Glass engraving

... fascinatingly beautiful!

Engraving tools - electric engravers
Glass image plates - engraving patterns
**Enjoy glass engraving**

Tradition and custom ensured that the art of glass engraving was brought to Europe from Persia via Italy (Venice). While this handicraft was initially reserved to glass artists only, who used it to design unique glass vessels, it developed into a new hobby technique even for laypeople in 1980. This was due to the fact that the tools required, mainly the diamond and corundum coated abrasive pencils were now also available in handicraft shops. Since then, glass engraving, now also referred to as glass scribing, has belonged to a classical, ever-popular handicraft design technique.

This hobby technique with its classical basic assortment belongs in any art or hobby shop, because only a small amount of tools is required for glass engraving and glasses are present in any household as drinking glasses, for instance.

Glass engraving is a technique that anyone can learn quickly and develop to perfection. It is therefore understandable that glass engraving has gained many friends and fans over the last few years.

In some European countries a special tradition has even developed: Each guest at particular festivities (confirmation, communion, engagement, christening, wedding, important birthday) is given a drinking glass with his or her initials as a gift. An extraordinary and therefore very personal gift, frequently engraved by the host with a great deal of care and endurance.

**Engraving tools**

In hardly any other handicraft design technique are as few tools required as for glass engraving. It is therefore also possible to take the basic equipment with you, for example to enable you to pursue your favorite hobby on holiday, too.

The repertoire of tool equipment consists of a holder and various abrasive tools. It is important that the shaft diameter of these tools is uniform at 2.35 mm with a length of 45 mm.
Glass rubber (Glass polisher)

When engraving hollow glasses there is often the problem that the diamond pencil slips on the hard glass surface. The glass is pre-treated with a glass rubber to guard against this. This roughening is not visible on the glass, but it is noticeable in that the contour lines of the image motif visible underneath the glass surface can be reliably traced.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
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<th>Color</th>
</tr>
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<tbody>
<tr>
<td>85 020</td>
<td>Glass rubber (Glass polisher)</td>
<td>1 pc.</td>
<td>SS</td>
<td>PU 6</td>
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</tbody>
</table>

Diamond engraving pencils

High-quality engraving diamonds, by means of which not only valuable lead crystal glass but also simple household and industrial glasses as well as glass image plates, mirrors, marble and acrylic glass can be engraved, are used for engraving glass.

All engraving diamonds are suitable both for manual and electric engraving. This is also the reason why all tools must have the same shaft length and shaft diameter.

Glass engraving tools look similar to the tools used for dental treatment. They only differ in that the diamond pencils for the processing of hard glass wear more intensively and must therefore be more robust. The fine diamond slivers are therefore embedded in an extra hard, elastic Durapox compound. This makes the tools more durable and tough.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Diameter</th>
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<td>85 001</td>
<td>Diamond engraving pencil (tracer)</td>
<td>1.0 mm</td>
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<td>PU 6</td>
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<tr>
<td>85 002</td>
<td>Diamond engraving pencil (pre-engraver)</td>
<td>1.2 mm</td>
<td>1 pc.</td>
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<td>PU 6</td>
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<tr>
<td>85 003</td>
<td>Diamond engraving pencil (engraver)</td>
<td>1.4 mm</td>
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<td>85 004</td>
<td>Diamond engraving pencil (engraver)</td>
<td>1.6 mm</td>
<td>1 pc.</td>
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<td>PU 6</td>
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<tr>
<td>85 005</td>
<td>Diamond engraving pencil (broad engraver)</td>
<td>2.3 mm</td>
<td>1 pc.</td>
<td>SS set</td>
<td>PU 6</td>
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<tr>
<td>85 008</td>
<td>Diamond engraving pencil, oval</td>
<td></td>
<td>1 pc.</td>
<td>SS set</td>
<td>PU 6</td>
</tr>
</tbody>
</table>

Diamond pencil assortment

The practical plastic case contains all important engraving diamond pencils, these being

- 1 tracer 1.0 mm Ø,
- 1 pre-engraver 1.2 mm Ø,
- 1 diamond of each size 1.4 mm, 1.6 mm and 2.3 mm Ø
- 1 surface grinder, oval.

