

Multipurpose Desktop Engraving Machine
MAGIC™-E4





Multipurpose Desktop Engraving Machine, MAGIC™ -E4

MAGIC™-E4 is an engraving machine capable of engraving, cutting, and marking on various kinds of materials in different forms and sizes. This 3rd generational multipurpose desktop engraving machine improved engraving functionality, structural stability, performance, and design, among others. The system is designed to directly engrave on varied products and materials such as plates like labels, name tags, and name plates, and materials like acryl and brass. It's easy enough for anyone to utilize for multiple purposes engraving and marking of signage, souvenir, promotional gifts, industrial name plate/parts, etc., and cutting and machining of acryl, wood, modeling board, etc.

MAGIC™-E4 is easy and simple to use and provides a wide range of functions and powerful performance to meet different customer needs. The multipurpose engraver's modern design is aesthetically pleasing and looks nice in any place.

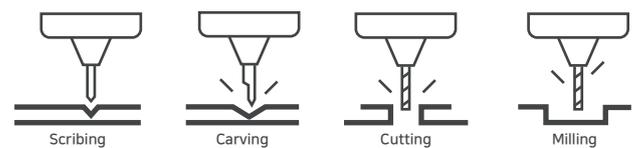
Key Points

- Engrave on acryl, various kinds of plastics, wood, modelingboard, etc.
- Mark on all kinds of metals including stainless steel, aluminum, and brass.
- Engrave on glass, plastics, etc.
- Cut gold, silver, brass, aluminum, acryl, various kinds of plastics, wood, etc.
- Carve 2.5D relief.
- Wide work range to engrave on large-scale materials
- Support different engraving tools including endmill, V-cutter, and scribing tools.
- Intuitive and simple engraving position control based on the embedded camera and laser
- Automatically measure material height and tool length.
- Cost-efficient maintenance with low supplies cost.
- Small-sized and easy and simple for anyone to use.
- MagicEngrave™ software for easy and quick engraving.

Engraving Materials

- Wood, glass
- Precious metals such as gold, platinum, and silver
- Common/special metals such as stainless steel, aluminum, brass, and titanium
- Plated materials, and others
- Modeling boards
- Acryl/various kind of plastics

Uses

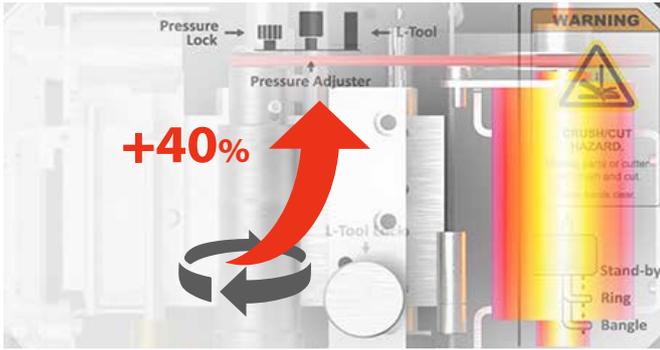


- Letter, logo, drawing, and pattern engraving
- Metal/acryl/wood board cutting
- 2.5D relief carving
- Pendant/pet tag marking
- Various labels (signage) engraving
- Metal marking
- Glass marking
- Silicone mold machining
- Cosmetic/perfume case marking
- Souvenir marking
- Promotional material marking
- Nameplate marking
- Parts marking
- Industrial marking

Main Customers

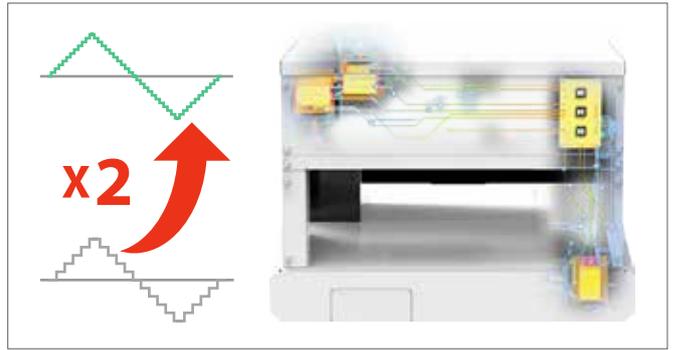
- Makerspace
- Promotional gift shops
- Handcraft workshops
- Other clients who intend to engrave on various kinds of materials and products
- Sign shops
- Souvenir shops
- Factories

■ 3rd Generational Multipurpose Desktop Engraving Machine



Stronger cutting performance

- A more powerful spindle motor turns spindle at 15,000RPM.
- Compared with other equivalent-level products, the motor cuts materials with about 40% stronger force.
- Faster cutting performance, improved cross section quality.
- Longer tool service life.



3rd Generational Latest Motor Control System

- Machine control with resolution 2-times higher than that of the conventional ones.
- More detailed expression capability with higher engraving and marking quality.
- Sharp reduction of noise while machine operation.

■ Support Various Engraving Methods



Support Various Engraving Methods

- Engraving – Carve materials with endmill or V-cutter in the shape of design.
- Cutting – Cut out materials with endmill, etc.
- Milling – Cut materials in the shape of design.
- Photo – Engrave or mark photograph images on material.
 - Halftone engraving – Express photograph images in surface processing using a cutter.
 - Photograph marking – Express photograph image in dots.
- Drilling – Drill holes on material in certain distance and depth.
- 2.5D – Carve 3D relief models.
- V-Carving – Express letters, patterns, etc. in different engraving depths according to thickness using V-cutter to make them look solid.



Support Various Marking Types

Scribing marks by pressing materials with a diamond tool to draw various marking effects as shown below.

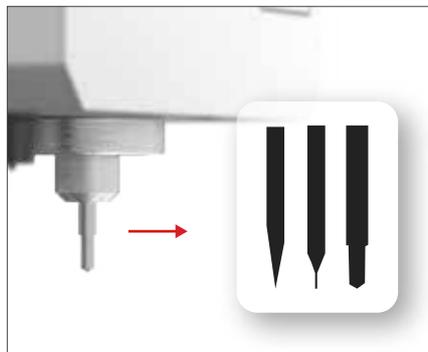
- Hatching line – Express designs clearly with vertical or horizontal lines at regular intervals.
- Diagonal/cross line – Express designs with diagonal or X-formed cross lines at regular intervals.
- Contour line – Fill the inside of designs with frame lines at regular intervals to show patterns.
- Outline – Express design edges clearly with lines.
- Single line – Express letters, etc. simply with a single line.
- Photo marking – Express photograph images with dots.

■ Versatile Application



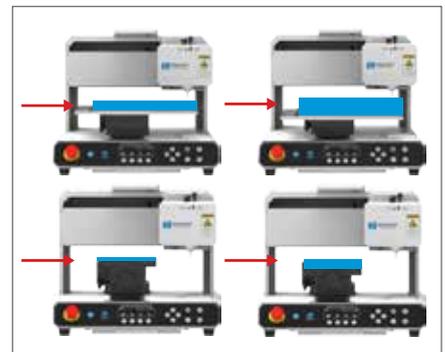
Wide work range to mark on materials in different sizes

- Wide engraving range to largely expand engravable material sizes.
- Flatbed clamp to engrave in approx. 241mm x 179mm size.
- Wide inner space to fix materials bigger than the engraving area.
- Open front and back to deal with long materials through.
- Less restriction on material size for flexible utilization.



Various Tools Support

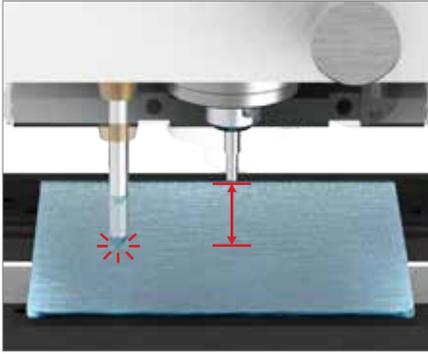
- A variety of tools are available to support all of engraving, cutting, and marking.
- The machine supports the spindle rotation engraving and cutting that rotates a tool to process materials.
- Scribing marking is also supported to mark materials by using a diamond tool.
- Exchange tools while engraving to employ varied tools in single engraving process for improved expression



Simple Functional Expansion

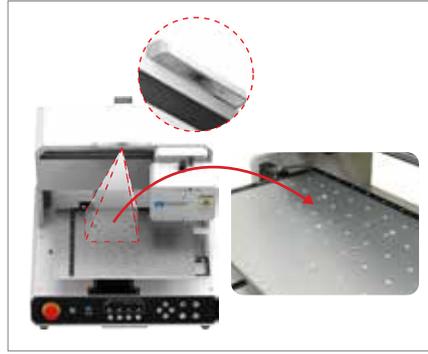
- Removable clamp to easily interchange according to users' purpose of use.
- Height-adjustable clamp to engrave on materials in different thicknesses.
- Various jigs, clamp pins, etc. to easily fix and engrave on various forms of materials.
- Convenient dust and chip removal using auto ON/OFF dust collector.

