



# Company CNC Machining

## Work Equipment Risk Assessment V9



<b>Equipment:</b>	<b>WADKIN UX (2) – With Extraction (incl. materials that produce / release ‘dusts’)</b>
<b>Location:</b>	Machine Shop (Outer Area → Warehouse Racking)
<b>Risk Profile:</b>	Tier 1 – Full Risk Assessment
<b>Authorisation Date:</b>	30 <sup>th</sup> November 204
<b>Authorised By:</b>	Director



## RISK ASSESSMENT MATRIX

Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
1.	<p>Mechanical Hazards (Contact with moving parts of the machine)</p> <p>Possible crushing injuries, fingers, or hands in the aperture between the components being welded</p> <p>Trap, Contact, Shear, and Impact injuries possible</p>	Operatives and others in the vicinity of the machine	3	4	12	<p>Follow guidance provided in the Company H&amp;S Management System for use of work equipment – only authorised, competent operatives are to use this equipment. Provide appropriate information / training to identify potential mechanical failures / poor maintenance that might place staff at risk.</p> <p>Provision and use of company standard PPE.</p> <p>Follow all safety instructions provided by the manufacturer and ensure all emergency stop buttons are clear and unobstructed. Access to the moving parts of the work equipment shall always be appropriately guarded against when in use.</p> <p>The machine must NOT be operated whilst hands are in the vicinity of the components being worked upon. NEVER REMOVE or add to guarding. All equipment visually inspected prior to use and remove from use until repaired / replaced if any defects noticed</p> <p>Adjustment of the parts being worked on in the machine during machine operation should not be attempted</p> <p>Ensure lighting and access around the machine are appropriate at all times</p> <p>Site H&amp;S Compliance records must be adequately maintained and checked according to PPM schedule.</p> <p>All equipment visually inspected prior to use and removed from use until repaired / replaced if any defects noticed. Daily checks completed for all larger items of work equipment with findings recorded and available for inspection</p> <p>Safe Systems of Work (SSOW) following Risk Assessments to be developed by management teams for relevant hazards</p> <p>Only the operator shall be allowed within the immediate area surrounding the work equipment. Access to the work equipment is restricted to authorised personnel only. All visitors to the work equipment shop shall be escorted at all times and shall wear suitable PPE.</p>	1	4	4



Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
2.	Electrical Hazards (Power supply and associated leads)	Operatives and others in the vicinity of the machine	3	5	15	<p>Follow guidance provided in the Company H&amp;S Management System for use of work equipment – only authorised, competent operatives are to use this equipment.</p> <p>Inspection and Testing of Fixed Electrical Installations Certificate, periodic “Hardwire” test of mains circuitry to be conducted on a 5-year basis with information included in legislative compliance files. Site PAT register and records. Maintenance and checks according to PPM schedule</p> <p>Provide appropriate information / training to identify potential failures / situations that might place staff at risk.</p> <p>Ensure all cables are securely fastened and located where they do not comprise a trip hazard or are likely to be damaged. Ensure the use of fixed cabling is used in preference to portable power leads / extensions</p> <p>All cables should be regularly checked prior to using the machine. Any damaged cables or electrical faults with the machine must be reported to the line Manager immediately and the machine should be switched off and isolated.</p> <p>Visual inspection of all plug’s cables and sockets before use of any electrical equipment. Any damage / defects to be reported.</p> <p>All larger items of work equipment have a wall or machine mounted isolating switch that disconnects all motive power.</p> <p>“Lock Out” or warning “Danger” tags must be affixed to all work equipment under repair or maintenance preventing workers from using the equipment (or others from accidentally energizing). Safe Systems of Work (SSOW) must be developed by management teams</p>	2	5	10
3.	Particles or broken cutters ejected from the machine  Contact / Abrasion / Eye injury	Operatives and others in the vicinity of the machine	3	4	12	<p>Eye protection must be worn in designated areas.</p> <p>Operator to stand clear of the machine during operation (so far as is practicable)</p>	2	4	8



Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
4.	Table bed moving / crushing persons against the aperture between the router head and the table bed.	Operatives and others in the vicinity of the machine	2	4	8	<p>Staff Training – only authorised, competent operatives are to use this equipment. The machine must only be operated in accordance with the manufacturers operating instructions.</p> <p>The machine must NOT be operated whilst hands are in the vicinity of the components being machined. Adjustment of the parts being worked on in the machine during machine operation should not be attempted.</p> <p>Sensor pads fitted to the rear of the table bed will cut off the power to machine if touched. manufacturers guidance.</p>	1	4	4
5.	<p>Hazardous substances</p> <p>(Potential exposure to 'dusts' released from materials being machined - e.g., Cemtherm or other pressed solids)</p>	Operatives and others in the vicinity of the machine	3	3	9	<p>Extraction hoses should be checked regularly for damage and wear and tear (alongside routine LEV inspection every 14 months). Extraction system should be in use with nozzle head correctly positioned in relation to the table and the material being machined.</p> <p>Provision and use of company standard PPE - particularly when finishing worked items by hand. Use of disposable overalls, gloves, and eye protection as minimum. Consideration may also be given to using portable extraction system.</p> <p>MSDS register of all products machined during operational activities should be provided alongside the SSOW</p>	1	3	3
6.	Noise - Damage to hearing	Operatives and others in the vicinity of the machine	4	3	12	<p>Follow guidance provided in the Company H&amp;S Management System for use of work equipment – Noise</p> <p>Provide appropriate information / training to identify potential equipment failures / poor maintenance that might place staff at risk.</p> <p>In the Machine Shop a number of larger cutting devices might be in use with point source noise contributions adding to the general background (over and above extraction systems also in operations).</p> <p>The general workspace will always be a mandatory ear protection zone – noise levels are rarely below action level values that require ear protection to be provided and over 85 dB(A) – mandated. With cutting devices and extraction systems in use, noise levels are well in excess of 90 dB(A). Ear defenders issued and worn by operators.</p>	2	3	6



Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
7.	Access & Egress Slips, trips, and falls	Operatives and others in the vicinity of the machine	3	4	12	<p>Access to the moving parts of the machine shall always be appropriately guarded against when in use. Only the operator shall be allowed within the immediate area surrounding the machine. There should be no clutter within the immediate area surrounding the machine.</p> <p>Provision and use of company standard PPE footwear with appropriate soles / grips for warehouse flooring.</p> <p>Keep trailing leads to a minimum. Keep walkways clear of leads. Avoid leads snagging on other pieces of equipment. Identify and report persistent housekeeping deficiencies leading to unsafe workplace</p> <p>Lighting levels are good in terms of the transition between internal and external aspects of the site</p> <p>Cleaning regime in place to minimise poor housekeeping / cleanliness. General good housekeeping within the Workshop / No trailing leads or cables – employees aware to ensure this remains the case.</p> <p>All policies are in place for cleaning spills to ensure no hazard from wet floors. All employees are made aware of these procedures</p> <p>Visual inspection of surfaces, walkways and doors is conducted as part of site walk round Identify and report persistent housekeeping deficiencies leading to unsafe workplace</p>	2	4	8
8.	Heat generated by machine process / Fire.	Operatives and others in the vicinity of the machine	2	5	10	<p>Ensure a regime for housekeeping is adhered to, a build-up of swarf and heat from the machine can be the ignition sources required for a fire. Lubricate the machine as per the manufacturer's guidance.</p> <p>Regular inspection, test, and maintenance of the machine. Run machine at the manufacturers recommend speeds. Do not modify machine.</p> <p>Metals machined on this machine must be cooled using a propriety Coolant.</p>	1	5	5



Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
9.	<p>Use of Hazardous Substances – COSHH</p> <p>Low Volume proprietary substances / preparations</p> <p>Harmful Substances</p>	Employee	2	4	8	<p>The company will maintain a record of substances held on site within a register of hazardous substances. All relevant substances will be listed on an inventory summary sheet.</p> <p>All products will have SDS (safety data sheets) obtained to establish any specific hazards related to substances within the product.</p> <p>Employees use a number of proprietary substances / preparations in the course of completing operational activities.</p> <p>Most substances are used in small quantities and for very limited periods of time and therefore will not require separate COSHH risk assessments.</p> <p>Aerosol Lubricants – typically eye / skin irritants (use of PPE – safety eyewear and coveralls / nitrile gloves). Skin contact washed off immediately with soap / water.</p> <p>Contact Adhesives - Epoxy and polyester resins should not be allowed to come into contact with the eyes or skin.</p> <p>Suitable PPE eye protection and gloves should be worn. Protective gloves should be worn. Sufficient ventilation should be provided. All sources of ignition should be removed.</p> <p>A safe method of working will be followed when hazardous materials are used. Where PPE is to be used as a control measure, employees will be issued with appropriate PPE and will be responsible for its use and safe keeping.</p> <p>Any shortages of PPE to be reported to management immediately.</p> <p>PPE used with be appropriate to the substance characteristics and as such professional advice from PPE suppliers should be obtained indicating the substance characteristics.</p> <p>All relevant PPE meets recognised BS EN standards for hazard type / operational activity.</p>	1	4	4





Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
10.	<p>Manual Handling</p> <p>Ergonomic Hazards/ MSD</p> <p>Poor posture or difficult working environments</p> <p>Manual handling / strains and sprains</p>	Operatives	4	3	12	<p>All operatives should receive appropriate training in line with guidance provided in the H&amp;S Management System.</p> <p>When changing the machine clamps or loading heavy components then the operator should seek assistance and if necessary, make use of lifting equipment such as a fork-lift truck.</p> <p>Check that the equipment or materials to be lifted are secure and that there are no loose items which could fall during the lift injuring legs or feet.</p> <p>Ensure that there are no sharp objects protruding from the objects to be lifted or in the vicinity of the lift.</p> <p>Using the lifting and lowering guide weight diagram (MH Procedure) establish if you require assistance from another operative to form a team lift or if mechanical assistance is required to load or unload the item in question.</p> <p>Always ensure the route is planned and clear of any obstructions. Forward visibility should be maintained at all times. If you feel that forward visibility may be hindered, seek another method of moving the equipment or materials, either mechanical assistance or assistance from another operative.</p> <p>Ensure specific manual handling risk assessments have been completed for identified tasks (see register as appropriate)</p> <p>Unhealthy postures or excessive efforts should be avoided – ensure that a comfortable working position is attained before using the item of work equipment.</p>	2	3	6
11.	<p>Hazardous substances</p> <p>(Potential exposure to hydraulic fluids, oils used by the machine)</p>	Operatives and others in the vicinity of the machine	3	3	9	<p>Hoses should be checked regularly for damage and wear and tear. Any spillages must be cleaned with absorbent granules or sand, and the cause of the spillage repaired before work commences. If any spillage occurs the area should be cordoned off until the spillage is removed.</p> <p>Provision and use of company standard PPE.</p> <p>Eye wash available and additional welfare facilities available to all employees.</p> <p>MSDS register of all products used during the operation of the machine should be provided.</p>	1	3	3



Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
12.	Maintenance (Including Isolation)	Operatives and others in the vicinity of the machine	3	4	12	<p>The upkeep of the work equipment is essential. The work equipment shall be lubricated and checked/adjusted regularly in accordance with the manufacturer's instructions.</p> <p>Blades and other cutting accessories should be kept appropriately serviced / sharp etc.</p> <p>Inspections of work equipment must be carried out by a competent person at regular intervals to make sure it is safe to operate</p> <p>The machine should be switched off at its power isolator when working on or changing the blade.</p> <p>All safety devices should be checked by a suitably trained and competent person (someone with the necessary skills, knowledge, and experience) at regular intervals. This should take into account how much the machine is used as well as any supplier's or manufacturer's recommendations. Record the details of any maintenance and inspection checks and in particular any actions identified and confirmation that they have been completed.</p> <p>Damaged work equipment must not be used. All defective work equipment must be withdrawn from use immediately and repaired or replaced.</p> <p>All larger items of work equipment have a wall or machine mounted isolating switch that disconnects all motive power.</p> <p>"Lock Out" or warning "Danger" tags must be affixed to all work equipment under repair or maintenance preventing workers from using the equipment (or others from accidentally energizing). Safe Systems of Work (SSOW) must be developed by management teams</p>	2	4	8
13.	Compressed Air	Operatives and others in the vicinity of the machine	2	4	8	<p>Ensure that compressed air lines are appropriately located and secured and that any leaks are reported without delay</p> <p>Compressed air should only be used to move loose material in and around work pieces</p>	1	4	4





Hazard Description		Persons At Risk	Likelihood	Severity	Risk	Risk Control Measures	Likelihood	Severity	Residual Risk
14.	Equipment movement around work areas / loading areas - pallet trucks etc.  Environmental factors	Operatives and others in the vicinity of the machine	3	4	12	<p>Regular site inspections conducted to identify any issues with the property's fabric.</p> <p>Welfare / rest facilities - the site has appropriate washing facilities, sanitary conveniences and drinking water available to all employees.</p> <p>All work equipment is regularly inspected and maintained to help minimise the risk of exposures to these hazards.</p> <p>Exposure to noisy workshop environments is monitored and evaluated regularly for all workers.</p> <p>Engineering controls (or physical changes) such as mandatory machinery guarding, or any protective safety screens and enclosures are in place in all workspaces and all in good working condition.</p> <p>All ducted extraction systems are connected and operational, fully maintained and cleaned as required.</p> <p>Good lighting is provided to all workspaces, and this is maintained on a regular basis. Fluorescent tubes are checked and replaced as required.</p> <p>All appropriate and approved personal protective equipment (PPE) is used where required.</p>	2	4	8

<b>Assessor:</b>	A J Barton	<b>Assessment Date:</b>	30/11/24	<b>Reference No:</b>	0756	<b>Revision No:</b>	009
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<b>Authorisation Date:</b>	30 <sup>th</sup> November 2024	
<b>Authorised By:</b>	Director	



## RISK RATING MATRIX

In order to quantify the likelihood and severity of certain observations / situations, the following risk rating matrix will be used. By considering the likelihood and severity of each element an overall risk rating can be determined.

This risk rating has been documented in an 'as seen' capacity based on native risk as well as a residual risk rating that would be appropriate if all documented risk control measures have been implemented and maintained.

<b>S</b> <b>L</b>	<b>Intolerable (5)</b>	<b>Significant (4)</b>	<b>Moderate (3)</b>	<b>Slight (2)</b>	<b>Negligible (1)</b>	
<b>Very likely (5)</b>	High (25)	High (20)	High (15)	Medium (10)	Low (5)	<b>R I S K</b>
<b>Probable (4)</b>	High (20)	High (16)	Medium (12)	Medium (8)	Low (4)	
<b>Possible (3)</b>	High (15)	Medium (12)	Medium (9)	Medium (6)	Low (3)	
<b>Remote (2)</b>	Medium (10)	Medium (8)	Medium (6)	Low (4)	Low (2)	
<b>Unlikely (1)</b>	Low (5)	Low (4)	Low (3)	Low (2)	Low (1)	

