## 

**ELECTRO-MAGNETIC FOLDER**

## MaganabendScope

This document is to be completed for staff and student use of machinery, plant and equipment as a part of a school curriculum activity or program.

Refer to the [ITD Guidelines](http://education.qld.gov.au/health/pdfs/healthsafety/itd-staff-guidelines.pdf) for further staff advice on the risk management process for practical ITD curriculum activities in schools.

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| --- | --- |
| Plant/Equipment Description: | |
| Teachers/Leaders: | |
| Room Locations: | |
| Assessment Date: | Review Date: |

*N.B. This assessment can remain active for up to 5 years. However, an annual monitoring and review process should be undertaken and recorded – refer to the last page of this document.*

*Below are the details of the manufacturing or production processes attributed to this item of equipment categorised by their assessed inherent risk levels (refer to the Equipment/Process Risk Matrix). The actions required for approval for each level of inherent risk are mandatory.*

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| --- | --- | --- | --- |
| **Inherent Risk Level** | | **Details of Processes** | **Action Required/Approval** |
| **DO NOT USE THIS MACHINE IF YOU HAVE A PACEMAKER – remain approx. 2 metres away when it is in use.** | | | |
| 🗹 | **Low** | * When **strictly** a single person operates only. * When bending sheet materials (ferrous or non-ferrous) less than < 400mm x 400mm * When the work piece can be securely held without possible entrapment of long hair, hands and fingers or jewellery, etc | * Manage through regular planning processes |
| 🗹 | **Medium** | * When bending sheet materials (ferrous or non-ferrous) greater than > 400mm x 400mm. * When thicker sheet metal is to be bent and the adjusters at either end of the clamp bar need to be rotated. * When the work piece can be securely held without possible entrapment of long hair, hands and fingers or jewellery, etc. * Operators will never attempt to bend rod, wire, strap or spring steel * Dual person operations are strongly discouraged for all students. | * Document controls in planning documents and/or complete this *Plant Risk Assessment* * Consider obtaining parental permission |

Minimum standards

| Minimum qualifications and experience *Listed below are the general “minimum” recommendations for the management of this Plant/Equipment.*  🗹 *Indicate the minimum management controls.* |
| --- |
| Registered teachers with experience, ability and competency in the safe use of this plant/equipment  *(indicate one or more of the following):*  Specific knowledge of the safe and correct use of this plant/equipment  Experience (i.e. previous involvement and familiarity) in the safe use of this plant/equipment  Demonstrated expertise, ability and competency with this plant/equipment  Documented qualifications relating to the use of this plant/equipment (e.g. in a staff profile)  **OR**  An adult staff member or leader, other than a registered teacher, with:  Expertise in the safe and correct use of this plant/equipment  Documented qualifications that demonstrate experience, ability and competency in the safe use of this plant/equipment. |
| Will any ITD staff require initial and/or ongoing training for the safe use of this plant/equipment?  If yes, give details: |
| Will students be operating this plant/equipment?  If yes, state how student use of this plant/equipment will be managed (e.g. Workshop Safety Induction)  Give details: |
| Further information if required: |
|  |
| Minimum control requirements |
| Supporting documentation available in the school on this plant/equipment includes:  Operators Manual  Safe Operating Procedures (SOP)  Equipment Maintenance Records (EMR)  A process for recording student safety induction e.g. Student induction register  A process for recording staff training and experience, e.g. ITD Staff induction register |
| All guards are in place and in good working order for this plant/equipment |
| Safe Working Zones are defined for this plant/equipment (e.g. yellow lines and/or appropriate signage) |
| Inform students and staff with pacemakers NOT to use this equipment (refer to SOP and caution signage) |
| Suitable personal protective equipment (PPE) is available to be used by all operators |
| This plant/equipment complies with relevant safety standards |
| Further information if required: |

Hazards and control measures

*Listed below are indicative hazards/risks and suggested control measures. These are by no means exhaustive lists. Add details of any other hazards/risks or additional controls you intend to implement.*

🗹 *Indicate the control measures adopted. Detail their implementation and any additional controls required.*

