



Job Safety Analysis Cover Sheet – Welder Activity

The attached Job Safety Analysis (JSA) is advisory only, and is for the use of the party to whom it is addressed and for no other purpose. No responsibility is accepted or undertaken to any third party who may use or rely on the content of this JSA. No responsibility is accepted or undertaken for any decisions made by the addressee in relation to site safety, whether made on the basis of this JSA or otherwise.

Company Name: This JSA has been prepared by Safe Job WA (Tel: 0402293790) in consultation with the above named company.	Project Details: The attached JSA applies to all company projects.
Equipment to be used in the works: PPE Hand tools Small power tools Electrical equipment Scaffolding	Qualifications required to do the work: (please tick) ☐ White card – 3 yearly Safety Awareness Training. ☐ Certificate of competency (please specify) ☐ Other (please specify)
Risk Raking (RR): Refer to JSA for risk ranking number 1, 2 or 3. (left column) RR # 1 - High level of harm (Consequence - death, permanent disability). RR # 2 - Medium level of harm (Consequence - potential temporary disability). RR # 3 - Low level of harm (Consequence - incident that has the potential to require persons to receive first aid). Residual risk rate (RRR): Refer to JSA for residual risk number. Note - This is a risk that remains after all practicable efforts have been made to mitigate or eliminate risks associated with the activity.	
Notes: 	

- () OSH ACT 1984
- () OSH REGULATIONS 1996
- () CODES OF PRACTICE WA – for example; manual handling code, prevention of falls code, relevant Australian Standards etc.
- () OTHER - add titles of any other relevant safety documents below.



Job Safety Analysis

➔ Welder

Before this JSA is used it must be checked and adjusted to suit the subcontractor's work method as long as hazards are identified and controlled. Additional steps will need to be added or modified to suit particular circumstances. The main function of this JSA is to identify unsafe conditions and work practices and nominate adequate controls. If required, add any additional hazards and detail the method of control for each additional hazard. Attach additional pages if space insufficient.

JSA → Welder Activity

Job Step	1. Delivery stacking and storage of materials...RISK RATE 1
Potential Hazard	Various harm potential
Controls	➤ Ensure all materials are delivered and stacked in a safe position on site. ➤ Pre-start planning activities to address the following potential hazardous site situations. ➤ A pre-start risk assessment for site hazards will also be conducted.
Residual Risk	2
Responsible	Delivery company and driver and Welding Contractor
Job Step	2. Working outdoors. RISK RATE 1
Potential Hazard	1. Ultra violet radiation can cause skin cancers 2. Heat stress
Controls	➤ Provide adequate personal protective equipment e.g. hats, protective clothing and SPF30+ sun cream. ➤ Provide adequate training on preventing skin cancers. ➤ Supervise and ensure workers maintain good work practices. ➤ Provide ample drinking water.
Residual Risk	2
Responsible	Welding Contractor
Job Step	3. Manual handling. RISK RATE 1
Potential Hazard	Manual handling problems e.g. pulled muscles and strained backs
Controls	➤ Provide adequate training on manual handling risks. ➤ Ensure team lifts. ➤ Ensure workers adopt proper individual lifting techniques. ➤ Promote the use of mechanical devices when moving materials. ➤ Ensure proper planning and consideration to situations where work is to be carried out in sloping areas and to the transportation and the positioning of materials in sloping areas or when there are gradients. ➤ Ensure heavy equipment and materials are lifted to upper levels via crane. ➤ Warm up exercises are recommended before any heavy lifting. ➤ All digging work will be conducted in line with good manual handling procedures.
Residual Risk	2

