

Magnetic Welding Clamps and Holders

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Welding & Thermal Cutting



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Magnetic welding clamps hold steel parts at fixed angles while you tack-weld them, with strong magnets in V-shaped or fixed-angle bodies that free both hands. They speed up fitting and ensure square, consistent joints before welding.

Key Features

- Magnetic force from 10 to 50 kg
- Fixed angles of 45, 90 and 135 degrees
- Adjustable and V-groove varieties
- Clean release mechanisms
- Copper or zinc-coated surfaces

Typical Uses in the Workshop

- Hold steel square for tack welding
- Position parts at set angles
- Align joints for consistent fit-up
- Support long work during welding

Safe Operation

1. Clean the joint area and clamp contact points
2. Place the clamp to hold the parts in position
3. Check the angles and alignment
4. Tack the joint and remove the clamp
5. Allow the magnet to cool between welds

SAFETY NOTES

- Magnets lose hold at welding heat - watch the joint
- Keep clamps away from watches and cards
- Do not use near pacemakers
- Check the magnet is clean so parts hold
- Remove clamps before heavy grinding

Maintenance & Consumables

- Keep the magnet faces clean and burr-free
- Check the release lever works
- Store clamps on a steel rack
- Replace cracked bodies
- Check the holding force occasionally

Specification & Buying Notes

A set of heavy-duty magnetic clamps with 90 and 135 degree stops plus a couple of adjustable types covers school fit-up. Buy quality magnets - cheap ones slip mid-tack.