



TIFOO

Tank plating kit deluxe

MANUAL

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General ideas

The Tifoo Tank plating set deluxe meets all the requirements one has for a modern electroplating system for small objects. The high flexibility and variability allows you to use plenty of different electrolytes, anodes, power sources and receptacles. The innovative design avoids all kinds of cable tangles and allows a freely selected arrangement of the anodes and workpieces. Both the anodes and the cathodically connected workpiece can be moved freely according to your needs.

Furthermore, it is possible to integrate stirring devices, heating and filter systems without any problems - always in an individual way according to your demands. Rounded off by plenty of useful accessories, it is possible to keep the electrolytes after the procedure for later use.

Application field

This system in general can be used with every Tifoo electrolyte for tank plating.

Choosing the right anodes

According to the electrolytes, different anode/electrode material can be used. The following table shows which material is best used for the corresponding application.

Which anode for which electrolyte?	
Step/electrolyte	To be used with
Goldplating / gold electrolyte	graphite anode
Goldplating on stainless steel / gold electrolyte "FLASH"	graphite anode
Silverplating / silver electrolyte	sheet silver
Copperplating / copper electrolyte	copper anode
Rhodiumplating / rhodium electrolyte	graphite anode
Nickelplating / nickel electrolyte	nickel anode
Bronze plating / bronze electrolyte	graphite anode
Chromeplating / chrome electrolyte (not recommended for immersion)	aluminium sheet anode
Zincplating / zinc electrolyte	zinc anode



"TifooTank plating kit de luxe" - Specifications

Measurements: 35 x 30 x 25
(height x width x length)

Interchangeable anodes: yes

Adjustable power supply: not included. 3A and 10A are available.

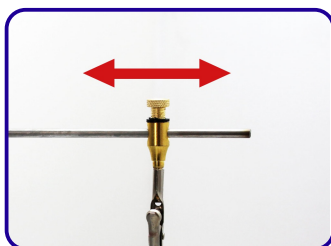
Support for the workpiece: easily interchangeable, plug-in system

Constructing and using the tank plating set deluxe

Please follow the nine following steps for constructing the galvanic device and putting it into service.



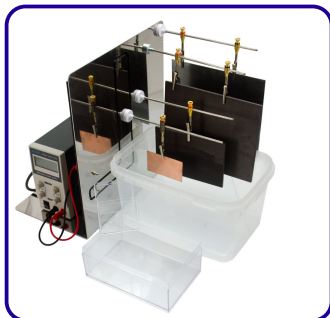
1 Please put the angle on a flat and stable support. Put the corresponding power supply (3A or 10A) onto the inside and plug it in. Screw the bars made of stainless steel (included in the set) into the threads of the magnetic supports and put one of the bars into the inner "L" - this is the cathode and onto this bar, the workpiece has to be clamped. You can go on like this with the other corresponding anode bars, but they have to be put on the surface electrically isolated by the "L".



2 This system allows you to move the anodes and objects freely - also in longitudinal direction of the bars. Put the included banana connectors onto the bars as seen in the picture. In order to do so, unscrew the head until you can thread the support to the bar. Clamp the connector afterwards on the desired spot. Proceed like that also with the other bars.



3 You can clamp also various fasteners or clips (see point 5) to the banana connectors (beside the included alligator clips) - the only precondition is a corresponding banana socket or another suitable conductive connection. After choosing the clips, you can fasten the anodes, for example in the way you see in the opposite picture. The two anodes you see aren't obligatory, as you can alternatively turn the object in question after a while and only work with one anode.



4 This system allows you to use various sizes of anodes and tanks. You can use either the included 1l electroplating tanks, or the "Big electroplating tank" by Tifoo (designed for the use of 2-5l of electrolyte), which you can easily purchase in our online shop if required. But also completely different receptacles (for example 10l buckets for big objects) can be used thanks to the many degrees of liberty of positioning. The same thing goes for the anodes. Both the material and the size can be freely chosen and interchanged without any problems thanks to the easy plug-in system. For the 250ml tanks, we recommend our 8cm x 5cm anodes, for 1 litre receptacles those with the measurements 15cm x 10cm.

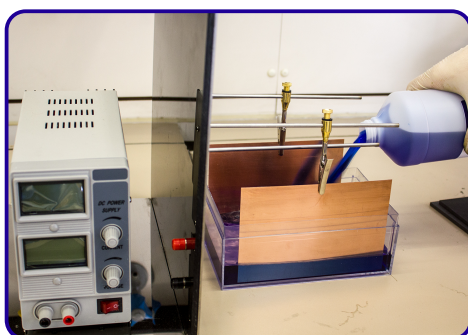
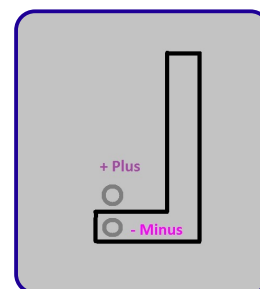


(Not included)

5 You can fasten the anodes and workpieces according to your needs with many different kinds of clamps, hooks and eyes. You can also fasten other fasteners like for example cable lugs with hooks, springs or clips. Be sure of a stable and especially conductive connection. The anodes can easily be clamped with the included alligator clips.