Responsible	Welding Contractor
Job Step	4. Shallow excavation works. RISK RATE 1
Potential Hazard	Various harm potential
Controls	➤ All shallow excavations will be back-filled as soon as possible after the work is completed. ➤ As required, signage / bunting etc. will be used if the excavation is to be left open. ➤ Excavations deeper than 1.5m will comply with safety requirements outlined in OSH Regulations and WA Excavations Code of Practice. ➤ Check for existence of any underground services.
Residual Risk	2
Responsible	Welding Contractor
Job Step	5. Public Safety. RISK RATE 1
Potential Hazard	Public safety and potential harm that can be caused to members of the public
Controls	➤ Advise workers about public safety issues. ➤ Prevent members of the public from entering work areas using barriers etc. as required. ➤ Ensure housekeeping standards are adequate to prevent members of the public from slipping or tripping on associated discarded rubbish. ➤ Ensure loose materials are left in a stable condition at the end of each working day.
Residual Risk	2
Responsible	Welding Contractor
Job Step	6. Fire Safety. RISK RATE 1
Potential Hazard	Burns
Controls	Ensure proper precautions are taken when using highly flammable liquids (HFL's). ➤ Ensure an operable and suitable portable fire extinguisher is available to be used when carrying out hot work including burning, cutting, brazing and welding work. ➤ Any petrol or other highly flammable material used / stored on site must be done so in compliance with product safety, transport, use, storage and emergency requirements. ➤ Comply with no smoking and no naked lights policy at all times.
Residual Risk	2
Responsible	Welding Contractor
Job Step	7. Housekeeping. RISK RATE 1
Potential Hazard	Various injuries caused by trips and slips

Controls	➤ Ensure workers are trained in good housekeeping practices and work in a clean environment. ➤ Ensure regular clean-ups occur throughout the working day and at the conclusion of daily work. ➤ Ensure discarded materials and rubbish is placed bins provided.
Residual Risk	2
Responsible	Welding Contractor
Job Step	8. High speed blades etc. RISK RATE 1
Potential Hazard	Lacerations caused through contact with high speed blades e.g. cutting tools etc.
Controls	➤ Ensure operators of cutting equipment are adequately trained in safe use of relevant machine / tool. ➤ Provide and ensure adequate personal protective equipment, i.e. eye, ear, respiratory, hand and foot protection. (Footwear will have adequate tread). ➤ Ensure the proper fitting of blades and associated equipment and replace when damaged or worn out. ➤ Ensure equipment and tools are used only to the specifications recommended by the manufacturer. ➤ Ensure public safety is not compromised when using high speed blades / discs and the work is not carried out on or near public access ways. Note: see safety guidance addressing the use of electric grinder.
Residual Risk	2
Responsible	Welding Contractor
Job Step	9. Electrical. RISK RATE 1
Potential Hazard	Burns and electric shock caused through contact with electrical sources
Controls	➤ Ensure all electrical equipment is tested and tagged by a licensed electrician on a quarterly basis. ➤ Ensure all equipment is protected through the use of an appropriate Residual Current Device (RCD). ➤ Ensure “domestic” electrical appliances are not used on site, i.e. double adaptors, multi- board outlet devices, and domestic leads/cords. ➤ Ensure homemade electrical devices e.g. leads are not used. ➤ Ensure leads containing the colour green are not used. ➤ Ensure leads do not extend 30m. ➤ Ensure leads are elevated to prevent trips and slips occurring to site personnel. ➤ Ensure leads are protected from physical damage e.g. site traffic, wheel and brick barrows, falling objects, and wet/damp conditions. ➤ Ensure all workers are advised through suitable training of the above safety issues.

