SAFETY OPERATING PROCEDURES, Origin Labs, Metal Working Lab

Bench Grinder

METHOD OF OPERATION

A piece of metal is held by the operator against an abrasive wheel to shape or to knock off burrs (sharp slivers of metal left behind by cutting)

MACHINE HAZARDS

- Flying chips, sparks, parts of the grinding wheel, and other debris regularly exit bench grinders at high speeds and can cause irritation, burns, respiratory distress, and severe eye injury.
- Caught-in hazards that can cause crushing injuries and amputations.
- Wheel explosions that can cause blindness and lacerations.
- Sparks and heat hazards that can cause abrasions and burns.
- Flying particles that can cause impact injuries.
- Dust can cause respiratory distress.
- Possibility of pulling your hand, finger, hair, and clothes in.

PPE/Safety Measures

Safety Glasses AND Faceshield MUST be worn	All Rings, Jewelry, bracelets, and watches must be removed
Closed toed shoes that cover the entire foot	Long and loose hair must be contained and tied away from face
Hearing protection must be worn	Long sleeves must be rolled up past elbows.

Guards and Devices

Work Rest: The work rest should always be adjusted so that it is no further than 1/8" from the wheel. This minimizes the risk of the work piece getting sucked down into the machine and causing injury or damage to the tool

Eye shield: The eye shield should be adjusted to that the operator can manoeuvre their piece as needed.

Operational Notes

*Ensure grinder is firmly secured to the bench or floor.

*Always check the grinder for damage to the machine or the wheel before using. Alert a staff member if you detect any damage, and do not use the equipment until it has been properly repaired.

*Check moving parts and alignment. Replace or repair any damaged parts.

* Ensure work rest, eye shields and that the wheel, tongue, and spindle guards are in place and secured.

* **ALWAYS** Remove power to grinder before performing any maintenance.

Sequence of Operation

1.) Stand to the side of the grinder prior to start up.

- 2.) Allow wheels to gain maximum speed before grinding begins.
- 3.) Bring work piece with contact to wheel slowly and avoid impact or bumping motions.
- 4.) Move work piece back and forth across the face of the wheel only.
- 5.) Never force work piece against wheel.
- 6.) Do not hold small objects by hand.
- 7.) When finished, let the wheel come to a stop naturally. Do not try to stop it with any object.

Never

NEVER leave running grinder unattended.

NEVER use a wheel that vibrates.

NEVER use a wheel that produces a dull sound when performing the ring test/tap test.

Maintenance Notes/Service by Operator

*Contact Shop Supervisor/qualified person:

*If you detect any cracks, splits, or other damage in the wheel or to the machine.

*Any additional help or support