<b>High</b>	Very limited or no controls in place which could lead to significant breach of H&S legislation, non-compliance with Company policy and procedures / non-compliance with best practice. Intolerable risk to the organisation in terms of personal injury, civil or criminal litigation. Work must not be started or continued until controls have been introduced to reduce the risk to an acceptable level.
<b>Medium</b>	Control measures in place, hence unlikely breach of H&S legislation. Tolerable risk to the organisation - likely compliance with Company policy and procedures, best practice. The task can be started / continue but further efforts should be considered to reduce the risk where practicable. The task must be monitored to ensure that the control measures remain in place and suitable.
<b>Low</b>	Extensive control measures in place, hence breach of H&S legislation very unlikely. Tolerable risk to the organisation - compliance likely to be evident with all relevant Company policy and procedures / best practice. Low risk of personal injury. Low risk of improvement notice being served by the enforcing authorities. The task can be started / continue but should still be monitored to ensure that the control measures remain in place and suitable.



## RISK ASSESSMENT → SAFE SYSTEM OF WORK

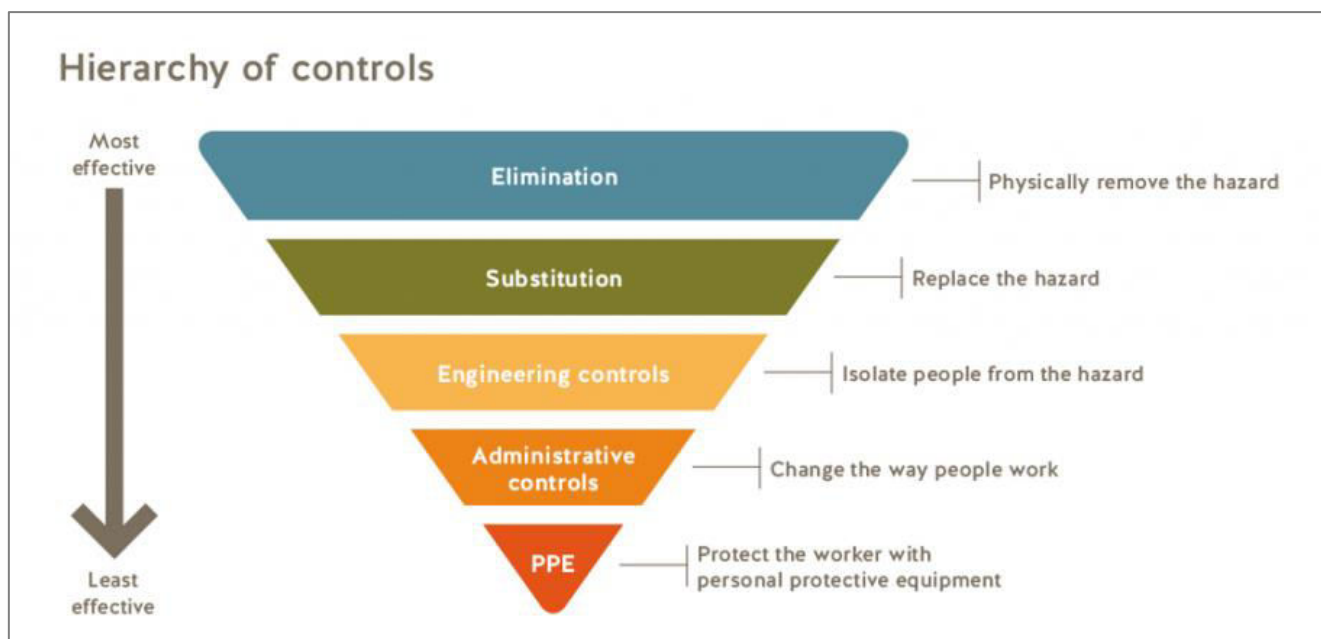
Under Section 2(a) of the Health and Safety at Work etc Act (HSWA) 1974, employers must, 'so far as is reasonably practicable', provide and maintain systems of work that are practical, safe and without risks to health. Many subordinate regulations, such as the Provision and Use of Work Equipment Regulations (PUWER) 1998, require that workers are given appropriate information and instruction on how to use work equipment safely - in effect, another more specific requirement to provide safe systems of work.

