



CHEMICAL ETCHING EQUIPMENT





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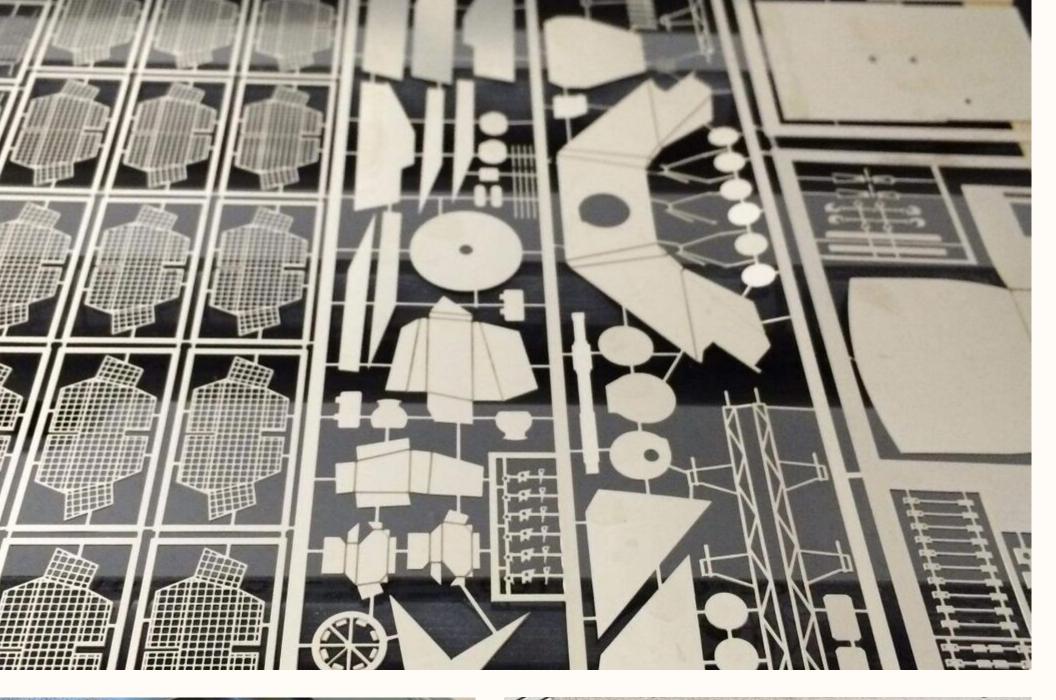
#### WORLD LEADERS IN ETCHING TECHNOLOGY

Masteretch design and manufacture chemical etching equipment. From small-scale laboratory machines to large mass production etching lines, Masteretch serve a wide range of industries.

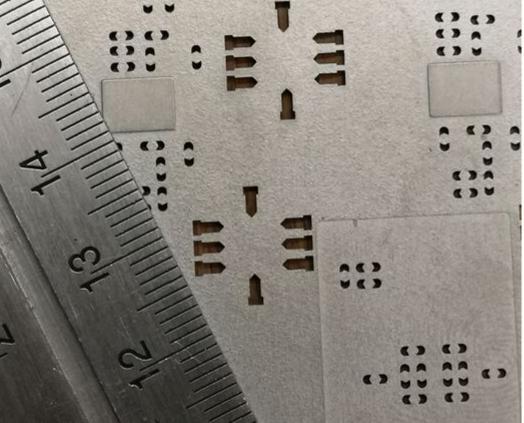
Beyond our core range of equipment we can also deliver tailored etching solutions designed to meet your unique requirements. Our expertise in fabrication and design allows us to offer a high degree of customization to help our customers achieve their objectives.

Masteretch systems are expertly designed, assembled in-house at our UK facility and fully tested prior to shipping. Our equipment is designed to operate at maximum efficiency and for long term use at high volume production levels. Masteretch systems renowned for their are dependability, and low operating maintenance costs, making Masteretch the equipment supplier of choice for many of the world's leading etching companies.









# PHOTOCHEMICAL MILLING

Chemical milling is a high precision process used to produce complex parts and components out of sheet metal. In the chemical milling process the artwork is applied on both sides of the material and is etched from both sides to cut all the way through the material.

It is a versatile manufacturing technique that retains hardness, temper, magnetic permeability, and other qualities without causing excessive stress on the material.

