



CARE GUIDANCE

RECOMMENDATIONS ON BEST PRACTICE

LEVEL 3

Saws



SAWS

INTRODUCTION

This is a level 3 document in the ECFIA CARE Guidance series and should be read in conjunction with the level 1 document "Working with HTIW – Effective Risk Management".

This document focuses on ways to reduce airborne fibrous dust concentrations when using mechanical saws. There are two main types of saw used to cut HTIW materials: circular saws and band saws.

WHAT IS THE CARE PROGRAMME?

ECFIA's Controlled And Reduced Exposure (CARE) Programme is an important part of the Product Stewardship Programme. It allows employers to proactively minimize fibrous dust exposure and thus protect workers' health.

WHAT ARE THE CARE GUIDANCE DOCUMENTS?

These documents form a comprehensive library of information on the safe handling and use of HTIW products. They have been written by industry experts and are designed to give customers of ECFIA members helpful information to put in place effective controls to minimise exposure to airborne fibres. This series of documents will progressively grow as new documents are produced.

Level 1 guidance document: "Working with HTIW - Effective risk management"

Level 2 guidance documents: Risk management measures applicable to HTIW

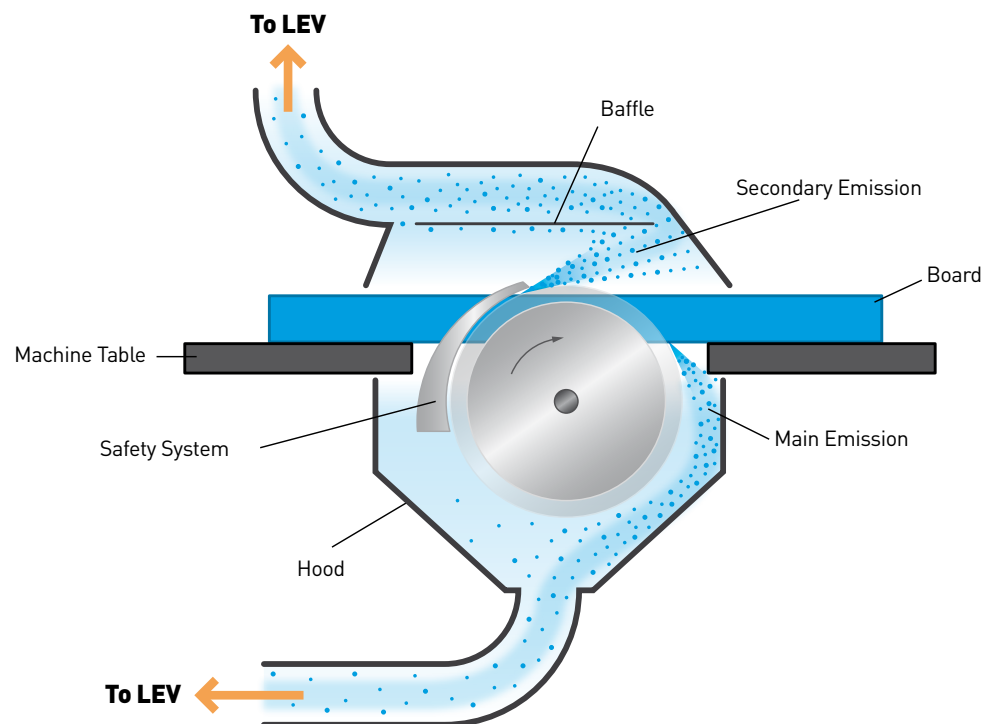
Level 3 guidance documents: Examples of specific applications

EXPOSURE DURING SAWING

Mechanical saws are high powered machines that can produce high velocity dust emissions when used on dry HTIW materials such as blankets, formed shapes, boards and modules. Another source of dust comes from the handling and disposal of off-cuts / waste after cutting. The dust must be adequately controlled to ensure operators' safety and this document highlights some of the ways this can be done.

