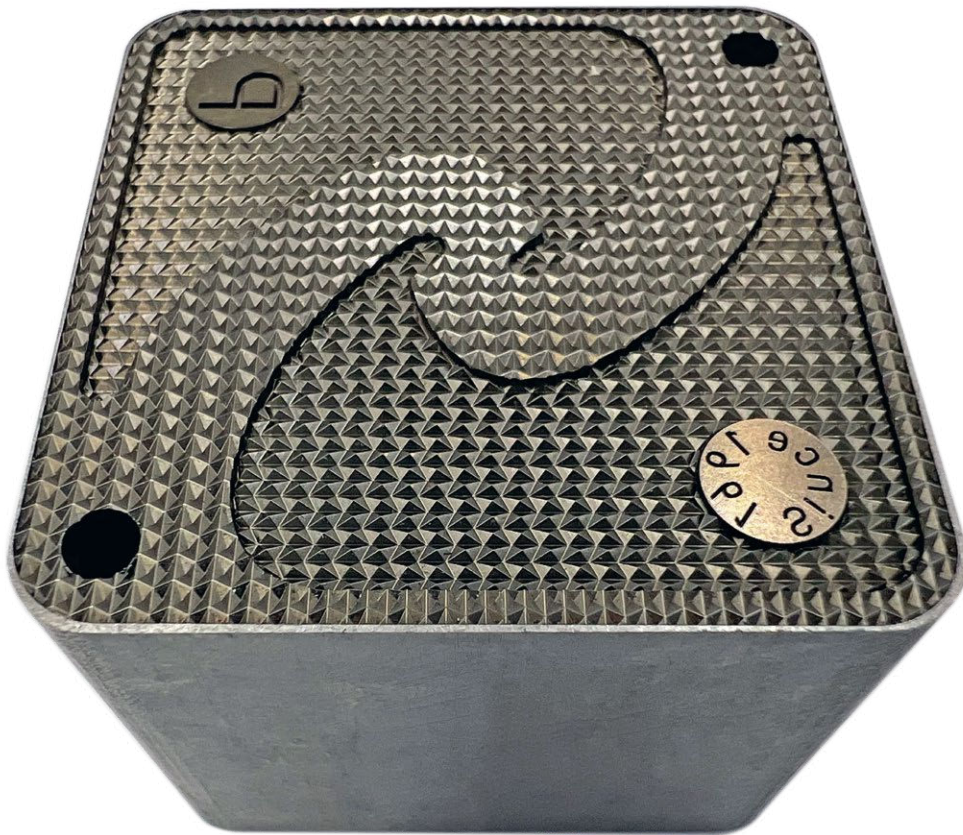


# EASY MOLD



Laser engraving

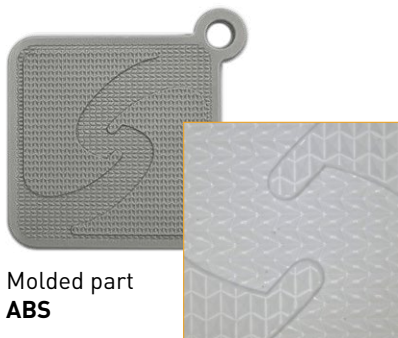
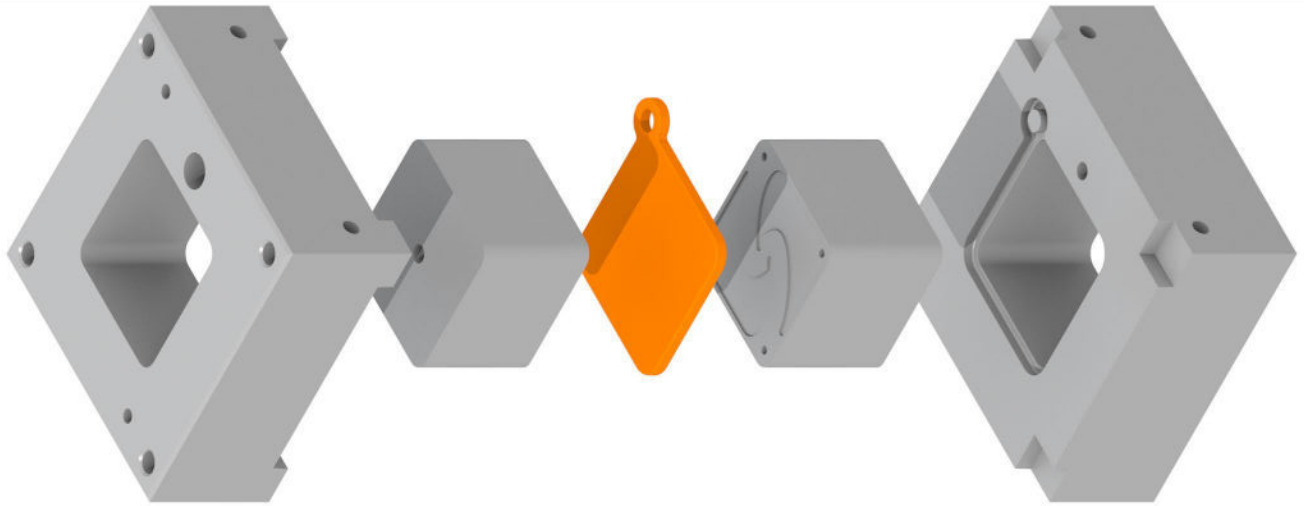


