

Crystalmark Etching Tool

Crystalmark
picture_of_crystalmark
Tool Type: Etching Tool
Location: Microfluidics Lab
Description: [SOMETHING]
Manufacturer: [SOMETHING]

About

The CrystalMark Etcher is located in the Microfluidics Lab on the middle table by the Haas CNC in 3430. It is attached to the [Sherline CNC Diamond Drill](#).

It uses air pressure and aluminum oxide abrasive to cut or etch patterns in materials such as glass or silicon. The kerf of the cuts are 700 microns.

Patterns and pre-programmed holes can be uploaded via .dxf files to a program called **insert program here**, and holes can also be added manually.

Safety Concerns

Inhaling large amounts of aluminum oxide can be hazardous. It is recommended to wear a mask and eye protection when using the CrystalMark.

Training Documentation

[CrystalMark SOP](#)

Detailed Specifications

- Stepper motor mounts and couplers on X-, Y- and Z-axes
- 70-2800 RPM continuously variable by electronic speed control
- Maximum CNC travel positioning speed: 22 in/min
- Max clearance (table to spindle): 8.00" (203 mm)
- Travel axes x,y,z: 8.65" (220 mm), 5.00" (127 mm), 6.25" (159 mm)
- CNC Stepper motor holding torque: 136 oz-in

Reference Documentation

https://support.formlabs.com/s/article/Design-Specs?language=en_US

[flexible_resin_sds_eu.pdf](#)

[formlabs_clear-sds.pdf](#)

[durable_resin_sds_eu.pdf](#)

[workshops_3d_printer_rates_112019_1_.pdf](#)

[Guide to printing with clear resin](#)

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