



## Machine Guarding Standards

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### 1. Introduction

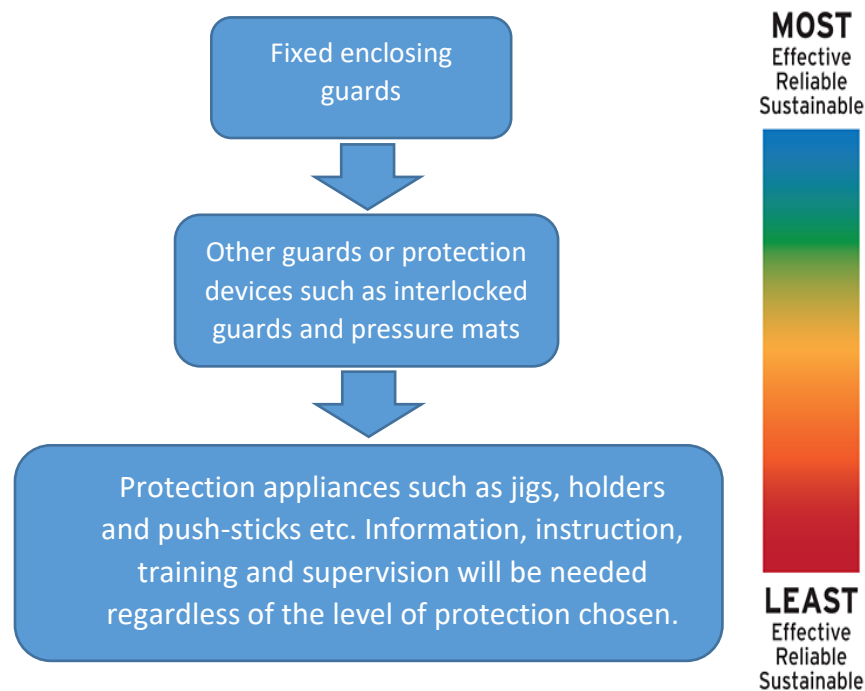
The purpose of these machine guarding standards is to ensure that management and supervisors understand the need for adequate machine guarding and what responsibilities they have for maintaining that guarding.

### 2. Purpose of machine guarding

The purpose of a machine guard is to provide effective measures that prevents access to dangerous parts of machinery. This will normally be by fixed guarding but where routine access is needed, interlocked guards (sometimes with guard locking) may be needed to stop the movement of dangerous parts before a person can reach the danger zone. Where this is not possible, such as with the blade of a circular saw, the dangerous parts of machinery must be protected as far as possible and a safe system of work used.

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### 3. Protective measures hierarchy



Machine guarding must be:

- Suitable for the intended use;
- Safe for use, maintained in a safe condition and inspected to ensure it is correctly installed and does not subsequently deteriorate;
- Used only by people who have received adequate information, instruction and training; and
- Accompanied by suitable health and safety measures, such as protective devices and controls. These will normally include guarding, emergency stop devices, adequate means of isolation from sources of energy, clearly visible markings and warning devices.

The hazards from machinery are identified as part of the task specific risk assessment. This identifies the measures taken to reduce the risks that the hazards present following the hierarchy above. The selection process continues down the scale until the combined measures are effective in reducing the risks to an acceptable level.

The risk assessment will deal with all the mechanical hazards the machine presents as well as any risks presented outside of normal use, e.g. maintenance and cleaning activities.

### 4. Responsibilities

Persimmon is responsible for providing safe machinery and work equipment with adequate guarding as well as appropriate training to use the equipment safely. Operators are responsible for following the training and using the equipment and safeguards in the correct manner, as well as reporting any unsafe conditions that may arise in an expedient manner.

### 5. What makes machine guarding adequate

#### 5.1 Prevent contact

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There should be no contact between body parts and hazardous parts of the machine. It should be physically impossible for unintended contact to be made between moving machine parts and the worker.

## **5.2 Secure**

It should be difficult to remove a safeguard, since there can be a tendency for a worker to remove it if he or she thinks it is an inconvenience. Fixed guarding should only be removed by the use of a special tool or spanner (not a hand tightening device or quick release e.g. wing nuts).

## **5.3 Protect from falling objects**

Nothing should be able to fall onto moving machine parts. Nuts and bolts or small tools could become dangerous airborne objects.

## **5.4 No new hazards**

A machine safeguard should not create a new hazard, such as diminished visibility or a sharp edge that the worker could contact.

## **5.5 No interference**

The safeguard should not make it difficult or awkward to perform the intended work.

## **5.6 Allow maintenance**

It should be possible to perform some basic maintenance such as lubrication with the safeguard in place.

## **6. Machine inspections**

Machinery, and its guards, must be inspected regularly to ensure they are still operating as intended and in a safe manner. Inspection is a combination of daily start up checks (usually by the operator) and a periodic thorough examination by a competent person (e.g. maintenance engineer or in some cases an external body, e.g. insurance company engineer).

Any work equipment that requires inspection must not be used, unless the inspection has taken place and is within its validity range. Where equipment can move around the workplace regularly, it must be accompanied by physical evidence of the last inspection, such as an inspection report or, for smaller items of equipment, some form of tagging, colour coding or labelling system.

## **7. Maintenance**

Equipment must be shut down and positively isolated before any guards are removed and work commences.

Refer to [Energy Control Standards](#)

Once maintenance work is complete all guards should be replaced on the machine or work equipment de-isolated and returned to service. There are occasions following maintenance when equipment needs to be tested whilst guards are removed, in this case a risk assessment must be carried out and additional safety measures put in place. In any case, guarding must be replaced prior to the equipment returning to service.

## **8. Training**

All operatives who use work equipment and machinery must first receive adequate training for purposes of health and safety, including training in the methods which may be adopted when

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using the work equipment, any risks which such use may entail and importantly the precautions to be taken.

### **9. Safety hazard markings and warnings**

Work equipment shall be marked in a clearly visible manner with any marking appropriate for reasons of health and safety, e.g. to warn of moving parts, crush hazards, entrapment hazards etc. Stop and start controls for equipment must also be identified.

A warning is normally in the form of a notice or similar. Examples are positive instructions ('hard hats must be worn'), prohibitions ('not to be operated by people under 18 years'), restrictions ('do not heat above 60 °C'). All warnings are designed and must be situated so as to be easily perceived, understood, and unambiguous.

### **10. Records retention**

Records must be kept, either in writing or electronically, for all:

- Machine maintenance and examinations;
- Training given to operators in the use of machinery and equipment;
- Personal Protective Equipment supplied to operators in respect of the safe use of machinery and work equipment.

These should be held securely and made available upon request by management, HS&E Department and/ or Enforcing Authority.

### **11. Monitoring**

Due to the high risks involved with operatives, working close to dangerous parts of machinery it is essential that guarding measures are closely monitored by all levels of Supervisor and Management. The Group HS&E department will monitor compliance with these standards during routine HS&E inspections.

### **12. Tool Box Talk**

Refer to HSMS [TBT](#) – Machine Guarding

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Version 1 Sections 1,2,3, 4,5,5.1-6, 6,7,8,9,10,11, 12	09.12.2021

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