

Welding Helmets (Auto-Darkening)

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | PPE & Protection



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Auto-darkening welding helmets darken their lens automatically in milliseconds when the arc strikes, letting the welder see the joint clearly before and after the weld, then darkening to the correct shade to protect the eyes from arc flash and UV.

Key Features

- Shade range 9-13 for arc work
- Reaction times of 1/25000 s or faster
- Solar with battery backup power
- Adjustable sensitivity and delay
- True colour and grinding modes

Typical Uses in the Workshop

- Protect eyes and face during MIG, TIG and stick welding
- Keep the weld visible before the arc starts
- Switch to grinding mode without changing helmets
- Support multiple welders with adjustable shades

Safe Operation

1. Set the shade to match the amperage
2. Adjust sensitivity for the process
3. Check the lens is clean before use
4. Position the helmet before striking
5. Flick the lens on to check operation without an arc

SAFETY NOTES

- The dark state must cover the arc's UV - check the shade rating
- Never weld without eye protection - arc flash is permanent damage
- Replace scratched or damaged lenses
- Do not force operation if the auto lens fails - replace it
- Keep spare lenses and batteries in stock

Maintenance & Consumables

- Clean the lens with a soft cloth
- Check the battery charge regularly
- Store away from heat and direct sun
- Test the auto function before each session
- Replace the lens cart per the maker

Specification & Buying Notes

Choose helmets with a fast reaction, wide shade range and adjustable sensitivity. A lightweight shell encourages use. Buy spares of the lens cartridges - they wear in class use.