

ROOM:

MACHINE OPERATION: MACHINE DRILL



### HAZARDS:

- Long hair, loose clothing etc., can become entangled in moving parts
- Work pieces, chuck keys, broken cutting tools, swarf, etc., can be violently ejected
- Lathes can present a hazard of electric shock
- Closing movements between parts under power can be a trapping hazard
- Sharp edges on tools, work pieces and swarf can cause cuts
- Contact with cutting fluids, oil and grease can irritate
- Swarf can jam or be ejected if allowed to build up
- Inadvertent starting of the machine
- Lack of space around the machine can lead to operator being pushed by passers by
- Slippery floors surfaces or loose items around the machine can cause slips and trips resulting in contact with moving parts
- Manual handling of heavy equipment (e.g. chucks, faceplates work pieces) can present a hazard.

### CONTROL MEASURES – SPECIFIC:

- Eye protection conforming to BS2092-1 used at all times. Loose clothing must be secured; long hair tied back and substantial footwear worn to minimise risk of injury if the material or chuck falls.
- Sufficient space exists around the machine to prevent accidental contact with passers by.
- Teacher instruction given to pupils.
- Guards used when the machine is in operation, unless otherwise instructed by the teacher.

### CONTROL MEASURES – GENERAL:

- The machine must be provided with a power isolator either on or adjacent to the machine and be controlled by a starter incorporating overload protection and no-volt release. The machine must be supplied with a securely fitted emergency foot stop.
- The pulley drive and gear must be totally guarded. A tool-operated locking device must be provided to all access covers. The drill, chuck and spindle must be guarded by a self-adjusting guard which must be positively locked when in the operating position.
- A collar must be securely fitted to the underside of the head and another to the underside of the table. Alternatively, the head and table may be controlled by a column rack. The chuck key must be removed immediately after use and before starting the spindle. Precautions should be taken to prevent long lengths of swarf developing from the drill. The work must be securely held on the table by machine vices or clamps.

Risk Assessment checked by:

Date: