



SAFETY ADVICE DESIGNED TO KEEP YOUR STAFF SAFE AND YOUR BUSINESS COMPLIANT



## Safe Use of Combination Metalworking Machines

Mechanical hazards, including trapping, crushing and exposure to cutting tools, exist at the different work stations on combination metalworking machines. Trapping or crushing hazards may also arise from unintended or uncontrolled movement of the workpiece and although uncommon, injuries from the ejection of broken tooling have also occurred

### Main Points

Many of the accidents that occur at this type of machine result in very serious injury to the operator's hands, including amputations.

### Safeguards

The guards on these types of machines should be construction and fitted so that each workstation can be used independently without another workstation presenting a hazard to the operator or any other person. Guards should be designed so that there is no access to trapping points between closing tools, punches or blades from all sides.

All guards should be suitable for the purpose for which they are provided and be of good construction, sound material and adequate strength to withstand the stresses of the expected service conditions.

Workpieces should always be properly supported. In particular, small workpieces being punched, notched etc should be worked on tables which are properly designed, incorporating workpiece guide bars and stops. The correct setting of guide bars and stops should minimise the need for operators to interfere with guards.

## Punching

Punching stations must be provided with fixed or adjustable guards which prevent finger or hand access to the dangerous punching tools.

## Notching

Notching stations must be provided with fixed or adjustable guards which prevent finger or hand access to the dangerous notching tools. Modified guarding arrangements may be necessary if the workplace, eg channel section, prevents the use of the normal guards.

## Shearing and Cropping

Shearing and cropping stations must be provided with fixed or adjustable guards at the feed side of the machine in order to prevent access to the dangerous cropping and shearing tools. Where any gaps remain which could allow finger access to the dangerous tools, eg between a workpiece guide and the body of the machine, additional guarding should be provided

## Bending

Tooling similar in principle to that used on press brakes may be used for bending operations (at the punching station), The gap between the tooling should be set as low as possible, typically on these types of machines 4mm or less. If gaps are greater than 4 mm additional safeguards are necessary and further advice should be obtained from the manufacturer. Bending should only be performed on machines which have been designed for this purpose.

## Discussion Points

### Emergency Stop Controls

One or more emergency stop controls should be provided where appropriate. Emergency stop controls should be readily accessible. Where emergency stop controls are activated, the machine should only operate again when the emergency stop device has been reset manually and normal operating controls are used to restart the machine.

### Information, Instruction and Training

- All relevant health and safety information and, where appropriate, written instructions on the use of combination metalworking machines must be made available to operators
- Adequate training should make sure that those who use the machine are competent to use it safely. This includes making sure they have the correct skill, knowledge and risk awareness, and are physically suited to the task.

- Do not let unauthorised, unqualified or untrained people use machinery – never allow young people under the minimum school leaving age, eg on work experience, to operate or help at machines. Some workers, eg new starters, young people or those with disabilities, may be particularly at risk and need additional instruction, training or supervision.

Talk to Atlas about Safety Management for your business



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