This provides you with a universal tool assortment.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Set Size</th>
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<tbody>
<tr>
<td>85 009</td>
<td>Diamond pencil assortment</td>
<td>6 pcs.</td>
<td>SS set</td>
<td>PU 3</td>
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</table>
Corundum abrasive pencils
These are small abrasive pencils made of extra hard, green corundum. The design of these tools was selected such that the engraved lines and areas created can be subsequently filed and leveled.

Therefore, some of these files also have a conical spherical or oval shape. This enables the leveling of both lines and areas. In addition you have a circular pencil, the wheel, at your disposal. This levels and files wide lines and bands. This takes place using an electric engraving device.

Diamond liner “Wheel” 8 mm Ø - 2 mm breit
By using this special engraving instrument in conjunction with an electric engraving device, you can create evenly proceeded lines on the glass which can be used for decorative edgings, borders or as abraded elements.

Corundum abrasive pencil assortment
This assortment package comprises the most important tools for glass engraving, these being:
- 2 corundum abrasive pencils (in size small and large)
- 1 corundum abrasive pencil, spherical, 4 mm Ø
- 1 corundum abrasive pencil, oval, pointed
- 1 corundum abrasive pencil, oval 7 x 3 mm
- 1 corundum abrasive pencil, wheel, 8 mm Ø – 2 mm

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85 010 Diamond liner “Wheel” 8 mm Ø - 2 mm wide 1 pc. SS set PU 6

85 011 Corundum abrasive pencil, conical, small 1 pc. SS set PU 6
85 012 Corundum abrasive pencil, conical, large 1 pc. SS set PU 6
85 013 Corundum abrasive pencil, spherical, 4 mm Ø 1 pc. SS set PU 6
85 014 Corundum abrasive pencil, oval, pointed 1 pc. SS set PU 6
85 015 Corundum abrasive pencil, oval 7 x 3 mm 1 pc. SS set PU 6
85 016 Corundum abrasive pencil, wheel, 2 mm Ø 1 pc. SS set PU 6

85 019 Corundum abrasive pencil assortment, set of 6 SS set PU 3
Carbide graver (titanium pencil)
The glass objects are pierced using the extra hard steel graver. Piercing is one of the oldest techniques of this glass design. Tiny pieces of glass of different sizes are broken out of the glass. An image structure is created depending on the size and distance between the resulting pinpoint depressions. This is comparable to an image grid, a graphically designed picture consisting of lots of small and large points.

As this tool is subject to extremely hard wear by constant impact on the hard glass, only extra hard titanium is suitable for the steel graver. It is clamped into a particularly robust engraving pencil holder, the pencil clamp.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Size</th>
<th>Manufacturer Code</th>
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</thead>
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<tr>
<td>85 018</td>
<td>Carbide graver (titanium pencil)</td>
<td>1 pc.</td>
<td>150 mm</td>
<td>SS set PU 3</td>
</tr>
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</table>

Engraving pencil holder
Strong, robust clamping tools are required, in which the engraving tools can be firmly and reliably held. They are the guided over the glass, just like a pencil. Two different holders are available:

Engraving pencil holder (Standard)
The engraving pencil holder is equipped with a strong clamping mechanism. That is released by pressing the button at the end of the holder and the tool can be easily slipped into the shaft. Let the button loose to firmly lock the tool in the holder.

Engraving pencil holder, 150 mm long.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>85 021</td>
<td>Engraving pencil holder, 150 mm long</td>
<td>1 pc.</td>
<td>150 mm</td>
<td>SS set PU 6</td>
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</table>

Engraving pencil holder “Profi”
A particularly strong metal holder is used for professional applications. The collet at the tip of the holder is unscrewed slightly to slip the tools into the shaft. The clamping device inside then opens and the tool can be inserted. After this the collet is screwed tight again. The tool is seated firmly in the holder. A magazine for 4 – 6 engraving tools is situated at the rear end of the holder.

