Gravofoil is a silk-screened PVC material. It is 0.2 mm thick. Because it is flexible, it is used for curved surface identification.

CAUTION: The suppleness of Gravofoil may cause difficulty when handling it.

**CUTTING GRAVO FOIL**

Use ‘plastic’ type table shears, a Stanley knife® or a pair of scissors.

**ENGRAVING GRAVO FOIL**

Always work on a clean surface.

- **CLAMPING GRAVO FOIL**: It can be clamped on a clamping table or on a vacuum table, by fixing the piece of Gravofoil on a plate that is more rigid (3M spray mount: spray lightly).
  You can also use a special Gravofoil vice, to be placed in the jigs.

- **ENGRAVING WITH A CUTTER**: Only with a regulating nose.
  You select the regulating nose according to the engraving width, the tools and the letters to engrave.
  Just place the cutter on the material to set the engraving depth.
  The use of a swarf extractor is not essential with Gravofoil as it does not produce much chip.
  A standard spindle is used.
  - Engraving with a pantograph: you should not apply too strong a pressure on the tool-holder in order not to scratch the plate with the regulating nose. We recommend a constant average pressure.
  - Engraving with an electronic machine: ensure that the spindle spring is released so that the spindle remains supple (by using strong pressure, the regulating nose may scratch the plate).

NB: You can use a collet spindle.

**TOOLS**

- **Cutter**:
  - steel
  - carbide

In order to set the engraving depth, you only have to lower the cutter onto the plate (it needn’t be deep)

<table>
<thead>
<tr>
<th>Grinding</th>
<th>Type of tools</th>
<th>Steel</th>
<th>Carbide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting angle</td>
<td>40°</td>
<td>05 576 xxx</td>
<td>05 410 xxx</td>
</tr>
<tr>
<td>Half-taper angle</td>
<td>18°</td>
<td>58 106 xxx</td>
<td>58 101 xxx</td>
</tr>
<tr>
<td>Tip angle</td>
<td>7°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearance angle</td>
<td>15°</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WARNING: these parameters are only valid with Gravograph's standard cutters. * * for best results

NB: The size of the tip depends on the engraving width you wish to obtain.
MACHINE PARAMETERS

<table>
<thead>
<tr>
<th>Speed (mm/s)</th>
<th>Dwelling time</th>
<th>Engraving depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>X-Y</td>
<td>Rotation</td>
</tr>
<tr>
<td>35</td>
<td>20 to 35</td>
<td>18 to 20 000</td>
</tr>
</tbody>
</table>

Number of passes : 1

MATRIX

The Matrix function that is used for engraving and cutting plates produced in series (i.e. labels) is found in the Gravostyle’98 software (optional on the Discovery level and integrated in higher levels).

The method consists of :

- **Setting the tool**: screw the cutter knob (caution : left thread) and position the tool in the spindle in order to make contact with the material (check through the little opening of the regulating nose that the cutter has actually gone down). Save the position of the spindle (average pressure with Gravofoil). Validate the Z axis.

- **Selecting the engraving depth**, which should be equal to the material depth.
  - i.e. 8 scales on the micrometric vernier.

FINISH

- **CORNER CUTTING**: if you want to cut special corners, we recommend that you use the corner table shears (CSC).

Examples of blades available:

- R = 3.2 mm
- R = 6.3 mm

Different measures exist for various radius and width.