

# User Guide

bv



### Desktop Laser Cutter & Engraver





Plug & Play



Laser cutting & engraving



Touch display



USB Port



Diode laser technology



Compact size





The Desktop **Laser Cutter and Engraver** 

NomadTech









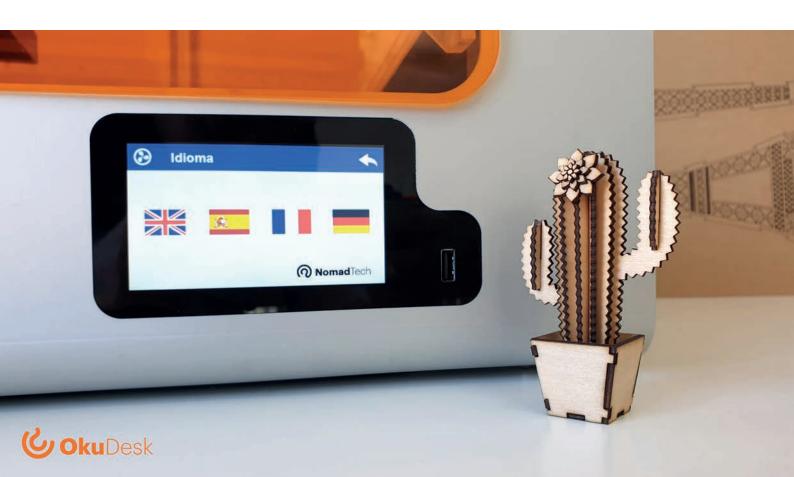


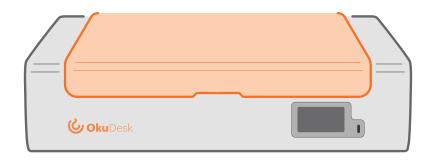




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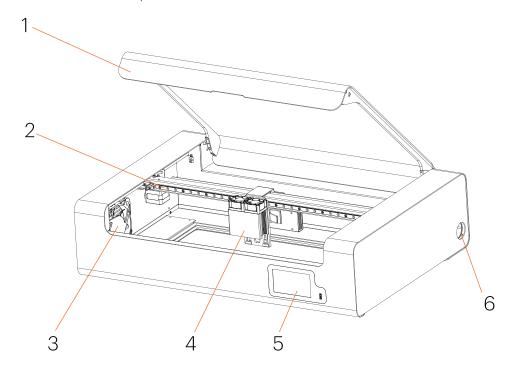




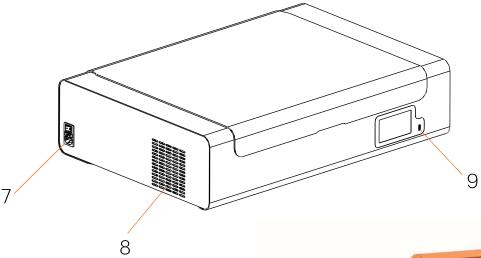


# **Basic Parts**

Here are the basic parts of OkuDesk.



- 1 Protective Lid
- 2 Lineal Guide Rail
- 3 Ventilation System
- 4 Laser Head
- 5 Touch Display
- 6 Exhaust Extraction System
- 7 On-Off Switch
- 8 Air Input
- 9 USB Port





# **General Notes**

In this User Guide you'll find:

- Detailed information about the machine, how to use it and its limits;
- Technical specifications of the product;
- Security requirements of the machine and its parts;
- How to set it up and put it into operation;
- Required maintenance instructions.

By following the instructions described in this User Guide you will:

- Avoid dangerous and risky situations;
- Minimize reparation costs and reduce machine downtimes;
- Increase reliability and durability of the machine.



# Introduction

OkuDesk was designed for contactless cutting and engraving on a variety of materials. Timely and focused heat is generated by the laser diode's beam to evaporate, burn or melt the material in a precise way. This way you can carry out cutting and engraving on flat sheets.

Thanks to the machine's excellent precision, cutting complex shapes and engraving bitmap patterns and images can be performed.

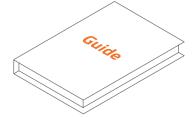
# What's Included in the Pack

OkuDesk

**User Guide** 

**Focus Adjustment Tool** 



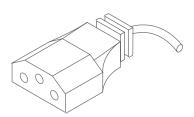


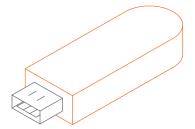


**Power Supply Cable** 

**USB Pen Drive** 

**Exhaust Extraction Hose** 







# **Software**

The following software will is used with OkuDesk (you can download it at www.nomadtech.es/descargas):



Generating the machine code (for each job): **Inkscape** with **Oku**Desk plugin by **Nomad**Tech, or any other program used to generate a compatible code file.

# **Machine Specifications**

### **General Overview**

Oku Desk was designed to cut, mark and engrave on specific materials listed in this User Guide.

