| **Hazards** | **Is the hazard present?**  **Y/N** | **What is the risk?** | **Risk rating**  **H = High**  **M = Medium L = Low** | **Control measures** | **Is this control in place?**  **Y/N** | **If no, what actions are required to implement the control?** | **Person responsible** | **Date action completed** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Contact with drive mechanism |  | Entanglement Severe hand injury | H | The drive mechanism is appropriately guarded  The guard is removable only with the use of a tool, or alternatively is fitted with an interlocking guard mechanism |  |  |  |  |
| Contact by persons other than  the operator with moving machine |  | Entanglement, pinching, amputation of body parts | M | Safe operational areas are  marked out clearly around machines |  |  |  |  |
| Contact with spindle and drill bit |  | Entanglement Severe hand injury | H | The spindle and drill bit is guarded.  (An adjustable spindle/twist drill guard so that the spindle and twist drill (to the bit) are guarded to the greatest extent possible) |  |  |  |  |
| H | Chuck is appropriately guarded |
| H | Drill bit is clamped and chuck key is removed |
| H | Spindle guard is in place before the drill is operated |
| Direct contact with moving parts |  | Injuries such as bruising, scalping, laceration, fracture, amputation, or burns | H | A visual check is carried before use to ensure, where applicable, all guards and covers are fitted, in good order, and there are no visible faults |  |  |  |  |
| H | Machine used in compliance with manufacturer’s instructions |
| M | The operator’s manual is available |
| H | Dangling jewellery is prohibited Gloves, rings or loose clothing are not |
| H | Long hair is tied back |

| **Hazards** | **Is the hazard present?**  **Y/N** | **What is the risk?** | **Risk rating**  **H = High**  **M = Medium L = Low** | **Control measures** | **Is this control in place?**  **Y/N** | **If no, what actions are required to implement the control?** | **Person responsible** | **Date action completed** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Contact with pedestal  drill during start/stop or emergencies |  | Entanglement Severe hand injury | H | The stop control is more prominent than the start control to facilitate ease and speed of access when it is necessary to turn off the machine |  |  |  |  |
|  |  | H | Where applicable, the machine is fitted with an emergency stop control (usually red domed mushroom type head on yellow housing) in an appropriate location, which is easily accessible in an emergency  (A foot operated emergency stop is another possibility for a pedestal drill) |
|  |  |  | The emergency stop works |
|  |  | H | The flap type[22] emergency stop control (flap- stop is a normal start and stop contact, which is equipped with a yellow flap and red mushroom- type push buttons, covering both the start and stop contacts) **is not acceptable** where there is a need for an emergency stop |

 [22]Flap Type Emergency Stop Control



| **Hazards** | **Is the hazard present?**  **Y/N** | **What is the risk?** | **Risk rating**  **H = High**  **M = Medium L = Low** | **Control measures** | **Is this control in place?**  **Y/N** | **If no, what actions are required to implement the control?** | **Person responsible** | **Date action completed** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | H | In the event of power supply interruption, automatic restart is prevented after restoration of the power supply |  |  |  |  |
| Unsupervised use of machines |  | Unsupervised use leading to injury | H | Students are prohibited from using certain machinery |  |  |  |  |
| H | Students are supervised by their teacher when using  any machine |
| H | Students are instructed by their teacher before using  any machine |
| H | Machinery to be used by teachers only is clearly identified |

| **Hazards** | **Is the hazard present?**  **Y/N** | **What is the risk?** | **Risk rating**  **H = High**  **M = Medium L = Low** | **Control measures** | **Is this control in place?**  **Y/N** | **If no, what actions are required to implement the control?** | **Person responsible** | **Date action completed** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Electric shock, electrocution, burns, death |  | Electric shock/ fire/ burns | H | A visual check is carried out prior to use |  |  |  |  |
| H | Machines are serviced by a competent person and service records kept as part of the maintenance schedule |
| H | Defective electrical equipment is clearly identified and labelled as out of use  All faults are recorded in log book. Previous faults have received attention.  Defects are reported to person in control of workplace to ensure all items are repaired or replaced |
| H | The operation of the RCD is checked by pressing the test button regularly and the RCD is tested periodically by a competent person to ensure that it operates at correct leakage current (leakage current not exceeding 30 mA in a time of not more than 0.3 seconds)  (Applicable to plug and socket arrangements) |
| H | Cables are free from damage, do not have any non-standard joints, or show any signs of overheating |
| H | Equipment is disconnected or isolated when not in use |
| Unsecured machine / unsecured work piece |  | Movement of machine leading to injury during use | H | The machine is securely fixed to the floor or bench and appropriate clamps are in place to ensure that work pieces are secured, where applicable |  |  |  |  |

| **Hazards** | **Is the hazard present?**  **Y/N** | **What is the risk?** | **Risk rating**  **H = High**  **M = Medium L = Low** | **Control measures** | **Is this control in place?**  **Y/N** | **If no, what actions are required to implement the control?** | **Person responsible** | **Date action completed** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Inadequate signage |  | Inadequate information and warnings leading to unsafe use of machine and injury | M | Warning signs are prominently located and maintained in good condition |  |  |  |  |
| Flying fragments |  | Eye/facial injury | H | Appropriate eye protection is worn |  |  |  |  |
| H | Particular attention is paid to spring loaded chuck key |
| Contact with swarf or metal working fluids |  | Eye irritation, Skin irritation | H | Metalworking fluids, if used, should be mixed and changed in accordance with the supplier’s instructions  [**See Technologies (Hazardous Chemicals - Metal Work, Wood Work, etc.) - Template No. 59**](https://www.hsa.ie/eng/education/managing_safety_and_health_in_schools/new_guidelines_files/ms_word_files/technologies-_hazardous-chemicals-metal-work-wood-work_–no-59.docx) |  |  |  |  |
| H | Suitable implements are used to remove swarf (dustpan and brush)  No swarf is removed whilst machine is in motion |
| Ingestion of contaminated material |  | Poisoning or ill health | M | Food and drink are prohibited in working area |  |  |  |  |
| Contact with hazardous materials |  | Exposure to hazardous materials | M | Personal hygiene is promoted (washing of hands, use of barrier creams etc.) |  |  |  |  |

If there is one or more **High Risk (H)** actions needed, then the risk of injury could be high and immediate action should be taken.

**Medium Risk (M)** actions should be dealt with as soon as possible. **Low Risk (L)** actions should be dealt with as soon as practicable.

Risk Assessment carried out by: Date: / /

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