Convenient Functions for Easy and Quick Marking for Everyone



Auto Measurement

- Auto measurement supports very simple machine use.
- A material measuring sensor detects the height of a material and adjusts the origin point automatically.
- A tool measuring sensor measures the length of a tool and adjusts the origin point automatically.
- Quick and convenient without any extra work to adjust tools to materials.



Simple Engraving Position Control

- Easy engraving position control with the embedded camera and laser for anyone to easily use the machine.
- Intuitive way of machine operation with an embedded camera directly showing a material to design and engrave instantly.
- A laser pointer is built in for users to easily find and adjust engraving positions.
- Quick and minimum preparation for engraving. Convenient engraving for all.



Bluetooth Wireless Connection

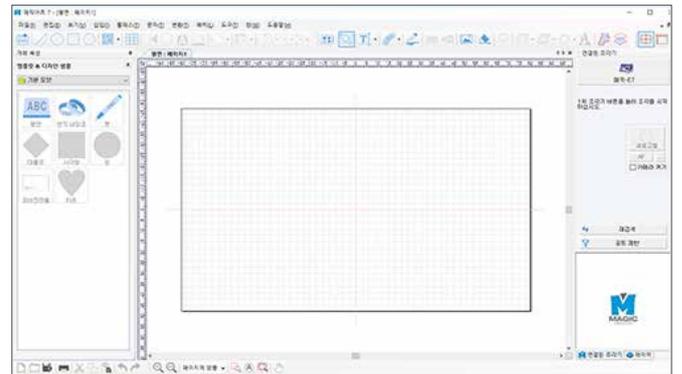
- Bluetooth wireless communication is supported. Users can operation the machine using not only USBs but also wireless manner.
- They can control the machine wirelessly in own tablets through the Bluetooth wireless communication.
- Android tablet, iPad, Window tablet, and most of the tablets are available.
- Let customers take part in engraving using a tablet at shops and start engraving immediately.

Easy and User-Friendly Design and Software for Anyone



Small, Quiet, and Modern Design Style

- Small, quiet, and modern design style to install and use in any kinds of places such as shops, makerspaces, craft workrooms, and etc.
- Small-sized, low noise, and less restriction on installation places.
- Simple design to look good against any type of interior settings in the surroundings.
- Favorably composed to install at shops and provide marking service.



Provide Easy-to-Use and Convenient MagicEngrave™ Software

- MagicEngrave is provided, which is a convenient and easy-to-use program for anyone to easily learn and use for engraving, cutting and marking.
- The simple way of use and various features of MagicEngrave helps anyone utilize the engraver for wide-ranging purposes.

Samples



Functions and Applications

Plate-type Material Engraving

Engrave letters, logos, patterns, etc. in a set depth using varied tools such as endmill and V-cutter on various materials including wood, acryl, modeling board, aluminum, and brass.

- Engrave on plate type materials such as name tags, labels, and nameplates.
- Engrave letters, logos, patterns, etc. on plate materials like wood and acryl.

Plate Cutting

Cut different materials into desired forms such as gold, silver, brass, aluminum, wood, acryl, plastics, and engraving waxes.

- Cut acryl, wood, etc. and make labels (signage).
- Cut plates such as gold, silver, brass, etc. to make name necklaces, jewelry, etc.
- Cut engraving wax plates and cast immediately.

Industrial Nameplate Marking

Engrave on industrial nameplates such as product nameplates and machine nameplates.

- Unerasable, deep depth, and highly recognizable marking.

Name Tag Marking

Mark name tags.

- Mark letters, logos, patterns, etc. on various tags.

2.5D Relief Carving

2.5D carving on modeling boards, wood, acryl, plastics, etc.

- Carve 2.5D relief using 3D model and CAM program.

Pendant Marking

Mark letters, logos, patterns, etc. on various materials such as gold, silver, brass, aluminum, stainless steel, titanium, plastic, and glass.

- Marking on jewelry products, pet tags, military IDs, baby necklaces, etc.
- Marking on souvenirs, promotional gifts, etc.

Marking on Curved Surfaces

Easy marking on materials with curved surfaces.

- Mark on curved material surfaces such as bracelet, pen, hip flask, and ball easily.

