CNC router

Tormach xsTECH Pro



The router in its enclosure



Spindle, table and tool rack

Safety glasses **Hair tied back** **No gloves near the spindle** **No loose sleeves or jewellery**

The hazards

- **The cutter.** The spindle turns at up to 20,000 rpm. A cutter can break and a part can come loose.
- **Moving axes and the tool changer.** They move under program control, quickly and without warning.
- **Sharp edges.** Cutters are sharp even when still. Freshly cut aluminium and plastic have burrs.
- **Chips and dust.** Hot chips, and fine dust from wood and board materials.
- **Compressed air.** It throws chips. Never use it without glasses.

Always

- Keep the door closed whenever the spindle or the axes move
- Clamp the stock so it cannot shift or lift
- Check the tool path, the work zero and the tool lengths before you press start
- Start a new program slowly, with your hand at the stop control
- Stay at the machine for the whole program
- Wait for the spindle to stop completely before you open the door
- Hold cutters by the shank. Clear chips with a brush or the vacuum

Never

- Defeat the door switch or reach in while anything moves
- Cut steel, magnesium, carbon fibre or a plastic you can’t identify
- Leave the machine running on its own
- Use a chipped, bent or blunt cutter
- Clear chips with your fingers
- Change machine settings. Ask Nitai

Materials: wood, plastics and aluminium only. Anything else, ask first.

If something goes wrong

- Wrong sound, a part moving, a cutter breaking: stop the program straight away, then wait for the spindle to stop.
- Do not restart after a crash or a broken cutter. Tell Nitai.
- Smouldering chips or smoke: stop, switch the machine off and get help.
- Cut: press a clean dressing on it and get first aid.