

Spot Welders for Sheet Metal

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

A spot welder joins overlapping sheet metal with a high current pulse between two copper electrodes, melting a small weld nugget at the contact point. It produces fast, clean resistance welds on body panels, brackets and sheet metal projects without filler rod or gas.

Key Features

- Capacities up to 2+2 mm steel typical
- Dual electrode arms with adjustable gap
- Timers for weld pulse control
- Portable or bench mounted
- Rating in kVA

Typical Uses in the Workshop

- Weld sheet metal panels and brackets
- Repair and fabricate car body work
- Join steel boxes and guards
- Spot-seam long runs of sheet

Safe Operation

1. Clean the sheet surfaces at the weld points
2. Set the arms for the sheet thickness
3. Position the electrodes over the joint
4. Squeeze and trigger the weld pulse
5. Move along the seam at regular intervals

SAFETY NOTES

- Weld only in a ventilated area with eye protection
- Keep hands clear of the electrode tips
- The tips get hot - let them cool
- Do not weld coated or galvanised metal without fume control
- Disconnect the power before setting up

Maintenance & Consumables

- Dress the electrode tips to a clean dome
- Check the tips and arms for wear
- Inspect the power cable and switch
- Clean the transformer cooling fins
- Check the timer function

Specification & Buying Notes

A bench spot welder rated for the sheet thicknesses used covers school work. Look for a solid frame, adjustable arms and a reliable timer. Buy spare electrode tips with the welder.