MRAT 084	**Band saws**	**Applicable to:** bench and floor-mounted narrow band saws	**See also:** 045 071
Process(es) covered:	The cutting of wood, manufactured boards and plastic sheet to approximate profile using an endless saw blade running on guide wheels.		

Control Measures

- Wear eye protection. Tie back long hair, remove or cover jewellery and cover loose clothing with a secure apron or overall.
- Use push sticks or other aids to guide the material being cut when fingers are at risk.
- Band saws must have all moving parts enclosed or covered with a guard. Only the part of the blade required for cutting should be exposed. The top guide should be adjusted so that it is a close as is practicable above the surface of the material being cut (normally within 10 mm).
- Regularly check band saw blades for missing teeth.
- A suitable LEV system must be fitted and must always be used.
- If the process generates noise above the 85dB, hearing protection must be used.
- Band saws are 'high risk wood-working machines'. This means that learners may only use band saws when they have been assessed as competent and are under appropriate supervision by specifically trained employees. During training, students may use the machines but must be adequately supervised. After training, students may use a band saw when they have been formally assessed and the assessment shows they are competent and they are under the direct supervision of suitably experienced. (Direct supervision is defined as the supervisor standing immediately alongside the user and giving their full attention to the user.) Normally, student use of band saws should be confined to those over the age of 16 years.

Immediate Remedial Measures:

Dust is in the eye	Irrigate immediately with water for several minutes, telling the casualty to hold eyelids apart.
A particle could be in the eye	Tell the casualty not to rub the eye, sit him/her down facing the light with the head leaning back. Stand behind the casualty to look for the particle in the eye. If it is over the iris or pupil, DO NOT ATTEMPT TO MOVE IT. Tell the casualty to hold a gauze pad over the eye and close the other one. Send for an ambulance to take the casualty to hospital. If the particle is visible over the white of the eye, the corner of a moistened handkerchief can be used to remove it. Call 111 and seek medical attention.
Injury to the eye	If there is any sign of injury to the eye, tell the casualty to hold a gauze pad over the eye and close the other one. Take the casualty to hospital as quickly as possible.
Severe cuts	Apply pressure on or as close to the cut as possible, using fingers or a pad of cloth. Leave any embedded large bodies and press round them. Lower the casualty to the floor and raise the wound as high as possible. Protect yourself from contamination by blood.

Storage	

Disposal	

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Risk Assessment

Hazards:

Trapping Flying objects Use injury Entanglement Dust Noise	Fingers or material can become trapped between belts and drive pulleys or between the blade and a fence or guard. Workpieces can be thrown violently if not held correctly, as a result of 'kickback' or if the machine starts unexpectedly. Human contact with moving or rotating parts can cause cuts or abrasions and particles from the sawing process can enter the eye. Long hair, dangling jewellery or loose clothing can become entangled with rotating parts, dragging the user onto them. See 071 for information on dust. These machines can be excessively noisy

Risks:

Flying objects	'Kickback' can occur as a result of missing teeth or from the nature of the material being cut but is rare on band saws.
User injury	All pulleys, drive belts and saw blades present a high risk unless adequately guarded.
Entanglement	Entanglement is likely to occur if rotating parts are exposed.
Dust	Dust will always be a hazard when using any type of sawing machine and must be adequately controlled.
Noise	It is possible but unlikely that a bandsaw will produce noise above 85 dB.

Further Information:

- The blade of a band saw must come to rest within ten seconds of the power being turned off. Where a band saw does not do this, it must be fitted with a braking device. Braking devices can take several forms and can include suitable foot brakes.
- When sawing wood and particle boards, the machines should be fitted with dust-collection equipment which is powered when the machine is started. In the event of a breakdown of the dust collector, this unit must not be by-passed electrically to allow continued use of the saw; it must be repaired. For details of dust control systems see CLEAPSS guide L225, *Local Exhaust Ventilation in Design and Technology*.
- Small bench mounted band saws usually designed for home use are often found in schools. These machines must conform to PUWER requirements and should be connected to the electrical supply as described in MRAT 000. Such machines present the same sort of hazards as larger floor mounted machines and should have the same restrictions on their use.

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