

Narrative				Risk assessment for: Mig Welding (Inside the building)								
<p>To ensure MIG welding is undertaken as safely as possible, we have designated a segregated hot works area, just inside the roller-shutter. This area has been chosen because it provides the maximum possible natural ventilation, however it is also a relatively high foot-fall area. To mitigate this, warning beacons will be installed above both entrances which will automatically illuminate when the welding equipment is powered up. The welding equipment will be covered by an induction, and a padlock lockout will be installed on the main power switch to insure it is only used by inducted users. A mobile extractor will be provided. PPE will be provided in the form of welding masks, overalls, and gauntlets. Due to the fire and explosion risk, welding to motor vehicles is not permitted and a bollard will be installed to prevent them being brought in through the shutter. A gasless MIG system will be used to avoid the storage of pressurised cannisters. After completing any welding, the user must maintain a firewatch for a one hour period.</p>				Completed by:		Matt Glasspole						
				Signed off by:		Kit Proctor						
				Signed off date:		2026-03-17						
				Review date:		2027-03-17						
#	What is the Hazard?	Who is at risk?	What is the harm?	Mitigations								Final Risk Level
				Permanent physical controls or separation. Eg: Enclosures, guards, interlocks, fixed extraction.	Non-fixed physical controls or separation Eg: removable safety items, mobile extraction	Hackspace rules	Onboarding points	Induction points (enforced by lockout)	Safety Inspection	Signage	PPE	
1.1	UV Radiaton	User	Vison Damage, Arc Eye					Welding masks must be worn when welding.	Check welding masks are available and in good condition Check signs are in place	"You must wear protective clothing and welding mask when welding"	Welding mask provision.	Acceptable
1.2	UV Radiaton	Others in the area	Vison Damage, Arc Eye	UV shielding curtains separate the designated welding area within the workshop. Warning lamps at both approches to the designated welding area automatically illuminate when the welding equipment is powered up.	Mobile Screens Provided.	All welding inside the Hackspace must take place in the designated hot work area.	All welding inside the Hackspace must take place in the designated hot work area. Do not enter the hot work area while the warning lamps are illuminated.	All welding inside the Hackspace must take place in the designated hot work area.	Check condition of UV shielding curtains and check the warning lamps are working Check signs are in place	Warning lamp signage: "Welding in progress! Do not enter"		Acceptable
1.3	UV Radiaton	Passers By	Vison Damage, Arc Eye	UV shielding curtains separate the designated welding area within the workshop.	Mobile Screens Provided.			You must use the mobile screens to shield passers-by from vision damage.	Check condition of UV shielding curtains and mobile screens and check the warning lamps are working Check signs are in place	"You must use the mobile screen to sheild welding for passers by"		Tolerable
2.1	Hot workpieces, splatter, embers, etc	User	Burns					You must wear protective clothing and welding mask when welding	Check signs are in place	"You must wear protective clothing and welding mask when welding"	Welding overalls, mask, and gauntlets provision.	Acceptable
3.1	Unintentional contact with hot workpieces	Others in the space	Burns	Designated physically segregated hot work area away from other activities.				You, or someone nominated by you, must remain in the Metal Shop for one full hour after completing any hot works to keep a watch for delayed ignition of materials resulting from your work. You must sweep up any left over detritus after completing your work, and dispose of it in the metal bin.				Acceptable
4.1	Heat ignition of flammable materials	All building users	Burns, Smoke Inhalation, Death	Designated physically segregated hot work area away from other activities. Wood shop extraction system causes a negative pressure gradient preventing migration of wood dust into the dedicated hot works area.			Never store or abandon anything in the hot work area. Other tasks should never take place in the designated hot work area.	Before commencing any hot works, you must inspect the entire hot work area for flammable material and remove it before commencing. You, or someone nominated by you, must remain in the Metal Shop for one full hour after completing any hot works to keep a watch for delayed ignition of materials resulting from your work.	Removal of anything that has accumulated in the hot work area. Check signs are in place	"NEVER STORE OR ABANDON ANYTHING IN THIS AREA" "You MUST remain in the area for ONE HOUR after completing any welding"		Acceptable
5.1	Welding directly to vehicles containing flammable materials	All building users	Burns, Smoke Inhalation, Death	Fire alarms and smoke detectors are in the space		"Do not weld to motor vehicles in the Hackspace"	"Do not weld to motor vehicles in the Hackspace"	You must not weld to motor vehicles in the Hackspace.	Test fire alarms Check signs are in place	"Do not weld to motor vehicles in the Hackspace"		Acceptable

6.1	Welding Fumes	User	Respiratory damage	Designated hot work area is highly ventilatable, by the roller-shutter.	Portable fume extraction provisioned in dedicated hot works area.	The roller-shutter must be fully opened while welding.		The roller-shutter must be fully opened while welding. If you wish to make a weld that the extraction cannot be used for, you must provide and wear your own respirator.	Test roller shutter fully opens Check signs are in place Test the portable fume extraction turns on and is extracting	"You must wear protective clothing, welding mask, and respirator when welding" "You must fully open the shutter when welding".	Respirator	Tolerable
6.2	Welding Fumes	Others in the area	Respiratory damage	Designated hot work area is highly ventilatable, by the roller-shutter.	Portable fume extraction provisioned in dedicated hot works area.	All welding inside the Hackspace must take place in the designated hot work area. The roller-shutter must be fully opened while welding.		The roller-shutter must be fully opened while welding. Extraction must be used while welding. If you wish to make a weld that the extraction cannot be used for, you must talk to users in the area and make sure they are wearing respirators.	Check signs are in place	"You must fully open the shutter when welding" "You must use the extraction or a personal ventilator when welding"	Respirator	Acceptable
7.1	Electromagnetic interference with implanted medical devices	Users	Serious health risk, Death					Welding may interfere with implanted medical equipment – if you use such a device check with your doctor before using the welding equipment.	Check signs are in place	"Welding may interfere with implanted medical equipment"		Acceptable
7.2	Electromagnetic interference with implanted medical devices	Others in the area	Serious health risk, Death	Warning lamps at both entrances to the designated area automatically illuminate when the welding equipment is powered up.				Welding may interfere with implanted medical equipment – make sure to check with users in the area who may not be aware.	Check signs are in place	"Welding may interfere with implanted medical equipment"		Acceptable