



# MARBLED PLATES IN COMPOSITE RESIN

## ENGRAVING and COLOURING TIPS



Updated : 05/01/01

This new range is composed of easy to engrave, composite resin plates.



When handling, always take care not to **DAMAGE** the plate.

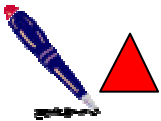
### ENGRAVING THE PLATES

Jigs  
# 06214000 or #  
A3815000

- **CLAMPING THE PLATES** : the plate can be fixed according to its shape and its dimensions on a T-slot table or with aluminium or celoron jigs. Take care not to clamp the piece too tight in order not to flake the resin. For the 390 x 210 mm oval plates, use the jigs with ref 06214000.

- **ENGRAVING WITH A CUTTER** : Before you engrave, check the dimensions of the plates.

We strongly advise you to use a regulator nose because the composite resin we use for the manufacture of the plates is « cast ». The particularity of a « cast » material is that its thickness is not constant and that it can vary from one plate to another. The nose will avoid varying depth in the engraving. The swarf extractor is not essential but recommended.



We use a standard spindle.

- Caution :**
- Engraving with a pantograph : no specific precaution.
  - Engraving with an electronic machine : we recommend a median position for the spindle spring.

**NB :** You can also use a collet spindle with or without suction nose.

#### TOOLS :

- **Cutter** : the composite resin is a soft but abrasive material. We recommend that you use a carbide tool.

Grinding	
Cutting angle	<b>40°</b>
Half-taper angle	<b>18°</b>
Tip angle	<b>7°</b>
Clearance angle	<b>15°</b>

Type of tools	Carbide
∅ 3.17	05 410 xxx
∅ 4.36	58 101 xxx
TwinCut® Insert	B7 300 xxx

Warning : these parameters are only valid with Gravograph standard cutters.

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

- **LASER ENGRAVING** :

Power : 100

Speed : 25 – 1 000 IPP – resolution 500

The bottom of the engraving is grainy, colouring identical to cutter engraving.



## **MACHINE PARAMETERS :**

Tool	Speed (mm/s)			Dwelling time	Engraving depth
	Z	X-Y	Rotation (Revolution / mn)		
CUTTER or INSERT	35	From 10 10 to 15	20 000	0	0.40 mm

For a soft sanding, it is preferable to engrave at a depth of 6/10.

Resins can be drilled, but take care when you retrieve the foret as there are risks of splitting the plate.

So, moderate the pressure.

## **COLOURING THE PLATES :**

In order to achieve an aesthetic result, colouring with paint is indispensable on engraved plates.

### ❖ **Paint : For small and big plates :**

Blow well or brush the plate before colouring because the resin makes powder.

Apply the paint with a flat spatula.

Take care to check that the filling of the engraving does not contain any air bubbles.

Never apply 2 coats.

You can clean the plate superficially with application diluant.

Proceed as with standard colouring.

Leave to dry.

Gravolaque  
# 87 400 0xx

Application  
diluant  
# 87 413 000

We strongly recommend the use of Gravograph's paint to avoid an ink or paint incompatibility with the composite resin.

## **CLEANING THE PLATES :**

After the superficial cleaning, and for a perfect finish, we advise you to sand the plate.

### ❖ **Sanding : for small and big plates :**

Make sure that the plate is completely dry before you start.

Sand the plate with a grain of 320.

Preferably use mechanical sanding.