Modular solutions for 2D-3D laser engraving and texturing

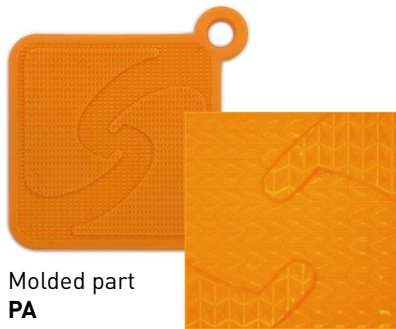
# EASY MOLD

## Modular solutions for 2D-3D laser engraving and texturing

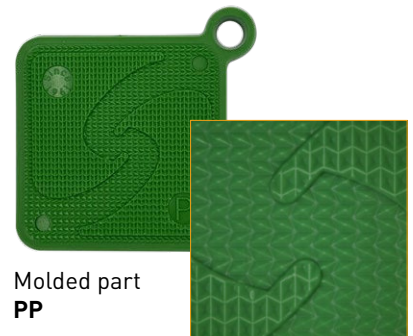
Find out how SISMA made it easier for people to create laser engravings and textures on punches, electrodes and other applications that require 2D-3D, texture laser processes.



Molded part  
**ABS**

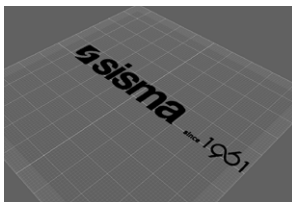


Molded part  
**PA**



Molded part  
**PP**

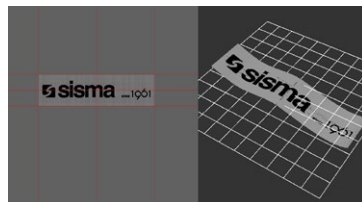
## ENGRAVING PROCESSES



### 2D engraving on 2D surface

Two-dimensional engraving on a flat surface.  
Process file: SVG.

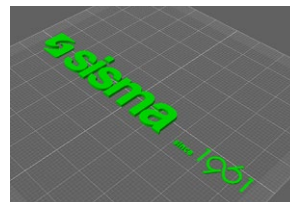
The depth is managed from Parameter by the user.



### 2D engraving on 3D surface

Two-dimensional engraving on a non-planar surface.  
Process file: SVG on OBJ.

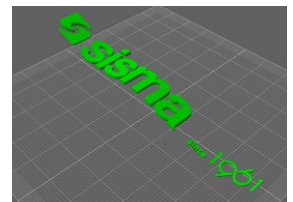
The depth is managed from Parameters by the user.  
Needs the Dynamic Focus Shifter.



### 3D engraving on 2D surface

Three-dimensional engraving on a flat surface.  
Process file: STL.

The depth information is given by the stl file.



### 3D engraving on 3D surface

Three-dimensional engraving on a non-planar surface.  
Process file: STL.

The depth information is given by the stl file.

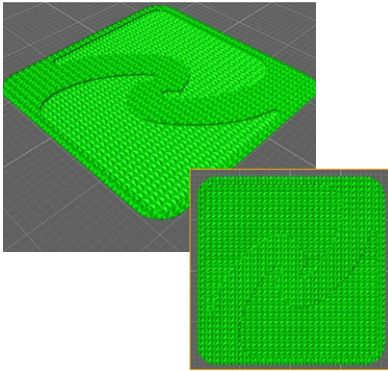
**Dynamic Focus Shifter:** such optical component, which allows to make continuous engravings on 3D surfaces, is also available upon request.



# SOFTWARE

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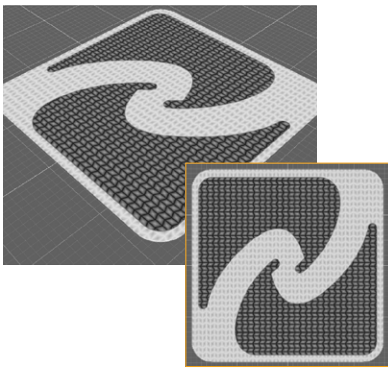
**SISMA SLC<sup>3</sup>**: the easiest way to make your engraving or textures.



The engraving process (with depth  $\geq 0,1$  mm) takes into consideration the amount of material removed for each laser pass. Once the material is characterized, the system automatically defines the Z-steps necessary to obtain a perfect engraving in terms of dimensions and finishing. In the case of 3D files (.STL) the depth information is already available in the graphic.

SLC<sup>3</sup> allows:

- easier and faster tuning and testing;
- slicing of the STL file;
- freedom of etching direction;
- automatic generation of the layer number;
- flexible cleaning passes management.