### **Technical Data**

Working area length	285 mm   10.6"
Working area width	500 mm   18.7"
Working area height	50 mm   1.9"
Total length	505 mm   19.9"
Total width	720 mm   28.4"
Total height	185 mm   7.3"
Laser power	Optimized 7.5 W, quivalent to 20 W of CO <sub>2</sub>
Accuracy	± 0.1 mm   0.004"
Power requirements	100 W   0.13 HP
Power supply	100 - 240 V AC, 50 - 60 Hz
Machine assebly	Assembled
Motor type	Stepper motor
Supported graphics	Vector / bitmap
Supported formats	.jpg / .png / .svg / .dxf / .pdf / .ai / .cbr
Software	Inkscape (adapted version)
Operating system	Mac OS X / Windows 7 and later
Interface	USB Flash Drive
Packaging	Cardboard box & foam
Shipping dimensions	820 x 600 x 260 mm   32.3 x 23.7 x 10.3"
Shipping weight	17 kg   37.5 lb
Warranty	2 years

# **Materials**

We recommend you to carry out speed and power tests in order to get the expected outcome with each type of material.

MATERIAL		CUTTING	ENGRAVING	
£***}2	Fabric	<b>√</b> 3 mm   ½"	<b>✓</b>	
	Felt	<b>√</b> 6 mm   <sup>15</sup> / <sub>64</sub> "	✓	
	Foam board *	<b>√</b> 6 mm   <sup>15</sup> / <sub>64</sub> "	<b>✓</b>	
	Foam rubber	<b>✓</b> 20 mm   <sup>25</sup> / <sub>32</sub> "	<b>~</b>	
	Latex	1 mm   3/ <sub>64</sub> "	✓	
	MDF	✓ 2 mm   <sup>5</sup> / <sub>64</sub> "	<b>✓</b>	
	Plywood	<b>√</b> 4 mm   <sup>5</sup> / <sub>32</sub> "	<b>~</b>	
	Balsa wood	5 mm   <sup>13</sup> / <sub>64</sub> "	<b>✓</b>	
	Kraftplex	<b>✓</b> 3 mm   ½,,"	<b>✓</b>	
202	Cardboard	<b>√</b> 5 mm   <sup>13</sup> / <sub>64</sub> "	<b>~</b>	
	Paperboard	<b>√</b> 2 mm   <sup>5</sup> / <sub>64</sub> "	<b>✓</b>	
	Paper	1 mm   3/ <sub>64</sub> "	<b>✓</b>	
	Leather	<b>√</b> 1 mm   <sup>3</sup> / <sub>64</sub> "	<b>✓</b>	
	Opaque acrylic *	<b>✓</b> 2 mm   <sup>5</sup> / <sub>64</sub> "	<b>✓</b>	
WAI	Anodized aluminum	_	<b>✓</b>	
	Mirror	_	<b>✓</b>	
	Wood engraving	_	✓	
	Stone & ceramic	_	<b>~</b>	

# **Safety Considerations**

Before starting the machine, it is mandatory to read the instructions in this User Guide and, in particular, the "Warning" section.

In addition to reading this User Guide, it is mandatory to receive basic laser safety training before operating the machine.

Any use not covered by this User Guide would be improper and may cause dangerous situations and lead to hazard of bodily injury and/or risks of property damage.

### **Allowed Users**

The machine must only be used by authorized and specialized personnel and can be operated in industrial or non-industrial environment by persons of 18 years of age or older.

The presence of untrained and uninformed persons nea the machine danger area must be taken into account. It is advisable that the machine operating area is perfectly delimited, allowing access only to the authorized personnel.

Assembly, calibration, maintenance (electrical and mechanical) and disassembly, among other services related to adjustment and calibration, must be performed only by the official personnel of NomadTech or by a Technical Assistance Service authorized by NomadTech.

### Warning

### Improper Use of the Machine

- Any use that is not contemplated in this User Guide constitutes improper use.
- Improper use of the machine may lead to hazard of bodily injury and/or risks of property damage.
- Special attention must be paid to the type of material and the positioning of the workpiece. The maximum workpiece dimensions must not be exceeded and the workpiece must be positioned on the working surface as horizontal as possible.

Before starting the machine, it is mandatory to read and follow the instructions in this User Guide.



### Non-qualified Personnel

- Use of the machine by persons with no necessary knowledge and skills may result in hazard and/or equipment damage.
- Personnel must be informed about the machine's functions and the potential risks and hazards.

Each personnel member operating the machine must complete the specific training.

The employer must provide the aforementioned training to the personnel working with the machine.

### Calibration, Repair and Adjustment

- Adjustment and calibration of the machine must be performed by the authorized persons.
- These tasks being performed by any unauthorized personnel may lead to major injuries and&or equipment damage.

