

RISK ASSESSMENT

fTitle:	Engineering Department				Date of Assessment:	05/04/2016	Risk Assessor:	Ian Warne and Clare Crouch	
Reference Number:	RA02		Version Number:	6	People involved in making this assessment:			Ian Warne and Clare Crouch	
Task/Process:	Working in the Engineering Department				People at Risk:	Employees, visitors and contractors			
Documents Associated with this Risk Assessment:				Engineering Safe Systems of Work, FLT02 Pedestrian Safety Around Forklift Trucks, HSF16 Display Screen Assessment Form, RA55 Stress, Mental Health and Wellbeing, H&S09 Mental Health and Wellbeing Policy.					
Review Date:	13/10/2023		Reviewer:	Dan Carver			Next Review Date:	13/10/2024	

Hazard: Manual Handling	Risk of musculoskeletal injuries from poor manual handling. Risk to employees.									
Control Measures:										
1.	Lifting equipment provided where necessary									
2.	All staff trained in manual handling (training reviewed)									
3.	Two person lift when required									
4.	Ensure the working zone is clear from obstacles and trip hazards and has plenty of space and light									
5.	Work benches and machine tables set at a comfortable height									
6.	Instruction, information, training and supervision									

Hazard: Slips and Trips		Risk of musculoskeletal injuries. Risk to employees, visitors and contractors.	
Control Measures:			
1.	Ensure the working zone is clear from obstacles and trip hazards and has plenty of space and light		
2.	Plan the route and brief all involved of the route		
3.	Protective shoes to be worn providing slip protection		
4.	Leads to be kept safe and not cause a trip hazard		
5.	Spills in department to be cleaned immediately		
6.	Department to be kept free from trip hazards and regularly checked		
7.	Instruction, information, training and supervision		

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Hazard: Tig Welding	Risk of damage to sight from welding arcs, major burns and lung damage from weld fumes. Risk to employees, visitors and contractors.
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Control Measures:

1.	Welding is carried out in the Welding Room if it is not practical to do so it is carried out behind welding curtains to shield other members of staff from the ultraviolet light
2.	Welding equipment serviced in line with manufacturers guidelines and our maintenance sheets
3.	LEV in place for weld fumes. This is checked monthly and serviced and inspected annually
4.	Screens and a face shield/mask must be used
5.	Overalls and gloves must be used
6.	Industry approved welding masks are used
7.	Gas bottles to be stored as per the written instructions
8.	Operating and Safety Instructions
9.	Only trained, competent and approved staff to use this equipment
10.	Health Surveillance implemented
11.	All welding to be completed at least 30 minutes before the end of the department shift
12.	Welding area to be inspected after 30 minutes to ensure safe.
13.	Instruction, information, training and supervision

Hazard: Pillar Drills	Risk of hand and eye injuries from rotating parts and ejected materials. Risk to employees.
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Control Measures:

1.	Machine guards are in place on all pillar drills and checked monthly
2.	No loose clothing to be worn and long hair to be tied back when operating drills
3.	Machine isolated when performing maintenance
4.	Items clamped before drilling
5.	Appropriate PPE provided – must be used
6.	Operating and Safety Instructions
7.	Only trained, competent and approved staff to use this equipment
8.	Instruction, information, training and supervision

Hazard: Stainless Steel Polishing	Risk of lung damage, eye damage from dust ejected, damage to hearing from noise. Risk to employees.
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Control Measures:

1.	Majority of polishing only carried out in a dedicated room
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2.	LEV used to extract dust. This is serviced every year
3.	Full face fresh air breathing apparatus worn at all times during polishing. This is checked daily for defects. Filters are checked in line with manufacturer's guidelines. This equipment also shields the user's eyes from dust
4.	Disposable suits or overalls must be worn and regularly changed to eliminate dust transfer from clothes
5.	Ear protection is provided and must be worn
6.	Operating and Safety Instructions
7.	Only trained, competent and approved staff to use this equipment
8.	Health Surveillance implemented
9.	Instruction, information, training and supervision

Hazard: Chop Saws for cutting Aluminium		Risk of hand and lower arm injuries, eye damage from blade and materials ejected. Risk to employees.
Control Measures:		
1.	The saws have guards and brakes fitted	
2.	No loose clothing to be worn and long hair to be tied back when operating saw	
3.	Eye protection worn at all times	
4.	Machine isolated when performing maintenance	
5.	Operating and Safety Instructions	
6.	Only trained, competent and approved staff to use this equipment	
7.	Instruction, information, training and supervision	

