



TIFOO

GALVANO-BRUSH - basic kit and starter kit

MANUAL

GALVANO-BRUSH PLATING KITS



Galvano-Brush - basic kit



Galvano-Brush - starter kit

Preparation

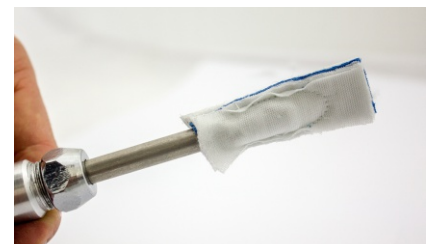
First of all, choose a proper workplace. Avoid places where you store food (in order to avoid contamination) and if possible choose a well-ventilated room. A small workshop, a laboratory or a garage are fine.

A key component of each plating kit is the power rectifier, which is powered by AC (220 V). On the rectifier there are two displays, one for the voltage (in volts "V") and one for the electric current (in amperes "A"), near to the displays there are the knobs which serve for the adjustment. Below there are two outlets, the red is positive (+), the "anode", while the black is negative (-), the "cathode". The output of these poles is direct current (DC). It is possible to adjust the voltage (0-15 V) and the current (0-2 A) outputs with the two knobs. Near the two outlets is the main switch. Together with the rectifier two connection cables with the suitable jacks (one red and one black), an alligator clip for the black cable and a stainless steel tray that serves as a work surface are supplied.

Example: Gilding of a hookah made of stainless steel

Caution: always use eye protection when using chemicals.

First of all insert the graphite rod anode in the holder. Unscrew the nut of the metal support, plug the rod anode through the rubber ring and then tight the nut. Insert then the swab on the anode: this requires a bit of manual skill, since it is necessary to do exert some force in order to mount it properly.



Assembling the brush

Connect now the brush that you just assembled to the red socket (anode) using the red wire. Connect the black wire to the black socket and connect the other end to the alligator clip. The latter can be directly connected to the piece that you intend to treat or to the metal tray, in this case you'll have to pay attention so that the workpiece is always in contact with it when you do the electrodeposition (there must be electrical contact).

Pour now the gold plating solution Tifoo FLASH (suitable for deposition on stainless steel) in a small container and then immerse the swab of the brush into it, in such a manner that the swab is thoroughly soaked with electrolyte. Now, adjust the current regulator (Ampere, "A") to its maximum and turn the voltage regulator (Volt, "V") to zero.



Connect the brush with the power supply



Connect the workpiece with the alligator clip

Make sure that the power rectifier is turned off. Turn now the current knob completely off and adjust the voltage to zero. Now turn on the power supply and increase the value of the voltage until you reach the appropriate value (the right value is reported in the manual of the plating solution you are working with), in this case 10 V. At this point put the swab in contact with the object that you are going to treat (in our example a hookah), the contact let the current flow, so the display should now indicate a value greater than zero. After a while the gold deposition starts. Apply the electrolyte with a circular motion of the swab, so that the gold coating takes place; when the deposition slows down significantly, dip the swab back in the electrolyte solution and continue with the deposition. Repeat the procedure until you completely cover all the parts of hookah.

Turn off the power supply. Don't pour the used plating solution again in the bottle, as it contains now only a small amount of gold. Pour it into a separate container. If you have used the whole bottle, then you can pour the electrolyte in it again and take it to the recycling center for disposal.



Conductive silver spray

The starter kit includes two plating solutions (copper and gold) and a conductive silver varnish spray. The varnish can be used to make non-conductive materials such as plastic conductive, and allows to treat them further with electroplating methods.

Clean and degrease the plastic surface that you want to treat properly and then spray the conductive paint on it. Let it dry for at least five minutes and then proceed with the electrodeposition of bright copper. When you make the connection to the power rectifier, be careful not to scratch the conductive paint and damage the conductive layer. To avoid scratches, which could affect the final result, you can for example attach the object to a loose metal wire. Further details can be found in the manual of the conductive silver paint. If the conductive varnish is rubbed off, we recommend a bright copper plating by immersion plating. Then you can go on plating with the Brush.

Anodes

For gold plating employ the graphite anode. The copper anode should instead be exclusively used for copper-plating.

Helpful hints

If you do not observe any current and / or the deposition does not happen, check that all the contacts are properly set → is the object in contact with the metal tray? Avoid too high voltages and currents, as they cause an uncontrolled deposition - the risk is that the objects will take on an opaque / dark color and that will look ugly. Make sure to use correct values of voltage and electric current and with a little practice you'll get good results. With the brush plating you can realize your custom creations, create some presents or customize metal objects (musical instruments, jewelry, decorations, mechanical parts made from metal or others).

Check our website <http://www.tifoo-plating.com>! You will find our complete catalog and a photo gallery that shows many of the applications that are possible with our products.

Promotion

Our company is officially supported by the European Union



European Union

European Regional
Development Fund

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