

TRADE AREA: CONSTRUCTION INDUSTRY- METAL MANUFACTURING:

Some possible workplace hazards and possible ways for Host employers and Apprentices/Trainees in controlling these hazards.

What are possible hazards?	What could be possible control measures?
Mechanical equipment (e.g. metal guillotines, power presses, angle grinders)	<ul style="list-style-type: none"> • Maintenance program established by the Host ensuring all equipment is in safe working order • Machine guards installed • A/Ts trained in safe operation of mechanical equipment • Supervision of A/Ts provided by Host • PPE provided to A/T where needed (e.g. safety glasses, hearing protection etc)
Welding	<ul style="list-style-type: none"> • Adequate ventilation provided • PPE provided (e.g. welding helmet, welding jacket, welding gloves, overalls, safety boots etc) • Appropriate training & supervision provided
Forklifts	<ul style="list-style-type: none"> • All forklift operators have a current forklift licence • All forklift operators have licence with them whilst at work • Separate forklift pathways from pedestrian traffic in place
Hazardous substances (e.g. paint, glue, solvents, gases for welding, cleaning liquids & powders)	<ul style="list-style-type: none"> • MSDS available and are current • Appropriate PPE provided (e.g. gloves, overalls, respirator, boots) • Splash guards in place • Written risk assessments conducted by Host to identify hazardous substances and control the risks • MSDS sheets available for substances classified as hazardous • Substances are stored safely and securely when not in use • A/T trained in the safe use of hazardous substances and the required PPE • All hazardous substances are labeled • Hazardous substances not stored in food and/or drink containers • Flammable and combustible liquids are stored away from ignition sources • Eye washes are located in immediate vicinity of chemical storage area
Electricity	<ul style="list-style-type: none"> • Equipment is inspected, tested and tagged on a regular basis • Lock out, and tag faulty equipment e.g. DANGER- DO NOT USE • Emergency stop buttons on equipment that needs to be stopped quickly in an emergency installed • Electrical equipment kept away from water and other liquids • Extension leads are secure and protected from damage • System for reporting and tagging out faulty electrical equipment in place by the Host
Noise/Hearing loss	<ul style="list-style-type: none"> • Noise emissions are reduced as far as is practicable (e.g. machinery enclosed, vibrations reduced, barriers & screens in place to block the direct path of the sound, air exhausts & blowing nozzles silenced) • Employees are not exposed to noise that exceeds the national exposure standard • Noisy equipment positioned away from other work areas • Hearing protection supplied and used by A/Ts when working with or near power tools or powered mobile equipment • Powered tools are maintained to reduce noise • Noise- suppressed equipment used • A/T trained in how to use protection correctly • Audiometric tests undertaken by A/Ts as required • Noise assessments undertaken by Host of the workplace when workers are exposed to excessive noise • Warning signs placed in areas of excessive & continuous noise • Noisy machinery isolated
Sexual Harassment &	<ul style="list-style-type: none"> • Bullying & harassment policy displayed in the workplace

bullying	<ul style="list-style-type: none"> • Bullying & harassment policy & procedures explained to all employees • Procedures for reporting & resolving incidents in place and explained to all employees • Workers have received information, instruction and training in relation to dealing with bullying and harassment • Workers are trained in recognition of, communication for & management of bullying & harassment • Procedures in place to ensure timely and appropriate counseling is provided to workers following a workplace bullying/harassment/aggressive/violent incident
Lifting & bending	<ul style="list-style-type: none"> • Mechanical means used to lift heavy items (e.g. trolleys) • All tasks are encouraged to be completed in the ‘best working zone’ (i.e. between shoulder and knee height” • Empty pallets are not lifted by one person • Gloves are used for all manual handling tasks
Pushing & pulling	<ul style="list-style-type: none"> • Magnetic lifters or forklift used where necessary • Suitable mobile or overhead crane used for bundled loads • Purpose-built vehicle used for small loads • A/T training provided in correct pushing & pulling techniques
Lacerations, amputations & fractures	<ul style="list-style-type: none"> • Machine guards are used appropriate to the level of access required • Gloves are used when working with hot equipment/material • Gloves not used when operating machinery, especially where gloves create a risk of entanglement • Suitable clothing provided to the A/T (e.g. overalls, long trousers, long sleeve shirt, safety boots) • A/T provided with instruction in safe use of hand tools/equipment • Workplace is brightly lit
Using hand tools	<ul style="list-style-type: none"> • Work gloves should absorb impact energy, provide protection from sharp edges and be puncture resistant • Avoid working in front of face • Always work away from the body • Rotate workers through a variety of tasks so workers are not undertaking the same task or holding the same postures for extended periods • A/T provided with instruction in safe use of hand tools • Hand tools are fit for the purpose expected & maintained in accordance with manufacturer’s specifications • Correct tool is verified before being put into use
Slips, trips and falls	<ul style="list-style-type: none"> • Use the highest level of falls prevention measures such as guard railing, physical barriers or perimeter scaffolding • Floor surfaces are slip resistant • Ensure all working areas and access ways are clean, level, well-lit, in good repair and clear of potential/actual tripping hazards • Wear sensible non-slip footwear • Remove unwanted material and waste regularly from site so it does not accumulate • Ensure construction material, power leads, tools & equipment are positioned to avoid creating tripping hazards • While cleaning, workers wear PPE, including protection against scalding • Wet floor warning signs always used • Doormats at entrance in wet weather • Good lighting in all areas • Floors in all areas cleaned thoroughly according to a daily schedule • Equipment maintained and repaired regularly to prevent leaks • Edges of large pieces of equipment are painted to make them more visible • Replace steps with ramps where practical
Hot weather conditions	<ul style="list-style-type: none"> • Work re-scheduled when extreme weather conditions present risk

	<ul style="list-style-type: none"> • Regular rest breaks provided • Water facilities available • A/T dressed appropriately for the conditions
Fire	<ul style="list-style-type: none"> • Fire warden in place • Fire extinguisher regularly checked • Fire evacuation drills conducted annually/six monthly • Evacuation map and procedures displayed & staff instructed in correct evacuation procedure • Surveillance system in place to spot intruders
Exposure to airborne contaminants (e.g. gases or dust produced during welding and grinding)	<ul style="list-style-type: none"> • Dust extraction systems in place • Filters of dust extraction systems maintained and cleaned regularly • Appropriate ventilation and exhaust controls in place for machinery that generate sawdust and gas emissions • Hand tools fitted with a collection bag where appropriate • Sawdust cleaned up • Compressed air not used to clean down equipment or clothing • PPE provided (e.g. welding helmet, welding jacket, welding gloves, overalls, safety boots safety glasses, hearing protection, respirators, dust masks etc)
Injuries from poor guarding	<ul style="list-style-type: none"> • Permanently fixed barriers (that surround equipment requiring minimal maintenance or cleaning of parts) • Interlocked physical barrier(usually has one moveable segment, that, if triggered, automatically shuts the system down to prevent injury) • Physical barrier (that covers the dangerous components of a working piece of machinery). Only a qualified person should remove this guard • Presence sensing system(a sensor that can electronically detect someone's proximity to a dangerous area or machine)
Working overhead or above shoulders	<ul style="list-style-type: none"> • Mechanical devices used • Workers positioned at a height (e.g. scaffolds) which allows work to occur without reaching above the head
Working alone	<ul style="list-style-type: none"> • There is a system in place for communicating with workers working alone • The system ensures that workers have means of communicating in the event of emergency (e.g. mobile phones, duress alarms) • The system requires regular contact to be maintained with workers to ensure safety & supervision • The employer has knowledge of the location of all workers at all times during work shifts.