

1. What is electromarking?

Electromarking is electrochemical etching of metal surfaces using a small amount of electric current, an electrolyte, a marker with pad to hold the electrolyte and carry the current and a stencil with the required image.

2. Electromarking facts (fast, cheap, simple, safe and high-quality)

Electromarking is the fastest technique for permanent marking of conductive metal surfaces. It produces a sharp, clean, attractive and economical mark without damaging, stress or distorting of the piece which is marked. The print is durable and edgeless. There is no corrosion or other negative effect on the material. The process takes only a few seconds and the marks are about 0.025 mm deep. Depending on the function, and electrolyte selected you can achieve clear etch marks, black oxide marks or white marks on chemically blacked components.

The shape of the piece can be flat, round, solid or hollow, assembled or untight.

The equipment is very reliable, longlasting and suits to many industrial needs.

The whole process is very simple, doesn't require a lot of space, can be performed during the manufacturing or before the delivery, doesn't require any special training and it is very safe.

3. Where you can use electromarking?

The wide range of manufactures use electromarking. The process is used extensively to mark cutlery, tools, taps, drills, saw blades and the automotive and air industries. Also small businesses, hobbyists and artist can use electromarking.

4. Electromarking equipment

a. *Marking device*

This unit you can find in more variants depending of size and specific needs. The basic models are different by possible operating modes, controllers for automatic or semi-automatic operation etc.

b. *Marker with pad*

Markers with pad can be manual, semi-automatic and automatic operation. They are used to hold the stencil, the supply of electrolyte as well as closing an electric circuit in order to piece be marked.

c. *Stencil*

Small, thin piece of special material containing the required design. There are two basic models: longlasting stencil with high resolution (can be used up to 5000 marks) and short (fast) stencil for quick marking in small series.

d. *Electrolyte*

These harmless salt solutions are used for conduction of current and necessary chemicals for clear each marks or black or white oxide marks.

e. *Cleaner*

These solutions are used for removing the rest of the electrolyte after the marking in order to reduce corrosion.