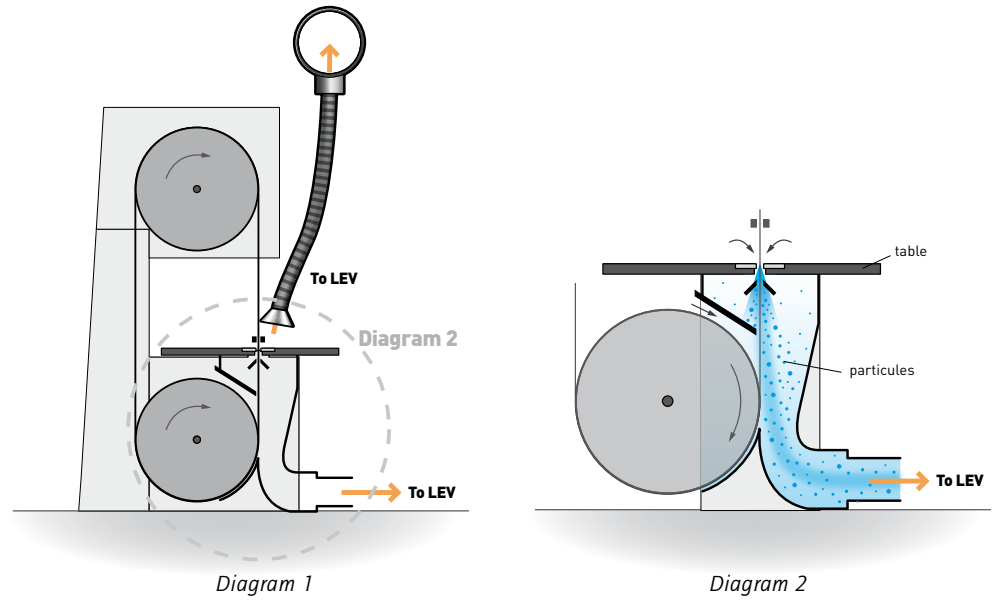
CIRCULAR SAW

The circular saw is generally used to cut HTIW boards. The main way to reduce dust exposure of the operator is to capture the main and secondary dust emissions occurring during sawing (see diagram below). In most circular saws on the market, control of the main dust emission is incorporated into the design of the machine. To control the secondary emission the safety device (blade guard) of the saw has to be connected to the Local Exhaust Ventilation (LEV) system.

