PCB PROTOTYPING

CIF TECHNODRILL 3

3-axis CNC machine for PCB prototyping

Drill, mill, engrave, cut, rout, dispense | 3 axes, 3D | 1.5 µm resolution, ±5 µm repeatability | 800 W spindle, 10,000 to 24,000 rpm | Standard and XL versions



OVERVIEW

The **CIF TECHNODRILL 3** is a robust, high-precision and upgradable all-in-one machine for PCB prototyping in the electronics laboratory and for small series. Drill, engrave, mill, cut, rout and dispense: everything you need to prototype your PCBs.

The fully equipped version ships with the **GALAAD 3** control software (Industry or Education edition, free updates), an 800 W spindle and a protective cover with a safety cut-off switch. The 3D software includes PCB isolation milling and reads HPGL, ISO, Excellon, Gerber, G-code and DXF files.

Two versions: **TECHNODRILL 3** with 390 × 315 × 60 mm travel and **TECHNODRILL 3 XL** with 385 × 580 × 60 mm travel.

KEY FEATURES

90 mm Z clearance
3-axis interpolation with true 3D machining

Precision
1.5 µm resolution in microstepping mode, ±5 µm repeatability

Fast drilling
360 holes / min at Ø 0.8 mm, minimum drill diameter 0.3 mm

Fine isolation milling
minimum track and isolation width 150 µm (XL: 200 µm)

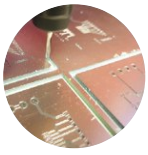
Tool change
semi-automatic as standard, automatic with 5, 10 or 15 tools as an option

Z-axis probe
tool positioning probe included as standard

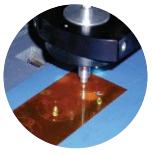
Safe enclosure
protective cover, lighting, mechanical and software-controlled clamping

Open file formats
HPGL, ISO, Excellon, Gerber, G-code, DXF and more


DRILLING


ISOLATION MILLING


CONTOUR ROUTING


CUTTING


ENGRAVING


MARKING

TECHNICAL SPECIFICATIONS

	TECHNODRILL 3	TECHNODRILL 3 XL
Part Number, Education Licence	U900100	U900200
Part Number, Industry Licence	U900120	U900220
Interpolation	3 axes, 3D	
Z-Axis Clearance	90 mm	
X, Y, Z Travel	390 × 315 × 60 mm	385 × 580 × 60 mm
Resolution	1.5 µm in microstepping mode (0.059 mil)	
Repeatability	±5 µm (0.2 mil)	
Spindle	800 W, 10,000 to 24,000 rpm	
Drilling Rate	360 holes / min (Ø 0.8 mm)	
Minimum Track Width	150 µm (5.9 mil)	200 µm (8 mil)
Minimum Isolation Width	150 µm (5.9 mil)	200 µm (8 mil)
Minimum Drilling Diameter	0.3 mm (12 mil)	
Travel Speed	100 mm/s max.	
X, Y, Z Motors	3 stepper motors, 1/16 microstepping (3,200 steps / revolution), up to 200 kHz	
Worktable	grooved aluminium table for quick positioning	
Power Supply	230 V, 50 Hz, 8 A	
Noise Level	< 65 dBA	
Net Weight	76 kg	90 kg
External Dimensions (L × W × H)	950 × 700 × 630 mm	950 × 1000 × 670 mm

OPTIONS AND ACCESSORIES

Starter kit (drilling backing boards, laminates, sacrificial plate, cutters, drills, adhesive tape), TECHNODRILL 3 / 3 XL	**U800122 / U800123**
Professional automatic tool change pack with cooler, for intensive use	**U700120**
On-board camera	**U700216**
High-performance vacuum base with sacrificial mat and vacuum turbine	**U700116**
TECDUST PRO G2 dust extraction with micro filter	**U700230**

Configuration, demo and quotation

InterElectronic supplies CIF equipment in Hungary and Central Europe: application advice, installation, training and service.

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Specifications according to CIF (France). Subject to change without notice.