<table>
<thead>
<tr>
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<th>Quantity</th>
<th>Size</th>
<th>Manufacturer Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 022</td>
<td>Engraving pencil holder “Profi”, 120 mm long</td>
<td>1 pc.</td>
<td>120 mm</td>
<td>SS set PU 6</td>
</tr>
</tbody>
</table>

Pencil clamp
The pencil clamp made of strong steel enables the fastening of two tools, which can be inserted into the holder on both sides. For this the lateral screw caps are screwed on, the tools are inserted into the open chucks and the collets are turned back again. The tools are firmly seated in the holder. It is of advantage that there are two tools inside, thus saving the usual multiple tool changing.

Knurled nickel-plated handle with hexagonal ends and hardened chucks. Length 105 mm.

<table>
<thead>
<tr>
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<th>Quantity</th>
<th>Size</th>
<th>Manufacturer Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 023</td>
<td>Pencil clamp, 105 mm long</td>
<td>1 pc.</td>
<td>105 mm</td>
<td>SS set PU 6</td>
</tr>
</tbody>
</table>
Glass engraving

Glamour glass engraving tool set
A practical complete set that not only includes the robust engraving pencil holder but also the most important engraving tools for the manual production of beautiful glass engravings.

The set is also referred to as the travel set. This is justified because the engraving tools can be easily slipped into the pencil cup of the holder and reliably stored there. This enables the glass engraving to be done anywhere and at any time.

The set contains
1 professional engraving pencil holder
1 diamond engraving pencil 1.0 mm Ø (tracer),
1 diamond engraving pencil each of sizes 1.2 and 1.4 mm Ø (engraver
1 corundum abrasive pencil each in sizes small, conical, large and round

Electric glass engraving device “Arte” (battery-operated)
It is fun creating successfully engraved glass images with this lightweight, ergonomically shaped electric engraving device. It is equipped with a practical snap-out fastener, into which the required tools can easily be inserted and removed again at any time. This enables easy tool changing. Furthermore it is built such that light pressure of the finger is sufficient to switch the device on and off during engraving.

Two round 1.5 volt batteries are required to operate the electric engraving device “Arte”, which are placed into the holding device of the handle.

The set contains
1 electric engraving device “Arte”
1 engraving diamond 1.0 mm Ø (tracer)
1 engraving diamond 1.4 mm Ø (engraver)
1 corundum abrasive pencil, conical

Glass engraving beginners set
This set contains the complete basic equipment for manual and electric glass engraving. A practical gift set, which is also equipped with a glass image plate and the eyelets and chain required for hanging up as well as an engraving pattern.

The set contains
1 electric engraving device “Arte”
1 engraving diamond 1.0 mm Ø (tracer)
1 engraving diamond 1.4 mm Ø (engraver)
1 corundum abrasive pencil each in conical and round
1 glass image plate 180 x 120 mm with holes for hanging up
1 decorative chain, 30 cm long
2 eyelets for hanging up
1 set of engraving instructions
1 pattern sheet with numerous patterns
Tool set “Glass engraving”
This beginners set enables you to start off in the art of glass engraving. The tools required are in the practical plastic case, in which they can be stored after use for safe protection.

The set contains
1 engraving pencil holder, standard
1 diamond engraving pencil 1.0 mm Ø (tracer),
1 diamond engraving pencil 1.4 mm Ø (engraver)
1 corundum abrasive pencil, conical, small
1 set of engraving instructions with
9 engraving patterns

High-performance grinder “Foritan” with transformer 12 V/A
The right engraving device for professional glass engraving. The high-performance grinder is delivered with an adapter for a 230 V mains connection and has all safety certificates. It works at 15,000 rpm, whereby the speed can be infinitely adjusted by means of a controller, which is an advantage! It can therefore also be universally used for all other miniature tools. Therefore a clamping device with three replaceable clamping inserts, into which the tools with different shaft diameters from 2.3 to 3.4 mm Ø can be inserted, and a 230 V 12 V/A adapter are included.

The device is delivered with the following accessories:
3 clamping inserts
1 engraving diamond 1.2 mm Ø
1 corundum pencil, conical
1 set of instructions for use

Glass engraving hobby package
With the contents of this excellent hobby package you not only receive the basic tool package but also the necessary glass items. This enables you to immediately start off with your first engraving attempts on a glass image plate and a decorative glass.

