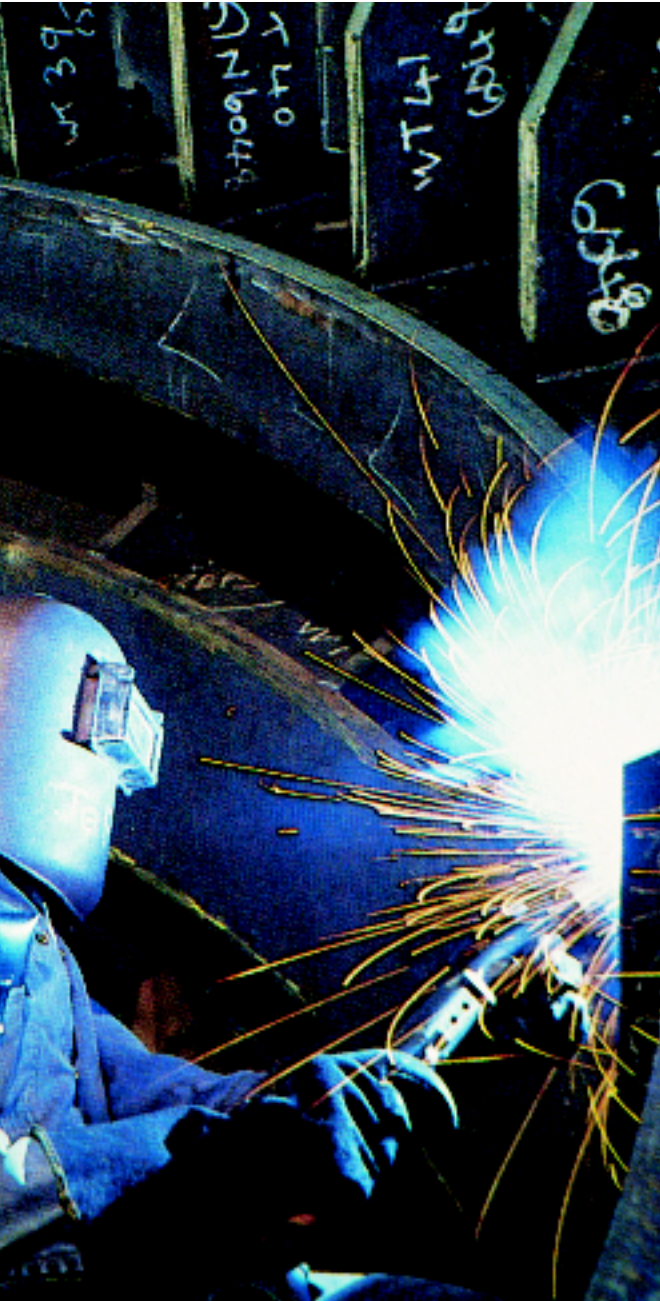


SELECTING A POWER SOURCE TO SUIT YOUR REQUIREMENTS

What are the most commonly asked questions?



● What should I know about Duty Cycles?

Duty cycle is the amount of arc-on time (actual welding or cutting time) during a 5 or 10 minute period that the machine can operate at its rated output without damaging internal components. For example, the updated Transmig 265se is designed for a 50% duty cycle at 250 amps. This means that it has been designed and built to provide the rated amperage, 250 amps, for 5 minutes continuously out of every 10 minute period. During the other 5 minute period the Transmig 265se must idle and be allowed to cool. When fitted, the thermal cutout will operate if the duty cycle is exceeded. As a general rule, a machine rated at 50 to 60% duty cycle would be more than ample duty cycle for the majority of general purpose, non-automatic welding or cutting applications.

For higher current or automatic welding applications, power sources such as the Transmig 400 (rated at 290 amps @ 100% duty cycle) or Transmig 500 (rated at 390 amps @ 100% duty cycle) are recommended.

Note that all duty cycles are calculated for a maximum ambient temperature of 40°C as per AS1966. Duty cycles must be reduced, i.e. reduce the arc-on time, when the ambient temperature exceeds 40°C.

How much welding output do I need?

On the cover page of each section we have tabled the complete range divided up into the following three segments.

- **Light Industrial** equipment is designed for ease of operation, budget conscious users and has welding current up to 180 amps with duty cycles from 5 to 40%. This equipment is suitable for home projects and occasional use.
- **Industrial** equipment is designed for non-automated production, consistent quality and has welding current from 160 to 350 amps with duty cycles from 30 to 60%. This equipment is an appropriate choice for professional tradespeople.
- **Heavy Industrial** equipment is designed for high volume automated production, processing thicker materials, exceptional arc characteristics and has welding current greater than 330 amps with duty cycles from 50 to 100%. This equipment has many built-in features and is the preferred choice of professional/expert tradespeople.

● Auxiliary Power

In the field, you may need an engine-driven welding unit to supply 240 volts or 415 volts power to run tools, lights or run another welder. CIGWELD engine drives provide up to 20 kVA of power.

● What kind of input power do I have?

To select the right product, you need to know the type of primary power available.

- 1 Phase** Single-phase 230/240 volt products require single-phase input power, typically found in homes and garages.
- 3 Phase** Three-phase 415 volt products require three-phase input power which is common in an industrial workshop. For locations where an electrical supply is not practical, consider a petrol or diesel-powered, engine driven unit to supply welding and auxiliary power.

● Is portability required?

Can you bring the work to the welding plant, or does the power source need to go to the work? Here are some options to consider when determining your portability requirements?

- ▲ Hand-portable welding power sources are typically under 25kgs.
- ▲ For products over 25kgs in-shop mobility is available as all units have wheeling kits.
- ▲ Many engine-driven units fit in the back of a 1 tonne utility enabling them to be transported wherever welding is needed.

● Do I need a 2 roll or a 4 roll wire feeder?

Most GMAW machines have only 2 roll wire feeders. Some machines however are available with 4 roll feeders. The main consideration is the type of consumables to be used. If the machine was purchased for mainly Flux Cored wires or aluminium welding, 4 roll would be the preferred choice. The 4 roll system provides a more positive drive, resulting in less feedability problems.

● How thick will my Plasma cut?

CIGWELD uses two ratings.

A-Severance cut = maximum cut.

B-Commercial cut = High quality minimal clean up cut.

This commercial cutting thickness is based on a 250mm per minute cutting speed with mild steel. All machines are rated on cutting mild steel. When cutting materials such as aluminium, the thickness capacity is reduced. eg. If the unit is rated to cut 12mm mild steel, the capacity to cut aluminium is reduced to 6mm.