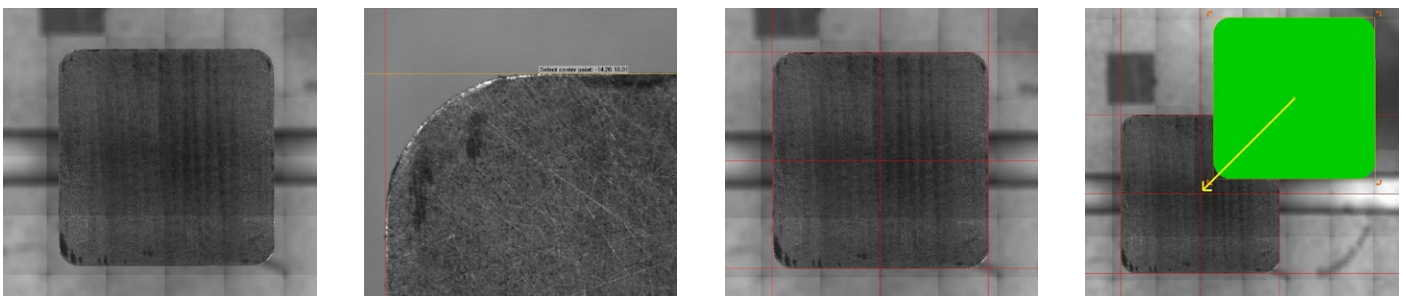
The Texture mode is a variant that produces the slicing from a grayscale file; with SLC<sup>3</sup> it is possible to draw a working area and fill it using png, bmp, jpg and tiff files. The colour white (brightness = 240) means no laser working, whereas the colour black (brightness = 0) will be assigned to the set depth. This is an easy way to engrave companies logo or to apply a pattern on a surface. Moreover, it is strongly recommended for aesthetic processes.

## VISION SYSTEM

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**SISMA CVS** (Coaxial Vision System): the easiest and most precise way to center your piece.

With the new Guide lines feature, centering becomes simple and fast: after positioning the relevant lines at the edges of the object is possible to obtain, with one click the median position. The snap on the grid allows to place the file at the preferred control points.



The system is characterized by:

- simplified verification and realignment function (with possible correction) between camera and laser (<1 min);
- high accuracy (0.02 mm);
- simplified procedures for camera calibration and automatic focal mapping (under patent protection).

CVS advantages:

- High precision and repetitive centering process;
- Possibility to avoid jigs or fixtures;
- Possibility to re-work on the same piece to reach required depth or finishing;
- Live view of the pieces with possibility for manual or automatic (pattern matching) file positioning.

# PROCESSES AND APPLICATIONS



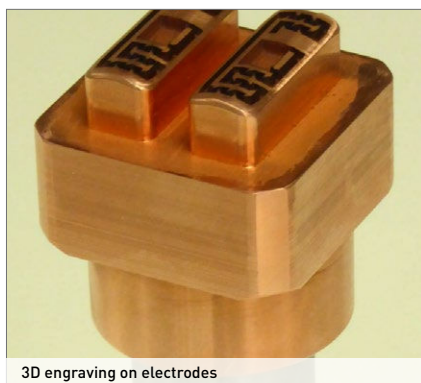
3D engraving on date stamps



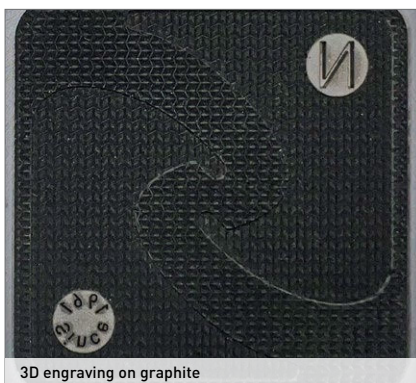
3D engraving on punches



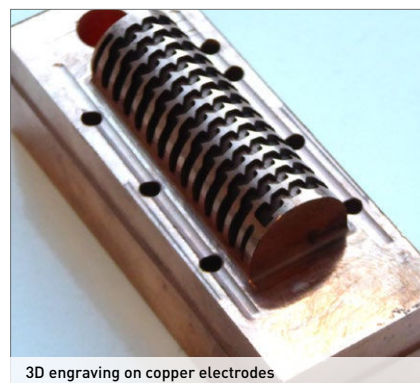
Texturing on 2D surface



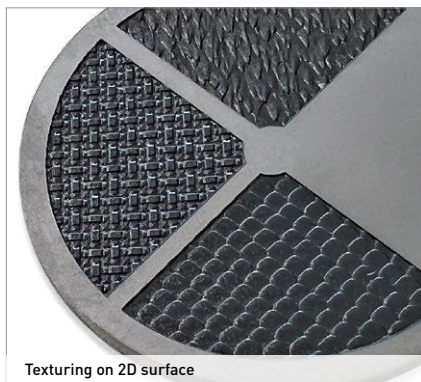
3D engraving on electrodes



3D engraving on graphite



3D engraving on copper electrodes



Texturing on 2D surface



3D engraving on punch



Texturing on curved surface

EASY MOLD is available on:



EASY series



SMARK



LWS series



MODO series

The features, images, performances, weights and measures contained in the catalogue are completely indicative and approximate and may change without notice.

02-2023



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COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
ISO 9001