Repair, calibration, overhaul and setting-up of the machine must be performed by the official personnel of NomadTech.

### Laser Radiation

• Failing to take protective measures may result in corneal burns, skin burns and fire hazrd.

Never cancel the safety systems.

Never tamper with the laser unit.

Make sure that the optical system is not blocked, broken or in bad condition.

Make sure that the protective cover is not briken, cracked or in bad condition.

Follow the maintenance instructions described in this User Guide.

### **Unsupervised Operations**

- A poor parameter configuration (excessive power, low speed, etc.) may cause flame hazard.
- Pay special attention to low speed and high power modes when processing combustible materials such as paper, cardboard, wood, etc.
- Unattended operations could cause a fire resulting in a serious bodily injury and/or equipment damage.
- It is advisable to have a fire extinguishing system near the machine.

Never operate the machine without supervision.



### **Unauthorized Operating**

- There must be authorized personnel in charge of making sure the machine is operated properly at any give moment.
- The supervisor must ensure that all the personnel operating the machine has had appropriate training.
- The supervisor must ensure that all the operations carried out with the machine are performed under supervision.
- The supervisor must guard the operating switch key.

Turn off the switch when the machine is not in use.

### Integrity of the Machine

- Operating the machine with one of its parts missing can result in equipment damage, major bodily injury or death.
- Make sure that the machine is completely assembled and that no parts (lenses, parts of the structure, working surface, etc.) are missing.

If any part is missing, do not switch on the machine and contact the manufacturer immediately.

# Defective, Damaged or Incorrectly Adjusted Machine

- Some deviations during machine operation or unexpected results may be caused by malfunctions (jammed material, loose guide tails, etc.)
- Make sure none of the lenses has been damaged before turning on the machine.

- Pay attention to the machine's response motion originated by any irregular shift in the guide rails, stop the job execution using the emergency stop button if necessary.
- Make sure that the cover of the machine is not damaged.
- If any of the aforementioned cases takes place, stop the machine immediately and contact the manufacturer.

Make sure all devices are working properly before using the machine.



### Imprudent Actions

• Imprudent actions may result in bodily injury and/or equipment damage.

Never cover the lenses. Do not leave any foreign body inside the achine (tools, etc.). The objects that interrupt or modify the direction of the beam may cause critical damage.

### Poor Maintenance

- Shadows, reflections and lack of cleaning increase the risk of accidents
- An accumulation of waste from previous jobs may be dangerous.
- The working area must be kept clean and dry at all times.
- Keep the front cover closed while the machine is idle.

Maintain and clean the machine according to the instructions in this User Guide.



### Signs Missing or Worn Out

- The warning signs and indicators on the machine ensure the safety of the users.
- Operating the machine with no visible signs may result in bodily injury and.or equuipment damage.

Wear or failure of any of the warning signs must be reported to the manufacturer. Failure of any light indicator must be reported to the manufacturer.



# Improper Work Clothing or Lack of Protective Equipment

• Gloves and safety boots must be used when handling heavy parts.

Follow the occupational health and safety specifications established by the person in charge of risk prevention according to Law 31/1995, of November 8, 1995, on Prevention of Occupational Risks.

### **Processing Toxic Materials**

• Working with non-permitted materials may generate risks due to inhalation of toxic substances.

Working with materials not listed in the "Materials" section of the User Guide is not permitted.

### Entrapment

• Closing the top cover of the machine irresponsibly may entail an entrapment hazard.

Ensure that all the personnel are kept out of the cover's path before closing it.



• Removing the working surface irresponsibly may entail finger and hand entrapment hazard.

Ensure that all the personnel are keeping safe distance before removing the working surface.



### Load Handling

• Falling and sliding loads may cause bodily injury and/or equipment damage.

Do not handle heavy or unstable loads near the machine.

# Improper Removal of Waste and Production Materials

- Improper waste disposal may cause harm to the environment.
- Dispose your waste in accordance with the applicable legal regulations.

# Changes to Manufacturer's Settings (Vendor Settings)

The basic operating parameters (vendor settings) set by the manufacturer guarantee the reliable operation of the machine and the safety of its users.

They can be accessed from both the software and the display and are password protected.

Modifying them can lead to dangerous situations and major hazards.

Making changes to these parameters is strictly prohibited.



### **NOTE**

Modifications made to the machine without the manufacturer's approval void both the provided Declaration of Conformity of the product and its warranty.

Use the original cables provided by the manufacturer to connect the machine to a power source.

Using the machine for a purpose not included in this User Guide is prohibited.

Exceeding the maximum dimensions of the workpiece to be processed is prohibited.

If you have any questions, please contact the manufacturer.

