USER GUIDE

MiniEtch EU80

The etching system works by passing a low-voltage current (only about 8V) through a pre-printed stencil.

The current is transferred through the gaps in the stencil using a harmless electrolyte fluid. The imprint on the stencil is transferred onto the product in around 2-3 seconds by pressing the marking head onto the part, with the stencil in between.

Therefore, the mark is actually etched into the instrument and is therefore very durable. However, this process does not create any stress points, raise the surface or damage the instrument and has been used for many years to mark instruments by instrument manufacturers worldwide.

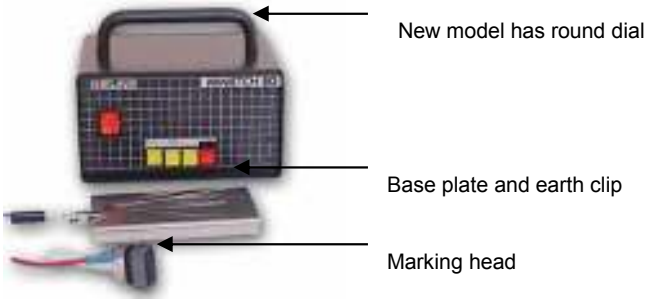
Following is a description on how the system is used.

1. Plug everything in and switch it on

2. Print your stencil or choose a long-life pre-printed stencil

3. Wet the marking stamp with some fluid

4. Mark the part using the required stencil



EU80 with base plate and marking head

Connections

1. Firstly, connect the power plug to a power socket. Plug the red and blue wires into the sockets at the back of the unit

2. Clip the blue lead alligator clip to a metal plate or.....

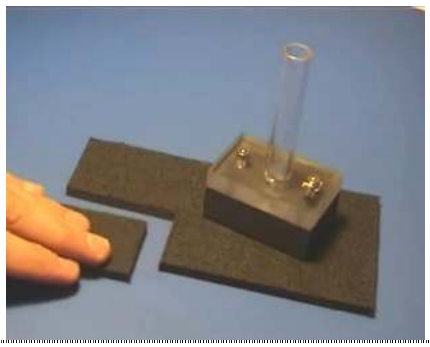
3. .....directly onto the part

4. Clip the red lead to the marking head.

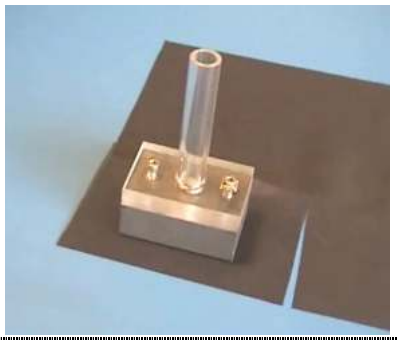
Assembly of a marking head

The marking head holds a felt pad and a thin mesh which improves the print quality

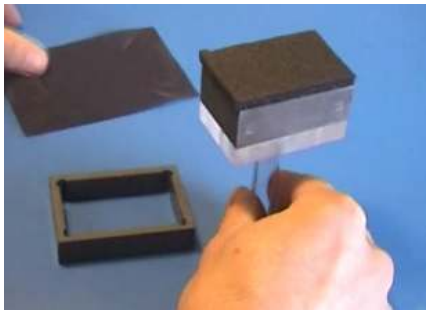
1. Cut Felt to the exact area of the marking head



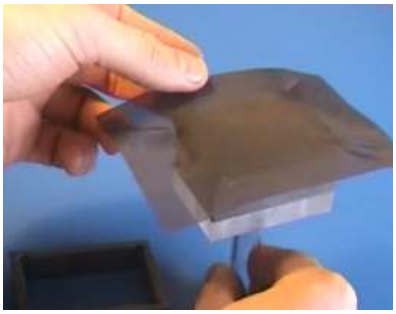
2. Cut Net to overlap the area of the marking head by about 15mm on all sides



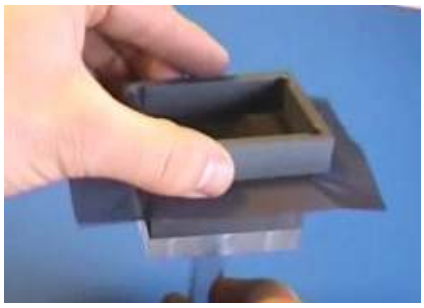
3. Place the felt pad on the marking head



4. Place the net over the felt, overlapping the sides of the marking head



5. Place the grey "cassette" on the marking head and press down firmly



6. The conductive net will be clamped down, holding the felt in place.

Switch on unit and select correct power

1. Switch the unit on (red toggle switch)

2. Select 8V on the front panel

Wet Marking head with electrolyte

Before marking we need to apply some “electrolyte”. This liquid (known as "electrolyte") is used to transfer the low-voltage current through the gaps in the stencil (the imprint).

Simply wet the marking head with electrolyte. The electrolyte usually only needs to be re-applied every 10-15 etchings.

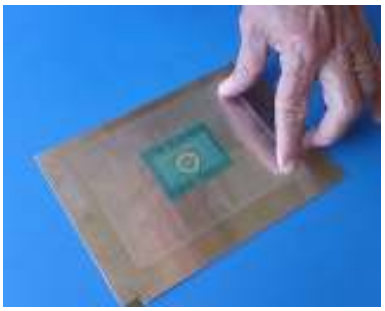
2. You may prefer to use a small container and dip the marking head into it, then “squeegee” against the side of the contained so that it is well wetted but not dripping.

