## Angle Grinder Risk Assessment

**Approval Date:** September 2017

<table>
<thead>
<tr>
<th>Likely Risk Issue</th>
<th>Who/What may be harmed? (Specific Persons)</th>
<th>What is the Rate Level? (Rate risk as Low, Medium or High)</th>
<th>What Risk Control Actions Needs to Be Taken? (What needs to be considered so that the risks are identified and effectively controlled)</th>
<th>Time Frame</th>
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</thead>
<tbody>
<tr>
<td>Impact and cutting injuries</td>
<td>Participants&lt;br&gt;Operators&lt;br&gt;Spectators&lt;br&gt;Staff</td>
<td>Severity of Risk (S) = 3&lt;br&gt;Likelihood of Risk (L) = 2&lt;br&gt;Overall Risk (S x L) = 6&lt;br&gt;MEDIUM</td>
<td>• Operator to be trained in correct use of grinder&lt;br&gt;• Angle Grinder to be used in compliance with manufacturer’s instructions&lt;br&gt;• Ensure operator’s hands and body parts are kept clear during operation and maintenance.&lt;br&gt;• Ensure appropriate guarding is installed and in good working order prior to use&lt;br&gt;• Ensure cutting wheel is appropriately installed</td>
<td>Each hire</td>
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<tr>
<td>Noise and Vibration</td>
<td>Participants&lt;br&gt;Operators&lt;br&gt;Spectators&lt;br&gt;Staff</td>
<td>Severity of Risk (S) = 2&lt;br&gt;Likelihood of Risk (L) = 2&lt;br&gt;Overall Risk (S x L) = 4&lt;br&gt;MEDIUM</td>
<td>• Ensure adequate PPE is worn (e.g. Gloves and hearing protection)&lt;br&gt;• Take regular breaks from continues operation&lt;br&gt;• Conduct periodic maintenance to ensure smoother operation and less vibration</td>
<td>Each hire</td>
</tr>
<tr>
<td>Fire, Explosion &amp; Electrocution</td>
<td>Participants&lt;br&gt;Operators&lt;br&gt;Spectators&lt;br&gt;Staff</td>
<td>Severity of Risk (S) = 2&lt;br&gt;Likelihood of Risk (L) = 2&lt;br&gt;Overall Risk (S x L) = 4&lt;br&gt;MEDIUM</td>
<td>• Ensure equipment is maintained and in good condition before use DO NOT USE FAULTY EQUIPMENT. REPORT IMMEDIATELY TO RAPID HIRE&lt;br&gt;• Use equipment as per manufacturers recommendations&lt;br&gt;• Do not use angle grinder in flammable atmosphere or near combustible materials / substances&lt;br&gt;• Ensure no hidden hazards such as electric wiring, water pipes, gas pipes etc</td>
<td>Each hire</td>
</tr>
<tr>
<td>Slips, Trips and falls</td>
<td>Participants&lt;br&gt;Operators&lt;br&gt;Spectators&lt;br&gt;Staff</td>
<td>Severity of Risk (S) = 1&lt;br&gt;Likelihood of Risk (L) = 2&lt;br&gt;Overall Risk (S x L) = 3&lt;br&gt;LOW</td>
<td>• Wear appropriate footwear&lt;br&gt;• Ensure appropriate cleaning and housekeeping practices are maintained to minimise the risk of slips, trips and falls</td>
<td>Each hire</td>
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</table>

### Calculation of Risk Evaluation

**Severity of Risk (S)** is judged by evaluating the effects of the hazard if the risk occurs. This is evaluated as Minor = 1, Major = 2, Serious = 3

**Risk Likelihood (L)** - The likelihood of the harm occurring is evaluated on the basis of: Unlikely = 1, Possible = 2, Likely = 3

**Overall Risk** is calculated by multiplying the figure for Severity (S) and Likelihood (L).

The overall risk figure calculated is related to the Risk Level of either Low: 1 to 3; Medium: 4 to 6 or High: 7 to 9

**NB** This is a generic risk assessment only. It is advisable to carry out a site-specific assessment prior to using this equipment.
The instructions recommended within this document apply to normal risk conditions. If the Angle Grinder is to be operated in a dangerous or hostile environment, the user/client is responsible for conducting an appropriate risk analysis and applying suitable controls to mitigate those additional risks.

This instruction should be read in conjunction with the Risk Assessment procedure for the Angle Grinder.

### Safety risks:
- Entanglement
- Impact and cutting
- Noise
- Electrocution

**WARNING:** Do not wear loose fitted clothing or jewellery and ensure long hair is contained.

You must wear this personal protective equipment when doing this task:

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<tr>
<th>Foot Protection</th>
<th>Hearing Protection</th>
<th>High Visibility</th>
<th>Eye Protection</th>
<th>Hand Protection</th>
<th>Dust Mask</th>
</tr>
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</tbody>
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### Pre-Operational Check:
- ✓ Ensure task (e.g. Drawings, instructions, specifications etc) is clearly understood.
- ✓ Use only in designated grinding area – erect screens if necessary.
- ✓ Examine the power cord, extension lead, plugs, sockets and power outlet for damage.
- ✓ Ensure the grinding disc, guards and attachments (including handle) are secure and correctly fitted.
- ✓ Before you inspect any parts, make sure the power is turned off and the lead unplugged from the power source.
- ✓ Check workspace and walkways to ensure no slip/trip hazards are present. Ensure adequate lighting. Remove any flammable liquids or combustible materials from the near proximity.
- ✓ Secure and support the workpiece using clamps, bench vices, etc.
- ✓ Identify ON/OFF switch and emergency stop button.
- ✓ Ensure all other employees are clear of the immediate work area.

### Safe Operation:
1. Do not use in close proximity to other workers.
2. When you start up the machine, listen for unusual noises or vibrations.
3. Keep fingers, hands and power cords clear of the grinding disc.
4. Never make adjustments while angle grinder is running.
5. Do not switch off angle grinder when it is under load, except in emergency.
6. Allow the machine to reach full speed before contacting the workpiece.
7. Do not lift or drag grinder by the cord.
8. Be aware of flying sparks. Hold grinder so that the sparks fly away from you, other people and flammable material.
9. Do not leave angle grinder running & only use the grinder when hand held.
10. Do not touch work piece immediately after grinding operation as it will be extremely hot.
11. Avoid breathing dust – wear suitable dust mask or respirator in dusty areas.
12. Don't over-reach or work at an awkward angle.
13. Keep your hands and feet away from moving parts at all times.
14. Ensure good housekeeping practices are in place to minimize waste build-up.

Storage & Maintenance:
1. Disconnect machine from power supply and wrap up and secure power lead.
2. Remove built up dust and residue from grinder.
3. Avoid breathing dust when cleaning grinder and work area.
4. Avoid water entry into electric motor when washing exterior of machine.