# **Operating your OkuDesk**

### Basic Steps to Operate your OkuDesk Successfully:

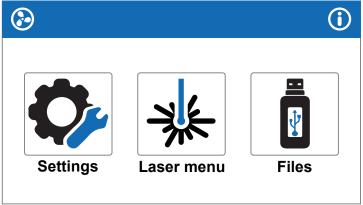
- 1.- Create or import your project (in .pdf, .svg, .dxf, .cdr or any other accepted format) into Inkscape to generate the G-code file.
- 2.- Select all the elements you want to cut or engrave and create a job (contours or bitmap).
- 3.- Save the job with the appropriate settings on a USB flash drive.
- 4.- Insert the USB flash drive containing the job into OkuDesk and switch it on.
- 5.- Place the workpiece on the working surface (Honeycomb) and focus the laser head accordingly.
- 6.- Close the protective lid, choose the job you want to carry out and press "Start".

### **OkuDesk Touch Display Menus**

In this section you'll find a quick overview of all the menus that OkuDesk touch display has.



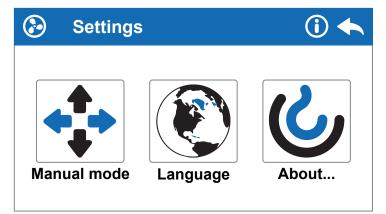
**Language:** The first time you switch on your **Oku**Desk, you'll see this menu from which you'll be able to choose the language of your preference.



Main menu: Here you have access to the settings panel, the list of laser parameters for cutting and engraving and the files saved on the USB flash drive inserted into the machine.

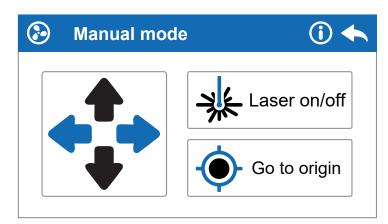
You can get more information about each option that appears on the display by clicking on (i).

You can also modify the speed of the fan of the exhaust extraction system by selecting . There are 3 extraction speed modes. By pressing repeatedly on the icon you can increase or decrease the speed manually.



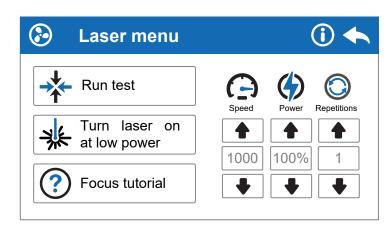


**Settings:** After choosing the "Settings" option in the main menu, you'll have access to the following preferences of your **OkuDesk**. Here you can change the system language, get more information about the machine and its firmware version, and access the manual mode.



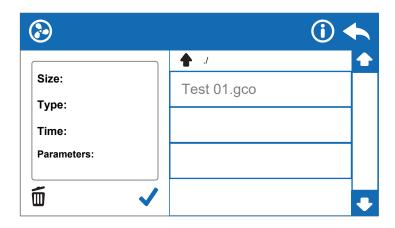


Manual mode: Accessing the manual mode will let you control the movement of the laser head along the X and Y axes, use the laser on low power mode to check its focus and position as well as move it to the origin point.





**Laser menu:** Here you'll be able to perform tests on a workpiece. Choose "Run test" for the laser to make a square of 20 x 20 mm (25/32 x 25/32") with the parameters established on the right side of the menu (speed, power and number of repetitions).

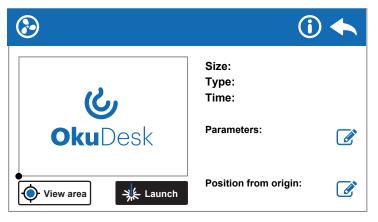




**Files:** In this section you'll see all the files that are saved on the USB flash drive. You can navigate folders and files by using the arrows and select them to preview their parameters.

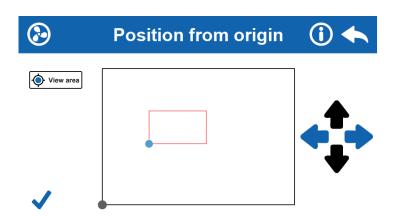
Press to delete a job or 

to perform it.





Launch: After selecting the job you are willing to carry out in G-code file format (.gco) and pressing the check icon ( ✓), you'll be able to see its parameters and start the process by clicking on "Launch". If you choose "View area", the laser head will contour the job with a rectangle to define the working area.

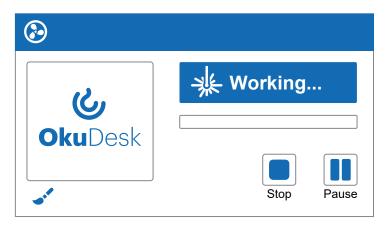


### **Position from origin:**

In this menu, you can edit the position from origin of the current job. Use the arrows to move the job and place it where you need it to be.

Tap on "View area" to check the new position.

Press the check icon to validate the new position.





Job in progress: After you press "Launch", OkuDesk will start performing the job. You can see the completed percentage in the progress bar.