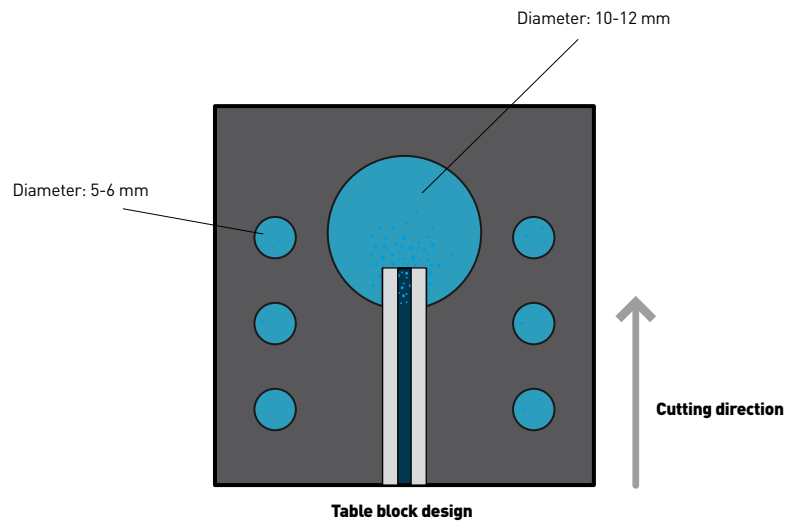


BAND SAW

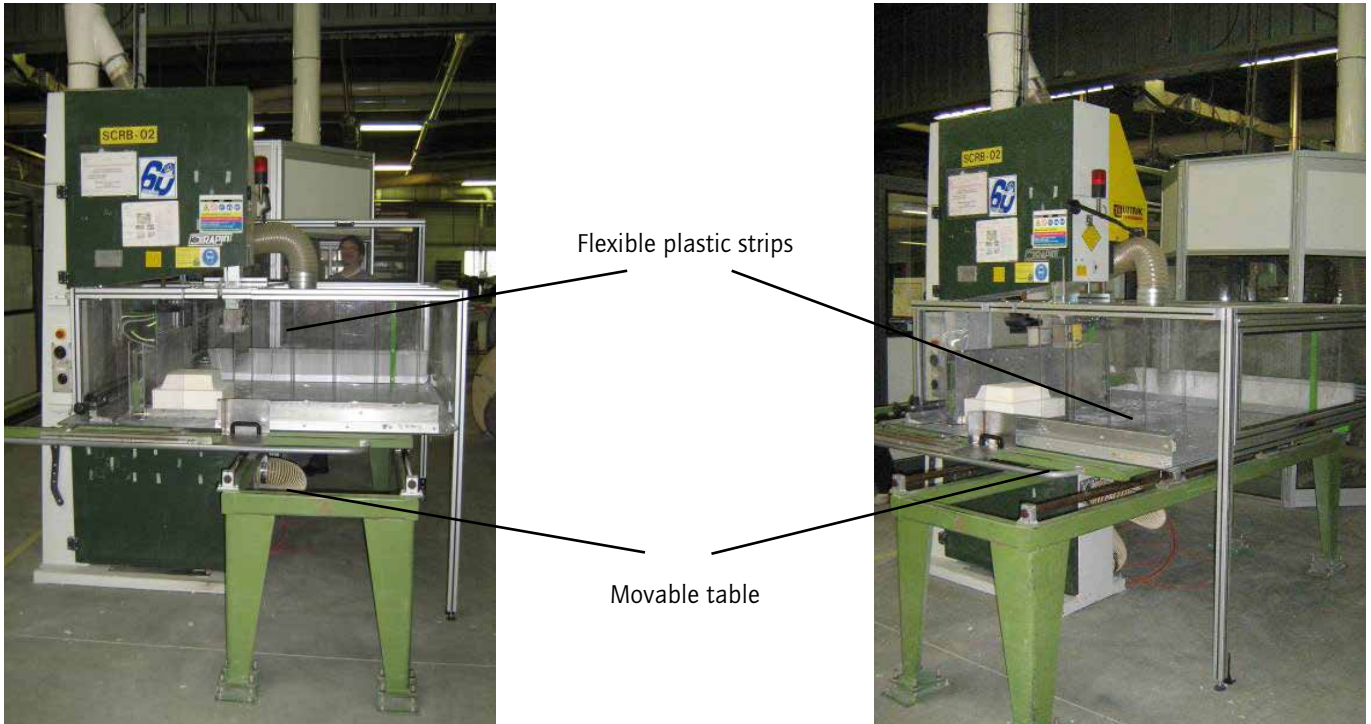
The band saw is used in finishing tasks carried out on all manufactured HTIW products (boards, formed shapes, blanket and modules).



To improve capture of the dust, the table block (the piece around the saw at work table level) should be modified by drilling as shown in the diagram below.



Band saws equipped with a movable table can be completely enclosed (see picture below), with additional exhaust ducting fitted to the top of enclosure. The waste container for off-cuts can be included in this enclosure.



After the sawing operation, the dust that remains on the surface of the machined pieces presents a further exposure risk. When handling the machined pieces, settled dust on the products can be disturbed creating an exposure issue for the worker. To combat this, handling should be kept to a minimum and workers should take extra care to try not to create or disturb dust. If possible, the use of an extraction (LEV) unit should be considered, to capture the generated dust and draw it away from the worker during handling.