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

updated range 03/2024

Arc voltage inline wire feeders for 15kg/300mm wire spools to provide MIG, MAG, FCAW, MCAW welding from any DC welding power source CC or CV.

Rugged reliable 'across the arc' wire feeders to add onto any DC welding machine. Diesel engine welders such as, Lincoln, Miller, Mosa, Genset, Arcgen, Shindaiwa, also all inverter & conventional DC welding power sources. TECFEED models are powered by the arc voltage & require no other supply voltage.

MADE IN BRITAIN

350A or 500A rating with 2 options. Basic control or *expert* models with digital meters/full control.

TECFEED's are constructed in a tough polypropylene case with internal aluminium panels to give an enclosed unit sealed against the elements. 4 roll wire drive + rugged construction + excellent portability + great welding performance make these models perfect for all industrial welding applications even in the harshest of environments & are suitable for use between -10 to + 45°C temperature range.

- ✓ **Excellent welding performance with solid wire + gas or self shielding wires, superb arc stability.**
- ✓ **Weld anywhere, ideal for quarries, shipyards, farmyard, offshore, fabrication workshop etc.**
- ✓ **Connect to any DC welding power source CV or CC in seconds, even 24V or 18V batteries.**
- ✓ **Multi-process: MIG, MCAW, FCAW self-shielding wires or gas shielded, straight polarity or reverse polarity.**
- ✓ **Rugged design & build of all parts – designed to work hard in tough industrial conditions.**
- ✓ **4 roll wire drive system with Swedish motor drives up to 2.4mm wire with ease.**
- ✓ **Ultra portable design incorporating a tough PP case with aluminium internals & ergonomic carry handle.**
- ✓ **Heavy duty 'Albright' (British made) contactors fitted to all models – with replaceable wear parts stocked.**
- ✓ **Torch trigger latching, adjustable burn back control & wire inching inside feeder door.**
- ✓ **Standard Euro torch connection to suit all popular MIG torches.**
- ✓ **Protected to IP23 therefore suitable for use outdoors (door seals to IP55).**
- ✓ **Works up to 110V DC OCV & factory tested to 160V to guarantee reliability.**

Technical specifications	TECFEED 350	TECFEED 500	TECFEED 350 *expert*	TECFEED 500 *expert*
Welding volts range	14-50V (up to 110V OCV)	14-50V (up to 110V OCV)	14-50V (up to 110V OCV)	14-50V (up to 110V OCV)
Max amps & duty cycle	350A, 350A@60%	500A, 460@60%	350A, 350A@60%	500A, 460A@60%
Wire speed range	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
Sizes – all models	210mm W x 560mm L x 420mm H			

Standard supply is with a set of 1.0/1.2 (dual groove) V groove wire drive rollers for hard wire, however all rollers are available to cover up to 1.6mm hard wire & 2.4mm cored wire (knurled rollers).