1 engraving pencil holder (standard)
1 diamond engraving pencils (1.0 + 1.4 mm Ø)
1 corundum pencils conical and round
1 glass polisher/reamer
2 beautiful decorative/drinking glasses
1 oval glass image plate
1 decorative chain with eyelets
1 felt cloth 250 x 250 mm
1 pattern folder with engraving motifs
1 set of processing instructions
Glass image plates

Thin glass image plates are best suitable for glass engraving. These are 2 – 2.2 mm thick float glasses, which are softer than normal window glass due to their manufacture and are therefore easier to engrave.

These glasses are available in various image formats. And so that they not only look good and you do not injure yourself while engraving, they are also all equipped with attractively ground edges. And another important thing: all engraving plates have two holes for hanging up, into which small eyelets can be hooked for the fastening of a decorative chain (suspension chain).

... and yet another important thing: the glasses are packed pair-wise for safe and undamaged transport!

Decorative chain with 2 fastening eyelets

A small decorative chain, which is fastened by means of two metal eyelets in the suspension holes of the glass plate, is used to hang up the engraved glass image plates.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
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<tbody>
<tr>
<td>85 148</td>
<td>Glass plate for practice</td>
<td>2</td>
<td>pcs.</td>
<td>SS set PU 6</td>
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<tr>
<td>85 151</td>
<td>Glass image plate with 2 suspension holes 100 x 150 mm</td>
<td>2</td>
<td>pcs.</td>
<td>SS set PU 6</td>
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<tr>
<td>85 152</td>
<td>Glass image plate with 2 suspension holes 180 x 115 mm</td>
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<tr>
<td>85 153</td>
<td>Glass image plate with 2 suspension holes 200 x 145 mm</td>
<td>2</td>
<td>pcs.</td>
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<tr>
<td>85 162</td>
<td>Glass image plate with 2 suspension holes 160 mm Ø</td>
<td>2</td>
<td>pcs.</td>
<td>SS set PU 6</td>
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<tr>
<td>85 163</td>
<td>Glass image plate with 2 suspension holes 180 mm Ø</td>
<td>2</td>
<td>pcs.</td>
<td>SS set PU 6</td>
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<tr>
<td>85 172</td>
<td>Glass image plate with 2 suspension holes 180 x 130 mm oval</td>
<td>2</td>
<td>pcs.</td>
<td>SS set PU 6</td>
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<tr>
<td>30 991</td>
<td>Glass image decorative chain 30 cm long with 2 fastening eyelets</td>
<td>1</td>
<td>set</td>
<td>SS set PU 6</td>
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<tr>
<td>30 992</td>
<td>Glass image decorative chain 50 cm long with 2 fastening eyelets</td>
<td>1</td>
<td>set</td>
<td>SS set PU 6</td>
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</tbody>
</table>
**Lead bands (self-adhesive)**

Engraved glass plates look trendy when they are decorated with a classic lead frame. The rustic lead profiles used in the past have been replaced today by supple self-adhesive lead film. For this, the glass plate is placed centrally on the rolled-out lead band and positioned on the left and right around the edge of the glass as a border.

<table>
<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>28 746</td>
<td>Lead band (self-adhesive)</td>
<td>8 mm</td>
<td>5 m</td>
<td>SS set</td>
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<td>28 747</td>
<td>Lead band (self-adhesive)</td>
<td>8 mm</td>
<td>33 m</td>
<td>SS set</td>
<td>PU 3</td>
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<tr>
<td>28 748</td>
<td>Lead band (self-adhesive)</td>
<td>12 mm</td>
<td>5 m</td>
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<td>28 749</td>
<td>Lead band (self-adhesive)</td>
<td>12 mm</td>
<td>33 m</td>
<td>SS set</td>
<td>PU 3</td>
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</tbody>
</table>

**Acrylic panels**

The smooth, almost unbreakable plastic panels consist of crystal-clear acrylic and can be excellently engraved. The tools required are identical to those used for glass engraving. The square acrylic panels have a hole on three sides, ideally suitable for hooking in the suspension eyelets. This enables the panels to be hung up either vertically or horizontally.