	➤ Ensure all workers are advised of the dangers of working near overhead powerlines especially when handling or using long lengths of conductible construction equipment and materials.
Residual Risk	2
Responsible	Welding Contractor
Job Step	10. Eye damage and lacerations when working with materials / metal strapping. RISK RATE 1
Potential Hazard	Lacerations and eye injuries caused when working with materials / metal strapping
Controls	➤ Ensure metal straps are only cut using snips. ➤ Ensure sharp metal straps are bent over when cut with snips. ➤ Ensure straps are not sprung / broken using tools or other sharp implements. ➤ Wear appropriate eye protection at all times.
Residual Risk	2
Responsible	Welding Contractor
Job Step	11. Chemicals. RISK RATE 1
Potential Hazard	Various harm potential when using chemicals including welding fume
Controls	➤ Ensure current Material Safety Data Sheets (MSDS) no older than five (5) years are available. ➤ Ensure workers using the materials are trained and aware of the dangers associated with the chemical used. ➤ Ensure PPE referred to in MSDS is available when chemical(s) are use. ➤ Ensure all fumes / dust is controlled / suppressed through the use of vacuum and extraction hose systems outside the work area.
Residual Risk	2
Responsible	Welding Contractor
Job Step	12. Machine safety (guarding and safe use of equipment). RISK RATE 1
Potential Hazard	Various harm potential when using machinery
Controls	➤ Ensure all machines used e.g. saws, cutting tools, grinders etc. are in good working condition and that all guards are fitted and operable. ➤ Tools and equipment must be used only to the recommendations of the manufacturer.
Residual Risk	2

Responsible	Welding Contractor
Job Step	13. Working at heights. RISK RATE 1
Potential Hazard	1. Fall from ladder 2. Fall from or through scaffold
Controls	Ensure the following standards when using ladders; ➤ Secure ladders at all times. ➤ Ladders will extend 1m above landing platform. ➤ Ladders will comply with Australian Standards (AS) and be in good condition. ➤ Ladders will be erected at a 4:1 ratio and be stable. Ensure the following when using scaffolding; ➤ Erect scaffolding in accordance with required standard. ➤ Builder to Ensure scaffolds of 4m > are erected by a licensed scaffolder. ➤ Ensure workers are advised of alteration procedure, i.e. do not interfere with scaffold that is higher than 4m unless qualified, get a qualified scaffolder to make the alteration. ➤ Do not remove braces, handrails / midrails, planks, fender boards, infill mesh. ➤ Do not place tools, gear or materials near open edges. ➤ Ensure workers are advised to report scaffolding hazards to their immediate supervisor. ➤ Ensure weight limit of 675kg per bay is not exceeded. ➤ Ensure scaffold platform is cleared of all rubbish at completion of work and rubbish placed in designated area. ➤ Ensure workers are advised not to throw or drop materials gear or tools from scaffolding. ➤ Ensure moveable handrails are closed when not in use. ➤ Ensure workers using scaffold are advised not to climb scaffold frame to access platform. ➤ Ensure open edges of 2m and greater are edge protected.
Residual Risk	2
Responsible	Welding Contractor
Job Step	14. Use of Oxy-acetylene equipment. RISK RATE 1
Potential Hazard	Various harm potential

Controls	➤ Personnel using this equipment will be experienced and trained in its use. ➤ On site accident prevention will include the following; 1. Correct set up procedure and connections including leak detection. 2. Lighting up procedure including purging and shut down fire protection 3. Use of cylinders to be carried out in accordance with manufacturer's instructions. 4. Cylinders to be protected from damage and heat sources and secured in the up-right position. 5. Cylinders to be moved on approved trolleys and secured and approved cradles if lifting by crane. 6. Hoses and ancillary equipment will be well maintained and protected from damage. 7. Flash back arrestors will be fitted (2 at hand piece and 2 at bottle set) and checked in compliance with Australian Standard.
Residual Risk	2
Responsible	Welding Contractor
Job Step	15. Use of cutting equipment. RISK RATE 1
Potential Hazard	Various harm potential
Controls	All operators will be trained in the use of the equipment. ➤ Procedures used will be in accordance with Work Safe WA requirements. ➤ All saws / grinders will be maintained in good condition and used in compliance with the manufacturers instructions including : 1. Avoidance of shaft and flange damage 2. Correct fitting of blades and holding nuts 3. Operable guard fitted 4. Provision of coolant water as required 5. Safety of others in the work area is considered 6. Proper manual handling procedures when using saws 7. Ensure saw is not to be used above shoulder height for vertical cutting work or waist height for horizontal cutting work 8. RCD protection fitted 9. Clean work area without trips 10. Loose fitted clothes, long hair, jewellery to be properly secured before commencing the work 11. All PPE to be worn including hearing and eye / face protection, suitable footwear etc. ➤ All residues resulting from cutting will be prevented from escaping into the environment through compliant extraction / suppression systems and disposed of correctly.
Residual Risk	2
Responsible	Welding Contractor