### Security warning:

If the protective lid is lifted while a job is being performed, the following warning message will appear on the display. In this case, you can either stop the process ("Stop job") or close the lid, which will result in the process being resumed.

# **Oku**Desk



Plug & Play



Laser cutting & engraving



Touch display



USB Port



Diode laser technology



Compact size



# **Storage & Installation**

### **Storage**

The storage conditions must not produce any risk to the integrity or functionality of the machine or its parts. The user is responsible for facilitating orderly storage of the machine.

The machine must be stored in a dry environment with temperatures between 10 °C / 50 °F (min. temp.) and 40 °C / 104 °F (max. temp.). It must be kept away from transit areas where it may receive shocks. No objects must be left on or inside the machine.

## **Maintenance**

In order to maintain your **Oku**Desk in its optimum conditions of use, the following parts need to be checked regularly:

### **Maitenance Plan**

	PART	MAINTENANCE
LASER	Laser head	Make sure that - It is clean (clean it if necessary) - The back contactors are well connected
WORKING SURFACE	Working surface	Vacuum the surface
TRANSMISSION	Belts	Check the proper functioning
VENTILATION	Air vents of the fans of the laser head	Make sure they are clean and unobstructed
SYSTEM	Air vents of the fans of the ventilation system	Make sure they are clean and unobstructed. Vacuum if necessary
COOLING SYSTEM	Fans	Make sure they are clean and unobstructed. Vacuum if necessary
LASER	Lens of the head	Clean the lens thoroughly
COOLING SYSTEM	Fans	Clean the fans of the cooling system a the ones of the the exhaust extraction system thoroughly
MOVING PARTS	Guide rails	Clean thoroughly and lubricate

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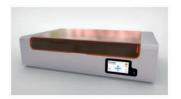
# Inkscape

### Downloading, Installing & Using Inkscape

1.- Download the installer from the web page www.nomadtech.es/descargas

To do that, select the model of the machine you're using and click on the "Download" tab.

### Descargas para Oku Desk



Descargas para la grabadora láser Oku Desk. No válidas para OKU A3 / OKU 600 (ver más abajo).

Inkscape para láser (Oku Desk)

Última versión: v1.1

Requisitos mínimos para Inkscape:

- Windows 7 o posterior
- macOS 10.13 o posterior

Descargar para Windows

Descargar para macOS

Nota para macOS: Para que no salga el error de "No se puede abrir porque proviene de un desarrollador no identificado" sigue los pasos de este vídeo.

Manuales

Manual de usuario Oku Desk

- **2.-**Afterwards, hit either "Descargar para Windows" or "Descargar para macOS" button (depending on your OS). The download will start immediately.
- **3.**-Once the Inkscape file is downloaded, execute it to install the program.
- 4.- Keep choosing the option "Next" until the installation process is completed successfully.
- **5.-** After installing the software, the following icon will appear on your desktop. You'll use it to execute the program.

Inkscape icon

### What is Inkscape?

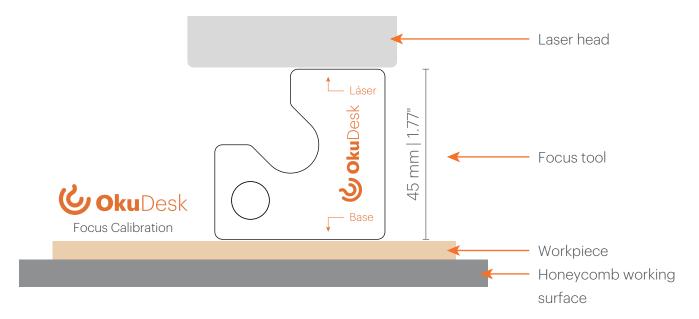
Inkscape is free and open source graphics software which allows you to create and edit diagrams, lines, graphs, logos, text and complex images. It works in a similar way to CorelDRAW or Adobe Illustrator.

You'll generate your job from a vector image by using this program's extensions.

# Adjusting the Focus of the Lens

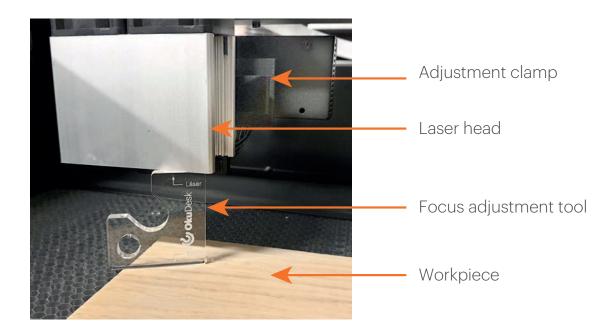
The focus adjustment tool is used to establish the correct distance between the lens located in the laser head and the workpiece. When the distance is set correctly, the lens focuses the light beam on the surface of the workpiece creating a small dot. This way, you use concentrated energy and make the most of the power of the laser diode.

