

Abrasive Wheels — Safe System of Work

Display a copy where abrasive wheels are used

Before you start

- You must be authorised in writing for this machine. If your name is not on the authorisation, do not use it.
- Check the wheel is the right type for the material and the right size for the machine.
- Check the maximum operating speed marked on the wheel is equal to or greater than the spindle speed marked on the machine. If the wheel is slower than the machine, do not fit it.
- Inspect the wheel for cracks, chips and damage. Discard anything damaged. Do not use it and do not put it back on the shelf.
- Check resin bonded discs are within their expiry date.
- Check the guard is present, undamaged and correctly positioned.
- Check the area for flammables, other people, and anything that could be damaged by sparks.

Mounting a wheel — authorised mounters only

1. Isolate the machine. On a portable tool, remove the plug or the battery.
2. Ring test vitrified wheels. Suspend the wheel on a pin or your finger through the bore, tap gently with a non-metallic implement about 45 degrees either side of vertical. A sound wheel rings clearly. A dull or dead note means it is cracked. Discard it. Note that the ring test does NOT work on resin or organic bonded wheels, depressed centre discs, or thin cutting discs, so those must be inspected visually with particular care.
3. Check the bore fits the spindle. Never bore out a wheel and never force one on.
4. Fit blotters both sides if supplied with the wheel.
5. Use matched flanges of equal diameter, recessed, and at least one third of the wheel diameter.
6. Tighten only enough to hold the wheel securely. Overtightening cracks wheels.
7. Refit and adjust the guard.
8. On bench and pedestal grinders, reset the work rest gap and the adjustable tongue guard.
9. Stand clear of the line of the wheel, start the machine and run it for one minute before using it.

Bench and pedestal grinders — the numbers that get checked

Item	Requirement	Why
Work rest gap	As close as practicable to the wheel and NOT MORE THAN 3mm	A wider gap lets the workpiece be dragged between the rest and the wheel, taking the hand with it
Adjusting the work rest	Only when the wheel is completely stationary	Adjusting against a moving wheel is how hands get caught
Adjustable tongue guard	Not more than 6mm from the wheel periphery	Contains fragments if the wheel bursts
Guard opening	No more than 180 degrees of wheel exposed, and the guard between operator and wheel	Directs burst fragments away from the operator
Re-adjustment	Both gaps must be reset as the wheel wears	The gap widens continuously through the life of the wheel. This is the most commonly missed item on inspection

While you are working

- Wear impact rated eye protection and a face shield. Everyone in the area needs eye protection, not just you.
- Clamp the workpiece. Never hold small work by hand against a fixed wheel.
- Apply steady, moderate pressure. Do not force the wheel or use the side of a cutting disc.
- Keep your body out of the line of the wheel.
- Use extraction or water suppression when cutting concrete, stone, brick, tile or screed. Dry cutting these materials without control is not acceptable.
- Wear hearing protection.
- Take the breaks the vibration assessment requires. Do not run one job straight into the next on the trigger.
- Let the wheel stop by itself. Never brake it by hand or against the work.

Stop immediately if

- The wheel is chipped, cracked or out of round.
- The machine vibrates unusually or sounds different.
- The guard is damaged, missing or will not stay in position.
- Sparks are reaching people, flammables or other work.
- You feel tingling or numbness in your fingers. Report it the same day.
- You are not sure. Put it down and ask.

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