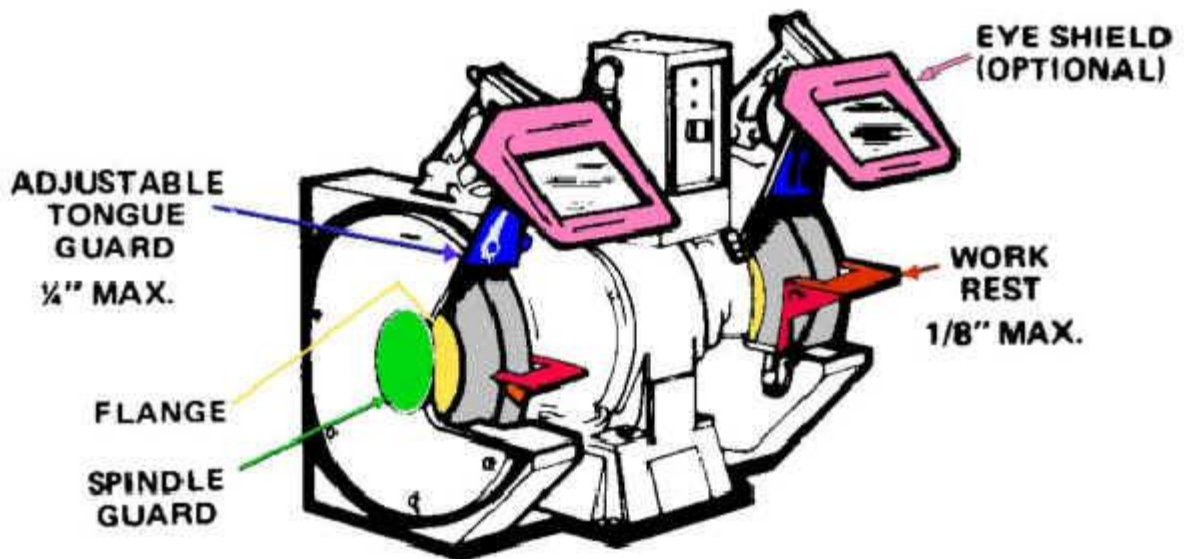
 DALHOUSIE UNIVERSITY <i>Inspiring Minds</i> Safety Work Instructions For Bench Grinders	<i>Policy Sponsor</i> : Assistant Vice President Facilities Management	<i>Approval Date:</i> October 2015
	<i>Responsible Unit:</i> Trade Services	<i>Revisions:</i> January 2018
Hazards Identified: Noise, dust, sharp objects, hot materials or objects, projectiles, sparks, damaged or incorrect grinding wheel, kick back of item being ground		
Personal Protective Equipment Required: Safety boots, hard hat, safety glasses, face protection, hearing protection, respiratory protection if required		
Training Required: Training in the proper use of bench grinders and shall include review of equipment operators manual, safe work instructions, PPE to be used and hands on demonstrations.		
References: Operator's Manual supplied by Manufacturer		

These safe work practices must be followed at all times and are to be reviewed annually.

1. Only properly qualified employees are to operate this equipment.
2. The required personal protective equipment must be used at all times while this equipment is being operated.
3. Always read and follow the manufacturer's operating manual, particularly information about start-up, operation, shut-down and maintenance.
4. Visually check all wheels for cracks or other damage before use.
5. In addition to visual inspections, perform a "Ring Test" on all wheels before they are installed on the grinder.
6. DO NOT use a wheel if it doesn't emit a high pitch ring during the "Ring Test". Discard the wheel immediately or if it is a new wheel return it to the vendor for a new wheel.

7. Ensure that pedestal and bench grinders are securely fastened in place.
8. Do not use the grinder if the eye shield and/or the tool rest and other safety devices are not in place, properly adjusted and secure.
9. Regularly check to ensure the tool rest is the require distance from the wheel, a maximum of 3 mm (1/8 inch).
10. Replace the grinding wheel when adjustment of the tool rest cannot achieve 1/8 inch clearance.
11. Ensure the work rest is set to the horizontal center line of the spindle.
12. Never adjust a work rest while the grinding wheel is turning.



13. Ensure that the bench grinder has an adjustable tongue guard / spark arrester it to 1/4 inch or less from the wheel's grinding face.
14. Check, the grinder on a regular basis to ensure that it is securely mounted to the bench.
15. Always check the operating speed recommended on the grinding wheel against the safe rotation speed of the grinder to ensure that the safe peripheral speed is not exceeded.
16. DO NOT operate a grinding wheel at a peripheral speed that exceeds the manufacturer's recommendation.
17. Always use mounting blotters provided by the wheel manufacturer.

18. Before each use, check the grinding wheel for any cracks or chips that could cause the wheel to shatter. Perform another "Ring Test" if in doubt.
19. Check to ensure the flanges supporting the grinding wheel are no greater than a maximum of 1/3 the diameter of the wheel and that they meet the manufacturer's recommended shaft rotating speed.
20. Ensure that you use flanges that are clean, flat and smooth.
21. Do Not force a wheel onto the grinder or alter the size of the wheels mounting hole.
22. DO NOT over tighten the mounting nut. Tighten enough to prevent slippage.
23. Always allow a newly mounted wheel to run for at least one minute before using it to grind.
24. DO NOT stand in front of, or in line with the grinding wheel, when a grinder is started.
25. Only grind on the face (outer diameter) of the wheel. Never grind on the side of a grinding wheel.
26. DO NOT jam items into the wheel.
27. NEVER attempt to grind materials such as wood, plastics or other non-metallic materials.
28. Ensure grinding wheels are properly stored, away from high temperature and humidity, water or other liquids, freezing temperatures, conditions that may cause condensation to form on the wheel or where the wheels could accidentally be damaged by falling tools or materials.
29. Always disconnect the grinder from its power source before changing a grinding wheel or attempting to service the grinder.
30. Ensure there is adequate ventilation when grinding large parts or for prolonged periods of time or if grinding potentially toxic materials.
31. Always stand to the side when holding an item being ground. Never stand directly behind or in line with the item.
32. Avoid potential hazards by regularly "dressing" the grinding wheel to eliminate small chips, flat spots and glazed areas.

33. Do not use a grinding wheel that has been dropped.
34. Ensure you use a grinding wheel that is appropriate for the materials being ground.
35. Never allow a wheel to stand in liquids. The liquid can cause balance problems.
36. Do not grind on the side of a wheel.