

CNC ROUTER FOR EDUCATION

24R CNC ROUTER



TRAVELS

X-Axis	24.75 in. (625 mm)
Y-Axis	55.75 in. (1415 mm)
Z-Axis	6.70 in. (170 mm)

SPINDLE

Spindle Power	2 hp (1.5 kW)
Spindle Type	Electrospindle
Minimum Speed	10,000 RPM
Maximum Speed	24,000 RPM
Cooling	Water-Cooled (Chiller Included)
Spindle Taper	ER20
Thread Machining	Thread Mill

MOTION

X-, Y-, and Z-Axis	200 in./min (5.0 m/min)
Axis Drivers (X,Y,Z)	High-Performance Polyphase Stepper Motors with Leadshine® Microstepping Drivers

POWER

Power Required	Single-Phase 115 Vac, 50/60 Hz, 15A breaker
Vacuum Pump Power Requirement	220 Vac, 20A breaker

MACHINE SPECIFICATIONS

Table Type	Integrated Vacuum Table
Table Size	26.7 in. × 65 in. (680 mm × 1650 mm)
Gantry Clearance	6 in. (154 mm)
Machine Footprint	72 in. × 39 in. (1.8 m × 1 m)
Overall System Height	76.5 in. (1.9 m)
Typical System Weight	900 lb (408 kg)

LINEAR MOTION COMPONENTS

Axis Motion	Ballscrew and Stepper Driver
Guideways	Precision Linear Guideway

MACHINE CONSTRUCTION

Stand	Welded Steel (Included)
Machine Base	Cast Iron
Gantry	Aluminum

RESOLUTION AND ACCURACY

Resolution	0.00025 in. (0.006 mm)
Ball Screw Positional Accuracy	±0.002 in./ft. (±0.167 mm/m)
Repeatability	±0.001 in. (±0.02 mm)



MACHINE CONTROLLER



PathPilot HUB is a browser-based, full-featured PathPilot simulator, producing usable G-code.

- User-friendly visual interface
- 3D toolpath preview
- Support for up to 4-axis continuous machining
- Automatic spindle speed control
- Compatible with standard G-Code
- Usable G-code Memory Controller: 80 GB
- Intuitive conversational programming
- Built-in Dropbox™ support for seamlessly transferring programs

ABOUT PathPilot HUB

PathPilot is a web-powered, browser-based, full version of PathPilot software interface for any machine in the Tormach CNC lineup.

Teachers use PathPilot HUB to replace expensive CNC simulators. Students can experiment and study before they ever touch the equipment.

Once students prove out their code virtually, they can sign into HUB on the physical Tormach machine and sync their files. Then, they run programs using their PathPilot HUB-generated G-code.

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TORMACH® 24R CNC ROUTER PACKAGE COMPARISON



24R ROUTER EDUCATION PACKAGES	BASIC	ADVANCED
MACHINE		
24R Router	✓	✓
Standard Height Adjustable Machine Foot	✓	✓
24R Machine Owners Kit	✓	✓
CONTROLLER		
PathPilot Operator Console / Jog Pendant Controller / Waterproof Mini Keyboard & Mouse		✓
PathPilot Controller / Waterproof Mini Keyboard & Mouse / Wi-Fi Network Adapter / Jog Shuttle Controller / Standard LCD Monitor / Controller Arm	✓	
DUST COLLECTION		
1 HP Dust Collector with 370 mm Bag and 15 in. Cartridge Filter and Reducer Kit		✓
Dust Collection Hose, 3 in. Inside Diameter x 5 m Long		✓
MEASUREMENTS AND OFFSETS		
Tool Setter for 24R	✓	✓
Essential Metalworking Gauge Kit	✓	✓
WORK HOLDING AND FIXTURING		
Storm Vacuum Pump for 24R		✓
Canister Filter for Storm Vacuum System		✓
Storm Vacuum Adapter Kit for 24R		✓
Gasket, 5/16 in. Vacuum Neoprene Foam (20 Feet)		✓
TOOL HOLDING		
ER20 Collet Set (30 Pcs.)		✓
ER20 Collet Set (15 Pcs.)	✓	
Huot ER20 Collet Rack		✓
CUTTING TOOLS		
Spring-Loaded CNC Drag Knife		✓
24R Starter Cutting Tool Kit by Amana Tools	✓	✓