Job Step	16. Traffic Management. RISK RATE 1
Potential Hazard	1. Struck by moving vehicles 2. Risk of traffic collision
Controls	➤ As required a Traffic Management Plan will be implemented to separate workers from moving vehicles. ➤ As a minimum requirement, all workers will wear hi-visibility clothing when working on or near roads. ➤ Cones, signs and barriers will be used, as required, to establish work zones. ➤ Safe parking of work vehicles and positioning of materials will be considered prior to the commencement of work activity the movement of public traffic will not be impeded or jeopardized by the work.
Residual Risk	2
Responsible	Welding Contractor
Job Step	17. Training information and instruction. RISK RATE 1
Potential Hazard	Various harm
Controls	➤ All workers will be in possession of a current White card no older than 3 years from the date of issue stated on the card. (Call Safe Job WA on 0402 293 790) ➤ It is recommended that all workers will be provided with specific toolbox training on the content of this documentation.
Residual Risk	2
Responsible	Welding Contractor
Job Step	18. Consultation and cooperation on OSH matters. RISK RATE 1
Potential Hazard	Various harm potential identified by site Supervisory staff
Controls	Adhere to site safety instructions as issued in the interests of site safety from time to time by site supervisory staff.
Residual Risk	2
Responsible	Welding Contractor
Job Step	19. Personal Protective Equipment
Potential Hazard	Various harm potential can be caused to parts of the body
Controls	All workers will wear the following PPE (as required) when working on-site; ➤ Safety helmet (where applicable). ➤ Safety footwear. ➤ Hi-visibility vest. ➤ Industrial gloves.

	➤ Hearing protection. ➤ Eye protection. ➤ Respiratory protection. ➤ Knee Pads. ➤ Fall Injury Prevention Device (where applicable). As a minimum all workers will be required to wear safety helmets and safety footwear. All PPE provided must comply with the relevant Australian Standard (AS).
Residual Risk	2
Responsible	Welding Contractor
Job Step	20. First aid. RISK RATE 1
Potential Hazard	Various harm potential
Controls	➤ Each team will have access to a suitable and stocked first aid kit. ➤ A person trained in first aid will be available to render first aid treatment as required.
Residual Risk	2
Responsible	Welding Contractor
Job Step	21. Conclusion of Welding activity. RISK RATE 1
Potential Hazard	Various harm potential
Controls	At the conclusion of all Welding activity the following will occur; ➤ Remove all unsecured materials from elevated positions ➤ Ensure all rubbish is placed in site bin. Particular attention to be made to scaffold platforms internally, areas below scaffolding and areas accessed by members of the public. (Where standards are not met the site supervisor will ensure the contractor returns to site to complete the requirements outlined above).
Residual Risk	2
Responsible	Welding Contractor
Job Step	22. Tool box talks. RISK RATE 1
Potential Hazard	Various harm potential if information and recognition of individual responsibility is not addressed
Controls	A critical element of the work involves the work force being provided with adequate information instruction and training. This is considered a significant job step and as such it is strongly recommended that the subcontractor conducted tool box talks with each member of his team; ➤ Upon commencement

