

FACT SHEET

HORIZONTAL BEAM AND VERTICAL PANEL SAWS

HORIZONTAL BEAM PANEL SAW

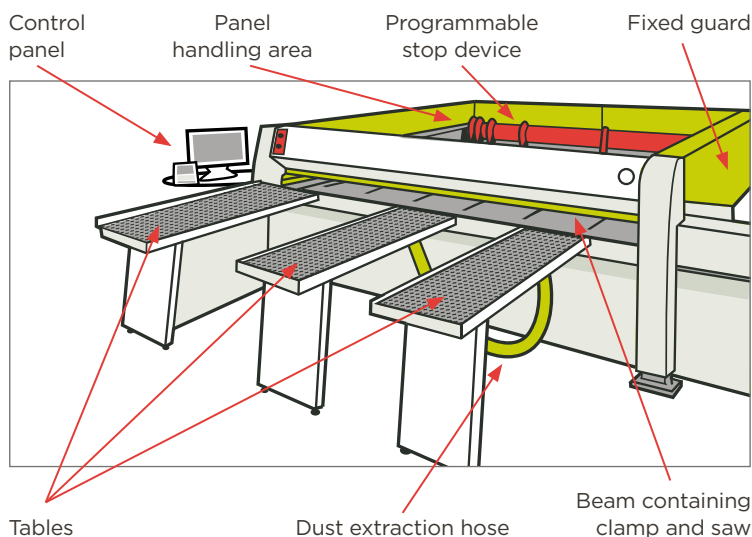
Horizontal beam panel saws are used to cut panels into pieces and it can cut multiple panels at the same time. Multiple panels are stacked – either one panel at a time or the whole stack is pushed to the cut position.

These saws consist of:

- > a panel handling area about waist high where whole panels are stacked for sawing
- > a power-operated beam which clamps panels during the cut

- > a circular saw which cuts the panels - there may be a smaller powered blade for scoring prior to cutting
- > a programmable panel pusher mechanism that moves panels into position for cutting - large machines may have a rotation system to change the direction panels are presented to the saw.

FIGURE 1: HORIZONTAL BEAM PANEL SAW



HAZARDS:

- > Heavy lifting
- > Contact, impact or entrapment from moving parts or panels
- > Entanglement from contact with blades
- > Entanglement with automatic label applicator
- > Noise
- > Dust
- > Slips, trips & falls
- > Entanglement from unexpected movement (during maintenance, cleaning & repairs)

PPE:



TASK - STACK THE PANELS

Hazard

Heavy lifting



Harm

> Strain injury



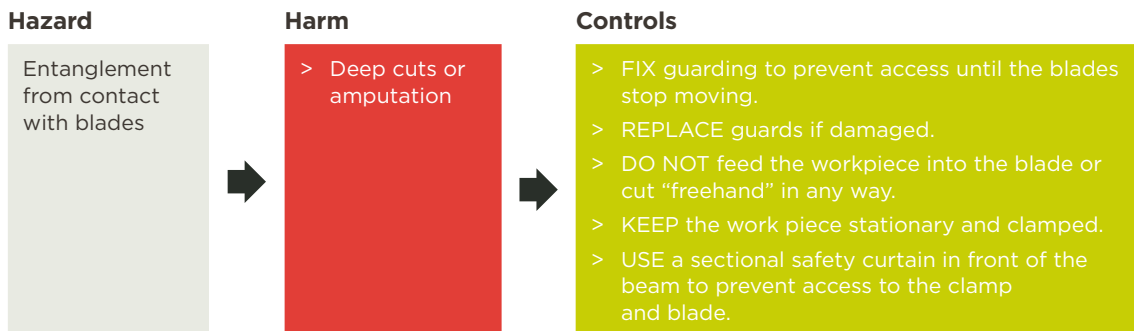
Controls

> USE mechanical lifting aids when needed.



The panel moving mechanism or panels themselves can injure.

TASK - PUSH THE PANELS TO CUT POSITION & MAKE THE CUT



Blades may be exposed or reachable before they stop turning. Clamps are provided to remove the need for reaching close to the blade. Blades with a run down time of more than 10 seconds will be a hazard if access is possible before they stop turning.

