


UC SANTA BARBARA Environmental Health & Safety Design, Facilities & Safety Services		Procedure No.: SS-MHA- GRNDR-B/P
Title: Shop Equipment Hazard Analysis & Management Form		Authorized/Approved By: John M. Seaman, <i>EHS Industrial Safety Manager</i>
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1. Hazard Management Details - General		
Shop/Equipment Item: GRINDER BENCH or PEDESTAL	Make/Model No.:	Serial No.:
Department:	Work Location:	
Person(s) Conducting Hazard Analysis: JOHN M. SEAMAN <i>EHS, Industrial Safety Manager</i>		Date Conducted: May 2, 2013
Equipment Photo:	Description of Use:	Summary of Key Risks: (refer to appropriate subsections)
	<p>A bench or pedestal grinder is a machine used to drive an abrasive wheel (or wheels). Depending on the grade of the grinding wheel it may be used for sharpening cutting tools such as lathe tools or drill bits. Alternatively it may be used to roughly shape metal prior to welding or fitting.</p> <p>Wire brush wheels or buffing wheels can be interchanged with the grinding wheels in order to clean or polish work pieces.</p>	<ul style="list-style-type: none"> • Entanglement • Inhalation • Eye Injury • Trauma (Cutting and Impact) • Hand/Foot Injury • Head/Face Injury • Fire • Electric Shock

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2. Documentation:

Relevant Legislation/Standards	Y / N	Comments:
a. Is equipment required to be registered?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
b. Is a user license/Certification required?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
c. Key Reference Materials Required:	AS 1788.Abrasive wheels AS/NZS 3760 In service safety inspection and testing of electrical equipment	
Equipment Documentation	Y / N	Comments:
a. Are operator's manuals accessible?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
b. Is this a restricted use item?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
c. Does this equipment require safe use document(s)/test?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

3. Personal Protective Equipment (PPE) Required (Check the box for required PPE)

 Gloves	 Face Masks	 Eye Protection	 Face Shield	 Hearing Protection	 Safety Footwear	 Protective Clothing	 Welding Mask
 OPTIONAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	 OPTIONAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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4. Hazard Analysis

TASK	HAZARD	CAUSE	PREVENTIVE MEASURE
a. Routine Operation	Inhalation	Dust particles generated during machine operation	Appropriate natural ventilation, disposable respirators
	Entanglement	Long hair, loose clothing, rags, cleaning brushes and jewelry could become entangled in the moving parts of the equipment.	Make sure hair, loose clothing, rags and jewelry are kept secured and clear of moving parts when in use.
	Eye Injury	Projectiles, fragments, dust	Safety glasses with side-shields, goggles or face shield
	Trauma	Projectiles	Situational awareness, PPE, protective clothing, machine guards
	Foot Injury	Drop object on foot	Wear safety shoes/boots
	Hand Injury	Impact, penetration, compression	Gloves, situational awareness
	Head/Face Injury	Projectiles, sparks	Face shield
	Fire	Heat, sparks	Appropriately place fire extinguisher. Remove all combustibles and fire hazards from area
b. Routine Maintenance/Repair	Electrical Shock	Improper grounding, operations or maintenance	Lockout/Tagout, proper grounding of frame, strict adherence to manufacturer's instructions
c. Shutdown and Isolate Unit	Trauma	Friction, compression from unexpected start-up	Follow/use established Lockout/Tagout procedures
	Electrical Shock	Improper Lockout/Tagout	Follow/use established Lockout/Tagout procedures

Procedure No.: SS-MHA- GRNDR-B/P

Equipment/Machine: **GRINDER – Bench or Pedestal**

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Equipment Procedures/ Requirements

1. Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.215.
2. Only authorized users can operate equipment.
3. Properly adjust guards in accordance with OSHA 1910.215 (adjust work rest to within 1/8" of the wheel; adjust tongue guard to within 1/4" of the wheel; adjust tongue guard such that angular exposure has not exceeded 90° and exposure begins at a point not more than 65° above the horizontal plane of the wheel spindle).
4. Abrasive wheels shall be used only machines provided with safety guards as defined in 29 CFR 1910.215.
5. Immediately before mounting, wheels shall be inspected and sounded by the user (Ring Test) to make sure they have not been damaged in transit, storage or otherwise, in accordance with OSHA 29 CFR 1910.215. Ring Test procedures are attached.
6. Report any observed defect or safety hazard to your supervisor immediately.
7. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
8. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional with a written justification).
9. Keep hands, hair and loose clothing clear of all moving parts.