Tooling costs are very low and design changes can easily be incorporated. As an alternative to "conventional" methods, such as laser, water jet, stamping of wire EDM, chemical milling provides an accurate and economical solution for many precision metal applications



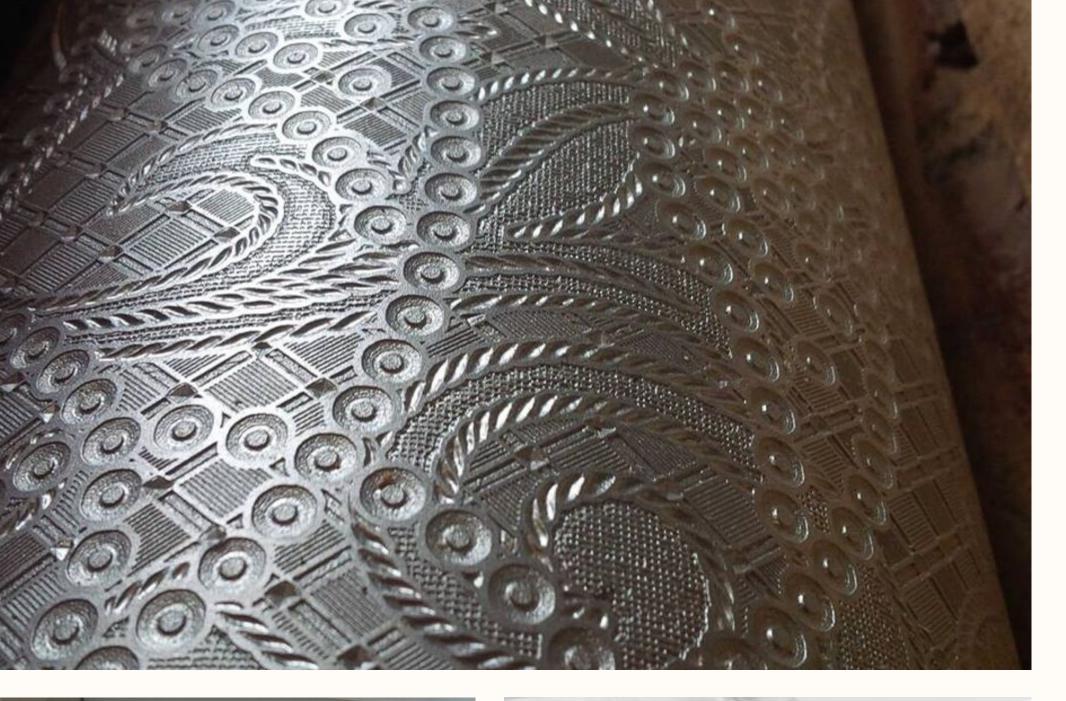




## SIGNS, LABELS & NAMEPLATES

Masteretch etching equipment is used by many of the world's leading sign and nameplate manufacturers. Chemical etching is an ideal solution for producing both quality indoor and outdoor signage and its durability makes it an excellent choice for industrial labels and nameplates. Typical applications include:

- ♦ Hotel & office signage
- Wayfinding signage
- ♦ Industrial nameplates & labels
- ♦ Identification products
- Architectural panels
- Plaques & memorials
- ◆ Interpretation boards
- Corporate awards
- ♦ Safety & compliance signs
- Promotional items







# PRINTING AND ELECTRONICS

Chemical etching is used in the printing industry to produce high quality durable products such as:

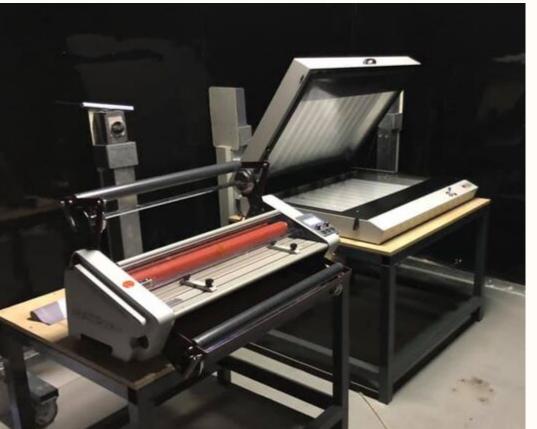
- ♦ Flexible cutting dies
- ♦ Hot foil stamping dies
- Embossing cylinders
- ◆ Intaglio printmaking

In the electronics industry our etching equipment is used to produce to produce a wide variety of products including:

- Printed Circuit Boards
- ♦ Step Stencils
- ♦ EMI/RFI shielding
- Metal foil strain gauges







## ETCHING EQUIPMENT

Masteretch have been building chemical etching machines for over 35 years. We supply companies in the signage industry, photochemical milling industry, as well as the electronics and printing industries. We cater to everything from compact bench top models for research and development to fully automated chemical etching lines for production on mass scale.