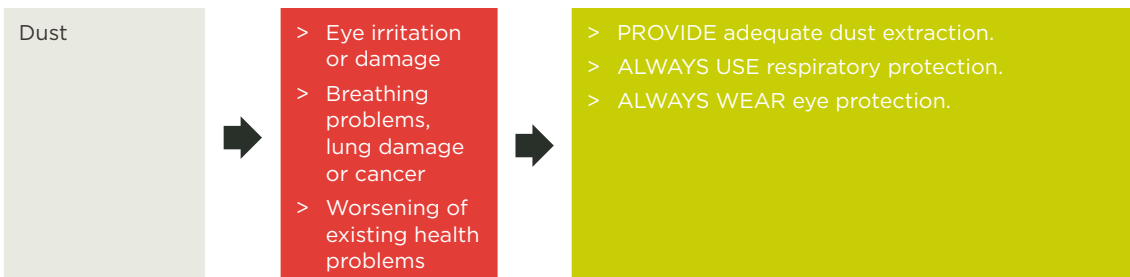


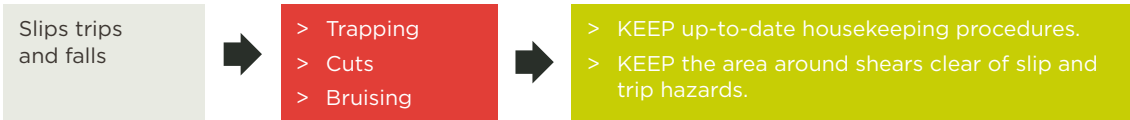
Some horizontal beam panel saws may have an automatic label applicator which presents a potential trap as it applies labels.

OTHER (NON-MECHANICAL) HAZARDS

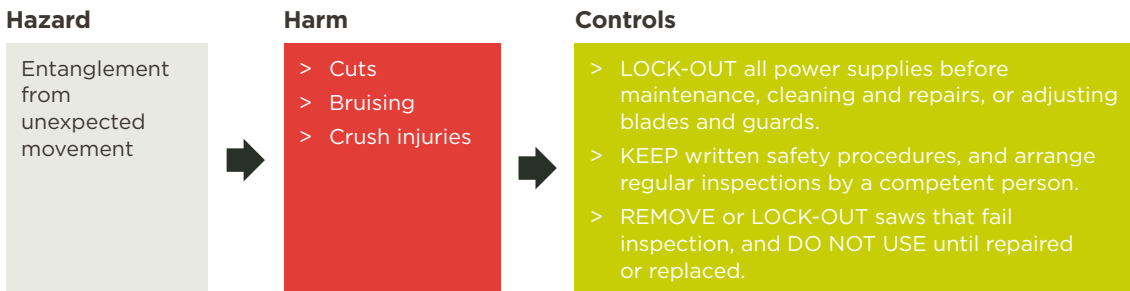


A safe noise level over an eight hour day is 85dB(A). A horizontal beam saw may exceed this noise intensity.





TASK - MAINTENANCE, CLEANING & REPAIRS



VERTICAL PANEL SAW

Vertical panel saws require less floor space than horizontal beam saws. Small vertical panel saws may be transported to building sites.

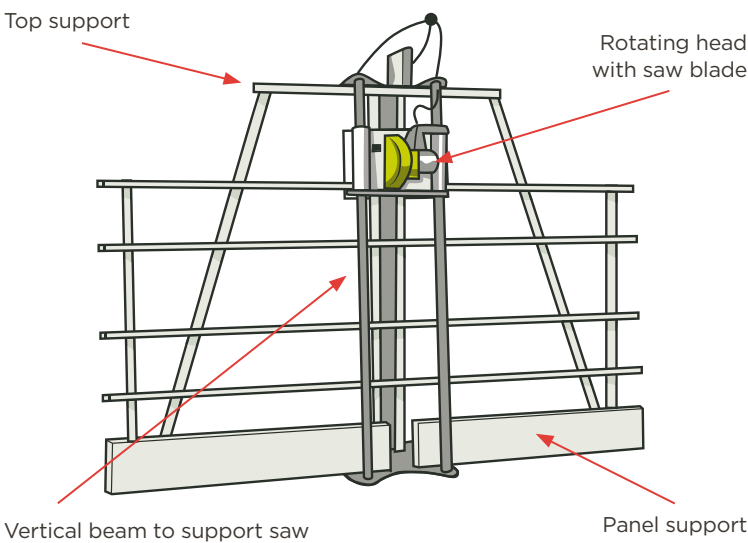
These saws consist of:

