

Wheels, Discs, And Blades



Physical hazards pose immediate risks of injury. Cutting and grinding tools must be properly matched and fitted to the machine and task. Workers need to be informed, trained, and supervised to use equipment safely and change discs correctly.

Awareness of hazards:

Wheels, discs, and blades risk serious impact injuries upon contact. Wheels, discs, and blades can fail, break, and shear off. Tools create high SPLs (sound pressure levels), vibrate, and create sparks and projectiles.

Understanding risks:

Tools can be dangerous when used for the **wrong purpose, poorly operated, or incorrectly fitted.**

Wheels, discs, and blades can **kick back** on the user or **drag clothing** into the machine.

Eliminate or minimise risks (examples):

Risk controls focus on either the hazard or the behaviour of workers and others.

- **Eliminate the hazard.** Remove fire fuels/combustibles.
- **Substitute the hazard.**
- **Isolate the hazard.** Keep other people at a safe distance.
- **Use engineered modifications.** Safety (machine) guards are designed to minimise the chance of contact with moving parts. Fixed machines (e.g. bench mounted) are less likely to injure than hand operated tools.

Focusing on human behaviours include:

- **Administration** of safe systems of work. Correct use (e.g., cutting vs grinding; metal vs concrete). Use reinforced blades on hand-held tools. Be properly trained to use all equipment. Avoid stressing tools (forcing, twisting, or exceeding operating specifications). Do not use sides of wheels, discs, and blades. Wheels, discs, and blades are only fitted or replaced by a competent (trained) person.
- **Personal protection equipment (PPE).** Use appropriate eye, hearing, and personal protection (ref. AS/NZ 1337 & 1270). Do not wear loose clothing, and tie long hair back.

Risk of hearing loss and vibration injuries. **Sparks and projectiles** risk burns, injury, blindness, or fire.

Safe behaviours are using the tool correctly, tag and testing, and wearing PPE.

Unsafe behaviours are using discs not designed for the rotating speed of the machine and putting too much force on the disc.