Hazard: Bench Grinder		Injuries as a result of coming into contact with grinding wheel or material. Risk to employees.
Control Measures:		
1.	Machine is guarded	
2.	Machine isolated when performing maintenance	
3.	Eye protection and a mask must be used	
4.	Wheel changing to be undertaken by trained, tested and approved personnel only	
5.	Operating and Safety Instructions	
6.	Only trained, competent and approved staff to use this equipment	
7.	Instruction, information, training and supervision	

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Hazard: Hand Tools (including Cordless Drills)	Injuries as a result of incorrect use of tools. Risk to employees.
Control Measures:	
1.	Correct tool to be used for the job
2.	Visual inspection before use
3.	PPE provided where necessary
4.	Operating and Safety Instructions
5.	Only trained, competent and approved staff to use this equipment
6.	Instruction, information, training and supervision

Hazard: Angle Grinder	Injuries as a result of coming in contact with the cutting wheel or materials ejected. Risk to employees.
Control Measures:	
1.	Angle grinder guarded
2.	PPE worn at all times when using this equipment
3.	Operating and Safety Instructions
4.	Only trained, competent and approved staff to use this equipment
5.	Instruction, information, training and supervision

Hazard: Fly Press	Head injuries, crushed hands and flying objects. Risk to employees.
Control Measures:	
1.	Correct equipment to be used on this machine as per the operating instructions
2.	Operating and Safety Instructions
3.	Only trained, competent and approved staff to use this equipment
4.	Instruction, information, training and supervision

Hazard: Manual Chain Hoist	Injuries as a result of crushing from falling objects. Risk to employees.
Control Measures:	
1.	Equipment examined in line with LOLER
2.	Maximum weight clearly marked
3.	Operating and Safety Instructions
4.	Only trained, competent and approved staff to use this equipment
5.	Instruction, information, training and supervision

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Hazard: Bag Sealer	Minor burns from heat strip, crushed hands. Risk to employees.
Control Measures:	
1.	Operating and Safety Instructions
2.	Only trained, competent and approved staff to use this equipment
3.	Instruction, information, training and supervision

Hazard: Band Saw	Injuries from cutting blade or materials ejected, crushed hands. Risk to employees.
Control Measures:	
1.	Machine guards in place
2.	Machine isolated when performing maintenance
3.	Items clamped when cutting
4.	Eye protection worn at all times, gloves and mask provided if required
5.	Operating and Safety Instructions
6.	Only trained, competent and approved staff to use this equipment
7.	Instruction, information, training and supervision

Hazard: Lathes	Oil/Coolant penetration. Injuries from the rotating parts and materials ejected. Risk to employees.
Control Measures:	
1.	Machine isolated when performing maintenance
2.	Guards in place around chuck
3.	Eye protection worn at all times
4.	Old oils disposed of in line with correct procedure
5.	Operating and Safety Instructions
6.	Only trained, competent and approved staff to use this equipment
7.	Wash hands after use
8.	Instruction, information, training and supervision

Hazard: Linisher/Sander	Injuries from coming into contact with sanding belt and materials and dust particles ejected. Risk to employees.
Control Measures:	
1.	Machine isolated when performing maintenance
2.	Eye protection and mask worn at all times, gloves provided if required
3.	Operating and Safety Instructions

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4.	Only trained, competent and approved staff to use this equipment
5.	Instruction, information, training and supervision

Hazard: Tube Bender	Crush injuries, oil absorption and cuts from tubes. Risk to employees.
Control Measures:	
1.	Daily pre use check
2.	Monthly checks for safety and maintenance
3.	Oil Resistant gloves provided
4.	Operating and Safety Instructions
5.	Only trained, competent and approved staff to use this equipment
6.	Wash hands after use
7.	Instruction, information, training and supervision

Hazard: Milling Machine	Oil/Coolant penetration. Risk to employees.
Control Measures:	
1.	Machine isolated when performing maintenance
2.	Guards in place around chuck and checked monthly
3.	Eye protection worn at all times
4.	Old oils disposed of in line with correct procedure
5.	Operating and Safety Instructions
6.	Only trained, competent and approved staff to use this equipment
7.	Wash hands after use
8.	Instruction, information, training and supervision

Hazard: CNC Machine	Hand and eye injuries from rotating parts and ejected material. Risk to employees.
Control Measures:	
1.	Machine guards are in place on CNC Machine and checked monthly
2.	No loose clothing to be worn when operating CNC Machine
3.	Machine isolated when performing maintenance
4.	Old oils disposed of in line with correct procedure
5.	Items clamped before commencing any work
6.	Eye protection worn at all times
7.	Appropriate PPE provided – must be used