All acrylic panels have a protective film, which must be removed before use. The film prevents scratching of the sensitive engraving side.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>30 901</td>
<td>Acrylic panel with 3 suspension holes</td>
<td>105 x 148 mm</td>
<td>SS package</td>
<td>PU 12</td>
</tr>
<tr>
<td>30 902</td>
<td>Acrylic panel with 3 suspension holes</td>
<td>148 x 210 mm</td>
<td>SS package</td>
<td>PU 12</td>
</tr>
<tr>
<td>30 903</td>
<td>Acrylic panel with 3 suspension holes</td>
<td>210 x 297 mm</td>
<td>SS package</td>
<td>PU 12</td>
</tr>
</tbody>
</table>

**Bold tracing paper/carboncopy paper**

The bold tracing paper enables the transfer of image motifs onto glass, mirrors etc. The tracing paper is placed underneath the pattern onto the mirror and the contours are transferred to the glass using a pencil or ball-point pen. You can then engrave the yellow lines...

The package contains 5 sheets of bold tracing paper sized 190 x 165 mm.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Quantity</th>
<th>Package</th>
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</tr>
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<tbody>
<tr>
<td>04 101</td>
<td>Bold tracing paper/carbonless paper</td>
<td>5 pcs.</td>
<td>SS set</td>
<td>PU 6</td>
</tr>
</tbody>
</table>
Glass engraving

Decorative glasses
A further range of engraving options is offered by the engraving of drinking or decorative glasses. And to make sure these glasses can be engraved well, a selection of excellent glassware is available that is not only practical but also offers universal use options.

85 125 Decor glass “Pied Anis” 105 mm tall Package PU
85 145 Decor glass “Chiquito” 58 mm tall Package PU
85 146 Decor glass “Elisa” 108 mm tall Package PU

Verre 3D Metallic
The drinking or decor glasses decorated with initials look even more precious after being post-treated with Verre 3D Metallic. For example, if a classic gold tone is used, the engraving in the glass comes out more perfectly and effectively. Verre 3D is a high-quality metallic paste, which is applied to the engraved surface directly from the bottle or by means of a small sponge and then sets to a hard glass finish.

Application hint:
Apply Verre 3D Metallic thinly to the engraved surface (done using a soft sponge). After setting, the glass surface is carefully rubbed down with waterproof abrasive paper (grain 800). The color on the glass surface is finely ground off, only remaining in the engraved areas.

78 220.81 Verre 3D Metallic silver Pen bottle PU 6
78 220.83 Verre 3D Metallic Indian gold 50 ml Pen bottle PU 6
78 220.85 Verre 3D Metallic red gold 50 ml Pen bottle PU 6
78 220.87 Verre 3D Metallic copper 50 ml Pen bottle PU 6

Verre 3D Metallic is also available in the following colors: 08 hyacinth, 11 Siam (fire opal), 26 Capri blue, 33 scarab, 36 emerald green, 62 orange and 78 anthracite.

Application sponge 50 x 20 x 20 mm
Small elastic soft special sponge, excellently suitable for the application and rubbing in of Verre 3D Metallic.
- Size: 50 x 20 x 20 mm
- Finely pored

49 161 Application sponge 50 x 20 x 20 mm fine (2 pcs.) SS set PU 6
Glass engraving “Fascination in glass”
(Klaus-P. Lührs/Alexandra Häfele/Margot Forlin)

This instruction and pattern folder with more than 60 engraving patterns to suit all requirements and levels of difficulty forms the basis of experiencing glass engraving. You will find unique patterns there, which look both beautiful and stylish, starting from simple step by step engraving exercises through to perfectly designed artistically engraved images. The folder also contains example pictures that not only look artful but also provide ideas for your own designs. This enables you to see what finely engraved glass containers can look like.

But this pattern folder has more to offer. The enclosed instructions give a step by step description of glass engraving. You will learn all about cutting, carving, stippling and grinding of engraved image fields. This unites theory and practice, enabling you to become acquainted with an extraordinary handicraft.