

SAFE WORK PROCEDURES ANGLE GRINDER

SPECIAL INSTRUCTIONS:

1. Only persons who have been fully briefed on the safe use of angle grinders are to use these machines.
2. Appropriate personal protective equipment **must be worn** when using angle grinders.
3. Electric angle grinders must only be used on circuits protected by a residual current device (RCD) and/or safety switch.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Electric shock Flying objects	Check casing for damage, cracks and missing screws. Inspect lead and plug for damage; current test tag must be attached. Make sure that controls operate smoothly. Inspect disc for cracks, damage, excessive or uneven wear. Check that disc is suitable for the work to be carried out. (Note – fibre cut-off wheels should not be used on an angle grinder). Make sure that guard is fitted correctly, and not loose. Ensure that handles and grips are fitted firmly, and do not move.	If any damage, missing parts, or out of test, do not use machine – arrange for immediate repairs. Replace faulty or inappropriate disc with the correct disc for machine and task. (See below). Do not use machine without guards.
2. Replacement of discs	Moving parts Hand injury (cuts and/or abrasions) Foreign body in eye	Unplug machine before carrying out maintenance. Place machine on firm, stable surface or bench to carry out maintenance. Use correct (supplied) spanners and tools to undo spindle nut. Use brush to clean dust and debris from guard, spindle and backing plate. Ensure spindle thread is undamaged, and that backing plate sits flush. Ensure compatibility of replacement disc – correct outer diameter, correct spindle hole diameter, disc speed matches machine speed, and that the disc is the correct type for the material to be ground. Mount disc, washers and nut in correct order, and tighten firmly with the correct tools and spanners.	Wear leather gloves when handling rough or sharp parts. Wear eye protection if using compressed air for cleaning. Do not use incompatible disc, or disc which does not meet all of the criteria listed at left. Ensure all surfaces are clean. Do not over tighten nut.
3. Preparation of work area	Slips, trips and falls Fire (ignition source) Flying particles Falling objects	Ensure that floor or working surface is free from rubbish and debris, and that a good foothold is available for persons using power tools. Ensure that flammable liquids or other readily ignited materials are cleared from area, or covered to protect from grinding sparks. Observe restrictions. Prevent sparks from entering or affecting adjacent work areas. Restrict entry into area where grinding is to be carried out. Ensure that object to be ground is secured and prevented from accidental movement while being worked on	Keep work areas clear of rubbish and debris, sweep floors. Provide suitable fire extinguisher . Use fire blanket to cover. Use welding curtain or similar. Barricade area to prevent entry. Wear Type 1 footwear.

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4. Operation	<p>Flying particles</p> <p>Foreign body in eye</p> <p>Noise</p> <p>Dust</p> <p>Vibration</p>	<p>Always grind away so that sparks are directed away from body. Do not direct sparks towards another person.</p> <p>Avoid grinding dust and debris in eyes – eye protection must be worn. In restricted areas, or work where sparks are reflected back towards the user, the use of additional protection to the eyes and face will be necessary.</p> <p>High noise hazard, especially in enclosed or restricted areas.</p> <p>Provide ventilation where previously painted surfaces or rusted surfaces are to be ground, and where dust will be generated by the grinding process.</p> <p>Uneven surface being ground will cause movement of grinder in hands. If vibration seems excessive, switch grinder off and inspect disc for damage.</p>	<p>Wear protective clothing (apron, overalls, long sleeves and trousers)</p> <p>Safety goggles preferred. Use face shield in addition to other eye protection.</p> <p>Hearing protection is essential.</p> <p>Wear suitable particulate dust mask or respirator.</p> <p>Wear heavy gloves or gauntlets to reduce the effects of vibration.</p>

PRECAUTIONS:

The following precautions should be observed when using angle grinders, and suitable safety and warning signs posted in areas where angle grinders are used.

