Magnetic Workholding Clamps

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Fasteners & Hardware

Magnetic workholding clamps use strong permanent or switchable magnets to hold ferrous work and fixtures flat on machine tables, welding areas and benches, freeing both hands for the job. They speed setups and hold firmly without marring parts.

Key Features

- Switchable on/off magnetic bases
- Clamp force from 50 to 300 kg
- Builders, machine and welding types
- V-grooved and flat styles
- Hold down with release levers

Typical Uses in the Workshop

- Hold steel work on drill and milling tables
- Position parts for welding
- Clamp fixtures and stops on benches
- Hold work for grinding and marking

Safe Operation

1. Clean the surfaces for full contact
2. Position the clamp and switch the magnet on
3. Test the hold before applying force
4. Adjust position before switching on fully
5. Release the magnet to remove the work

SAFETY NOTES

- Keep magnets away from cards, watches and screens
- Check the full clamp force before trusting a hold
- Keep fingers clear of the clamping edges
- Do not overload the magnetic force
- Store clamps with magnets off

Maintenance & Consumables

- Clean the magnet faces of chips
- Check the switch mechanism works
- Store clamps on a steel rack
- Protect from drops that crack magnets
- Keep spare clamps in the metal area

Specification & Buying Notes

A set of switchable magnetic clamps with V-grooves and a flat face covers most school workholding. Look for release levers that are easy to operate and a strong clamping force.