TECFEED CC/CV arc voltage wire feed units 350A/500A

MIG, MAG, FCAW, MCAW welding from any DC welding power source CC or CV.



MADE IN BRITAIN



Add onto Diesel engine welders such as, Lincoln, Miller, Mosa, Genset, Arcgen, Shindaiwa, also all inverter & conventional DC welding power sources.

Guaranteed to work on every welding power source.

- **350A or 500A rating with two model variants.**
- **Basic control or *expert* models with digital meters & remote control circuit.**

TECFEED's are built for the toughest conditions!
Welding offshore, shipyards, quarries, pipelines, rail industry, farms, construction sites.

- ✓ **Excellent welding performance with solid wire + gas or self shielding wires, superb arc stability.**
- ✓ **Weld anywhere in the world in tough industrial conditions from -15C to +50C**
- ✓ **Connect to any DC welding power source CV or CC in seconds, even batteries can be used.**
- ✓ **Multi-process: MIG, MCAW, FCAW self-shielding wires or gas shielded, straight polarity or reverse polarity.**
- ✓ **4 roll wire drive system with Swedish motor drives up to 2.4mm wire with ease.**
- ✓ **Ultra portable design built around a tough Polyprop case with aluminium internals & ergo carry handle.**
- ✓ **Heavy duty 'Albright' contactor fitted to all models (replaceable wear parts stocked).**
- ✓ **Torch trigger latching, adjustable burn back, CC/CV selector & wire inching inside feeder door.**
- ✓ **Standard Euro torch connection to suit all popular MIG torches.**
- ✓ **Protected to IP44*, suitable for use outdoors.**
- ✓ **Drop tested to withstand real conditions on site.**
- ✓ **Works up to 120V (no load volts), factory tested to 250V peak to guarantee reliability.**

TECFEED compact models also available 5kg/200mm diameter wire rolls

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Further reading

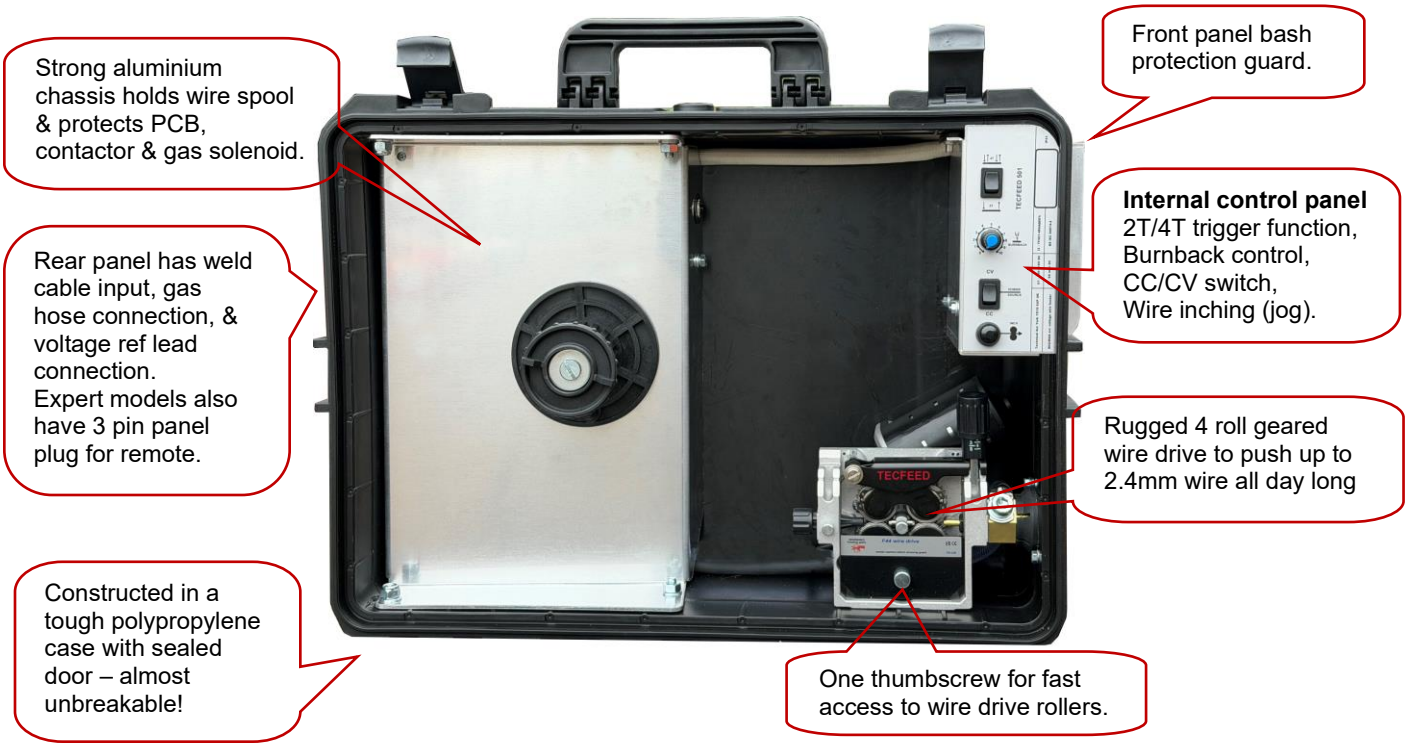
TECFEED's now work better than ever, our latest 2026 update gives a greater welding range & no contactor or gas outages when running on CC or CV. Power source voltage spikes in excess of 250V are now protected against. In addition, a CC/CV switch is fitted to improve constant current welding performance & we have improved the water resistance of the whole unit.