Thick Material Engraving

Simple engraving on thick materials.

- Height adjustable clamp and various jigs are available to deal with materials in different thicknesses.

Long-length Material Engraving

Engrave on long-length materials.

- Open front and back to accommodate long materials.

Photograph Engraving

Express photograph images through engraving or marking by employing 4 different engraving techniques on varied materials like gold, silver, brass, aluminum, wood, acryl, and etc.

- Express images on materials using techniques like dot marking, dot halftone engraving, line halftone engraving, and lithophane.

Pen Marking

Mark on diversely formed pens in different lengths.

- Use the pen clamp to easily fix pens in different sizes and forms for marking.

Pet Tag Marking

Mark on pet tags in materials such as aluminum, plated metal, and plastic.

- Wide range of engraving materials are processible to mark on a variety of pet tags.

Military ID Marking

Mark on military IDs.

- Mark on military IDs made of stainless steel, etc.

Cosmetic/Perfume Case Marking

Mark on cosmetic/perfume cases.

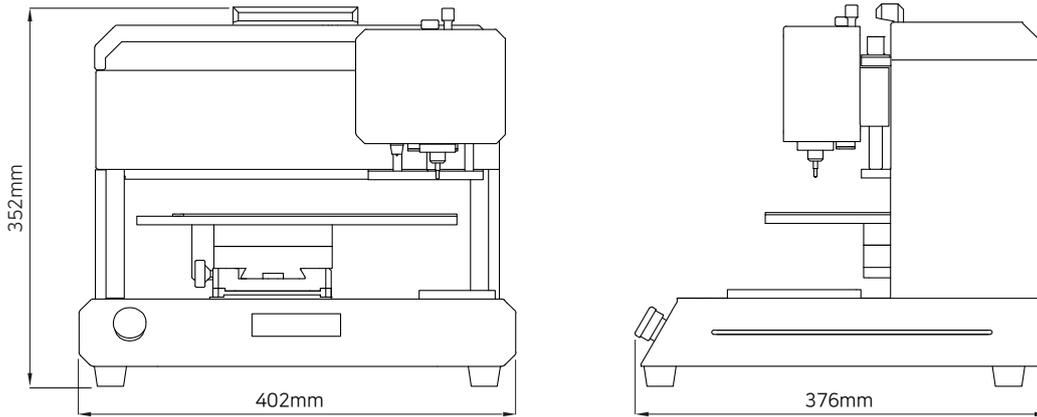
- Mark various messages on cosmetic/perfume cases, caps, etc.

Various Products Marking

Mark directly on varied products such as the back of a watch, lighter, and knife.

- Use jigs to easily fix materials in different shapes for quick engraving.

Product Specifications

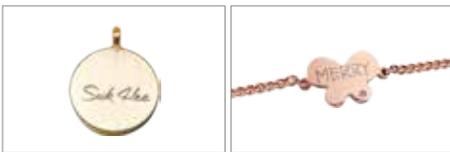


Model	MAGIC™-E4	Weight	26Kg
Size	402mm(W) x 376mm(D) x 352mm(H)	Voltage	AC 100~240V, 50Hz/60Hz
XYZ axis stroke	241mm(X) x 179mm(Y) x 40mm(Z)	Power consumption	25W
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125°(A)	Flat engraving area	241mm x 179mm
Max material height	60mm	Temperature/Humidity	0 ~ 40° / 10 ~ 85%
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range : Class 2(32.8ft) / Tx Output : MAX +4dBm / Frequency Band : 2.4 GHz		

Options

- Multipurpose pendant clamp

Versatile jaw-type clamp capable of fixing pendants, plates, etc. in different sizes and forms.



- Cutting Clamp

Cutting-dedicated clamp for convenient cutting oil use and plate fixing in metal cutting with the use of cutting oil.



- Dust collector – Dry/Wet Type

Dry type: Suck in chips and dust generated from engraving acryl, modeling board, etc.

Wet type: A combined suction device embedded in the cutting oil pump, which sucks in and discharges cutting oil simultaneously in metal cutting for cutting convenience.



- L-type Jig

Easily fix thick or laterally curved materials on the flat-bed clamp.



- Spoon Clamp

A clamp that firmly fixes long and asymmetrical materials like spoon, fork, and chopstick.



- Clamp Pin

Fix materials hard to hold with the basic clamp, which are thick or in complicated shapes such as pendant, accessory, and pen.