Here's an explanation of how to focus the lens on the workpiece correctly:

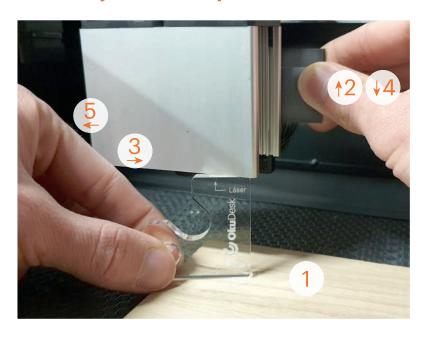


The focus adjustment tool is 45 mm (roughly 1.77") long, which represents the perfect focus distance for the OkuDesk lens). It must be placed between the workpiece surface and the nozzle of the laser head. **Note:** Throughout this procedure, do not touch the lens neither with the focus adjustment tool nor you hands. Do not unscrew the lens.

Use the laser head adjustment clamp to calibrate the focus as shown on the following picture:



### **Focus Adjustment Steps**



- 1.- Place the workpiece below the laser head
- 2.- Use the adjustment clamp to move the laser head. Pinch the clamp and slide the head upwards.
- **3.-** Place the focus adjustment tool between the laser head and the workpiece according to the arrows on the tool ("Láser" and "Base").
- **4.-** Pinch the clamp and slide the laser head downwards until it reaches the "Láser" side of the tool. Then let the clamp go.
- **5.-** Remove the tool. This way the distance between the head and the workpiece will be 45 mm (roughly 1.77").

Focus adjustment must be performed every time you use a workpiece of a different thickness. For example, if the laser's focus is adjusted for a 3 mm (1/8") thick material and you want to use a 5 mm thick workpiece, you have to readjust the system because the distance between the laser head and the surface has changed.

# **Technical Support**

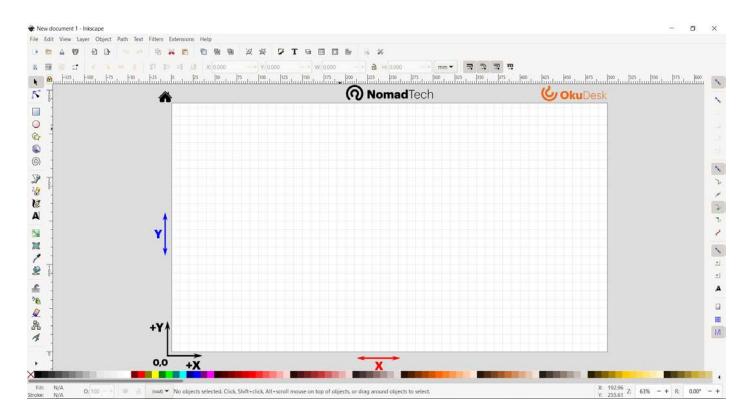
For any doubts or questions, feel free to reach out to us via email:

soporte@nomadtech.es



### **Inkscape Interface**

After you double click the Inkscape icon, the program will launch and the following window will appear.



### **Vector & Bitmap Graphics**

Milling jobs take as base vector images. But what are vector and bitmap images?



A vector image contains straight and curved line information that defines the outline of an object. Therefore, this type of pictures can be scaled to any size without loss of quality. It's a good format for logos.

Some examples of vector graphics formats are .SVG and .EPS.



A bitmap image, on the other hand, is composed of pixels, i. e. individual dots, each of its own color. When scaled to a larger size, this type of images blur or gets pixelated. It's a good format for photographs.

Some examples of bitmap graphics formats are .JPG, .PNG and .GIF.

### **How to Recognize a Vector Image in Inkscape?**

In order to create a job for the machine, the picture you work with in Inkscape must be a vector image.

If you select a picture in Inkscape, you'll see its type in the bottom part of the window.

If it's vector graphics, "Path" will appear.

- "Group" means that you've selected several images at the same time. You can ungroup them by choosing the option Object > Ungroup.
- "Image" describes bitmap graphics. In order to convert it to vector, use the vectorizing tools available in the program by following Path > Trace Bitmap....
- In all the other cases, go to Path > Object to Path to convert the image to vector. Afterwards, it'll appear as "Path" or "Group".

### **Generating the G-code**

- 1.- The aim is to obtain a vector image using Inkscape. There're two ways of doing it:
  - **a.-** If you want to use a vector image that you already have on your computer, open Inkscape and go to File > Import.... You can upload vector graphics in .SVG format, .DXF files from AutoCAD and other formats too.
  - **b.-** You can also create a drawing or a writing in Inkscape directly by using its tools ("Rectangle", "Text", etc.).

Make sure you're dealing with vector graphics (see the previous page).

2.- Several shapes can be created and placed as desired keeping in mind that the point of origin of the machine corresponds to the black house in the upper left corner of the document (as shown in the picture).



