

Safe Use of a Rip Saw in the Manufacturing Industry

Information Sheet

This information sheet is intended for employers, employees and the self employed.

It provides an overview of key safety aspects associated with the operation of a rip saw (table saw) in the manufacturing industry.

Rip saws are used for cutting timber with (ripping) and across (cross cutting) the grain. They are most commonly used for ripping. When correctly set up, the operator feeds the timber into the blade to make the cut, using a guide (fence) to maintain a straight cut parallel to the blade.



Potential Hazards

The operation of a rip saw can give rise to the following hazards:

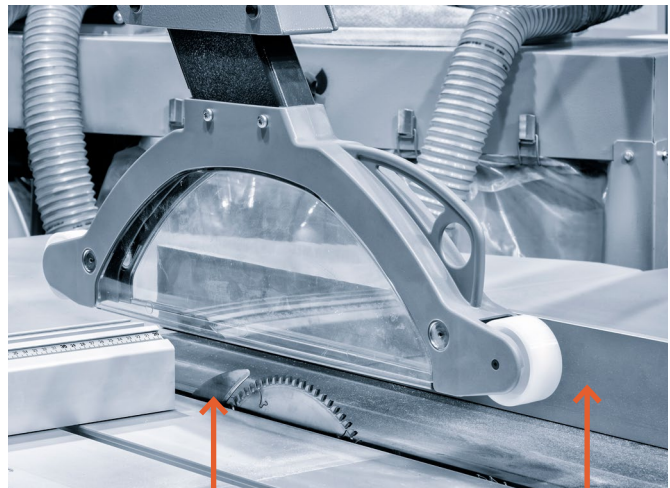
- Contact with the blade or moving parts, potentially resulting in amputation or serious injury.
- Ejection of material from kickback causing injury.
- Electric shock or fire due to damaged cables or poor electrical connections.
- Unintended start up during maintenance where the machine is not fully isolated or energy sources are not dissipated.
- Noise and wood dust exposure.
- Manual handling of heavy or awkward work pieces.
- Slips, trips and falls.
- Risk of injury to persons other than the operator entering the working area.

Control Measures – Safe Operation

The following controls are necessary for the safe operation of a rip saw:

Guarding and Set Up

- All guarding must be in place and secure.
- A riving knife must be fitted to prevent kickback.
- The riving knife must be the correct thickness and set correctly.
- The correct saw blade must be fitted.
- The saw blade must be set to the correct height for the timber being cut.
- All locking levers must be tightened.
- All tooling must be kept sharp.
- The machine should be CE marked.
- A mushroom type of emergency stop should be in place and within reach of operators standing position.



Riving knife

Guide/Fence

Safe Use

- A **push stick**, minimum **450 mm in length**, must be used throughout any cut of 300 millimetres or less in length or during the last 300 millimetres of any cut of more than 300 millimetres in length.
- The working area must be controlled to prevent access by persons other than the operator.
- The machine, floor and surrounding area must be kept tidy and free from trip hazards.



Electrical Safety

- Electrical cables and connections must be maintained to prevent electric shock or fire.
- Damaged cables or poor connections must not be present.

Maintenance and Isolation

- Daily checks and regular maintenance should be carried out and records kept.
- The saw must be switched off and isolated before carrying out repairs, tool changes or alterations.
- All planned and breakdown maintenance must be carried out using a Lock Out Tag Out Check (LOTOC) system.
- Maintenance should only be carried out by competent personnel.
- All power must be isolated and energy sources dissipated before maintenance takes place.

Health Hazards

- **Noise** levels must be assessed to ensure appropriate controls are in place. Employers must make hearing protection available and provide information if noise levels are 80 dB(A). At 85 dB(A) noise reduction measures must be implemented, mandatory warning signs displayed, and hearing protectors must be available and worn.
- **Wood Dust** must be removed at source by suitable dust extraction and extraction bags regularly emptied. For control measures for woodworking dust, please see '**Wood Working - Information Sheet**'.
- **Manual handling** risks associated with heavy or awkward work pieces must be assessed and appropriate controls put in place to minimise injury.

Personal Protective Equipment (PPE)

- PPE is the last line of defence, but where some hazards cannot be eliminated, appropriate PPE must be provided and worn where necessary.

Training and Information

- Machine operators must be provided with information, instruction, training and supervision.
- The rip saw must be operated and maintained in accordance with the manufacturer's instructions.
- The operator's manual must be available.

Legal Requirements

When operating any machinery, the following primary legislation applies:

- Safety, Health and Welfare at Work Act 2005
- Safety, Health and Welfare at Work (General Application) Regulations 2007

Relevant Codes of Practice, guidelines and other legislation.

Risk Assessment

It is a legal obligation under **Section 19 of the Safety, Health and Welfare at Work Act 2005** for employers to have a written risk assessment for work activities and prepare a safety statement.

A risk assessment involves a careful examination of what could cause harm and allows the necessary precautions to be put in place to prevent injury.

The free **BeSMART** tool on HSA website can assist businesses in developing risk assessments and managing safety. See www.besmart.ie

Further Resources

www.hsa.ie

www.besmart.ie

SAFETY, HEALTH AND WELFARE AT WORK ACT 2005

Safety, Health and Welfare at Work (General Application) Regulations 2007

SAFETY, HEALTH AND WELFARE AT WORK (GENERAL APPLICATION) (AMENDMENT) REGULATIONS 2016

Risk Assessments Made Easy

Short Guide to The Safety, Health and Welfare at Work Act, 2005

A Guide to Risk Assessments and Safety Statements

Wood Working - Information Sheet

Further Information & Resources

For further information, please see the HSA Website.

Contact our HelpDesk:

Email: contactus@hsa.ie

Phone: **0818 289 389**

or visit: www.hsa.ie/education



HSA

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