- > a rotating head containing the saw which turns 90° to make vertical or horizontal cuts

- > a moving beam to support the rotating head - some less complex saws leave the supporting beam fixed while the panel is moved by the operator for horizontal cuts
- > means of securing vertical panels while they are cut.

The saw either cuts automatically or the operator draws the panel across.

FIGURE 2: VERTICAL PANEL SAW



HAZARDS:

- > Heavy lifting
- > Contact, impact or entrapment from moving parts or panels
- > Entanglement with blade
- > Contact, impact or entrapment from moving parts/ejection of materials
- > Noise
- > Dust
- > Slips, trips & falls
- > Unexpected movement (during maintenance, cleaning & repairs)

PPE:



TASK - STACK THE PANELS

Hazard	Harm	Controls
Heavy lifting	> Strain injury	> USE mechanical lifting aids when needed.
Contact, impact or entrapment from moving parts or panels	> Crush injuries > Bruising > Fractures	> SLOPE panels back at the top at least 5° to ensure stability. > PROVIDE a clamp at the top, and a lip or protrusion at the support.

The panel moving mechanism or panels themselves can injure.

TASK - MAKE THE CUT

Hazard	Harm	Controls
Entanglement from contact with blade	> Deep cuts or amputation	> FIX guards (including a self-closing guard) to isolate the blade as much as possible. > REPLACE guards if damaged. > POSITION the saw so the operator cannot access the blade from behind.
Contact, impact or entrapment from moving parts/ejection of materials	> Crush injuries > Bruising > Fractures	> FIT a riving knife to minimise the risk of material ejecting. > Consider putting a clamp at the top, and provide a lip or overlap at the support.

Vertical panel may slip off its support. Saw support beams may move horizontally under power.

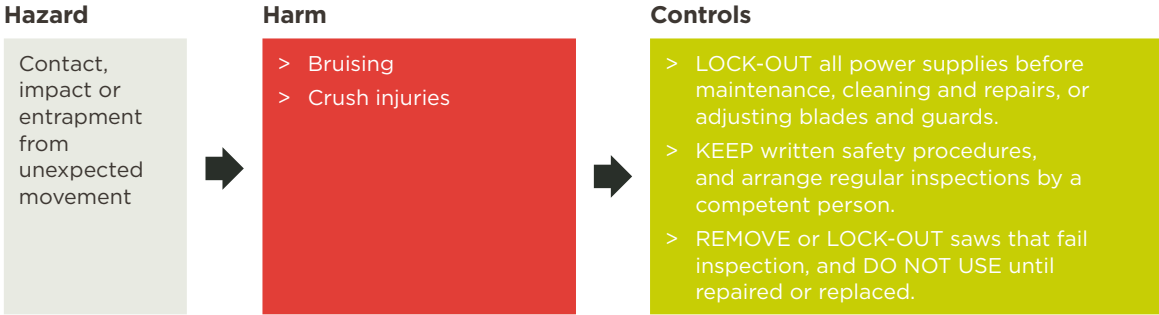
OTHER (NON-MECHANICAL) HAZARDS

Hazard	Harm	Controls
Noise	> Hearing damage or loss	> REDUCE noise levels by isolating machines or enclosing within noise barriers. > ASSESS noise levels. > ARRANGE hearing screenings. > ALWAYS WEAR hearing protection.

A safe noise level over an eight hour day is 85dB(A). A vertical panel saw 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

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