

Hazard Analysis and Risk Control Record

Doc ref:	Task/Process Assessed:			Grinding							
Revision:	Location:										
Date:	Assessment Team:										
Operation:	Grinding		Approved by:								
Activity Steps	HAZARD		INITIAL RISK		CONTROL MEASURES			RESIDUAL RISK			
	Hazard Description and Worst Case Consequences with no Prevention or Mitigation Measures in Place	Loss Category/ Population Affected	L i k e l i h o o d	S e v e r i t y	R i s k L e v e l	List all Current and Planned Control Measures, taking into Account all Contributing and Escalating Factors		Current and Planned Prevention Measures to reduce Likelihood	Current and Planned Mitigation Measures to reduce Severity	L i k e l i h o o d	S e v e r i t y

							Schl umb erge r Priv ate				
Grinding using the electrical grinder			Injuries to workers		Asset Personnel						
			<ul style="list-style-type: none"> -slip -trip -electrical shock -eyes injuries due to flying fragments 								
Pos si bl e (3)	S eri ou s (- 2)	Un de sir abl e (-6)									
							<ul style="list-style-type: none"> Pre check and ensure that the grinding station is free of oil & water spill and obstruction Pre check grinding machine and its accessories for signs of pinch points and hidden traps prior to use Ensure the grinding pressure hose connection is firmly attached to the grinding unit prior to using them Pre check & ensure the grinding machine & its accessories electrical cord and connection for signs of exposed, loose or crushed wiring prior to use Never attempt to position the fan blowing directly to operator face Only trained & qualified operator can perform the grinding work Trained operator on the correct procedure to guard & start up processes Check and ensure the ventilation system is in good working condition Pre check and ensure guards are implaced and grinding units such as tail stock and steady rest are locked down prior to use Grinding wheel shall be hold up by the inside of the wheel and tap around the inside of the wheel while listening for a ringing sound Stop all grinding activity when a thud or dull sound is heard Jewlery, loose clothing and long unkept hair are prohibited for operators performing the grinding activity 	<ol style="list-style-type: none"> 1st aid kit readily available & accessible on site Mandatory PPE such as hard helmet, face shield , safety shoes ,leather gloves Face mask & ear plug Fire extinguisher readily available & accessible on site Workers familiar with the emergency escape routes 	-2	-2	Acceptable (-4)

							Schl umb erge r Priv ate			
Risk Assessment			Control Measures				Audit Findings			
Risk ID	Risk Description	Risk Category	Risk Probability	Risk Severity	Risk Rating	Control Measures	Audit Findings	Risk Score	Risk Score	Risk Score
Grinding using the electrical grinder	Injuries to workers -slip -trip -electrical shock -eyes injuries due to flying fragments	Asset Personnel	Pos si bl e (3)	S eri ou s (- 2)	Un de sir abl e (-6)	<ul style="list-style-type: none"> Pre check and ensure that the grinding machine is setup in the correct position prior to use Never attempt to change tooling insert when the machine is working Never attempt to handle shavings with bare hands Nothing should be placed near the grinding station in a manner obstructing the grinding machine controls & activity Never attempt to carry load of 40 pounds alone. Get assistance as and when required when manual lifting loads Safety signage displayed at site to warn operator to use only dry leather gloves when performing grinding activity Operator to adopt SIPP technique during the grinding process and ensure he work in his green zone and line of strength Designated location to store the electrical grinder after use with prominent safety signage indicating hot surface Mandatory workshop safety level 1 & electrical level 1 training for all operators Operators trained on the use of fire extinguisher Unauthorised personnel are barred from entering the grinding station Pre check the grinding stone for signs of surfacing Trained operator on the correct technique to resurface the grinding stone Only trained operator can perform the grinding stone resurfacing Readjust the tool rest position to 1/8 inch or closer to the grinding surface after the stone has been resurfaced Never attempt to resurface the side of a grinding stone Use only approved wheel –surfacing tool & grind only the working edge All cracked or broken shield or disc must be replaced Ensure the gap between the work rest & grinding stone does not exceed the 1/8 inch Check & ensure that the grinding stone is RPM rated prior to use 	1. Ist aid kit readily available & accessible on site 2. Mandatory PPE such as hard helmet, face shield , safety shoes ,leather gloves Face mask & ear plug 3 Fire extinguisher readily available & accessible on site 4. Workers familiar with the emergency escape routes	-2	-2	Acce ptabl e (-4)

										Schl umb erge r Priv ate		
Risk Assessment			Control Measures				Risk Rating			Comments		
Risk Description			Control Measures				Risk Rating			Comments		
Risk ID	Severity	Probability	Control Measure 1	Control Measure 2	Control Measure 3	Control Measure 4	Severity	Probability	Overall Risk	Comments	Comments	Comments
Grinding using the electrical grinder	Injuries to workers -slip -trip -electrical shock -eyes injuries due to flying fragments -burns to fingers	Asset Personnel	Pos si bl e (3)	S eri ou s (-2)	Un de sir abl e (-6)		<ul style="list-style-type: none"> Ring test new stone by suspending stone on handle of screw driver & tap it gently with a small wrench Get supervisor to verified the new stone if a light ringing sound is not heard Stop all grinding work if a strong vibration is generated Never attempt to slow down the grinding wheel by forcing material into the grinding stone or by hard brushing Take extra precaution when grinding soft material by looking out for material buildup Use vise grips to hold the grinded parts and cooled them using compressed air Never attempt to grind the at the side of the stone . Grind at the working edge Always grasp the grinder firmly with 2 hands using the handle and direct the sparks generated away from grinder Be wary of the operator in the work station when performing the grinding work Always set the grinder in downward position after the disc has stopped rotating Do not rest the disc on the floor or bench Always unplug the grinder after using 	1. Ist aid kit readily available & accessible on site 2. Mandatory PPE such as hard helmet, face shield , safety shoes ,leather gloves Face mask & ear plug 3 Fire extinguisher readily available & accessible on site 4. Workers familiar with the emergency escape routes	-2	-2	Acceptable (-4)	