

BENCH GRINDER SOP

ACRONYMS

LOTO - Lockout/Tagout.

PPE - Personal Protective Equipment.

SOP - Safe Operating Procedure.



HAZARDS What can cause harm?

- ▲ Noise
- ▲ Electricity
- ▲ Moving parts
- ▲ Dust
- ▲ Ejected objects
- ▲ Manual Handling
- ▲ Poor housekeeping

PPE



PRECAUTIONS

- All operators are to be trained and competent to operate Bench Grinder safely. Operator training should include:
 - Workplace induction
 - Safe operating procedures
 - Manufacturer's instructions
 - Nature of hazards
 - Fitting of PPE
 - Manual handling
 - Housekeeping
 - First Aid



PRE-OPERATIONAL INSPECTION

- Follow the pre-operational checklist in the Manufacturer's operational manual, ensure:
 - Grinder secured to sturdy bench/table (will not move)
 - Controls are labelled and functional
 - No exposed moving parts (over-wheel guard in place)
 - Guards in place and in good working order
 - Wheel guards/shields undamaged and in good condition
 - The grinding wheel hole fits close around the spindle
 - Wheels have soft washers on either side for balance
 - Locking nuts are not over tightened
 - Gap between the wheel and work rest is not greater than 1.5mm - 1/16in
 - Wheels are running as required
 - To check the wheel for cracks and chipped edges
 - Grinding wheel suitable for the grinder and materials to be used.

MAINTENANCE

- Follow LOTO procedures, record service/repairs information in Maintenance Log. Maintenance is to be conducted as per 'manufacturers' instructions and by qualified persons only
- When the machine is being taken out of service for maintenance:
 - Shut off and isolate the power supply
 - The power supply is clearly labelled/tagged "do not use."

BENCH GRINDER SOP



No flammables



Fire extinguisher



Consult
SDS Sheet



No trip or slip hazards



Appropriate ventilation



Adequate lighting

OPERATION

1. Operate in accordance with 'manufacturers' instructions
2. Wear prescribed PPE
3. Make sure the switch is in the 'off' position before plugging into electricity
4. Ensure the guards are in place before turning the grinder on
5. Check the flange nut is tightened
6. Before switching on the grinder, turn the grinding wheel by hand to make sure it is not contacting the work or tool rest
7. Resonance-test all new wheels before using (e.g. use tool to tap the side of the wheel. A clear ring should be heard. If a dull thud is heard, the wheel may be flawed)
8. Rotate all new wheels by hand to check balance before use
9. Adjust shield so that it is over the wheel
10. Remove adjusting keys and wrenches from the work area.
11. Stand aside and let the wheel come up to full speed after switching on before you start to use the grinder
12. Be very careful how you attach or remove work from the tool rests and where you set the work
13. Use only the face of a straight wheel and the side of a cup wheel when grinding
14. Avoid sudden feeds of work into the wheel
15. Do not strike or drop the wheel
16. Slowly move the workpiece across the face of the wheel in a steady, uniform manner.
17. Feed work into the grinder blade against the direction of the rotation
18. Secure your work, use clamps or a vise to hold work when practical
19. Stop work and switch off immediately whenever the wheel stops or emits a strange noise

BENCH GRINDER SOP



***Test & Tag of
electrical
equipment current
and power cord.***

ON COMPLETION

- ✓ Turn the power off, and don't leave until the wheel comes to a complete stop
- ✓ Check the grinder for any damage. If you find any damaged part, tag out and report or repair it before using it again
- ✓ Metal grinding creates sparks. Keep the area around the grinder free of flammable items. oil, gas, glue, paint
- Discard wheels when:
 - ✓ Diameter approaches driving flanges
 - ✓ Work rest can't be adjusted within 1.5mm-1/16in. of wheel due to diminished wheel size
 - ✓ Doesn't cut efficiently due to reduced speed.

DO NOT

- ✗ Do not run the grinder faster than 'Manufacturer's recommended speeds
- ✗ Do not hold small objects by hand
- ✗ Do not let your fingers or clothing become caught in the revolving wheel
- ✗ Do not force the workpiece against the wheel
- ✗ Do not grind non-ferrous metals (such as aluminum or brass)
- ✗ Do not leave the grinder unattended when in use
- ✗ Do not overreach. Always keep proper footing and balance
- ✗ Do not allow the workpiece to touch wheels before the grinder is at full RPM /speed.