All models use the same wire drive system & control PCB to ensure the best welding performance across the range. 500A models have an extra HD double pole contactor with a peak rating over 600A & heavier welding cable & connectors fitted.
Adjustable wire feed control is on the front panel; this is regulated precisely during welding to maintain a stable arc on all power sources. soft arc start is built in; this is particularly beneficial with CC power sources to get the arc started at lower amps settings. A CC/CV selector switch is selected to match power source type. When set to CV the wire speed remains stable as the welding voltage increases. When set to CC the wire speed increases as the welding volts increase to maintain a stable arc condition.
Adjustable burn back control can be set to give perfect weld finishes, also 2T/4T function (torch trigger normal or latching) is standard & a wire inching/jog switch can be used to feed the welding wire through the torch without live welding power.
Connection to power source is simple, connect one welding cable to the rear & the other weld cable goes directly to the job/work, connect the reference lead at the rear of the feeder also to work & you're ready to weld. 'PLUG & PLAY' in seconds.
A sturdy internal aluminium chassis holds the wire spool in position, this panel also provides protection for the control PCB, contactor, gas valve & wiring. The chassis is hinged allowing fast access if required. The control PCB is protected with an environmental varnish to prevent dust & moisture damage.

Additional functions fitted to expert models

Twin digital readouts display welding parameters, welding amps, welding volts & wire speed in M/min. Welding volts is always displayed. Wire speed is displayed prior to welding & can be set on the WFS/A knob, the display changes to show welding amps whilst welding. Both are clearly visible in even bright sunlight. These can be calibrated to BS IEC60974-14 for compliance with BS EN1090 etc.
Expert models also have a remote voltage control knob fitted, allowing connection to a power source remote circuit if required. Connect this & the welding power can be adjusted on the wire feeder. It's not necessary to use this connection/control but makes the feeder more usable if both Volts & amps is adjustable on the front panel. Connection to your power source is via the 3 pin rear connector, just wire to your power source using the correct plug, for instance 14 pin for Miller or Lincoln power sources, 3 pin or 6 pin for Arcgen, 7 pin or 10 pin for Mosa etc

Inside view of all TECFEED models (door not shown)



