



## *Using a Drill Press*

### **DO's**

- Comply with proper PPE for the job, ensure safety glasses with side/face shields & hearing protection are worn.
- Discuss the job prior use as per scheduled daily work planner
- Make sure that all tools and machine parts are clear of the clutter before starting the machine.
- Make sure the drilling machine electrical system supply cable, plug, on / off switch & light switch are in good condition
- Make all drill press adjustments with the power switched off.
- Keep all guards and covers on the machine when it is on and running.
- Use the proper cutting fluid for the material being used.
- Ease up on drilling pressure as the drill starts to break through of the material
- Hold the work in a vise or clamp to the drill table. Never attempt to hand hold stock while drilling.

### **DON'Ts**

- Don't wear gloves, rings, wristwatch, jewelry, loose fitting clothing or long sleeve shirt. Long sleeve is to be rolled above the elbow, or cuffs fastened.
- Don't under any circumstances attempt to operate any machine unless you are thoroughly familiar with it.
- Don't exceed the recommended speeds for the type and size of drill bit being used
- Don't use a dull or cracked drill. Inspect the drill before use.
- Don't clean a machine while in motion.
- Don't use your hands or blow drill shavings to clean after completion of work.
- Don't try to loosen the drill chuck while the power is on.
- Don't drill with too much pressure.
- Don't try to operate the machine and engage fellow workers in conversation at the same time. Keep your mind on your work.
- DON'T place taper shank tools such as large diameter drills or tapered shank reamers in a drill chuck. Only straight shank tools such as standard drills can be clamped in chucks.



## *Using a Grinding Wheel*

### **DO's**

- Discuss the job prior use as per scheduled daily work planner
- Comply with proper PPE for the job. Wear eye, ear and face protection. Wear well-fitting gloves only where necessary.
- Get thoroughly familiar with the location of the STOP switch.
- Check you have adequate local lighting levels.
- Check grinding wheel for correct profile, soft materials impregnated in the wheel, cracks and damage before starting.
- Keep the grinding wheel dressed.
- Adjust tool rests to within 1.5 mm of wheels. Always stop the machine before making adjustments or measurements.
- Stand to one side when starting a grinding machine. Damaged wheels will sometimes fly apart, and this is most likely to happen when machine is being started.
- Keep your hands clear of the rotating grinding wheel.
- Hold work securely while grinding. Ensure correct body posture and the floor area is free of grease or loose grinded material.
- Bring work into contact with the grinding wheel slowly and smoothly without bumping.
- Move the work back and forth across the face of the wheel. This movement prevents groves from forming.
- On completion of work, when you press the stop button, verify the grinding machine slows and comes to a stop.



## *Using a Grinding Wheel*

### **DON'Ts**

- Don't wear loose clothing & jewelry. Long sleeves of overall are to be with cuffs fastened.
- Don't under any circumstances attempt to operate any machine unless you are thoroughly familiar with it.
- Don't use a wheel that has been dropped.
- Don't use a wheel that does not fit properly to the spindle.
- Don't use a wheel that is not suitable for the speed of the machine.
- Don't use the grinder unless the guards are in place, in good order and with clear view.
- Don't use the grinder if excessive vibration is encountered. Report the defect immediately.
- Don't use excessive pressure while grinding.
- Don't grind wood, plastics or non-iron metals on ordinary wheels.
- Don't grind on side of wheel unless wheel is specifically designed for such use.
- Don't go away, even for a moment and leave the grinder running.
- Don't try to operate the machine and engage fellow workers in conversation at the same time. Keep your mind on your work.



## *Using a Lathe machine*

### **DO's**

- Discuss the job prior use as per scheduled daily work planner
- Comply with proper PPE for the job
- Get thoroughly familiar with STOP lever
- Make sure that all tools and machine parts are clear of the clutter before starting the machine
- Take precautions and keep your hands away from the revolving items (cutters, spindles and holding devices) when polishing use proper technique to avoid being pulled into work piece or being struck by the chuck or work holding device.
- Handle all cutters carefully to guard against injury to yourself.

### **DON'Ts**

- Don't wear gloves, rings, wristwatch, jewelry or long sleeve shirt. Long sleeve is to be rolled above the elbow, or cuffs fastened.
- Don't under any circumstances attempt to operate any machine unless you are thoroughly familiar with it.
- Don't move any lever unless you know exactly what is going to happen when it is moved.
- Don't play around with the lever of any machine.
- Don't attempt to remove chips from the machine with your bare hands or fingers. Use a brush or other suitable implement.
- Don't use compressed air to blow chips from the spindle/table machine surfaces, cabinets, controls or the floor around the machine
- Don't go away, even for a moment and leave the machine running.
- Don't try to operate the machine and engage fellow workers in conversation at the same time. Keep your mind on your work.



# Welding/Cutting in E/R Workshop

## DO's

- Obtain approval from CEO before starting welding or gas cutting.
- Discuss the job as per scheduled daily work planner. Do a risk assessment if required.
- Comply with proper PPE for the job, wear shields of recommended shades during welding operations. Welders should wear clean, dry welding gloves and overalls.
- Inspect all welding equipment to be used, prior to each use, for possible damage. The electrode holder and welding cable are well insulated and in good condition.
- Make sure work and/or work table is properly grounded for arc welding.
- Remove all flammable materials from the work area.
- Keep suitable fire extinguishing equipment nearby and know how to operate it.
- Erect a screen around the welding area
- Allow for proper ventilation when brazing or soldering. The fluxes are acidic and toxic.
- Shut off the cylinder valves when the job is completed, release pressure from the regulators by opening the torch valves momentarily.
- Flashback arrestors are fitted at both the cylinders and workstation

## DON'Ts

- Don't use welding equipment with damaged insulation on the welding cables, plugs, clamps or torch/electrode holder.
- Do not arc weld in a wet area.
- Do not arc weld with any part of the body uncovered, the arc light is actinic light (excessive ultraviolet) and will cause burns similar to severe sunburn.
- Do not cut or weld any container that has held explosive or flammable materials.
- Do not cut or weld on painted, galvanized or greasy, oily metals.
- Do not leave the torch unattended with pressure in the hoses.