Safe systems of work are based on a thorough 'suitable and sufficient' risk assessment of the task / activity / workplace

Where the risk assessment identifies a reasonably foreseeable risk of injury from work equipment, appropriate safeguards and control measures must be implemented. The risk assessment will identify ways of controlling exposure and the means by which the continuing effectiveness of those control measures can be verified, and documented records maintained. The selection of work equipment will be informed by the findings of the risk assessment process to ensure that the safest and most suitable equipment is employed, and the safe system of work is devised and documented.

Wherever possible, priority will be given to eliminating the risks, or if that is not possible taking engineering measures to control the risks. If the risks still cannot be adequately controlled then appropriate management measures to deal with the remaining risk, such as following safe systems of work and the provision of information, instruction and training will be implemented.

All work equipment must be suitable and safe for the intended process and conditions of use, whilst still being able to complete the work efficiently. Work equipment that is unsuitable, unstable, poorly maintained, ergonomically ill-fitting or lacking in power is likely to take much longer to complete the task and as a result may expose employees to greater risk of harm.



In order to ensure safe systems of work are followed every time all employees must be adequately trained in how to carry out the process correctly, competent to carry out the work safely and aware of the systems and hazards which the safe methods aim to remove/reduce.



Safe systems of work will be reviewed and revised regularly to take account of changed conditions or accidents. This includes effective monitoring: regularly checking to make sure that the system remains appropriate for the task and that it is being fully complied with.

There must always be sufficient supervision if the system is to go to be followed and work carried out safely. The level of supervision required will depend on the particular worker's experience, the complexity of the task, and the risks involved.





## SAFE SYSTEM OF WORK (SSOW) - USE OF LARGER ITEMS OF WORK EQUIPMENT

1. Wherever possible, priority must be given to eliminating the risks, or if that is not possible taking engineering measures to control the risks such as the provision of guards. If the risks still cannot be adequately controlled then appropriate management measures to deal with the remaining risk, such as following SSOW and the provision of information, instruction and training must be considered.
2. All work equipment must be suitable and safe for the intended process and conditions of use, whilst still being able to complete the work efficiently. Work equipment that is unsuitable, unstable, poorly maintained, ergonomically ill-fitting or lacking in power is likely to take much longer to complete the task and as a result may expose employees to greater risk of harm.
3. Where the stability of the work equipment is not inherent in its design or operation or where it is mounted in a position where its stability could be compromised, additional measures should be taken to ensure its stability.
4. All work equipment and workstation design must consider relevant ergonomic factors in order to ensure that the design is compatible with human performance factors and minimise the likelihood of WRULD's. Operation of the work equipment must not place undue strain on the user, nor require undue force or motion range beyond their normal strength or physical reach limitations to carry out tasks. Workstation adjustability must be considered within any design or refurbishment activities.
5. There must be suitable and sufficient (interior and exterior) lighting, which takes account of the work activity being carried out, provided at any location where work equipment is used. Local and topical lighting must avoid creating high/low visibility zones at the interface between interior and exterior locations or stroboscopic effects, e.g. fluorescent lighting, which can make a rotating part, such as a grinding wheel or a rotating shaft, appear stationary.
6. Where insufficient lighting exists in areas not covered by general or local lighting or when activities such as maintenance or repair work is carried out in less accessible parts of the workplace, additional lighting must be provided.
7. Work equipment must be maintained so that its performance does not deteriorate to the extent that people are put at risk by the deterioration of work equipment. The frequency of maintenance activities must be commensurate with the intensity of use, the operating environment, the variety of operations and the risk to health and safety from malfunction or failure.
8. Inspections of work equipment must be carried out by a competent person at regular intervals to make sure it is safe to operate. The intervals between inspections will depend on the type of equipment, how often it is used and the conditions of use, including location. Records must be kept of inspections, and of any defects and repairs. Inspection should include, where appropriate, visual checks, functional checks, and testing.
9. Inspections must always be carried out after installation, but before the equipment is used for the first time, or after major repairs, upgrades, or refurbishment to ensure that the work equipment can be operated, adjusted, and maintained safely.
10. Damaged work equipment must not be used. All defective work equipment must be withdrawn from use immediately and repaired or replaced. All equipment failures must be investigated and, where necessary, reported to manufacturers.