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Technical specifications	TECFEED 351	TECFEED 501	TECFEED 351 *expert*	TECFEED 501 *expert*
Welding volts input	14-120V	14-120V	14-120V	14-120V
Max amps & duty cycle	350A, 350A@60%	500A, 460@60%	350A, 350A@60%	500A, 460A@60%
Wire speed range CC	1-24M/min	1-24M/min	1-24M/min	1-24M/min
Wire speed range CV	1-21M/min	1-21M/min	1-21M/min	1-21M/min
Weight	11kg	12kg	11.5kg	12.5kg
Wire sizes – solid	0.6-1.2mm	0.6-1.6mm	0.6-1.2mm	0.6-1.6mm
Wire sizes – cored wire	0.9-1.6mm	0.9-2.4mm	0.9-1.6mm	0.9-2.4mm
Wire sizes – soft wire	1.0-1.6mm	1.0-1.6mm	1.0-1.6mm	1.0-1.6mm
Protection*	IP44	IP44	IP44	IP44
Sizes – all models	210mm W x 560mm L x 420mm H			

*IP44 excludes torch connection point.

MIG/MAG welding performance vs power source type.

Using a CV power source output.

For the very best MIG welding performance a CV (constant voltage output) power source is preferred. With CV a perfect arc condition is easily achieved, just the same as any dedicated workshop MIG. Weld with solid wires, flux cored & self shielding wires.
Many diesel sets or inverter/chopper power sources have CC/CV output, simply select CV this is the perfect solution.
Weld from thin sheet at 15V@25A up to heavy structural steel with ease (depending on your power source output range). Use 0.8/1.0/1.2/1.6mm or even 2.4mm wire diameter to suit your application.

Using a CC power source output.

CC power sources (constant current) are designed mainly for MMA stick electrode welding (Arc welding). These work very well with TECFEED wire feeders for mid to high power applications, with welding performance much the same as a good CV power source.
At low power settings there are some limitations on CC. If welding in dip transfer at low power, stubbing or arc outages can occur. By using a smaller diameter welding wire such as 0.8mm or a slightly longer arc it's still possible to weld thin gauge metals.
With 1.0mm diameter wire weld from 100A@19V to 300A@29V. 100A@19V may be suitable for welding down to 2-3mm material.
With 1.2mm diameter wire weld from 120A@20V to 380A@33V. 1.2mm can be suitable for welding down to 5mm plate.
Weld with 1.6mm wire for the highest power applications up to 450/500A.
If the CC power source is fitted with 'ARC FORCE' control this improves the arc condition to be almost as good as a CV power source.

Using a battery power source.

Welding from automotive batteries also gives good results, on both standard MIG with gas & self shielding wire, but with limitations due to lack of voltage adjustment. Batteries at 18V is great for thin sheet welding. A pair of 12V batteries in series to give 24V will typically provide 180A-230A output & weld from 4mm-10mm material. 3 x 12V batteries in series (36V) is suitable for up to 350/400A output

Standard supply with every TECFEED

- All wire drive parts including rollers for 1.0/1.2mm hard wire (V shaped profile with two grooves). Wire guides set up for 0.8-1.6mm.
- Voltage reference cable with crocodile clamp for connection to work.
- *Expert models* now include a 3 way cable socket to connect remote circuit at rear of feeder.

Accessories & popular parts

Part description	Part number
Feed roller for 0.8/1.0mm hard wire (V groove) (2 required per feeder)	FECV0810
Feed roller for 1.0/1.2mm hard wire (V groove) (2 required per feeder)	FECV1012 (Fitted standard to TECFEED's)
Feed roller for 1.2/1.6mm hard wire (V groove) (2 required per feeder)	FECV1216
Feed roller for 1.0/1.2mm soft wire (U groove) (2 required per feeder)	FECU1012
Feed roller for 1.2/1.6mm soft wire (U groove) (2 required per feeder)	FECU1216
Feed roller for 1.0-1.6mm cored wire (knurled) (2 required per feeder)	FECK1016
Feed roller for 1.6-2.4mm cored wire (knurled) (2 required per feeder)	FECK1624
Wire guides (kit of 3, inlet, middle & outlet) to accept 2.4mm diameter.	FEC4024GK
Control cables from expert model to power source – please advise length & power source.	
MIG welding torches stocked in various current ratings available in 3M/4M/5M lengths.	
Welding cables & hoses on request	

Other important info

Want something different? Please ask we can probably do it!
We guarantee availability of all spares & parts for a minimum of 15 years from purchase. If a part wears out, or you break something you can be sure of the best long term back up & without crazy prices!

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