| **Hazards/Risks** | **Hierarchy of Recommended**  **Control Measures** | **Yes** | **No** | **Details of how this will be implemented***(and any additional controls)* |
| --- | --- | --- | --- | --- |
| **Exposure to Rotating**  **or Moving Parts:**   * **Crushing and**   **Pinching**  Could anyone be crushed or pinched due to falling, uncontrolled or unexpected movement of plant or its load tipping or rolling over, or contact with moving parts during testing, inspection or maintenance?   * **Shearing**   Can body parts be cut off between two parts of the plant, or between a part of the plant and the work piece or structure?   * **Cutting, Stabbing**   **and Puncturing**  Can anyone be cut, stabbed or punctured by coming into contact with moving plant or parts, or objects such as ejected work piece or waste? | 1. Where possible, potentially hazardous plant, including the electromagnetic pan brake – or Magnabend®, are substituted or replaced with less hazardous alternatives. |  |  |  |
| 1. All necessary Magnabend® guards and safety devices are in place protecting workers from all moving parts. |  |  |  |
| 1. “Lock Out” or warning “Danger” tags are affixed to the Magnabend® pan brake when under repair or maintenance preventing workers from using the equipment. |  |  |  |
| 1. Staff and student training is provided to minimise exposure to these hazards. |  |  |  |
| 1. Safe operating procedures (SOPs) for the Magnabend® pan brake are available and clearly displayed. |  |  |  |
| 1. “Safe Working Zones” around the Magnabend® pan brake are clearly defined by yellow safety lines – (or similar). |  |  |  |
| 1. Emphasis is placed on the requirement for plant operators to remove all jewellery, tuck in loose clothing and tie back long hair. |  |  |  |
| 1. All appropriate and approved personal protective equipment (PPE) is used where required. |  |  |  |
| **Slips, Trips, Falls**  **and Abrasions:**  Can anyone using the plant or in the vicinity of the plant, slip, trip or fall due to the working environment or other factors?  e.g. Poor housekeeping, dust on floors, slippery or uneven work surfaces, power cables across work areas causing injuries and abrasions? | 1. Slip resistant flooring is encouraged. Regular checks are made for unsafe wear and damage. Inspections are made for any power leads, etc. |  |  |  |
| 1. Procedures are in place for the disposal of all waste materials around Magnabend® pan brake. |  |  |  |
| 1. Staff training is provided to minimise exposure to these hazards. |  |  |  |
| **Environmental:**   * **Lighting**   Is there insufficient lighting to operate this plant in a safe manner? e.g. is there a possible strobe lighting effect caused by faulty fluorescent tubes in the workspace? | 1. Good lighting is provided to all workspaces and this is maintained on a regular basis. Fluorescent tubes are checked and replaced as required. |  |  |  |
| **Electromagnetic and Electrical:**  Can the operator be injured by electrical shock due to working near or contacting with damaged or poorly maintained live electrical conductors such as power outlets, extension leads, safety switches, starters and isolators or casual water on the floor near plant and machinery? | 1. Students and staff with pacemakers do **NOT** use this equipment and remain approx. 2 metres away when it is used. |  |  |  |
| 1. The Magnabend® pan brake has a wall or machine mounted isolating switch that disconnects all motive power. |  |  |  |
| 1. The Magnabend® pan brake is fitted with a Direct on Line (DOL) start/stop switch (red and green buttons). |  |  |  |
| 1. “Lock Out” or warning “Danger” tags are affixed to the Magnabend® pan brake when under repair or maintenance preventing workers from using the equipment. |  |  |  |
| 1. Visually checks are made of all electrical switches, plugs and power leads, etc. |  |  |  |
| 1. Electrical safety inspections, testing and tagging, etc. are completed regularly as per guidelines for the Magnabend® pan brake. |  |  |  |
| 1. Electrical maintenance on all plant and equipment, including the Magnabend® pan brake is documented in EMRs. |  |  |  |
| **Ergonomics and**  **Manual Handling:**  Can the plant be safely operated, in a suitable location, providing clear and unobstructed access?  Poorly designed work stations often necessitate teachers and students performing manual tasks involving heavy lifting and lowering, pushing, pulling or carrying, etc. Such tasks then contribute to a range of musculoskeletal sprains and strains for workers. | 1. Where possible, the Magnabend® pan brake and adjacent work benches are planned and adjusted to a comfortable work height thus minimising any unsafe or excessively strenuous manual tasks. |  |  |  |
| 1. Sufficient workspace is provided in all practical classrooms to help ensure unobstructed, safe operation. |  |  |  |
| 1. Safe Working Zones are clearly defined around all fixed plant including the Magnabend® pan brake. Floors are free of excessive wood dust, waste materials and other extraneous objects. |  |  |  |
| 1. Staff training is provided with regard to manual handling techniques and procedures to minimise exposure to these hazards. |  |  |  |

| **Other Hazards/Risks** | **Additional Control Measures** *These would relate to the specific student needs, locations and conditions in which you are conducting your activity.* |
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| **Approval** | | | |
| Submitted by: | | | Date: |
|  | Approved as submitted. | | |
|  | Approved with the following condition(s): | | |
|  | Not Approved for the following reason(s): | | |
| By: | | Designation: | |
| Signed: | | Date: | |

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| ITD staff members involved in the use of this risk assessment and the associated plant and equipment: | |
|  | *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:*  *Signature:*  ……………………………….. *Date:* |

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| **Monitoring and Review** *This Plant & Equipment Risk Assessment is to be monitored and reviewed annually for a further four (4) years.* |

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| **Review 1:** | | **Yes** | **No** |
| * Are allocated risk levels and “actions required” unchanged over the past 12 months? * Are minimum standards and recommended control measures unchanged over 12 months? * ITD staffing details at this school have remained unchanged over the past 12 months? | |  |  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* | | | |
| Reviewed by: | Designation: | | |
| Signed: | Review Date : | | |

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| **Review 2:** | | **Yes** | **No** |
| * Are allocated risk levels and “actions required” unchanged over the past 12 months? * Are minimum standards and recommended control measures unchanged over 12 months? * ITD staffing details at this school have remained unchanged over the past 12 months? | |  |  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* | | | |
| Reviewed by: | Designation: | | |
| Signed: | Review Date : | | |

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| **Review 3:** | | **Yes** | **No** |
| * Are allocated risk levels and “actions required” unchanged over the past 12 months? * Are minimum standards and recommended control measures unchanged over 12 months? * ITD staffing details at this school have remained unchanged over the past 12 months? | |  |  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* | | | |
| Reviewed by: | Designation: | | |
| Signed: | Review Date : | | |

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| **Review 4:** | | **Yes** | **No** |
| * Are allocated risk levels and “actions required” unchanged over the past 12 months? * Are minimum standards and recommended control measures unchanged over 12 months? * ITD staffing details at this school have remained unchanged over the past 12 months? | |  |  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* | | | |
| Reviewed by: | Designation: | | |
| Signed: | Review Date : | | |