11. If it is not possible to reduce the level of risk by using engineering and administrative controls, then suitable personal protective equipment (PPE) must be used. All PPE must be comfortable, work effectively in conjunction with any other types of PPE and only be used in accordance with the manufacturer's instructions. Appropriate storage and cleaning facilities must be provided for all non-disposable PPE.
12. Health surveillance must be considered where employees are likely to be exposed to hazards that may pose a risk to health (e.g., noise, vibration, hazardous substances etc.).
13. All work equipment must be fitted with appropriate warning devices and warning signs. Warning devices can take the form of audible or visual alarms or both. Warnings must be easily perceived, understood and unambiguous and when applicable be given sufficiently in advance of the equipment starting to give those at-risk time to get clear or take suitable actions to prevent risks.
14. All work equipment must be fitted with appropriate markings, using words, letters, numbers, or symbols, where there are nationally or internationally agreed markings relating to certain hazards, markings must as far as possible conform to published standards.
15. All control systems associated with items of work equipment must be safe and take into account likely failures or faults and be designed and positioned to prevent inadvertent or accidental operation. Control for start, stop and emergency stop must be readily available and conspicuously marked. The action of the stop and emergency stop controls must bring the equipment to a safe condition in a safe manner.
16. Access to dangerous parts of machinery must be prevented and controls must be in place to stop the movement of any dangerous part of machinery before any part of a person comes into contact with it. Measures that must be considered in order of priority are:
  - The provision of fixed guards enclosing every dangerous part
  - The provision of other guards or protection devices
  - The provision of jigs, holders, push-sticks, or similar protection appliances to be used in conjunction with the machinery
  - The provision of information, instruction, training, and supervision
17. Guarding must be suitable for the intended purpose, robust in construction, with adequate strength, maintained in an efficient state and working order and in good repair. Guarding must not give rise to any increased risk to health or safety during operational activity.
18. Guarding must be located at a sufficient distance from the danger zone, positioned so as not to restrict the view of the operational activity of the equipment, take account of maintenance requirements and must not be easily bypassed or disabled.
19. When maintaining machinery, the equipment should ideally be de-energised, isolated for all sources of energy and locked in a safe state to prevent it being reenergised before the maintenance or repair is complete. Only the individual undertaking the maintenance must have the ability to 'un-lock' and reenergise the equipment.
20. Where equipment has to be running or working during a maintenance operation and this exposes the employee to risk of harm, measures must be taken to enable the equipment to operate in a way that reduces the risk, including limiting the power, speed, or range of movement available to dangerous parts or providing additional protection during maintenance operations.



## MECHANICAL & ELECTRICAL ISOLATION REQUIREMENTS

### Energy Isolation

Energy Isolation is designed to prevent injury during the servicing and maintenance of building services (mechanical & electrical), machines and equipment resulting from the unexpected start up or release of energy and to ensure the methods of isolation are such that the systems or equipment remain dead and cannot be unintentionally re energised. Energy sources include all potential and kinetic energy relating to electrical, mechanical, pressured fluids (hydraulic or pneumatic), chemical, heat, thermal including steam or hot water, ionising and non-ionising radiation that can be hazardous to workers.

