

Surface Grinder Safety

Make sure you are wearing your safety glasses before operating the machine.

Be familiar with the machine before attempting to operate it on your own. Ask the instructor if you are unsure about what to do.

Know where the emergency off switch is located in case of an emergency and be sure you can reach it.

Before cleaning the chuck, loading parts or working around the wheel it, must be OFF.

When you first turn on the grinding wheel do not stand directly in line with it, always stand to one side. Make sure the guard is in place. The guard should cover at least half of the wheel. If supplementary guards are available position them before starting to grind.

Let the wheel run for about a minute at operating speed before starting to work. If a wheel is going to fail it usually does so within the first minute.

Do not grind on the side of the wheel unless the wheel is made for that purpose. Straight wheels are not designed for side grinding. Be sure to use the correct grade of wheel.

File off any burrs on the workpiece before it is placed on the magnetic chuck. Make sure it is as clean as possible.

Clean the magnetic chuck with a cloth and then wipe it with your hand before putting the piece down. This secures the best possible holding situation. Turn on the magnet.

Makes sure the magnet is turned on so the workpiece is secure. This means that any parts you want to grind need to be magnetic. If they are not magnetic you need to find another way to hold them (between two magnetic parts for example). Check that the part is securely fastened by trying to move it with your hand.

When finished grinding make sure the wheel has stopped before removing the workpiece(s), cleaning or making adjustments. Do not reach near or around the wheel while it is running.

Never wear a wristwatch while surface grinding. This is a general safety rule but in addition the magnetism may ruin the watch mechanisms.

Do NOT use a chuck that is not magnetizing properly.

Check that the work clears the wheel before starting the machine.

Never jam the work into the grinding wheel. This means approaching the wheel to the work in a controlled way with the table reciprocating. The first contact with the wheel and work should be very light and produce minimal sparks.

If you are using coolant, turn off the coolant a minute or so before you turn off the wheel. This prevents coolant from collecting at the bottom of the wheel and drying there while the wheel is stopped. This dried coolant will throw the wheel out of balance.

Keep the face of the wheel evenly dressed.

Do not grind without proper ventilation. Make sure you turn on the ventilation system before starting to grind.

If you are changing a grinding wheel, there are a number of safety considerations to be aware of and implement. They are outside the scope of this project.

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