8.	Operating and Safety Instructions
9.	Only trained, competent and approved staff to use this equipment
10.	Wash hands after use
11.	Instruction, information, training and supervision

Hazard: Weld Cleaner	Irritant to skin, lungs and eyes. Risk to employees.
Control Measures:	
1.	Wear gloves, goggles and vapor mask
2.	Operating and Safety Instructions
3.	Wash hands after use
4.	Instruction, information, training and supervision

Hazard: Electricity	Risk of electric shocks and burns. Electrical faults could lead to fires. Death. Risk to employees.
Control Measures:	
1.	All sockets have RCD's built in
2.	Electrical items regularly PAT tested as required
3.	Fixed wiring inspected every 3 years
4.	Good housekeeping to ensure leads cannot be damaged
5.	All faults to be reported to a supervisor/manager immediately
6.	Personal appliances to be approved before use
7.	Instruction, information, training and supervision

Hazard: Noise and Vibration	Risk of damage to hearing and permanent damage to hands and arms (HAVS). Risk to employees.
Control Measures:	
1.	Low noise and low vibration tooling used where possible
2.	Planned maintenance for machinery and LEV systems
3.	Suitable hearing protectors provided for employees and employees trained how to use them.
4.	Employees trained in risks of noise and vibrations exposure
5.	Employees trained in system of work to reduce noise and vibration exposure (e.g. suitable feed rates, reduced time on certain jobs etc.)
6.	Health surveillance implemented
7.	Instruction, information, training and supervision

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Hazard: Forklift Trucks	Risk of crush injuries, broken bones, impalement and death. Risk to employees, visitors and contractors.
Control Measures:	
1.	Forklifts to stay within marked areas when possible
2.	Pedestrians to stay within marked areas when possible
3.	All forklifts are fitted with speed limiters (except Combi and Reach)
4.	Only trained, competent and approved employees to use forklifts
5.	Forklifts are regularly inspected and maintained (LOLER)
6.	Horns and flashing beacons are fitted as standard
7.	Pedestrians to take evasive action when horns sounding
8.	Ensure the working zone is clear from obstacles and trip hazards and has plenty of space and light
9.	Ensure terrain and weather conditions are suitable
10.	Driver to ensure load is secure, not overweight and correctly loaded
11.	Refer to FLT02 Pedestrian Safety Around Forklift Trucks
12.	Instruction, information, training and supervision.

Hazard: Fire	Risk of serious or fatal injuries from smoke inhalation, burns or death. Risk to employees, visitors and contractors.
Control Measures:	
1.	Fire Safety Risk Assessment completed that is linked to the MAPP and COMAH
2.	Smoke and heat detectors linked to the Fire Alarm
3.	Marked Fire Escape Routes
4.	Emergency lighting
5.	Trained Fire Wardens
6.	Regular Fire Drills
7.	Instruction, information, training and supervision

Hazard: Display Screen Equipment	Risk of musculoskeletal injuries, eye problems and headaches. Risk to employees.
Control Measures:	
1.	DSE Assessment and appropriate action
2.	All staff to inform manager/supervisor of any issues
3.	Instruction, information, training and supervision

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Hazard: Stress		Risk to mental health. Risk to employees.
Control Measures:		
1.	Vary the tasks if possible	
2.	Monitor workload	
3.	Control exposure to stressful situations	
4.	One to One discussions	
5.	Open door management and HR policy	
6.	Refer to RA55 Stress, Mental Health and Wellbeing Risk Assessment	
7.	Refer to H&S 09 Mental Health and Wellbeing Policy	
8.	Instruction, information, training and supervision.	

I (name) do hereby declare that I have received, understood and will abide by the contents of this Risk Assessment.

Signed: Date:

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HOW TO CALCULATE A RISK RATING

SEVERITY ↑

5	10	15	20	25
4	8	12	16	20
3	6	9	12	15
2	4	6	8	10
1	2	3	4	5

→ LIKELIHOOD

Likelihood	Severity
1 = extremely unlikely	1 = very minor injury
2 = unlikely	2 = first aid injury
3 = possible	3 = lost time injury
4 = likely	4 = hospital treatment
5 = very probable	5 = disabling injury

Risk rating	Action and timescale
15 and above	Unacceptable Work may not start. Additional controls must be introduced to reduce risk rating to below 9.
9-14	Tolerable Additional controls must be introduced as soon as possible.
5-8	Tolerable Additional controls may be needed
4 or below	Acceptable

1-4 =	Low risk
6-9 =	Medium risk
10-25=	High risk