All our standard equipment is modular and available in Developing, Etching, Stripping and Drying configurations.

Standard Models include:

- ♦ Masteretch Model 360
- ♦ Masteretch Model 635
- ♠ Masteretch 650 Series
- ♠ Masteretch 750 Series

Masteretch can also supply all ancillary equipment for the etching process including laminators, UV exposure units and etch chemistry control units.

### MASTERETCH MODEL 360



Conveyor width Conveyor control Conveyor drive Pump

Filter

Heating
Temperature control

Spray banks

Spray jets Carryover gap

Rinse section

Base unit

Load unload trays

Dimensions

Services

Sump capacity

### Safety

- ✓ Low liquid level cut out
- $\ensuremath{\square}$  Chamber access magnetic interlock
- ☑ Fume extraction outlet

360mm (14")

DC shunt motor with digital readout speed control

1 to 1 polypropylene drive gears

High torque magnetic drive unit

Lift out filter on input side of pump

2kw titanium element

Digital readout electronic thermostat

4 top 4 bottom spray bars, with shut off valves

Quick release fan jets

5 squeegee rollers to prevent solution carryover

Top and bottom spray bars

Free standing base unit

2 x clip on trays

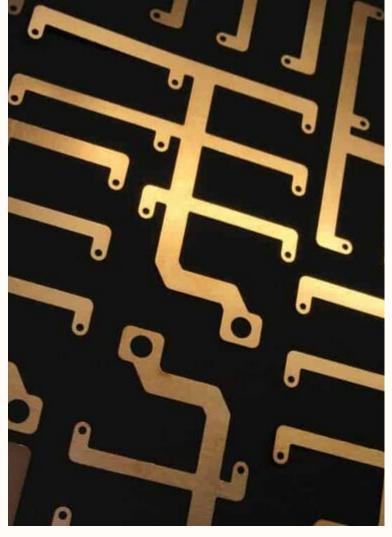
Length 42" + clip on trays 2 x 14" Width 25" x height 48"

Single phase, ½" water in, 1 ½" drain

75ltr



Our entry level etching machine, the 360 is a compact but powerful etching machine that can easily be installed and operated in sign shops, research laboratories, universities and fabrication labs.





## MASTERETCH MODEL 635



Conveyor width Conveyor control Conveyor drive

Pump Filter

Heating

Temperature control

Spray banks

Spray jets

Carryover gap

Rinse section

Base unit

Load unload trays

Dimensions

Services

Sump capacity

#### Safety

- ✓ Low liquid level cut out
- ☑ Chamber access magnetic interlock
- ☑ Fume extraction outlet

360mm (14")

DC shunt motor with digital readout speed control

1 to 1 polypropylene drive gears

High torque magnetic drive unit

Lift out filter on input side of pump

2kw titanium element

Digital readout electronic thermostat

4 top 4 bottom spray bars, with shut off valves

Quick release fan jets

5 squeegee rollers to prevent solution carryover

Top and bottom spray bars

Free standing base unit

2 x clip on trays

Length 42" + clip on trays 2 x 14" Width 25" x height 48"

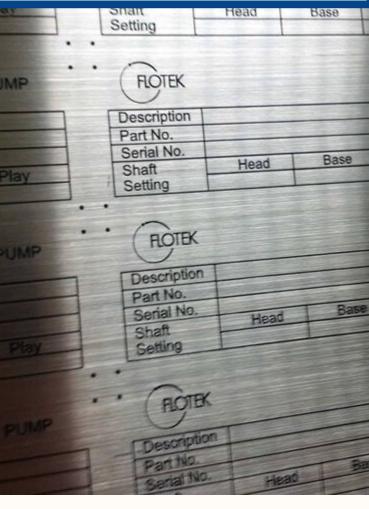
Single phase, ½" water in, 1½" drain

75ltr



Our most popular model with over 400 installations worldwide, the 635 is an ideal machine for companies looking to bring their etching work in-house. Available in Developing, etching and stripping configurations...





## MASTERETCH 650 SERIES



Conveyor width Conveyor control Conveyor drive Pump

Filter Heating

Temperature control

Spray banks

Spray jets Carryover gap

Rinse section

Load unload trays

Dimensions

Services

Sump capacity

### Safety

- ✓ Low liquid level cut out
- ☑ Chamber access magnetic interlock
- ☑ Fume extraction outlet

#### 650mm

DC shunt motor with digital readout speed control 1 to 1 polypropylene drive gears

2.2kw glandless submersible unit – titanium shaft Lift out filter on input side of pump

3kw titanium element

Digital readout electronic thermostat

5 top 5 bottom spray bars, with shut off valves Quick release fan jets

4 squeegee rollers to prevent solution carryover Top and bottom spray bars

2 x 375mm trays

Length 1300mm x Width 1040mm x Height 1350mm 3 phase +N 20 amp, ½" water in, 1½" drain





The Model 650 is a powerhouse etching machine ideal for high volume etching and chemical milling operations. The 650 is an ideal machine for customers for whom etching is their main business.





