COMPANY LOGO

SAFE WORKING PRACTICE

SWP 1

Use of Grinder/Abrasive Wheels

Angle Grinders, Bench Grinders, and Disc Cutters

WRITTEN BY

APPROVED BY

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POTENTIAL HAZARDS

- Abrasive wheel disintegration or bursting causing fatal or serious injury.
- Contact with the rotating wheel causing cuts, lacerations, or amputation.
- Ejection of sparks, swarf, or masonry fragments injuring the operator or others nearby.
- Inhalation of respirable crystalline silica (RCS) dust when cutting or grinding concrete, block, or stone.
- Noise-induced hearing loss and hand-arm vibration syndrome (HAVS) from prolonged use.
- Fire or explosion where sparks contact flammable materials, fuel, or stored debris on a groundworks site.

PPE / SAFETY EQUIPMENT

- Full-face visor — mandatory when grinding or cutting
- Safety spectacles worn beneath the visor
- FFP3 dust mask — mandatory when cutting or grinding concrete, block, or stone
- Ear defenders
- Anti-vibration, close-fitting cut-resistant gloves
- Safety helmet
- Steel-toecapped and midsole-protected safety boots
- Close-fitting high-visibility work clothing — no loose sleeves or trailing fabric

IMPORTANT Only operatives who hold a recognised abrasive wheels certificate (e.g., City & Guilds or equivalent) are permitted to mount, change, or dress abrasive wheels. No operative may use a grinder unless they have received documented tool-specific induction and are authorised by their supervisor. Never use a cutting disc for grinding or a grinding disc for cutting.

PROCEDURE

The following procedure must be followed every time a grinder or abrasive wheel tool is used on site by Apex Groundworks Ltd personnel. These steps apply to angle grinders, disc cutters, and bench grinders used in groundworks operations including cutting concrete, block, pipe, rebar, and drainage materials. Do not begin work until all steps have been completed.

01 Confirm you hold a valid abrasive wheels certificate and are authorised by your supervisor to use this tool before proceeding.

02	Carry out a pre-use inspection of the tool: check the body, handle, guard, trigger, and dead-man switch for damage or defects — remove any defective tool from service and report it to your supervisor immediately.
03	Inspect the power cable or battery for damage or exposed wiring, and confirm the tool has a current in-date PAT test label — do not use equipment with a damaged cable or an expired PAT test.
04	Select the correct wheel or disc for the material being worked (e.g., concrete, block, steel pipe, or rebar) and confirm it is rated for the task — never use a wheel rated below the tool's maximum RPM.
05	Inspect the abrasive wheel before fitting: check for cracks, chips, or moisture damage, and perform a ring test on vitrified wheels — a dull thud indicates damage, so discard the wheel immediately.
06	Fit the wheel using the correct flanges and retaining nut, tighten securely with the correct pin spanner, and confirm the guard is correctly positioned to direct sparks and debris away from the operator.
07	Before work begins on a groundworks site, check the surrounding area for fuel, stored timber, sheeting, or other combustibles — move or cover them before starting, and confirm a suitable fire extinguisher is within reach.
08	Obtain a Hot Works Permit from the Principal Contractor where required, then clear a minimum 3-metre exclusion zone and erect screens or barriers to protect nearby workers from sparks and ejected material.
09	Don all required PPE, start the grinder, and allow it to reach full speed before applying it to the workpiece — stop immediately if unusual vibration, wobble, or noise is present.
10	Hold the grinder with both hands, maintain a firm stance, and apply steady controlled pressure to the workpiece — clamp the workpiece where possible and never force or twist the wheel.
11	Where cutting or grinding concrete, block, or stone, use wet-cutting methods or on-tool extraction (LEV) as the primary dust control measure — use FFP3 respiratory protection where wet-cutting or LEV is not practicable.
12	On completion of work, isolate the tool, allow the wheel to stop fully before setting it down, conduct a fire watch for a minimum of 30 minutes, then store discs correctly in dry conditions and clean the work area in line with the site waste management plan.
13	Report any near misses, incidents, signs of HAVS (tingling or numbness in hands), or tool defects to your supervisor immediately and complete the relevant company accident or incident report form.

N.B. *Abrasive wheels are one of the most common causes of serious injury in groundworks and construction. Wheel disintegration at speed can be fatal. Always treat grinders with the highest level of care. If in doubt about the condition of a wheel, the suitability of a disc, or the correct procedure — stop and ask your supervisor before proceeding.*