PTO for more information

'Invest in the best' quality made British welding equipment

Designed and manufactured by Technical Arc York England

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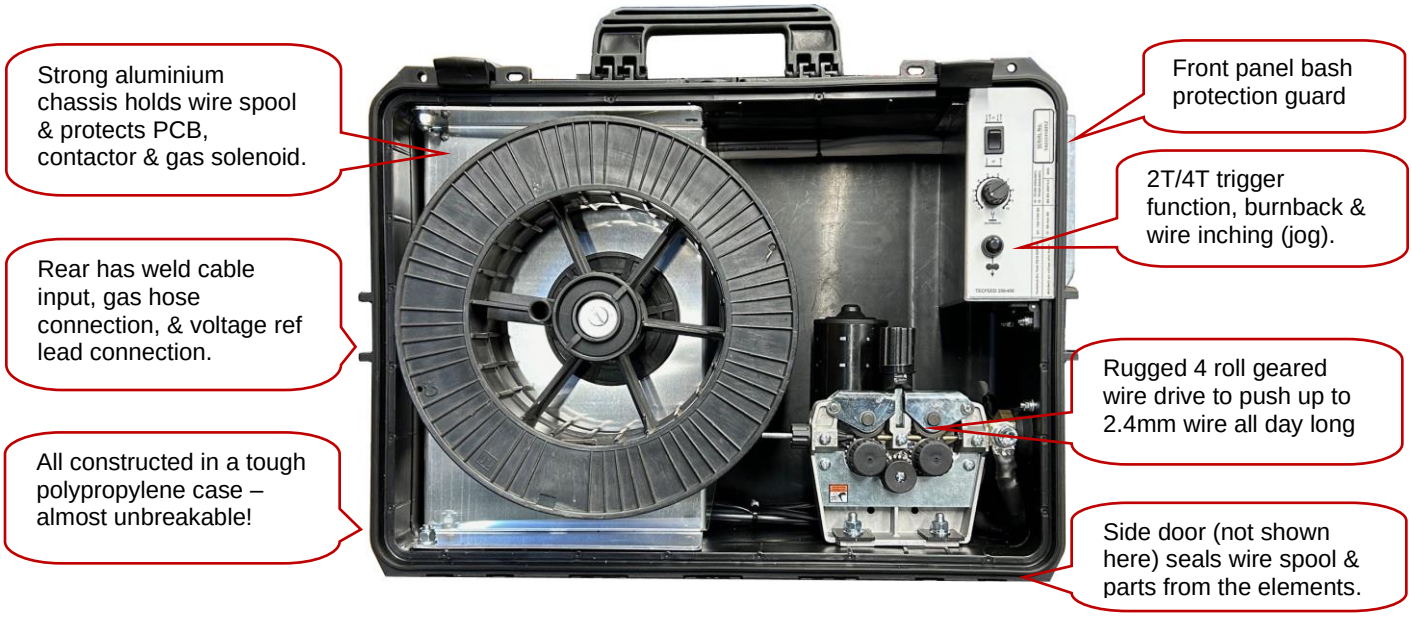
Operation, functions & features - All TECFEED models – The same wire drive system & control PCB is used in all to ensure the best welding performance across the range. The difference between the 350 & 500A models is the contactor & cables. The 500 uses an extra HD double pole contactor with a peak rating tested to over 600A.
Adjustable wire feeding control is on the front panel, this is precisely regulated during welding to maintain a stable arc on both CV & CC type power sources. A soft arc start is built in, this is particularly beneficial with CC power sources to get the arc started at lower amps settings. Adjustable burn back control is positioned inside the case, also inside the case is a 2T/4T switch (torch trigger normal or latching) & a wire inching/jog switch which is used to feed the welding wire through the torch without welding power on.
Connection to power source is simple, connect one welding cable to the rear & the other weld cable goes to the job/work, connect the reference lead at the rear of the feeder also to work & you're ready to weld.
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 a well proven unit which is protected with an environmental varnish to prevent dust & moisture damage.

Additional features 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.
In addition, a remote voltage control knob is fitted, allowing connection to a power source remote circuit so the welding volts can be adjusted on the wire feeder, we provide a 3 wire cable connection at the rear for this. 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 only 3 wires + the correct plugs, 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 TECFEED 350 & 500 basic & expert versions



Power source considerations & CC vs CV;

For the very best MIG welding performance a CV (constant voltage output) power source is preferred. With CV a perfect arc condition as you would expect from any good workshop MIG can be achieved allowing welding from very thin sheet material up to heavy structural steel fabrication. Many diesel sets or inverter/chopper power sources have CC/CV output which is the perfect solution.
However, some power sources are designed mainly for MMA stick electrode welding (Arc welding) therefore have only CC (constant current) output. For use as a MIG welder these power sources can have some limitations at lower power, particularly in dip transfer mode, where stubbing or arc outages can occur. But by using a smaller dia welding wire its still possible to weld thin gauge metals. Typically, 2-3mm material upwards can be welded with a CC power source with 0.8mm wire. If the CC power source is fitted with 'ARC FORCE' control this can further improve the arc condition to be almost as good as a CV power source. At increased welding power, (globular & spray transfer welding) superb MIG welding results are achieved with a CC power source, much the same as a CV set.
Welding from automotive batteries gives good results, but with limitations due to lack of voltage adjustment. A pair of 12V batteries in series to give 24V will typically weld from 3mm-10mm material & works well with 0.8mm & 1.0mm wire on both standard MIG with gas & self shielding wire. Battery capacity is easily estimated, 150-200Ah batteries will typically provide around 1 hour of welding.

Other important info

We guarantee availability of all spares & parts for a minimum of 15 years from purchase. If you require different drive rollers or break something or a part wears out, you can be sure of the best long term back up & without crazy prices!

TECFEED compact models also available up to 350A for 200mm/5kg spool size.

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