

## FACT SHEET

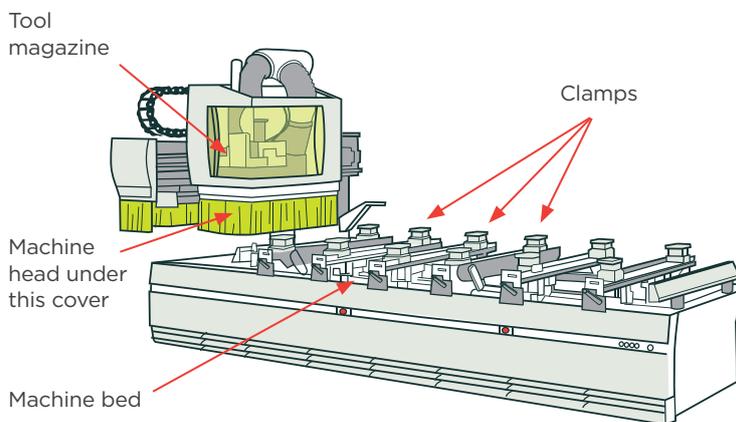
# WOODWORKING CNC MACHINES

These machines operate under computer numerical control (CNC), where a magazine of woodworking tools is selected by programmed instructions. The tools shape, saw, and drill sheets of medium density fibre (MDF) board, veneered board, or items like window frames, all secured to the machine's bed. Vacuum clamping the boards ensures physical clamps do not interfere with movement of the head or tools. Items like window frames may be held by metal clamps.

Instructions are programmed into the control centre which instructs a machine head to move in three dimensions above the secured timber. The programme selects tools from the magazine, which automatically clamp into the tool holder or chuck. The chuck moves to the start point, the tool turns at its programmed speed, then begins its cut. At the end of the cut, the tool withdraws from the timber.

The tool may move to a number of positions to make cuts, and return to the magazine when another tool is chosen.

FIGURE 1: WOODWORKING CNC MACHINE



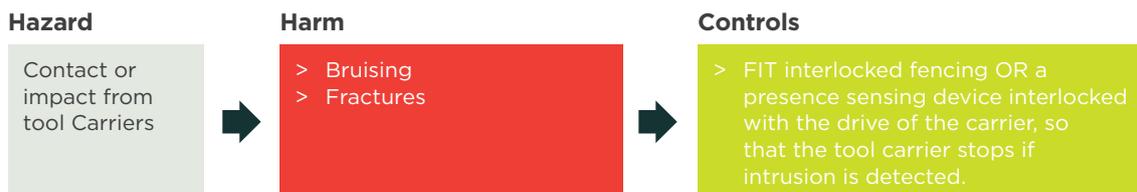
### HAZARDS:

- > Contact or impact from tool carriers
- > Contact, impact or piercing from thrown tools or parts
- > Noise
- > Dust
- > Slips, trips & falls
- > Contact, impact or entanglement from unexpected movement (during maintenance, cleaning & repairs)

### PPE:

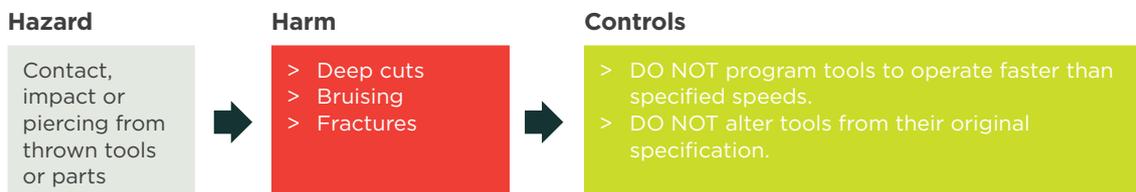


### TASK - TOOL SELECTION



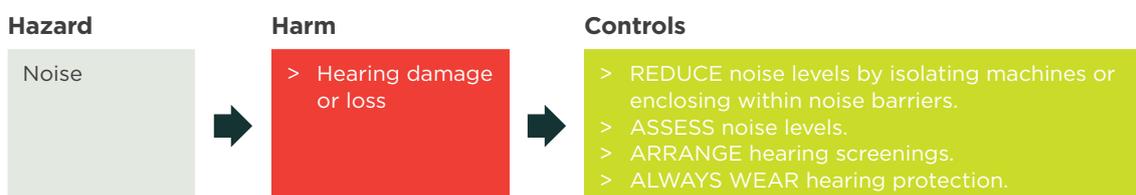
Tool carriers move quickly, in some cases 60 to 100 metres per minute. The tool carrier MUST stop if intrusion is detected.

## TASK - TOOL SELECTION

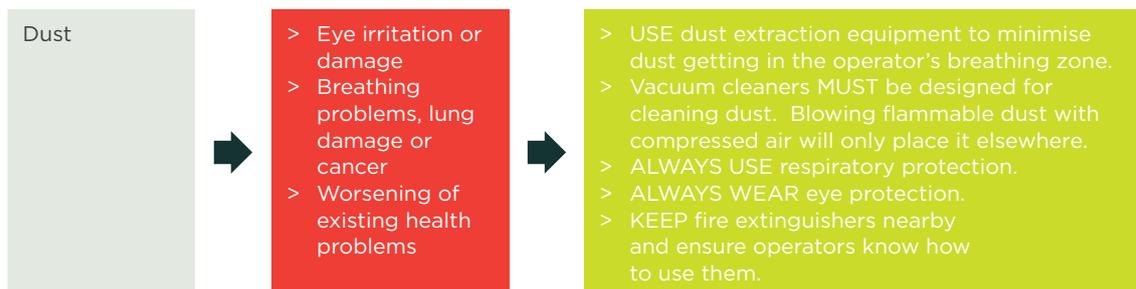


Tools or tool parts are likely to become a projectile if the speed programmed is too great for the tool.

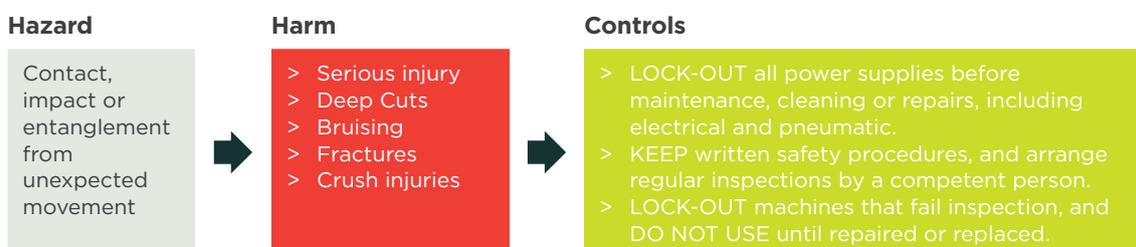
## OTHER (NON-MECHANICAL) HAZARDS



A safe noise level over an eight hour day is 85db(A). A woodworking CNC machine may exceed this noise intensity.



## TASK - MAINTENANCE, CLEANING & REPAIRS



References, current standards and further information can be found on the Safe Use of Machinery project page at: [www.worksafe.govt.nz](http://www.worksafe.govt.nz)

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