

~ FABRICATION ~



METALWORK

OPERATING INSTRUCTIONS



METALWORK

INTRODUCING

the



EDGE SURFACE GRINDER



Pedestal/Bench Grinding Wheels (for trained staff use only)

STAFF-USE ONLY

The machine grinds off surface metal in Steels, leaving a clean or shaped surface

PPE Basic

- Suitable workcoat (provided)
- Spectacles, goggles or faceshield rated to BS/EN 166 (provided)
- Breathing Filter Mask, rated to FFP1/FFP2 (provided)
- Sturdy boots will help keep your feet on a slippery floor

What to do before use

- CHECK integrity of the machine's power supply; the plug (if 1 phase) and isolator (if 3 phase)
- CHECK machine integrity, including the CONDITION of the wheels, the rest, the controls, the emergency stop and the semi- fixed clear viewing guards
- CHECK that the grinding faces of the machine are COARSE AND DULL in nature. If they are smooth and shiny, it may be they require RE-DRESSING by a QUALIFIED technician. NON-FERROUS materials should NEVER be used on these wheels - they are much softer than Steels and will clog up the machine very quickly
- ENSURE that the distance between the wheel periphery and the tool rest edge is AS CLOSE AS POSSIBLE without the wheel impacting the tool rest
- SETUP all rests first, ensuring that they are set to the CORRECT angles (where possible) BEFORE switching on the machine

How to Use The Pedestal/Bench Grinder Machine

- Switch ON power to the machine (either via a GREEN push button or a rocker switch) and STAND AWAY from the machine for the few seconds it takes to get up to the operational speed

- **GLOVES MUST NEVER BE WORN ON THIS MACHINE!**
- **PLACE** your feet into a good, solid stance and place the tool onto the tool rest
- **Bring** the tool **SLOWLY** into the periphery edge of the grinding wheel – **DO NOT** use the sides of the periphery-grinding wheel. The wheel can **EXPLODE** if pressure is placed on the side of the wheel
- **EASE** the tool into the grinding face and move along the full-width of the grinding face to even out the wheel wear and distribute the pressure **THROUGHOUT** the surface. Take care **NOT TO PRESS** too hard or hold it on the wheel for **TOO LONG**
- **FREQUENTLY** cool the Steel, using water in a suitable container
- **PREVENT** the tool surface from turning black and becoming **HOT**
- **Once finished, STOP** the machine using the large **RED** push button or switch back the rocker switch
- **Switch OFF** the machine at the isolation box
- **DO NOT** walk away from the machine – the edge may appear **NOT** to be moving and someone walking past may suffer an injury as a result
- **WAIT** until the wheel speed **SLOWS** until it is at a very low rotational speed and is visibly slowing
- **DO NOT JAM** anything into the wheel to slow it faster than free-rotation. This is very **DANGEROUS** and could result in an exploding wheel
- **Once finished, CHECK** the distance between the wheel and the rest and, if **LARGER** than 0.5mm, move the rest forward to compensate and **CHECK** the wheel rotation continues to be unobstructed
- There is going to be **METAL DUST** surrounding the machine, especially the floor – this should be **HOOVERED UP** and not left to accumulate
- **ENSURE** that the grinding machine is **LOCKED OFF** against casual use by **UNTRAINED** staff (or **ANY** student)

Date

I verify that I have read and understood the information detailed within this document

Name

Signature