	➤ At least 6 monthly ➤ As required by the contractor See following pages for suggested documentation
Residual Risk	2
Responsible	Welding Contractor
Job Step	23. Supervision. RISK RATE 1
Potential Hazard	Lack of adequate supervision on the job can contribute to accident potential
Controls	The Welding contractor will appoint a nominated person to take charge of each project. This person will be a qualified tradesman who's primary responsibilities will include the following; ➤ Ensuring quality workmanship. ➤ Ensuring satisfactory productivity levels. ➤ Ensuring compliance with the company JSA. The person shall lead by example and issue fair and reasonable instructions to his team as required and in the interests of establishing and maintaining a safe and productive workplace. Team members have a responsibility to comply with any fair and reasonable safety instruction as required by the company and its representatives.
Residual Risk	2
Responsible	Welding Contractor

JSA → Welding (Notes)

1. Employees and Subcontractors ofto be provided with an overview of and opportunity to read the above JSA. This to be done at a sub-contractor organized tool box talk.
2. All persons to whom this JSA applies to be advised that further explanation can be provided if required.
3. Attendance at tool box talks are compulsory.
4. A tool box talk should be carried out upon commencement with the company and 6 monthly thereafter.
5. All persons who attend a tool box talk are required to sign and date attached record of attendance.

JSA → Welding (Tool box talk)

Record of attendance register as required please copy this page to include names/ signatures.

As required I have read and I understand the contents of the above JSA for(insert name of subcontractor) and where practical I will work positively towards ensuring a safe place of work and will follow all fair and reasonable instructions as issued by relevant Supervisors and Managers.

Names (please print)

Signatures

Date

1.....

2.....

3.....

4.....

5.....

Site welder instruction / Memo to employees

Using an electric grinder / vacuum system

Subcontractors and staff are advised of the following safety precautions to be followed when conducting wall chasing on site:

Risk assessment

- Ensure a risk assessment is carried out in all work areas before commencing work.
- A risk assessment should identify any hazards in the work area(s). Allow for some consideration as to assessing any risk identified and for controlling the risk involved.

Housekeeping

- Ensure clean and clear work areas in all work areas.
- Ensure no rubble or similar on the floor.
- Take note of uneven surfaces in wet areas.
- Note the position of protruding pipe work from the floor before commencing work.
- Do not place cords and leads on the floor.
- Unless being used, ensure tools and equipment is kept out of work areas.

Electrical

Ensure all cutting equipment to be used is;

- In good working order,
- Inspected and tagged by an electrical worker on a quarterly basis.
- Residual current device (RCD) fitted and operable.

Do not use damaged or unsafe equipment.

- All procedures must be carried out in consideration of Work Safe WA requirements.
- The equipment to be used must be used in compliance with the manufacturer's recommendations.
- Only use the recommended blades / discs in the equipment.
- Ensure correct fitting of blades and holding nuts.

- Do not use damaged blades / discs.
 - Ensure the guard is fitted.
 - Ensure extraction system is fitted and is operable and positioned away from the work area.
 - Ensure good manual handling techniques when using the equipment. (grip , stance, lifting , carrying , moving and operating the equipment)
 - Use appropriate personal protective equipment (hearing protectors, suitable face-visor, appropriate eye protection, safety footwear with good grip, industrial gloves).
 - All Personal protective equipment must comply with the relevant Australian Standards.
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- Do not use the equipment above shoulder height if cutting vertical chases
 - Do not use the equipment above waist height if cutting horizontal chases.
 - Use suitably stable platforms (do not use crates, step-ladders, ladders, boxes, up-turned buckets or containers etc. to gain access to upper work areas).
 - Note the minimum width of a working platform is 450mm wide.
 - Use fully planked scaffolding platforms that are suitable for the intended work.
 - Ensure handrails on any platforms above 2m .
 - Ensure safe and clear access to all work areas.
 - Ensure loose fitting clothes, long hair and jewellery is secured before using the equipment.

Working alone

- Ensure you have advised your supervisor of your work location before starting work.
- Maintain regular contact with your supervisor.

First Aid

- Ensure access to suitable first aid equipment.
- Follow safe work procedures at all times.