☞ **Use the correct electrolyte to suit your material**

Making a mark

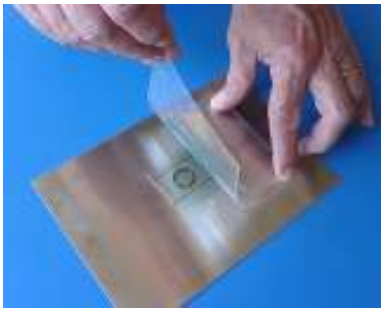
Typically, a mark only takes a few seconds to etch, however this may depend on a number of factors and you should experiment on some scrap material before etching your actual parts

1. Place the part on the base plate and place the stencil on top.



2. Place the marking head on top and press firmly for 2-3 seconds (or possibly more)

3. Mark is etched. You can carefully lift the stencil and check the etch in case you want to re-etch it.



4. After marking is done, remove excess electrolyte from part.

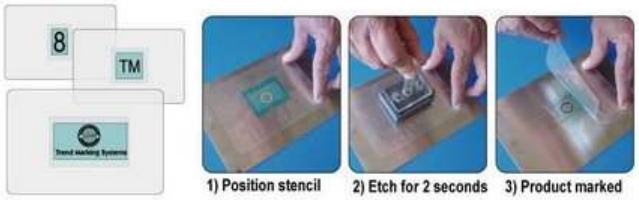
☞ **Avoid touching the material directly.**

Types of stencils

Various types of stencils are available depending on the type of information you wish to etch onto your parts. A combination of stencils will allow you to etch both fixed and variable information - whether high-resolution company logos, compliance labels or serial-numbers and plain text.

1. **Long-life Stencils**

For frequent marking of fixed information, high-resolution logos, symbols, or text.Stencils last 1000-3000 etchings each. Custom made to your specifications.

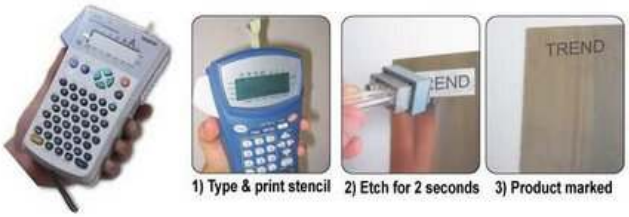


2. **Medium-life stencils**

For repeat marking of fixed information, high-resolution logos, symbols, or text.
Stencils last 50-80 etchings each. Custom made to your specifications. Fast delivery

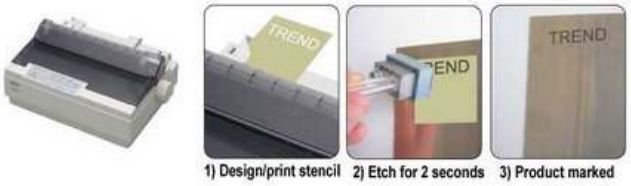
3. **Handheld Stencil Printer**

For short-run marking of information which frequently changes, like serial numbers
Stencils last 5-10 etchings before another should be printed



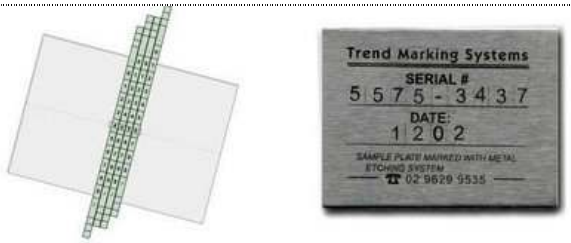
4. **DotMatrix Stencil printer**

For short-run marking of information which frequently changes, like serial numbers
Stencils last 10-20 etchings before another should be printed. Logos possible.



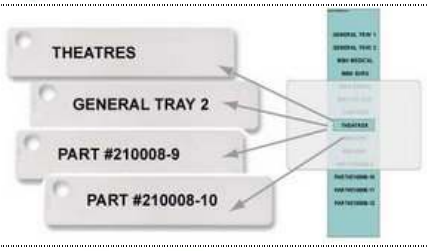
5. **Variable Numbering Stencil**

Dial-up sequential information, such as serial numbers or dates.
A band contains 0-9 or A-Z, each digit etches 1000-3000 times.



6. **Permanent Stencil Strips**

For frequent marking of larger lists of fixed information, such as part numbers.
Each line etches 1000-3000 parts. Custom made to your specifications



7. **Variable Numbering Head**

Dial-up sequential information, such as serial numbers or dates.
A band contains 0-9, A-J, K-R, S-Z, each digit etches 1000-3000 times.

Troubleshooting Guide

Please follow the procedure below should you encounter difficulties with the EU80 MINIETCH etching unit.

Symptoms:

- The etching quality is poor
- No print on the part at all
- “Ghost” mark on the part rather than black mark

Common causes:

- Connections loose/poor contacts
- Surface material/coating not compatible
- Dry marking pads
- Incorrect power setting
- No power to/from unit (unit not plugged in/fuse)
- New permanent stencil not yet worn in

Testing:

1. **Check machine settings/connections**
    - 8V selected (3 green lights + AC selected for EU100 models)
    - Red power light on
    - Red lead plugged in to red socket and to marking head
    - Blue lead plugged in to black socket and to earthing plate
2. **Check felt pad/electrolyte**

- Felt pad feels “spongy”
- Felt pad is wet

➢ If encountering difficulties it is advisable to change you felt pad and conductive net.

3. **TEST-MARK**

- Select a PERMANENT TEST STENCIL*
- Marking time should be approx. 2-3 seconds only.
- Follow procedure below to make a comparison mark onto a stainless steel sample plate (or directly to the base-plate).

**These are available from Trend if requested. Alternatively use a known good stencil*

Troubleshooting Flowchart