windows integrated CAD softwares (Coreldraw, Autocad, Illustrator, Inkscape ...)	Compatible with most Windows integrated CAD softwares (Coreldraw, Autocad, Illustrator, Inkscape ...)	Compatible with most Windows integrated CAD softwares (Coreldraw, Autocad, Illustrator, Inkscape ...)	Compatible with most Windows integrated CAD softwares (Coreldraw, Autocad, Illustrator, Inkscape ...)	Compatible with most Windows integrated CAD softwares (Coreldraw, Autocad, Illustrator, Inkscape ...)
Sizes - Weight	680 x 665 x 423 mm - 75 kgs	825 x 815 x 510 mm - 95 to 115 kgs according to tube power	900 x 865 x 990 mm - 180 to 210 kgs according to tube power	1150 x 802 x 1064 mm - 220 to 250 kgs according to tube power	1450 x 820 x 1050 mm - 280 to 310 kgs according to tube power
Safety standards	CDRH laser : class 1 - Red pointer : class 2 - CE standard	CDRH laser : class 1 - Red pointer : class 2 - CE standard	CDRH laser : class 1 - Red pointer : class 2 - CE standard	CDRH laser : class 1 - Red pointer : class 2 - CE standard	CDRH laser : class 1 - Red pointer : class 2 - CE standard

OPTIONS					
Exhaust system	Soundproof outside exhaust unit : 600 m3 / hour AD 180 fume filtration unit : Pre+ hepa + carbon filters : 200 m3 / h	Soundproof outside exhaust unit : 600 m3 / hour Oracle fume filtration unit :Pre+ hepa + carbon filters : 400 m3 / hour	Soundproof outside exhaust unit : 600 m3 / hour Oracle fume filtration unit :Pre+ hepa + carbon filters : 400 m3 / hour	Soundproof outside exhaust unit : 600 m3 / hour Oracle fume filtration unit :Pre+ hepa + carbon filters : 400 m3 / hour	Soundproof outside exhaust unit : 600 m3 / hour Oracle fume filtration unit :Pre+ hepa + carbon filters : 400 m3 / hour
Air pump	Air assistance on optics by 1 bar compressor	Air assistance on optics by 1 bar compressor	Air assistance on optics by 1 bar compressor	Air assistance on optics by 1 bar compressor	Air assistance on optics by 1 bar compressor
Lens	1"5, 2.0" or 4.0" lens	1"5, 2.0" or 4.0" lens	1"5, 2.0" or 4.0" lens	1"5, 2.0" or 4.0" lens	1"5, 2.0" or 4.0" lens
Rotary device	220 x 491 x 122 mm diameter 120 mm x 300 mm	220 x 600 x 122 mm diameter 120 mm x 415 mm	220 x 600 x 193 mm diameter 250 mm x 415 mm	220 x 600 x 193 mm diameter 250 mm x 415 mm	220 x 600 x 193 mm diameter 250 mm x 415 mm
Others	Honeycomb cutting table with vacuum dust collector	Honeycomb cutting table with vacuum dust collector	Honeycomb cutting table with vacuum dust collector	CCD camera with mark recognition software Honeycomb cutting table with vacuum dust collector	CCD camera with mark recognition software Honeycomb cutting table with vacuum dust collector

MACHINE DRIVER

LTT has developed a specific easy-to-use software complying with user's needs. By means of 8 colors, it is possible to adjust the laser power, speed and resolution. Each of the 3 working modes will treat each color according to application:

In **normal mode**, laser engraves according to dot density: area with more dots will appear darker.

In **photo mode**, it is possible to engrave photos on materials (aluminum, wood, acrylic) with no need for a graphic software (such as Photoshop) or specific software (such as Photograv).

The specific functions of **stamp mode**: shoulder, offset, mirror and reverse will make you a professional of stamp making.

With the last, but not least, **3d effect mode**, the laser will use a 256 gray scale, corresponding to different laser powers, to produce a 3d effect engraved result.

This driver is compatible with all Windows based applications.



OPTIONS



Air pump

Required for air assistance, to release smokes and dust from the focusing lens.

Smoke and dust extraction units

Used for local extraction of dust, smoke particles and gases, to preserve laser optics and operator's health.

Polluted air is collected and brought to the filtering system by an extraction pipe. It is sucked in by the turbines, filtered and released into the environment with no risk of pollution.



Vacuum table

Cutting table with vacuum function, to reduce burning marks at the backside and prevent smoke release by driving debris directly to the bottom of the tablet and to the extraction unit.



Red dot pointer

The red dot shows the laser beam position over the entire working surface. It can be used as a preview tool to see exact positioning before starting a job.

Rotary device

To engrave on almost all cylindrical objects. Replacing one object with another takes only a few seconds. Automatic diameter adjustment makes it one of the fastest and most versatile rotary tool.



Honeycomb cutting table

It's the perfect tool for cutting. It reduces burning marks on the backside, by raising the processed material. Very easy to use, it is just necessary to place it on the laser table.



CONSUMABLES



Alumamark :

CO2 laser markable anodized aluminum plate. Alumamark produces black images on anodized aluminum background. Available in 2 thicknesses : 0.13 mm, 0.5 mm and 4 colors : silver, gold, bronze, brass.

Thermark :

For laser marking on metals (stainless steel, brass, aluminum, titanium, ...) or glass. Product can be sprayed or applied with a brush (100 grs bottle).

Laserable rubber :

For rubber stamp manufacture. Thickness = 2.3 mm.

Laserable plates:

Wide choice of colors and materials specially developed for laser engraving and cutting. (see specific documentation).

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