### MASTERETCH 750 SERIES



Conveyor width Conveyor control Conveyor drive

Pump Filter Heating

Temperature control

Spray banks Carryover gap

Carryover gap

Rinse 2 stages, pumped and fresh

Pump Filter Spray bars Fresh rinse

stage Dimensions

)Services

750mm (30")

DC shunt motor with digital readout speed control
1 to 1 polypropylene drive gears
2.2kw glandless submersible unit
External access lift out filter baskets
3kw titanium element
Digital readout electronic thermostat
6 top 6 bottom, quick release fan jets
4 sets squeegee rollers to prevent solution

High torque magnetic drive unit Lift out filter on input side of pump Top and bottom spray bars Top and bottom spray bars, overflow to pumped

L: 1500mm (60") W: 1200mm (48") H: 1200mm (47") 3 phase, ½" water in, 1½" drain

#### Safety

 $\ \square$  Low liquid level cut out |  $\ \square$  Chamber access magnetic interlock |  $\ \square$  Fume extraction outlet



The 750 series is a range of high performance high volume production equipment that can be customised to meet your requirements. The 750 Series is capable of the most demanding applications.





## MASTERETCH 750 SERIES ETCH LINE





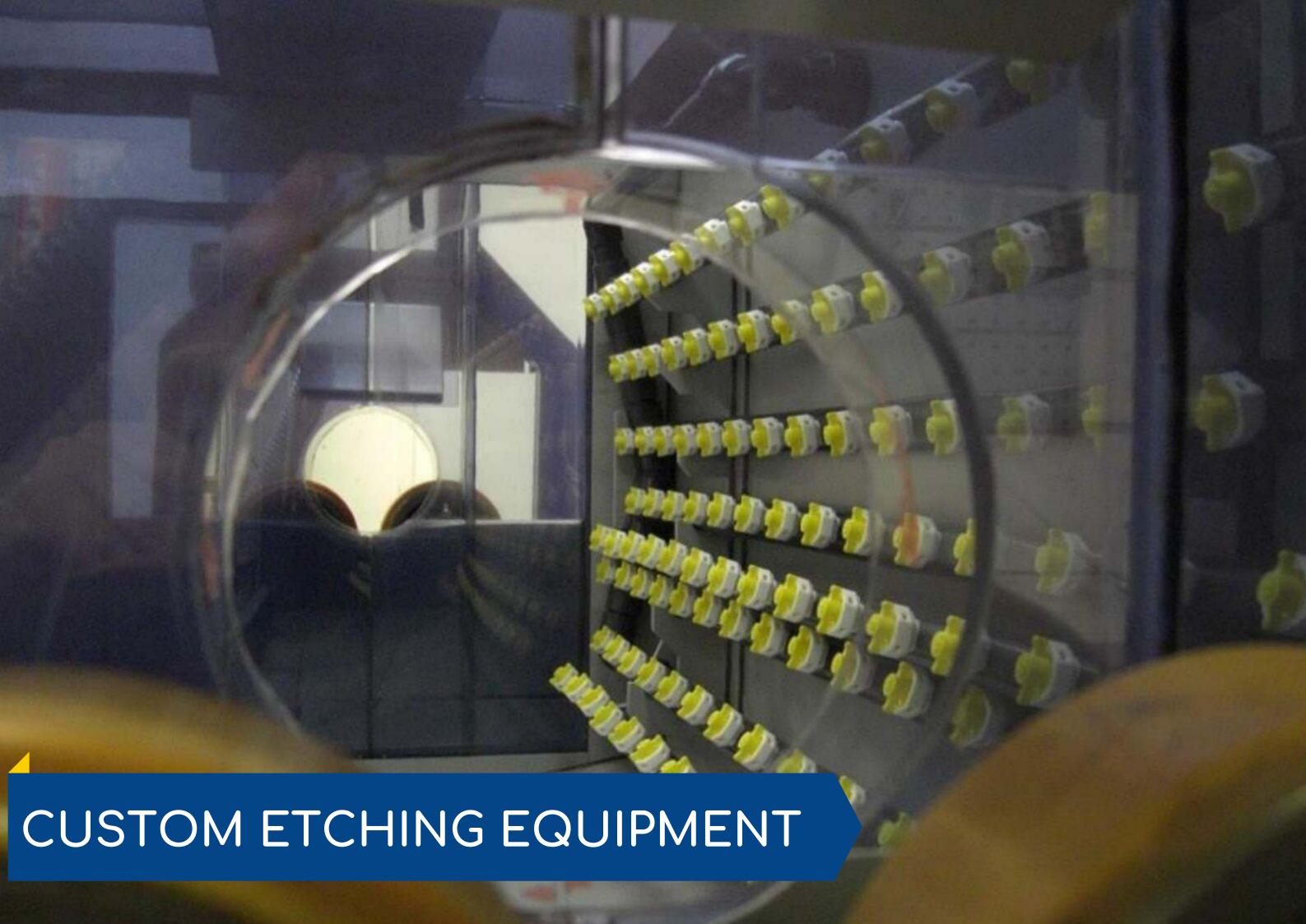




## MASTERETCH 750 SERIES ETCH LINE













## MASTERETCH BUILT FOR YOU

Our in-house fabrication and design expertise means we are able to work with our customers to deliver entirely unique solutions. Masteretch have helped our customers overcome some of the toughest challenges in the etching industry. These range from wide format etching machines for major architectural projects to boundary pushing laboratory etching equipment for leading electronics companies and universities..

Custom etching equipment designed and manufactured by Masteretch include:

- ♦ Wide Format Etching Equipment
- ◆ Titanium Etching Equipment
- Cylinder Etching Equipment
- ◆ Cabinet Etching Equipment

## WIDE FORMAT ETCHING EQUIPMENT









## TITANIUM ETCHING EQUIPMENT







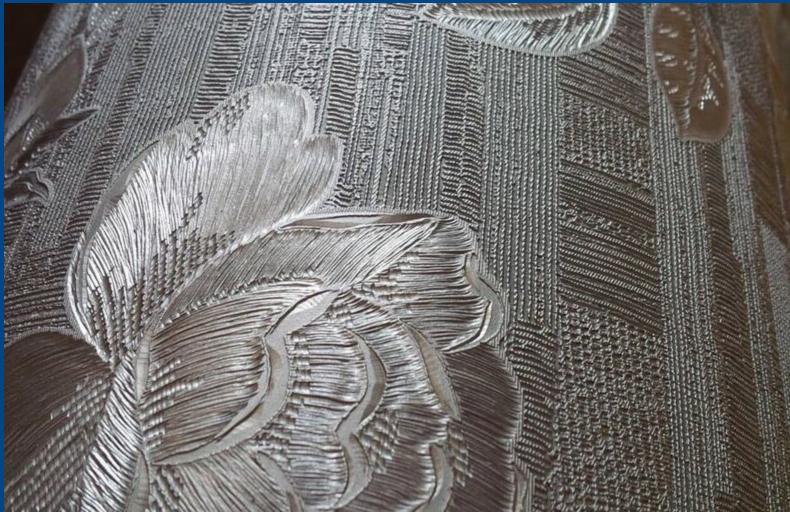


## CYLINDER ETCHING EQUIPMENT



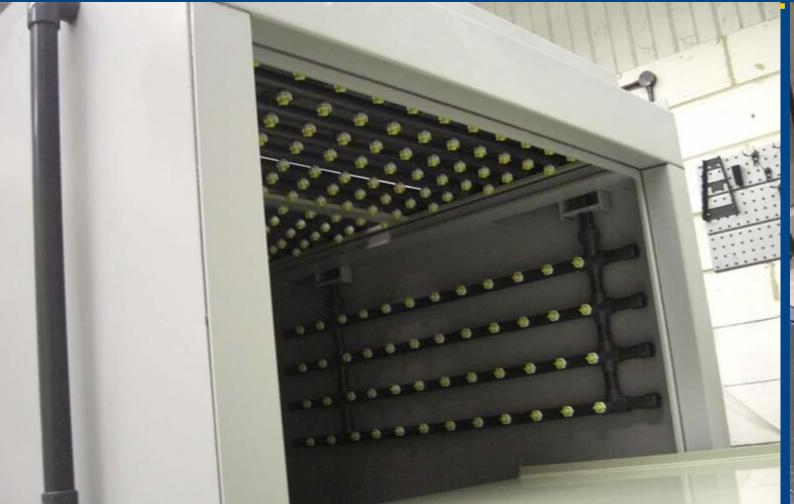






## CABINET ETCHING EQUIPMENT













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