**3.-** When the drawing is finished, select all the objects (Edit > Select All) and go to Path > Object to Path.

Only those objects classified as "Path" will be converted into a G-code, that's why you have to convert all of them to "Path" first.

**4.-** Next, the actual size of each object is defined. To do this, set the width ("W") and the height ("H") of each one of them in the upper part of the window.

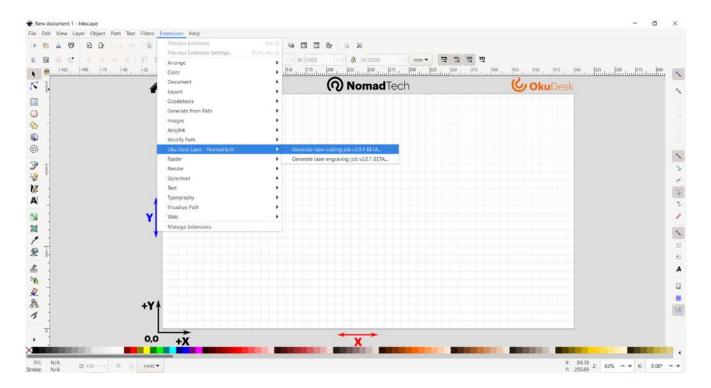


Press the Lock icon and select "mm" or "cm" in the Unit of Measure field to adjust the size in those units. The object will be performed in real size.

### **Generating the G-code Program**

Go to Extensions > Oku Desk Laser - NomadTech > Generate laser cutting job... or Generate laser engraving job... (Generate a bitmap job) to obtain the gcode.

The option you choose will depend on what kind of job you'd like to perform.



If you want to engrave a bitmap image or a vector picture with filled contours, choose "Generate laser engraving job...".

If you want to cut a contour or mark a vector picture (this time, just its contour), select "Generate laser cutting job...".

### Generating a laser cutting job

**Laser cutting speed (mm/min):** The speed at which the laser head moves over the workpiece.

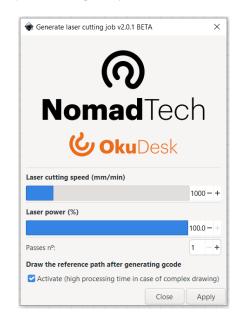
**Laser power** (%): The power at which the laser will be on while performing the job. For cutting, 100 % is usually used. In case of marking, the power you set will depend on the result you're looking for.

### Passes no:

This parameter shows how many times the laser will repeat the path. It might be useful when working with materials that require several repetitions in order to be cut.

### Draw the reference path after generating gcode:

Select this option to visualize the path the laser will follow while performing the job.



### **Generating a laser engraving job**

**Laser engraving speed (mm/min):** The speed at which the laser head moves over the workpiece.

**Laser power (%):** The power at which the laser will be on while performing the job. It will depend on the material you chose and on the result you're looking for.

**Engraving resolution:** This parameter represents the distance between two consecutive passes. The higher the resolution, the lower the distance between passes, but also the longer the engraving time.

**One way engraving mode:** Select this option to make the laser

engrave in one direction (one-way) only instead of engraving two-way, as usual. With some materials, choosing this function might give a smoother surface finish.

Invert colors (negative image): If this option is selected, black becomes white and white becomes black (the intermediate grayscale will be affected too). It might be useful for dark or black materials which get lighter when engraved.

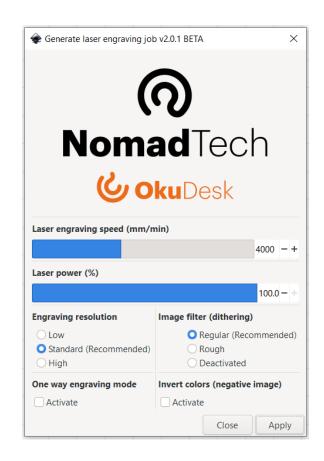


Image filtering (dithering): Thanks to this option, you'll be able to obtain good results in jobs that are difficult to engrave. The software will simplify the image, which will significantly improve the final result in some cases.





