

Flashcut / Sherline CNC Drill

CNC Diamond Drill

Tool Type: CNC
Location: Microfluidics Lab
Description: CNC diamond drill for glass slides
Manufacturer: Sherline

Last updated 9/12/22 Haley

About

The CNC diamond drill is used to drill holes in glass slides. Uses FlashCut CNC software to interpret G-code and drill holes in programmed locations.

Safety Concerns

Eye injuries can result from flying chips or broken bits. Cuts can occur from contacting sharp tools or broken glass. Burns can result from hot cutting tools or parts. Serious injury can result from pinching or entanglement in moving parts. Poor housekeeping creates tripping and cutting hazards for other users. Do not leave machine running unattended. Eye protection, closed toe shoes, long pants, and protective clothing must be worn when using this machine to prevent injury. Long hair must be tied back and jewelry must be removed before operating this machine to prevent entanglement.

Training Documentation

[Sherline Training 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

[Drill Bits Information](#)

[FlashCut CNC 4.0 Tutorial](#)

[FlashCut CNC 4.5 Tutorial](#)

[CNC Drill Users Manual](#)

[Sample G-Code](#)

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