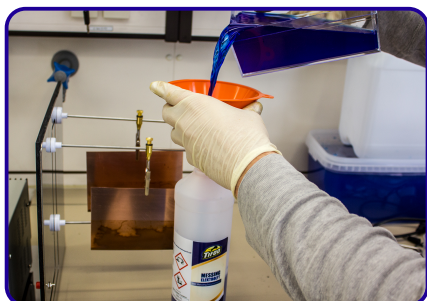


6 Another advantage of this construction is the substantial reduction of the necessary cables. Plug the two cables into the corresponding sockets. Connect the positive pole with the upper socket and the negative pole with the lower socket (anode).



7 The electroplating goes according to the corresponding electrolyte (see corresponding instructions). Move the anodes or the anode (for example copper anodes for a copper electrolyte) into the tank and fill it carefully with the electrolyte in question.

8 After the procedure, you can either pour the electrolytes back into their bottles with the included tools, or let them in the receptacle and close it well with the top. When you pour the used plating solution back into the bottle, please get rid of impurities by decantation. If the solution has become murky, filter it or wait until the suspended matter deposits on the ground and do not whirl it up.

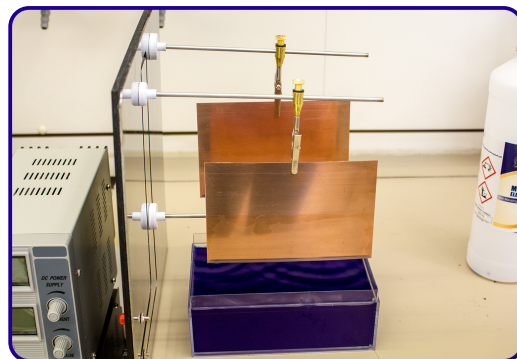


9 You can pour the rest of the liquid afterwards into a bottle or canister with a funnel. Be careful and wear appropriate protective clothes and equipment. You can, for example, find protective glasses in our online shop.

Further tips and tricks

Choosing, fastening and maintaining the anodes

This system can be used with all available anodes. Generally speaking, you can choose between the one-anode method (lower picture) and the two-anode method (upper picture). The advantage of the two-anode method is that the object hanging in the middle gets galvanized from both sides - evenly and with a homogeneous distribution of current density. However, the electroplating does also work with only one anode. In this case, you just have to turn the object after a while. The used anodes have always to be washed thoroughly after use and to be stored as dry as possible. For the work with big anodes (20cm x 17cm) for a 5l bath, we recommend working with two clips (see picture). For the graphite anode, we further recommend working with the strong neodymium magnet (zincplated, included in the set) in order to be able to hold the higher weight better.



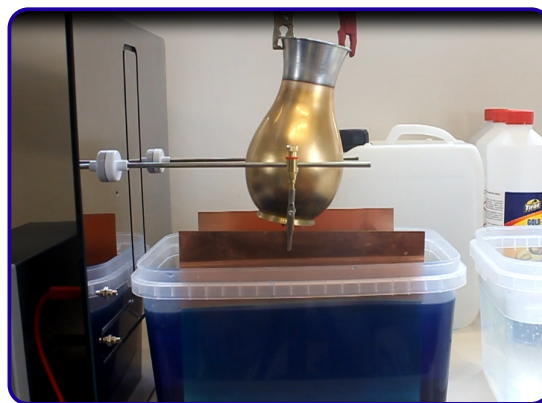
Application examples

Working with the medium sized galvanic tank (for electrolytes up to 1000 ml)

With the medium sized galvanic tank, you can electroplate objects like small flowers, prototypes, small construction pieces, watches, jewellery and similar things. Please use the electrodes of 15cm x 10cm in order to work with objects which fill the receptacle.

Working with the big galvanic tank (for electrolytes up to 5000 ml)

Always use the big sized tank for electroplating when you have purchased, for example, a 5 litre canister of any Tifoo electrolyte. You can easily find the big sized tank in our online shop (category "accessories"). The closable tank also allows the liquid storage for the resumption of the work. It also enables you to electroplate bigger objects like, for example, vases, picture frames or car and motorcycle parts. For heavier objects that you want to dip into the bath via the rail, please use the included strong neodymium magnet with a retention force of about 7kg or, for even heavier parts, the magnetic support with a retention force of 18kg and the stronger thread pole. The components are available in the category "electroplating accessories" in our online shop. In the example below, we have achieved the bronzing of a tin vase using the 5 litre bath and the two 20cm x 17cm copper sheets on both sides. Using very little current densities ($0.3A/dm^2$), we achieved a visually very appealing result in only a few minutes. Please apply the Tifoo metal polish always after electroplating in order to give the objects a gleaming finish.



Accessories for the tank plating kit "deluxe"

In order to round off the tank plating kit "deluxe", there are plenty of accessories (not included in the set) which allow you to adapt the work with this system even more to your personal needs. Please visit our online shop (www.tifoo.de/shop).

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Sponsoring

Our company is officially sponsored by the European Union.



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