# **Oku**Desk **Suggested parameters settings**

Material	Cutting speed	Cutting power	Passes nº	Cutting Depth	Engraving speed	Engraving power
Fabric	1000 - 2000 mm/min	100%	1 - 3	0,5 - 3 mm	3000 - 5000 mm/min	100%
Felt	500 - 1000 mm/min	100%	1-3	1 - 6 mm	5000 - 7000 mm/min	30% - 50%
Foam board	600 - 1200 mm/min	100%	1-3	1 - 6 mm	5000 - 6000 mm/min	50%
Eva rubber	1000 mm/min	100%	1-3	1 - 20 mm	5000 - 7000 mm/min	10% - 25%
MDF	400 mm/min	100%	2 - 8	1 - 3 mm	4000 - 7000 mm/min	10% - 25%
Plywood	500 mm/min	100%	2 - 6	1 - 4 mm	5000 - 8000 mm/min	80% - 100%
Balsa wood	600 mm/min	100%	2 - 6	1 - 5 mm	5000 - 8000 mm/min	80% - 100%
Kraftplex	800 - 1000 mm/min	100%	1-3	1 - 3 mm	5000 - 7000 mm/min	100%
Cardboard	600 - 1000 mm/min	100%	1-3	0,5 - 5 mm	4000 - 5000 mm/min	45%
Paperboard	700 - 1200 mm/min	100%	1-3	0,5 - 2 mm	3000 - 5000 mm/min	80%
Paper	1400 - 2500 mm/min	100%	1	0,2 - 1 mm	3000 - 5000 mm/min	70%
Leather	1200 - 1600 mm/min	100%	1 - 4	0,5 - 1 mm	4000 - 5000 mm/min	80% - 100%
Cork	2000 mm/min	100%	1 - 4	0,5 - 3 mm	5500 - 6000 mm/min	20% - 30%
Opaque acrylic	400 mm/min	100%	3 - 10	0,5 - 2 mm	4000 - 5000 mm/min	70% - 80%
Anodized aluminum	-	-	-	-	2500 - 5500 mm/min	100%
Mirror	-	-	-	-	3500 - 6000 mm/min	100%
Stone ceramics	-	-	-	-	4500 - 6000 mm/min	100%
Stainless steel	-	-	-	-	70 - 80 mm/min	100%

These parameters are **for guidance only** - a starting point for testing your material samples and find the best results.



# CNC **Milling**

### Materials suitable for RedFox









Aluminum Non/ferrous





synthetics



Methacrylate













• 🕜 RedFox M

• RedFox L

Working area length	700 mm   27.5"
Working area width	500 mm   19.6"
Working area height	80 mm   3.1"
Total length of the mchine	1030 mm   40.6"
Total width of the machine	820 mm   32.3"
Total height of the machine	390 mm   15.4" 1170 mm (legs included)   46.1"

1100 mm   43.3"
750 mm   29.5"
80 mm   3.1"
1425 mm   56.1"
1080 mm   42.6"
390 mm   15.4" 1170 mm (legs included)   46.1"

1690 mm   66.5"	
1030 mm   40.5"	
80 mm   3.1"	
2015 mm   79.4"	
1360 mm   53.6"	
390 mm   15.4" 1170 mm (legs included)   46.1"	











# CNC **Laser Cutting**







Steel, aluminum, stainless steel, copper, etc.





IonPlasma M
Pro THC

<b>Unapplasma</b> L	
1690 mm   66.5"	
1030 mm   40.5"	
80 mm   3.1"	

				) 110 1110
Working area length	1100 mm   43.3"		1690 mm   66.5"	
Working area width	750 mm   29.5"		1030 mm   40.5"	
Working area height	80 mm   3.1"		80 mm   3.1"	
Total length of the machine	1425 mm   56.1"		2015 mm   79.4"	
Total width of the machine	1080 mm   42.6"		1360 mm  53.6"	
Total height of the machine	390 mm   15.4" 1170 mm (legs include	ed)   46.1"	390 mm   15.4" 1170 mm (legs include	ed)   46.1"



CO<sub>2</sub> Laser **Cutting & Engraving** 

















Materials suitable for Atheon Laser



















cardboard

Mirror

Stone & ceramics

Anodized aluminum

Grabado de acero inox.

### AtheonLaser S

Working area 500 x 300 mm | 19.6 x 11.8" **Machine dimensions** 900 x 710 x 430 mm

Laser type

35.5 x 28 x 17"

CO<sub>2</sub> tube, 40 W

### AtheonLaser M

700 x 450 mm | 27.5 x 17.7" 1100 x 845 x 480 mm 43.4 x 33.3 x 18.9"

CO<sub>2</sub> tube, 60 W

### AtheonLaser L

1000 x 700 mm | 39.3 x 27.5" 1520 x 1295 x 1125 mm 59.9 x 51 x 44.3"

CO<sub>2</sub> tube, 80 W

### AtheonLaser XL

1400 x 900 mm | 55.1 x 35.4" 2120 x 1480 x 1125 mm 83.5 x 58.3 x 44.3"

CO<sub>2</sub> tube, 130 W

# OkuDesk

### **Diode Laser**

Cutting & Engraving

### OkuDesk

Working area 500 x 285 mm

19.6 x 11.4"

Machine dimensions 720 x 505 x 185 mm

28.4 x 19.9 x 7.3"

Diode laser Laser type



### Materials suitable for OkuDesk





methacrylate







cardboard



(engraving)



ceramics







Stainless steel (engraving)









# **Nomad**Tech

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For this reason, our team of technical experts is at your service to solve any doubts and to keep working on improvements.

NomadTech Team

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