“Isolation” means establishing a break in the energy supply in a secure manner, by ensuring that inadvertent reconnection is not possible. “Electrical Isolation” specifically means the disconnection and separation of the electrical equipment from every source of electrical energy in such a way that this disconnection and separation is secure and inadvertent release or re-energisation is prevented.

### Energy Isolation – Controls

The safe system of work for isolations must be appropriate for the system or equipment and include:

- Identification of equipment and systems involved.
- Points of isolation as close as possible to the system or equipment and location of energy sources.
- Shutdown procedures.
- Isolations process including lock out tag out (LOTO). Tags must be clearly visual and prohibit the use of the plant or equipment and prevent reinstatement.
- Confirmation of dead or zero energy state by operating start button or sensor.

Where multiple isolations are required, a high-risk work control system must be used. Where work on isolated equipment is performed by more than one person, a locking device with multiple locks and keys must be provided unless a competent person determines through risk assessment that it is not required. Where locking devices are required, each nominated person must have their own lock or key. The system of control must require all locks are removed before the isolating device can be disengaged. Keys must not be passed between or to anyone other than the nominated personnel.

A means of isolation must be provided where the work equipment is dependent on external energy sources such as electricity, pressure (hydraulic or pneumatic) or heat. Where stored energy is present capable of producing harm, typically from pneumatic and hydraulic systems or electrical charge in capacitors, then a means of dissipating stored energy must be provided. Visual tags and warning notices must be used at points of isolation and in other prominent locations as deemed necessary to communicate the status of the equipment or system.

Where plant or equipment is installed such that safe isolation is difficult or not reasonably possible to achieve, the matter must be escalated to ensure that a solution can be found subject to authorisation by Company management. Reconnection or reinstatement of the energy source must not put people at risk. Energisation and the removal of locking out devices must only be performed by the appointed person. Those affected by the system returning to live status must be informed. Access to the work area must be properly controlled.





## COMPETENCE REQUIREMENTS - USE OF LARGER ITEMS OF WORK EQUIPMENT

1. A competent person is a person who can demonstrate that they have sufficient professional or technical training, knowledge, actual experience, and authority to enable them to:
  - Carry out their assigned duties
  - Understand any potential hazards and understand the controls required to prevent harm related to the task (or work equipment) under consideration
  - Detect any technical defects or omissions in that work (or equipment), recognise any implications for health and safety caused by those defects or omissions, and be able to specify a remedial action to mitigate those implications
2. All persons that use work equipment, including the design, assembly, inspection, testing, maintenance, repair and use of work equipment and associated safety features, must be competent and appropriately trained.
3. All persons must have completed an approved course and hold valid certification appropriate to the type of work equipment being used, dependent on the level of risk.
4. Instructions and Information must be readily understood by all concerned, whether provided in writing, or verbally and should be based on the level of skill of the workers involved, their experience and training, the degree of supervision to be provided and the complexity and length of the particular job. Consideration must be given to the choice or range of languages used.
5. Where health surveillance is required, it must be undertaken by a competent person who can interpret the data and provide appropriate advice – such as a doctor or an appropriately trained nurse.
6. Documented records of all training must be maintained.



## RISK ASSESSMENT - Signature Sheet

Risk assessment underpins all aspects of the management of Health and Safety. There is a statutory duty to assess the risks to health and safety arising from all work activities undertaken/controlled by Company (and all subsidiary companies) and to ensure that all those who may be involved in the activities / processes being undertaken are appropriately informed and made aware of the content of the risk assessment documents.

EMPLOYEE SIGN OFF			
Signature to confirm* understanding of the work to be carried out			
1	Name	Signature	Date
2	Name	Signature	Date
3	Name	Signature	Date
4	Name	Signature	Date
5	Name	Signature	Date
6	Name	Signature	Date
7	Name	Signature	Date
8	Name	Signature	Date
9	Name	Signature	Date

\*I confirm that I have received, read, and understood this risk assessment and confirm that I will work in accordance with the instructions herein at all times.