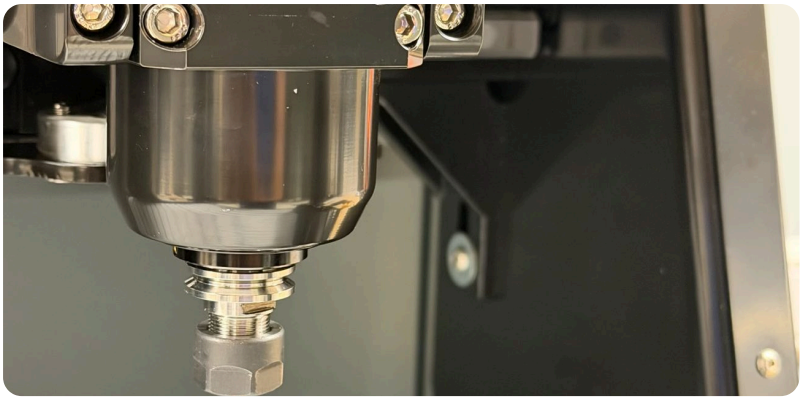
CNC router

Tormach xsTECH Pro



Spindle, T-slot table, tool rack and tool setter



The enclosure

Machine	Enclosed desktop CNC router with linear guides and ball screws
Spindle	Up to 20,000 rpm
Tools	Four-station automatic tool changer
Materials	Wood, plastics and aluminium
Control	PathPilot. Probing is supported

Your first job on this machine is done together with Nitai. These steps are a reminder for afterwards.

1. Program the part

1. Do the CAM in your CAD package and post-process for PathPilot.
2. Use the cutters the workshop actually has. Ask for the tool list.
3. Start with conservative feeds and depths of cut. Small machines reward light cuts.
4. Simulate. Check that no move passes through a clamp.

2. Set up the machine

1. Switch on, release the emergency stop if it is pressed, and reference the axes.
2. Clamp the stock to the T-slot table. Keep clamps outside the tool path.
3. Load the cutters into the tool holders and measure each tool on the tool setter.
4. Set the work zero in X, Y and Z at the same point you used in CAM.

3. Run

1. Load the program and compare the preview on the screen with your CAM simulation.
2. Close the door.
3. Turn the feed override down, start the program and watch the first approach. Be ready to stop.
4. If the first cut looks and sounds right, bring the feed back up.
5. Stay at the machine until the program ends.

4. Finish

1. Wait for the spindle to stop, then open the door.
2. Remove the part. Break the sharp edges with a file or a deburring tool.

3. Vacuum the chips from the table and the enclosure.
4. Return the cutters and clamps. Report any blunt or broken cutter.

If it goes wrong

Problem	Likely cause
Cutter breaks	Feed too fast, cut too deep, or chips packing in the slot
Melted plastic on the cutter	Spindle too fast for the feed. Feed faster or turn slower
Rough or chattering surface	Part not clamped firmly, or too much cutter sticking out
Part is the wrong size	Work zero or tool length set wrongly. Measure again